



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

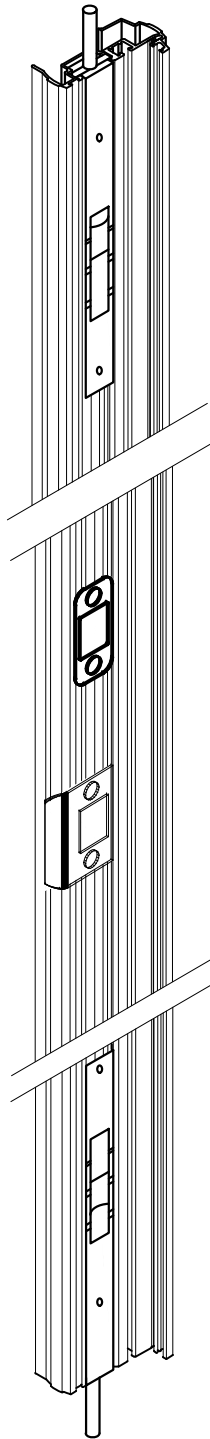
"HVHZ" ALUMINUM "T" ASTRAGAL IN swing / OUT swing "IMPACT"

GENERAL NOTES

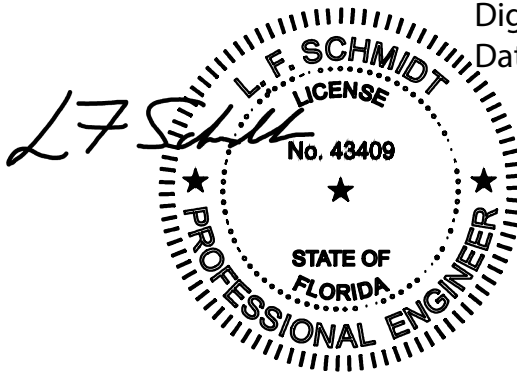
- This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
- Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
- When used in the "HVHZ", this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
- When used in areas outside of the "HVHZ" requiring wind borne debris protection, this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
- This product has been tested in the door panels as specified in this approval. Substitution into a similar product may be approved for use by the local Authority Having Jurisdiction. In all cases, the fiberglass door used must possess a comparable current Florida Statewide product approval. The door panel size and design pressure (DP) rating shall not exceed the sizes and DP ratings shown in this approval or the fiberglass side hinged swing door approval being used.
- Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
- Outswing configurations meet the water infiltration requirements for the "HVHZ".
- Inswing configurations do not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
- Aluminum components, including fasteners, shall meet the requirements of FBC Section 2003.

TABLE OF CONTENTS

SHEET#	DESCRIPTION
1	Typical elevations, design pressures and general notes
2	Door panel details
3	Horizontal and vertical cross sections
4	Astragal details
5	Buck and frame anchoring
6	Bill of materials and components



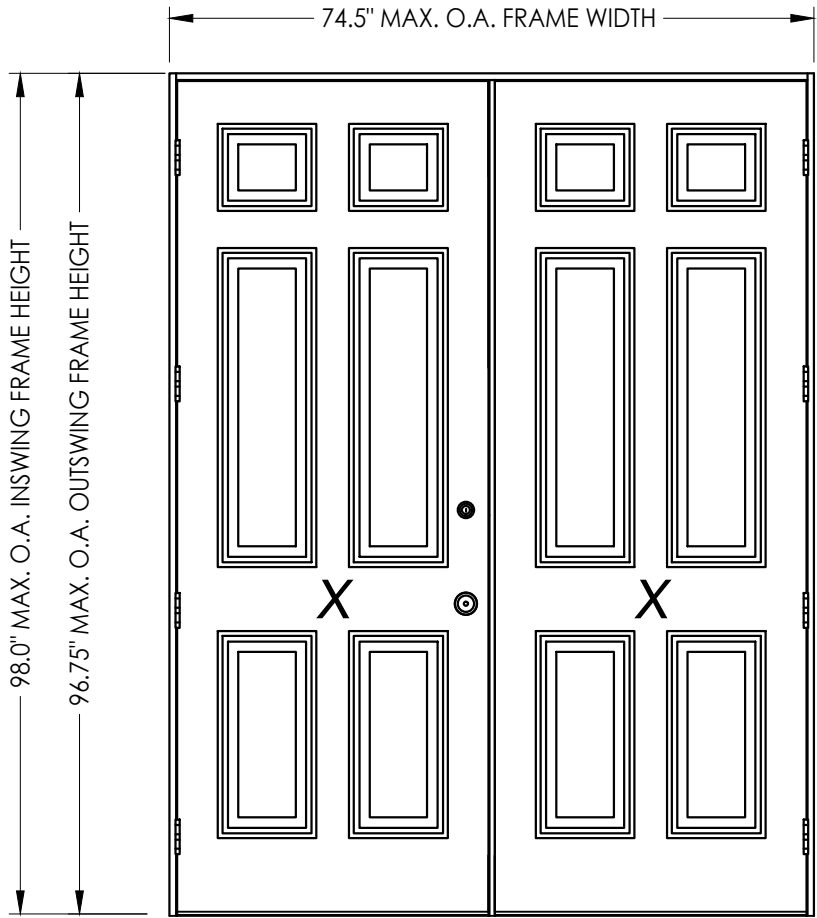
"HVHZ" ALUMINUM "T" ASTRAGAL



Digitally signed by Lyndon F Schmidt
Date: 2024.07.17 16:34:52 -04'00'

This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA



DOUBLE DOOR ELEVATION

"HVHZ" ALUMINUM "T" ASTRAGAL by AFCO					
DOOR PANEL	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF) IN swing		DESIGN PRESSURE (PSF) OUT swing	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
PLASTPRO FIBERGLASS	74.5" X 98.0"	+40.0	-45.0	+55.0	-55.0

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:
"HVHZ" ALUMINUM "T" ASTRAGAL

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

NO.	DATE	REVISIONS
7	6/26/24	ADD FLAT ASTRAGAL PROFILE
6	8/09/23	UPDATE TO 8TH ED. (2023) FBC
5	6/10/21	REVISE NEGATIVE D.P. SIGNAGE
4	9/03/20	UPDATE TO 7TH ED. (2020) FBC
3	12/16/17	REVISE ASTRAGAL SCREWS
2		
1		

DATE: 3/27/13

SCALE: N.T.S.

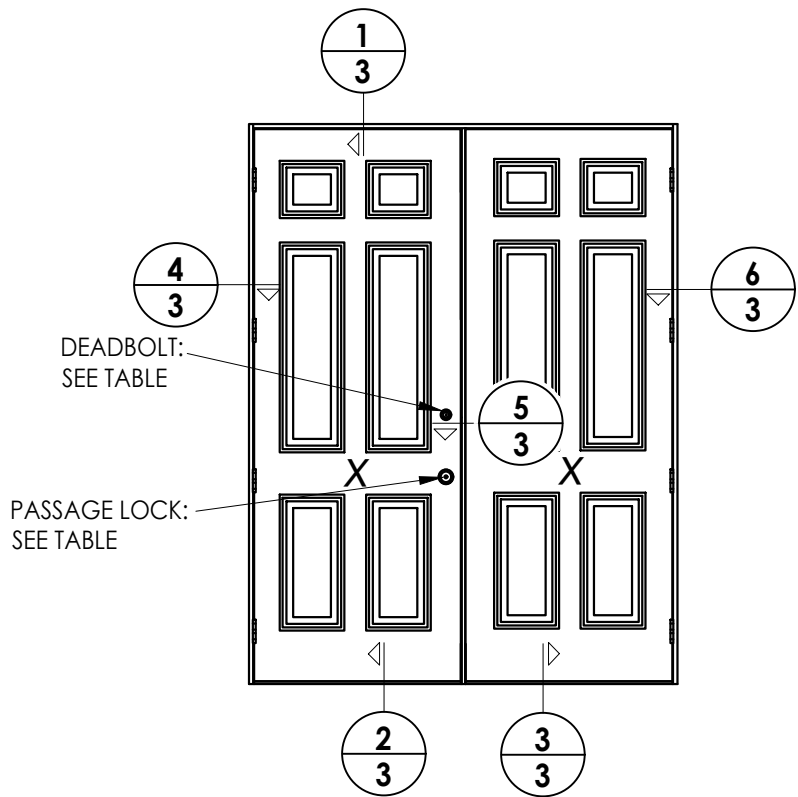
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CHK. BY: LFS

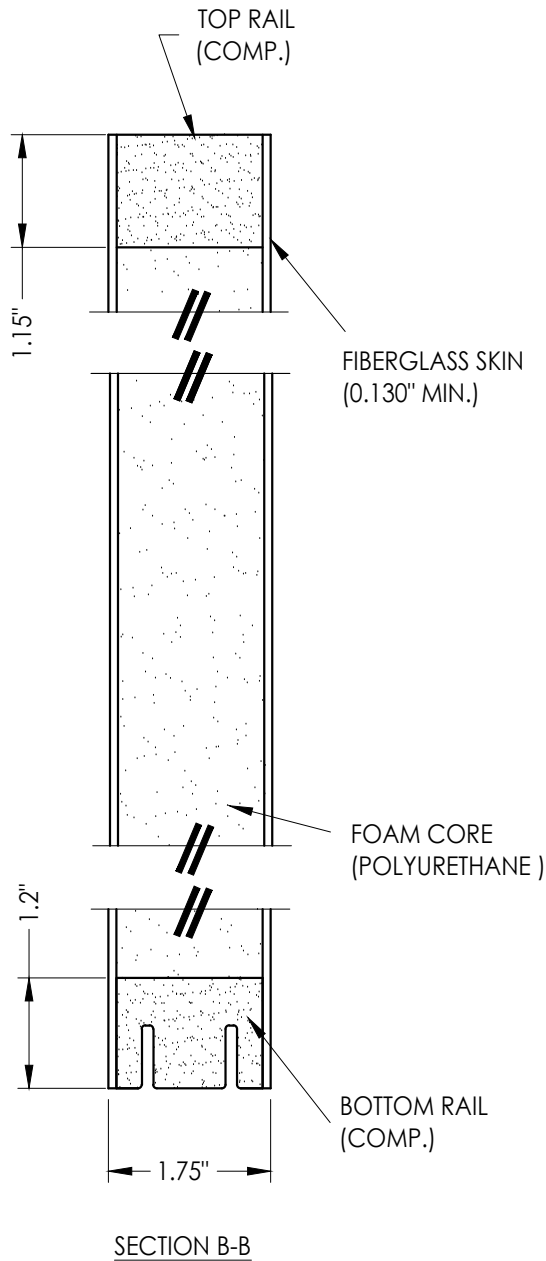
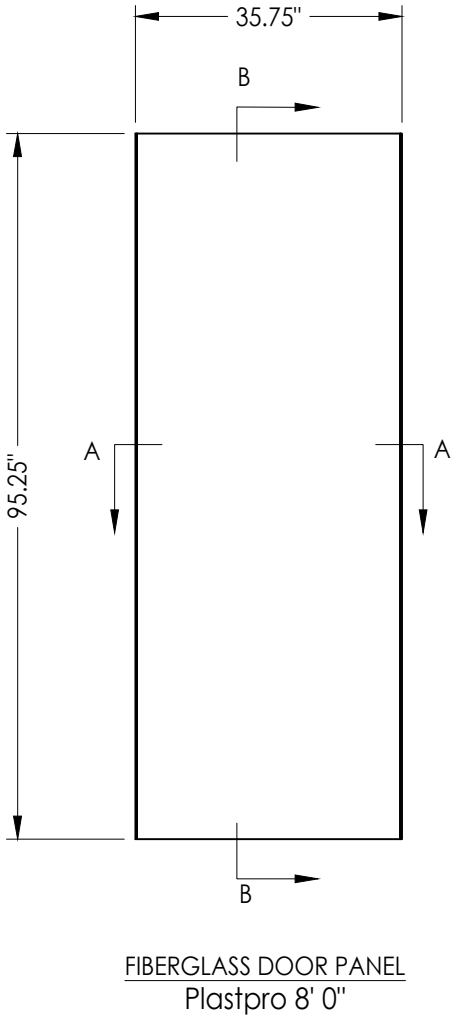
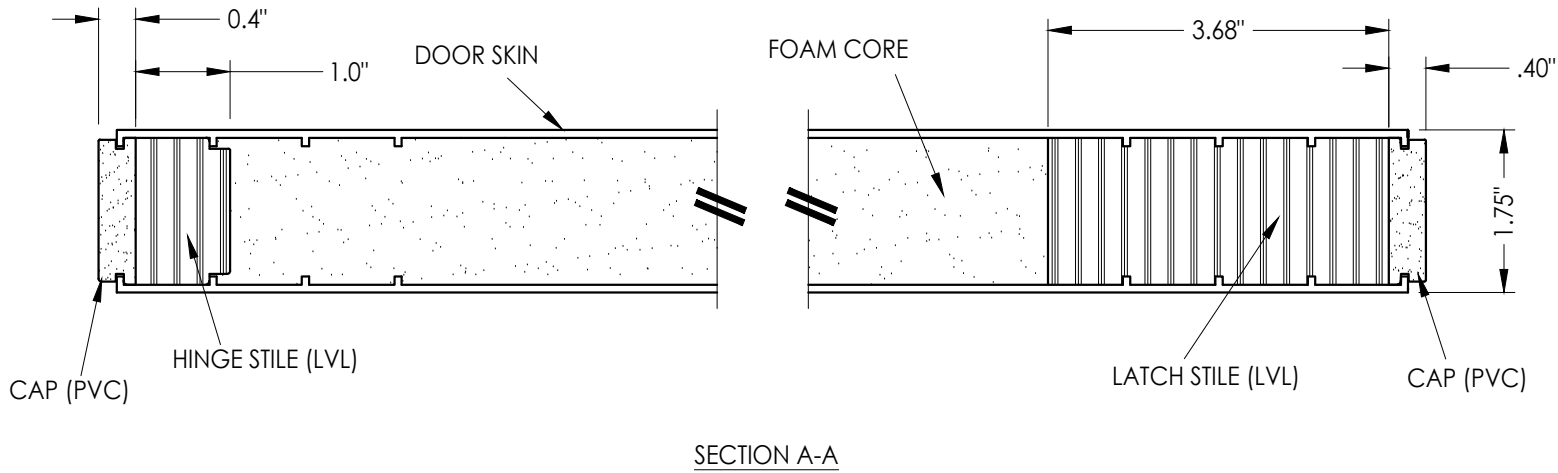
DRAWING NO.:
FL-13727.4

SHEET 1 OF 6

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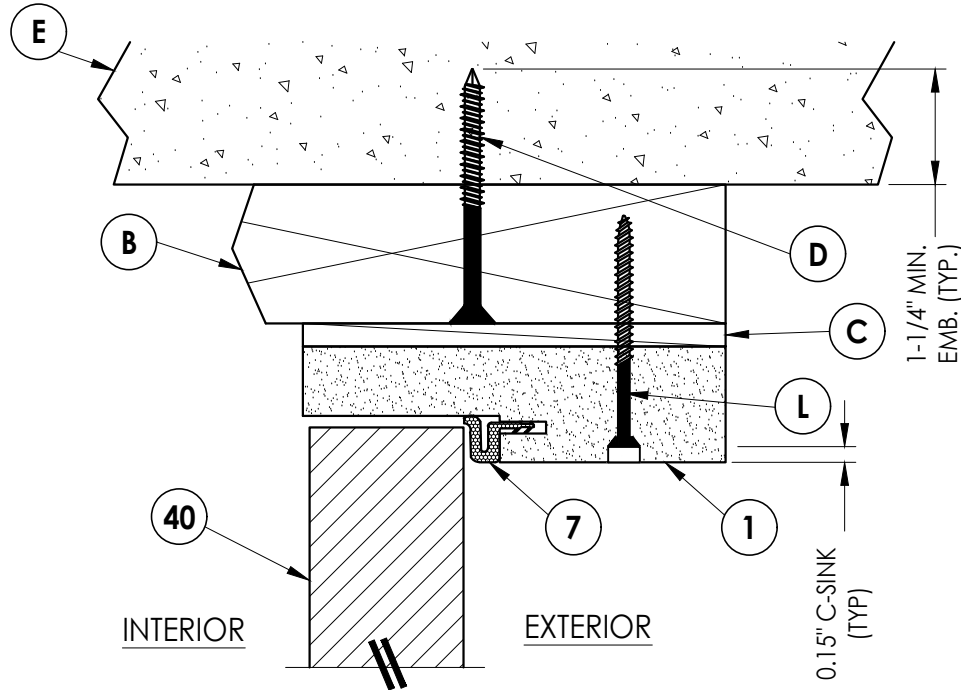


HARDWARE TABLE		
MANUFACTURER	MODEL	
SCHLAGE	KNOB:	"F" SERIES (F10)
	DEADBOLT:	"B" SERIES (B60/62)

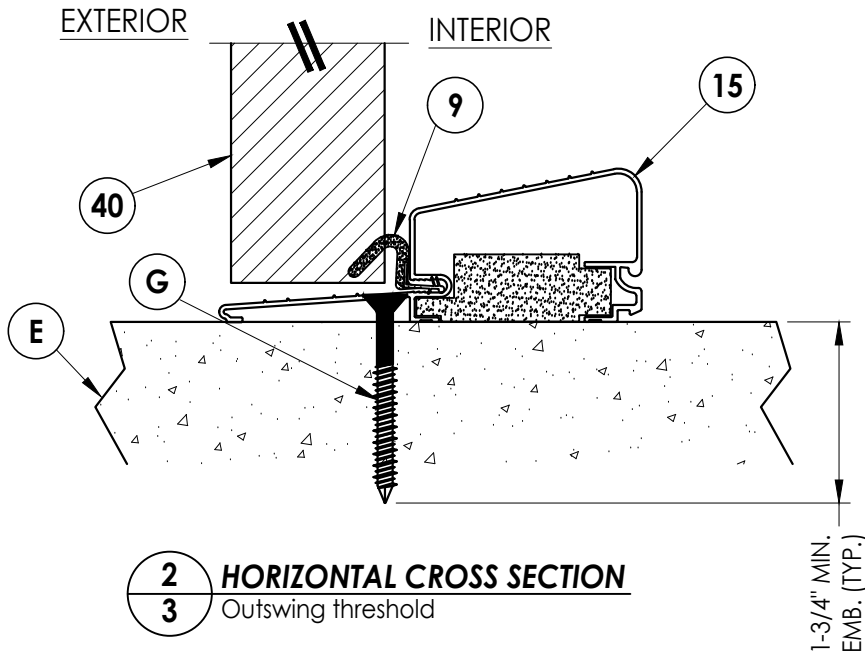


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PRODUCT:		"HVHZ" ALUMINUM "T" ASTRAGAL	
PART OR ASSEMBLY:		DOOR PANEL DETAILS	
7	6/26/24	ADD FLAT ASTRAGAL PROFILE	LFS
6	8/09/23	UPDATE TO 8TH ED. (2023) FBC	LFS
5	6/10/21	REVISE NEGATIVE D.P. SIGNAGE	LFS
4	9/03/20	UPDATE TO 7TH ED. (2020) FBC	LFS
3	12/16/17	REVISE ASTRAGAL SCREWS	LFS
NO.	DATE		BY
REVISIONS			
DATE: 3/27/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-13727.4			
SHEET 2 OF 6			

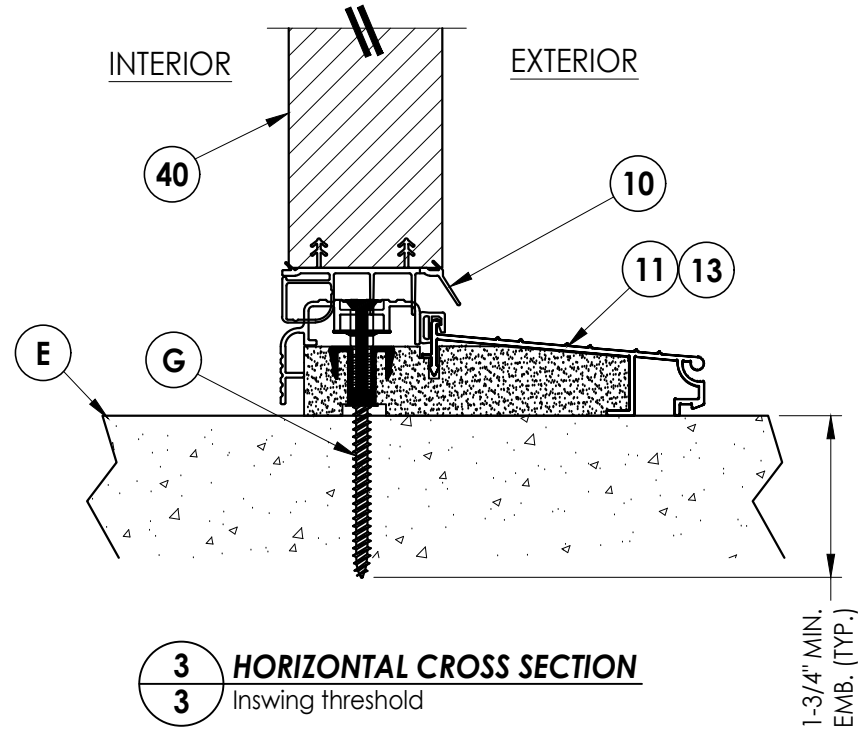
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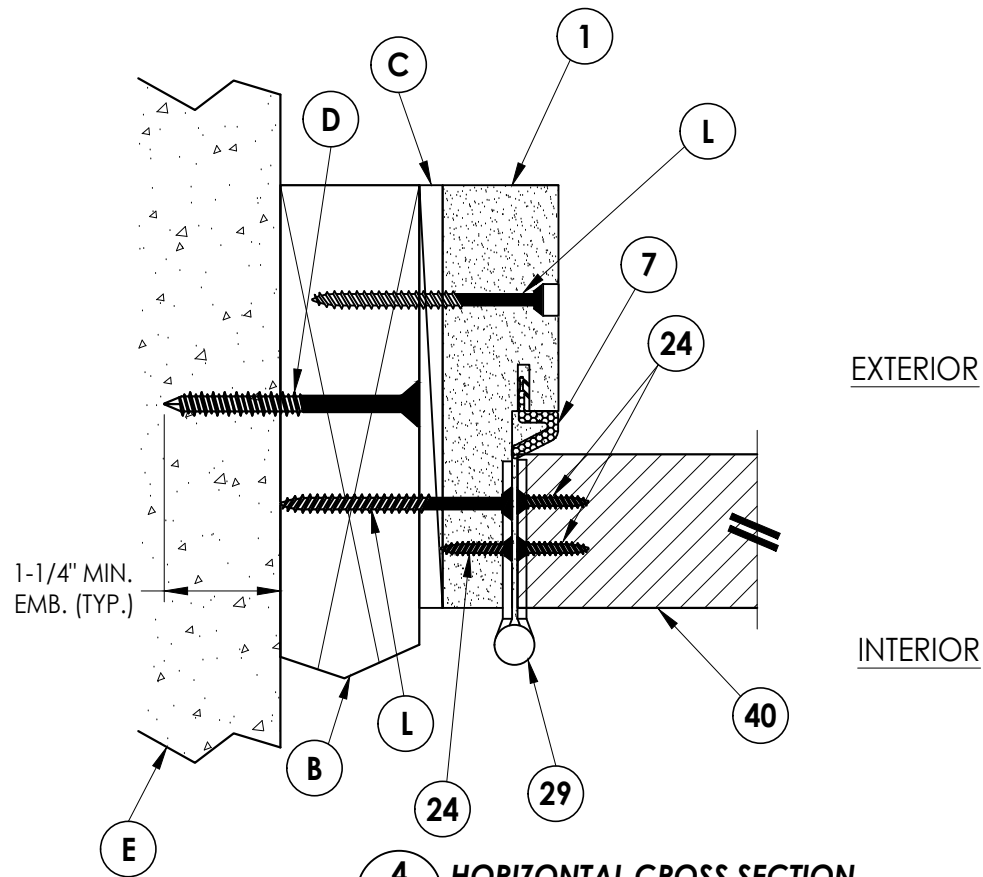
1 VERTICAL CROSS SECTION
3 Inswing shown
Outswing also approved



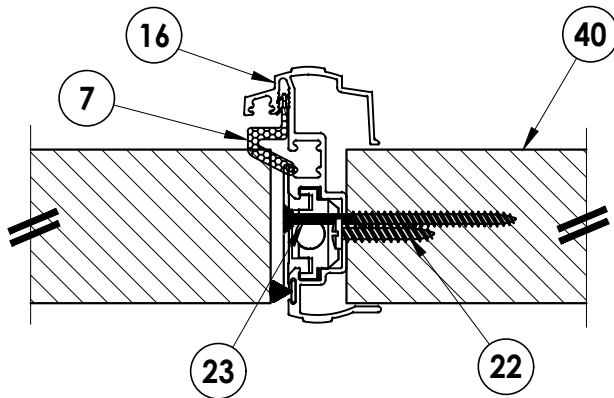
2 HORIZONTAL CROSS SECTION
3 Outswing threshold



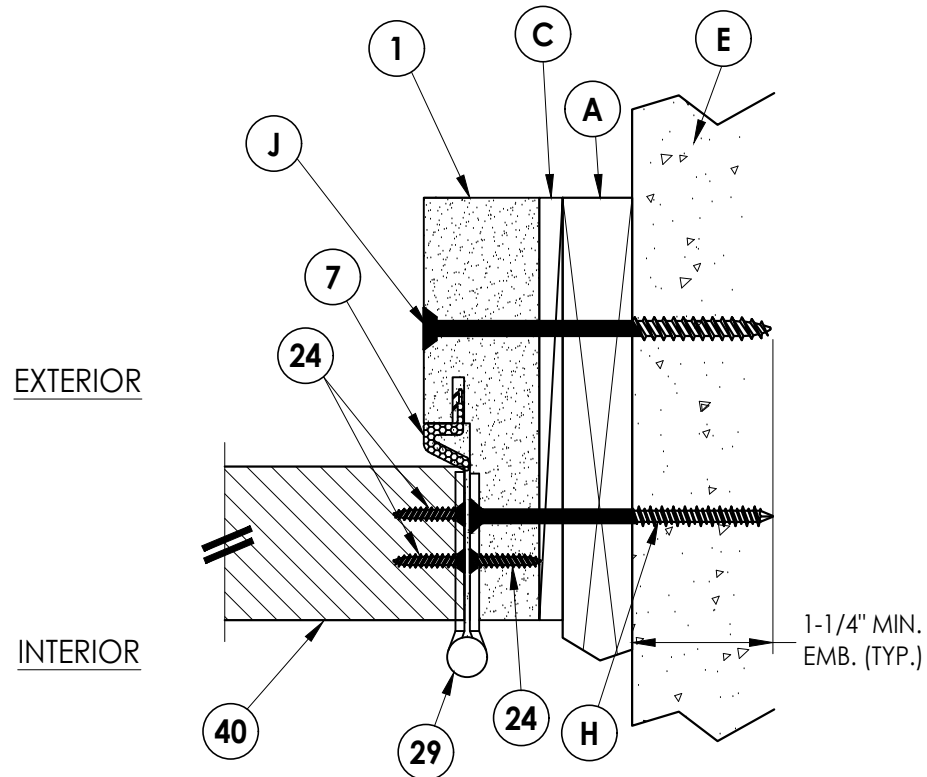
3 HORIZONTAL CROSS SECTION
3 Inswing threshold



4 HORIZONTAL CROSS SECTION
3 Inswing shown
Outswing also approved



5 HORIZONTAL CROSS SECTION
3 Inswing shown
Outswing also approved



6 HORIZONTAL CROSS SECTION
3 Shown w/1X sub-buck

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PRODUCT:
"HVHZ" ALUMINUM "T" ASTRAGAL

PART OR ASSEMBLY:
HORIZONTAL AND VERTICAL
CROSS SECTIONS

NO.	DATE	REVISIONS
7	6/26/24	ADD FLAT ASTRAGAL PROFILE
6	8/09/23	UPDATE TO 8TH ED. (2023) FBC
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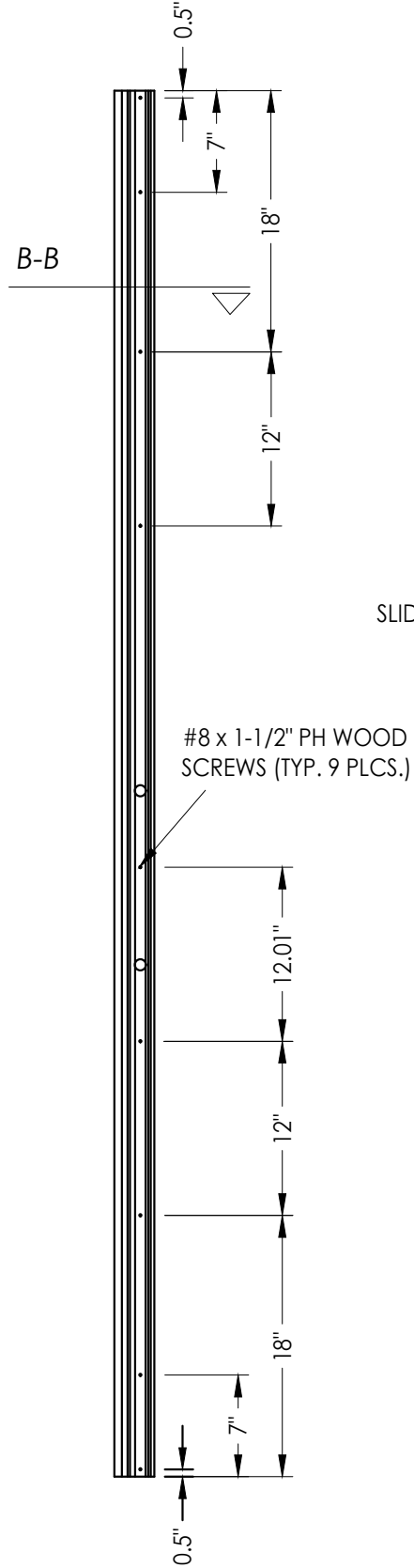
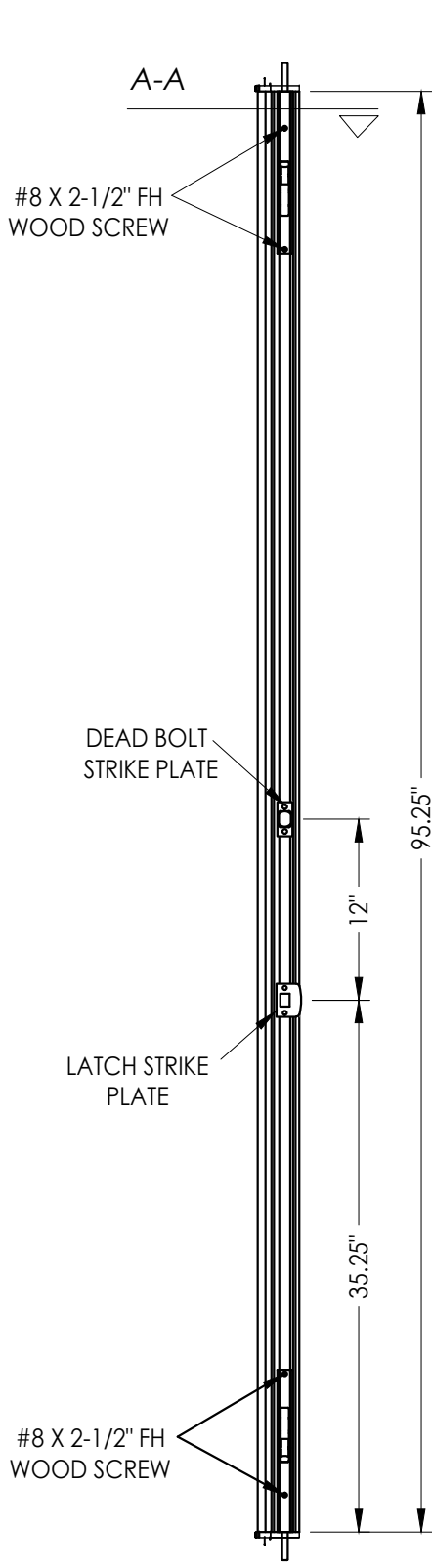
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CHK. BY: LFS

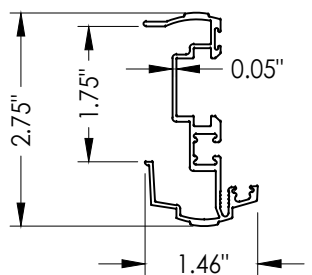
DRAWING NO.: FL-13727.4

SHEET 3 OF 6

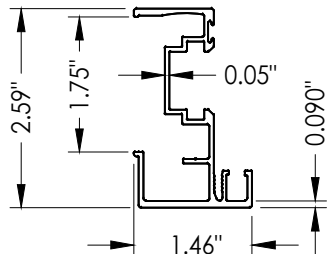
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16 HURRICANE "T" ASTRAGAL by AFCO
Aluminum

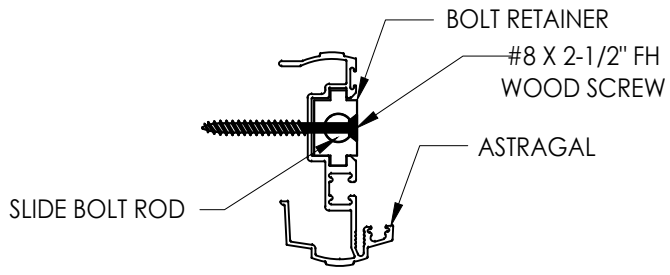


"T" ASTRAGAL PROFILE

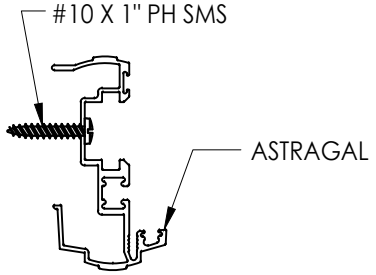


"T" ASTRAGAL FLAT PROFILE

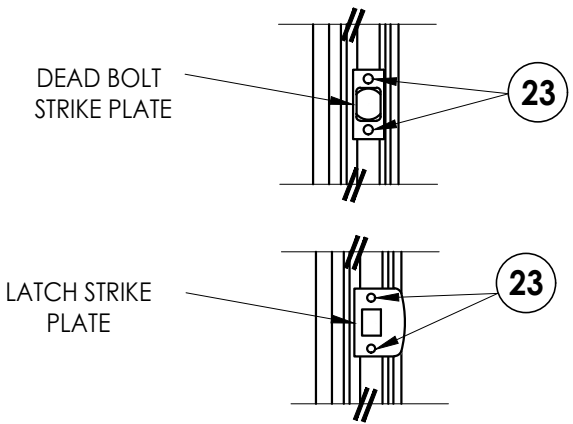
16 "HVHZ" ALUMINUM "T" ASTRAGAL by AFCO



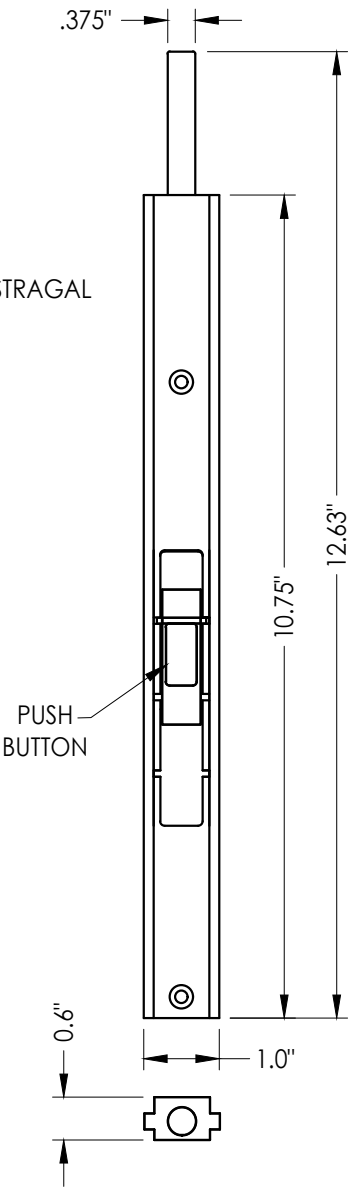
SECTION A-A
Astragal Assembly



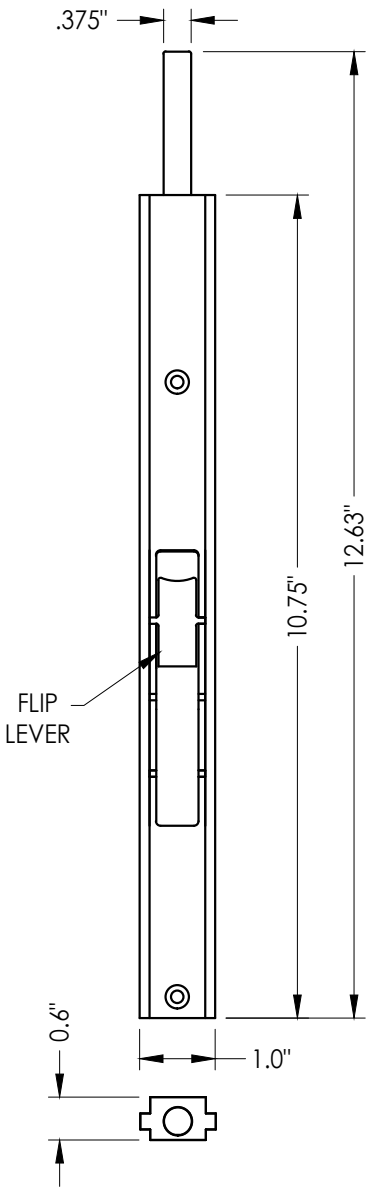
SECTION B-B
Astragal Assembly



LATCH & DEAD BOLT DETAIL



SLIDE BOLT ASSEMBLY
(w/ Push Button)
Aluminum



SLIDE BOLT ASSEMBLY
(w/ Flip Lever)
Aluminum

NO.	DATE	REVISIONS		
		DATE	BY	REVISIONS
7	6/26/24	ADD FLAT ASTRAGAL PROFILE	LFS	
6	8/09/23	UPDATE TO 8TH ED. (2023) FBC	LFS	
5	6/10/21	REVISE NEGATIVE D.P. SIGNAGE	LFS	
4	9/03/20	UPDATE TO 7TH ED. (2020) FBC	LFS	
3	12/16/17	REVISE ASTRAGAL SCREWS	LFS	

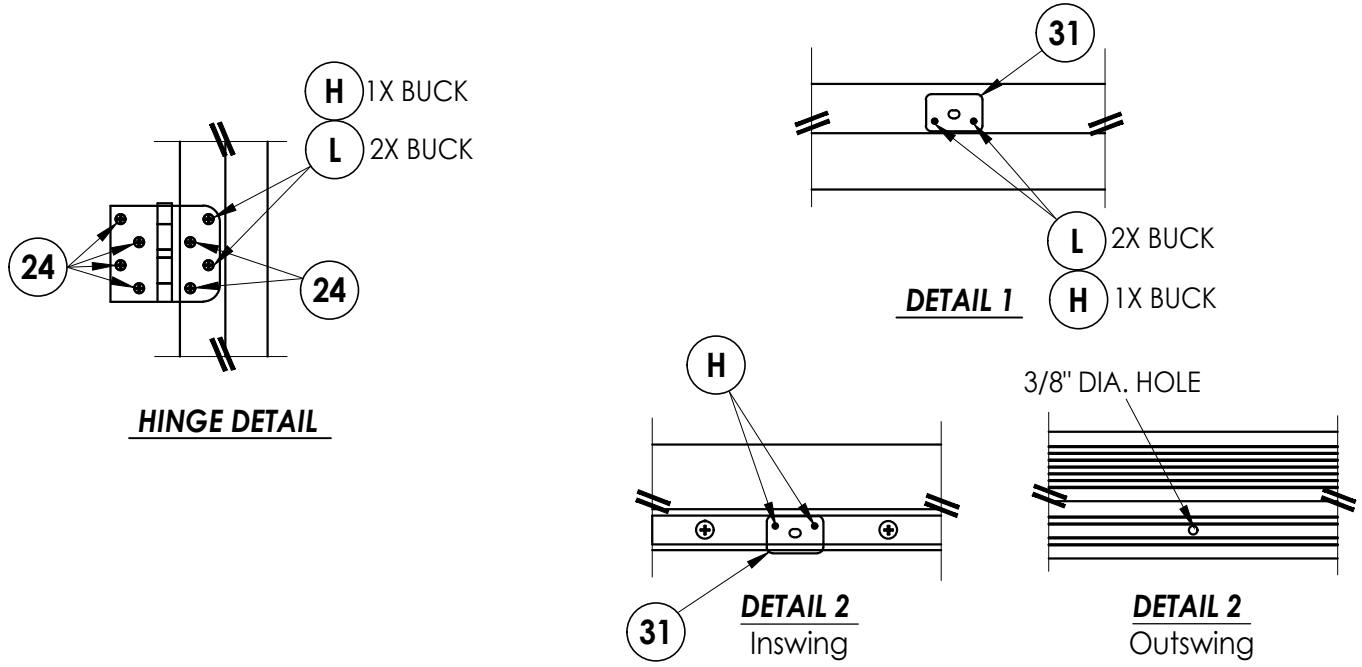
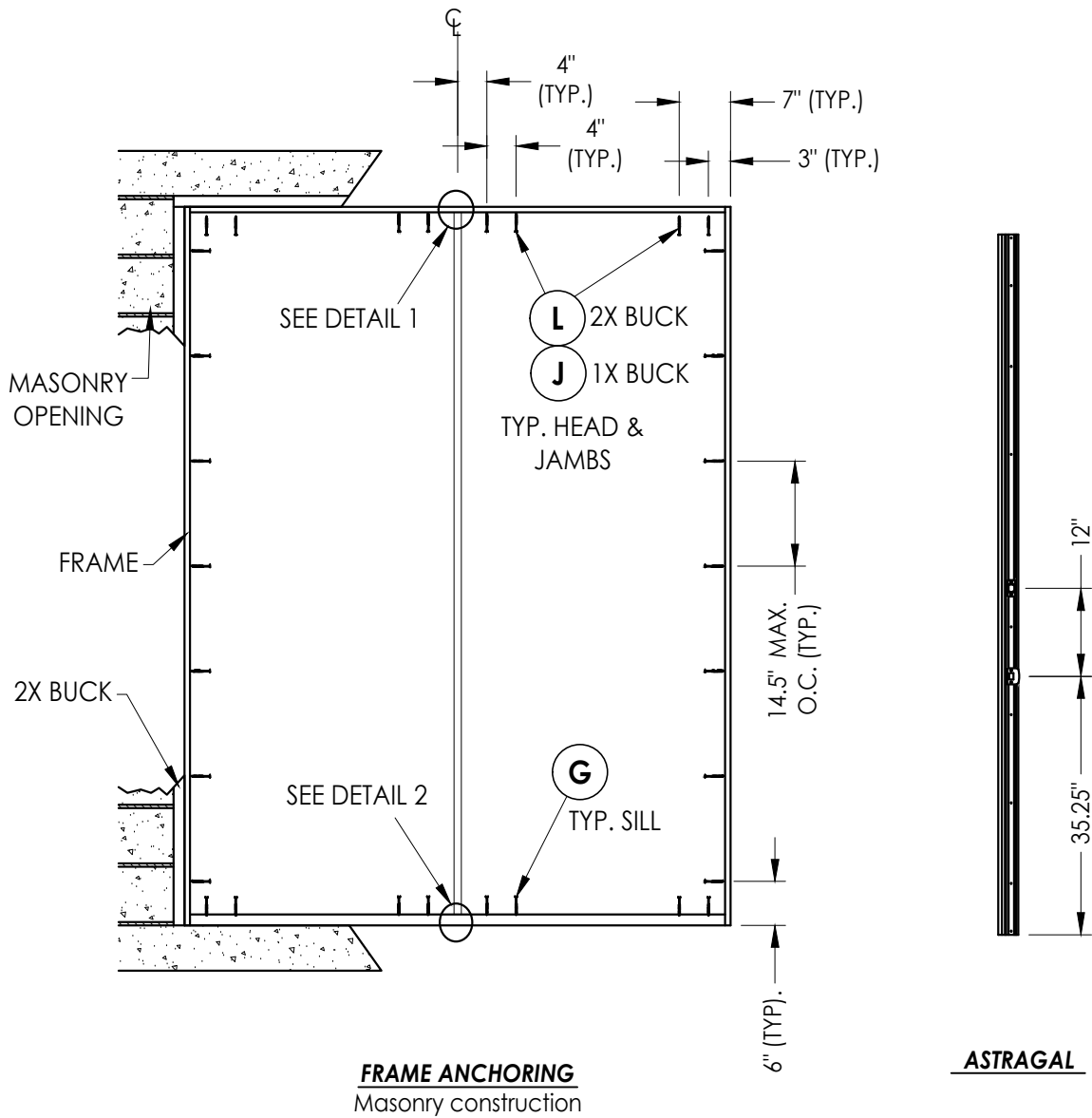
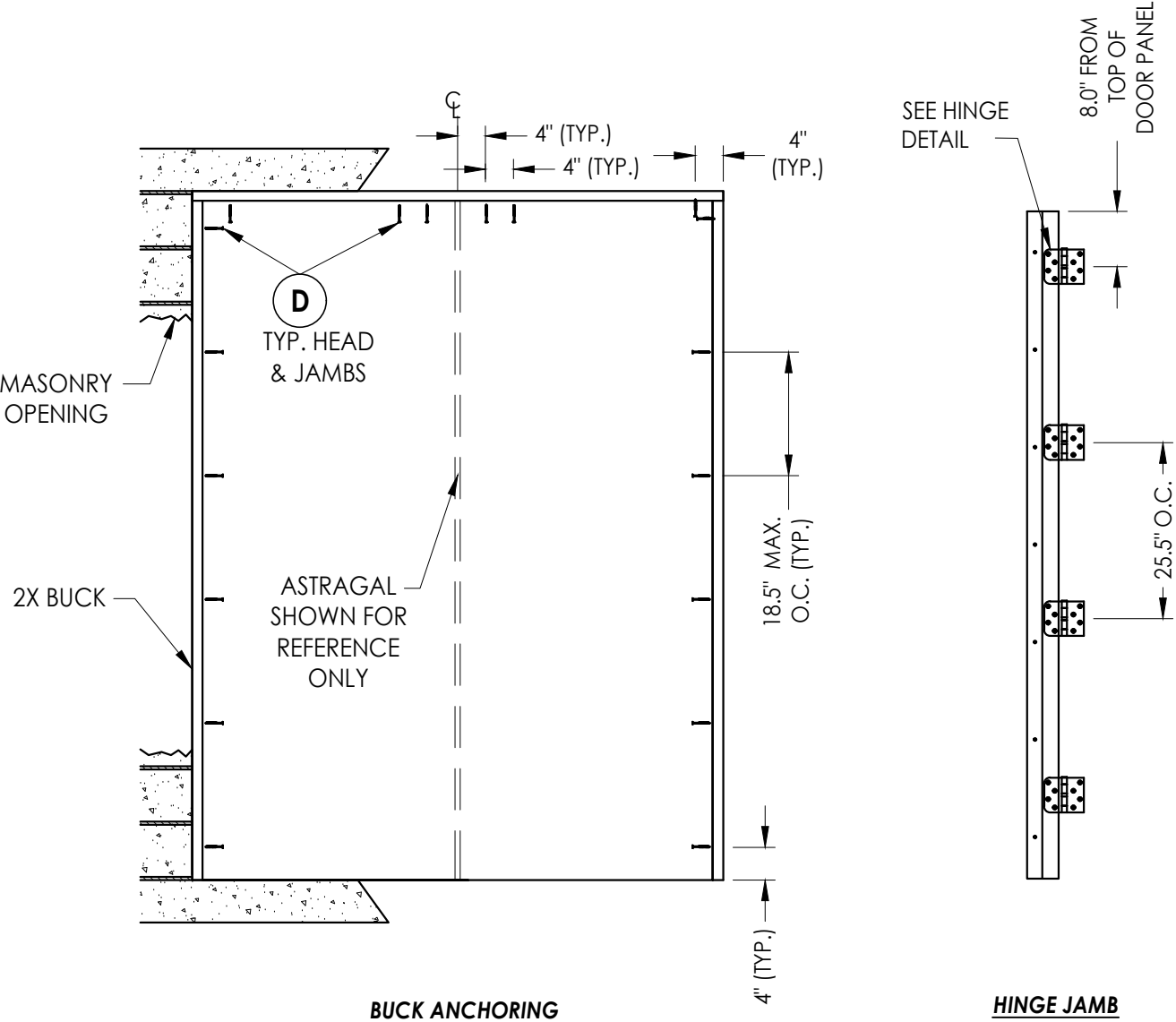
DATE:	3/27/13
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-13727.4
SHEET	4 OF 6

PRODUCT:	"HVHZ" ALUMINUM "T" ASTRAGAL
PART OR ASSEMBLY:	ASTRAGAL DETAILS

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CONCRETE ANCHOR NOTES:

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- 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.
- Concrete anchor table:

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

WOOD SCREW INSTALLATION NOTES:

- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.

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PRODUCT:
"HVHZ" ALUMINUM "T" ASTRAGAL

PART OR ASSEMBLY:
BUCK & FRAME ANCHORING

NO.	DATE	REVISIONS
7	6/26/24	ADD FLAT ASTRAGAL PROFILE
6	8/09/23	UPDATE TO 8TH ED. (2023) FBC
5	6/10/21	REVISE NEGATIVE D.P. SIGNAGE
4	9/03/20	UPDATE TO 7TH ED. (2020) FBC
3	12/16/17	REVISE ASTRAGAL SCREWS

DATE: 3/27/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

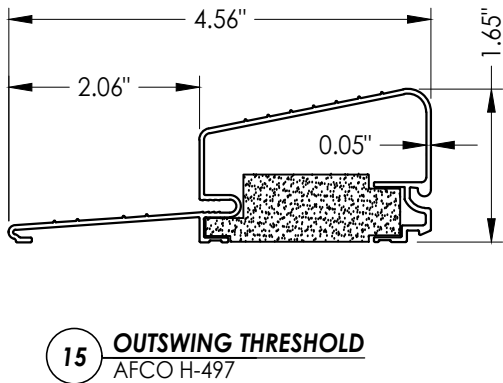
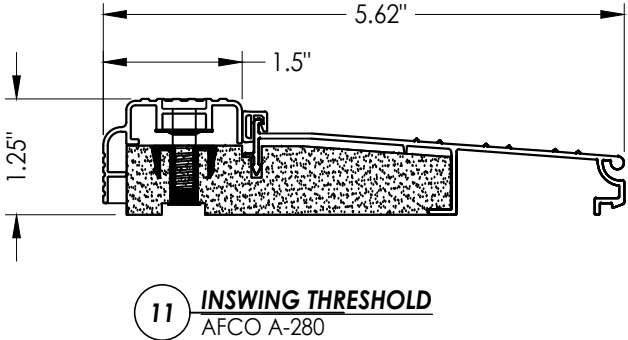
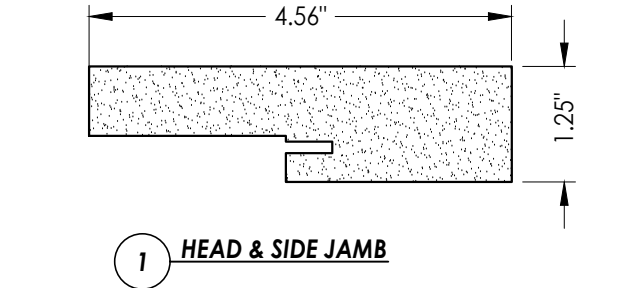
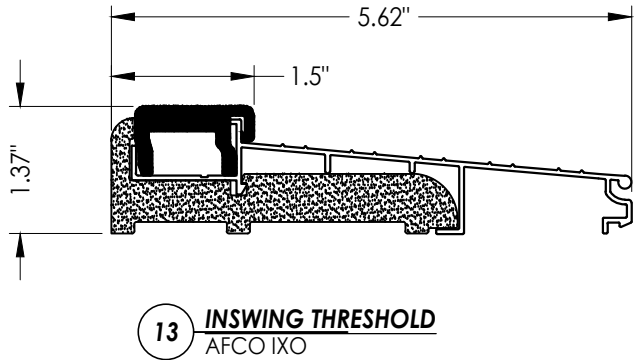
DRAWING NO.:

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SHEET 5 OF 6

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BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	3/16" X 2-1/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
G	1/4" PFH DeWALT OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
H	3/16" X 3-1/4" PFH ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	HEAD AND JAMB	POLY FIBER
7	WEATHER STRIP QEBD650 Q-LON	FOAM
10	DOOR BOTTOM SWEEP	PVC
11	INSWING THRESHOLD	ALUM/COMP
12	DEAD BOLT STRIKE PLATE	STEEL
13	INSWING THRESHOLD	ALUM/COMP
14	LATCH STRIKE PLATE	STEEL
15	OUTSWING THRESHOLD	ALUM/COMP
16	ASTRAGAL BY AFCO	ALUM.
22	#10 X 1" PH SMS	STEEL
23	#8 X 2-1/2" PFH WS	STEEL
24	#10 X 1" PFH SMS	STEEL
29	4" X 4" HINGE	STEEL
31	ASTRAGAL STRIKE PLATE	STEEL
40	PLASTPRO DOOR PANEL (FIBERGLASS)	-



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PRODUCT: "HVHZ" ALUMINUM "T" ASTRAGAL		PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS	
7	6/26/24	ADD FLAT ASTRAGAL PROFILE	LFS
6	8/09/23	UPDATE TO 8TH ED. (2023)	FBC
5	6/10/21	REVISE NEGATIVE D.P. SIGNAGE	LFS
4	9/03/20	UPDATE TO 7TH ED. (2020)	FBC
3	12/16/17	REVISE ASTRAGAL SCREWS	LFS
NO.	DATE		BY
REVISIONS			
DATE: 3/27/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-13727.4			
SHEET 6 OF 6			