

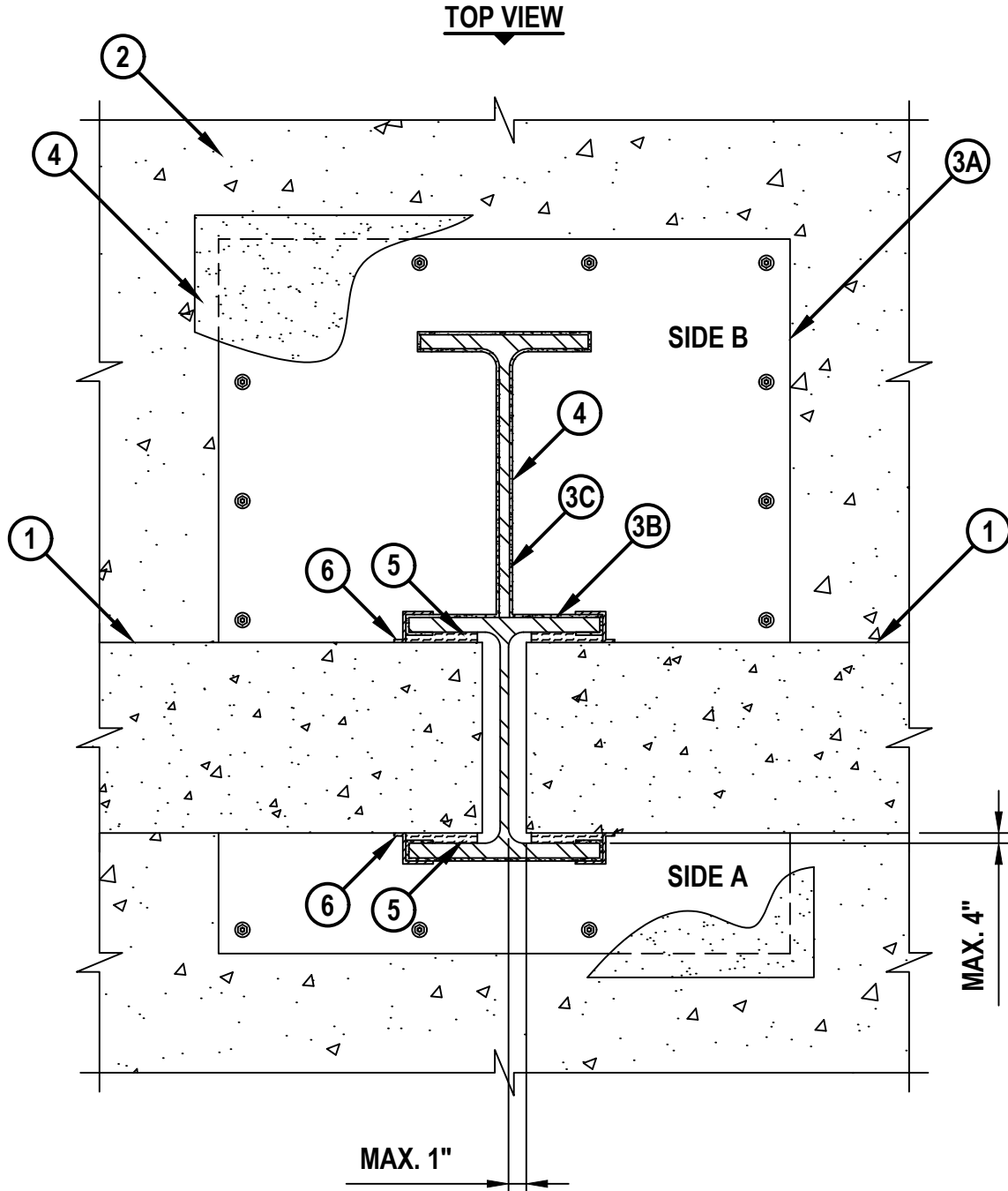
AN ENGINEERING JUDGMENT FIRESTOP & STEEL PROTECTION DETAIL

PROJECT : QUEENSBRIDGE TR7

CONTRACTOR : CONSOLIDATED EDISON COMPANY

F-RATING = 3-HR. (IN ACCORDANCE WITH UL 2079/ASTM E1966, SEE NOTE 2 & 4 BELOW)

RATING = 3-HR. (IN ACCORDANCE WITH UL 263/ASTM E119 FOR THE PROTECTED STEEL MEMBER(S), SEE NOTES 3 & 4 BELOW)



Hilti Firestop & Steel Protection Systems

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

Designed by

Alex Hernandez

Sheet 1 of 3

Scale 9/64" = 1"

Date Oct. 24, 2022

Drawing No.

572374a

Saving Lives through Innovation and Education

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SEE NOTES 3 & 4 BELOW)

1. CONCRETE WALL ASSEMBLY OR CONCRETE BLOCK WALL ASSEMBLY (UL/cUL CLASSIFIED) (MINIMUM 8" THICK) (3-HR. FIRE-RATING).
2. CONCRETE FLOOR ASSEMBLY (MINIMUM 4-1/2" THICK) (3-HR. FIRE-RATING).
3. PROTECTED STEEL MEMBER(S) TO CONSIST BE THE FOLLOWING SECURELY WELDED TOGETHER :
 - A. STEEL BASE PLATE (24" WIDE x 30" LONG x 1" THICK) (W/D = 3.19) (SECURED TO FLOOR ASSEMBLY PER THE ON-SITE DESIGN ENGINEER'S SPECIFICATIONS).
 - B. WIDE FLANGE STEEL COLUMN (W10 x 45) (W/D = 0.89).
 - C. WT COLUMN (W12 x 31) (W/D = 0.84).
4. SOLVENT WIPE SURFACE OF PROTECTED STEEL MEMBER(S) WITH DENATURED ALCOHOL OR SIMILAR SOLVENT TO PREPARE SURFACE FOR PRIMER APPLICATION VIA PRIMER MANUFACTURER PRODUCT DATA SHEET. AFTER PRIMER HAS PROPERLY CURED, APPLY DFT REQUIRED PER TABLE BELOW OF HILTI ALL WEATHER HIGH BUILD CFP-SP AWHB STEEL PROTECTION SPRAY ON ALL EXPOSED SURFACES OF THE PROTECTED STEEL MEMBER(S) TO ACHIEVE A 3-HR. RATING. THE SAME THICKNESS OF HILTI ALL WEATHER HIGH BUILD CFP-SP AWHB STEEL PROTECTION SPRAY TO EXTEND MINIMUM 1" ONTO SURFACES OF THE PROTECTED STEEL MEMBER FACING THE JOINT BETWEEN STEEL COLUMN AND CONCRETE WALL ASSEMBLY.
5. MINIMUM 3" THICKNESS MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 50%, FLUSH WITH EDGES OF BEAM FLANGES.
6. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY TO COMPLETELY COVER MINERAL WOOL, OVERLAPPING MINIMUM 1/2" ONTO ADJACENT ASSEMBLIES AND MINIMUM 2" ONTO FIREPROOFING.



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RATING = 3-HR. (IN ACCORDANCE WITH UL 263/ASTM E119 FOR THE PROTECTED STEEL MEMBER(S),
SEE NOTES 3 & 4 BELOW)

STEEL MEMBER	SIZE OF MEMBER	MASSIVITY (W/D)	MINIMUM DFT (MILS)
STEEL BASE PLATE	24" WIDE x 30" LONG x 1" THICK	3.19	143
WIDE FLANGE STEEL COLUMN	W10 x 45	0.89	280
WT COLUMN	W12 x 31	0.84	323

NOTES : 1. MAXIMUM WIDTH OF JOINT = 1".
 2. THIS SYSTEM IS DESIGNED IN ACCORDANCE WITH UL 2079/ASTM E1966 TO ACHIEVE THE RATINGS STATED ABOVE FROM SIDE A TO SIDE B, AND SIDE B TO SIDE A OF THE ASSEMBLY. FIRE-RATINGS OF THIS ASSEMBLY IS DEPENDENT UPON THE PERFORMANCE OF THE PROTECTED STEEL MEMBER(S) UNDER FIRE CONDITIONS. T-RATING MAY NOT EQUAL F-RATING IN ACCORDANCE WITH UL 2079/ASTM E1966.
 3. THIS SYSTEM IS DESIGNED IN ACCORDANCE WITH UL 263/ASTM E119 FOR THE PROTECTED STEEL MEMBER(S) TO ACHIEVE THE STATED RATING ABOVE. RATING ONLY APPLIES TO COATED SURFACES OF PROTECTED STEEL MEMBER(S). CONSULT WITH HILTI STEEL PROTECTION SPECIALIST FOR APPROVED PRIMERS. THE RATING OF THE PROTECTED STEEL MEMBER(S) IS DEPENDENT UPON THE PERFORMANCE OF THE WALL ASSEMBLY, FLOOR ASSEMBLY, AND THE STEEL BASE PLATE UNDER FIRE CONDITIONS.
 4. INTUMESCENT COATING (ITEM NO. 4) TO BE FULLY CURED BEFORE INSTALLATION OF MINERAL WOOL (ITEM NO. 5) AND HILTI FIRESTOP JOINT SPRAY (ITEM NO. 6).

THIS ENGINEERING JUDGMENT REPRESENTS A FIRESTOP SYSTEM THAT WOULD BE EXPECTED TO PASS THE STATED RATINGS IF TESTED.
 (REFERENCE : UL/cUL SYSTEM NO. WW-D-1084, WW-D-0269; INTERTEK SYSTEM NO. HI/JF 120-02 & UL/cUL DESIGN NO. Y656)

 Hilti Firestop & Steel Protection Systems	HILTI, Inc. Plano, Texas USA (800) 879-8000	Sheet 3 of 3	Drawing No. 572374a
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