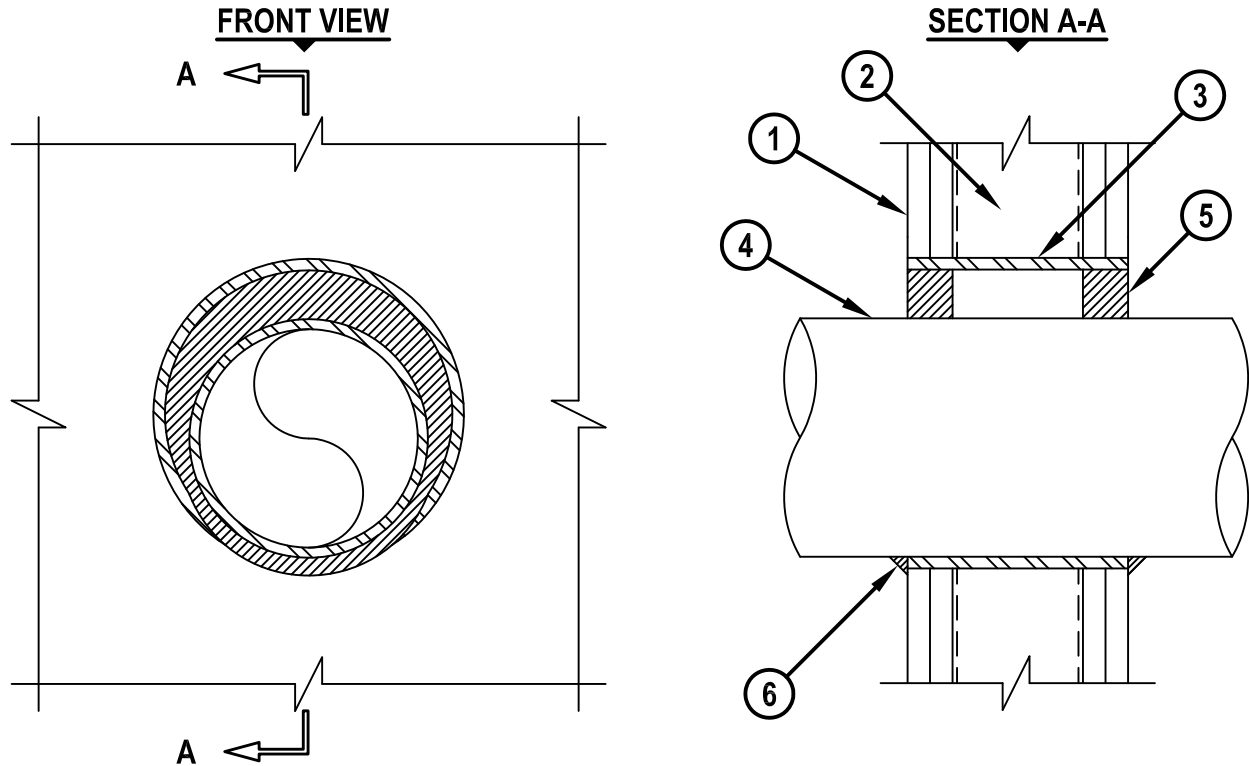


**METAL PIPE IN A SLEEVE THROUGH GYPSUM WALL ASSEMBLY**

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

T-RATING = 0-HR.

WL 1164d.011015



1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. MAXIMUM 32" DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER).
4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 30" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 30" DIAMETER CAST IRON PIPE.
  - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
  - D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
  - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
5. HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT :
  - A. MINIMUM 5/8" DEPTH, FOR A 1-HR. FIRE-RATING.
  - B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE-RATING.
6. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 32" FOR STEEL STUD WALLS.  
 2. MAXIMUM DIAMETER OF OPENING = 14-1/2" FOR WOOD STUD WALLS.  
 3. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".



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

Sheet	1 of 1
Scale	3/16" = 1"
Date	Jan. 10, 2015

Drawing No.  
**WL 1164d**