UL/cUL SYSTEM NO. F-A-8068

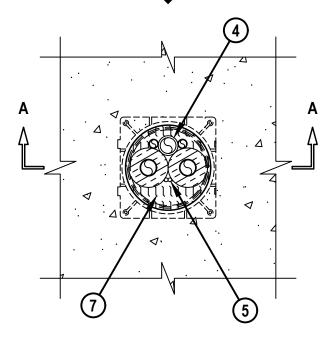
MULTIPLE HVAC LINE SET THROUGH CONCRETE FLOOR

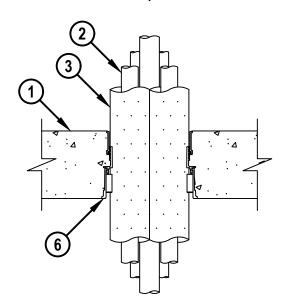
F-RATING = 3-HR. T-RATING = 1/2-HR.

TOP VIEW

SECTION A-A

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Sheet	1 of 2
Scale	5/32" = 1"
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UL/cUL SYSTEM NO. F-A-8068

MULTIPLE HVAC LINE SET THROUGH CONCRETE FLOOR

F-RATING = 3-HR. T-RATING = 1/2-HR.

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- 1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) (3-HR. FIRE-RATING).
- 2. PENETRATING METALLIC ITEMS TO BE ANY OF THE FOLLOWING (MAX. QTY. = 4) (ONLY TWO PIPES MAY BE LARGER THAN 1/2" DIAMETER).
 - A. MAXIMUM 1" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 1" NOMINAL DIAMETER STEEL CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 1" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - D. MAXIMUM 1" NOMINAL DIAMETER STEEL CONDUIT OR STEEL EMT.
- 3. NOMINAL 3/4" THICK AB/PVC PIPE INSULATION INSTALLED ON ALL METALLIC PIPES GREATER THAN 1/2" DIAMETER.
- 4. THE FOLLOWING TYPES AND SIZED OF NONMETALLIC PIPES OR CONDUITS MAY BE USED (MAX. QTY. = 1).
 - A. MAXIMUM 1-1/4" NOMINAL DIAMETER PVC PLASTIC PIPE (SCHEDULE 40) (SOLID CORE) (CLOSED OR VENTED PIPING SYSTEM).
 - B. MAXIMUM 1-1/4" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM).
- 5. THE FOLLOWING TYPES OF CABLES MAY BE USED (MAX. QTY. = 2).
 - A. MAXIMUM 4 PAIR NO. 8 AWG THERMOSTAT CABLE WITH PVC JACKET.
 - B. MAXIMUM 3/C NO. 12 AWG METAL-CLAD CABLE.
 - C. MAXIMUM 750 KCMIL POWER CABLE WITH PVC JACKET.
 - D. MAXIMUM 7/C NO. 12 AWG POWER CABLE WITH PVC JACKET.
- 6. HILTI CFS-CID U [3" OR 4"] CAST-IN FIRESTOP DEVICE CAST OR GROUTED INTO CONCRETE FLOOR WITH A MAXIMUM 2" EXTENSION ABOVE FLOOR.
- 7. MINIMUM 2" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED AND FLUSH WITH TOP OF FIRESTOP DEVICE.

NOTE: ANNULAR SPACE BETWEEN PENETRANTS AND DEVICE = MINIMUM 0", MAXIMUM 3/4".



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Scale	-
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