

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.1-3.dwg

FIBERGLASS OPAQUE

SINGLE DOOR

INSWING/OUTSWING

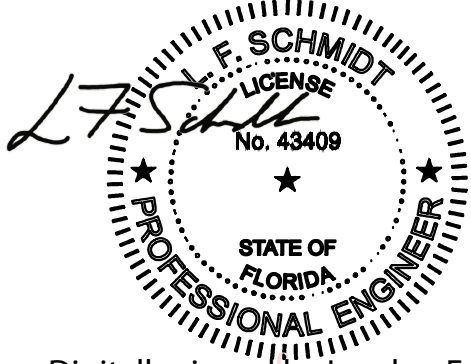
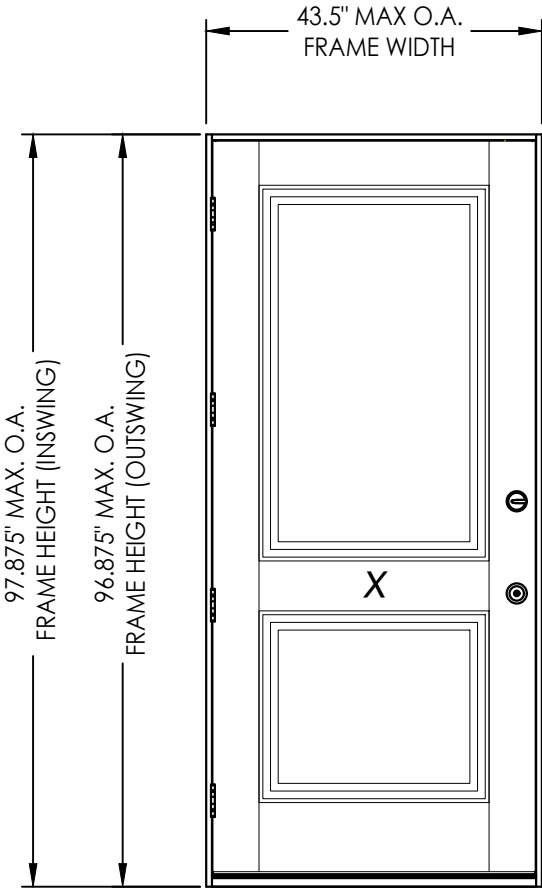
"IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 9th Edition (2026) 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 FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996.
4. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical Elevations, Design Pressures & General Notes
2	Door Panel Details
3	Elevation
4	Horizontal & Vertical Cross Sections (2X Buck)
5	Horizontal & Vertical Cross Sections (1X Buck)
6	Vertical Cross Sections (Thresholds)
7	Buck & Frame Anchoring
8	Hardware Details
9	Bill of Materials & Components

CONFIGURATION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	+75.0	-85.0	+75.0	-75.0



Digitally signed by Lyndon F Schmidt
Date: 2026.07.22 17:02:56 -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

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

PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

DATE: 02/09/17

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
FL-21852.3

SHEET 1 OF 9

Part or Assembly:
TYPICAL ELEVATION, DESIGN
PRESSURES & GENERAL NOTES

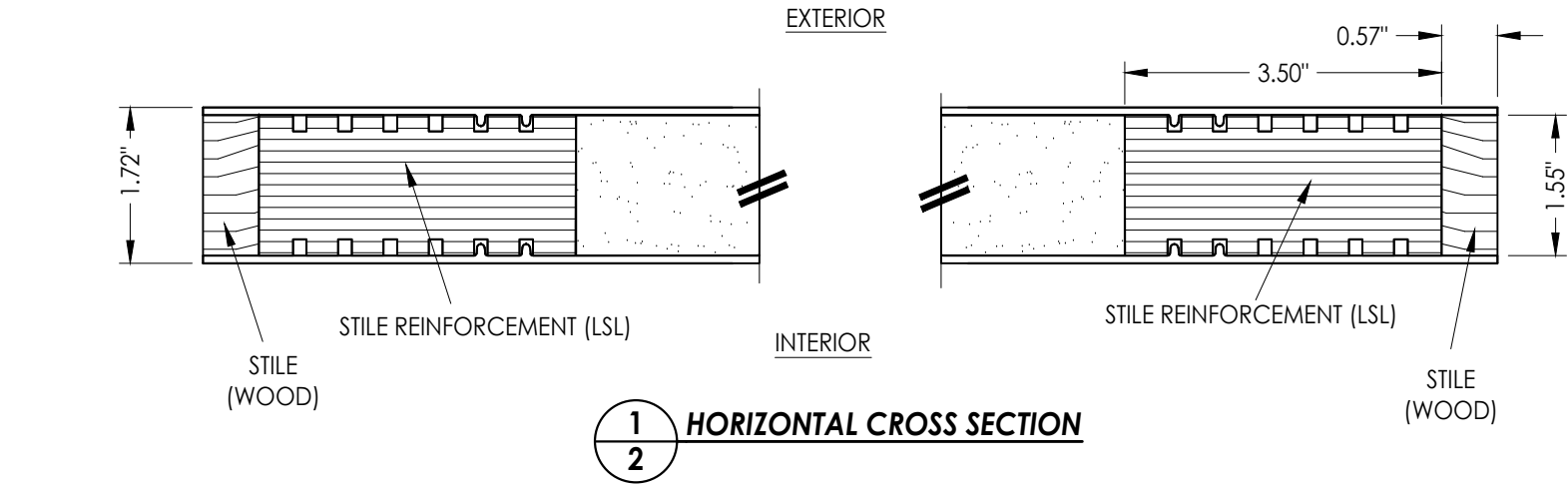
REVISIONS

NO.	DATE	BY
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC
3	7/01/23	UPDATE TO 8TH ED. (2023) FBC
2	7/08/20	UPDATE TO 7TH ED. (2020) FBC
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC

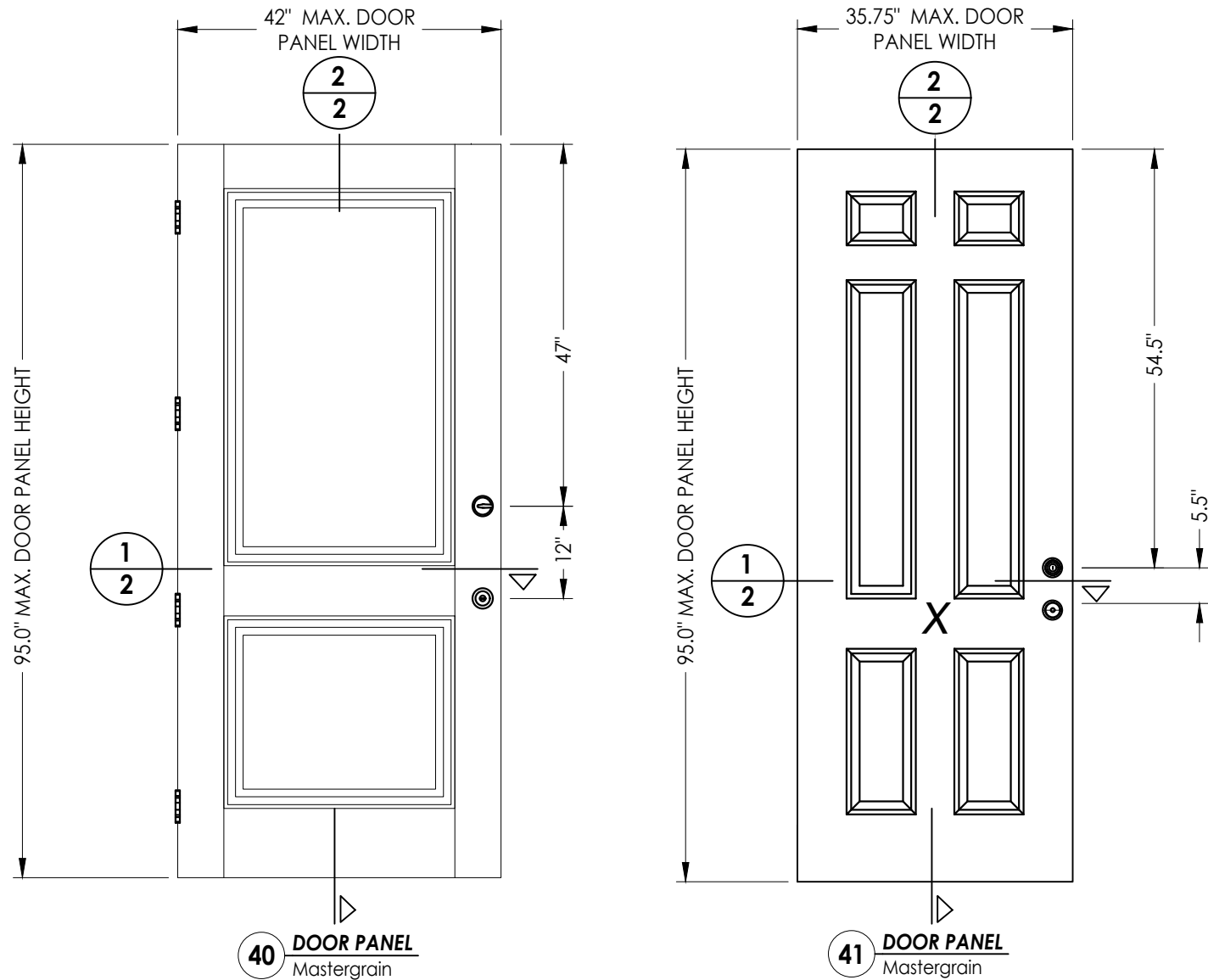
Building Consultants, Inc.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

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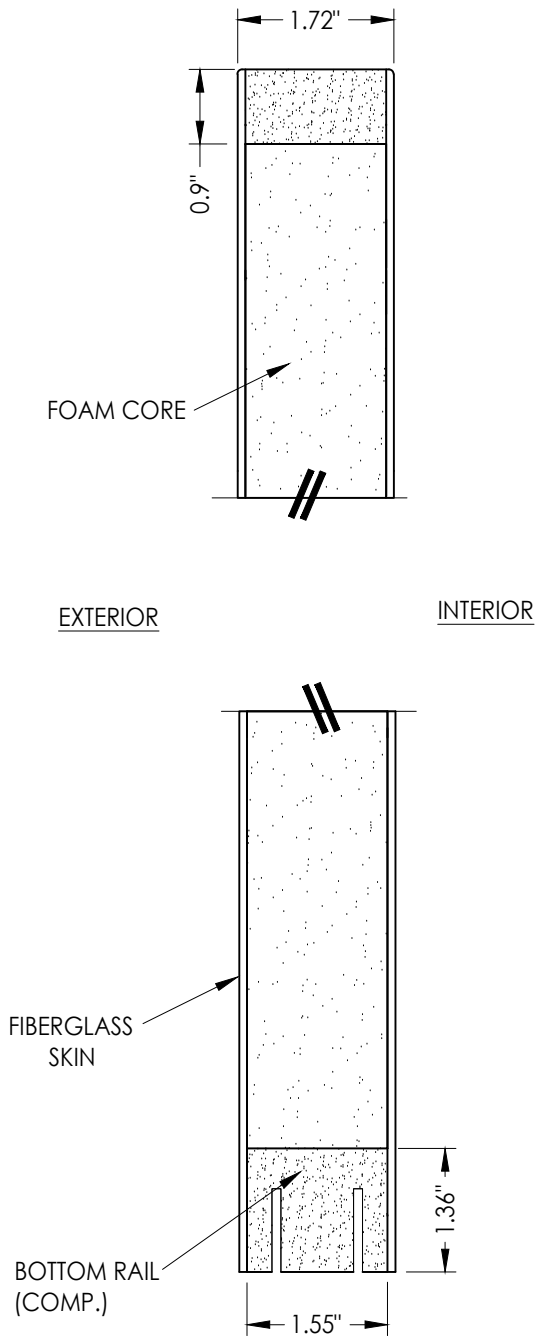
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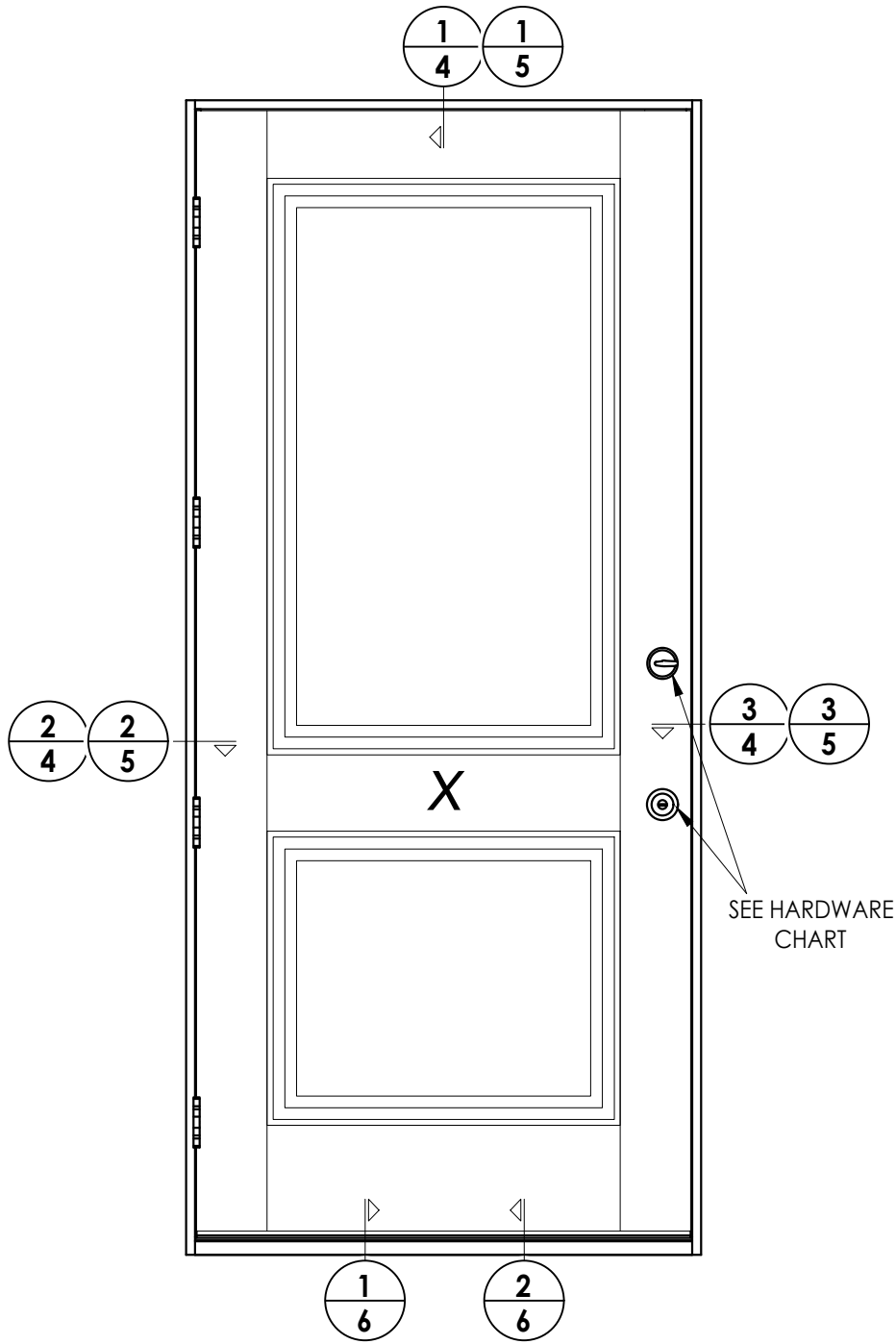
1
2 HORIZONTAL CROSS SECTION



2
2 VERTICAL CROSS SECTION



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PRODUCT:		MASTERGRAIN FIBERGLASS DOOR		PART OR ASSEMBLY: DOOR PANEL DETAILS	
		LFS		JK	
		LFS		BY	
		LFS		REVISIONS	
		4		7/01/26	
		3		7/01/23	
		2		7/08/20	
		1		10/03/17	
		NO.		DATE	
		DATE: 02/09/17			
		SCALE: N.T.S.			
		DWG. BY: JK			
		CHK. BY: LFS			
		DRAWING NO.: FL-21852.3			
		SHEET 2 OF 9			



HARDWARE TABLE		
MANUFACTURER	MODEL	MAX. DESIGN PRESSURE
PAMEX	Knob: FLU600 Deadbolt: FD261	55 PSF
KWIKSET	Knob: SIGNATURE SERIES Deadbolt: SIGNATURE SERIES (980)	85 PSF
SCHLAGE	Knob: F51 Deadbolt: B60N	85 PSF
HOPPE	MULTIPOINT: HLS™ ONE (3 pt. Manual Tongue)	85 PSF

PRODUCT: MASTERGRAIN FIBERGLASS DOOR

PART OR ASSEMBLY: ELEVATION

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		NO.	DATE	BY	
	4	7/01/26	UPDATE TO 9TH ED. (2026)	FBC	LFS
	3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC	LFS
	2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC	LFS
	1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC	JK

DATE: 02/09/17

SCALE: N.T.S.

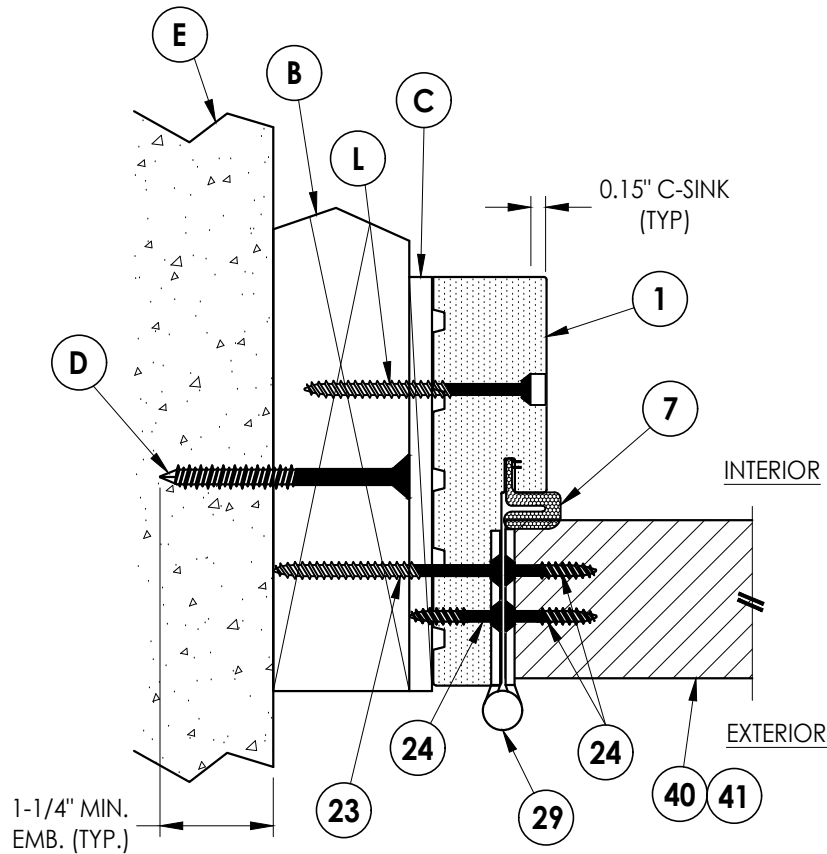
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CHK. BY: LFS

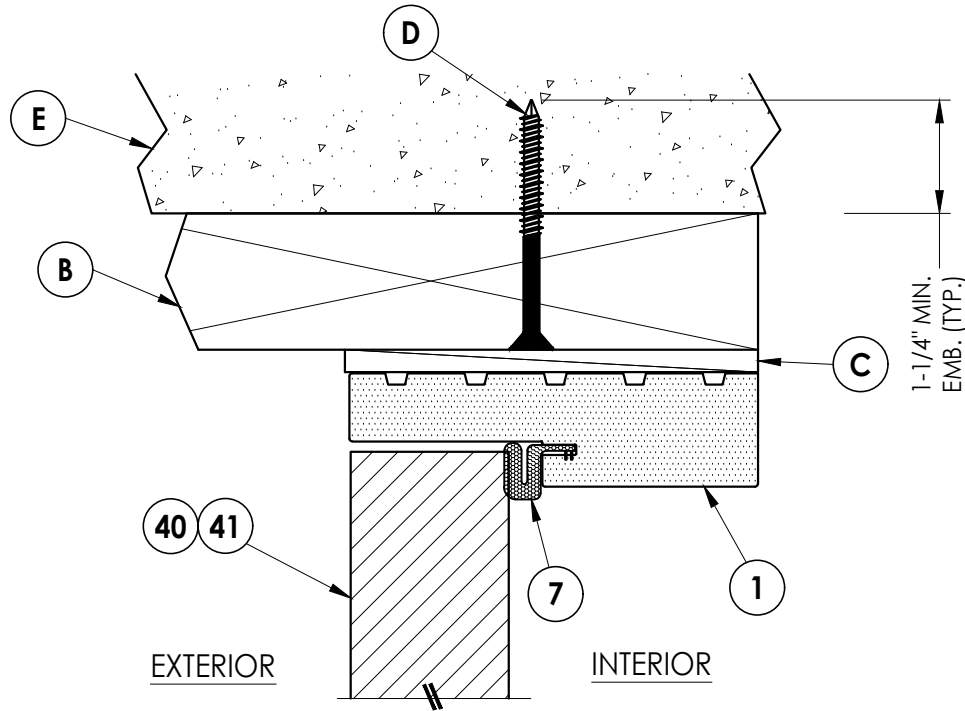
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SHEET 3 OF 9

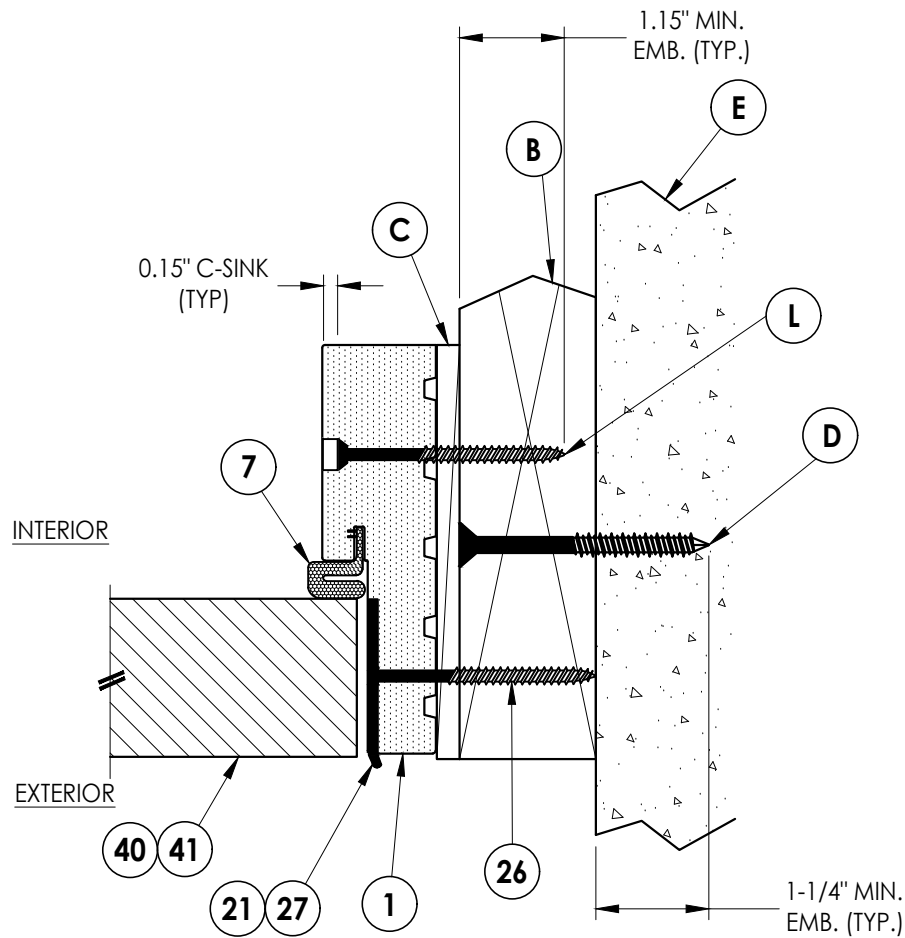
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2 HORIZONTAL CROSS SECTION
4 Shown w/ 2X Buck
Outswing shown (Inswing similar)



1 VERTICAL CROSS SECTION
4 Shown w/ 2X Buck
Outswing shown (Inswing similar)



3 HORIZONTAL CROSS SECTION
4 Shown w/ 2X Buck
Outswing shown (Inswing similar)

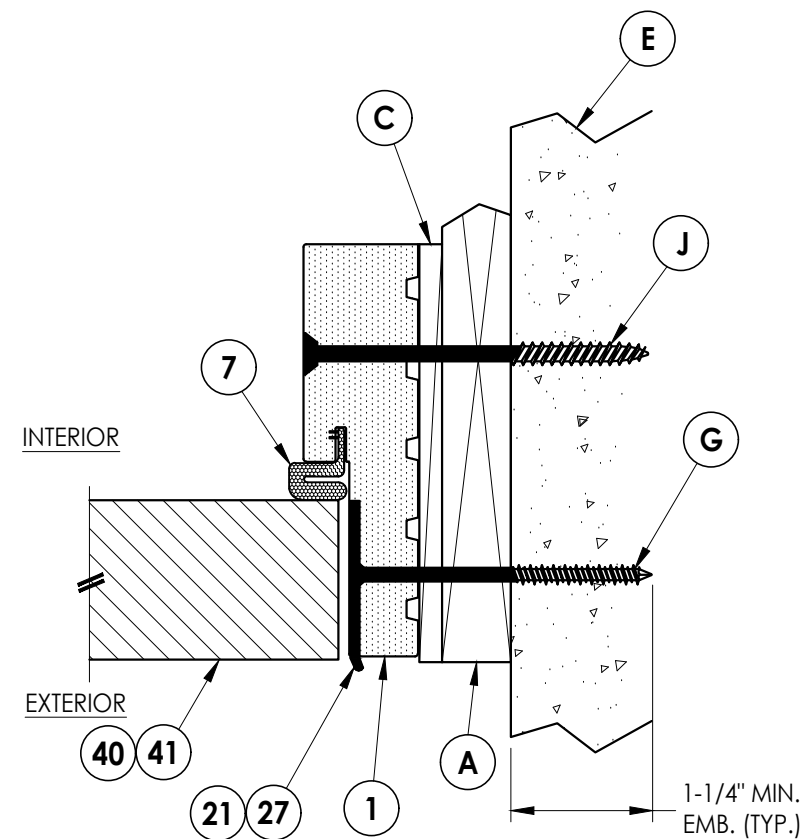
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PRODUCT: MASTERGRAIN FIBERGLASS DOOR		PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)	
4	7/01/26	UPDATE TO 9TH ED. (2026)	FBC
3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC
2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC
1	10/03/17	UPDATE TO 6TH ED. (2017)	JK
NO.	DATE	REVISIONS	
DATE: 02/09/17			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-21852.3			
SHEET 4 OF 9			

1X BUCK TO BE SECURED TO MASONRY BY OTHERS

EXTERIOR INTERIOR

The diagram shows a cross-section of a building assembly. From top to bottom, the layers are: a concrete slab with aggregate (labeled E), a thin layer (labeled A), a layer of insulation with a grid of buckles (labeled C), and a masonry wall (labeled 1). A metal fastener (labeled 7) is shown securing the insulation layer to the masonry wall. The exterior side is on the left and the interior side is on the right. A break symbol is shown at the bottom of the masonry wall. Callouts 40 and 41 point to the masonry wall.

1 **VERTICAL CROSS SECTION**
5 Shown w/ 1X sub-buck
 Outswing shown (Inswing similar)



3 **HORIZONTAL CROSS SECTION**
5 Shown w/ 1X sub-buck
 Outswing shown (Inswing similar)

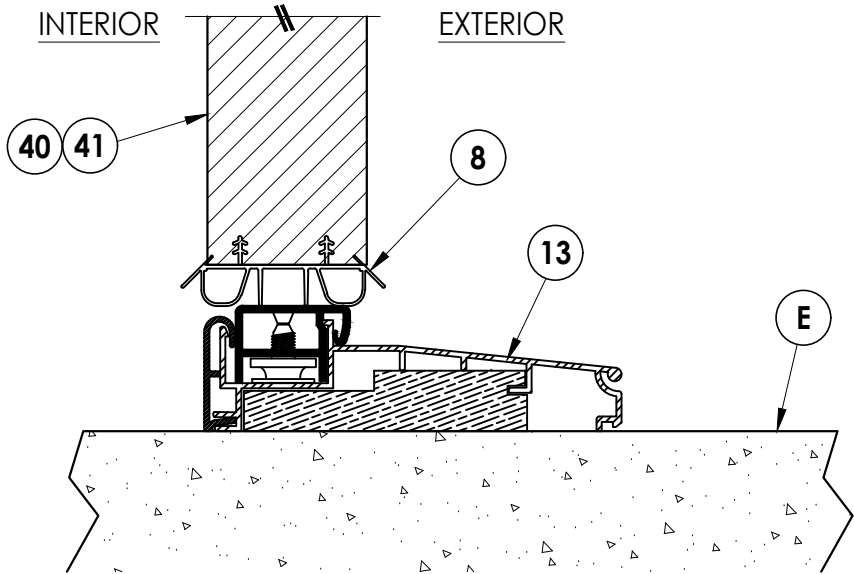
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3	7/01/23	UPDATE TO 8TH ED.	(2023)	FBC LFS
2	7/08/20	UPDATE TO 7TH ED.	(2020)	FBC LFS
1	10/03/17	UPDATE TO 6TH ED.	(2017)	FBC JK
NO.	DATE	REVISIONS		

DATE:	02/09/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-21852.3
SHEET	5 OF 9

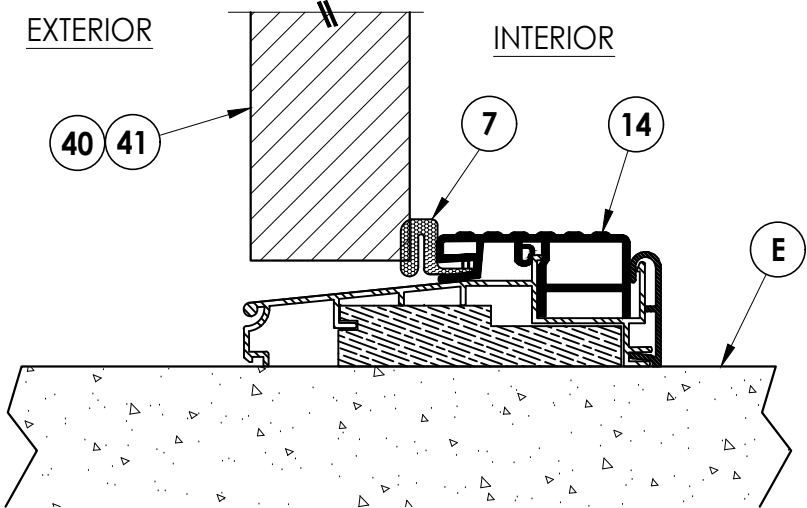
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P.E. No. 43409

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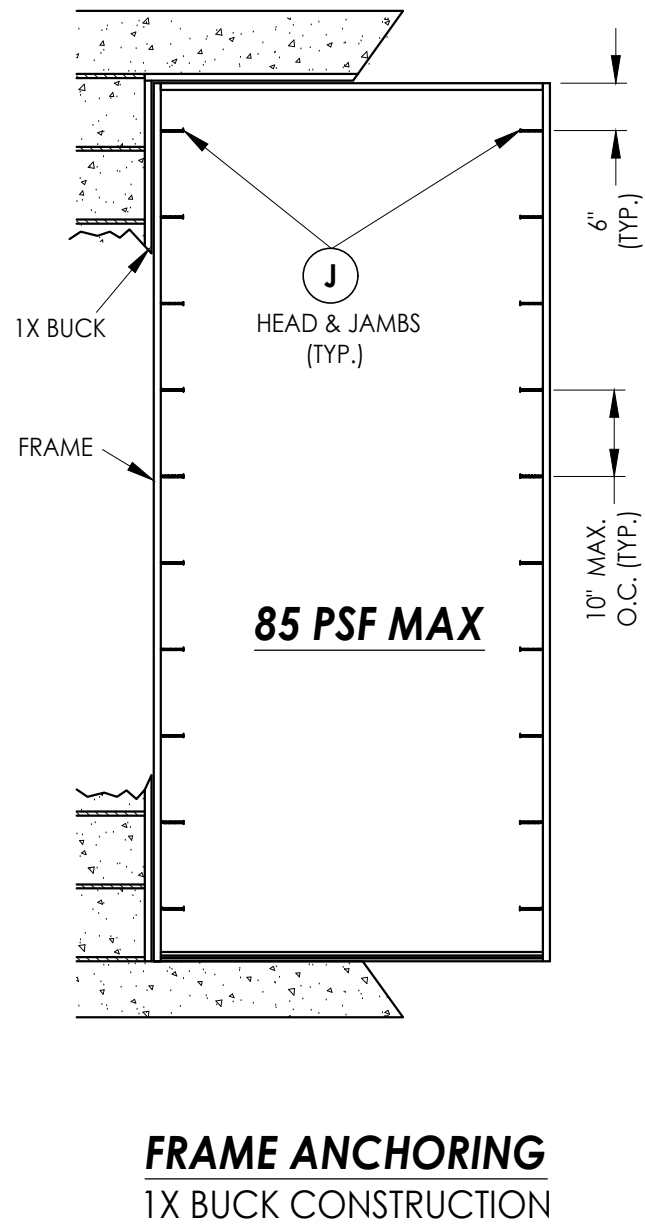
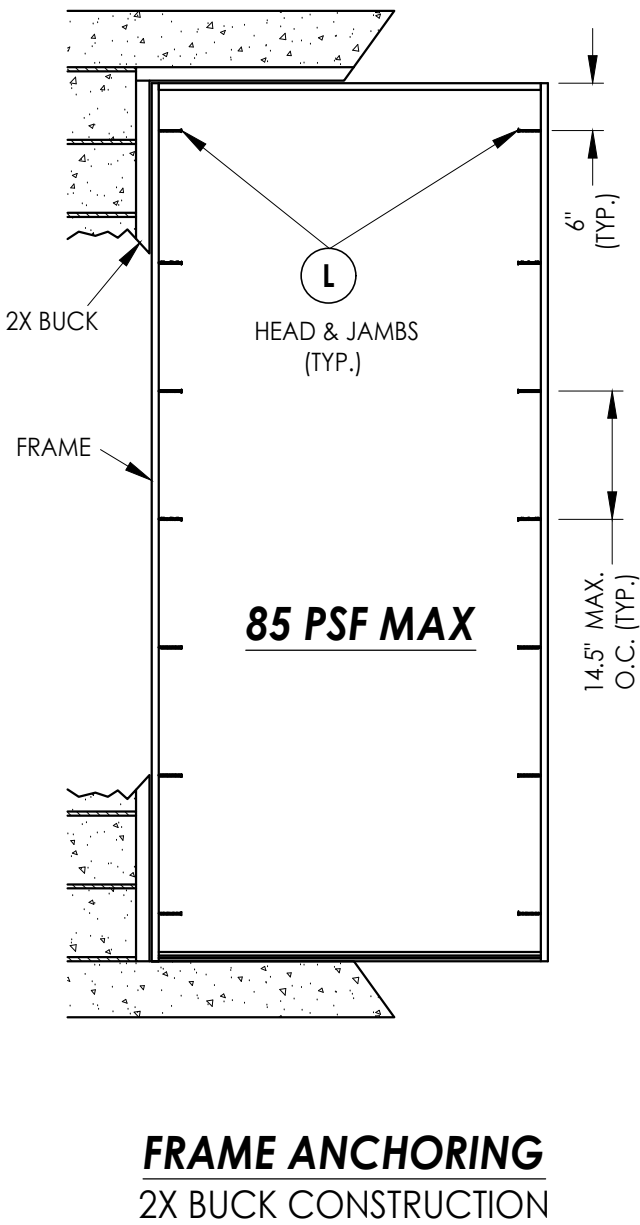
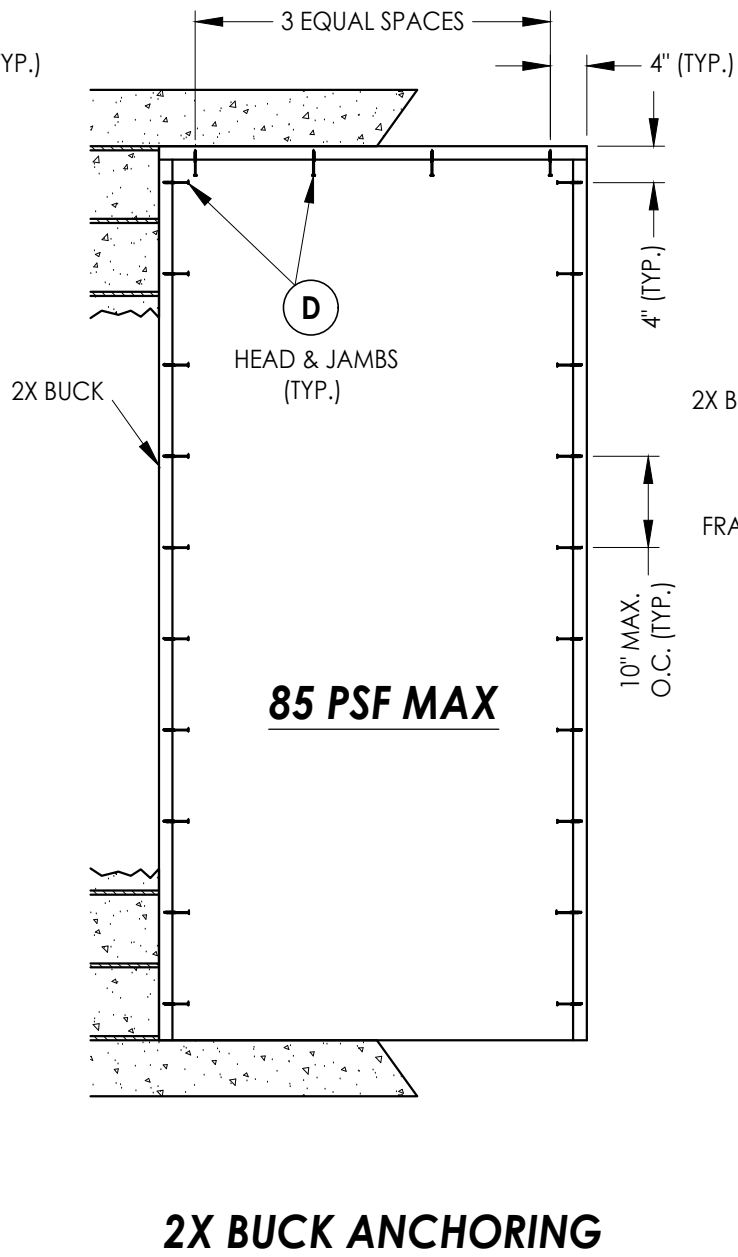
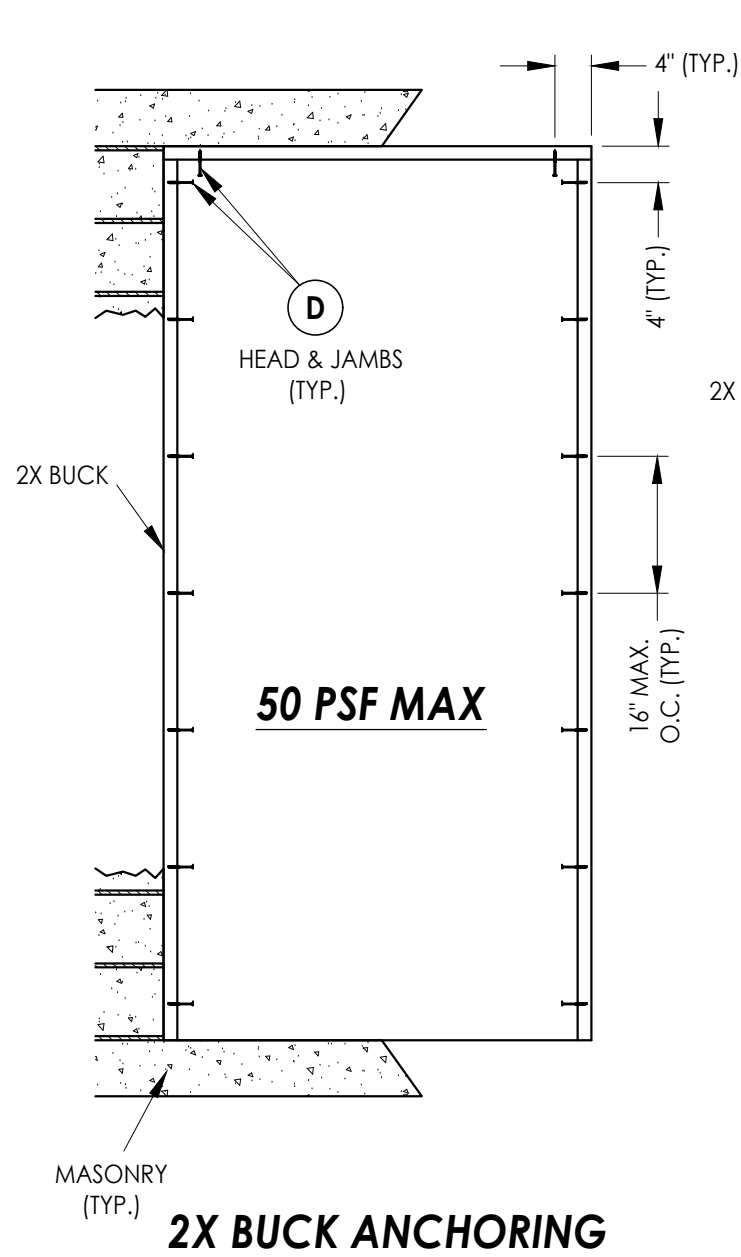
1
6 VERTICAL CROSS SECTION
Inswing Sill



2
6 VERTICAL CROSS SECTION
Outswing Sill

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PRODUCT: MASTERGRAIN FIBERGLASS DOOR		PART OR ASSEMBLY: VERTICAL CROSS SECTIONS (THRESHOLDS)	
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3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC LFS
2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC LFS
1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC JK
NO.	DATE		BY
REVISIONS			
DATE: 02/09/17			
SCALE: N.T.S.			
DWG. BY: JK			
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DRAWING NO.: FL-21852.3			
SHEET 6 OF 9			

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NOTE:
1. ALL FRAME CORNERS SECURED WITH (3) #8 X 2-1/2" FH DEEP THREAD WOOD SCREWS @ HEAD & SILL.

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			1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC			JK
			NO.	DATE					BY
REVISIONS									
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SCALE: N.T.S.									
DWG. BY: JK									
CHK. BY: LFS									
DRAWING NO.: FL-21852.3									
SHEET 7 OF 9									

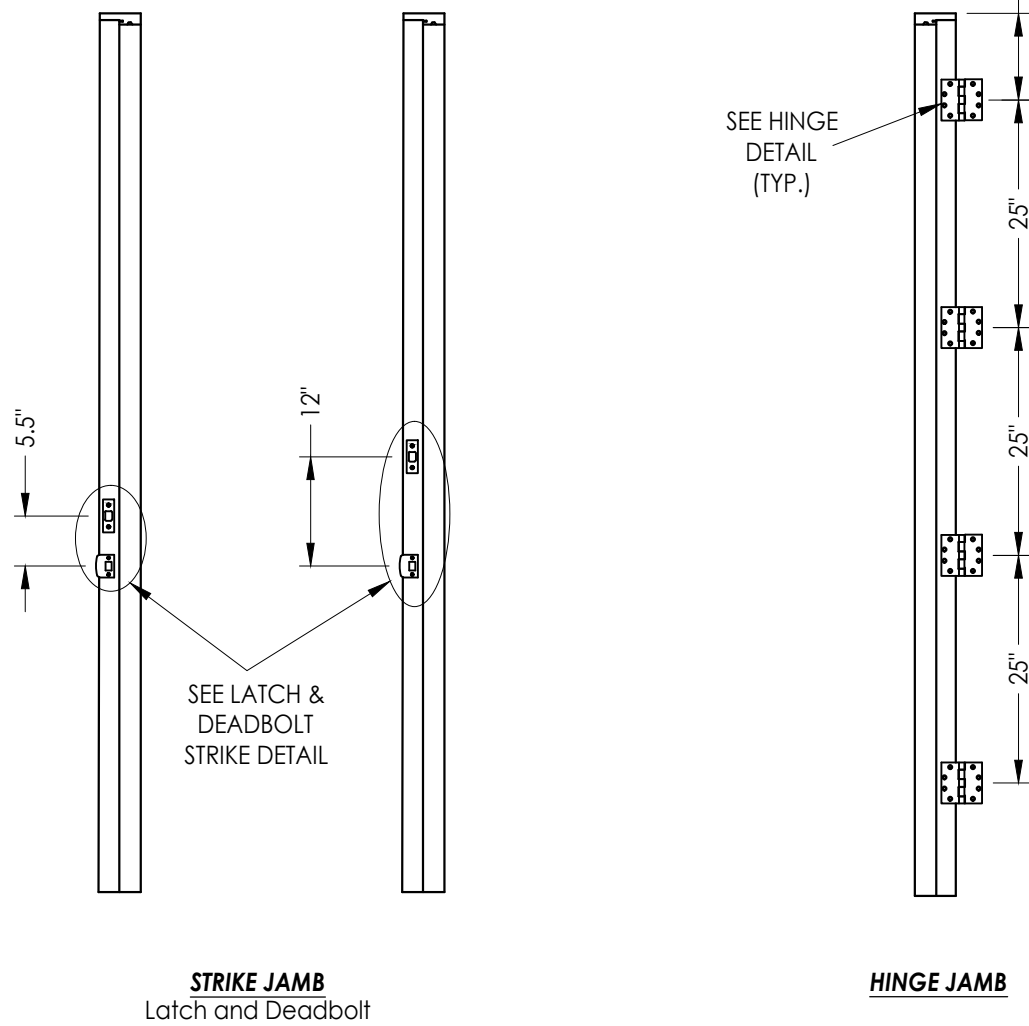
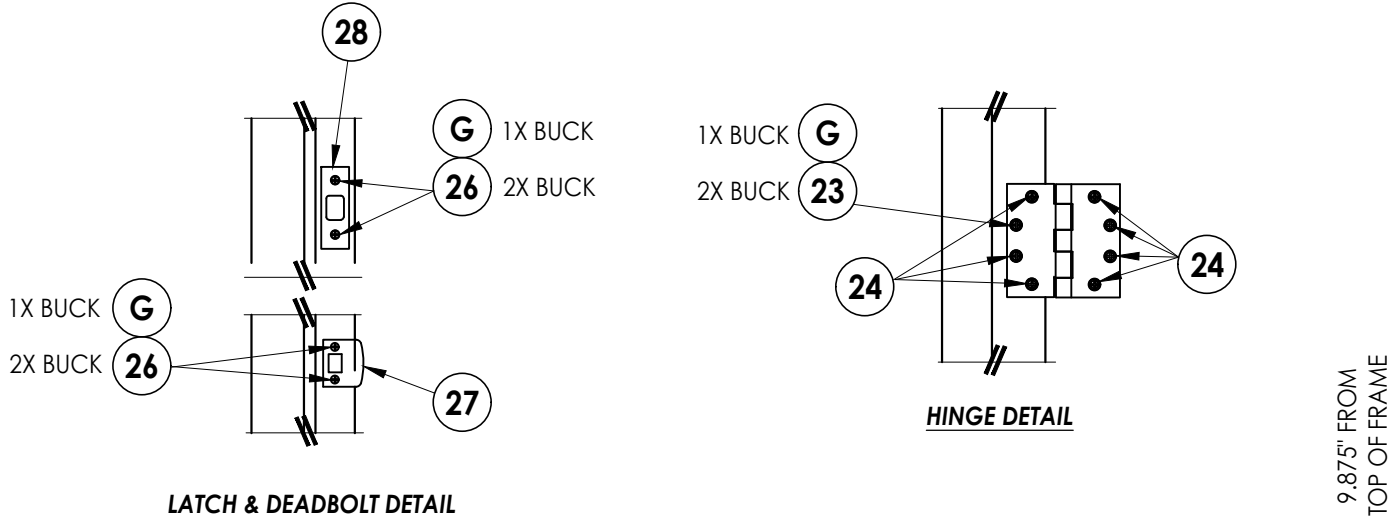
DATE: 02/09/17
SCALE: N.T.S.
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CHK. BY: LFS
DRAWING NO.: FL-21852.3
SHEET 7 OF 9

PRODUCT:		PART OR ASSEMBLY:	
MASTERGRAIN FIBERGLASS DOOR		BUCK & FRAME ANCHORING	

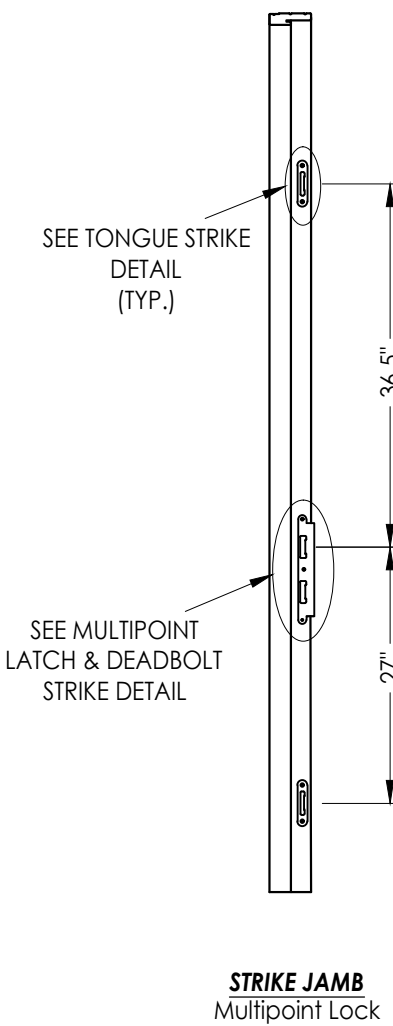
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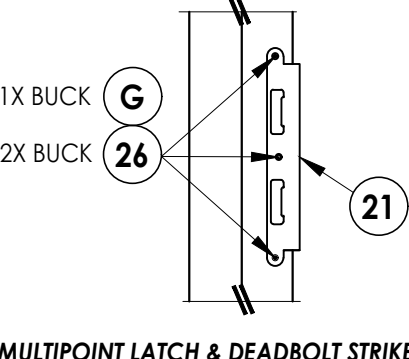
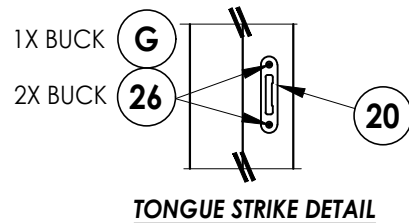
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LATCH & DEADBOLT HARDWARE DETAILS



MULTIPOINT LOCK HARDWARE DETAILS



Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		PRODUCT: MASTERGRAIN FIBERGLASS DOOR		DATE: 02/09/17	
BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813		PART OR ASSEMBLY: HARDWARE DETAILS		SCALE: N.T.S.	
				DWG. BY: JK	
				CHK. BY: LFS	
				DRAWING NO.: FL-21852.3	
				SHEET 8 OF 9	
				REVISIONS	
				NO. DATE	
				4 7/01/26 UPDATE TO 9TH ED. (2026) FBC LFS	
				3 7/01/23 UPDATE TO 8TH ED. (2023) FBC LFS	
				2 7/08/20 UPDATE TO 7TH ED. (2020) FBC LFS	
				1 10/03/17 UPDATE TO 6TH ED. (2017) FBC JK	

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BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG >= 0.42)	WOOD
B	2X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	3/16" X 3-1/4" PFH ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	COMPOSITE JAMB	COMP
7	WEATHERSTRIP	FOAM
8	SWEEP	VINYL
13	INSWING ADJUSTABLE THRESHOLD	ALUM/COMP
14	OUTSWING BUMP THRESHOLD	ALUM/COMP
20	MULTIPOINT TONGUE STRIKE PLATE	STEEL
21	MULTIPOINT LATCH & DEADBOLT STRIKE PLATE	STEEL
23	#12 X 2-1/2" PFH WOOD SCREW	STEEL
24	#12 x 1" PFH WOOD SCREW	STEEL
26	#8 X 2-1/2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4.5" X 4.5" HINGE	STEEL
40	DOOR PANEL	-
41	DOOR PANEL	-

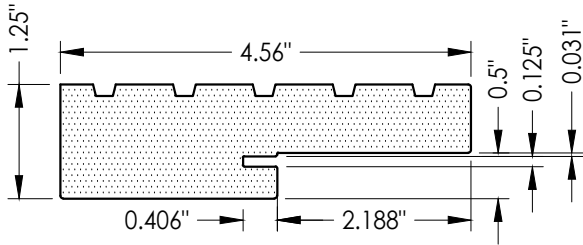
CONCRETE ANCHOR NOTES:

- 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:

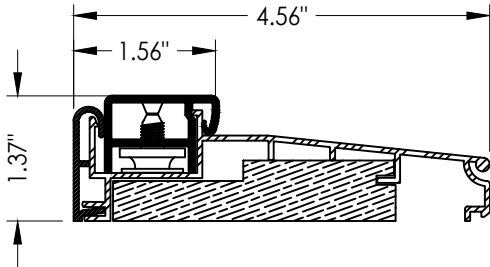
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
DeWALT ULTRACON+®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

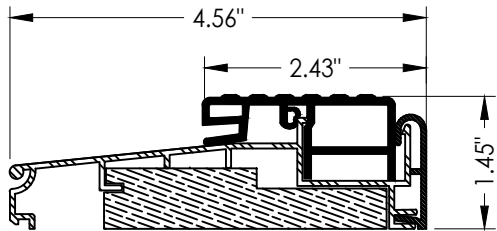
- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



1 COMPOSITE JAMB
WORLDWIDE



13 INSWING THRESHOLD
WORLDWIDE



14 OUTSWING THRESHOLD
WORLDWIDE

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PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
BILL OF MATERIALS
& COMPONENTS

NO.	DATE	REVISIONS			
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4	7/01/26	UPDATE TO 9TH ED.	(2026)	FBC	LFS
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1	10/03/17	UPDATE TO 6TH ED.	(2017)	FBC	JK

DATE: 02/09/17

SCALE: N.T.S.

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DRAWING NO.:
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SHEET 9 OF 9