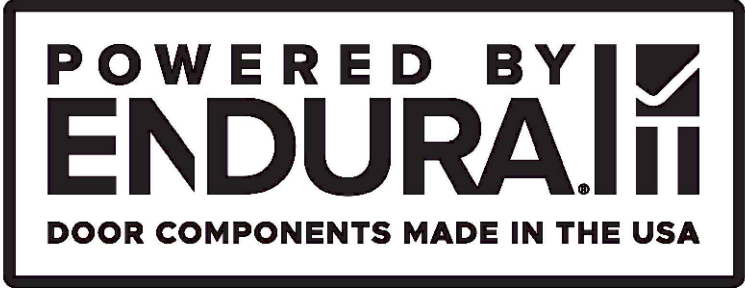


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Ultimate Hurricane Astragal

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.

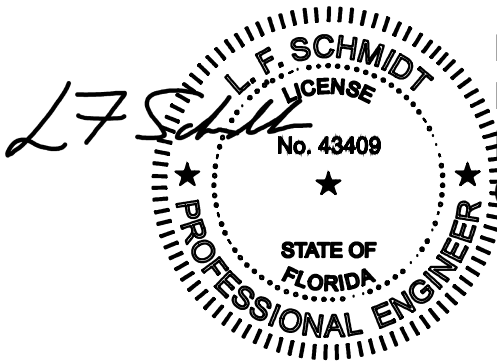
Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.

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 Hurricane Astragal

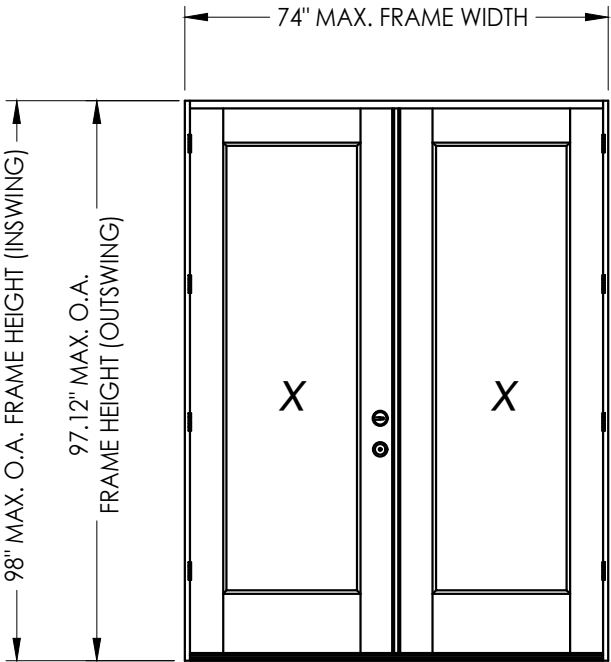
ULTIMATE HURRICANE ASTRAGAL by ENDURA				
MAXIMUM FRAME SIZE			DESIGN PRESSURE RATING (PSF)	
			POSITIVE	NEGATIVE
PLASTPRO Flush Glazed (FIBERGLASS)	INSWING	74" X 98"	+40.0	-45.0
	OUTSWING	74" X 97.12"	+45.0	-45.0



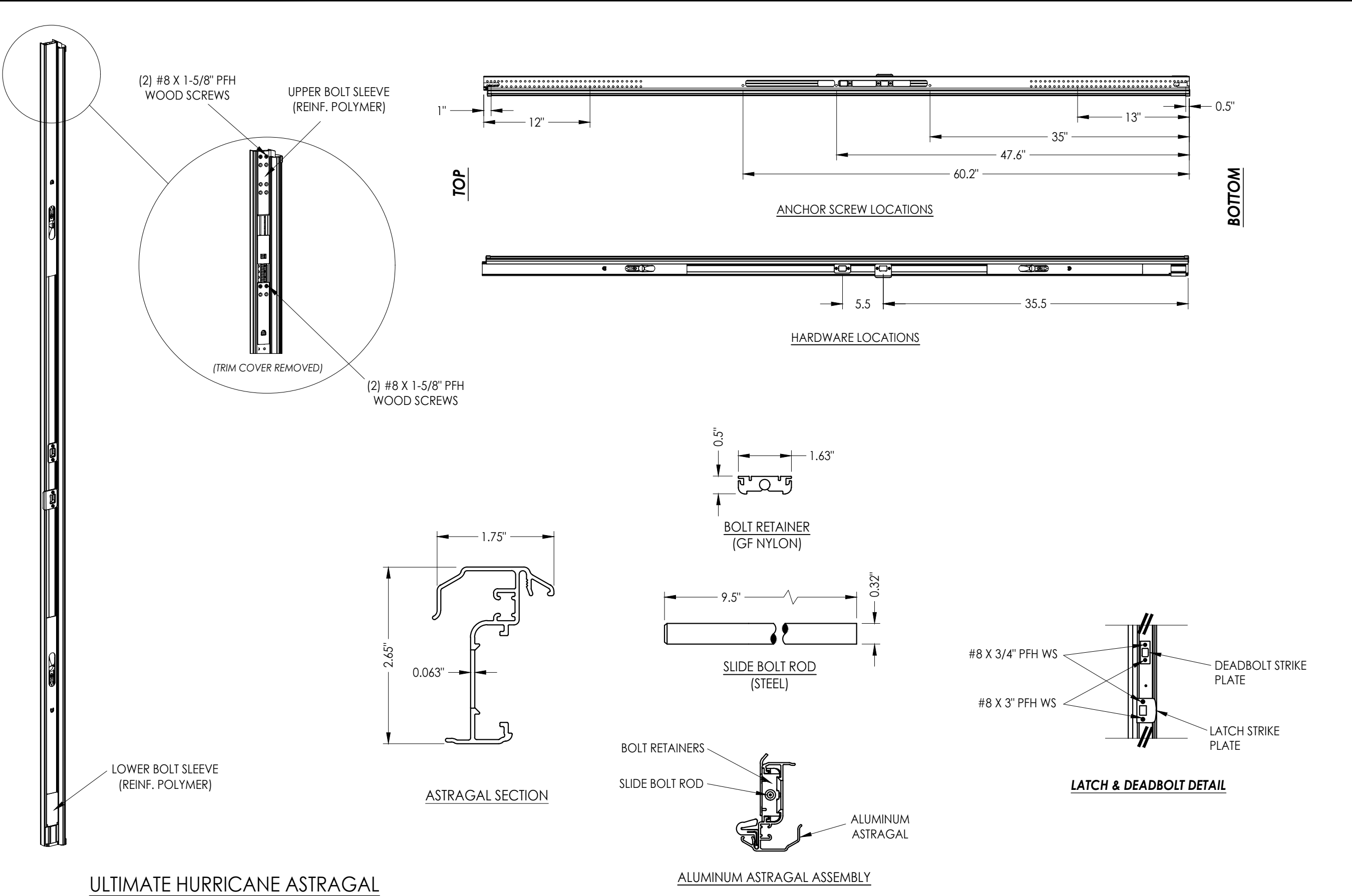
Digitally signed by
Lyndon F Schmidt
Date: 2023.07.20
09:10:00 -04'00'

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

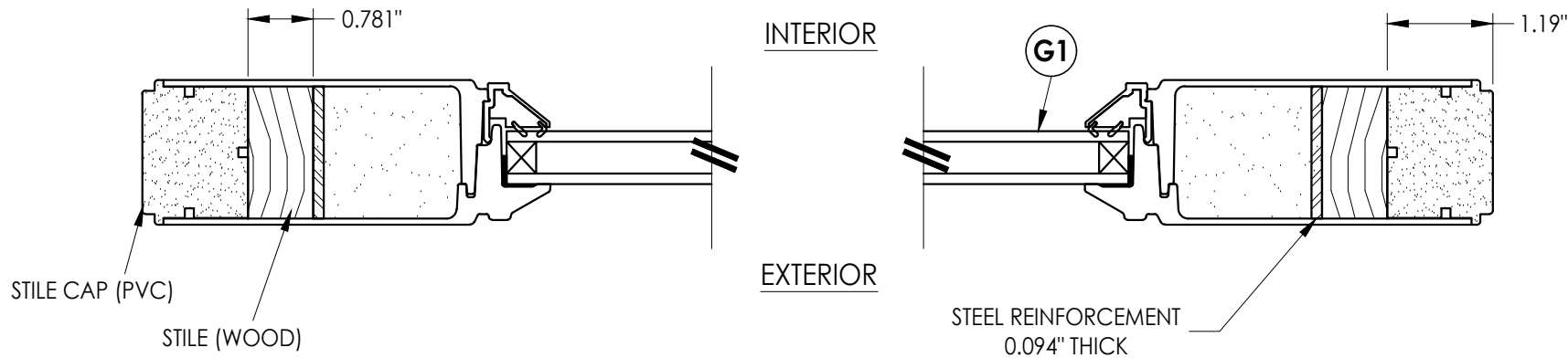
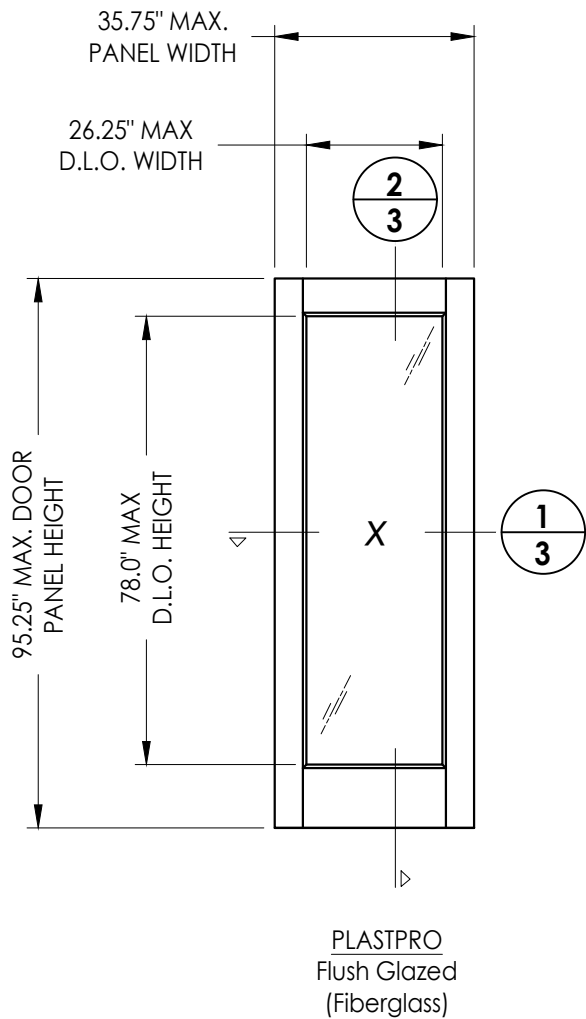


Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: ENDURA		PART OR ASSEMBLY: TYPICAL ELEVATIONS, DESIGN PRESSURES & GENERAL NOTES	
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC
6	8/12/20	UPDATE TO 7TH ED. (2020)	FBC
5	6/06/18	REVISE FOR NEW TESTING	LFS
4	9/18/17	UPDATE TO 6TH ED. (2017)	FBC
3	6/9/16	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-16634.9			
SHEET 1 OF 6			

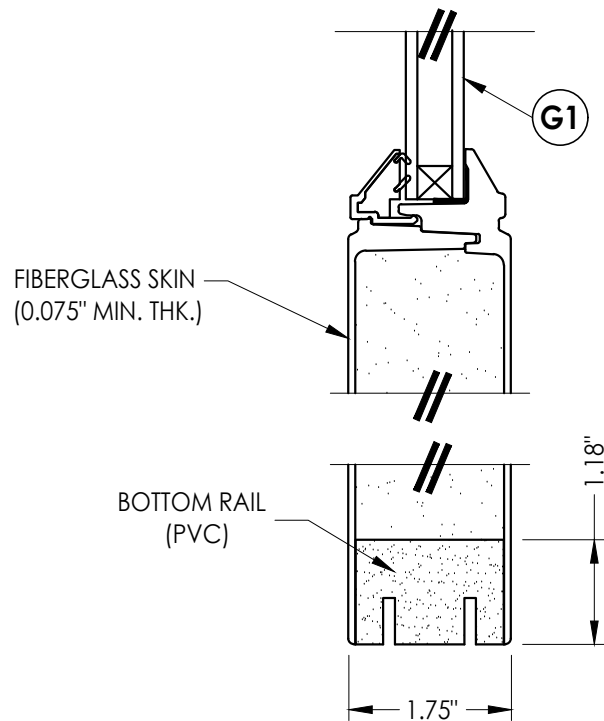
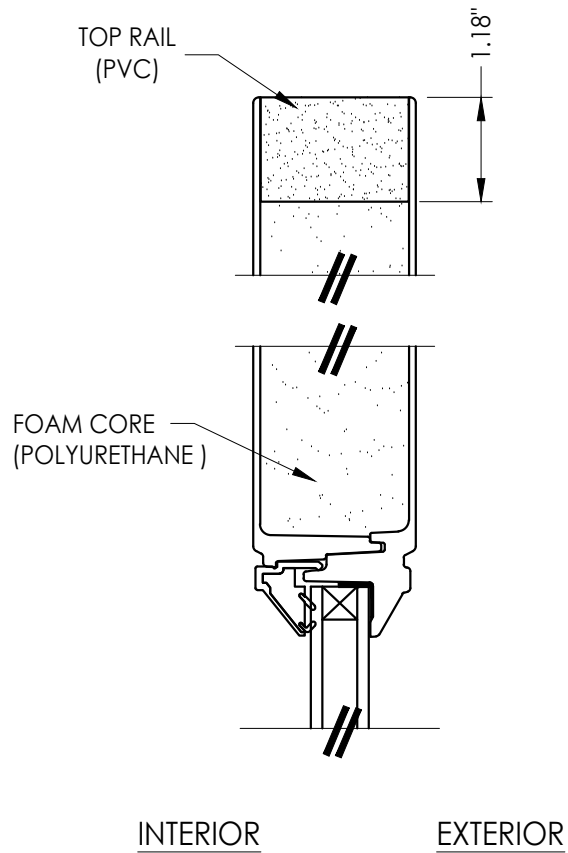
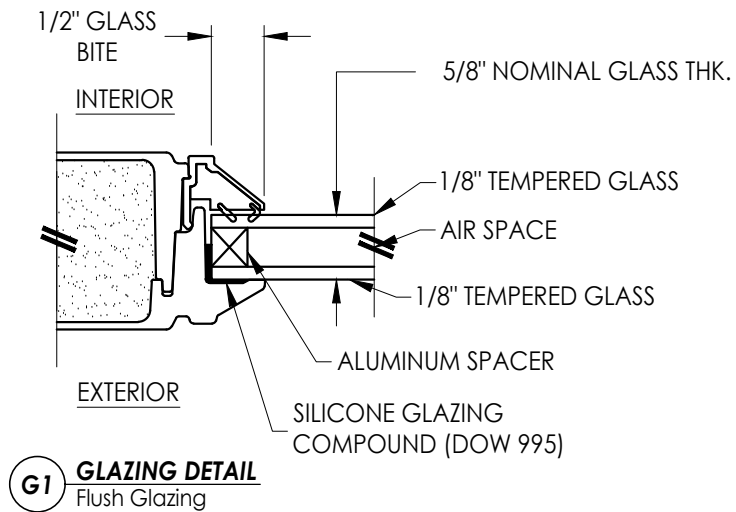


Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409				BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813			
PRODUCT: ENDURA				PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)			
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC	LFS			
6	8/12/20	UPDATE TO 7TH ED. (2020)	FBC	LFS			
5	6/06/18	REVISE FOR NEW TESTING		LFS			
4	9/18/17	UPDATE TO 6TH ED. (2017)	FBC	LFS			
3	6/9/16	ADD THRESHOLD DETAILS		LFS			
NO.	DATE				REVISIONS		
DATE: 10/24/13							
SCALE: N.T.S.							
DWG. BY: JK							
CHK. BY: LFS							
DRAWING NO.: FL-16634.9							
SHEET 2 OF 6							

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1 3 **HORIZONTAL CROSS SECTION**



2 3 **VERTICAL CROSS SECTION**

NO.	DATE	REVISIONS			
		BY	LFS	FBC	
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	REVISE FOR NEW TESTING			LFS
4	9/18/17	UPDATE TO 6TH ED.	(2017)	FBC	LFS
3	6/9/16	ADD THRESHOLD DETAILS			LFS

DATE: 10/24/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: FL-16634.9

SHEET 3 OF 6

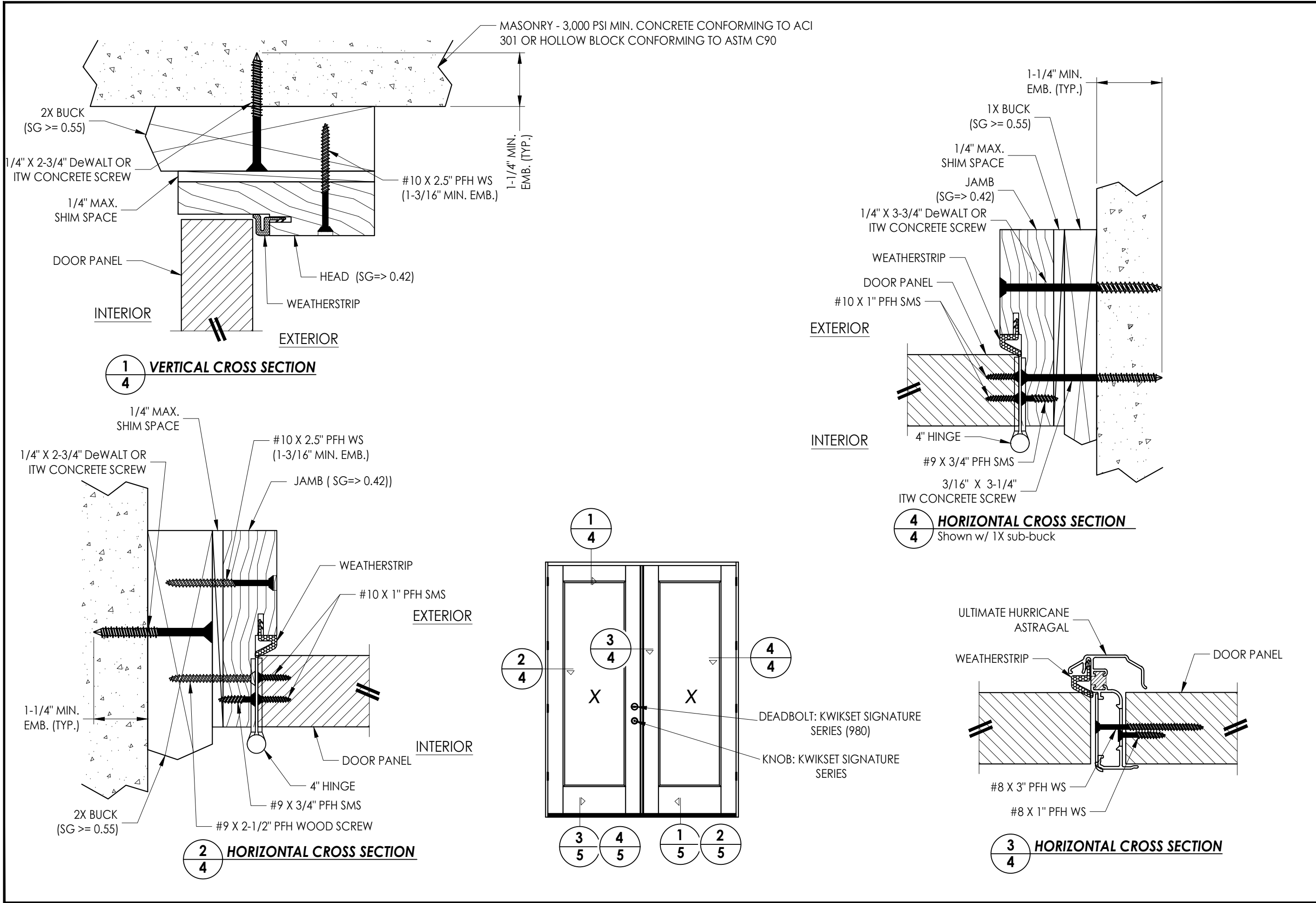
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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

PRODUCT: ENDURA

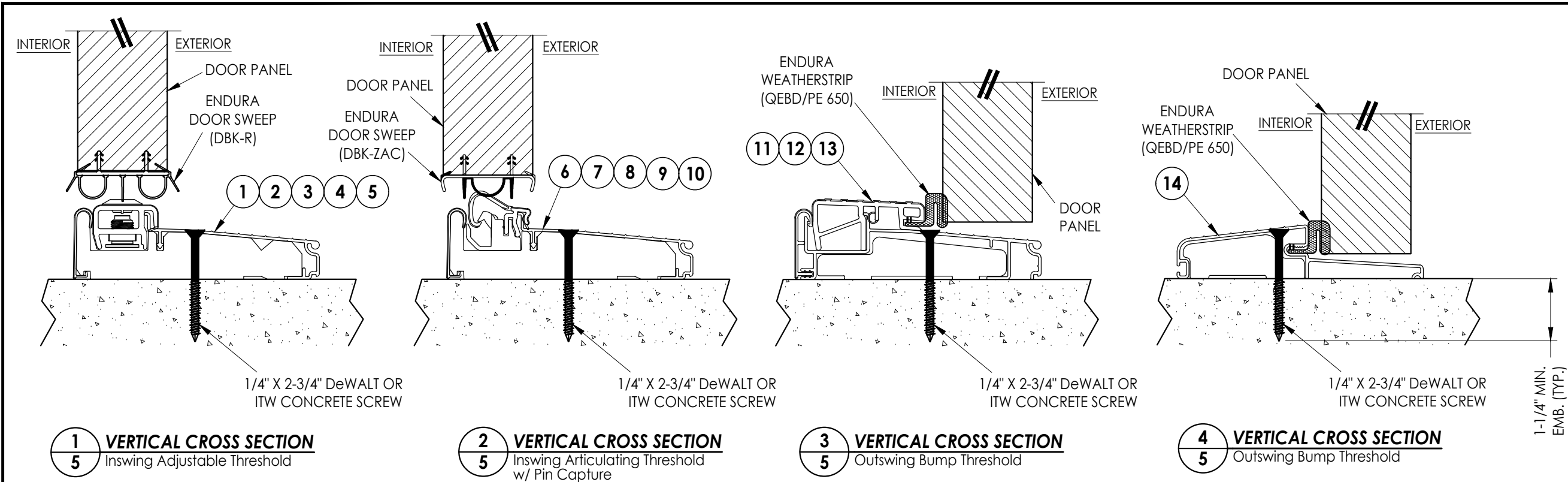
PART OR ASSEMBLY:
DOOR PANEL DETAILS
& GLAZING DETAIL

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PRODUCT: ENDURA		PART OR ASSEMBLY: HORIZONTAL AND VERTICAL CROSS SECTIONS	
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC
6	8/12/20	UPDATE TO 7TH ED. (2020)	FBC
5	6/06/18	REVISE FOR NEW TESTING	LFS
4	9/18/17	UPDATE TO 6TH ED. (2017)	FBC
3	6/9/16	ADD THRESHOLD DETAILS	LFS
2	DATE		BY
1			
REVISIONS			
DATE: 10/24/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-16634.9			
SHEET 4 OF 6			

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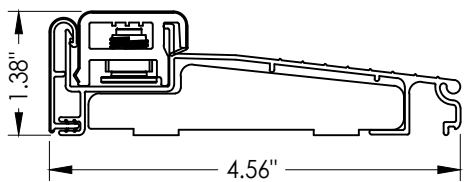


1 **VERTICAL CROSS SECTION**
5 Inswing Adjustable Threshold

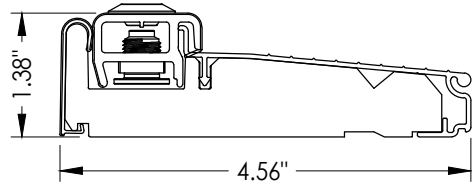
2 **VERTICAL CROSS SECTION**
5 Inswing Articulating Threshold
w/ Pin Capture

3 **VERTICAL CROSS SECTION**
5 Outswing Bump Threshold

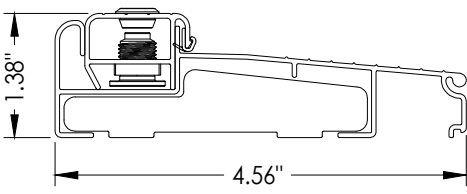
4 **VERTICAL CROSS SECTION**
5 Outswing Bump Threshold



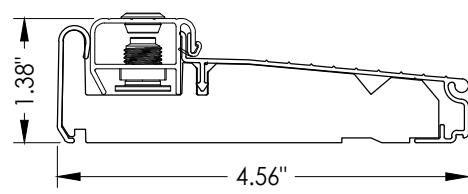
1 **INSWING ADJUSTABLE THRESHOLD**
ZAIL4565
MAX. DESIGN PRESSURE = +35/-40 PSF



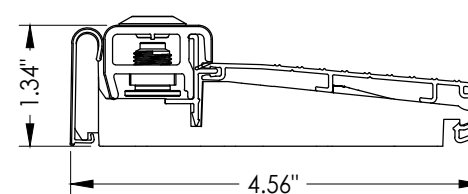
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ZAI4565FN
MAX. DESIGN PRESSURE = +35/-40 PSF



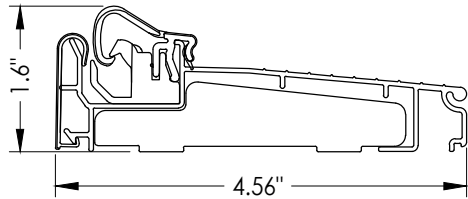
3 **INSWING ADJUSTABLE THRESHOLD**
ZAILAA4565
MAX. DESIGN PRESSURE = +35/-40 PSF



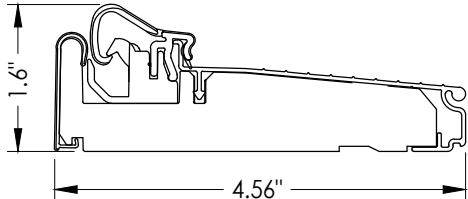
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MAX. DESIGN PRESSURE = +35/-40 PSF



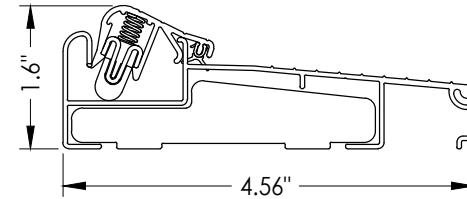
5 **INSWING ADJUSTABLE THRESHOLD**
ZAI4565RDS
MAX. DESIGN PRESSURE = +35/-40 PSF



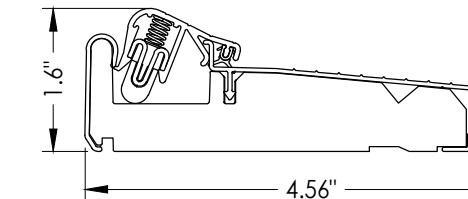
6 **INSWING ARTICULATING THRESHOLD**
ZACL4565



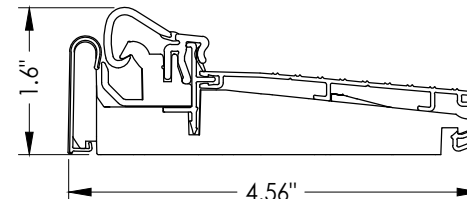
7 **INSWING ARTICULATING THRESHOLD**
ZAC4565FN
MAX. DESIGN PRESSURE = +35/-40 PSF



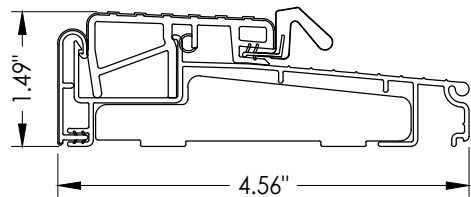
8 **INSWING ARTICULATING THRESHOLD**
ZACLAA4565



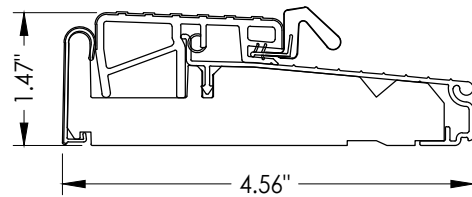
9 **INSWING ARTICULATING THRESHOLD**
ZACAA4565FN
MAX. DESIGN PRESSURE = +35/-40 PSF



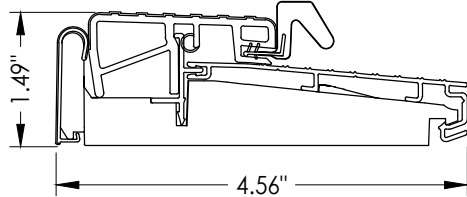
10 **INSWING ARTICULATING THRESHOLD**
ZAC4565RDS
MAX. DESIGN PRESSURE = ±35 PSF



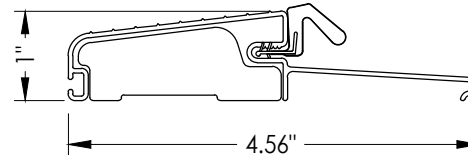
11 **OUTSWING THRESHOLD**
ZOBL4565



12 **OUTSWING THRESHOLD**
ZOB4565FN



13 **OUTSWING THRESHOLD**
ZOB4565RDS



14 **OUTSWING THRESHOLD**
FOB4566

Documents Prepared By:
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P.O. Box 230, Valrico, FL 33595
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FBPE Registry No. 9813

PRODUCT: ENDURA

PART OR ASSEMBLY:
THRESHOLD
DETAILS

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

DATE: 5/24/16

SCALE: N.T.S.

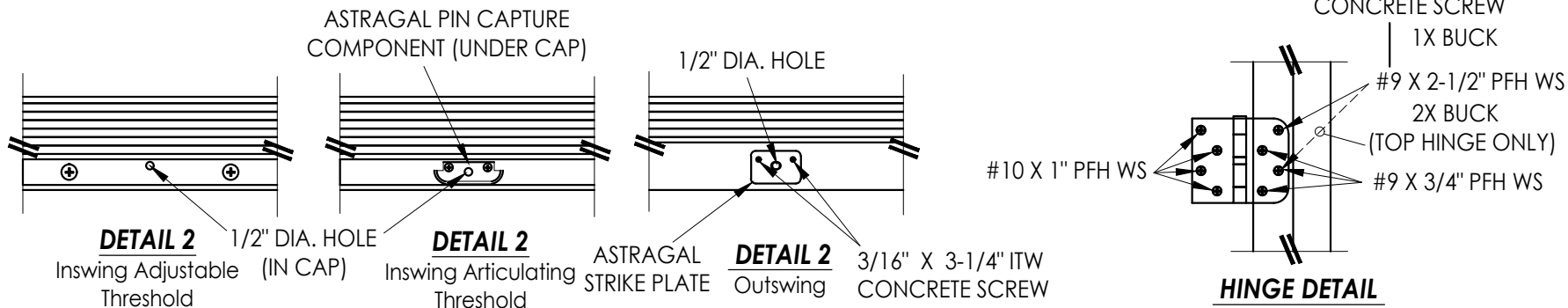
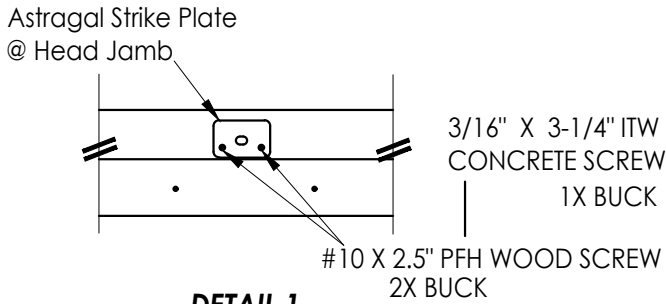
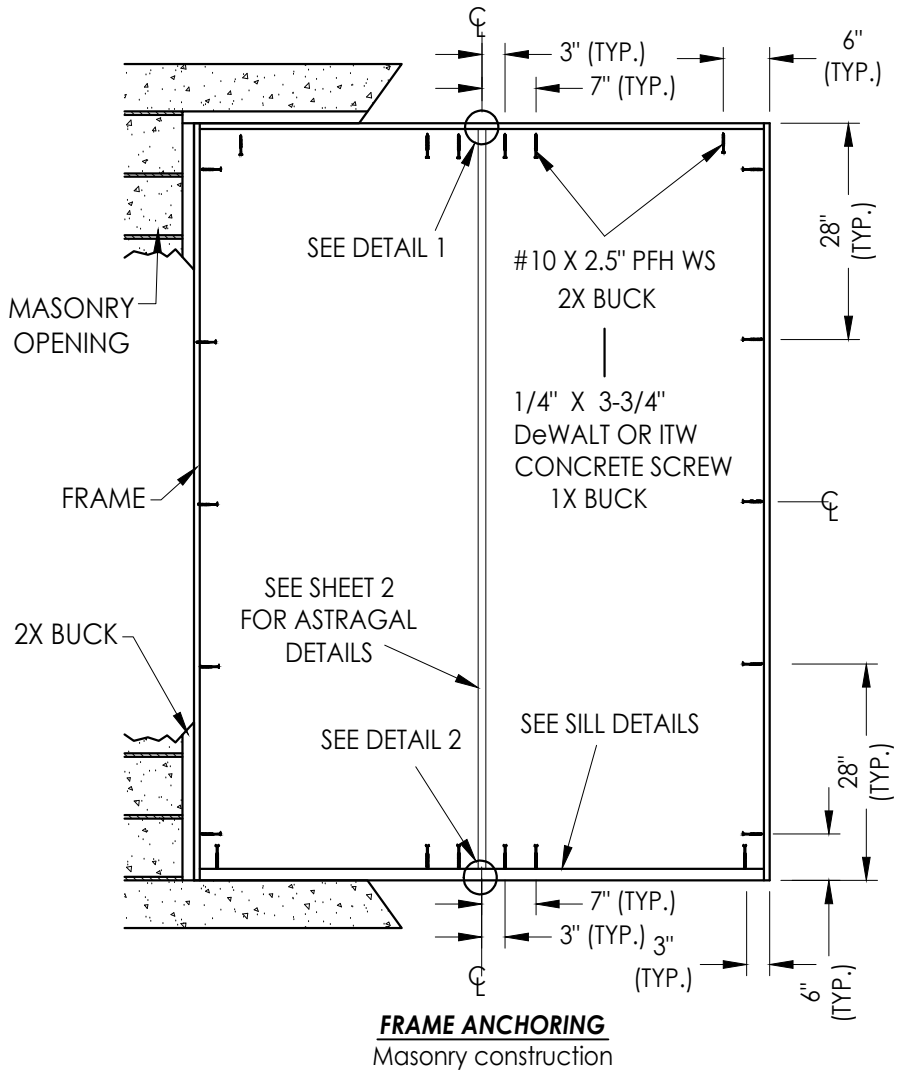
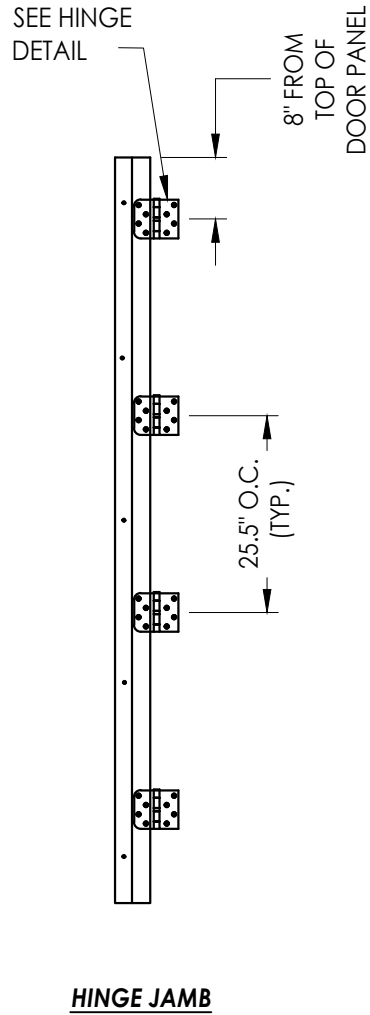
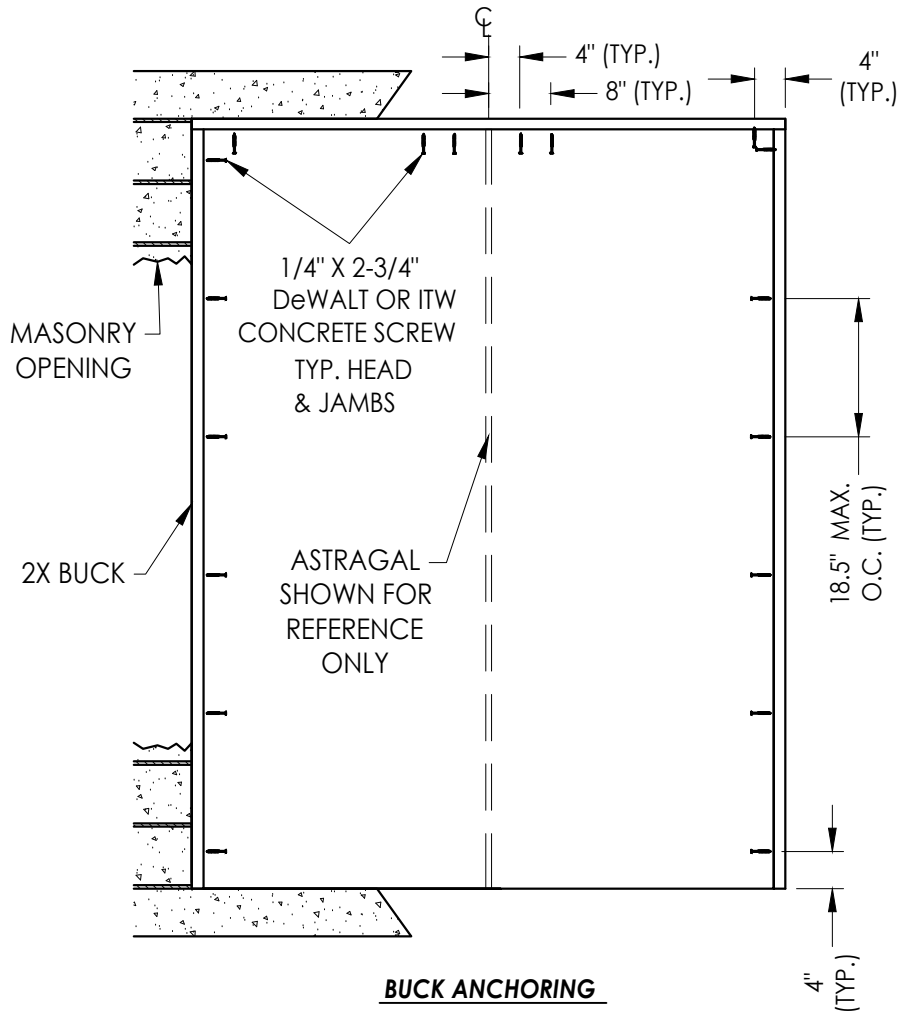
DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
FL-16634.9

SHEET 5 OF 6

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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"	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.

Documents Prepared By:

Lyndon F. Schmidt
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P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:

ENDURA

PART OR ASSEMBLY:

BUCK & FRAME ANCHORING

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	REVISE FOR NEW TESTING LFS
4	9/18/17	UPDATE TO 6TH ED. (2017) FBC LFS
3	6/9/16	ADD THRESHOLD DETAILS LFS
NO.	DATE	BY

DATE: 10/24/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

FL-16634.9

SHEET 6 OF 6