

# HMF EXPRESS

2501 Northchase Pkwy SE  
Wilmington, NC 28405

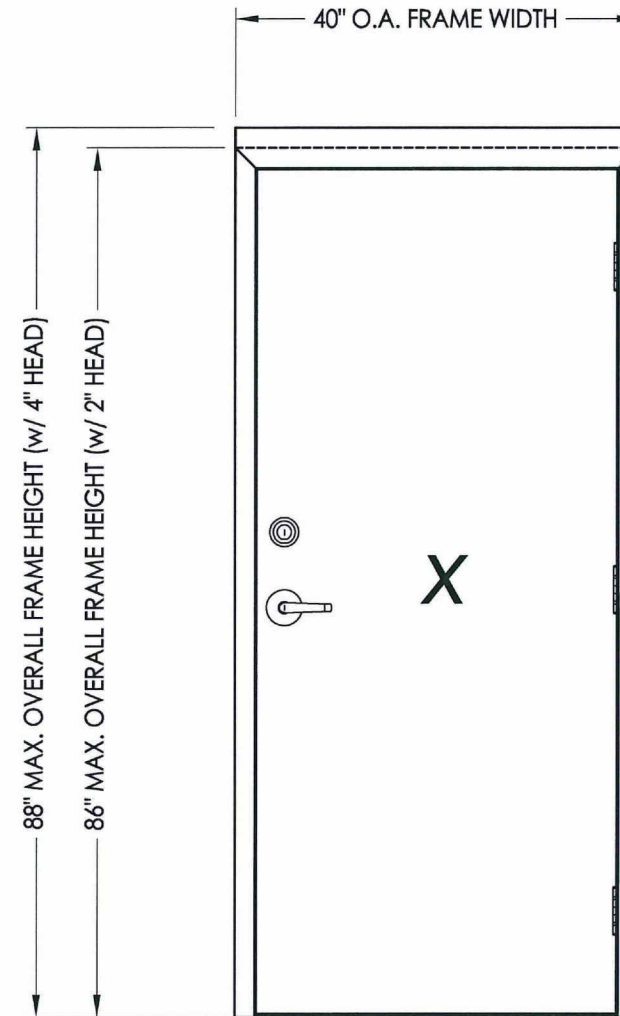
## "HH8-PCD" STEEL DOOR INSWING / OUTSWING "IMPACT"

### GENERAL NOTES

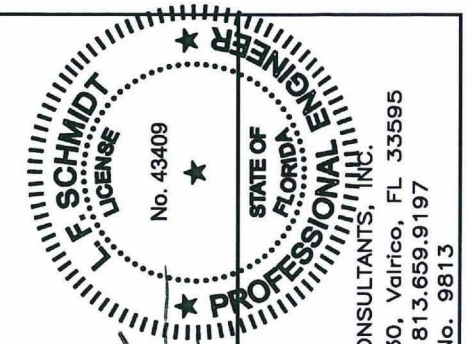
1. This product has been evaluated and is in compliance with the 5th Edition (2014) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with Section 1609.1.2 of the FBC and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996 and Section 1609.1.2.2 of the FBC.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
6. This product does not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
7. All steel shall be protected as specified in Section 2222.6 of the FBC.

### TABLE OF CONTENTS

SHEET#	DESCRIPTION
1	Typical elevations, design pressures, & general notes
2	Door panel details
3	Horizontal and vertical cross sections
4	Horizontal and vertical cross sections
5	Anchoring details
6	Components
7	Bill of materials and components



MAX. OVERALL DIMENSION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
40.0" X 88.0"	+66.0	-76.0	+66.0	-66.0



*LFS*  
9.1.15

Documents Prepared By:  
Lyndon F. Schmidt  
P.E. No. 43409

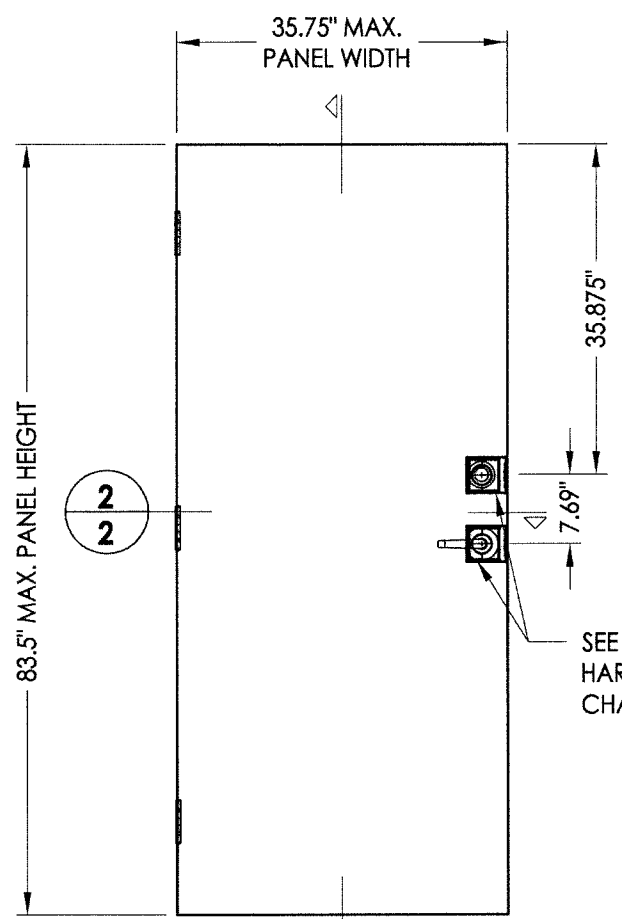
*RW*  
BUILDING CONSULTANTS, INC.  
P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE C.A. No. 9813

PRODUCT: HMF EXPRESS  
PART OR ASSEMBLY: TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	BY	REVISIONS

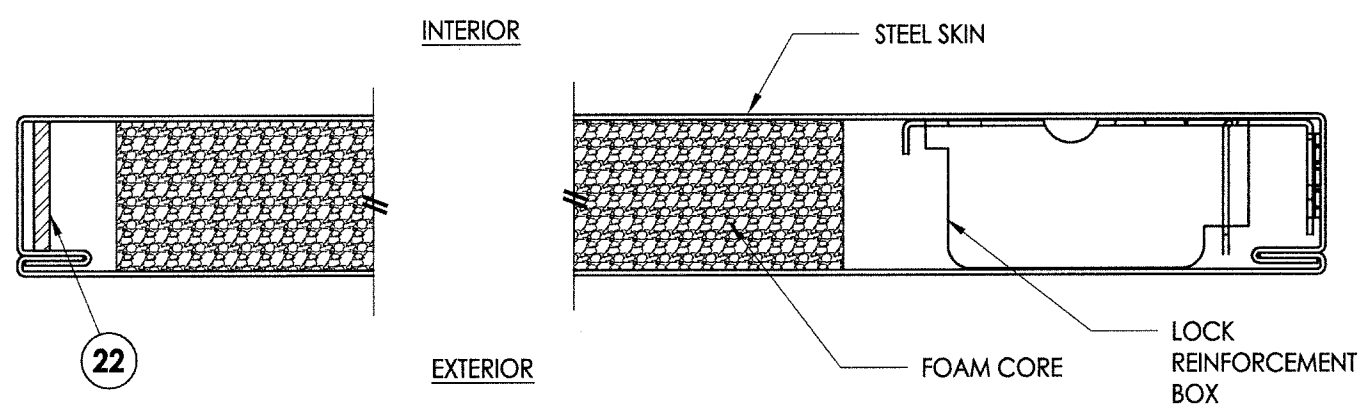
DATE: 8/31/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-18506.2  
SHEET 1 OF 7

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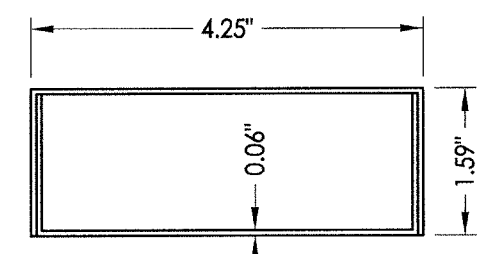


**1** OPAQUE STEEL DOOR PANEL

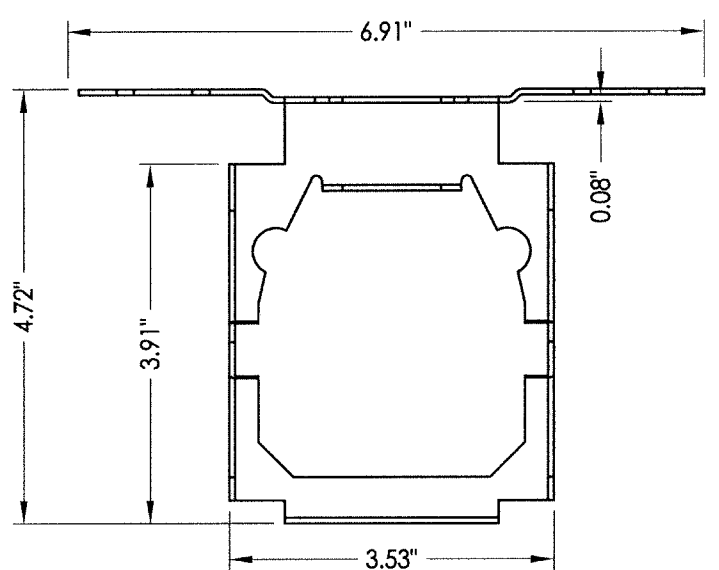
STEEL DOOR SKIN: 18 GA. A60 GALV. (min. 0.047" THK. , Fy = 47,400 psi min.)  
 CORE MATERIAL: EPS Foam (Polystyrene - 1.0 PCF Min. Density)



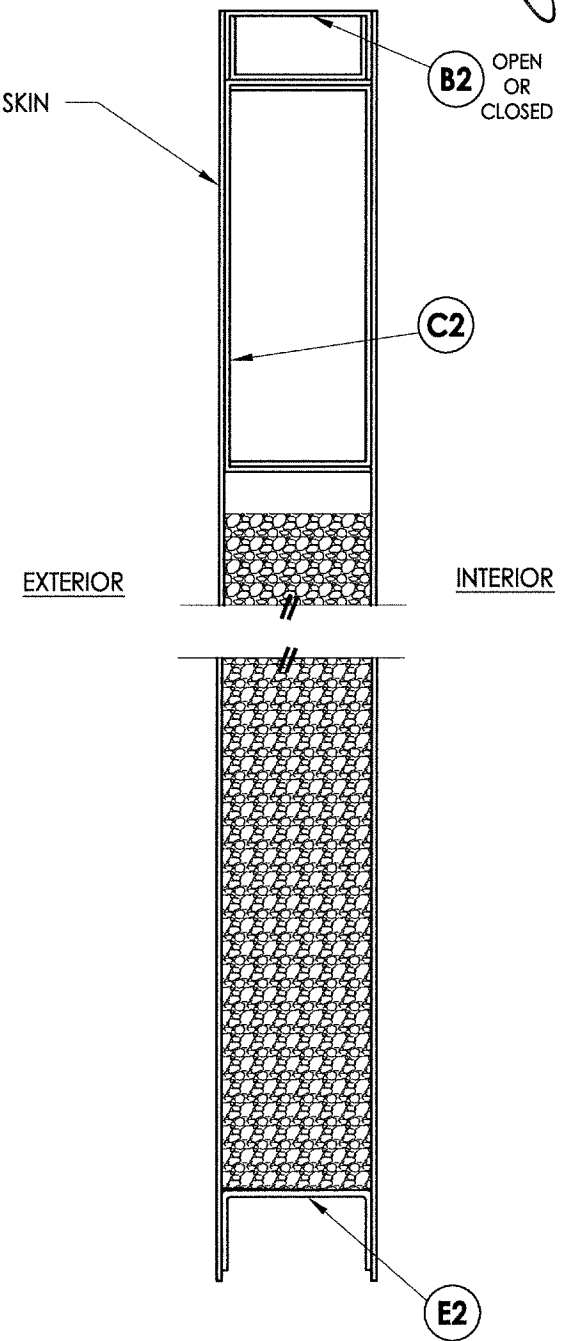
**2** HORIZONTAL CROSS SECTION  
**2** Door panel



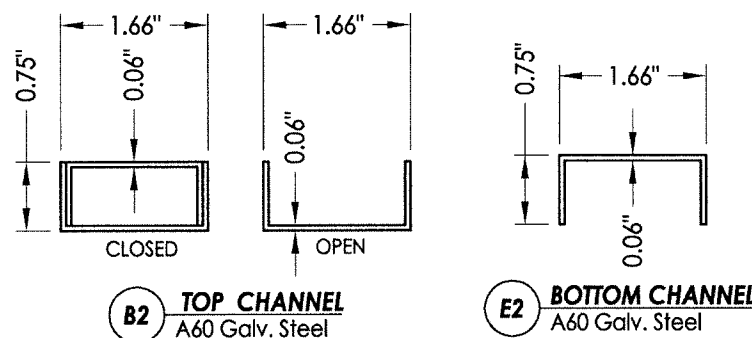
**C2** BOX CHANNEL TOP REINFORCEMENT  
 A60 Galv. Steel



**D2** LOCK BOX



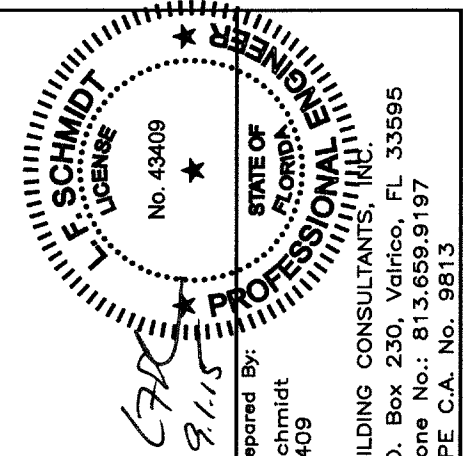
**1** VERTICAL CROSS SECTION  
**2** Door panel



**B2** TOP CHANNEL  
 A60 Galv. Steel

**E2** BOTTOM CHANNEL  
 A60 Galv. Steel

HARDWARE CHART		
MANUFACTURER	MODEL	SWING
Design Hardware	LOCK: X-75-F	OUTSWING ONLY
	DEADBOLT: D2-S	
Falcon	LOCK: T500	OUTSWING ONLY
	DEADBOLT: D131	
HAGER	LOCK: 3500 Series	INSWING OR OUTSWING
	DEADBOLT: 3200 Series	



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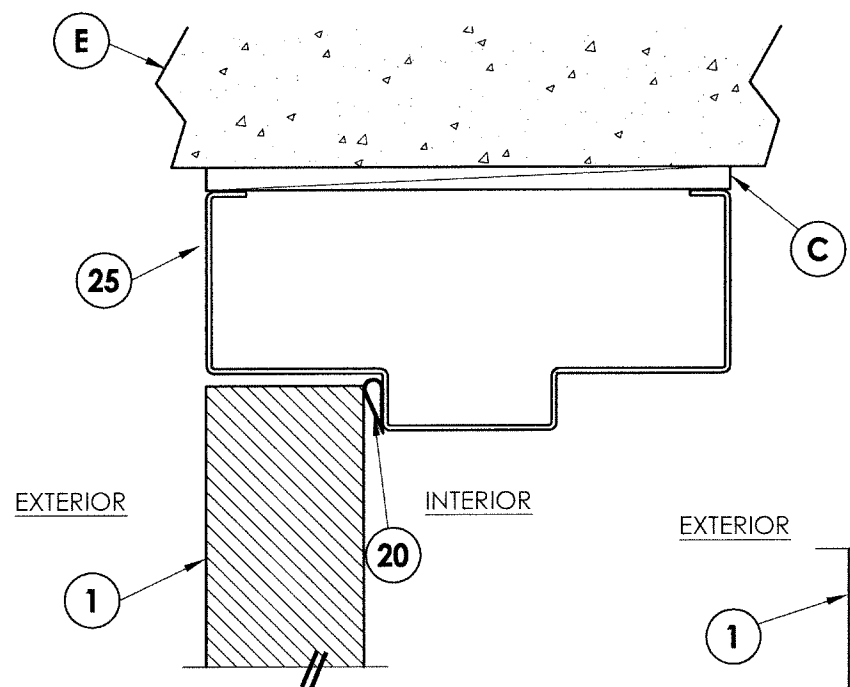
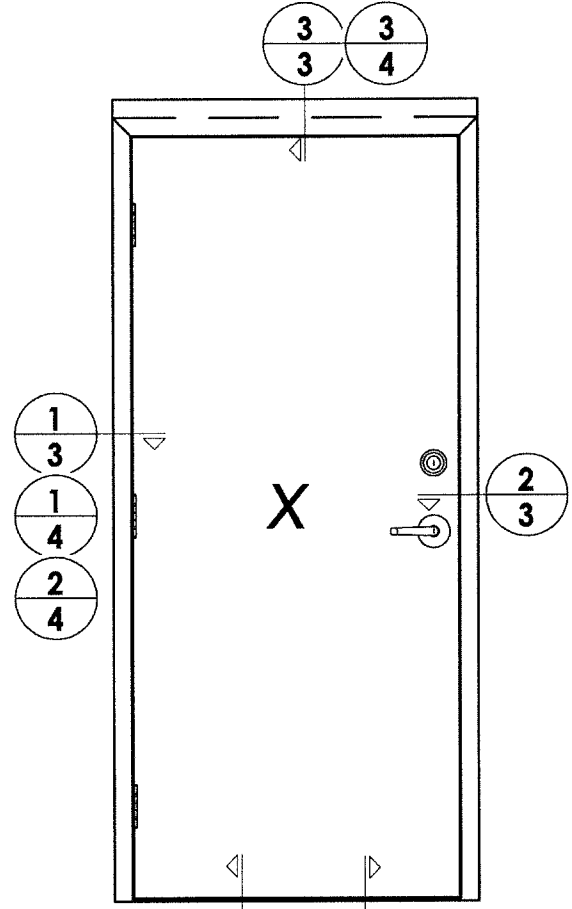
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PRODUCT: HMF EXPRESS  
 PART OR ASSEMBLY: DOOR PANEL DETAILS

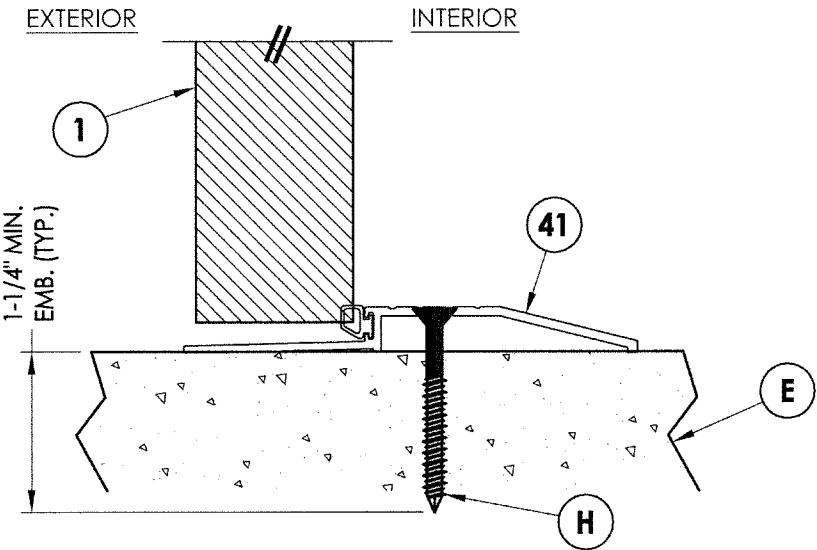
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 CHK. BY: LFS  
 DRAWING NO.: FL-18506.2  
 SHEET 2 OF 7

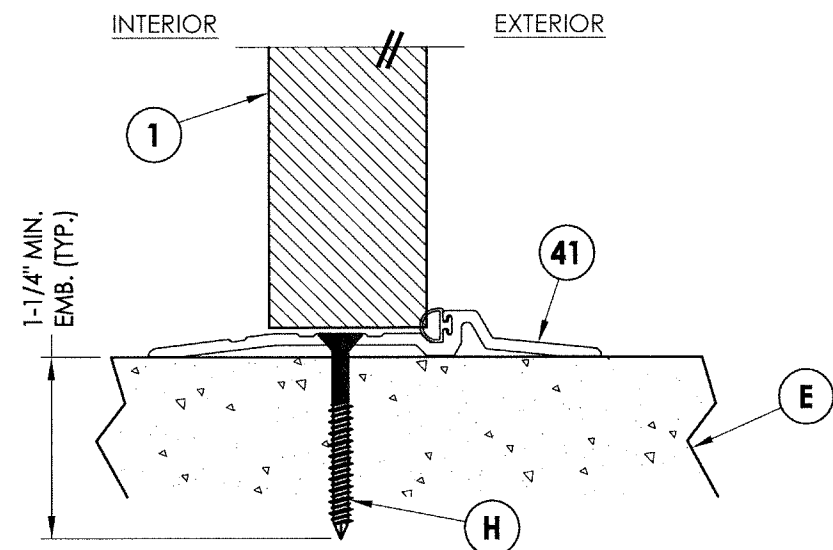
NOTES:  
 1. Spot weld anchor bracket to frame:  
 2 welds per flange (4 total per bracket).



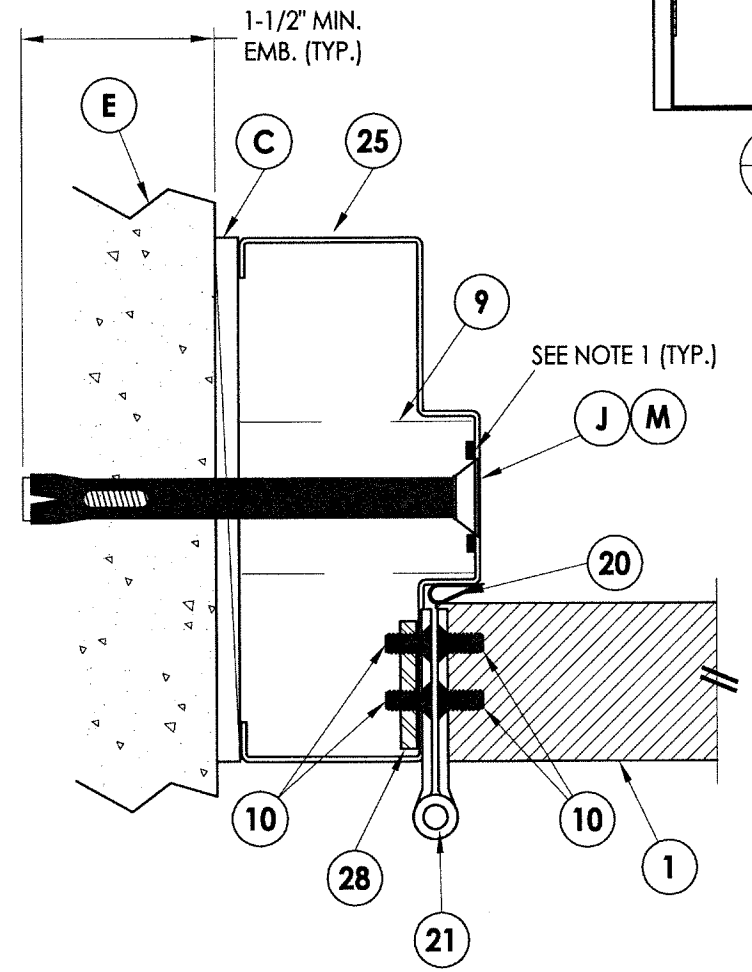
**3 VERTICAL CROSS SECTION**  
 Shown w/ 2" Head  
 Outswing shown (Inswing similar)



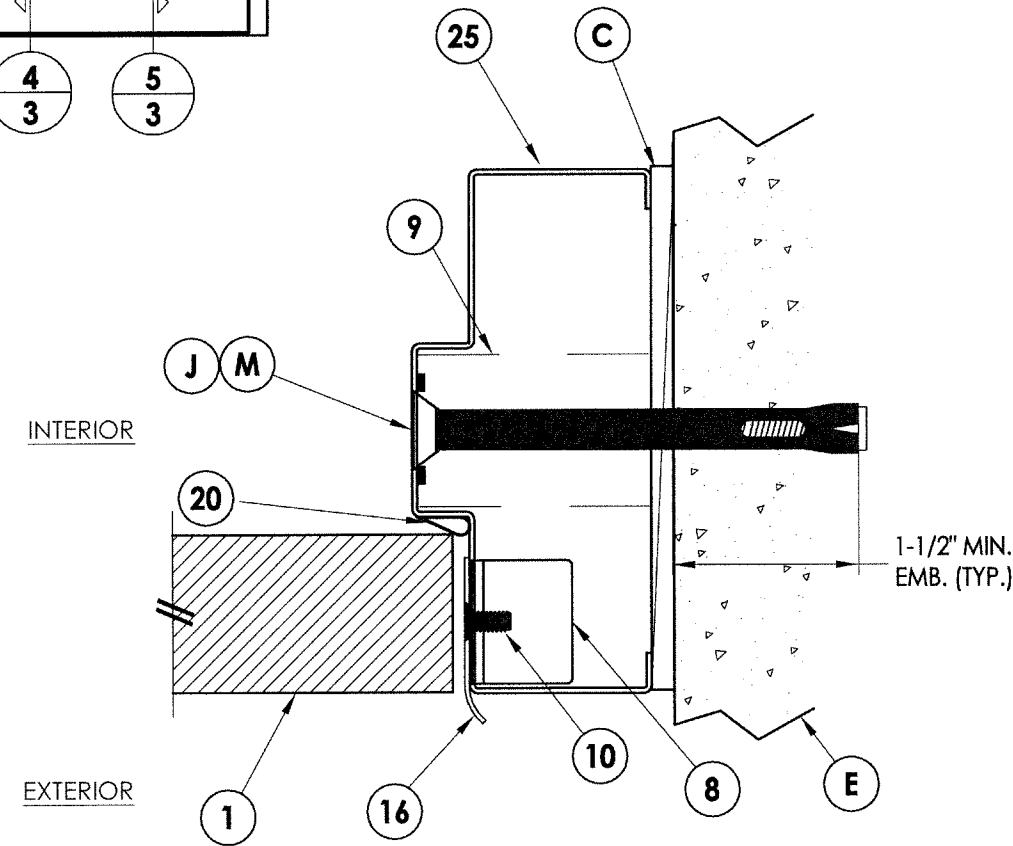
**4 VERTICAL CROSS SECTION**  
 Outswing sill



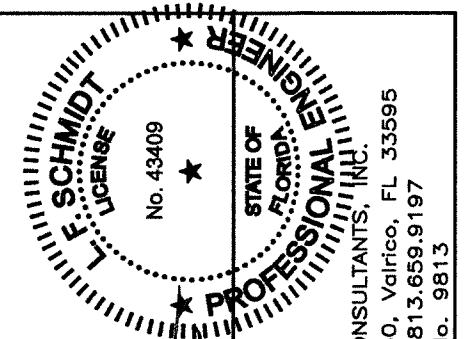
**5 VERTICAL CROSS SECTION**  
 Inswing sill



**1 HORIZONTAL CROSS SECTION**  
 Outswing shown (Inswing similar)



**2 HORIZONTAL CROSS SECTION**  
 Outswing shown (Inswing similar)



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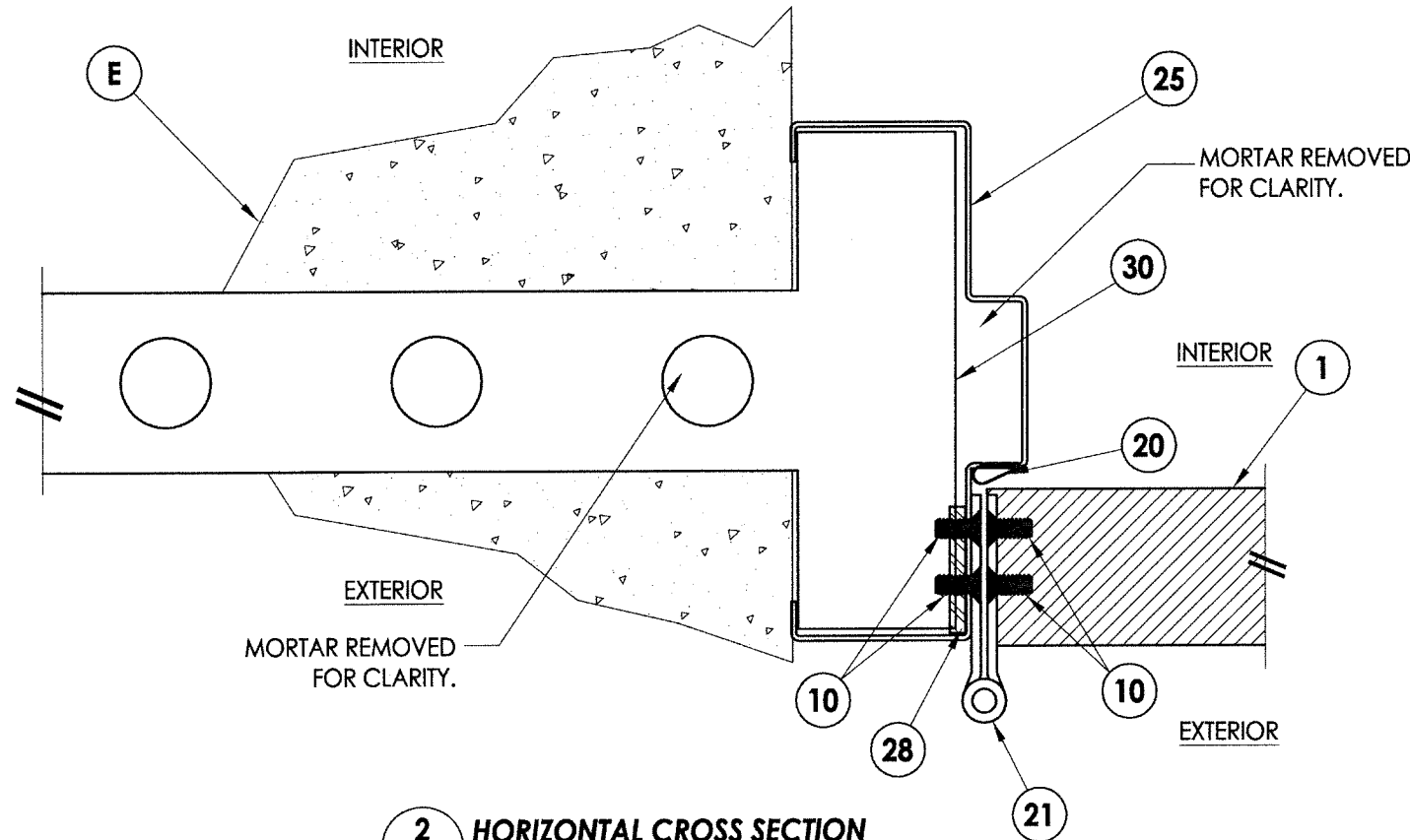
PRODUCT: HMF EXPRESS

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS

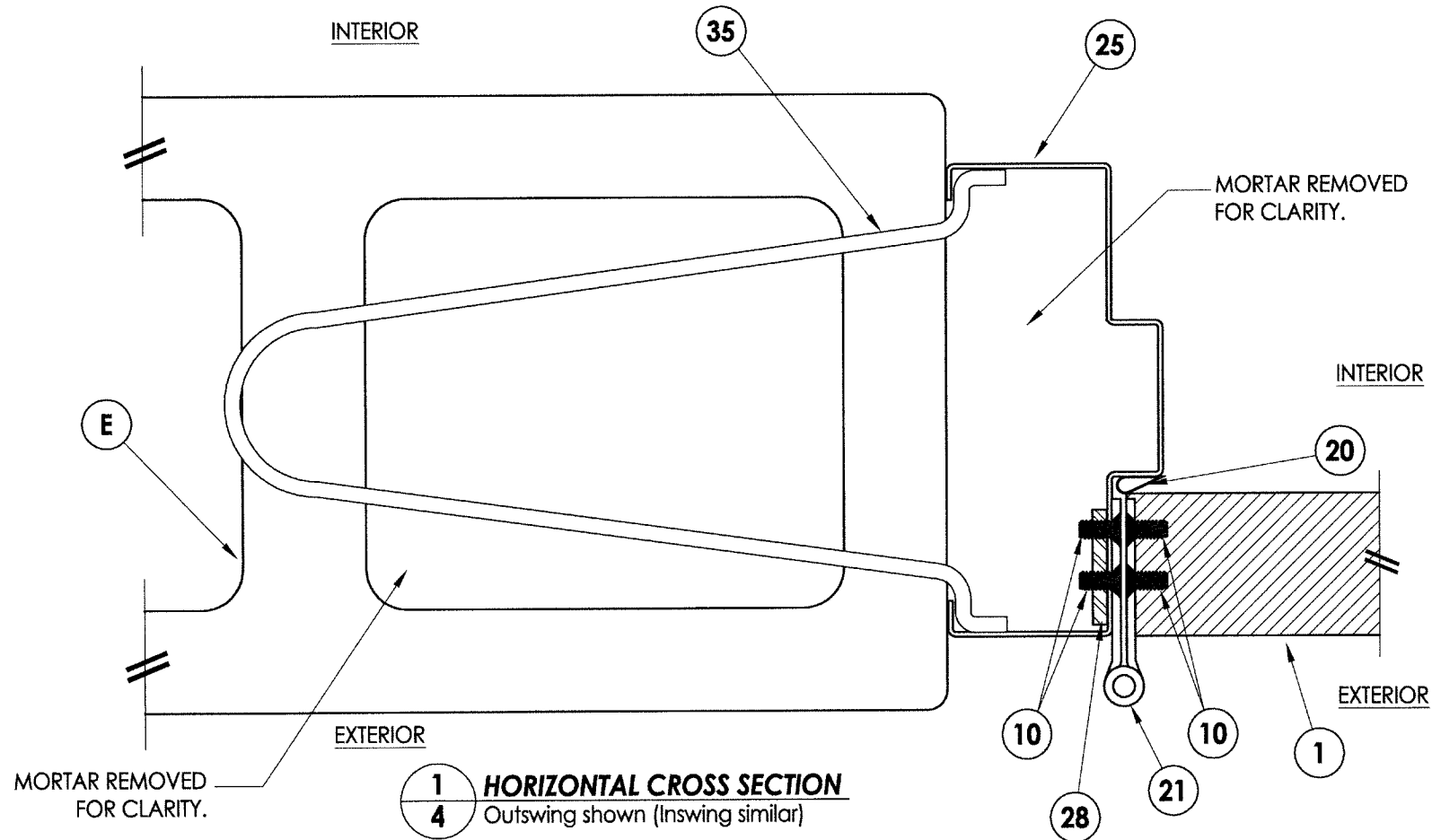
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 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: FL-18506.2  
 SHEET 3 OF 7

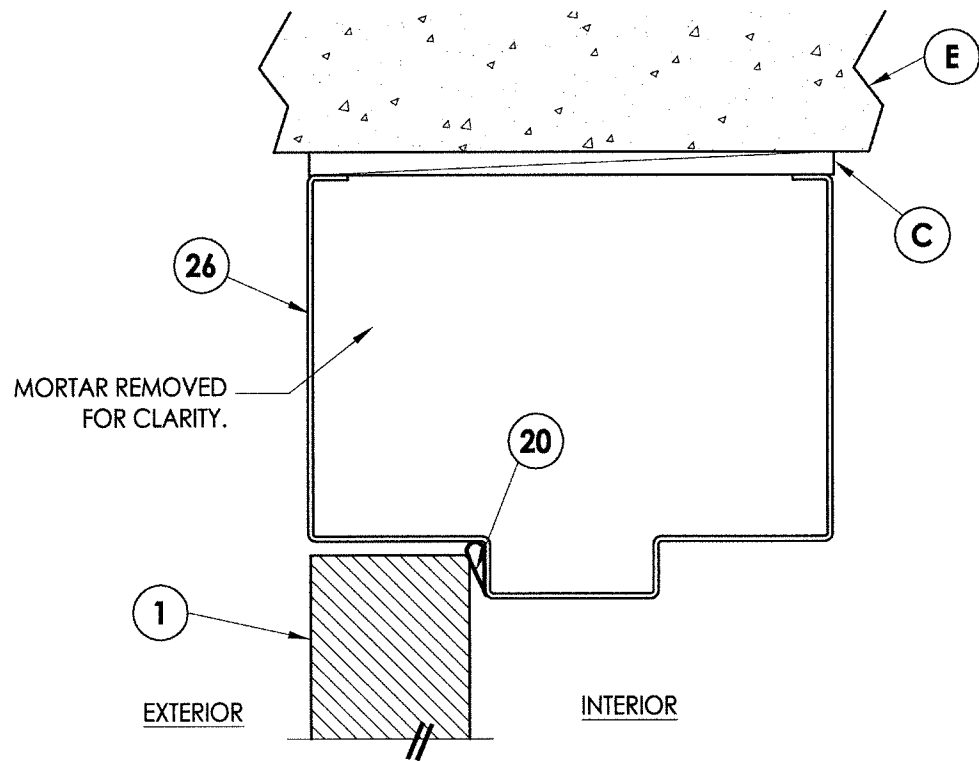
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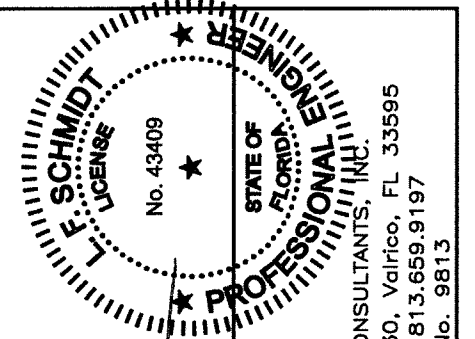
**2 HORIZONTAL CROSS SECTION**  
**4** Outswing shown (Inswing similar)



**1 HORIZONTAL CROSS SECTION**  
**4** Outswing shown (Inswing similar)



**3 VERTICAL CROSS SECTION**  
**4** Outswing shown (Inswing similar)  
 Shown w/ 4" Head



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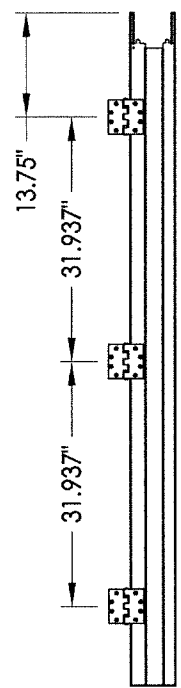
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PRODUCT:	HMF EXPRESS
PART OR ASSEMBLY:	HORIZONTAL & VERTICAL CROSS SECTIONS

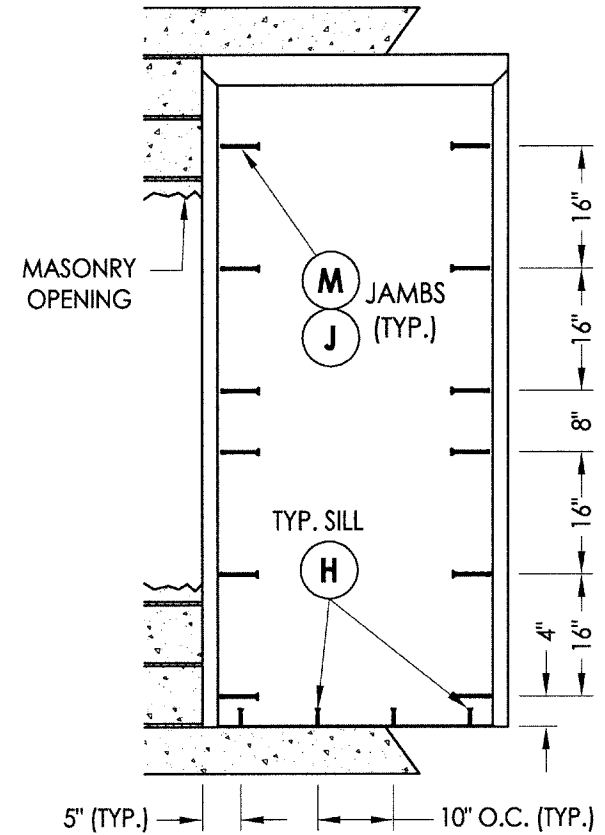
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SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-18506.2
SHEET	4 OF 7

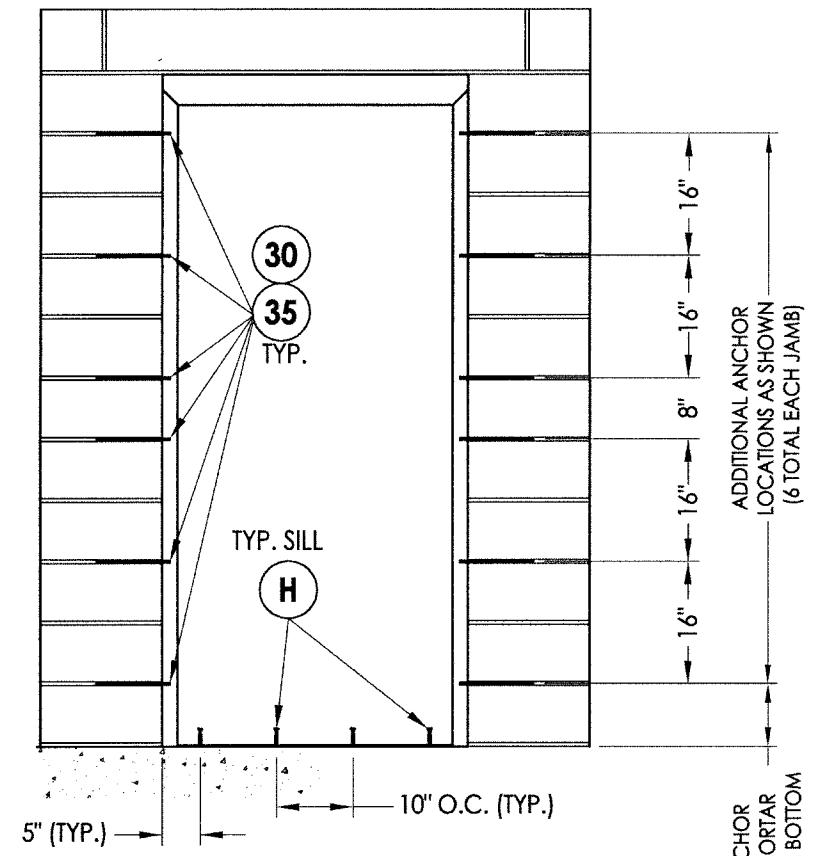
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**HINGE JAMB**

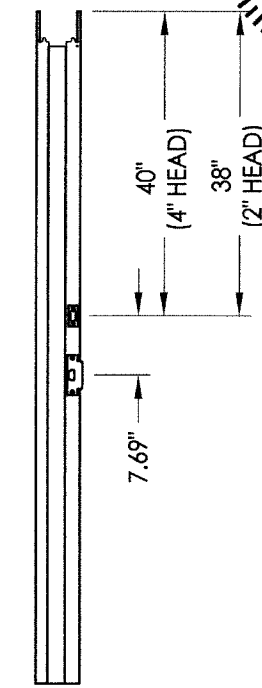


**FRAME ANCHORING**  
Shown w/ 4" Head (2" Head similar)  
Masonry Construction  
Concrete Anchors

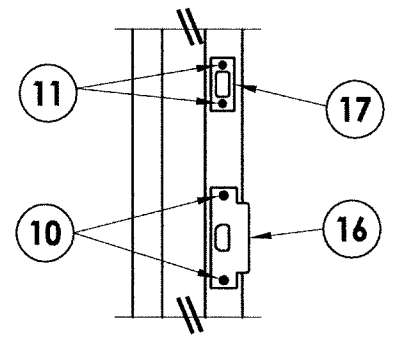


**FRAME ANCHORING**  
Shown w/ 4" Head (2" Head similar)  
Masonry Construction  
Masonry Anchors

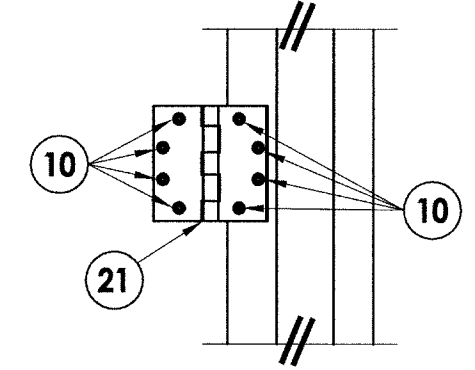
FIRST ANCHOR IS @ 1ST MORTAR JOINT FROM BOTTOM



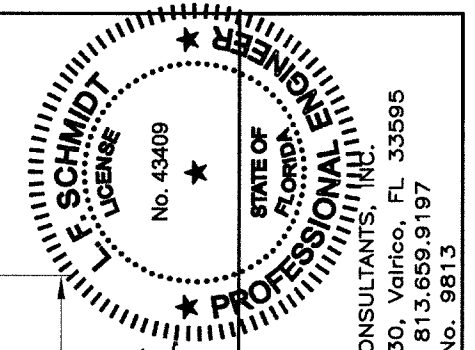
**STRIKE JAMB**



**STRIKE DETAIL**



**HINGE DETAIL**



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PRODUCT: HMF EXPRESS

PART OR ASSEMBLY: ANCHORING DETAILS

NO.	DATE	BY	REVISIONS

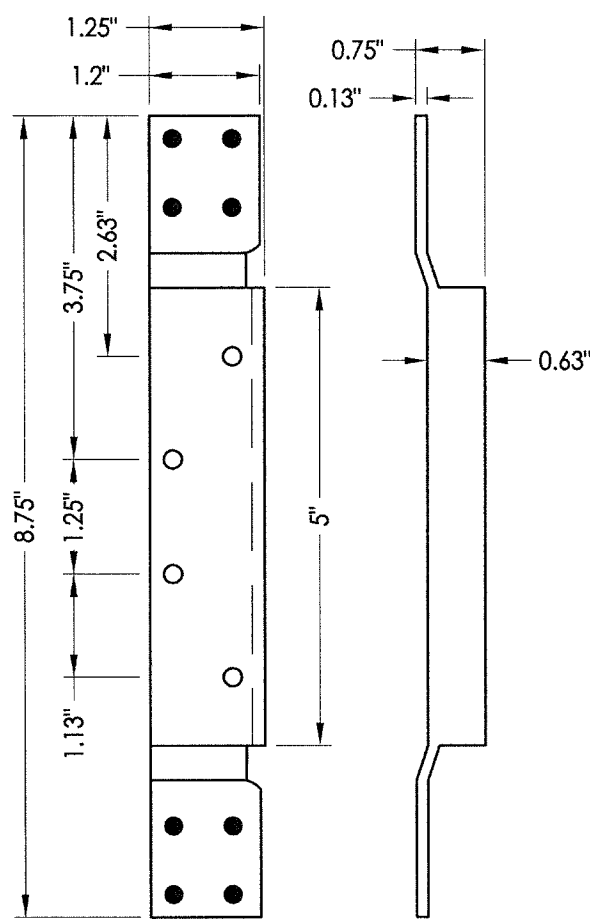
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SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-18506.2  
SHEET 5 OF 7

**CONCRETE ANCHOR NOTES:**

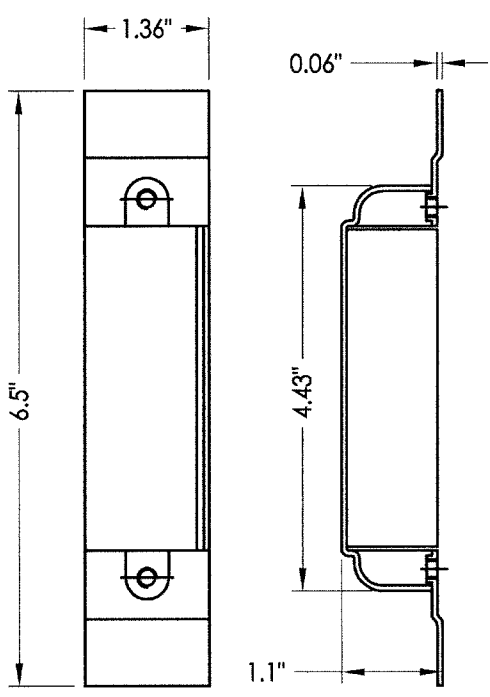
- Concrete screw locations at the corners may be adjusted to maintain a minimum 1" edge distance to mortar joints. If concrete screw locations noted as "MAX. O.C." must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.
- Concrete anchor table:

ANCHOR TYPE	ANCHOR LOCATION	ANCHOR SIZE	MANUFACTURER	MIN. EDGE DISTANCE	MIN. EMBEDMENT
CONCRETE ANCHOR SCREW	JAMBS	3/8"	LDT TAPCON® (ITW BUILDEX)	3"	1-1/2"
	SILL	1/4"	TAPCON® (ITW BUILDEX)	2-1/2"	1-1/4"
			ULTRACON® (ELCO) CRETE-FLEX® (ELCO) TAPPER+® (POWERS)		
CONCRETE SLEEVE ANCHOR	JAMBS	3/8"	DYNABOLT SLEEVE ANCHOR® (ITW REDHEAD)	2-1/4"	1-1/2"

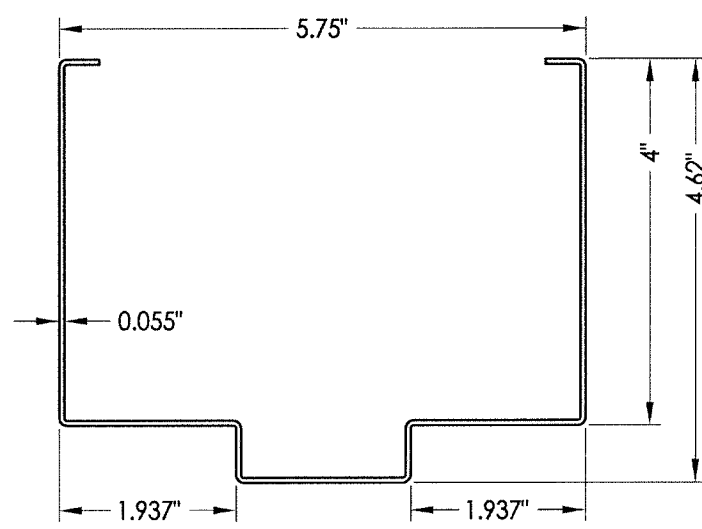
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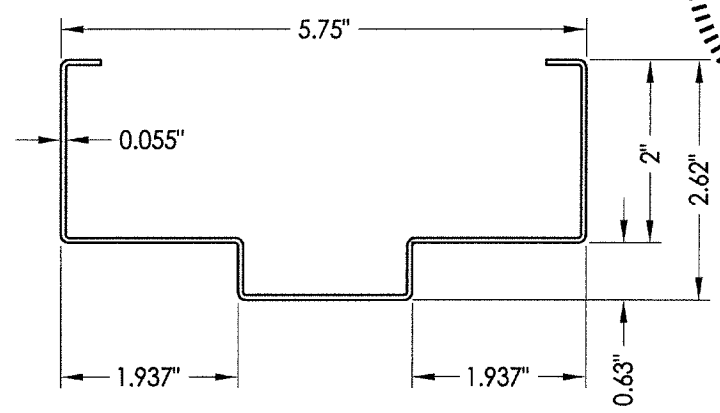
**22 DOOR HINGE REINFORCEMENT**



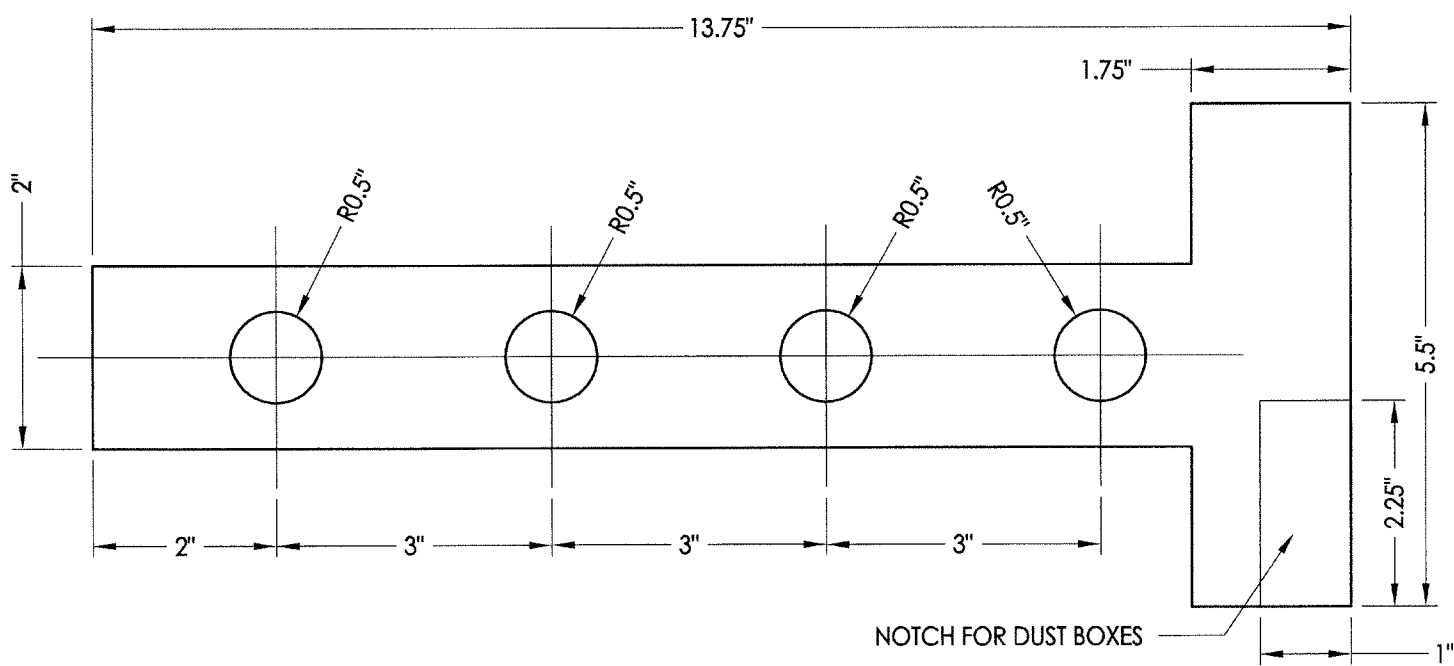
**8 DUST BOX**



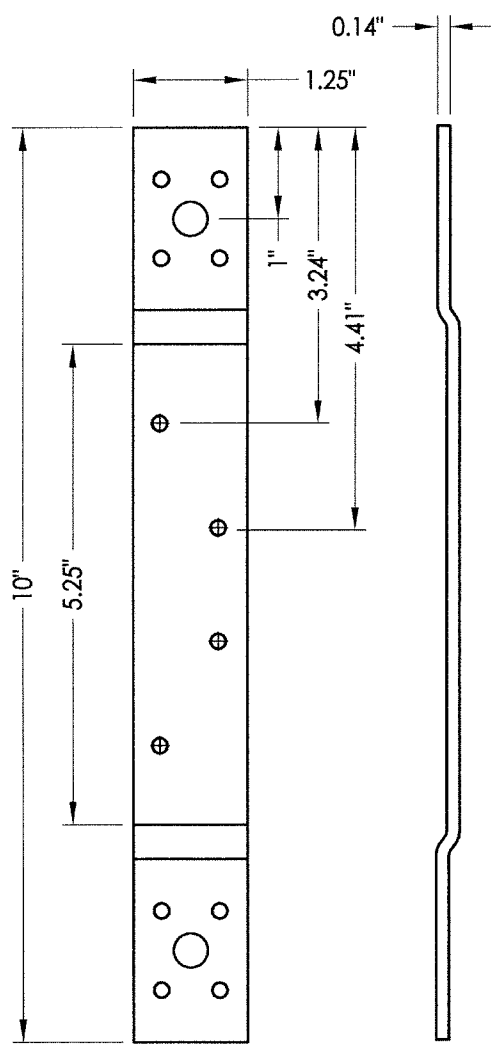
**26 HOLLOW METAL FRAME**  
4" (Head)



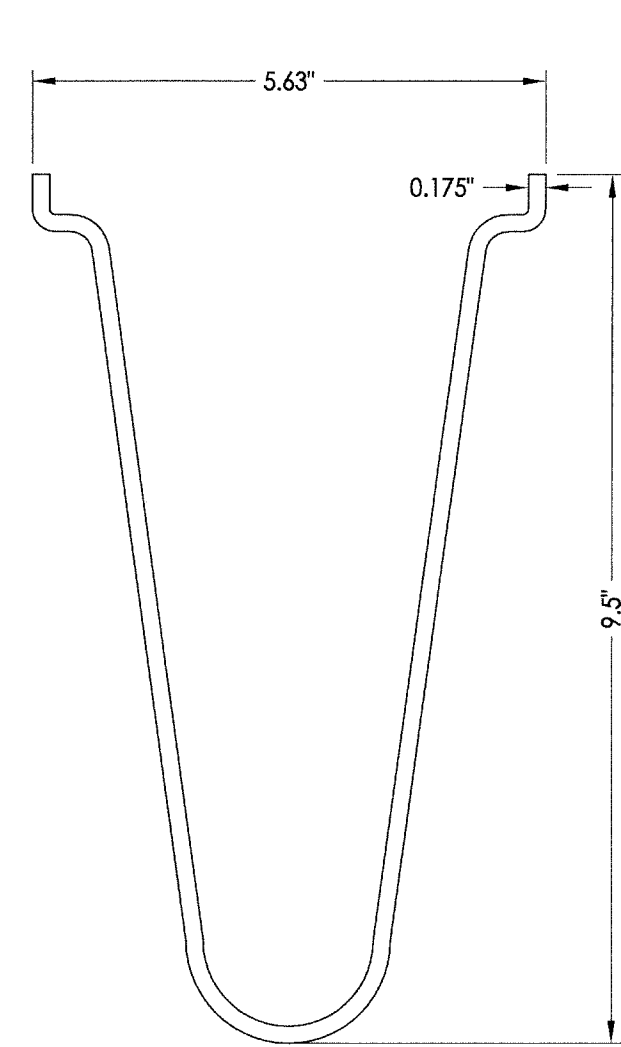
**25 HOLLOW METAL FRAME**  
2" (Jamb)



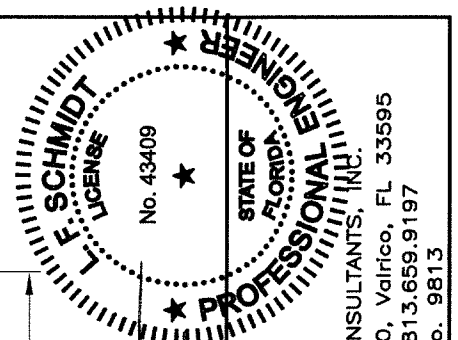
**30 T ANCHOR**  
0.056" Thick Steel



**28 FRAME HINGE REINFORCEMENT**



**35 WIRE ANCHOR**



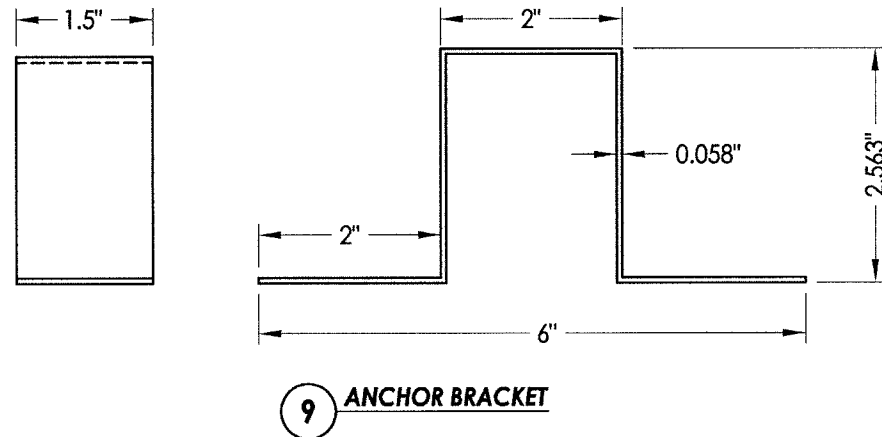
Documents Prepared By:  
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PRODUCT:	HMF EXPRESS
PART OR ASSEMBLY:	COMPONENTS

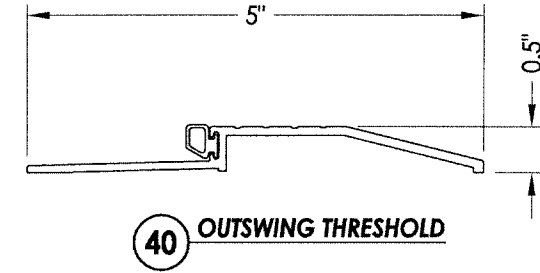
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DATE:	8/31/15
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-18506.2
SHEET	6 OF 7

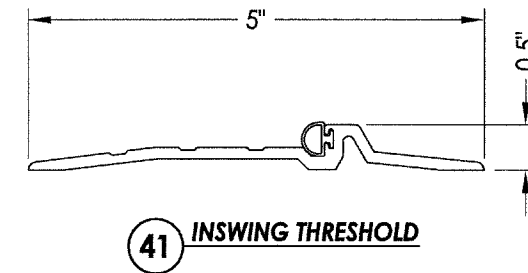
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK (GROUT FILLED) CONFORMING TO ASTM C90	CONCRETE
H	1/4" X 1-3/4" PFH CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
J	3/8" X 5" PFH DYNABOLT SLEEVE ANCHOR (SEE CONCRETE ANCHOR TABLE)	STEEL
M	3/8" X 5" LDT TAPCON CONCRETE SCREW (SEE CONCRETE ANCHOR TABLE)	STEEL
1	STEEL DOOR PANEL	-
8	DUST BOX	STEEL
9	ANCHOR BRACKET	STEEL
10	#12-24 X 1/2" PFH MACHINE SCREW	STEEL
11	#8 x 3/4" COMBINATION WOOD/MACHINE SCREW	STEEL
16	ANSI LATCH STRIKE	STEEL
17	DEADBOLT STRIKE	STEEL
19	DEADBOLT STRIKE REINFORCEMENT	STEEL
20	WEATHERSTRIP (PEMKO 303A)	NEOPRENE
21	4-1/2" X 4-1/2" X 0.125" HINGE	STEEL
22	DOOR HINGE REINFORCEMENT	STEEL
25	HOLLOW METAL FRAME (2" JAMB) - 16GA (0.055" THK)	STEEL
26	HOLLOW METAL FRAME (4" OR 2" HEAD) - 16GA (0.055" THK)	STEEL
28	FRAME HINGE REINFORCEMENT	STEEL
30	MASONRY 'T' ANCHOR	STEEL
35	WIRE ANCHOR	STEEL
40	OUTSWING THRESHOLD (PEMKO 2001_T)	ALUMINUM
41	INSWING THRESHOLD (HAGER #520)	ALUMINUM



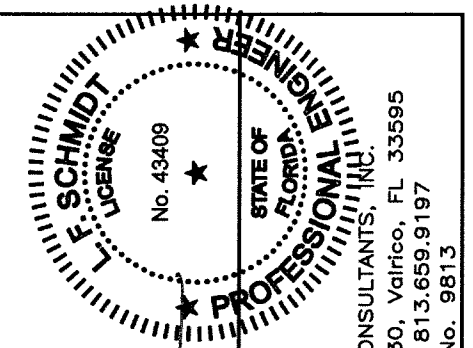
9 ANCHOR BRACKET



40 OUTSWING THRESHOLD



41 INSWING THRESHOLD



*Handwritten:* LFS 8/15  
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**RW** BUILDING CONSULTANTS, INC.  
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 SHEET 7 OF 7