

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	09/17/2020	R.L.

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL.
4. WHERE SHIM OR BUCK THICKNESS IS LESS THAN 1–1/2” UNITS MUST BE ANCHORED THROUGH THE FRAME IN ACCORDANCE WITH MANUFACTURER’S PUBLISHED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE SECURELY FASTENED DIRECTLY INTO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE MATERIAL.
5. WHERE WOOD BUCK THICKNESS IS 1–1/2” OR GREATER, BUCK SHALL BE SECURELY FASTENED TO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE. UNITS MAY BE ANCHORED THROUGH FRAME TO SECURED WOOD BUCK IN ACCORDANCE WITH MANUFACTURER’S PUBLISHED INSTALLATION INSTRUCTIONS.
6. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
7. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
8. SHIM AS REQUIRED AT EACH ANCHOR LOCATION WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16” OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4”.
9. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
10. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
11. FRAME MATERIAL: ALUMINUM 6063–T5.
12. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLAZING.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
14. FOR ANCHORING THROUGH FRAME INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4” MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

15. FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 1/4” TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4” MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2” MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
16. FOR ANCHORING THROUGH FRAME INTO METAL STRUCTURE USE #12 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
17. ALL FASTENERS TO BE CORROSION RESISTANT.
18. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER’S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - A. WOOD: MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
 - C. MASONRY: HOLLOW/FILLED BLOCK PER ASTM C90 WITH Fm=2,000PSI MINIMUM.
 - D. METAL STRUCTURE: STEEL 18GA (.048”) FY=33KSI/FU=52KSI OR ALUMINUM 6063–T5 FU=30KSI .125” THICK MINIMUM

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATION
3	APPROVED CONFIGURATION AND DESIGN PRESSURE CHART
4 – 8	INSTALLATION DETAILS
9	COMPONENTS



LANAI DOORS
941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR
NON-IMPACT
NOTES

DRAWN:
A.R.

DWG NO.
08-03494

REV
A

SCALE NTS

DATE 10/11/19

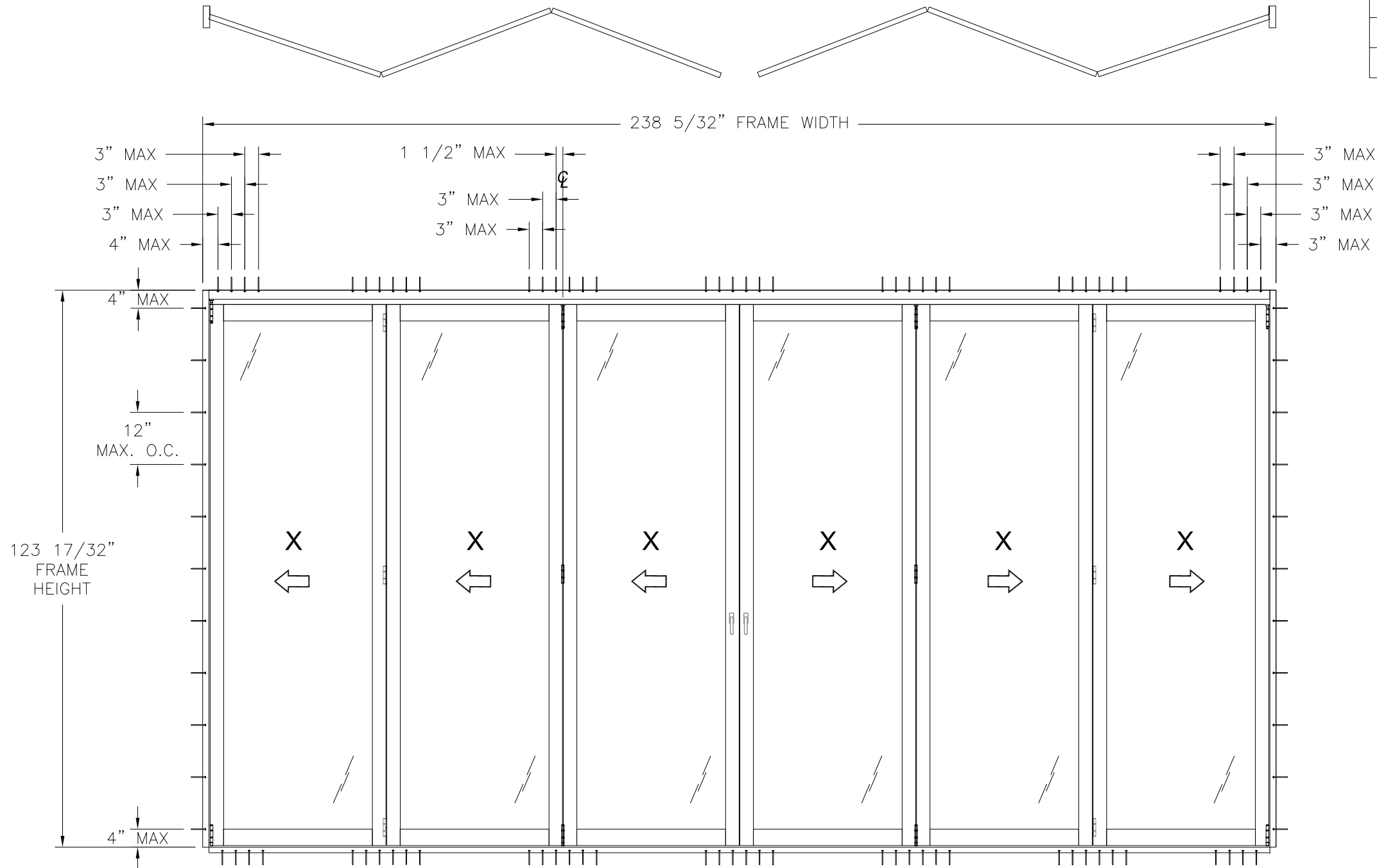
SHEET 1 OF 9

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 09/18/2020

Luis R. Lomas P.E.
FL No.: 62514

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- NOTES:
- PANEL SIZE: 39" X 120"
 - D.L.O. SIZE: 33" X 112 3/4"

DESIGN PRESSURE RATING	IMPACT RATING
+40.0/-45.0PSF	NONE

SEE CHART #1 SHEET 3 FOR OTHER SIZES

SERIES E3 OUTWARD OPENING BIFOLD DOORS NON-IMPACT

EXTERIOR VIEW

6 PANEL UNIT (3L 3R) SHOWN. UNLIMITED NUMBER OF PANELS ARE APPROVED AS LONG AS
PANEL AREA DOES NOT EXCEED 32.5 FT²

HARDWARE SCHEDULE

A.	(1) INTERLOCK USA 4-POINT DOOR HANDLE ASSEMBLY AT LOCKING SWING PANEL
B.	(9) INTERLOCK USA 2-POINT HANDLE AT STRIKE SWING PANEL
C.	(12) SHOOT BOLT GUIDES AT EACH LOCKING PANEL STILE AT HEAD AND SILL
D.	(3) DOUBLE SHOOT BOLT CUPS AT SILL UNDER LOCKING POINTS
E.	(1) STRIKE PLATE AT STRIKE SWING PANEL LOCKING STILE
F.	(2) HINGE WITH HANDLE AT CENTER OF EACH SHOOT BOLT FOLDING PANEL JOINT
G.	(4) OFFSET HINGE, 6" FROM TOP AND BOTTOM OF EACH PANEL WITH A SHOOT BOLT STILE
H.	(2) FLAT HINGE AT CENTER OF EACH ROLLER STILE
I.	(4) PIVOT HINGE AT TOP AND BOTTOM OF EACH JAMB STILE
J.	(2) INTERMEDIATE CARRIER WITH HINGE AT TOP RAIL AT EACH ROLLER STILE
K.	(2) CONCEALED INTERMEDIATE GUIDE AT BOTTOM RAIL AT EACH ROLLE STILE
L.	(2) WALL PIVOT AT CENTER OF EACH JAMB STILE



LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR NON-IMPACT ELEVATION		
DRAWN: A.R.	DWG NO. 08-03494	REV A
SCALE NTS	DATE 10/11/19	SHEET 2 OF 9
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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HORIZONTAL CROSS SECTIONS ARE SHOWN FOR REFERENCE ONLY.
UNLIMITED NUMBER OF PANELS ARE APPROVED, SEE NOTE UNDER
ELEVATION IN SHEET 2.

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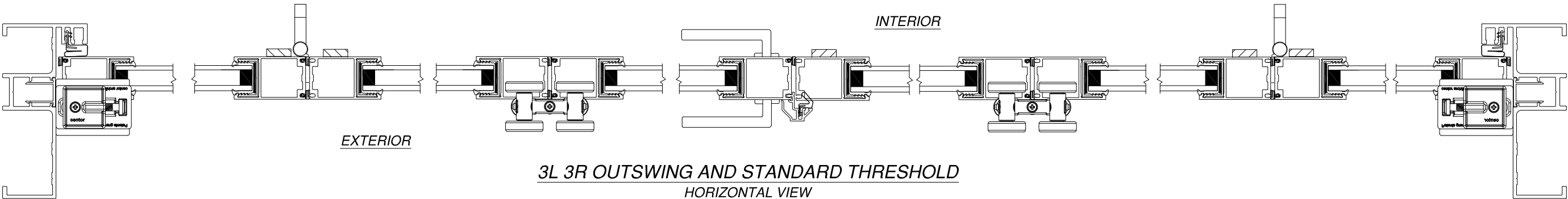


Chart #1
Maximum Design pressure (psf)

Panel Height (in)	Single Panel Width (in)																	
	24.0		27.0		30.0		33.0		36.0		39.0		42.0		45.0		48.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
80.0	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	55.7	62.7	52.0	58.5	48.8	54.8
84.0	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	57.1	64.3	53.1	59.7	49.5	55.7	46.4	52.2
90.0	60.0	67.5	60.0	67.5	60.0	67.5	60.0	67.5	57.8	65.0	53.3	60.0	49.5	55.7	46.2	52.0	43.3	48.8
96.0	60.0	67.5	60.0	67.5	60.0	67.5	59.1	66.5	54.2	60.9	50.0	56.3	46.4	52.2	43.3	48.8	40.6	45.7
102.0	60.0	67.5	60.0	67.5	60.0	67.5	55.6	62.5	51.0	57.4	47.1	52.9	43.7	49.2	40.8	45.9	-	-
108.0	60.0	67.5	60.0	67.5	56.2	63.2	51.9	58.4	48.1	54.2	44.4	50.0	41.3	46.4	-	-	-	-
114.0	60.0	67.5	57.8	65.0	52.8	59.4	48.7	54.8	45.4	51.0	42.1	47.4	-	-	-	-	-	-
120.0	60.0	67.5	54.5	61.3	49.8	56.0	45.9	51.6	42.7	48.0	40.0	45.0	-	-	-	-	-	-
126.0	54.6	61.4	48.7	54.8	44.0	49.5	40.2	45.3	37.1	41.7	-	-	-	-	-	-	-	-
132.0	47.4	53.3	42.3	47.6	38.2	43.0	34.9	39.3	-	-	-	-	-	-	-	-	-	-
138.0	41.5	46.6	37.0	41.6	33.4	37.6	30.5	34.3	-	-	-	-	-	-	-	-	-	-
144.0	36.4	41.0	32.5	36.6	29.3	33.0	-	-	-	-	-	-	-	-	-	-	-	-
150.0	32.2	36.2	28.7	32.3	25.9	29.2	-	-	-	-	-	-	-	-	-	-	-	-
156.0	28.6	32.2	25.5	28.7	23.0	25.9	-	-	-	-	-	-	-	-	-	-	-	-

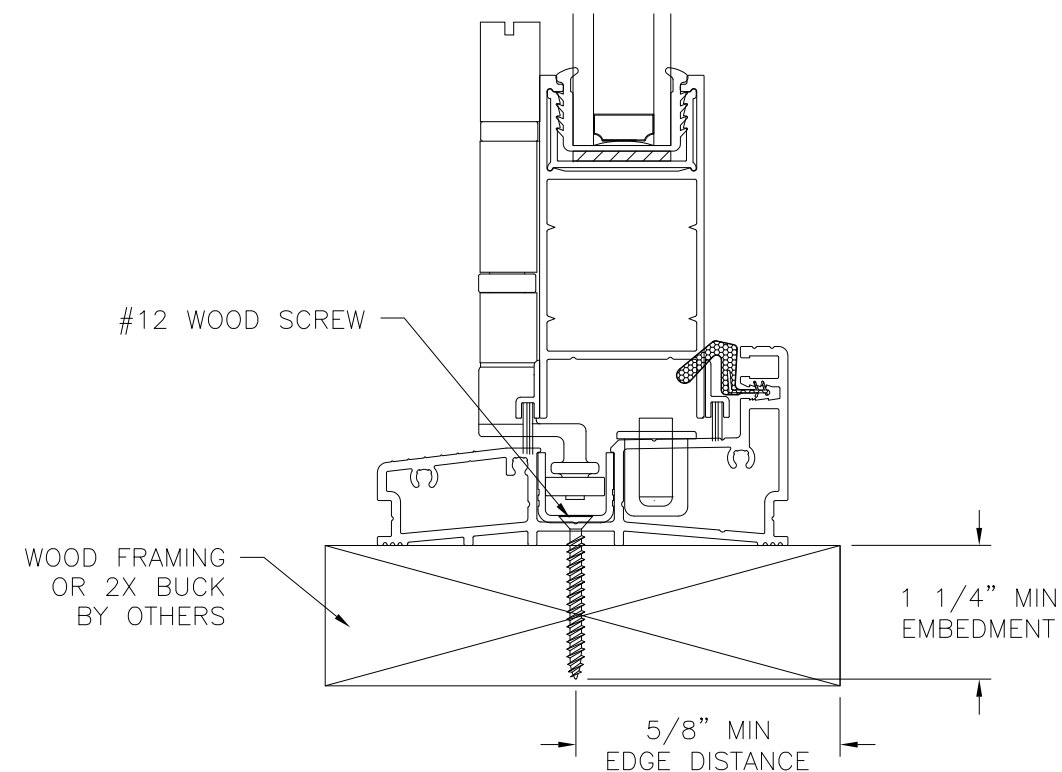
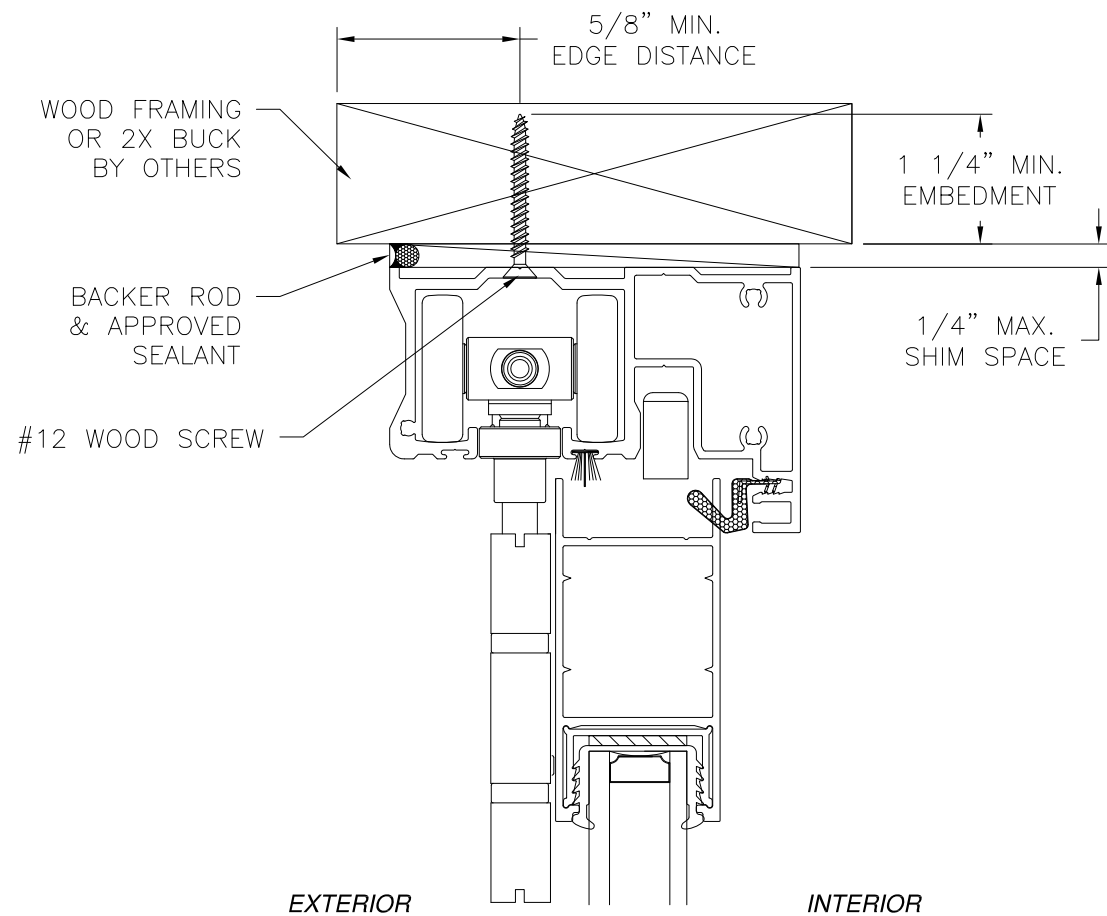
SIGNED: 09/18/2020



LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR NON-IMPACT APPROVED CONFIGURATION AND DP CHART		
DRAWN: A.R.	DWG NO. 08-03494	REV A
SCALE NTS	DATE 10/11/19	SHEET 3 OF 9
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

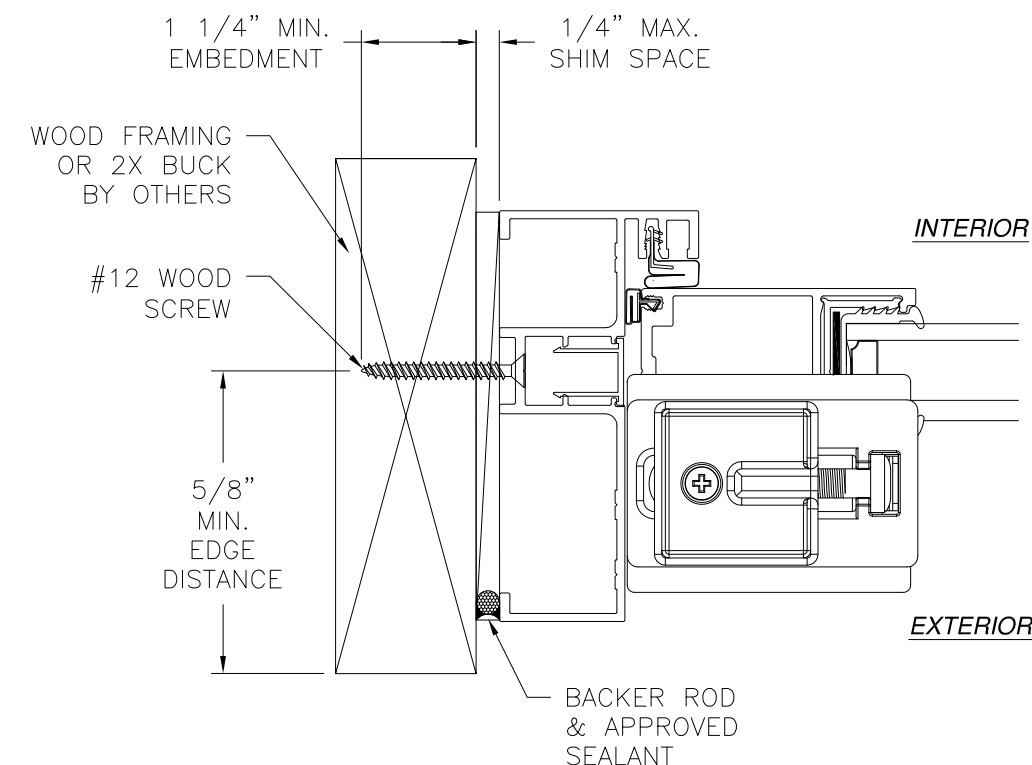


Luis R. Lomas P.E.
FL No.: 62514



VERTICAL CROSS SECTION
 WOOD FRAMING OR 2X BUCK INSTALLATION
 STANDARD THRESHOLD SHOW
 SEE SHEET 7 FOR COMMERCIAL FLUSH GUIDE THRESHOLD INSTALLATION

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JAMB INSTALLATION DETAIL
 WOOD FRAMING OR 2X BUCK INSTALLATION

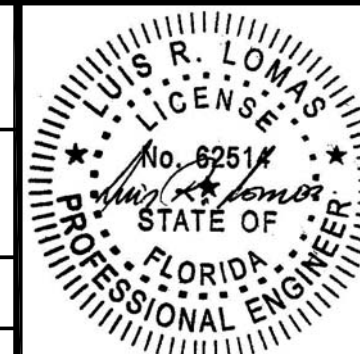
NOTES:

1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

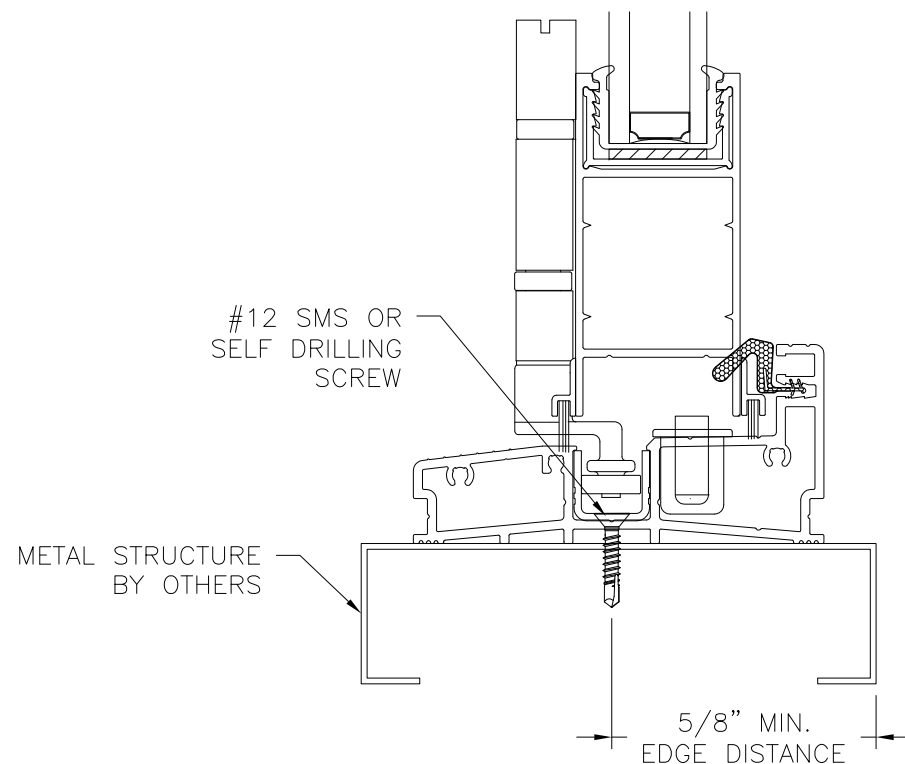
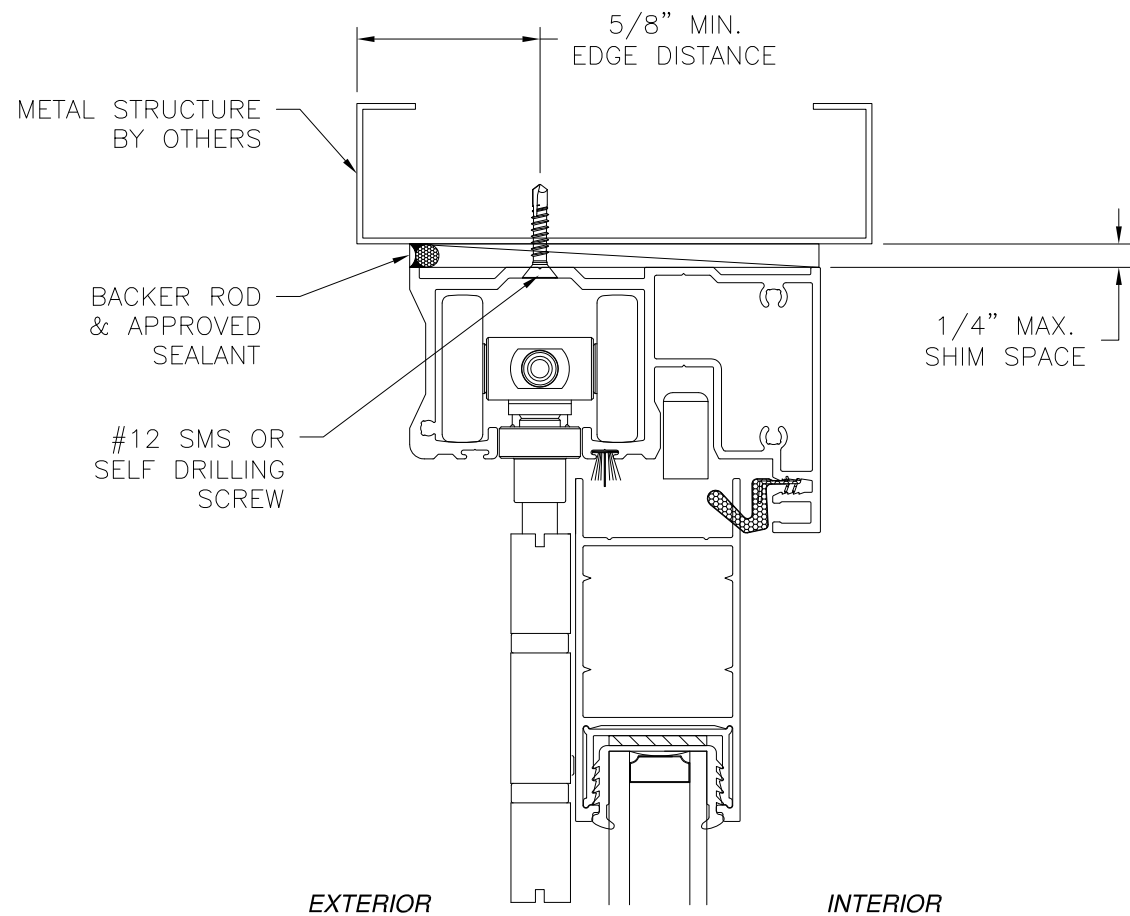


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SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR NON-IMPACT INSTALLATION DETAILS		
DRAWN: A.R.	DWG NO. 08-03494	REV A
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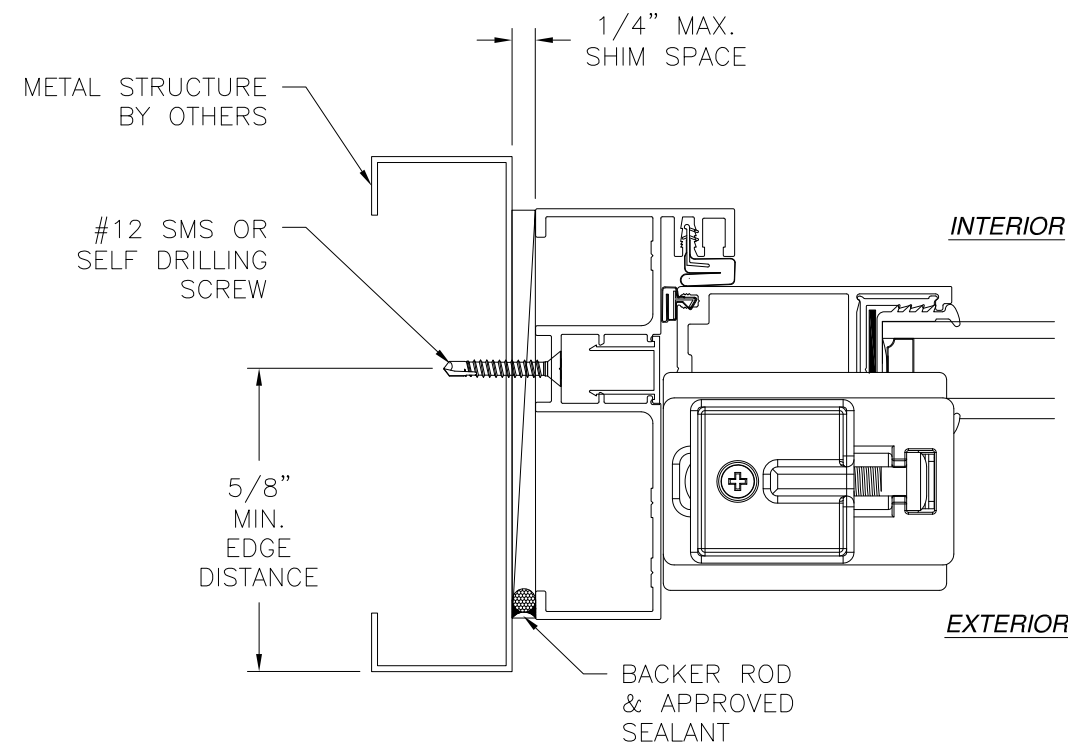


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VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION
STANDARD THRESHOLD SHOW
 SEE SHEET 7 FOR COMMERCIAL FLUSH GUIDE THRESHOLD INSTALLATION

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JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

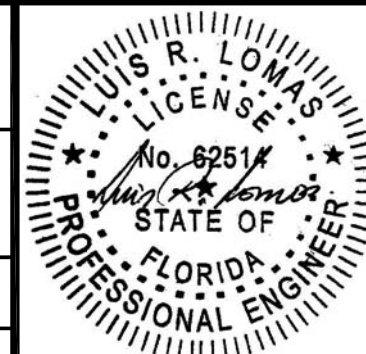
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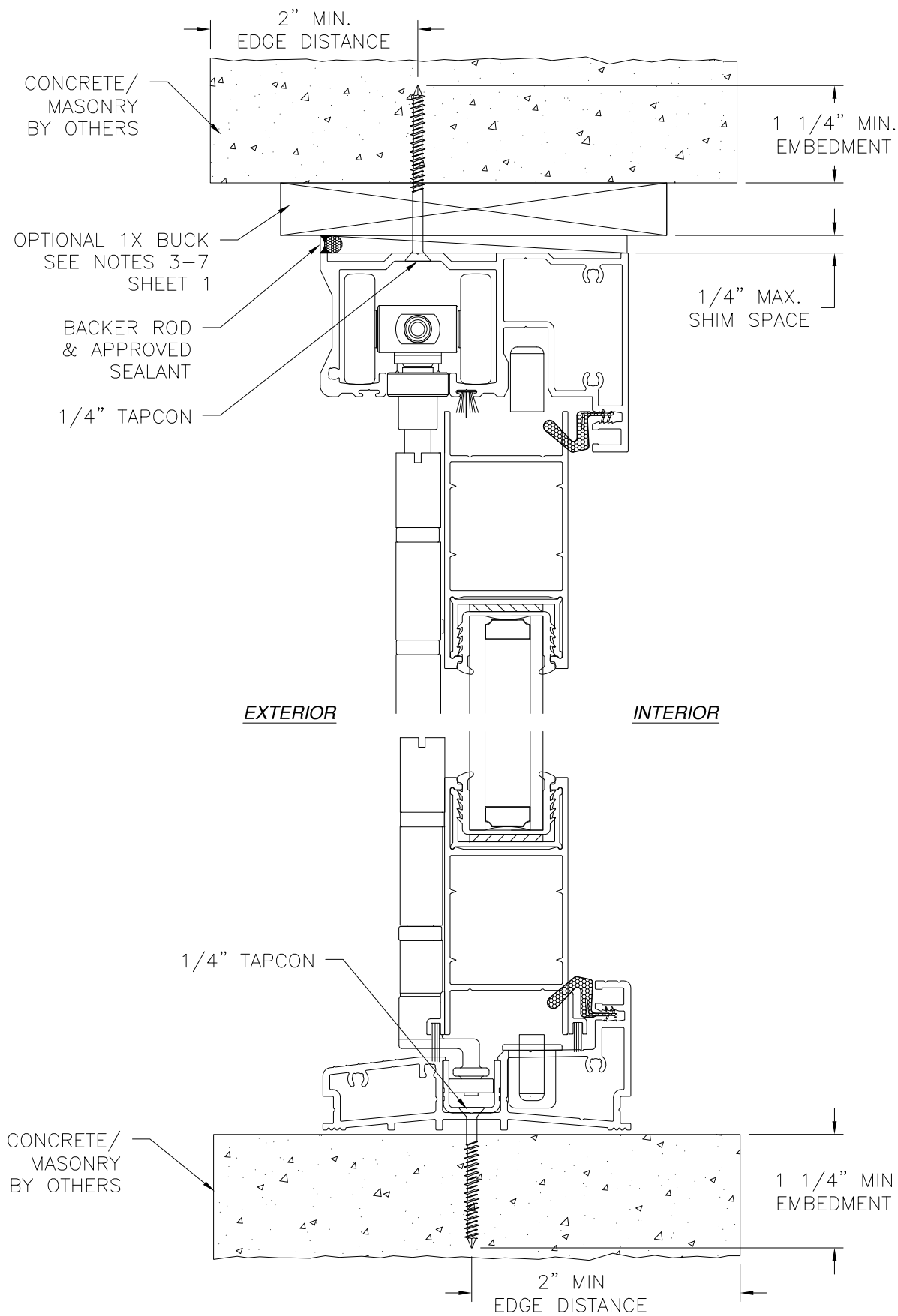


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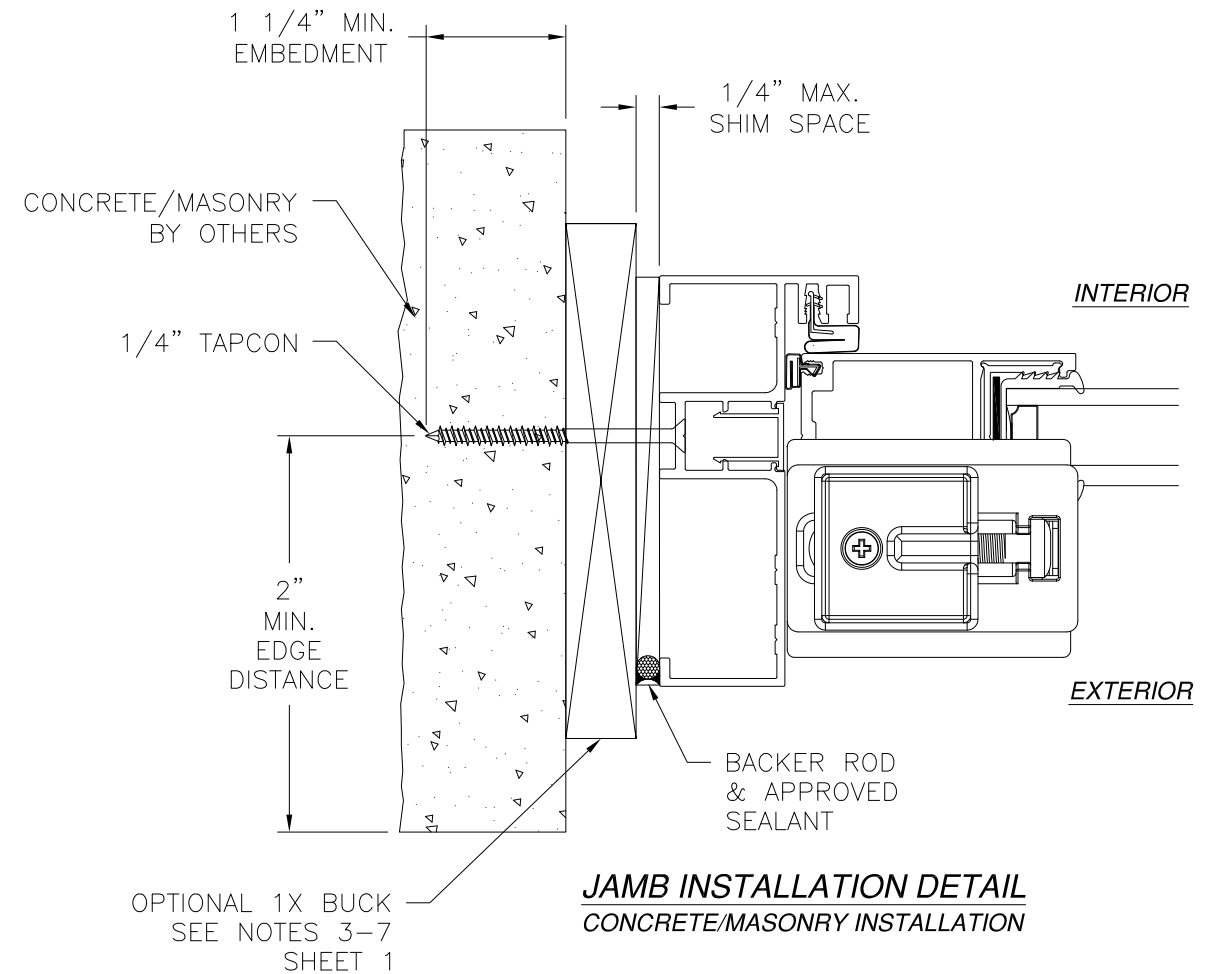
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VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
STANDARD THRESHOLD SHOW

SEE SHEET 7 FOR COMMERCIAL FLUSH GUIDE THRESHOLD INSTALLATION

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JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

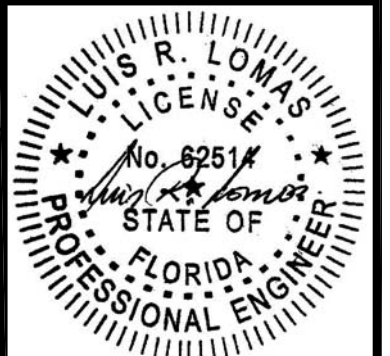
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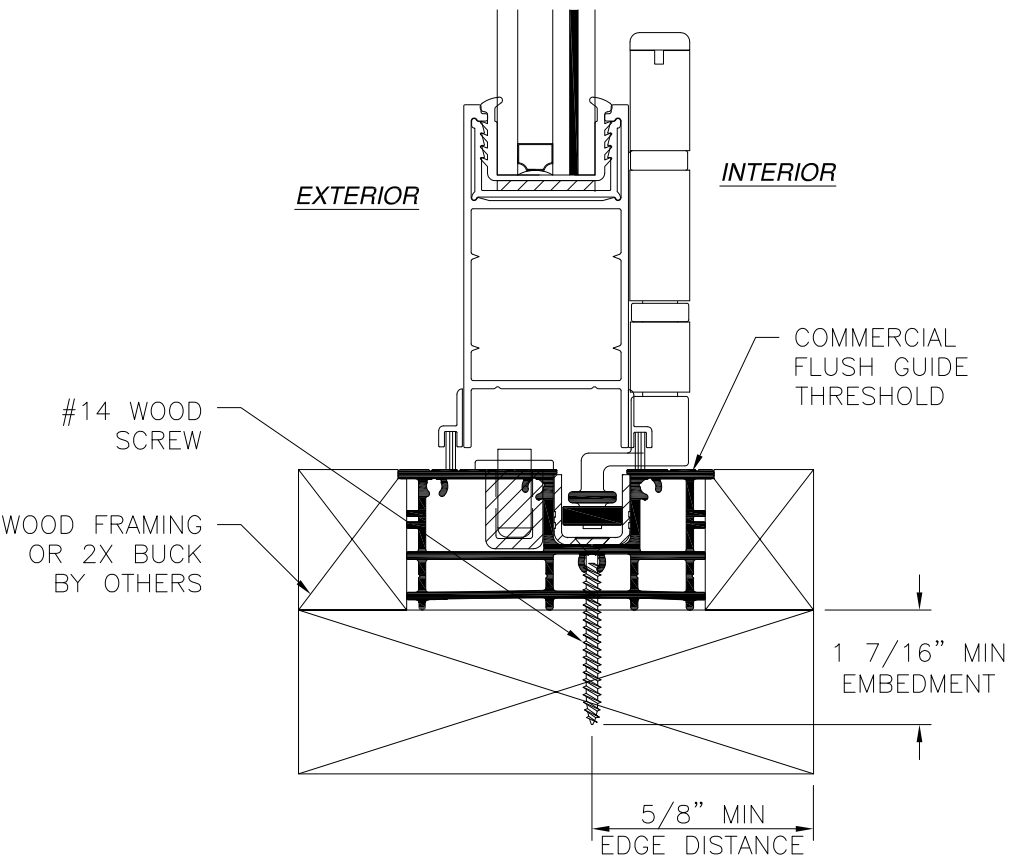
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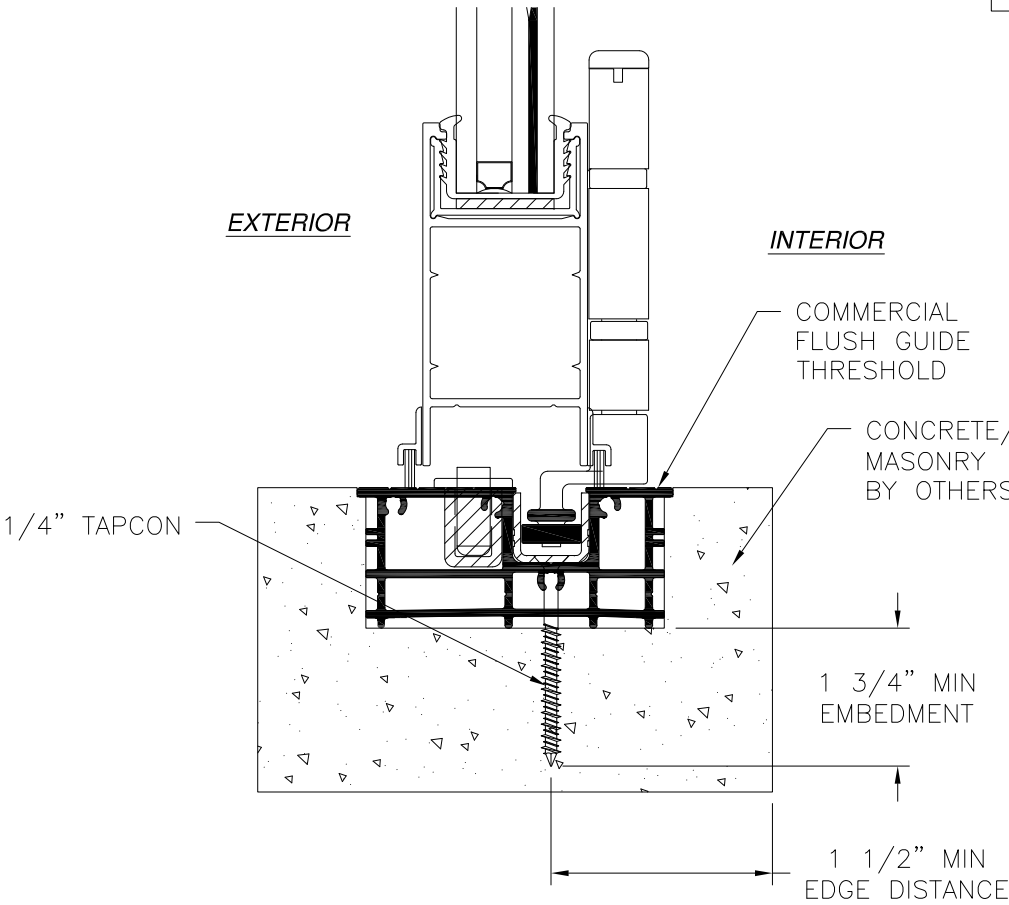


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VERTICAL CROSS SECTION
WOOD FRAMING INSTALLATION
COMMERCIAL FLUSH GUIDE THRESHOLD



VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
COMMERCIAL FLUSH GUIDE THRESHOLD

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LANAI DOORS

941 NORTH ELM STREET, SUITE C
ORANGE, CA 92867

SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR
NON-IMPACT
INSTALLATION DETAILS

DRAWN: A.R.

DWG NO. 08-03494

REV A

SCALE NTS

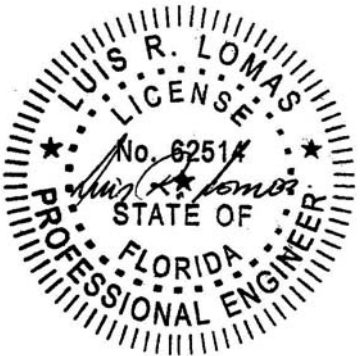
DATE 10/11/19

SHEET 7 OF 9

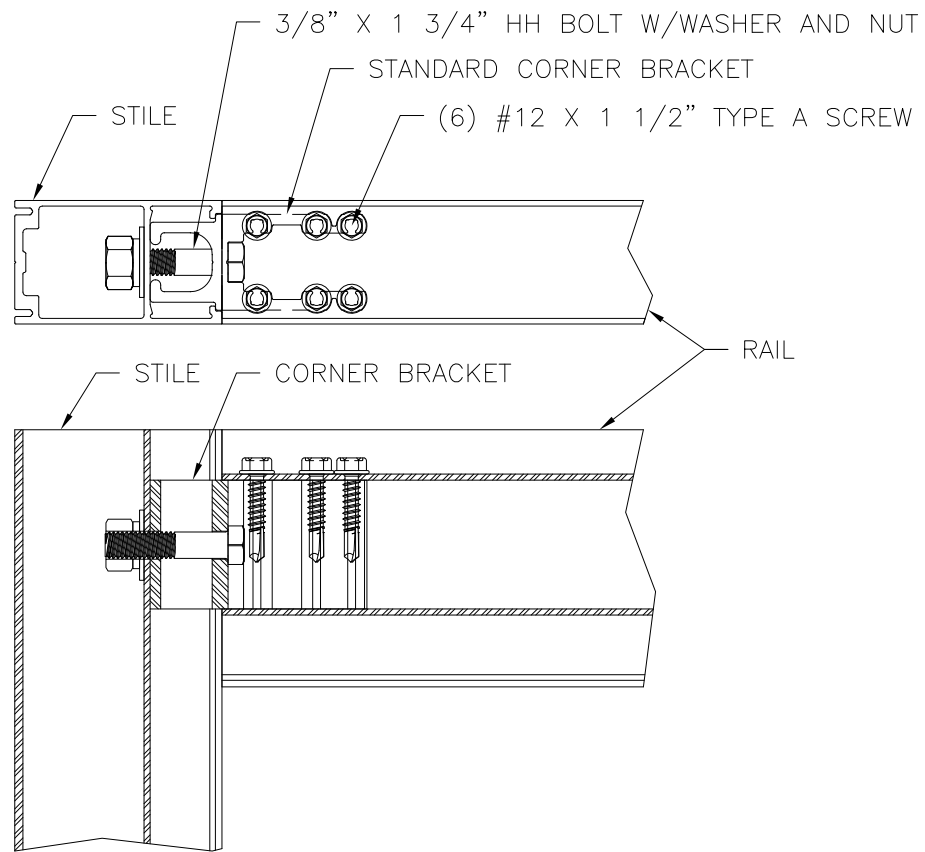
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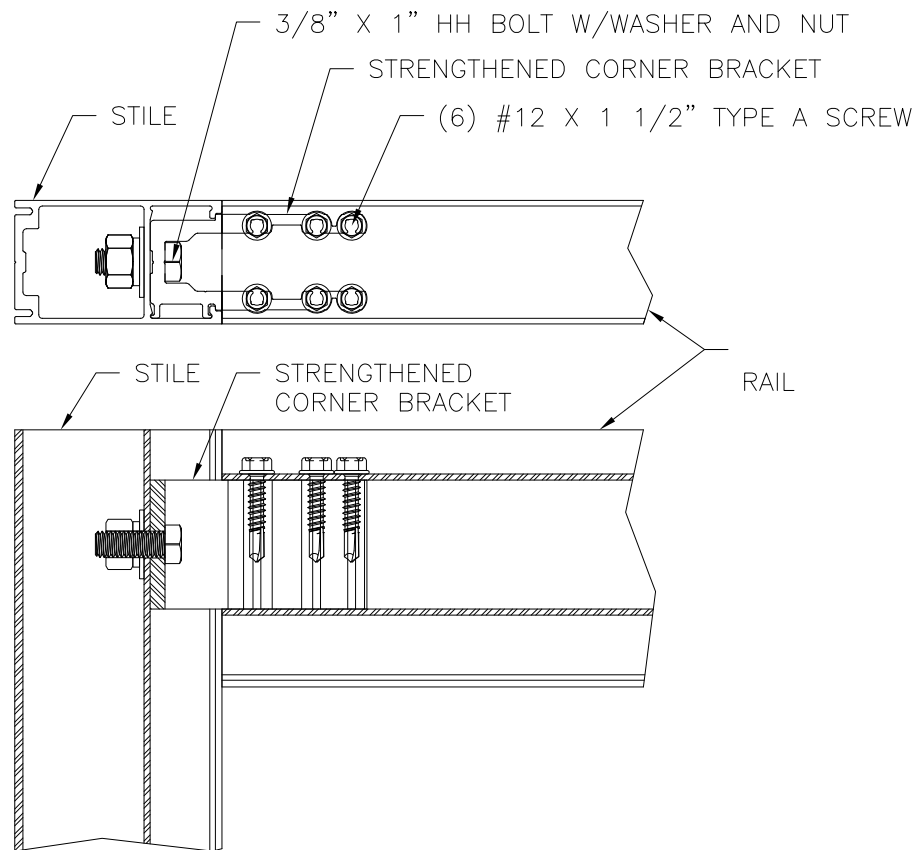
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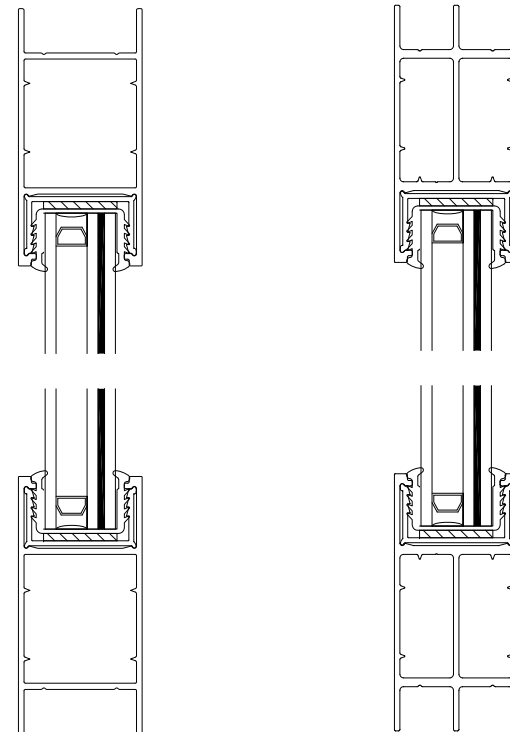


CORNER CONNECTION
W/ STANDARD CORNER BRACKET



CORNER CONNECTION
W/ STRENGTHENED CORNER BRACKET

APPROVED PANELS



STANDARD RAIL

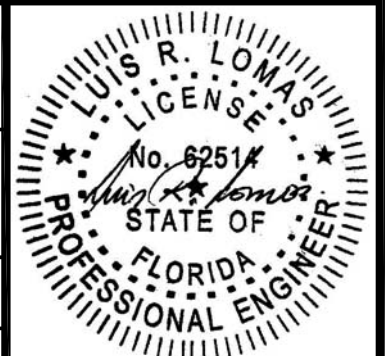
STRENGTHENED RAIL

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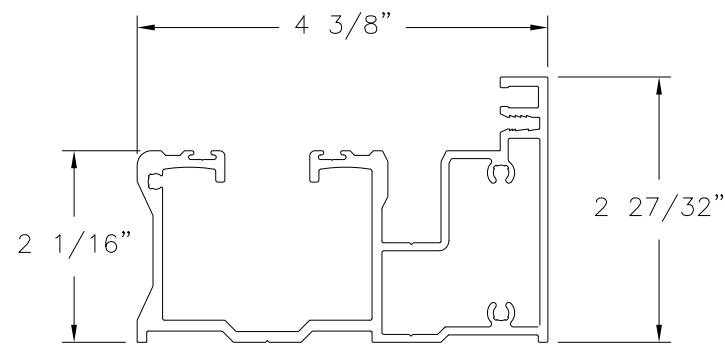


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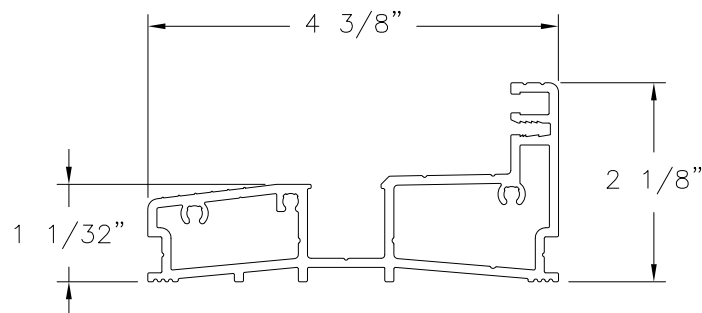
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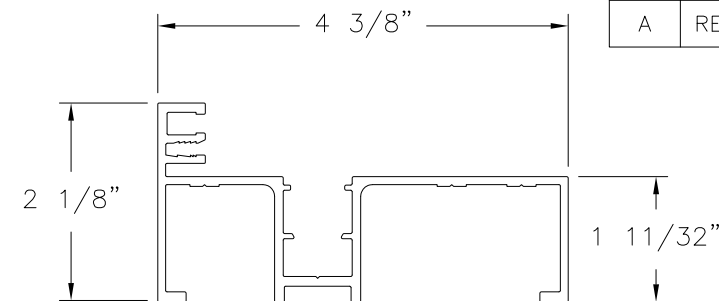
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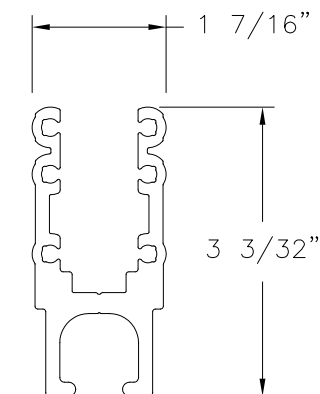
HEAD FRAME
ALUMINUM 6063-T5



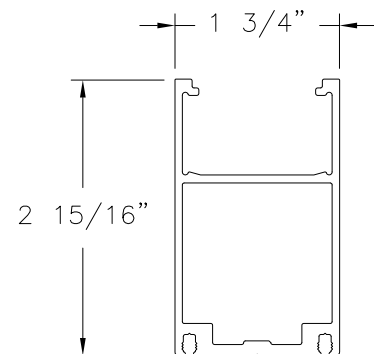
STANDARD THRESHOLD
ALUMINUM 6063-T5



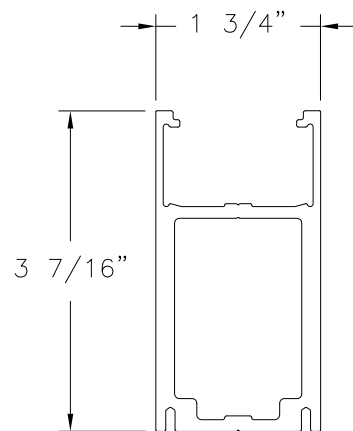
JAMB FRAME
ALUMINUM 6063-T5



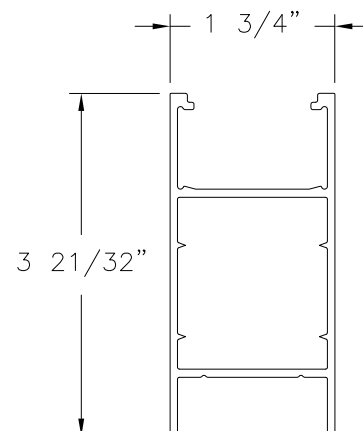
STANDARD CORNER BRACKET
ALUMINUM 6063-T5



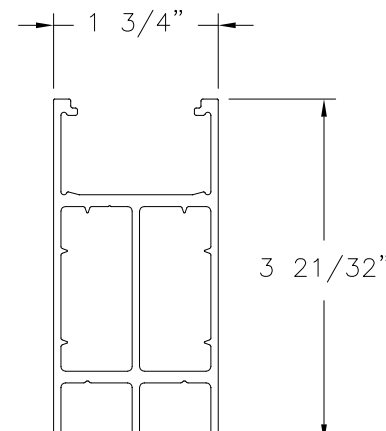
DOOR STILE
ALUMINUM 6063-T5



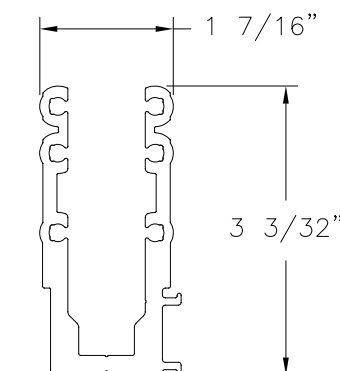
**ENLARGED DOOR STILE
(ALTERNATE)**
ALUMINUM 6063-T5



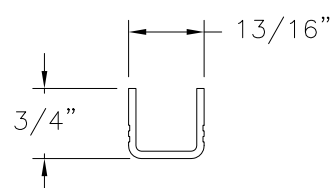
DOOR RAIL
ALUMINUM 6063-T5



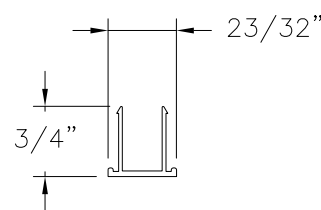
STRENGTHENED RAIL
ALUMINUM 6063-T5



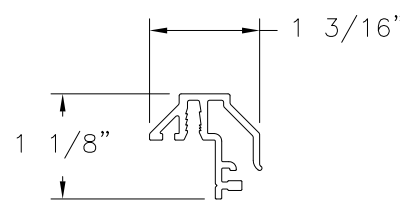
STRENGTHENED CORNER BRACKET
ALUMINUM 6063-T5



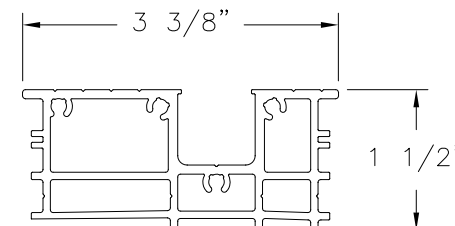
THRESHOLD INSERT
RIGID PVC



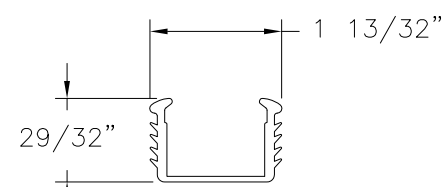
JAMB COVER
ALUMINUM 6063-T5



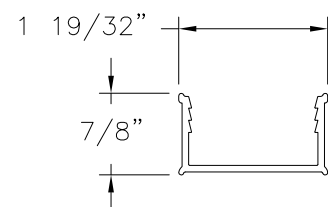
ASTRAGAL
ALUMINUM 6063-T5



COMMERCIAL FLUSH GUIDE THRESHOLD
ALUMINUM 6063-T5



DRY GLAZING GASKET
SANTOPRENE 101-64 TPV/TPE
DUROMETER 64

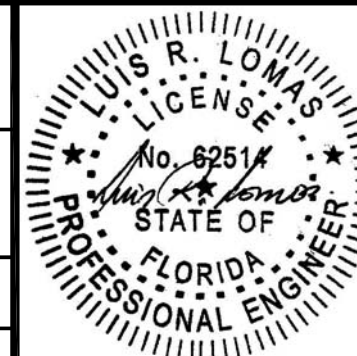


GLAZING CLIP
ALUMINUM 6063-T5



LANAI DOORS 941 NORTH ELM STREET, SUITE C ORANGE, CA 92867		
SERIES E3 OUTSWING ALUMINUM BIFOLD DOOR NON-IMPACT COMPONENTS		
DRAWN: A.R.	DWG NO. 08-03494	REV A
SCALE NTS	DATE 10/11/19	SHEET 9 OF 9
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 09/18/2020



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