

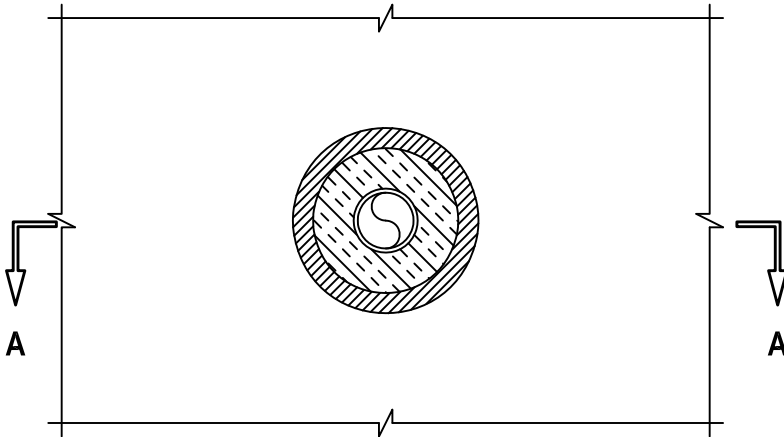
**INSULATED METAL PIPE THROUGH CONCRETE FLOOR/CEILING ASSEMBLY**

F-RATING = 1-HR.

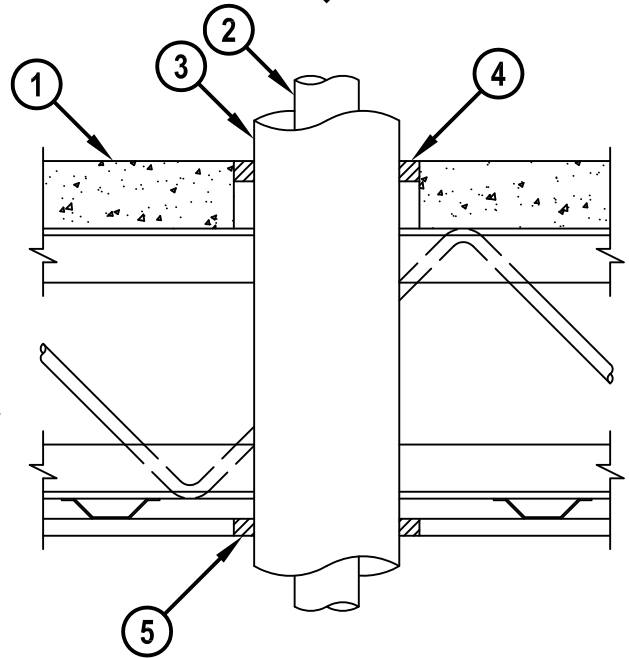
T-RATING = 1-HR.

FE5013b.010815

**BOTTOM VIEW**



**SECTION A-A**



1. CONCRETE AND STEEL JOIST FLOOR/CEILING ASSEMBLY (UL/cUL CLASSIFIED G500 SERIES) (1-HR. FIRE-RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE.
3. NOMINAL 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
4. MINIMUM 3/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.

**NOTES :** 1. DIAMETER OF OPENING TO BE 1-1/2" LARGER THAN OUTSIDE DIAMETER OF INSULATED METAL PIPE.  
 2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 1".



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

Sheet	1 of 1
Scale	9/64" = 1"
Date	Jan. 08, 2015

Drawing No.  
**FE 5013b**