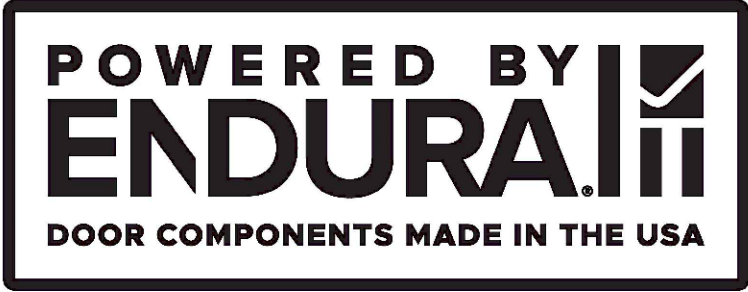


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Ultimate/Ultimate Compatible
Hurricane Astragal
INSWING / OUTSWING
"NON-IMPACT"

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 is required to be protected with an impact resistant covering that complies with FBC Sections 1609.1.2 & R301.2.1.2.
4. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
5. This product has been tested and is approved for use in the door panels as specified in this approval. Substitution into a similar product that possess a comparable current Florida Statewide product approval may be approved for use by the local Authority Having Jurisdiction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.

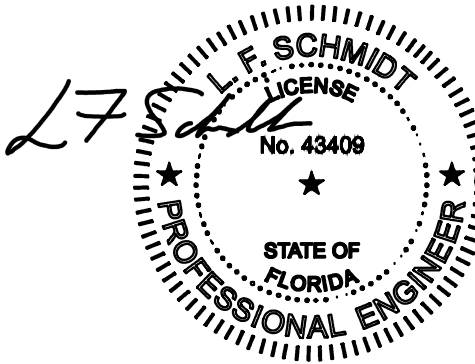
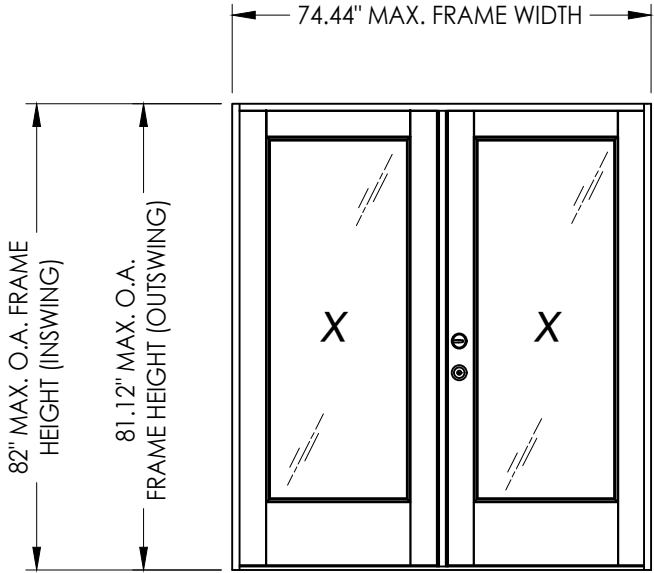
TABLE OF CONTENTS	
SHEET#	DESCRIPTION
1	Typical elevations, design pressures and general notes
2	Astragal details
3	Door panel details
4	Horizontal and vertical cross sections
5	Threshold details
6	Buck and frame anchoring



Ultimate/Ultimate Compatible
Hurricane Astragal

ULTIMATE/ULTIMATE COMPATIBLE HURRICANE ASTRAGAL by ENDURA				
MAXIMUM FRAME SIZE*			DESIGN PRESSURE RATING (PSF)	
			POSITIVE	NEGATIVE
THERMA TRU Flush Glazed (FIBERGLASS)	INSWING	74.44" X 82"	+50.0	-55.0
	OUTSWING	74.44" X 81.12"	+50.0	-55.0

*NOTE: INCREASE THE MAXIMUM FRAME WIDTH BY 3/16" TO ACCOMODATE THE OPTIONAL
ULTIMATE COMPATIBLE HURRICANE ASTRAGAL WHEN USED.



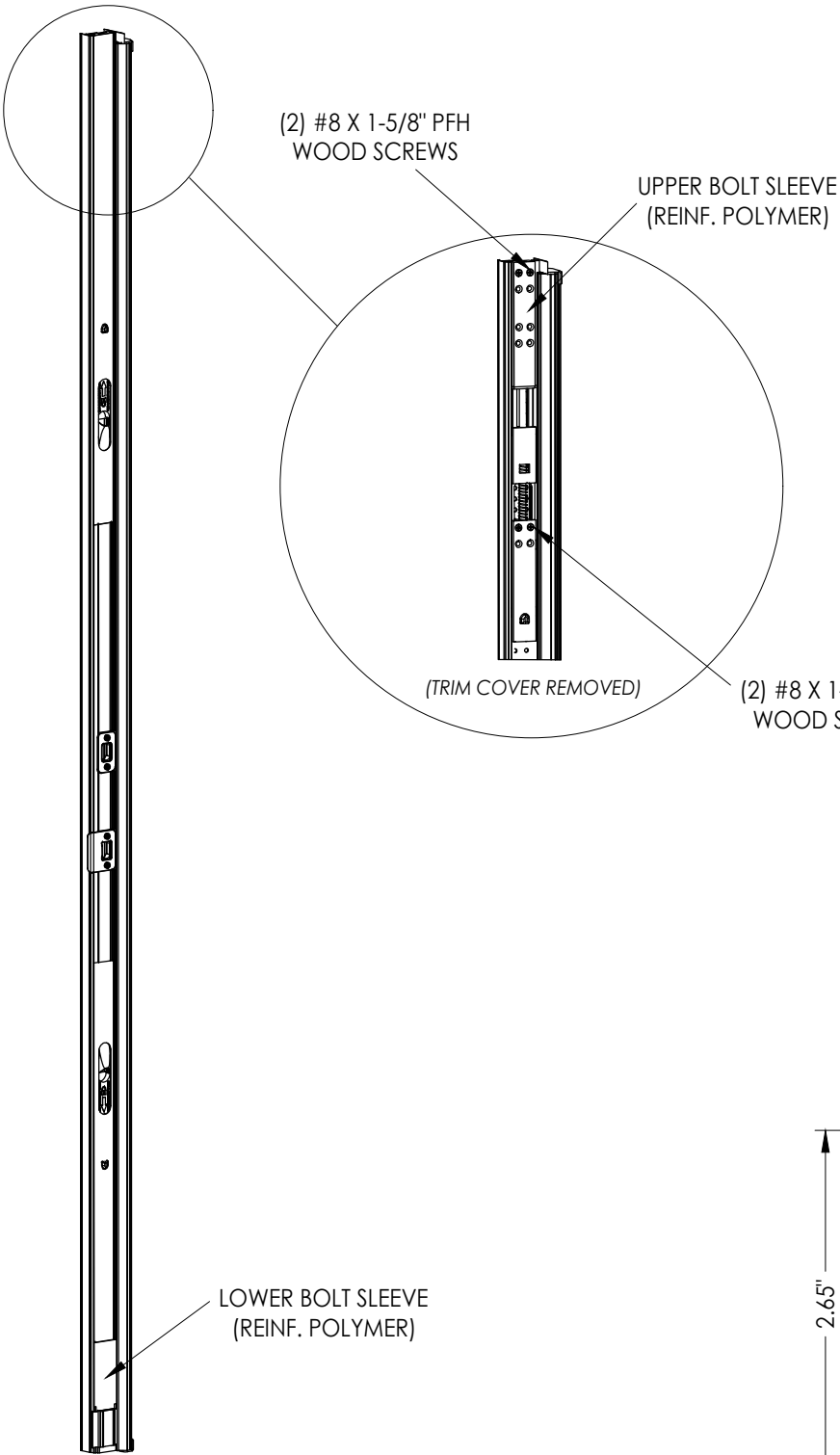
Digitally signed by
Lyndon F Schmidt
Date: 2023.07.20
09:10:38 -04'00'

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.

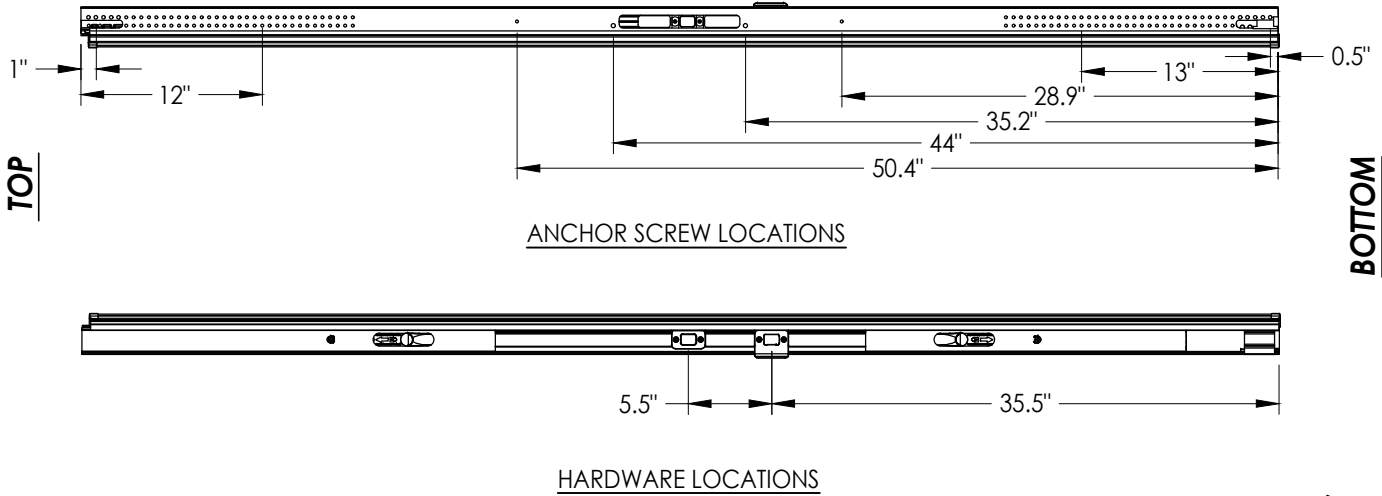
THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA

Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409				BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813			
PRODUCT: ENDURA				PART OR ASSEMBLY: TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES			
				7	7/07/23	UPDATE TO 8TH ED. (2023) FBC	LFS
				6	8/12/20	UPDATE TO 7TH ED. (2020) FBC	LFS
				5	6/06/18	UPDATE FOR NEW TESTING	LFS
				4	9/08/17	UPDATE TO 6TH ED. (2017) FBC	LFS
				3	6/8/16	ADD THRESHOLD DETAILS	LFS
				NO.	DATE		BY
				REVISIONS			
DATE: 10/24/13							
SCALE: N.T.S.							
DWG. BY: JK							
CHK. BY: LFS							
DRAWING NO.: FL-16634.3							
SHEET 1 OF 6							

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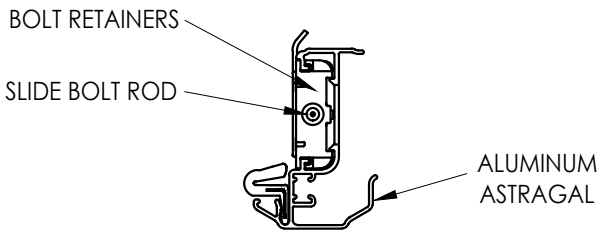


ULTIMATE/ULTIMATE COMPATIBLE
HURRICANE ASTRAGAL

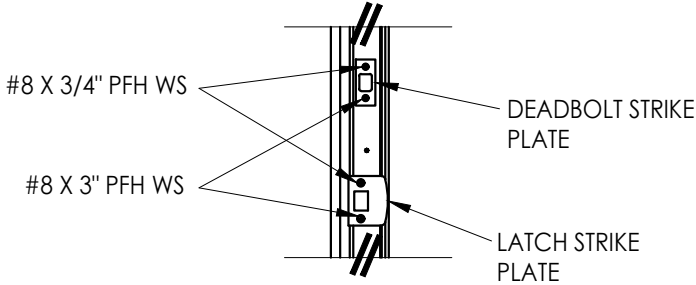


ANCHOR SCREW LOCATIONS

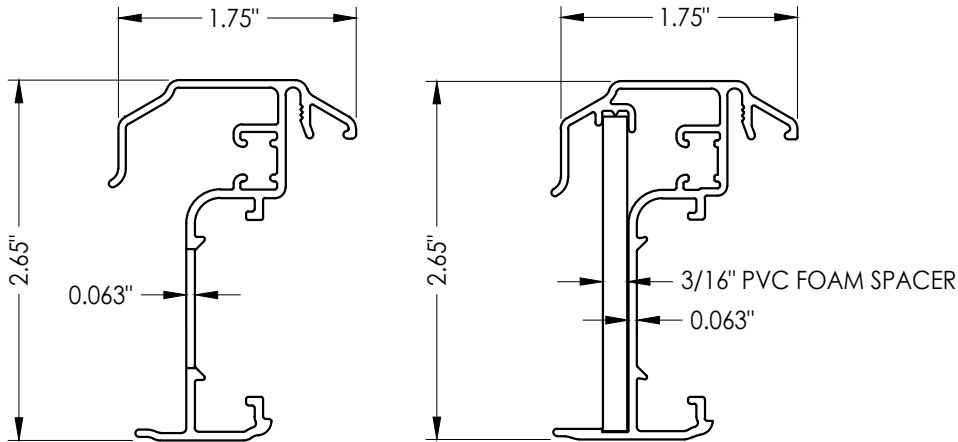
HARDWARE LOCATIONS



ALUMINUM ASTRAGAL ASSEMBLY



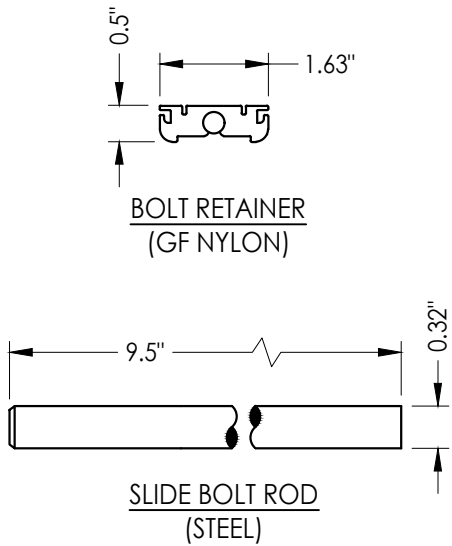
LATCH & DEADBOLT DETAIL



ULTIMATE HURRICANE
ASTRAGAL

ULTIMATE COMPATIBLE
HURRICANE ASTRAGAL
(OPTIONAL)

ASTRAGAL SECTIONS



SLIDE BOLT ROD
(STEEL)

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FBPE Registry No. 9813

PRODUCT:
ENDURA

PART OR ASSEMBLY:
ASTRAGAL DETAILS
(ULTIMATE HURRICANE)

NO.	DATE	REVISIONS
7	7/07/23	UPDATE TO 8TH ED. (2023) FBC LFS
6	8/12/20	UPDATE TO 7TH ED. (2020) FBC LFS
5	6/06/18	UPDATE FOR NEW TESTING LFS
4	9/08/17	UPDATE TO 6TH ED. (2017) FBC LFS
3	6/8/16	ADD THRESHOLD DETAILS LFS
NO.	DATE	BY

DATE: 10/24/13

SCALE: N.T.S.

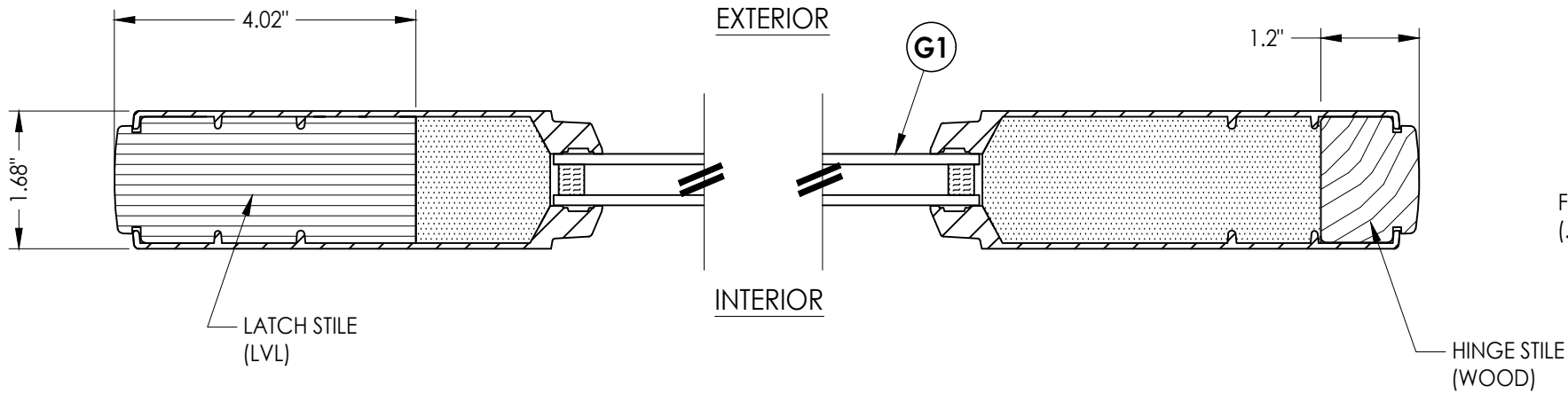
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CHK. BY: LFS

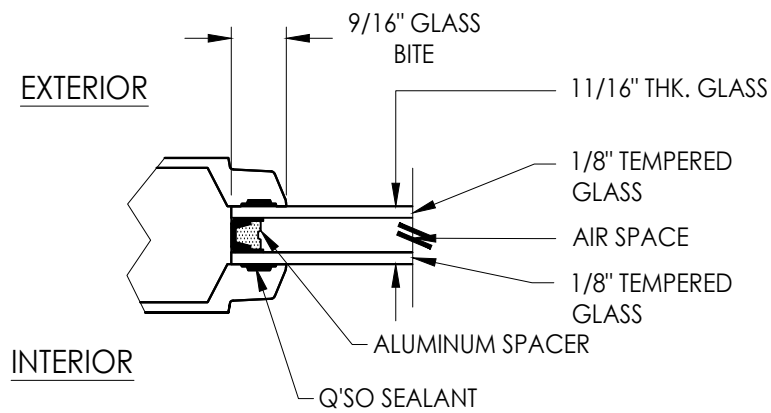
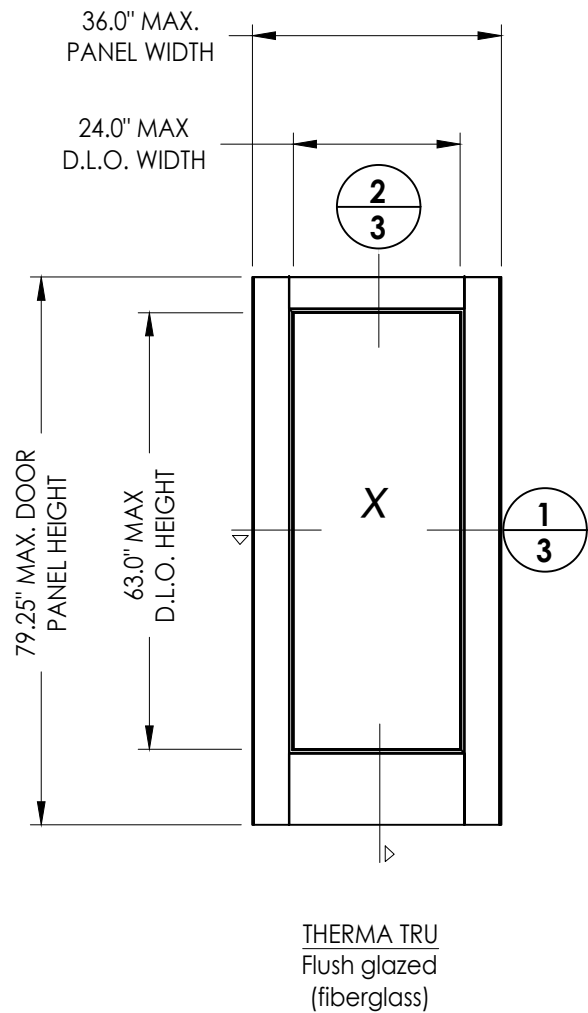
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FL-16634.3

SHEET 2 OF 6

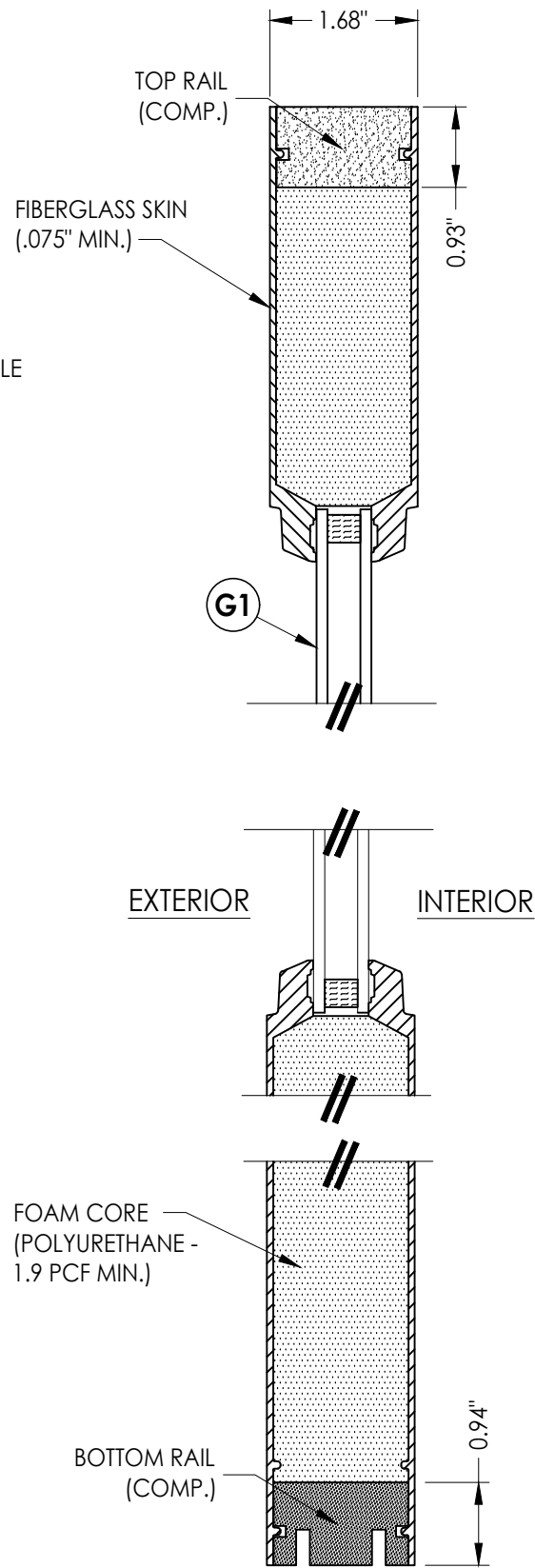
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1
3 HORIZONTAL CROSS SECTION



G1 GLAZING DETAIL
Flush Glazing



2
3 VERTICAL CROSS SECTION

NO.	DATE	REVISIONS			
		BY	LFS	FBC	DATE
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC	LFS	
6	8/12/20	UPDATE TO 7TH ED. (2020)	FBC	LFS	
5	6/06/18	UPDATE FOR NEW TESTING	LFS		
4	9/08/17	UPDATE TO 6TH ED. (2017)	FBC	LFS	
3	6/8/16	ADD THRESHOLD DETAILS	LFS		

DATE: 10/24/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

FL-16634.3

SHEET 3 OF 6

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P.E. No. 43409

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Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: ENDURA

PART OR ASSEMBLY:
DOOR PANEL DETAILS
& GLAZING DETAIL

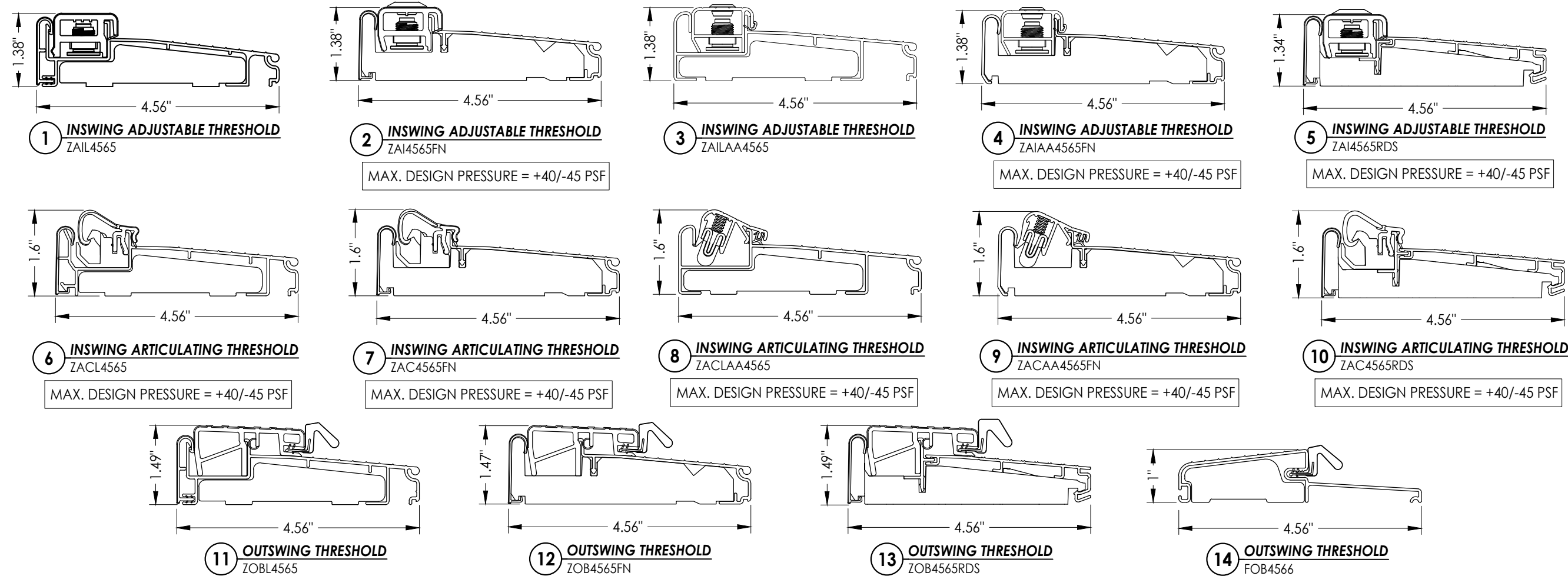
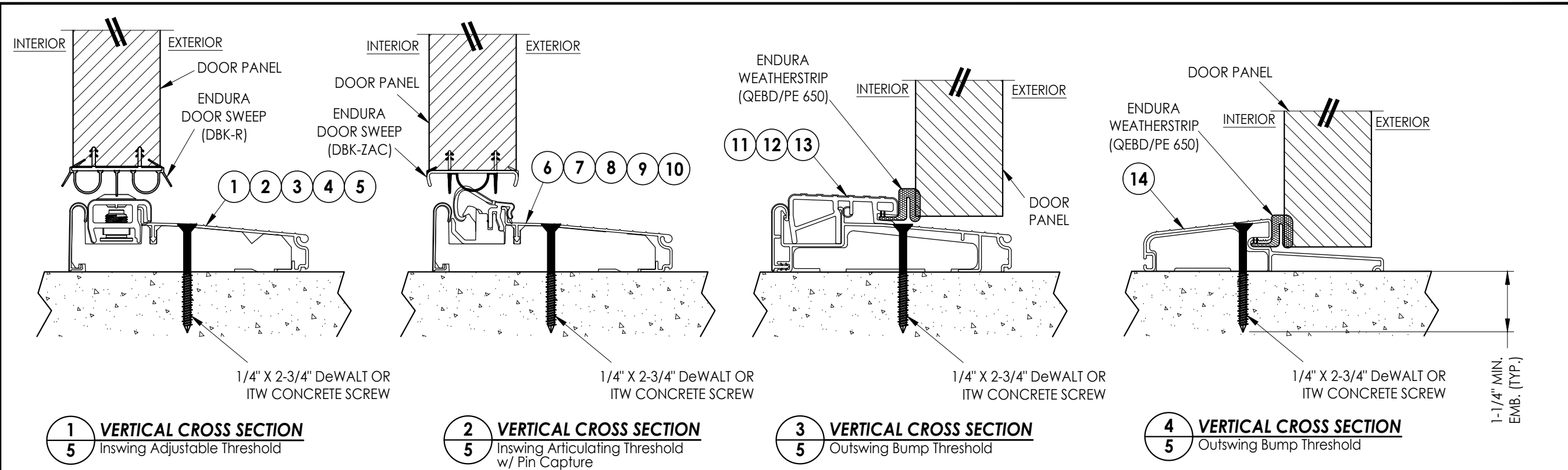


DATE:	10/24/13
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-16634.3
SHEET	4 OF 6

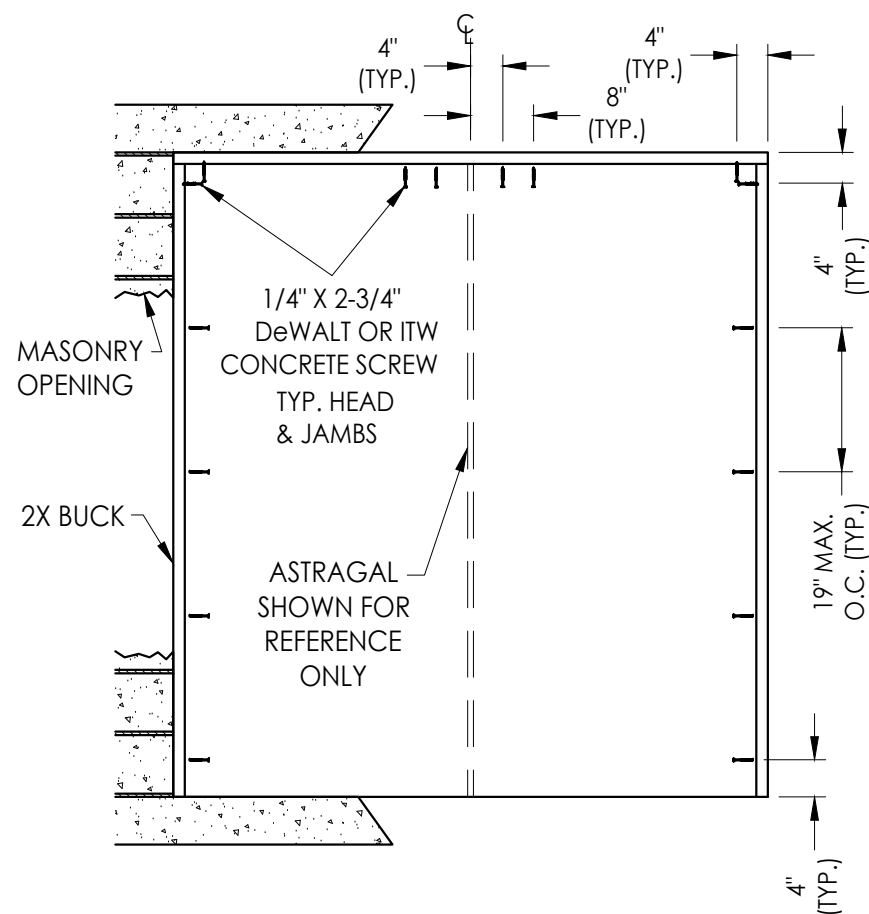
FOR OR ASSEMBLY:
HORIZONTAL AND VERTICAL
CROSS SECTIONS

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Phone No.: 813.659.9197
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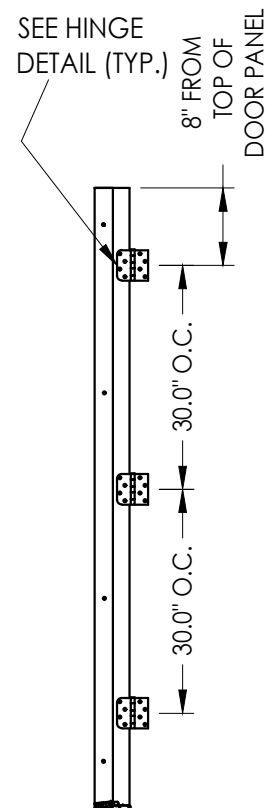


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PRODUCT: ENDURA				PART OR ASSEMBLY: THRESHOLD DETAILS			
7	7/07/23	UPDATE TO 8TH ED. (2023) FBC	LFS	REVISIONS			
6	8/12/20	UPDATE TO 7TH ED. (2020) FBC	LFS				
5	6/06/18	UPDATE FOR NEW TESTING	LFS				
4	9/08/17	UPDATE TO 6TH ED. (2017) FBC	LFS				
3	6/8/16	ADD THRESHOLD DETAILS	LFS				
NO.	DATE		BY				
DATE: 10/24/13							
SCALE: N.T.S.							
DWG. BY: JK							
CHK. BY: LFS							
DRAWING NO.: FL-16634.3							
SHEET 5 OF 6							

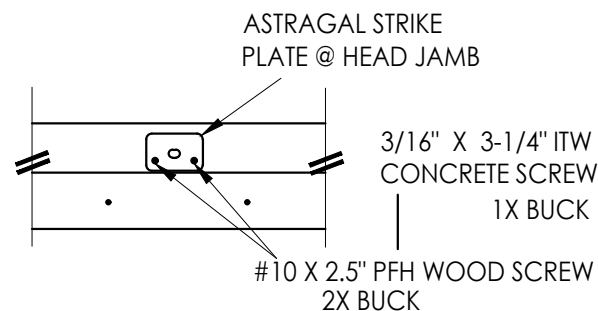
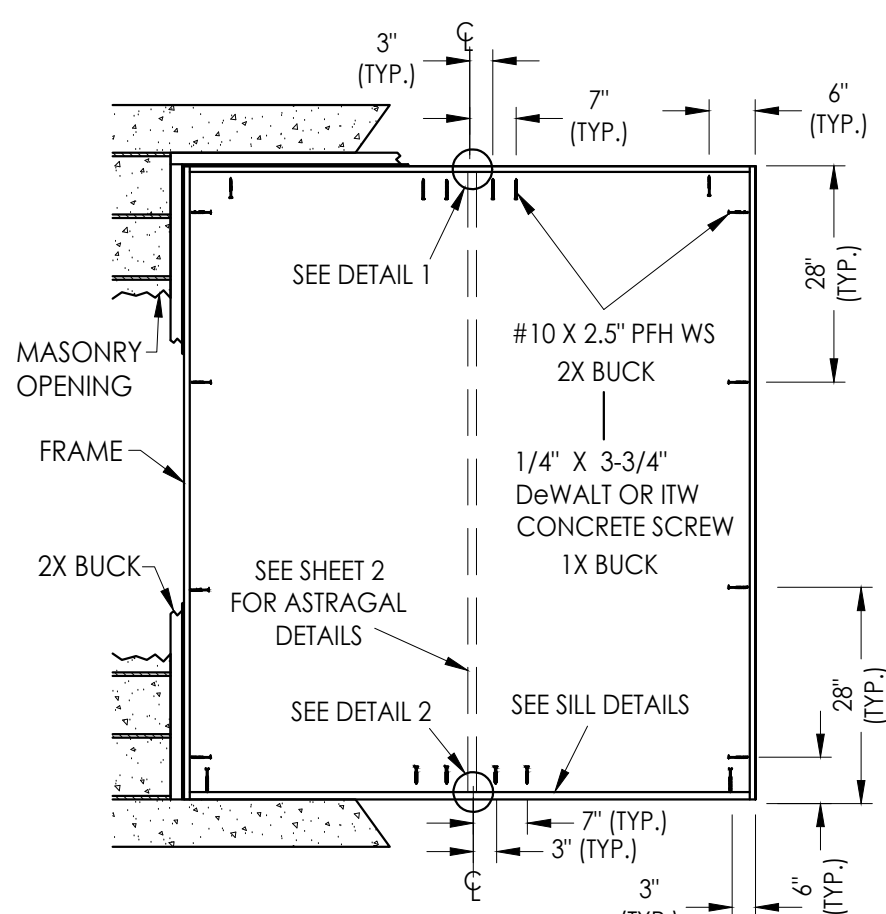


BUCK ANCHORING

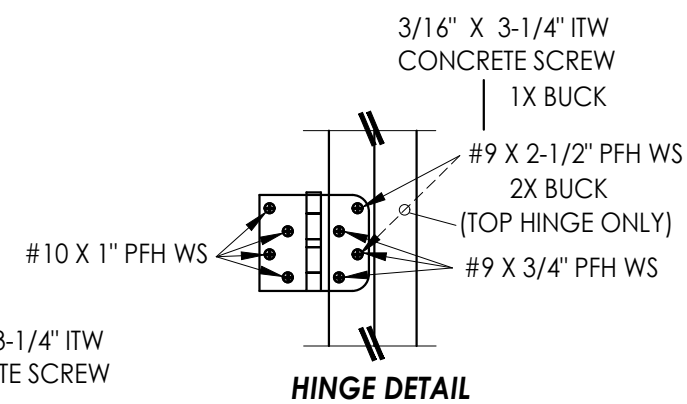
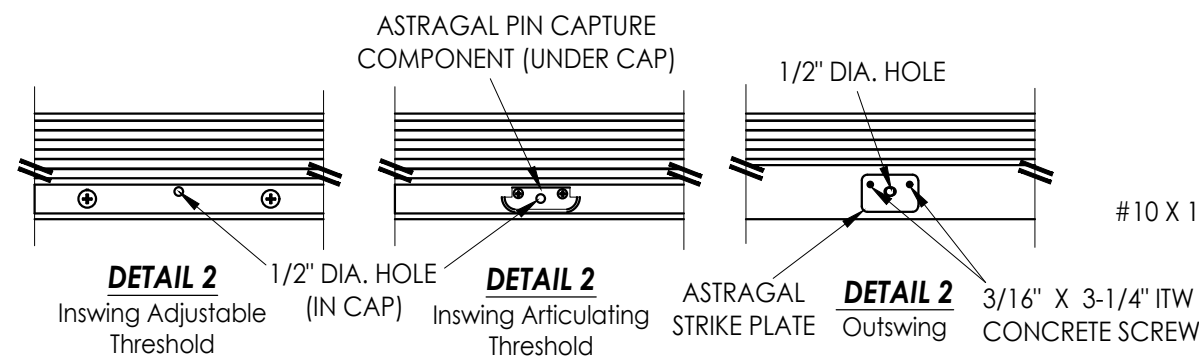
XX



HINGE JAMB



DETAIL 1



CONCRETE ANCHOR NOTES:

1. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
2. 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.
3. 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:

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

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3	6/8/16	ADD THRESHOLD DETAILS		LFS
NO.	DATE			
REVISIONS				

DATE: 10/24/13

SCALE: *N.T.S.*

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
FL-16634.3

SHEET 6 OF 6

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P.E. No. 43409

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