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.

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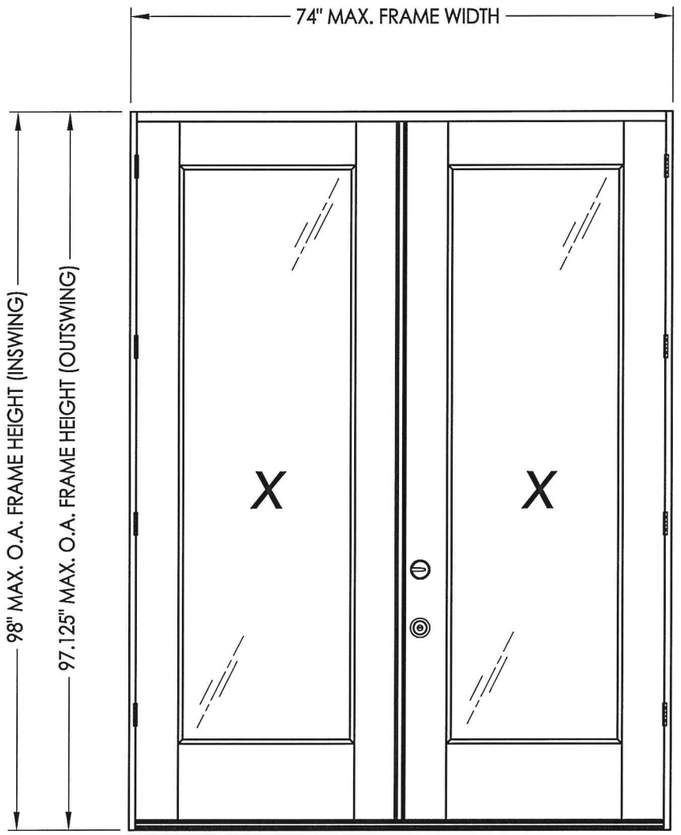
5	Door panel details (lip lite insert glazing)
6	Horizontal cross sections
7	Vertical cross sections
8	Frame anchoring



CONFIG.	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	+25.0	-30.0	+40.0	-45.0	+25.0	-30.0
	OUTSWING	+30.0	-30.0	+40.0	-40.0	+25.0	-25.0

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

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

PRODUCT: ENDURA

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

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-4172
SHEET 1 OF 8

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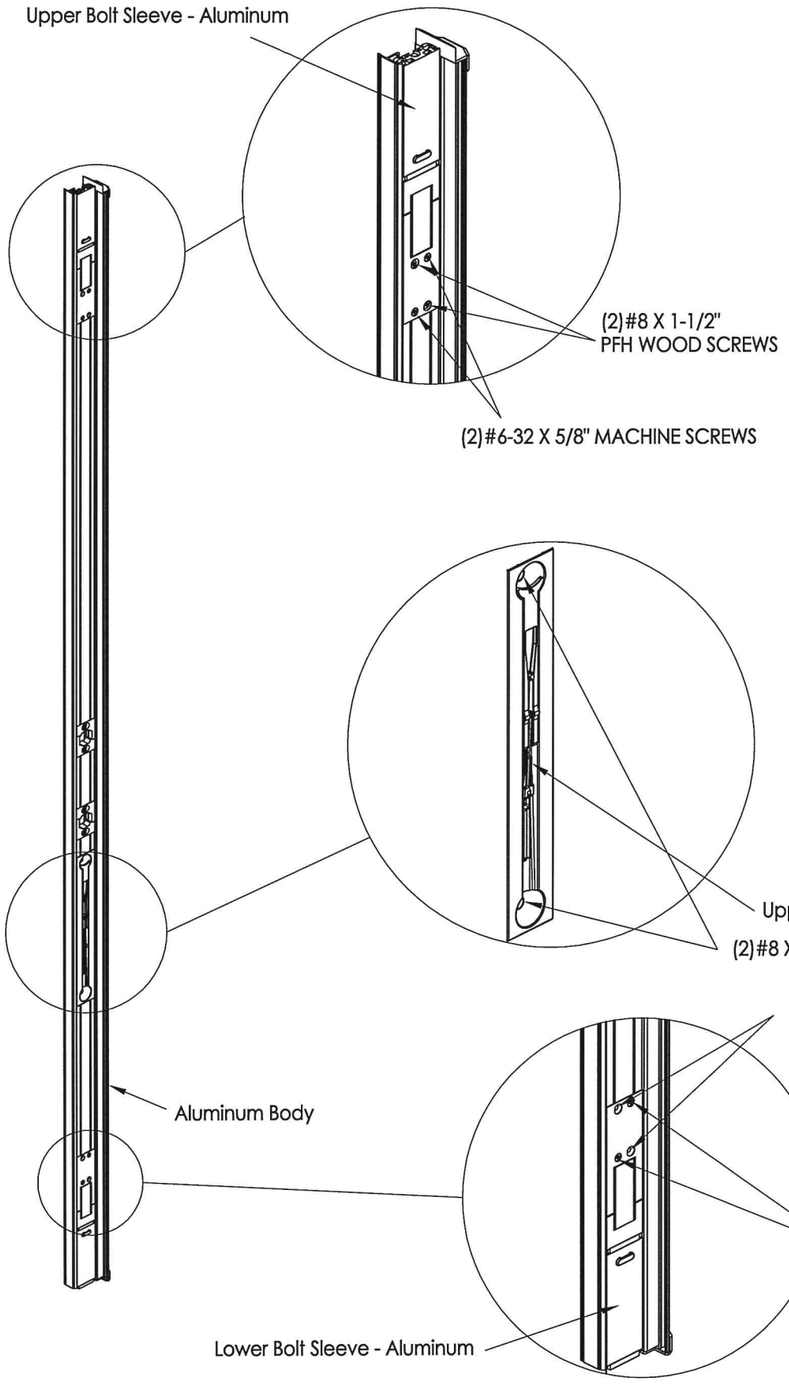
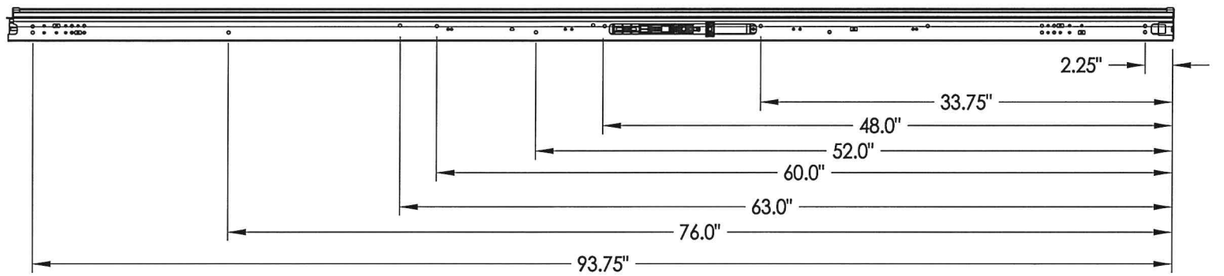
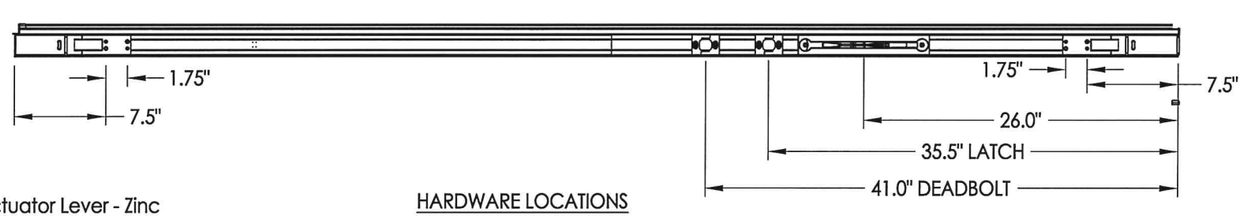


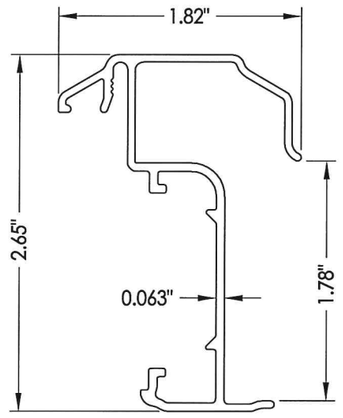
ULTIMATE FLIP LEVER ASTRAGAL



ANCHOR SCREW LOCATIONS



HARDWARE LOCATIONS



Astragal Section

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER

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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-4172
SHEET 2 OF 8

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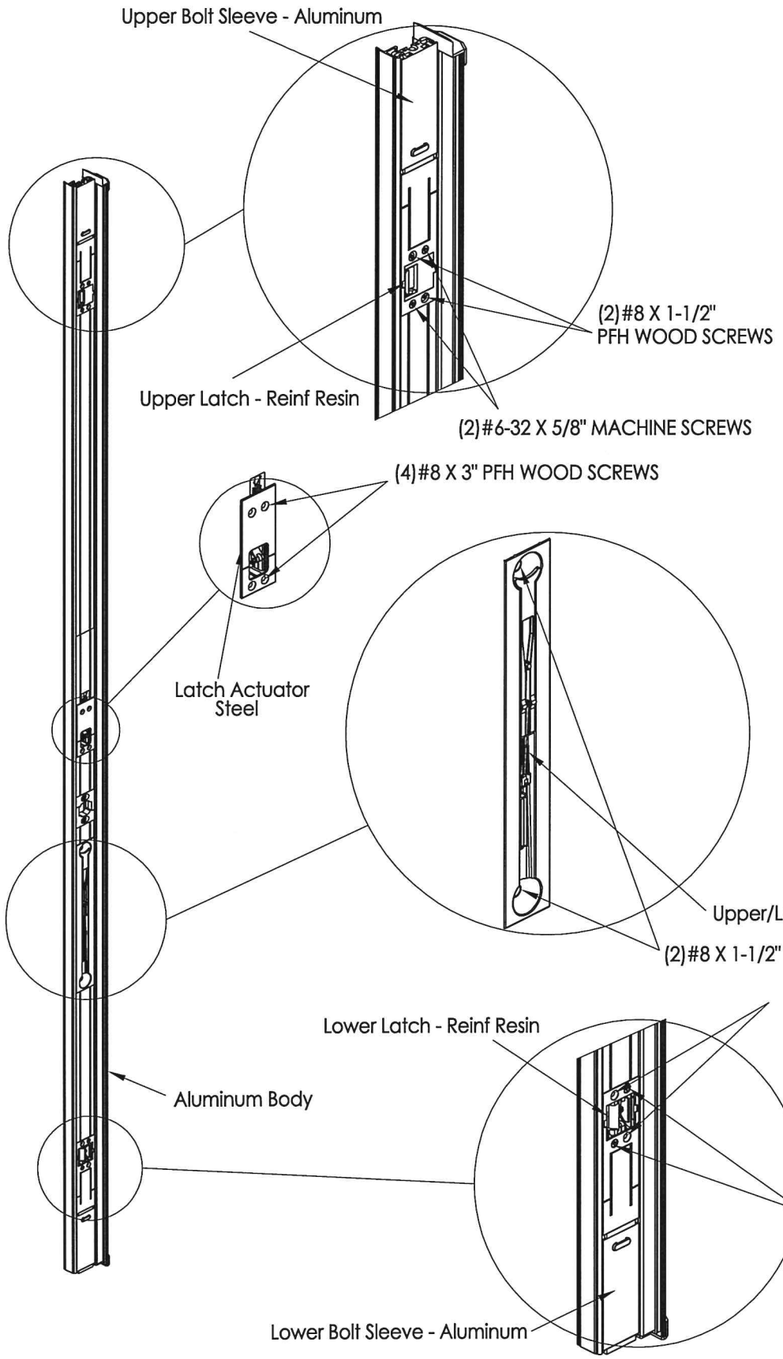
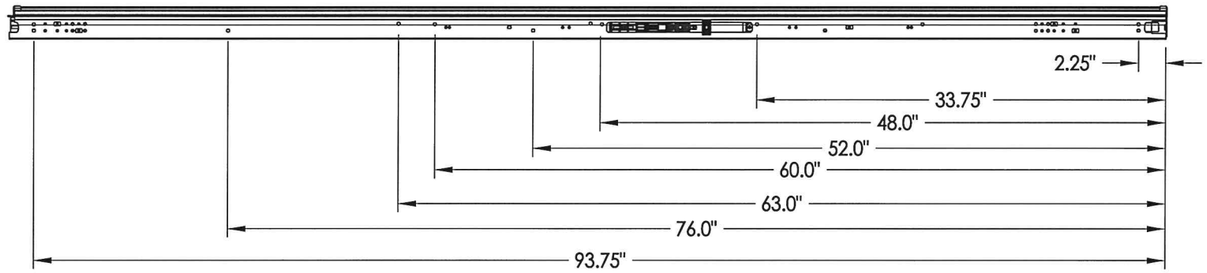
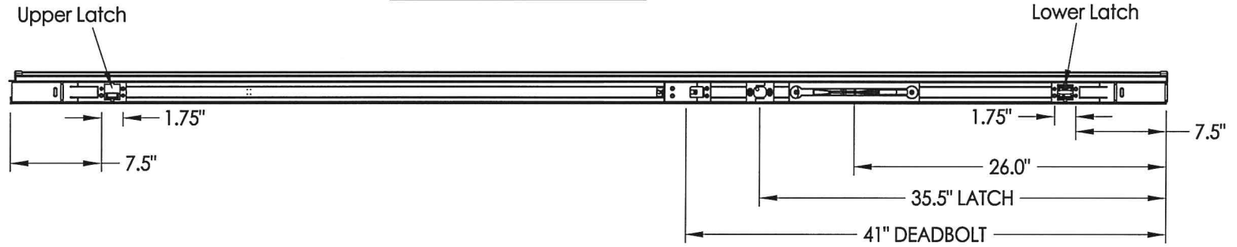


ULTIMATE MULTI-POINT ASTRAGAL



ANCHOR SCREW LOCATIONS



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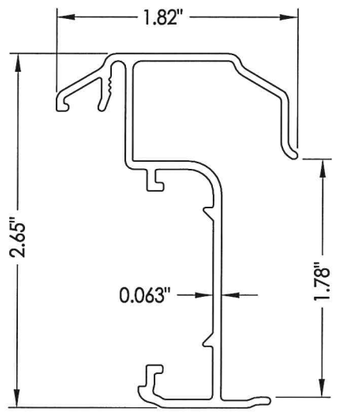

Astragal Section

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 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-4172
SHEET 3 OF 8

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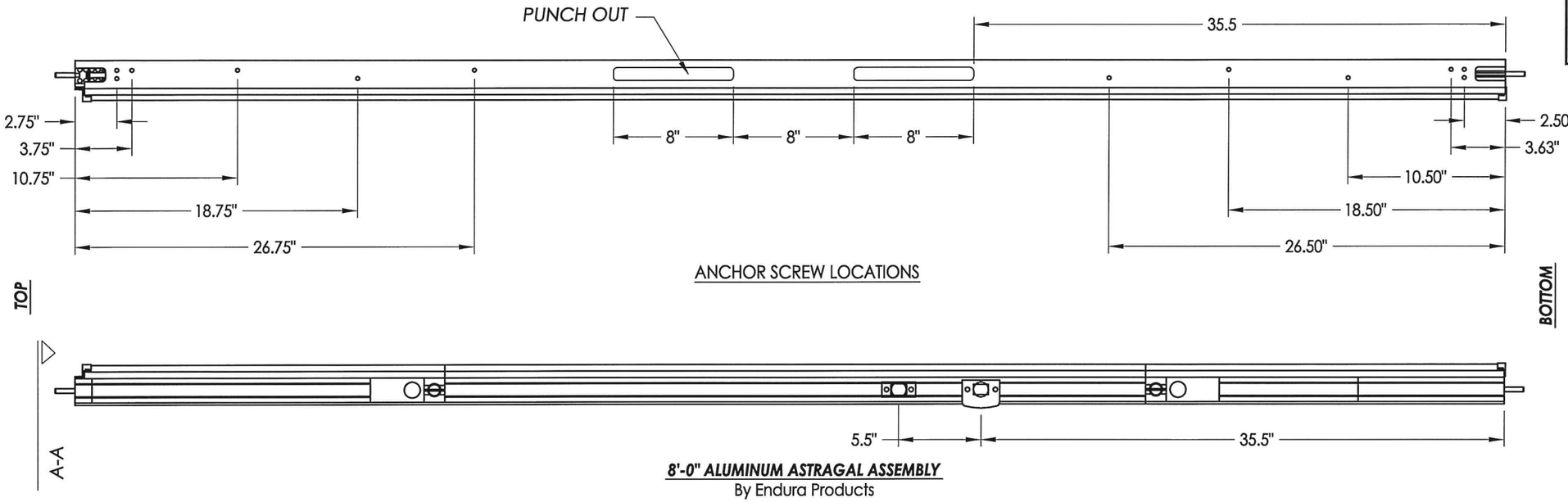
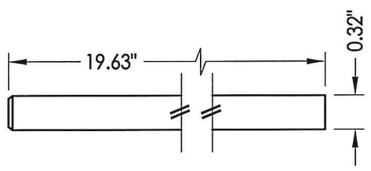
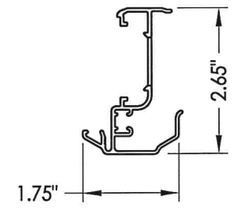


ANCHOR SCREW LOCATIONS

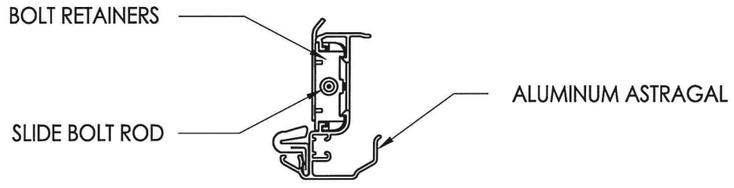
8'-0" ALUMINUM ASTRAGAL ASSEMBLY
By Endura Products



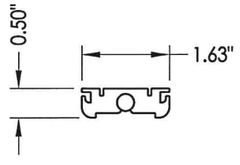
SLIDE BOLT ROD
MATL: Steel



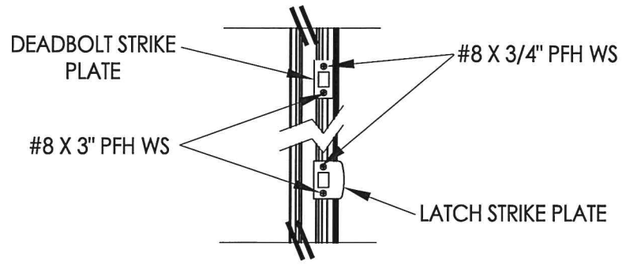
ULTIMATE HURRICANE ASTRAGAL



VIEW A-A
Aluminum Astragal Assembly



BOLT RETAINER
MATL: 9-3/4" Aluminum



LATCH AND DEADBOLT DETAIL

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)

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.
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CHK. BY: LFS
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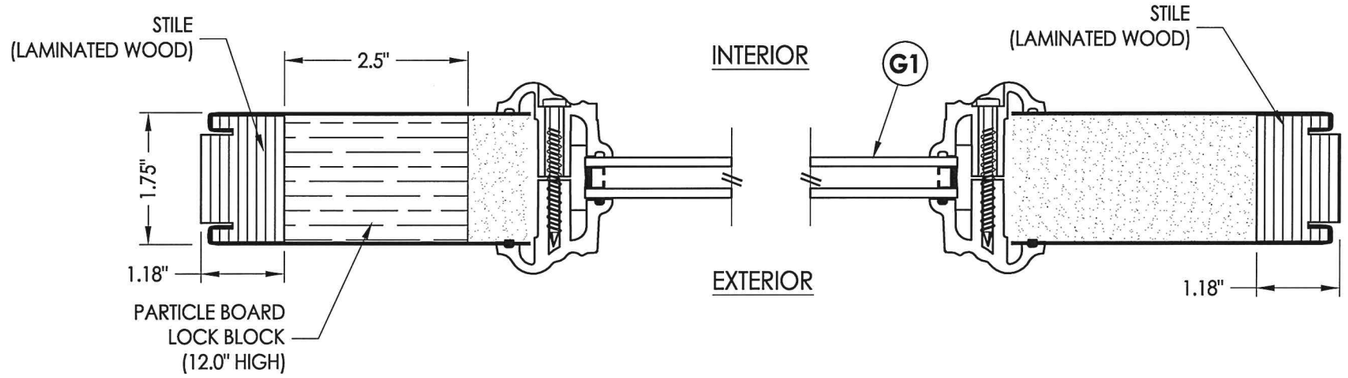
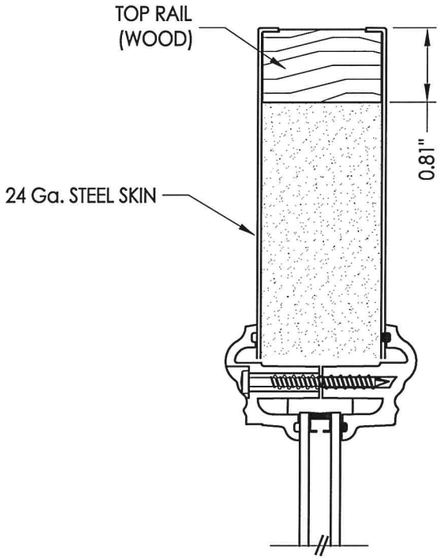
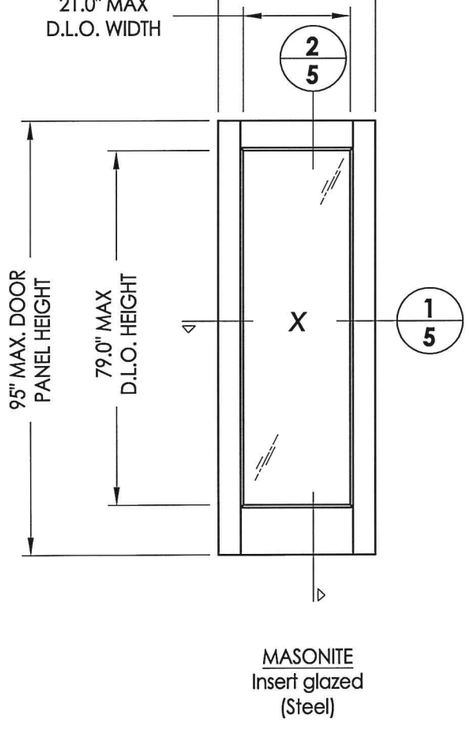
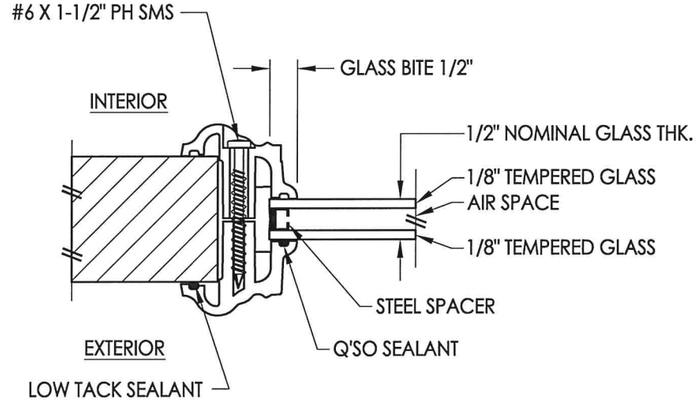


1/5 HORIZONTAL CROSS SECTION



2/5 VERTICAL CROSS SECTION





G1 GLAZING DETAIL
Lip Lite Insert Glazing

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: DOOR PANEL DETAILS (LIP LITE INSERT GLAZING)

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-4172
SHEET 5 OF 8

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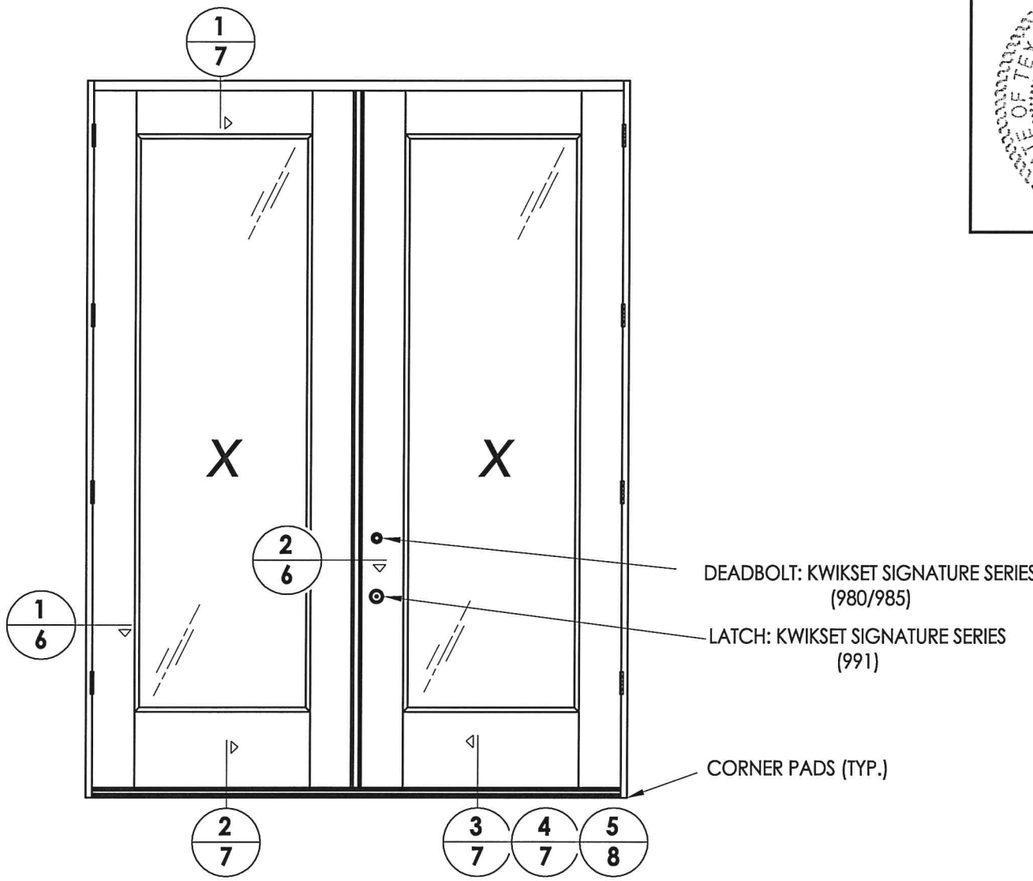
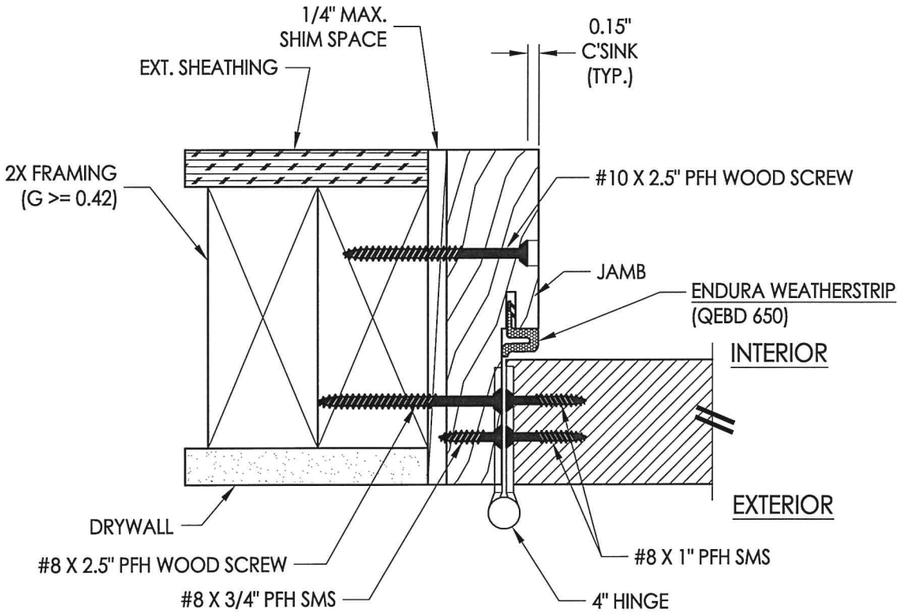
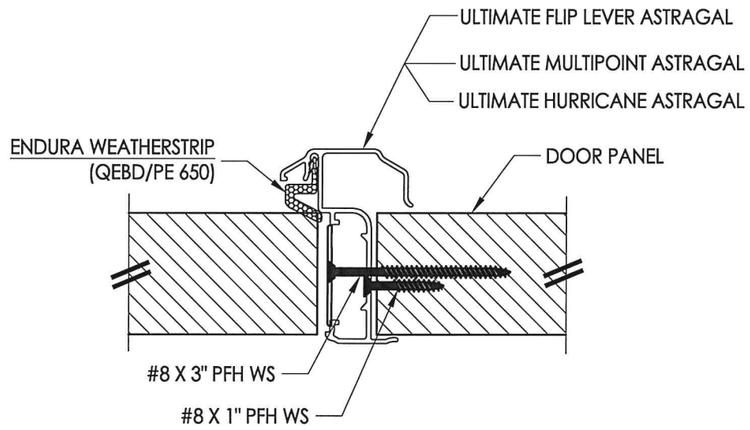




1/6 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved



2/6 HORIZONTAL CROSS SECTION

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER

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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	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-4172
SHEET 6 OF 8

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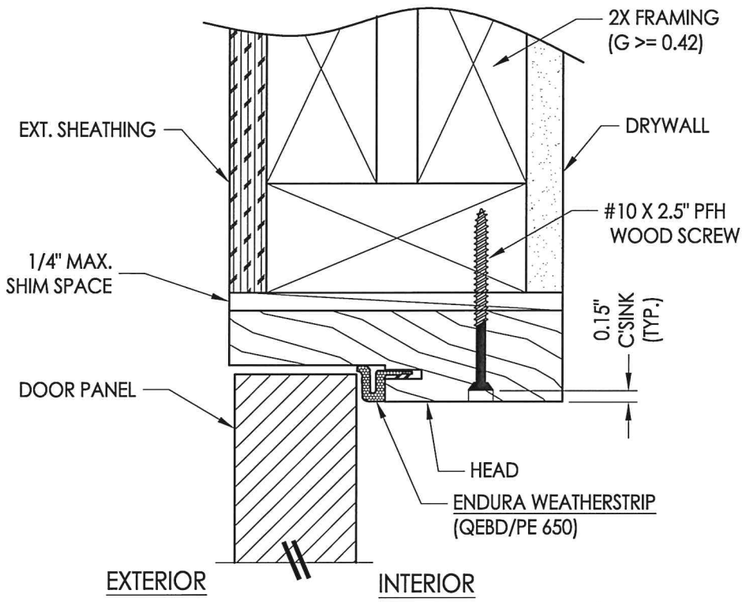
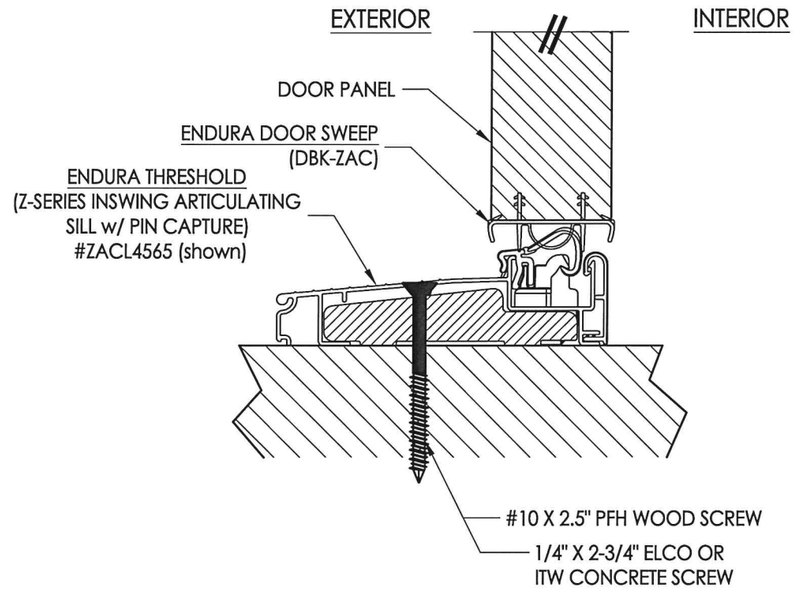
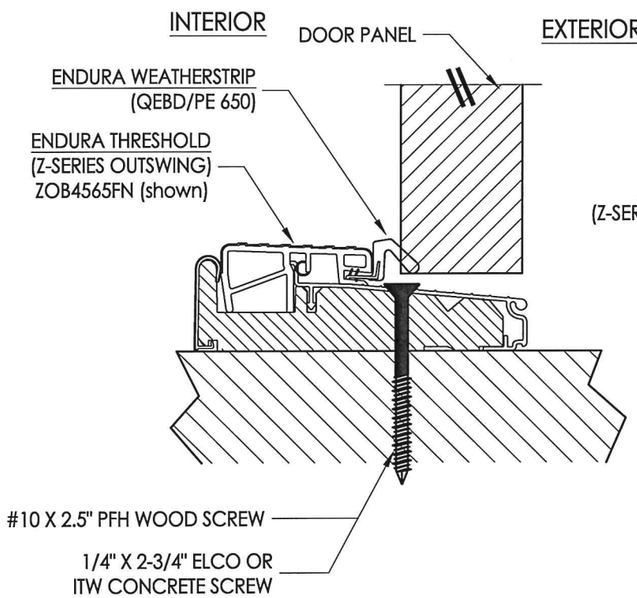


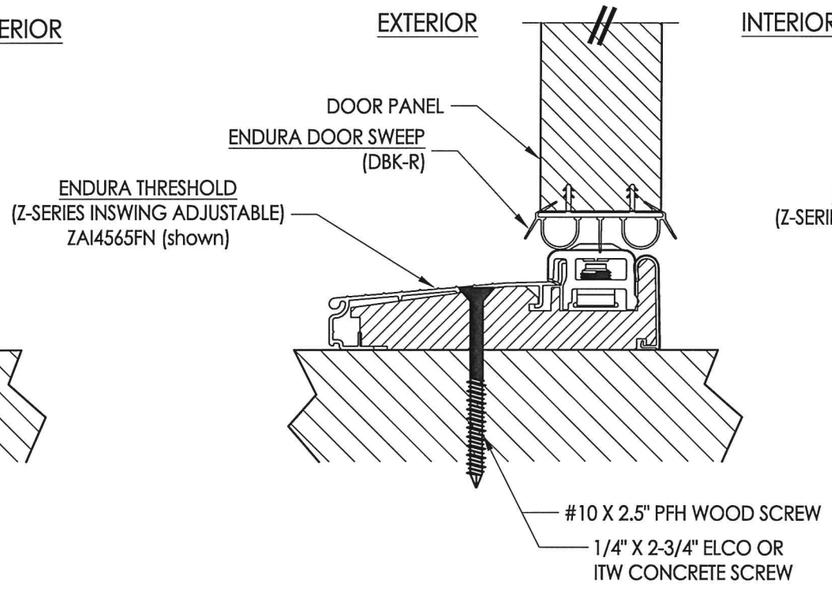
1/7 VERTICAL CROSS SECTION
Outswing shown - inswing also approved



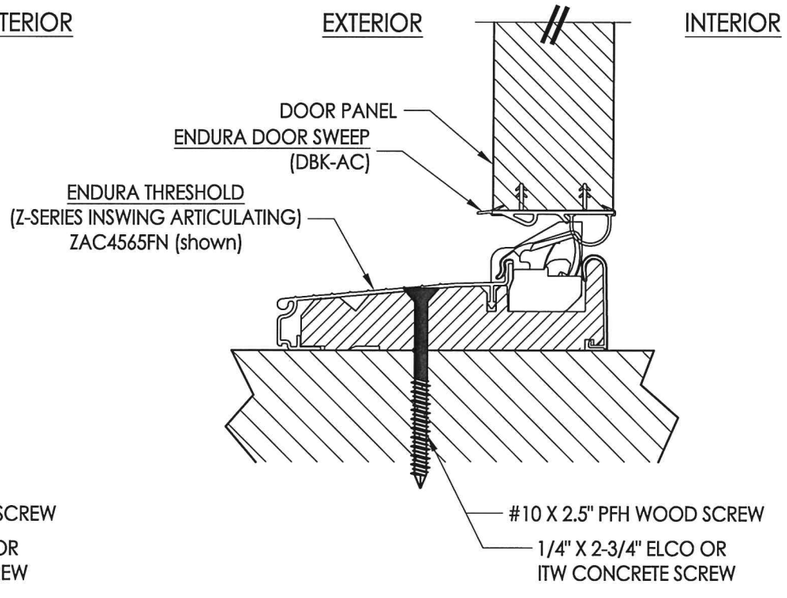
5/7 VERTICAL CROSS SECTION
Inswing configuration



2/7 VERTICAL CROSS SECTION
Outswing shown



3/7 VERTICAL CROSS SECTION
Inswing configuration



4/7 VERTICAL CROSS SECTION
Inswing configuration

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: 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-4172
SHEET 7 OF 8

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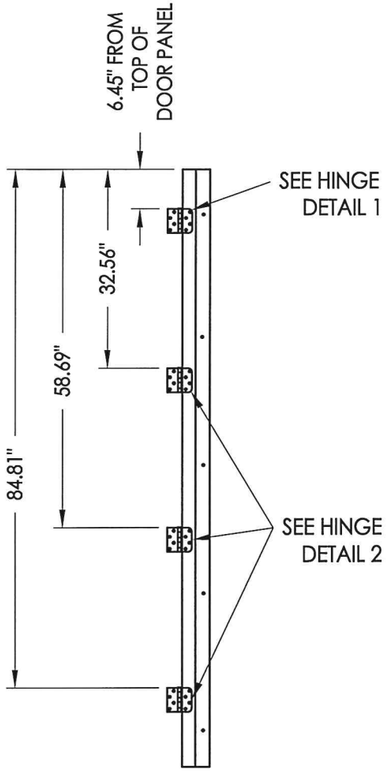

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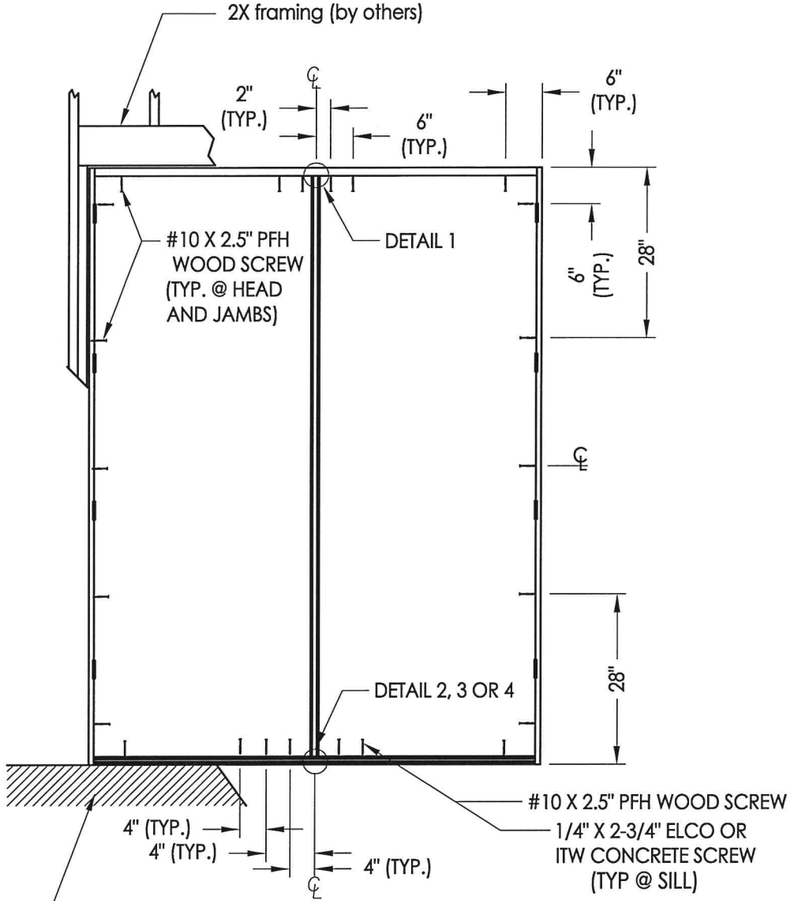
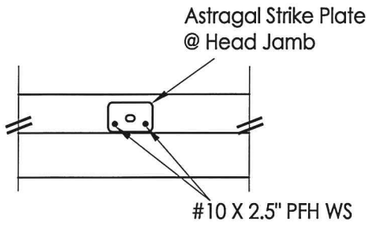
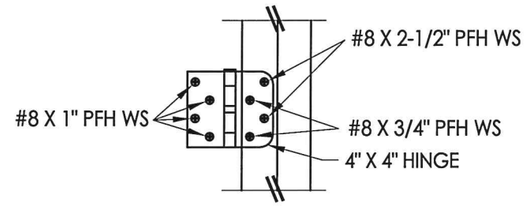


FLOOR SUBSTRATE MATERIAL (TYP.)
CONCRETE (MIN. 3000 PSI)
WOOD (G >= 0.42)

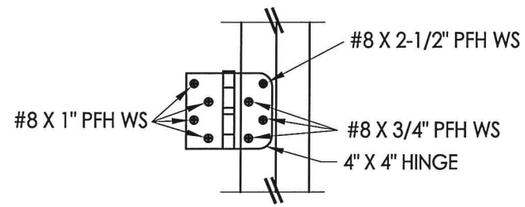
FRAME ANCHORING
XX



DETAIL 1



HINGE DETAIL 1

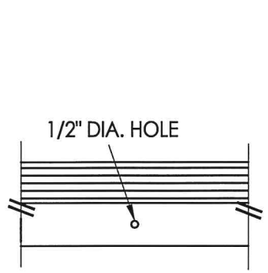


HINGE DETAIL 2

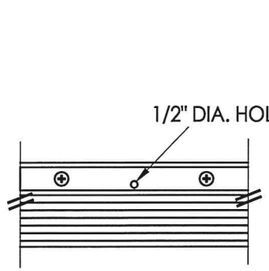
CONCRETE ANCHOR NOTES:

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:*

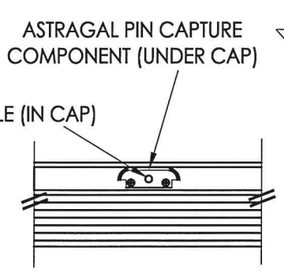
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



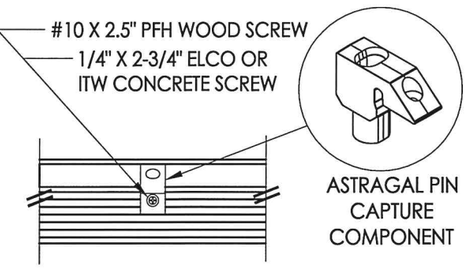
DETAIL 2
Outswing



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	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-4172
SHEET 8 OF 8

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