

UL/cUL SYSTEM NO. W-J-7184

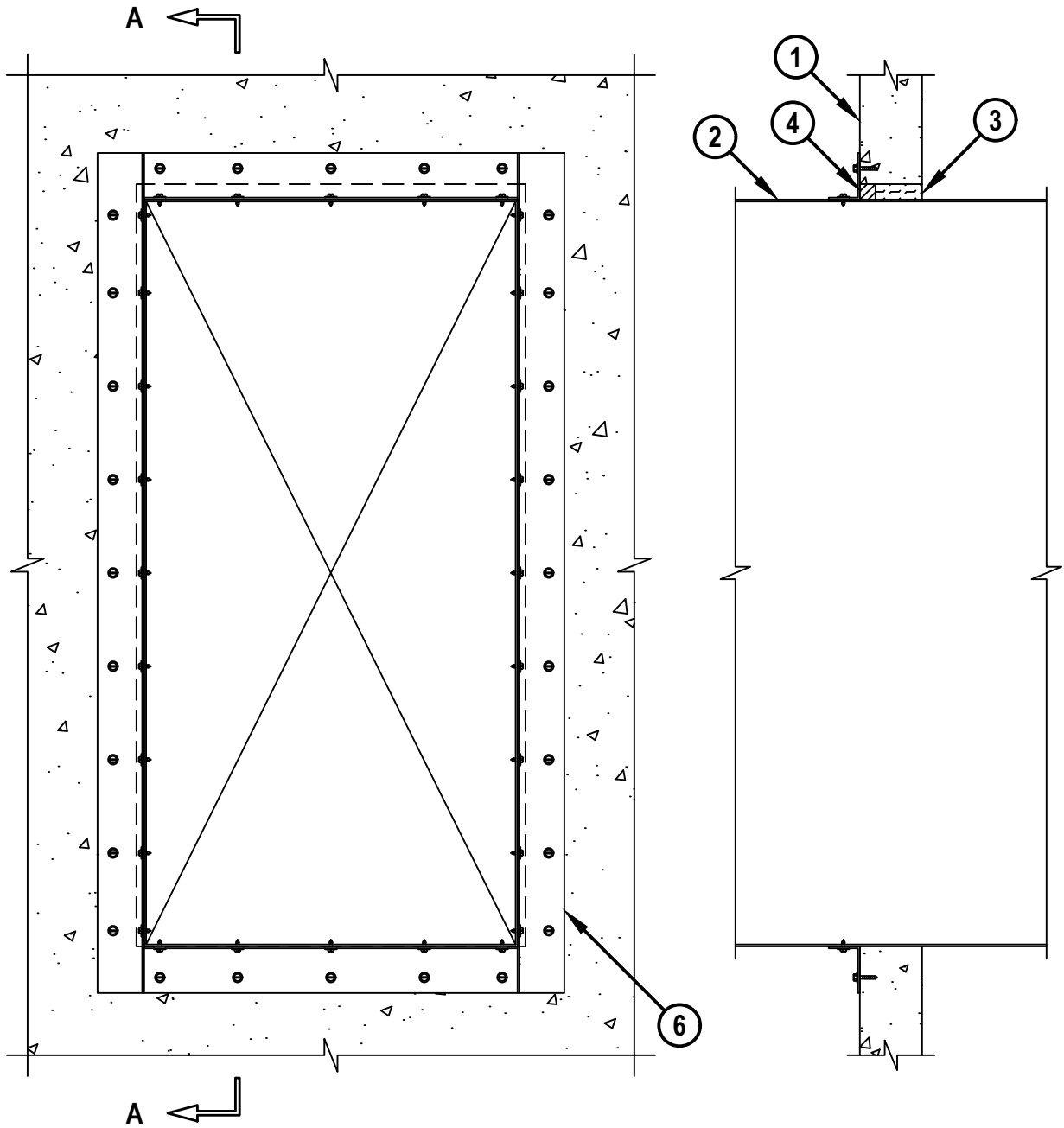
METAL DUCT THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 0-HR.

WJ7184b.052721

FRONT VIEW

SECTION A-A



HILTI, Inc.
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	3/32" = 1"
Date	May 27, 2021

Drawing No.
WJ
7184b

Saving Lives through Innovation and Education

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 4" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO CONSIST OF ONE OF THE FOLLOWING :
 - A. MAXIMUM 24" x 48" SHEET METAL DUCT (MIN. 24 GA.).
 - B. MAXIMUM 24" x 40" SHEET METAL DUCT (MIN. 24 GA.) WITH BW11 COATING MATERIAL (FLAMEBAR BW11 FIRE RATED DUCTWORK BY FIRESPRAY INTERNATIONAL, LTD.).
3. MINIMUM 2-3/4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED ON ONE SIDE OF THE WALL TO ACCOMMODATE FIRESTOP SEALANT.
4. MINIMUM 1" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH ONE SIDE OF WALL.
5. [NOT SHOWN] MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT ON FINISHED ONE SIDE OF WALL (THE SAME SIDE WHERE ITEM 4 IS APPLIED), PRIOR TO INSTALLATION OF STEEL ANGLES.
6. AFTER SEALING SPACE BETWEEN DUCT AND WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLES (L2 x 3 x MIN. 18 GA.) TO DUCT, WITH 3" LEG OVERLAPPING ONTO WALL SURFACE, WITH NO. 10 STEEL SHEET METAL SCREWS SPACED MAXIMUM 1" FROM ENDS AND MAXIMUM 6" OC. ANGLES TO BE SECURELY ATTACHED TO STEEL DUCT AND BUTTED TIGHTLY TO WALL SURFACE. STEEL ANGLE INSTALLED AROUND PERIMETER OF DUCT ON ALL SIDES. SECOND LEG OF STEEL ANGLE TO THEN BE FASTENED INTO WALL AROUND PERIMETER OF THE DUCT, AT EACH LOCATION WHERE THE FIRST LEG IS FASTENED TO THE DUCT, USING 1-1/4" LONG CONCRETE SCREWS.

NOTES : 1. MAXIMUM AREA OF OPENING IS 1225 SQ. IN., WITH A MAXIMUM DIMENSION OF 49".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1".

 Hilti Firestop Systems	HILTI, Inc. Plano, Texas USA (800) 879-8000	Sheet 2 of 2	Drawing No. WJ 7184b
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