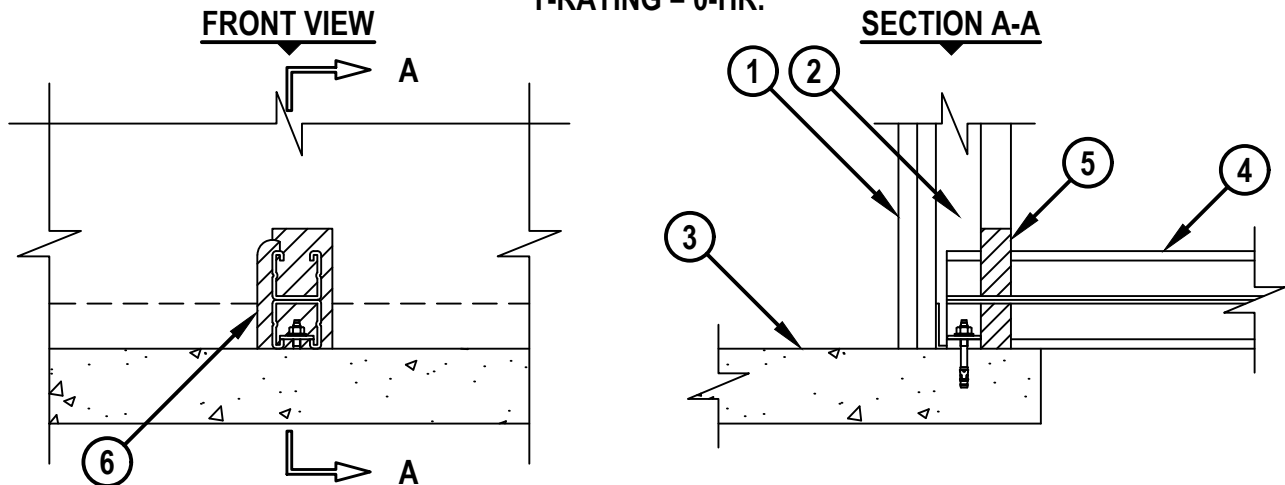


MECHANICAL SUPPORT MEMBERS THROUGH GYPSUM SHAFT WALL ASSEMBLY

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

T-RATING = 0-HR.



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1. GYPSUM SHAFT WALL ASSEMBLY (UL/cUL CLASSIFIED U400 OR V400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] "C-H" SHAPED STEEL STUDS (MINIMUM 2-1/2" WIDE x 1-1/2" DEEP, MIN. 25 GA.) SPACED MAXIMUM 24" C/C.
3. CONCRETE FLOOR ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) (1-HR. FIRE-RATING).
 - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) (2-HR. FIRE-RATING).
 - C. ANY UL/cUL CLASSIFIED PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK) (2-HR. FIRE-RATING).
4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE NOTE NO. 4 BELOW) :
 - A. MAXIMUM 3-1/4" x 1-5/8" GALVANIZED OR PAINTED STEEL "H" STRUT (MINIMUM 0.105" THICK).
 - B. MAXIMUM 1-5/8" x 1-5/8" GALVANIZED OR PAINTED STEEL CHANNEL STRUT (MINIMUM 0.105" THICK).
 - C. MAXIMUM 2" x 2" x 1/8" THICK STEEL ANGLE.
 - D. MAXIMUM 3" x 3" x 1/4" THICK STEEL ANGLE.
 - E. C6 x 8.2 (OR SMALLER) STEEL CHANNEL.
5. HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT TO FILL THICKNESS OF GYPSUM IN WHICH IT IS INSTALLED.
6. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM AREA OF OPENING = 8.6 SQ. IN. WITH A MAXIMUM DIMENSION OF 6-7/8". THE OPENING SHALL FOLLOW THE CONTOUR OF THE PENETRANT WHEN STEEL ANGLE OR STEEL CHANNEL IS USED.
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 7/8".
 3. AS AN ALTERNATE TO THE ABOVE SHAFT WALL ASSEMBLY, A 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY MAY BE USED (U400 OR V400 SERIES). STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
 4. PENETRATING ITEM TO TERMINATE WITHIN THE STUD CAVITY AND TO BE FASTENED TO THE FLOOR WITH 1/4" x MINIMUM 1-1/4" LONG STEEL EXPANSION BOLTS WITH STEEL WASHERS OR HILTI 1/4" x 1-3/4" KWIK-BOLT 3 EXPANSION ANCHOR.



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Sheet	1 of 1
Scale	5/32" = 1"
Date	June 27, 2018

Drawing No.

**WL
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