

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED MANUFACTURER ADDRESS	07/22/2026	R.L.

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. WOOD FRAMING, METAL STRUCTURE 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. 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.
4. 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.
5. 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.
6. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
7. SHIM AS NEEDED 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".
8. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
9. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
10. FRAME MATERIAL: WOOD SPECIFIC GRAVITY G=0.59 MINIMUM (INCLUDES BUT IS NOT LIMITED TO: LARCH, SIPO, MERANTI, MAHOGANY, WHITE OAK, WALNUT)
11. UNITS MUST BE GLAZED PER ASTM E1300, SEE SHEET 3 FOR GLASS DETAILS.
12. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.

13. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
14. FOR ANCHORING 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.
15. ALL FASTENERS TO BE CORROSION RESISTANT.
16. 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:

16.1. WOOD: MINIMUM SPECIFIC GRAVITY OF G=0.42

16.2. METAL STRUCTURE: STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI 1/8" THICK MINIMUM
17. SIMULATED DIVIDED LITES MUNTINS ARE OPTIONAL.

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BILDAU & BUSSMANN NORTH AMERICA INC.

200 CONTINENTAL DRIVE, SUITE 401

NEWARK, DE 19713

TILT & TURN IN-SWING
WOOD CASEMENT WINDOW
NOTES

DRAWN:

R.L.

DWG NO.

08-01352

REV

C

SCALE

NTS

DATE

07/24/12

SHEET

1

 OF

7

L. ROBERTO LOMAS P.E.

208 7th Ave, INDIALANTIC, FL 32903

434-688-0609 rllomas@lrlomaspe.com

SIGNED: 07/22/2026

LUIS R. LOMAS

LICENS. M. S.

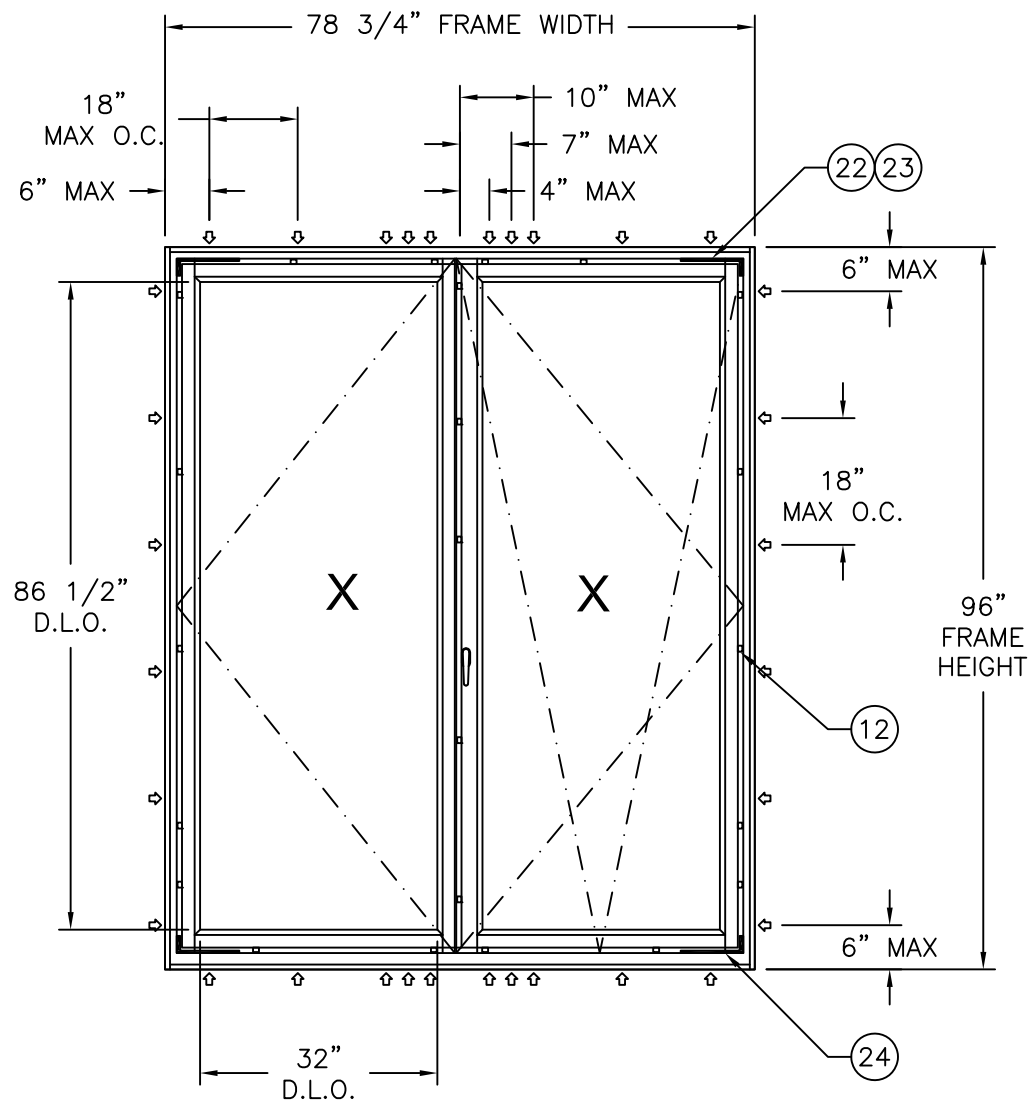
No. 62514

STATE OF FLORIDA

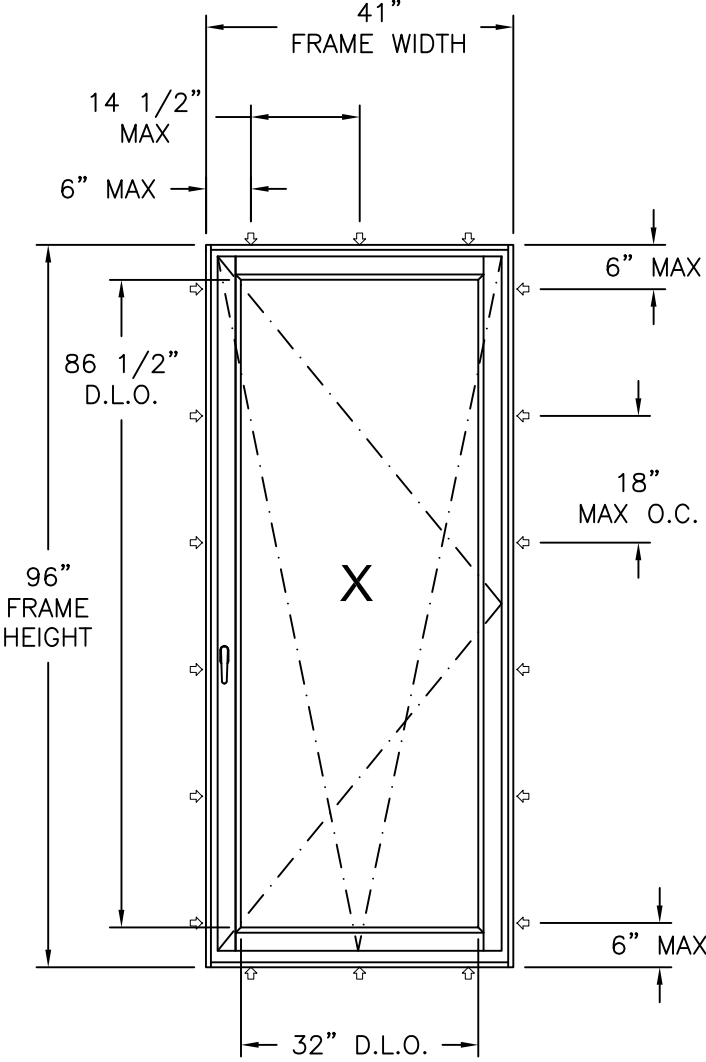
PROFESSIONAL ENGINEER

Luis R. Lomas P.E.
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CASEMENT TILT AND TURN DOUBLE
INTERIOR VIEW



CASEMENT TILT AND TURN SINGLE
INTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±70PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4, AND HVHZ

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WOOD CASEMENT WINDOW
ELEVATIONS

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DATE 07/24/12

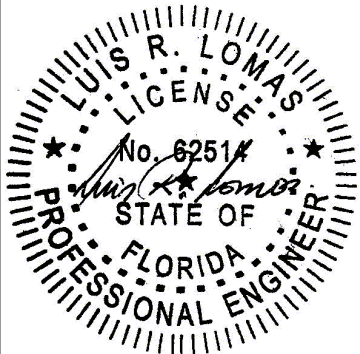
SHEET 2 OF 7

L. ROBERTO LOMAS P.E.

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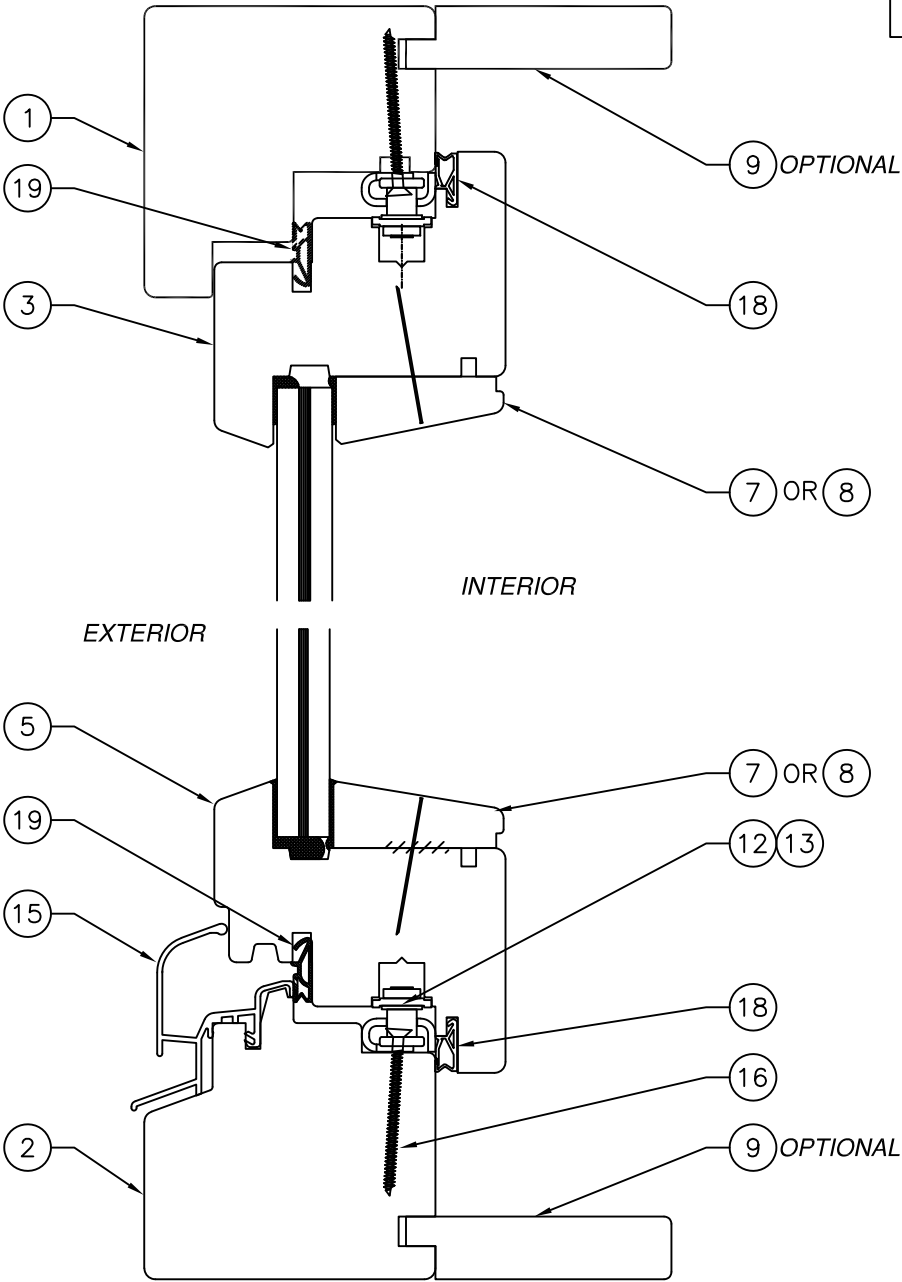
434-688-0609 rllomas@lrlomaspe.com

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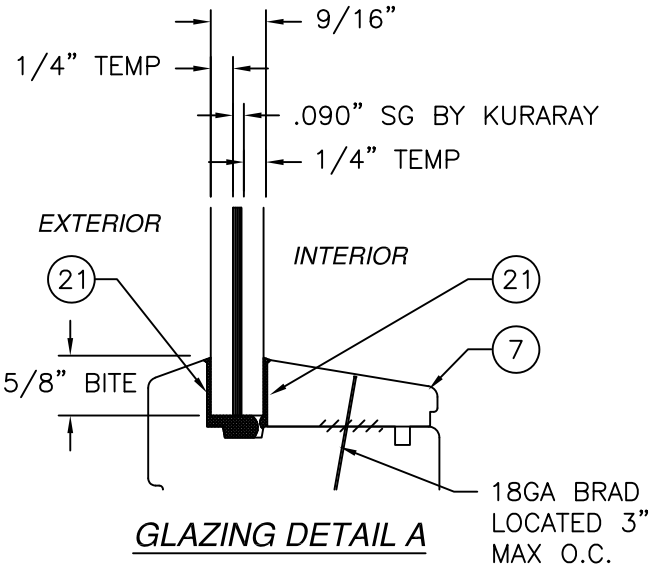
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PARTS LIST				
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1		FRAME	B&B	WOOD (SEE NOTE 5)
2		FRAME SILL	B&B	WOOD (SEE NOTE 5)
3		SASH HINGE STILE & TOP RAIL	B&B	WOOD (SEE NOTE 5)
4		SASH STILE W/ REINFORCEMENT	B&B	WOOD (SEE NOTE 5)
5		SASH BOTTOM RAIL	B&B	WOOD (SEE NOTE 5)
6		SASH INACTIVE MEETING STILE	B&B	WOOD (SEE NOTE 5)
7		GLASS STOP (SINGLE GLASS)	B&B	WOOD (SEE NOTE 5)
8		GLASS STOP (IG)	B&B	WOOD (SEE NOTE 5)
9		JAMB EXTENSION	B&B	WOOD (SEE NOTE 5)
10		FLAT ASTRAGAL	B&B	WOOD (SEE NOTE 5)
11		REINFORCEMENT	B&B	STEEL EN S275
12		MUSHROOM CAM LOCKING ROLLER	B&B	WOOD (SEE NOTE 5)
13		KEEPER	B&B	WOOD (SEE NOTE 5)
14		INACTIVE ESPAGNOLETTE	B&B	WOOD (SEE NOTE 5)
15		DRIP RAIL	B&B	ALUMINUM 6063-T6
16		#8 X 1-3/4" SCREW	B&B	STEEL
17		#8 X 1" SCREW	B&B	STEEL
18	SV12	WEATHERSTRIP	DEVENTER	EPDM 75 SHORE A
19	SV103	WEATHERSTRIP	DEVENTER	EPDM 75 SHORE A
20	S6600	WEATHERSTRIP	DEVENTER	EPDM 75 SHORE A
21	552	SIKA FLEX	SIKA	
22		DESIGNO TOP HINGE	ROTO	
23		TOP HINGE RETAINER	ROTO	
24		DESIGNO BOTTOM HINGE	ROTO	
25		NT TOP HINGE	ROTO	
26		NT BOTTOM HINGE	ROTO	
27		CLIP		GALVANIZED STEEL
28		FILLER	B&B	WOOD (SEE NOTE 5)
29		GLASS STOP (OPTIONAL)	B&B	WOOD (SEE NOTE 5)
30		GLASS STOP (OPTIONAL)	B&B	WOOD (SEE NOTE 5)
31	M24	CLIP (ALTERNATE)	STRONG TIE	GALVANIZED STEEL
32	HL33	CLIP (ALTERNATE)	STRONG TIE	GALVANIZED STEEL
33	A33	CLIP (ALTERNATE)	STRONG TIE	GALVANIZED STEEL
34		SASH MIDDLE RAIL	B&B	WOOD (SEE NOTE 5)
35		STEEL REINFORCEMENT	B&B	STEEL EN S275

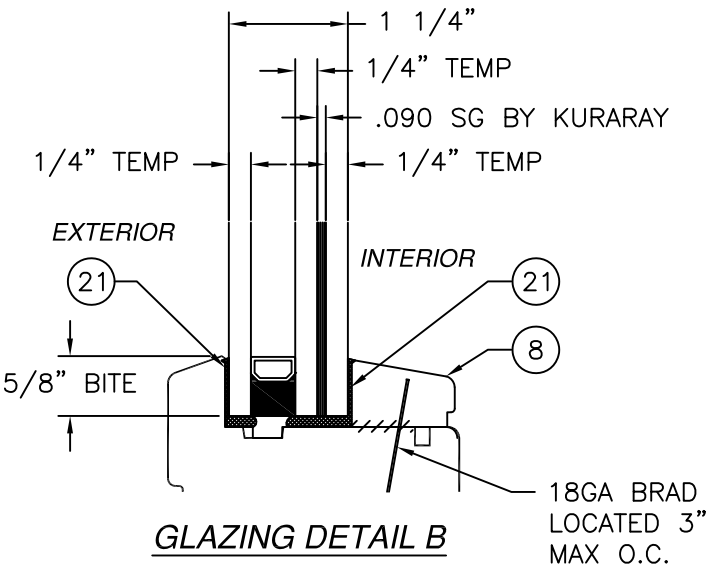


VERTICAL SECTION

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GLAZING DETAIL A



GLAZING DETAIL B

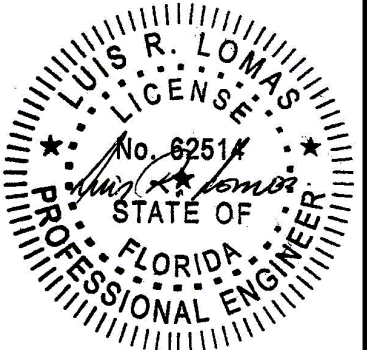
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BILDAU & BUSSMANN NORTH AMERICA INC.
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TILT & TURN IN-SWING
WOOD CASEMENT WINDOW
CROSS SECTIONS, B.O.M. & GLAZING DETAILS

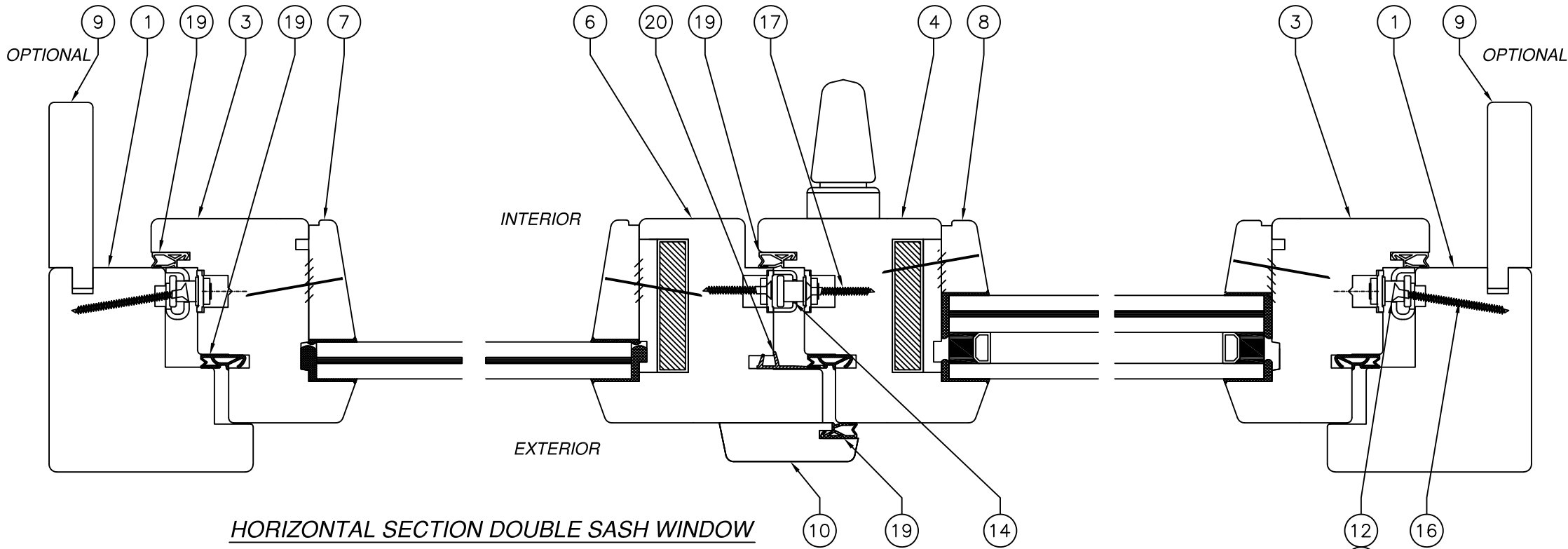
DRAWN: R.L.	DWG NO. 08-01352	REV C
SCALE NTS	DATE 07/24/12	SHEET 3 OF 7

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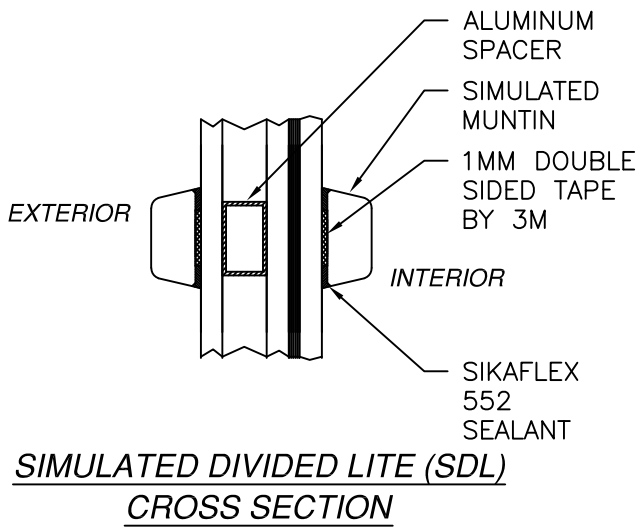


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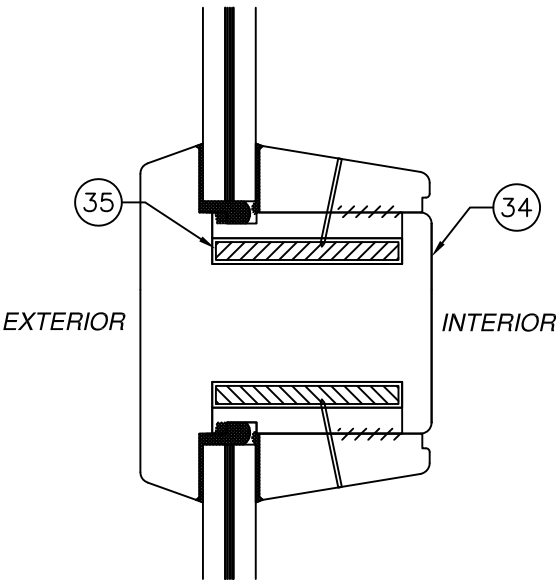
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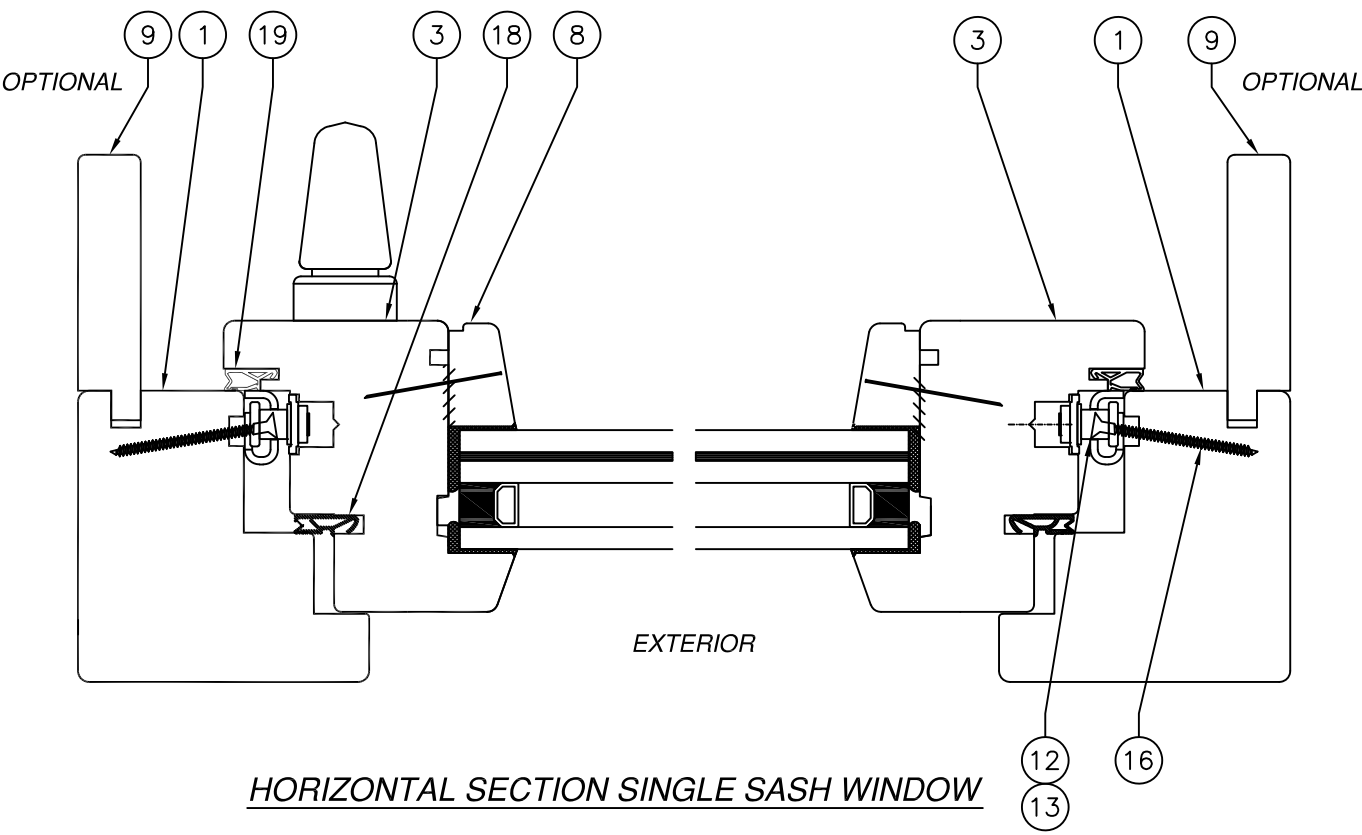
HORIZONTAL SECTION DOUBLE SASH WINDOW



SIMULATED DIVIDED LITE (SDL)
CROSS SECTION



VERTICAL CROSS SECTION
HORIZONTAL RAIL OPTIONAL
SEE NOTE 13 SHEET 1



HORIZONTAL SECTION SINGLE SASH WINDOW

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CROSS SECTIONS

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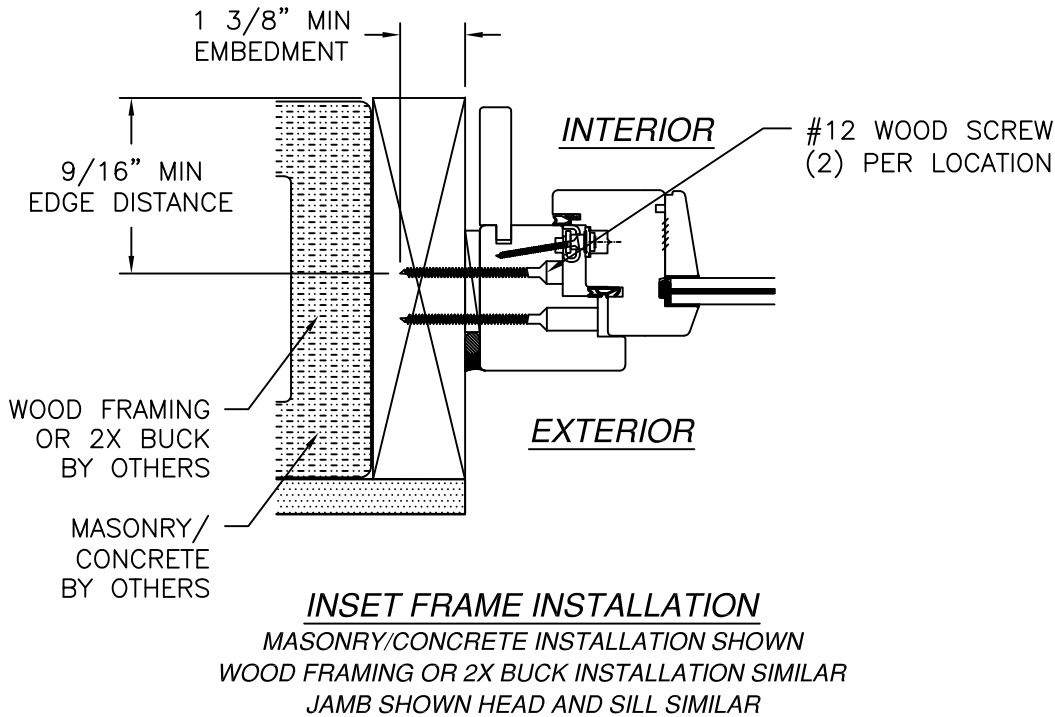
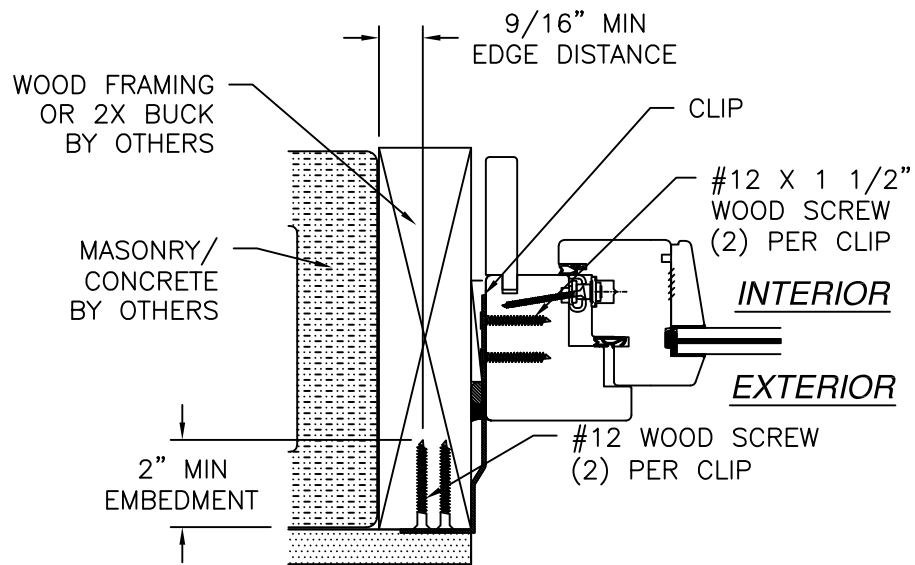
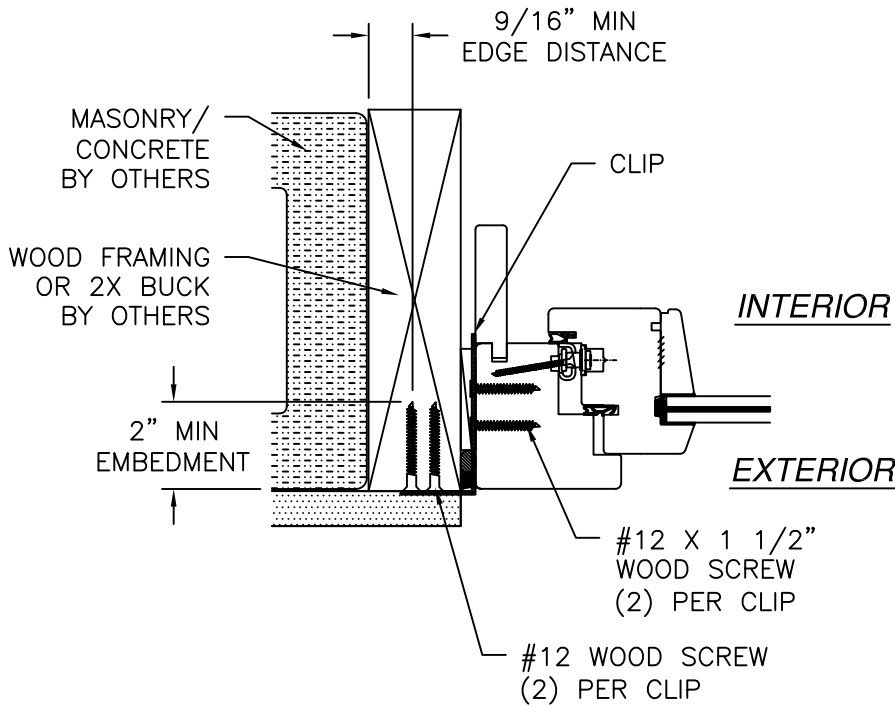
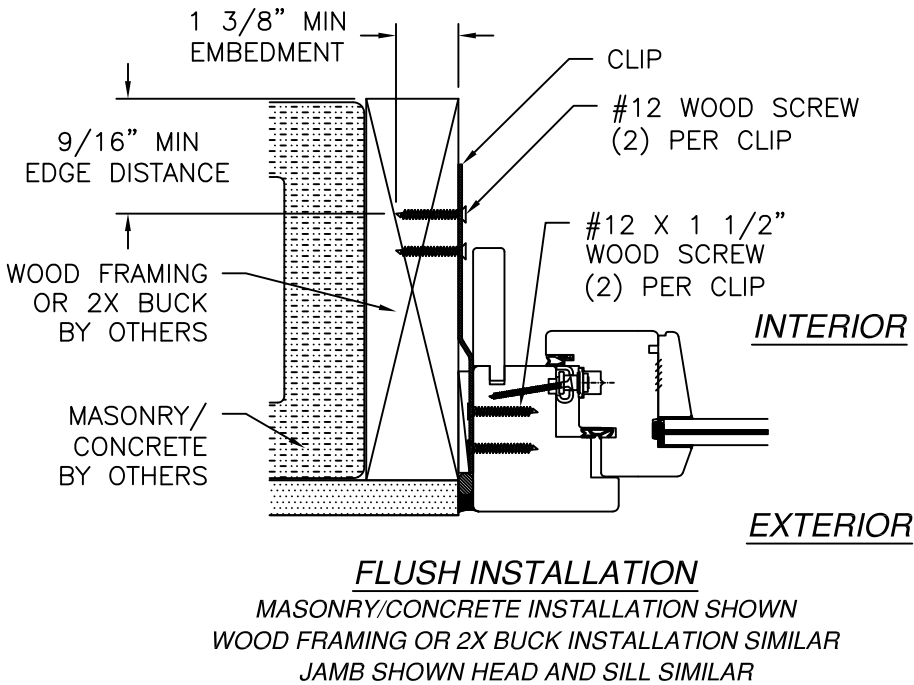
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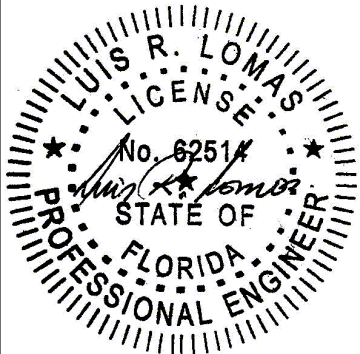
SHEET 5 OF 7

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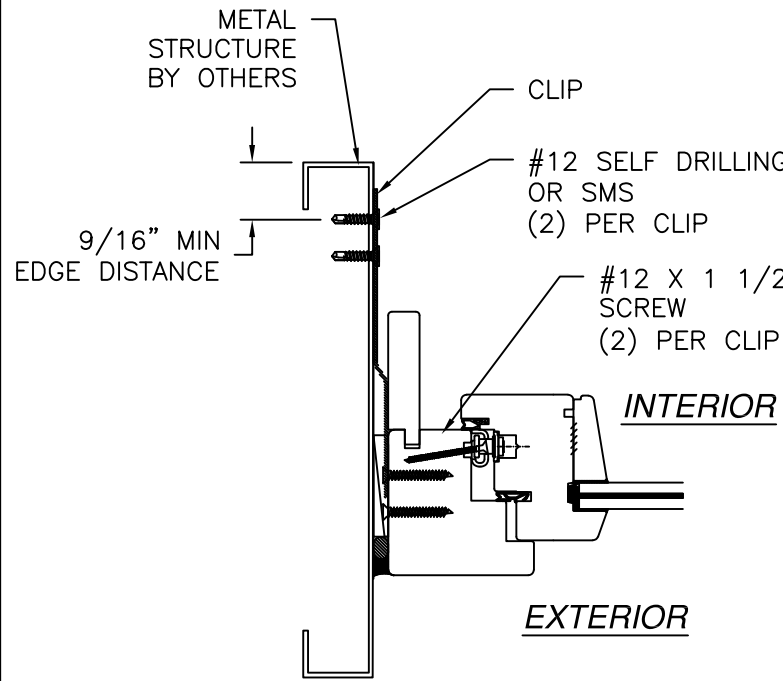
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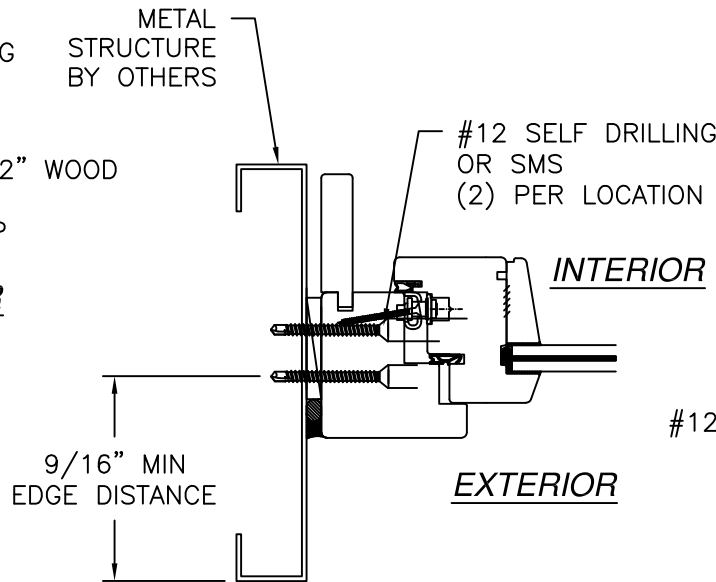


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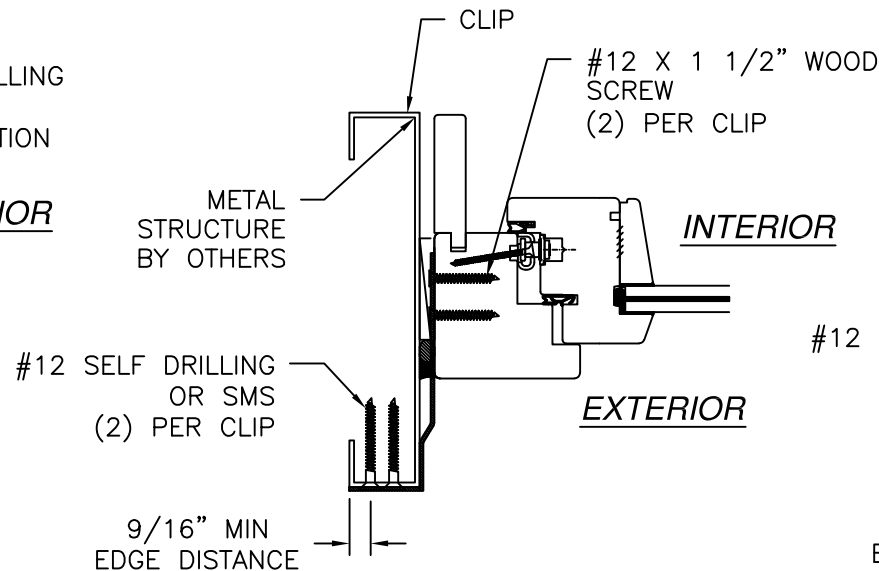
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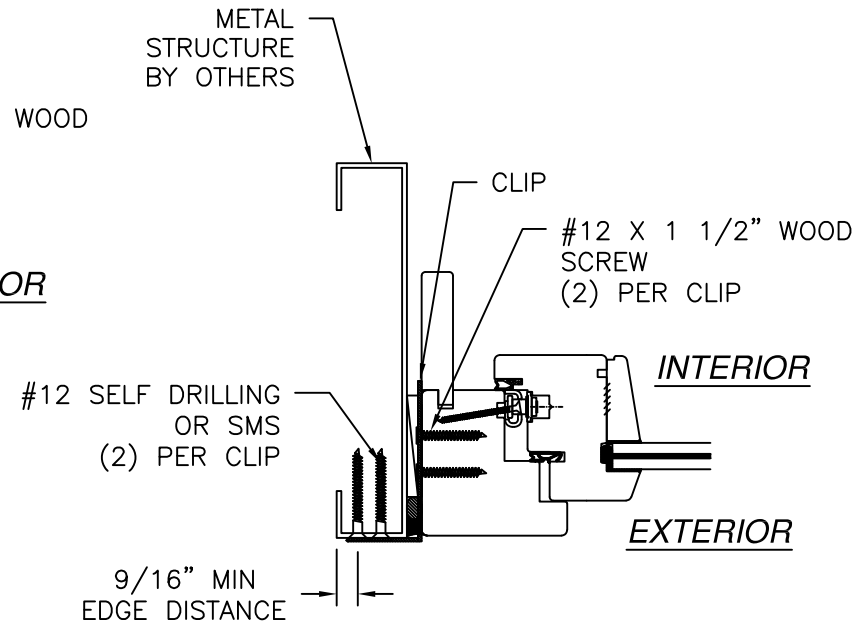
FLUSH INSTALLATION
METAL STRUCTURE INSTALLATION
JAMB SHOWN HEAD AND SILL SIMILAR



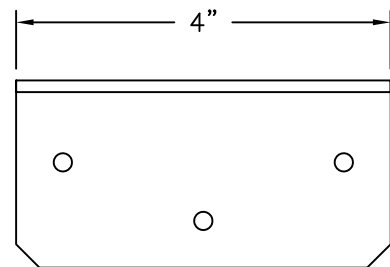
INSET FRAME INSTALLATION
METAL STRUCTURE INSTALLATION
JAMB SHOWN HEAD AND SILL SIMILAR



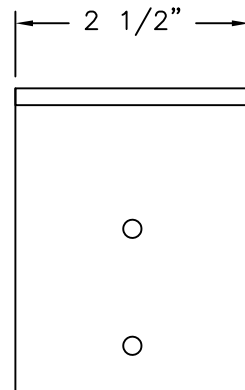
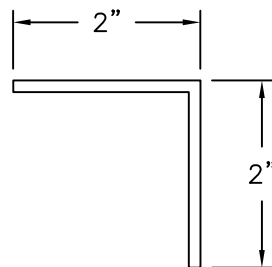
INSET INSTALLATION
METAL STRUCTURE INSTALLATION
JAMB SHOWN HEAD AND SILL SIMILAR



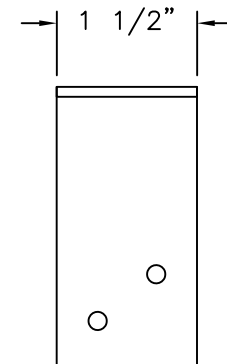
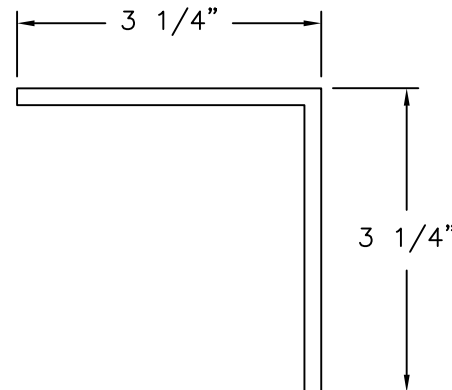
FLUSH FRONT INSTALLATION
METAL STRUCTURE INSTALLATION
JAMB SHOWN HEAD AND SILL SIMILAR



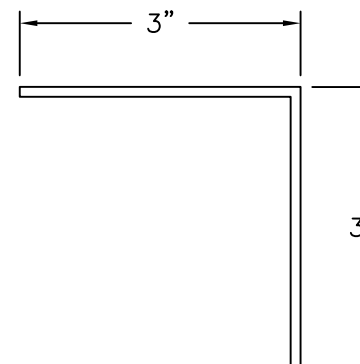
31 CLIP (M24)
12 GA GALVANIZED STEEL



32 CLIP (HL33)
7 GA GALVANIZED STEEL



33 CLIP (A33)
12 GA GALVANIZED STEEL



NOTE:
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TILT & TURN IN-SWING
WOOD CASEMENT WINDOW
INSTALLATION DETAILS & COMPONENTS

DRAWN: R.L.

DWG NO. 08-01352

REV C

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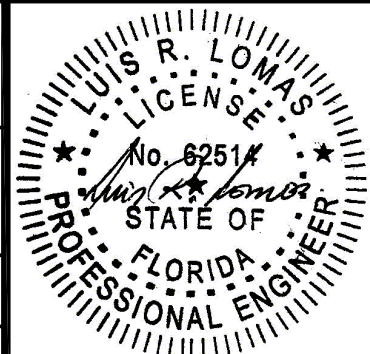
SHEET 6 OF 7

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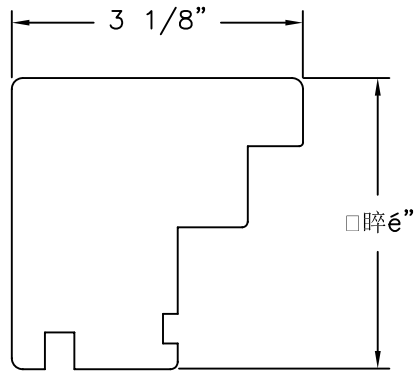
434-688-0609 rllomas@lrlomaspe.com

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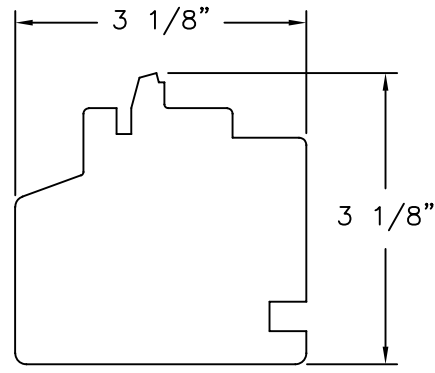


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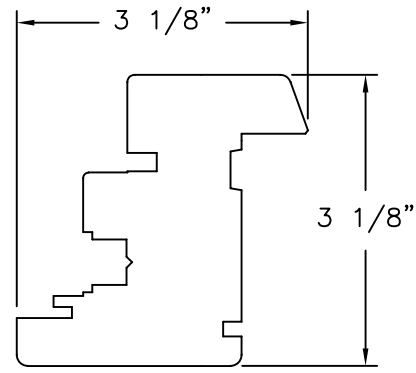
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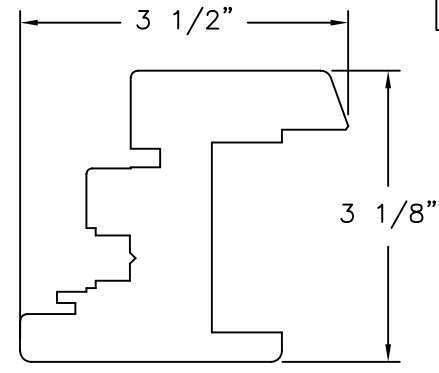
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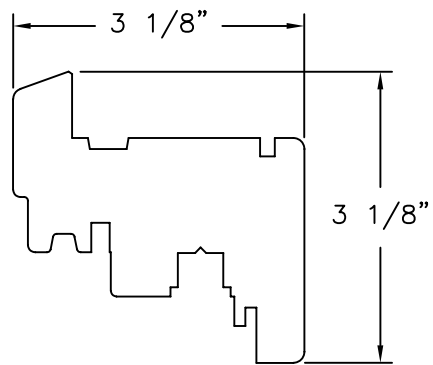
② **FRAME SILL**
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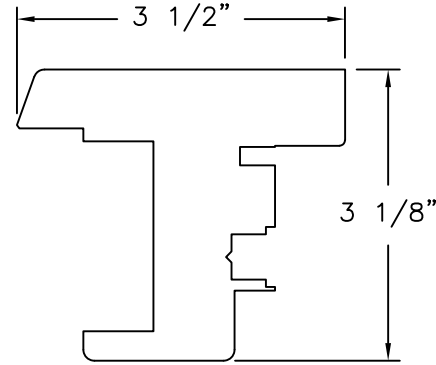
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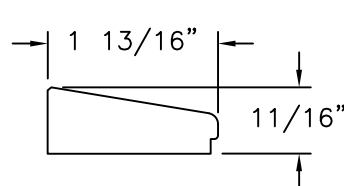
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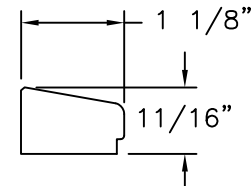
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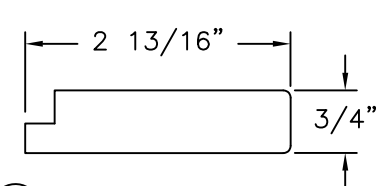
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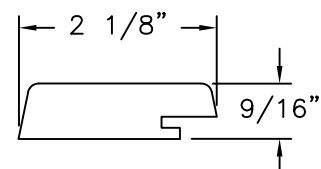
⑦ **GLASS STOP**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



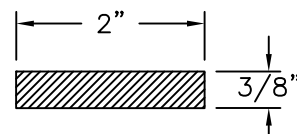
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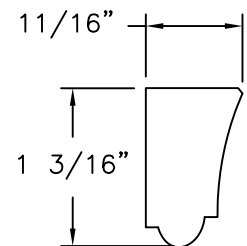
⑨ **JAMB EXTENSION**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



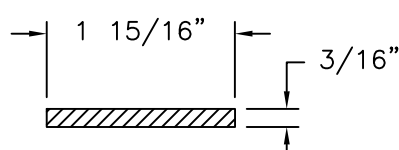
⑩ **ASTRAGAL**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



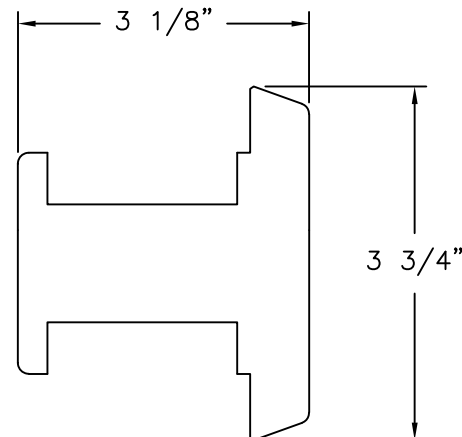
⑪ **REINFORCEMENT**
STEEL EN S275



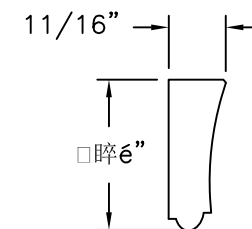
③⑩ **GLASS STOP (OPTIONAL)**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



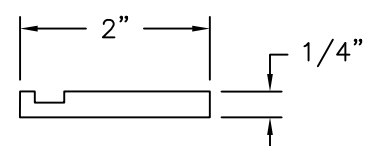
③⑤ **REINFORCEMENT**
STEEL EN S275



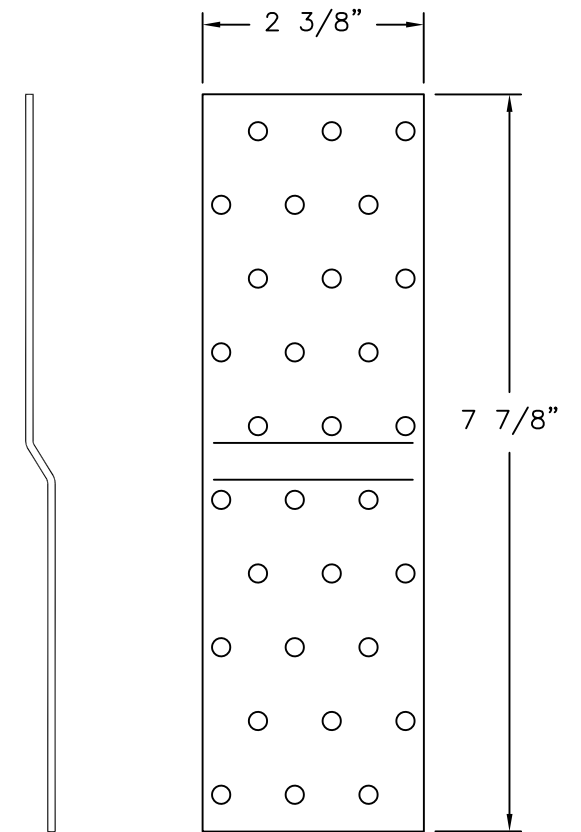
③④ **SASH MIDDLE RAIL**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



②⑨ **GLASS STOP (OPTIONAL)**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



②⑧ **FILLER**
WOOD SPECIFIC GRAVITY G=0.59 MIN.



②⑦ **CLIP**
14 GA GALVANIZED STEEL

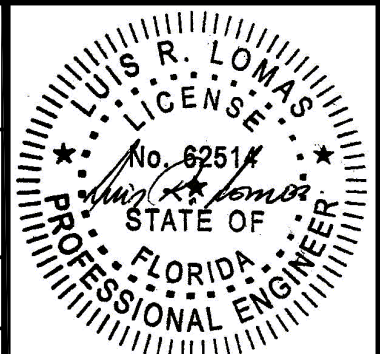
BILDAU & BUSSMANN NORTH AMERICA INC.
200 CONTINENTAL DRIVE, SUITE 401
NEWARK, DE 19713

TILT & TURN IN-SWING
WOOD CASEMENT WINDOW
INSTALLATION DETAILS & COMPONENTS

DRAWN: R.L.	DWG NO. 08-01352	REV C
SCALE NTS	DATE 07/24/12	SHEET 7 OF 7

L. ROBERTO LOMAS P.E.
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434-688-0609 rllomas@lrlomaspe.com

SIGNED: 07/22/2026



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