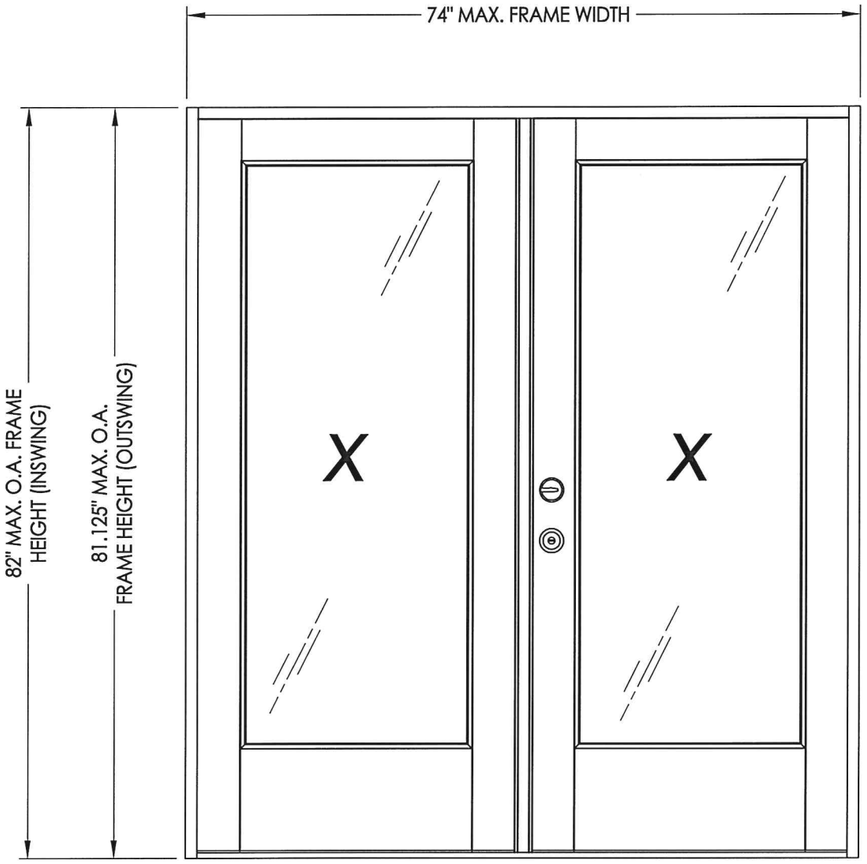
Endura PRODUCTS, INC.

8811 West Market Street
Colfax, NC 27235

Glazed Steel Door

"NON-IMPACT"
INSWING / OUTSWING



EVALUATED FOR USE IN THE STATE OF TEXAS

The Glazed Steel Door system described herein complies with the 2006 International Residential Code (IRC), Sections R301 & R613 and the 2006 International Building Code (IBC), Sections 1405.12, 1609, 1714.5, 2403 and 2404 (including Texas revisions) 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.

TABLE OF CONTENTS	
SHEET#	***DESCRIPTION***
1	Typical elevations, design pressures & general notes
2	Astragal details (Ultimate Flip Lever)
3	Astragal details (Ultimate Multi-point)
4	Astragal details (Ultimate Hurricane)
5	Door panel details (lip lite insert glazing)
6	Horizontal cross sections
7	Vertical cross sections
8	Frame anchoring

CONFIGURATION	*MODEL*	*DESIGN PRESSURE (PSF) ULTIMATE HURRICANE ASTRAGAL*		*DESIGN PRESSURE (PSF) ULTIMATE MULTI-POINT ASTRAGAL*		*DESIGN PRESSURE (PSF) ULTIMATE FLIP LEVER ASTRAGAL*	
		POSITIVE	***NEGATIVE***	***POSITIVE***	***NEGATIVE***	***POSITIVE***	***NEGATIVE***
XX	***INSWING***	***+40.0***	***-45.0***	***+50.0***	***-50.0***	***+40.0***	***-45.0***
	OUTSWING	***+45.0***	***-45.0***	***+50.0***	***-50.0***	***+40.0***	***-40.0***

Documents Prepared By: Lyndon F. Schmidt, P.E.
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RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
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*

REVISIONS

NO.	DATE	BY
2	5/5/15	LFS
	ADD NEW ASTRAGAL PIN CAPTURE	
1	12/03/13	LFS
	ADDED ARTICULATING SILL	

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 1 OF 8

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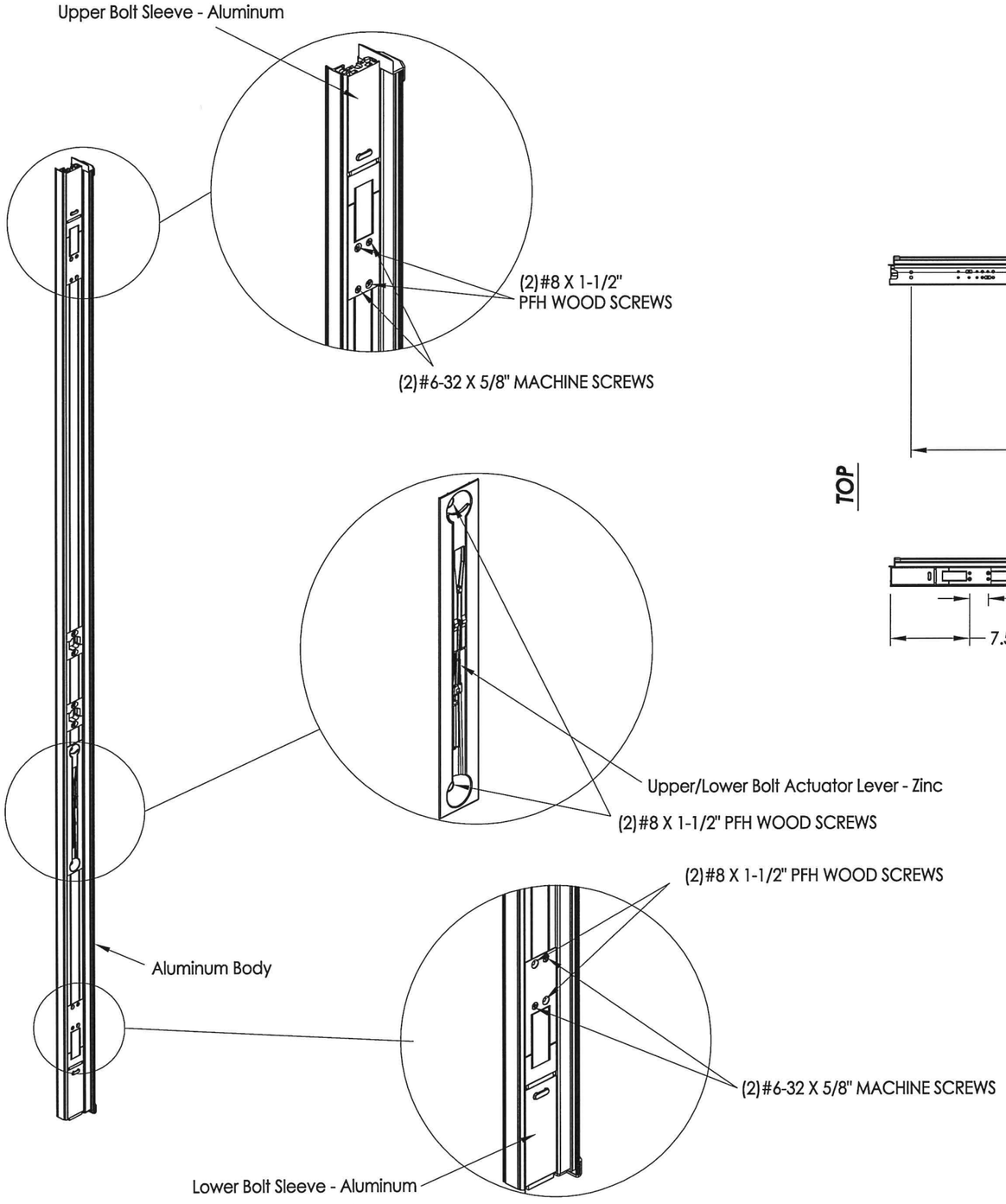
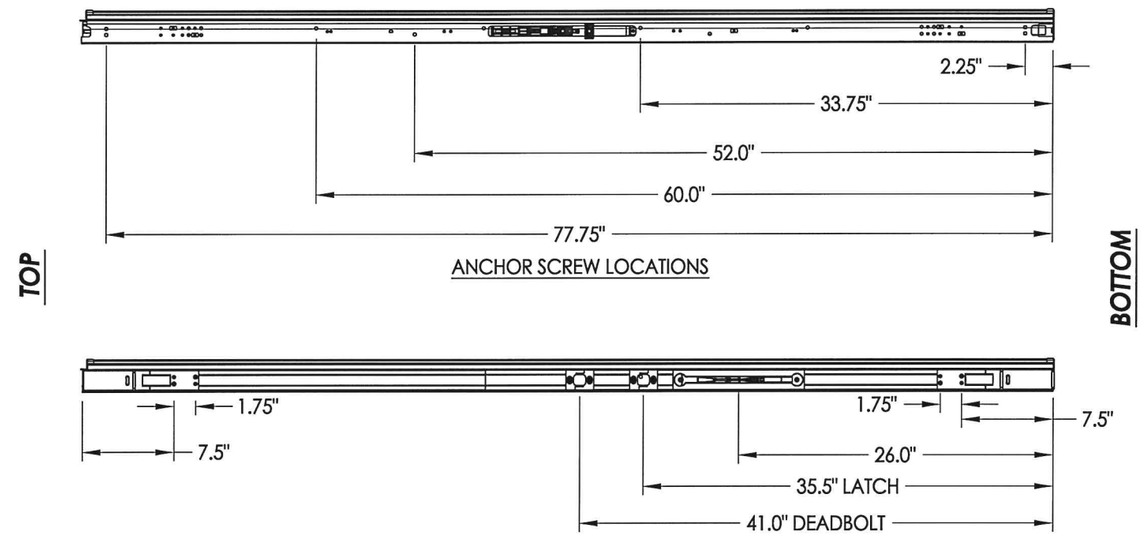
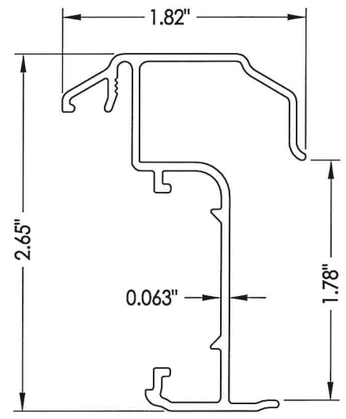


ULTIMATE FLIP LEVER ASTRAGAL





Astragal Section

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
5.11.15

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

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE FLIP LEVER)

NO.	DATE	REVISIONS	BY
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	12/03/13	ADDED ARTICULATING SILL	LFS

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 2 OF 8

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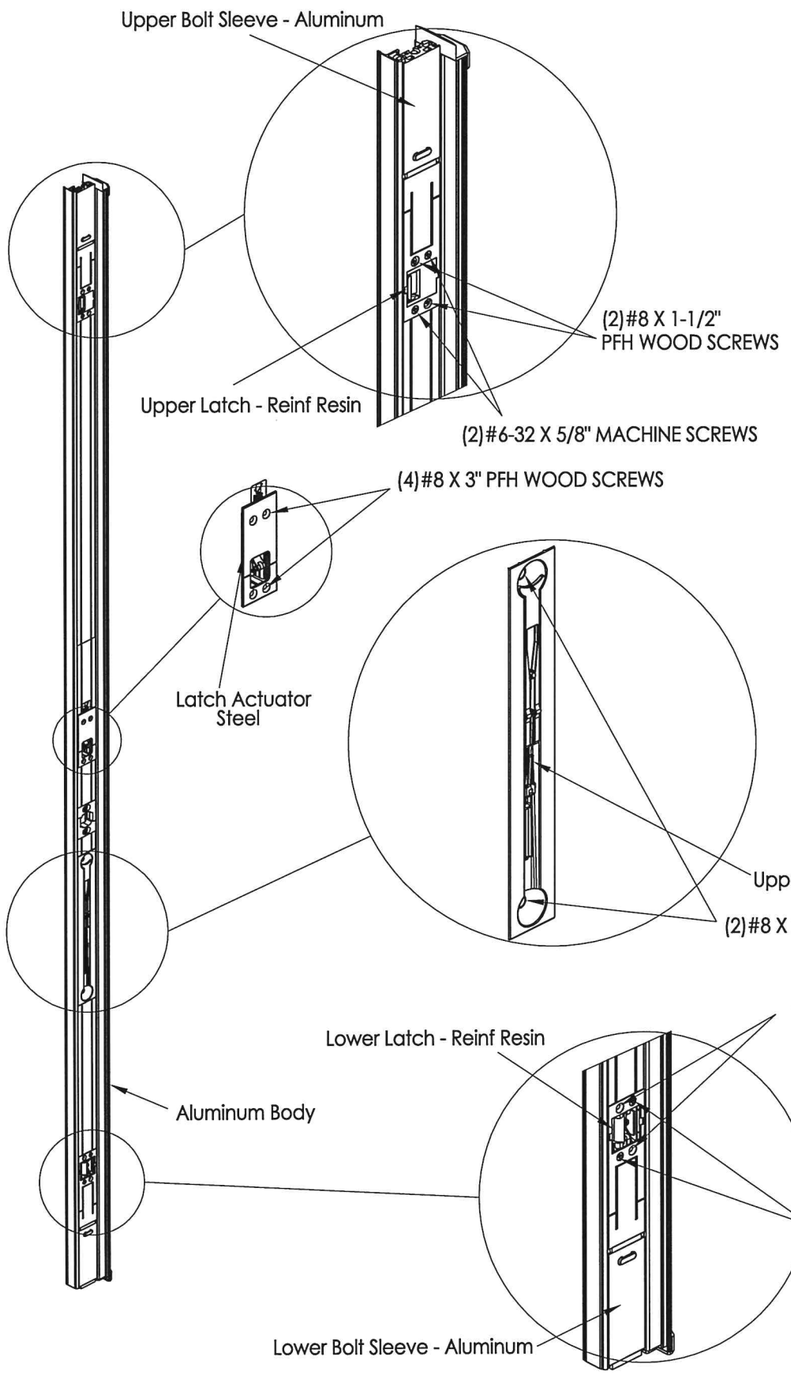
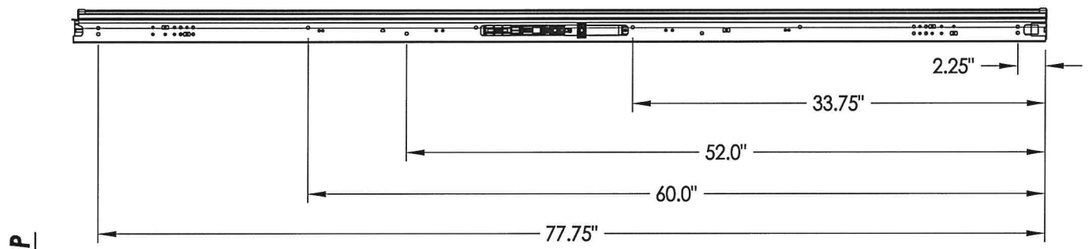
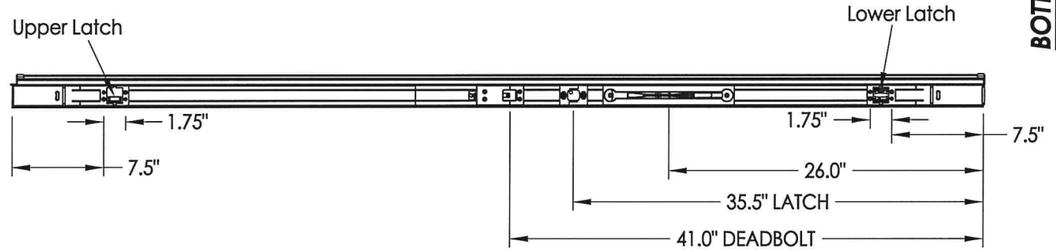
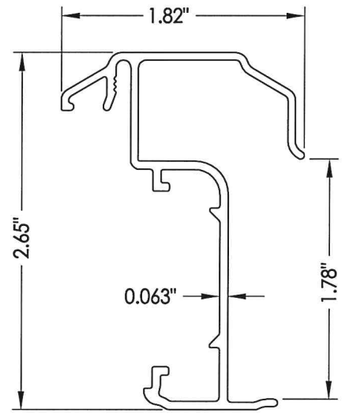


ULTIMATE MULTI-POINT ASTRAGAL



ANCHOR SCREW LOCATIONS





Astragal Section

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

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER

PRODUCT: ENDURA

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

NO.	DATE	REVISIONS	BY
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	12/03/13	ADDED ARTICULATING SILL	LFS

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 3 OF 8

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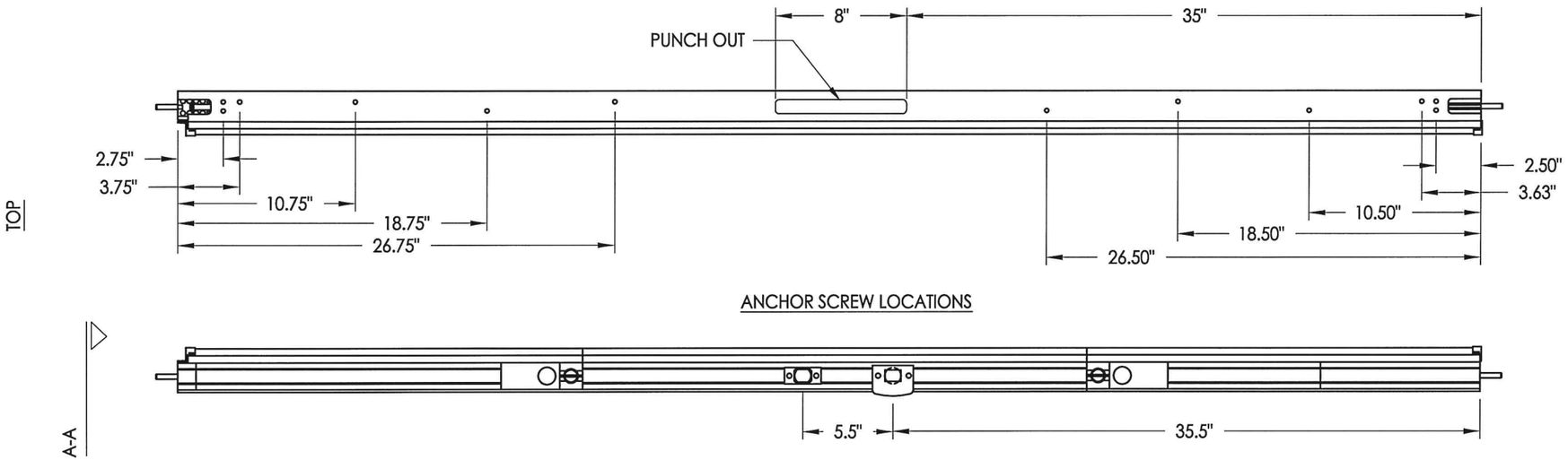
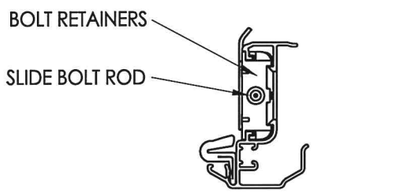
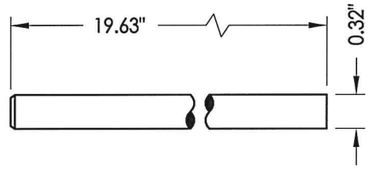


ANCHOR SCREW LOCATIONS

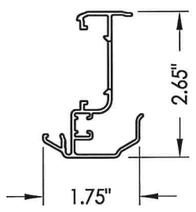
6'-8" ALUMINUM ASTRAGAL ASSEMBLY
By Endura



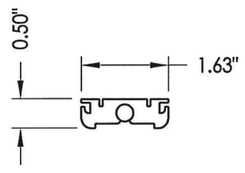
VIEW A-A
Aluminum Astragal Assembly



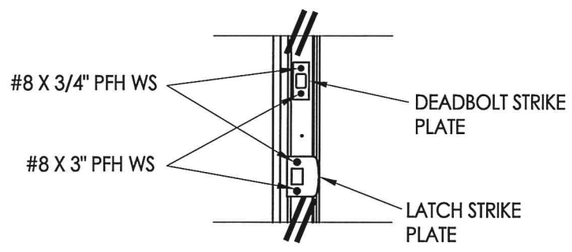
SLIDE BOLT ROD
MATL: Steel



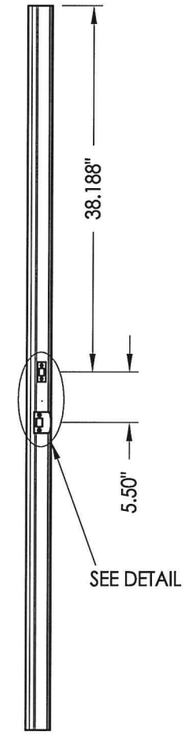
ULTIMATE HURRICANE ASTRAGAL



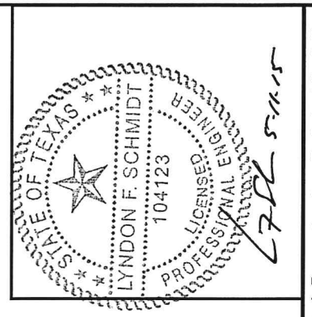
BOLT RETAINER
MATL: 9-3/4" Aluminum



LATCH & DEADBOLT DETAIL



ASTRAGAL



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

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)

NO.	DATE	BY
2	5/5/15	LFS
1	12/03/13	LFS

REVISIONS
ADDED ARTICULATING SILL
ADD NEW ASTRAGAL PIN CAPTURE

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 4 OF 8

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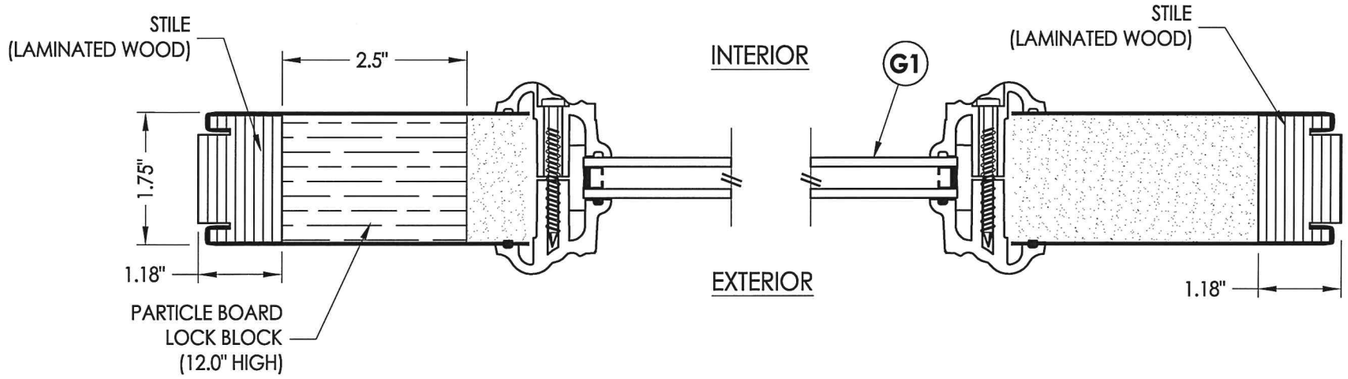
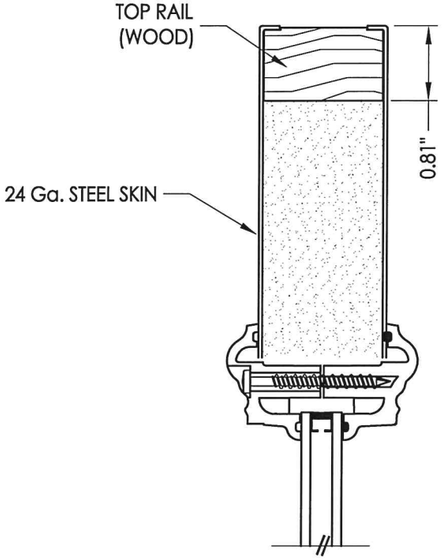
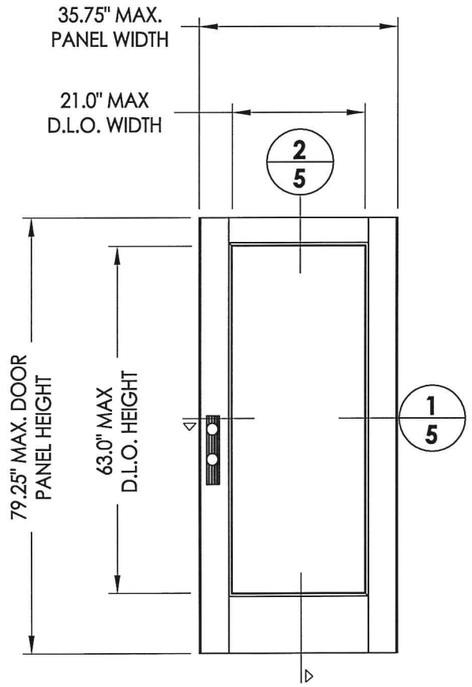


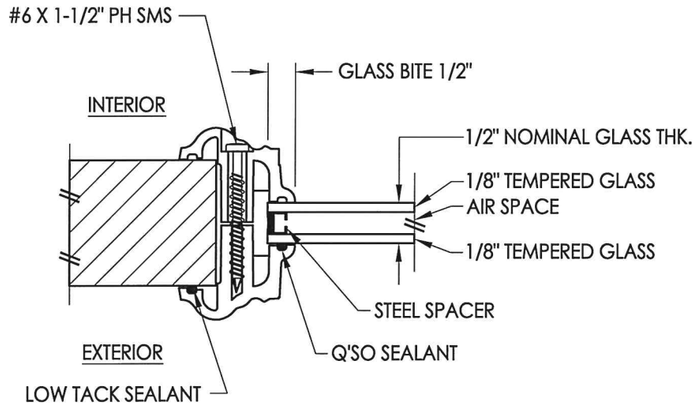
1/5 ***HORIZONTAL CROSS SECTION***



2/5 ***VERTICAL CROSS SECTION***



MASONITE
Insert glazed
(Steel)



G1 ***GLAZING DETAIL***
Lip Lite Insert Glazing

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

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER

PRODUCT: *ENDURA*

PART OR ASSEMBLY:
DOOR PANEL DETAILS
(LIP LITE INSERT GLAZING)

NO.	DATE	BY	REVISIONS
2	5/5/15	LFS	*ADD NEW ASTRAGAL PIN CAPTURE*
1	12/03/13	LFS	*ADDED ARTICULATING SILL*

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 5 OF 8

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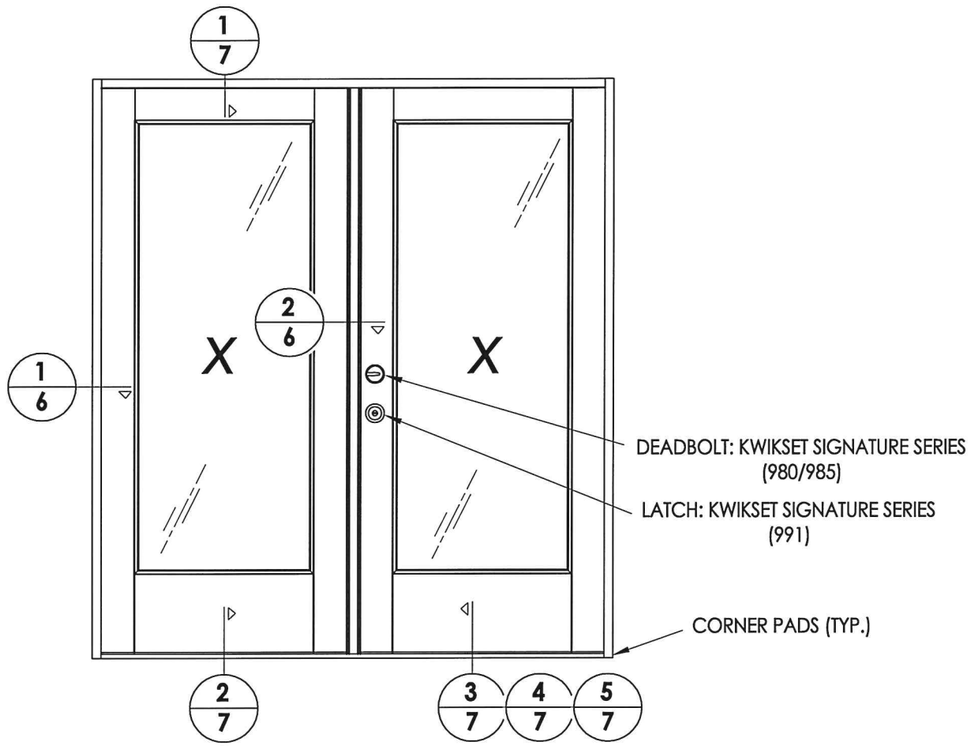
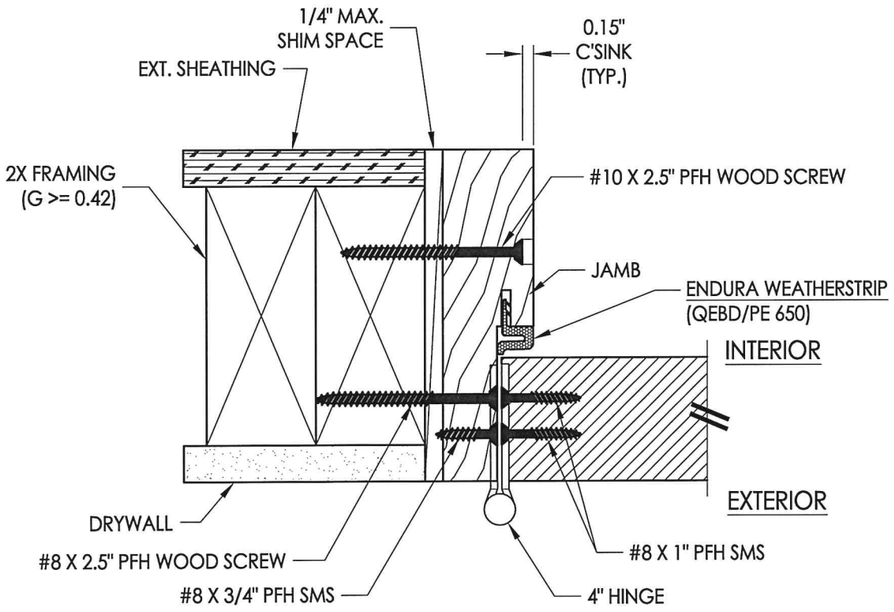
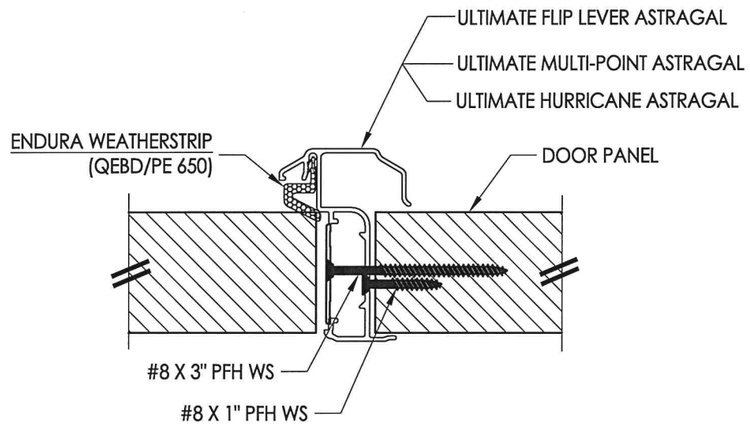




1/6 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved



2/6 HORIZONTAL CROSS SECTION

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
5.11.15

Documents Prepared By: Lyndon F. Schmidt, P.E.
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	12/03/13	ADDED ARTICULATING SILL	LFS

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 6 OF 8

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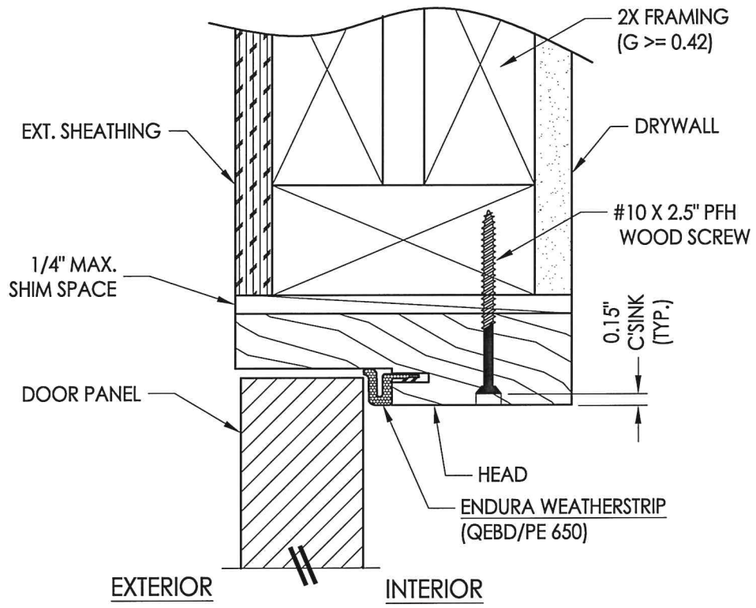
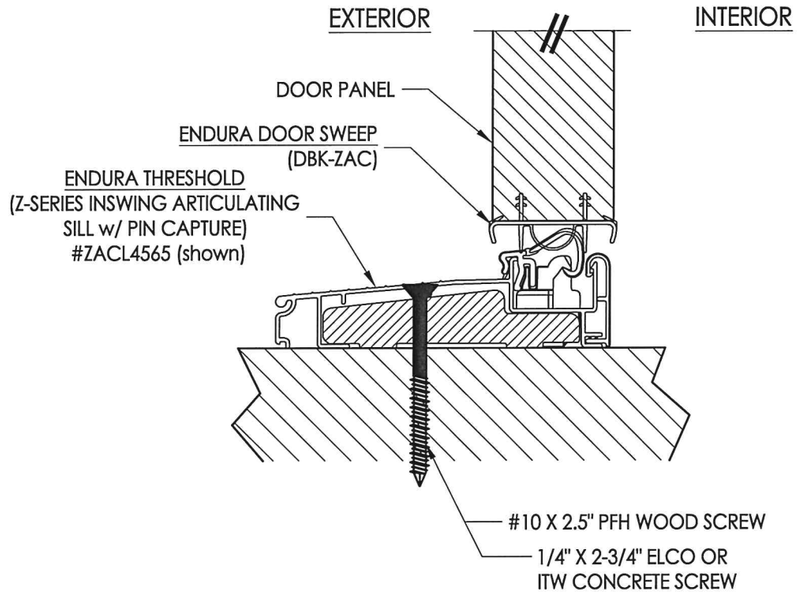
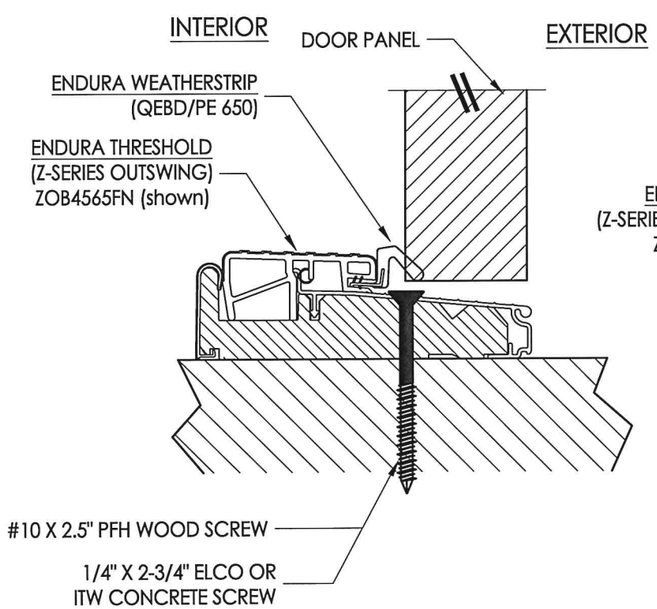


1/7 VERTICAL CROSS SECTION
Outswing shown - inswing also approved



5/7 VERTICAL CROSS SECTION
Inswing configuration



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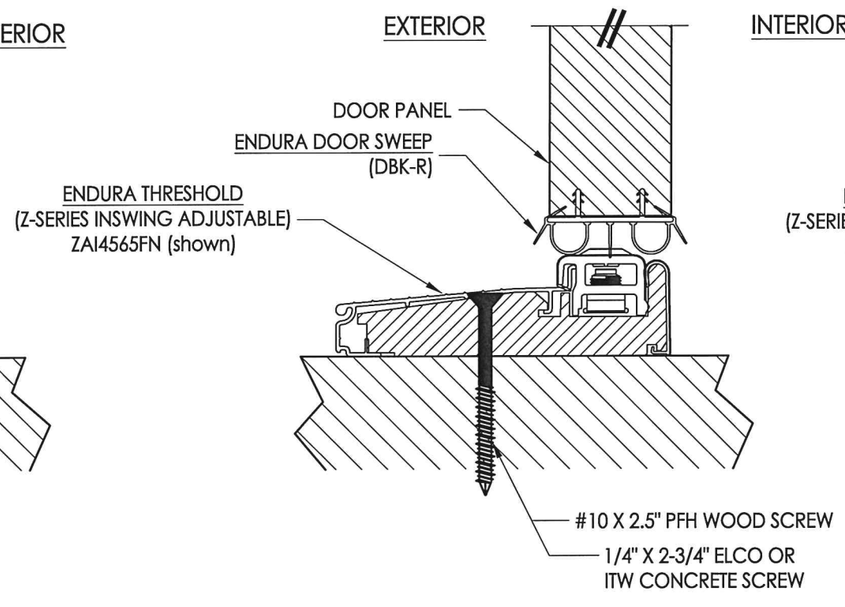
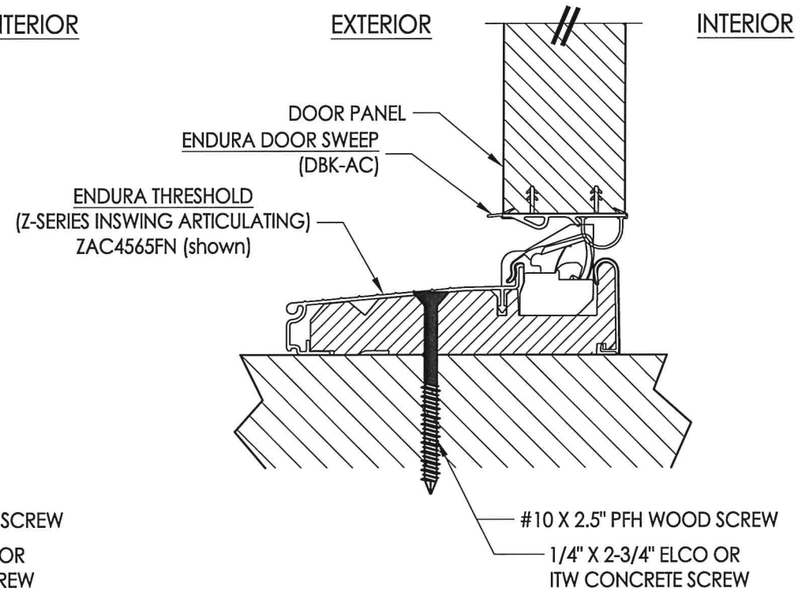
Outswing shown



3/7 VERTICAL CROSS SECTION
Inswing configuration



4/7 VERTICAL CROSS SECTION
Inswing configuration

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

PRODUCT: ENDURA

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	12/03/13	ADDED ARTICULATING SILL	LFS

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 7 OF 8

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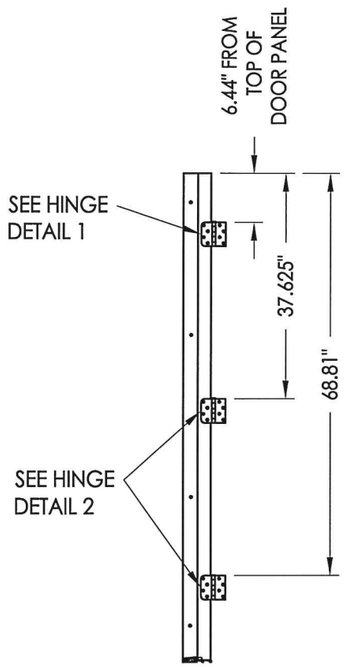

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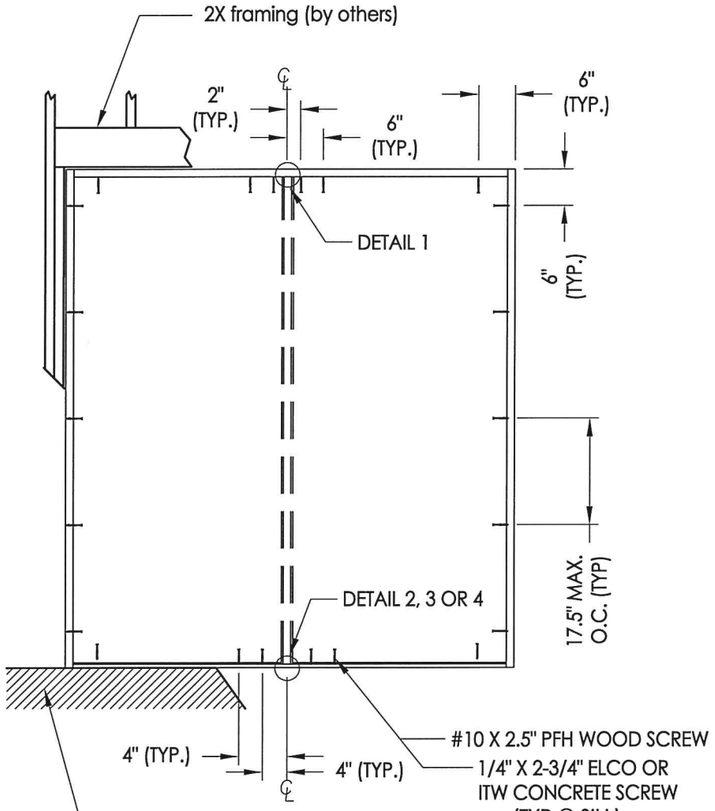
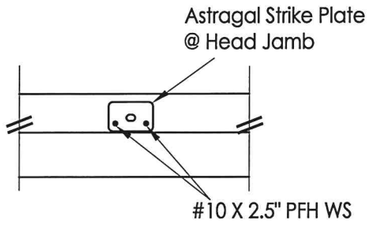
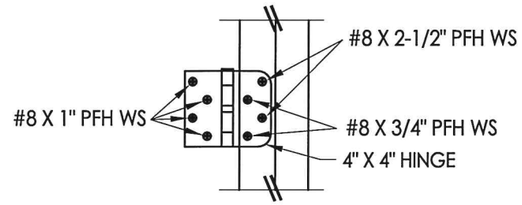


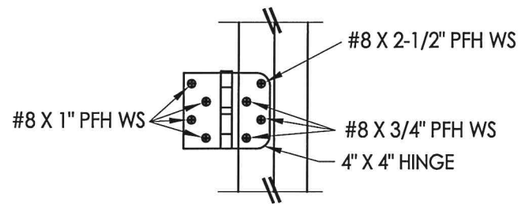
FRAME ANCHORING
XX



DETAIL 1



HINGE DETAIL 1

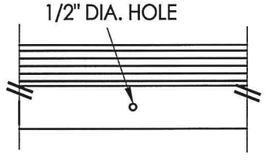


HINGE DETAIL 2

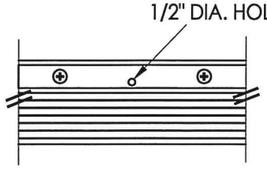
CONCRETE ANCHOR NOTES:

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:*

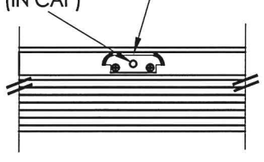
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



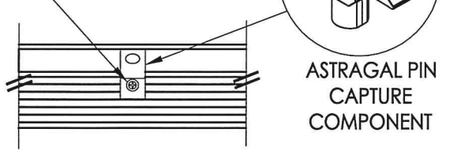
DETAIL 2
Outswing



DETAIL 2
Inswing



DETAIL 3
Inswing



DETAIL 4
Inswing

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

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

PRODUCT: *ENDURA*

PART OR ASSEMBLY: *FRAME ANCHORING*

NO.	DATE	BY	REVISIONS
2	5/5/15	LFS	ADD NEW ASTRAGAL PIN CAPTURE
1	12/03/13	LFS	ADDED ARTICULATING SILL

DATE: 7/12/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4171
SHEET 8 OF 8

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