

Opaque Fiberglass Door

"NON-IMPACT"
IN SWING / OUT SWING

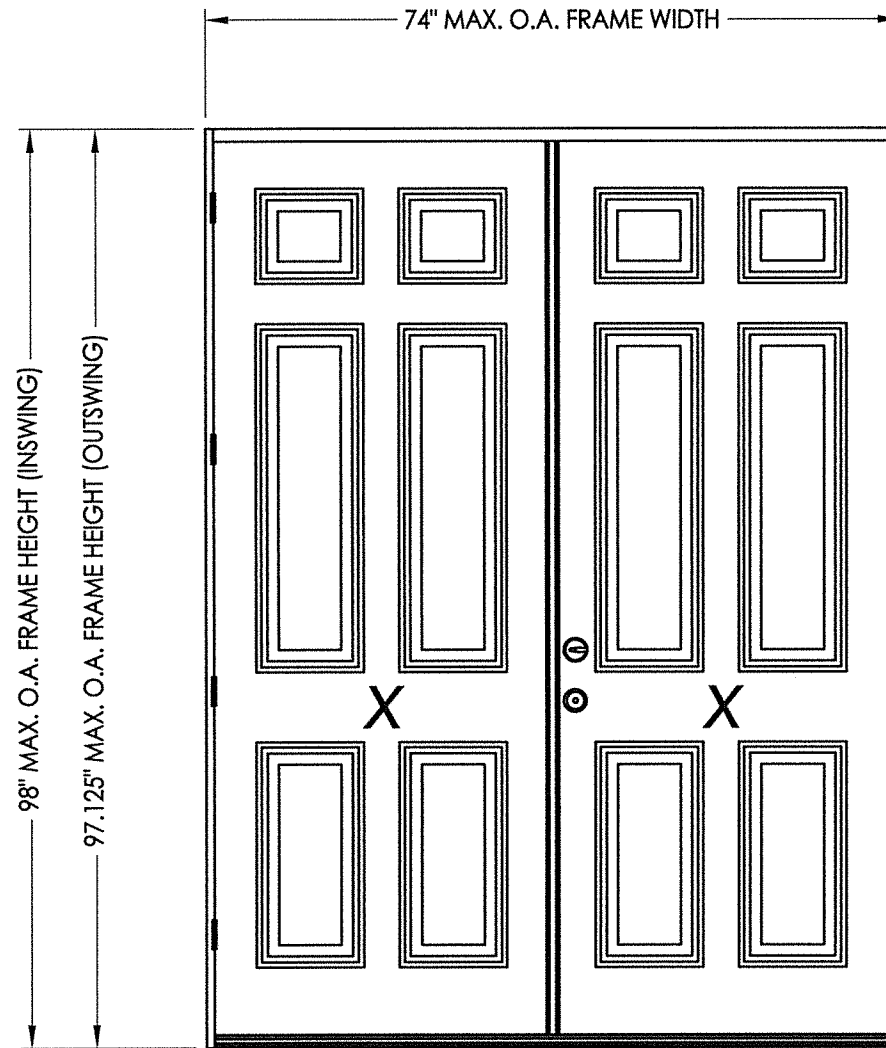
TDI DR-851

EVALUATED FOR USE IN THE STATE OF TEXAS

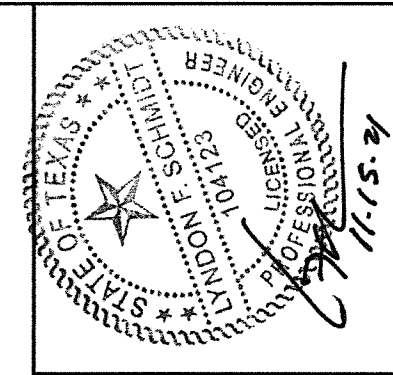
The Fiberglass Door system described herein complies with the 2018 International Residential Code (IRC), Sections R301 & R609 and the 2018 International Building Code (IBC), Sections 1404.13, 1609, 1709.5, 2403 and 2404 subject to the following conditions:

1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection this product is required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.1.2 of the IBC.
3. Allowable design pressure requirements must be equal to or less than the design pressure rating shown in the design pressure chart, sheet 1 of this drawing.
4. Conditions not covered by this drawing are subject to further engineering analysis.

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SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Astragal details (Ultimate Multipoint)
3	Astragal details (Ultimate Hurricane)
4	Door panel details
5	Horizontal & vertical cross sections
6	Vertical cross sections
7	Frame anchoring



CONFIG.	MODEL	DESIGN PRESSURE (PSF) ULTIMATE HURRICANE ASTRAGAL		DESIGN PRESSURE (PSF) ULTIMATE MULTIPOINT ASTRAGAL	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	IN SWING	+45.0	-45.0	+40.0	-40.0
XX	OUT SWING	+45.0	-45.0	+50.0	-50.0



Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

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Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

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

NO.	DATE	REVISIONS
2	11/11/21	UPDATE TO 2018 IBC/IRC CODE
1	10/02/18	UPDATE FOR NEW TESTING

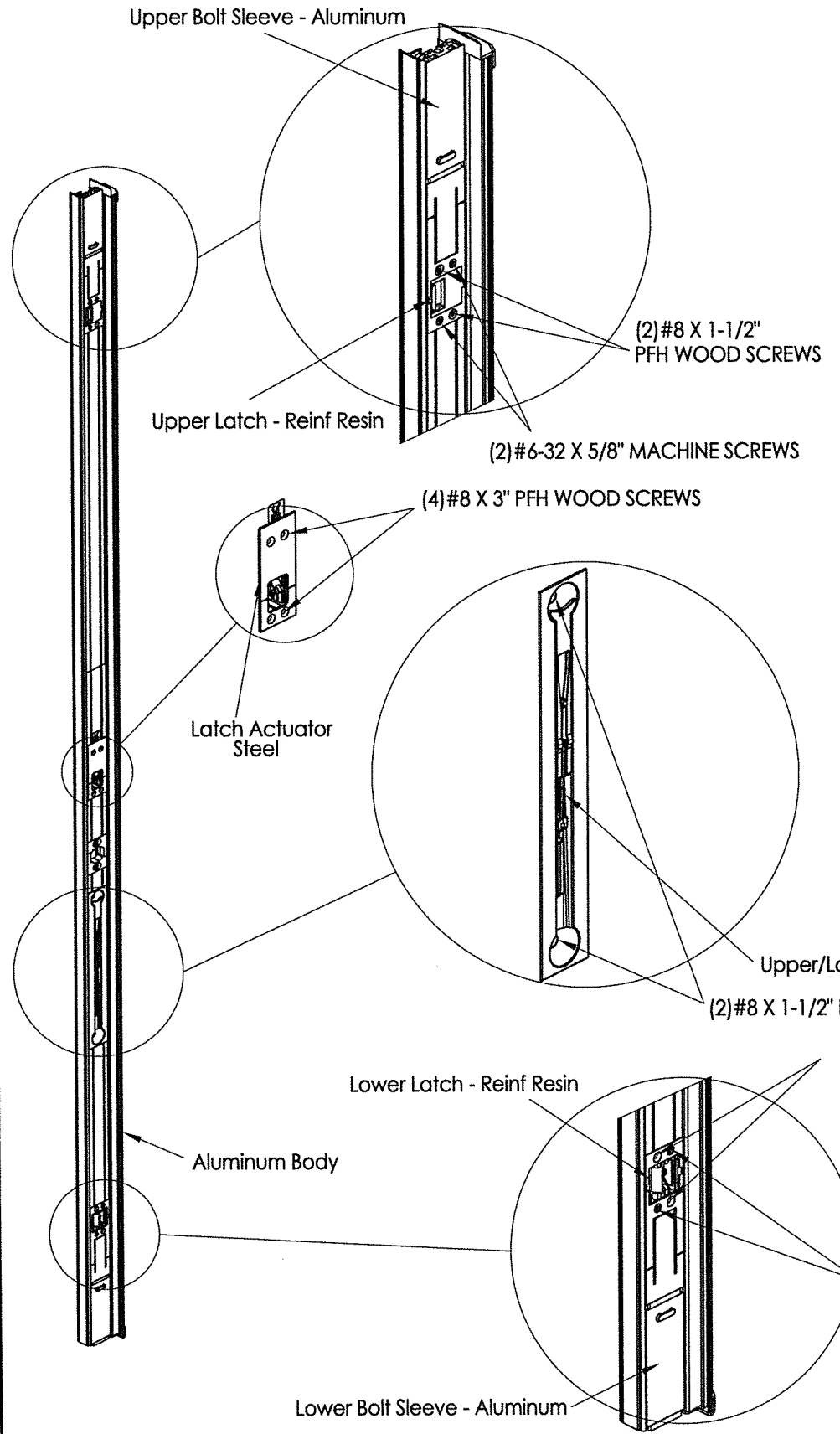
DATE: 11/02/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4650
SHEET 1 OF 7



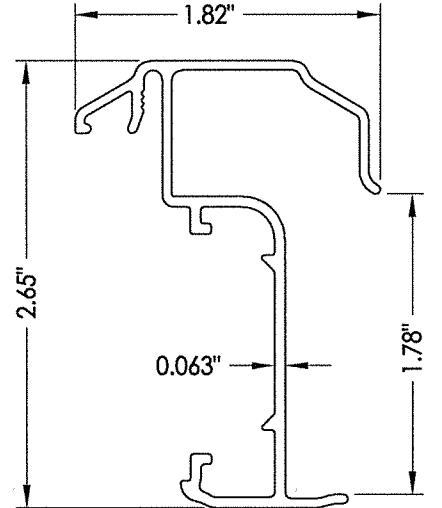
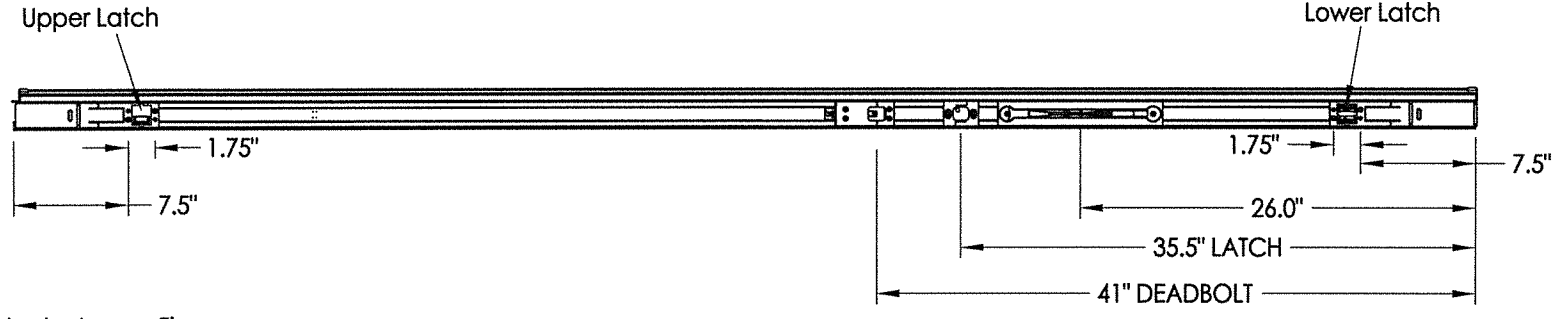
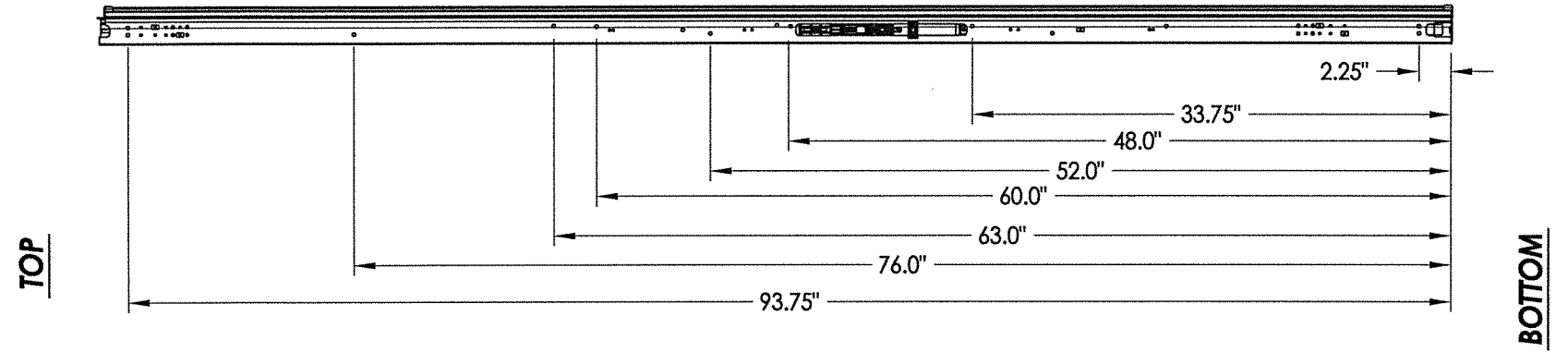
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ULTIMATE MULTIPOINT ASTRAGAL

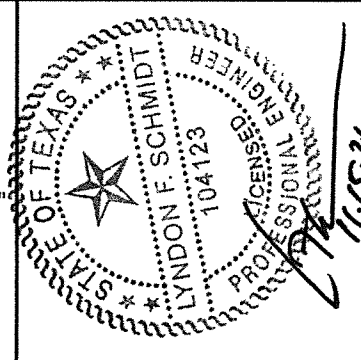
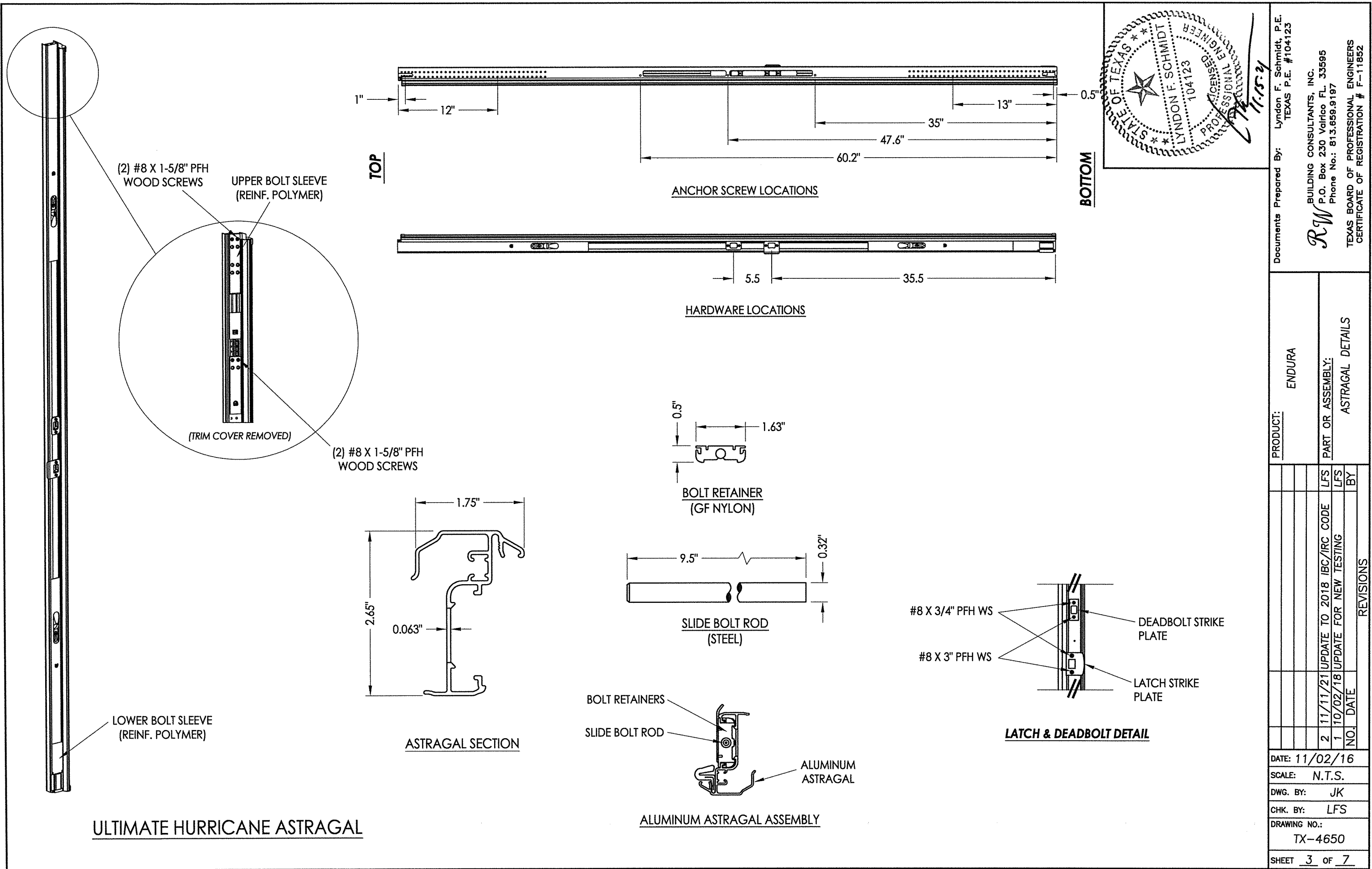


Astragal Section

PRODUCT:	ENDURA
PART OR ASSEMBLY:	ASTRAGAL DETAILS (ULTIMATE MULTI-POINT)

NO.	DATE	REVISIONS
2	11/11/21	UPDATE TO 2018 IBC/IRC CODE
1	10/02/18	UPDATE FOR NEW TESTING
		LFS
		BY

DATE:	11/02/16
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4650
SHEET	2 OF 7



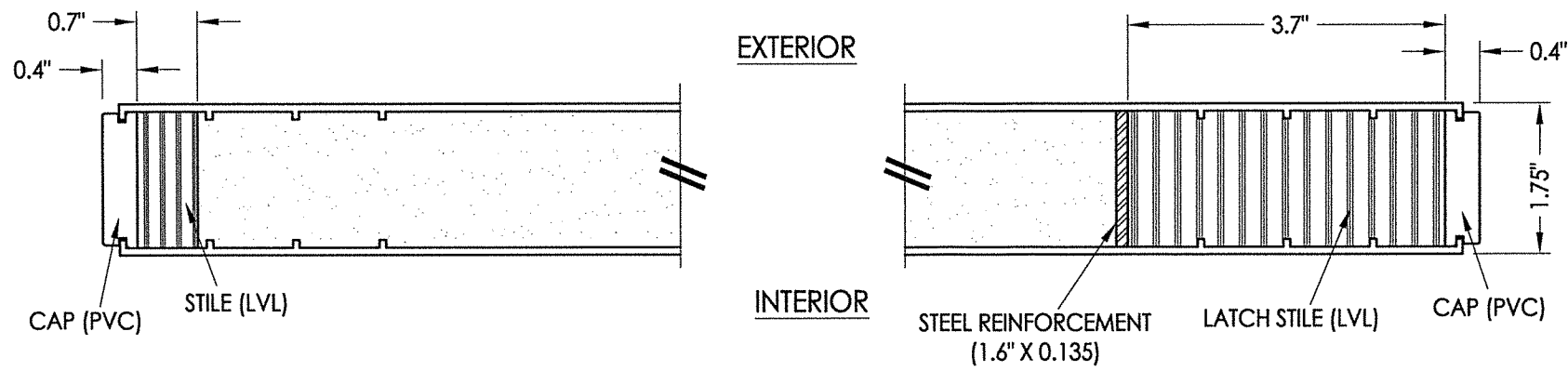
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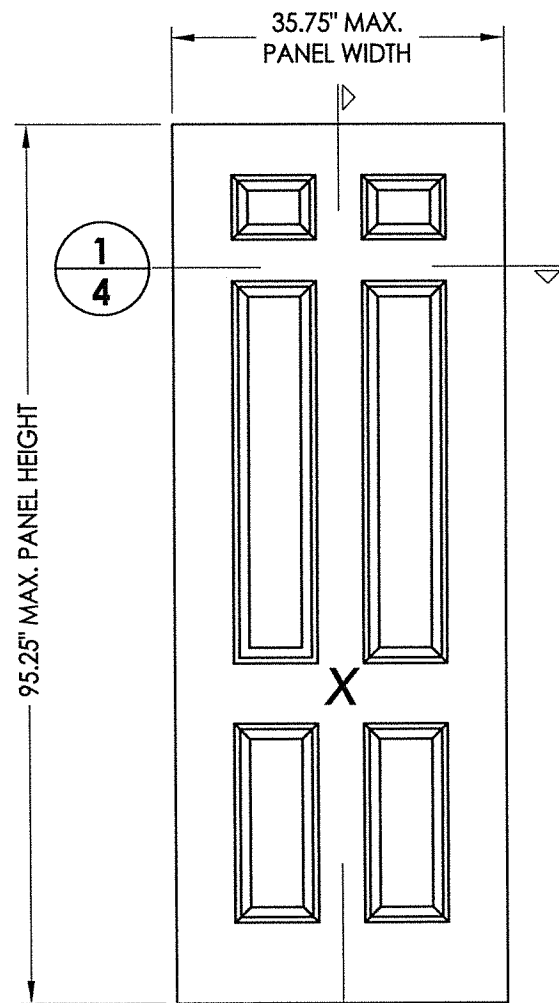
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	ENDURA	
PART OR ASSEMBLY:	ASTRAGAL DETAILS	
NO.	DATE	BY
2	11/11/21	LFS
1	10/02/18	LFS
REVISIONS		
DATE: 11/02/16		
SCALE: N.T.S.		
DWG. BY: JK		
CHK. BY: LFS		
DRAWING NO.: TX-4650		
SHEET 3 OF 7		

Z:\Clients\Endura PERMANENT\B - Texas Dept of Ins\TDI - DR-851 Plastpro FG Opaque (LK,DB)\C - Drawings\TX-4647.50.dwg

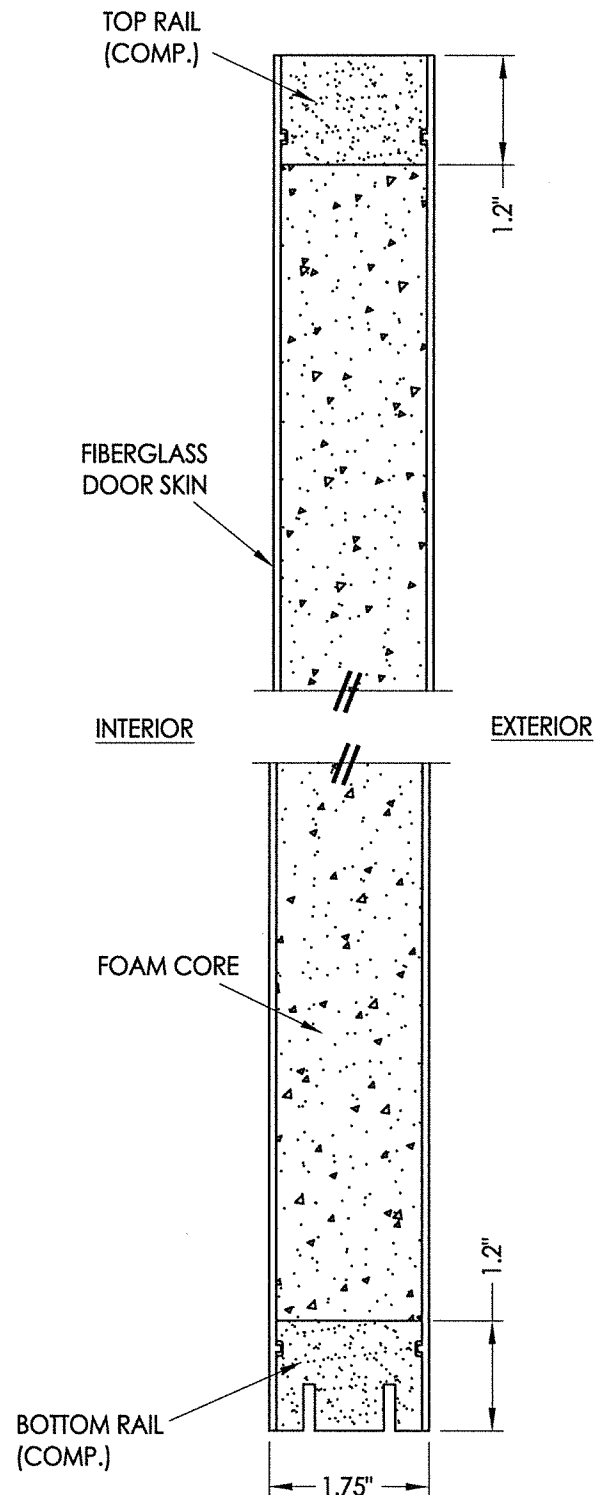


1
4 HORIZONTAL CROSS SECTION

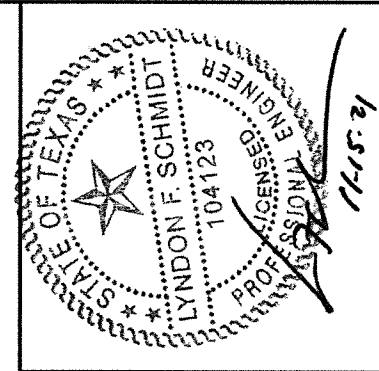


40 DOOR PANEL
Plastpro
Fiberglass

DOOR SKIN: FIBERGLASS (0.075" MIN. THICKNESS)
CORE MATERIAL: POLYURETHANE FOAM (1.9 PCF MIN.)



2
4 VERTICAL CROSS SECTION



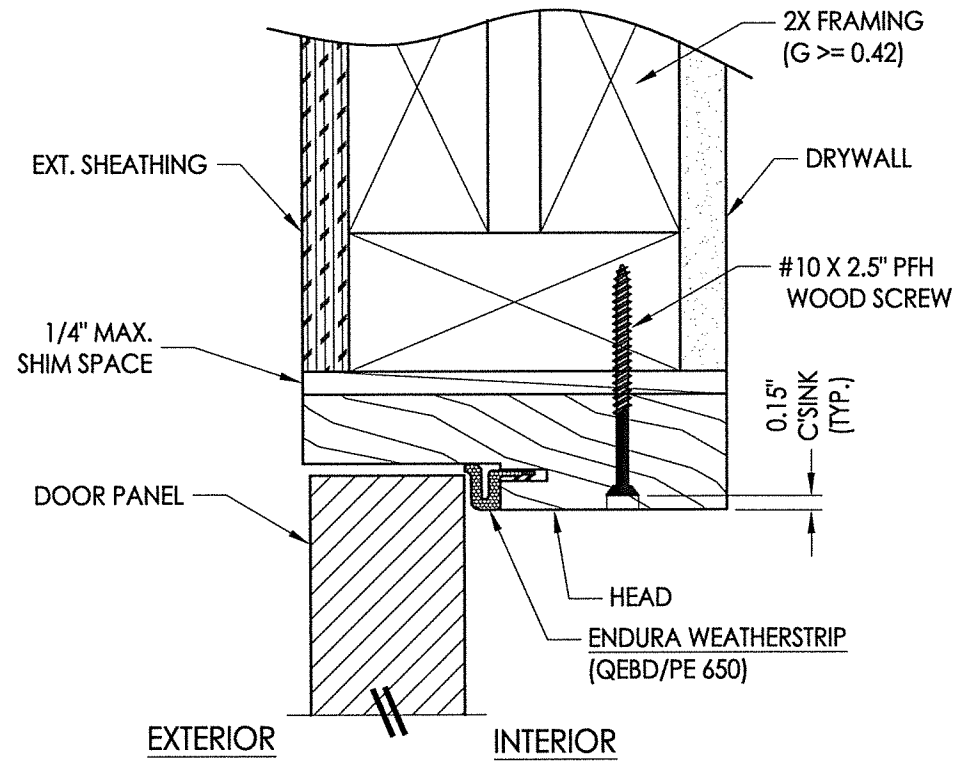
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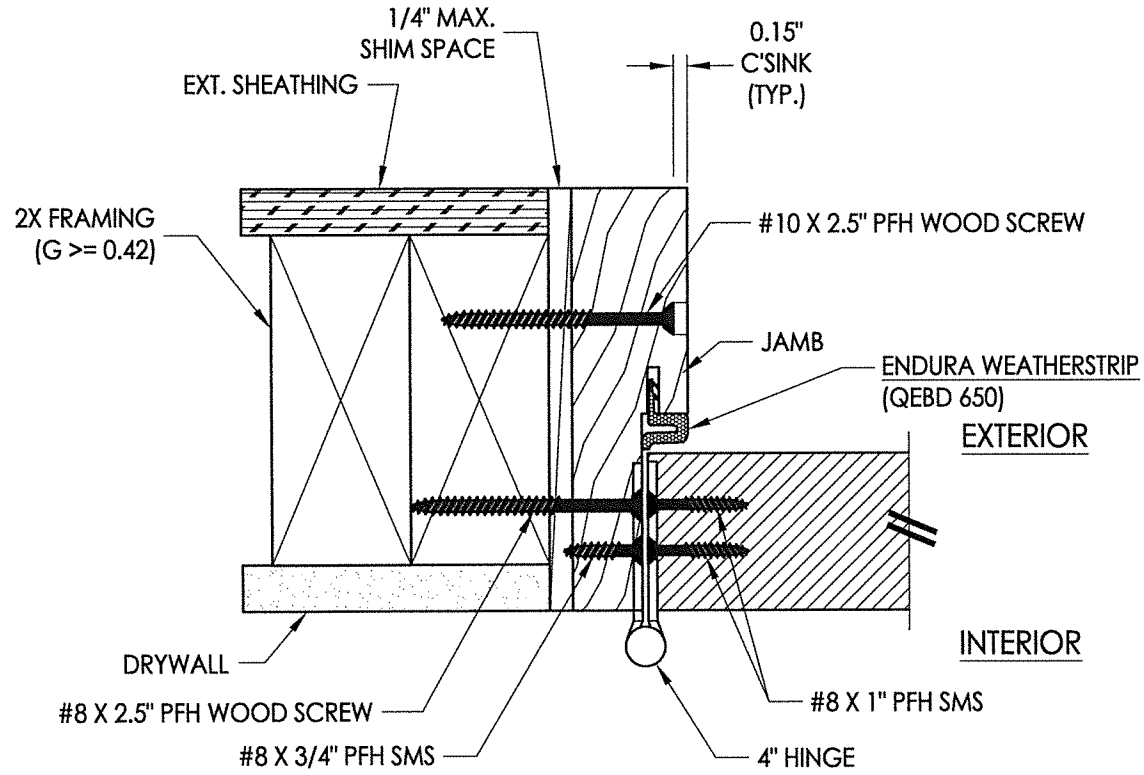
PRODUCT: ENDURA
PART OR ASSEMBLY: DOOR PANEL DETAILS & GLAZING DETAIL

NO.	DATE	REVISIONS
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1	10/02/18	UPDATE FOR NEW TESTING

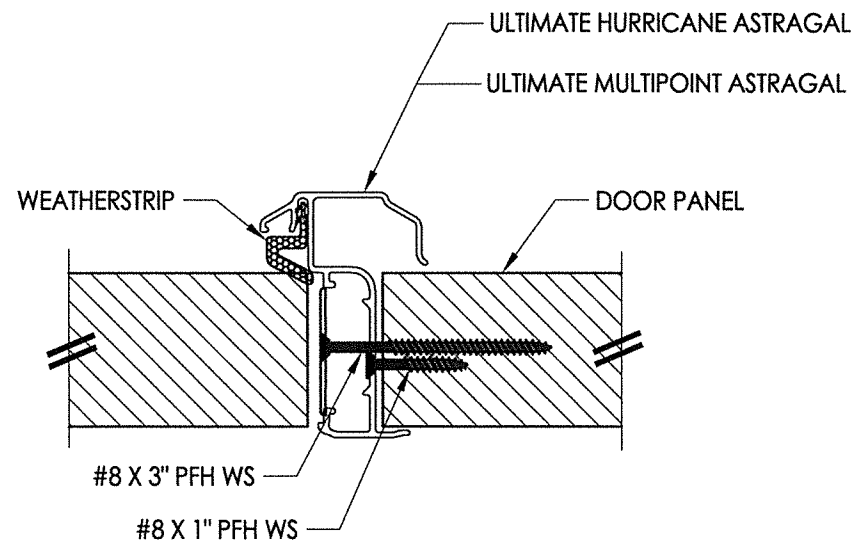
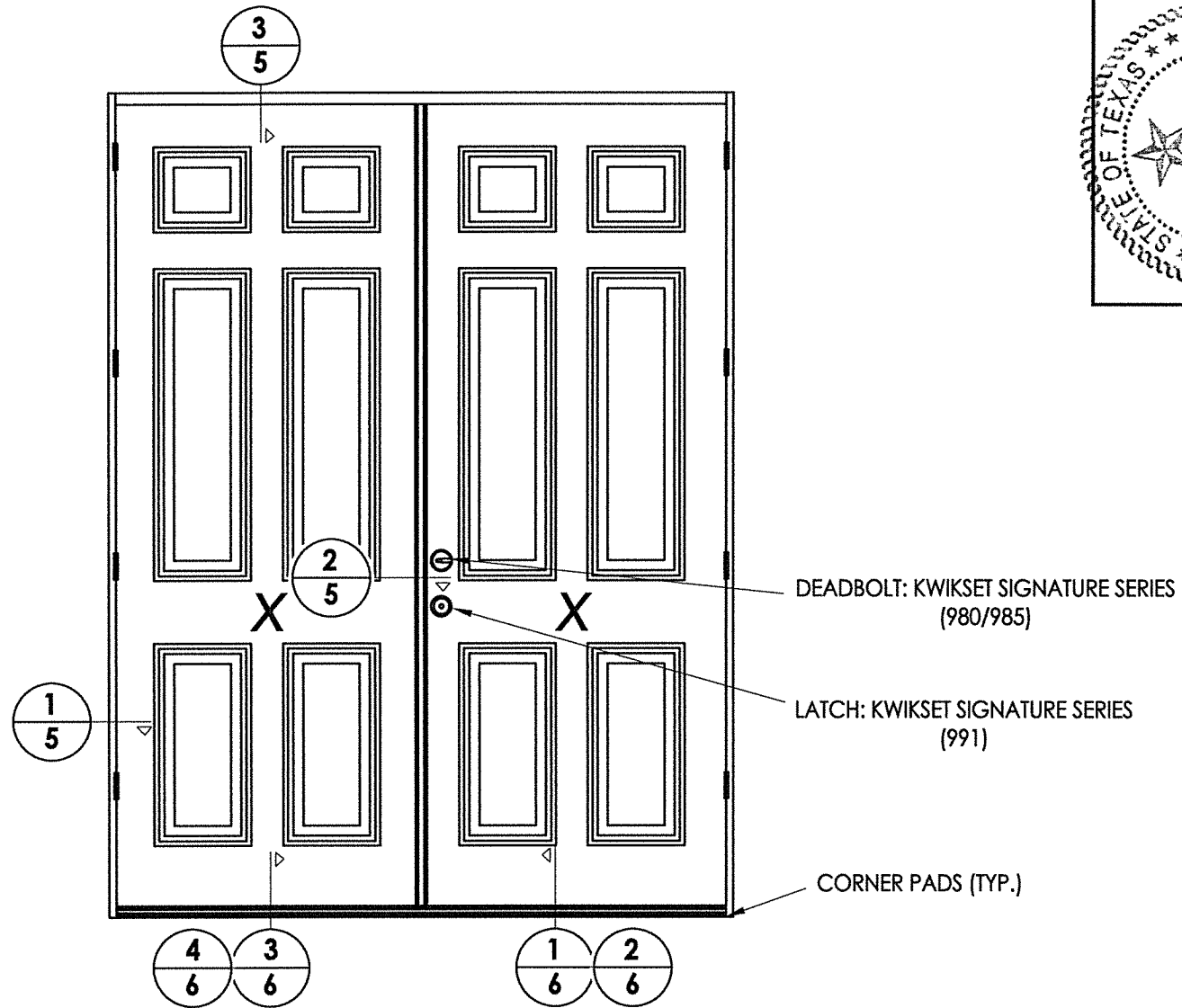
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SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4650
SHEET 4 OF 7



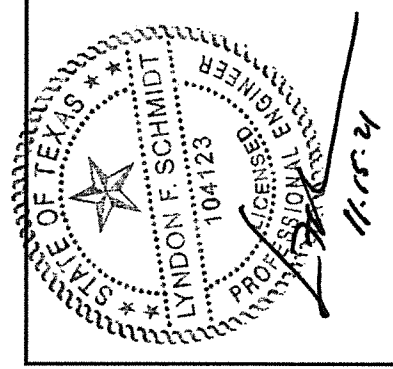
3 VERTICAL CROSS SECTION
5 Outswing shown - inswing also approved



1 HORIZONTAL CROSS SECTION
5 Inswing shown - Outswing also approved



2 HORIZONTAL CROSS SECTION
5



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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

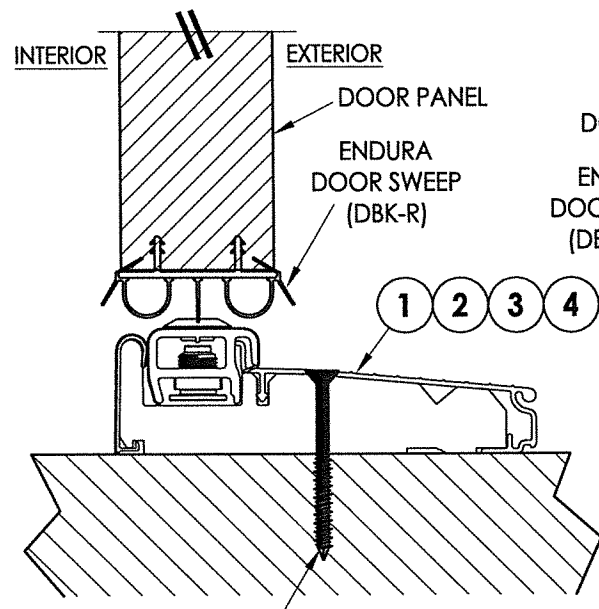
PART OR ASSEMBLY:
HORIZONTAL & VERTICAL
CROSS SECTIONS

NO	DATE	REVISIONS
2	11/11/21	UPDATE TO 2018 IBC/IRC CODE
1	10/02/18	UPDATE FOR NEW TESTING

DATE: 11/02/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4650

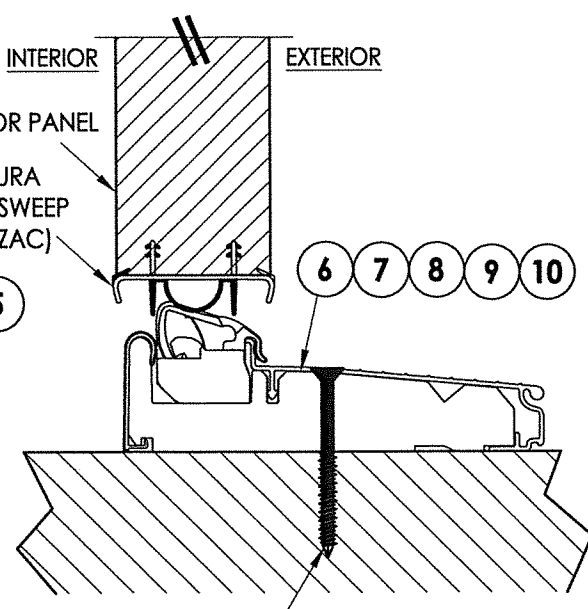
SHEET 5 OF 7

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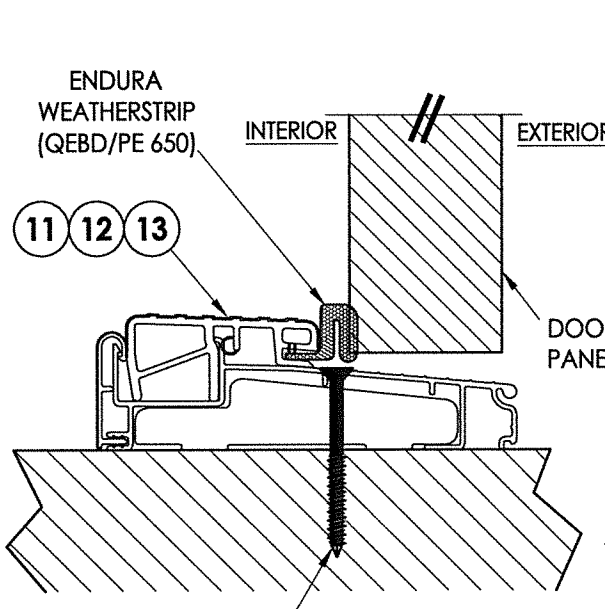
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" DeWALT OR ITW CONCRETE SCREW

1 VERTICAL CROSS SECTION
6 Inswing Adjustable Threshold



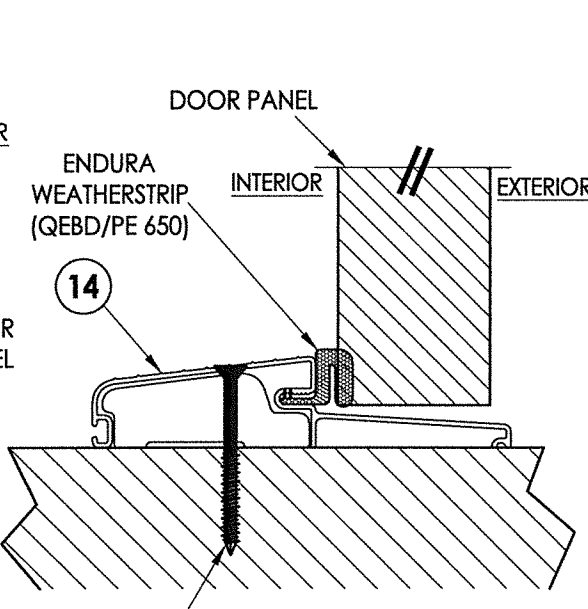
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" DeWALT OR ITW CONCRETE SCREW

2 VERTICAL CROSS SECTION
6 Inswing Articulating Threshold w/ Pin Capture



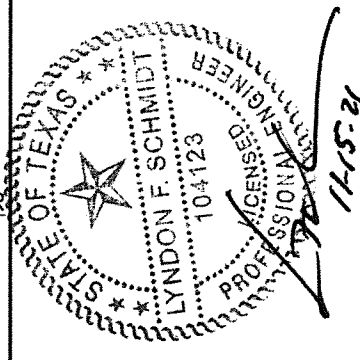
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1/4" X 2-3/4" DeWALT OR ITW CONCRETE SCREW

3 VERTICAL CROSS SECTION
6 Outswing Bump Threshold



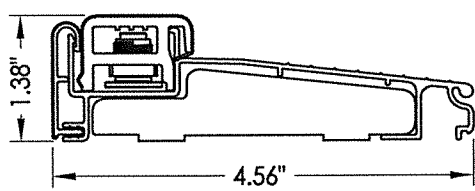
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" DeWALT OR ITW CONCRETE SCREW

4 VERTICAL CROSS SECTION
6 Outswing Bump Threshold

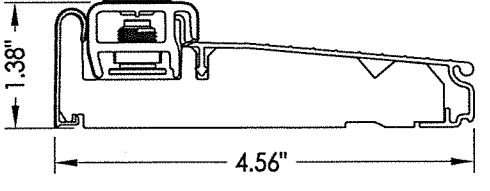


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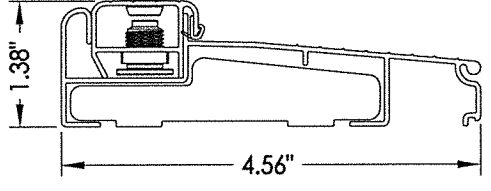
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P.O. Box 230 Valrico FL 33595
Phone No.: 813.659.9197
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852



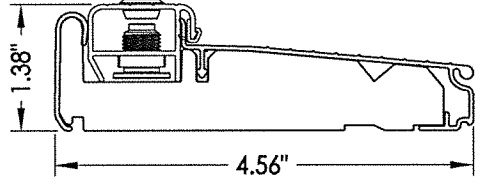
1 INSWING ADJUSTABLE THRESHOLD
ZAIL4565



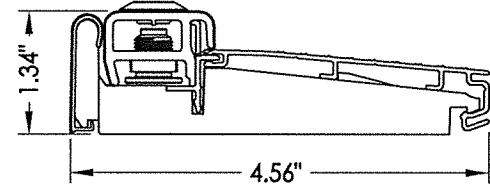
2 INSWING ADJUSTABLE THRESHOLD
ZAI4565FN
MAX. DESIGN PRESSURE = ±40 PSF



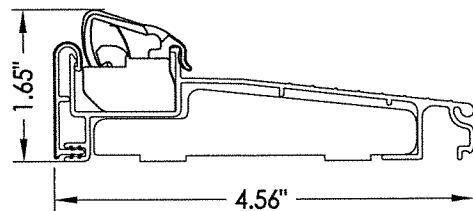
3 INSWING ADJUSTABLE THRESHOLD
ZAILAA4565



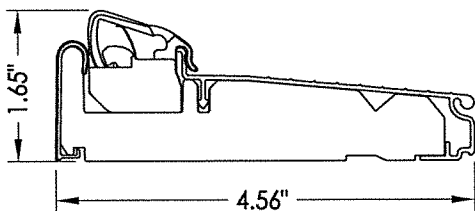
4 INSWING ADJUSTABLE THRESHOLD
ZIAA4565FN
MAX. DESIGN PRESSURE = ±40 PSF



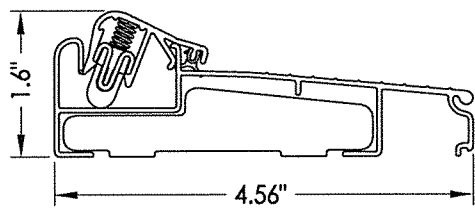
5 INSWING ADJUSTABLE THRESHOLD
ZAI4565RDS
MAX. DESIGN PRESSURE = ±40 PSF



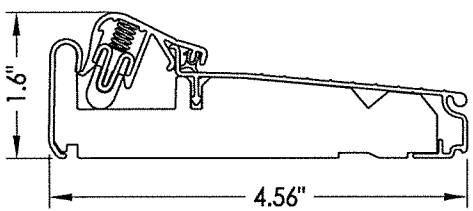
6 INSWING ARTICULATING THRESHOLD
ZACL4565
MAX. DESIGN PRESSURE = ±40 PSF



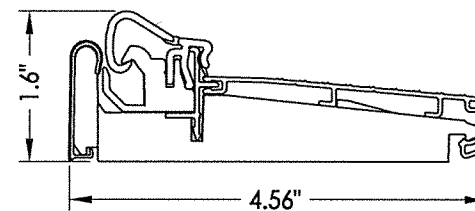
7 INSWING ARTICULATING THRESHOLD
ZAC4565FN
MAX. DESIGN PRESSURE = ±40 PSF



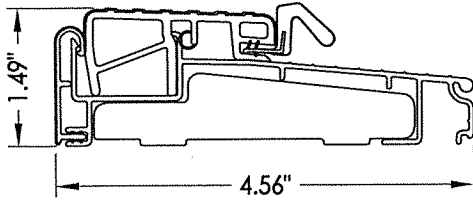
8 INSWING ARTICULATING THRESHOLD
ZACAA4565
MAX. DESIGN PRESSURE = ±40 PSF



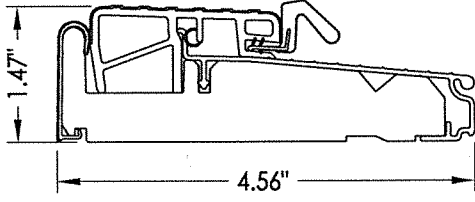
9 INSWING ARTICULATING THRESHOLD
ZACAA4565FN
MAX. DESIGN PRESSURE = ±40 PSF



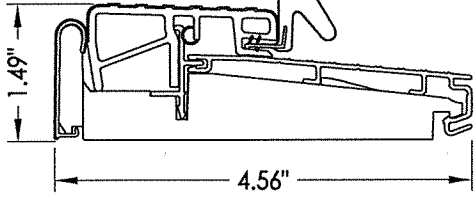
10 INSWING ARTICULATING THRESHOLD
ZAC4565RDS
MAX. DESIGN PRESSURE = ±35 PSF



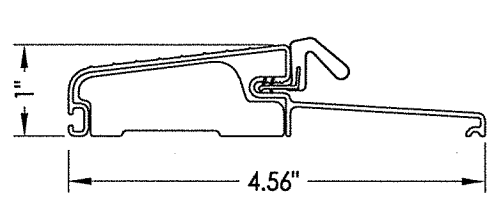
11 OUTSWING THRESHOLD
ZOBL4565



12 OUTSWING THRESHOLD
ZOB4565FN



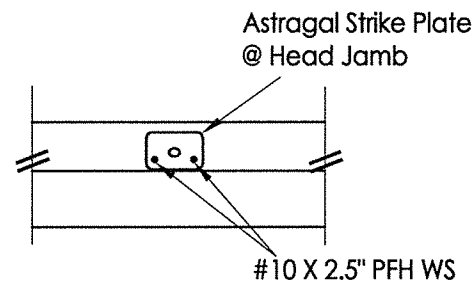
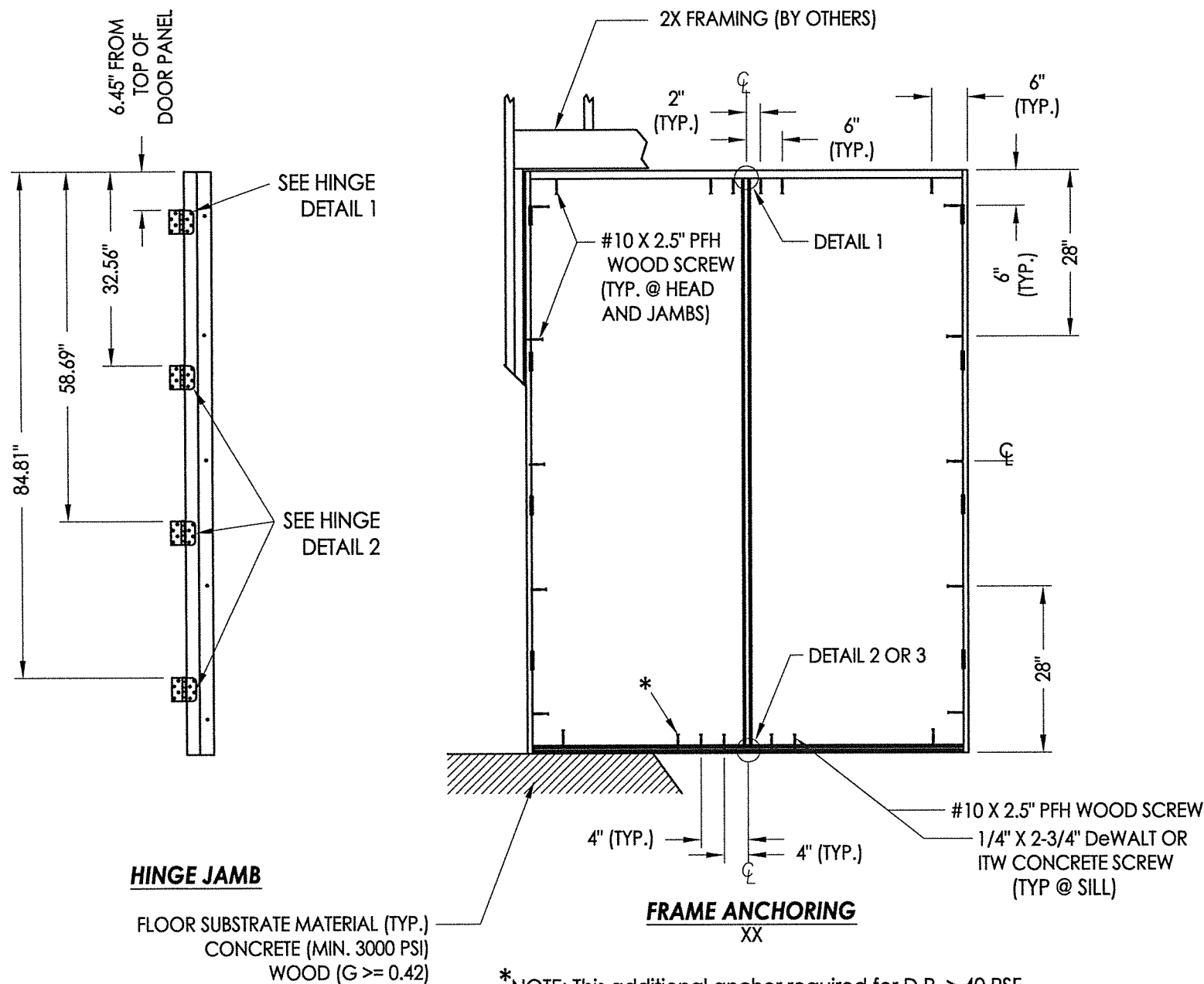
13 OUTSWING THRESHOLD
ZOB4565RDS



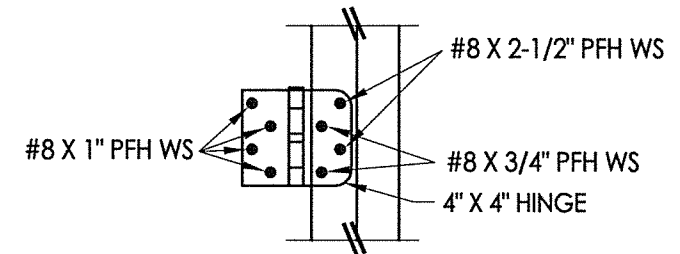
14 OUTSWING THRESHOLD
FOB4566

PRODUCT:	ENDURA	
PART OR ASSEMBLY:	VERTICAL CROSS SECTIONS	
DATE	NO.	BY
11/02/18	1	LFS
11/11/21	2	LFS
UPDATE TO 2018 IBC/IRC CODE		
UPDATE FOR NEW TESTING		
DATE	NO.	BY
11/02/16		
SCALE:	N.T.S.	
DWG. BY:	JK	
CHK. BY:	LFS	
DRAWING NO.:	TX-4650	
SHEET	6	OF 7

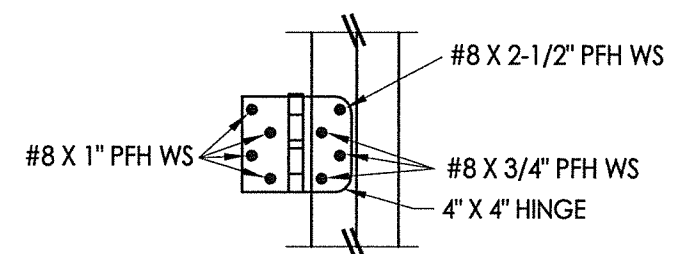
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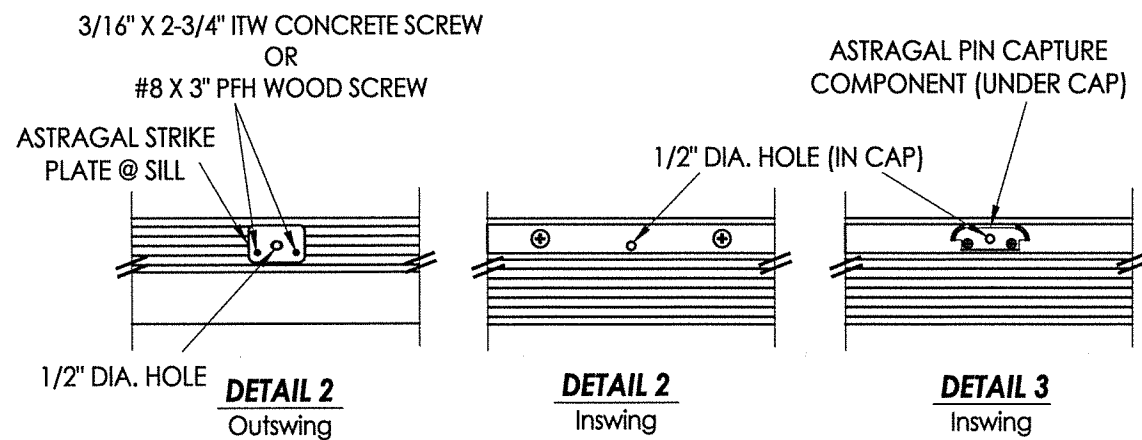
DETAIL 1



HINGE DETAIL 1



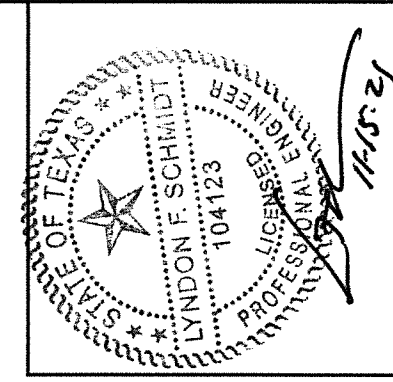
HINGE DETAIL 2



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®	3/16"	1-3/4"	3"	1-1/2"
	1/4"	1-3/4"	1-1/2"	4"
DeWALT ULTRACON®	1/4"	1-3/4"	1"	4"



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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	REVISIONS
2	11/11/21	UPDATE TO 2018 IBC/IRC CODE
1	10/02/18	UPDATE FOR NEW TESTING

DATE: 11/02/16

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4650

SHEET 7 OF 7