

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
G	REVISED DETAILS	05/01/26	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 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, SEE SHEET 4 FOR GLASS DETAILS.
8. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT 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

SIGNED: 05/01/2026

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SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
NOTES

DRAWN:
V.L.

DWG NO.
08-01860G

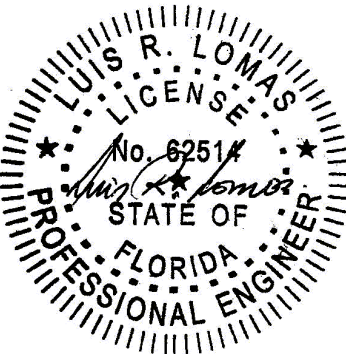
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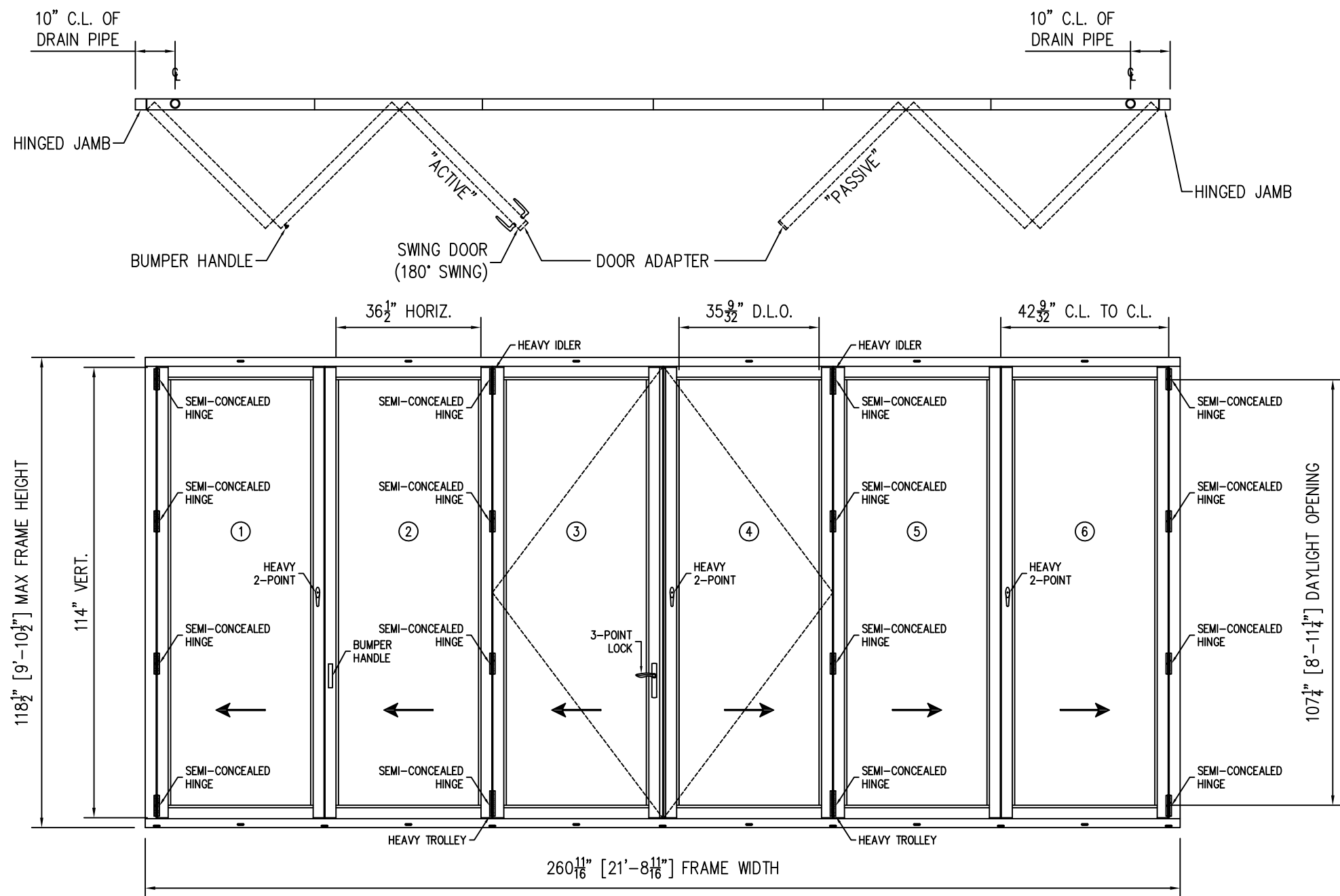
DATE 12/03/12

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
$\pm 70.0\text{PSF}$	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4, AND HVHZ
SEE CHART #1 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
$\pm 55.0\text{PSF}$	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4, AND HVHZ
UNITS WITH FLUSH SILL
SEE CHART #2 SHEET 3

DESIGN PRESSURE RATING	IMPACT RATING
$\pm 55.0\text{PSF}$	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4, AND HVHZ
UNITS WITH NON-THERMAL PANELS
SEE CHART #2 SHEET 3

SI 33350 G3 IMPACT FGW 3.5X9.5 PANEL STANDARD OUT-FOLD ALUMINUM
EXTERIOR VIEW

UNLIMITED NUMBER OF PANELS IN UNLIMITED CONFIGURATION ARE APPROVED
AS LONG AS INDIVIDUAL PANEL AREA DOES NOT EXCEED 33.3 FT² AND USES VERTICAL CONDITIONS AS SHOWN.

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.

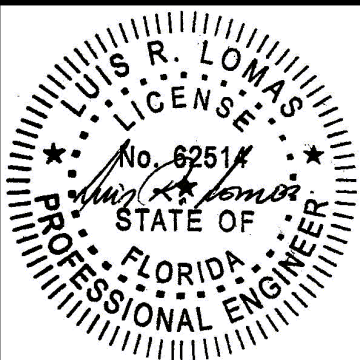
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
ELEVATIONS

DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 2 OF 13

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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	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
84.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
90.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	78.1	78.1
96.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	73.2	73.2
102.0	80.0	80.0	80.0	80.0	80.0	80.0	78.2	78.2	-	-
108.0	80.0	80.0	80.0	80.0	80.0	80.0	73.9	73.9	-	-
114.0	80.0	80.0	80.0	80.0	79.5	79.5	70.0	70.0	-	-
120.0	80.0	80.0	80.0	80.0	69.1	69.1	-	-	-	-
126.0	80.0	80.0	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	80.0	60.0	80.0	60.0	80.0	60.0	80.0	60.0	70.8
84.0	60.0	80.0	60.0	80.0	60.0	80.0	60.0	74.6	60.0	65.7
90.0	60.0	80.0	60.0	80.0	60.0	80.0	60.0	69.7	60.0	61.4
96.0	60.0	80.0	60.0	80.0	60.0	76.7	60.0	65.3	57.5	57.5
102.0	60.0	80.0	60.0	80.0	60.0	71.4	60.0	61.5	-	-
108.0	60.0	80.0	60.0	77.4	60.0	66.6	58.1	58.1	-	-
114.0	60.0	80.0	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	-	-	-	-	-	-

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

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
DESIGN PRESSURE CHARTS

DRAWN:
V.L.

DWG NO.
08-01860G

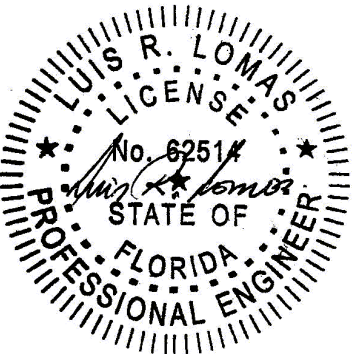
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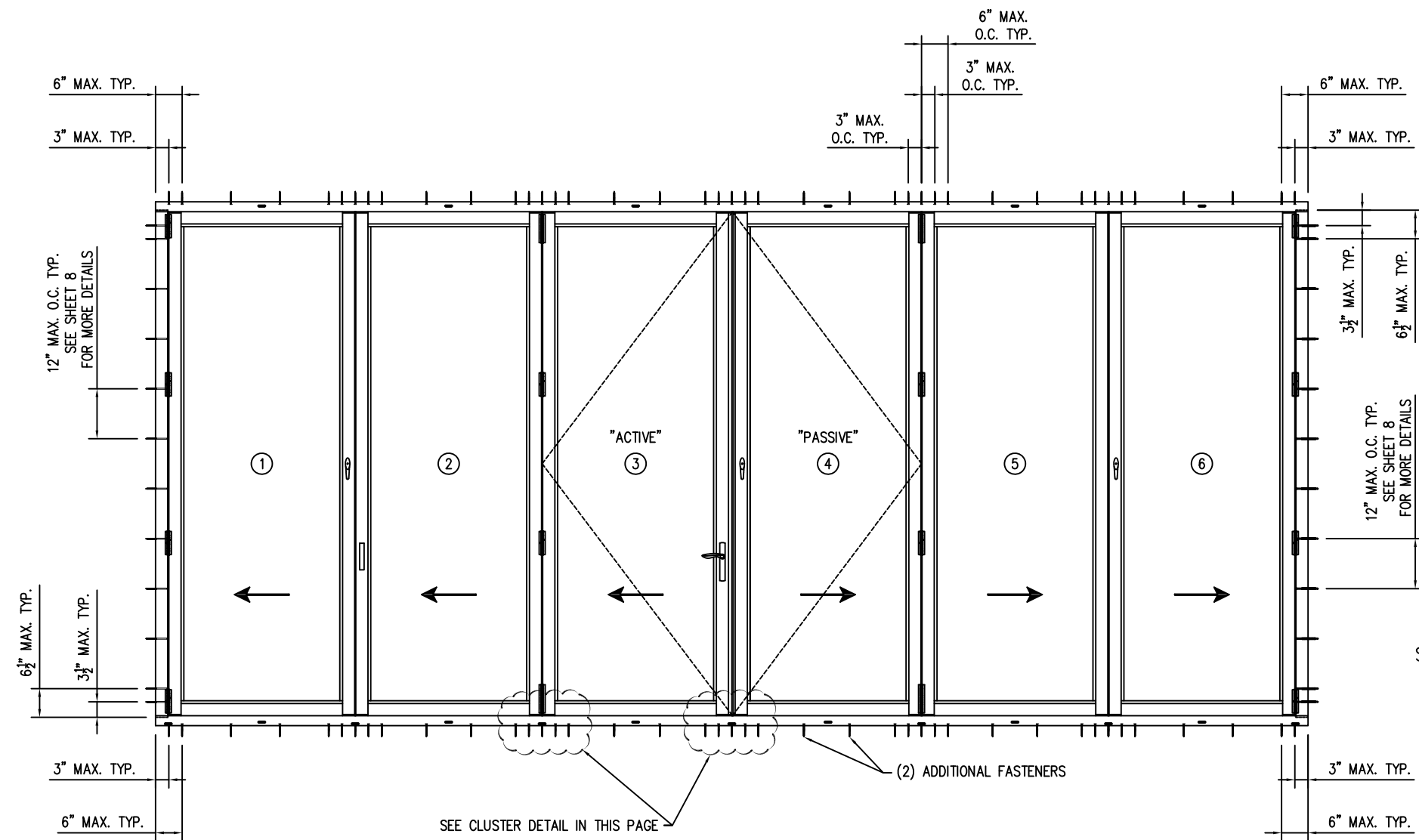
DATE 12/03/12

SHEET 3 OF 13

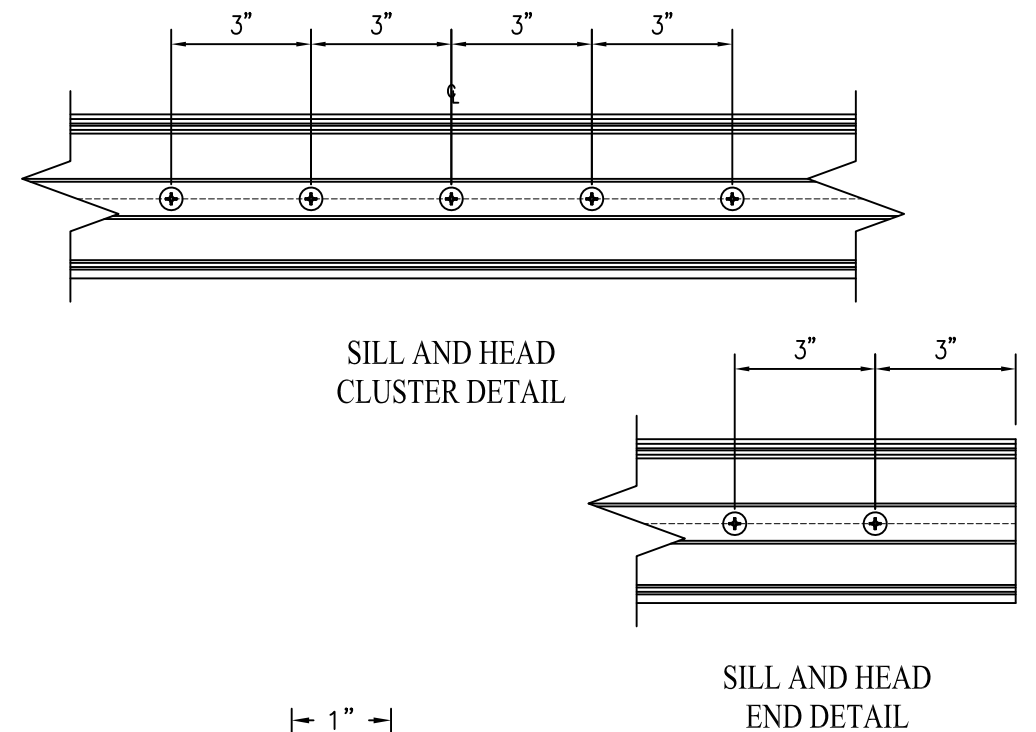
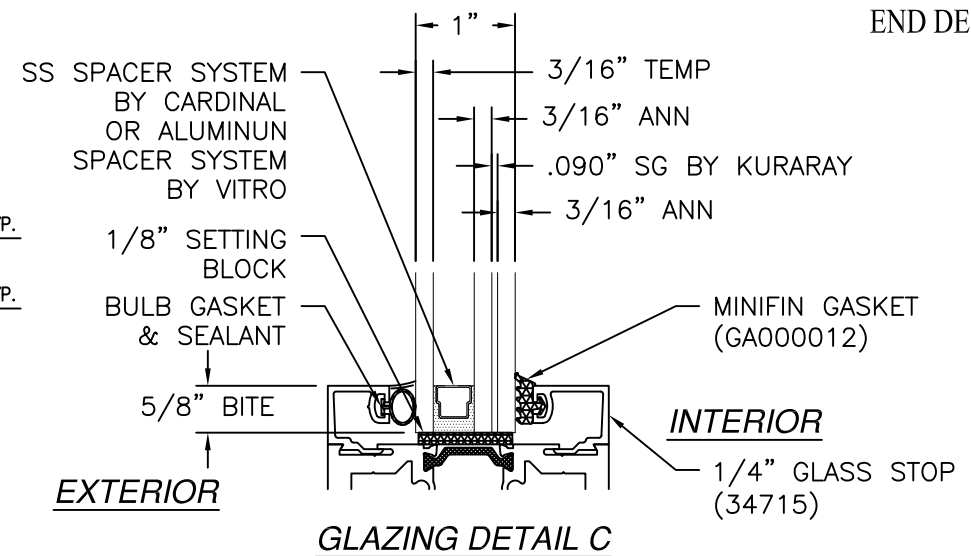
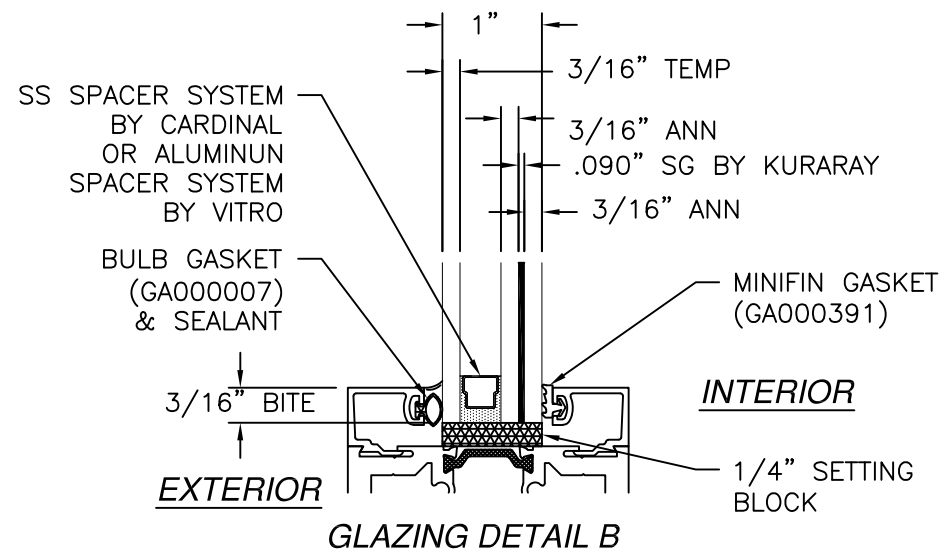
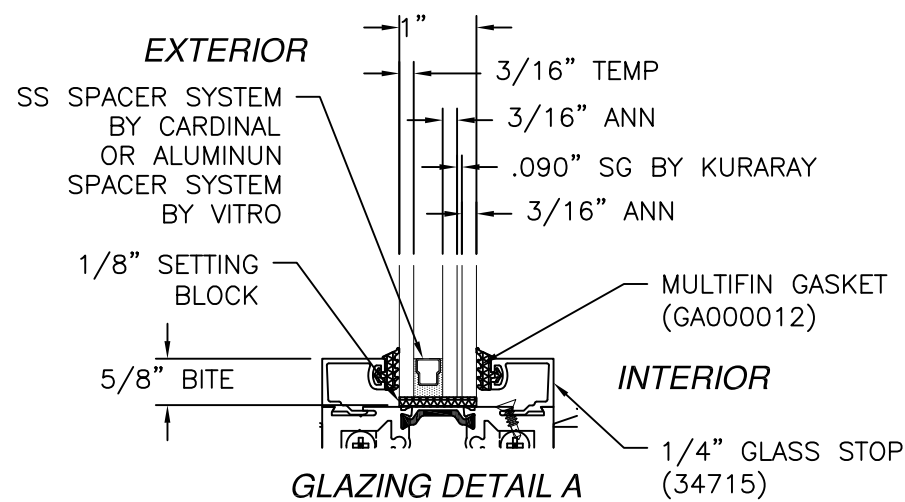
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ANCHOR LAYOUT
APPLICABLE TO ALL CONFIGURATIONS.



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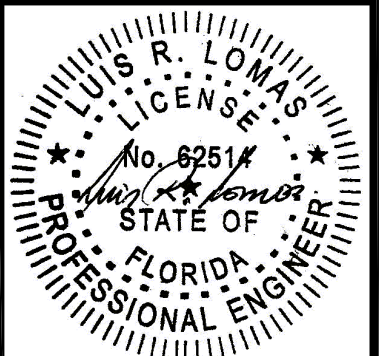
SOLAR INNOVATIONS, INC.
31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
ANCHOR LAYOUT AND GLAZING DETAIL

DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 4 OF 13

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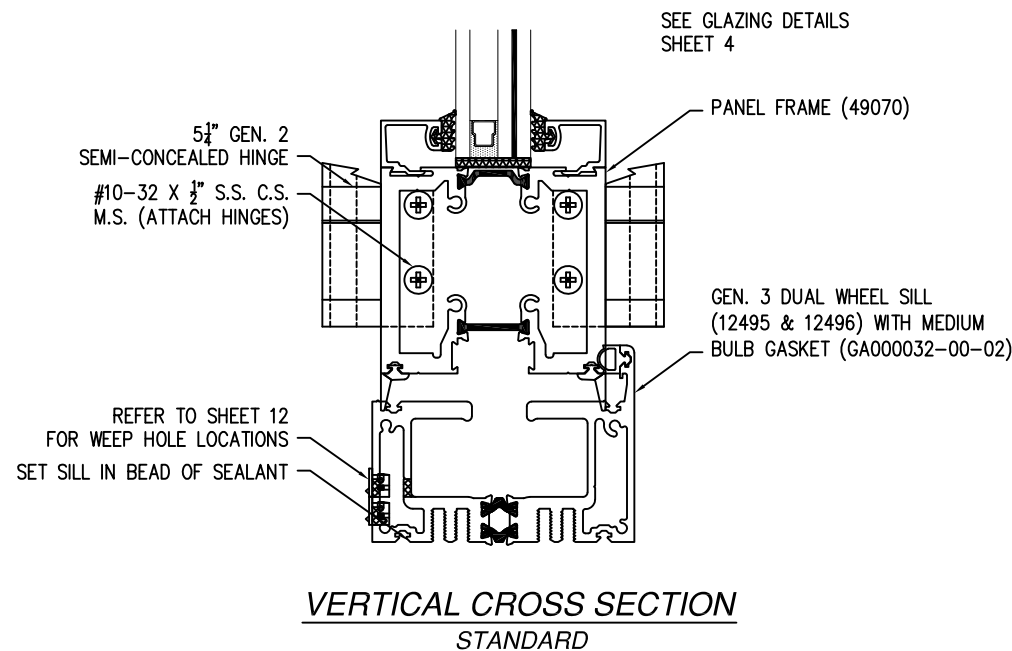
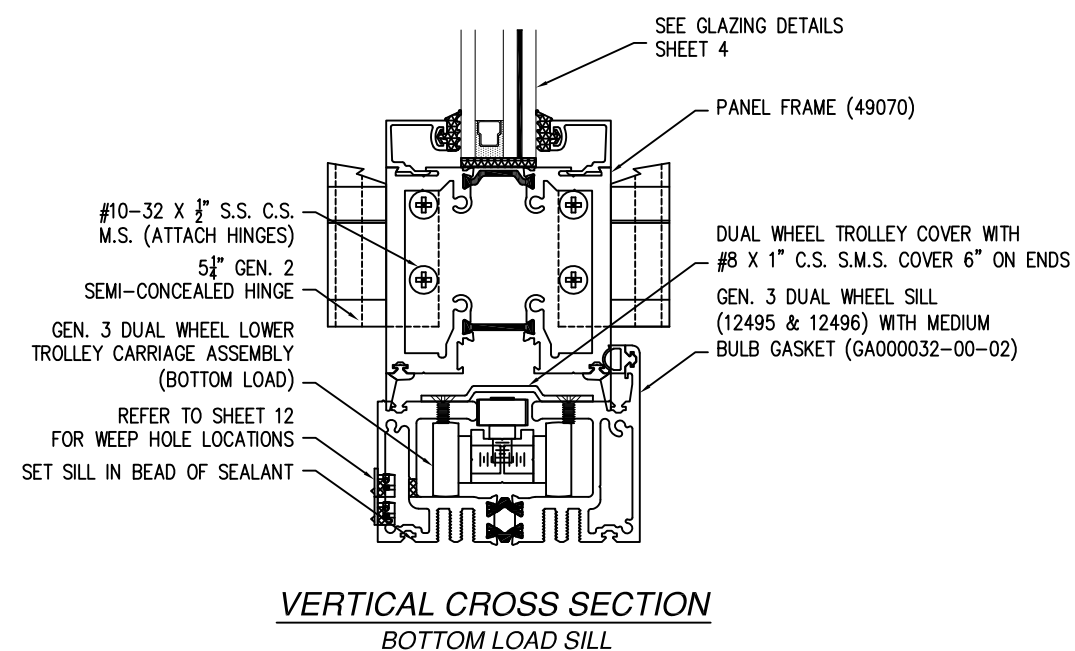
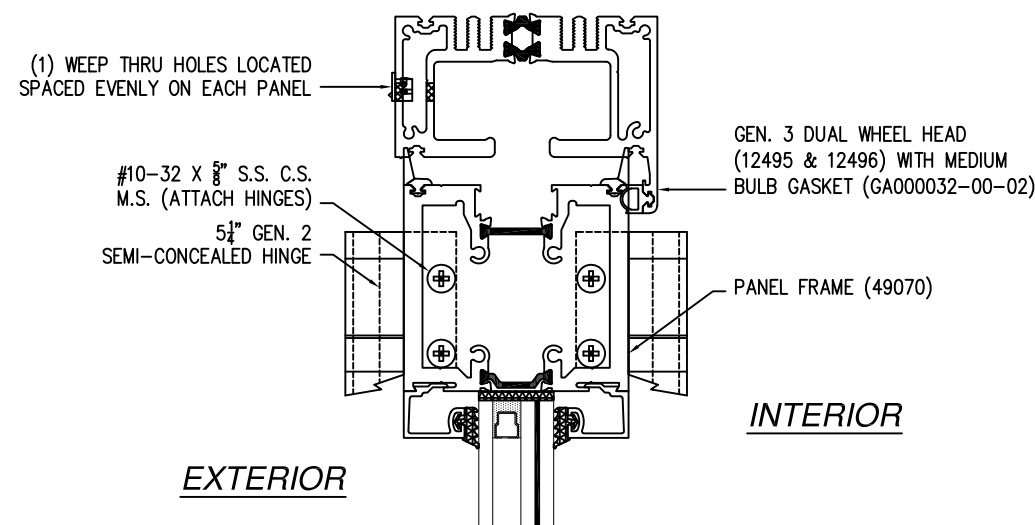
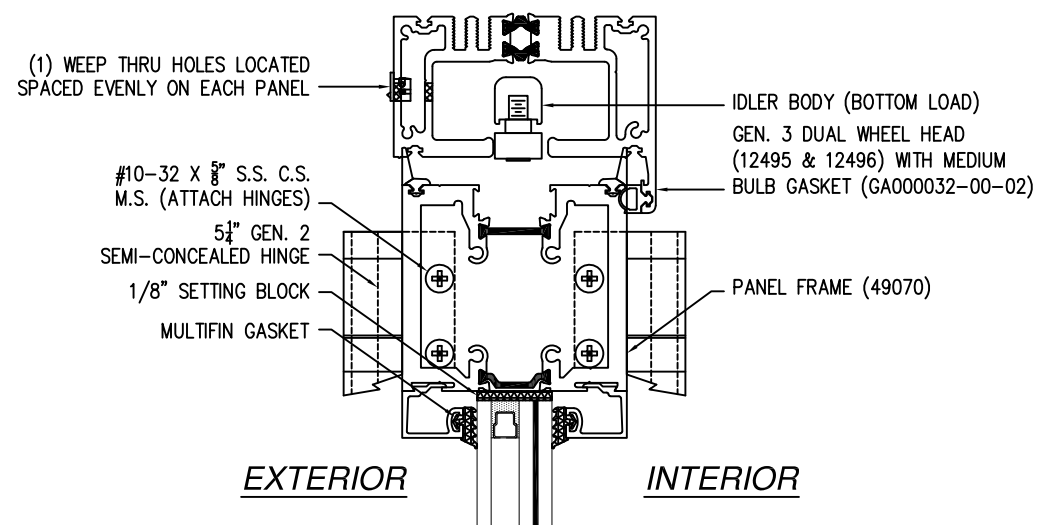
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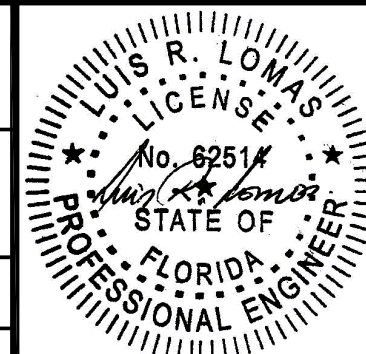
SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
VERTICAL CROSS SECTIONS

DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 5 OF 13

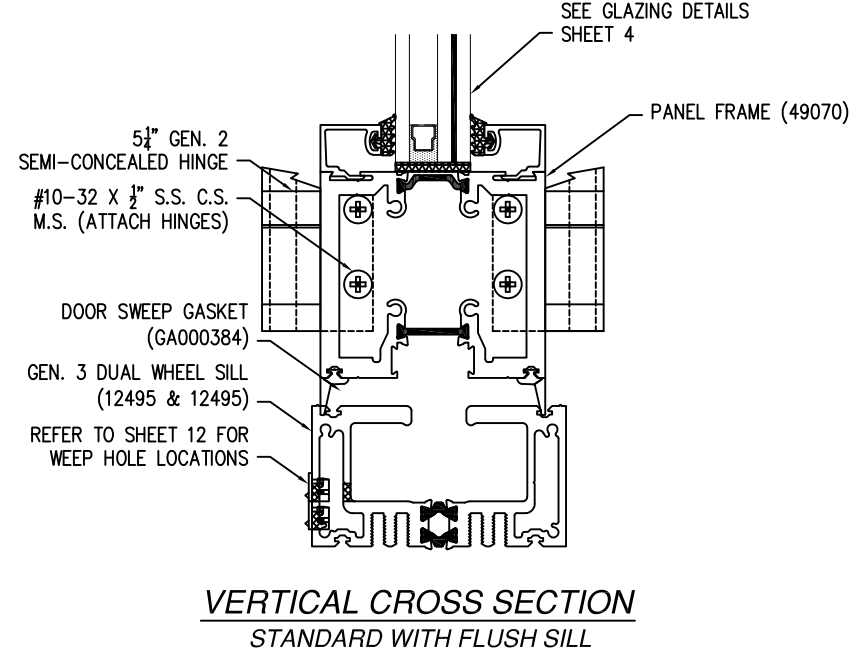
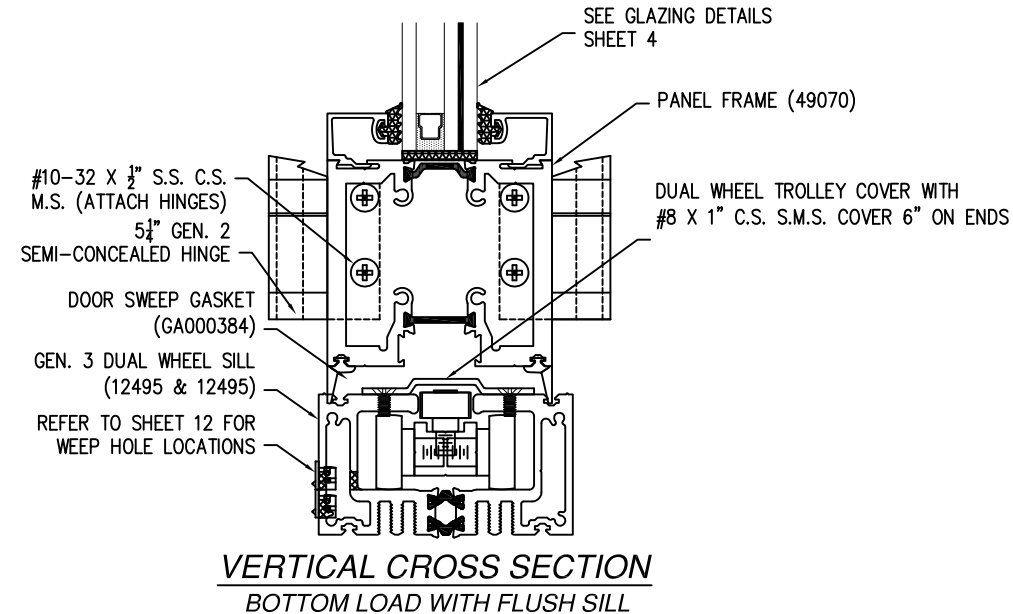
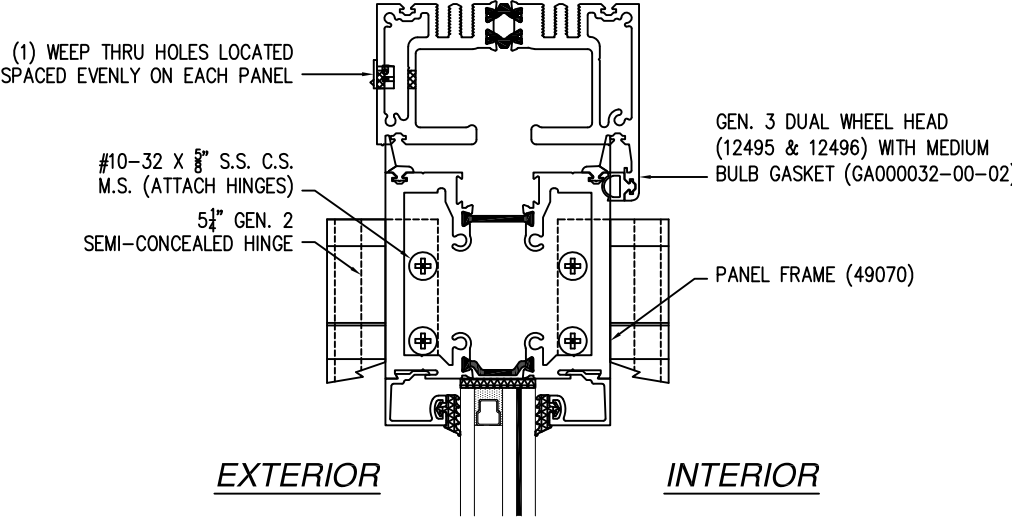
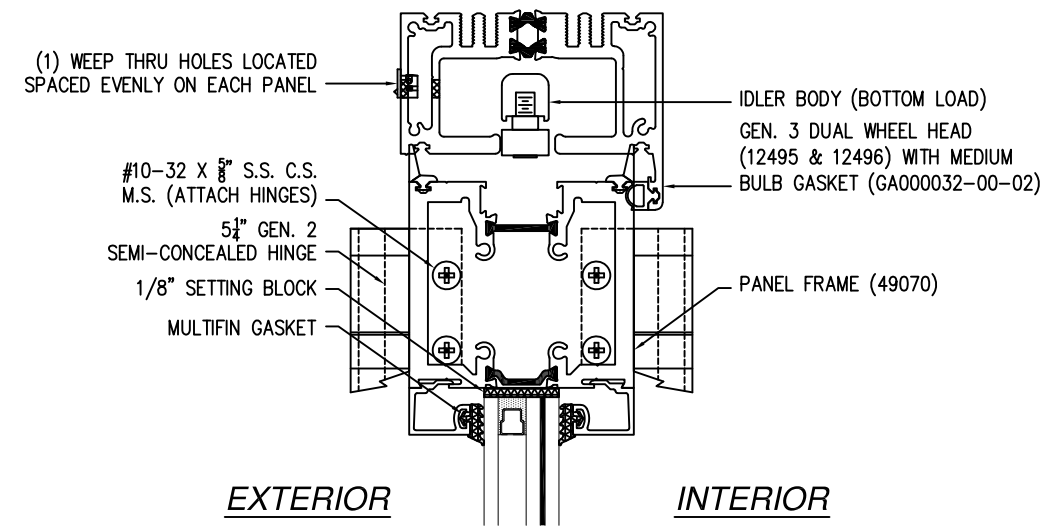
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VERTICAL CROSS SECTIONS

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SCALE NTS	DATE 12/03/12	SHEET 6 OF 13

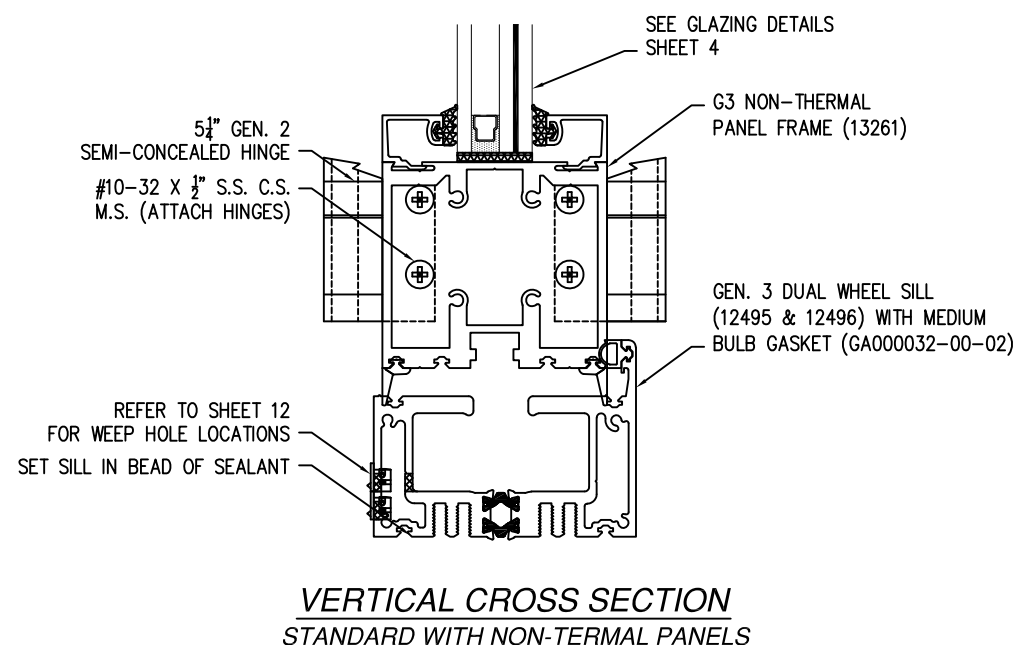
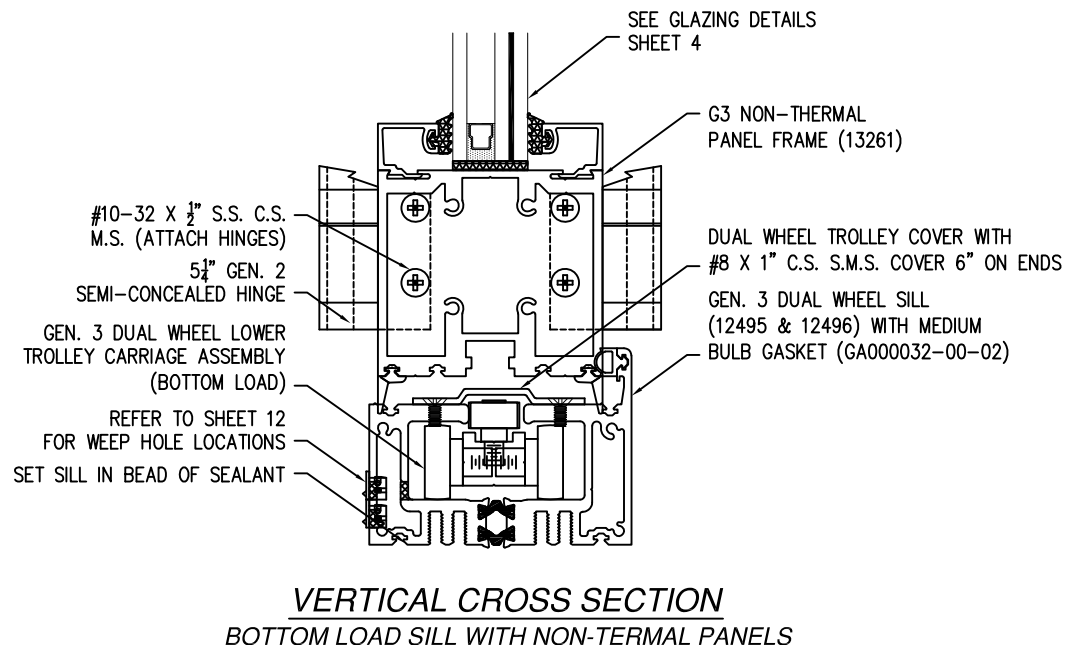
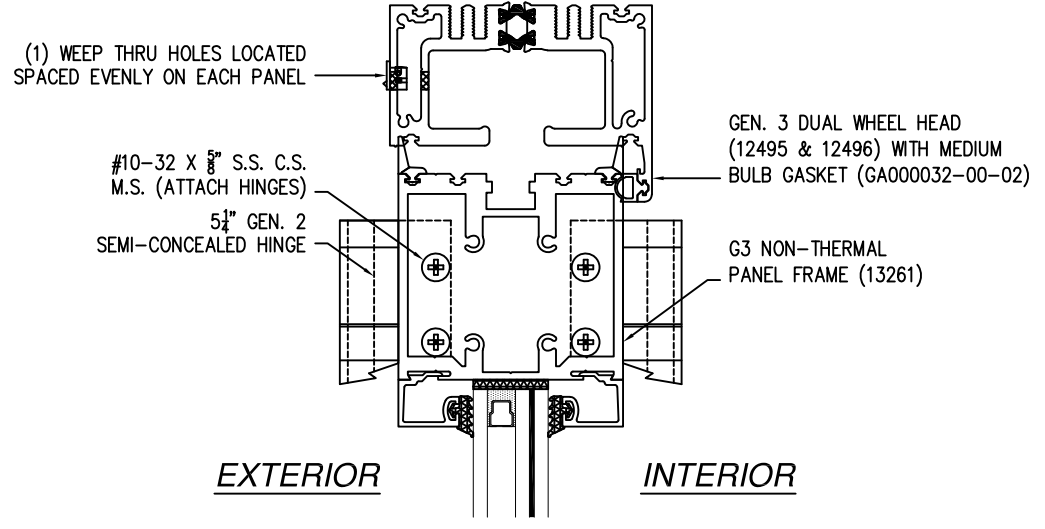
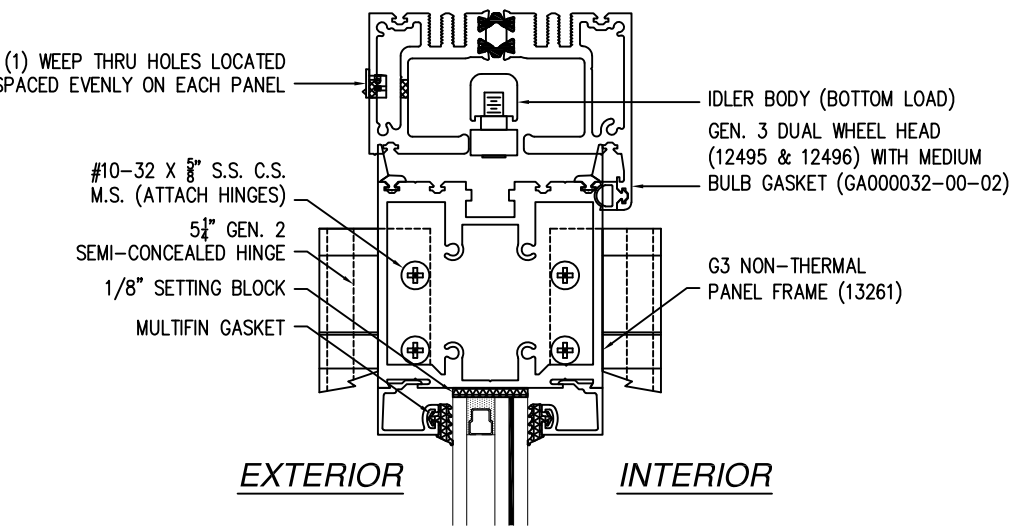
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LICENSED PROFESSIONAL ENGINEER
No. 62514
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Luis R. Lomas P.E.
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VERTICAL CROSS SECTION
BOTTOM LOAD SILL WITH NON-TERMAL PANELS

VERTICAL CROSS SECTION
STANDARD WITH NON-TERMAL PANELS

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PINE GROVE, PA 17963

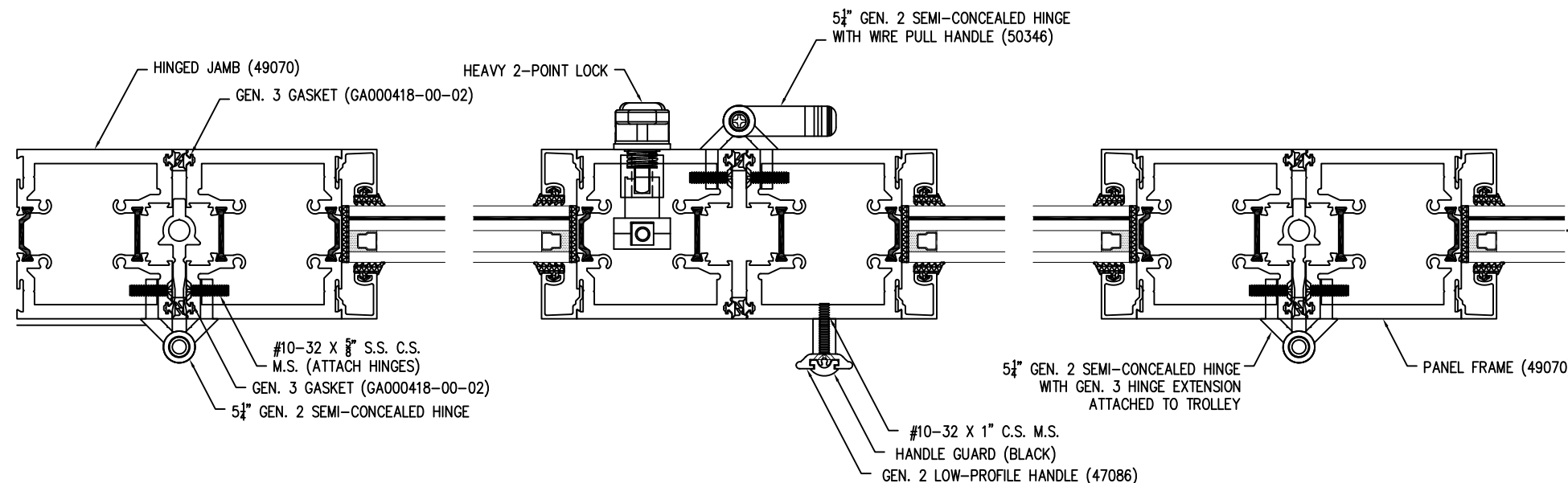
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
VERTICAL CROSS SECTIONS

DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 7 OF 13

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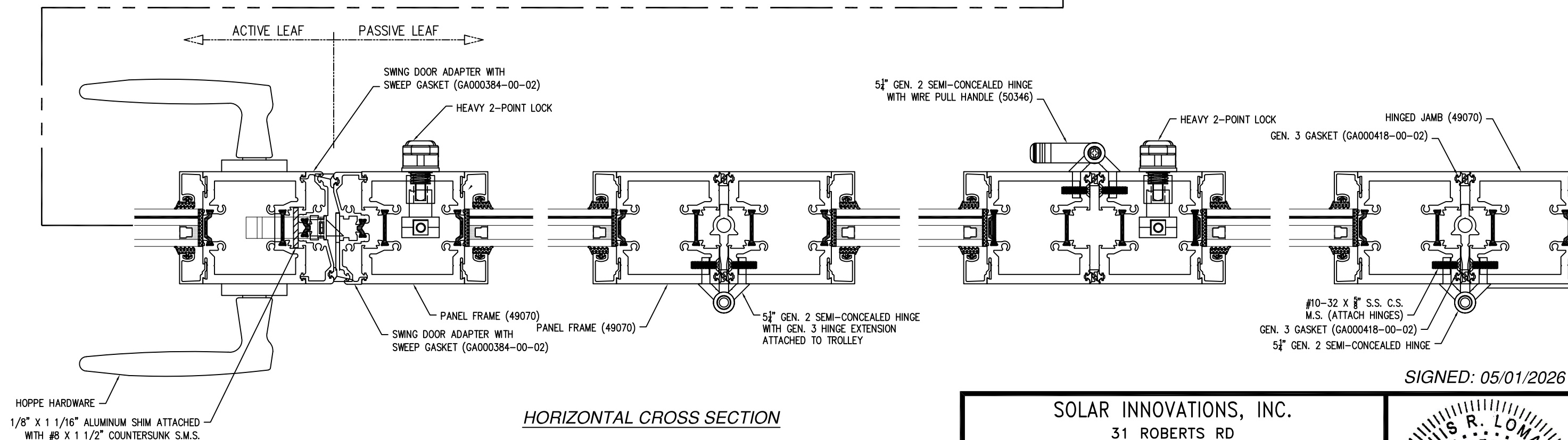
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No. 62514
STATE OF FLORIDA

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SHEETS 10 - 11**

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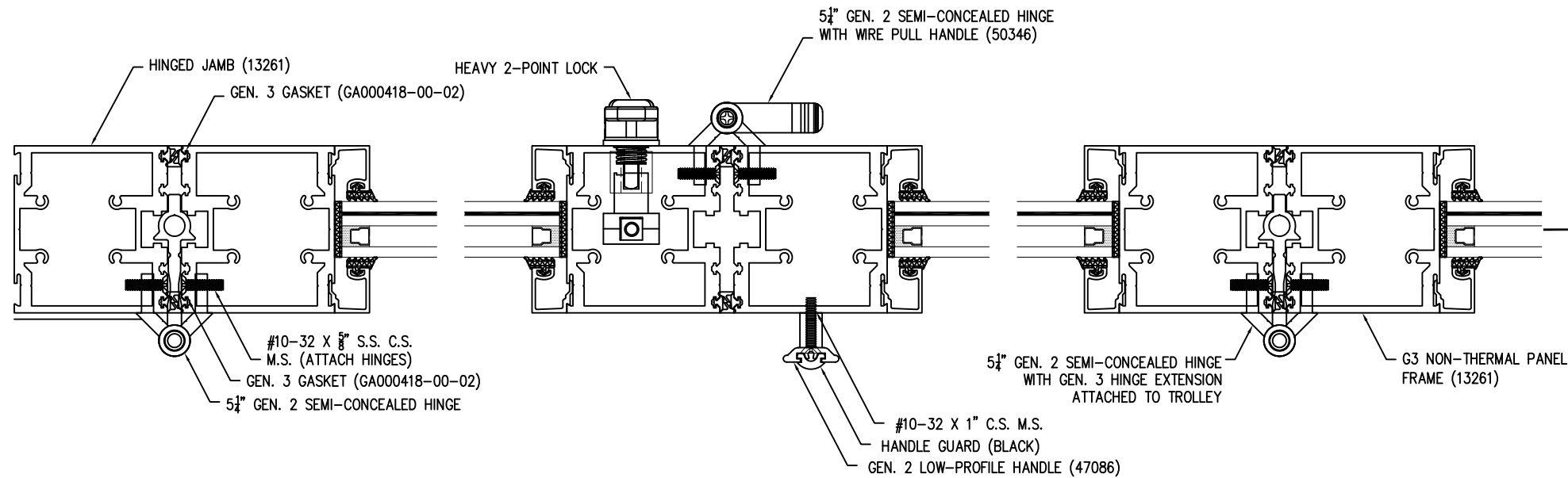


HORIZONTAL CROSS SECTION

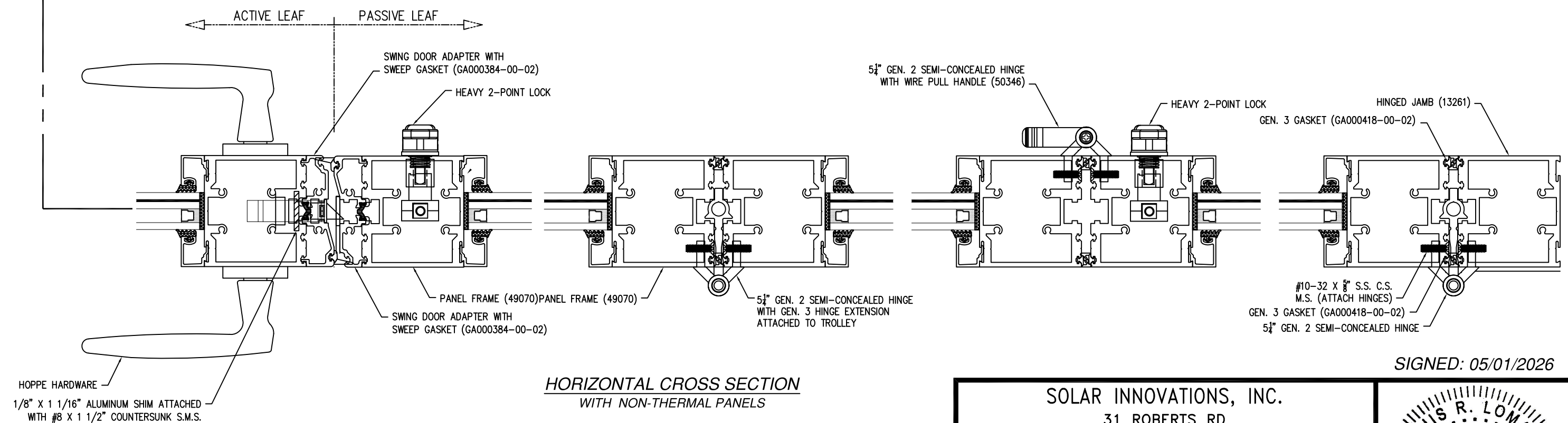
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SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL STANDARD OUT-FOLD ALUMINUM HORIZONTAL CROSS SECTIONS		
DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 8 OF 13
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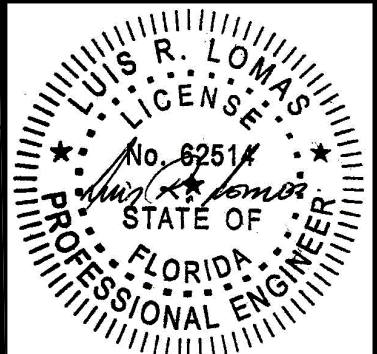
SOLAR INNOVATIONS, INC.

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PINE GROVE, PA 17963

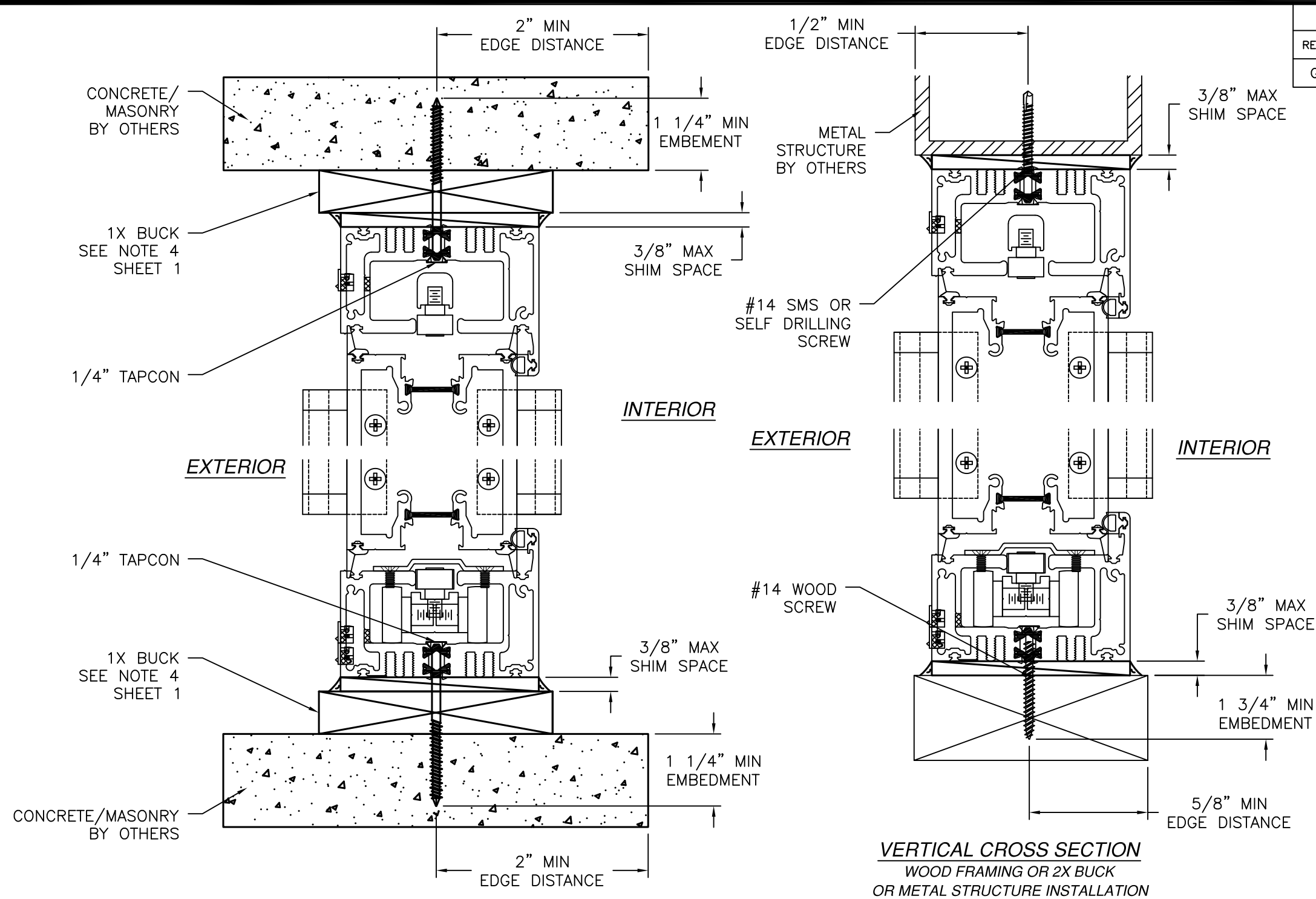
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
HORIZONTAL CROSS SECTION

DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 9 OF 13

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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

SIGNED: 05/01/2026

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PINE GROVE, PA 17963

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STANDARD OUT-FOLD ALUMINUM
INSTALLATION DETAILS

DRAWN:
V.L.

DWG NO.
08-01860G

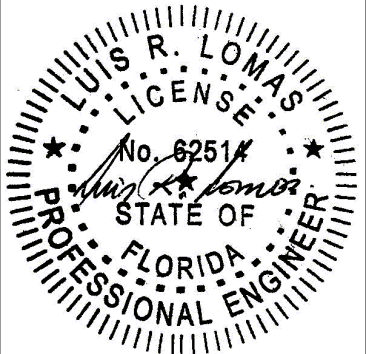
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G

SCALE
NTS

DATE
12/03/12

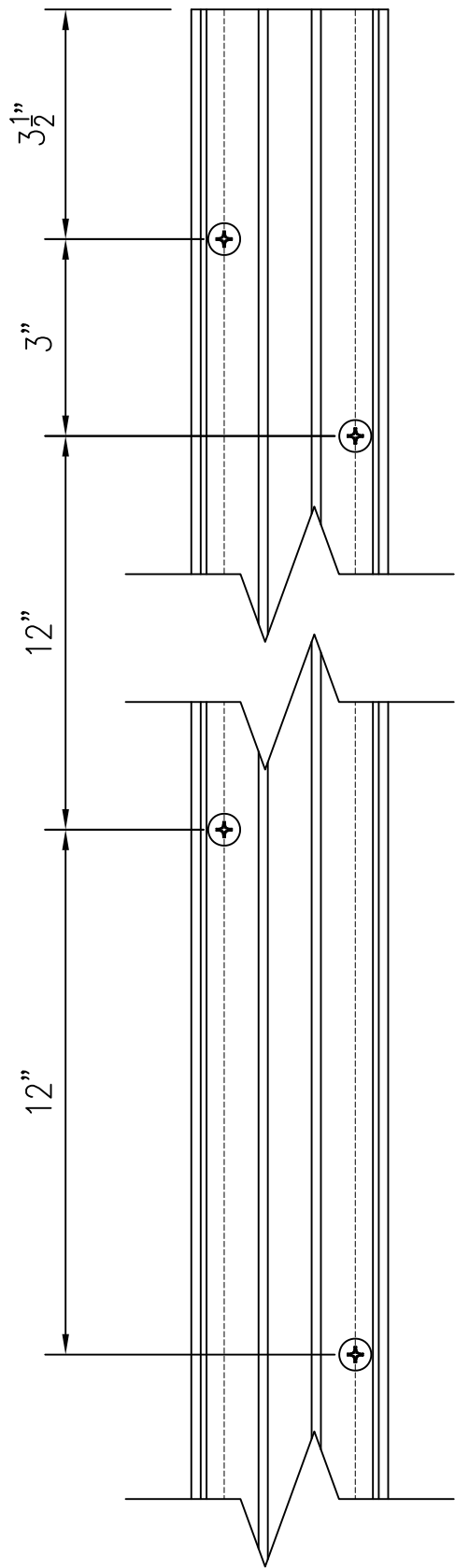
SHEET
10 OF 13

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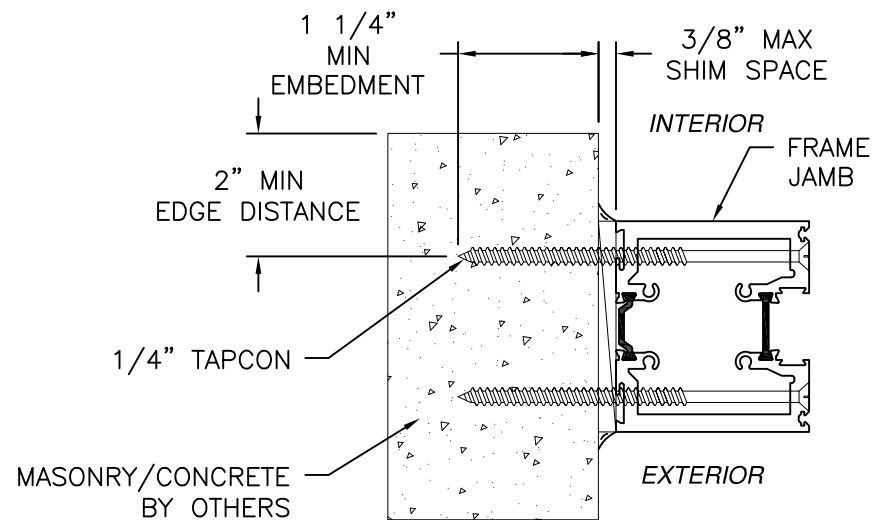


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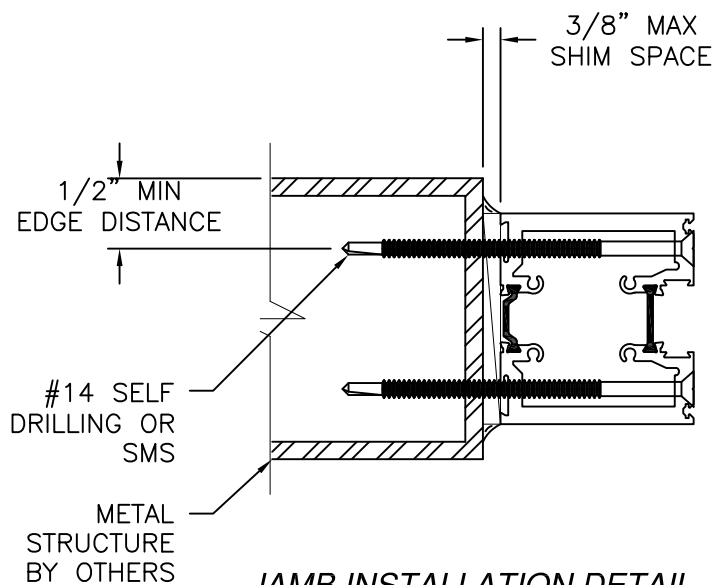
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REV	DESCRIPTION	DATE	APPROVED
G	REVISED DETAILS	05/01/26	R.L.



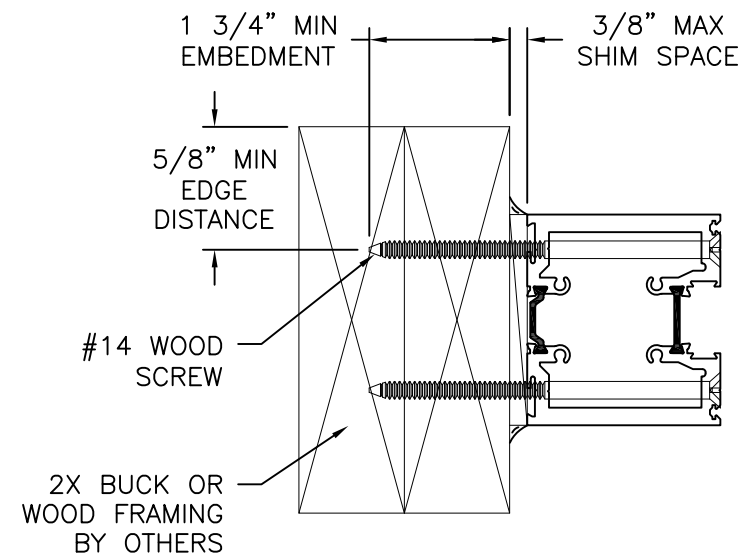
JAMB ANCHOR LOCATIONS
DETAIL



JAMB INSTALLATION DETAIL
MASONRY/CONCRETE



JAMB INSTALLATION DETAIL
METAL STRUCTURE

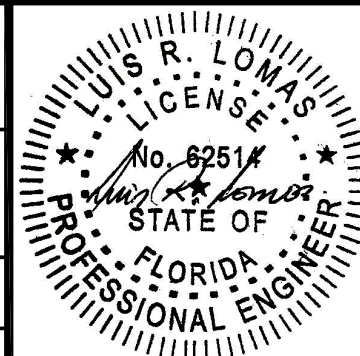


JAMB INSTALLATION DETAIL
2X BUCK OR WOOD FRAMING

- 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

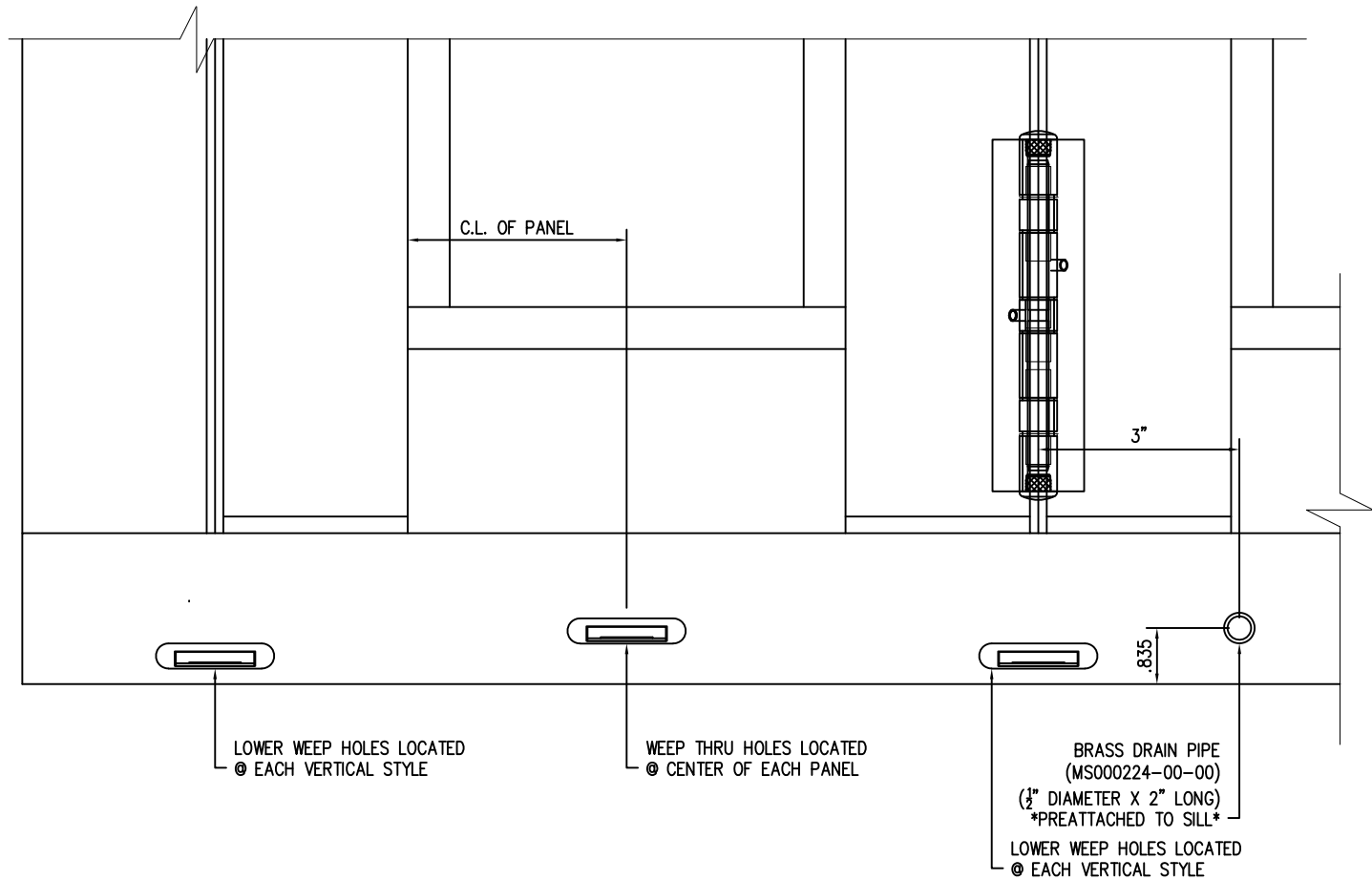
SIGNED: 05/01/2026

SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL STANDARD OUT-FOLD ALUMINUM INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-01860G	REV G
SCALE NTS	DATE 12/03/12	SHEET 11 OF 13
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

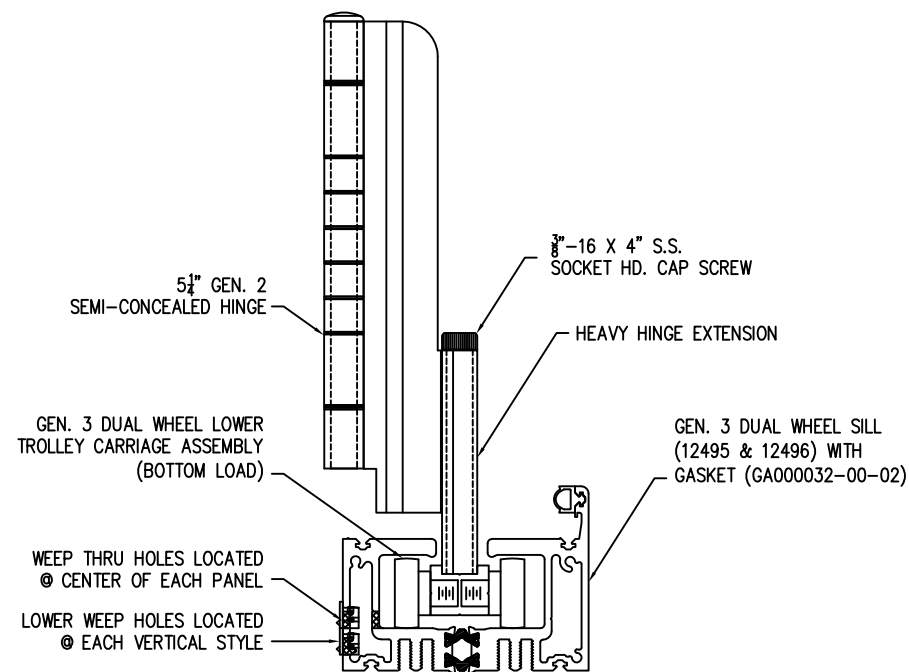


Luis R. Lomas P.E.
FL No.: 62514

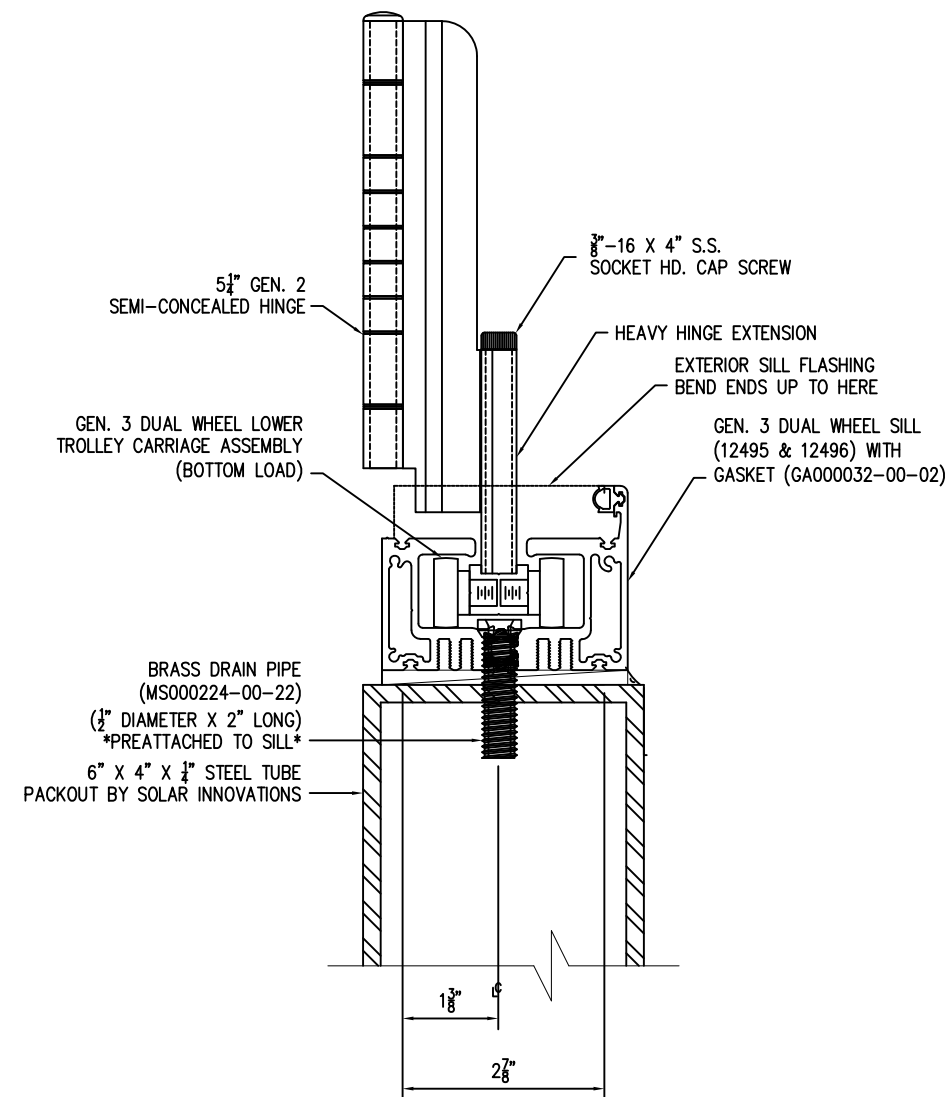
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
G	REVISED DETAILS	05/01/26	R.L.



WEEP HOLES DETAILS



WEEP HOLES AND HINGE EXTENSION
DETAIL



DRAIN PIPE AND HINGE EXTENSION
DETAILS

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL

STANDARD OUT-FOLD ALUMINUM

INSTALLATION DETAILS

DRAWN: V.L.

DWG NO. 08-01860G

REV G

SCALE NTS

DATE 12/03/12

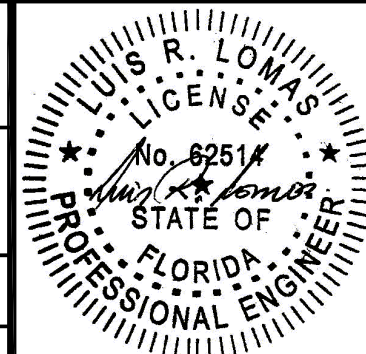
SHEET 12 OF 13

L. ROBERTO LOMAS P.E.

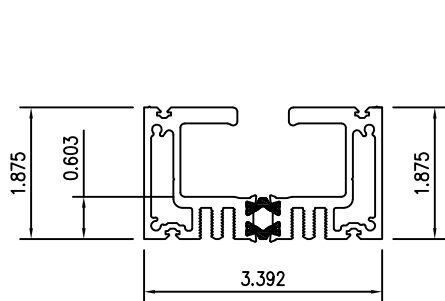
208 7th Ave, INDIALANTIC, FL 32903

434-688-0609 rllomas@lrlomaspe.com

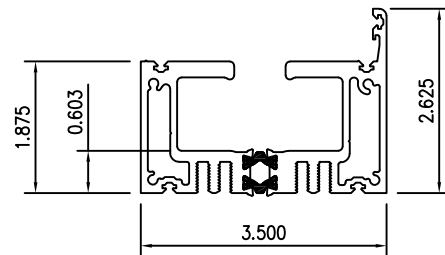
SIGNED: 05/01/2026



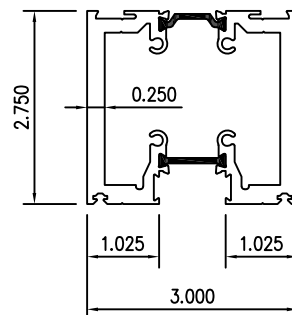
Luis R. Lomas P.E.
FL No.: 62514



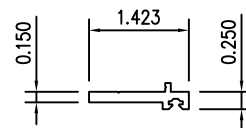
FLUSH
SILL



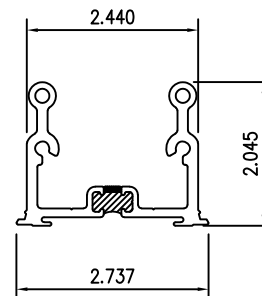
DUAL WHEEL
HEAD / SILL



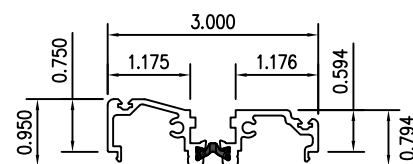
REGULAR THERMAL
FRAME



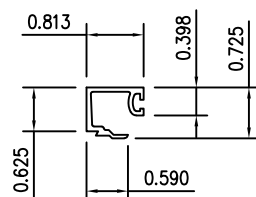
FRAME
CAP



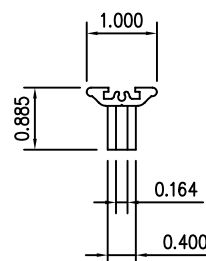
FRAME
LUG



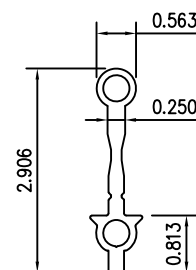
3rd GENERATION
DOOR ADAPTOR



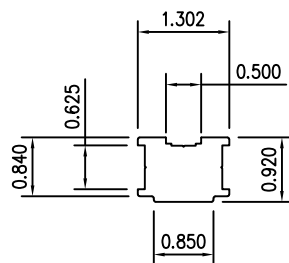
1/4" GLASS
STOP



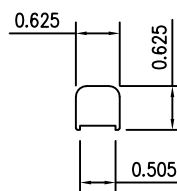
2nd GENERATION
HANDLE



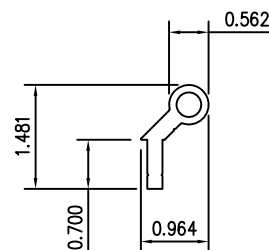
HINGE
EXTENSION



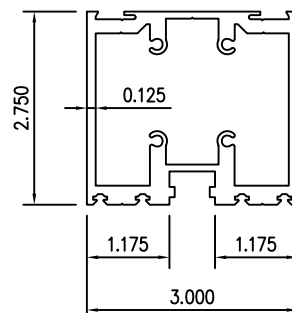
TROLLEY
BODY



IDLER
BODY



5 1/4" SEMI-
CONCEALED HINGE



NON-THERMAL
FRAME

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
STANDARD OUT-FOLD ALUMINUM
INSTALLATION DETAILS

DRAWN:
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08-01860G

REV
G

SCALE NTS

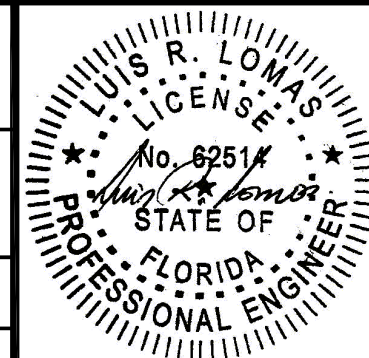
DATE

12/03/12

SHEET 13 OF 13

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SIGNED: 05/01/2026



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