STEVES AND SONS
203 Humble Ave.
San Antonio, TX 78225

Veranda
Opaque Fiberglass Single Door w/ or w/o Sidelites
INSWING / OUTSWING
"NON-IMPACT"

EVALUATED FOR USE IN THE STATE OF TEXAS

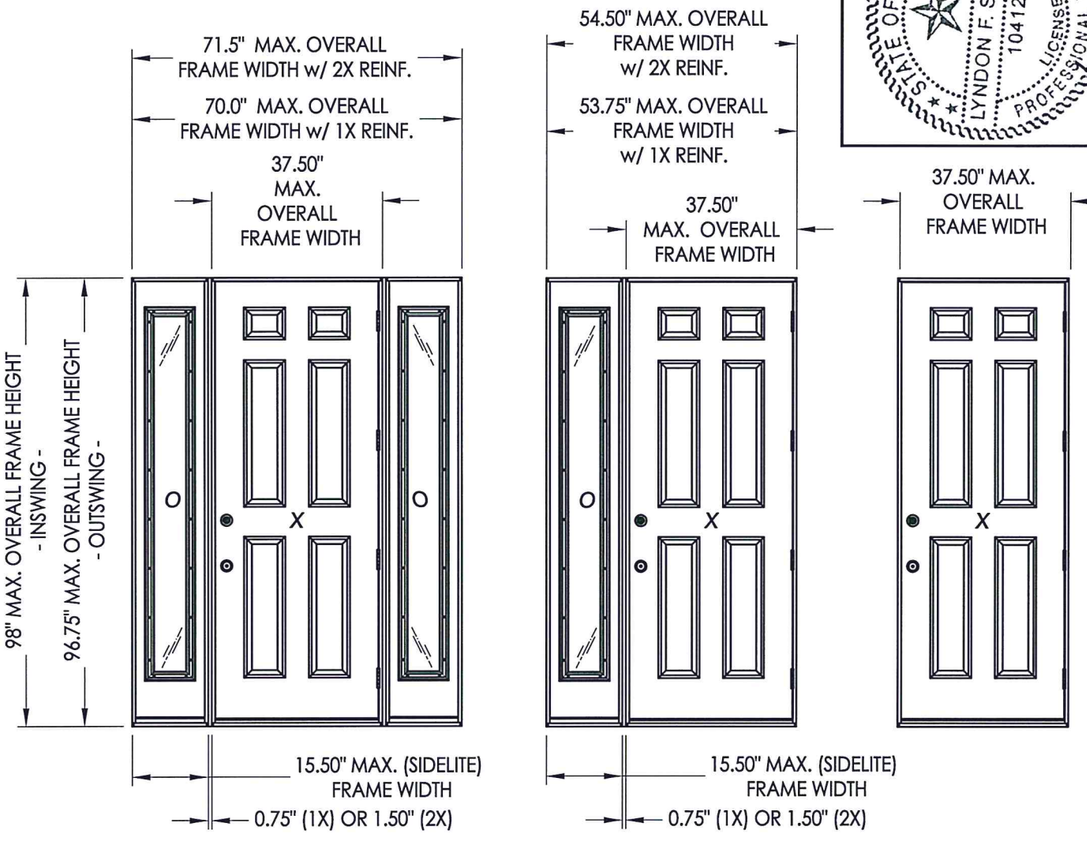
The Fiberglass Door described herein complies with the 2006 International Residential Code (IRC), Sections R301 & R613 and the 2006 International Building Code (IBC), Sections 1405.12, 1609, 1714.5, 2403 and 2404 (including Texas revisions) subject to the following conditions:

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.

SUPPORTING DOCUMENTS & EVIDENCE

1. Testing per AAMA/WDMA/CSA 101/I.S.2/A440-05 :
   Testing Evaluation Laboratories, Inc. test report(s) #: TEL 01530200 & TEL 01530201.
2. Calculations (Anchoring and Glass load resistance report ASTM E1300-04) prepared by Lyndon F. Schmidt, P.E.
3. Certificate of Participation issued by the National Accreditation and Management Institute, Inc., certifying that STEVES AND SONS is manufacturing products within a Quality Assurance program.

TABLE OF CONTENTS	
SHEET #	**DESCRIPTION**
1	Typical elevations, design pressures & general notes
2	Door panel details
3	Sidelite panel details
4	Horizontal Cross Sections
5	Horizontal Cross Sections
6	Vertical cross sections
7	Vertical cross sections
8	Buck & frame anchoring
9	Glazing Details
10	Bill of materials & components



CONFIGURATION	MAX. FRAME DIMENSION	MAX. D.L.O. DIMENSION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
			POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	37.50" x 98.00"	N/A	+40.0	-45.0	+40.0	-40.0
X**	37.50" x 98.00"	N/A	+50.0	-55.0	+50.0	-50.0
OX / XO *w/1x Mull Reinforcement*	53.75" x 98.00"	7.00" x 79.87"	+40.0	-45.0	+40.0	-40.0
OX / XO** *w/2x Mull Reinforcement*	54.50" x 98.00"	7.00" x 79.87"	+50.0	-55.0	+50.0	-50.0
OXO *w/1x Mull Reinforcement*	70.00" x 98.00"	7.00" x 79.87"	+40.0	-45.0	+40.0	-40.0
OXO** *w/2x Mull Reinforcement*	71.50" x 98.00"	7.00" x 79.87"	+50.0	-55.0	+50.0	-50.0

** *Requires Security Strike (Item #24A) and Corner Screw (Item #59).*

STATE OF TEXAS ★★★ LYNDON F. SCHMIDT 104123 LICENSED PROFESSIONAL ENGINEER 7.22.15

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: STEVES AND SONS FIBERGLASS DOOR

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

REVISIONS

NO.	DATE	Manuf./Product Name Change	BY
1	7/16/15		JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 1 OF 10

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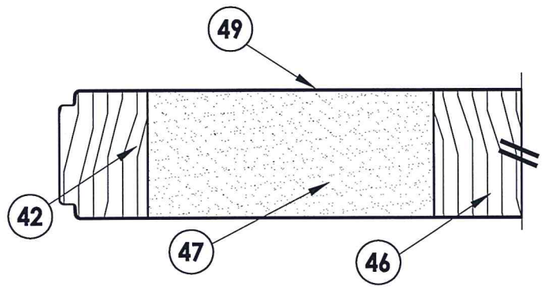
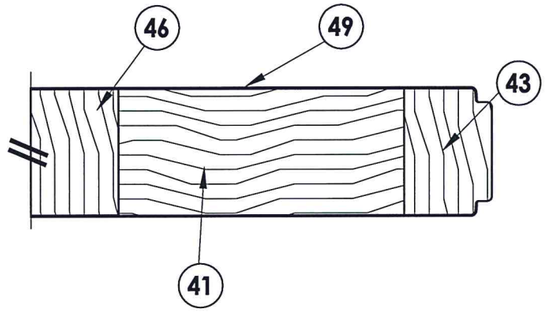
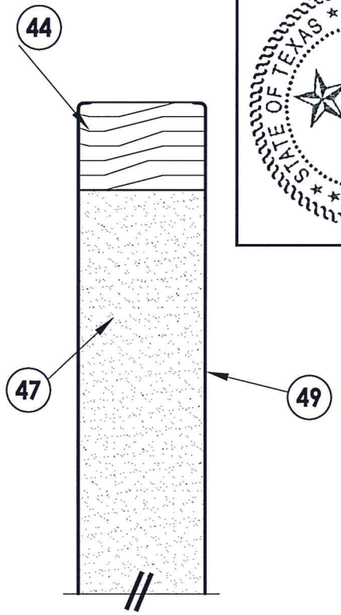


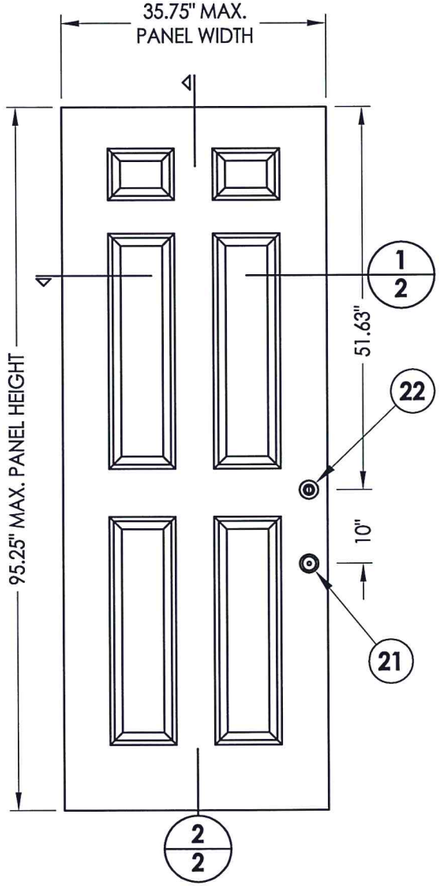
EXTERIOR

INTERIOR

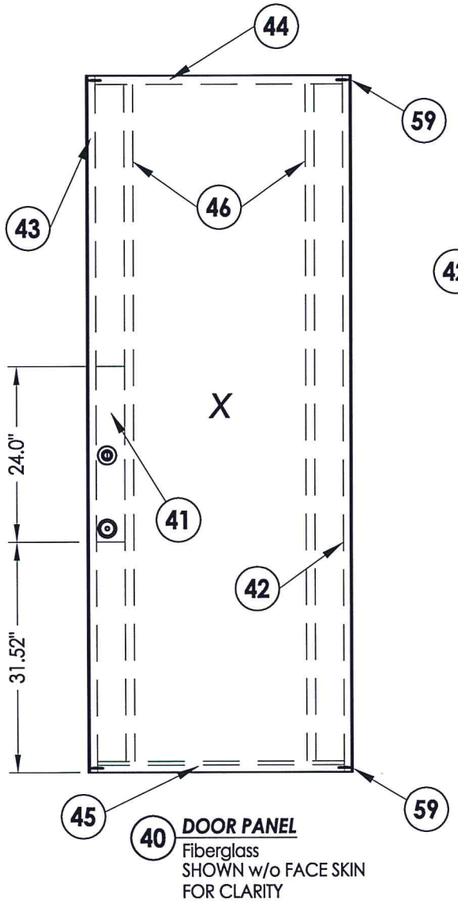




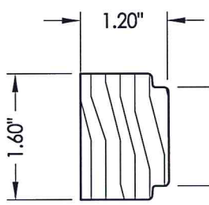
1/2 HORIZONTAL CROSS SECTION



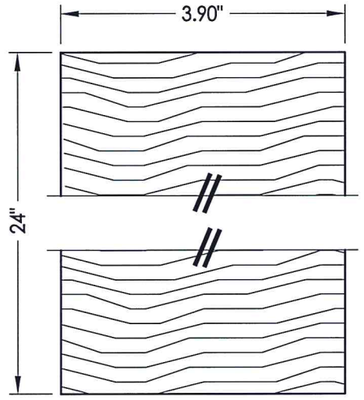
40 DOOR PANEL
Fiberglass



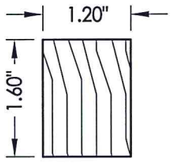
40 DOOR PANEL
Fiberglass
SHOWN w/o FACE SKIN
FOR CLARITY



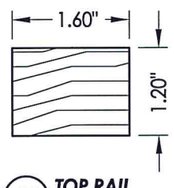
42 43 HINGE AND LATCH STILE
Wood



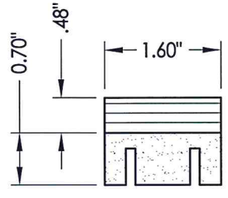
41 LOCK BLOCK
Wood



46 LITE FRAME REINFORCMENT
Wood



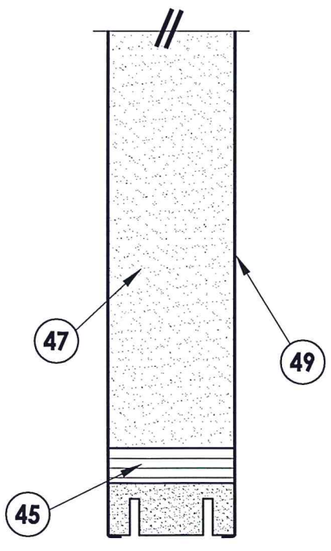
44 TOP RAIL
Wood



45 BOTTOM RAIL
Composite / LVL

INTERIOR

EXTERIOR



2/2 VERTICAL CROSS SECTION

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

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

7-22-15

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: DOOR PANEL DETAILS

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 2 OF 10

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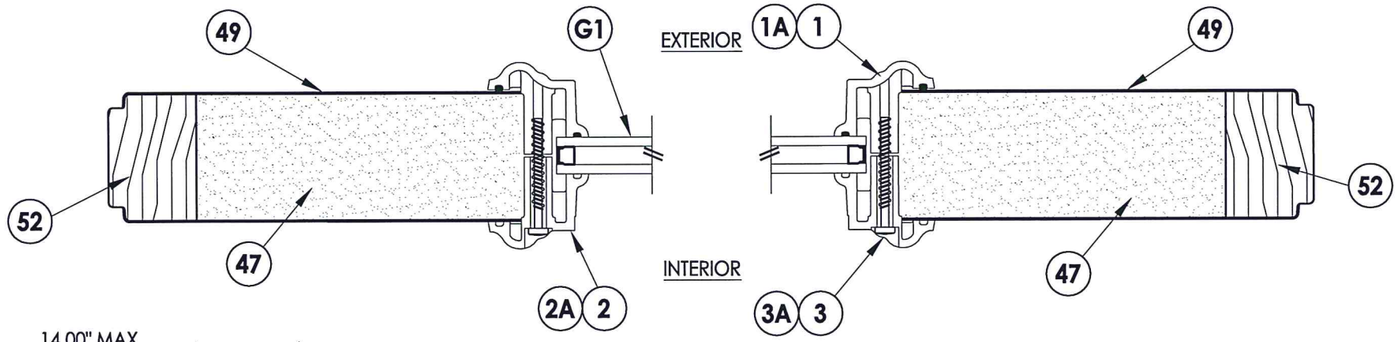
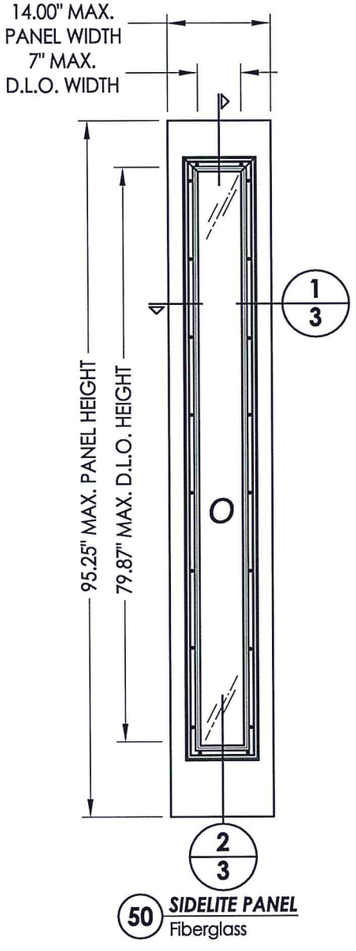
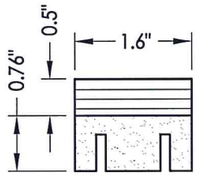


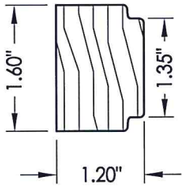
1/3 **HORIZONTAL CROSS SECTION**



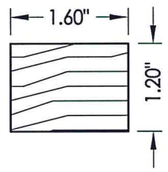
50 SIDELITE PANEL
Fiberglass



53 SIDELITE BOTTOM RAIL



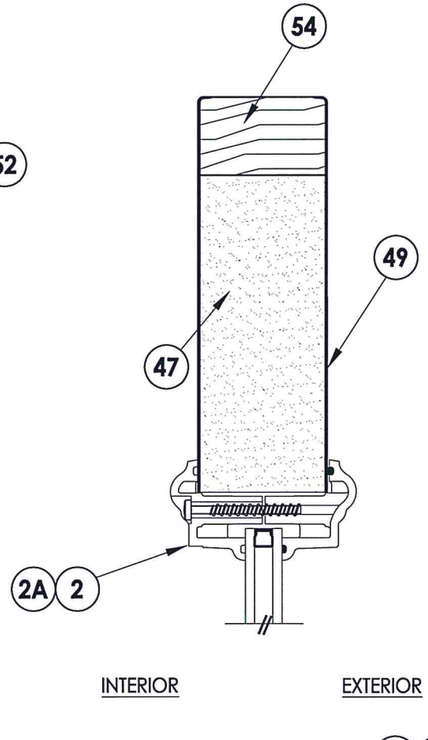
52 SIDELITE STILE
Wood

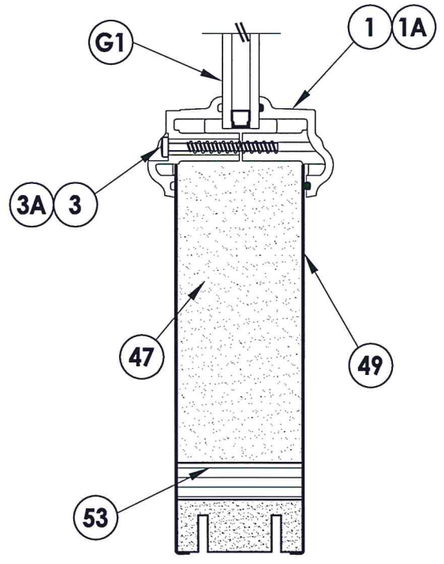


54 SIDELITE TOP RAIL
Wood

ODL LITE FRAME SCREWS (Item #3):
HEAD/SILL (2 total), 2" from corners
JAMBS: (8 total), 6.5" from corners & 10" max. o.c.

RSL SIDELITE FRAME SCREWS (Item #3A):
HEAD/SILL (2 total), 2" from corners
JAMBS: (8 total), 3.25" from corners & 10.75" max. o.c.





2/3 **VERTICAL CROSS SECTION**

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
5.22.15

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

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: SIDELITE PANEL DETAILS

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 3 OF 10

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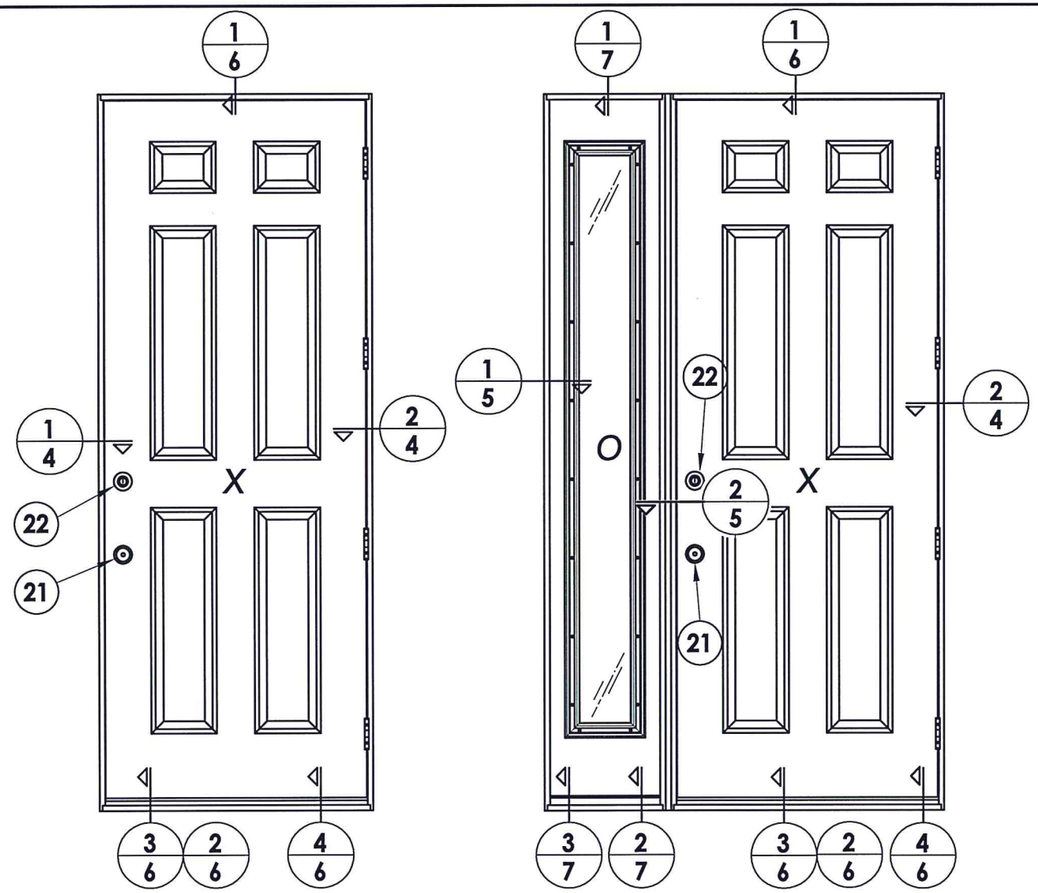
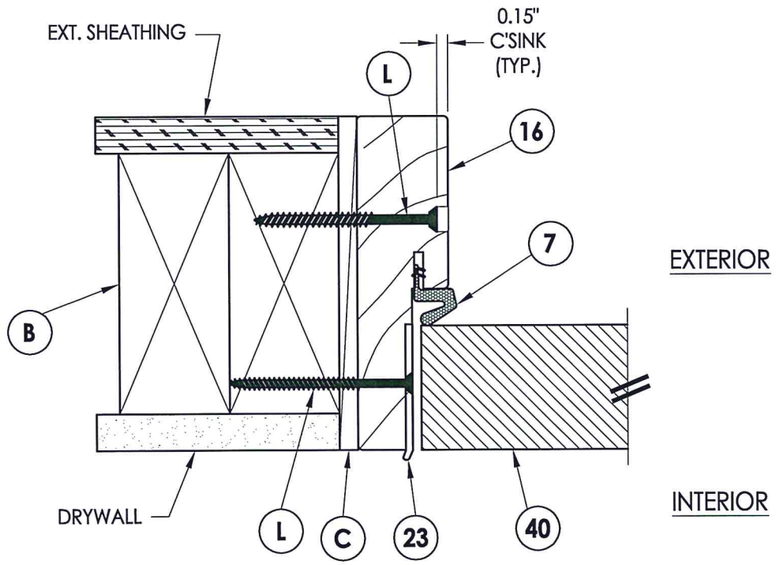
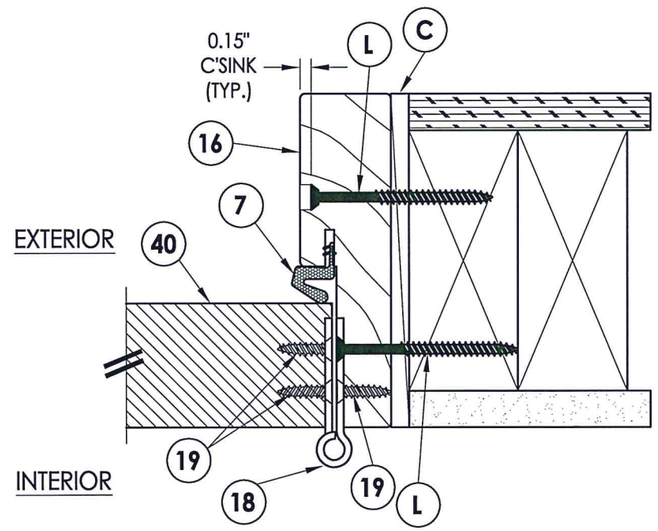




1/4 **HORIZONTAL CROSS SECTION**
Inswing shown - outswing also approved



2/4 **HORIZONTAL CROSS SECTION**
Inswing shown - outswing also approved

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7-22-15

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

PRODUCT: *STEVES AND SONS FIBERGLASS DOOR*

PART OR ASSEMBLY: *HORIZONTAL CROSS SECTIONS*

REVISIONS

NO.	DATE	Manuf./Product Name Change	BY
1	7/16/15		JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 4 OF 10

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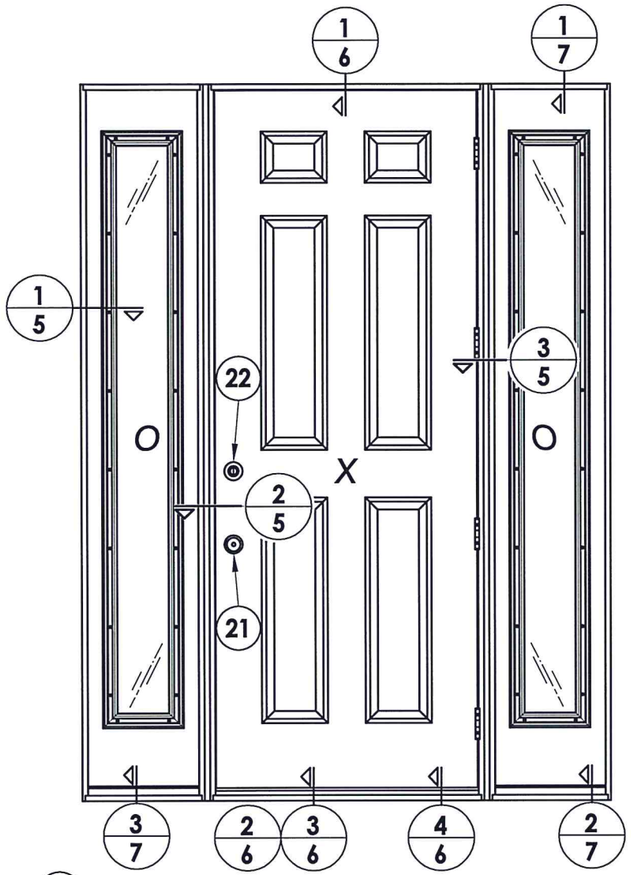
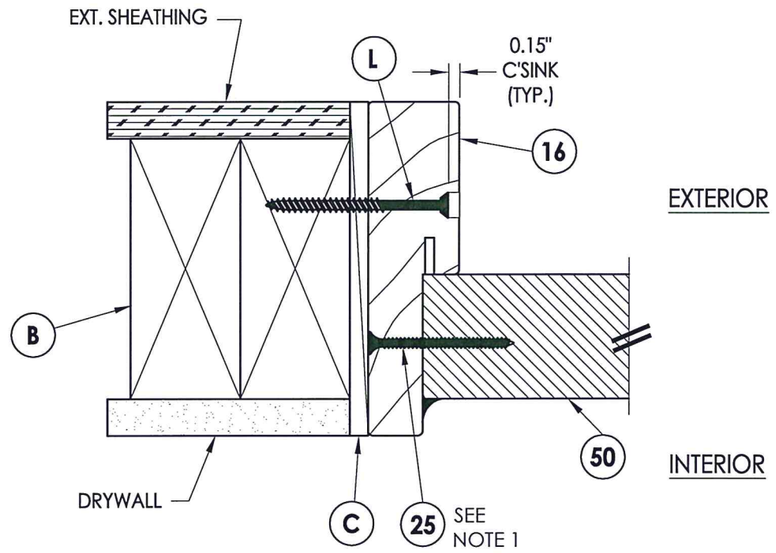
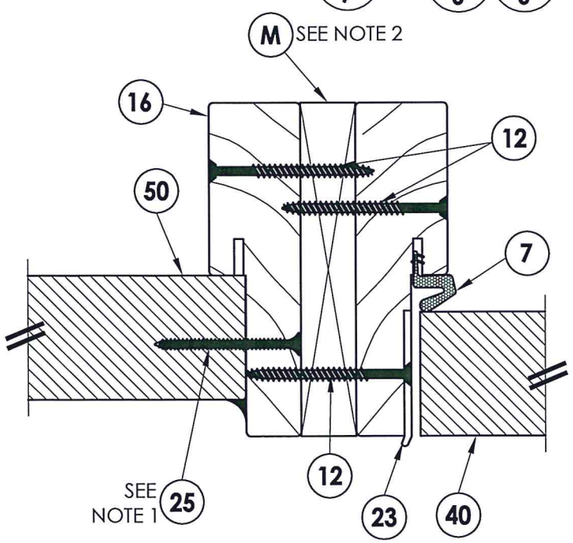
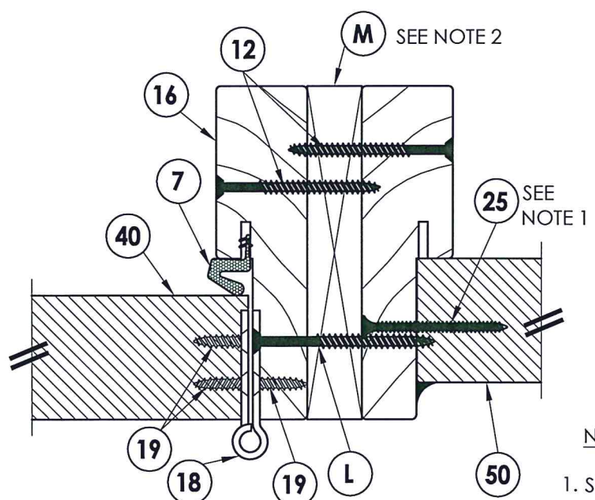




1/5 HORIZONTAL CROSS SECTION
Inswing shown - outswing also approved



2/5 HORIZONTAL CROSS SECTION
Inswing shown - outswing also approved



3/5 HORIZONTAL CROSS SECTION
Inswing shown - outswing also approved

NOTE:

1. Sidelite ass'y fastener; 6" from each end and 6 more screws equally spaced between. (8 screws total per jamb.)
2. Shown with 1X mull reinforcement. 2X reinforcement similar.

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7-22-15

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

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	Manuf./Product Name Change	BY
1	7/16/15		JK

REVISIONS

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
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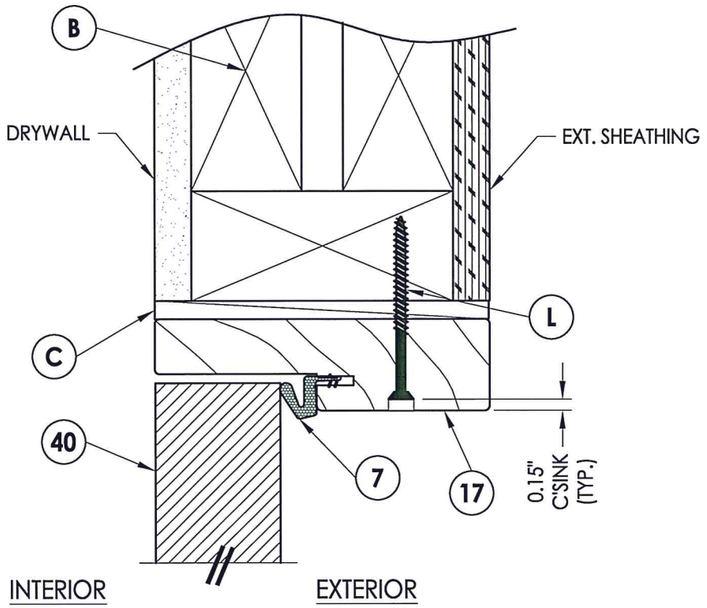
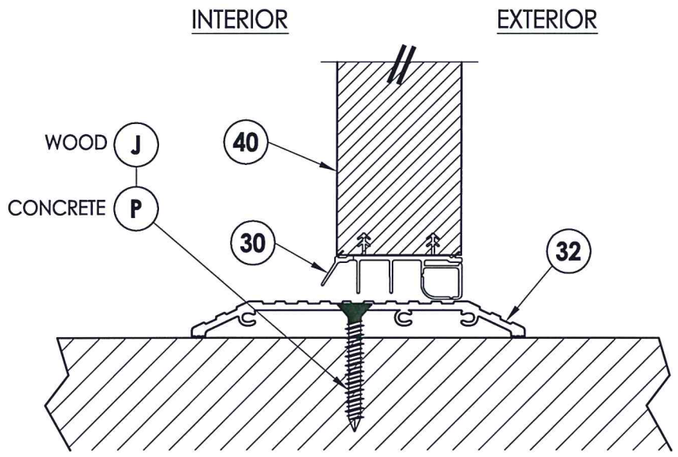
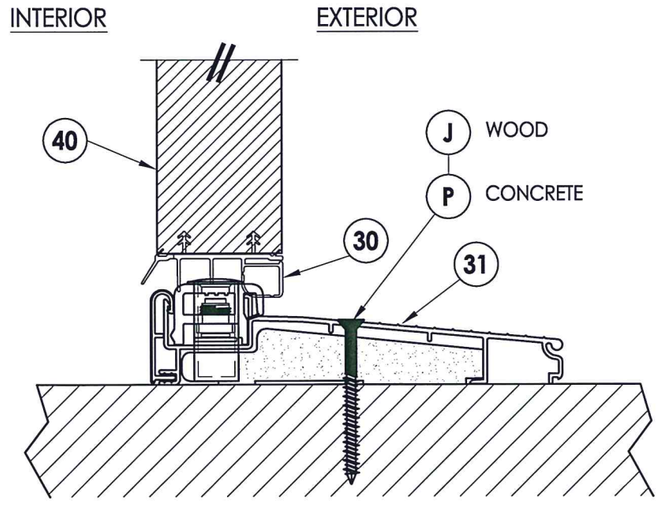


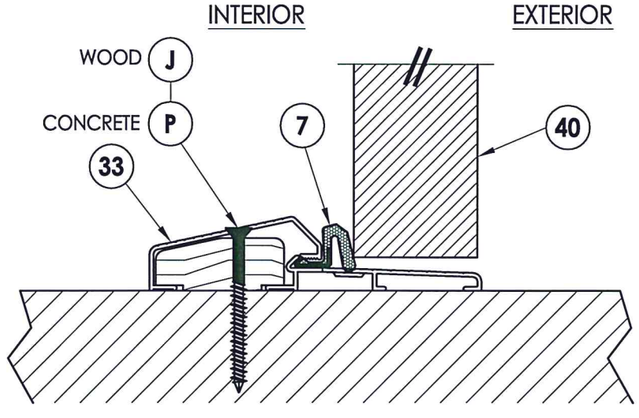
1/6 VERTICAL CROSS SECTION
Inswing shown - outswing also approved



2/6 VERTICAL CROSS SECTION
Shown w/ ADA threshold



3/6 VERTICAL CROSS SECTION
Inswing configuration



4/6 VERTICAL CROSS SECTION
Outswing configuration

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LYNDON F. SCHMIDT
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LICENSED PROFESSIONAL ENGINEER
7.22.15

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PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
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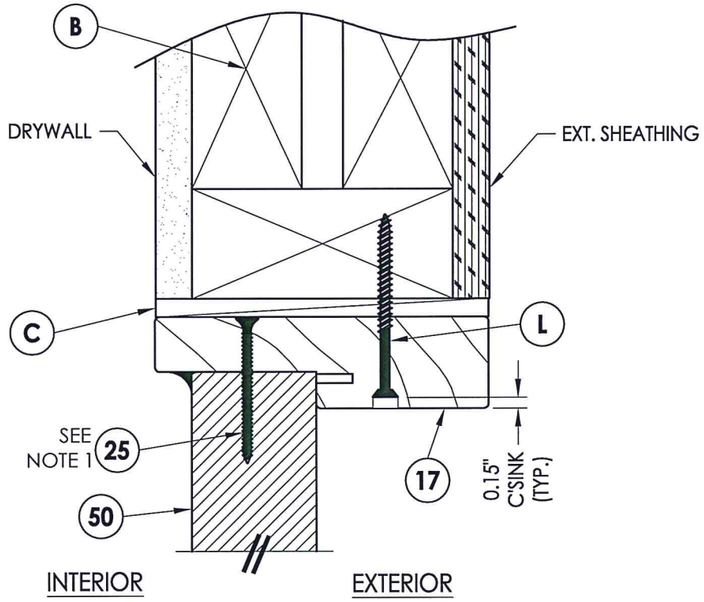
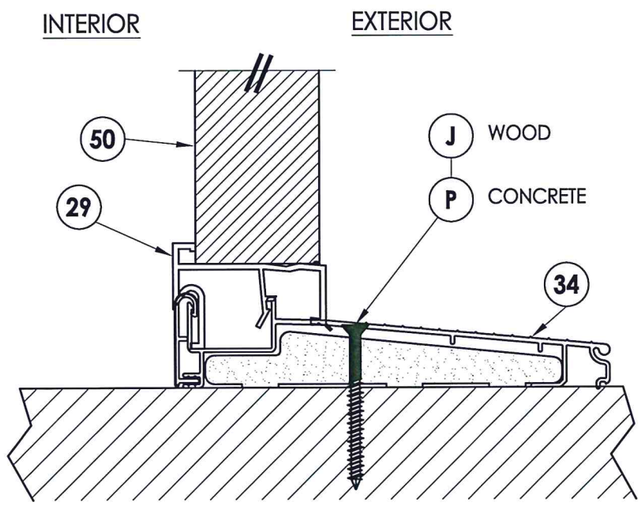


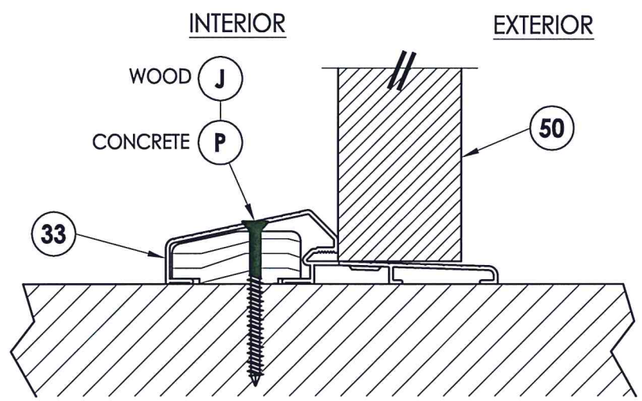
1/7 **VERTICAL CROSS SECTION**
Inswing shown - outswing also approved



3/7 **VERTICAL CROSS SECTION**
Inswing configuration

NOTE:

1. Screws thru head and sill jamb located 3" from each end.



2/7 **VERTICAL CROSS SECTION**
Outswing configuration

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104123
LICENSED
PROFESSIONAL ENGINEER
7.22.15

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

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
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PRODUCT: *STEVES AND SONS FIBERGLASS DOOR*

PART OR ASSEMBLY: *VERTICAL CROSS SECTIONS*

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
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DRAWING NO.: TX-4094
SHEET 7 OF 10

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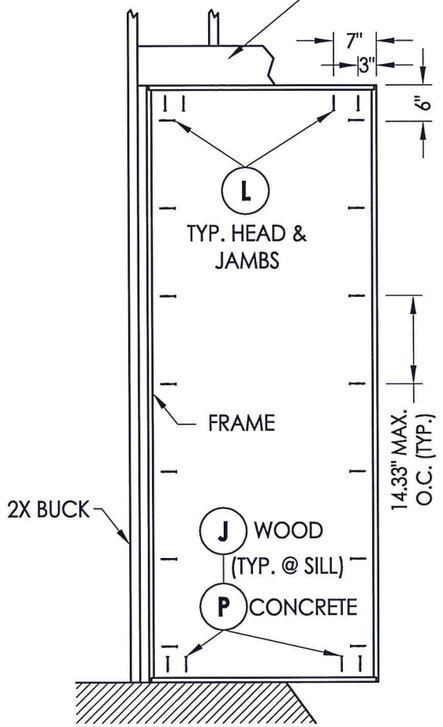
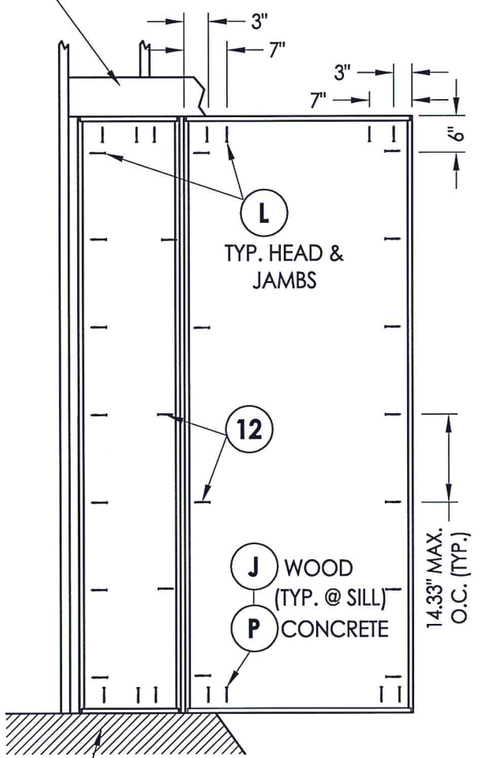
2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT OF RECORD BASED ON WIND LOADS AND THE CLADDING BEING USED.



FRAME ANCHORING
(X)



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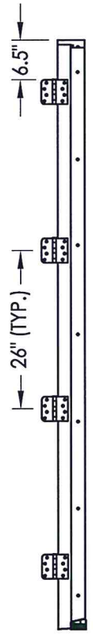
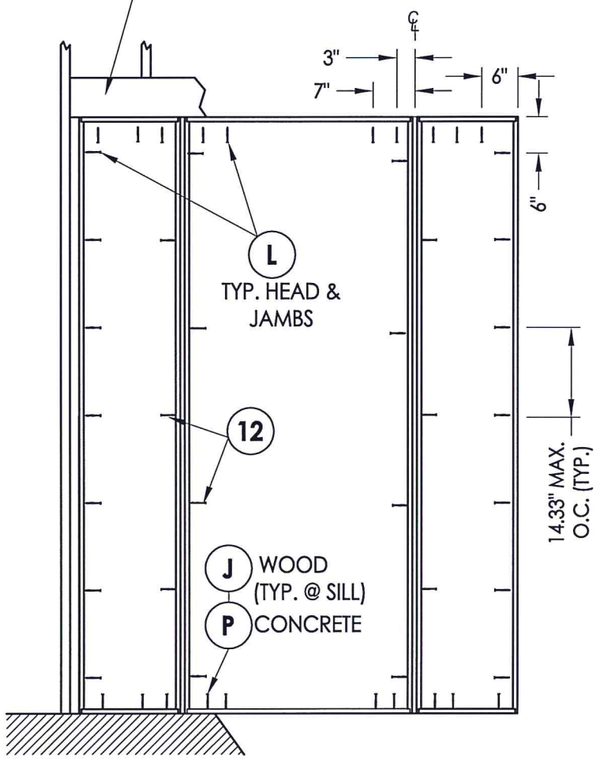


HINGE JAMB



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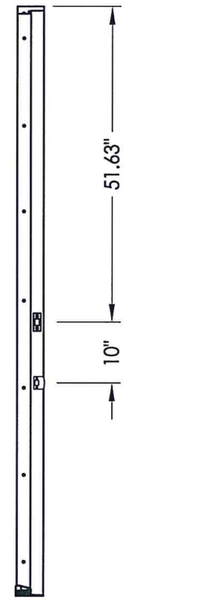


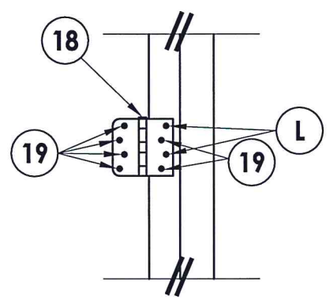
STRIKE JAMB

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

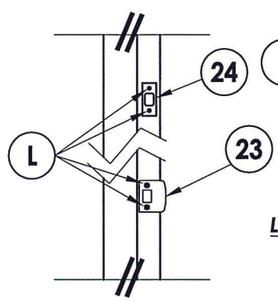
CONCRETE ANCHOR NOTES:

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:*

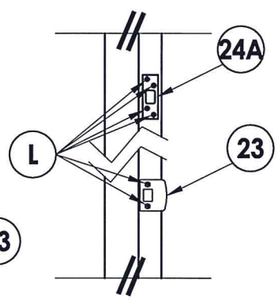
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	1-1/2"	4"
ELCO ULTRACON®	1/4"	1-3/4"	1"	4"



HINGE DETAIL



LATCH & DEADBOLT DETAIL
w/ Standard Strike



LATCH & DEADBOLT DETAIL
w/ Security Strike

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7-22-15

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: *STEVES AND SONS FIBERGLASS DOOR*

PART OR ASSEMBLY: *BUCK & FRAME ANCHORING*

REVISIONS

NO.	DATE	Manuf./Product Name Change	BY
1	7/16/15		JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 8 OF 10

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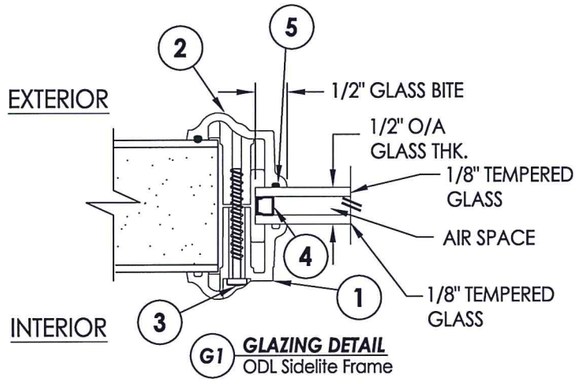
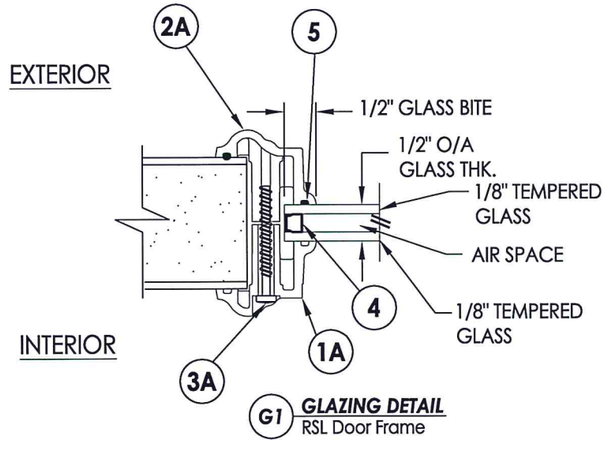
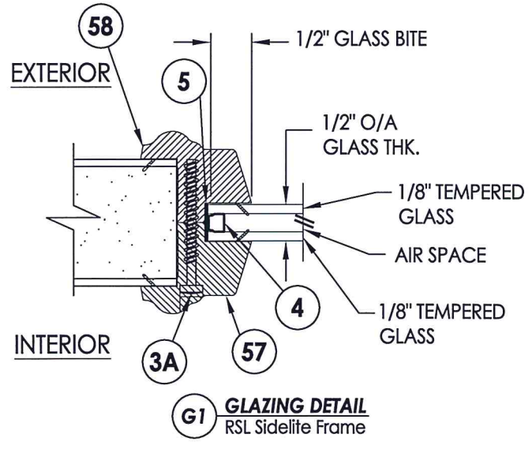


G1 ***GLAZING DETAIL***
ODL Sidelite Frame



G1 ***GLAZING DETAIL***
RSL Door Frame



G1 ***GLAZING DETAIL***
RSL Sidelite Frame

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7.22.15

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: *STEVES AND SONS FIBERGLASS DOOR*

PART OR ASSEMBLY: *GLAZING DETAILS*

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4094
SHEET 9 OF 10

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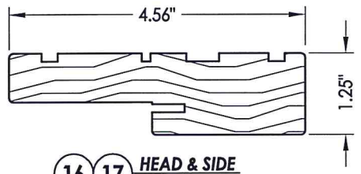
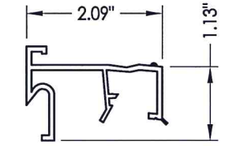
BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
B	2X FRAMING SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
J	#10 X 3" PFH WOOD SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW	STEEL
M	1X OR 2X REINFORCEMENT SG >= 0.55	STEEL
P	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
1	FEMALE LITE FRAME - ODL	POLYPROPYLENE
1A	FEMALE LITE FRAME - RSL	POLYPROPYLENE
2	MALE LITE FRAME - ODL	POLYPROPYLENE
2A	MALE LITE FRAME - RSL	POLYPROPYLENE
3	#8 X 1-3/4" PANHEAD SMS (LIGHT FRAME SCREW)	STEEL
3A	#8 X 1-1/2" PANHEAD SMS (LIGHT FRAME SCREW)	STEEL
4	ALUMINUM SPACER SYSTEM	ALUMINUM
5	HOT MELT SEALANT / SILICONE	SILICONE
7	WEATHER STRIP	FOAM
12	#10 X 2-1/4" PFH SCREW	STEEL
16	SIDE JAMB SG > = 0.42	WOOD
17	HEAD JAMB SG > = 0.42	WOOD
18	4" X 4" HINGE MIN 0.1" THICK	STEEL
19	#10 X 3/4" PFH WS	STEEL
20	#10 X 2-1/2" PFH SCREW	STEEL
21	KWIKSET LOCK -SERIES 690 CP PASSAGE	STEEL
22	KWIKSET DEADBOLT -SERIES 690 CP	STEEL
23	LATCH STRIKEPLATE	STEEL
24	DEADBOLT STRIKE PLATE	STEEL
24A	DEADBOLT SECURITY STRIKE PLATE	STEEL
25	#8 X 2-1/2" PFH WOOD SCREW	STEEL
29	SIDELITE SPACER	VINYL
30	DOOR BOTTOM SWEEP	PVC
31	INSWING THRESHOLD	ALUM/COMP.
32	ADA THRESHOLD	ALUM.
33	OUTSWING THRESHOLD	ALUM./WOOD
34	SIDELITE THRESHOLD	ALUM./COMP.
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
41	WOOD LOCK BLOCK	WOOD
42	HINGE STILE - SG >= 0.42	WOOD
43	LATCH STILE - SG >= 0.42	WOOD
44	TOP RAIL SG > = 0.42	WOOD
45	BOTTOM RAIL	COMP./LVL
46	FRAME REINFORCEMENT SG > = 0.42	WOOD
47	POLYSTYRENE FOAM	POLYSTYRENE
49	FIBERGLASS SKIN 0.08" MIN. THICKNESS	FIBERGLASS
50	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
52	SIDELITE STILE - SG>= 0.42	WOOD
53	SIDELITE BOTTOM RAIL	COMP./LVL
54	SIDELITE TOP RAIL	WOOD
56	SLIDE BOLT ROD	STEEL
57	SIDELITE FEMALE LITE FRAME - RSL	PVC
58	SIDELITE MALE LITE FRAME - RSL	PVC
59	#8 X 2" PFH WOOD SCREW	STEEL



16 17 **HEAD & SIDE** Jamb



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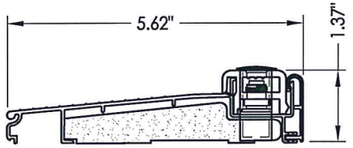
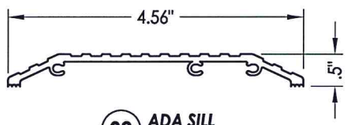
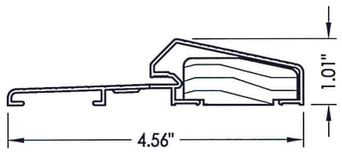


31 **INSWING THRESHOLD**



32 **ADA SILL**



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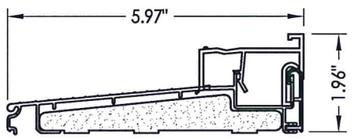
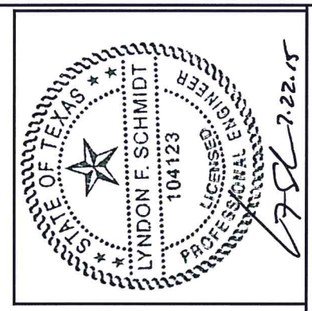


34 **SIDELITE THRESHOLD**



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

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS	BY
1	7/16/15	Manuf./Product Name Change	JK

DATE: 5/19/10
SCALE: N.T.S.
DWG. BY: JK
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SHEET 10 OF 10

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