

Ultimate Hurricane Astragal

INSWING / OUTSWING

"NON-IMPACT"

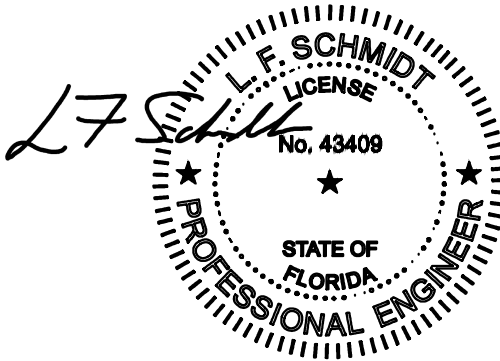
GENERAL NOTES

- 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



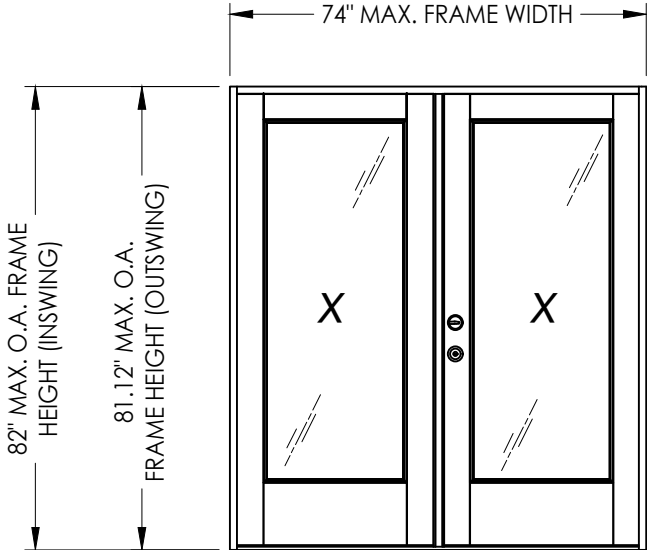
Ultimate Hurricane Astragal



Digitally signed by
Lyndon F Schmidt
Date: 2023.07.20
09:08:38 -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



ULTIMATE HURRICANE ASTRAGAL by ENDURA				
MAXIMUM FRAME SIZE			DESIGN PRESSURE RATING (PSF)	
			POSITIVE	NEGATIVE
PLASTPRO Insert Glazed (FIBERGLASS)	INSWING	74" X 82"	+50.0	-55.0
	OUTSWING	74" X 81.12"	+45.0	-45.0

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

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-16634.2

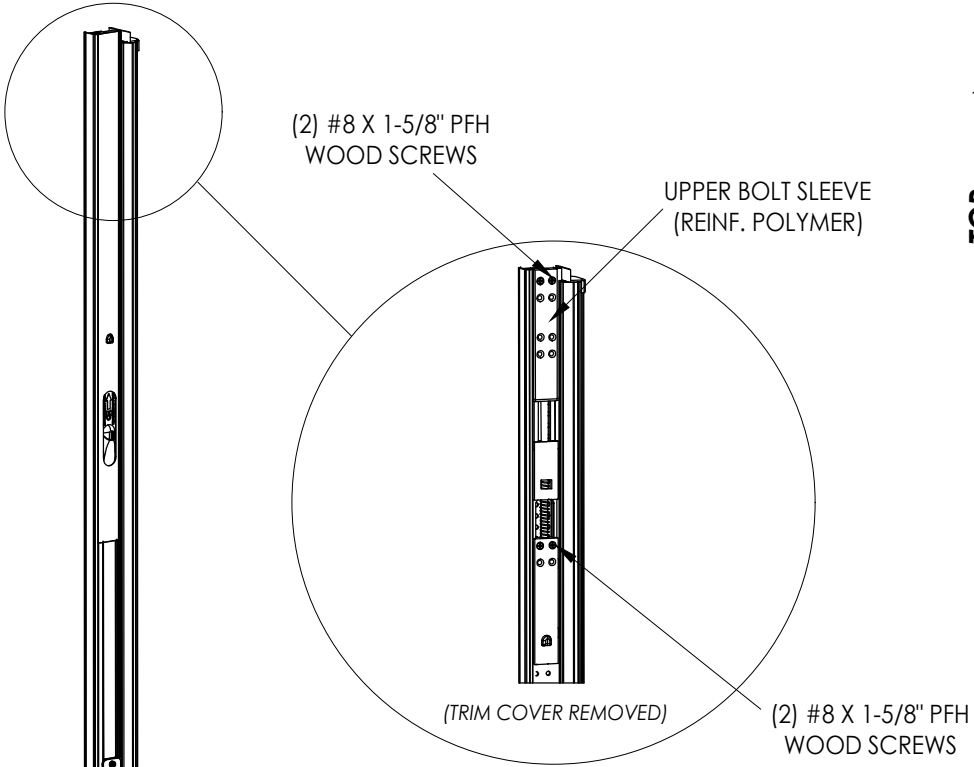
SHEET 1 OF 6

© 2013 R.W. BUILDING CONSULTANTS INC.

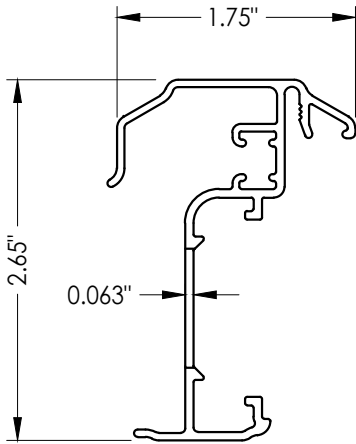
RW

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

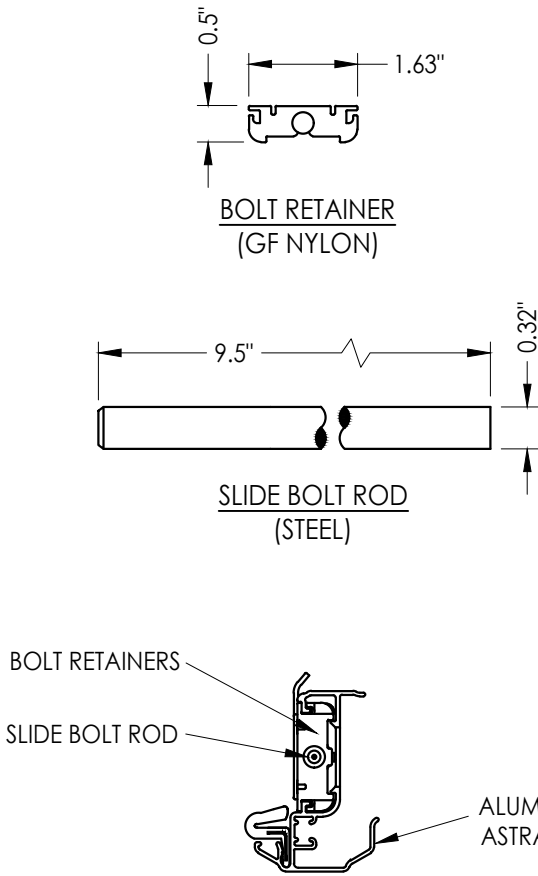
Z:\2023 FBC Drawings\Endura Products\FL-16634 R9\FL-16634.2-8.dwg



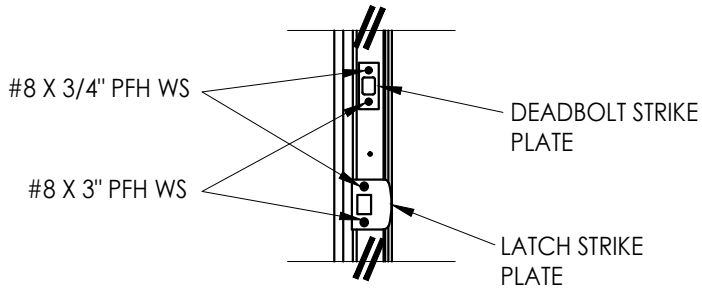
LOWER BOLT SLEEVE (REINF. POLYMER)



ASTRAGAL SECTION



ALUMINUM ASTRAGAL ASSEMBLY



LATCH & DEADBOLT DETAIL

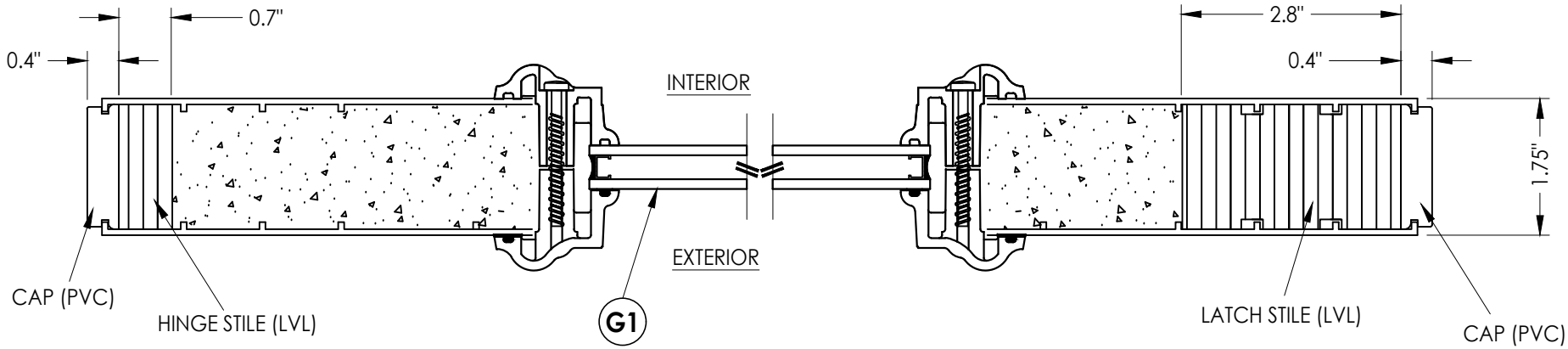
ULTIMATE HURRICANE ASTRAGAL

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)							

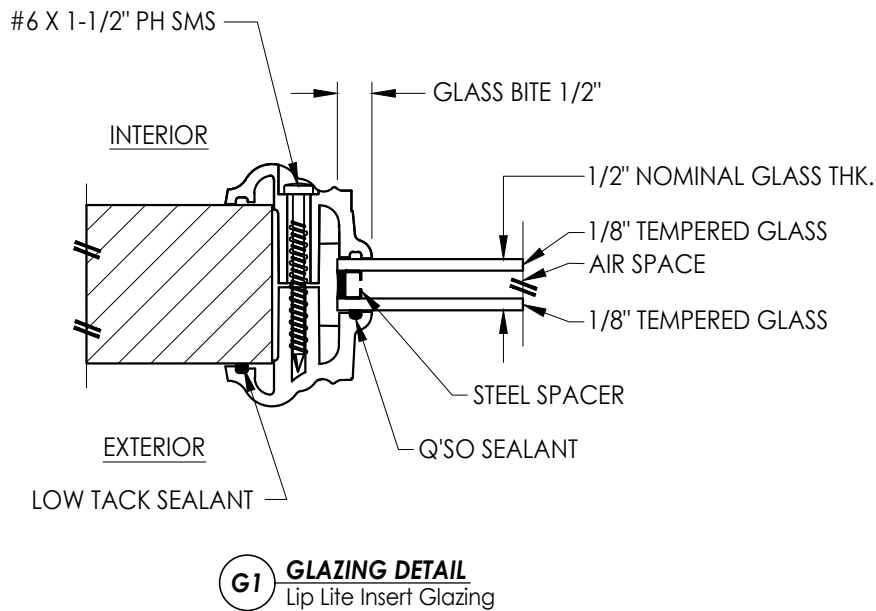
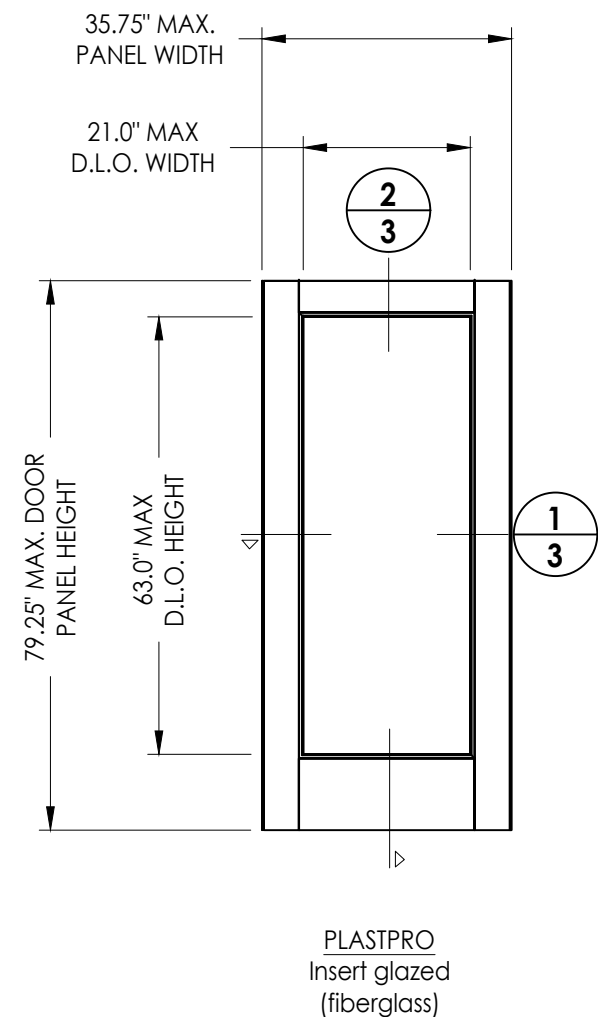
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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

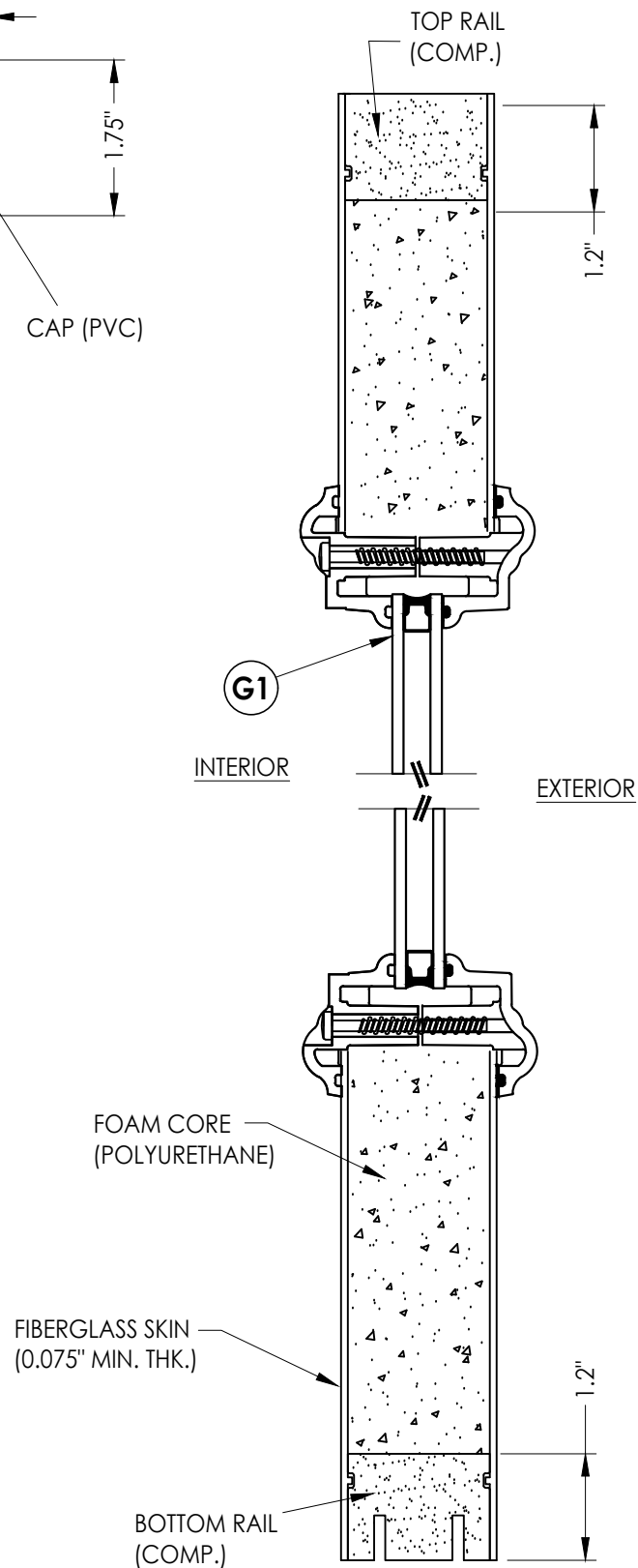
Z:\2023 FBC Drawings\Endura Products\FL-16634 R9\FL-16634.2-8.dwg



1
3 HORIZONTAL CROSS SECTION



G1 GLAZING DETAIL
Lip Lite Insert Glazing



2
3 VERTICAL CROSS SECTION

NO.	DATE	REVISIONS			
		DATE	BY	LFS	BY
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	LFS	
4	9/08/17	UPDATE TO 6TH ED. (2017)	FBC	LFS	
3	6/8/16	ADD THRESHOLD DETAILS	LFS	LFS	

DATE: 10/24/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: FL-16634.2

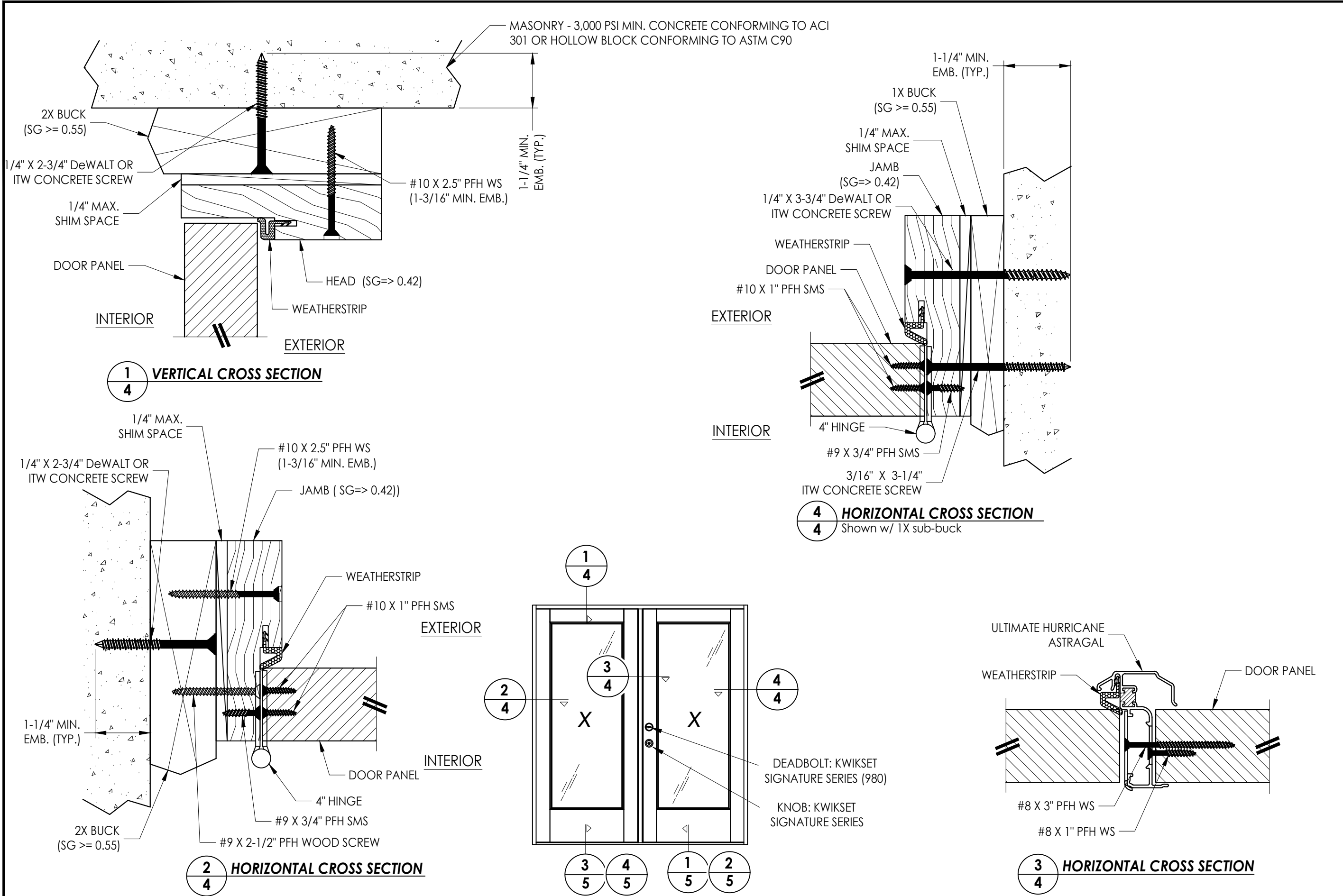
SHEET 3 OF 6

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

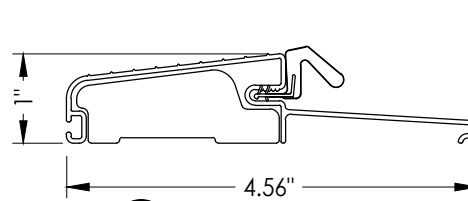
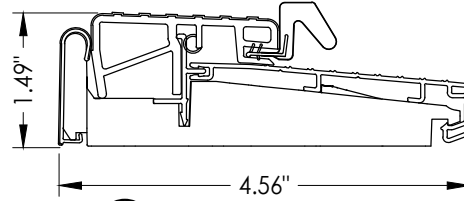
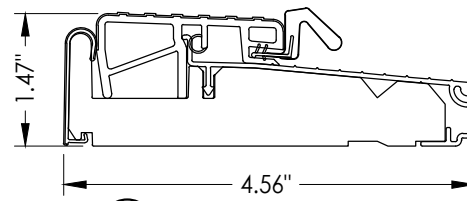
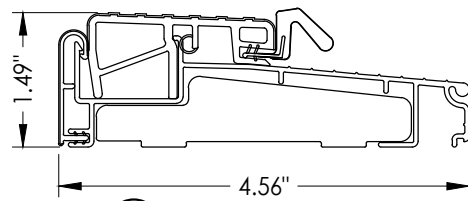
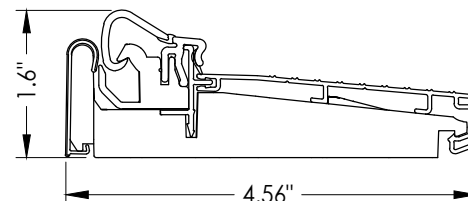
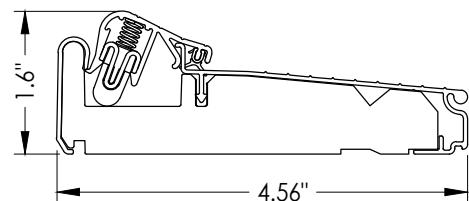
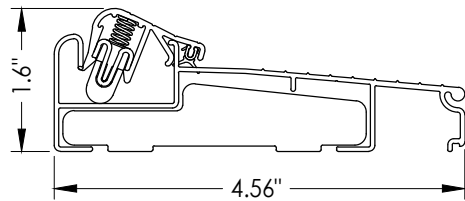
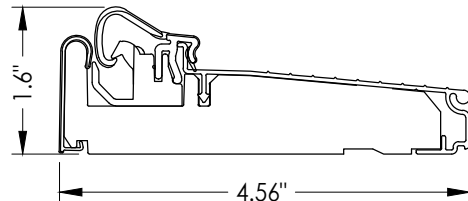
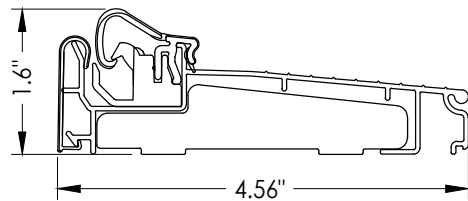
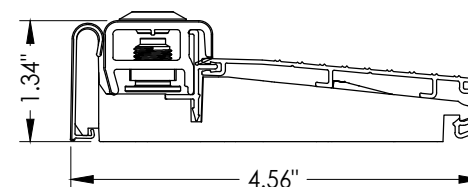
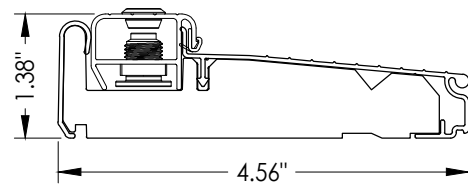
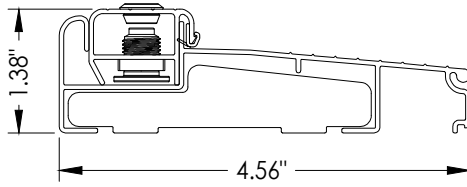
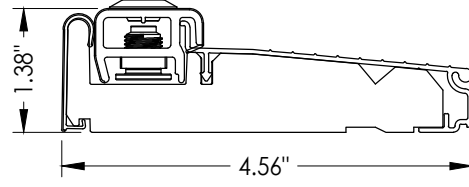
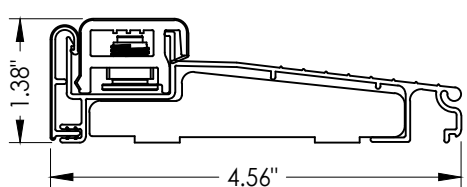
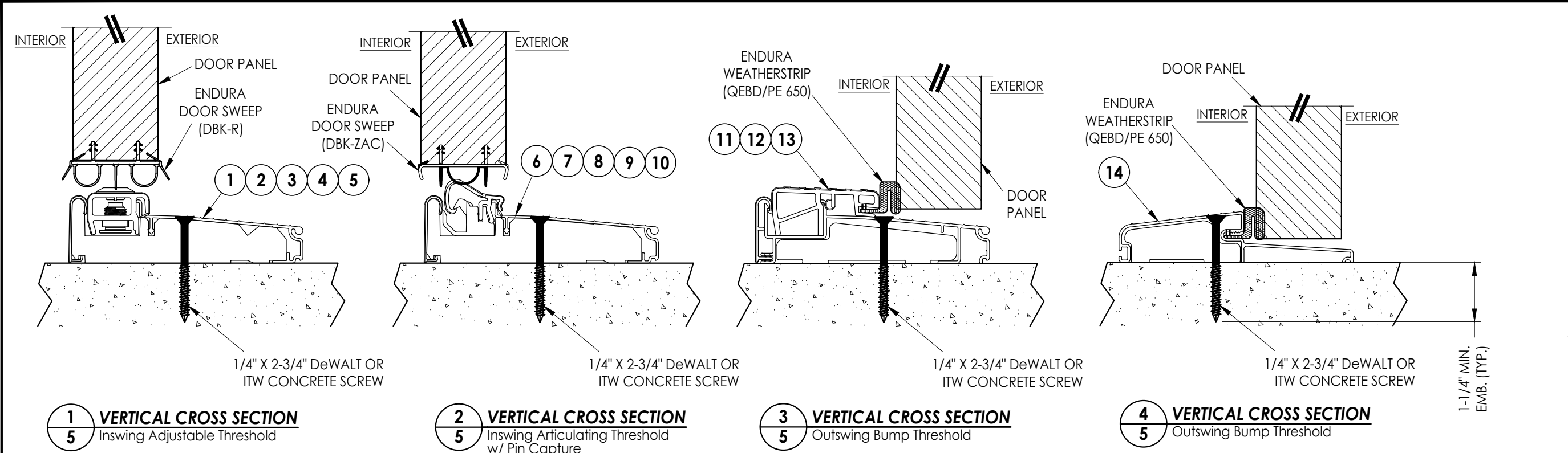
PRODUCT: ENDURA
PART OR ASSEMBLY: DOOR PANEL DETAILS & GLAZING DETAIL

Z:\2023 FBC Drawings\Endura Products\FL-16634 R9\FL-16634.2-8.dwg



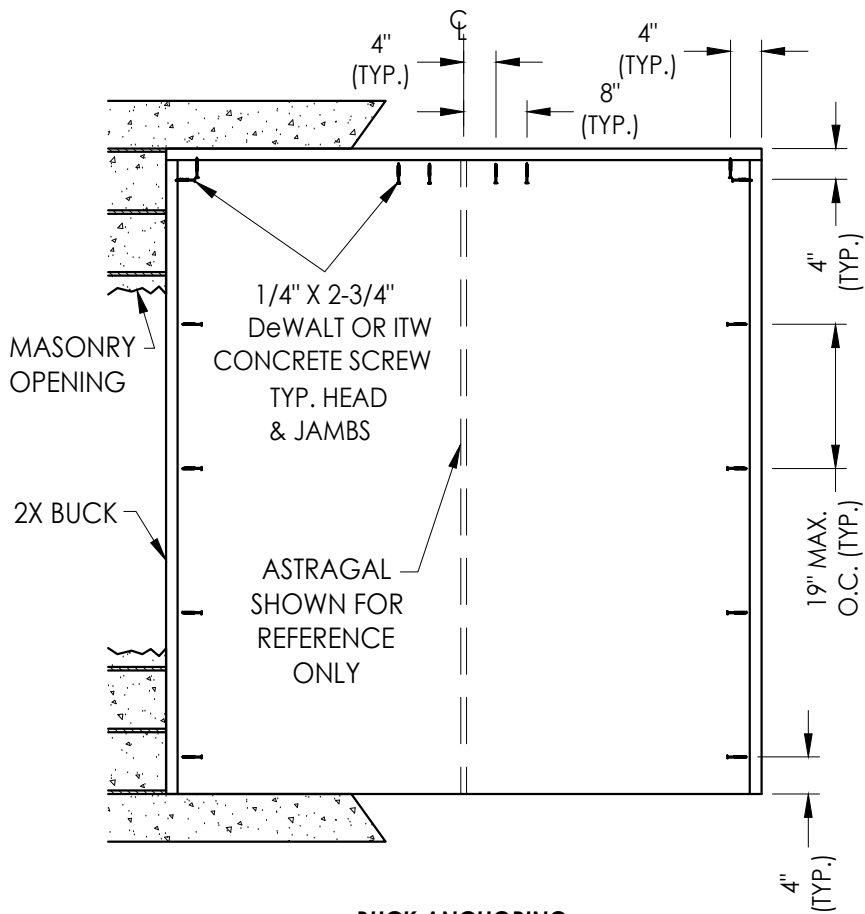
Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT: ENDURA		PART OR ASSEMBLY: HORIZONTAL AND VERTICAL CROSS SECTIONS	
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC LFS
6	8/12/20	UPDATE TO 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	REVISIONS	
DATE: 10/24/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-16634.2			
SHEET 4 OF 6			

Z:\2023 FBC Drawings\Endura Products\FL-16634 R9\FL-16634.2-8.dwg

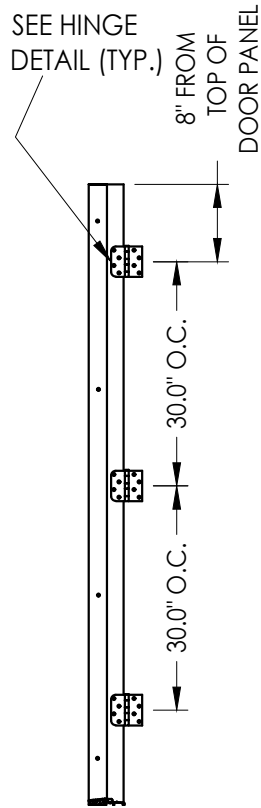


Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409				BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813			
PRODUCT: ENDURA				PART OR ASSEMBLY: THRESHOLD DETAILS			
7	7/07/23	UPDATE TO 8TH ED. (2023)	FBC	LFS			
6	8/12/20	UPDATE TO 7TH ED. (2020)	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-16634.2					
SHEET		5		OF		6	

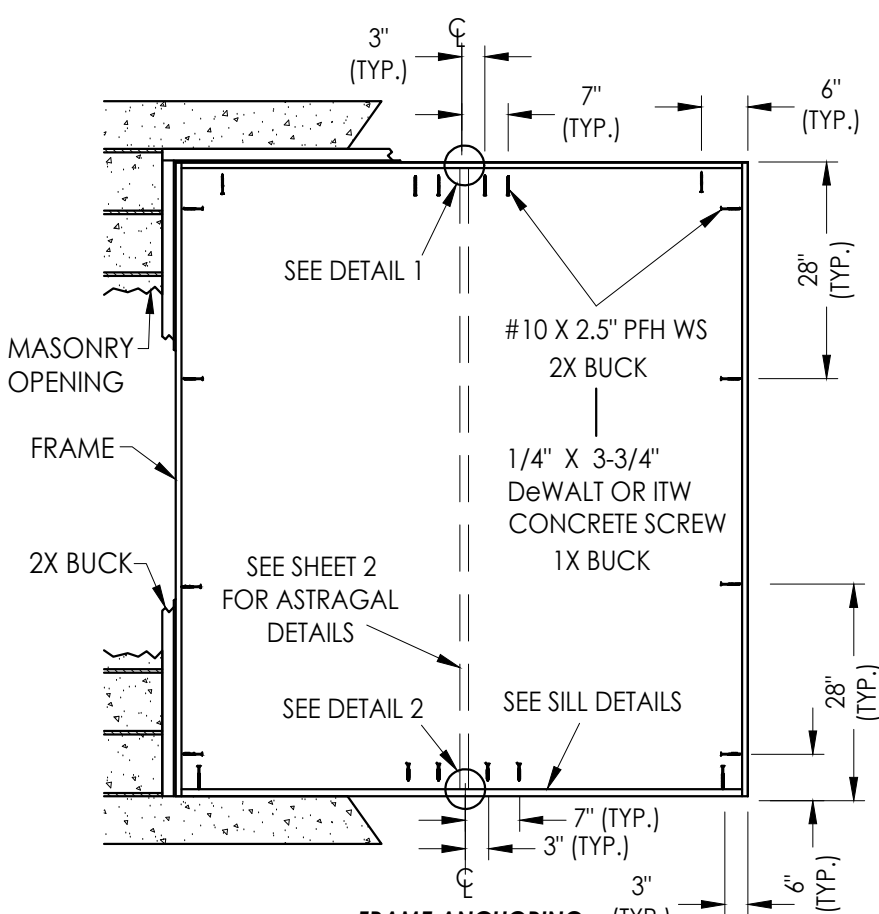
Z:\2023 FBC Drawings\Endura Products\FL-16634 R9\FL-16634.2-8.dwg



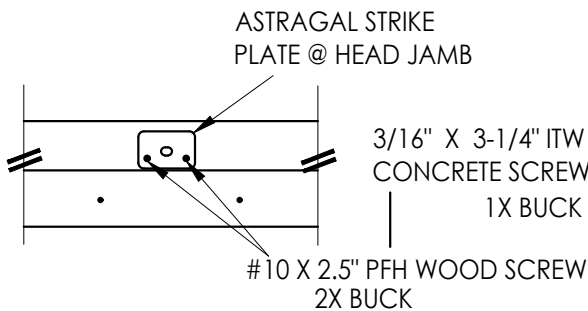
BUCK ANCHORING
XX



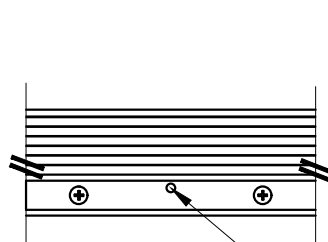
HINGE JAMB



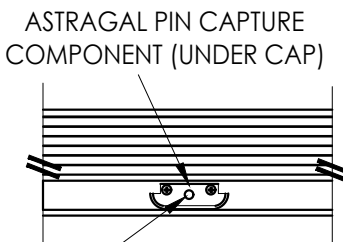
FRAME ANCHORING
XX



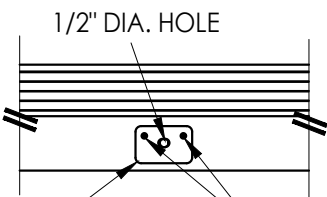
DETAIL 1



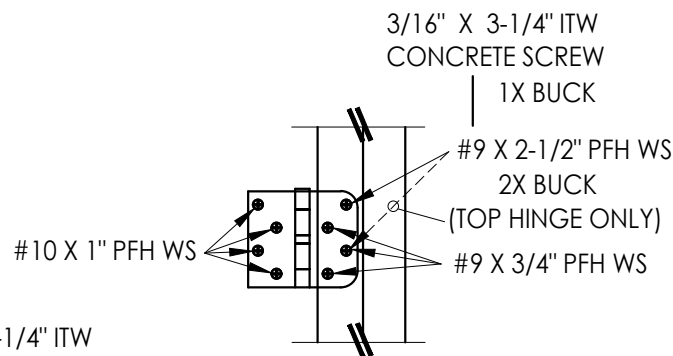
DETAIL 2
Inswing Adjustable
Threshold



DETAIL 2
Inswing Articulating
Threshold



DETAIL 2
Outswing
ASTRAGAL
STRIKE PLATE



HINGE DETAIL

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
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:
BUCK AND FRAME ANCHORING

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

DATE: 10/24/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: FL-16634.2

SHEET 6 OF 6