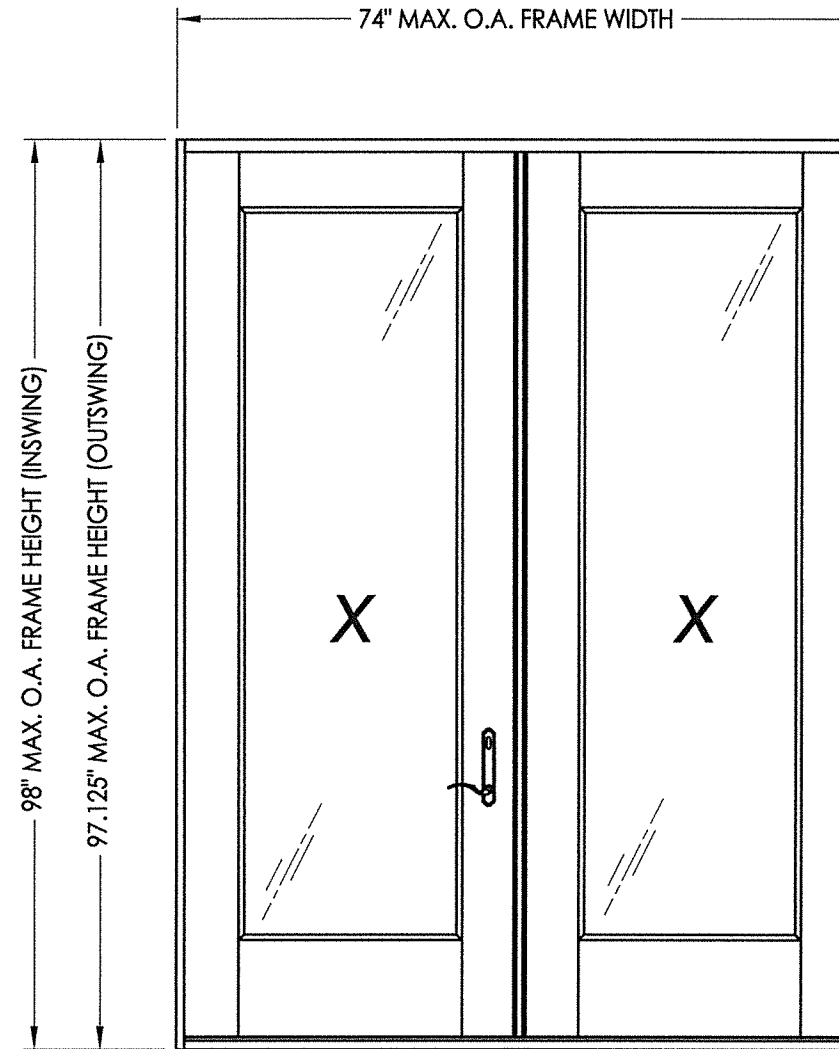




Glazed Fiberglass Door

"NON-IMPACT"
IN SWING / OUT SWING



EVALUATED FOR USE IN THE STATE OF TEXAS

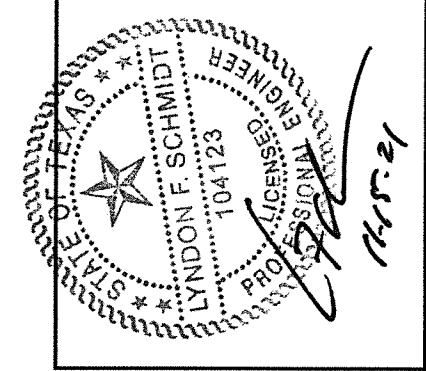
TDI DR-709

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.

| TABLE OF CONTENTS | |
|-------------------|--|
| SHEET # | DESCRIPTION |
| 1 | Typical elevations, design pressures & general notes |
| 2 | Astragal details (Ultimate Trilennium) |
| 3 | Door panel details (lip lite insert glazing) |
| 4 | Door panel details (flush glazing) |
| 5 | Horizontal cross sections |
| 6 | Vertical cross sections |
| 7 | Frame anchoring |

| CONFIG. | GLAZING | MODEL | DESIGN PRESSURE (PSF) ULTIMATE TRILENNIUM ASTRAGAL | |
|---------|-----------------|-----------|--|----------|
| | | | POSITIVE | NEGATIVE |
| XX | LIP LITE INSERT | IN SWING | +45.0 | -45.0 |
| XX | LIP LITE INSERT | OUT SWING | +55.0 | -55.0 |
| XX | FLUSH GLAZED | IN SWING | +50.0 | -55.0 |
| XX | FLUSH GLAZED | OUT SWING | +50.0 | -50.0 |



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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 |
|-----|----------|------------------------------|
| 4 | 11/11/21 | UPDATE TO 2018 IRC/IRC CODE |
| 3 | 10/08/18 | ADD FLUSH GLAZING |
| 2 | 10/27/16 | ADDED THRESHOLDS |
| 1 | 5/07/15 | ADD NEW ASTRAGAL PIN CAPTURE |

DATE: 12/4/13

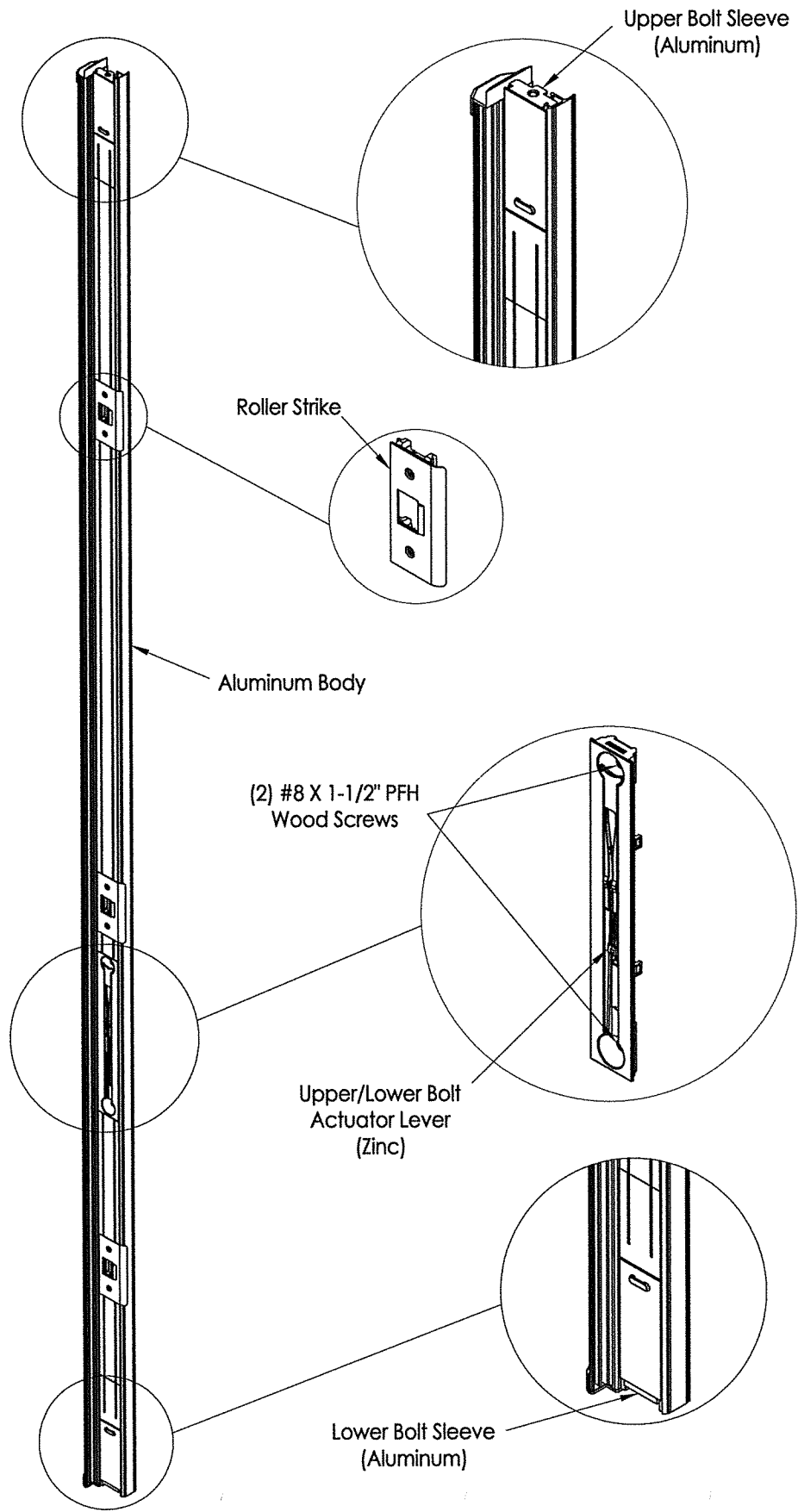
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DWG. BY: JK

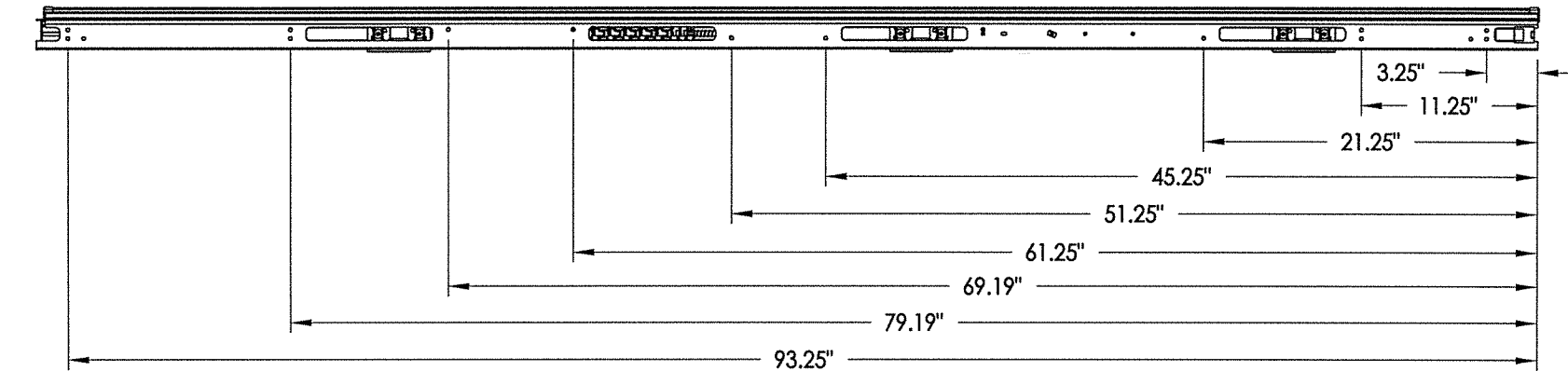
CHK. BY: LFS

DRAWING NO.: TX-4416

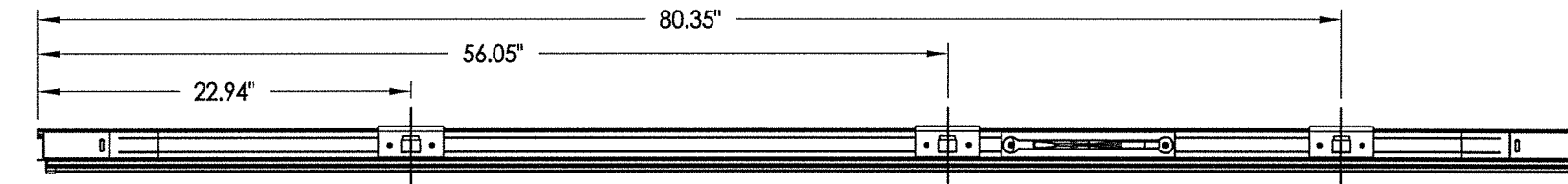
SHEET 1 OF 7



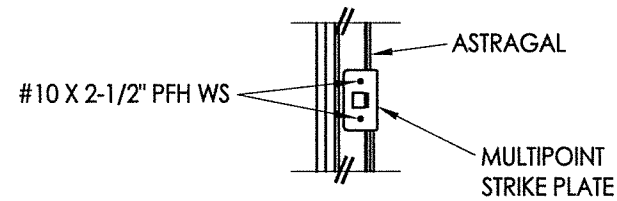
ULTIMATE TRIENNIUM ASTRAGAL



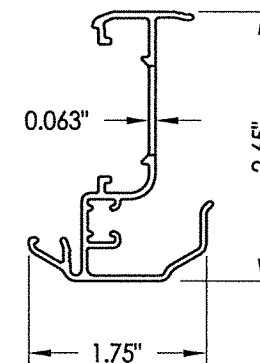
ANCHOR SCREW LOCATIONS



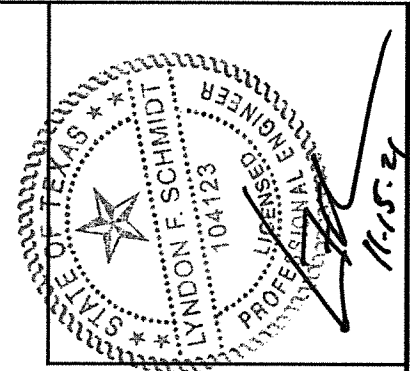
HARDWARE LOCATIONS



STRIKE PLATE DETAIL



Astragal Section



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Phone No.: 813.659.9197

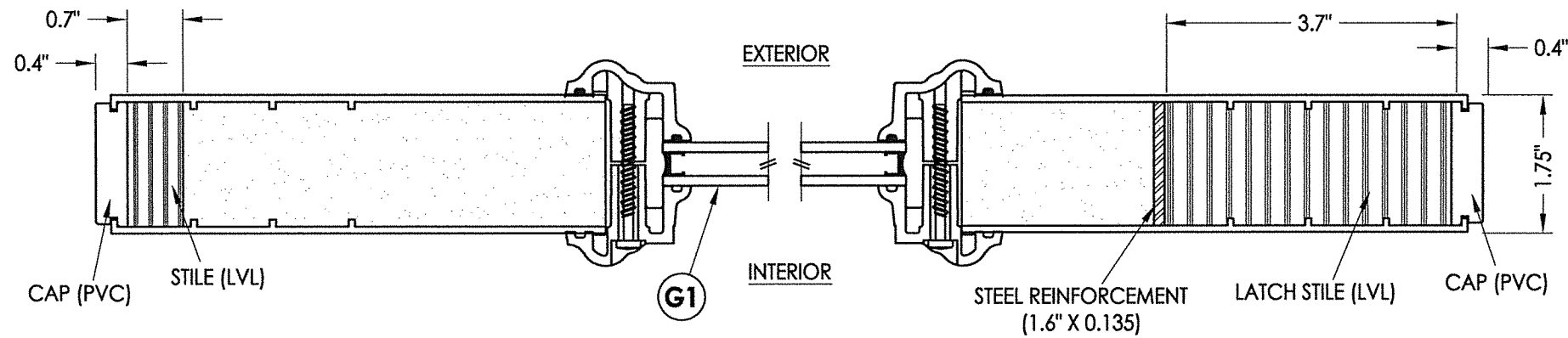
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

| | |
|-------------------|--|
| PRODUCT: | ENDURA |
| PART OR ASSEMBLY: | ASTRAGAL DETAILS (ULTIMATE TRIENNIUM) |

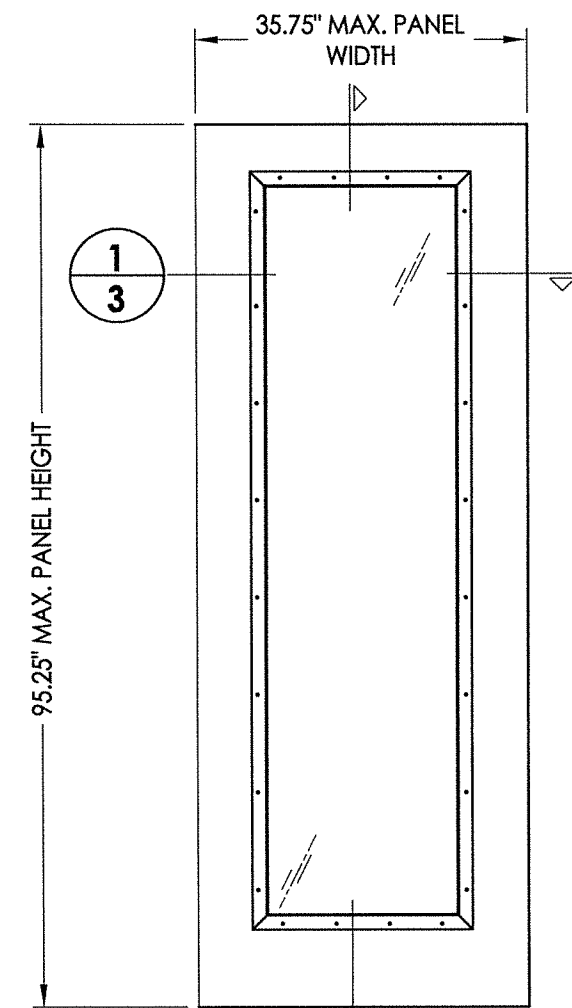
| NO. | DATE | REVISIONS | BY |
|-----|----------|------------------------------|-----|
| 4 | 11/11/21 | UPDATE TO 2018 IBC/IRC CODE | LFS |
| 3 | 10/08/18 | ADD FLUSH GLAZING | LFS |
| 2 | 10/27/16 | ADDED THRESHOLDS | LFS |
| 1 | 5/07/15 | ADD NEW ASTRAGAL PIN CAPTURE | LFS |

| | |
|--------------|---------|
| DATE: | 12/4/13 |
| SCALE: | N.T.S. |
| DWG. BY: | JK |
| CHK. BY: | LFS |
| DRAWING NO.: | TX-4416 |
| SHEET | 2 OF 7 |

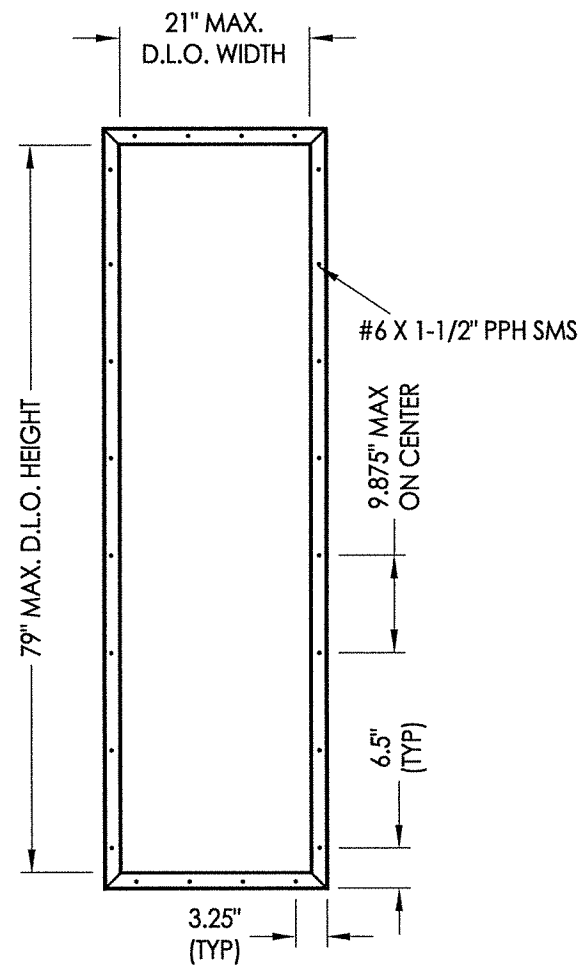
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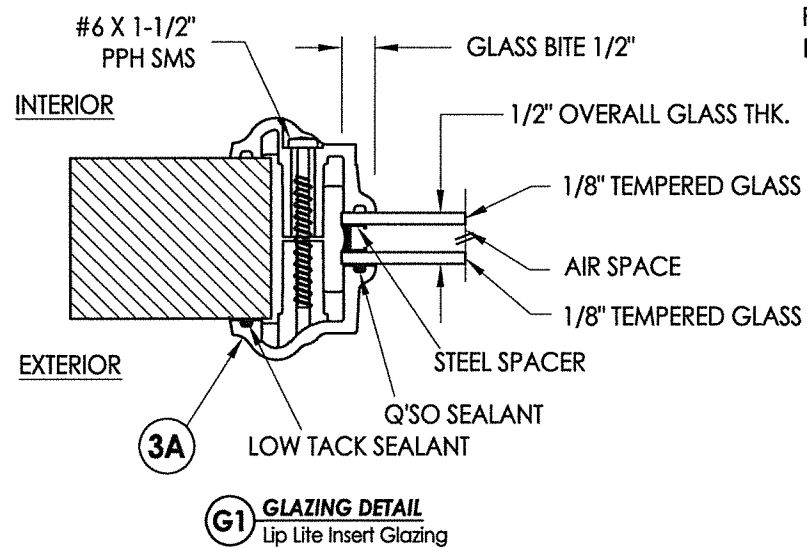
1
3 HORIZONTAL CROSS SECTION



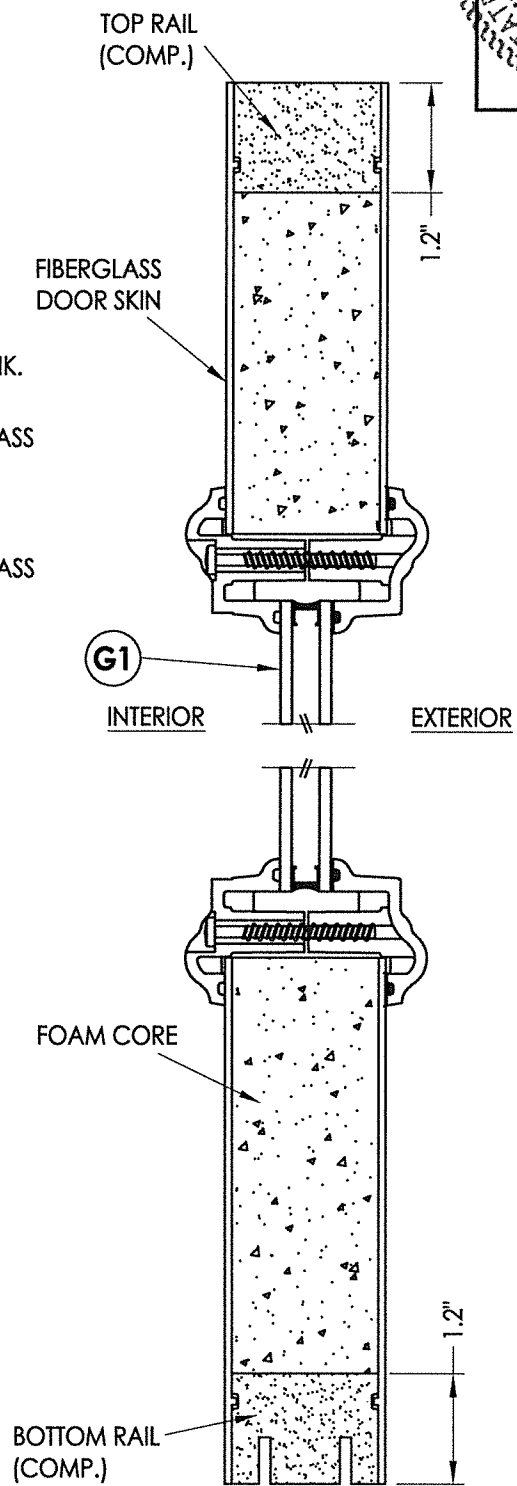
2
3 DOOR PANEL
Plastpro
Fiberglass



3A OD LITE FRAME
HP Polypropylene

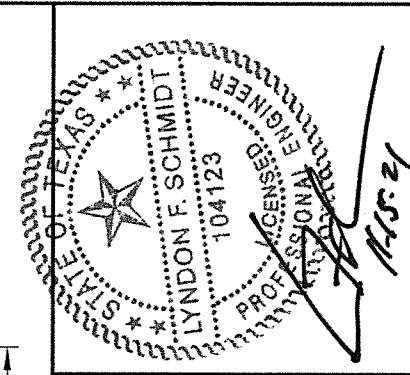


G1 GLAZING DETAIL
Lip Lite Insert Glazing



2
3 VERTICAL CROSS SECTION

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



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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 | BY |
|-----|----------|-----|
| 4 | 11/11/21 | LFS |
| 3 | 10/08/18 | LFS |
| 2 | 10/27/16 | LFS |
| 1 | 5/07/15 | LFS |

DATE: 12/4/13

SCALE: N.T.S.

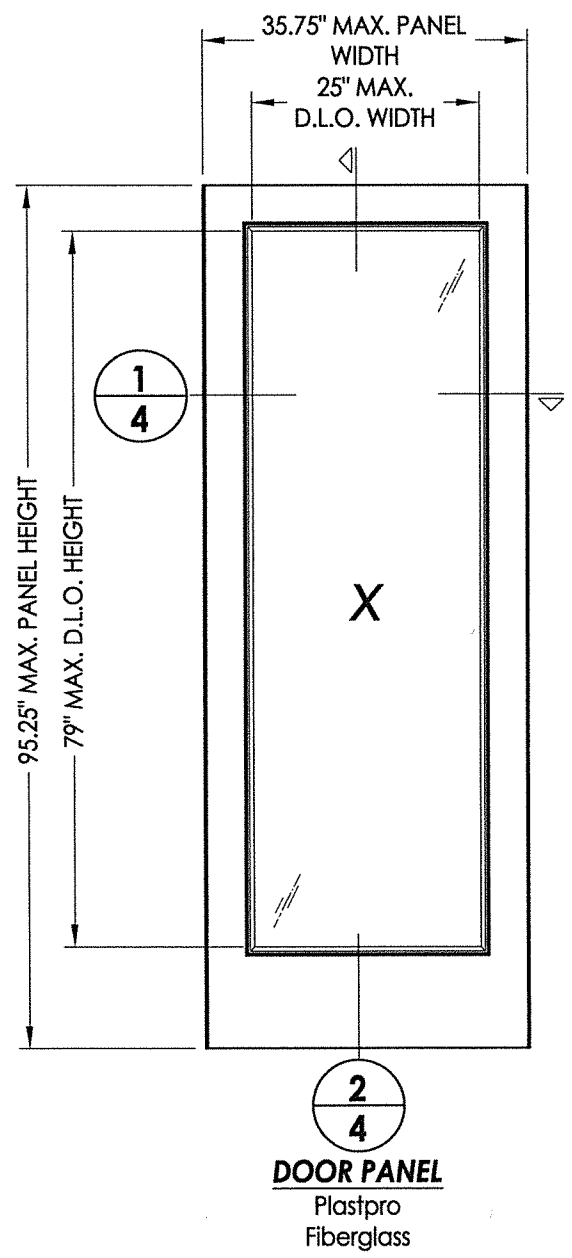
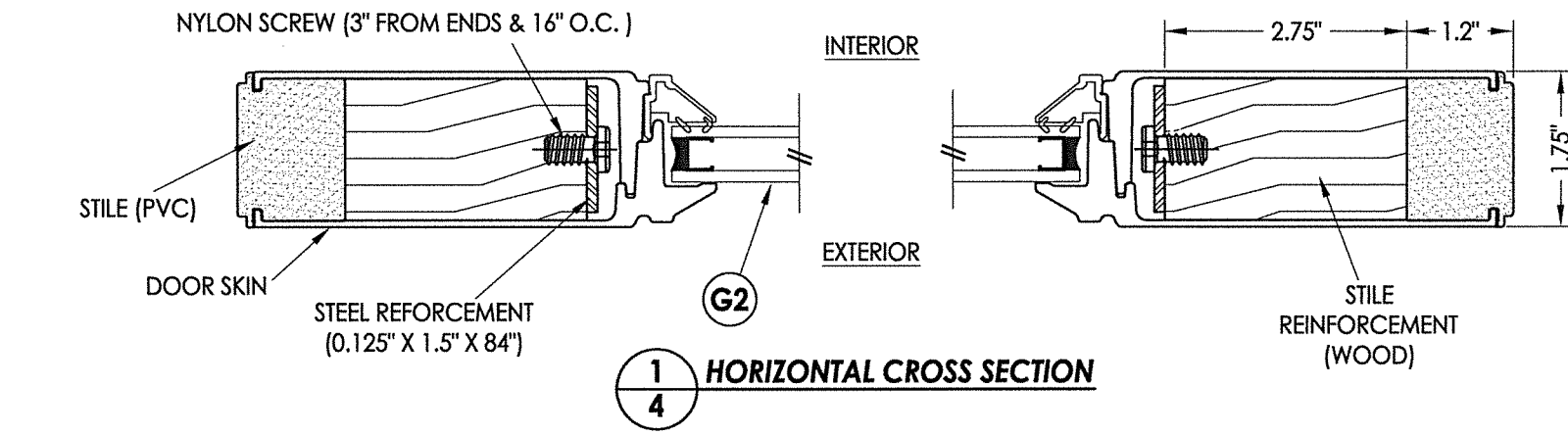
DWG. BY: JK

CHK. BY: LFS

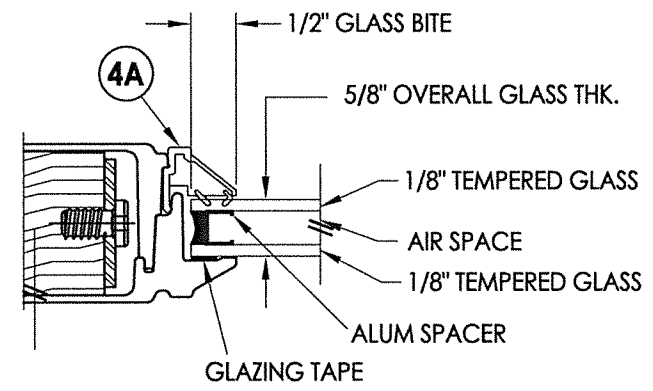
DRAWING NO.:
TX-4416

SHEET 3 OF 7

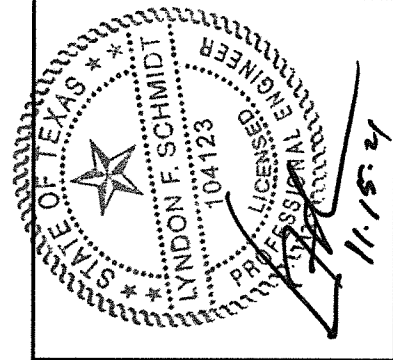
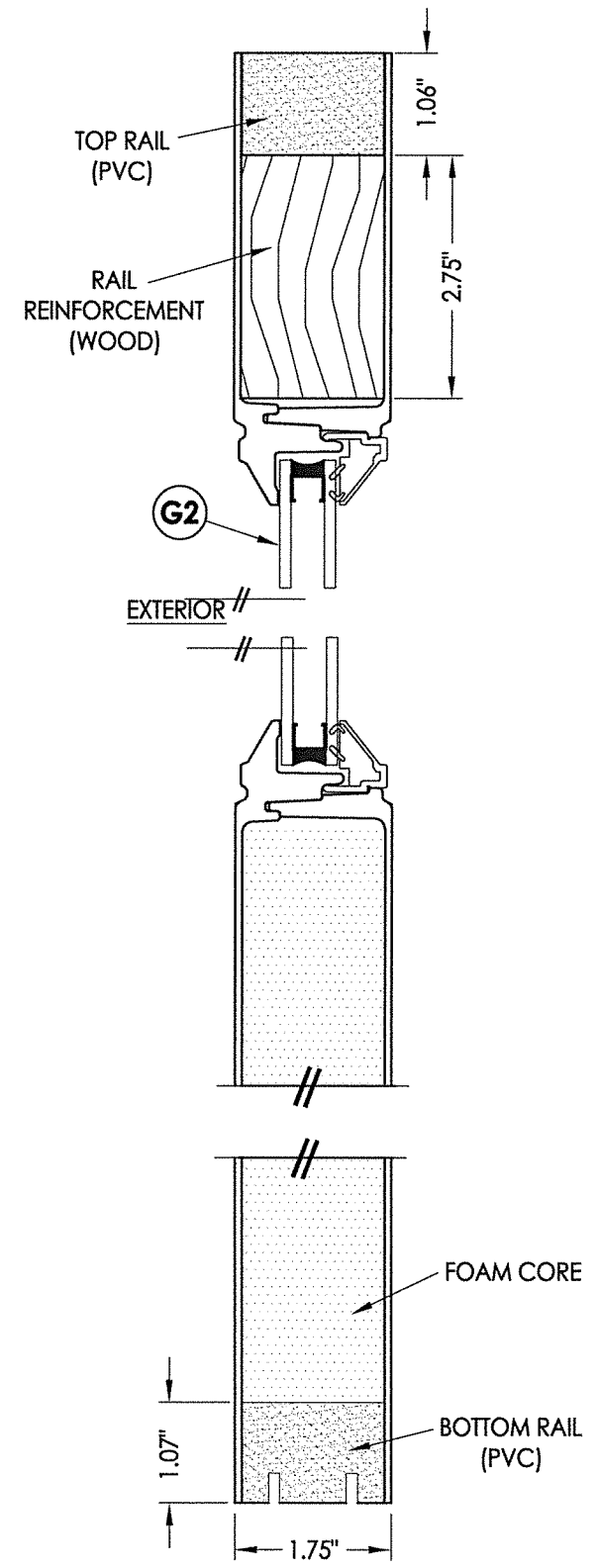
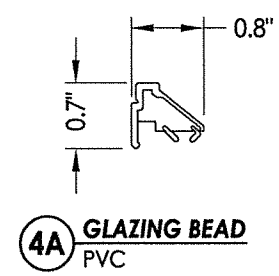
Z:\Clients\Endura PERMANENT B - Texas Dept of Ins\TDI - DR-709 Plastpro FG Glazed\C - Drawings\TX-4415.16.dwg



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



G2 **GLAZING DETAIL**
Flush Glazing



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PRODUCT: ENDURA

PART OR ASSEMBLY: DOOR PANEL DETAILS (FLUSH GLAZING)

| NO. | DATE | REVISIONS |
|-----|----------|------------------------------|
| 4 | 11/11/21 | UPDATE TO 2018 IBC/IRC CODE |
| 3 | 10/08/18 | ADD FLUSH GLAZING |
| 2 | 10/27/16 | ADDED THRESHOLDS |
| 1 | 5/07/15 | ADD NEW ASTRAGAL PIN CAPTURE |
| | | BY |

DATE: 12/4/13

SCALE: N.T.S.

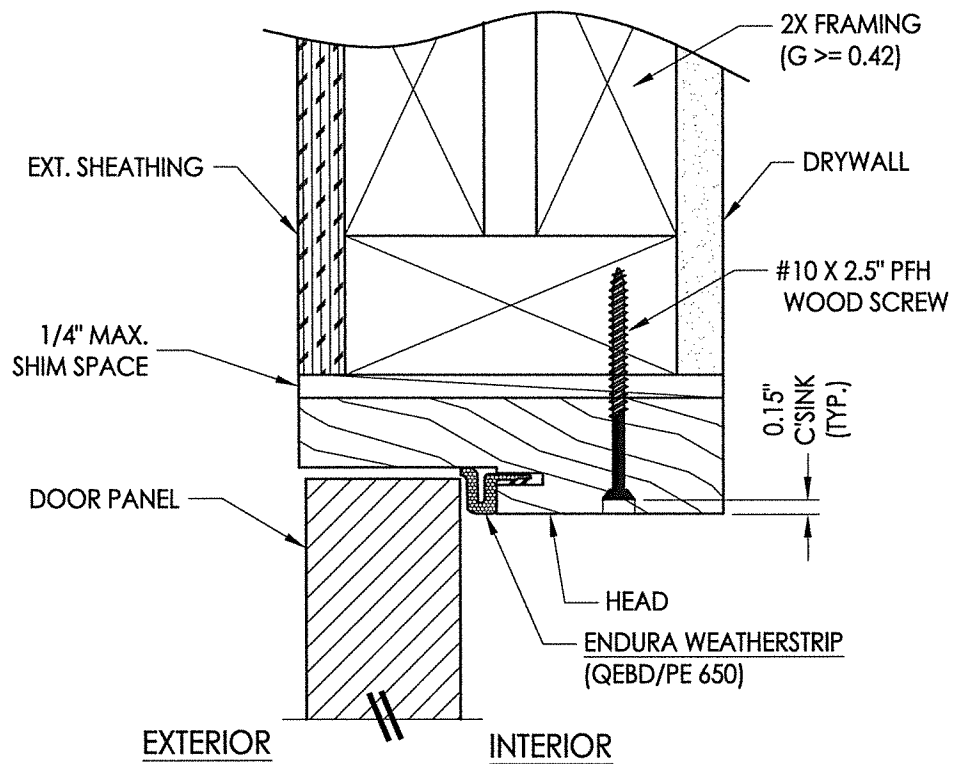
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CHK. BY: LFS

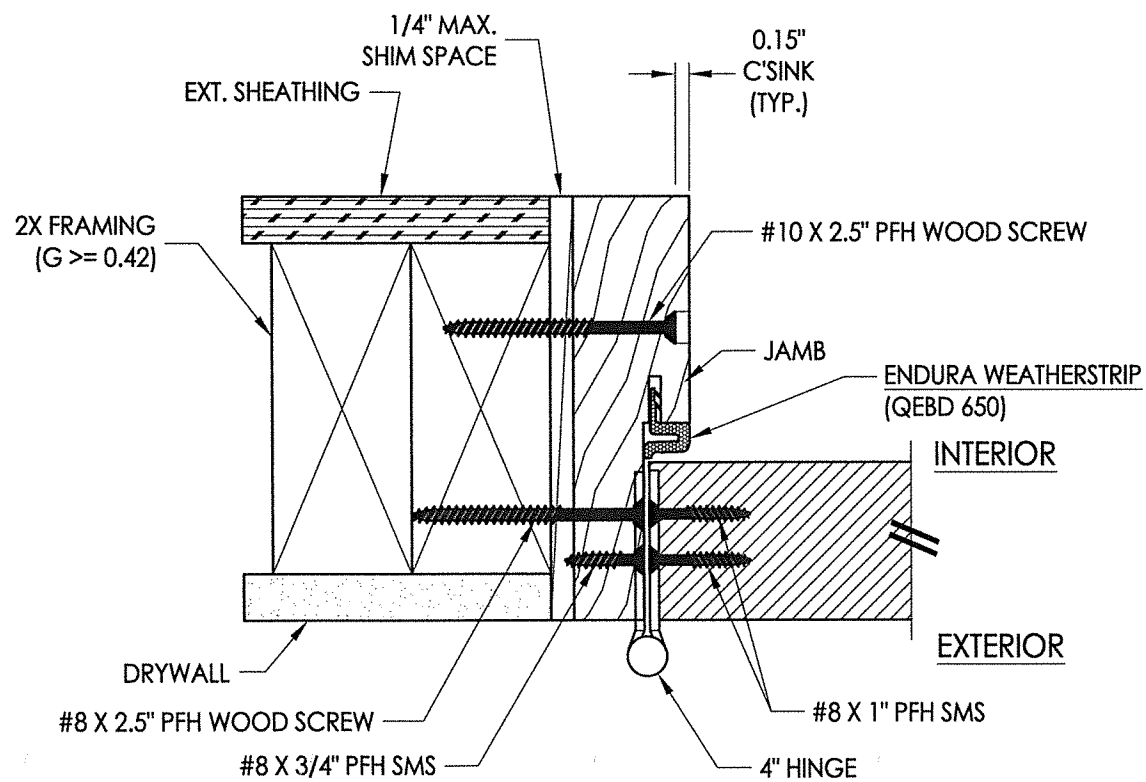
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SHEET 4 OF 7

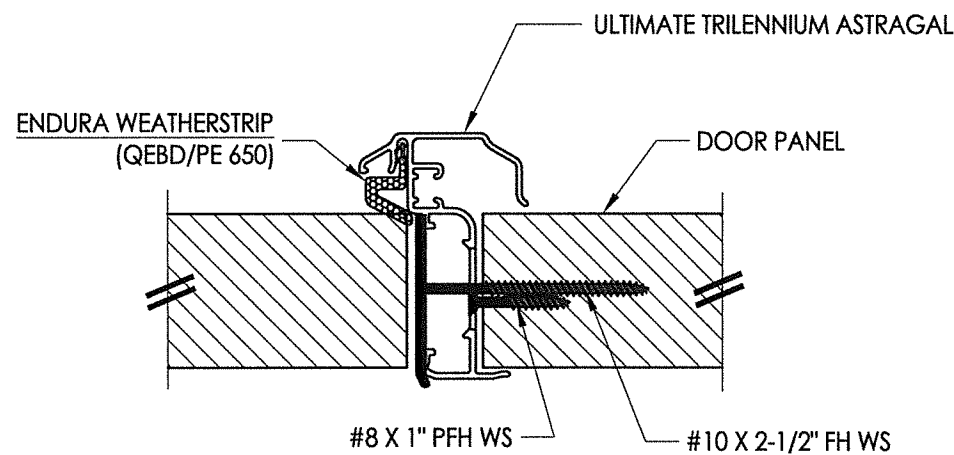
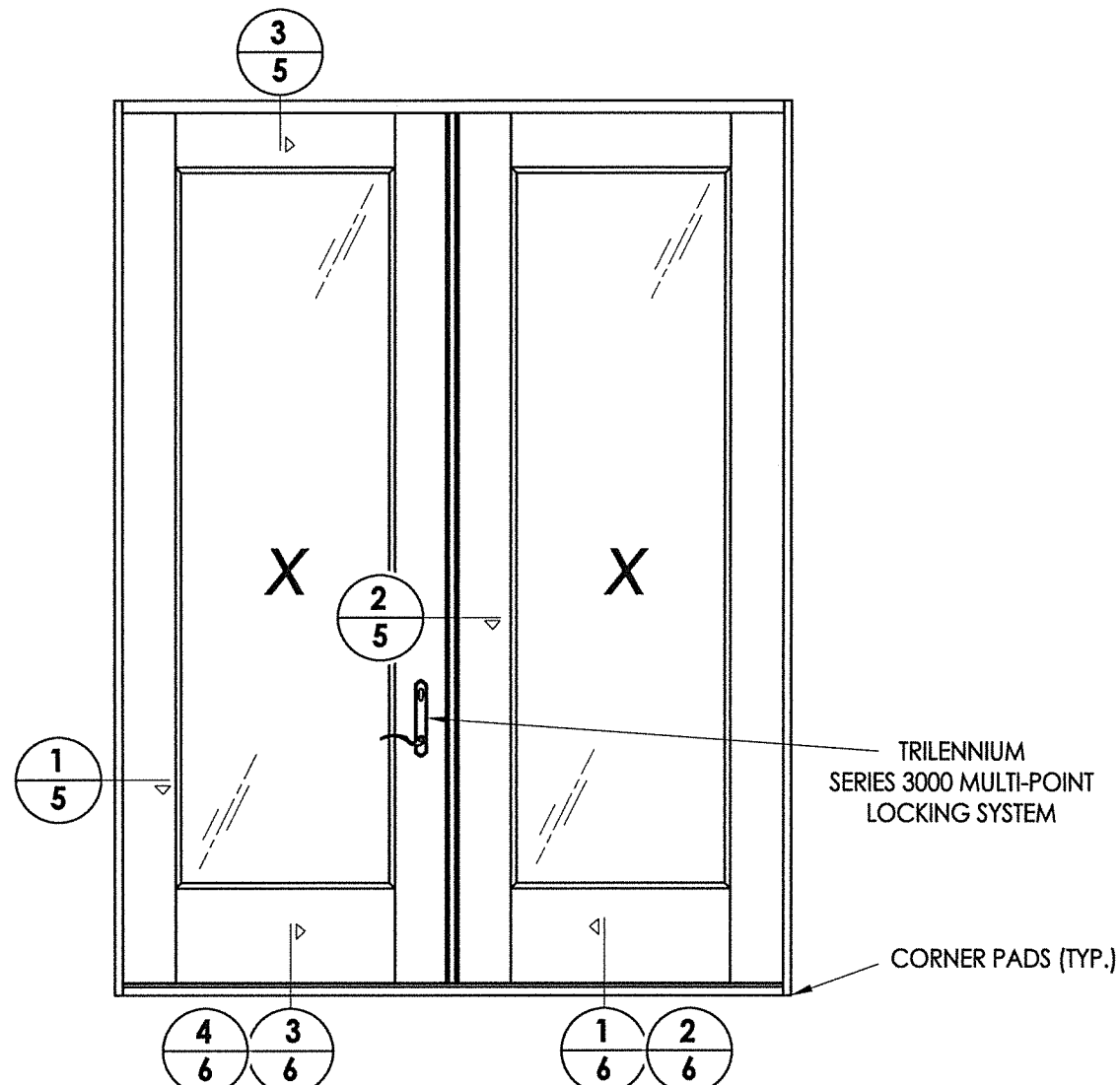
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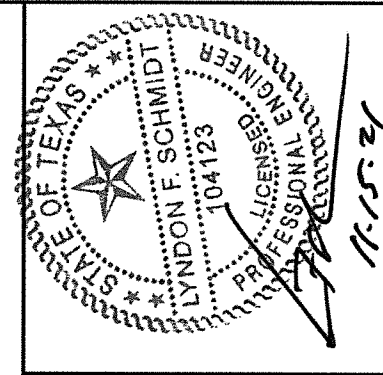
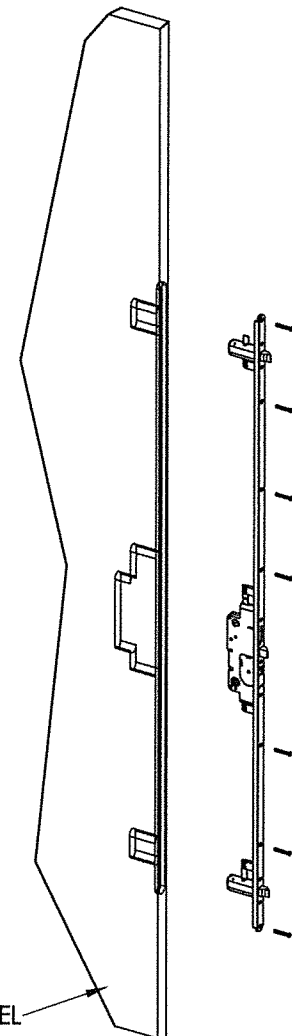
3 VERTICAL CROSS SECTION
5 Outswing shown - inswing also approved



1 HORIZONTAL CROSS SECTION
5 Inswing shown - Outswing also approved

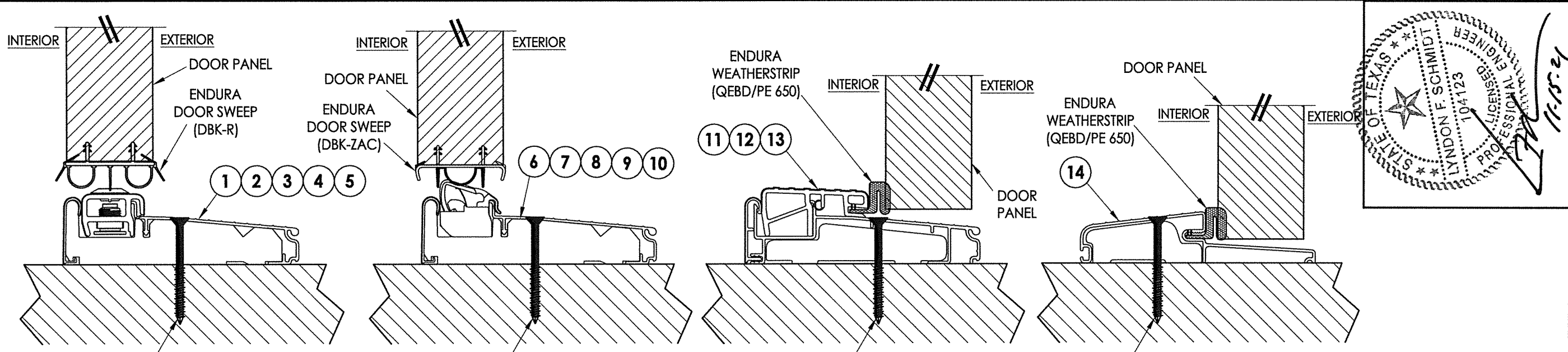


2 HORIZONTAL CROSS SECTION
5



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

| | | |
|-------------------|--------------------------------------|------|
| PRODUCT: | ENDURA | |
| PART OR ASSEMBLY: | HORIZONTAL CROSS SECTIONS | |
| NO. | DATE | BY |
| 4 | 11/11/21 UPDATE TO 2018 IBC/IRC CODE | LFS |
| 3 | 10/08/18 ADD FLUSH GLAZING | LFS |
| 2 | 10/27/16 ADDED THRESHOLDS | LFS |
| 1 | 5/07/15 ADD NEW ASTRAGAL PIN CAPTURE | LFS |
| REVISIONS | | |
| DATE: | 12/4/13 | |
| SCALE: | N.T.S. | |
| DWG. BY: | JK | |
| CHK. BY: | LFS | |
| DRAWING NO.: | TX-4416 | |
| SHEET | 5 | OF 7 |



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

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

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

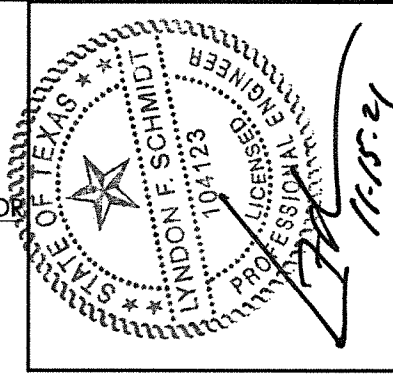
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW

1 **VERTICAL CROSS SECTION**
6 Inswing Adjustable Threshold

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

3 **VERTICAL CROSS SECTION**
6 Outswing Bump Threshold

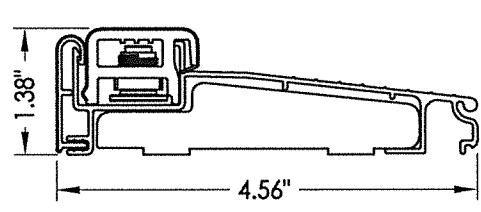
4 **VERTICAL CROSS SECTION**
6 Outswing Bump Threshold



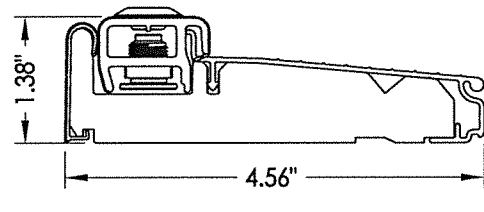
Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
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Phone No.: 813.659.9197

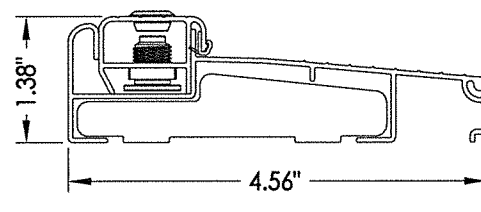
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852



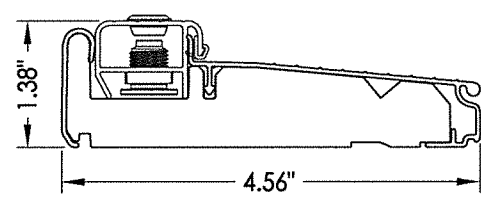
1 **INSWING ADJUSTABLE THRESHOLD**
ZAIL4565



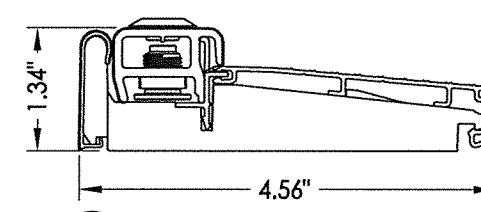
2 **INSWING ADJUSTABLE THRESHOLD**
ZAI4565FN



3 **INSWING ADJUSTABLE THRESHOLD**
ZAILAA4565

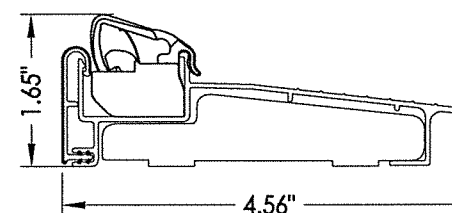


4 **INSWING ADJUSTABLE THRESHOLD**
ZAIAA4565FN



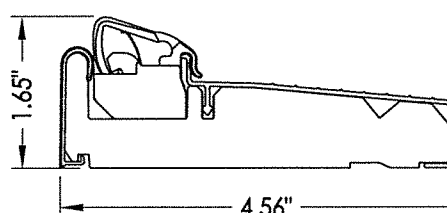
5 **INSWING ADJUSTABLE THRESHOLD**
ZAI4565RDS

MAX. DESIGN PRESSURE = ±40 PSF



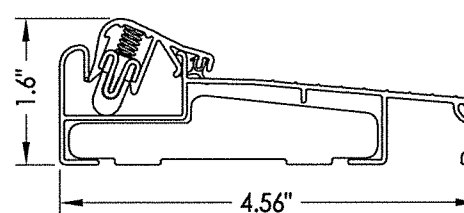
6 **INSWING ARTICULATING THRESHOLD**
ZACL4565

MAX. DESIGN PRESSURE = ±45 PSF



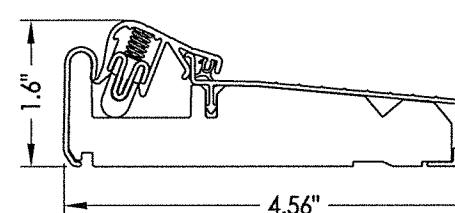
7 **INSWING ARTICULATING THRESHOLD**
ZAC4565FN

MAX. DESIGN PRESSURE = +30/-35 PSF
(FLUSH GLAZING)



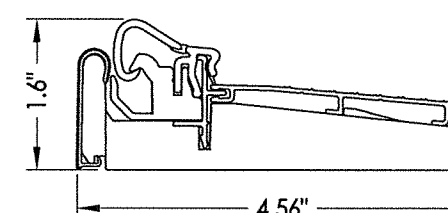
8 **INSWING ARTICULATING THRESHOLD**
ZACLA4565

MAX. DESIGN PRESSURE = ±45 PSF



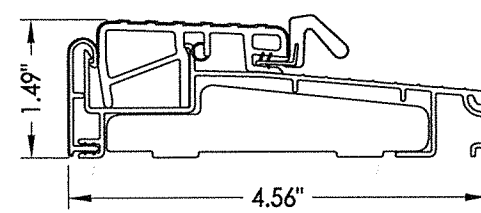
9 **INSWING ARTICULATING THRESHOLD**
ZACAA4565FN

MAX. DESIGN PRESSURE = +30/-35 PSF
(FLUSH GLAZING)

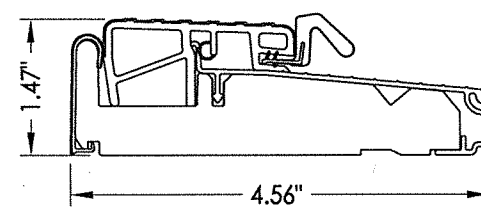


10 **INSWING ARTICULATING THRESHOLD**
ZAC4565RDS

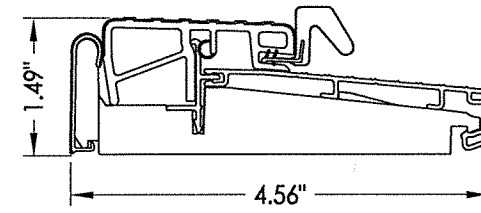
MAX. DESIGN PRESSURE = ±35 PSF



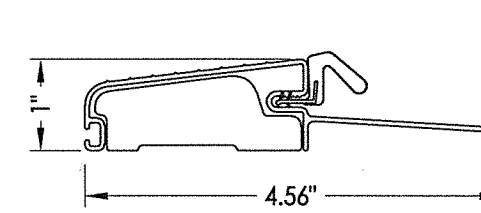
11 **OUTSWING THRESHOLD**
ZOBL4565



12 **OUTSWING THRESHOLD**
ZOB4565FN



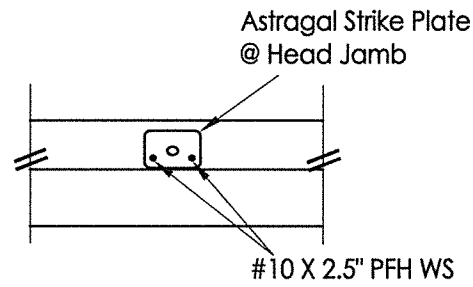
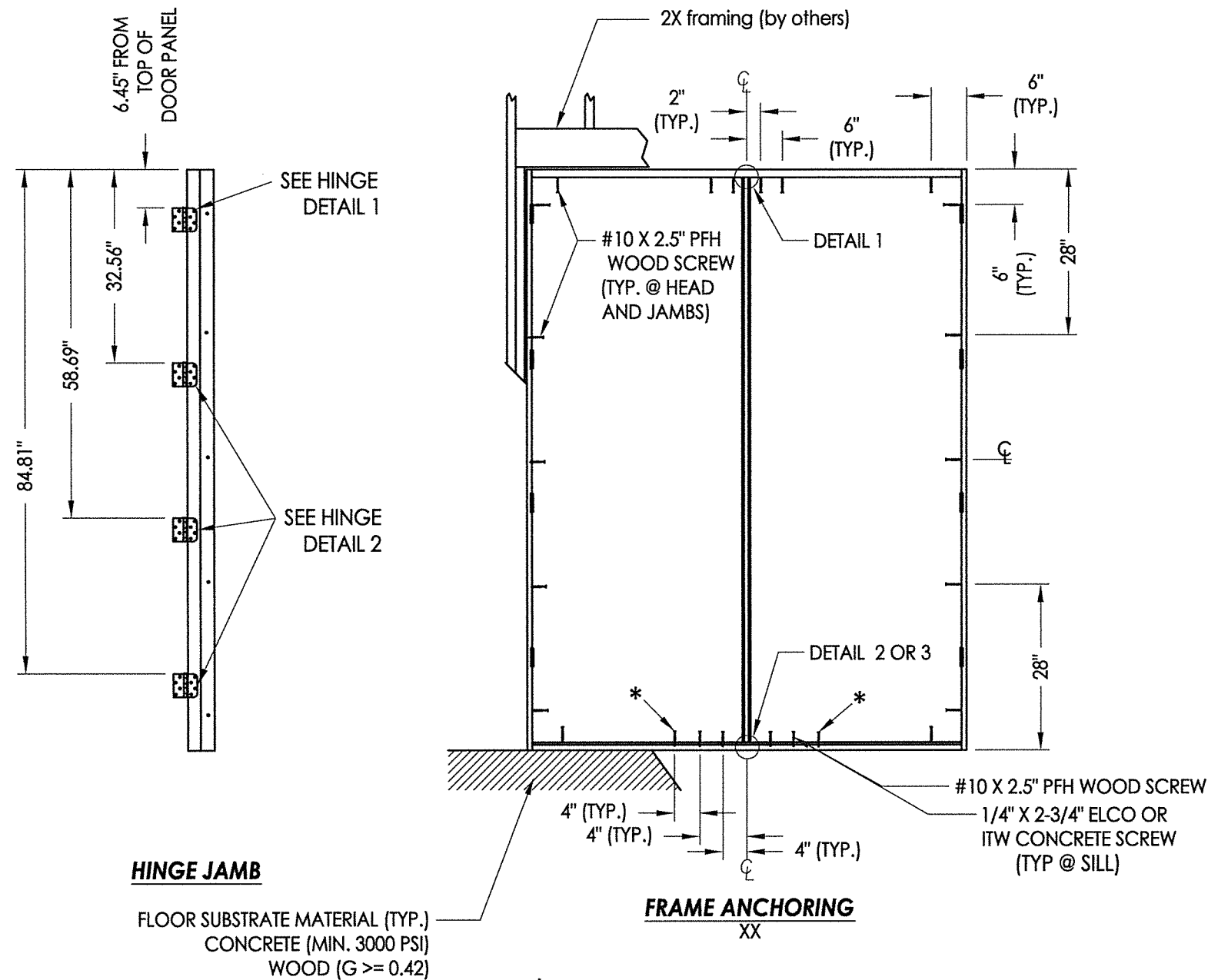
13 **OUTSWING THRESHOLD**
ZOB4565RDS



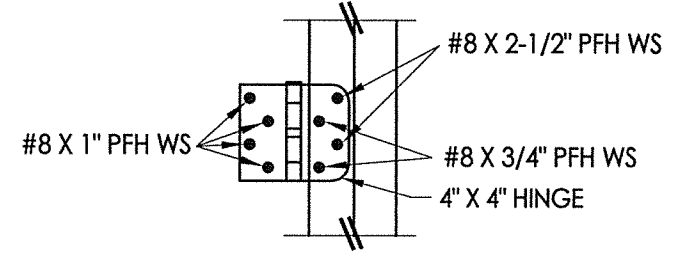
14 **OUTSWING THRESHOLD**
FOB4566

| | | | |
|-----------------|----------|---|-----|
| PRODUCT: ENDURA | | PART OR ASSEMBLY: VERTICAL CROSS SECTIONS | |
| NO. | DATE | REVISIONS | BY |
| 4 | 11/17/21 | UPDATE TO 2018 IBC/IRC CODE | LFS |
| 3 | 10/08/18 | ADD FLUSH GLAZING | LFS |
| 2 | 10/27/16 | ADDED THRESHOLDS | LFS |
| 1 | 5/07/15 | ADD NEW ASTRAGAL PIN CAPTURE | LFS |

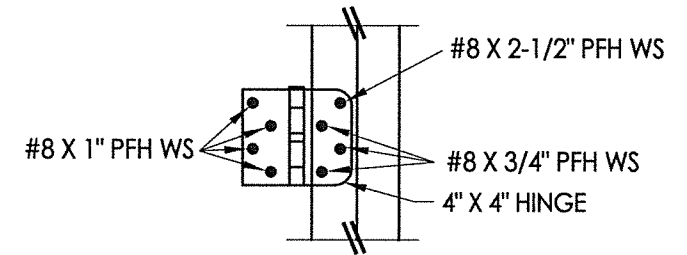
DATE: 12/4/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4416
SHEET 6 OF 7



DETAIL 1



HINGE DETAIL 1



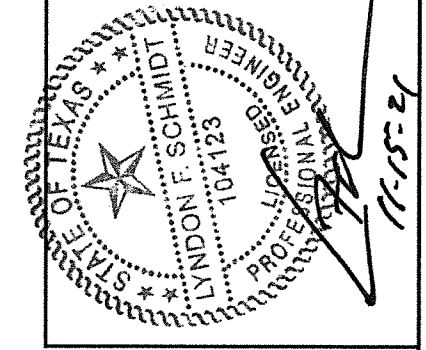
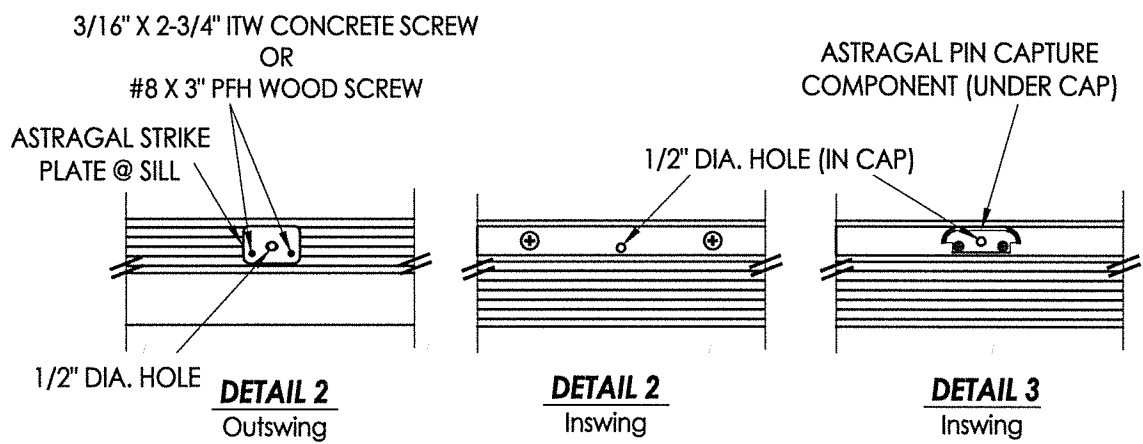
HINGE DETAIL 2

* NOTE: Additional anchors are required for D.P. > 40 PSF.

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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Phone No.: 813.659.9197

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

| | |
|-------------------|-----------------|
| PRODUCT: | ENDURA |
| PART OR ASSEMBLY: | FRAME ANCHORING |

| NO. | DATE | REVISIONS |
|-----|----------|------------------------------|
| 4 | 11/11/21 | UPDATE TO 2018 IBC/IRC CODE |
| 3 | 10/08/18 | ADD FLUSH GLAZING |
| 2 | 10/27/16 | ADDED THRESHOLDS |
| 1 | 5/07/15 | ADD NEW ASTRAGAL PIN CAPTURE |

DATE: 12/4/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4416
SHEET 7 OF 7