

Z:\2023 FBC Drawings\Metal Mfg Industries\FL-12186 R4\12186.1-8.dwg



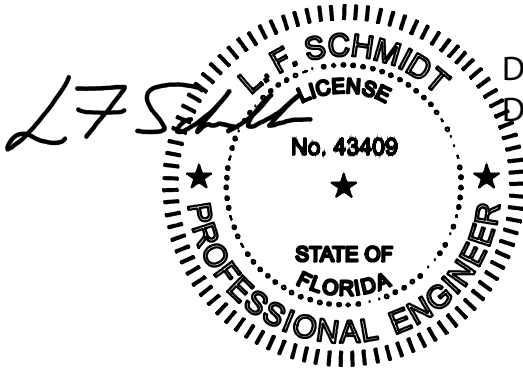
PRIV. DE RIO SANTIAGO #30
COL. LA RAZA
SOLEDAD DE GRACIANO SANCHEZ
SAN LUIS POTOSI, C.P. 78433

"N" SERIES COMMERCIAL STEEL DOOR w/ SIDELITE INSWING / OUTSWING "IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements excluding 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 areas 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.
4. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
5. The "N" door achieves a Class III stiffness classification per Section 8.2.2 of ANSI A250.13 (based on opaque door).

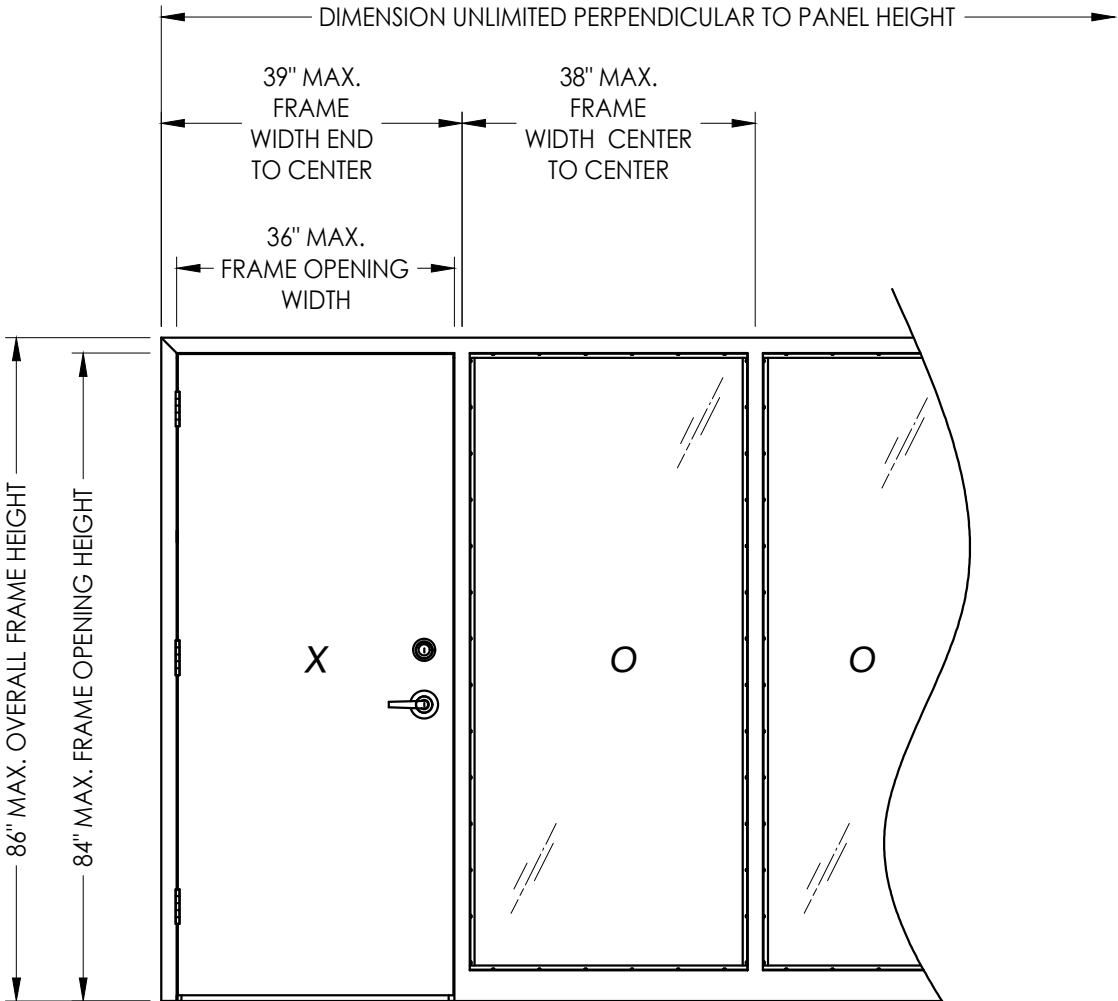
TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical elevations, design pressures, & general notes
2	Door panel sections 161 lock prep
3	Horizontal cross sections
4	Vertical cross sections
5	Vertical cross sections
6	Vertical cross sections
7	Anchoring details
8	Glazing details & components
9	Components
10	Bill of materials & components



Digitally signed by Lyndon F Schmidt
Date: 2023.07.11 09:24:51 -04'00'

This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA



OVERALL FRAME DIMENSION	SIDELITE D.L.O. DIMENSION	LOCK TYPE	GLASS TYPE	DESIGN PRESSURE (PSF)	
				POSITIVE	NEGATIVE
39" x 86"	34.75" x 78.75"	161 LATCH (SCHLAGE)	G1, G2	+55.0	-55.0
		161 LATCH & DEADBOLT (DESIGN HARDWARE)		+65.0	-65.0

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

PRODUCT:
MMI
"N" STEEL DOOR

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

47/11/23 UPDATE TO 8TH ED. (2023) FBC LFS

37/30/20 UPDATE TO 7TH ED. (2020) FBC DAC

27/18/17 UPDATE TO 6TH ED. (2017) FBC LFS

110/14/16 UPDATE TO 5TH ED. (2014) FBC JK

NO. DATE

REVISIONS

DATE: 11/3/08

SCALE: N.T.S.

DWG. BY: AL

CHK. BY: LFS

DRAWING NO.:
FL-12186.6

SHEET 1 OF 10

Building Consultants, Inc.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

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35.75" MAX.
PANEL WIDTH

22

23

(

X

71

76

$$\left(\frac{2}{\dots} \right)$$

⑤

⑤

1 "N" OPAQUE STEEL DOOR PANEL

23 DOOR HINGE REINFORCEMENT

INTERIOR

EXTERIOR

2 HORIZONTAL CROSS SECTION
Door panel

— 3 PROJECTION
WELDS

3 PROJECTION WELDS

70 OPTIONAL LATCH ONLY

2
— SPOT WELDS

2
SPOT WELDS

5 LOCK BOX REINFORCEMENT

EXTERIOR

INTERIOR

1 VERTICAL CROSS SECTION
2 Door panel

Door panel

Documents Prepared By:
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RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33415
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: MMI
"N" STEEL DOOR

OR ASSEMBLY:
DOOR PANEL SECTIONS
161 LOCK PREP

4	7/11/23	UPDATE TO 8TH ED.	(2023)	FBC LFS
3	7/30/20	UPDATE TO 7th ED.	(2020)	FBC DAC
2	7/18/17	UPDATE TO 6TH ED.	(2017)	FBC LFS
1	10/14/16	UPDATE TO 5TH ED.	(2014)	FBC JK
NO.	DATE			
		REVISIONS		

DATE: 11/3/08

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CHK. BY: LFS

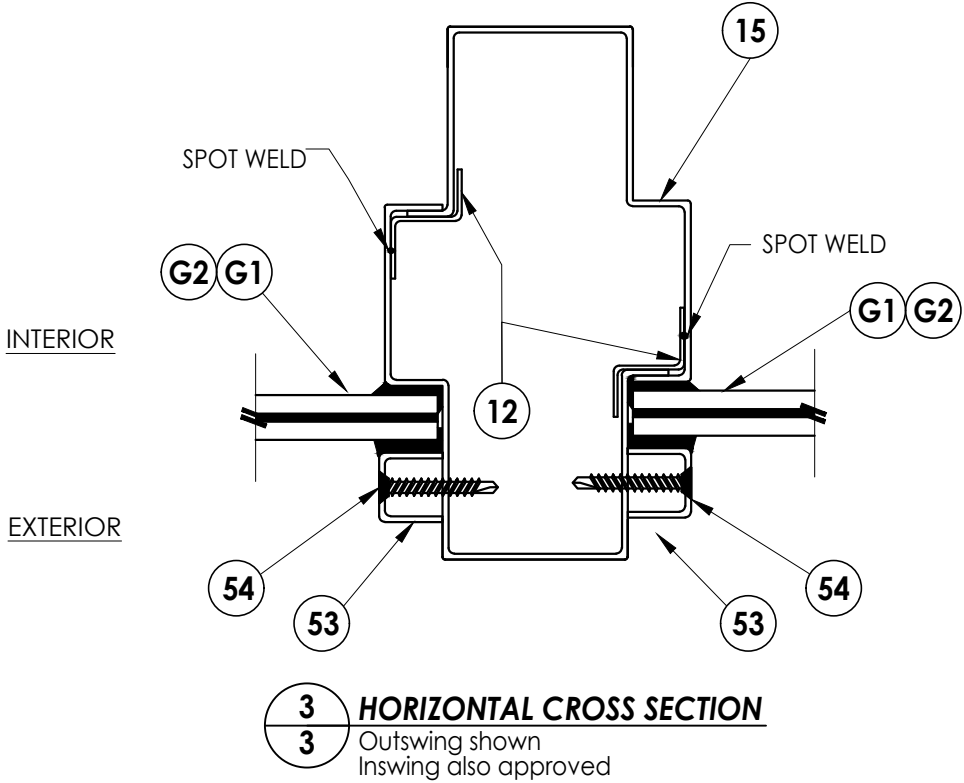
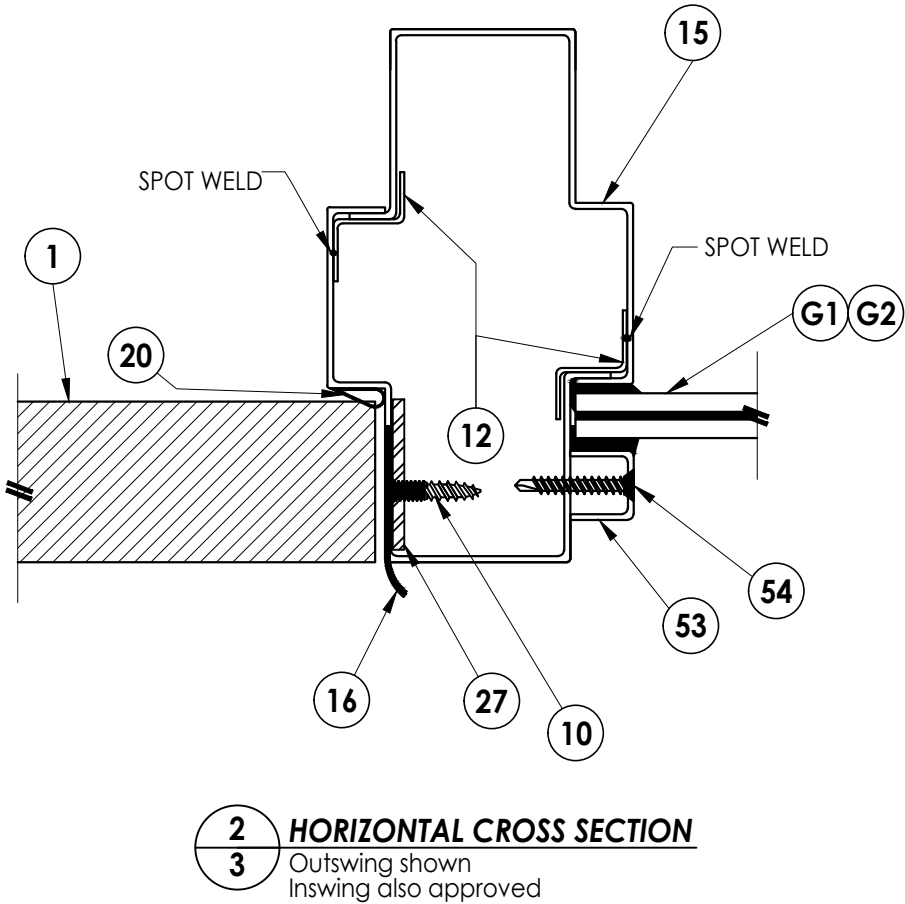
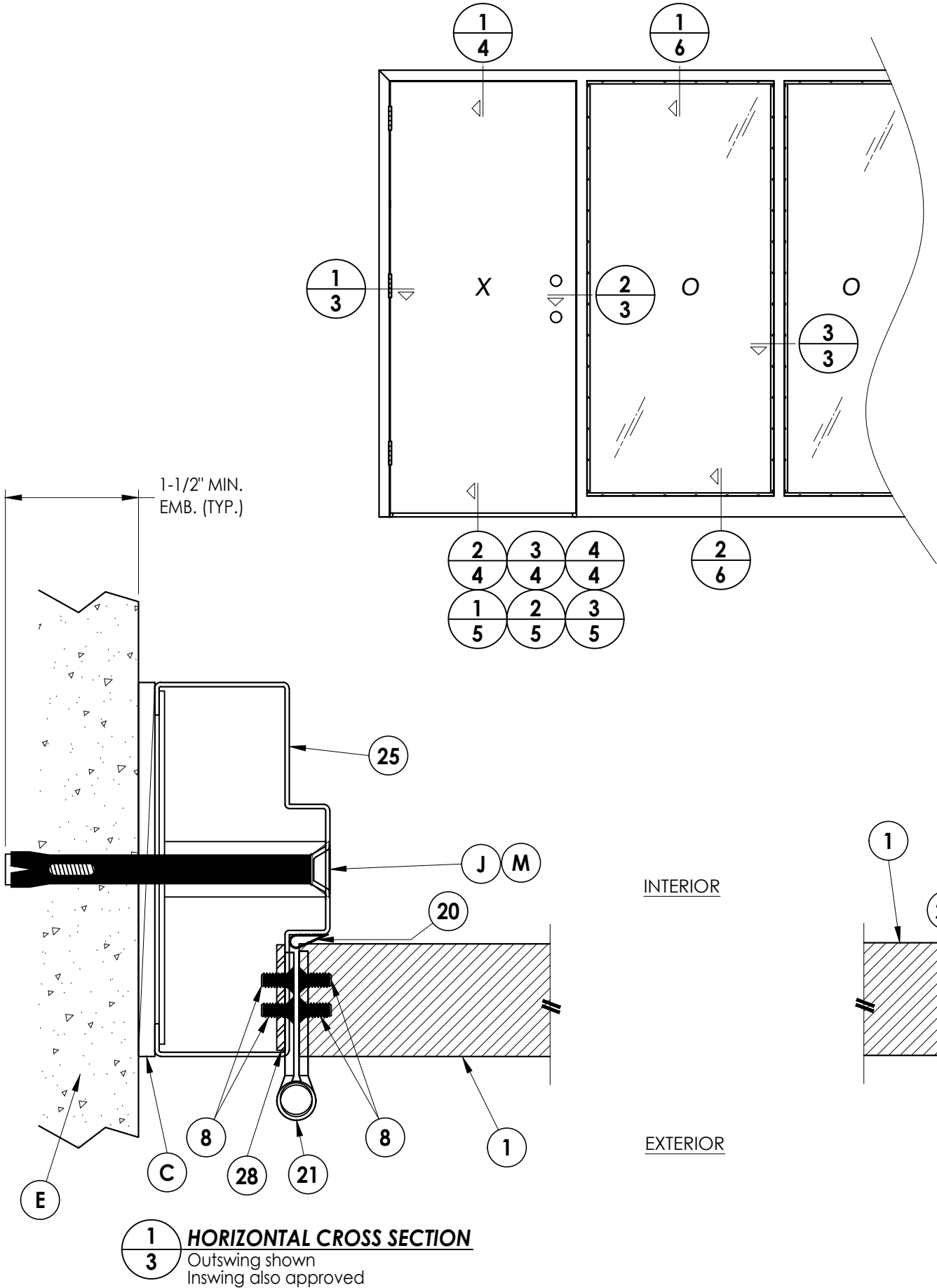
DRAWING NO.:
FI-12186.6

SHEET 2 OF 10

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NOTE: ALL WELDING TO CONFORM w/ AMERICAN WELDING SOCIETY, ANSI/AWS AS PER FBC SECTION 2214.3.4.

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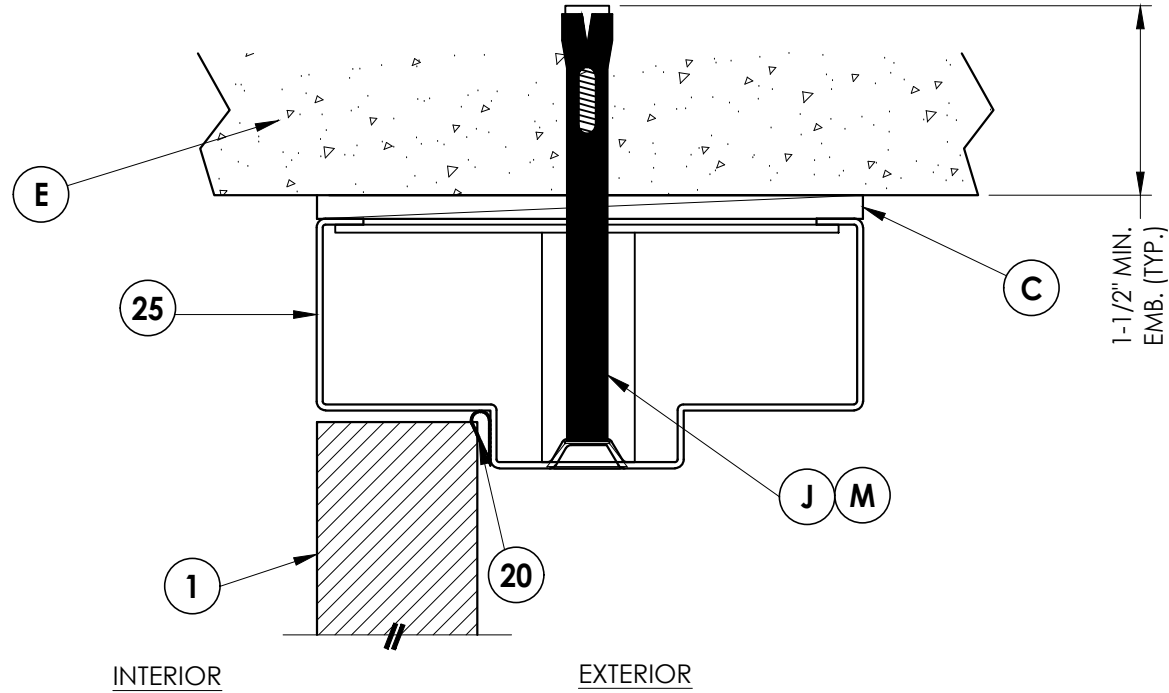


DATE: 11/3/08	
SCALE: N.T.S.	
DWG. BY: AL	
CHK. BY: LFS	
DRAWING NO.: FL-12186.6	
SHEET 3 OF 10	

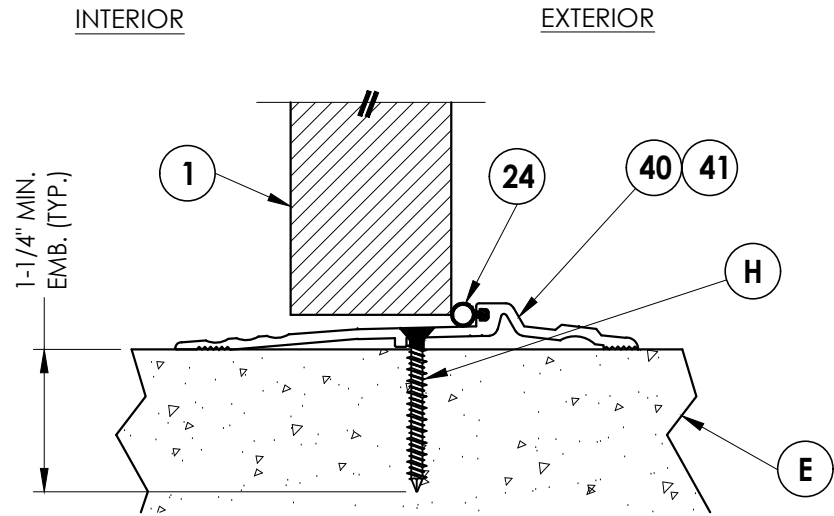
PRODUCT: MMI "N" STEEL DOOR	
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	

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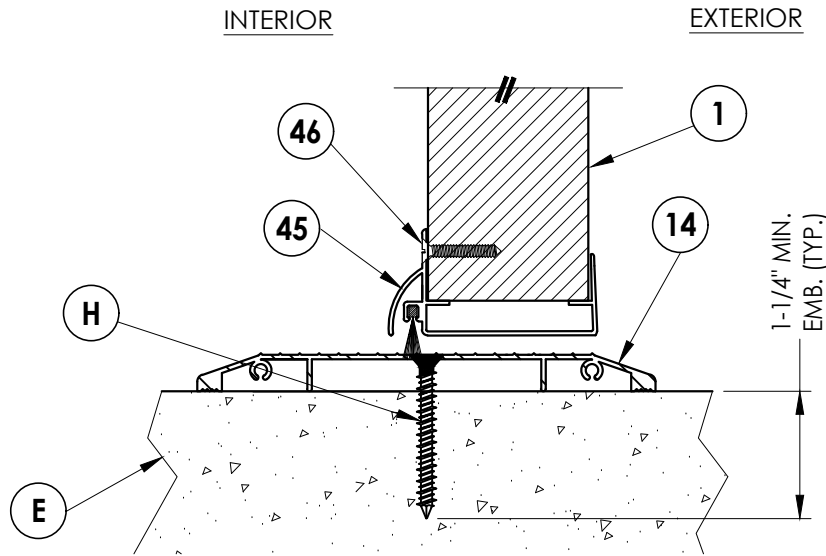
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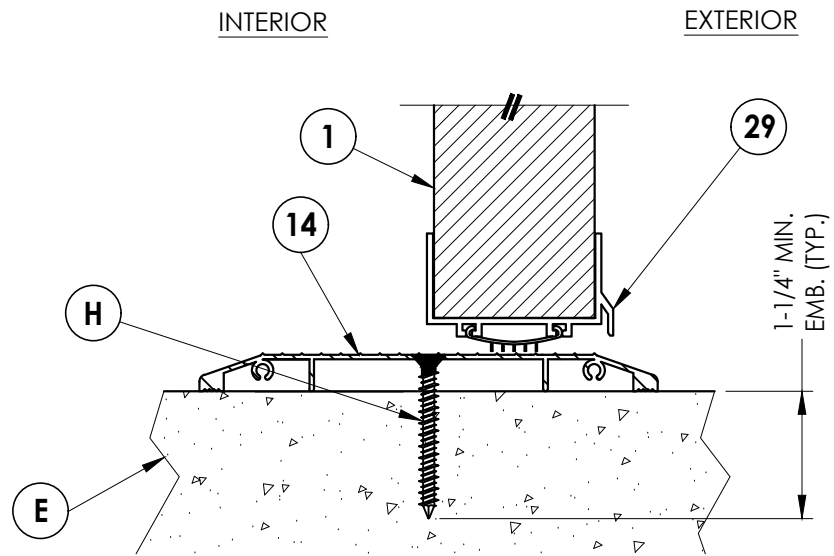
1
4 **VERTICAL CROSS SECTION**
Inswing configuration



2
4 **VERTICAL CROSS SECTION**
Inswing configuration



3
4 **VERTICAL CROSS SECTION**
Inswing configuration



4
4 **VERTICAL CROSS SECTION**
Inswing configuration

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FBPE Registry No. 9813

PRODUCT:
MMI
"N" STEEL DOOR

PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS
4	7/11/23	UPDATE TO 8TH ED. (2023) FBC LFS
3	7/30/20	UPDATE TO 7th ED. (2020) FBC DAC
2	7/18/17	UPDATE TO 6TH ED. (2017) FBC LFS
1	10/14/16	UPDATE TO 5TH ED. (2014) FBC JK

DATE: 11/3/08

SCALE: N.T.S.

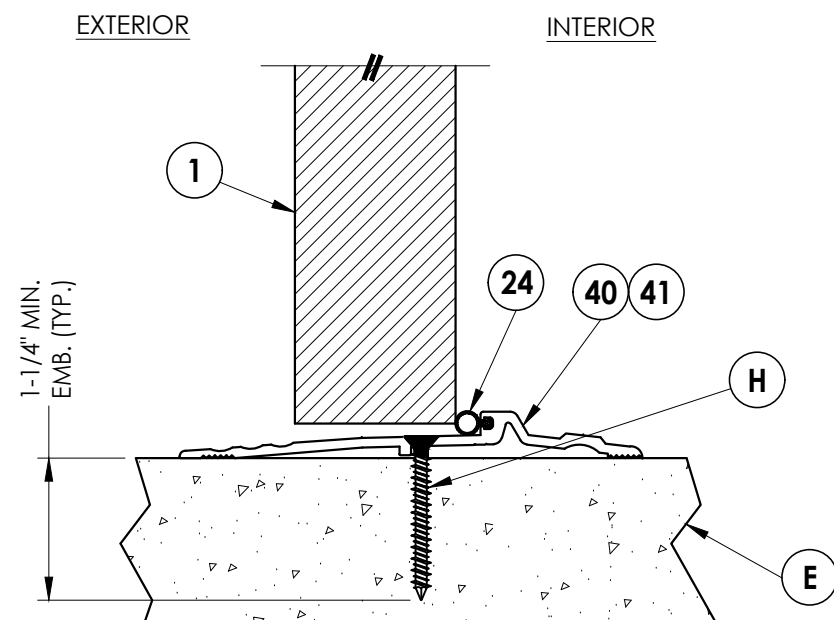
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CHK. BY: LFS

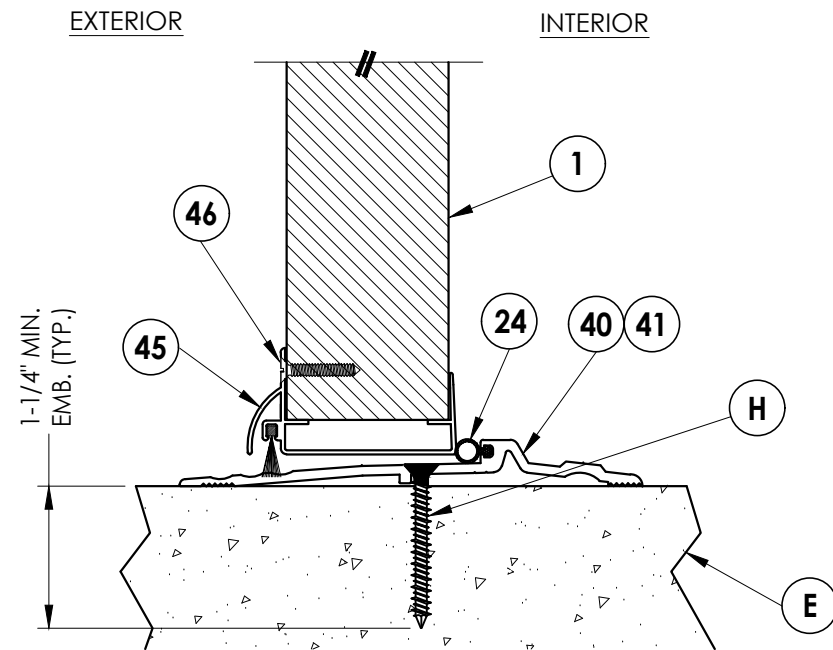
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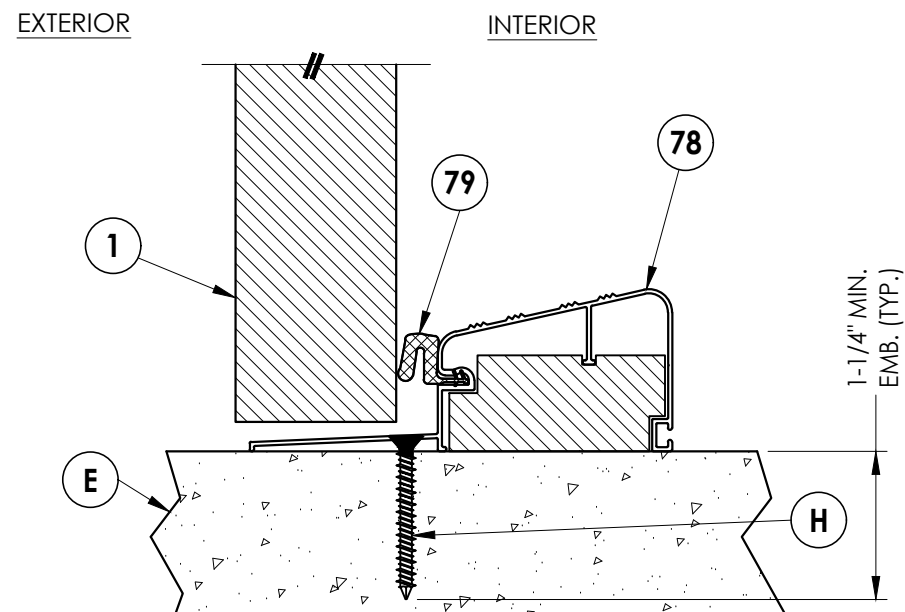
SHEET 4 OF 10



2 VERTICAL CROSS SECTION
5 Outswing shown



1 **VERTICAL CROSS SECTION**
5 Outswing shown



3 VERTICAL CROSS SECTION
5 Outswing shown

4	7/11/23	UPDATE TO 8TH ED.	(2023)	FBC	LFS	
3	7/30/20	UPDATE TO 7th ED.	(2020)	FBC	DAC	
2	7/18/17	UPDATE TO 6TH ED.	(2017)	FBC	LFS	
1	10/14/16	UPDATE TO 5TH ED.	(2014)	FBC	JK	
NO.	DATE					BY
						REVISIONS

DATE: 11/3/08

SCALE: N.T.S.

DWG. BY: AL

CHK. BY: LFS

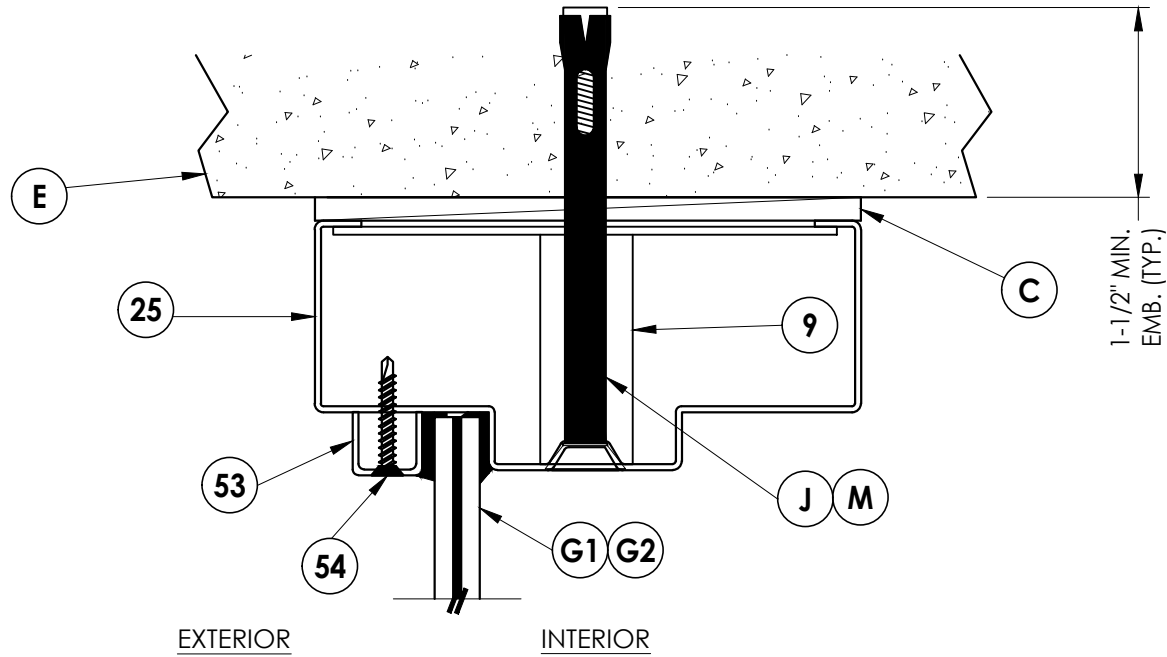
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SHEET 5 OF 10

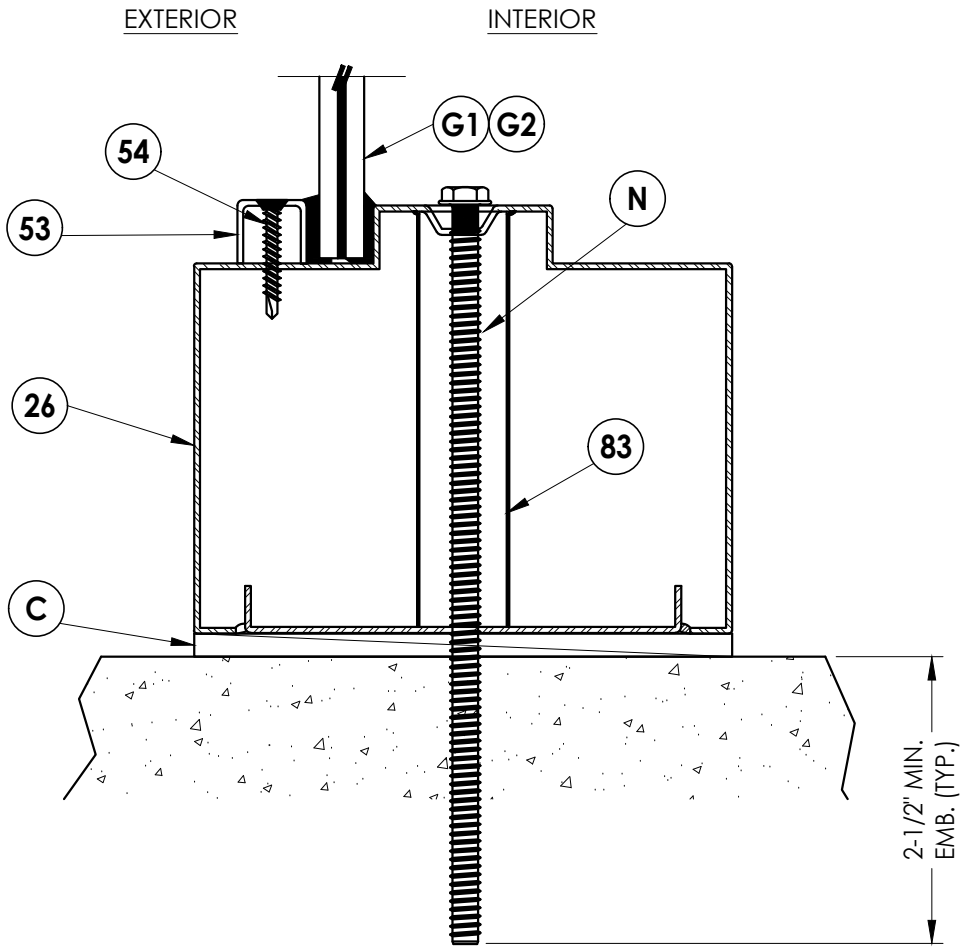
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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1
6 VERTICAL CROSS SECTION



2
6 VERTICAL CROSS SECTION

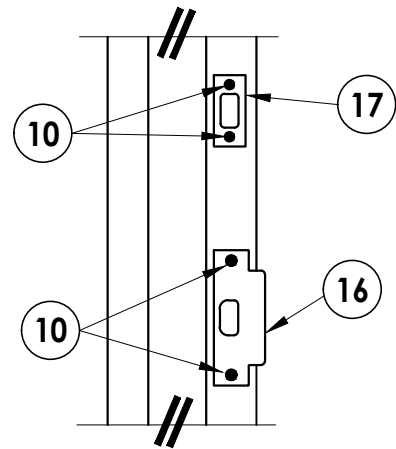
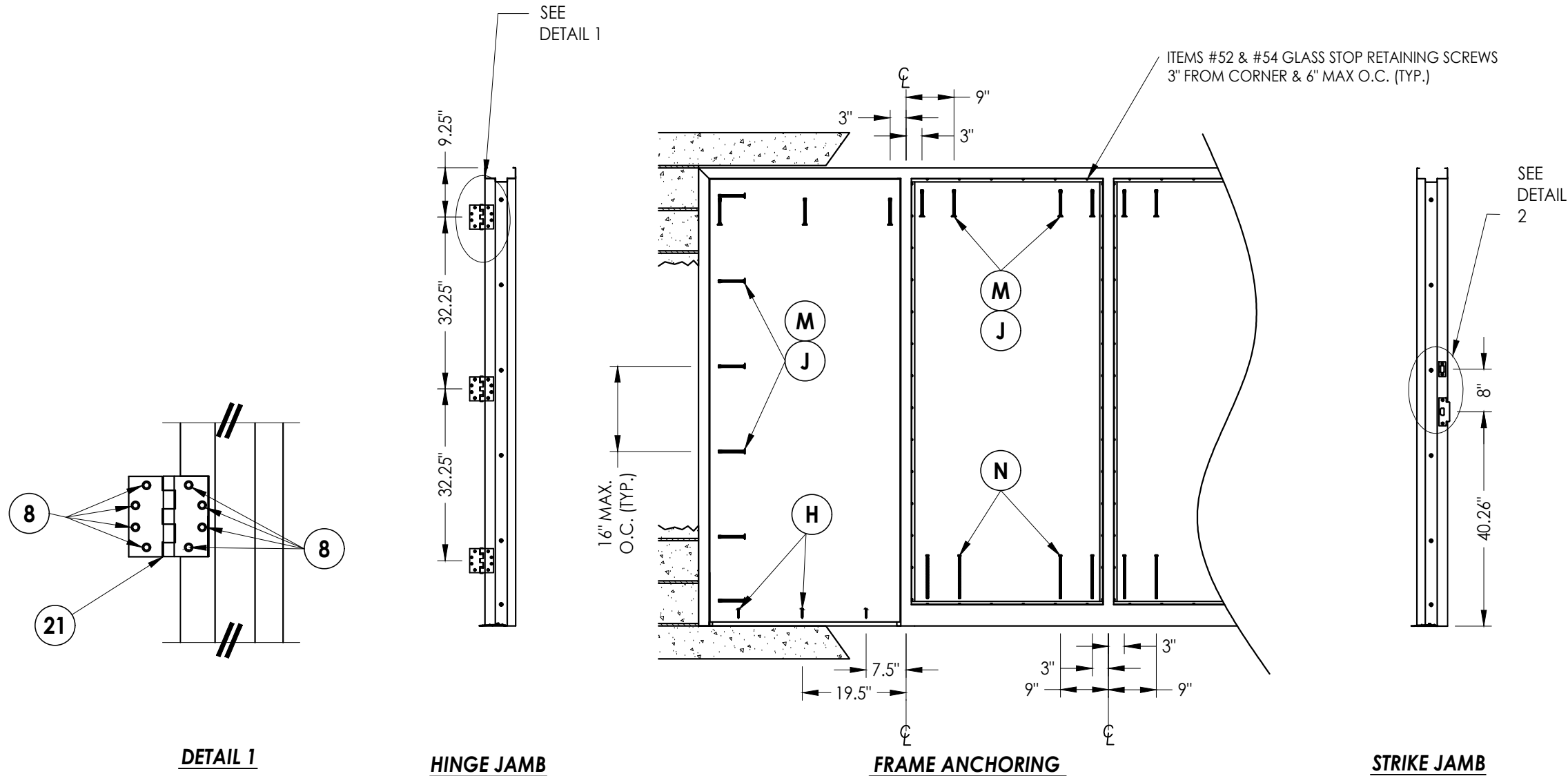
NO.	DATE	REVISIONS
4	7/11/23	UPDATE TO 8TH ED. (2023) FBC LFS
3	7/30/20	UPDATE TO 7TH ED. (2020) FBC DAC
2	7/18/17	UPDATE TO 6TH ED. (2017) FBC LFS
1	10/14/16	UPDATE TO 5TH ED. (2014) FBC JK
		BY

DATE:	11/3/08
SCALE:	N.T.S.
DWG. BY:	AL
CHK. BY:	LFS
DRAWING NO.:	FL-12186.6
SHEET	6 OF 10

PRODUCT:	MMI "N" STEEL DOOR
PART OR ASSEMBLY:	VERTICAL CROSS SECTIONS

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CONCRETE ANCHOR NOTES:

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
- Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2-1/2"	4"
DYNABOLT SLEEVE ANCHOR	3/8"	1-1/2"	2-1/4"	4-1/2"
TAPPER	3/8"	1-1/2"	4-1/4"	6"
SCREW-BOLT+™	1/2"	2-1/2"	6"	6"

- Embedment may be through 1-1/4" face shell of hollow block.

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FBPE Registry No. 9813

PRODUCT:
MMI
"N" STEEL DOOR

PART OR ASSEMBLY:
ANCHORING DETAILS

NO.	DATE	REVISIONS
4	7/11/23	UPDATE TO 8TH ED. (2023) FBC LFS
3	7/30/20	UPDATE TO 7TH ED. (2020) FBC DAC
2	7/18/17	UPDATE TO 6TH ED. (2017) FBC LFS
1	10/14/16	UPDATE TO 5TH ED. (2014) FBC JK

DATE: 11/3/08

SCALE: N.T.S.

DWG. BY: AL

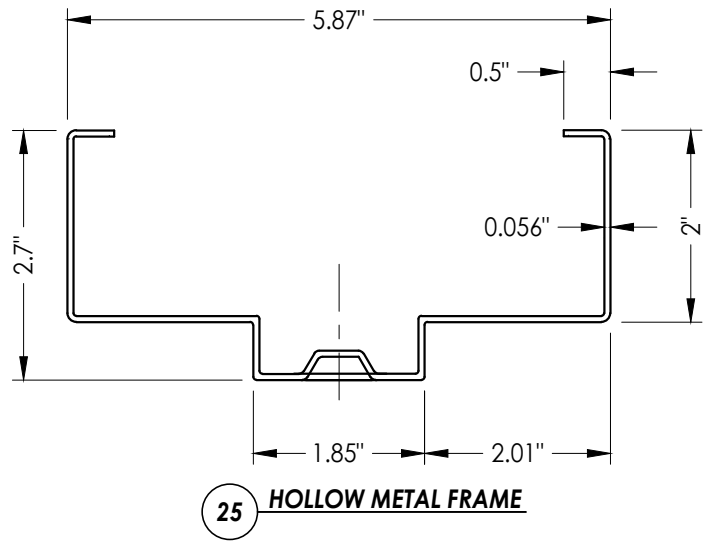
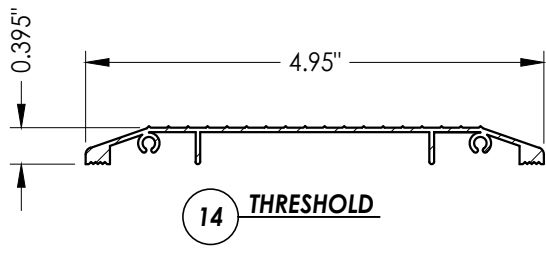
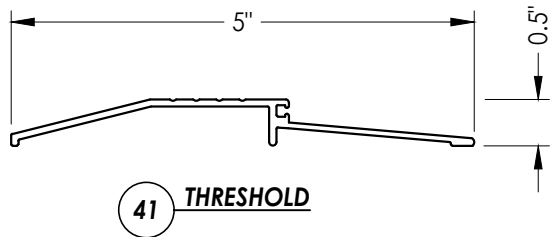
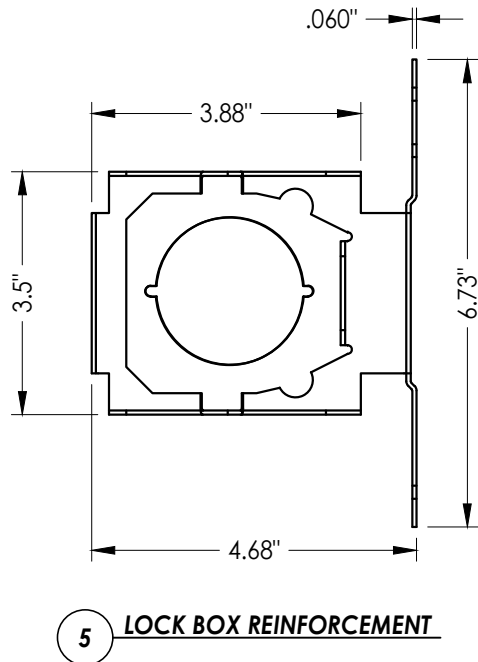
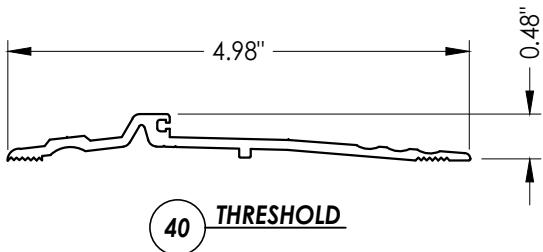
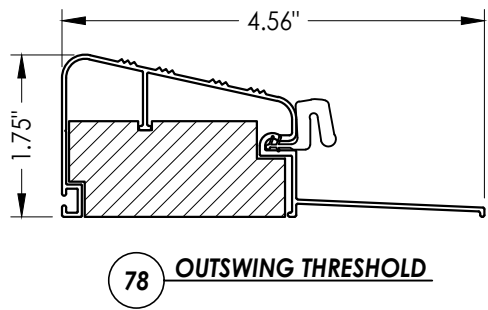
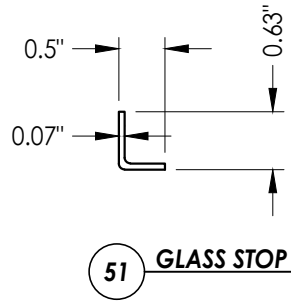
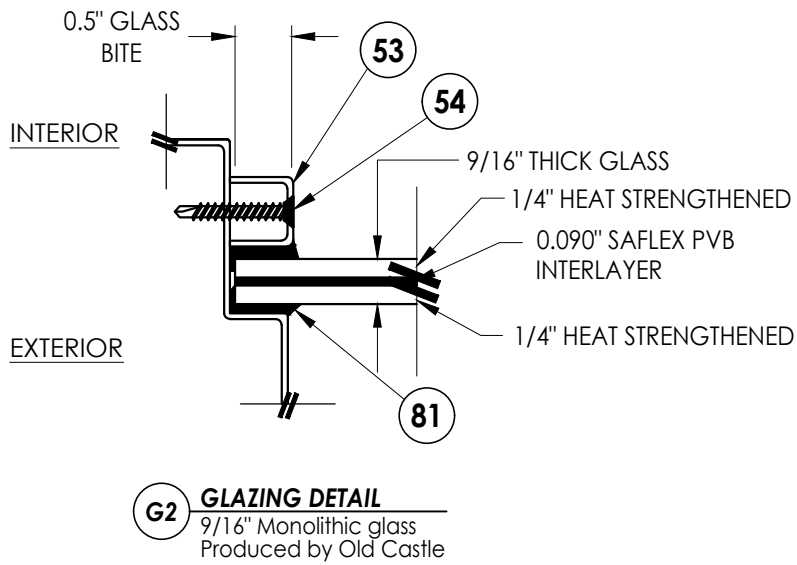
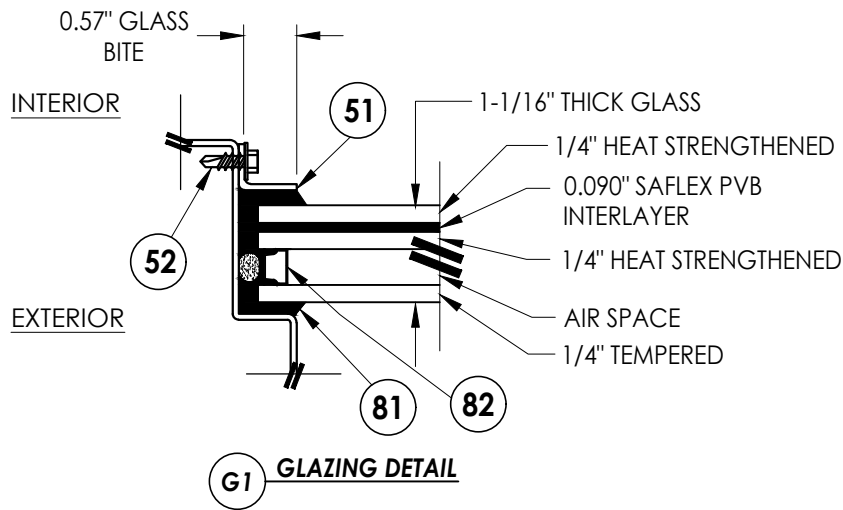
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DRAWING NO.:

FL-12186.6

SHEET 7 OF 10

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P.O. Box 230, Valrico, FL 33595
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FBPE Registry No. 9813

PRODUCT:	MMI
	"N" STEEL DOOR
PART OR ASSEMBLY:	GLAZING DETAILS & COMPONENTS

NO.	DATE	REVISIONS			
		BY	JK	LFS	DAC
4	7/11/23	UPDATE TO 8TH ED.	(2023)	FBC	LFS
3	7/30/20	UPDATE TO 7TH ED.	(2020)	FBC	DAC
2	7/18/17	UPDATE TO 6TH ED.	(2017)	FBC	LFS
1	10/14/16	UPDATE TO 5TH ED.	(2014)	FBC	JK

DATE: 11/3/08

SCALE: N.T.S.

DWG. BY: AL

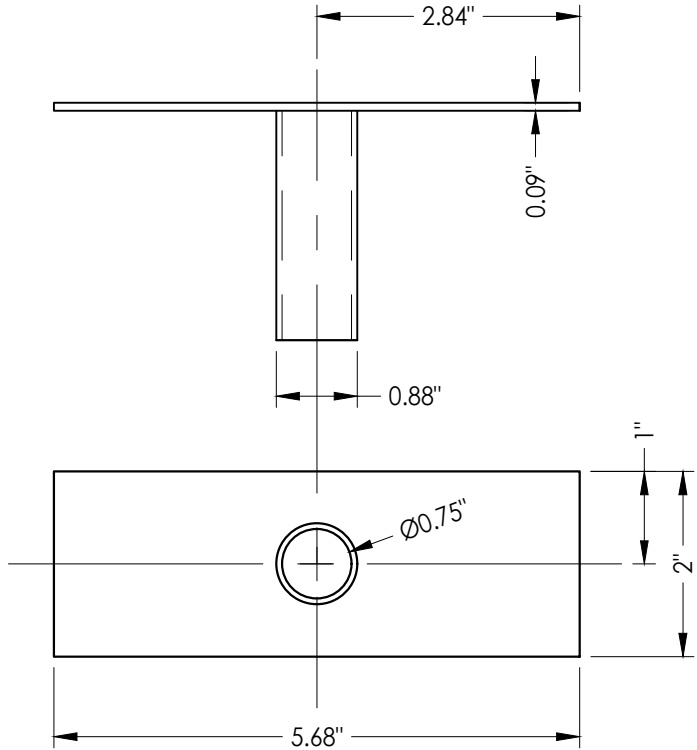
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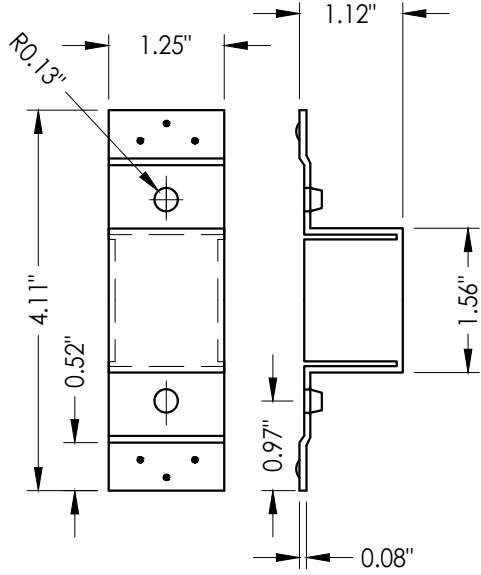
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SHEET 8 OF 10

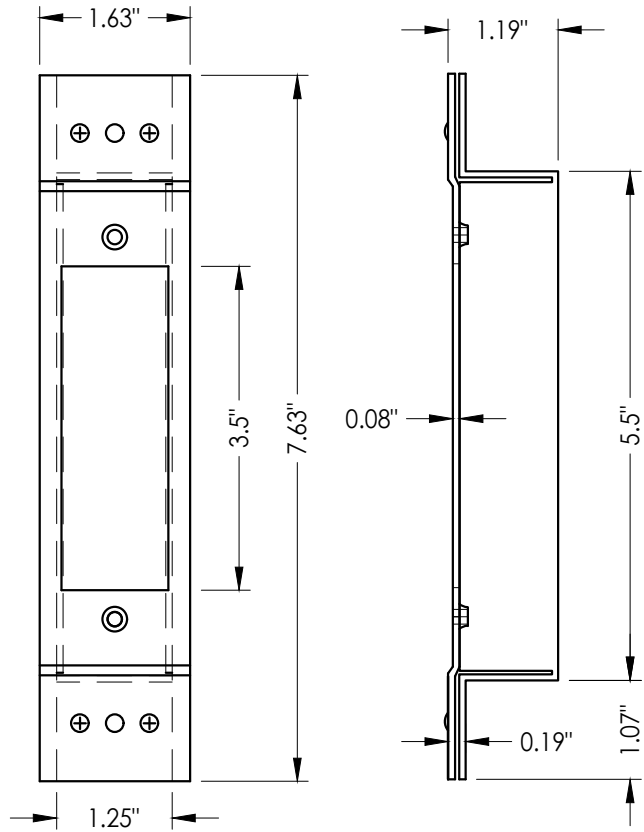
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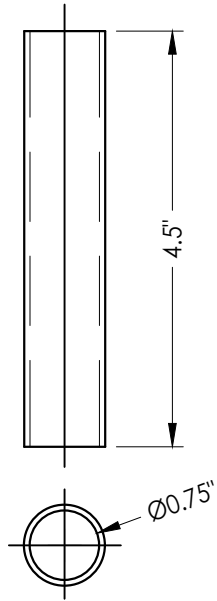
9 TUBE ANCHOR



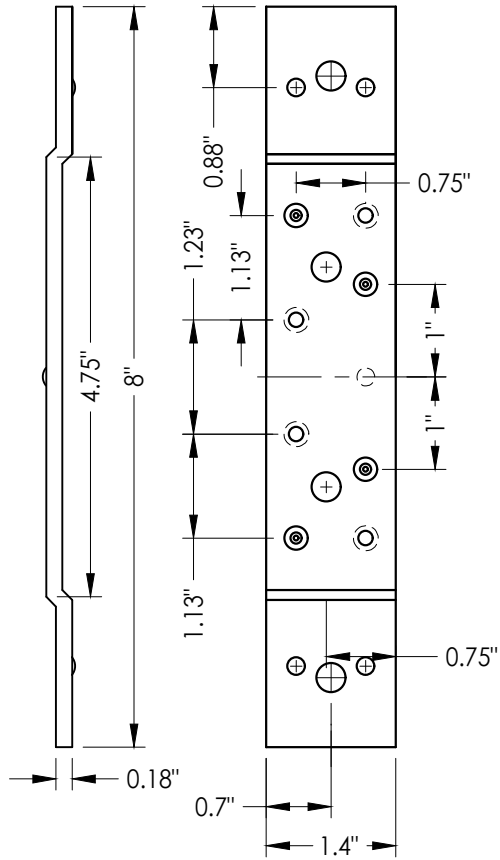
19 DEADBOLT STRIKE REINFORCEMENT



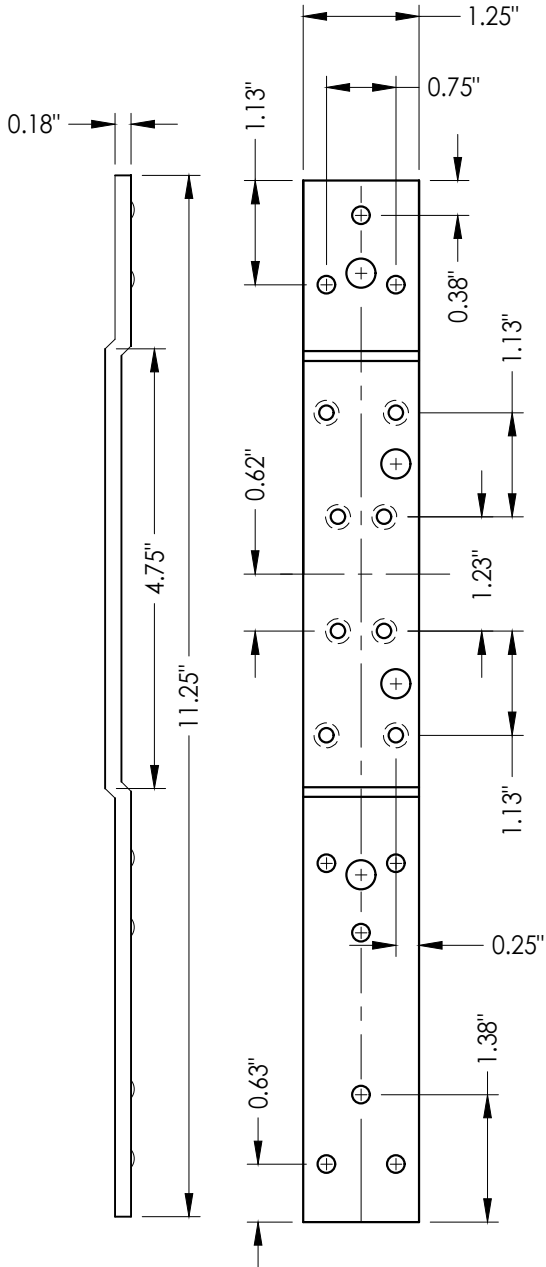
27 LATCH STRIKE REINFORCEMENT



83 SILL TUBE ANCHOR



23 STANDARD (SHORT) DOOR HINGE
Reinforcement middle and bottom hinge



22 STANDARD (LONG) DOOR HINGE
Reinforcement top hinge

DATE		NO.		DATE		REVISIONS	
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3	7/30/20	UPDATE TO 7TH ED.	(2020)	FBC	DAC		
2	7/18/17	UPDATE TO 6TH ED.	(2017)	FBC	LFS		
1	10/14/16	UPDATE TO 5TH ED.	(2014)	FBC	JK		
NO.		DATE		REVISIONS			

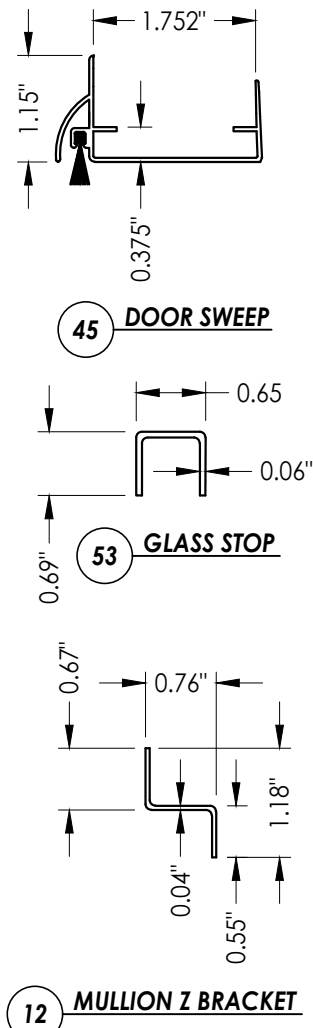
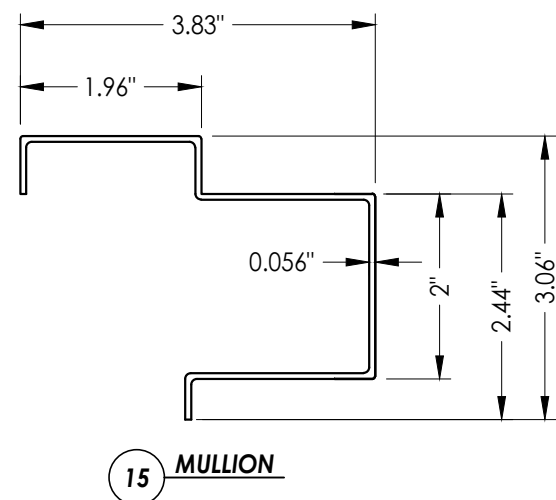
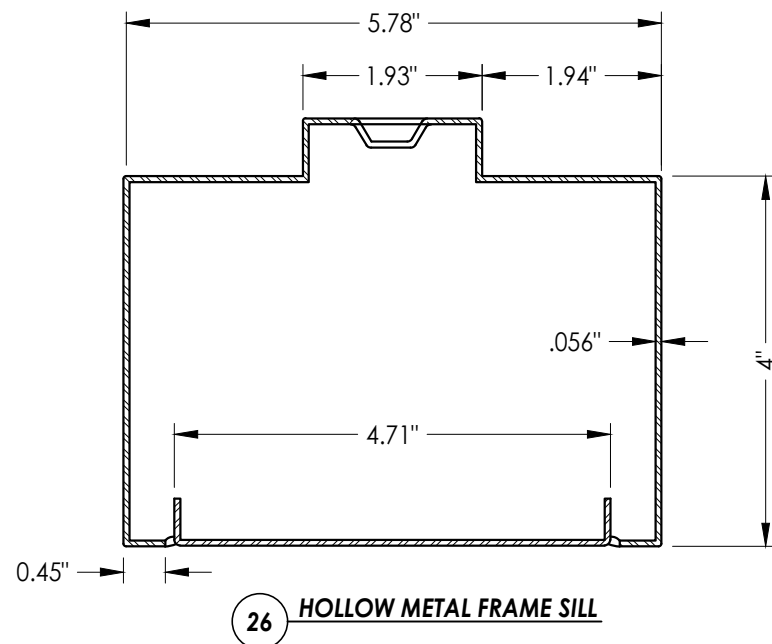
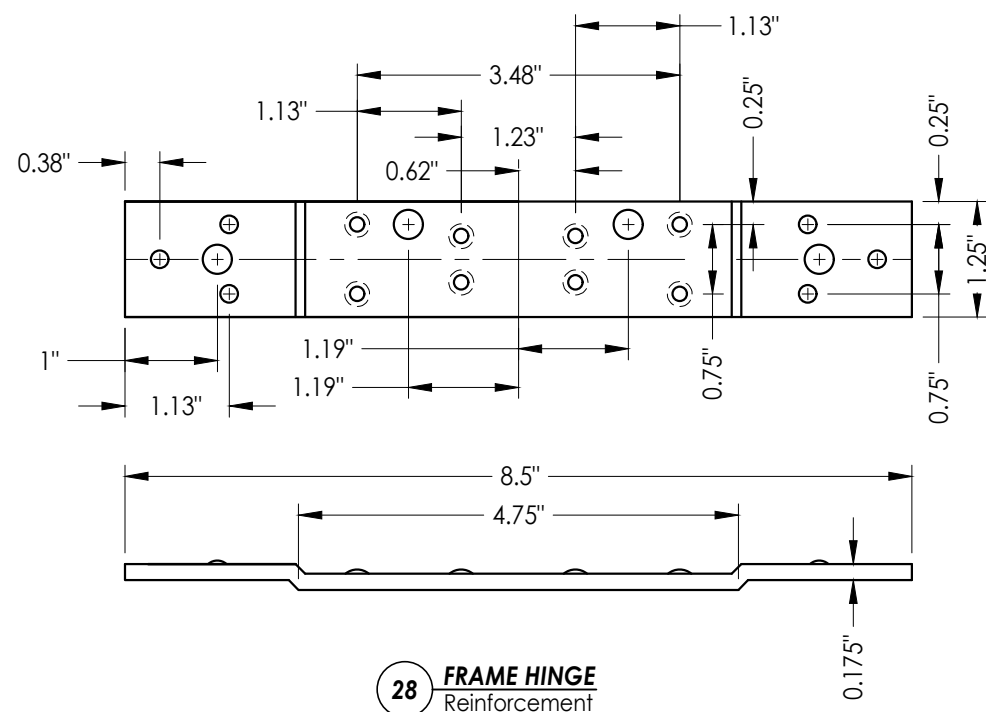
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SHEET 9 OF 10

PRODUCT:		PART OR ASSEMBLY:	
MMI "N" STEEL DOOR		COMPONENTS	

Documents Prepared By:
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P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

BILL OF MATERIALS					
ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
C	MAX. 1/4" SHIM SPACE	-	23	STANDARD (SHORT) DOOR HINGE MIDDLE BOTTOM REINFORCEMENT	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE	24	WEATHER STRIP (THRESHOLD)	NEOPRENE
			25	FRAME 5-3/4" X 2" MIN. (0.056" THK) BY MMI	STEEL
H	1/4" x 1-3/4" ITW PFH CONCRETE SCREW	STEEL	26	FRAME SILL 5-3/4" X 4" MIN. (0.056" THK) BY MMI	STEEL
J	3/8" X 5" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL	27	LATCH STRIKE REINFORCEMENT	STEEL
M	3/8" X 5" TAPPER CONCRETE SCREW BY POWERS FASTENERS	STEEL	28	FRAME HINGE REINFORCEMENT	STEEL
N	1/2" X 8" HH SCREW-BOLT+ CONC. ANCHOR (DeWALT/POWERS)	STEEL	29	COLUMBIA DOOR BOTTOM SWEEP #2580	ALUMINUM
1	"N" OPAQUE STEEL DOOR PANEL	-	40	THRESHOLD NATIONAL GUARD PRODUCTS, INC. #896	ALUMINUM
2	DOOR SKIN (0.042" THK. STEEL, Fy = 40,300 PSI MIN.)	STEEL	41	THRESHOLD NATIONAL GUARD PRODUCTS, INC. #950	ALUMINUM
3	FOAM 1.0 PCF MIN. DENSITY	POLYSTYRENE	45	95WHA DOOR SWEEP NATIONAL GUARD PRODUCTS, INC.	ALUMINUM
4	DOOR TOP & BOTTOM CLOSER	STEEL	46	#6 X 3/4" PHILIPS HEAD SMS	STEEL
5	LOCK BOX REINFORCEMENT	STEEL	51	L-CHANNEL GLASS STOP	STEEL
6	CLOSER REINFORCEMENT	STEEL	52	#8 X .5" HH SELF DRILLING SCREW	STEEL
8	#12-24 x 1/2" SELF TAPPER	STEEL	53	U-CHANNEL GLASS STOP	STEEL
9	TUBE ANCHOR	STEEL	54	#8 X 1.25" PFH SMS	STEEL
10	#12-24 x 1.0" COMBINATION MACHINE / WOOD SCREW	STEEL	70	SCHLAGE LOCK SET ASSEMBLY ND53PD	STEEL
12	MULLION Z BRACKET	STEEL	71	DESIGN HARDWARE D1-S SERIES DEADBOLT	STEEL
14	COLUMBIA ADA THRESHOLD #6510	ALUMINUM	72	DESIGN HARDWARE "Z" SERIES ENTRY	STEEL
15	MULLION MIN. (0.056" THK) BY MMI	STEEL	76	DESIGN HARDWARE D2-S SERIES DEADBOLT	STEEL
16	ANSI LATCH STRIKE	STEEL	77	DESIGN HARDWARE "X" SERIES ENTRY	STEEL
17	DEADBOLT STRIKE	STEEL	78	OUTSWING THRESHOLD QOSH BY DLP	ALUM/WOOD
19	DEADBOLT STRIKE REINFORCEMENT	STEEL	79	WEATHER-STRIP	FOAM
20	WEATHER-STRIP	NEOPRENE	81	DOW 995 STRUCTURAL SILICONE	SILICONE
21	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL	82	GLASS SPACER	ALUMINUM
22	STANDARD (LONG) DOOR HINGE TOP HINGE REINFORCEMENT	STEEL	83	SILL TUBE ANCHOR	STEEL



DATE: 11/3/08					
SCALE: N.T.S.					
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SHEET 10 OF 10					

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