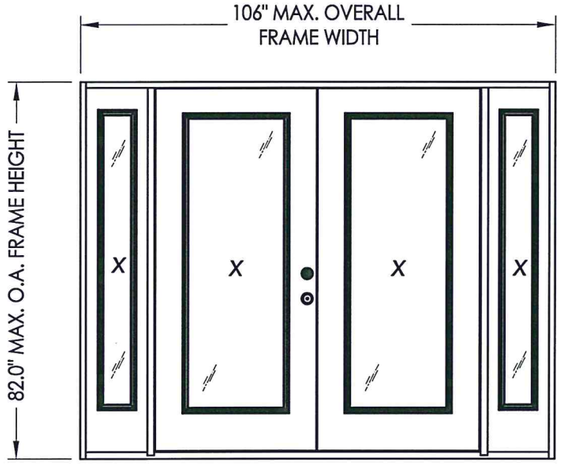
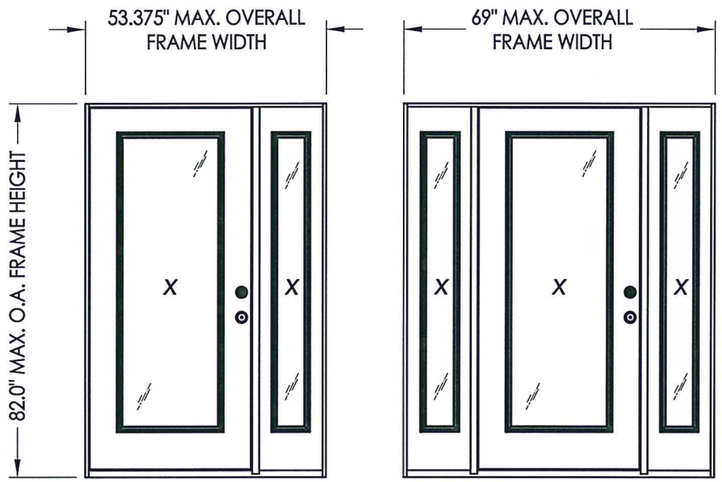
Benchmark
by THERMA-TRU

"VENTED" SIDELITES
w/ GLAZED FIBERGLASS DOOR
INSWING

"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.
5. 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.

TABLE OF CONTENTS

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

CONFIGURATION	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF) Multi-Point Door Lock		DESIGN PRESSURE (PSF) Lock & Deadbolt	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	53.375" x 82.0"	+40.0	-40.0	+40.0	-40.0
XXX	69.0" x 82.0"	+40.0	-40.0	+40.0	-40.0
XXXX	106.0" x 82.0"	+50.0	-50.0	+40.0	-40.0

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7.21.15

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

R.W. BUILDING CONSULTANTS, INC.
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Phone No.: 813.659.9197

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

PRODUCT: THERMA-TRU

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

NO.	DATE	BY
1	7/21/15	LFS

REVISIONS: ADDED GENERAL NOTE 5.

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 1 OF 10

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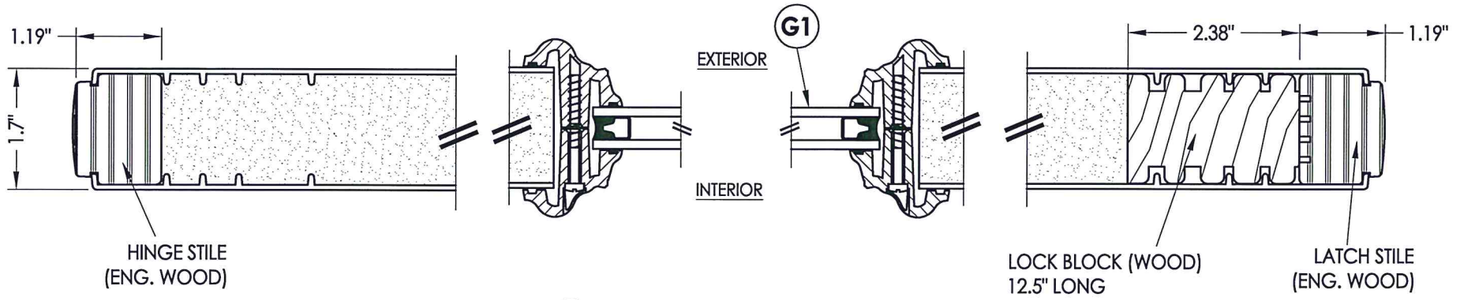
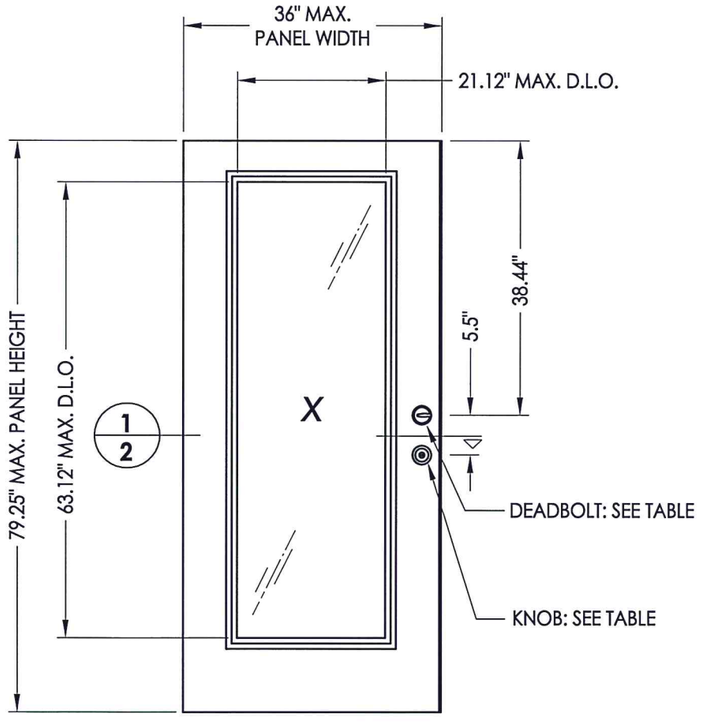
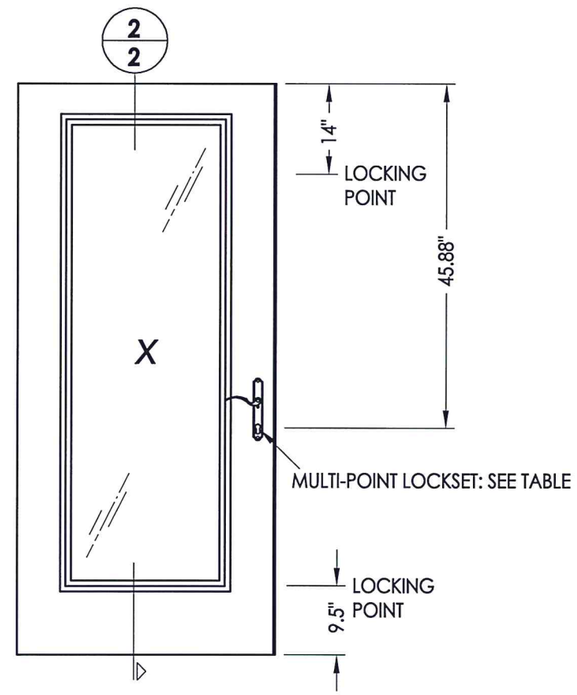


1/2 HORIZONTAL CROSS SECTION

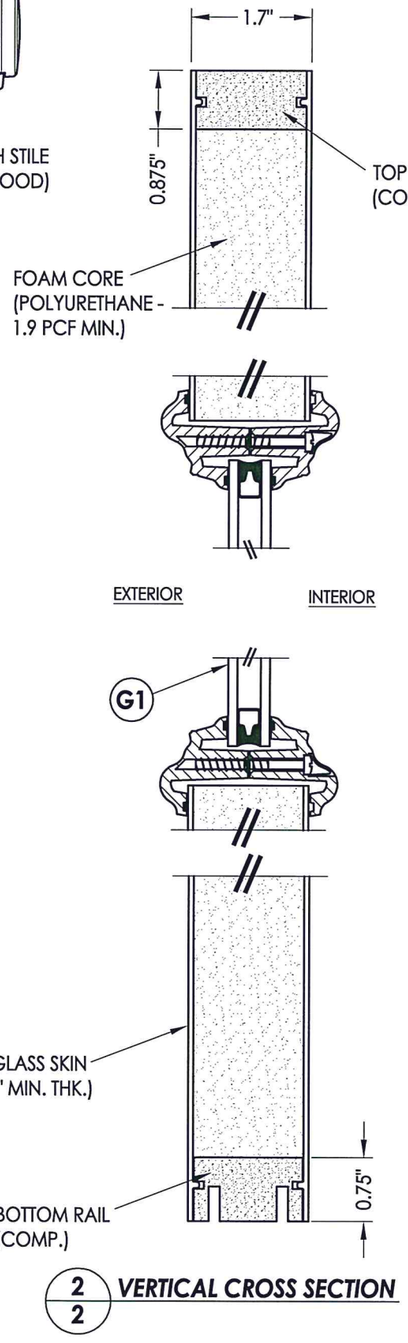


40 DOOR PANEL (SMOOTH STAR BMTT)
Latch & Deadbolt



40 DOOR PANEL (SMOOTH STAR BMTT)
Multi-point Lockset

HARDWARE TABLE	
MANUFACTURER	MODEL
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (780)
HOPPE	MULTI-POINT: HLS 9000 SERIES



2/2 VERTICAL CROSS SECTION

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CERTIFICATE OF REGISTRATION # F-11852

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

PRODUCT: THERMA-TRU

PART OR ASSEMBLY: DOOR

DOOR PANEL DETAILS

NO.	DATE	BY
1	7/21/15	LFS

REVISIONS: ADDED GENERAL NOTE 5.

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 2 OF 10

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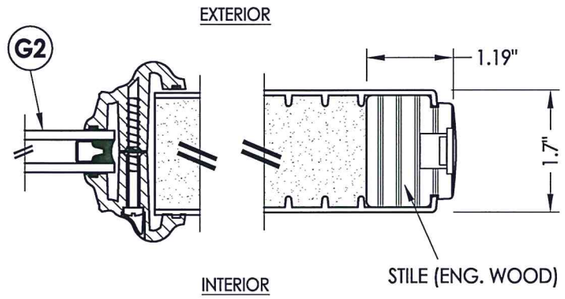
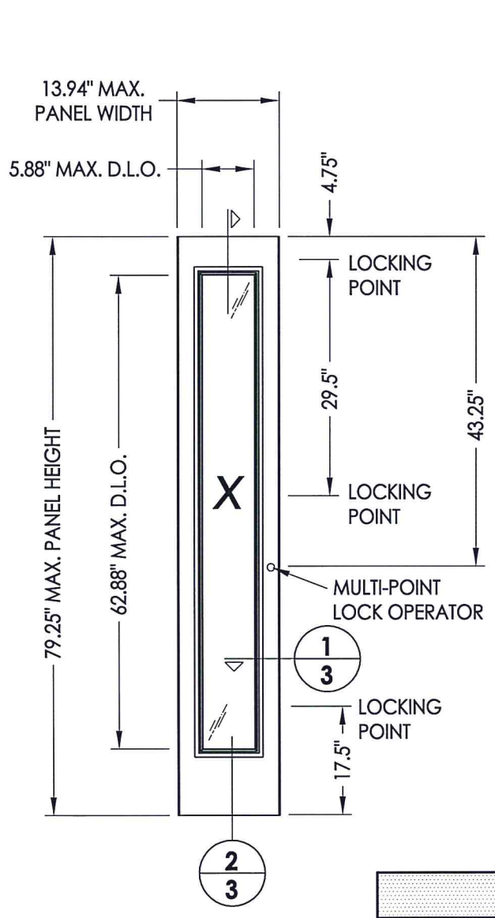
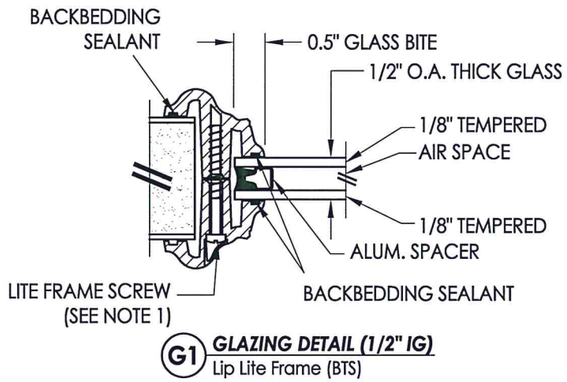


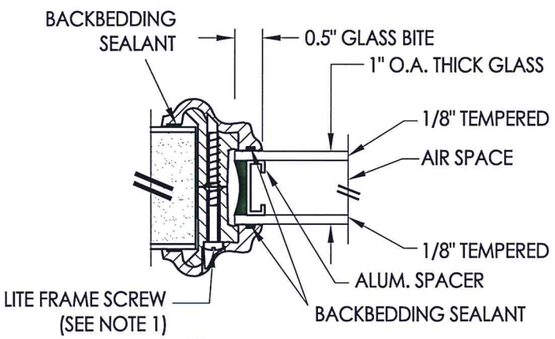
1/3 HORIZONTAL CROSS SECTION
Lip Lite Glazing



50 SIDELITE PANEL
VENTED

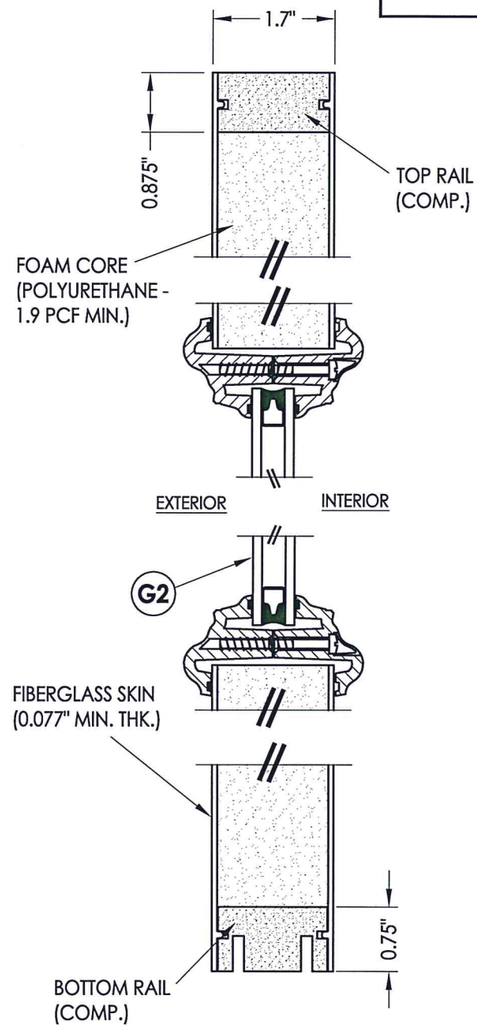


G1 GLAZING DETAIL (1/2" IG)
Lip Lite Frame (BTS)



G2 GLAZING DETAIL (1" IG)
Lip Lite Frame (BTS)

HARDWARE TABLE	
MANUFACTURER	MODEL
HOPPE	MULTI-POINT: OSL SERIES (Sidelite)



2/3 VERTICAL CROSS SECTION

NOTE:
1. Lite frame screws (#8 x 1-1/2" PH SMS), 14 total per sidelite, evenly spaced.
2. Lite frame screws (#8 x 1-1/2" PH SMS), 18 total per door, evenly spaced.

STATE OF TEXAS
LYNDON F. SCHMIDT
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LICENSED PROFESSIONAL ENGINEER
7.24.15

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU

PART OR ASSEMBLY: SIDELITE PANEL DETAILS & GLAZING DETAILS

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 3 OF 10

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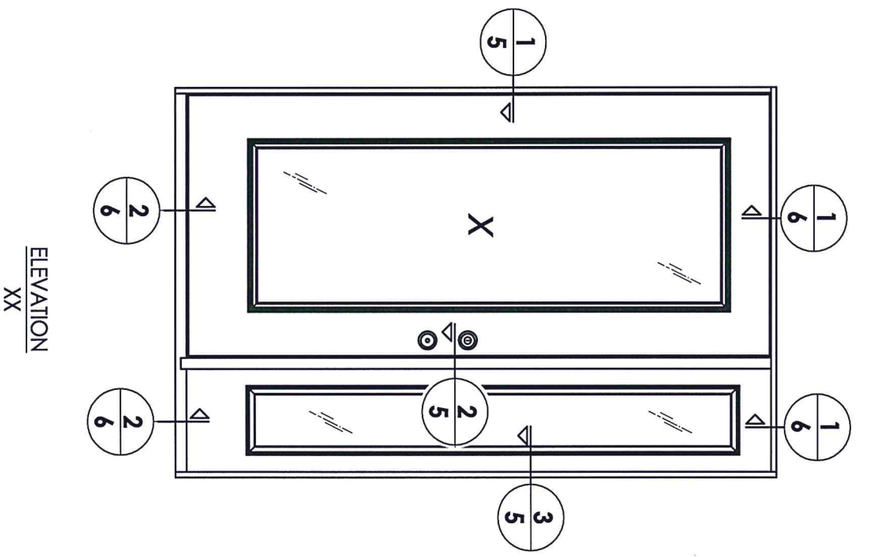
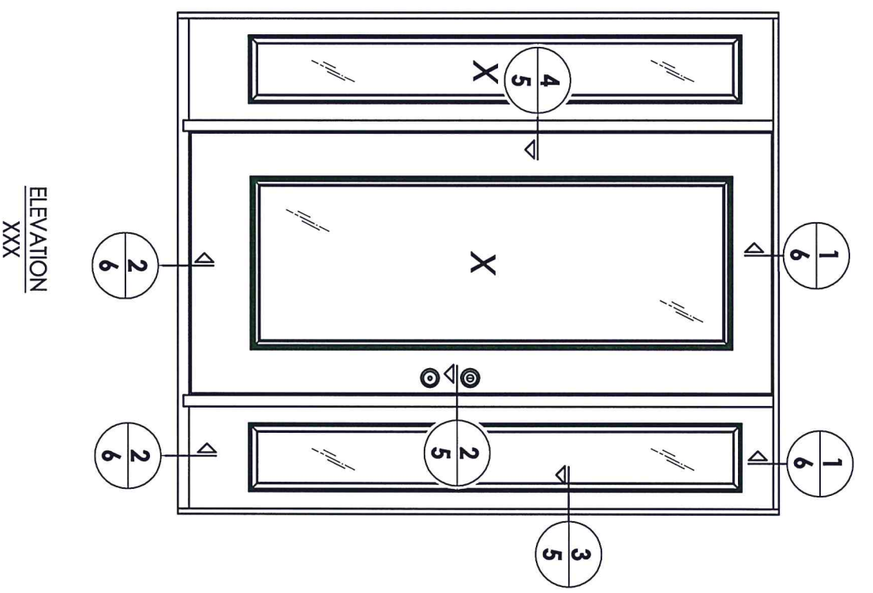


ELEVATION XX



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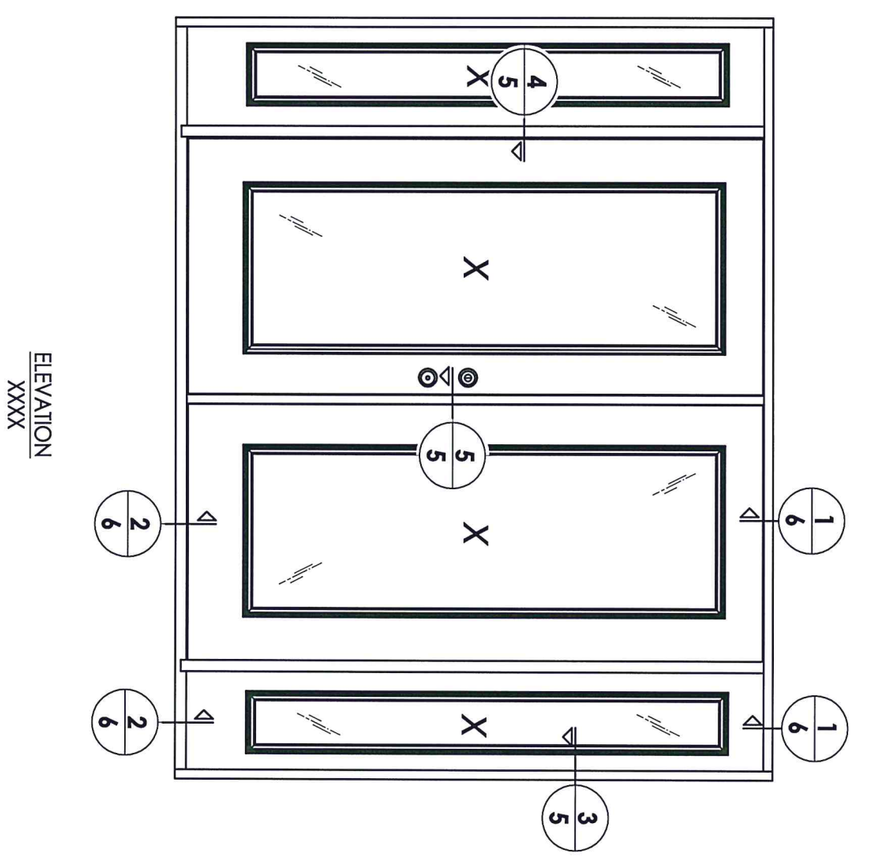

ELEVATION XXXX

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER

7.21.15

1	7/21/15	ADDED GENERAL NOTE 5.	LFS
NO.	DATE	REVISIONS	BY

PRODUCT: THERMA-TRU

PART OR ASSEMBLY: ELEVATIONS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 4 OF 10

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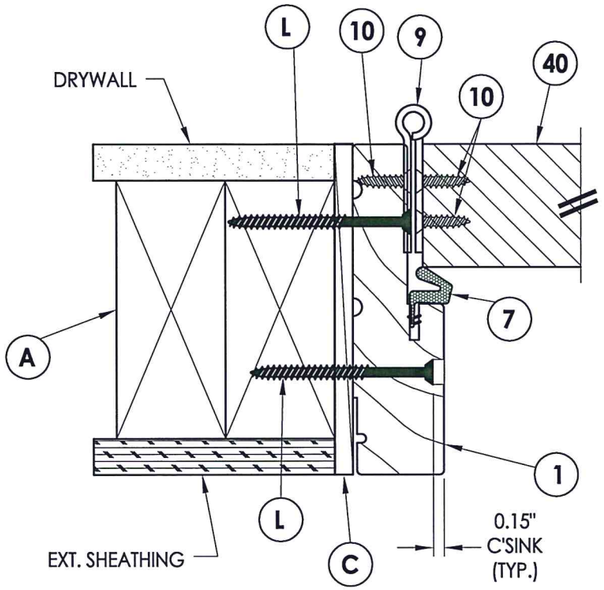
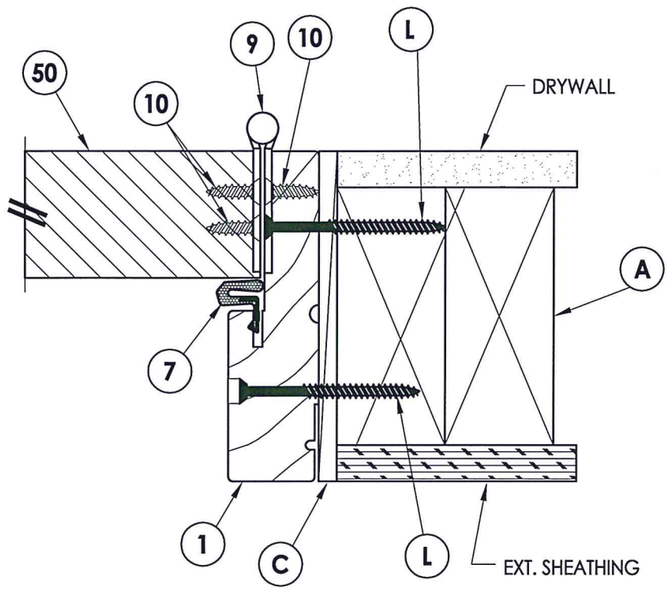


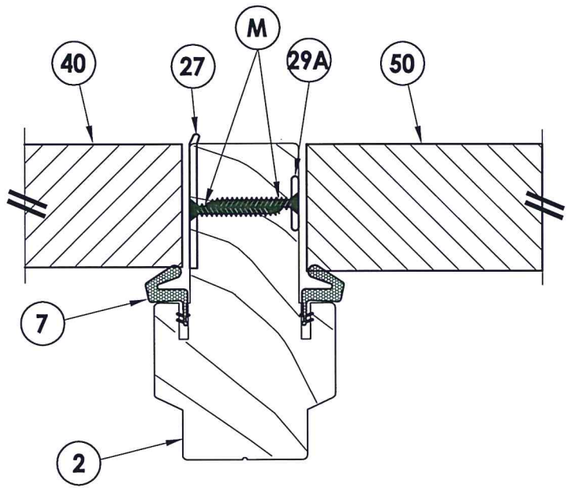
1/5 **HORIZONTAL CROSS SECTION**

INTERIOR

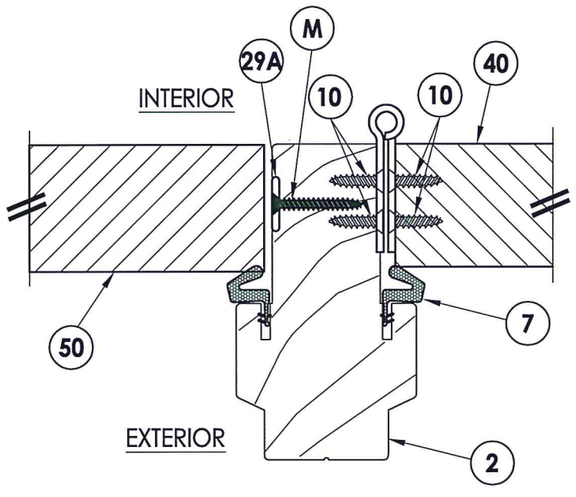
EXTERIOR



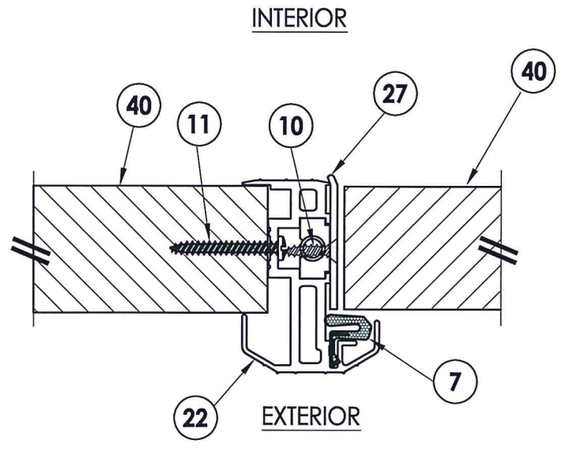
3/5 **HORIZONTAL CROSS SECTION**



2/5 **HORIZONTAL CROSS SECTION**



4/5 **HORIZONTAL CROSS SECTION**



5/5 **HORIZONTAL CROSS SECTION**

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CERTIFICATE OF REGISTRATION # F-11852

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

7.21.15

PRODUCT: THERMA-TRU

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 5 OF 10

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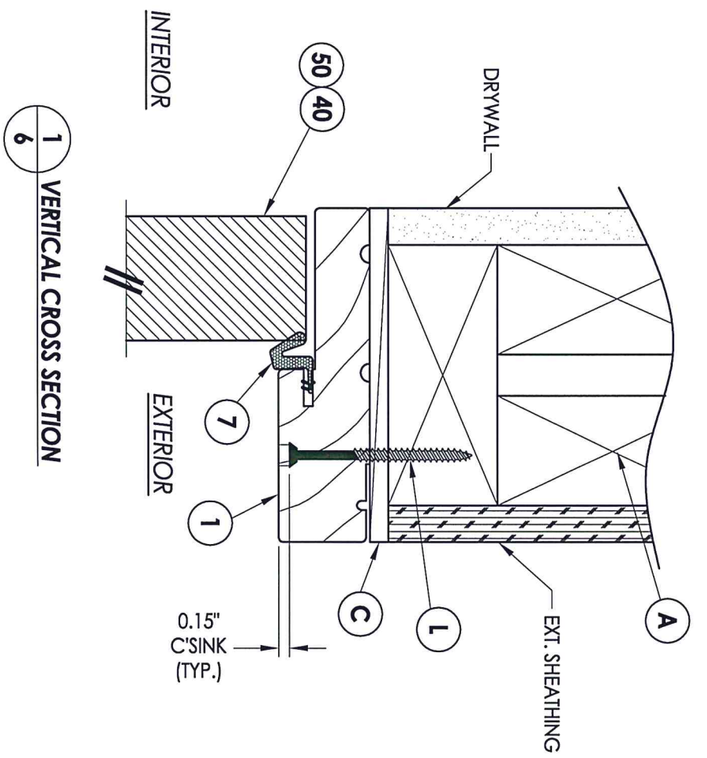
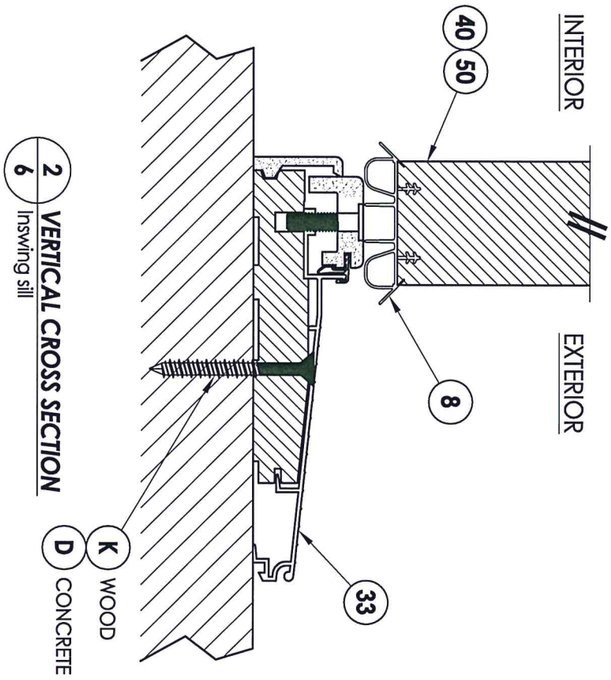


1/6 VERTICAL CROSS SECTION



2/6 VERTICAL CROSS SECTION
Inswing sill

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
7.21.15

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

PRODUCT: THERMA–TRU

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

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

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX–4297
SHEET 6 OF 10

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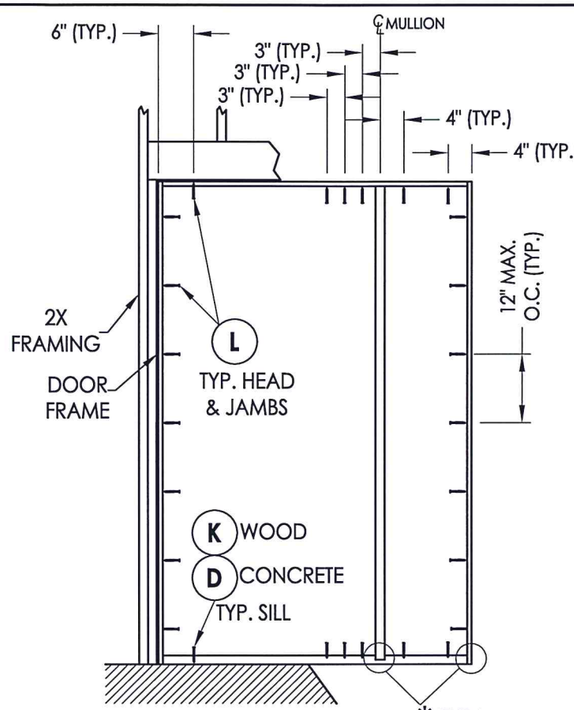
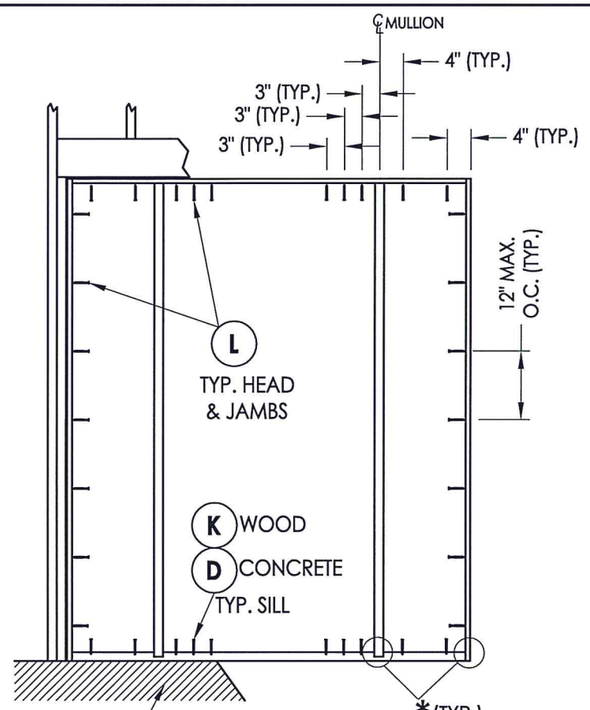
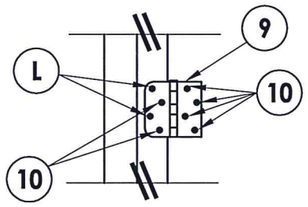


FRAME ANCHORING
XX

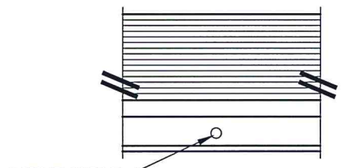


FRAME ANCHORING
XXX

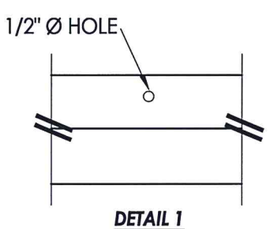
FLOOR SUBSTRATE MATERIAL (TYP.)
CONCRETE (MIN. 3000 PSI)
WOOD (S.G. >= 0.42)



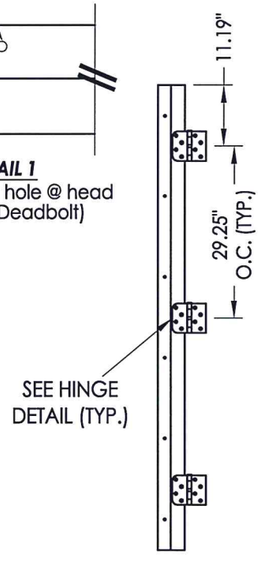
HINGE DETAIL



DETAIL 2
Astragal bolt hole @ sill
(Latch & Deadbolt)



DETAIL 1
Astragal bolt hole @ head
(Latch & Deadbolt)



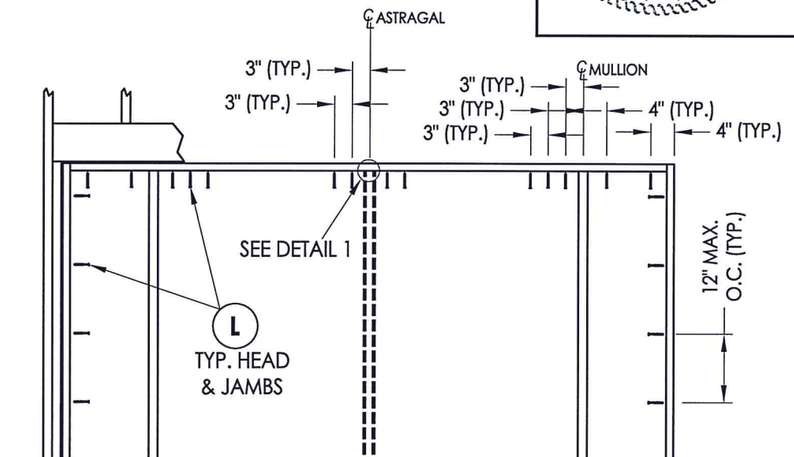
HINGE JAMB

CONCRETE ANCHOR NOTES:

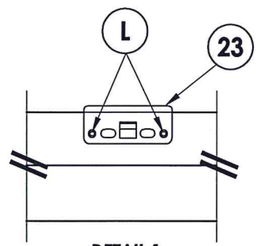
1. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.*
2. *Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. 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"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"

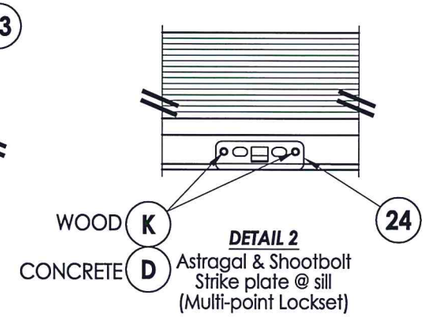
* The frame jambs and vertical mullions are secured to the head and sill with (3) #8 x 2-1/2" wood screws each.



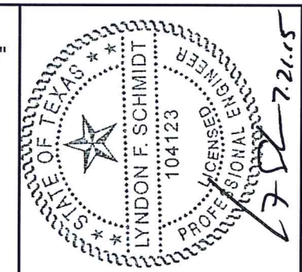
FRAME ANCHORING
XXXX



DETAIL 1
Astragal & Shootbolt
Strike plate @ head
(Multi-point Lockset)



DETAIL 2
Astragal & Shootbolt
Strike plate @ sill
(Multi-point Lockset)



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

PRODUCT: *THERMA-TRU*

PART OR ASSEMBLY: *FRAME ANCHORING*

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 7 OF 10

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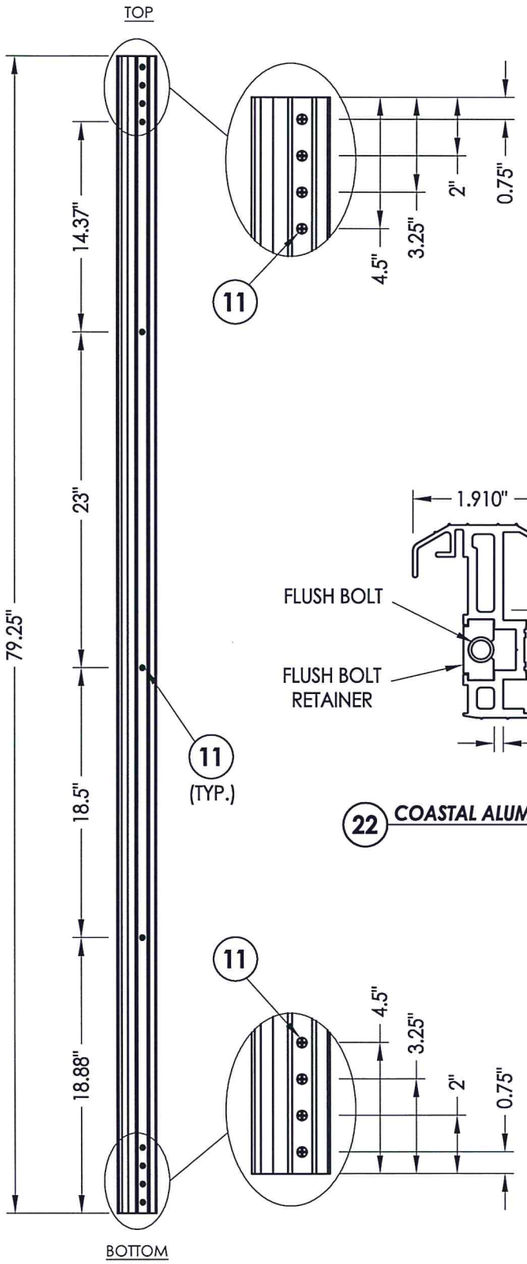
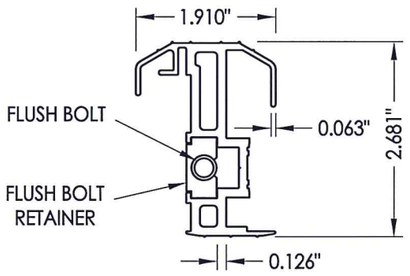
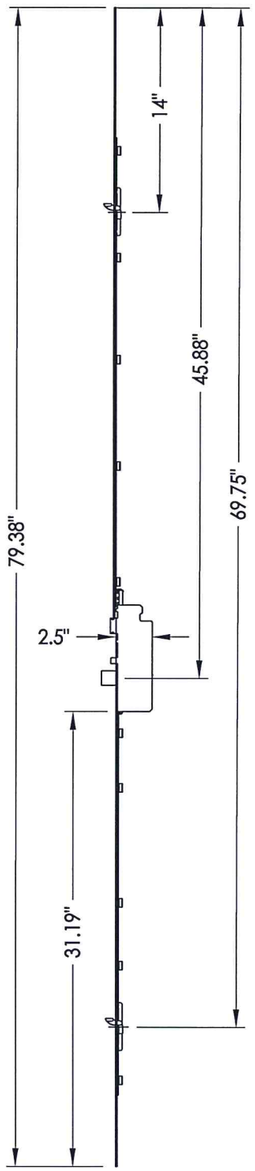
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 647 - 68 Glazed Benchmark FG NonImp IS Vented Sidelites\C - Drawings\Current\TX-4297.dwg, 8.2



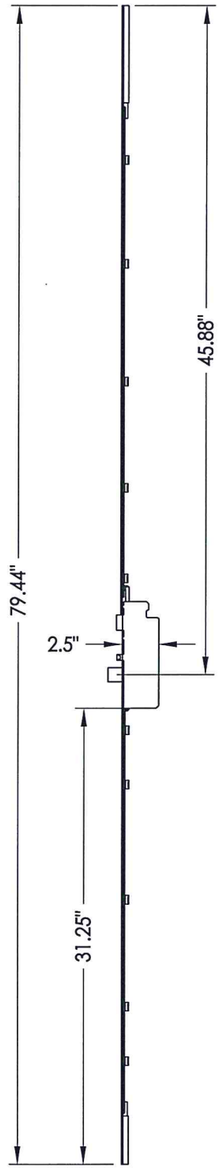
ASTRAGAL DETAILS



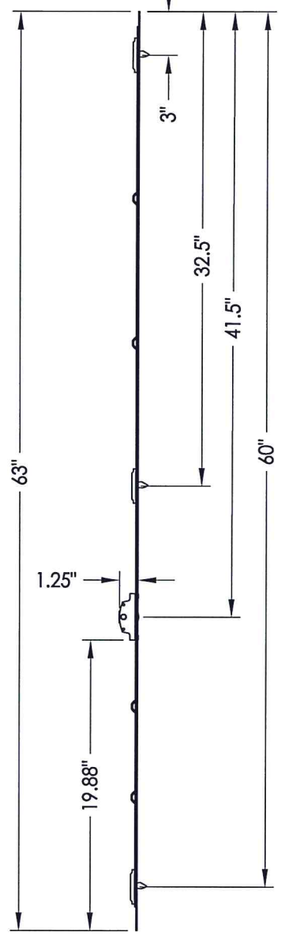
22 COASTAL ALUMINUM ASTRAGAL



HOPPE MULTI-POINT LOCK
Manual Raised Tongue
Gear System
(Single Door)



HOPPE MULTI-POINT LOCK
Manual Shootbolt System
(Double Door)



HOPPE MULTI-POINT LOCK
Manual Raised Tongue
Gear System
(Sidelite)

HOPPE MULTI-POINT LOCK SYSTEMS

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7.21.15

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: *THERMA-TRU*

PART OR ASSEMBLY: *HARDWARE DETAILS*

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 8 OF 10

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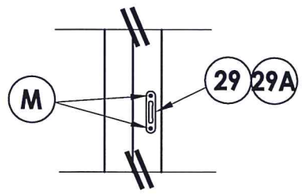
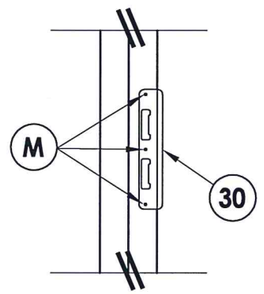
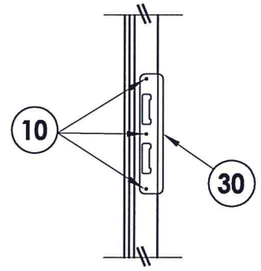


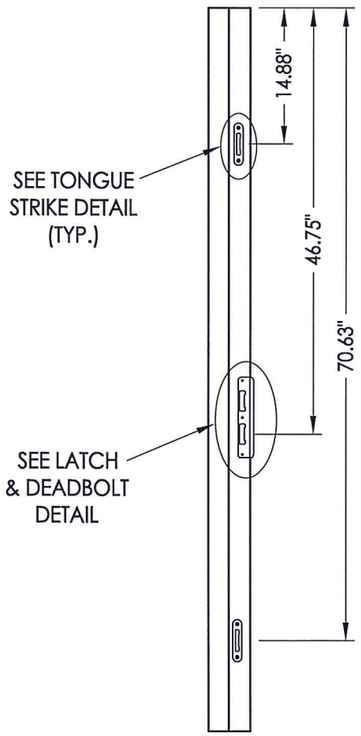
TONGUE STRIKE DETAIL
Single Door/Sidelite



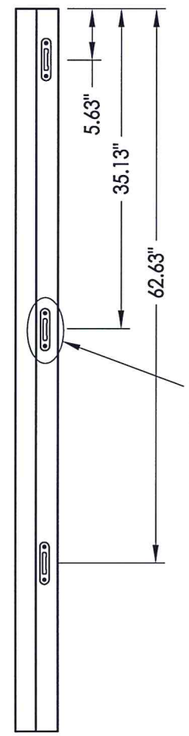
LATCH & DEADBOLT DETAIL
Single Door



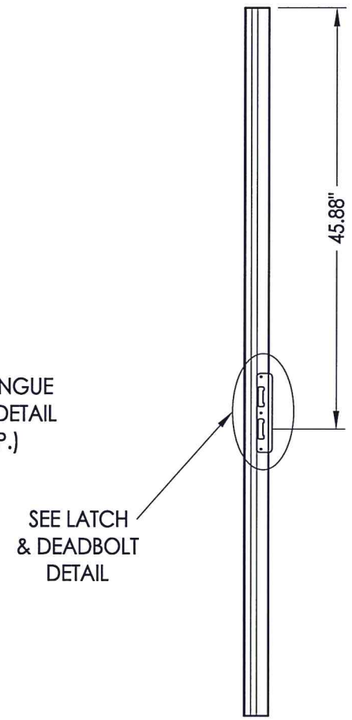
LATCH & DEADBOLT DETAIL
Double Door



STRIKE JAMB / MULLION
Single Door

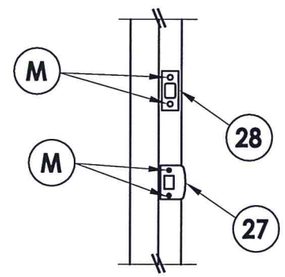


STRIKE MULLION
Sidelite

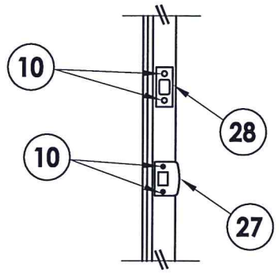


ASTRAGAL STRIKE
Double Door

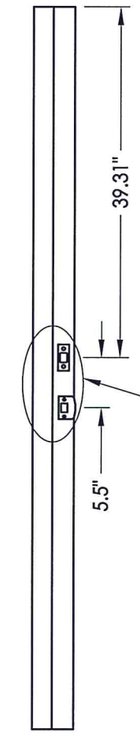
MULTI-POINT LOCK STRIKE DETAILS



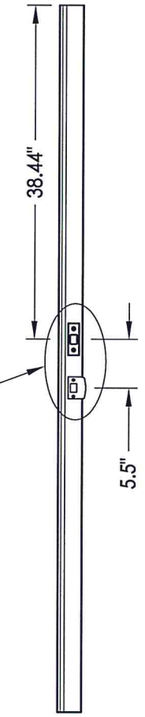
LATCH & DEADBOLT DETAIL
Single Door



LATCH & DEADBOLT DETAIL
Double Door



STRIKE JAMB / MULLION
Single Door



ASTRAGAL STRIKE
Double Door

LATCH & DEADBOLT STRIKE DETAILS

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

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

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

7.24.13

PRODUCT: *THERMA-TRU*

PART OR ASSEMBLY: *HARDWARE STRIKE DETAILS*

NO.	DATE	BY
	REVISIONS	

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 9 OF 10

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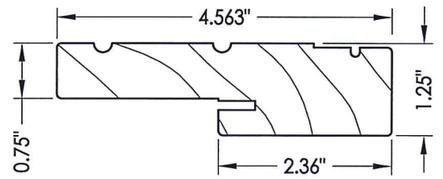
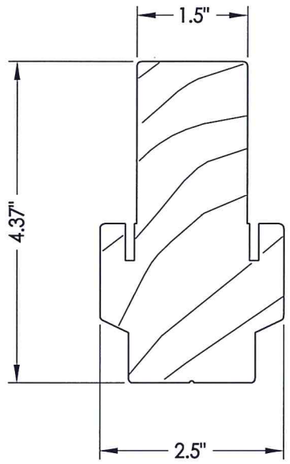
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 647 - 68 Glazed Benchmark FG NonImp IS Vented Sidelites\C - Drawings\Current\TX-4297.dwg, 9.2

BILL OF MATERIALS

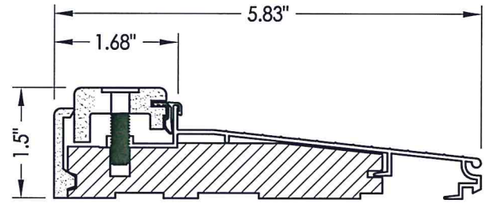
ITEM #	DESCRIPTION	MATERIAL
A	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
K	#12 X 3" PFH WOOD SCREW (1-1/2" MIN. EMBEDMENT)	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
M	#8 X 1-1/4" PFH WOOD SCREW	STEEL
1	HEAD AND SIDE JAMB (FINGER-JONTED PINE) (G >= 0.42)	WOOD
2	INTEGRAL MULLION (FINGER-JONTED PINE) (G >= 0.42)	WOOD
7	WEATHER-STRIP (THERMA-TRU)	FOAM
8	DOOR BOTTOM SWEEP	PVC
9	4" X 4" HINGE	STEEL
10	#10 X 3/4" PFH WOOD SCREW	STEEL
11	#10 X 1-3/4" PFH WOOD SCREW	STEEL
22	COASTAL ALUMINUM ASTRAGAL	ALUM
23	ASTRAGAL & SHOOTBOLT STRIKE PLATE (AT HEAD)	STEEL
24	ASTRAGAL & SHOOTBOLT STRIKE PLATE (AT SILL)	STEEL
27	LATCH STRIKE PLATE (STANDARD)	STEEL
28	DEADBOLT STRIKE PLATE (STANDARD)	STEEL
29	TONGUE STRIKE PLATE (DOOR TONGUE SYSTEM)	STEEL
29A	TONGUE STRIKE PLATE (SIDELITE TONGUE SYSTEM)	STEEL
30	LATCH & DEADBOLT STRIKE PLATE (TONGUE SYSTEM)	STEEL
33	INSWING THRESHOLD	ALUM/COMP
40	FIBERGLASS DOOR PANEL - SMOOTH STAR BMTT	-
50	FIBERGLASS SIDELITE PANEL - SMOOTH STAR BMTT	-



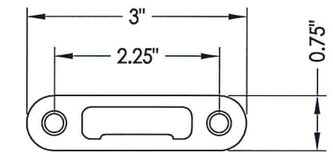
1 HEAD & JAMB



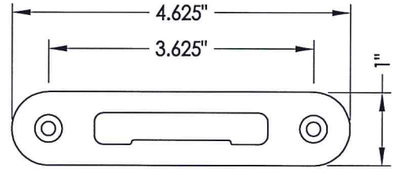
2 INTEGRAL MULLION



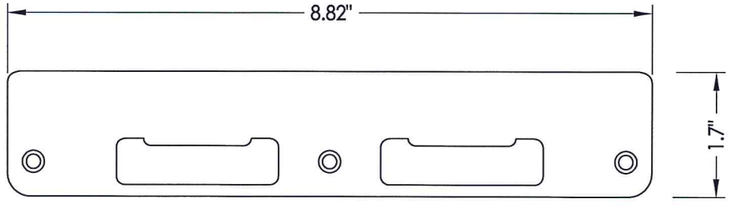
33 INSWING THRESHOLD



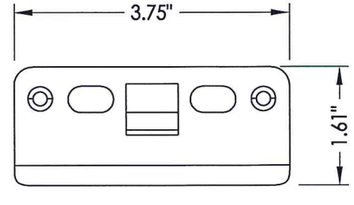
29A TONGUE STRIKE PLATE
Sidelite Tongue system



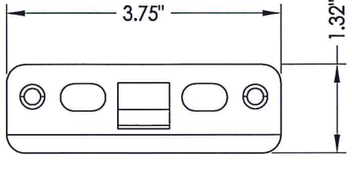
29 TONGUE STRIKE PLATE
Door Tongue system



30 LATCH & DEADBOLT STRIKE PLATE
Tongue system



23 ASTRAGAL & SHOOTBOLT
Strike plate @ head



24 ASTRAGAL & SHOOTBOLT
Strike plate @ sill

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7.24.15

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: THERMA-TRU

PART OR ASSEMBLY: BILL OF MATERIAL & COMPONENTS

NO.	DATE	REVISIONS	BY
1	7/21/15	ADDED GENERAL NOTE 5.	LFS

DATE: 1/2/13
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4297
SHEET 10 OF 10

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