

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED DETAILS	05/17/26	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. 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.
4. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. FRAME MATERIAL: ALUMINUM 6063-T6 AND 6005A-T5.
6. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLAZING.
7. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
8. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 3/8".
9. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
10. FOR ANCHORING 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.
11. FOR ANCHORING INTO METAL STRUCTURE USE #14 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.
12. ALL FASTENERS TO BE CORROSION RESISTANT.
13. 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 3,000 PSI.

C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

D. METAL STRUCTURE: STEEL 18GA, 33KSI OR ALUMINUM 6063-T5 .125" THICK MINIMUM

SIGNED: 05/19/2026

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13	COMPONENTS

THERMA-TRU CORPORATION

1750 INDIAN WOOD CIRCLE

MAUMEE, OH 43537

SERIES V-3 STANDARD IN/OUT ALUMINUM FGW

NON-IMPACT

NOTES

DRAWN:

DWG NO.

REV

R.L.

08-03866

A

SCALE

DATE

SHEET

NTS

11/03/22

1

OF

13

L. ROBERTO LOMAS P.E.

208 7th Ave, INDIALANTIC, FL 32903

434-688-0609 rllomas@lrlomaspe.com

LUIS R. LOMAS

LICENS. M. S.

No. 62514

STATE OF

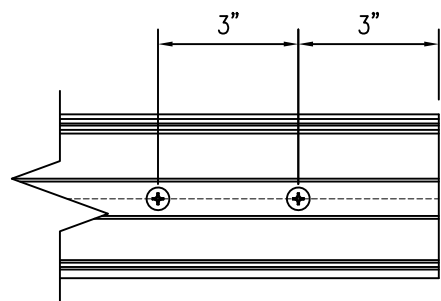
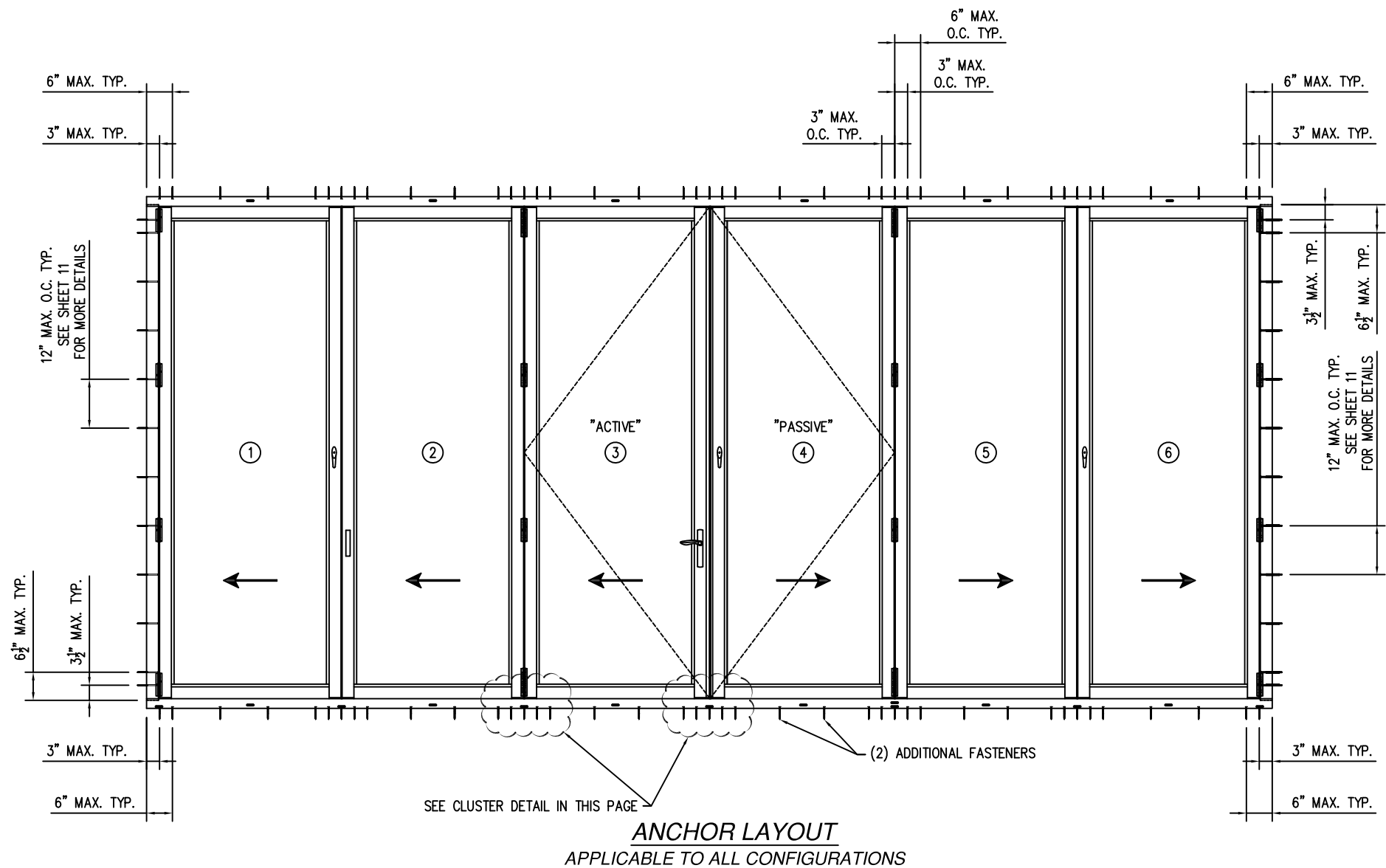
FLORIDA

PROFESSIONAL ENGINEER

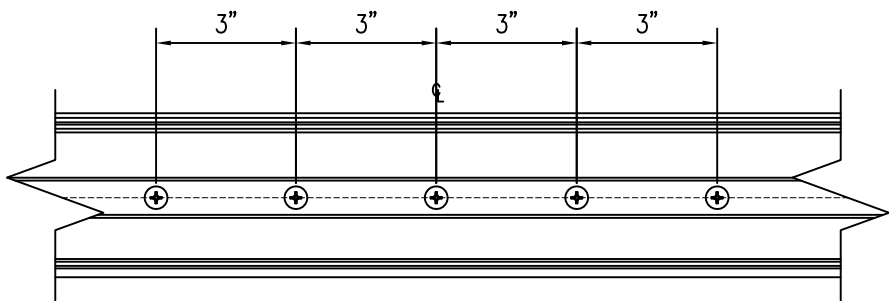
Luis R. Lomas P.E.

FL No.: 62514

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SILL AND HEAD
END DETAIL



SILL AND HEAD
CLUSTER DETAIL

Chart #1

Maximum Design pressure (psf)										
Panel Height (in)	Single Panel Width (in)									
	24.0		30.0		36.0		42.28		48.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	80.0	105.0	80.0	105.0	80.0	105.0	80.0	102.3	80.0	90.1
84.0	80.0	105.0	80.0	105.0	80.0	105.0	80.0	95.0	80.0	83.7
90.0	80.0	105.0	80.0	105.0	80.0	104.1	80.0	88.7	78.1	78.1
96.0	80.0	105.0	80.0	105.0	80.0	97.6	80.0	83.1	73.2	73.2
102.0	80.0	105.0	80.0	105.0	80.0	90.9	78.2	78.2	-	-
108.0	80.0	105.0	80.0	98.5	80.0	84.8	73.9	73.9	-	-
114.0	80.0	105.0	80.0	92.5	79.5	79.5	70.0	70.0	-	-
120.0	80.0	101.6	80.0	82.0	69.1	69.1	-	-	-	-
126.0	80.0	87.6	70.7	70.7	59.5	59.5	-	-	-	-
132.0	76.1	76.1	61.4	61.4	51.6	51.6	-	-	-	-
138.0	66.6	66.6	53.6	53.6	-	-	-	-	-	-
144.0	58.5	58.5	47.1	47.1	-	-	-	-	-	-
150.0	51.7	51.7	41.6	41.6	-	-	-	-	-	-
156.0	45.9	45.9	37.0	37.0	-	-	-	-	-	-

Chart #2

Maximum Design pressure (psf)										
Panel Height (in)	Single Panel Width (in)									
	24.0		30.0		36.0		42.28		48.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
78.0	60.0	82.5	60.0	82.5	60.0	82.5	60.0	80.4	60.0	70.8
84.0	60.0	82.5	60.0	82.5	60.0	82.5	60.0	74.6	60.0	65.7
90.0	60.0	82.5	60.0	82.5	60.0	81.8	60.0	69.7	60.0	61.4
96.0	60.0	82.5	60.0	82.5	60.0	76.7	60.0	65.3	57.5	57.5
102.0	60.0	82.5	60.0	82.5	60.0	71.4	60.0	61.5	-	-
108.0	60.0	82.5	60.0	77.4	60.0	66.6	58.1	58.1	-	-
114.0	60.0	82.5	60.0	72.7	60.0	62.5	55.0	55.0	-	-
120.0	60.0	79.8	60.0	64.5	54.3	54.3	-	-	-	-
126.0	60.0	68.9	55.5	55.5	46.8	46.8	-	-	-	-
132.0	59.8	59.8	48.2	48.2	40.5	40.5	-	-	-	-
138.0	52.3	52.3	42.1	42.1	-	-	-	-	-	-
144.0	46.0	46.0	37.0	37.0	-	-	-	-	-	-
150.0	40.6	40.6	32.7	32.7	-	-	-	-	-	-
156.0	36.1	36.1	29.0	29.0	-	-	-	-	-	-

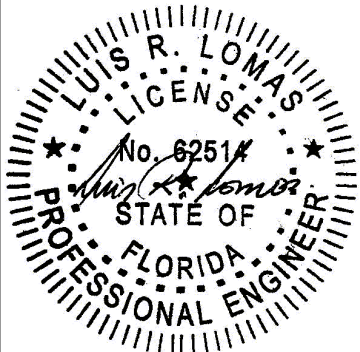
THERMA-TRU CORPORATION
1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

SERIES V-3 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
ANCHOR LAYOUT AND DESIGN PRESSURE CHARTS

DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 3 OF 13

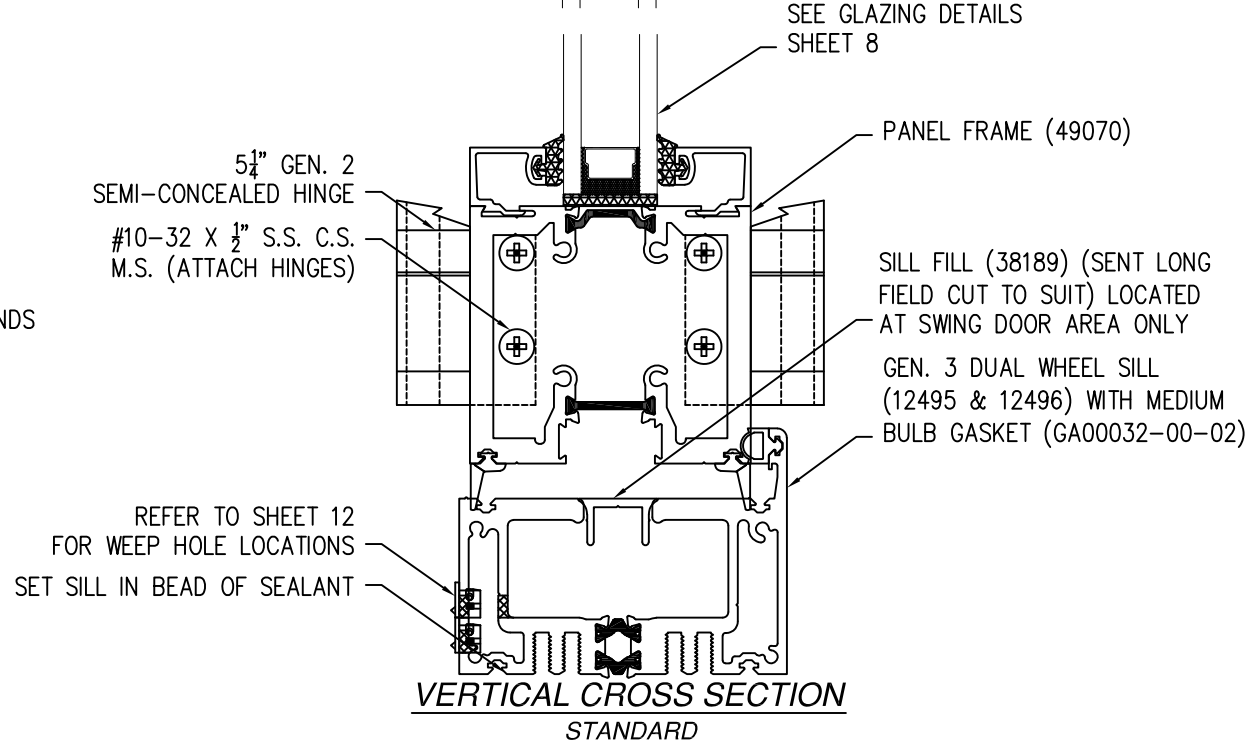
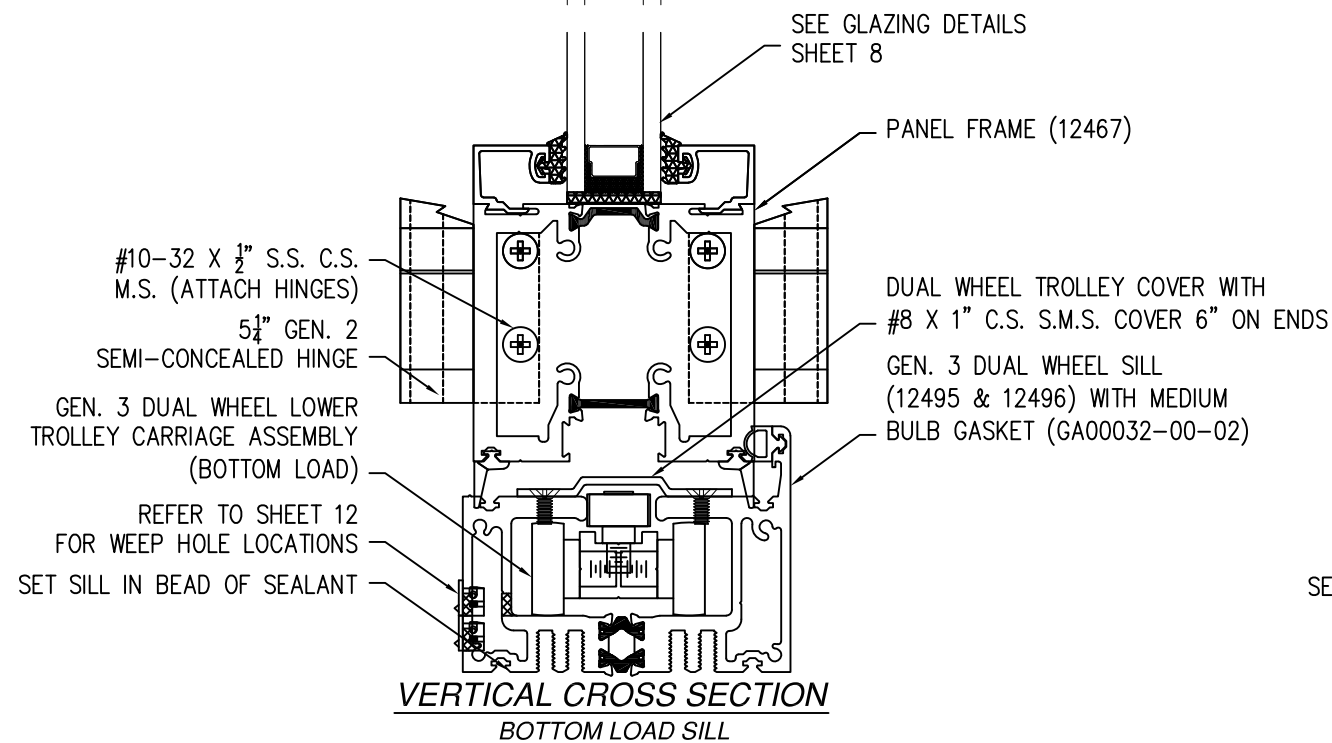
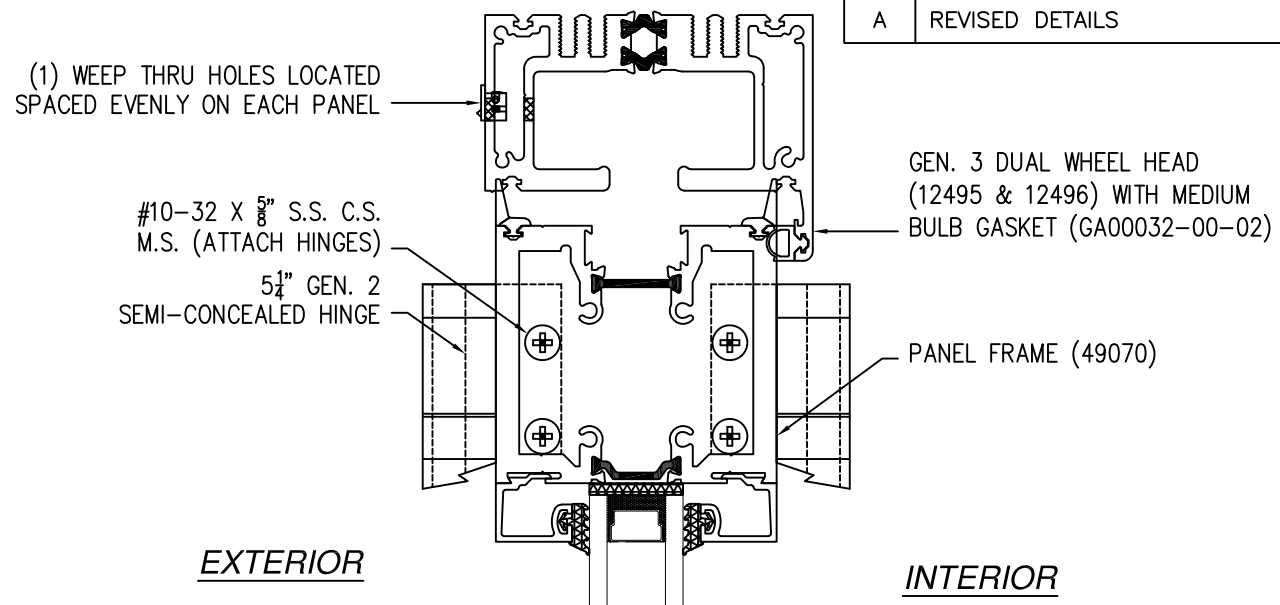
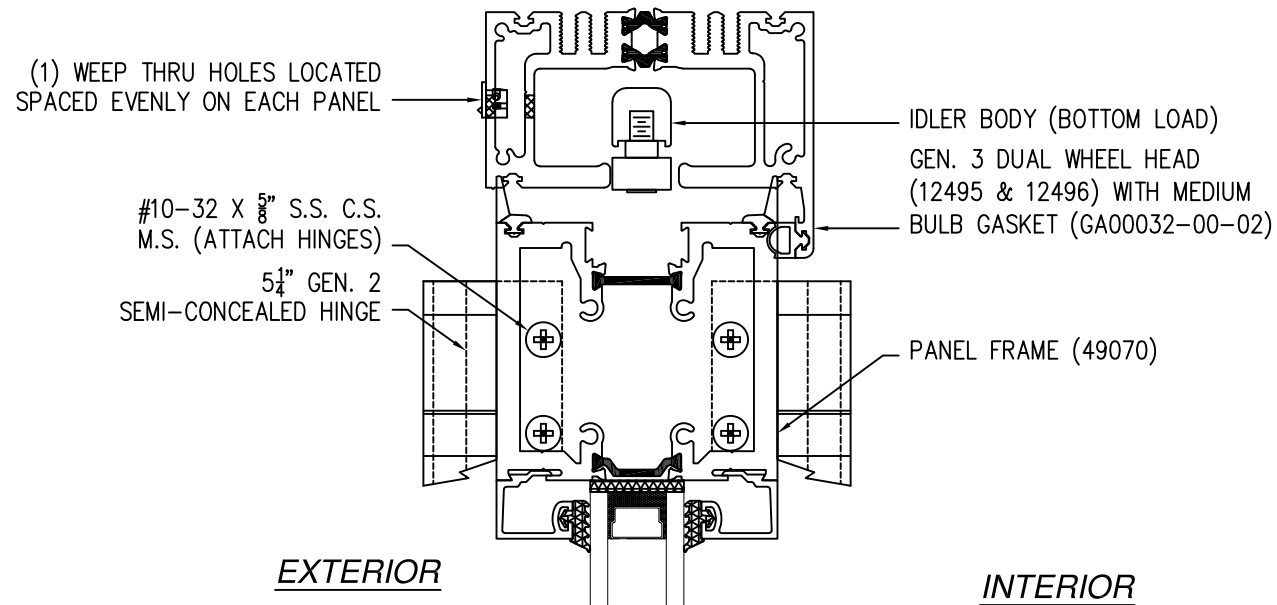
L. ROBERTO LOMAS P.E.
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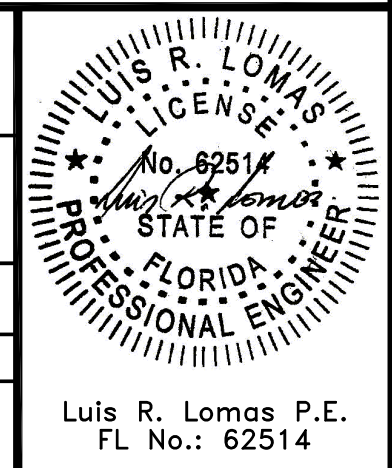
Luis R. Lomas P.E.
FL No.: 62514

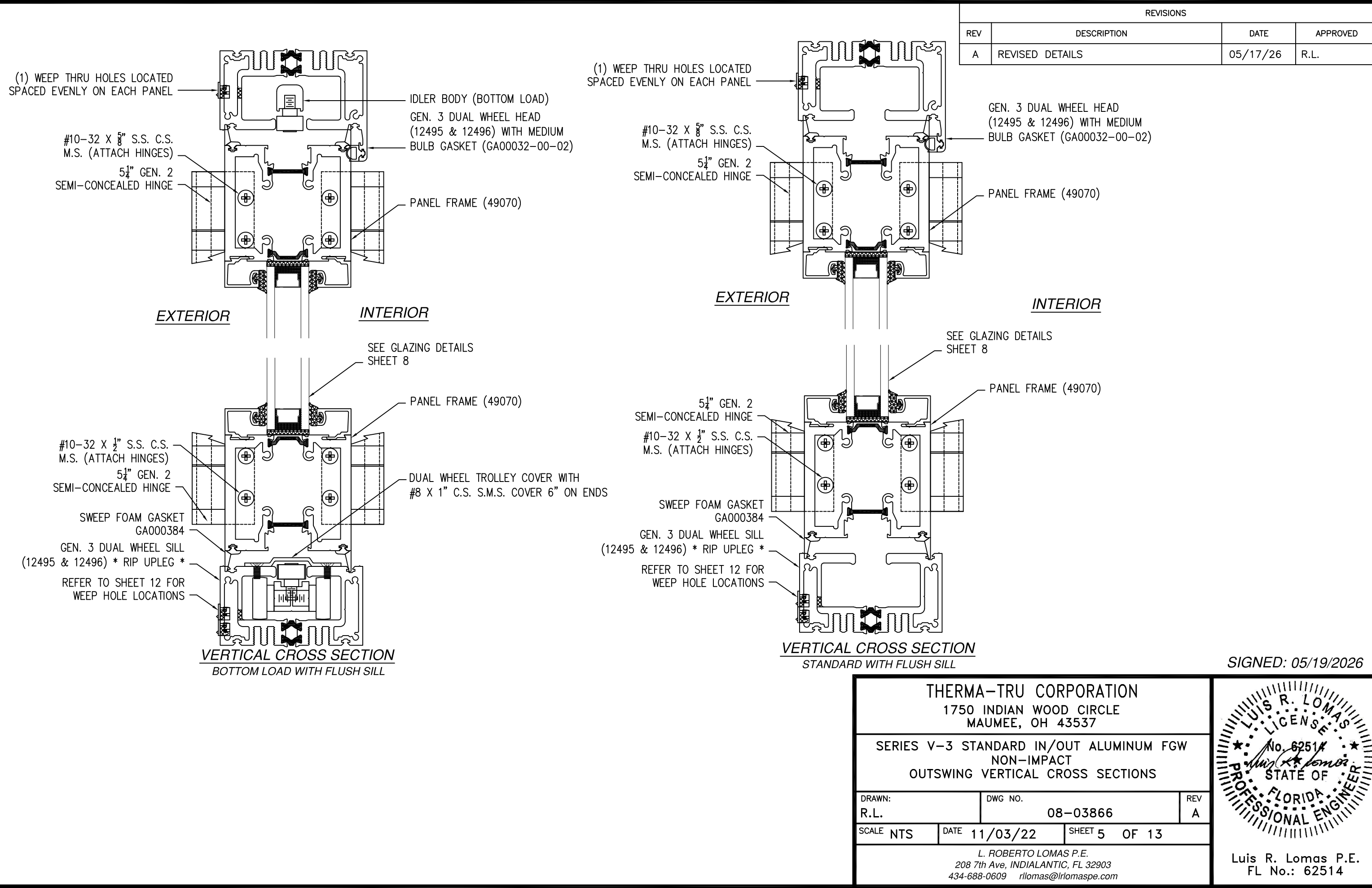
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THERMA-TRU CORPORATION 1750 INDIAN WOOD CIRCLE MAUMEE, OH 43537		
SERIES V-3 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT OUTSWING VERTICAL CROSS SECTIONS		
DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 4 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		





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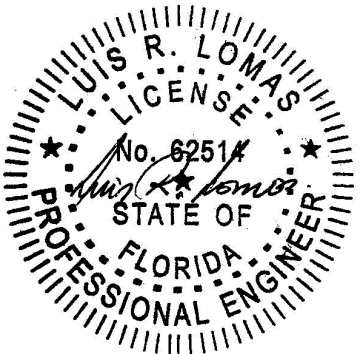
THERMA-TRU CORPORATION

1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

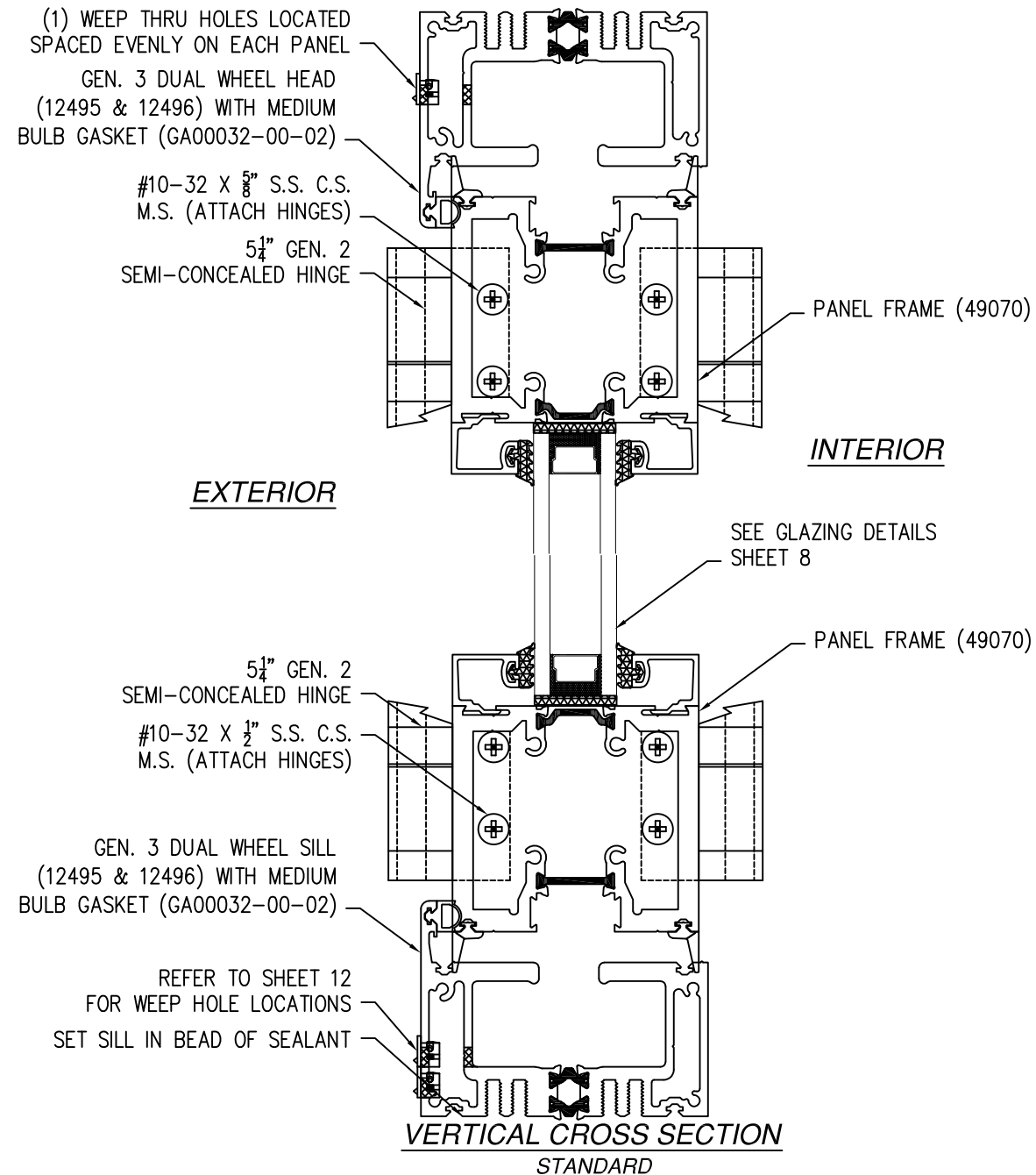
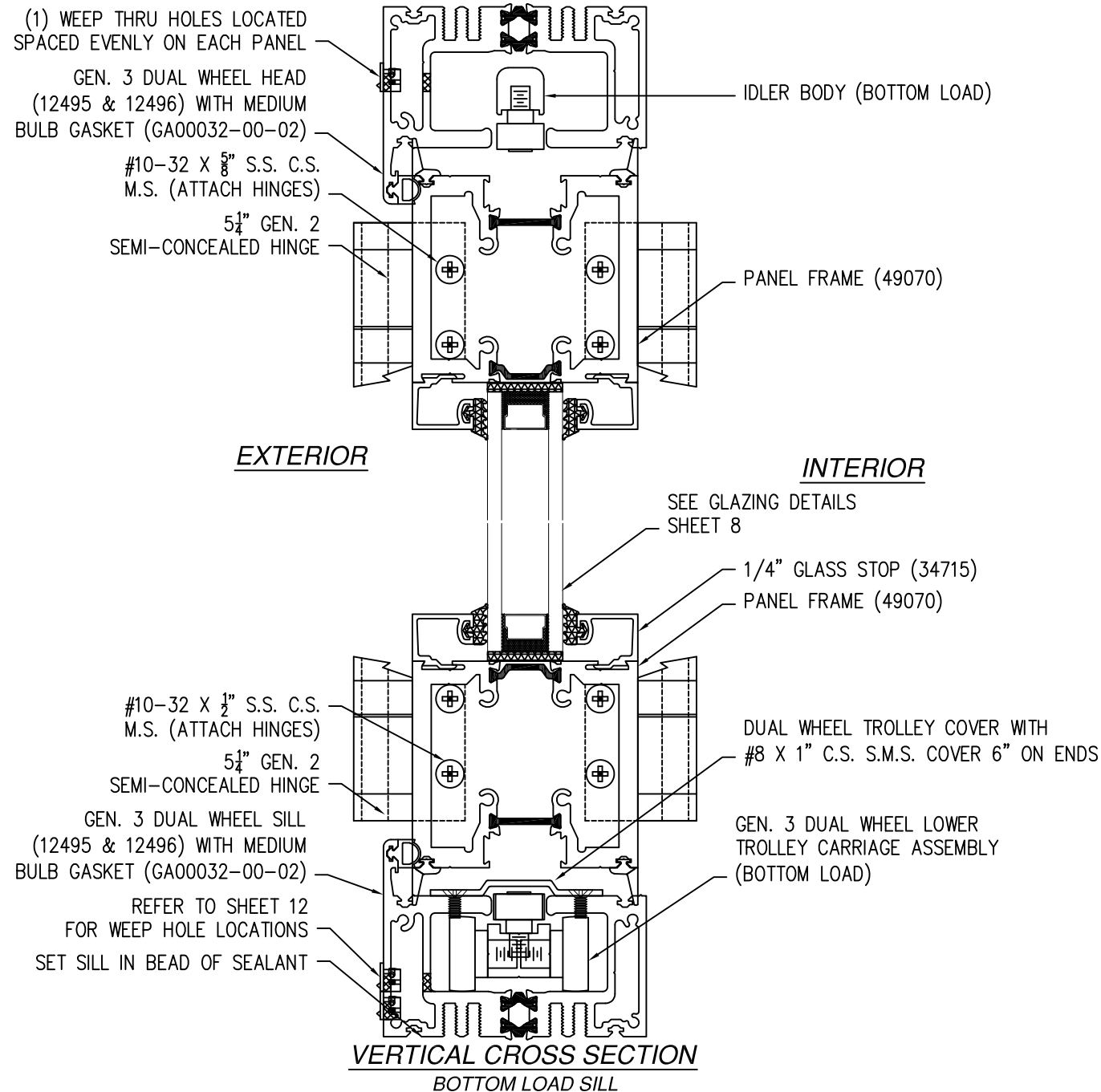
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NON-IMPACT
OUTSWING VERTICAL CROSS SECTIONS

DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 5 OF 13

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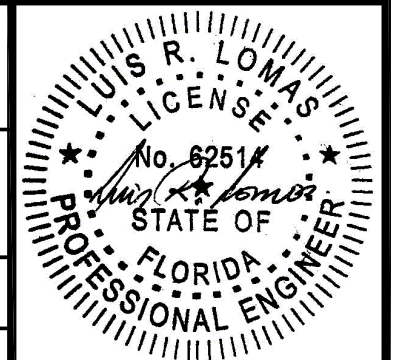
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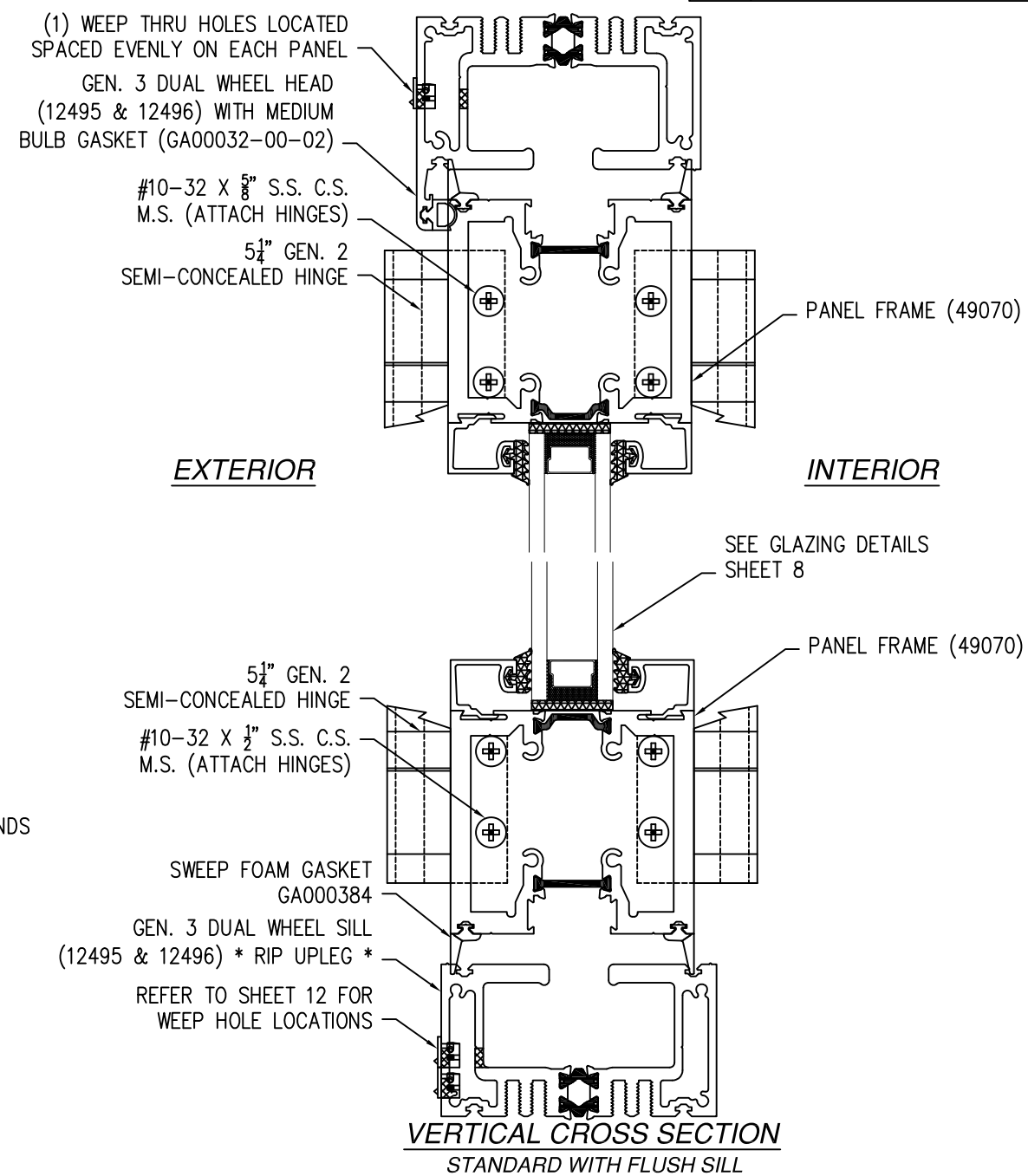
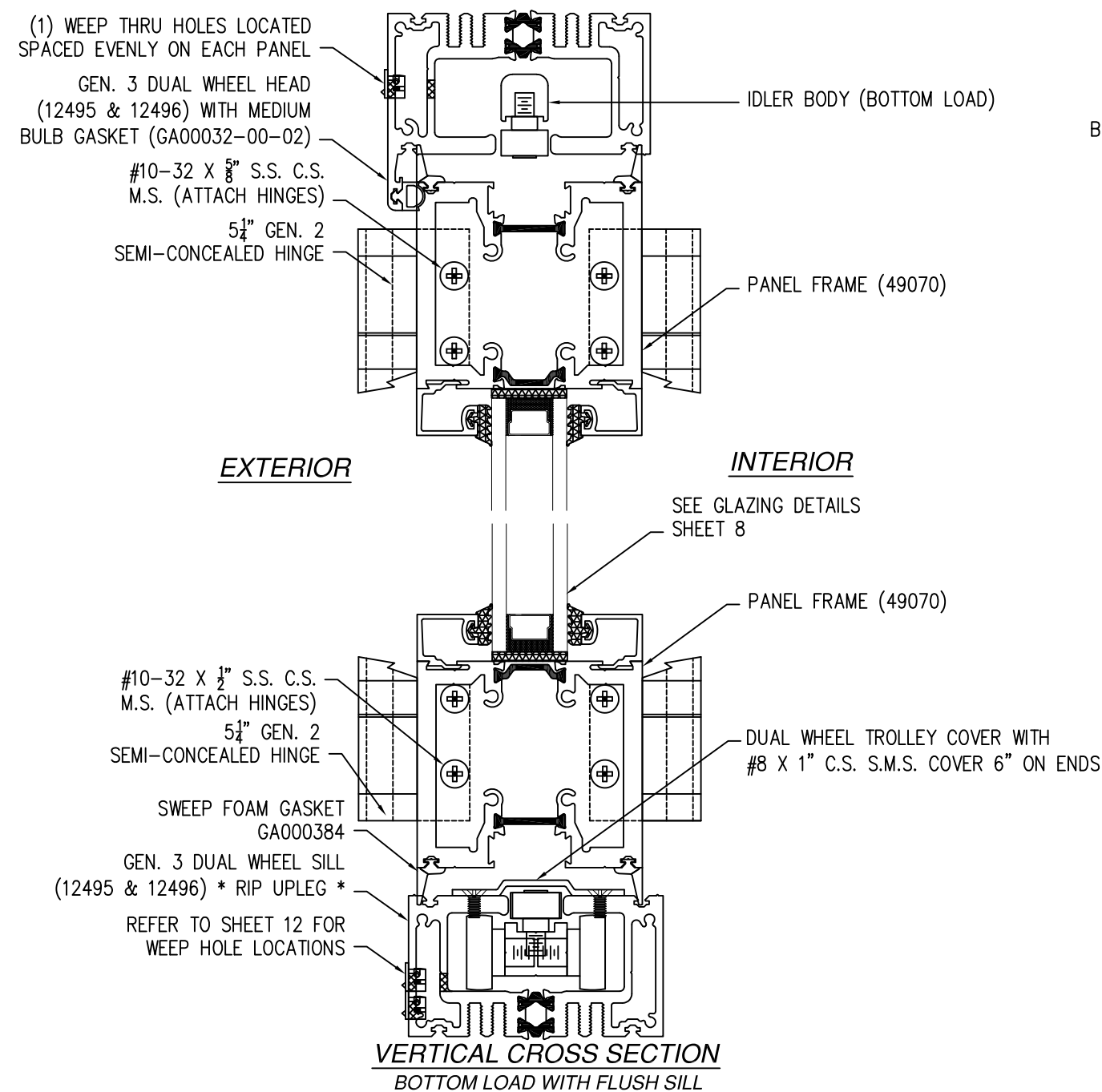
THERMA-TRU CORPORATION 1750 INDIAN WOOD CIRCLE MAUMEE, OH 43537		
SERIES V-3 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT INSWING VERTICAL CROSS SECTIONS		
DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 6 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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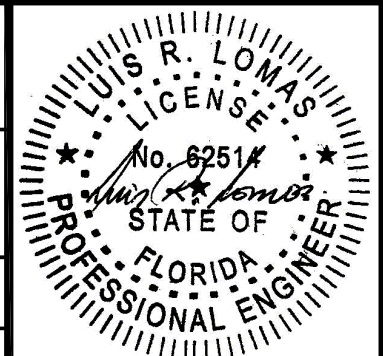
THERMA-TRU CORPORATION
1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

SERIES V-3 STANDARD IN/OUT ALUMINUM FGW
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SCALE NTS	DATE 11/03/22	SHEET 7 OF 13

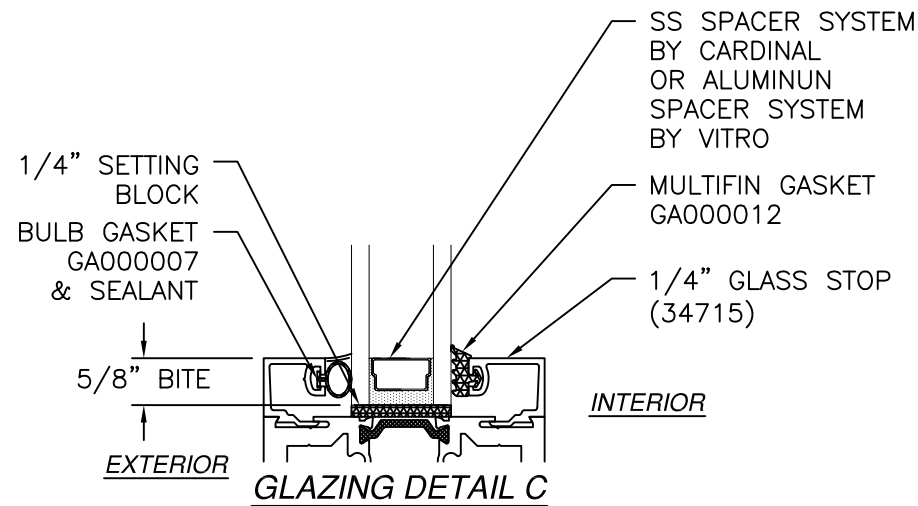
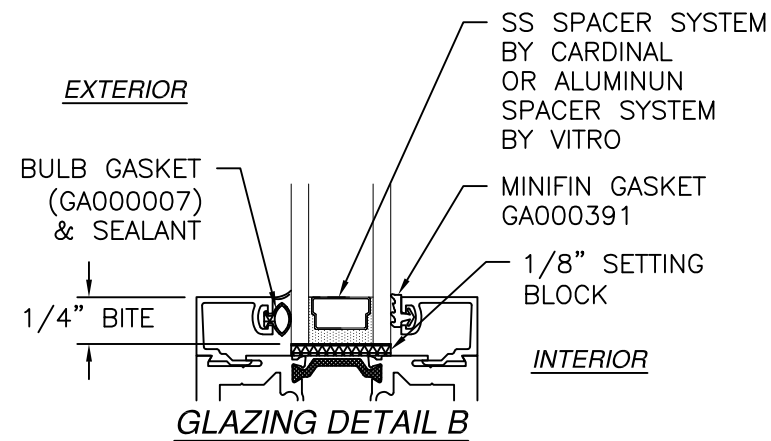
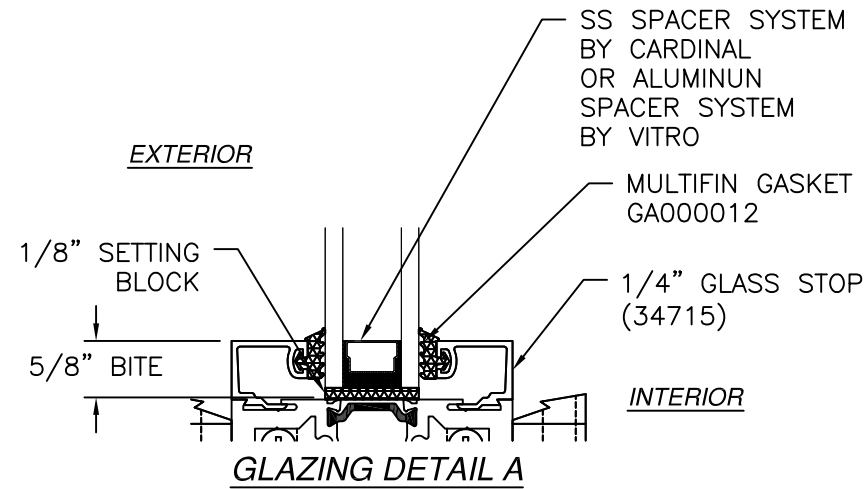
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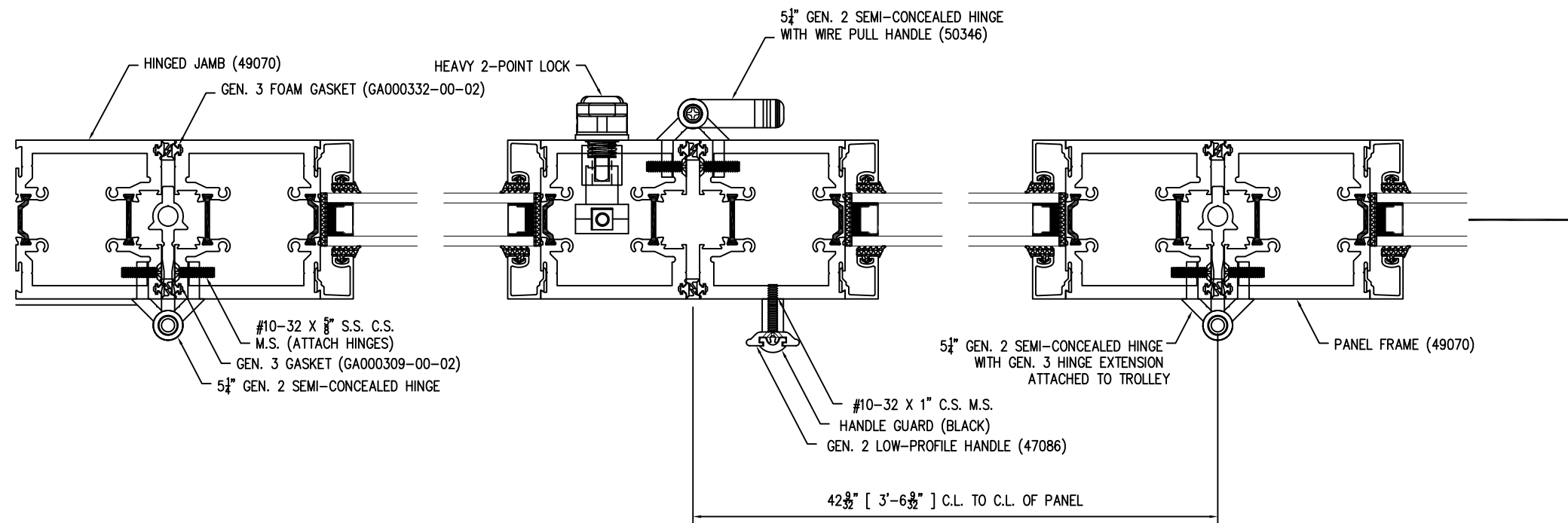
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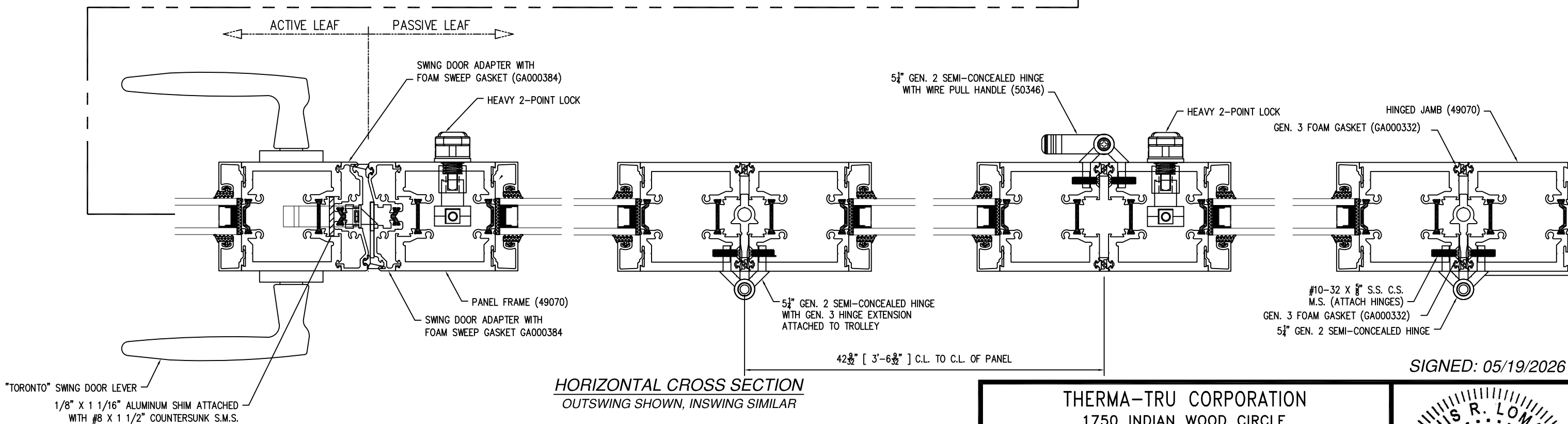
NOTE:
GLASS FOR ALL CONFIGURATIONS MUST BE
SAFETY GLASS

SIGNED: 05/19/2026

THERMA-TRU CORPORATION 1750 INDIAN WOOD CIRCLE MAUMEE, OH 43537			
SERIES V-3 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT GLAZING DETAILS			
DRAWN: R.L.	DWG NO. 08-03866	REV A	
SCALE NTS	DATE 11/03/22	SHEET 8 OF 13	
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com			Luis R. Lomas P.E. FL No.: 62514



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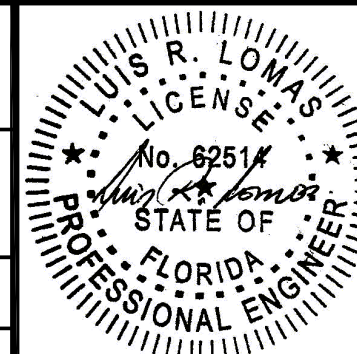
THERMA-TRU CORPORATION

1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

SERIES V-3 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
HORIZONTAL CROSS SECTION

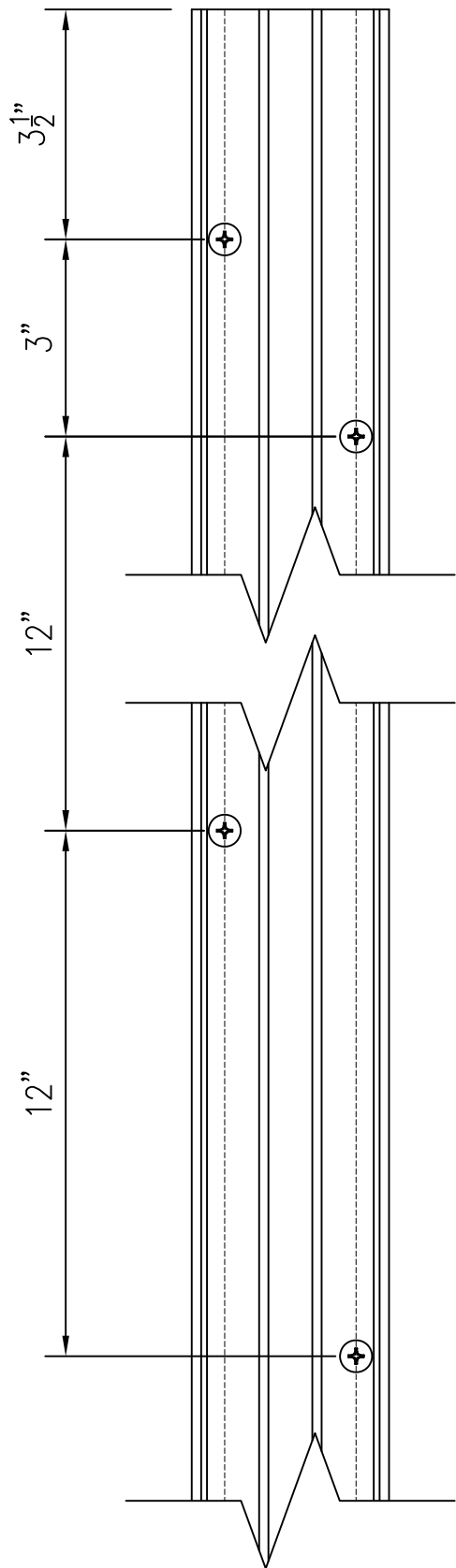
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SCALE NTS	DATE 11/03/22	SHEET 9 OF 13

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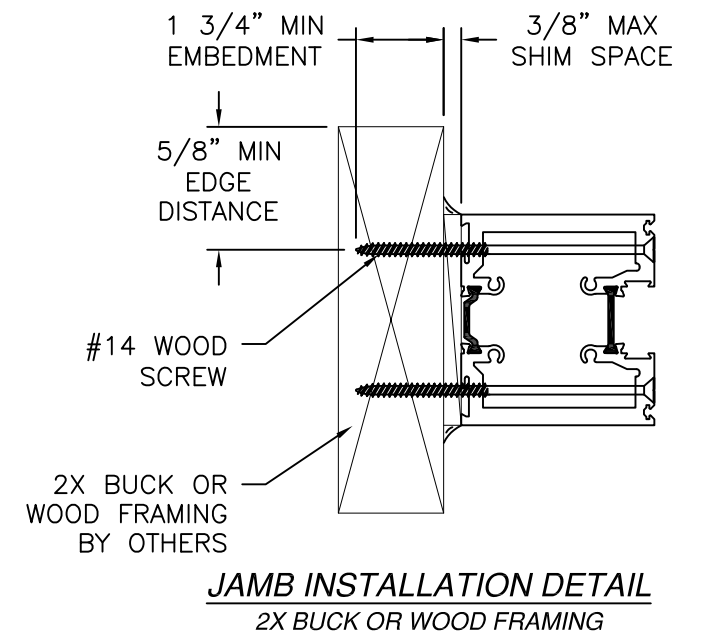
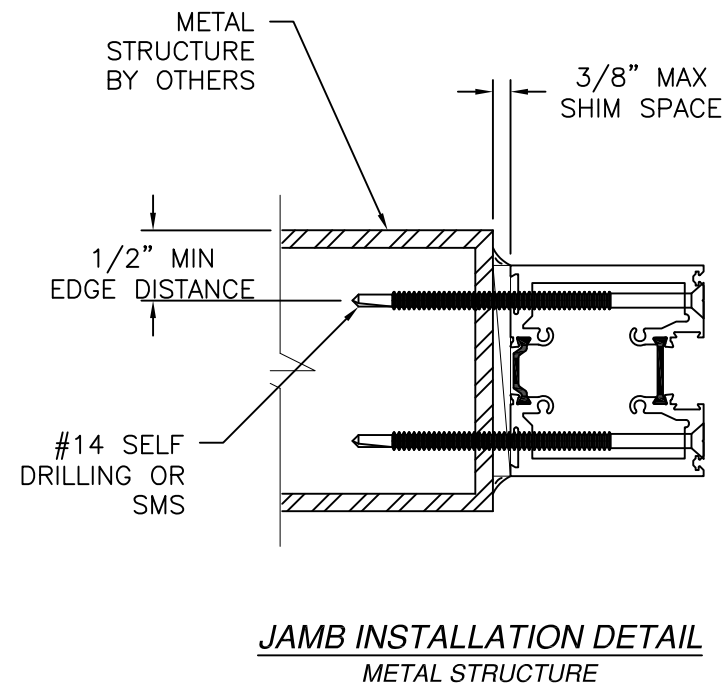
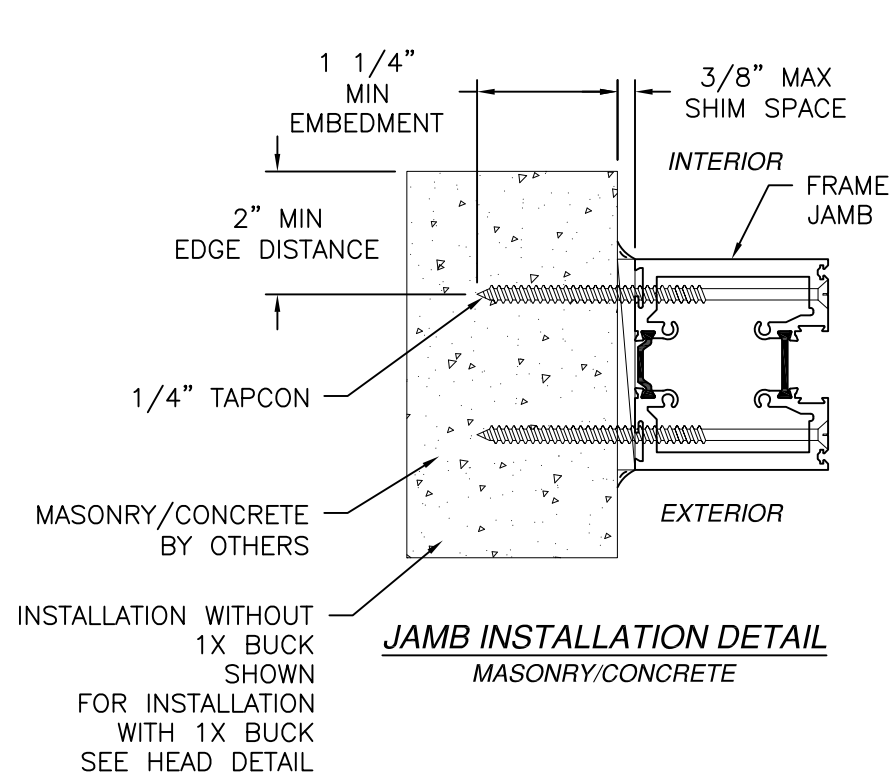


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FL No.: 62514

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JAMB ANCHOR LOCATIONS
DETAIL

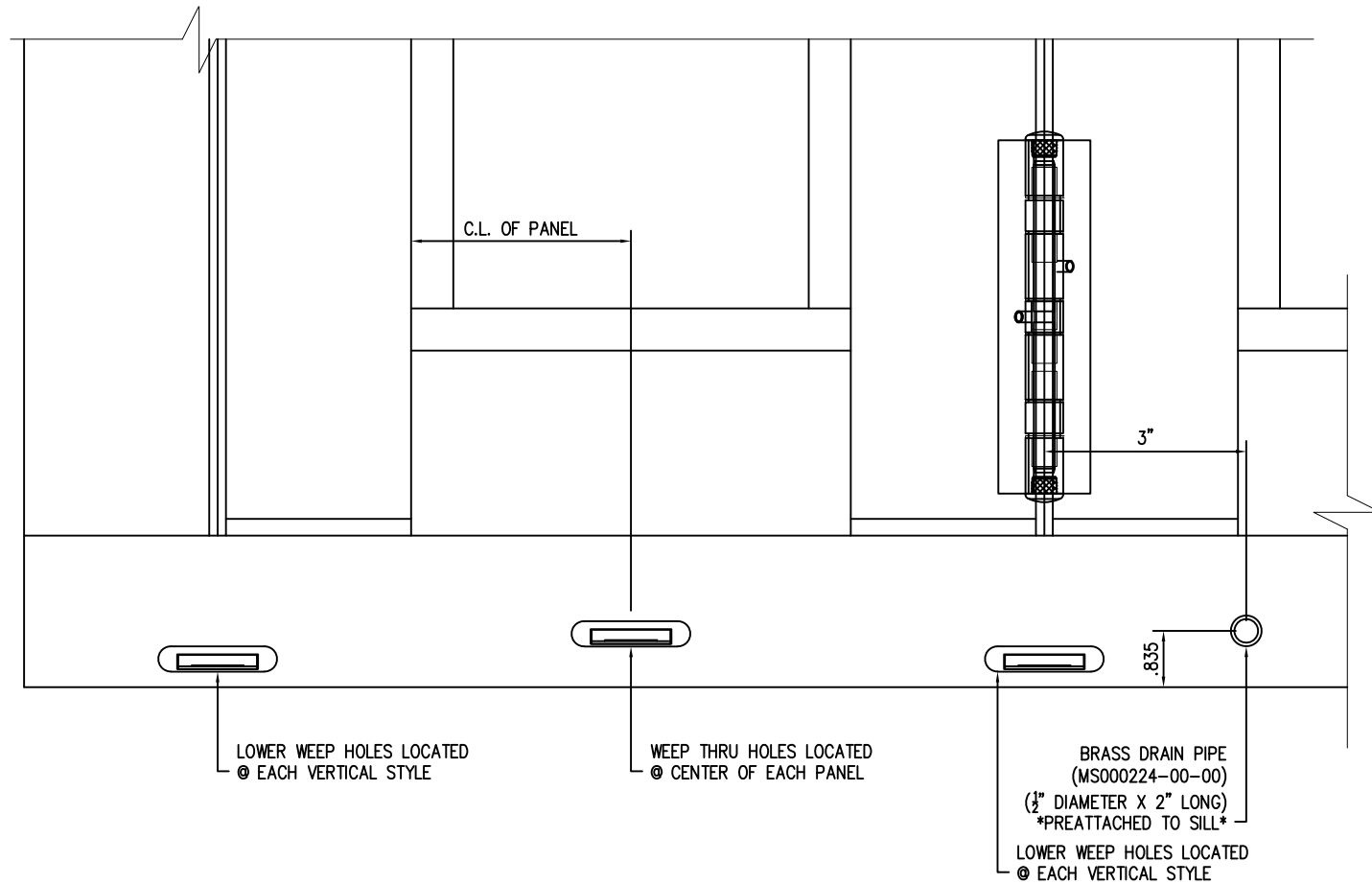


- NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

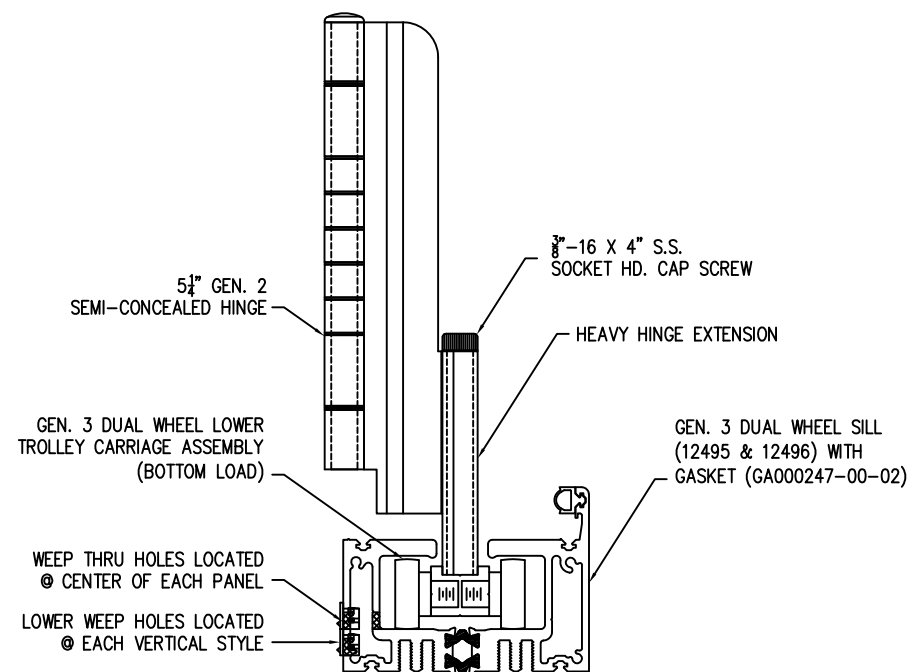
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THERMA-TRU CORPORATION 1750 INDIAN WOOD CIRCLE MAUMEE, OH 43537		
SERIES V-3 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT INSTALLATION DETAILS		
DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 11 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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

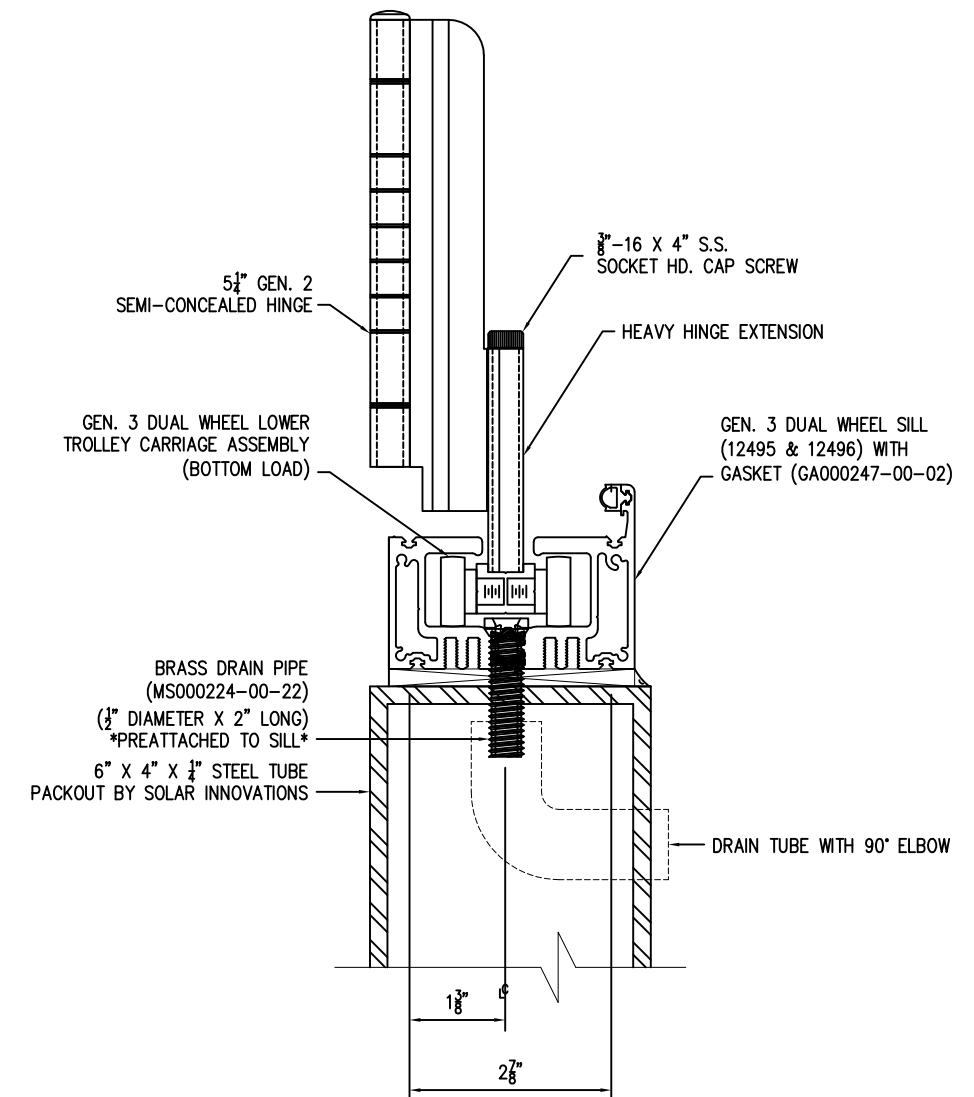


WEEP HOLES DETAILS



WEEP HOLES AND HINGE EXTENSION
DETAIL

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REV	DESCRIPTION	DATE	APPROVED
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DRAIN PIPE AND HINGE EXTENSION
DETAIL

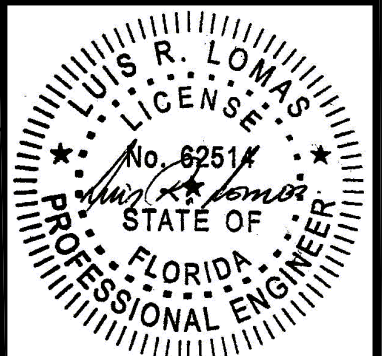
THERMA-TRU CORPORATION
1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

**SERIES V-3 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
WEEP HOLES DETAILS**

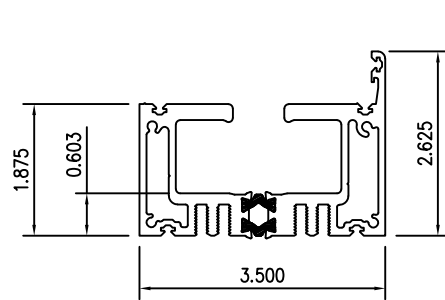
DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 12 OF 13

L. ROBERTO LOMAS P.E.
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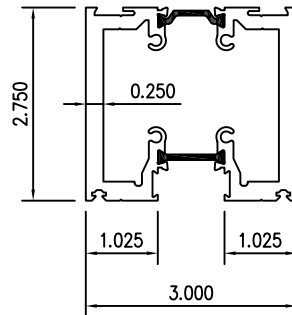
SIGNED: 05/19/2026



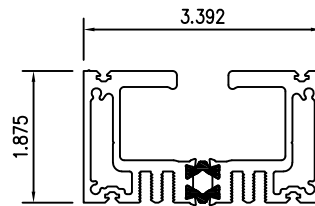
Luis R. Lomas P.E.
FL No.: 62514



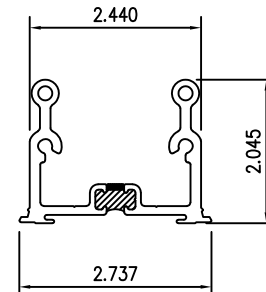
DUAL WHEEL
HEAD / SILL



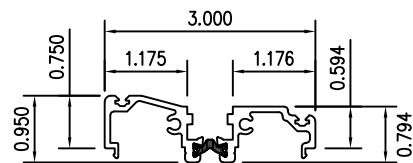
FRAME



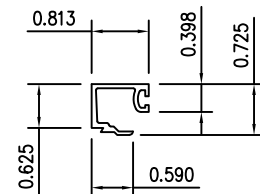
FLUSH
SILL



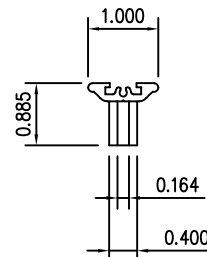
FRAME
LUG



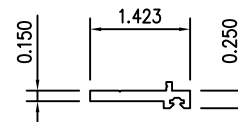
3rd GENERATION
DOOR ADAPTOR



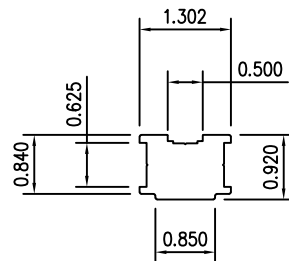
1/4" GLASS
STOP



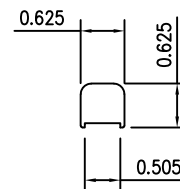
2nd GENERATION
HANDLE



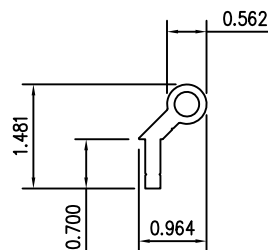
FRAME
CAP



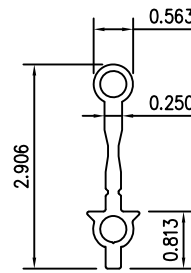
TROLLEY
BODY



IDLER
BODY



5 1/4" SEMI-
CONCEALED HINGE



HINGE
EXTENSION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED DETAILS	05/17/26	R.L.

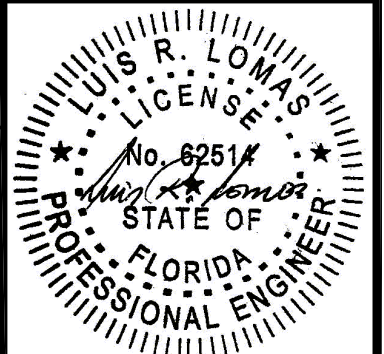
SIGNED: 05/19/2026

THERMA-TRU CORPORATION
1750 INDIAN WOOD CIRCLE
MAUMEE, OH 43537

SERIES V-3 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
COMPONENTS

DRAWN: R.L.	DWG NO. 08-03866	REV A
SCALE NTS	DATE 11/03/22	SHEET 13 OF 13

L. ROBERTO LOMAS P.E.
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