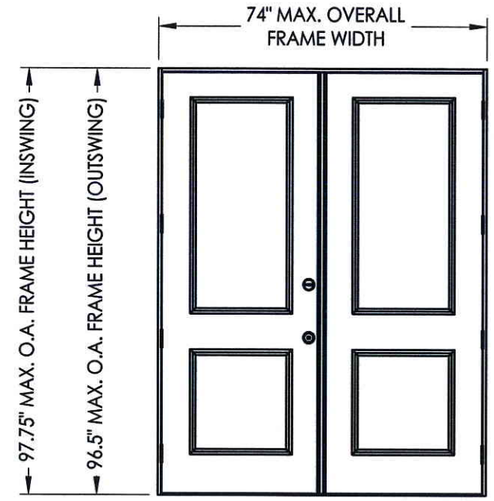
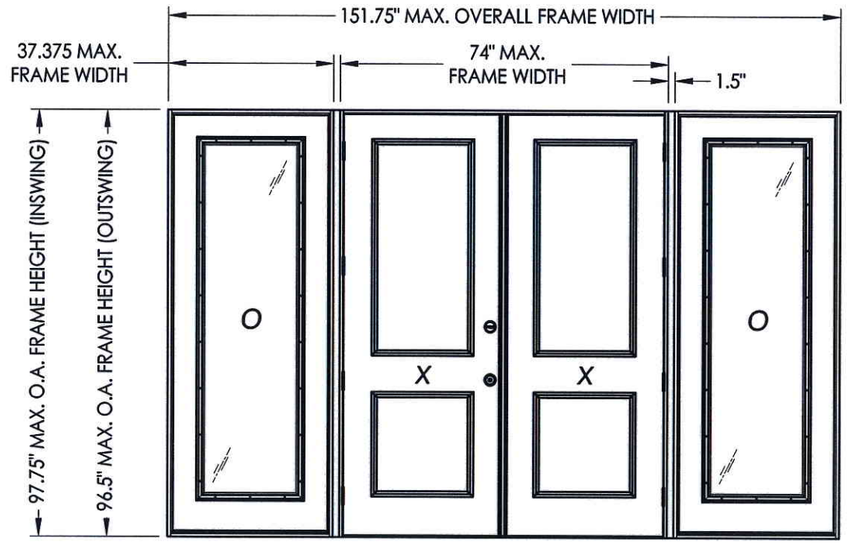
AFCO Millwork Products
11000 Green Valley Dr.
Olive Branch, MS 38654

Opaque Fiberglass Doors w/ or w/o Sidelites "Impact"

INSWING / OUTSWING





EVALUATED FOR USE IN THE STATE OF TEXAS

The 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, the opaque doors & sidelites do not require impact protection.
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	Door panel details
3	Sidelite panel details and glazing detail
4	Elevations
5	Horizontal cross sections
6	Vertical cross sections
7	Frame anchoring (XX)
8	Frame anchoring (OXXO)
9	Astragal details
10	Bill of materials and components

CONFIGURATION	MAX. FRAME DIMENSION	MAX. D.L.O. DIMENSION	SWING	DESIGN PRESSURE (PSF)	
				POSITIVE	NEGATIVE
XX	74.0" x 97.75"	N/A	INSWING	+40.0	-45.0
	74.0" x 96.5"		OUTSWING	+45.0	-45.0
OXXO	151.75" x 97.75"	20.5" x 78.25"	INSWING	+40.0	-45.0
	151.75" x 96.5"		OUTSWING	+45.0	-45.0

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER
5.22.13

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	BY

REVISIONS

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 1 OF 10

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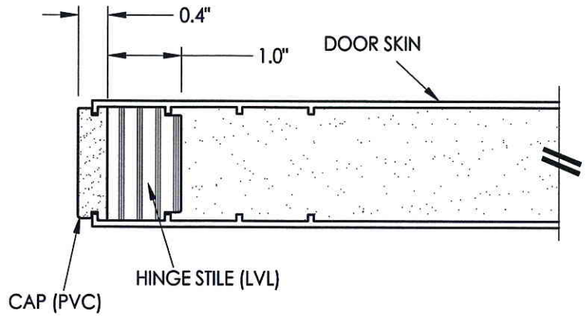
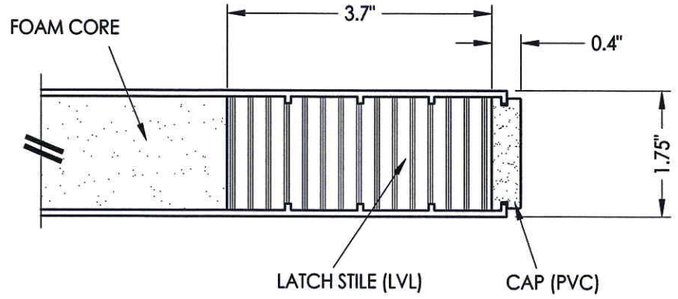
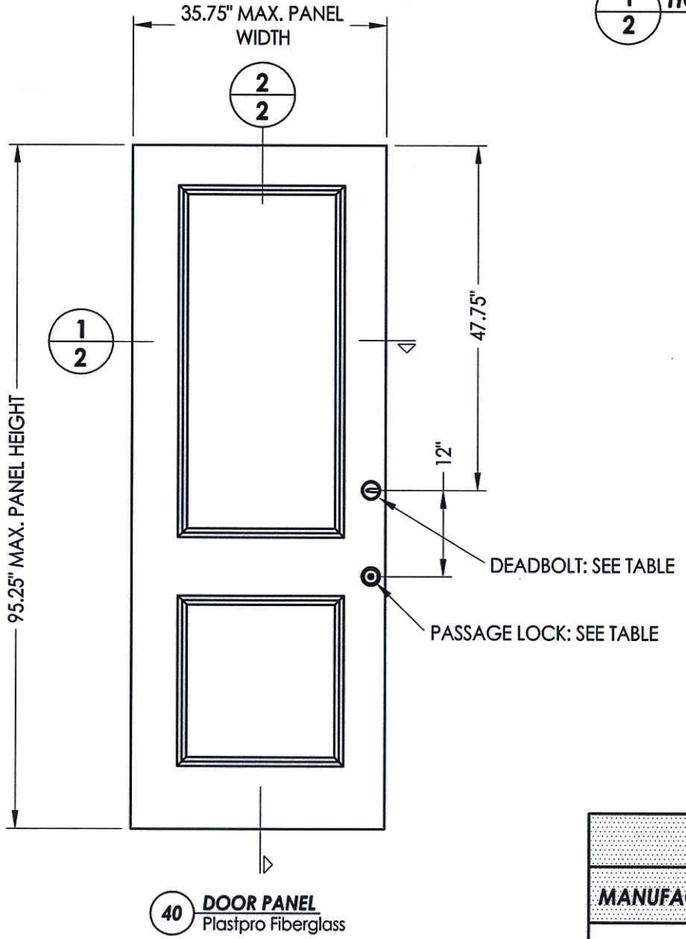




SECTION A-A

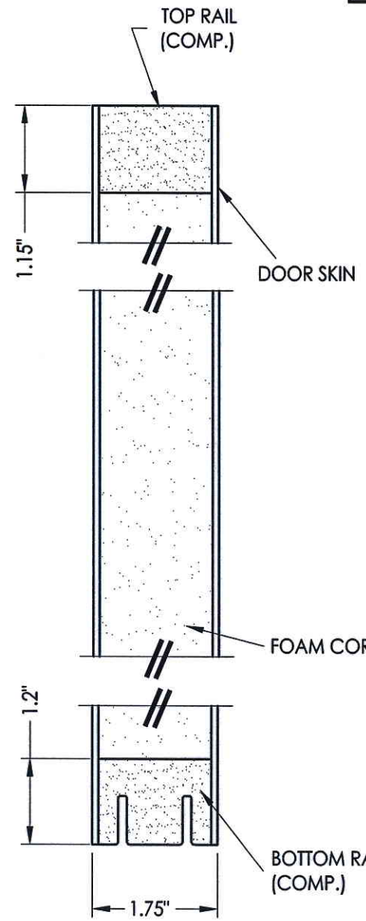
1/2 HORIZONTAL CROSS SECTION



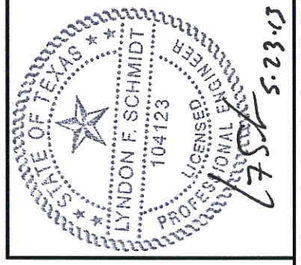
40 DOOR PANEL
Plastpro Fiberglass

FIBERGLASS DOOR SKIN: MIN. 0.130" THK.
CORE MATERIAL: POLYURETHANE FOAM (1.9 PCF MIN.)

HARDWARE TABLE	
MANUFACTURER	MODEL
SCHLAGE	KNOB: "F" SERIES (F51) DEADBOLT: "B" SERIES (B60/62)



2/2 VERTICAL CROSS SECTION



Documents Prepared By: Lyndon F. Schmidt, P.E.
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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: *DOOR PANEL DETAILS*

NO.	DATE	BY

REVISIONS

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 2 OF 10

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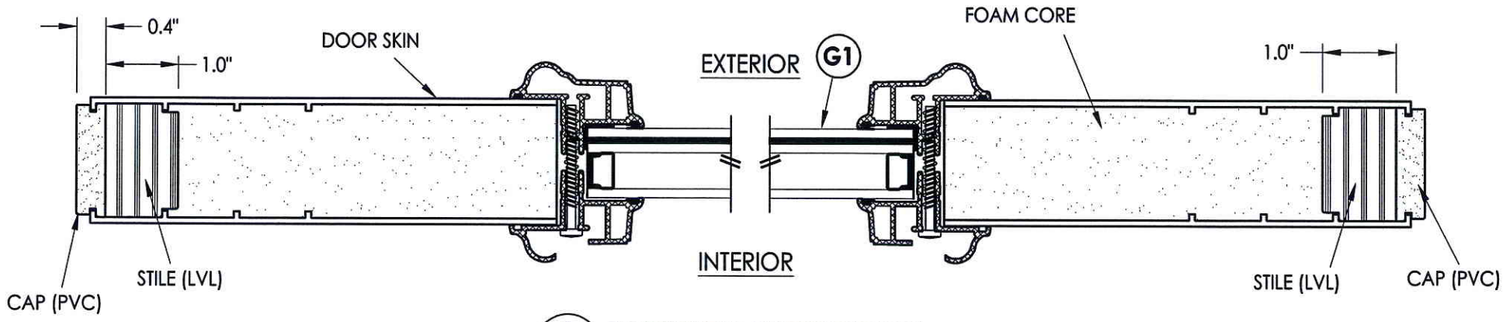
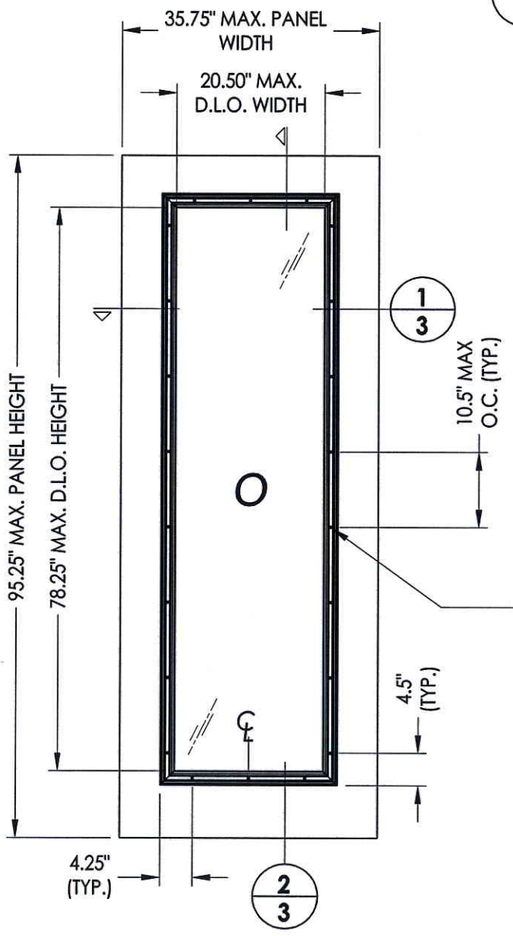
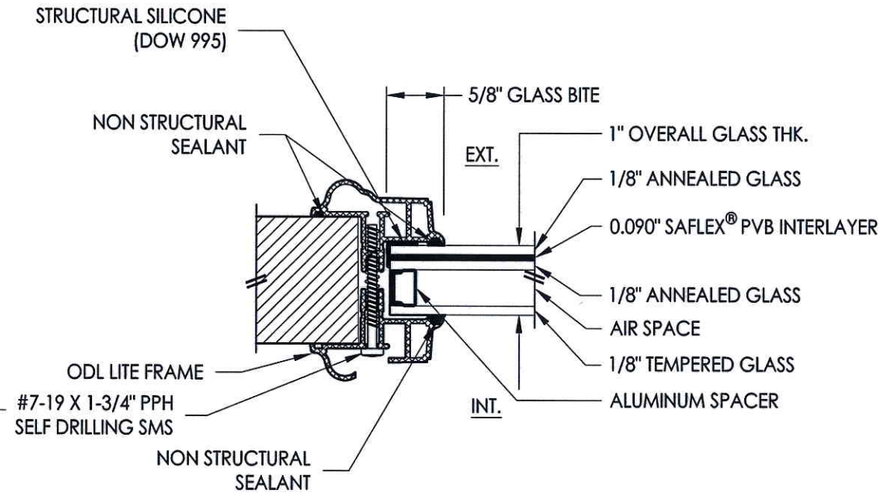


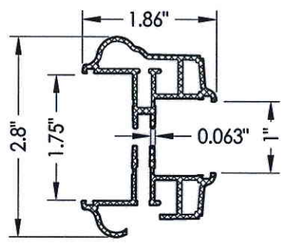
1/3 **HORIZONTAL CROSS SECTION**



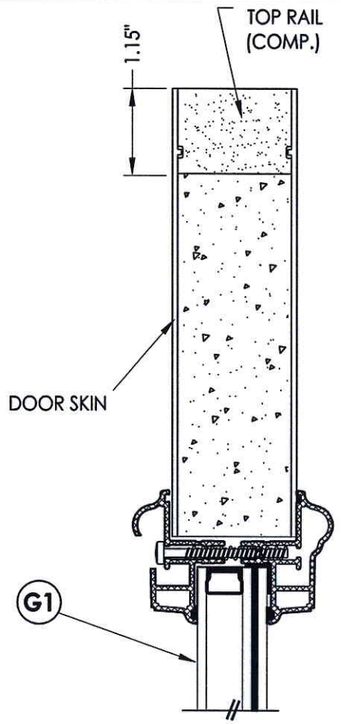
50 **SIDELITE PANEL**
Plastpro Fiberglass

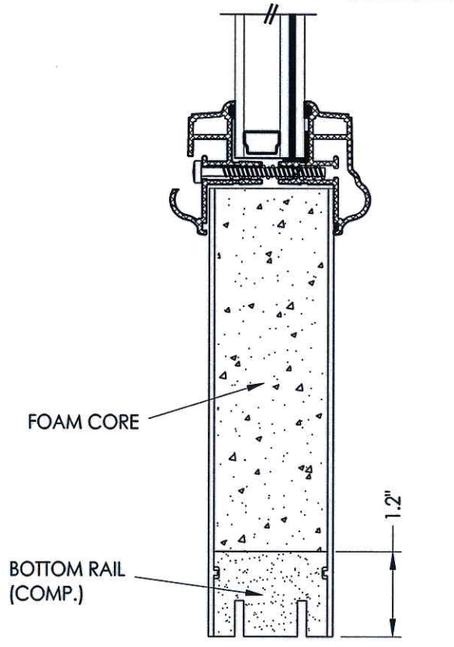


G1 **GLAZING DETAIL**



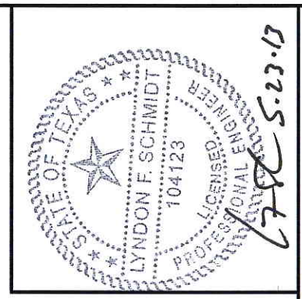
ODL LITE FRAME
Aluminum





2/3 **VERTICAL CROSS SECTION**

FIBERGLASS DOOR SKIN: MIN. 0.130" THK.
CORE MATERIAL: POLYURETHANE FOAM (1.9 PCF MIN.)



5.23.13

Documents Prepared By: Lyndon F. Schmidt, P.E.
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Phone No.: 813.659.9197
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: *FIBERGLASS DOOR*
PART OR ASSEMBLY: *SIDELITE PANEL DETAILS AND GLAZING DETAIL*

NO.	DATE	REVISIONS	BY

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 3 OF 10

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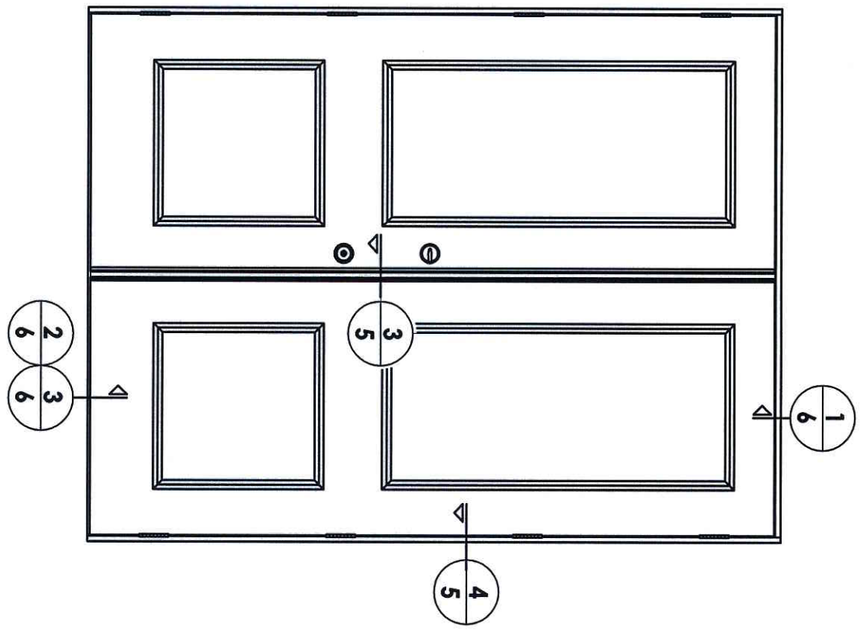
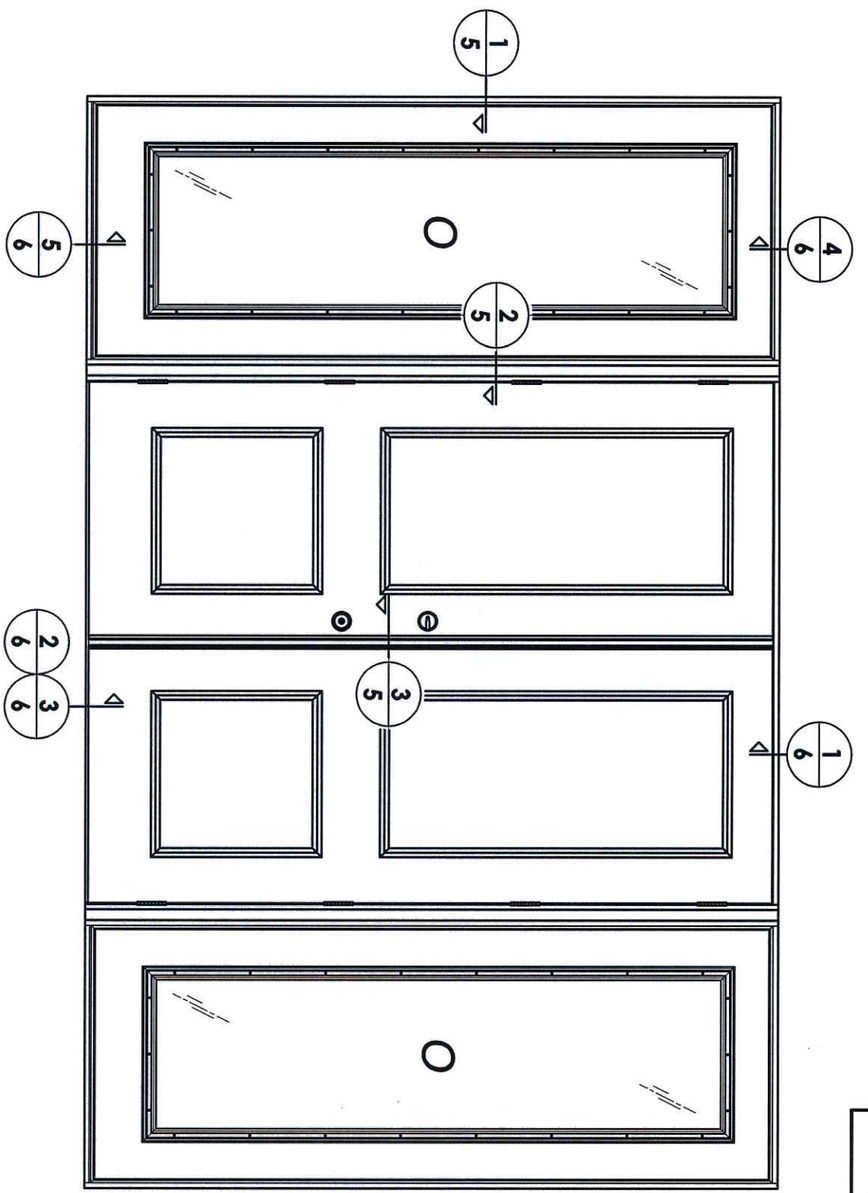
ELEVATION [XX]



ELEVATION [OXXO]



STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
5.27.13

SHEET	4 OF 10
DRAWING NO.:	TX-4327
CHK. BY:	LFS
DWG. BY:	JK
SCALE:	N.T.S.
DATE:	5/15/13

NO.	DATE		BY

REVISIONS

PRODUCT:
FIBERGLASS DOOR

PART OR ASSEMBLY:
ELEVATIONS

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

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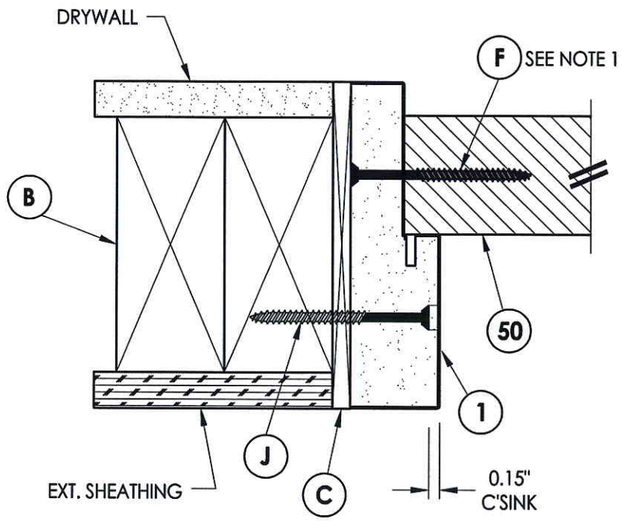
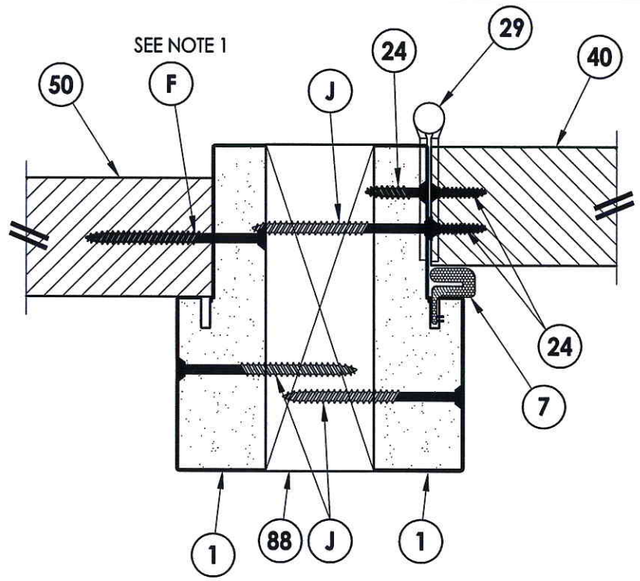


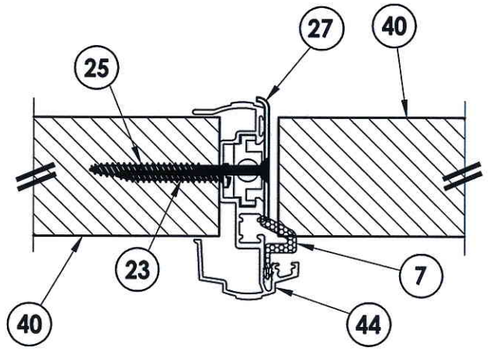
1/5 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved

INTERIOR

EXTERIOR



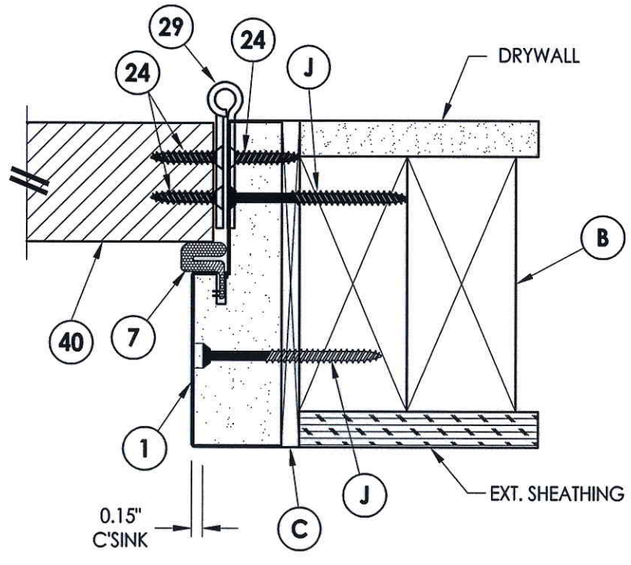
2/5 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved



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

INTERIOR

EXTERIOR



4/5 HORIZONTAL CROSS SECTION
Inswing shown - Outswing also approved

Note:
1. Sidelite assembly screws located 6" from each end plus 5 more equally spaced (7 total).

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · PROFESSIONAL ENGINEER · 5-22-13

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: HORIZONTAL CROSS SECTIONS

NO.	DATE	BY
	REVISIONS	

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 5 OF 10

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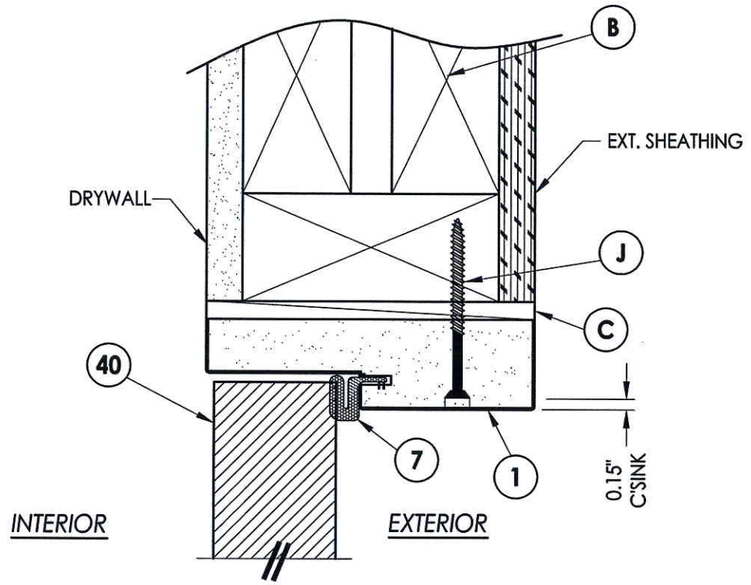
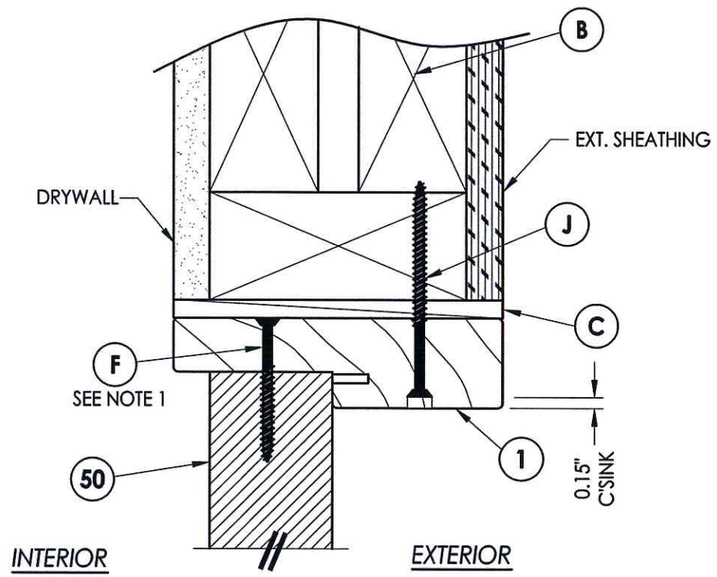
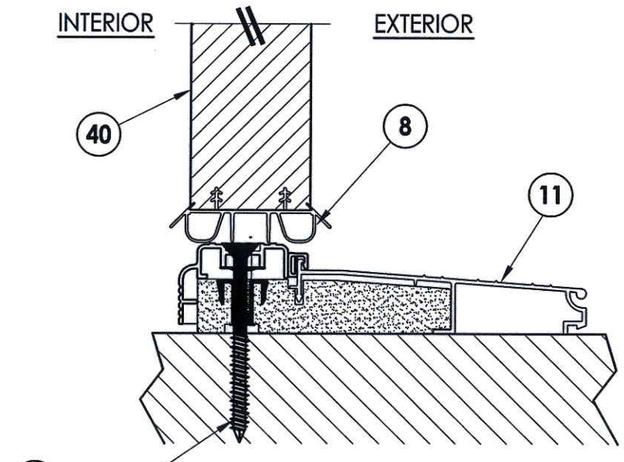


1/6 VERTICAL CROSS SECTION
Inswing shown - Outswing also approved

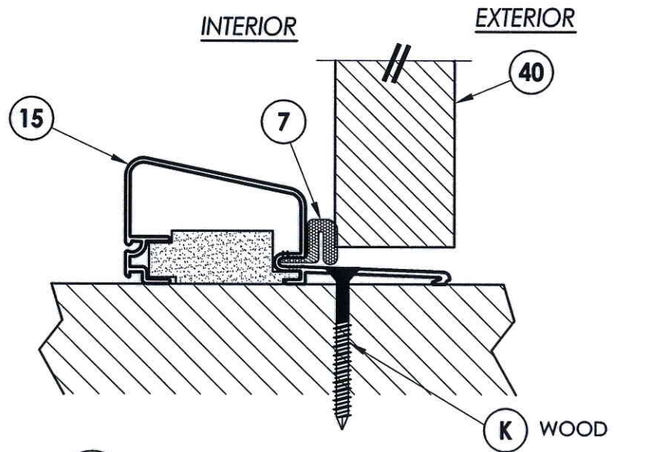


4/6 VERTICAL CROSS SECTION
Inswing shown - Outswing also approved

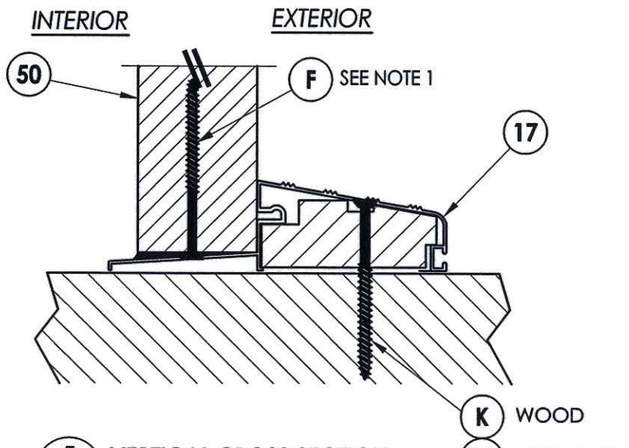
Note:
1. Sidelite assembly screws located 3" from each end and one at centerline (3 total).



2/6 VERTICAL CROSS SECTION
Inswing Sill



3/6 VERTICAL CROSS SECTION
Outswing Sill



5/6 VERTICAL CROSS SECTION
Inswing/Outswing configuration

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

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 6 OF 10

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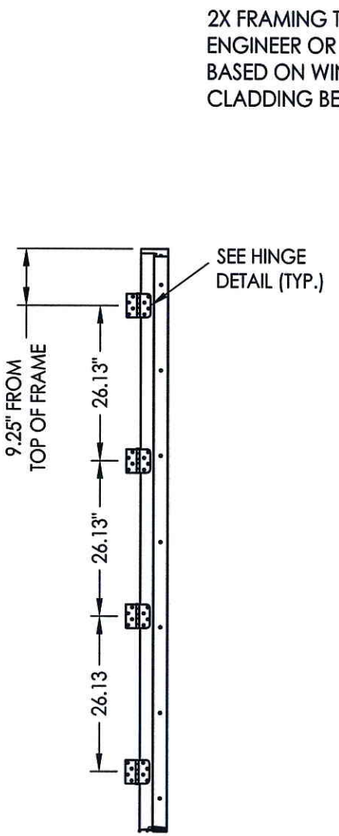
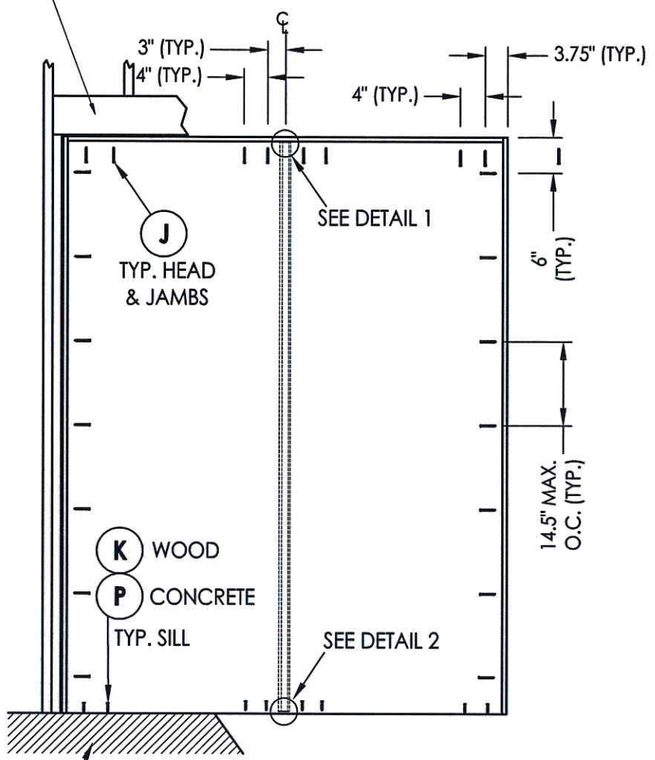
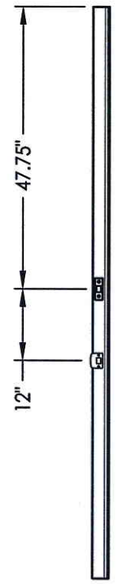


HINGE JAMB



FRAME ANCHORING

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

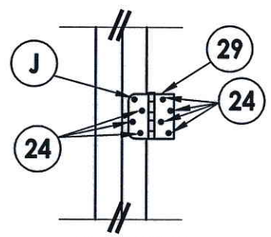


ASTRAGAL STRIKE JAMB

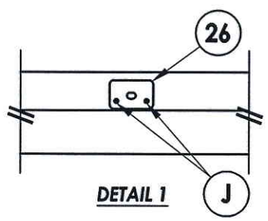
CONCRETE ANCHOR NOTES:

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:*

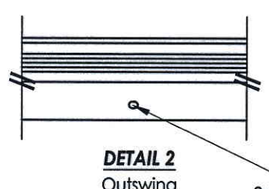
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	1-1/2"	4"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



HINGE DETAIL

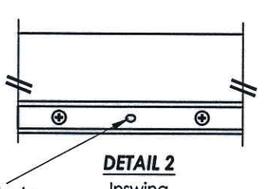


DETAIL 1



DETAIL 2
Outswing

3/8" dia. hole



DETAIL 2
Inswing

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
5-23-13

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: *FRAME ANCHORING (XX)*

NO.	DATE	BY	REVISIONS

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 7 OF 10

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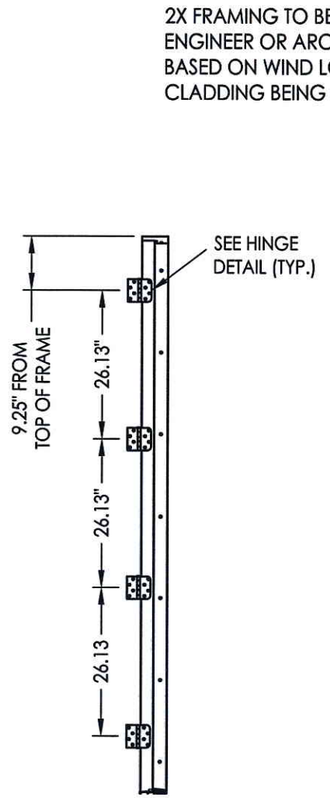
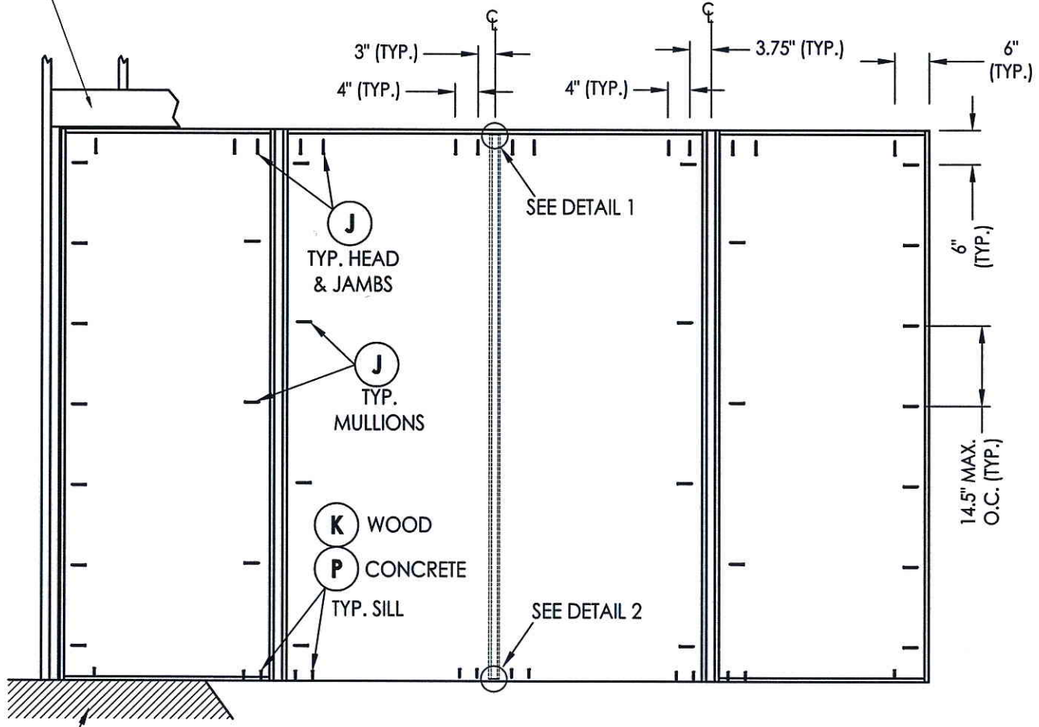


HINGE JAMB



FRAME ANCHORING

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

ASTRAGAL STRIKE JAMB

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.*
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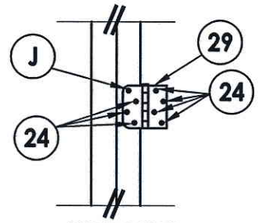
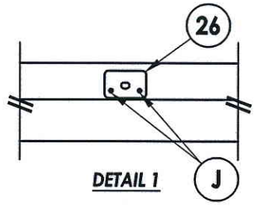
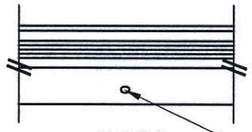


HINGE DETAIL

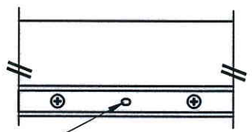


DETAIL 1



DETAIL 2
Outswing

3/8" dia. hole



DETAIL 2
Inswing

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: *FRAME ANCHORING (OXXO)*

NO.	DATE	REVISIONS	BY

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 8 OF 10

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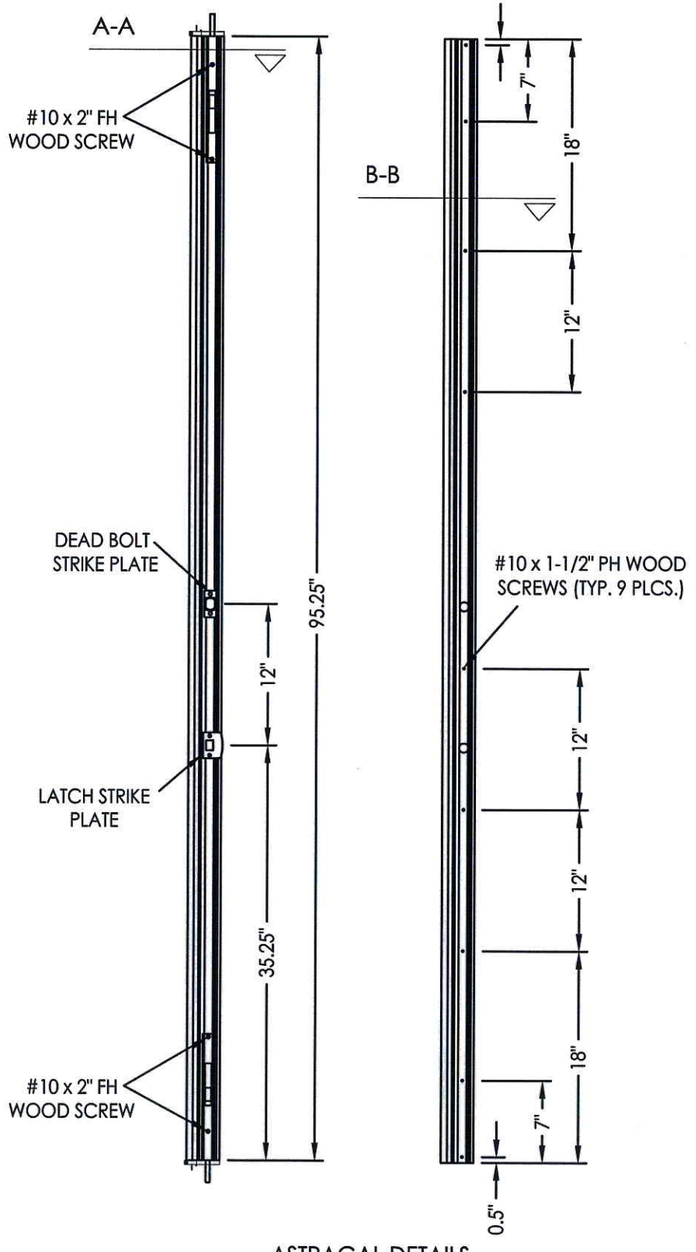
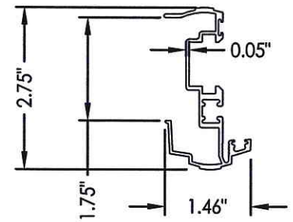
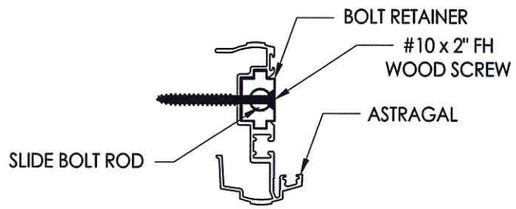


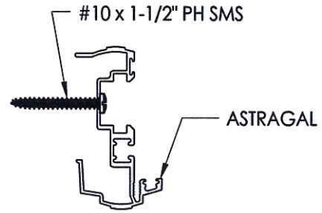
ASTRAGAL DETAILS



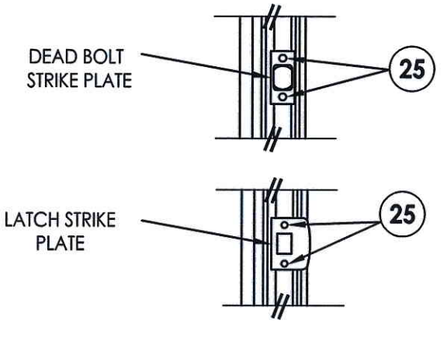
44 ***ASTRAGAL by AFCO***
Aluminum



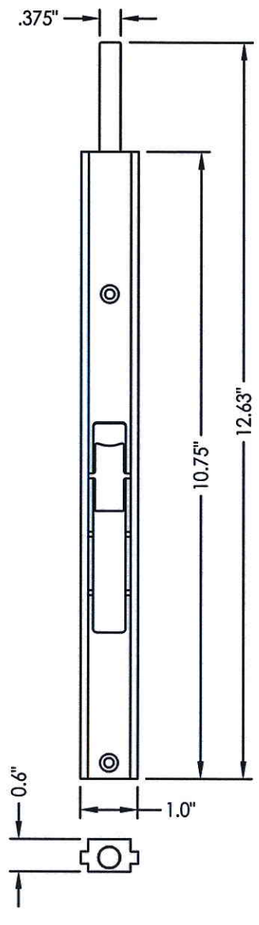
SECTION A-A
Astragal Assembly



SECTION B-B
Astragal Assembly



LATCH & DEAD BOLT DETAIL



SLIDE BOLT ASSEMBLY
Aluminum

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
5.23.13

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

PRODUCT: *FIBERGLASS DOOR*

PART OR ASSEMBLY: *ASTRAGAL DETAILS*

NO.	DATE	REVISIONS	BY

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4327
SHEET 9 OF 10

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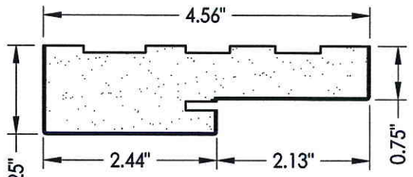
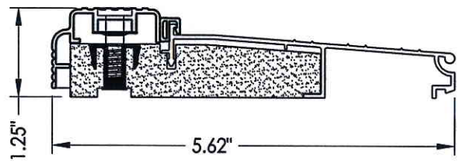
BILL OF MATERIALS

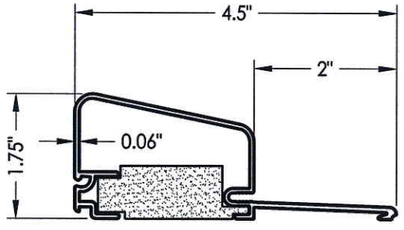
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#9 X 2-1/2" PFH WOOD SCREW	STEEL
J	#10 X 2-1/2" PFH WOOD SCREW	STEEL
K	#10 PFH WOOD SCREW (1-1/2" MIN. EMB.)	STEEL
P	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
1	JAMB - POLY FIBER	POLY FIBER
7	WEATHERSTRIP (QLON)	FOAM
8	SWEEP	VINYL
11	INSWING THRESHOLD	ALUM/COMP
15	OUTSWING THRESHOLD	ALUM/COMP
17	OUTSWING THRESHOLD	ALUM/WOOD
23	#10 X 1-1/2" PH SMS	STEEL
24	#10 x 1" PFH WOOD SCREW	STEEL
25	#8 X 2-1/2" PFH WOOD SCREW	STEEL
26	ASTRAGAL STRIKE PLATE	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4" X 4" HINGE	STEEL
40	DOOR PANEL	-
44	ASTRAGAL (AFCO)	ALUM
50	SIDELITE PANEL	-
88	2X MULLION (SG >= 0.55)	WOOD



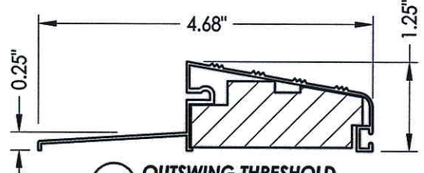
1 **POLY FIBER JAMB**



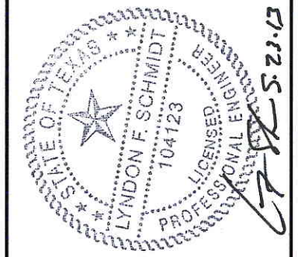
11 **INSWING THRESHOLD**
AFCO A-280



15 **OUTSWING THRESHOLD**
AFCO H-497



17 **OUTSWING THRESHOLD**
DLP (QOSH)



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

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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: BILL OF MATERIALS & COMPONENTS

NO.	DATE	BY	REVISIONS

DATE: 5/15/13
SCALE: N.T.S.
DWG. BY: JK
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DRAWING NO.: TX-4327
SHEET 10 OF 10

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