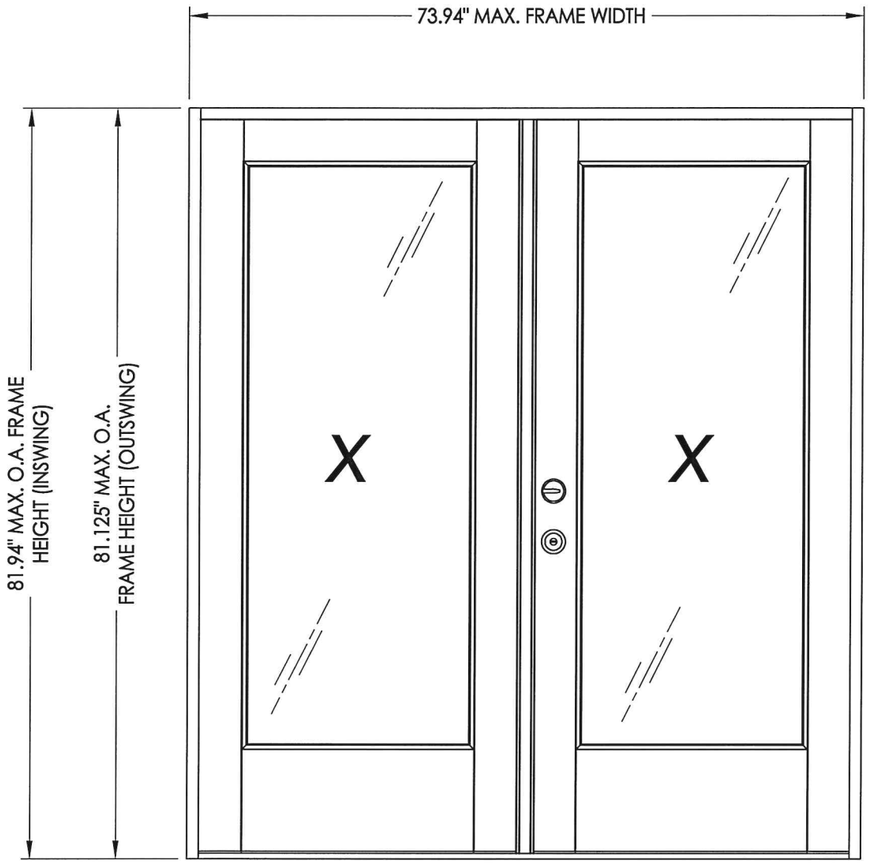
Endura
PRODUCTS, INC.
8811 West Market Street
Colfax, N.C. 27235

Glazed Fiberglass Door

"NON-IMPACT"
INSWING / OUTSWING



EVALUATED FOR USE IN THE STATE OF TEXAS

The Glazed Fiberglass 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.

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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 (flush glazing)
6	Door panel details (lip lite insert glazing)
7	Horizontal cross sections
8	Vertical cross sections
9	Frame anchoring

CONFIG.	GLAZING	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	LIP LITE INSERT	INSWING	+35.0	-35.0	+45.0	-45.0	+40.0	-40.0
XX	LIP LITE INSERT	OUTSWING	+40.0	-40.0	+45.0	-45.0	+40.0	-40.0
XX	FLUSH GLAZED	INSWING	+40.0	-45.0	+55.0	-55.0	+45.0	-50.0
XX	FLUSH GLAZED	OUTSWING	+50.0	-50.0	+55.0	-55.0	+45.0	-45.0

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
5-11-15

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

R.W. 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

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 1 OF 9

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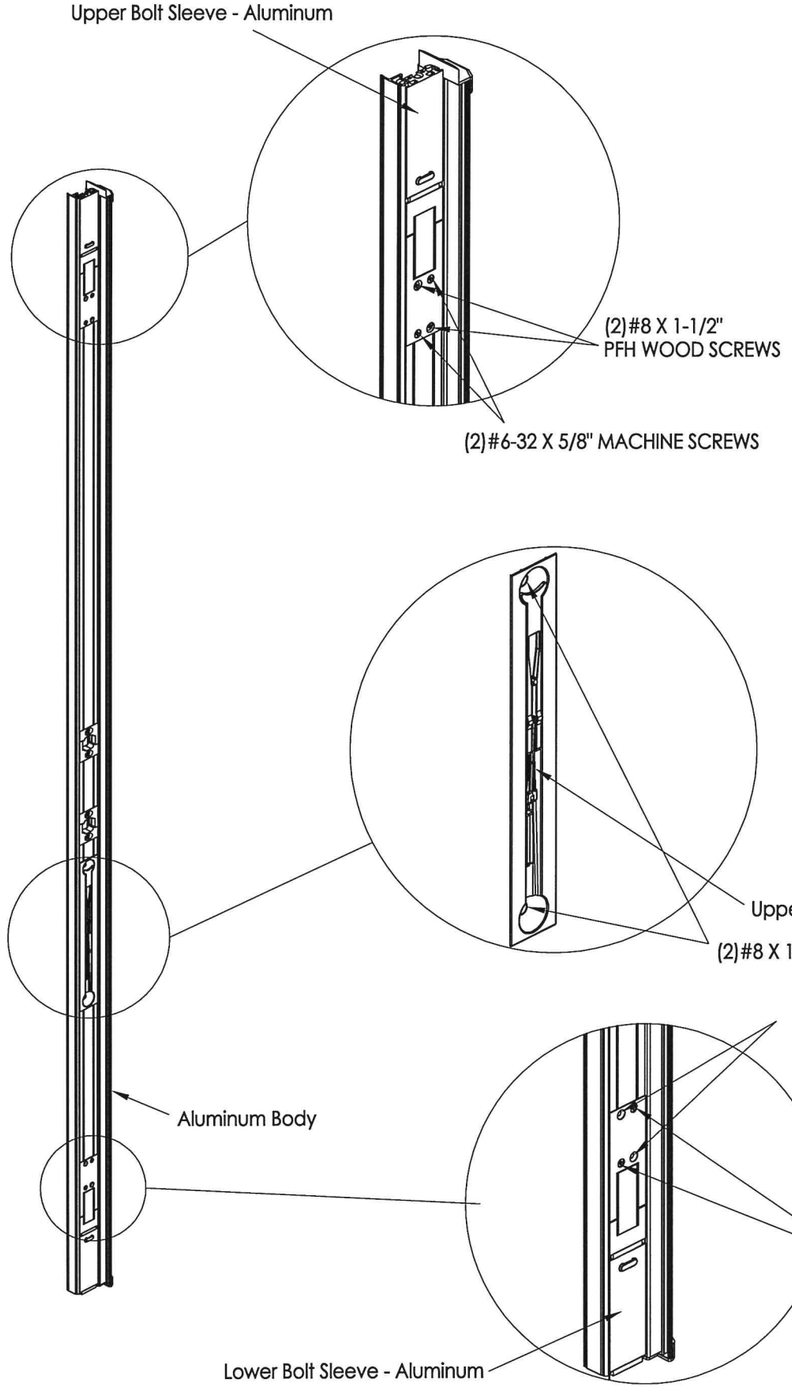
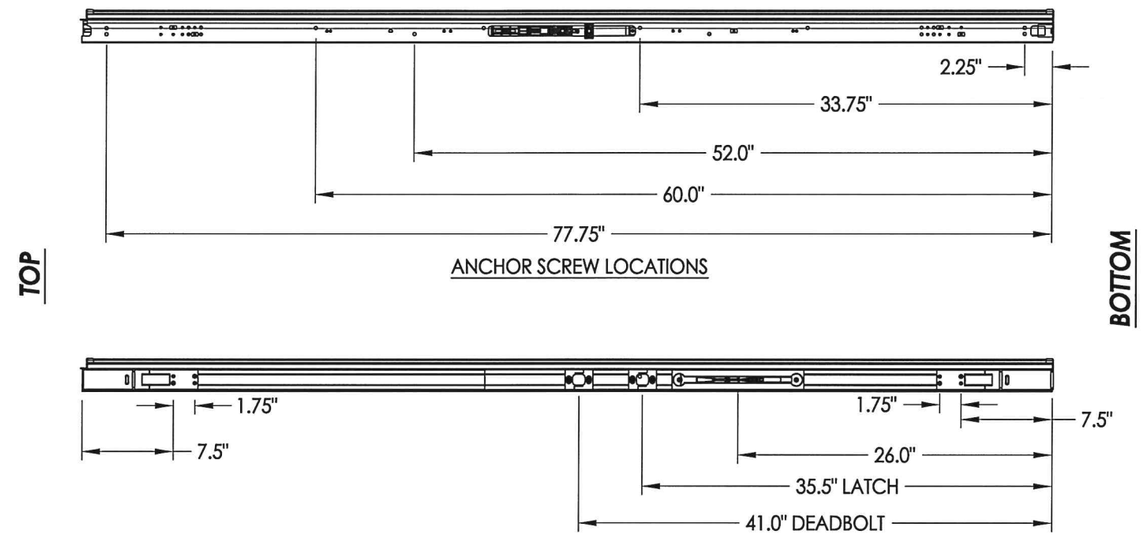
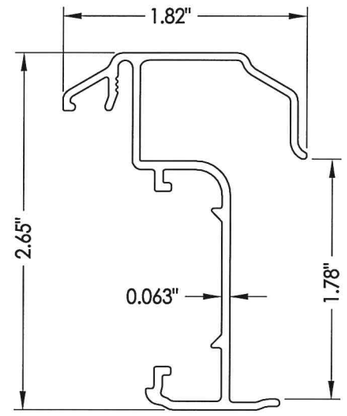


ULTIMATE FLIP LEVER ASTRAGAL



ANCHOR SCREW LOCATIONS



Astragal Section

Documents Prepared By: Lyndon F. Schmidt, P.E.
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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 FLIP LEVER)

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 2 OF 9

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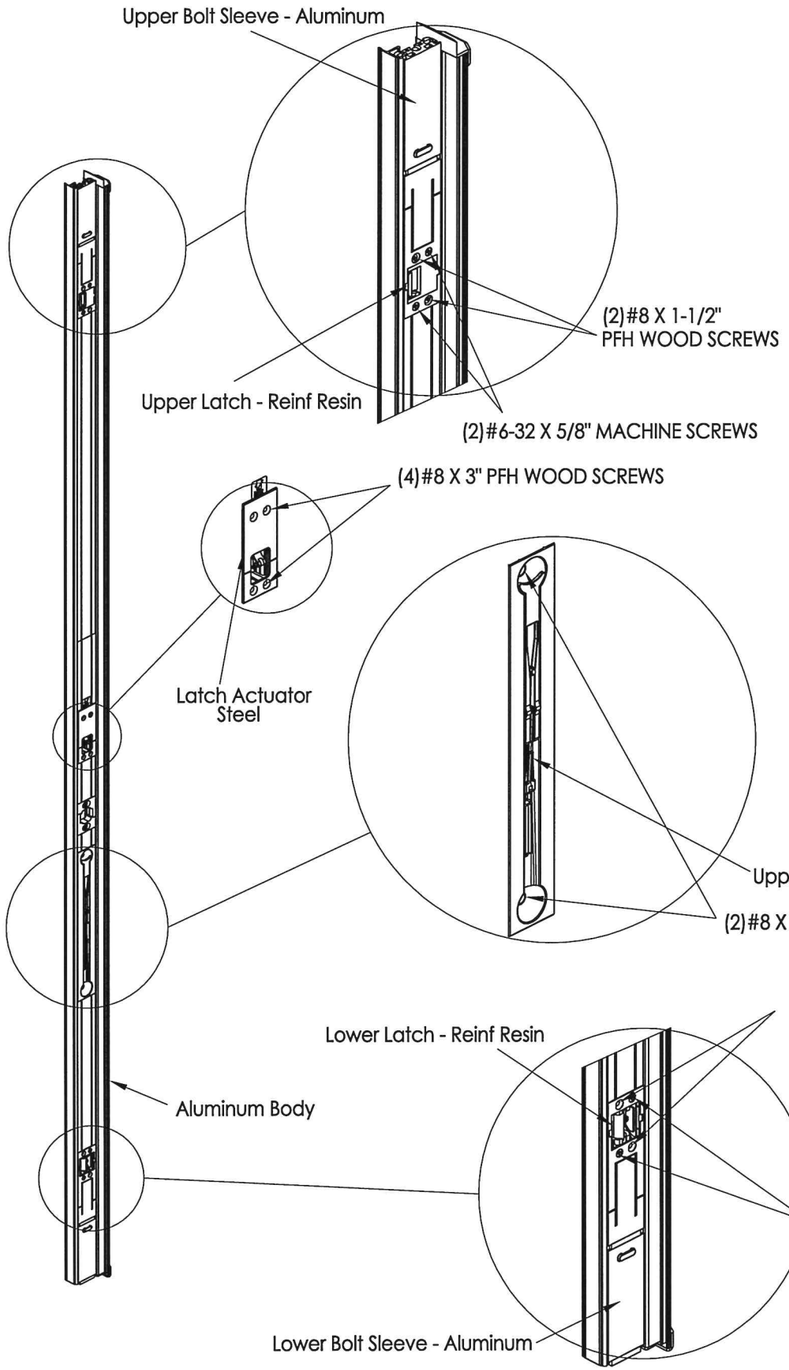
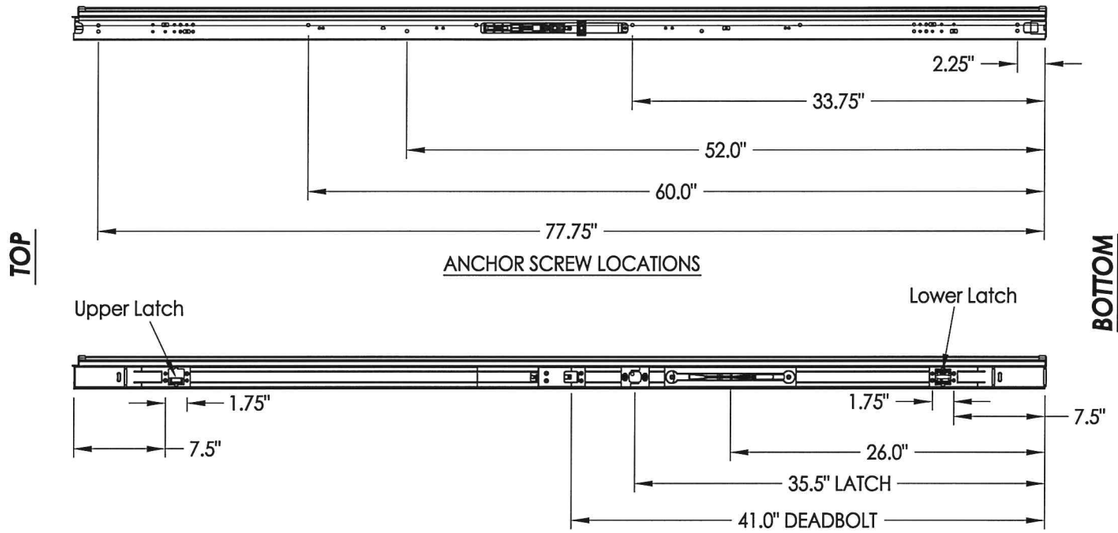
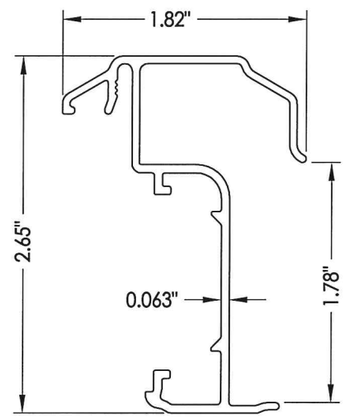


ULTIMATE MULTI-POINT ASTRAGAL





Astragal Section

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: *ASTRAGAL DETAILS (ULTIMATE MULTI-POINT)*

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 3 OF 9

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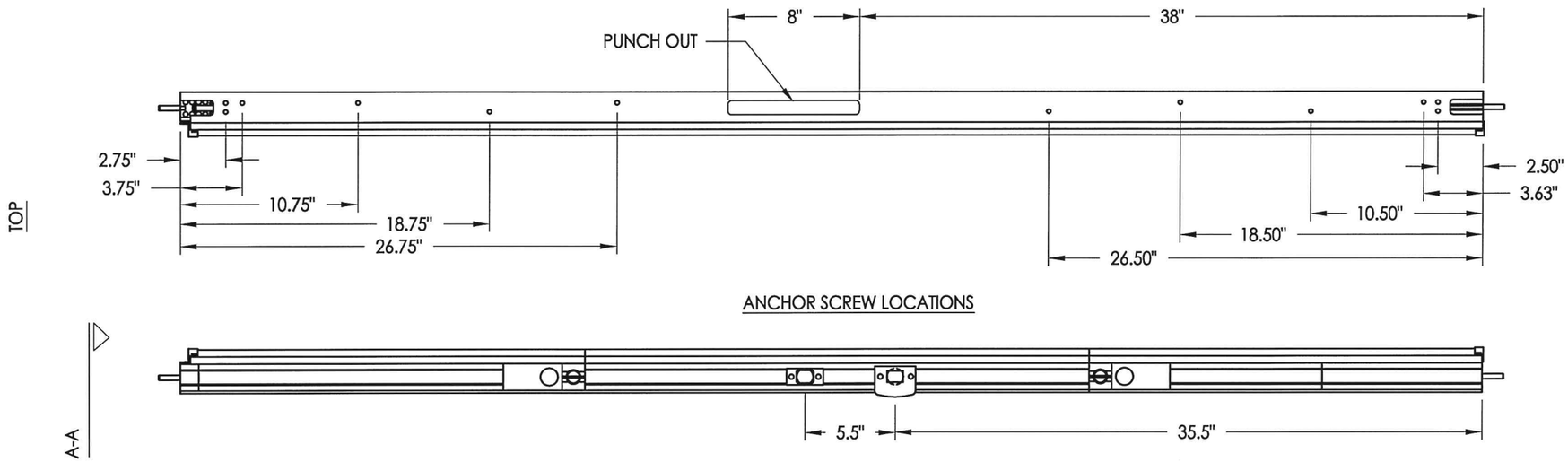
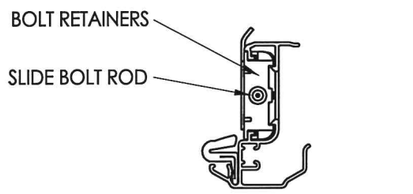
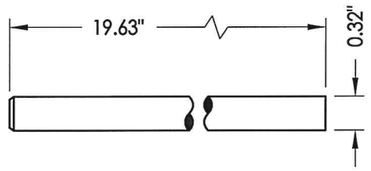


ANCHOR SCREW LOCATIONS

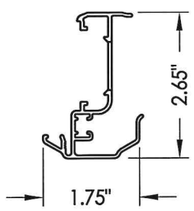
6'-8" ALUMINUM ASTRAGAL ASSEMBLY
By Endura



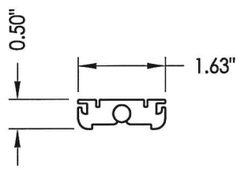
VIEW A-A
Aluminum Astragal Assembly



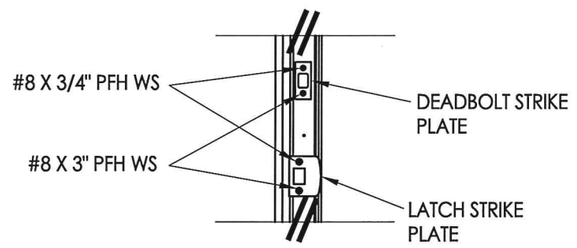
SLIDE BOLT ROD
MATL: Steel



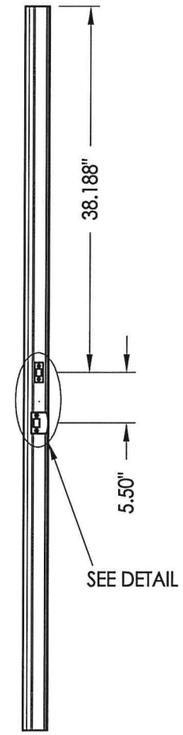
ULTIMATE HURRICANE ASTRAGAL



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

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

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)

NO.	DATE	BY
2	5/05/15	LFS
1	1/07/14	LFS

REVISIONS
ADDED ARTICULATING SILL
ADD NEW ASTRAGAL PIN CAPTURE

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 4 OF 9

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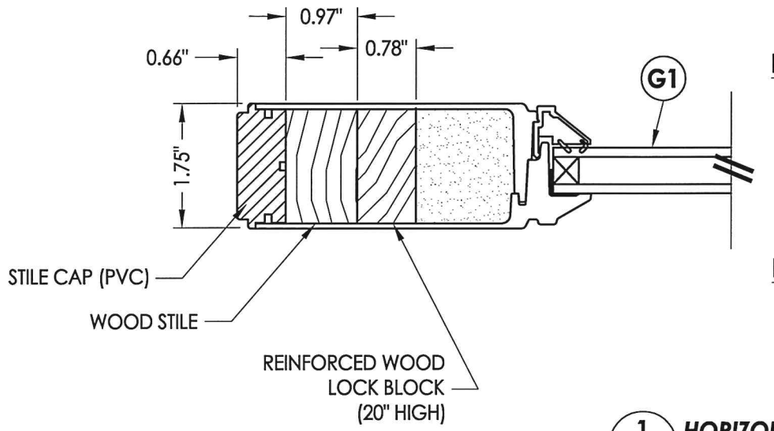
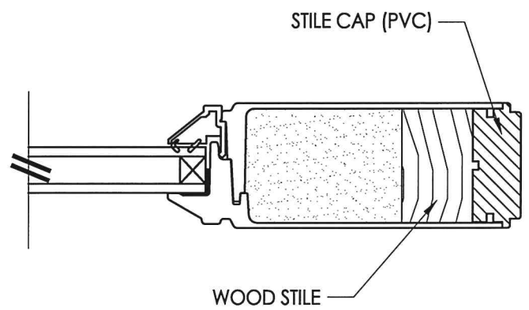
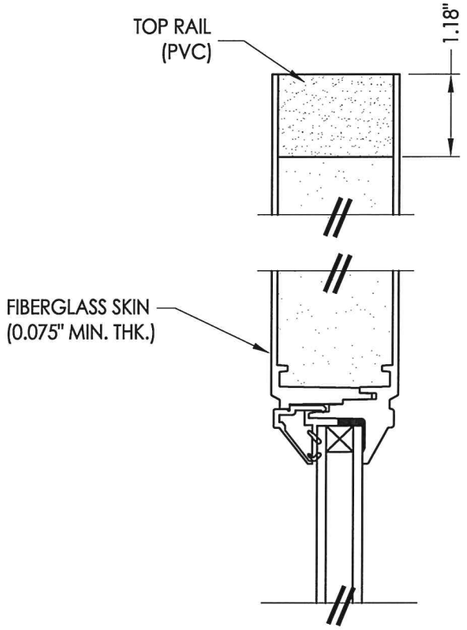
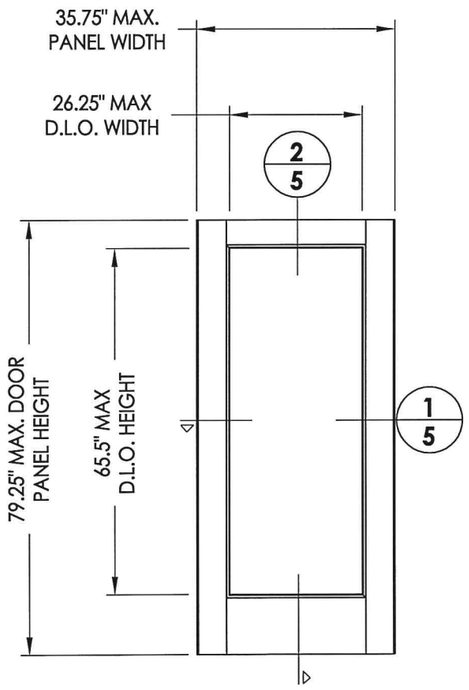


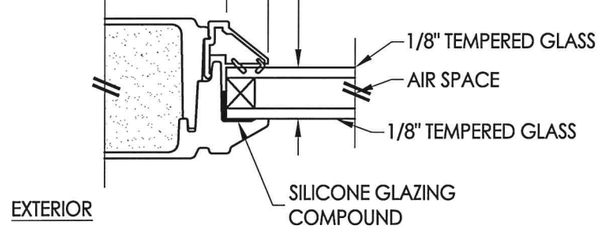


1/5 **HORIZONTAL CROSS SECTION**

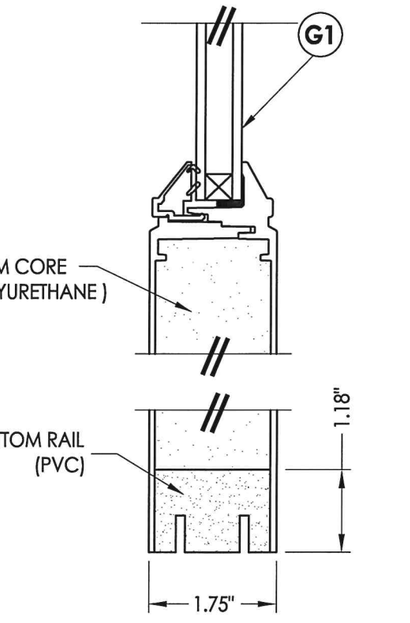




PLASTPRO
Flushglazed
(Fiberglass)



G1 **GLAZING DETAIL**
Flush Glazing



2/5 **VERTICAL CROSS SECTION**

Documents Prepared By: Lyndon F. Schmidt, P.E.
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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: DOOR PANEL DETAILS (FLUSH GLAZING)

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 5 OF 9

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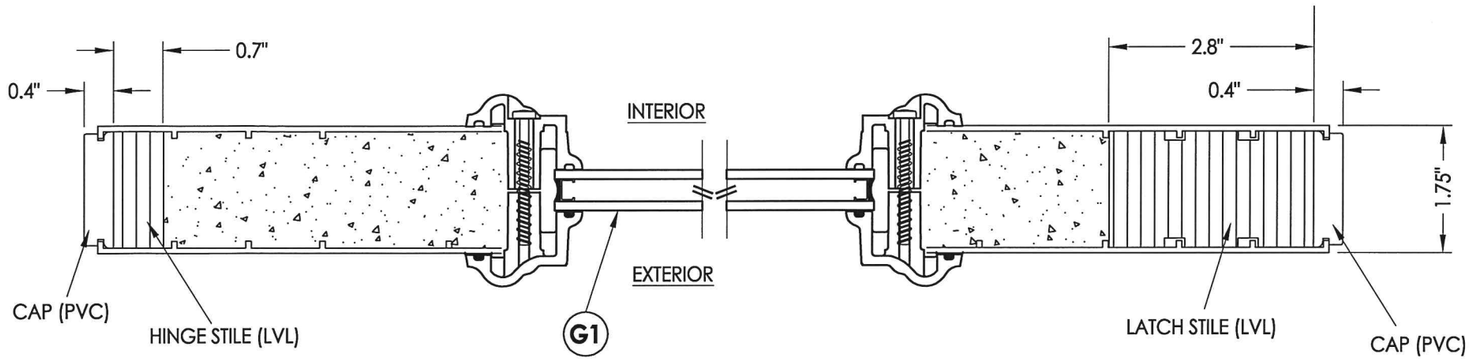
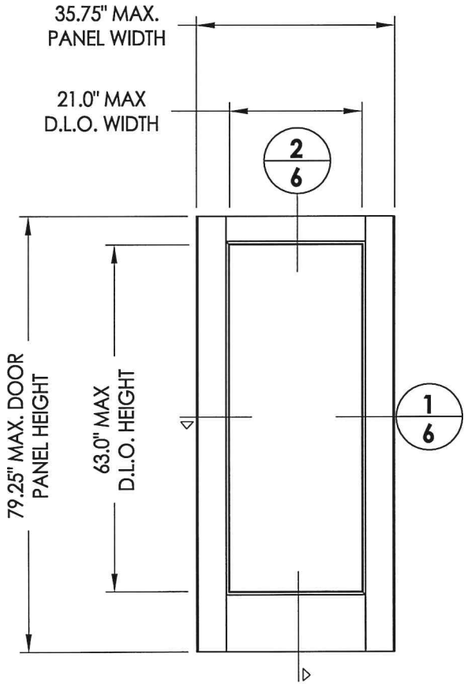
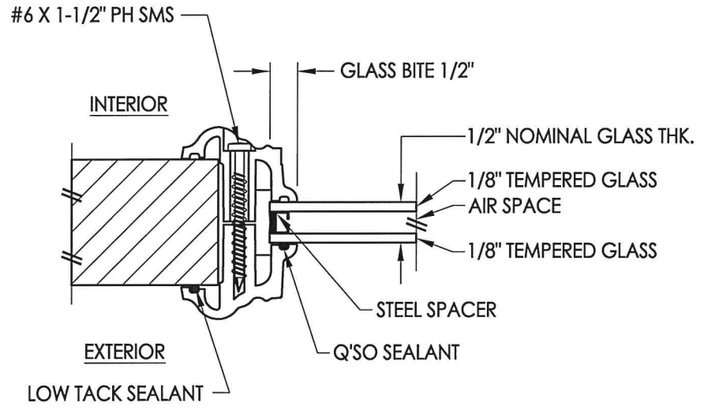


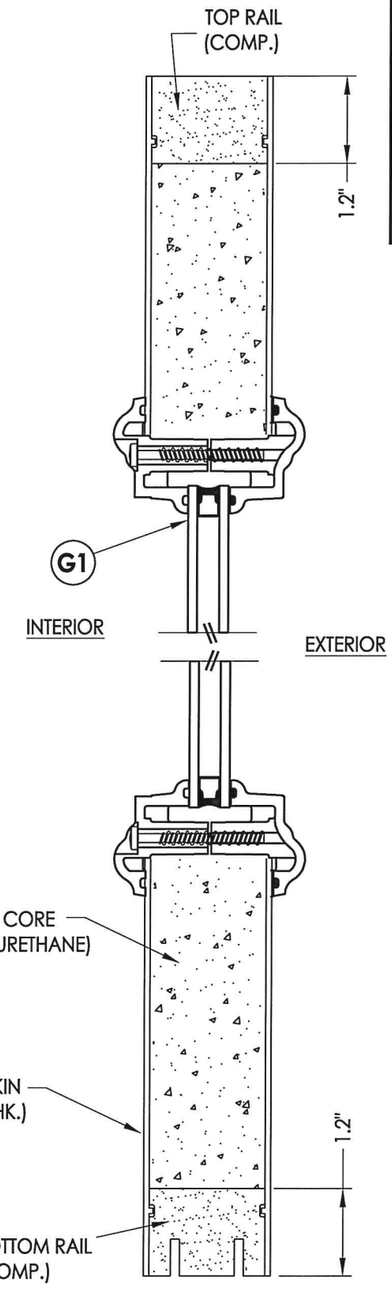
1/6 **HORIZONTAL CROSS SECTION**



PLASTPRO
Insert glazed
(fiberglass)



G1 **GLAZING DETAIL**
Lip Lite Insert Glazing



2/6 **VERTICAL CROSS SECTION**

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

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

R|W 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: DOOR PANEL DETAILS (LIP LITE INSERT GLAZING)

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 6 OF 9

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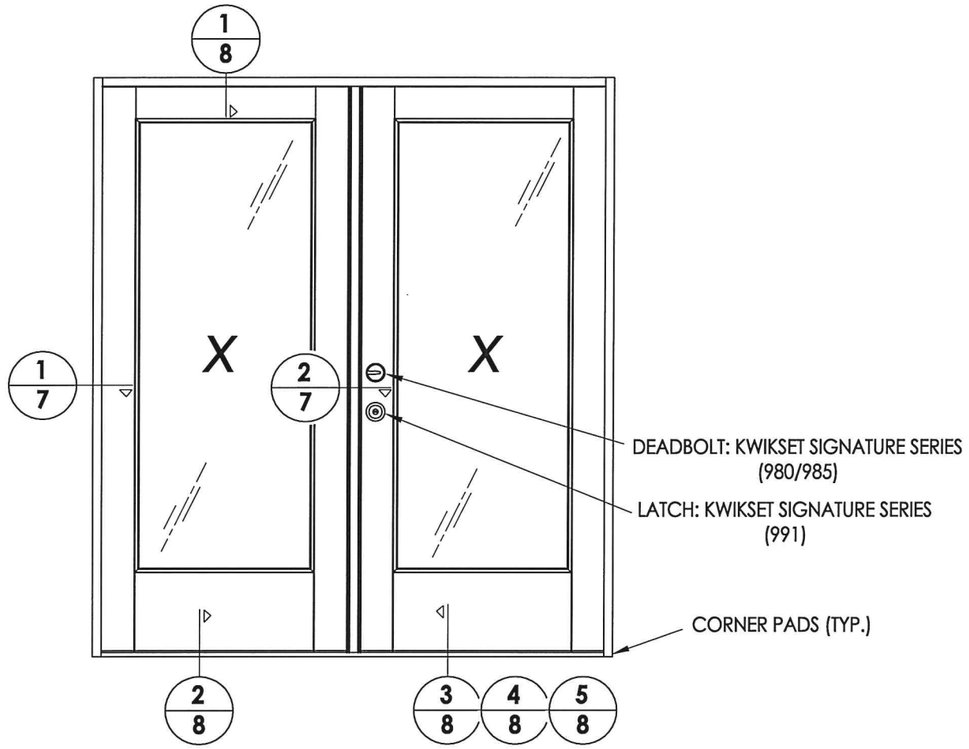
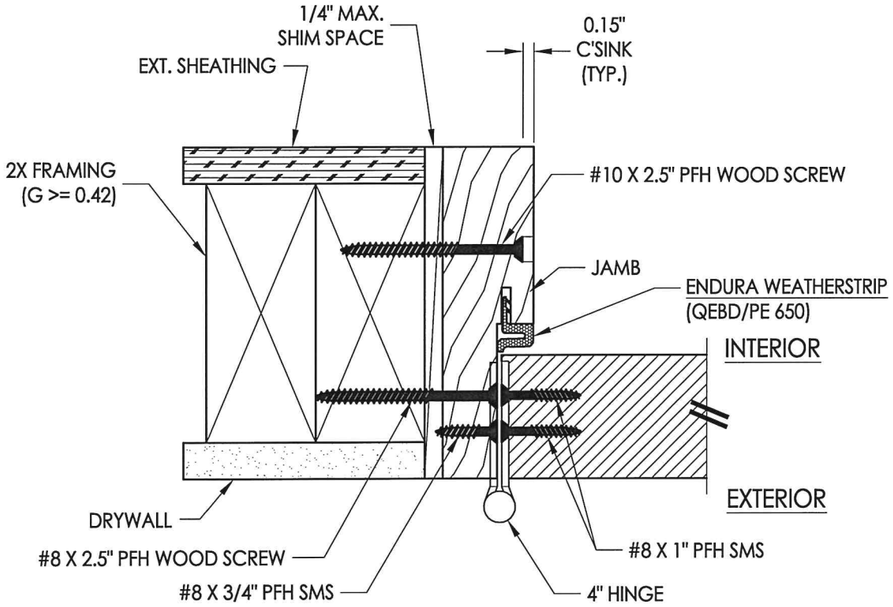
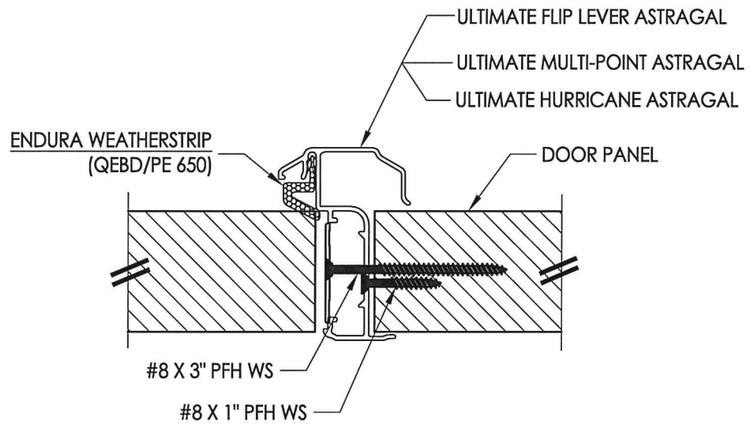




1/7 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved



2/7 HORIZONTAL CROSS SECTION

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

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

R.W. 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: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 7 OF 9

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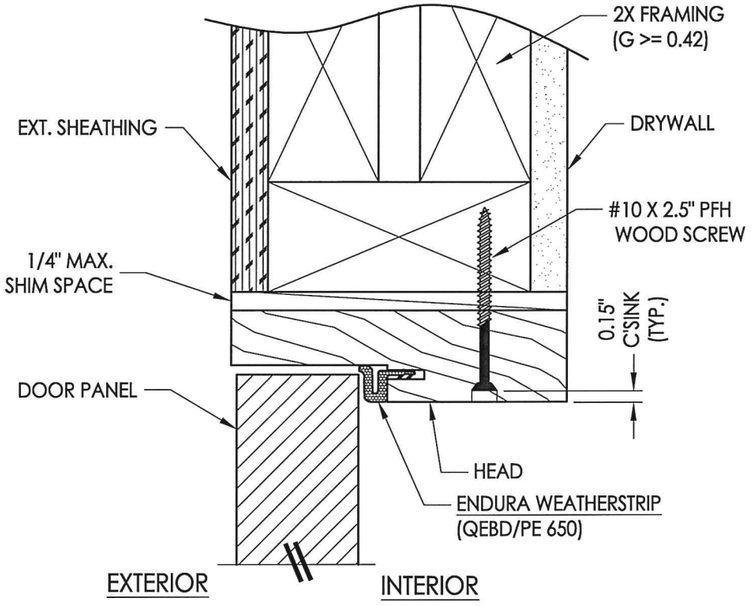
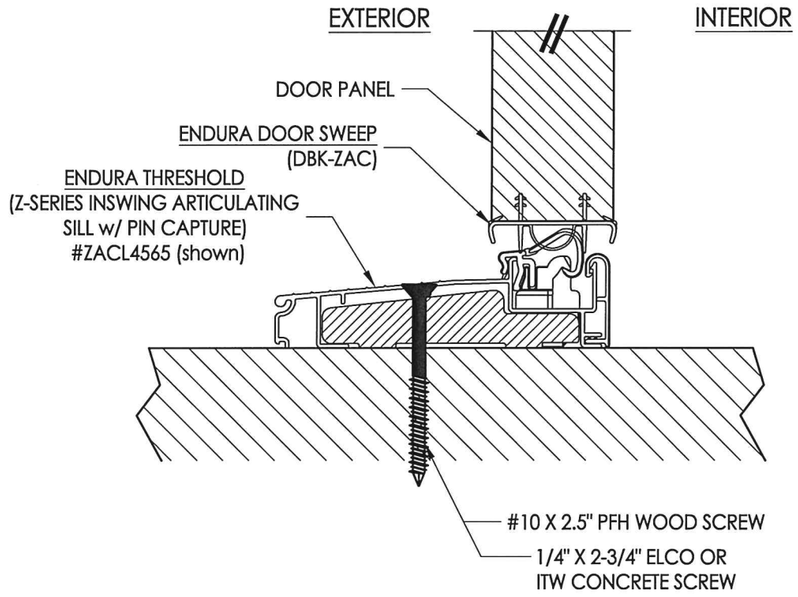
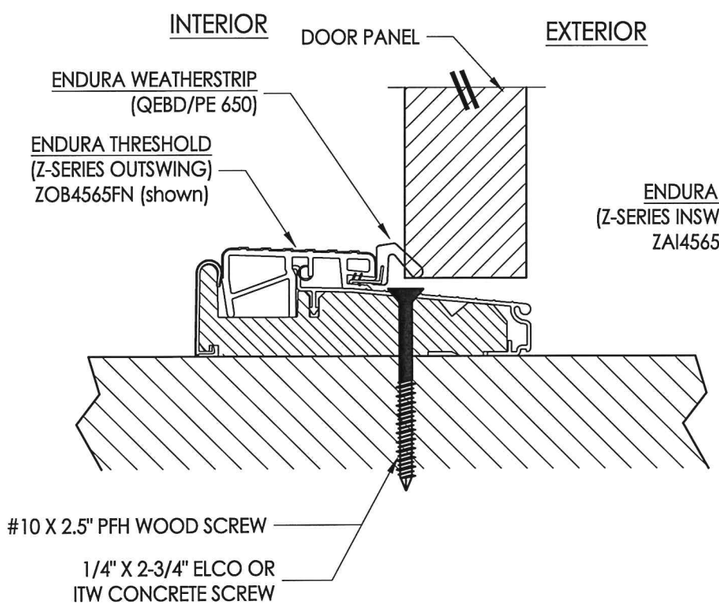


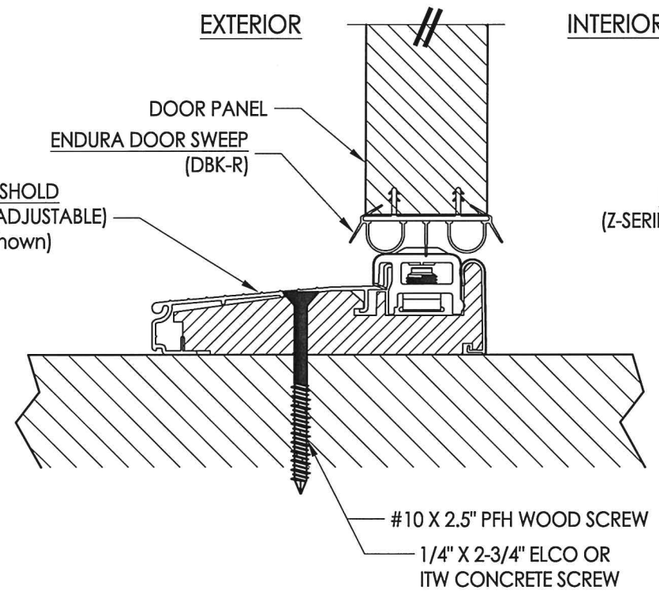
1/8 **VERTICAL CROSS SECTION**
Outswing shown - inswing also approved



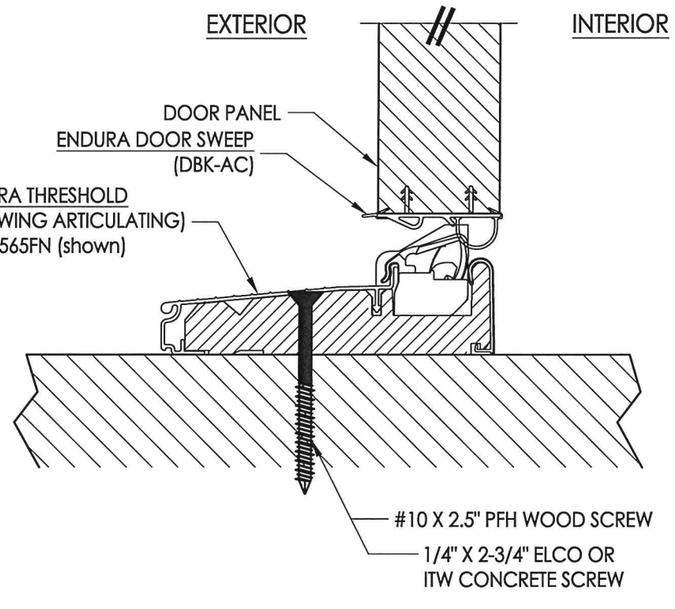
5/8 **VERTICAL CROSS SECTION**
Inswing configuration



2/8 **VERTICAL CROSS SECTION**
Outswing shown



3/8 **VERTICAL CROSS SECTION**
Inswing configuration



4/8 **VERTICAL CROSS SECTION**
Inswing configuration

Documents Prepared By: Lyndon F. Schmidt, P.E.
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Phone No.: 813.659.9197
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: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 8 OF 9

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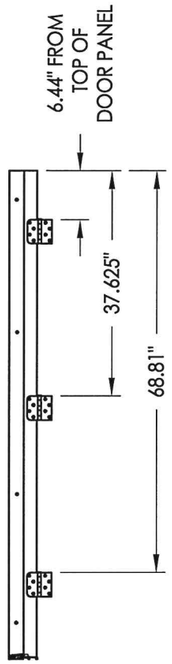
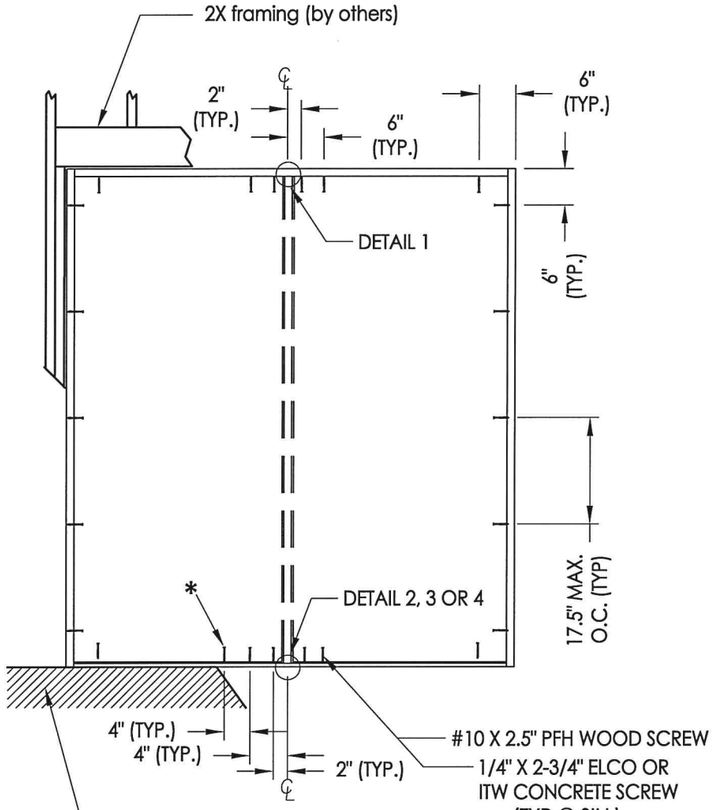
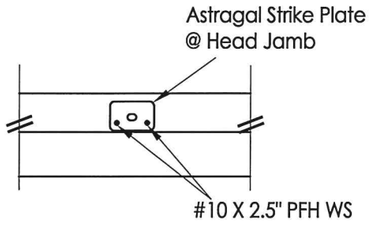


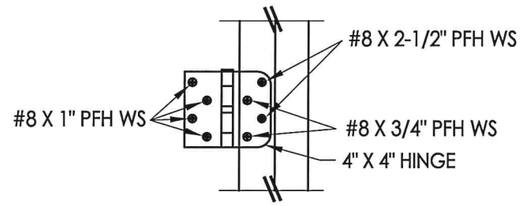
HINGE JAMB



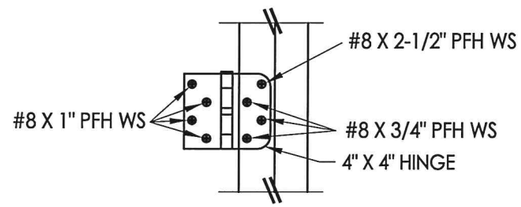
FRAME ANCHORING
XX



DETAIL 1



HINGE DETAIL 1



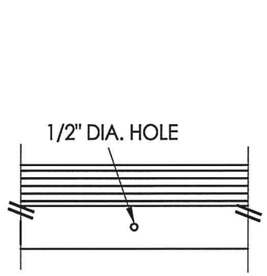
HINGE DETAIL 2

*NOTE: This anchor required for D.P. > 50 PSF.

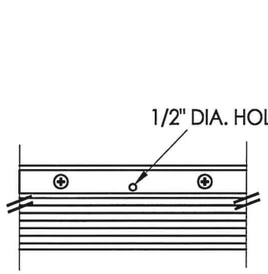
CONCRETE ANCHOR NOTES:

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:*

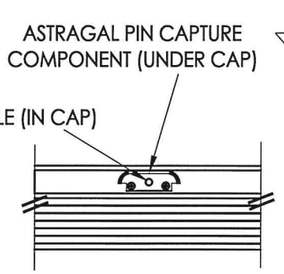
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



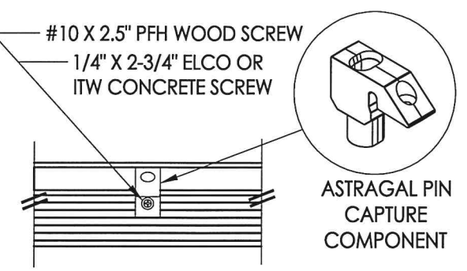
DETAIL 2
Outswing



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	REVISIONS	BY
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 9 OF 9

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