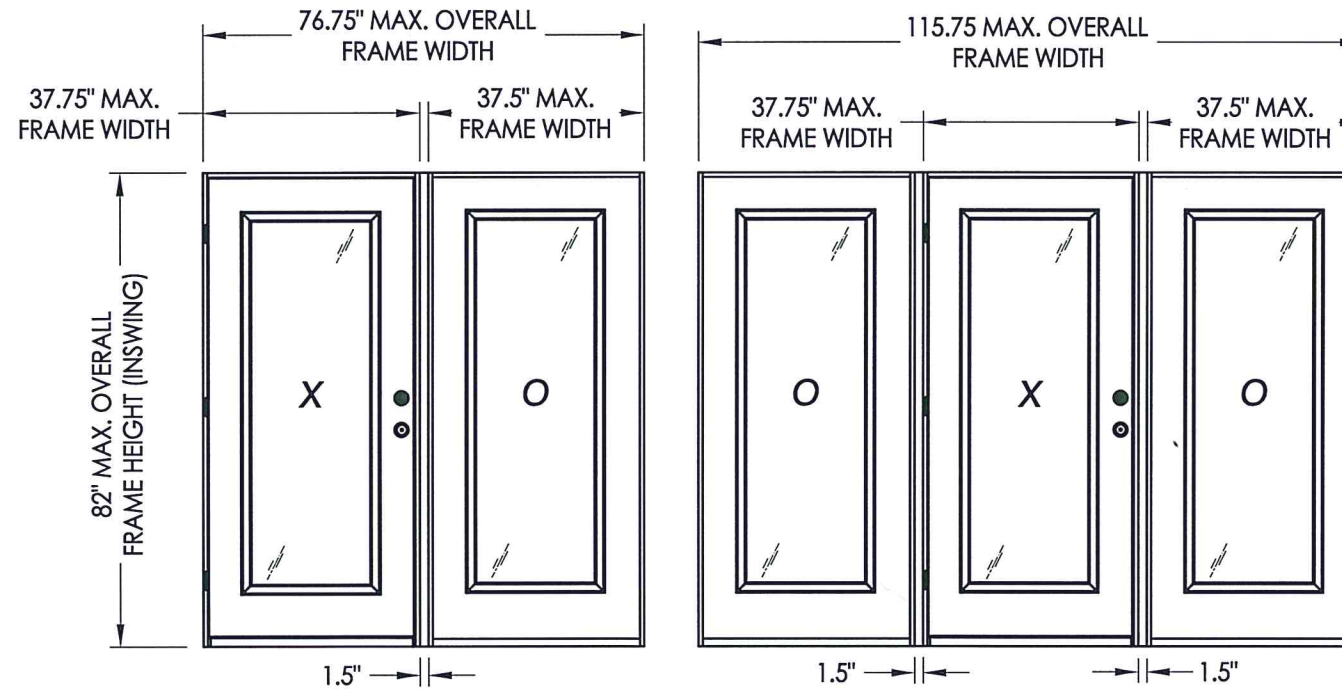
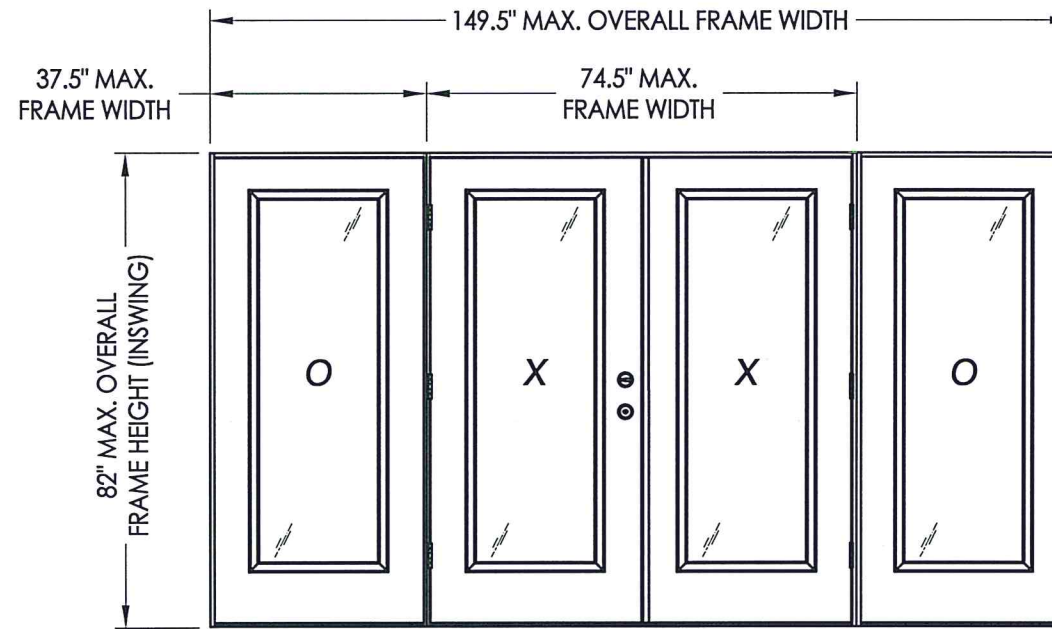




215 EAST ROOSEVELT AVE.  
ZEELAND, MI 49464

# FIBERGLASS ENTRY DOOR INSWING "IMPACT"



**EVALUATED FOR USE IN THE STATE OF TEXAS**

**TDI DR-691**

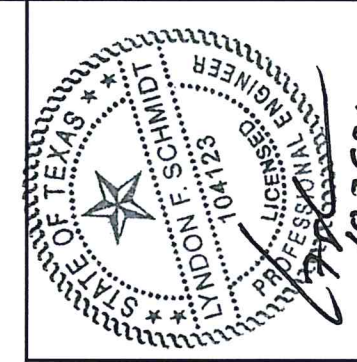
The Fiberglass Door system described herein complies with the 2018 International Residential Code (IRC), Sections R301 & R609 and the 2018 International Building Code (IBC), Sections 1404.13, 1609, 1709.5, 2403 and 2404 subject to the following conditions:

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. This system has been tested and evaluated as a large missile impact protective system for installation in areas that require wind borne debris protection. This product meets missile level "D" as defined in ASTM E 1996.
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.
5. Fiber-Classic and Smooth-Star Door panels require the use of "J" part numbers. These door panels must be stained or painted within six months of installation.

**TABLE OF CONTENTS**

SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door/Sidelite panel details
3	Lite frame and glazing details
4	Elevations & hardware table
5	Horizontal cross sections
6	Vertical cross sections
7	Frame anchoring
8	Astragal details
9	Bill of materials & components

CONFIGURATION	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF) INSWING	
		POSITIVE	NEGATIVE
OX/XO	76.75" x 82.0"	+45.0	-50.0
OXO	115.75" x 82.0"	+45.0	-50.0
OXXO	149.5" x 82.0"	+45.0	-50.0



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

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

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IRC/IBC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 6/13/13

SCALE: N.T.S.

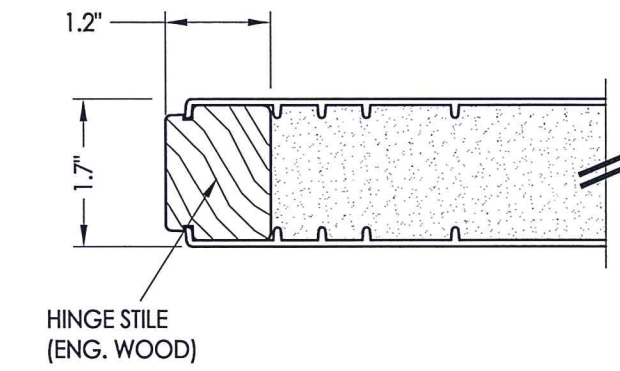
DWG. BY: JK

CHK. BY: LFS

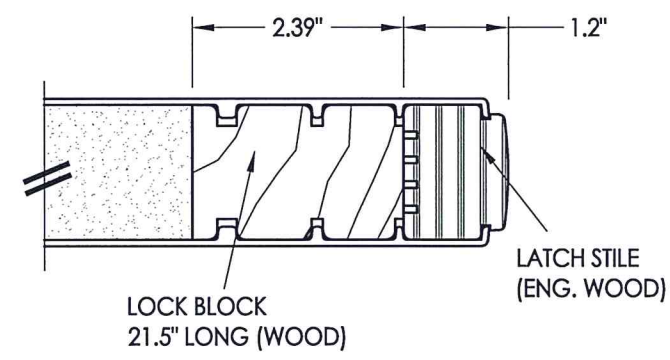
DRAWING NO.: TX-4330

SHEET 1 OF 9





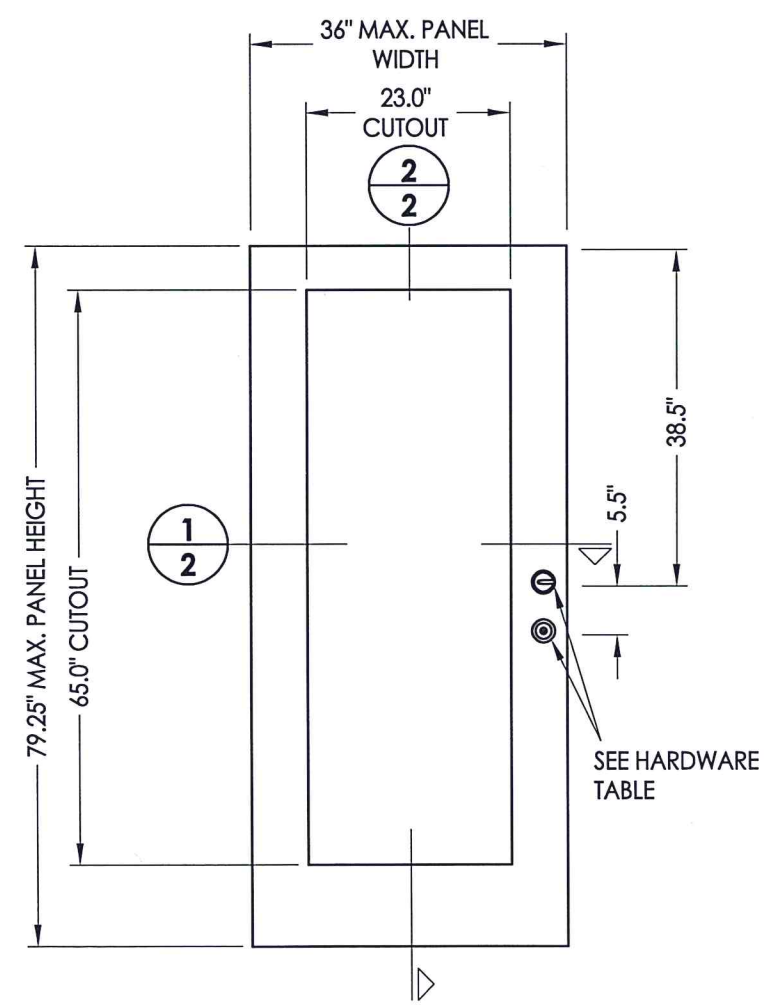
HINGE STILE  
(ENG. WOOD)



LOCK BLOCK  
21.5" LONG (WOOD)

LATCH STILE  
(ENG. WOOD)

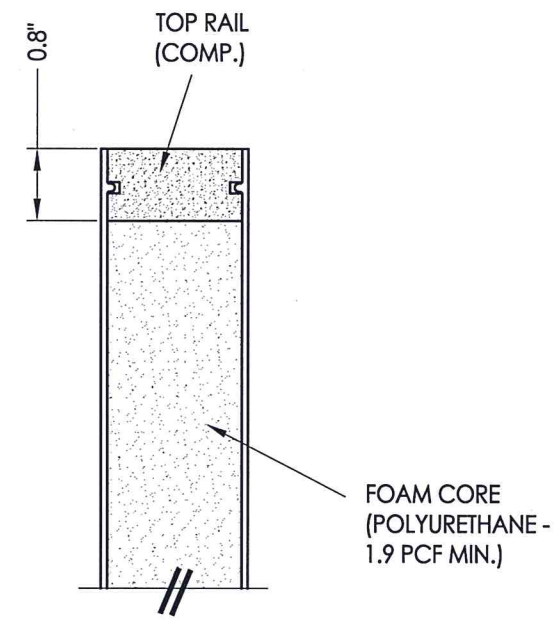
**1**  
**2** HORIZONTAL CROSS SECTION



**1**  
**2**

- 40** DOOR PANEL  
Fiber Classic (Therma-Tru)
- 50** SIDELITE PANEL  
Fiber Classic (Therma-Tru)

SEE HARDWARE TABLE

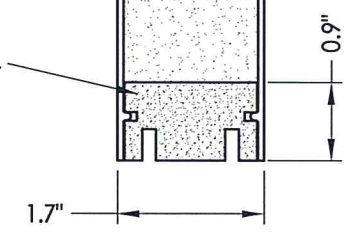


TOP RAIL  
(COMP.)

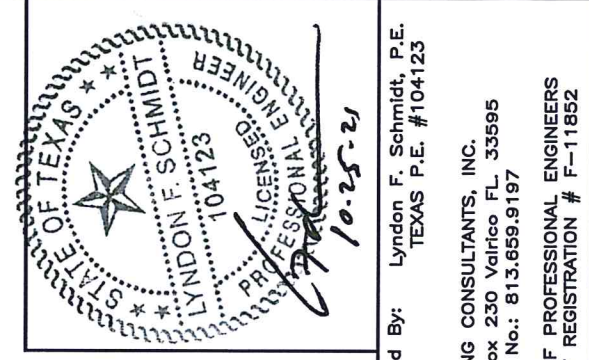
FOAM CORE  
(POLYURETHANE -  
1.9 PCF MIN.)

FIBERGLASS SKIN  
(0.075" MIN. THK.)

BOTTOM RAIL  
(COMP.)



**2**  
**2** VERTICAL CROSS SECTION



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

PRODUCT: FIBERGLASS DOOR

PART OR ASSEMBLY: DOOR/SIDELITE PANEL DETAILS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION
		JK
		BY

DATE: 6/13/13

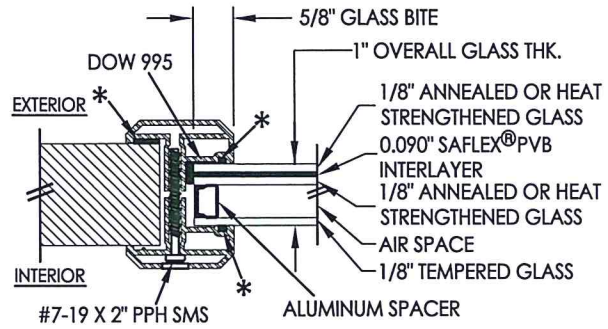
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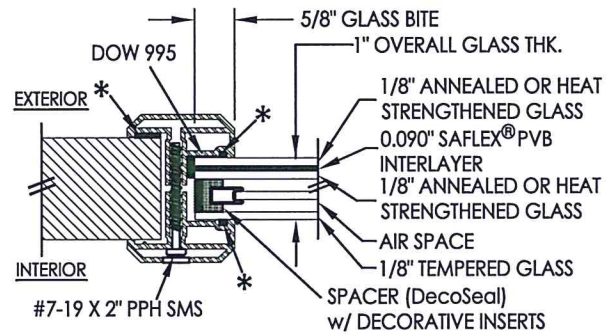
CHK. BY: LFS

DRAWING NO.: TX-4330

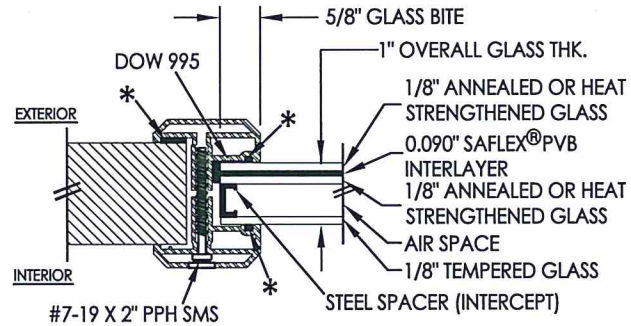
SHEET 2 OF 9



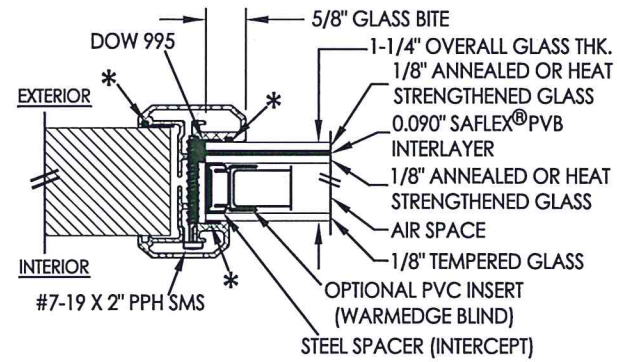
**G1 GLAZING DETAIL**  
Flat Frame Profile



**G3 GLAZING DETAIL**  
Flat Frame Profile

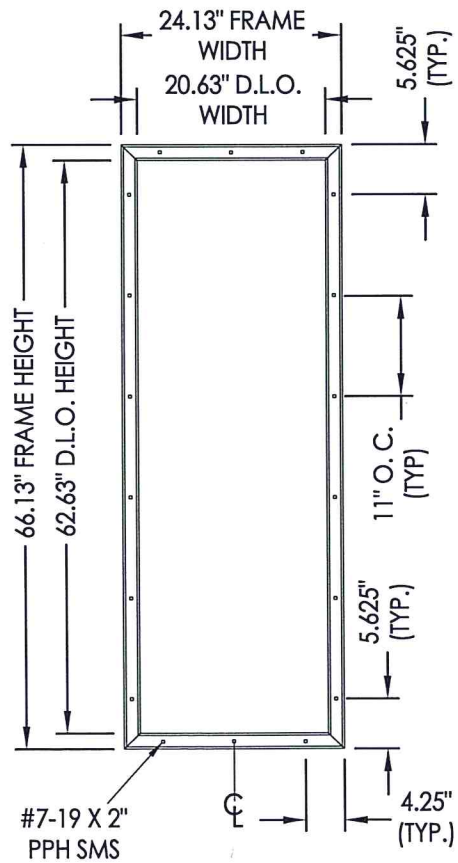


**G2 GLAZING DETAIL**  
Flat Frame Profile

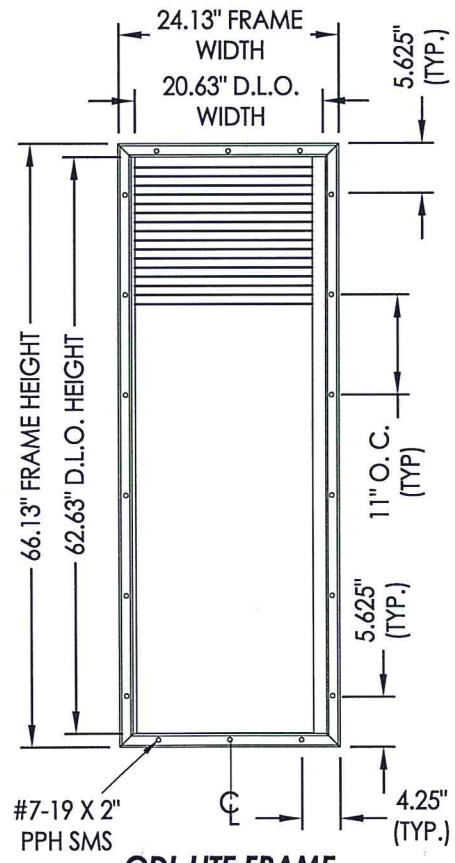


**G4 GLAZING DETAIL**  
Flat Frame Profile  
w/ Blinds Between Glass

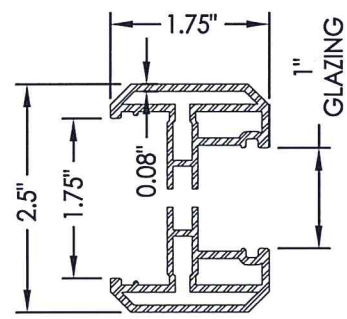
\* NON-STRUCTURAL  
BACKBEDDING  
(READI-SEAL)



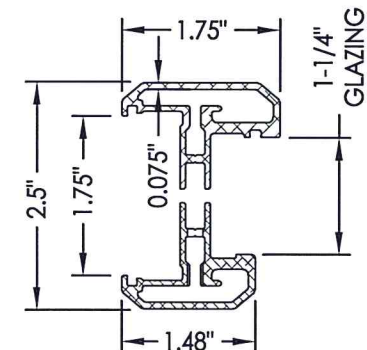
**ODL LITE FRAME**  
"Flat Frame" Aluminum



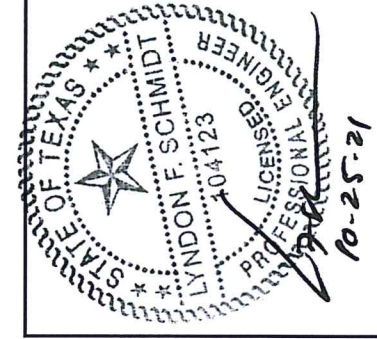
**ODL LITE FRAME**  
"Flat Frame" Aluminum  
w/ Blinds Between Glass



**ODL LITE FLAT FRAME**  
1" GLAZING



**ODL LITE FLAT FRAME**  
1-1/4" GLAZING



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

PRODUCT: FIBERGLASS DOOR

PART OR ASSEMBLY:

LITE FRAME &  
GLAZING DETAILS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 6/13/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4330

SHEET 3 OF 9

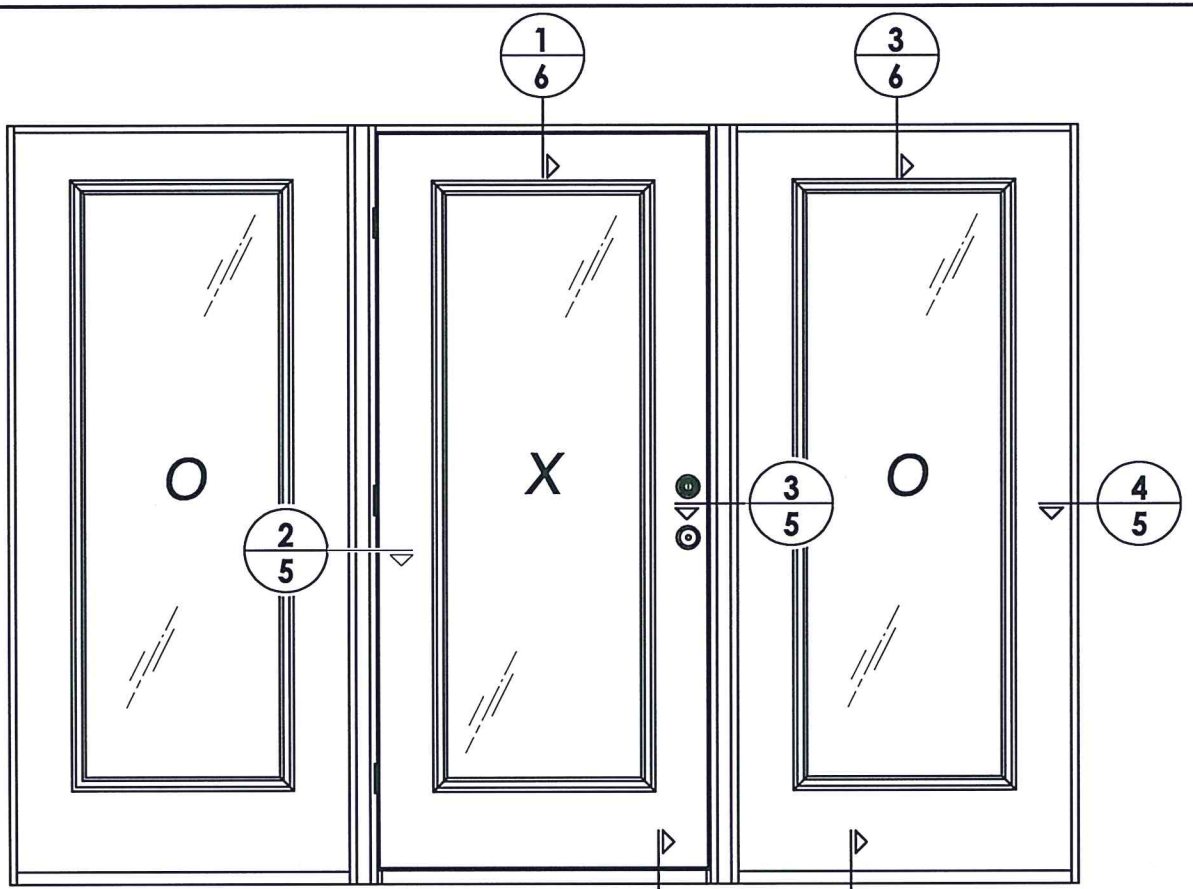




Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

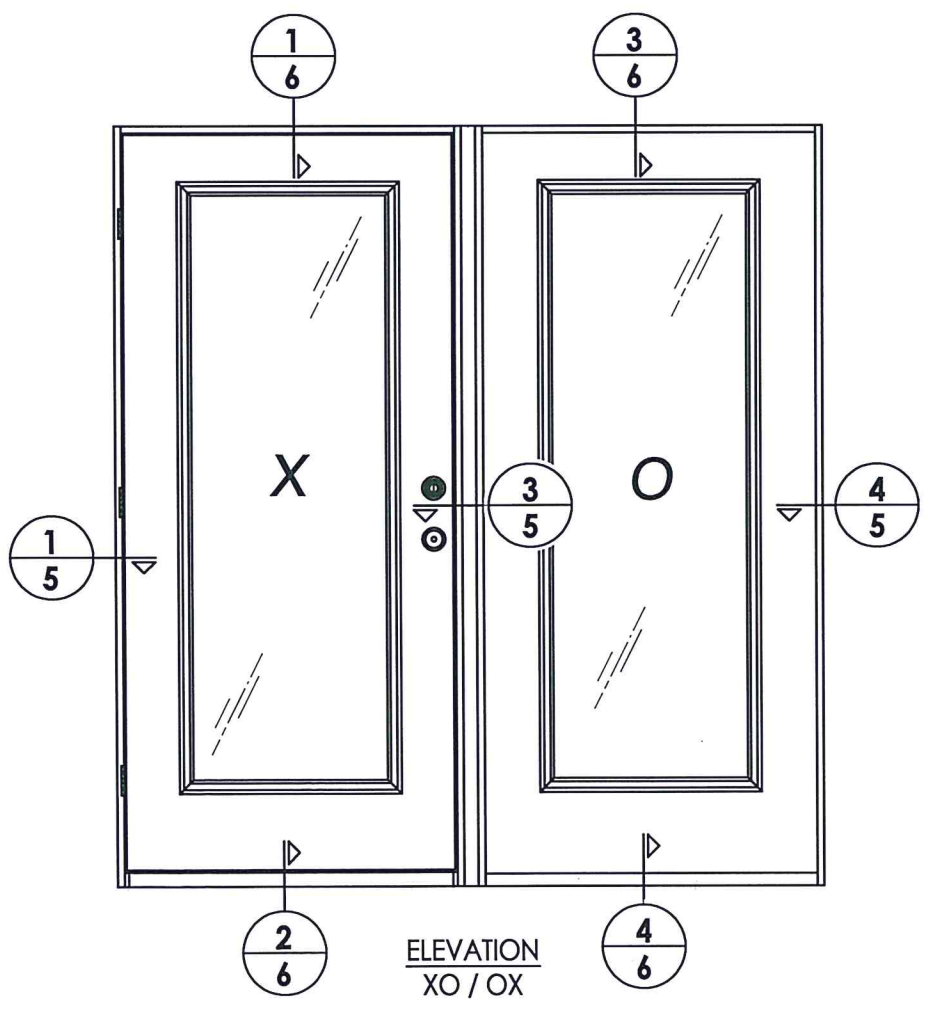
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Valrico FL, 33595  
 Phone No.: 813.659.9197

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

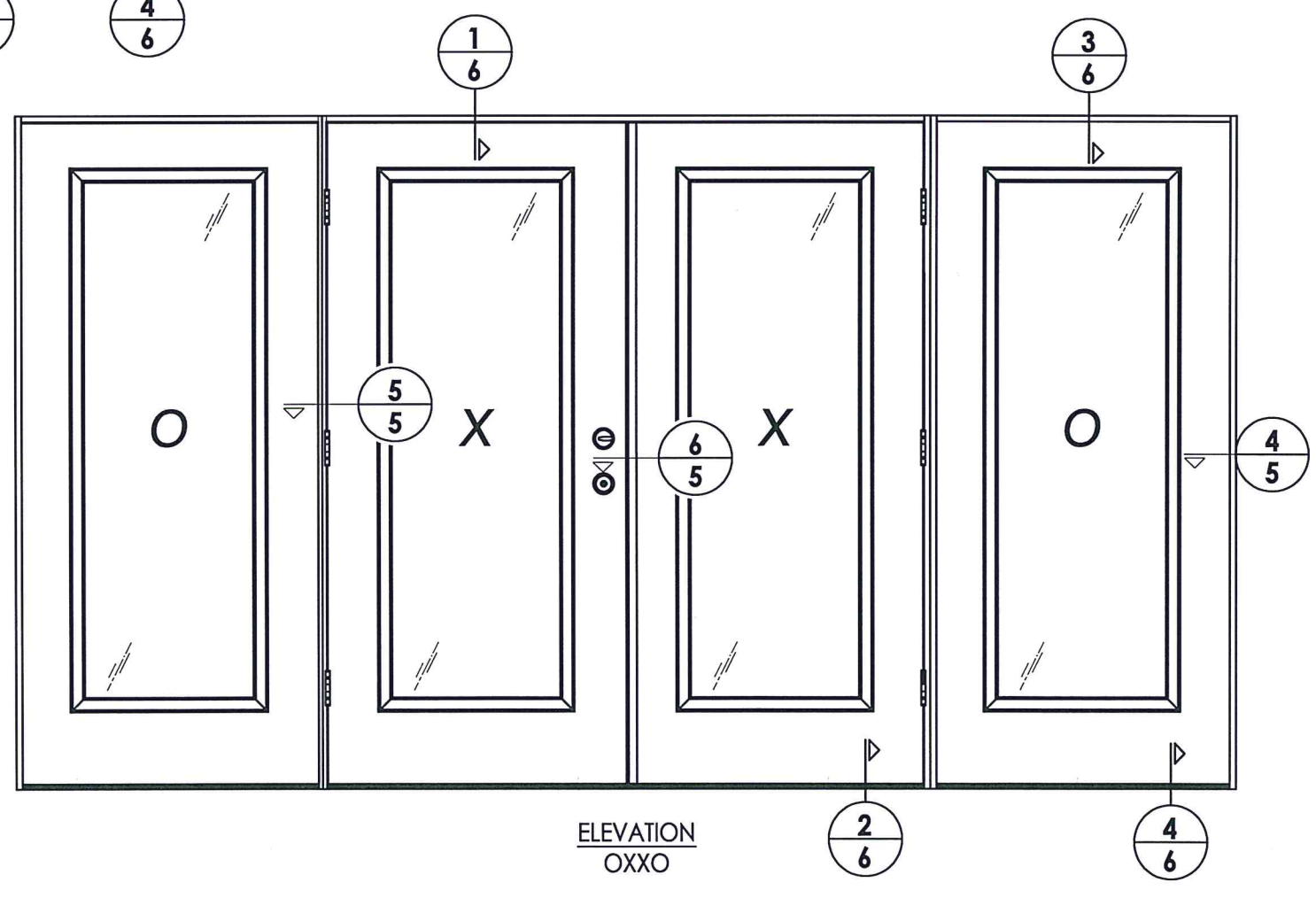


HARDWARE TABLE		
MANUFACTURER	MODEL	
KWIKSET	KNOB: DEADBOLT:	SIGNATURE SERIES SIGNATURE SERIES (980)
SCHLAGE	KNOB: DEADBOLT:	"F" SERIES (F60) "B" SERIES (B60/62)
PAMEX*	KNOB: DEADBOLT:	"F" SERIES "FD7" SERIES

\* MAX. DESIGN PRESSURE FOR PAMEX LOCK  
 INSWING = +40/-50 PSF



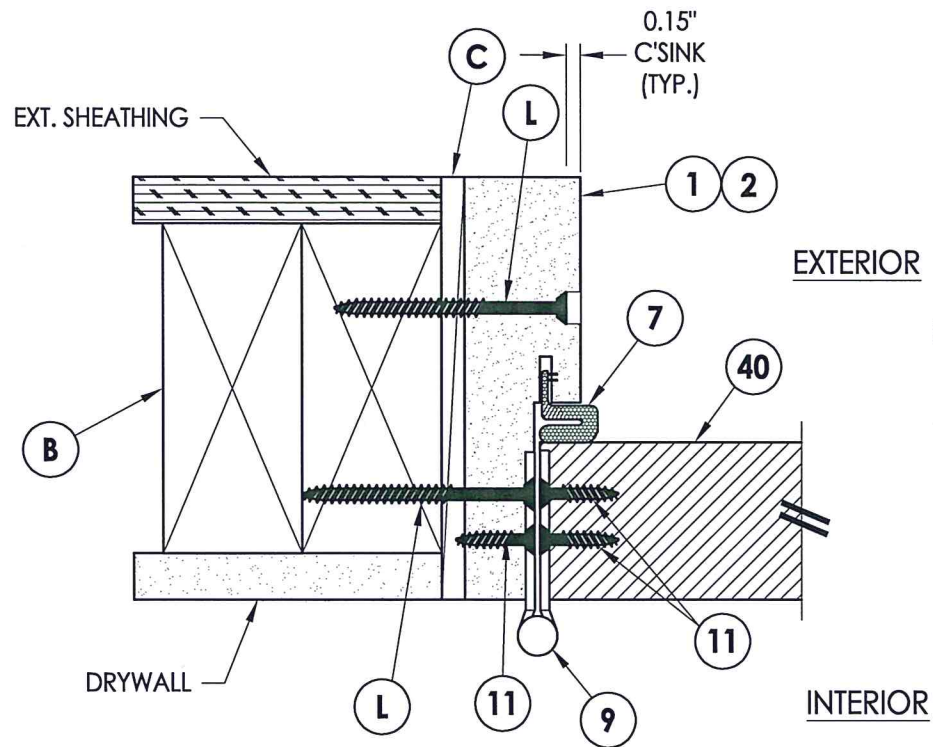
ELEVATION  
OXO



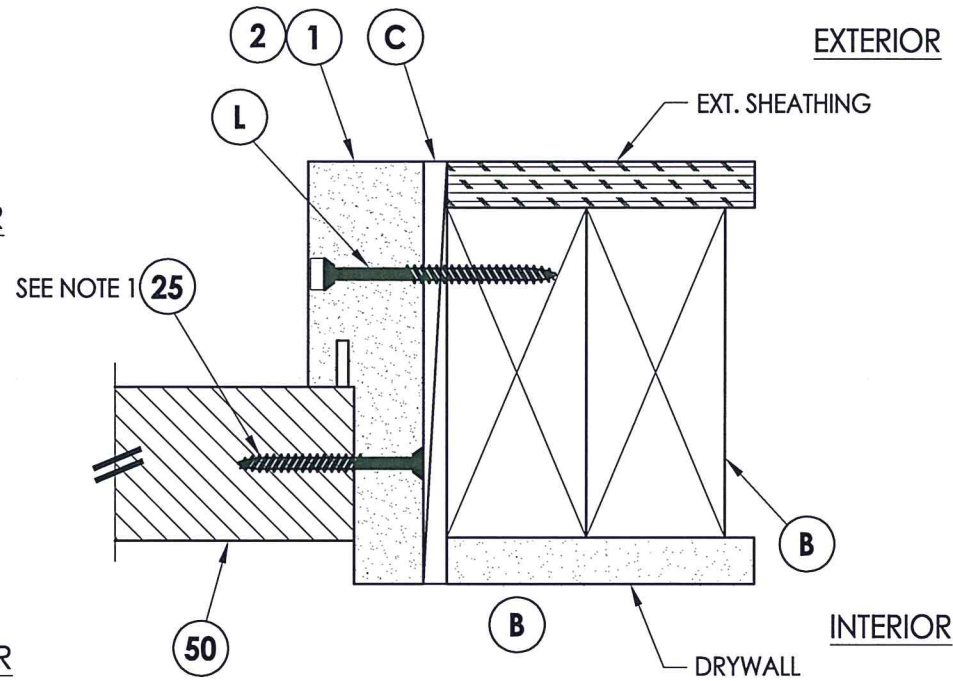
ELEVATION  
OXXO

PRODUCT:		FIBERGLASS DOOR	
PART OR ASSEMBLY:		ELEVATIONS & HARDWARE TABLE	
NO.	DATE	BY	REVISIONS
3	10/25/21	JK	UPDATE TO 2018 IBC/IRC
2	5/30/18	LFS	ADD FLAT FRAME LITE PROFILE
1	12/14/15	JK	ADD H.S. GLAZING OPTION
DATE: 6/13/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4330			
SHEET 4 OF 9			



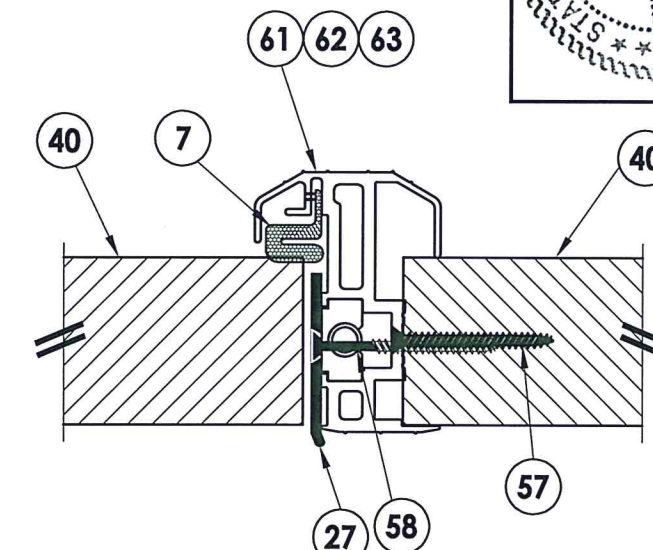
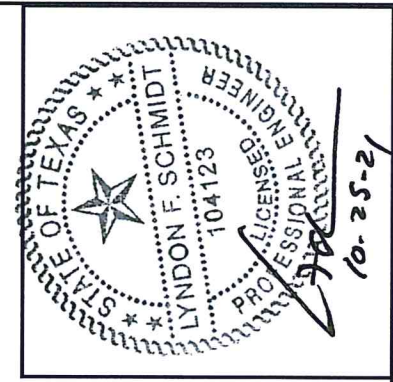


**1**  
**5** HORIZONTAL CROSS SECTION

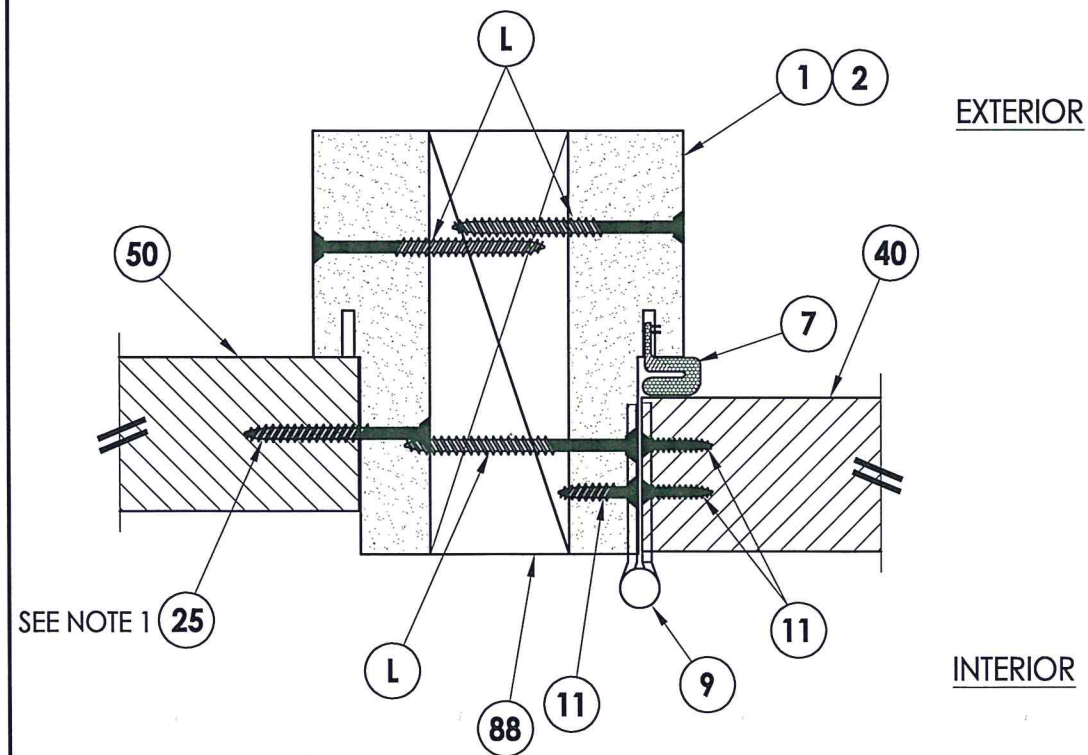


**4**  
**5** HORIZONTAL CROSS SECTION

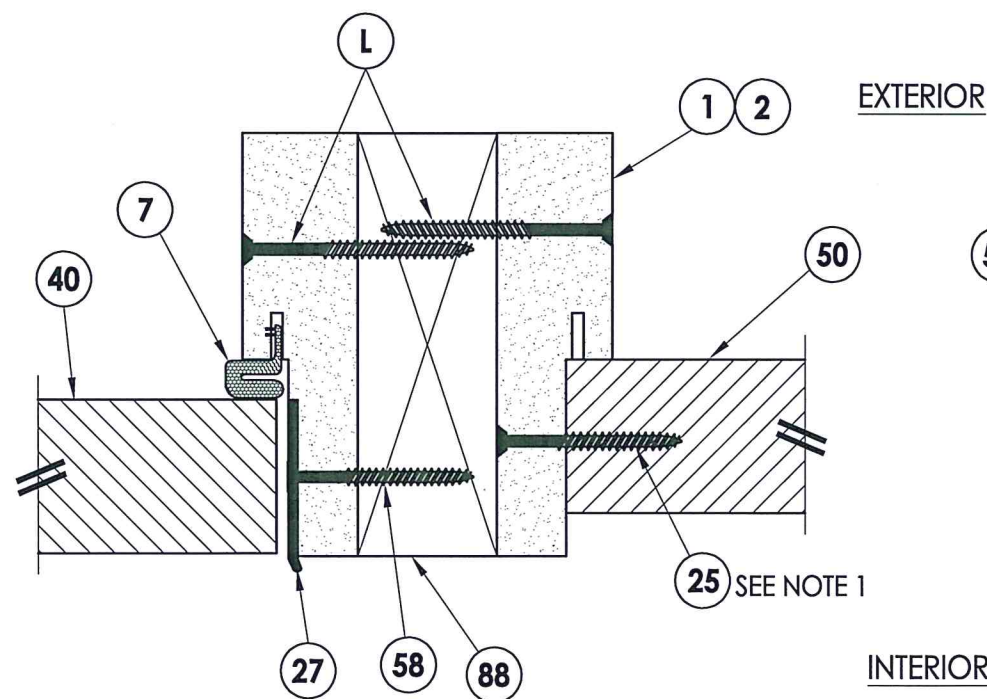
NOTE:  
1. Sidelite panel screws located 6" from each end plus 4 more equally spaced (6 screws total).



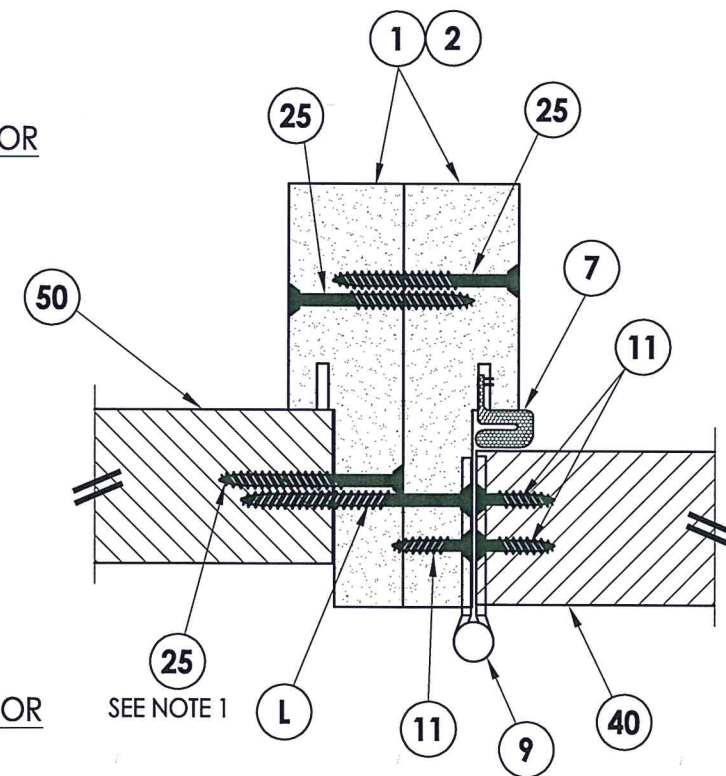
**6**  
**5** HORIZONTAL CROSS SECTION



**2**  
**5** HORIZONTAL CROSS SECTION



**3**  
**5** HORIZONTAL CROSS SECTION



**5**  
**5** HORIZONTAL CROSS SECTION

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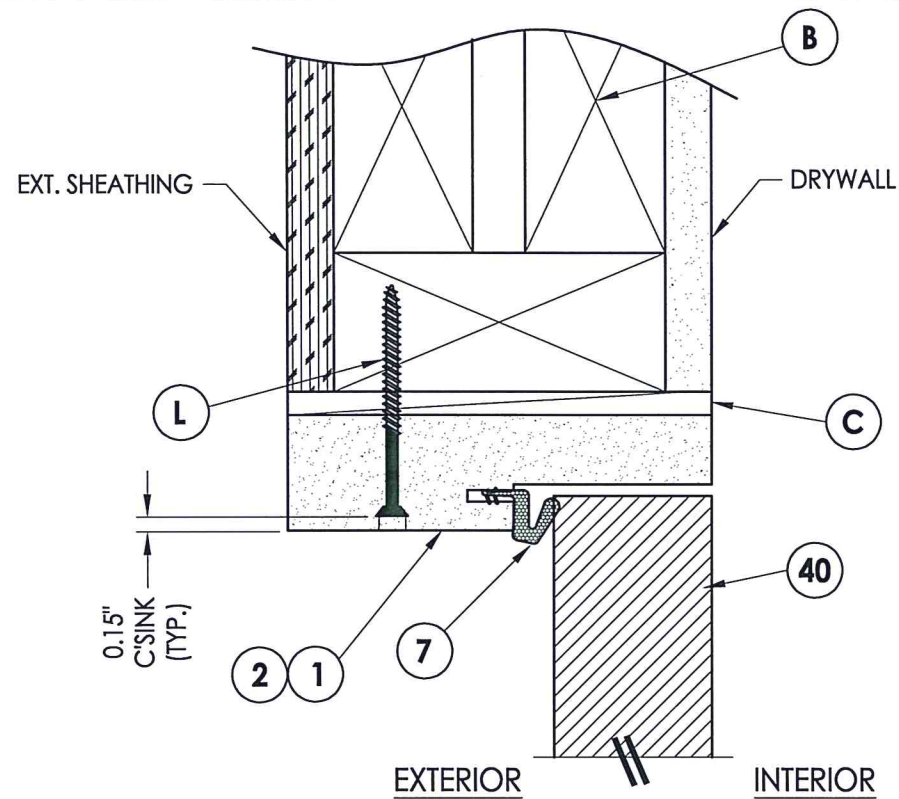
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: FIBERGLASS DOOR  
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

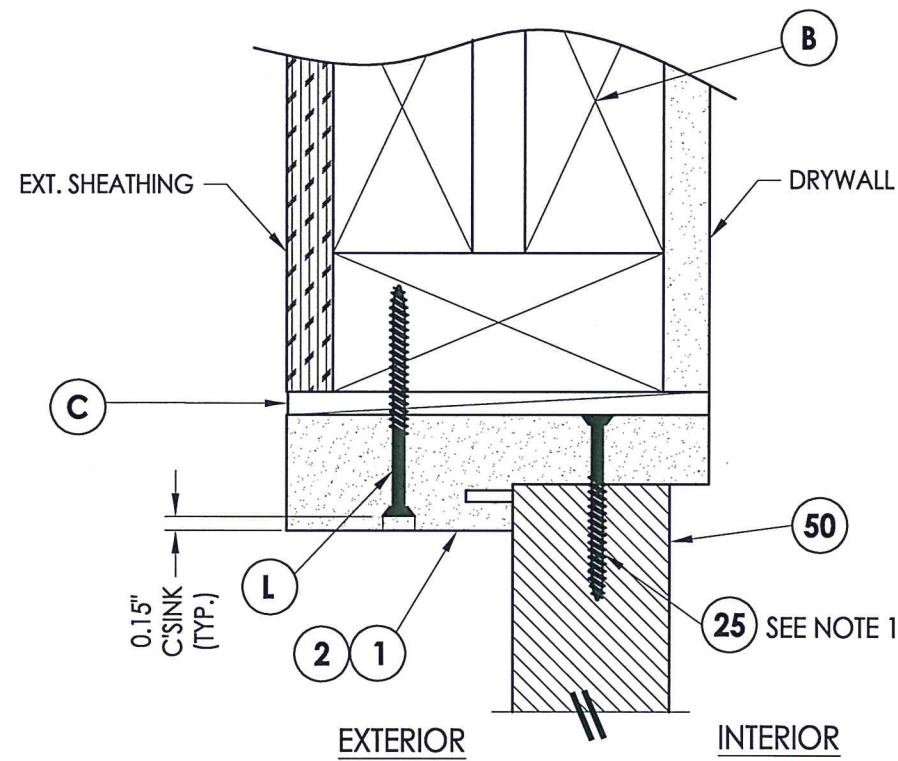
NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 6/13/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4330  
SHEET 5 OF 9

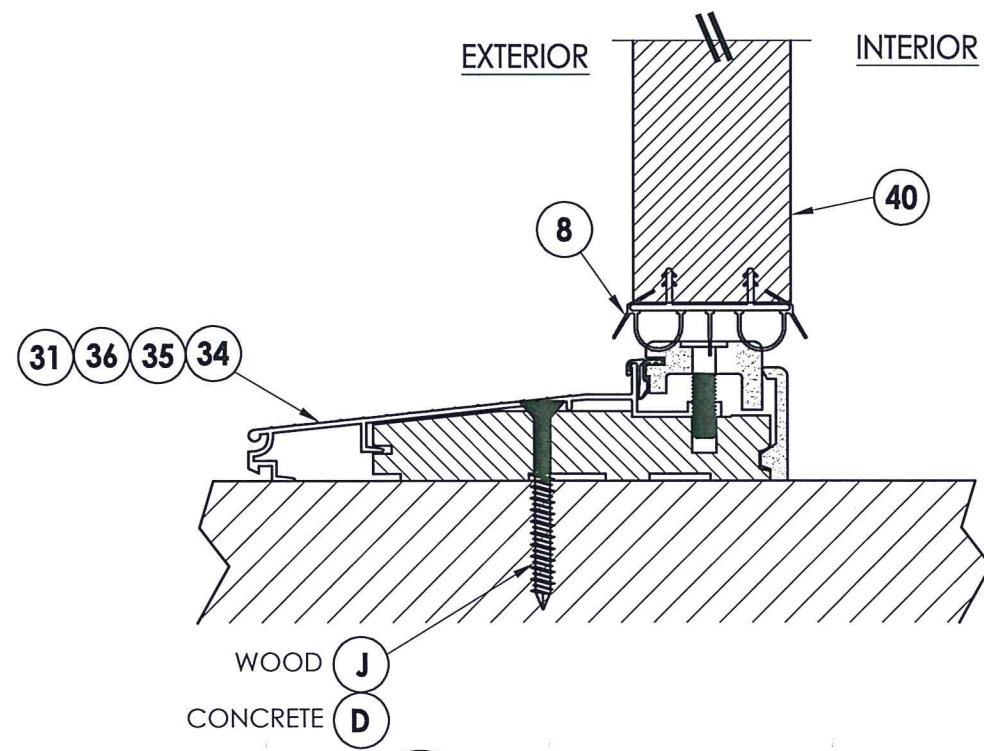




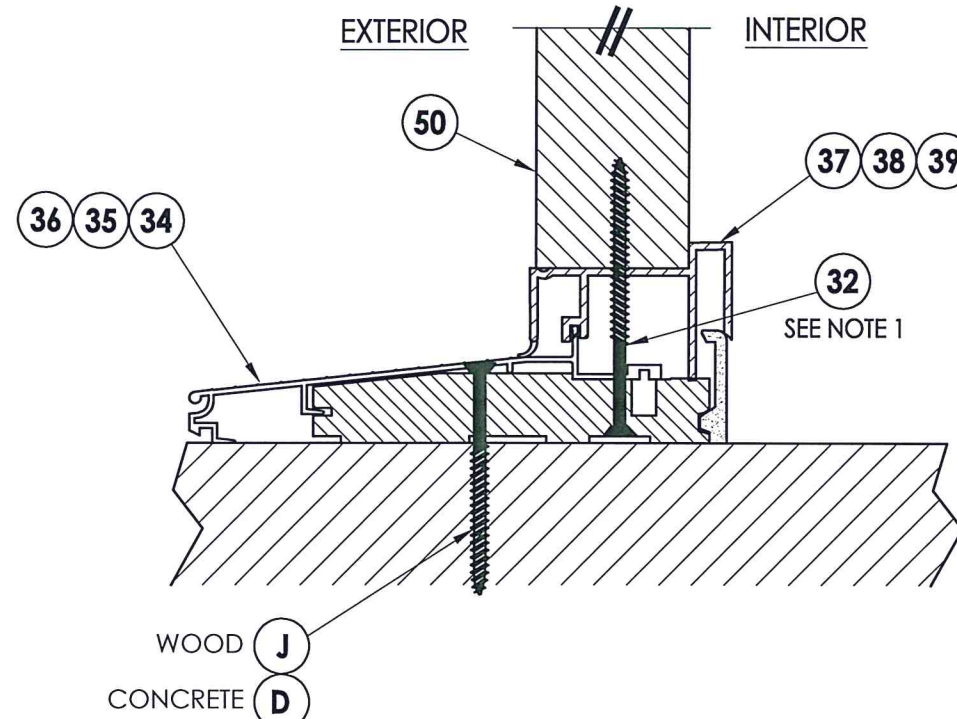
**1**  
**6** VERTICAL CROSS SECTION



**3**  
**6** VERTICAL CROSS SECTION

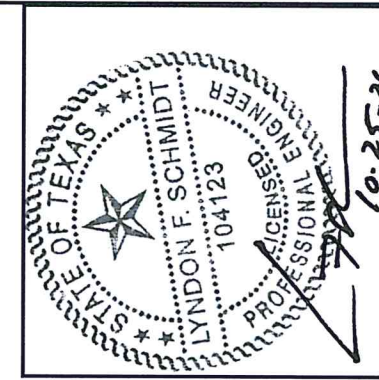


**2**  
**6** VERTICAL CROSS SECTION



**4**  
**6** VERTICAL CROSS SECTION

NOTE:  
1. Sidelite panel screws located 6" from each end (2 Total).



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

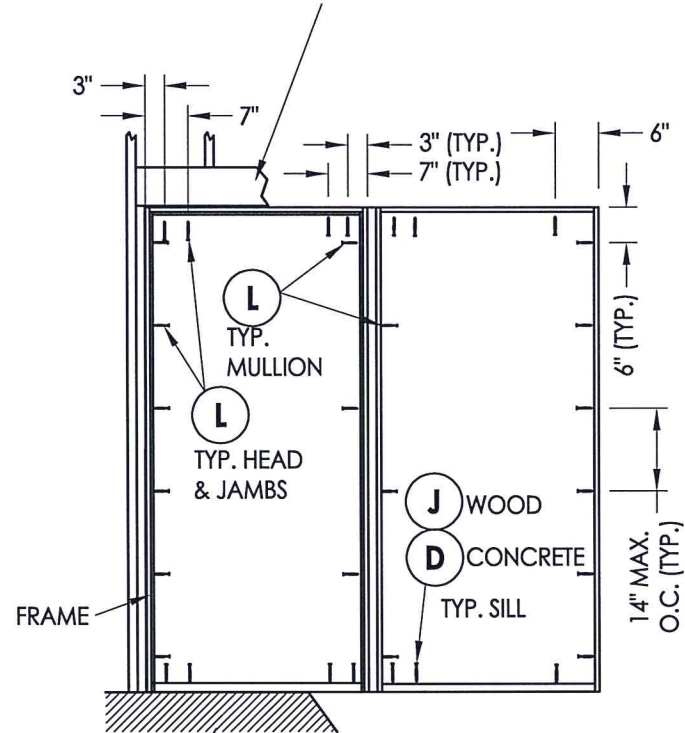
PRODUCT: FIBERGLASS DOOR  
PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

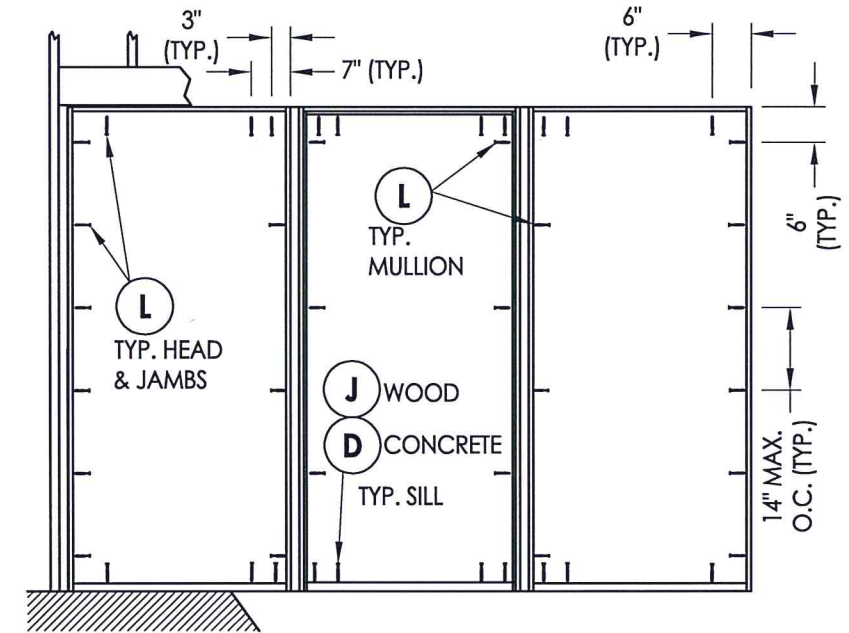
DATE: 6/13/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4330  
SHEET 6 OF 9



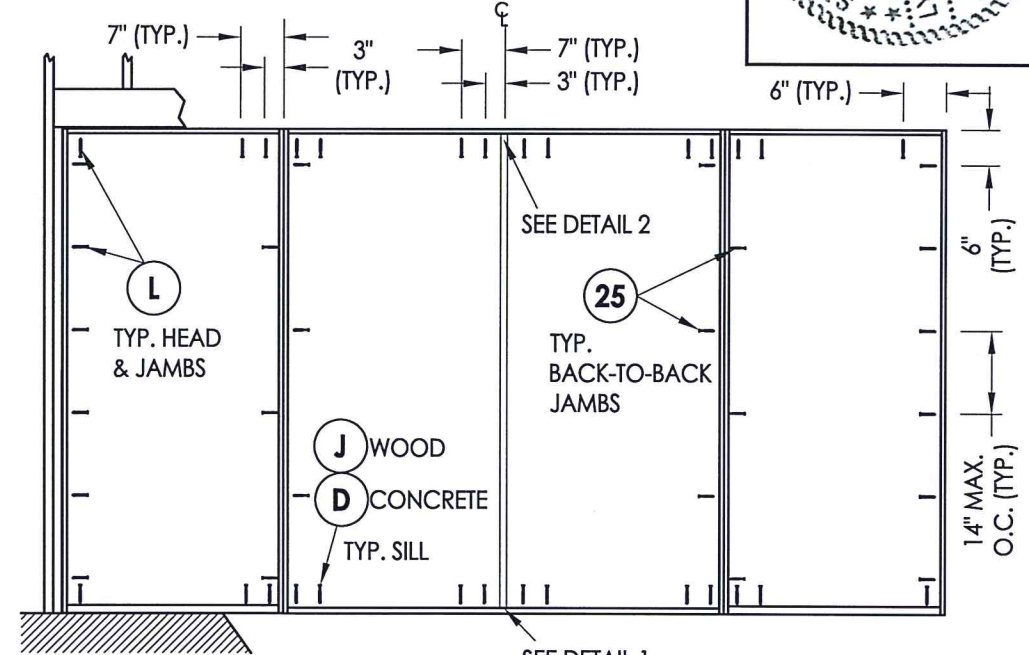
2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT OF RECORD BASED ON WIND LOADS AND THE CLADDING BEING USED (TYP).



**FRAME ANCHORING**  
XO (shown)  
OX (similar)

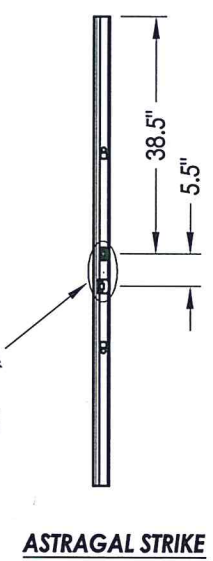
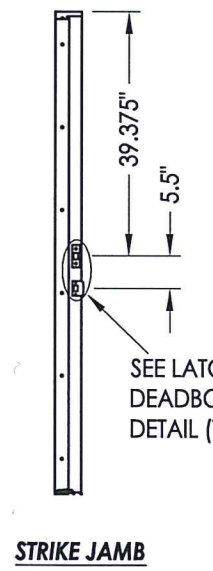
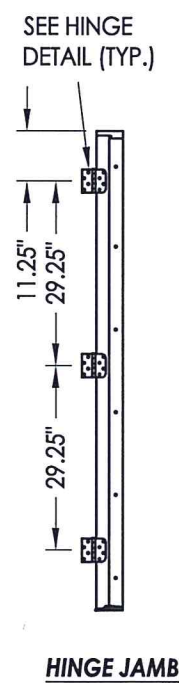
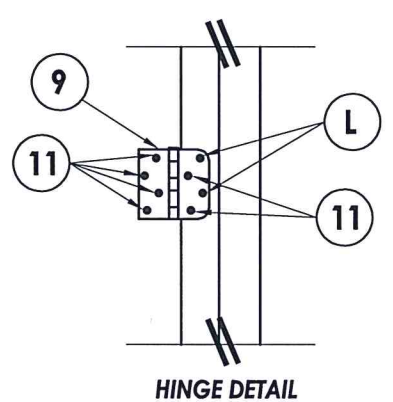
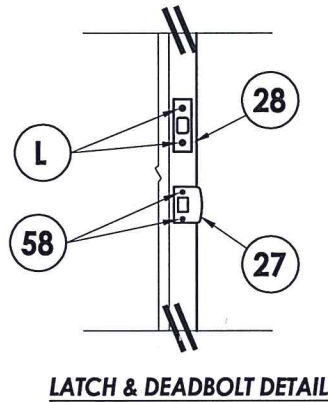
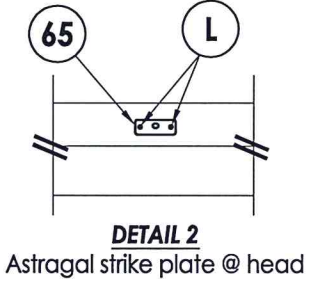
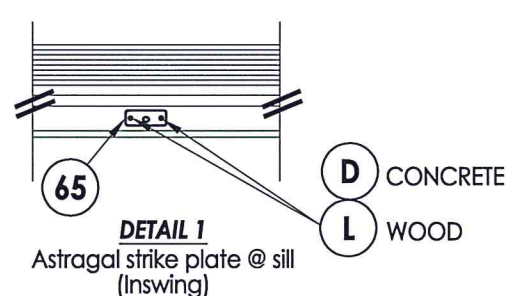


**FRAME ANCHORING**  
OXO



**FRAME ANCHORING**  
OXXO

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



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



Documents Prepared By: Lyndon F. Schmidt, P.E.  
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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

PRODUCT: FIBERGLASS DOOR

PART OR ASSEMBLY: LFS

FRAME ANCHORING: JK

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 6/13/13

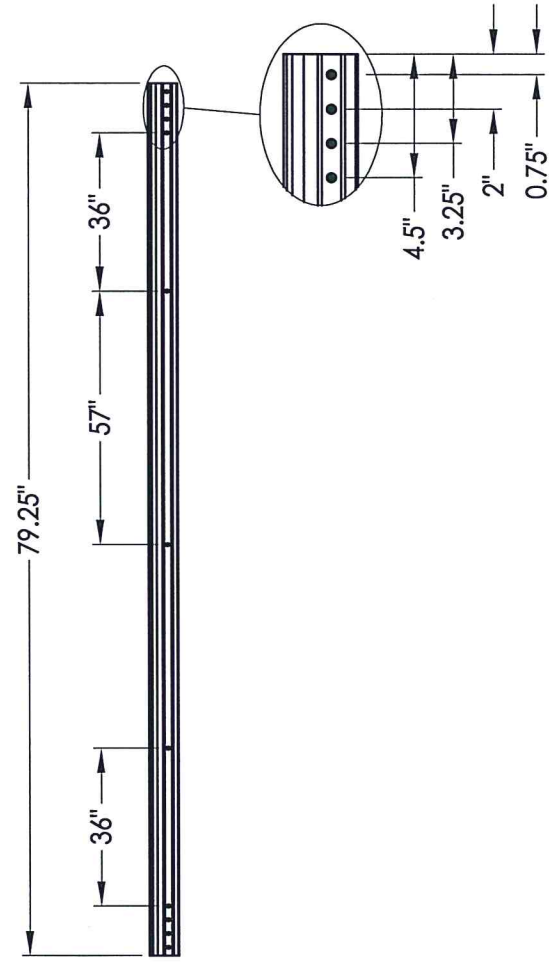
SCALE: N.T.S.

DWG. BY: JK

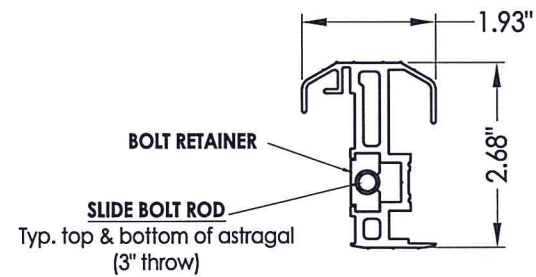
CHK. BY: LFS

DRAWING NO.: TX-4330

SHEET 7 OF 9

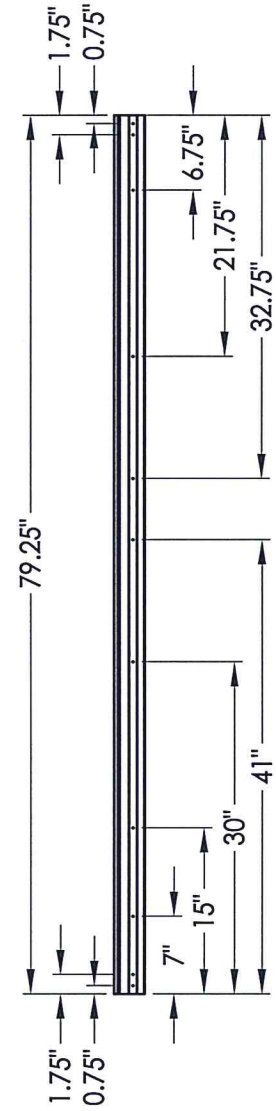


ASTRAGAL SCREW LOCATIONS

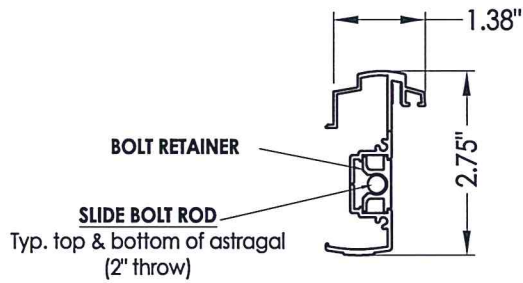


**61 ALUMINUM ASTRAGAL**  
Therma-Tru

**6'8 ALUMINUM ASTRAGAL ASSEMBLY**  
Therma-Tru

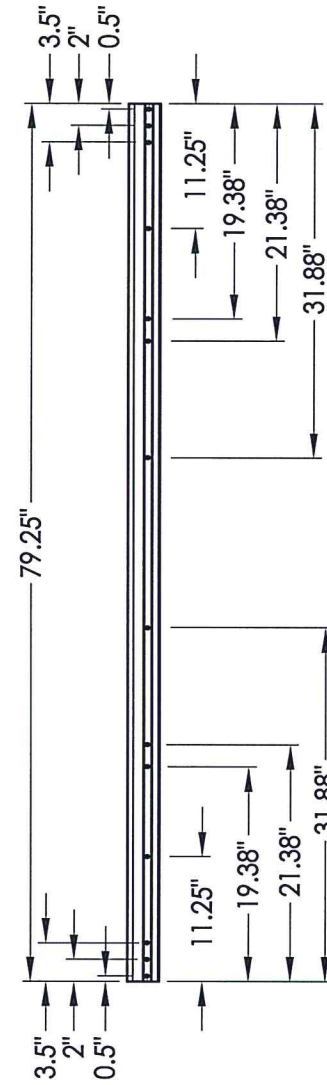


ASTRAGAL SCREW LOCATIONS

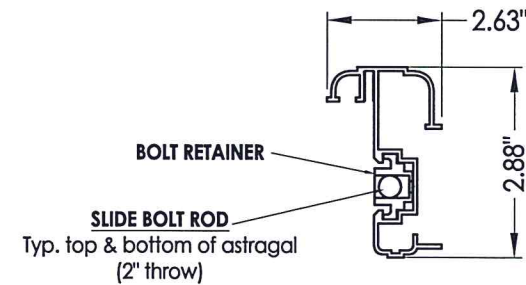


**62 ASTRAGAL**  
Columbia

**6'8 ALUMINUM ASTRAGAL ASSEMBLY**  
Columbia

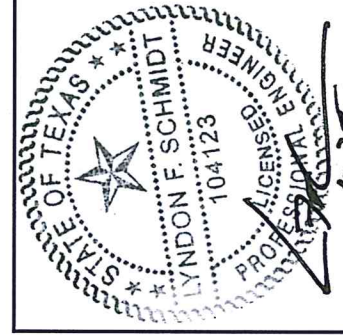


ASTRAGAL SCREW LOCATIONS



**63 ASTRAGAL**  
DLP

**6'8 ALUMINUM ASTRAGAL ASSEMBLY**  
DLP



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

PRODUCT:		FIBERGLASS DOOR	
PART OR ASSEMBLY:		ASTRAGAL DETAILS	
NO.	DATE	BY	REVISIONS
3	10/25/21	LFS	UPDATE TO 2018 IBC/IRC
2	5/30/18	JK	ADD FLAT FRAME LITE PROFILE
1	12/14/15	JK	ADD H.S. GLAZING OPTION
DATE: 6/13/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4330			
SHEET 8 OF 9			



Z:\Clients\ODL, Inc. PERMANENT\B - Texas Dept of Ins\TDI - 691\C - Drawings\TX-4329-30.dwg

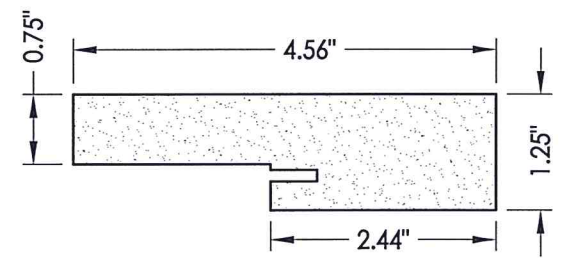
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" PFH DeWALT OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
J	#10 X 3" PFH WOOD SCREW (1-1/2" MIN. EMB.)	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMB.)	STEEL
1	HEAD & JAMB	COMP
2	HEAD & JAMB	WOOD
7	WEATHERSTRIP (THERMA-TRU)	FOAM
8	DOOR BOTTOM SWEEP	VINYL
9	4" x 4" HINGE	STEEL
11	#9 X 3/4" PFH WOOD SCREW	STEEL
24	#10 X 1-1/2" PFH WOOD SCREW	STEEL
25	#10 X 2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
31	ADA THRESHOLD	ALUM
32	#8 X 3" PFH WS	STEEL
34	INSWING THRESHOLD	ALUM/COMP
35	INSWING THRESHOLD	ALUM/COMP
36	INSWING THRESHOLD	ALUM/COMP
37	INSWING SIDELITE SEAT	PVC
38	INSWING SIDELITE SEAT	PVC
39	INSWING SIDELITE SEAT	PVC
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR DETAILS	-
50	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR DETAILS	-
57	#8 X 2" PFH SMS	STEEL
58	#8 X 2-1/2" PFH WOOD SCREW	STEEL
61	ASTRAGAL (THERMA-TRU)	ALUM
62	ASTRAGAL (COLUMBIA)	ALUM
64	ASTRAGAL (DLP)	ALUM
65	ASTRAGAL STRIKE PLATE	STEEL



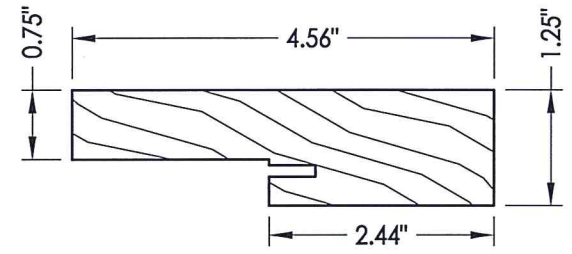
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL, 33595  
Phone No.: 813.689.9197

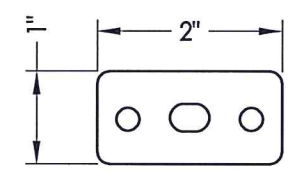
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852



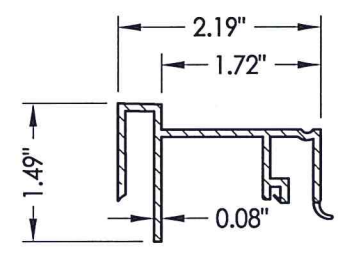
**1 HEAD & JAMB**  
Composite



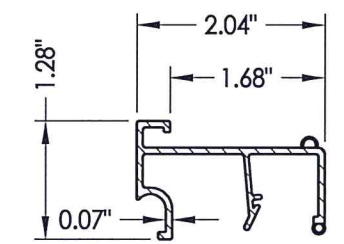
**2 HEAD & JAMB**  
Finger joint pine



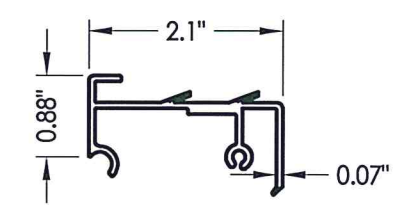
**65 HEAD & SILL STRIKE PLATE**



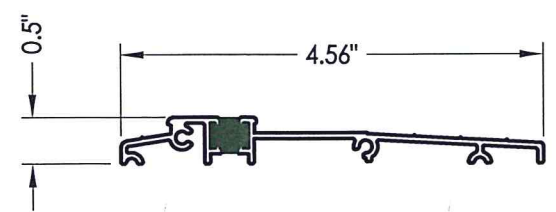
**37 INSWING SIDELITE SEAT**  
Therma-Tru



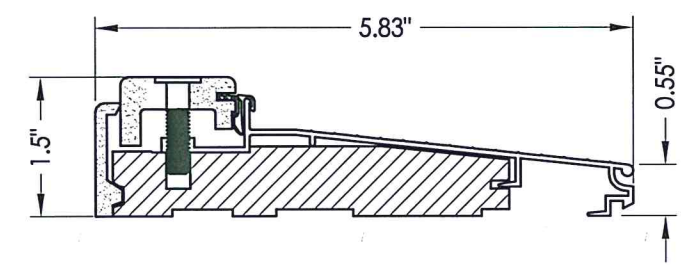
**38 INSWING SIDELITE SEAT**  
Endura 60 SERIES



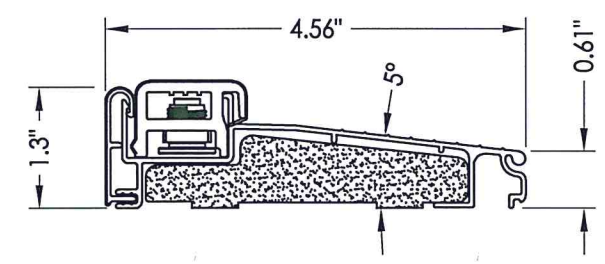
**39 INSWING SIDELITE SEAT**  
Columbia



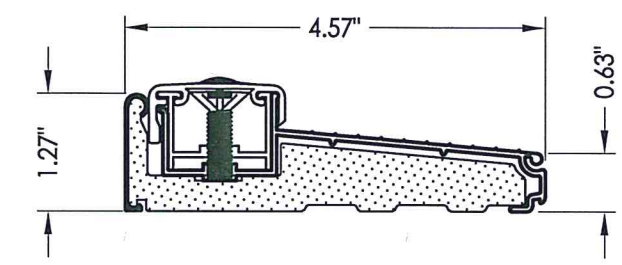
**31 ADA THRESHOLD**  
Columbia



**34 INSWING THRESHOLD**  
Therma-Tru



**35 INSWING THRESHOLD**  
Endura ZAIL 4565  
with Composite Substrate



**36 INSWING THRESHOLD**  
Columbia 900 Series

PRODUCT:	FIBERGLASS DOOR	
PART OR ASSEMBLY:	BILL OF MATERIALS & COMPONENTS	
NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/30/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION
DATE:	6/13/13	
SCALE:	N.T.S.	
DWG. BY:	JK	
CHK. BY:	LFS	
DRAWING NO.:	TX-4330	
SHEET	9	OF 9

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