

THERMA TRU®

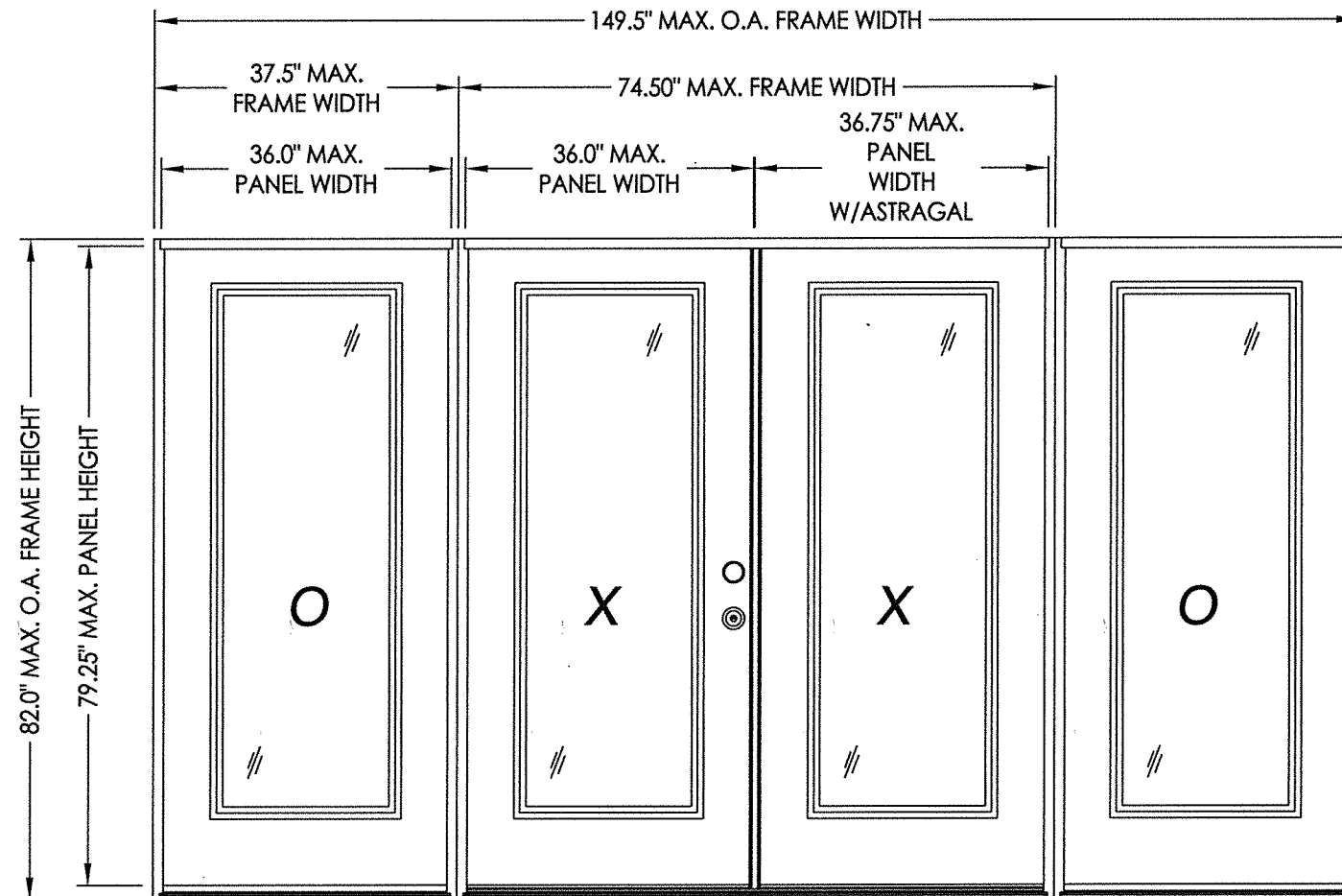
118 INDUSTRIAL DR., EDGERTON, OH 43517

"SMOOTH-STAR", "FIBER-CLASSIC", "CLASSIC-CRAFT" & "CLASSIC-CRAFT RUSTIC" GLAZED FIBERGLASS DOUBLE DOOR w/ SIDELITES IN SWING / OUT SWING "IMPACT"

EVALUATED FOR USE IN THE STATE OF TEXAS

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:

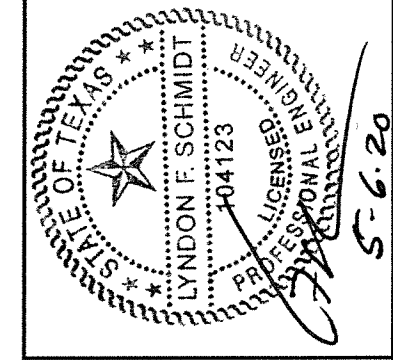
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. This system has been tested and evaluated as a large missile impact protective system for installation in areas that require wind borne debris protection. This 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 and Sidelite panels require the use of "J" part numbers. These door and sidelite panels must be stained or painted within six months of installation.



"SMOOTH-STAR", "FIBER-CLASSIC"
"CLASSIC-CRAFT" & "CLASSIC-CRAFT RUSTIC"

SWING	OVERALL FRAME DIMENSION	OVERALL D.L.O. DOOR / SIDELITE DIMENSION	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
IN SWING	149.5" X 82.0"	21.0" X 63.25"	+47.0	-53.0
OUT SWING	149.5" X 80.62"	21.0" X 63.25"	+50.0	-50.0

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5	HORIZONTAL CROSS SECTIONS
6	VERTICAL CROSS SECTIONS
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8	FRAME ANCHORING
9	BILL OF MATERIALS & COMPONENTS



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

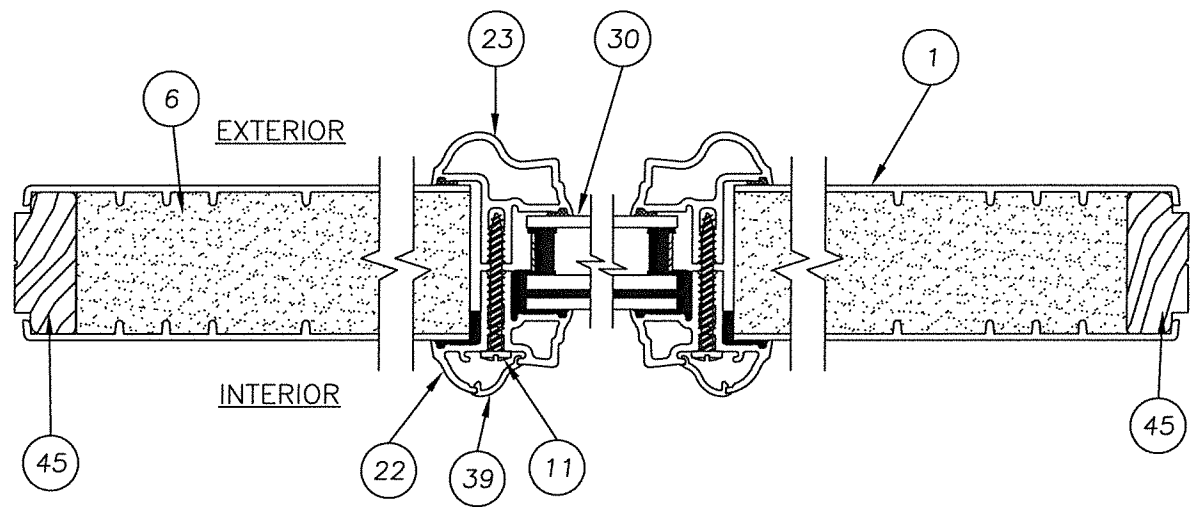
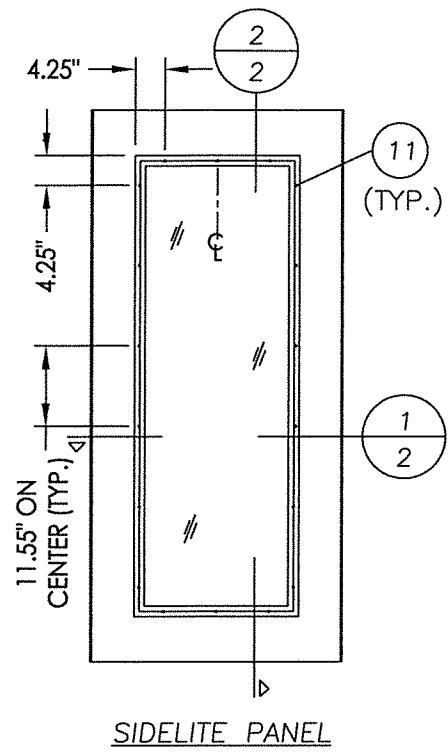
PRODUCT: THERMA-TRU GLAZED FIBERGLASS DBL DOOR w/ SIDELITES IN/OUTSWING "IMPACT" PART OR ASSEMBLY:

TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

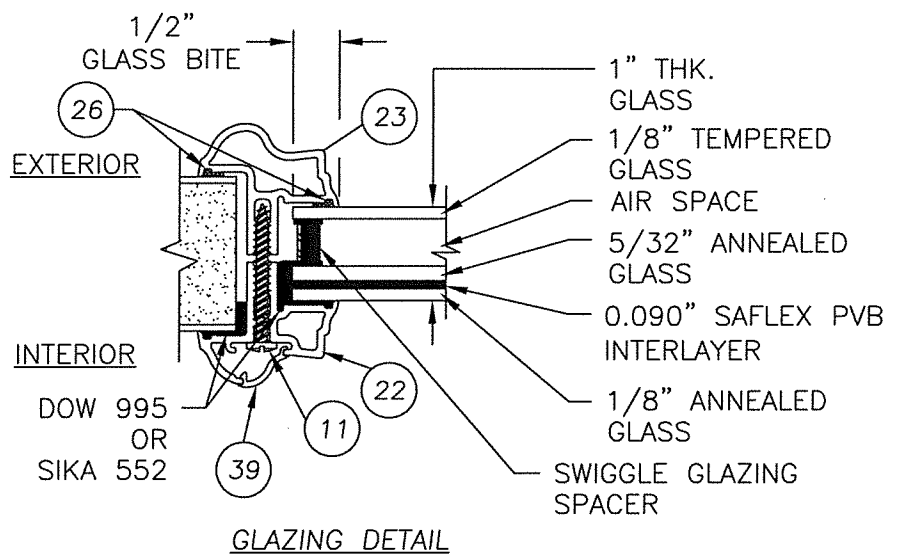
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2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.

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SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4194
SHEET 1 OF 9

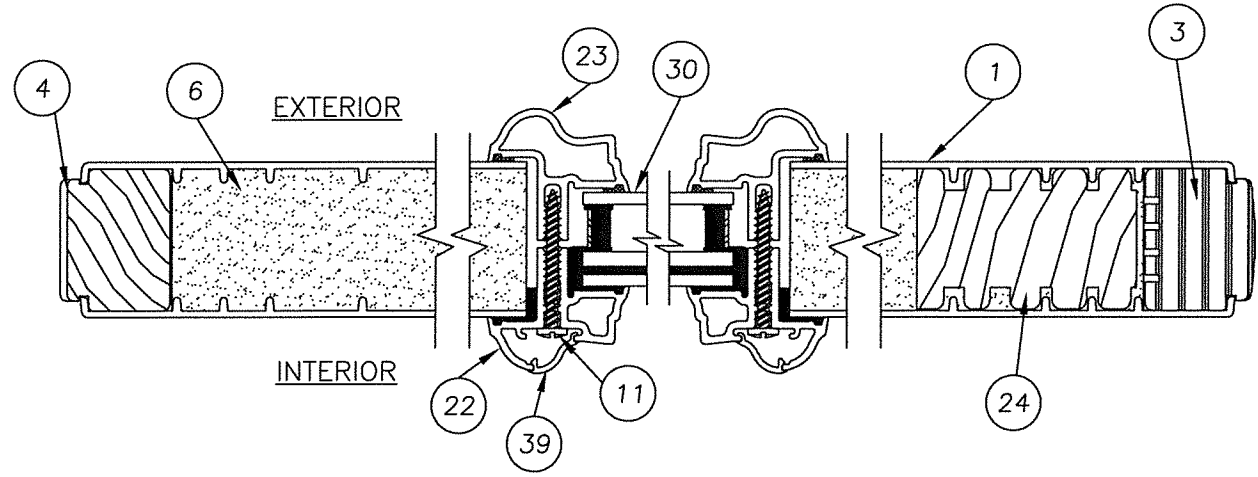
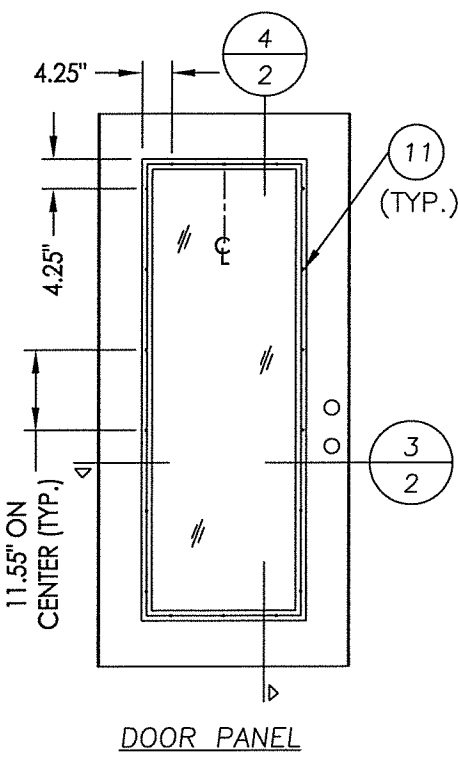
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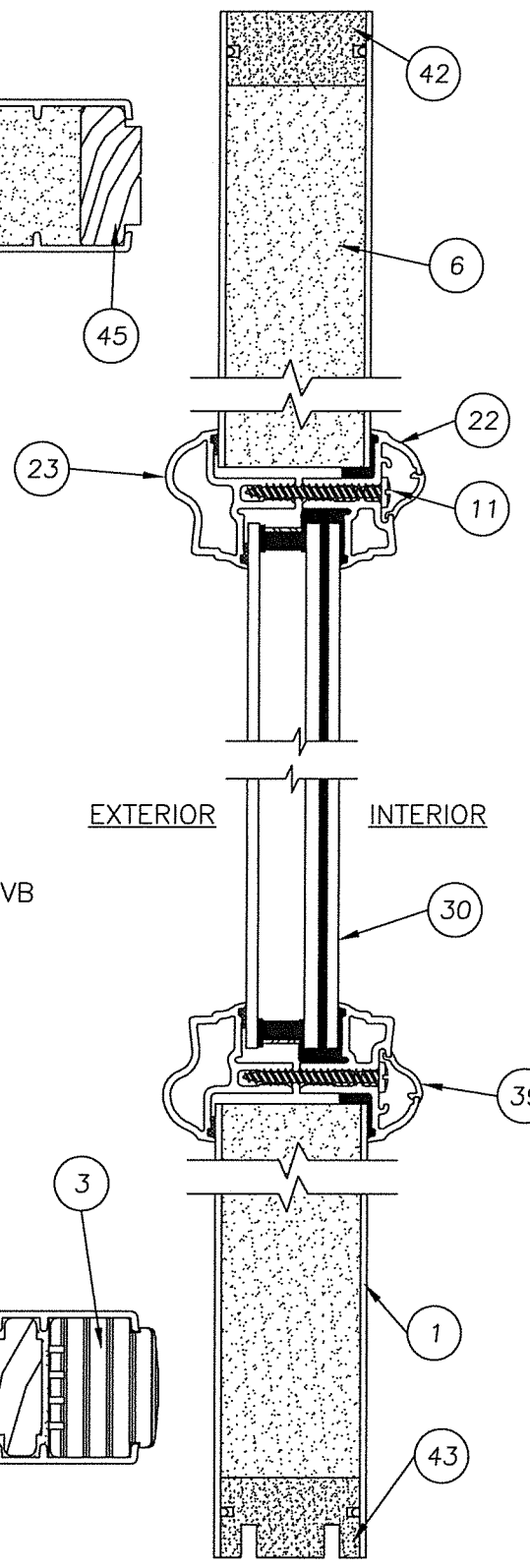
1 HORIZONTAL CROSS SECTION
2 SIDELITE PANEL



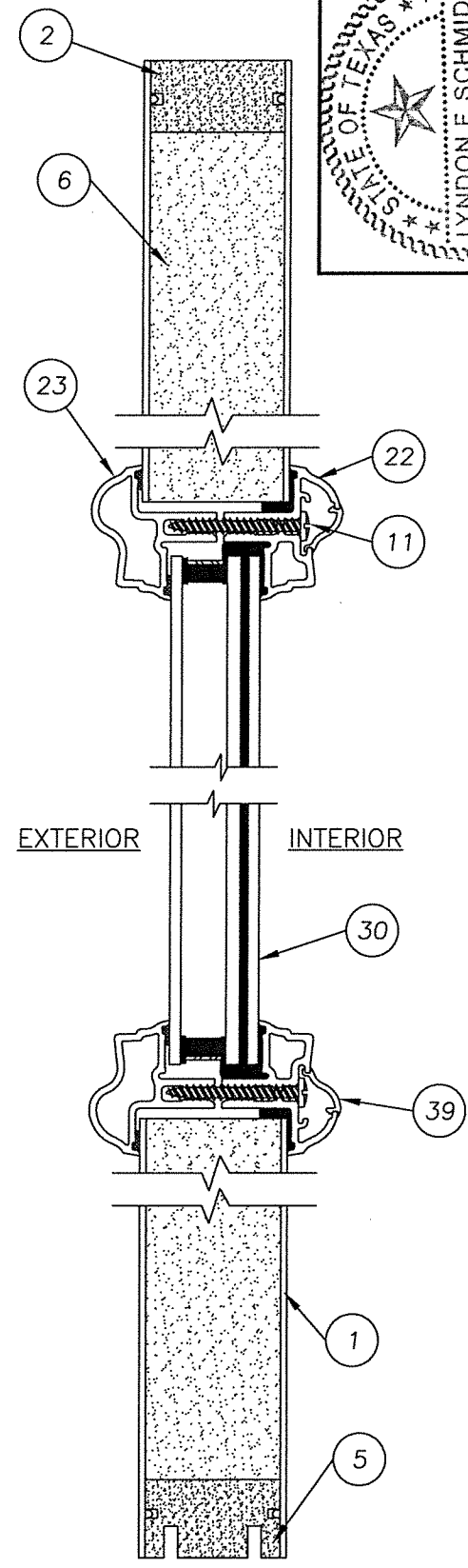
GLAZING DETAIL



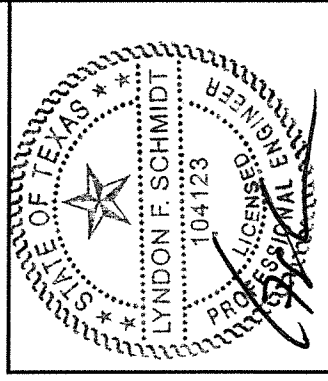
3 HORIZONTAL CROSS SECTION
2 DOOR PANEL



2 VERTICAL CROSS SECTION
2 SIDELITE PANEL



4 VERTICAL CROSS SECTION
2 DOOR PANEL



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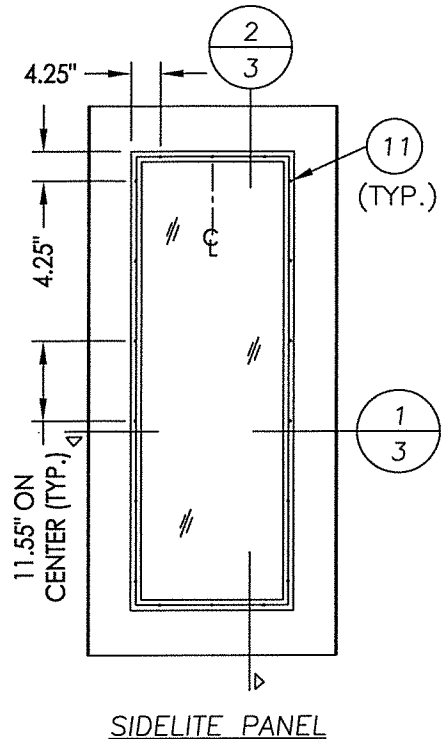
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PRODUCT: THERMA-TRU GLAZED FIBERGLASS DOOR W/ SIDELITE IN/OUTSWING "IMPACT" PART OR ASSEMBLY:
"SMOOTH STAR" DOOR/SIDELITE PANEL DETAILS

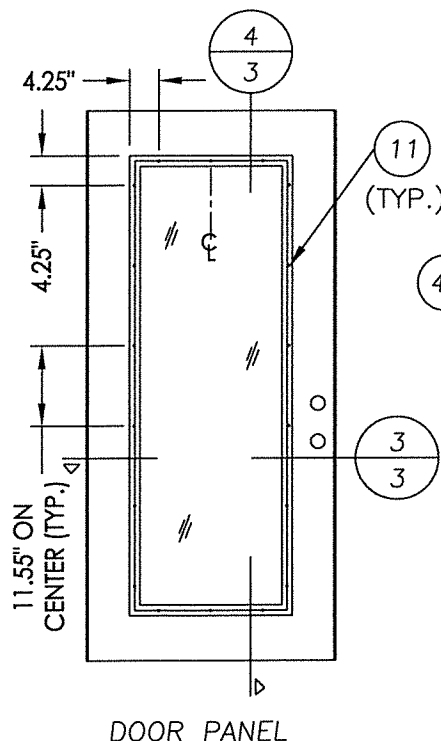
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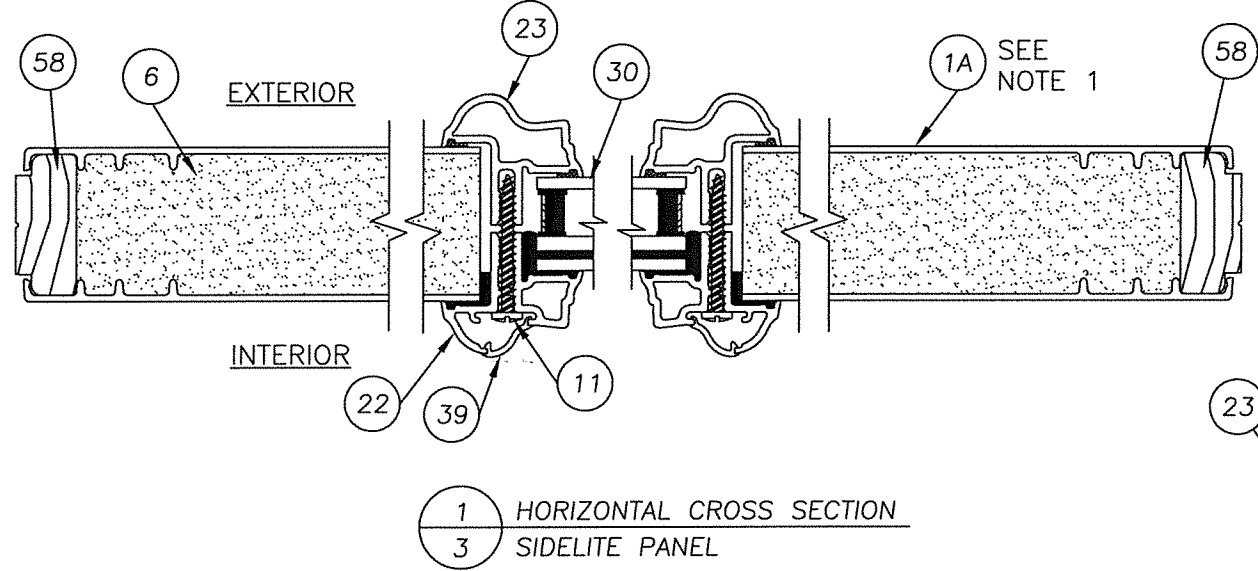
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SHEET 2 OF 9



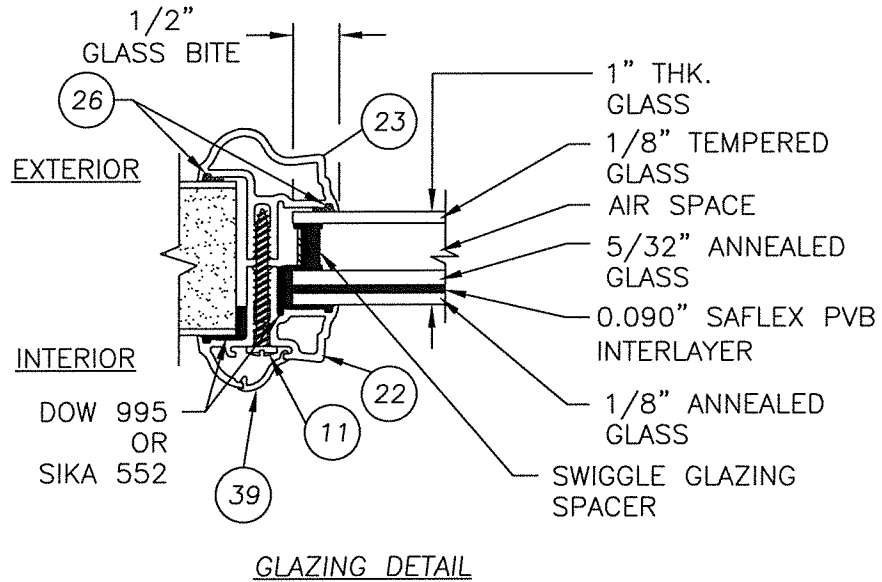
SIDELITE PANEL



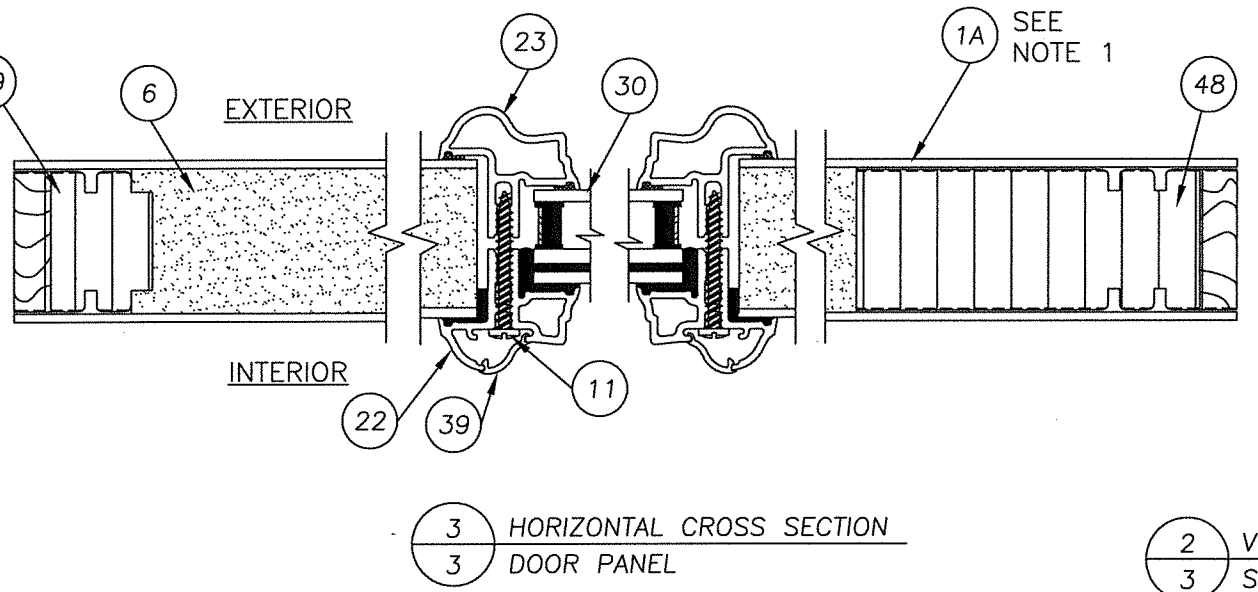
DOOR PANEL



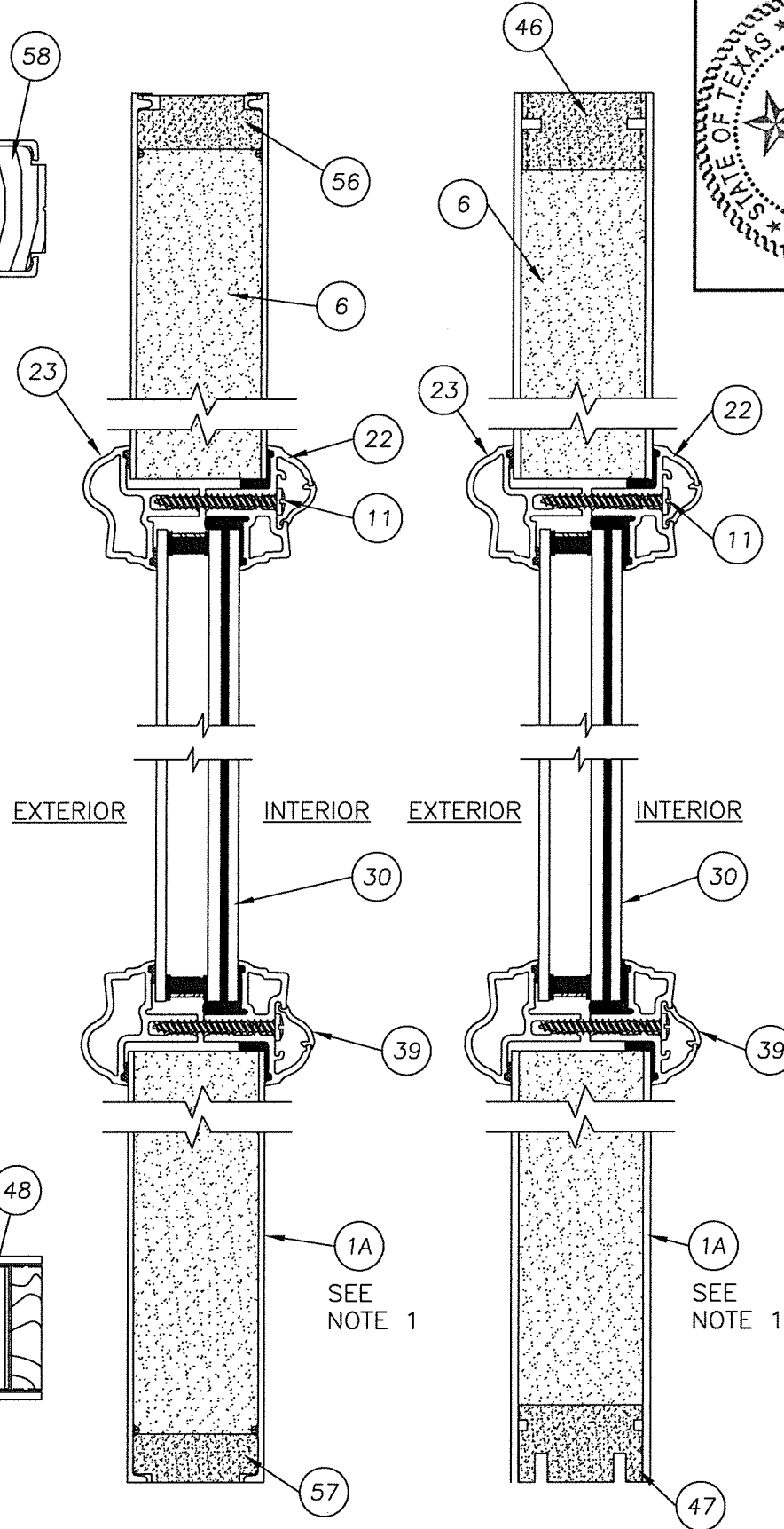
1 HORIZONTAL CROSS SECTION
3 SIDELITE PANEL



GLAZING DETAIL



3 HORIZONTAL CROSS SECTION
3 DOOR PANEL



2 VERTICAL CROSS SECTION
3 SIDELITE PANEL

4 VERTICAL CROSS SECTION
3 DOOR PANEL



NOTE:
1. "RUSTIC" PANEL UTILIZES MAHOGANY GRAINING PATTERN, "CLASSIC CRAFT" PANEL UTILIZES OAK GRAINING PATTERN.

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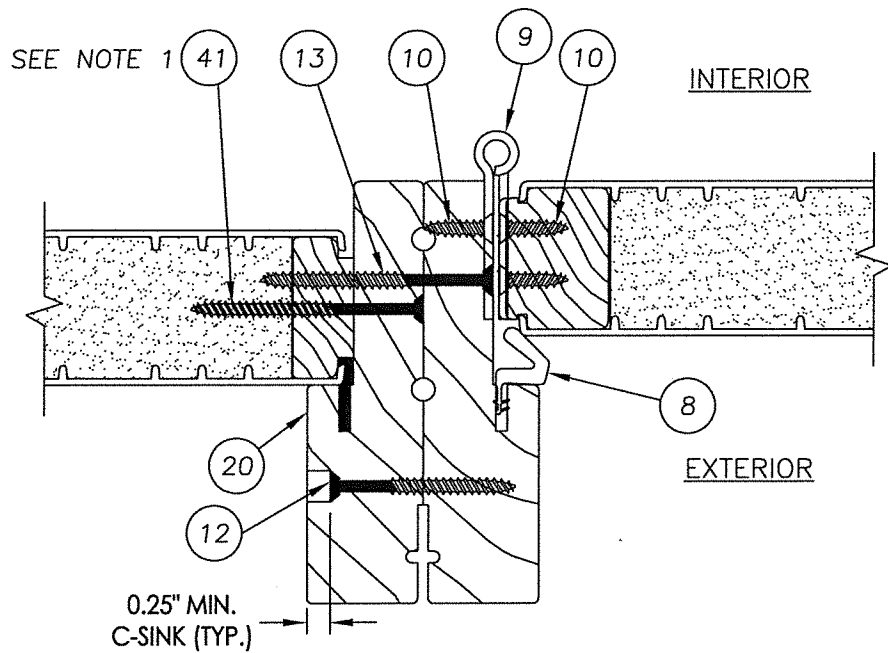
5-6-20

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1	7/22/15 ADDED GENERAL NOTE 5.	LFS
		BY

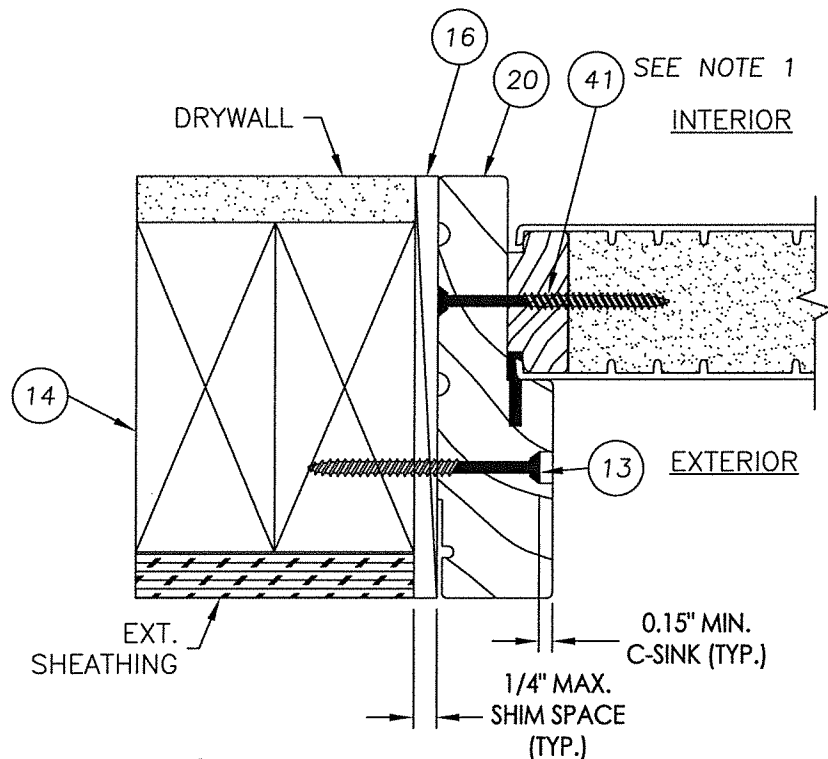
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DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4194
SHEET 3 OF 9

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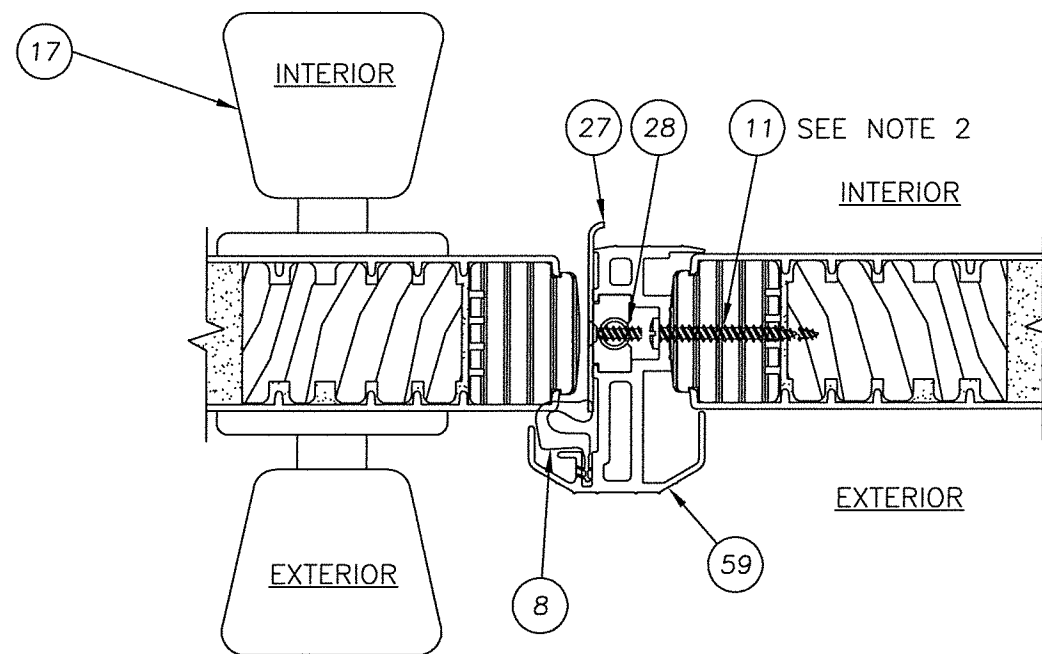
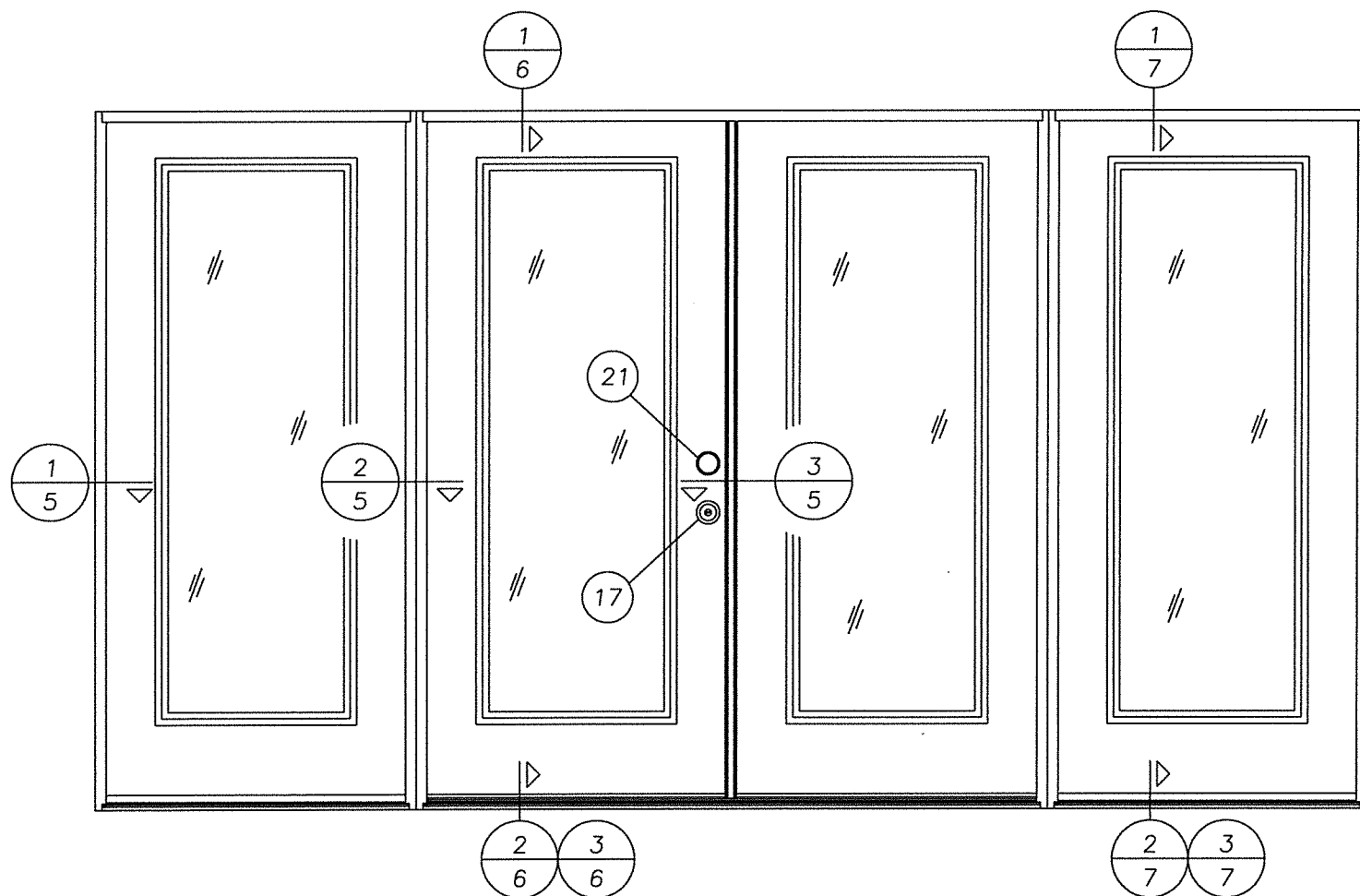
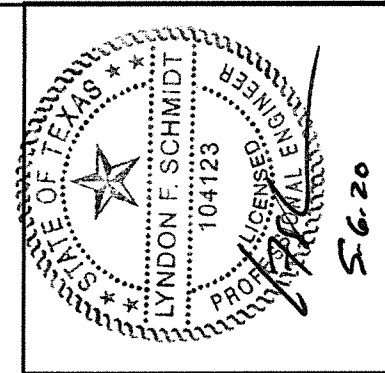


2 HORIZONTAL CROSS SECTION
5 INSWING SHOWN (OUTSWING ALSO APPROVED)
 ("Smooth Star Series" shown)



1 HORIZONTAL CROSS SECTION
5 INSWING SHOWN (OUTSWING ALSO APPROVED)
 ("Smooth Star Series" shown)

- NOTES:
- SIDELITE ASSEMBLY FASTENERS LOCATED 6" FROM ENDS PLUS 4 MORE EQUALLY SPACED (6 TOTAL).
 - ASTRAGAL RETAINING SCREWS LOCATED @ 3/4", 2", 3-1/4", 4-1/2", 18-7/8", 41-7/8", 60-7/8", 74-3/4", 76", 77-1/4" & 78-1/2" FROM TOP OF ASTRAGAL (11 TOTAL).



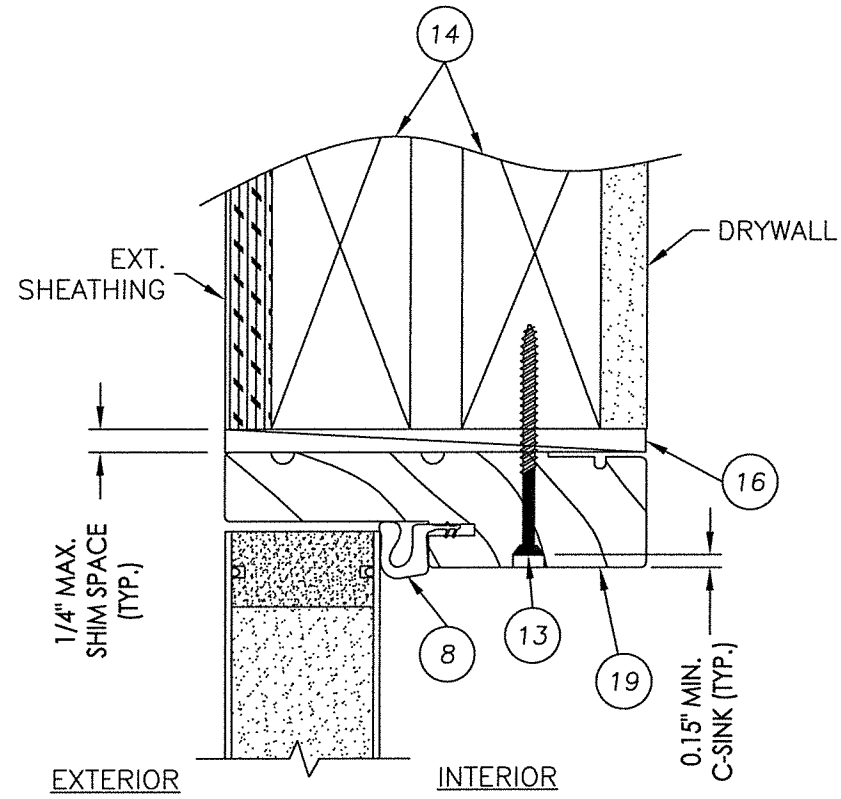
3 HORIZONTAL CROSS SECTION
5 INSWING SHOWN (OUTSWING ALSO APPROVED)
 ("Smooth Star Series" shown)

PRODUCT: THERMA-TRU GLAZED FIBERGLASS DBL DOOR W/ SIDELITES IN/OUTSWING "IMPACT" PART OR ASSEMBLY:		HORIZONTAL CROSS SECTIONS	
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE	LFS
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SHEET 5 of 9			

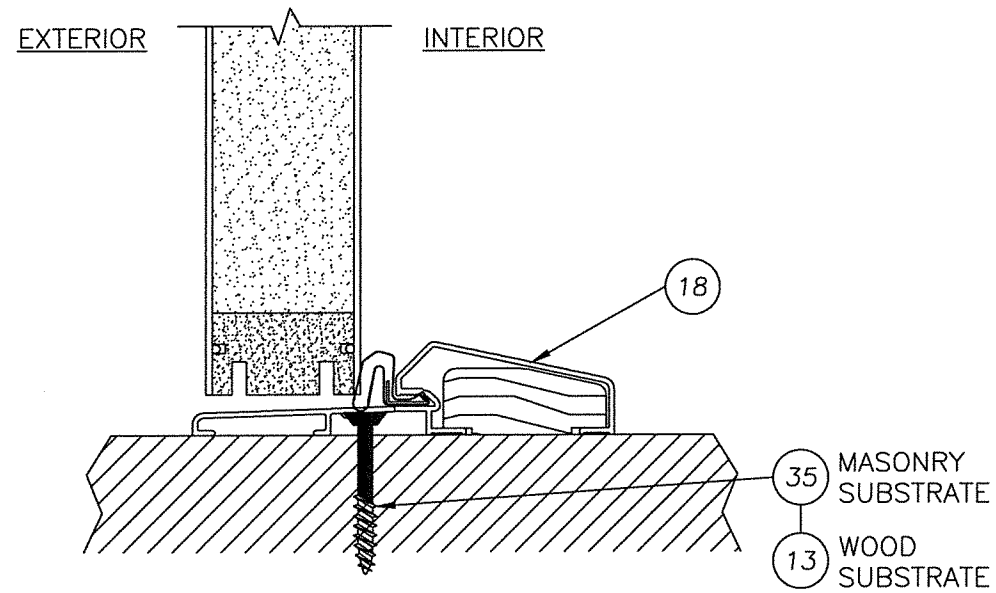
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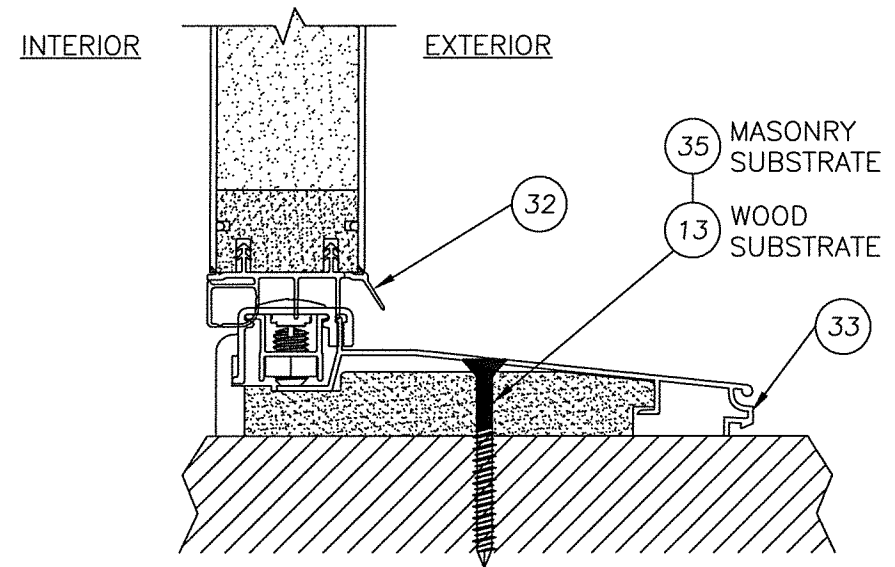
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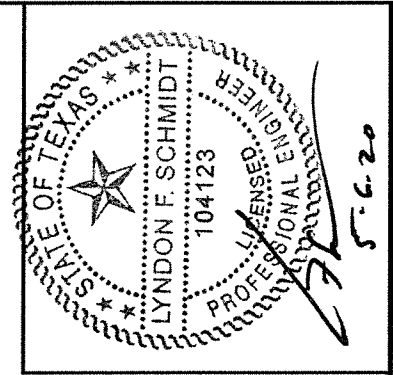
1 VERTICAL CROSS SECTION
6 OUTSWING SHOWN (INSWING ALSO APPROVED)
("SMOOTH STAR SERIES" SHOWN)



2 VERTICAL CROSS SECTION
6 OUTSWING CONFIGURATION
("SMOOTH STAR SERIES" SHOWN)



3 VERTICAL CROSS SECTION
6 INSWING CONFIGURATION
("SMOOTH STAR SERIES" SHOWN)



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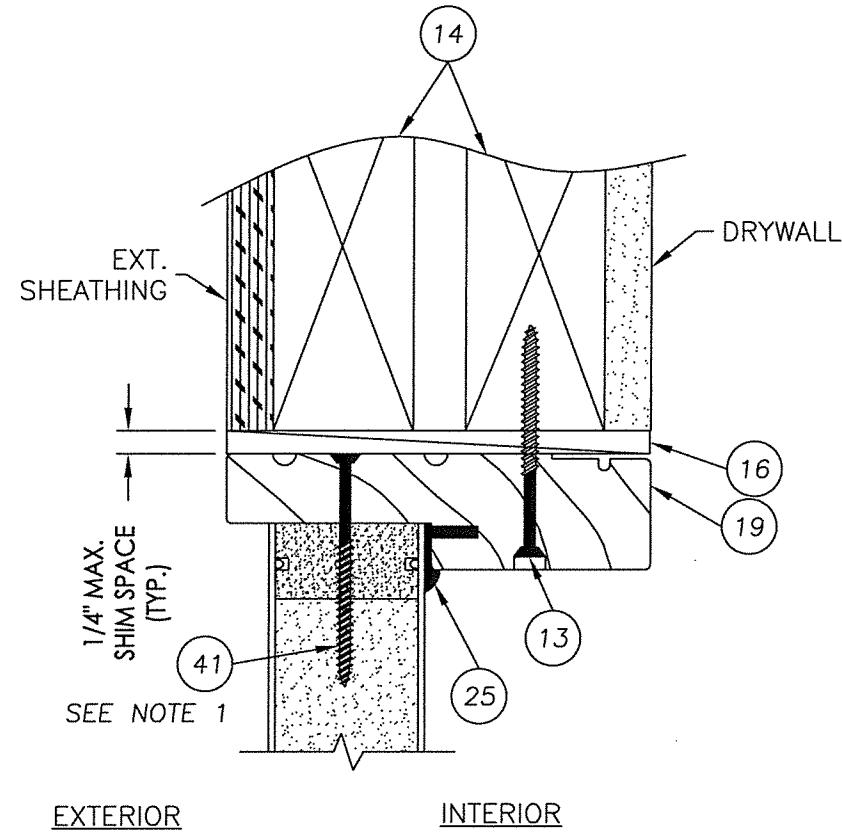
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PRODUCT: THERMA-TRU GLAZED FIBERGLASS DBL DOOR W/ SIDELITES IN/OUTSWING "IMPACT" PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

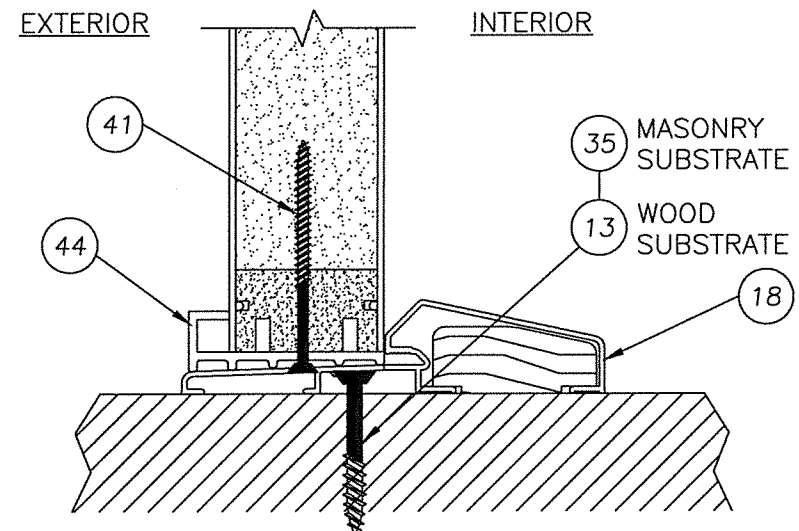
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CHK. BY: LFS
DRAWING NO.: TX-4194
SHEET 6 OF 9

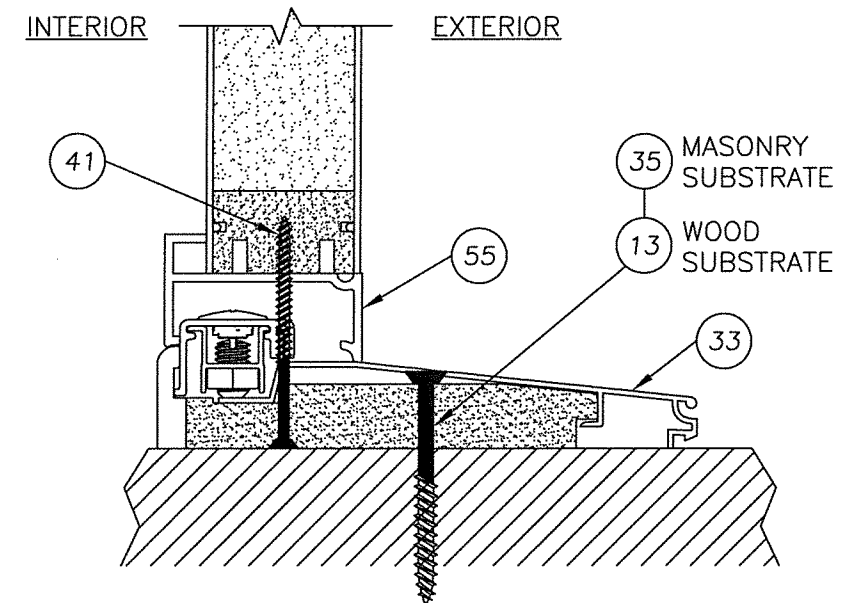


NOTE:
1. SIDELITE ASSEMBLY FASTENERS LOCATED 6" FROM ENDS PLUS 1 AT CENTERLINE (3 TOTAL).

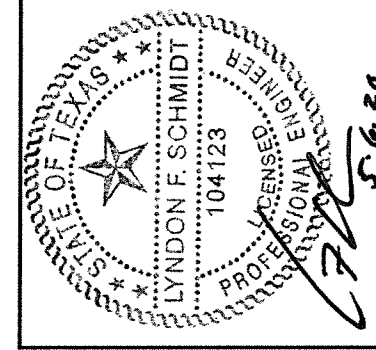
1 VERTICAL CROSS SECTION
7 OUTSWING SHOWN (INSWING ALSO APPROVED) ("SMOOTH STAR SERIES" SHOWN)



2 VERTICAL CROSS SECTION
7 OUTSWING CONFIGURATION ("SMOOTH STAR SERIES" SHOWN)



3 VERTICAL CROSS SECTION
7 INSWING CONFIGURATION ("SMOOTH STAR SERIES" SHOWN)



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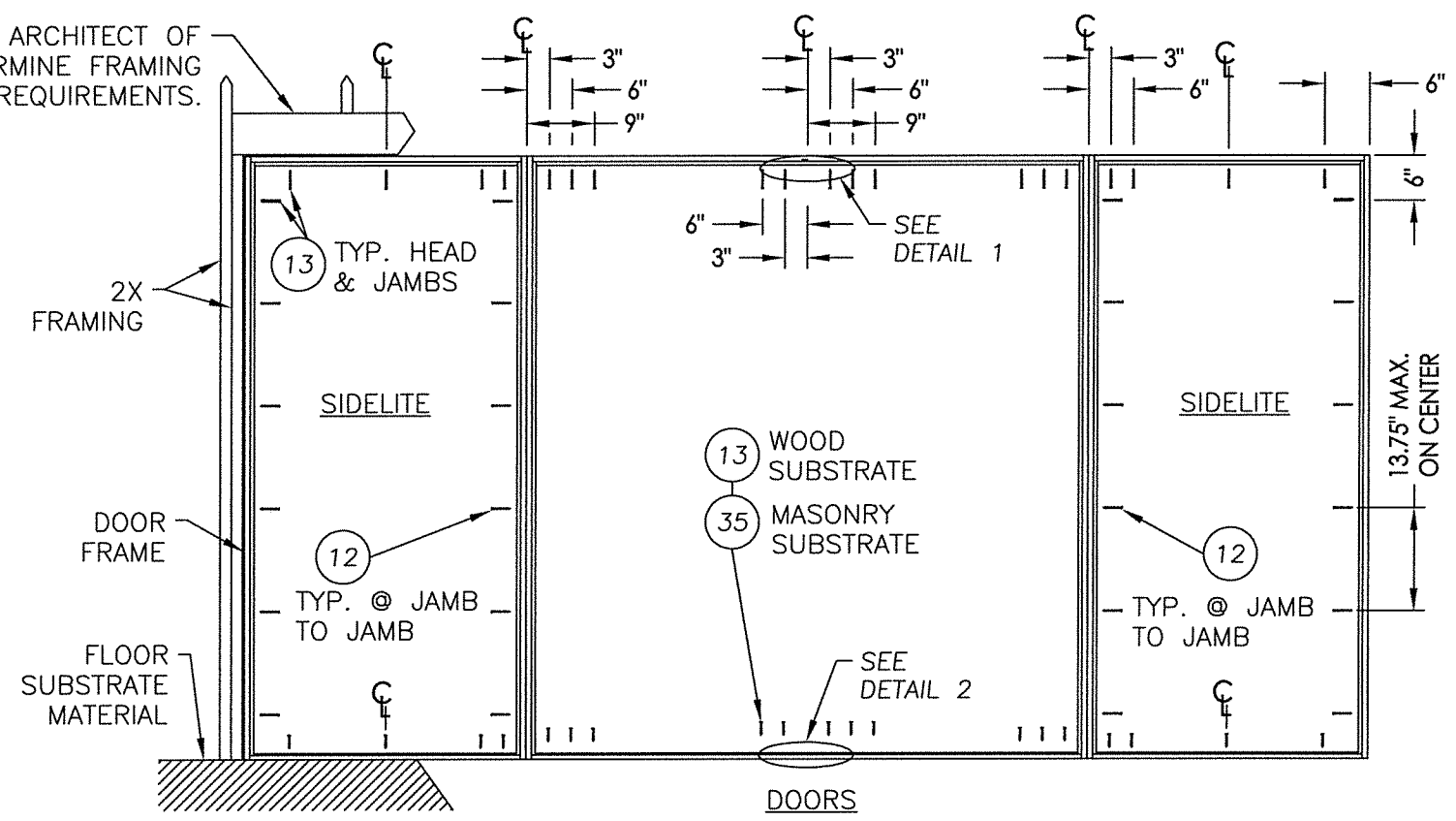
PRODUCT: THERMA-TRU GLAZED FIBERGLASS DBL DOOR W/ SIDELITES IN/OUTSWING "IMPACT"
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

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SHEET 7 OF 9

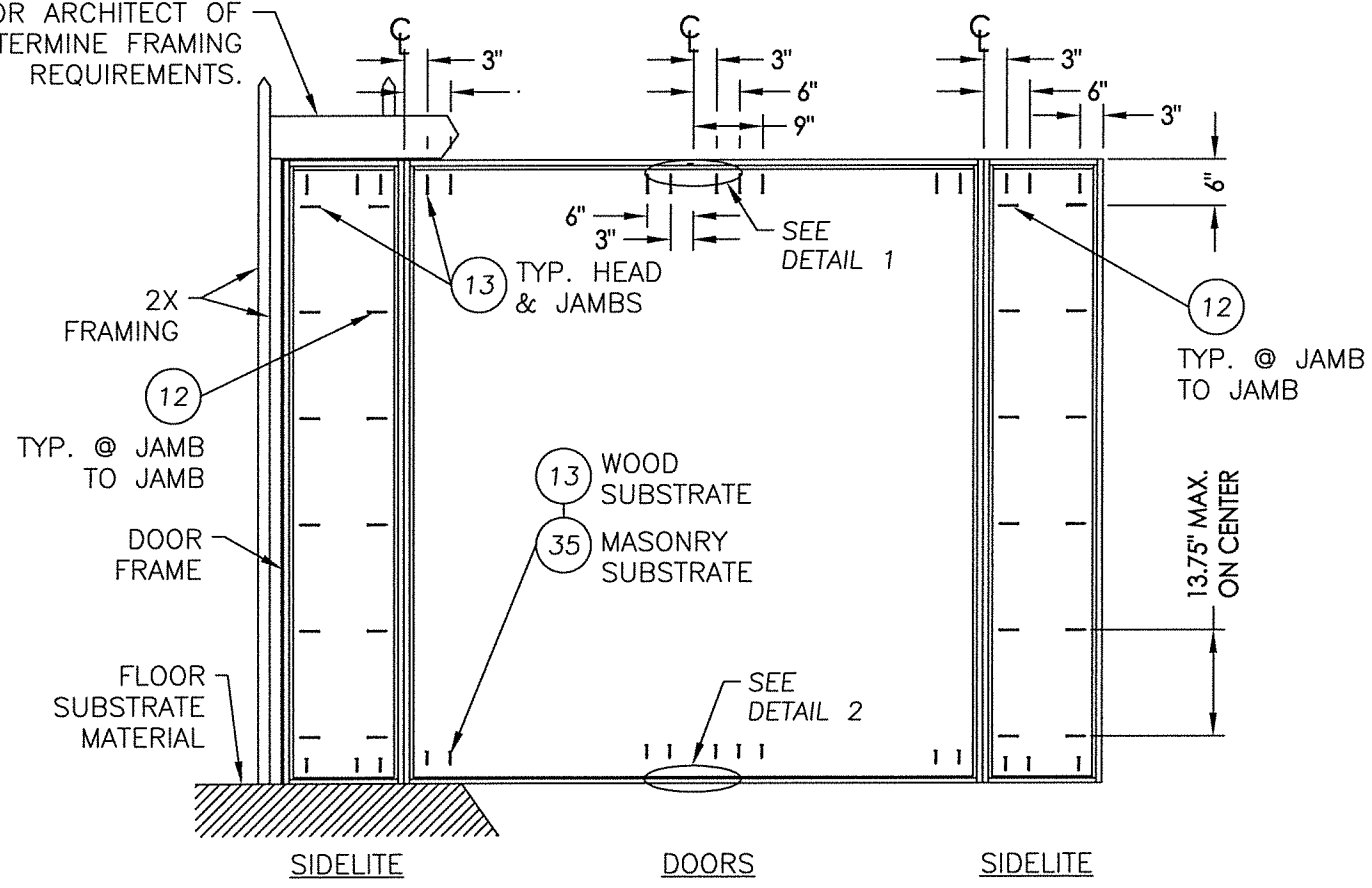
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THE ENGINEER OR ARCHITECT OF RECORD TO DETERMINE FRAMING REQUIREMENTS.

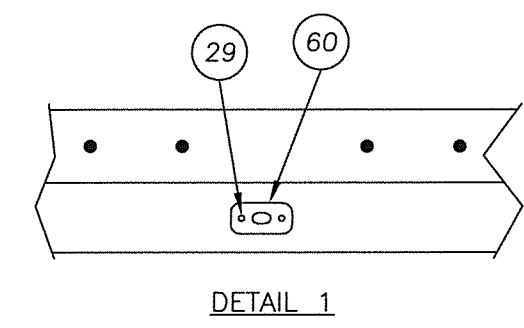


FRAME ANCHORING FOR UP TO 36" SIDELITE

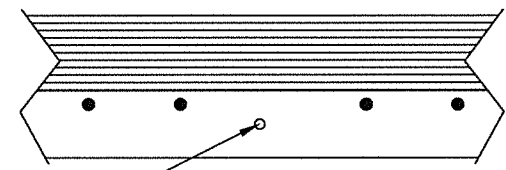
THE ENGINEER OR ARCHITECT OF RECORD TO DETERMINE FRAMING REQUIREMENTS.



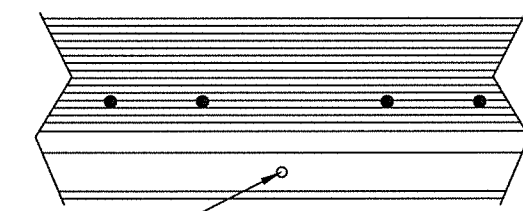
FRAME ANCHORING FOR UP TO 14" SIDELITE



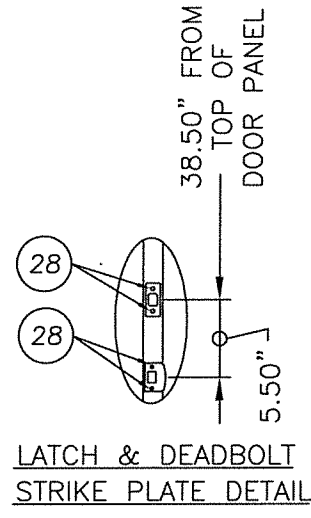
DETAIL 1



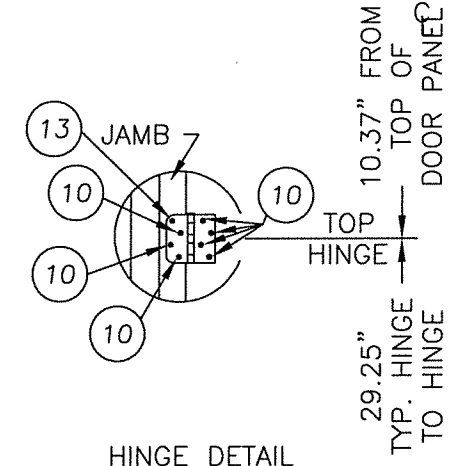
ASTAGAL BOLT HOLE (3" THROW) DETAIL 2 OUTSWING



ASTAGAL BOLT HOLE (3" THROW) DETAIL 2 INSWING



LATCH & DEADBOLT STRIKE PLATE DETAIL

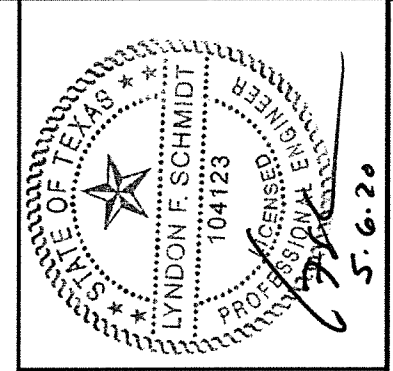


HINGE DETAIL (3) HINGES TOTAL

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"



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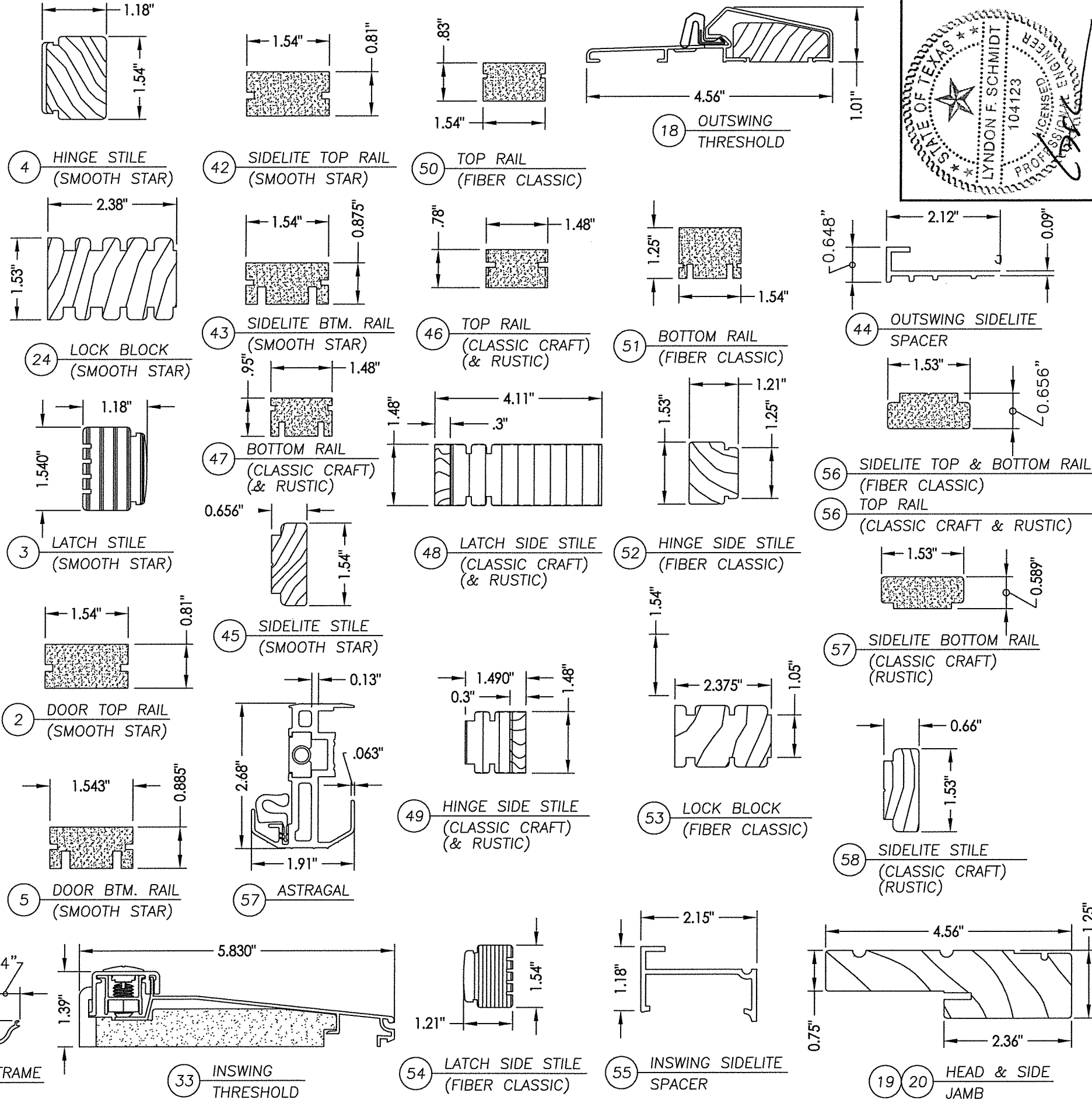
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PART OR ASSEMBLY: FRAME ANCHORING

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SHEET 8 OF 9

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Item	DESCRIPTION	Material
1	DOOR SKIN; SMOOTH STAR SERIES (.065" MIN.)	FIBERGLASS
1A	DOOR SKIN; CLASSIC CRAFT & RUSTIC SERIES (.090" MIN.)	FIBERGLASS
1B	DOOR SKIN; FIBER CLASSIC SERIES (.065" MIN.)	FIBERGLASS
2	TOP RAIL DOOR THERMA-TRU (SMOOTH STAR)	COMP.
3	LATCH STILE DOOR THERMA-TRU (SMOOTH STAR)	LVL
4	HINGE STILE DOOR THERMA-TRU (SMOOTH STAR)	WOOD
5	BOTTOM RAIL DOOR THERMA-TRU (SMOOTH STAR)	COMP.
6	POLYURETHANE FOAM (BASF, 1.9lbs. DENSITY)	FOAM
7	MEDIUM REACH COMPRESSION WEATHER-STRIP (THERMA-TRU)	FOAM
8	LONG REACH COMPRESSION WEATHER-STRIP (THERMA-TRU)	FOAM
9	4" x 4" HINGE .097" THK. (THERMA-TRU)	STEEL
10	#10 x 3/4" PFH WOOD SCREW (Hinge to Frame)	STEEL
11	#10 x 1-1/2" PPH SHEET METAL SCREW	STEEL
12	#10 x 2" PFH WOOD SCREW	STEEL
13	#10 x 2-1/2" PFH WOOD SCREW	STEEL
14	2X FRAMING (G >= 0.42)	WOOD
16	MAX. 1/4" SHIM MATERIAL	WOOD
17	LOCK - KWIKSET 200 SERIES	STEEL
18	THRESHOLD OUTSWING (THERMA-TRU)	ALUM./WOOD
19	HEADER JAMB (4.656" x 1.25" THERMA-TRU, PINE)	WOOD
20	SIDE JAMB (4.656" x 1.25" THERMA-TRU) (FJ PINE)	WOOD
21	DEADBOLT - KWIKSET 600 SERIES	STEEL
22	INTERIOR LITE FRAME	ALUM.
23	EXTERIOR LITE FRAME	ALUM.
24	LOCK BLOCK (SMOOTH STAR)	WOOD
25	SILICONE CAULK	SILICONE
26	CELLULAR GLAZING TAPE	FOAM
27	LATCH STRIKE	STEEL
28	#8 x 2-1/2" PFH WOOD SCREW	STEEL
29	#8 x 3" PFH SCREW	STEEL
30	1" THK. INSUL. LAMINATED GLASS (SAFLEX PVB INTERLAYER) 1/8" TEMP.-AIR- 5/32" ANN./0.090" PVB INTERLAYER/1/8" ANN.	GLASS
32	DOOR BOTTOM SWEEP (INSWING)	PVC
33	INSWING THRESHOLD	ALUM./COMP.
35	1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
39	LITE FRAME TRIM	ALUM.
40	#9 x 3" PFH WOOD SCREW	STEEL
41	#9 x 2-1/2" PFH SCREW	STEEL
42	SIDELITE TOP RAIL (SMOOTH STAR)	COMP.
43	SIDELITE BOTTOM RAIL (SMOOTH STAR)	COMP.
44	OUTSWING SIDELITE SPACER	PVC
45	SIDELITE STILE (SMOOTH STAR)	WOOD
46	TOP RAIL (CLASSIC CRAFT & RUSTIC)	COMP.
47	BOTTOM RAIL (CLASSIC CRAFT & RUSTIC)	COMP.
48	LATCH SIDE STILE (CLASSIC CRAFT & RUSTIC)	LSL / OAK
49	HINGE SIDE STILE (CLASSIC CRAFT & RUSTIC)	LSL / OAK
50	TOP RAIL (FIBER CLASSIC)	COMP.
51	BOTTOM RAIL (FIBER CLASSIC)	COMP.
52	HINGE SIDE STILE (FIBER CLASSIC)	WOOD
53	LOCK BLOCK (FIBER CLASSIC)	WOOD
54	LATCH SIDE STILE (FIBER CLASSIC)	LVL / OAK
55	SIDELITE SPACER INSWING	PVC
56	SIDELITE TOP & BOTTOM RAIL (CLASSIC CRAFT, RUSTIC & FIBER CLASSIC)	COMP.
57	SIDELITE BOTTOM RAIL (CLASSIC CRAFT, RUSTIC & FIBER CLASSIC)	COMP.
58	SIDELITE STILE (CLASSIC CRAFT, RUSTIC & FIBER CLASSIC)	WOOD
59	ASTRAGAL (6063-T5)	ALUM.
60	ASTRAGAL STRIKE PLATE	STEEL



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PRODUCT: THERMA-TRU
GLAZED FIBERGLASS DOOR
IN/OUTSWING "IMPACT"

PART OR ASSEMBLY:
BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	ADDED GENERAL NOTE 5.

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4194
SHEET 9 OF 9