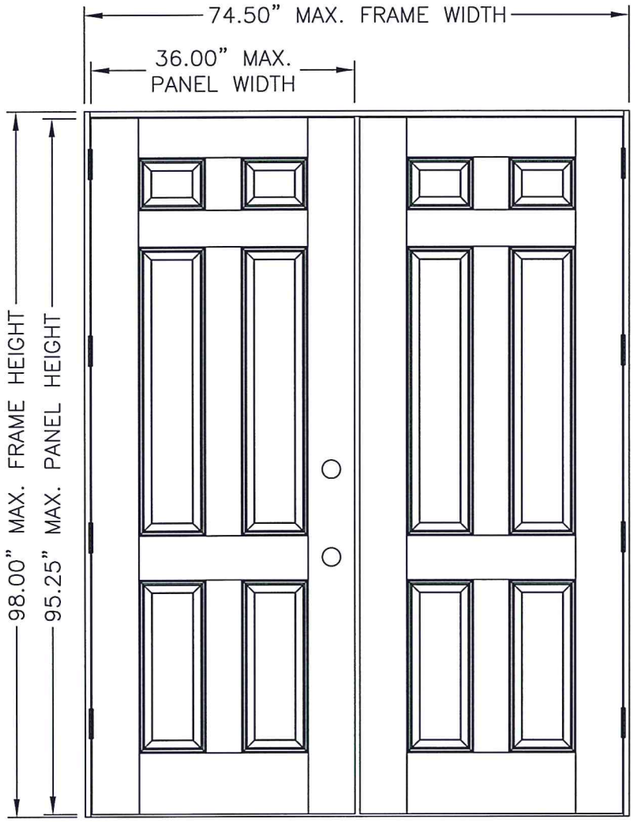
THERMA TRU®
118 INDUSTRIAL DR., EDGERTON, OH 43517
TEL. (419)298-1740

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

DOUBLE "IMPACT" DOOR
INSWING / OUTSWING



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

EVALUATED FOR USE IN THE STATE OF TEXAS

The Fiberglass Glazed 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. This system has been tested and evaluated as a large missile impact protective system for installation in the Seaward, Inland I and Inland II areas. 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.

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DOOR TYPE	SWING	OVERALL FRAME DIMENSION	DESIGN PRESSURE	
			POSITIVE	NEGATIVE
CLASSIC CRAFT	OUTSWING	74.50" X 96.50"	+65.0	−65.0
	INSWING	74.50" X 98.00"	+65.0	−65.0
FIBER CLASSIC	OUTSWING	74.50" X 96.50"	+65.0	−65.0
	INSWING	74.50" X 98.00"	+65.0	−65.0
SMOOTH STAR	OUTSWING	74.50" X 96.50"	+65.0	−65.0
	INSWING	74.50" X 98.00"	+65.0	−65.0
CLASSIC CRAFT RUSTIC	OUTSWING	74.50" X 96.50"	+65.0	−65.0
	INSWING	74.50" X 98.00"	+65.0	−65.0

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER
7-22-12

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: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 1 OF 10

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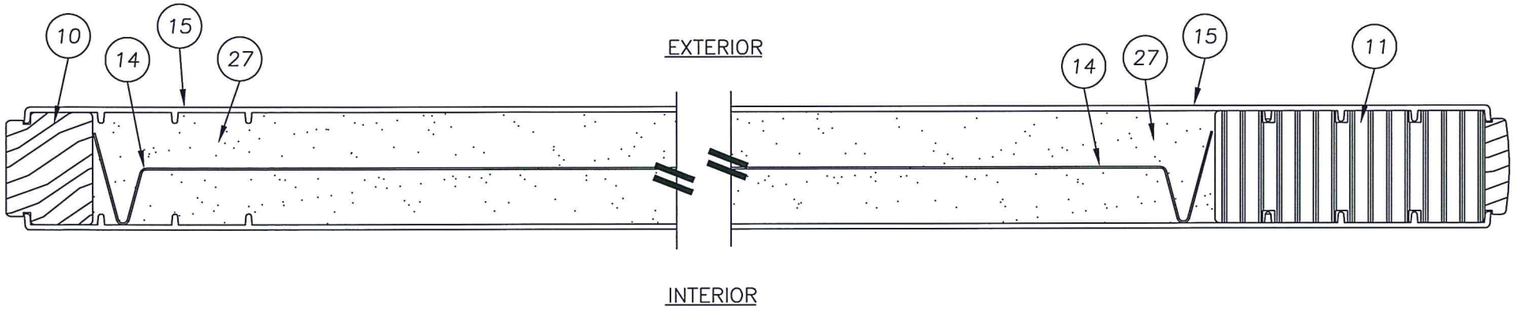
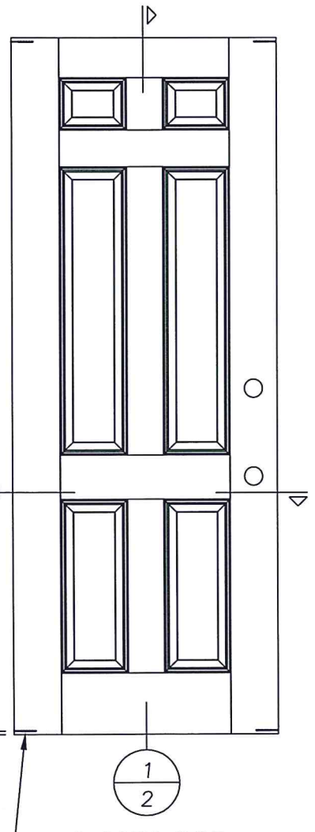
...Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 601 - 80 Opaque FG Imp IS - OS Sgls Dbls w-wo Imp SL\C - Drawings\Current\TX-4175-83.dwg, TX-4176

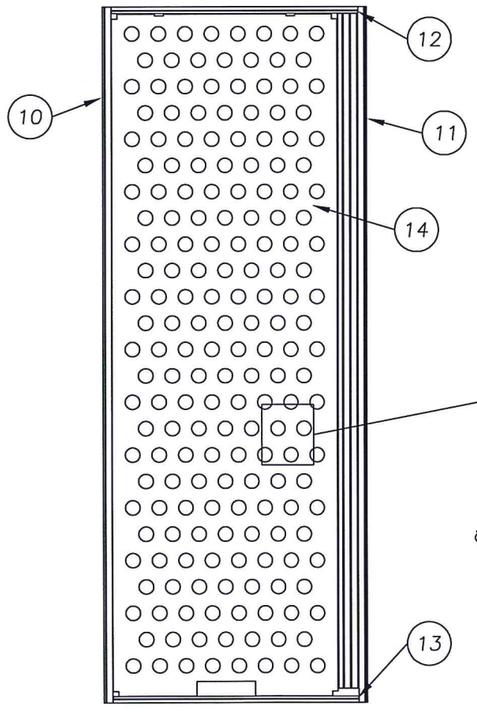


2/2 HORIZONTAL CROSS SECTION
SMOOTH STAR

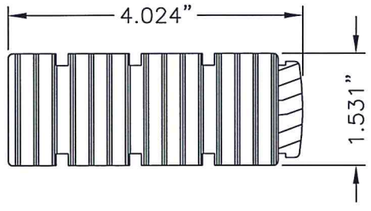


SMOOTH STAR

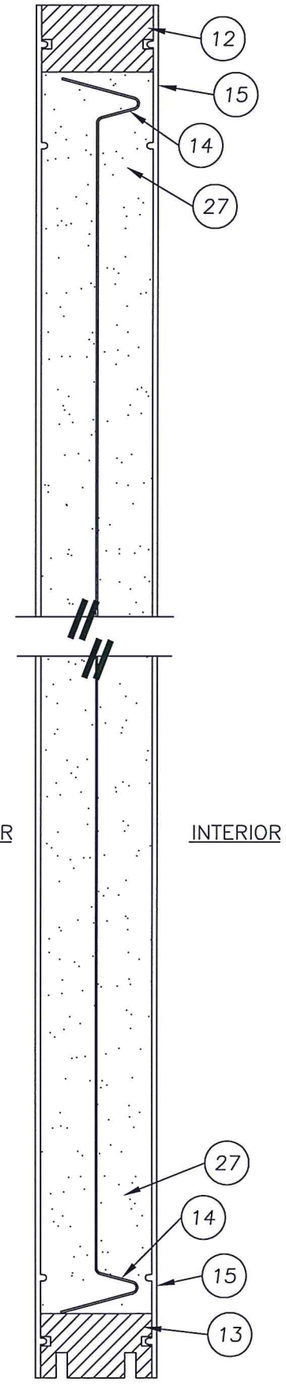
32 TYP. 4 CORNERS OF PANEL



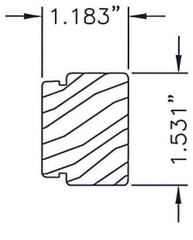
28.86% OPEN AREA MAX.



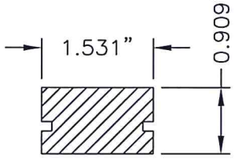
11 LOCK STILE
SMOOTH STAR



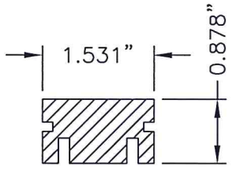
1/2 VERTICAL CROSS SECTION
SMOOTH STAR



10 HINGE STILE
SMOOTH STAR



12 TOP RAIL
SMOOTH STAR



13 BOTTOM RAIL
SMOOTH STAR

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Phone No.: 813.659.9197

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

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: DOOR PANEL DETAILS (SMOOTH STAR)

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 2 OF 10

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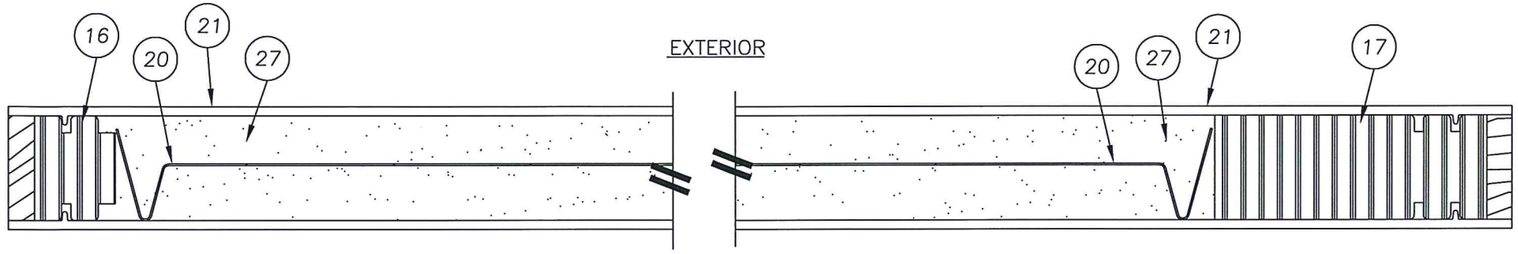
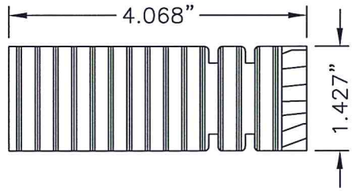
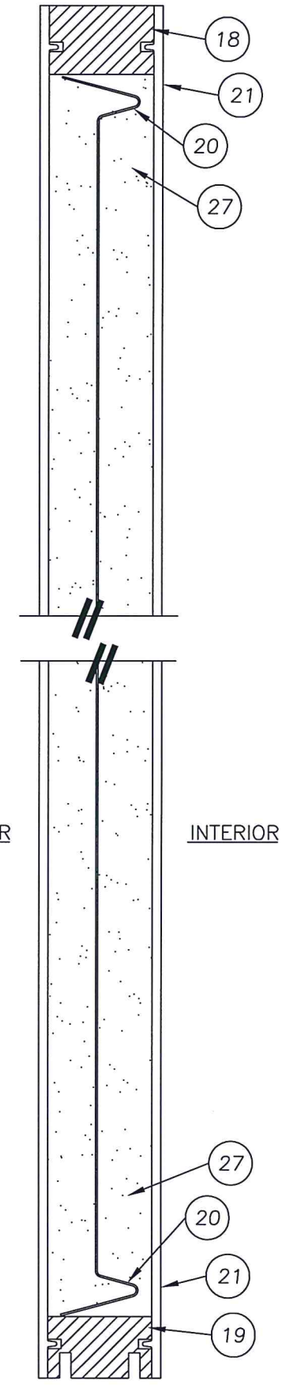
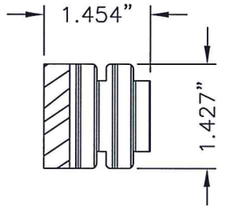


2/3 HORIZONTAL CROSS SECTION
CLASSIC CRAFT

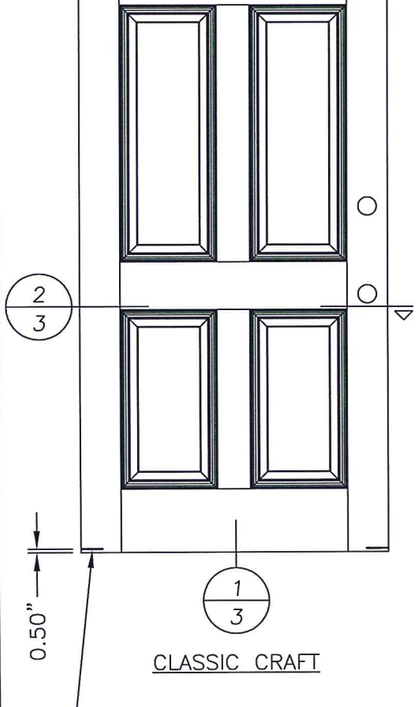


17 LOCK STILE
CLASSIC CRAFT



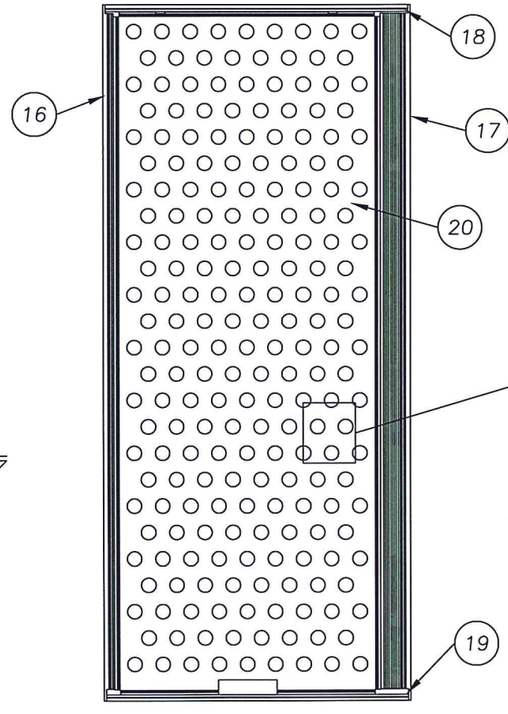


16 HINGE STILE
CLASSIC CRAFT

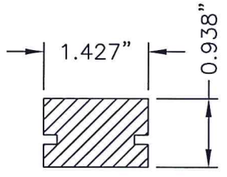


CLASSIC CRAFT

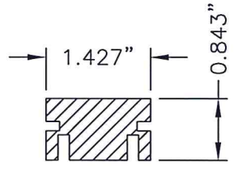
TYP. 4 CORNERS OF PANEL (32)



28.86% OPEN AREA MAX.



18 TOP RAIL
CLASSIC CRAFT



19 BOTTOM RAIL
CLASSIC CRAFT

1/3 VERTICAL CROSS SECTION
CLASSIC CRAFT

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

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC CRAFT)

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 3 OF 10

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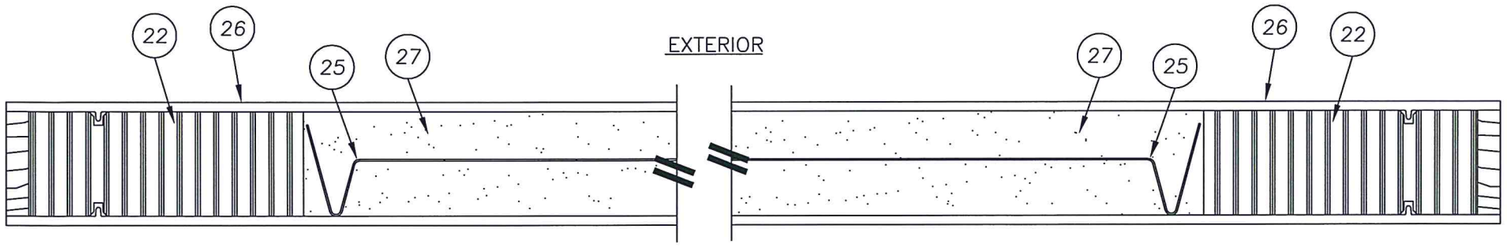
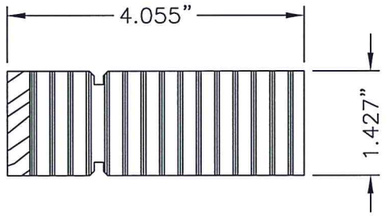
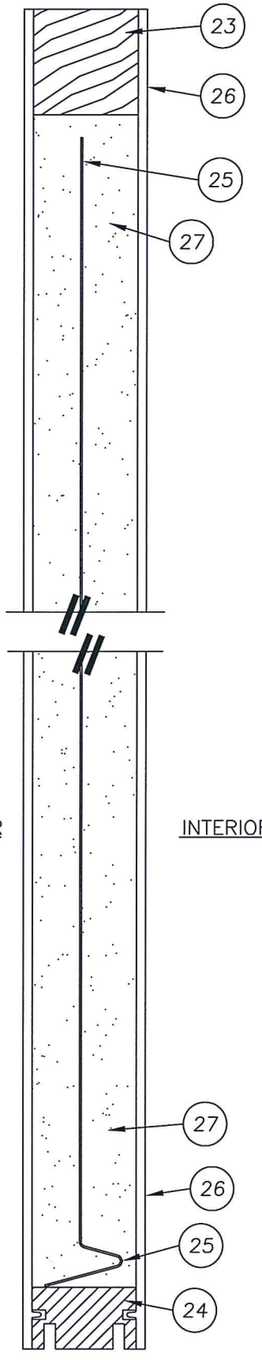
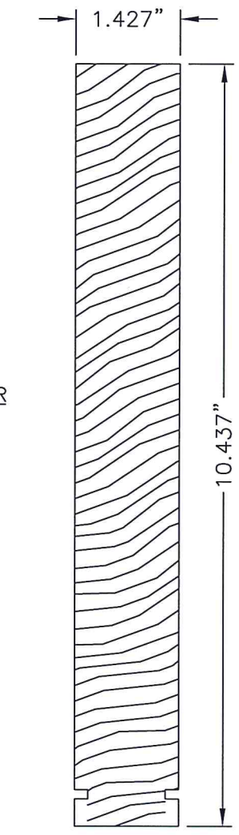


2/4 HORIZONTAL CROSS SECTION
CLASSIC CRAFT RUSTIC

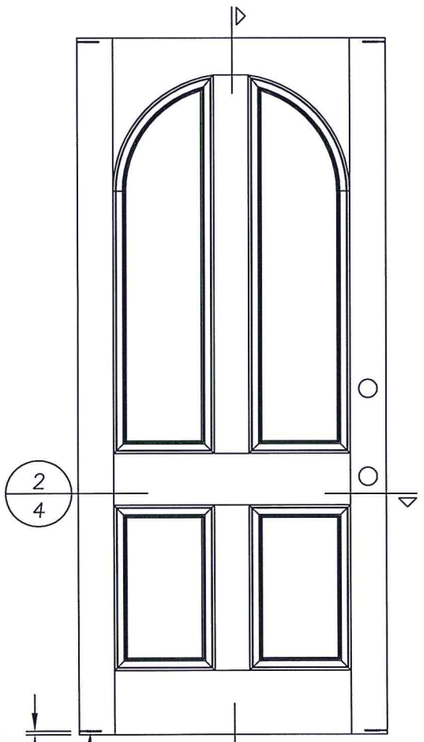


22 LOCK & HINGE STILE
CLASSIC CRAFT RUSTIC



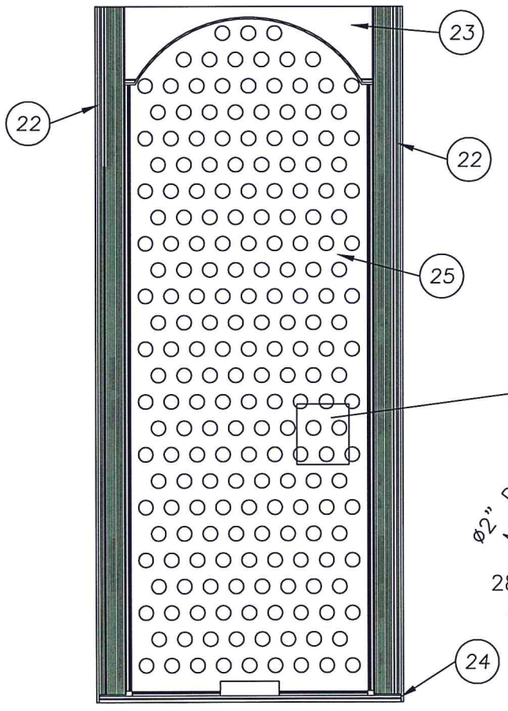


23 TOP RAIL
CLASSIC CRAFT RUSTIC

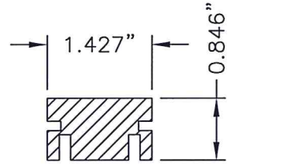


CLASSIC CRAFT RUSTIC

32 TYP. 4 CORNERS OF PANEL



28.86% OPEN AREA MAX.



24 BOTTOM RAIL
CLASSIC CRAFT RUSTIC

1/4 VERTICAL CROSS SECTION
CLASSIC CRAFT RUSTIC

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

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC CRAFT RUSTIC)

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 4 OF 10

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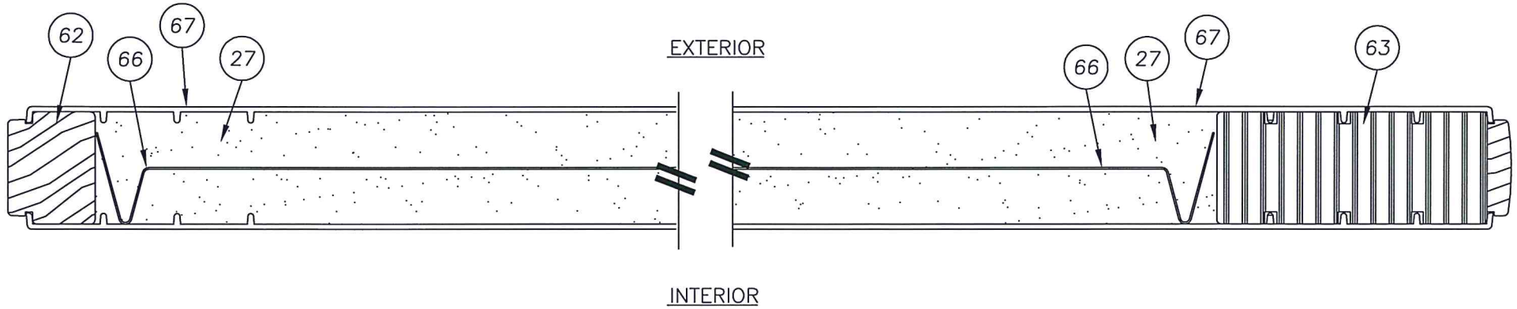
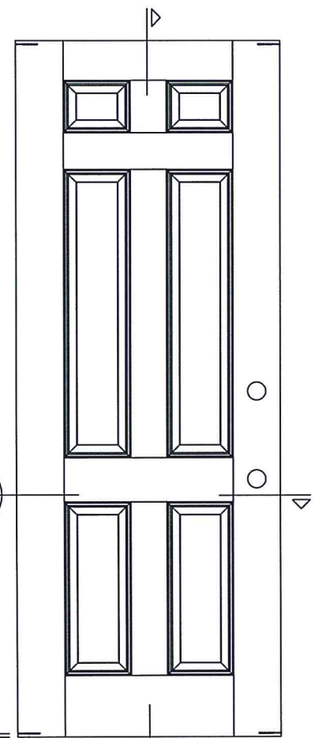
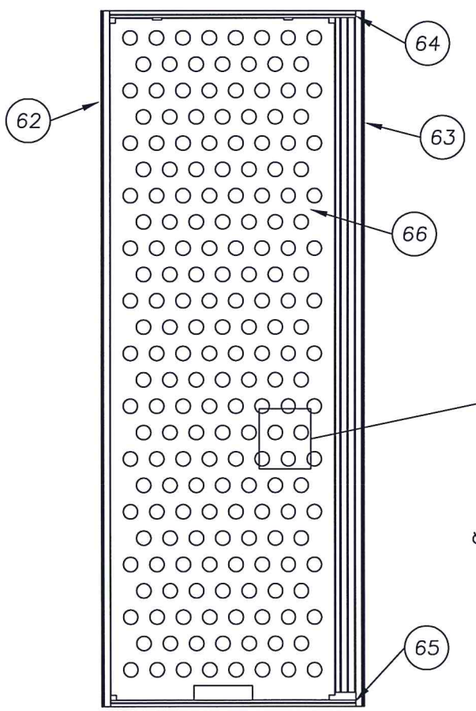


2/5 HORIZONTAL CROSS SECTION
FIBER CLASSIC

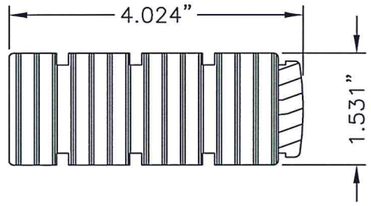


FIBER CLASSIC

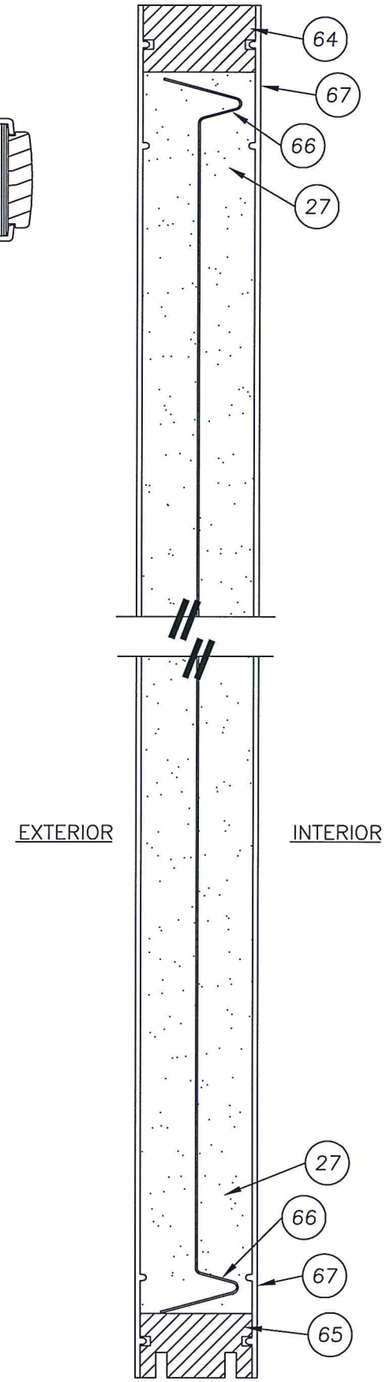
32 TYP. 4 CORNERS OF PANEL



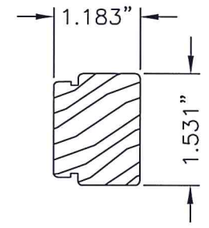
28.86% OPEN AREA MAX.



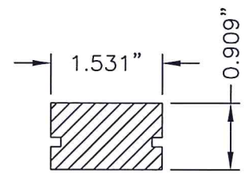
63 LOCK STILE
FIBER CLASSIC



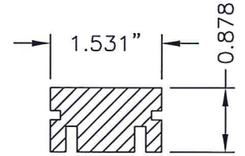
1/5 VERTICAL CROSS SECTION
FIBER CLASSIC



62 HINGE STILE
FIBER CLASSIC



64 TOP RAIL
FIBER CLASSIC



65 BOTTOM RAIL
FIBER CLASSIC

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: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OF ASSEMBLY:

DOOR PANEL DETAILS (FIBER CLASSIC)

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 5 OF 10

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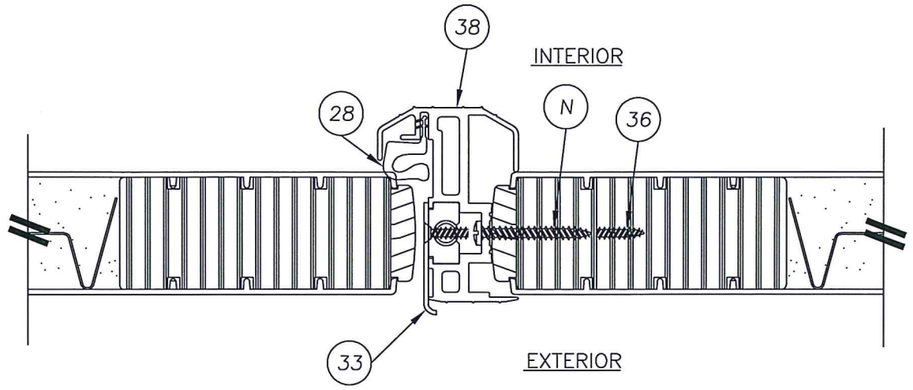
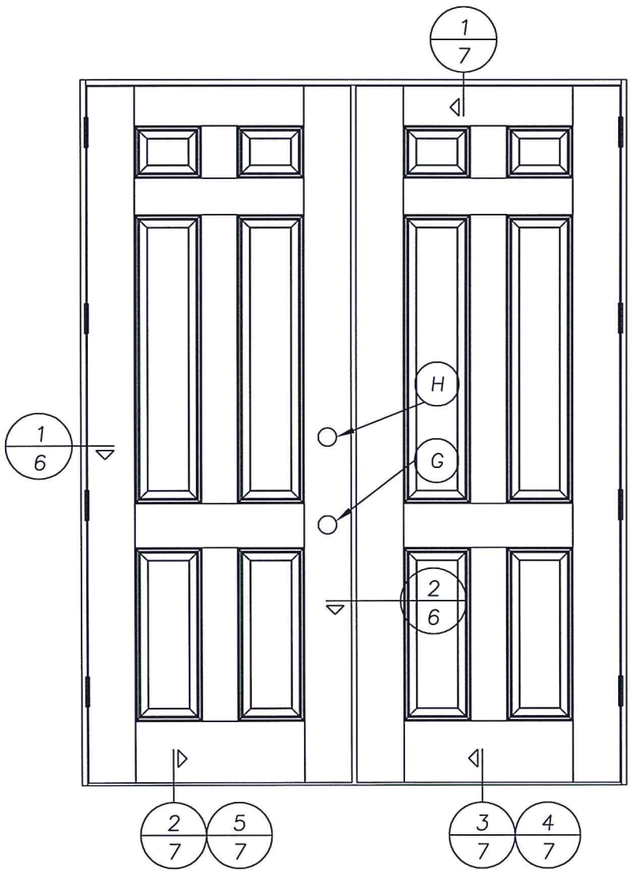
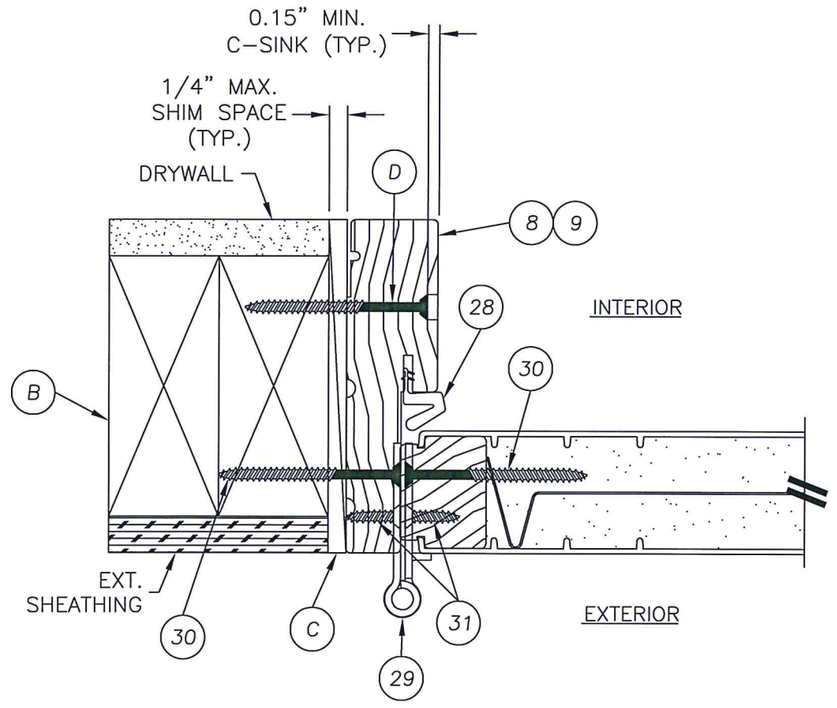


2/6 HORIZONTAL CROSS SECTION
OUTSWING SHOWN (INSWING ALSO APPROVED)
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES





1/6 HORIZONTAL CROSS SECTION
OUTSWING SHOWN (INSWING ALSO APPROVED)
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER

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

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 6 OF 10

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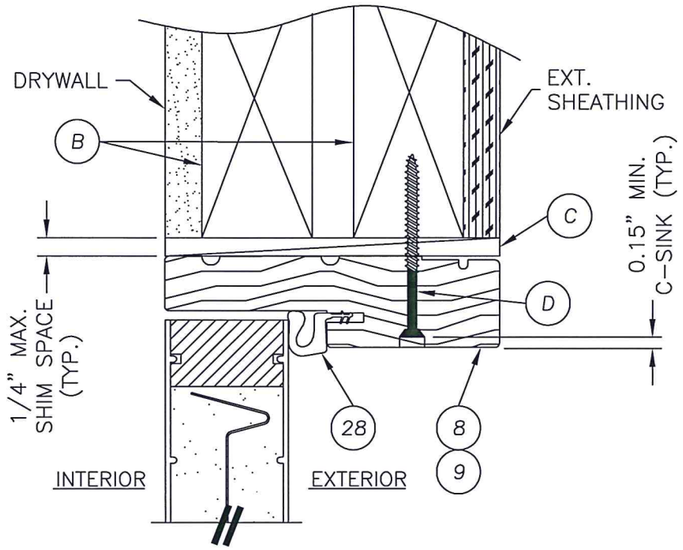
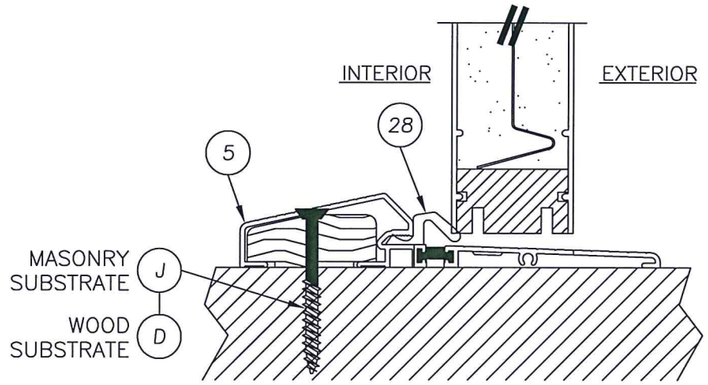
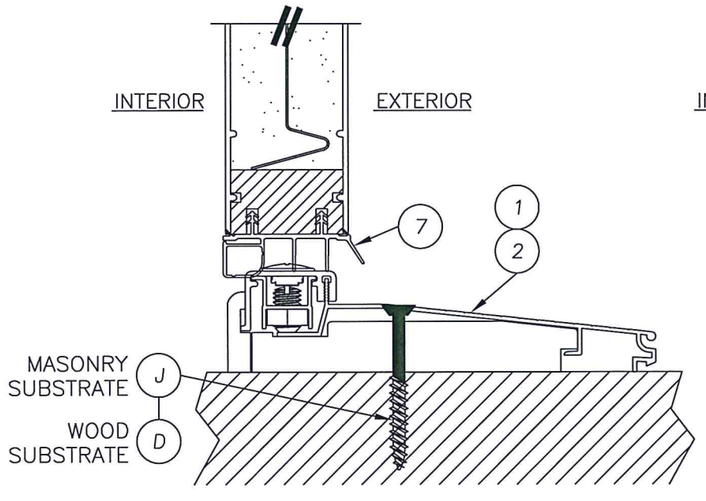
Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 601 - 80 Opaque FG Imp IS - OS Sgls Dbls w-wo Imp SL\C - Drawings\Current\TX-4175-83.dwg, XX6



1/7 VERTICAL CROSS SECTION
INSWING SHOWN (OUTSWING ALSO APPROVED)
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR OPTIONAL PANEL TYPES



2/7 VERTICAL CROSS SECTION
@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR OPTIONAL PANEL TYPES



3/7 VERTICAL CROSS SECTION
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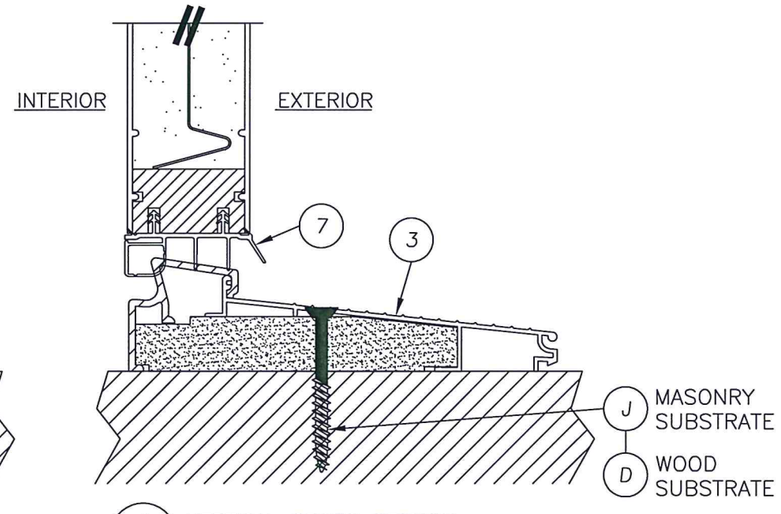
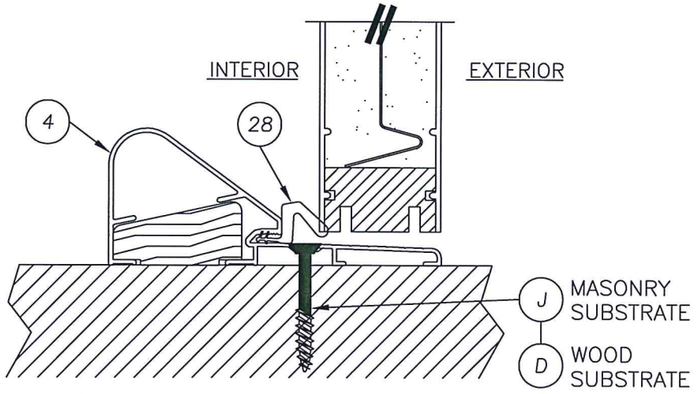
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR OPTIONAL PANEL TYPES



4/7 VERTICAL CROSS SECTION
@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR OPTIONAL PANEL TYPES



5/7 VERTICAL CROSS SECTION
@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR OPTIONAL PANEL TYPES

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

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: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 7 OF 10

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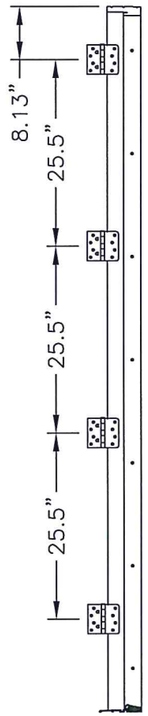
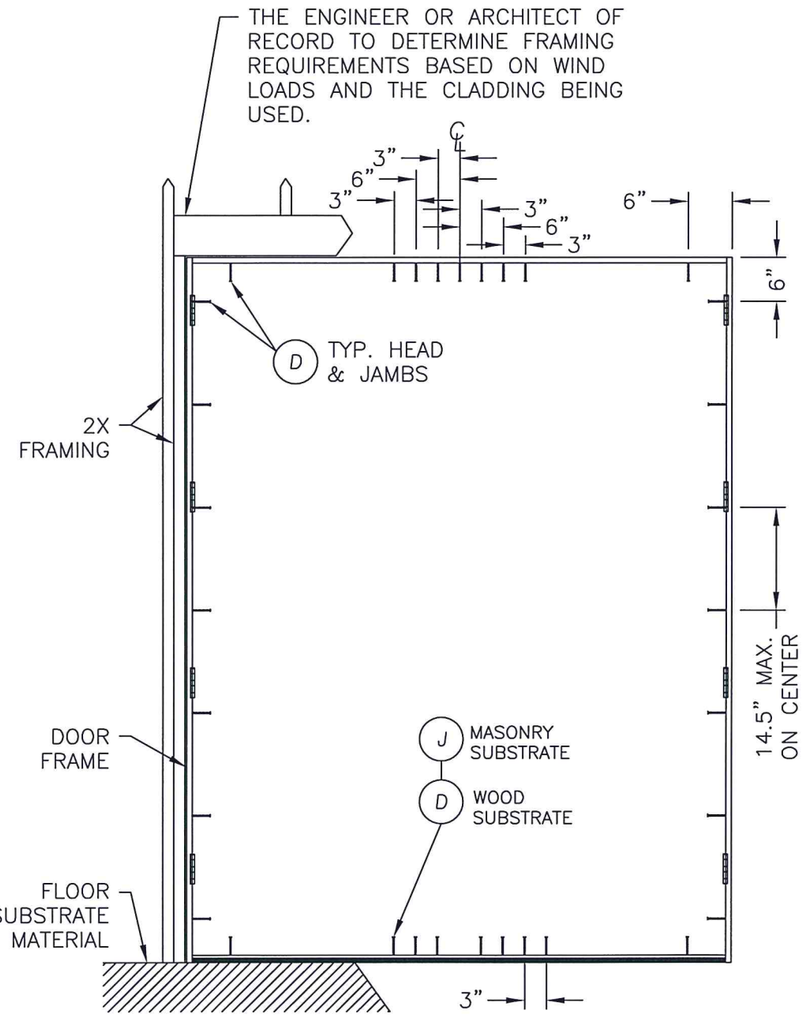


HINGE DETAIL

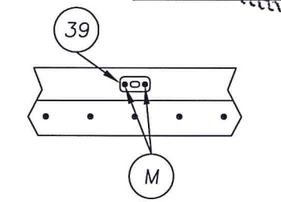


FRAME ANCHORING

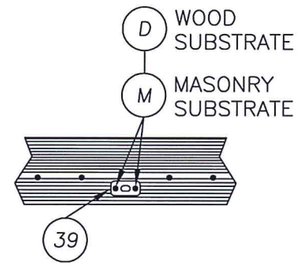
CONCRETE ANCHOR NOTES:

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:*

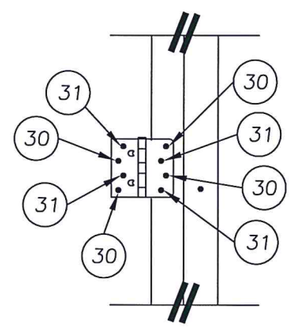
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	3/16" 1/4"	1-3/4" 1-3/4"	2-5/8" 2-1/2"	1-1/8" 3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



ASTRAGAL STRIKE PLATE @ HEAD



ASTRAGAL STRIKE PLATE @ THRESHOLD



HINGE DETAIL

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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: *DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING*

PART OR ASSEMBLY: *FRAME ANCHORING*

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 8 OF 10

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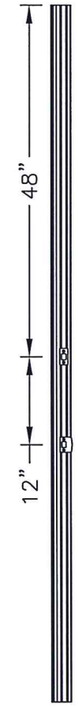
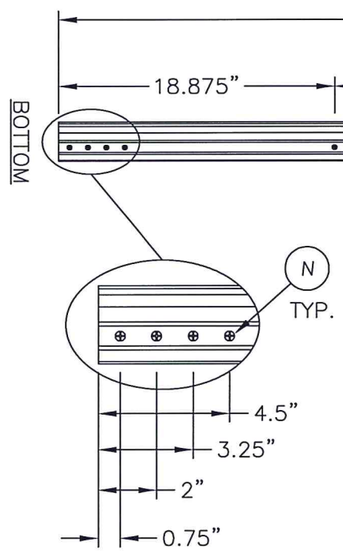
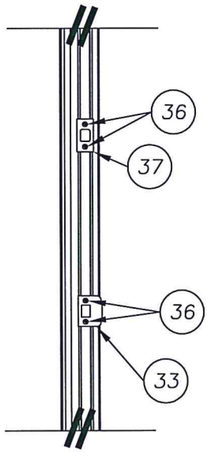
Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 601 - 80 Opaque FG Imp IS - OS Sgls Dbls w-wo Imp SL\C - Drawings\Current\TX-4175-83.dwg, XX8

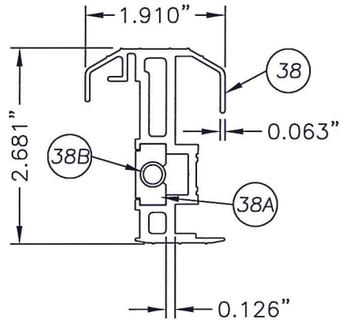


STRIKE PLATE
LOCATION

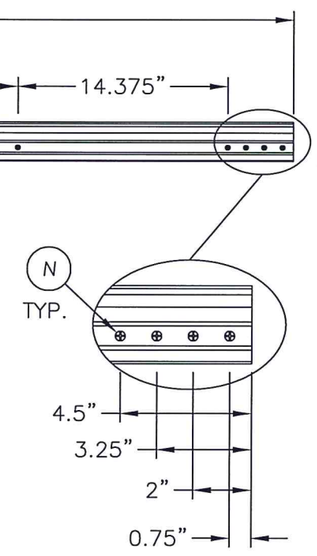




STRIKE PLATE DETAIL



38 ASTRAGAL DETAIL



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

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER

7.22.15

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: ASTRAGAL DETAILS

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 9 OF 10

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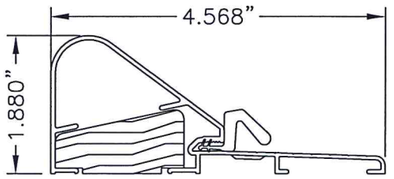
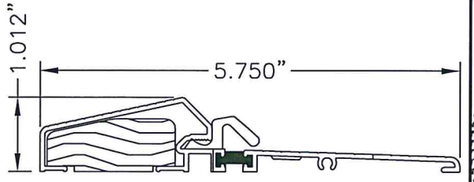
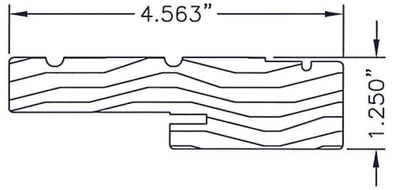


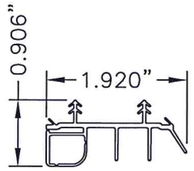
4 THRESHOLD
OUTSWING COASTAL



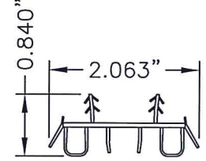
5 THRESHOLD
OUTSWING STANDARD



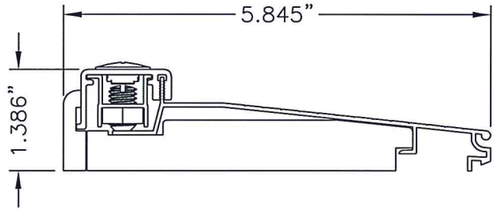
9 8 JAMB



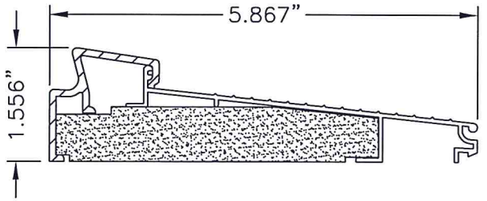
7 SWEEP



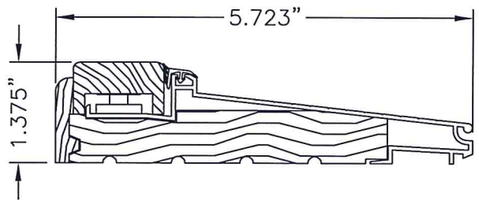
52 SWEEP



2 THRESHOLD
INSWING ADJUSTABLE



3 THRESHOLD
INSWING SELF-ADJUST



1 THRESHOLD
INSWING ADJUSTABLE

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
B	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	WOOD
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
G	KWIKSET 200 SERIES PASSAGE LOCK	STEEL
H	KWIKSET 600 SERIES DEADBOLT	STEEL
K	3/16" ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
M	#8 X 3" PFH SCREW (STRIKE PLATES @ HEAD & SILL)	STEEL
N	#10 X 1-1/2" PPH SCREW ASTRAGAL TO PANEL	STEEL
1	INSWING ADJUSTABLE THRESHOLD (IS300AJ)	ALUM./WOOD
2	INSWING THRESHOLD (IS300HP5)	ALUM./COMP.
3	INSWING SELF ADJUST THERMAL BREAK THRESHOLD (ISP30M)	ALUM./COMP.
4	OUTSWING COASTAL THRESHOLD	ALUM./WOOD
5	OUTSWING STANDARD THRESHOLD	ALUM./WOOD
7	DOOR BOTTOM SWEEP	VINYL
8	JAMB (OAK)	WOOD
9	JAMB (PINE)	WOOD
10	HINGE STILE (SMOOTH STAR)	WOOD
11	LOCK STILE (SMOOTH STAR)	LVL/WOOD
12	TOP RAIL (SMOOTH STAR)	PVC
13	BOTTOM RAIL (SMOOTH STAR)	PVC
14	PANEL REINFORCEMENT 0.023" THK. (SMOOTH STAR)	STEEL
15	DOOR SKIN 0.070" THK. (SMOOTH STAR) Fy = 6,000 PSI MIN.	FIBERGLASS
16	HINGE STILE (CLASSIC CRAFT)	WOOD/LVL
17	LOCK STILE (CLASSIC CRAFT)	WOOD/LVL
18	TOP RAIL (CLASSIC CRAFT)	PVC
19	BOTTOM RAIL (CLASSIC CRAFT)	PVC
20	PANEL REINFORCEMENT 0.023" THK. (CLASSIC CRAFT)	STEEL
21	DOOR SKIN 0.125" THK. (CLASSIC CRAFT) Fy = 6,000 PSI MIN.	FIBERGLASS
22	LOCK & HINGE STILE (CLASSIC CRAFT RUSTIC)	WOOD/LVL
23	TOP RAIL (CLASSIC CRAFT RUSTIC)	WOOD
24	BOTTOM RAIL (CLASSIC CRAFT RUSTIC)	PVC
25	PANEL REINFORCEMENT 0.023" THK. (CLASSIC CRAFT RUSTIC)	STEEL
26	DOOR SKIN 0.125" THK. (CC RUSTIC) Fy = 6,000 PSI MIN.	FIBERGLASS
27	FOAM CORE	POLYURETHANE
28	WEATHERSTRIP	FOAM
29	HINGE	STEEL
30	#10 X 2-1/2" PFH SCREW	STEEL
31	#10 X 3/4" PFH SCREW	STEEL
32	#9 X 3" PFH WOOD SCREW	STEEL
33	LATCH STRIKE PLATE	STEEL
36	#8 X 3" PFH SCREW	STEEL
37	DEADBOLT STRIKE PLATE	STEEL

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
38	ASTRAGAL	ALUMINUM
38A	ASTRAGAL FLUSH BOLT	STEEL
38B	ASTRAGAL FLUSH BOLT RETAINER	ALUMINUM
39	ASTRAGAL STRIKE PLATE @ HEAD	STEEL
62	HINGE STILE (FIBER CLASSIC)	WOOD
63	LOCK STILE (FIBER CLASSIC)	LVL/WOOD
64	TOP RAIL (FIBER CLASSIC)	PVC
65	BOTTOM RAIL (FIBER CLASSIC)	PVC
66	PANEL REINFORCEMENT 0.023" THK. (FIBER CLASSIC)	STEEL
67	DOOR SKIN 0.070" THK. (FIBER CLASSIC) Fy = 6,000 PSI MIN.	FIBERGLASS

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

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Phone No.: 813.659.9197

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

PRODUCT:
DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY:
BILL OF MATERIALS
& COMPONENTS

NO.	DATE	REVISIONS	BY
1	7/22/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/16/12
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