

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED DETAILS AND COMPONENTS	12/11/2023	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. BUCKS SHALL EXTEND BEYOND UNIT FRAME INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.

5. 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.

6. FRAME MATERIAL: ALUMINUM 6063-T6 AND 6005A-T5.

7. UNITS MUST BE GLAZED PER ASTM E1300, WITH SAFETY GLAZING.

8. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.

9. 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".
10. 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.

11. 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.

12. 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.

13. ALL FASTENERS TO BE CORROSION RESISTANT.

14. 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:

14.1. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42

14.2. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

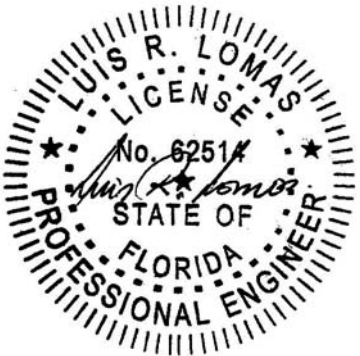
14.3. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

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

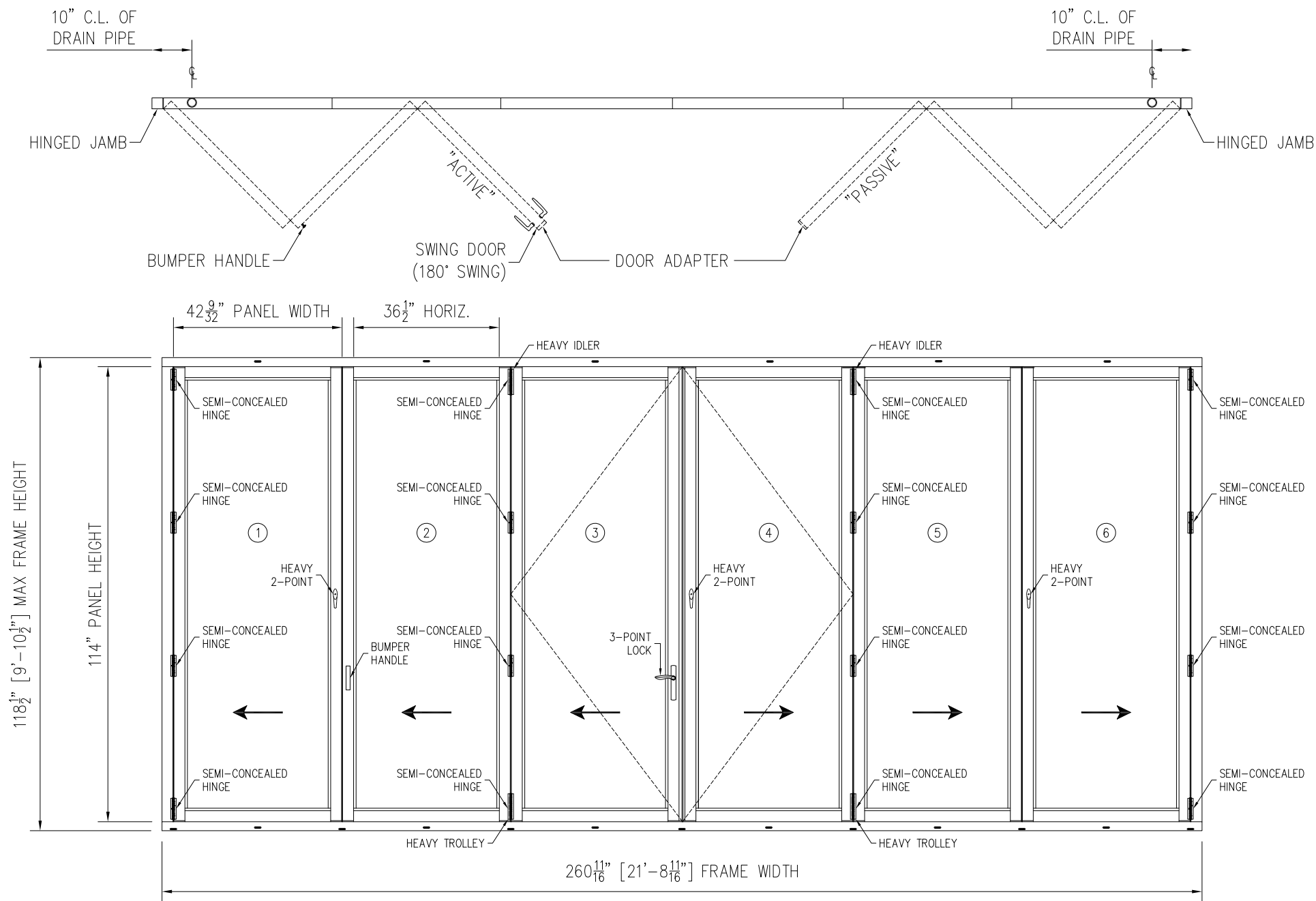
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13	COMPONENTS

SOLAR INNOVATIONS, INC.		
31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT NOTES		
DRAWN: V.L.	DWG NO. 08-01987	REV C
SCALE NTS	DATE 04/22/13	SHEET 1 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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DESIGN PRESSURE RATING	IMPACT RATING
±70.0PSF	NONE

UNITS WITH STANDARD SILL
SEE CHART #1 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
±55.0PSF	NONE

UNITS WITH FLUSH SILL
SEE CHART #2 SHEET 3

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT
EXTERIOR VIEW

UNLIMITED NUMBER OF PANELS IN UNLIMITED CONFIGURATION ARE APPROVED
AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 33.32 FT² AND USES VERTICAL CONDITIONS AS SHOWN.

- NOTES:
- PANEL SIZE: 42 9/32" x 114"
 - D.L.O. SIZE: 35 9/32" x 107 1/4"

HARDWARE SCHEDULE
A. SEMI-CONCEALED HINGE BY SOLAR INNOVATIONS
B 2 POINT HANDLE & LOCK MS000487-XX BY SOLAR INNOVATIONS
C 3 POINT HANDLE & LOCK BY SOLAR INNOVATIONS
D SURFACE MOUNT HINGE BY SOLAR INNOVATIONS

SOLAR INNOVATIONS, INC.
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SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
ELEVATIONS

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SCALE NTS	DATE 04/22/13	SHEET 2 OF 13

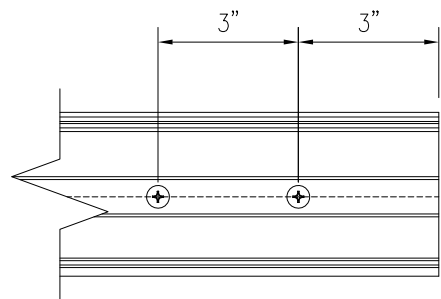
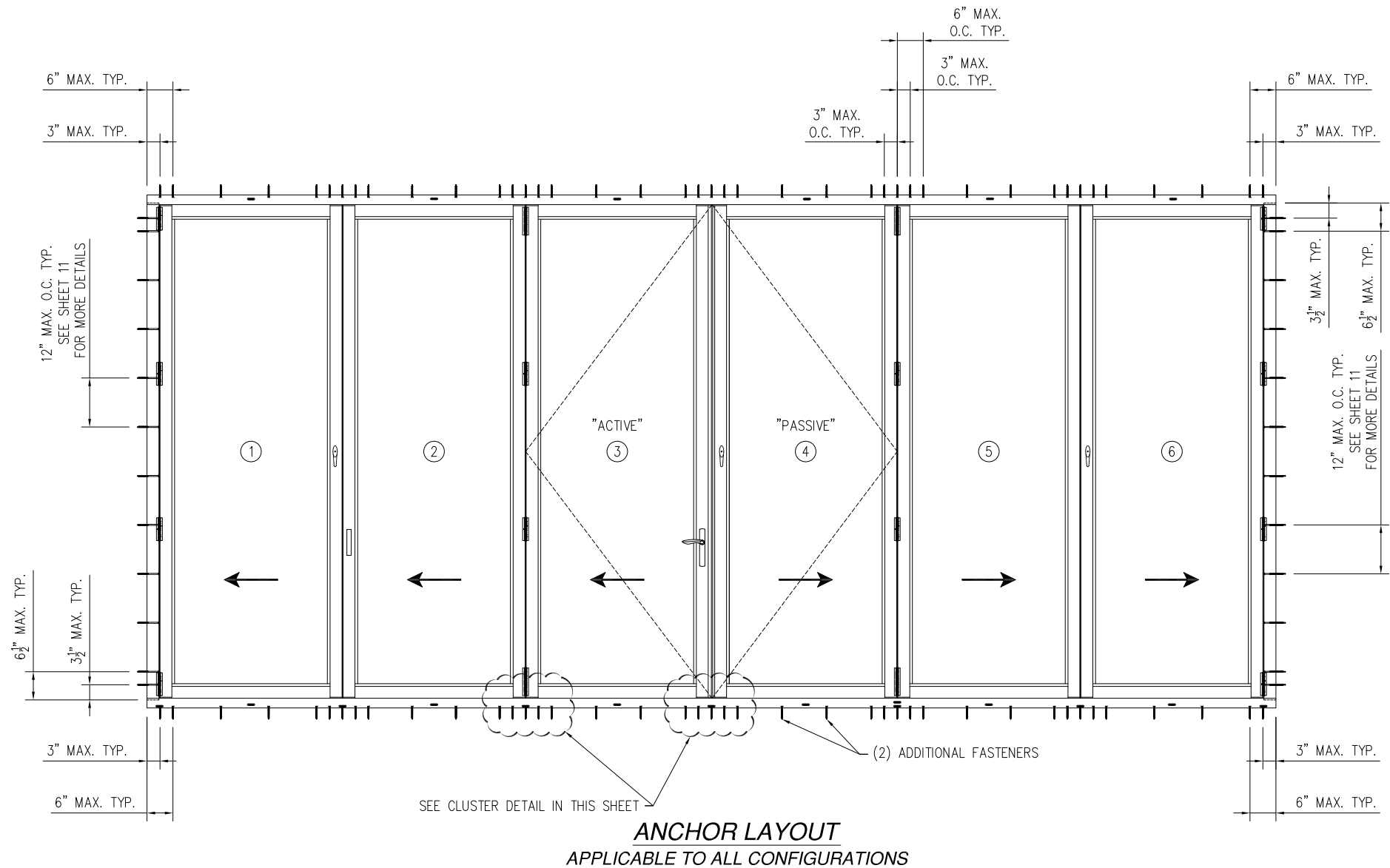
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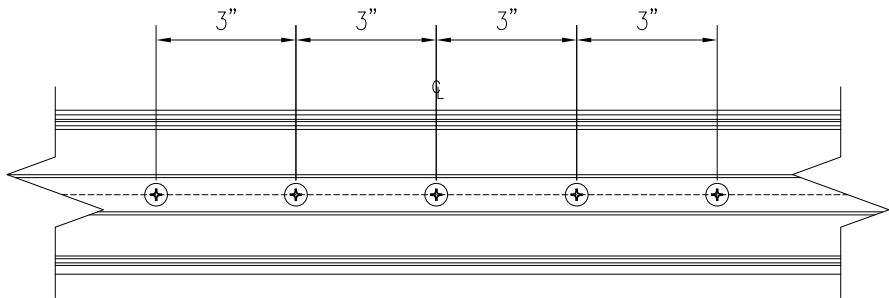


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SILL AND HEAD
END DETAIL



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	-	-	-	-	-	-

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
ANCHOR LAYOUT AND DESIGN PRESSURE CHARTS

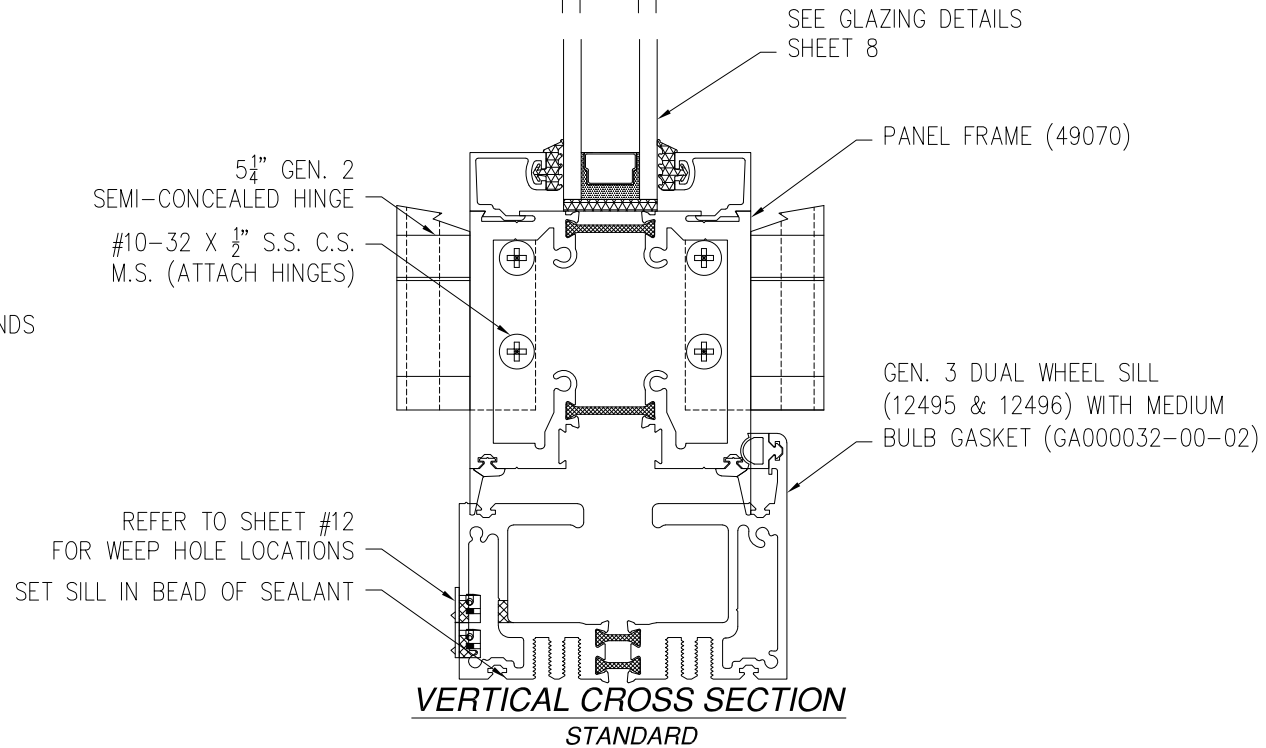
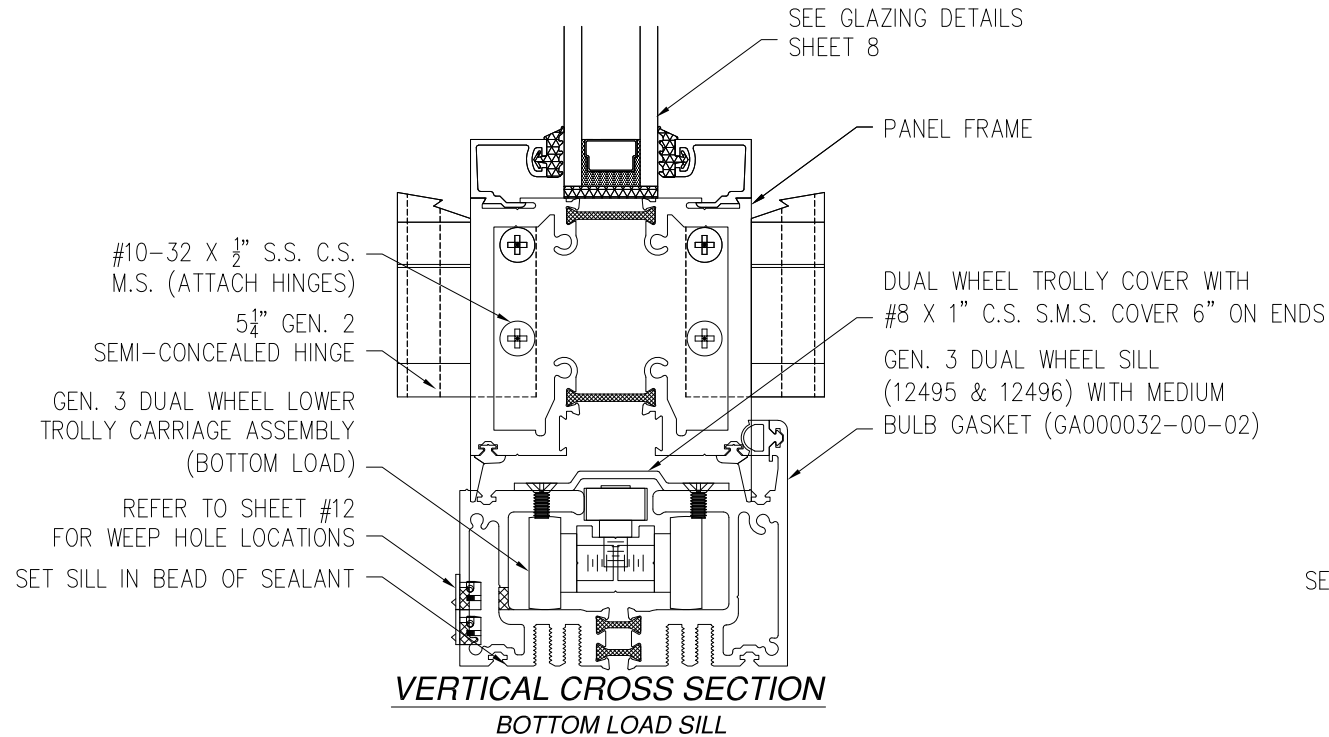
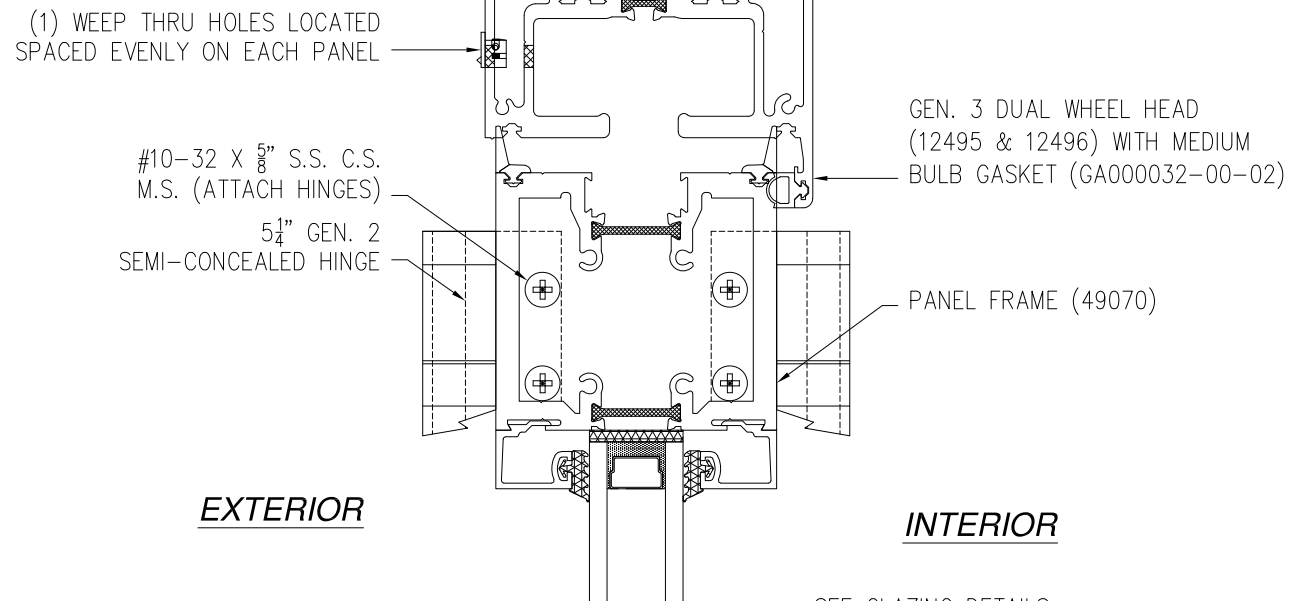
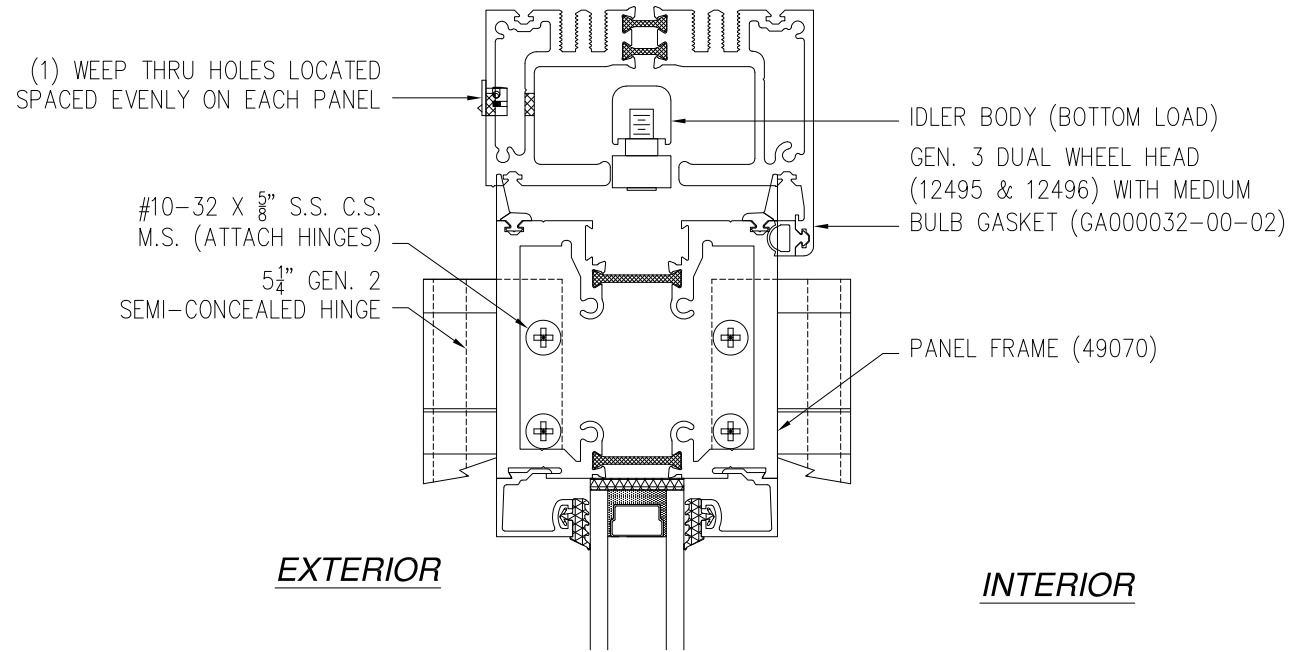
DRAWN: V.L.	DWG NO. 08-01987	REV C
SCALE NTS	DATE 04/22/13	SHEET 3 OF 13

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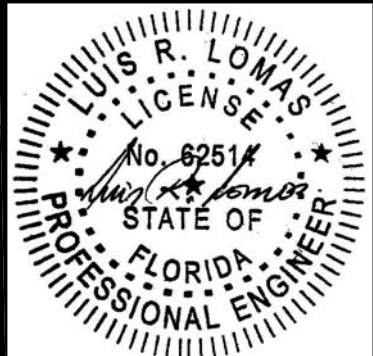
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PINE GROVE, PA 17963

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
OUTSWING VERTICAL CROSS SECTIONS

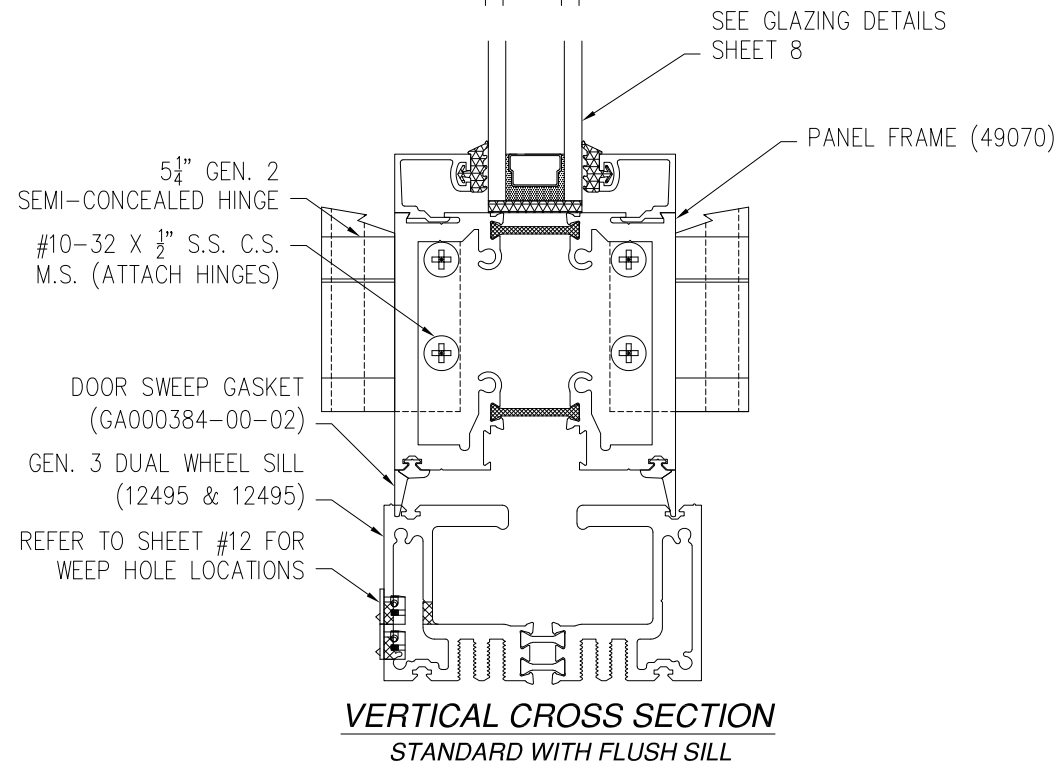
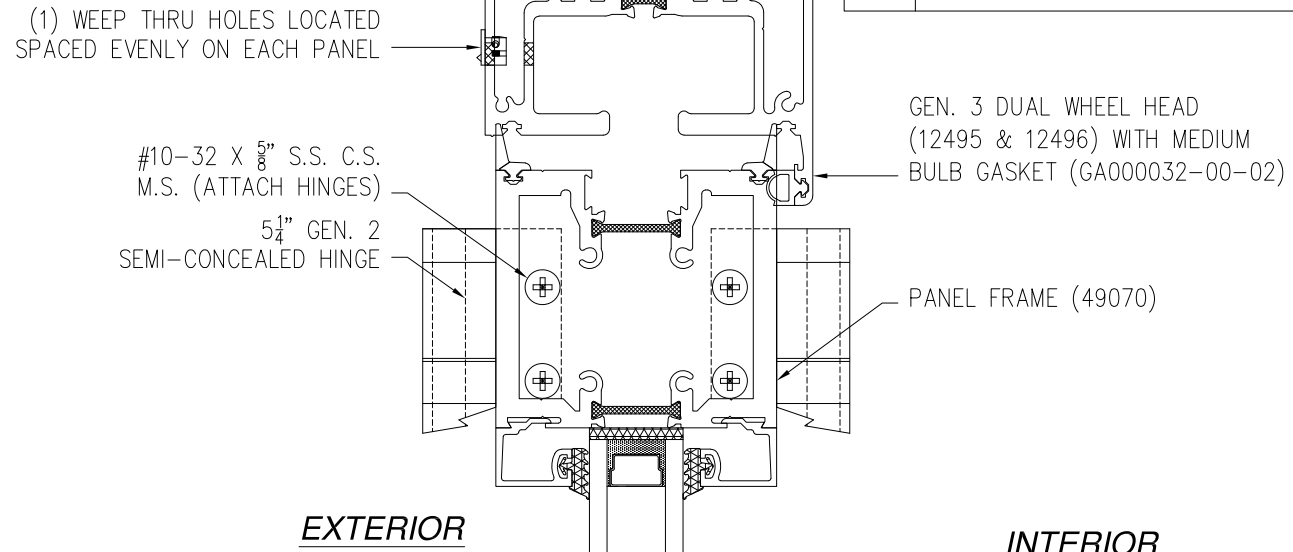
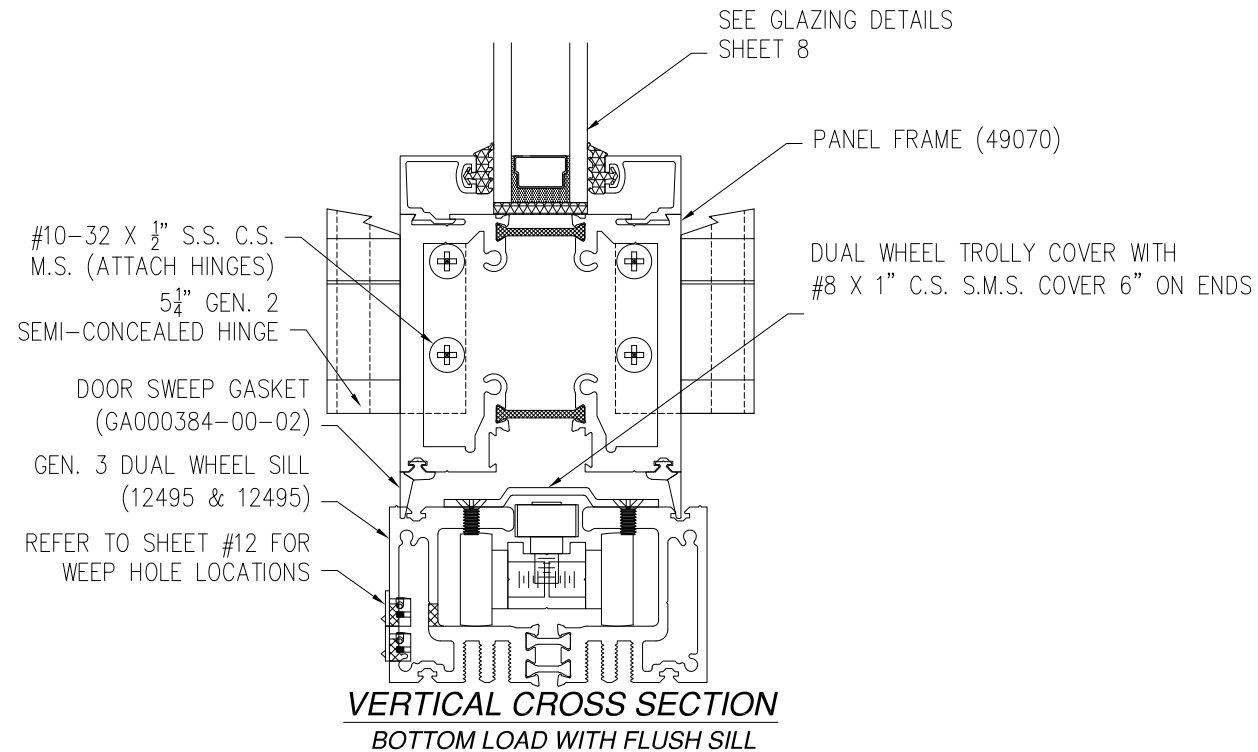
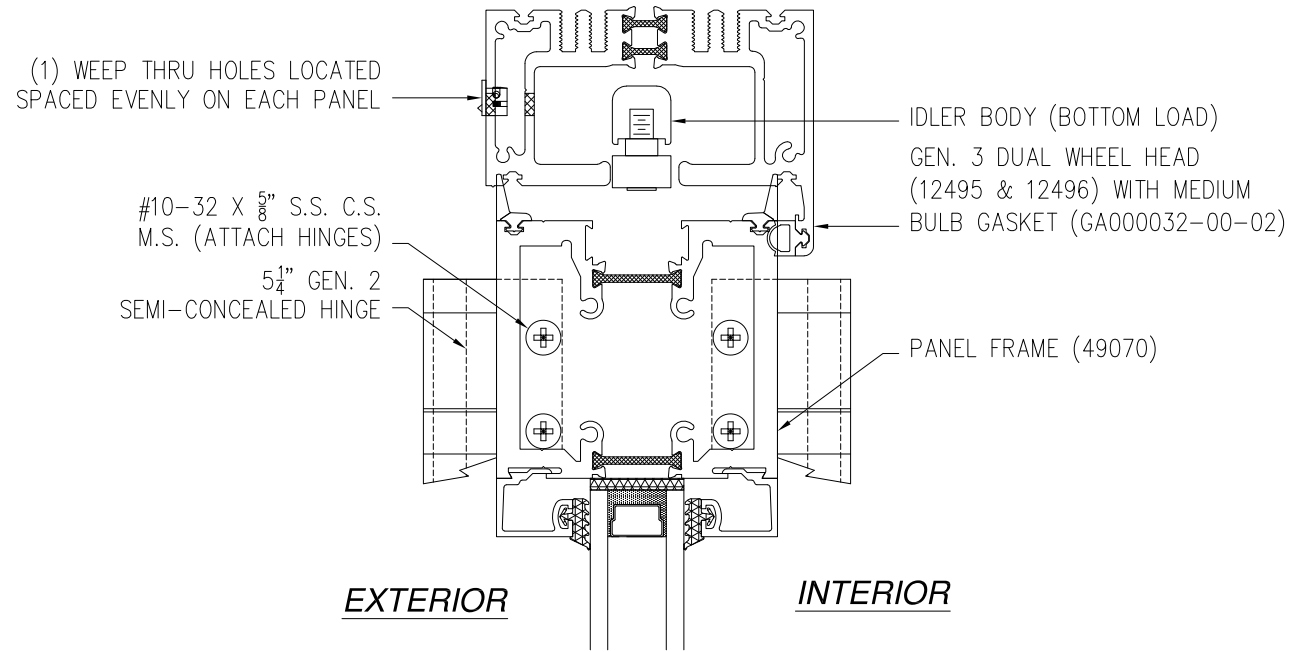
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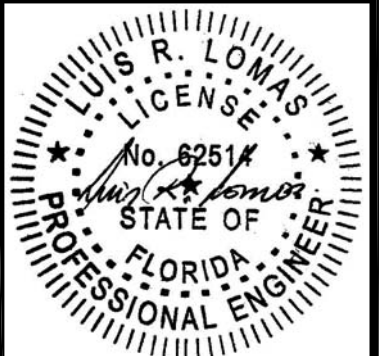
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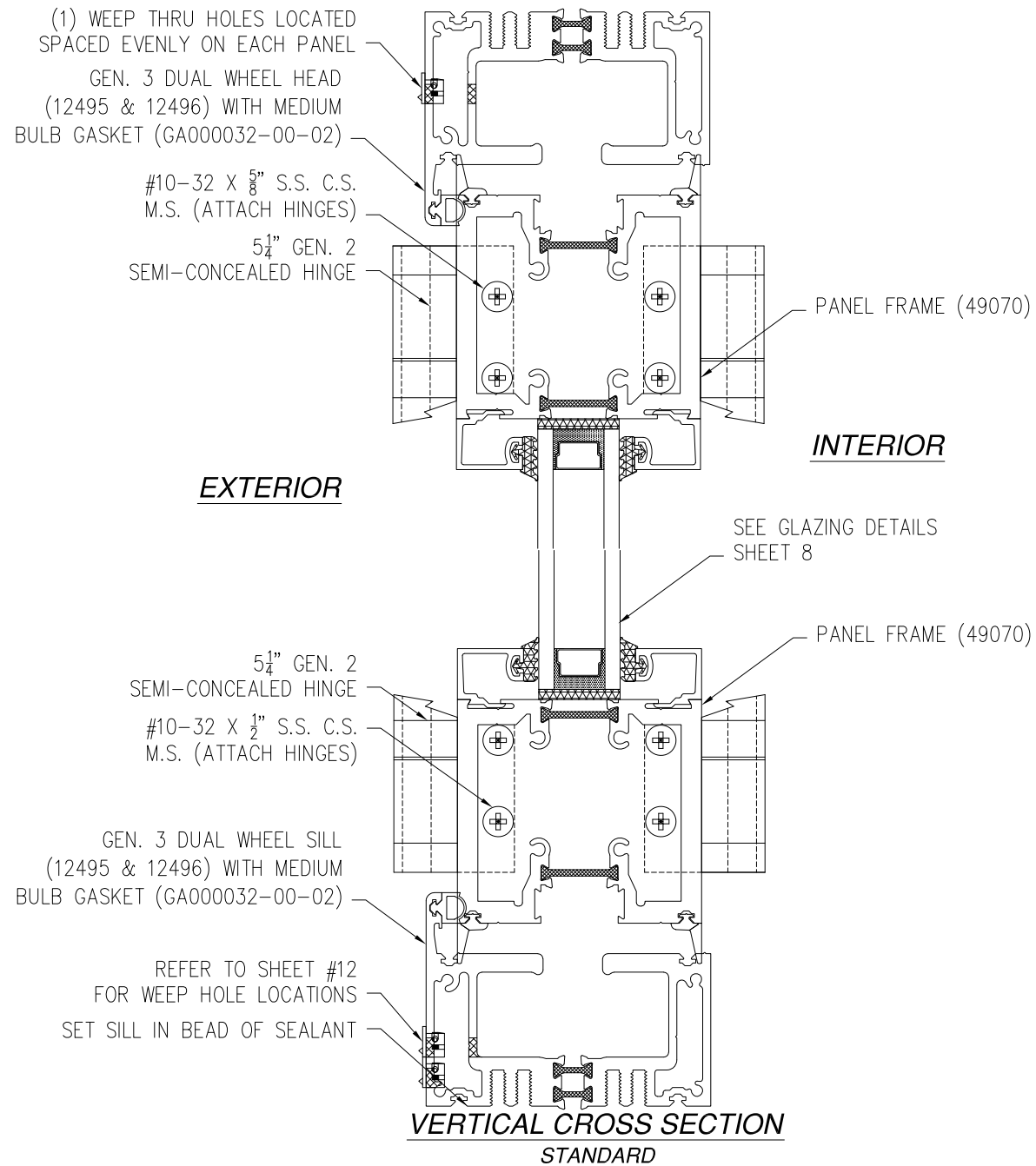
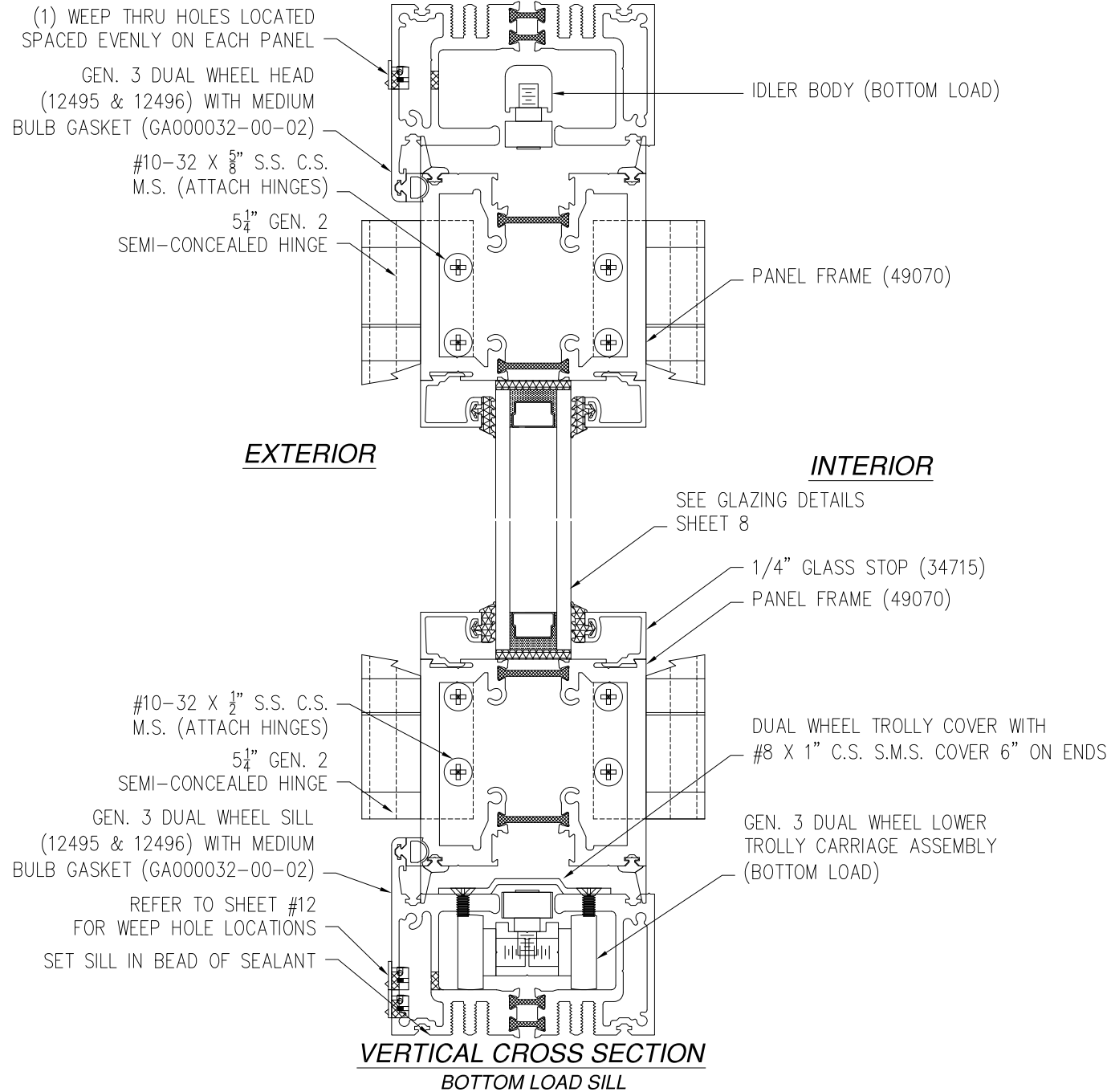
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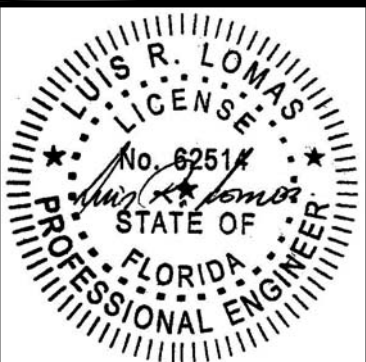


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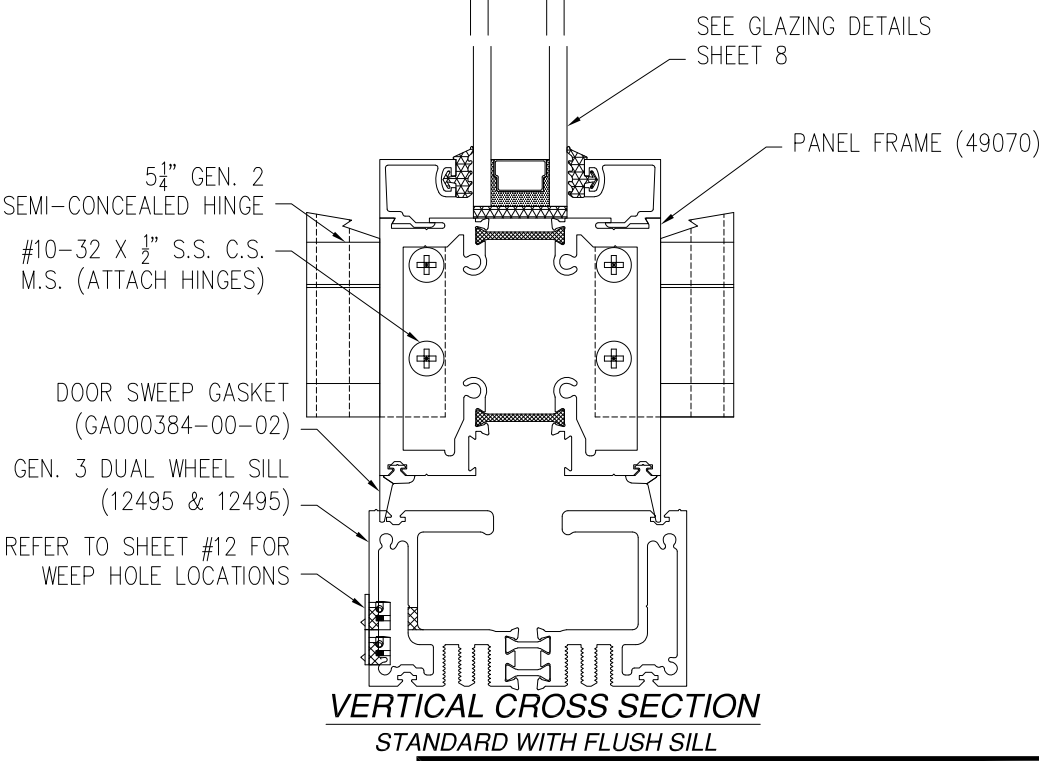
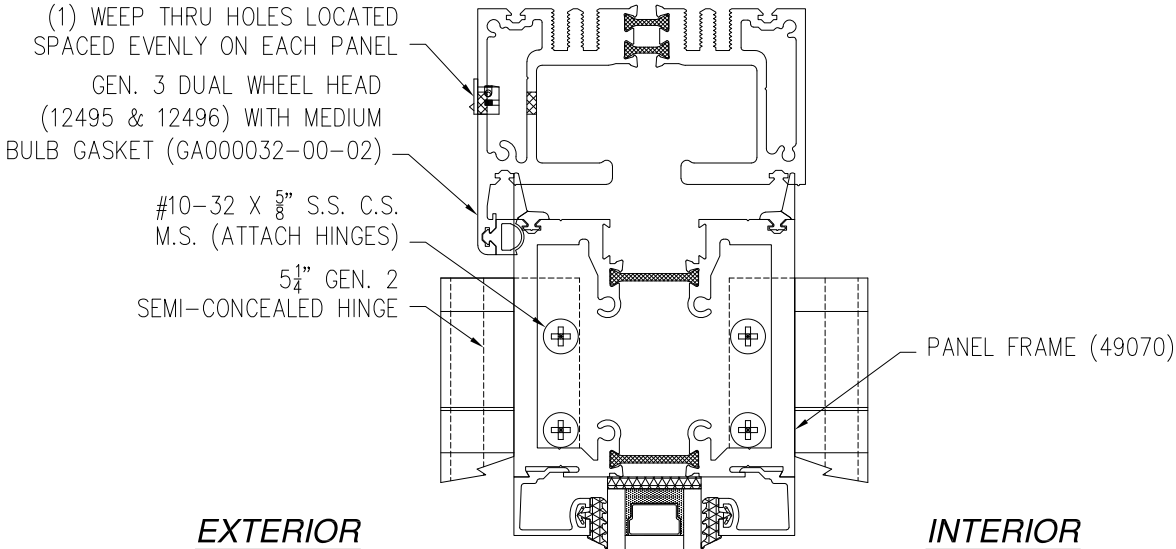
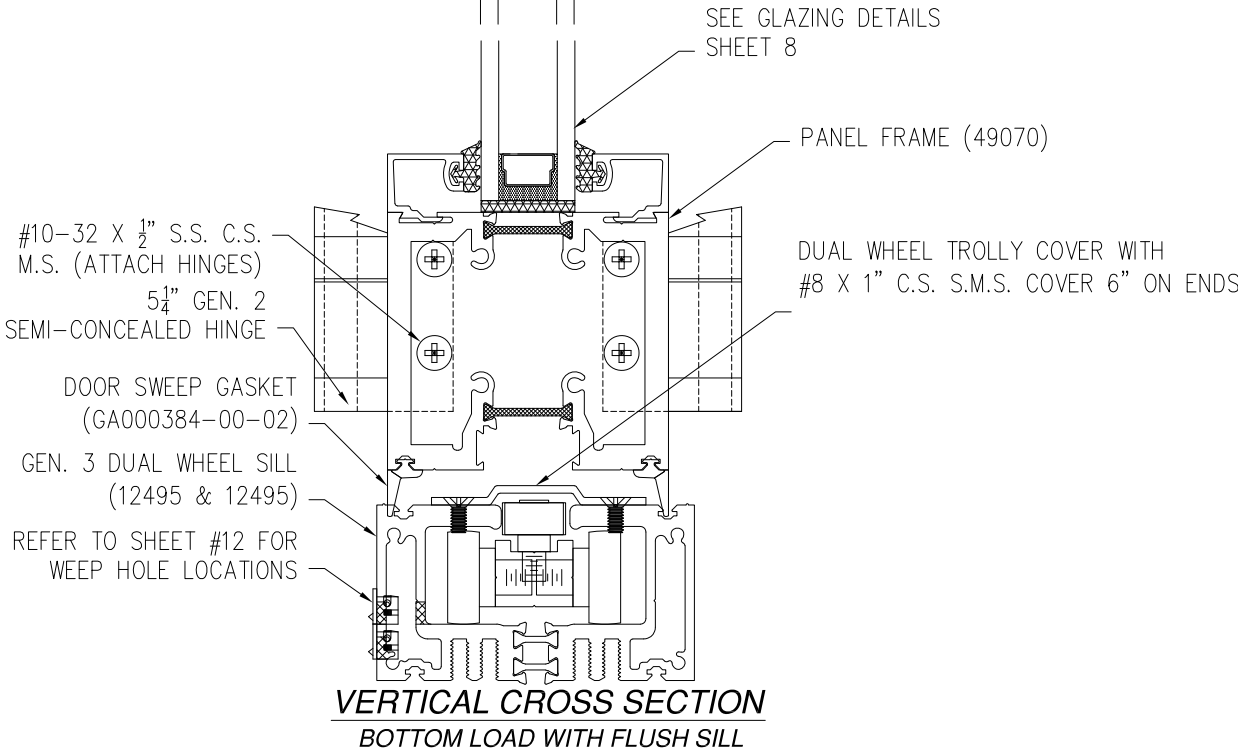
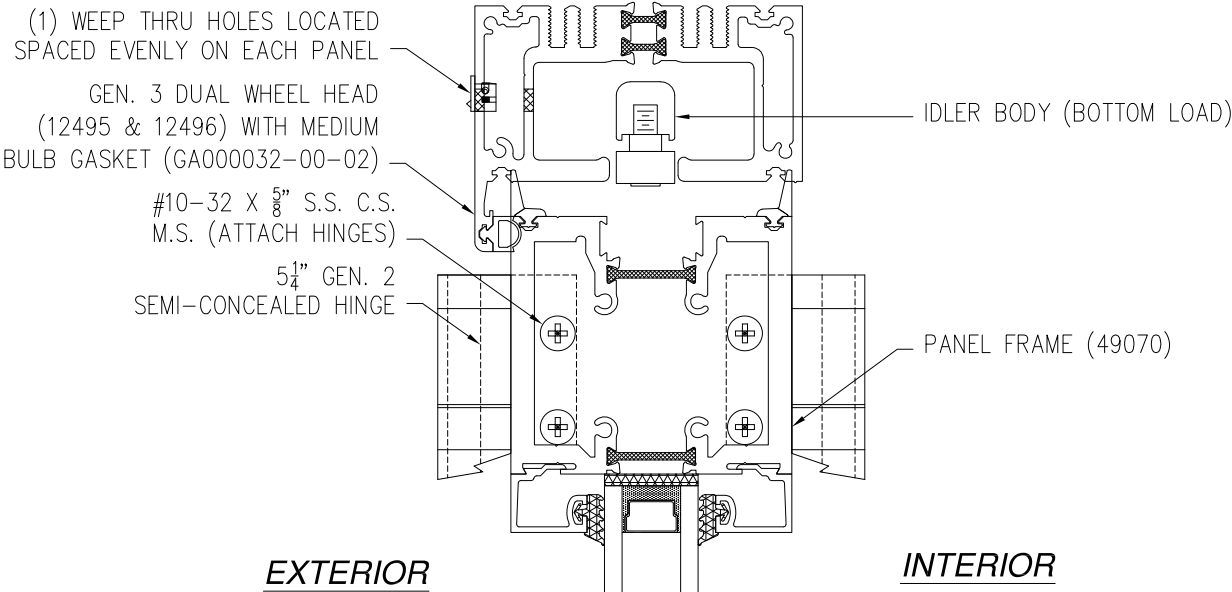
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SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT INSWING VERTICAL CROSS SECTIONS		
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SCALE NTS	DATE 04/22/13	SHEET 6 OF 13
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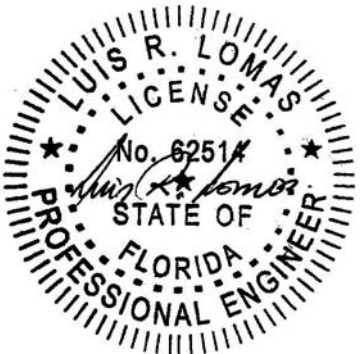
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SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
INSWING VERTICAL CROSS SECTIONS

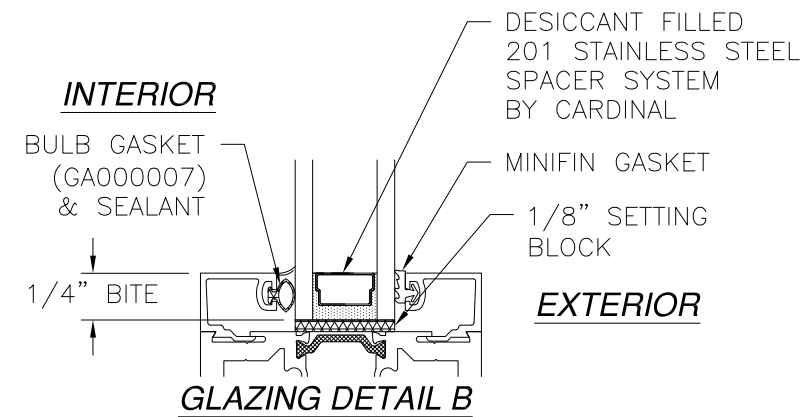
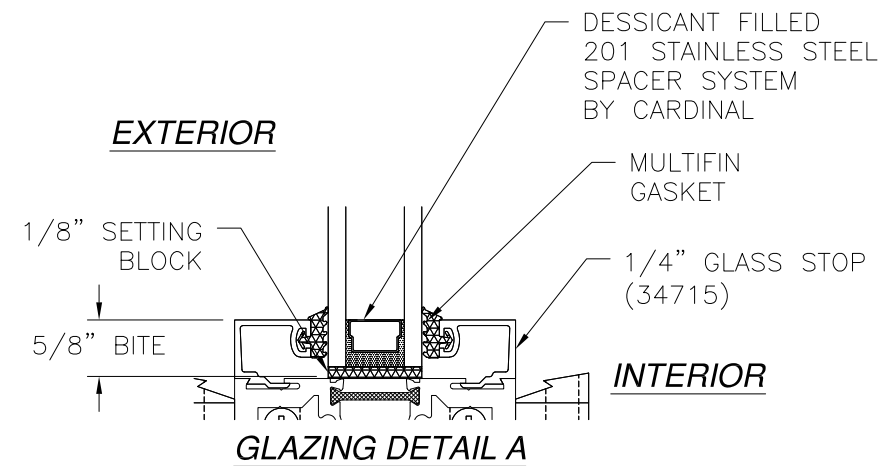
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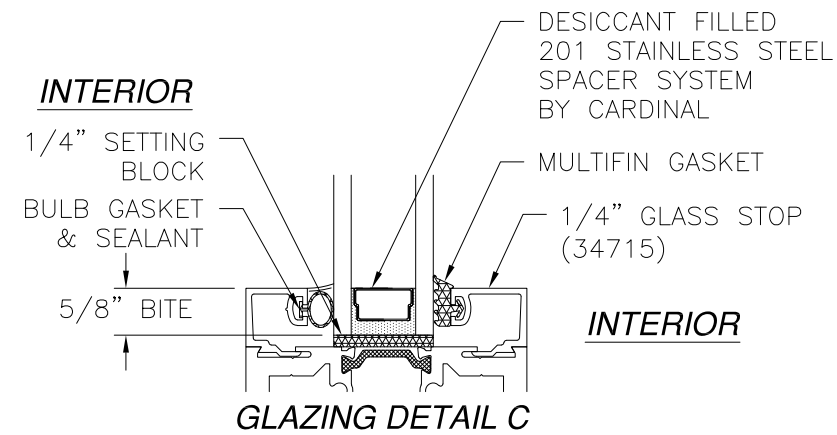


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NOTE:
GLASS FOR ALL CONFIGURATIONS MUST BE SAFETY GLASS

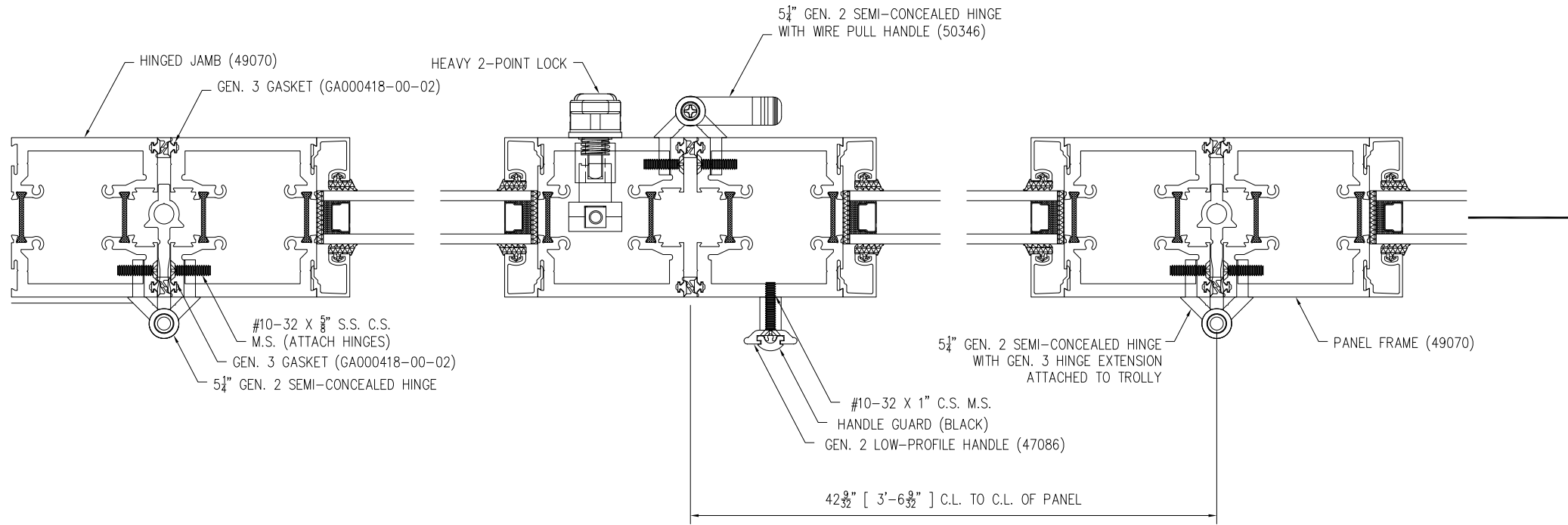


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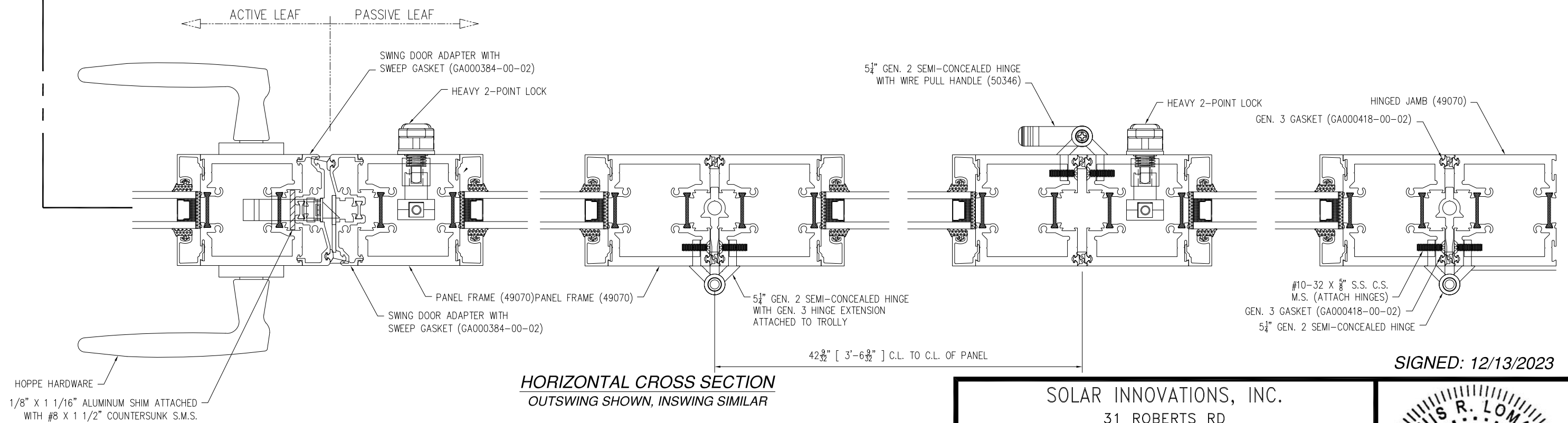
SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT GLAZING DETAILS		
DRAWN: V.L.	DWG NO. 08-01987	REV C
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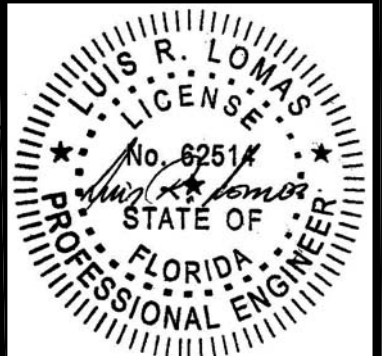
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HORIZONTAL CROSS SECTION
OUTSWING SHOWN, INSWING SIMILAR

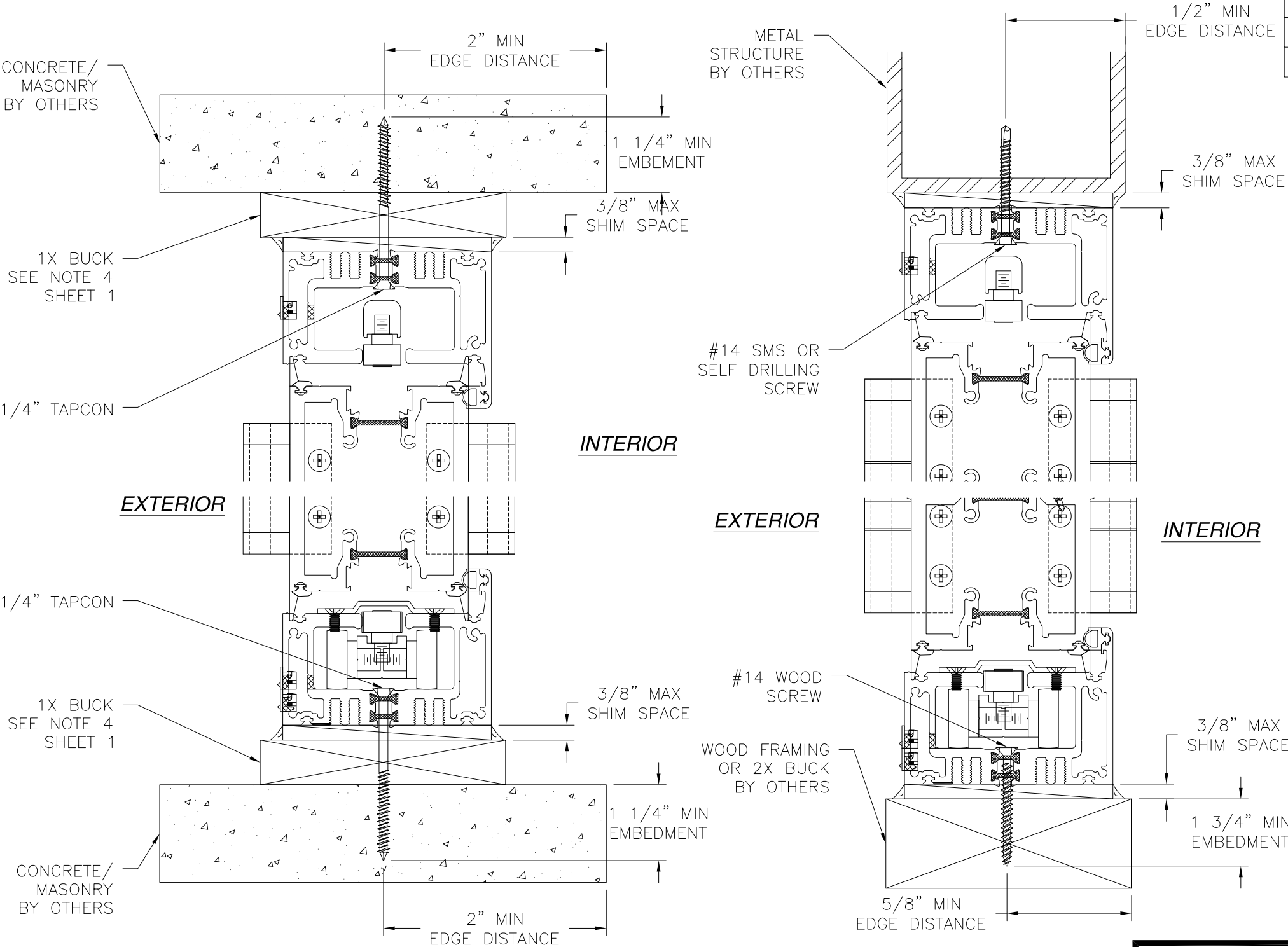
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- NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION
OUTSWING SHOWN, INSWING SIMILAR

VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK
OR METAL STRUCTURE INSTALLATION
OUTSWING SHOWN, INSWING SIMILAR

SOLAR INNOVATIONS, INC.

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PINE GROVE, PA 17963

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
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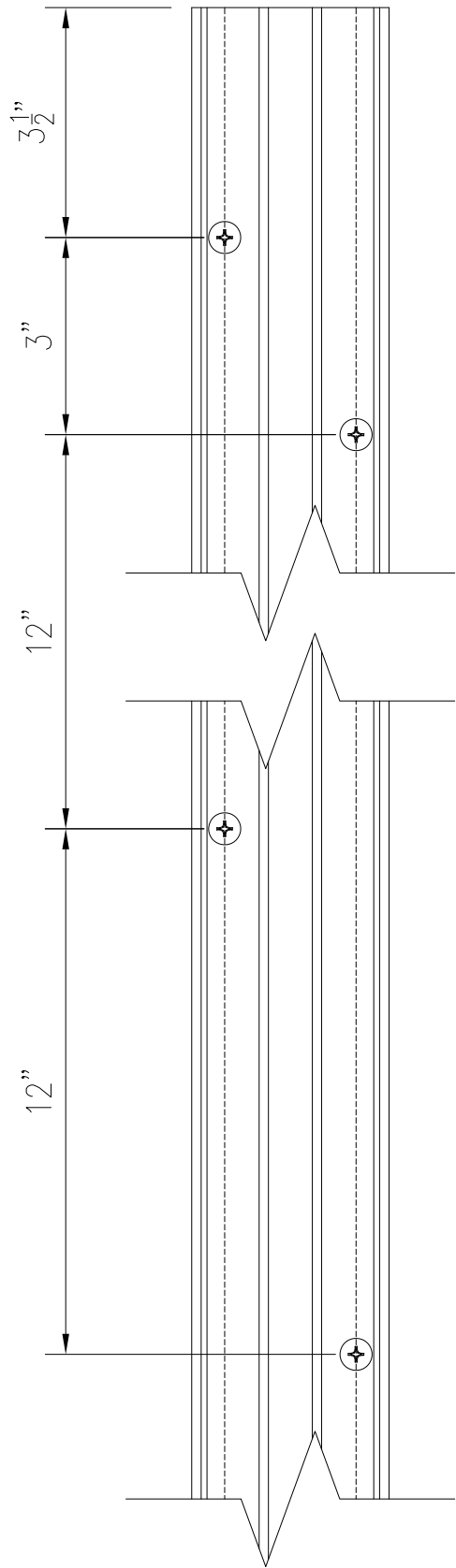
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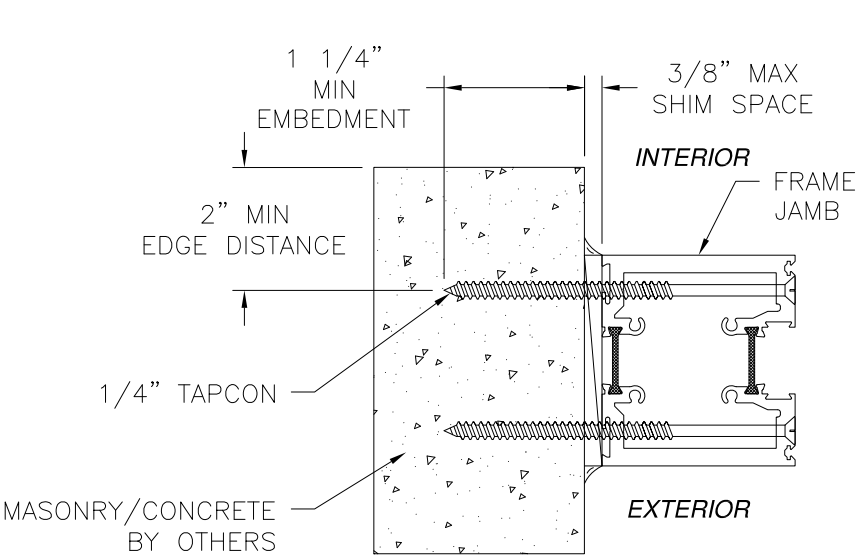


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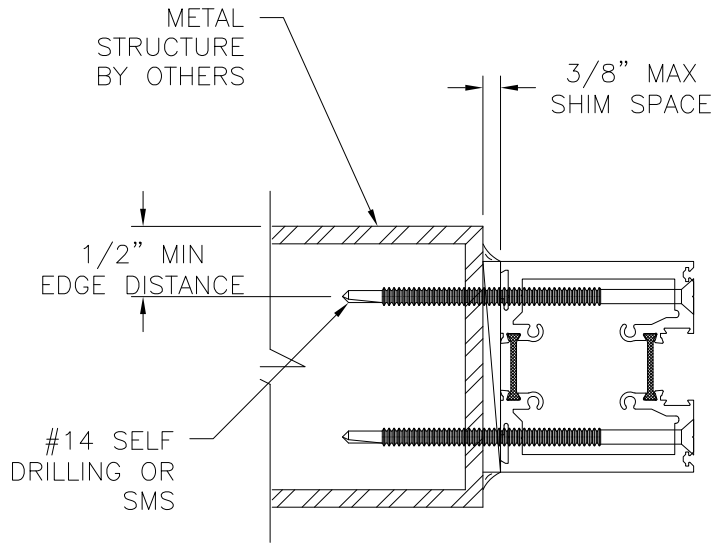
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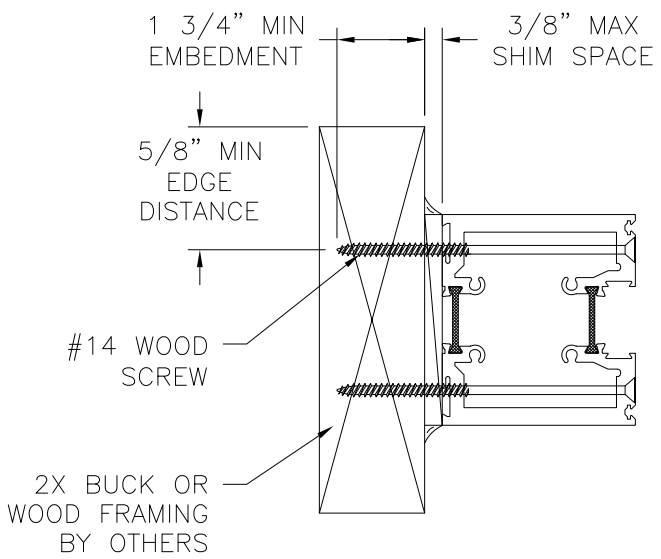
JAMB ANCHOR LOCATIONS
DETAIL



JAMB INSTALLATION DETAIL
MASONRY/CONCRETE



JAMB INSTALLATION DETAIL
METAL STRUCTURE



JAMB INSTALLATION DETAIL
2X BUCK OR WOOD FRAMING

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DWG NO.
08-01987

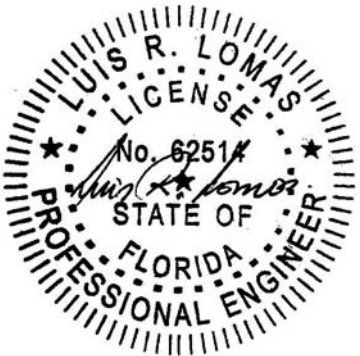
REV
C

SCALE
NTS

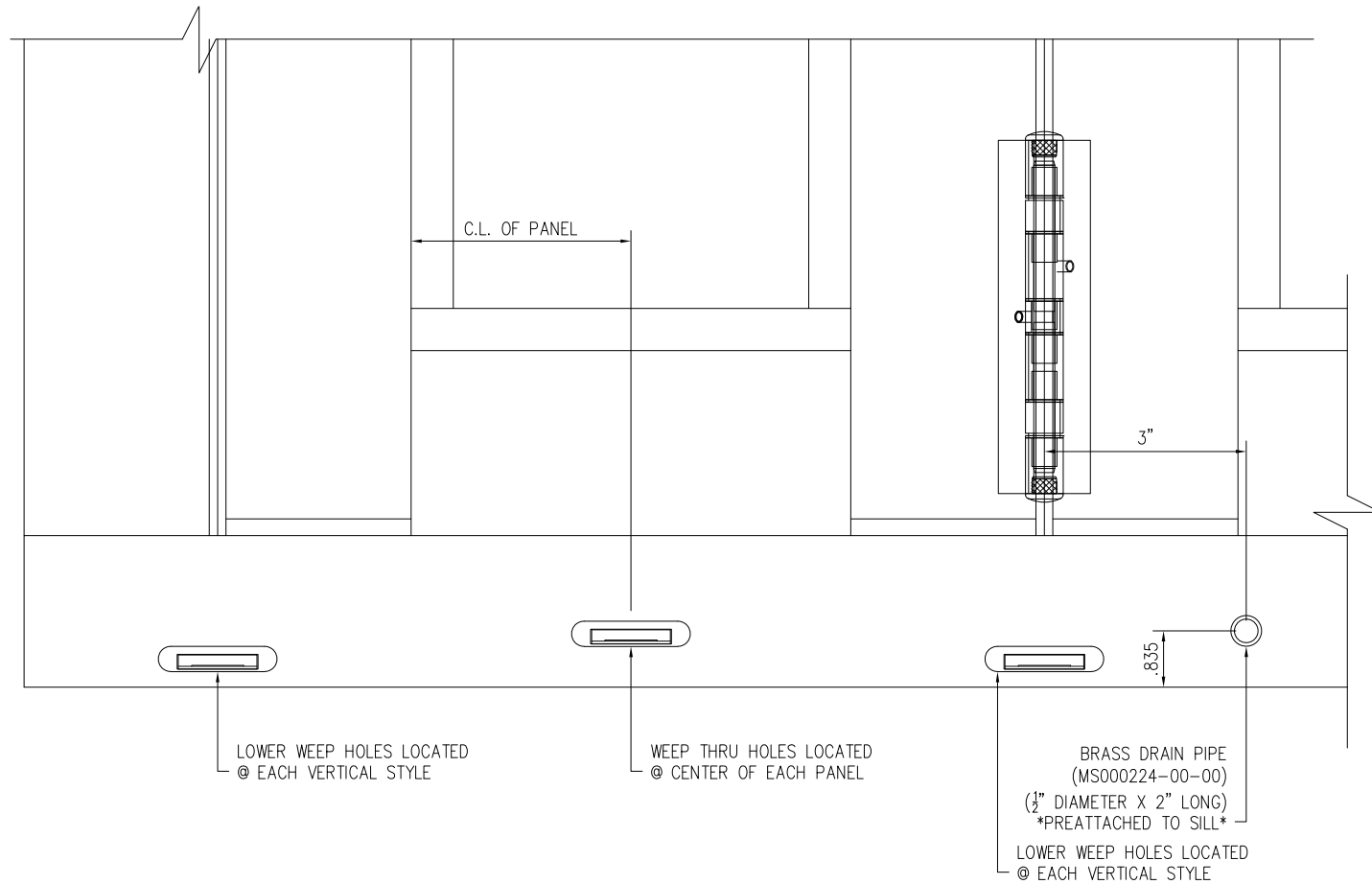
DATE
04/22/13

SHEET
11 OF 13

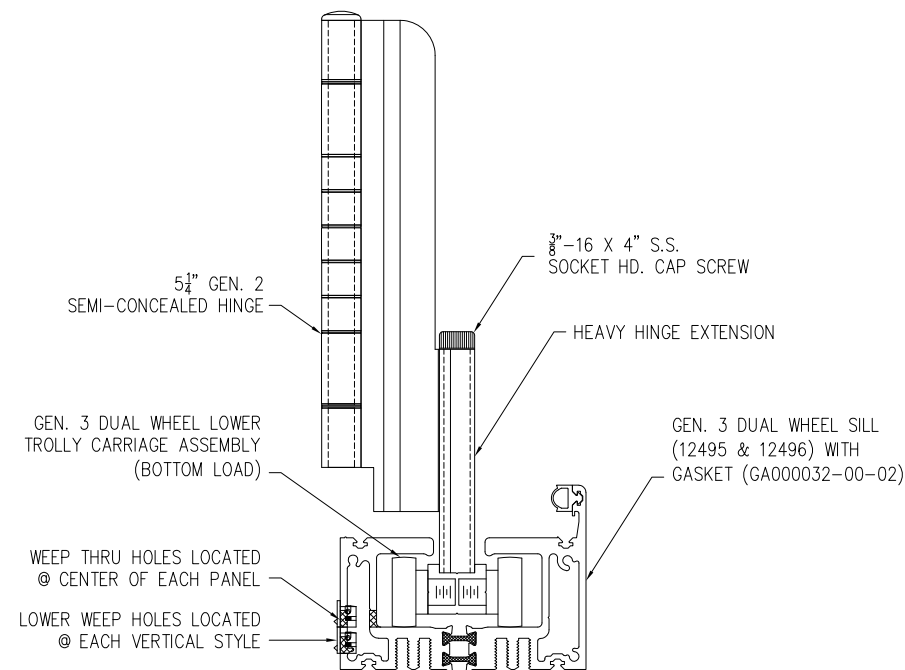
L. ROBERTO LOMAS P.E.
208 7th Ave, INDIALANTIC, FL 32903
434-688-0609 rllomas@lrlomaspe.com



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

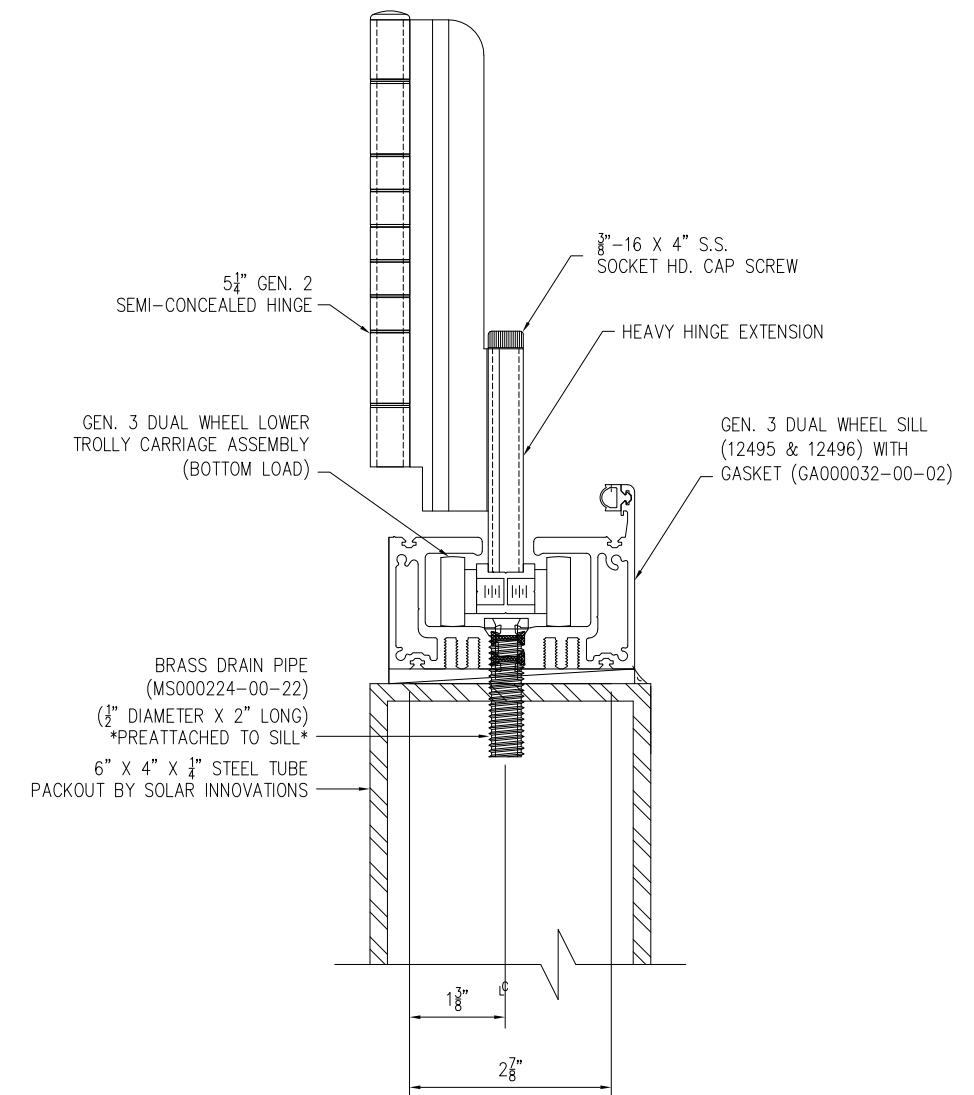


WEEP HOLES DETAILS



**WEEP HOLES AND HINGE EXTENSION
DETAIL**

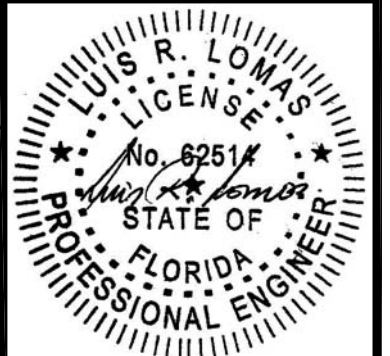
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED DETAILS AND COMPONENTS	12/11/2023	R.L.



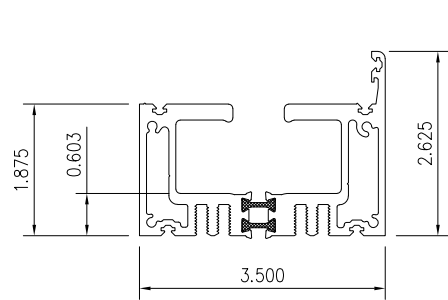
**DRAIN PIPE AND HINGE EXTENSION
DETAIL**

SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW NON-IMPACT WEEP HOLES DETAILS		
DRAWN: V.L.	DWG NO. 08-01987	REV C
SCALE NTS	DATE 04/22/13	SHEET 12 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

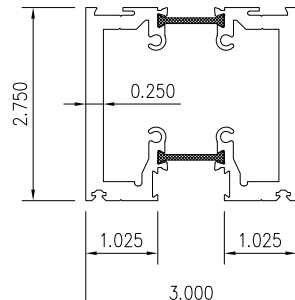
SIGNED: 12/13/2023



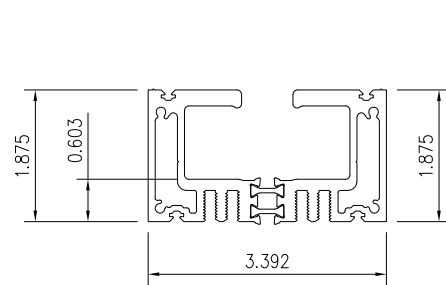
Luis R. Lomas P.E.
FL No.: 62514



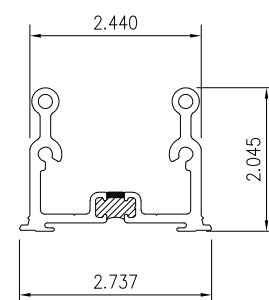
DUAL WHEEL
HEAD / SILL



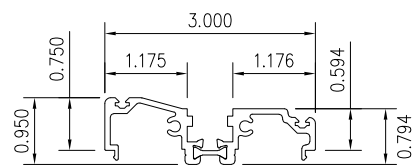
REGULAR THERMAL
FRAME



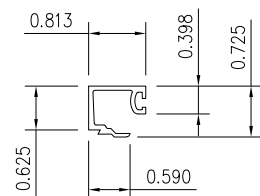
FLUSH
SILL



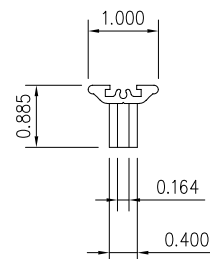
FRAME
LUG



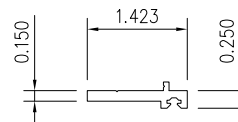
3rd GENERATION
DOOR ADAPTOR



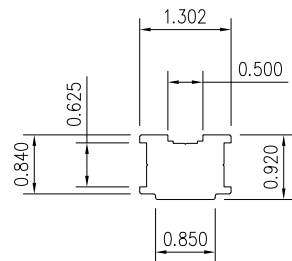
1/4" GLASS
STOP



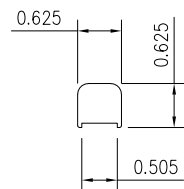
2nd GENERATION
HANDLE



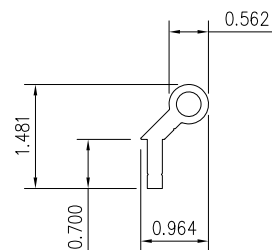
FRAME
CAP



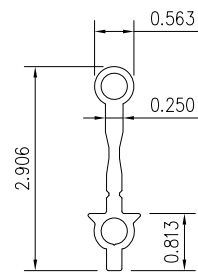
TROLLEY
BODY



IDLER
BODY



5 1/4" SEMI-
CONCEALED HINGE



HINGE
EXTENSION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	REVISED DETAILS AND COMPONENTS	12/11/2023	R.L.

SIGNED: 12/13/2023

SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 STANDARD IN/OUT ALUMINUM FGW
NON-IMPACT
COMPONENTS

DRAWN:
V.L.

DWG NO.
08-01987

REV
C

SCALE NTS

DATE 04/22/13

SHEET 13 OF 13

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