

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 3 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: 05/02/2026

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2	ELEVATIONS
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10	COMPONENTS

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

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

DRAWN: V.L.

DWG NO. 08-01861G

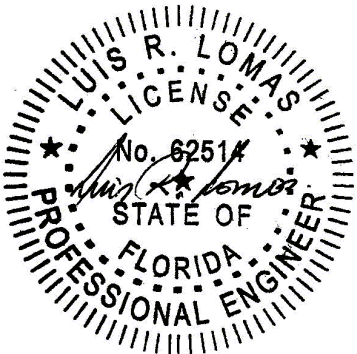
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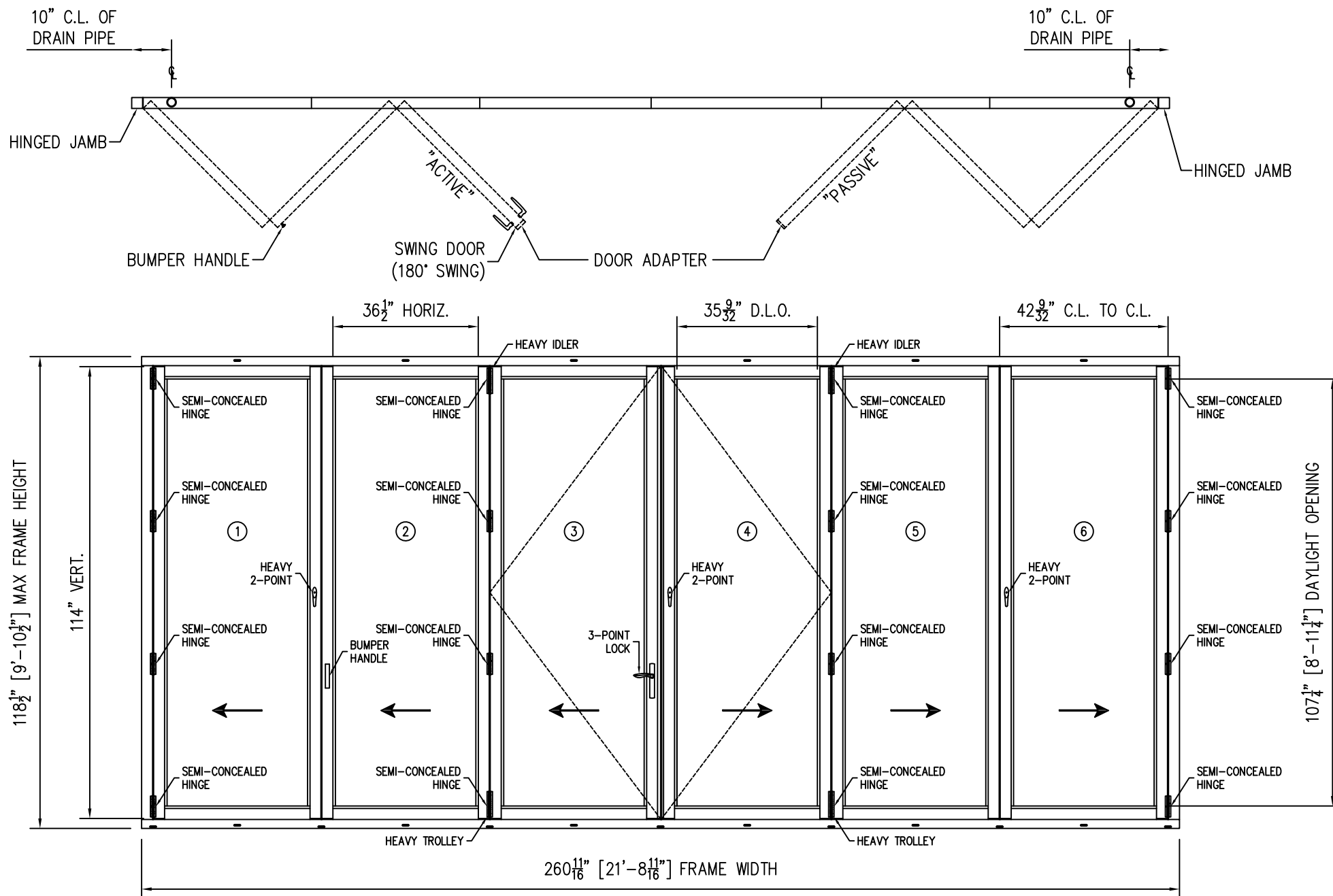
DATE 12/03/12

SHEET 1 OF 10

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



SERIES SI3000 G3 IMPACT FGW 3.5X9.5 PANEL LITE RAIL OUT-FOLD ALUMINUM
EXTERIOR VIEW

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

DESIGN PRESSURE RATING	IMPACT RATING
±50.0PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4, AND HVHZ
SEE CHART #1 SHEET 2

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

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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	73.1	73.1	64.4	64.4
84.0	80.0	80.0	80.0	80.0	79.7	79.7	67.9	67.9	59.8	59.8
90.0	80.0	80.0	80.0	80.0	74.4	74.4	63.3	63.3	55.8	55.8
96.0	80.0	80.0	80.0	80.0	69.7	69.7	59.4	59.4	52.3	52.3
102.0	80.0	80.0	75.2	75.2	64.9	64.9	55.9	55.9	-	-
108.0	80.0	80.0	70.4	70.4	60.6	60.6	52.8	52.8	-	-
114.0	80.0	80.0	66.1	66.1	56.8	56.8	50.0	50.0	-	-
120.0	72.6	72.6	58.6	58.6	49.4	49.4	-	-	-	-
126.0	62.6	62.6	50.5	50.5	42.5	42.5	-	-	-	-
132.0	54.4	54.4	43.8	43.8	36.9	36.9	-	-	-	-
138.0	47.5	47.5	38.3	38.3	-	-	-	-	-	-
144.0	41.8	41.8	33.6	33.6	-	-	-	-	-	-
150.0	36.9	36.9	29.7	29.7	-	-	-	-	-	-
156.0	32.8	32.8	26.4	26.4	-	-	-	-	-	-

SOLAR INNOVATIONS, INC.

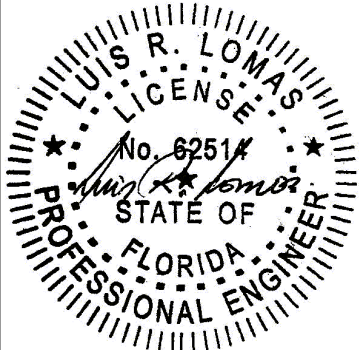
31 ROBERTS RD
PINE GROVE, PA 17963

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

DRAWN: V.L.	DWG NO. 08-01861G	REV G
SCALE NTS	DATE 12/03/12	SHEET 2 OF 10

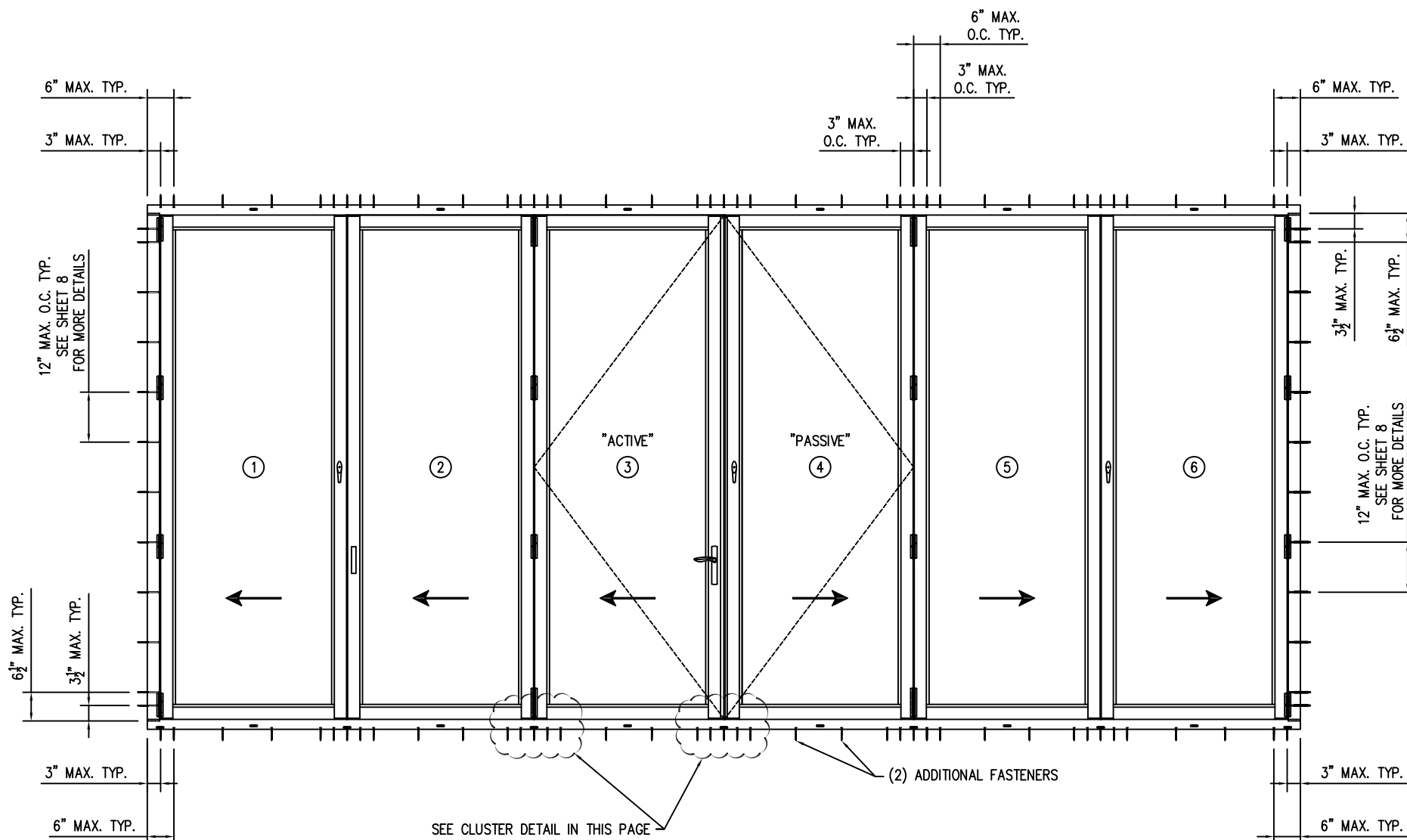
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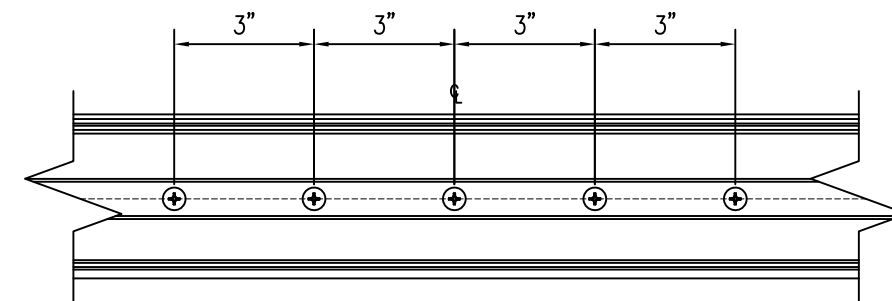
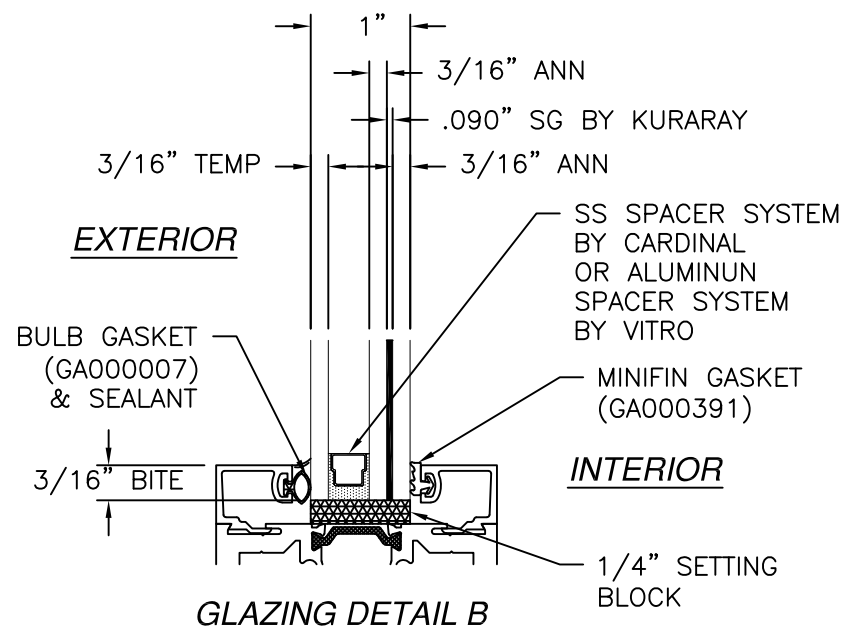
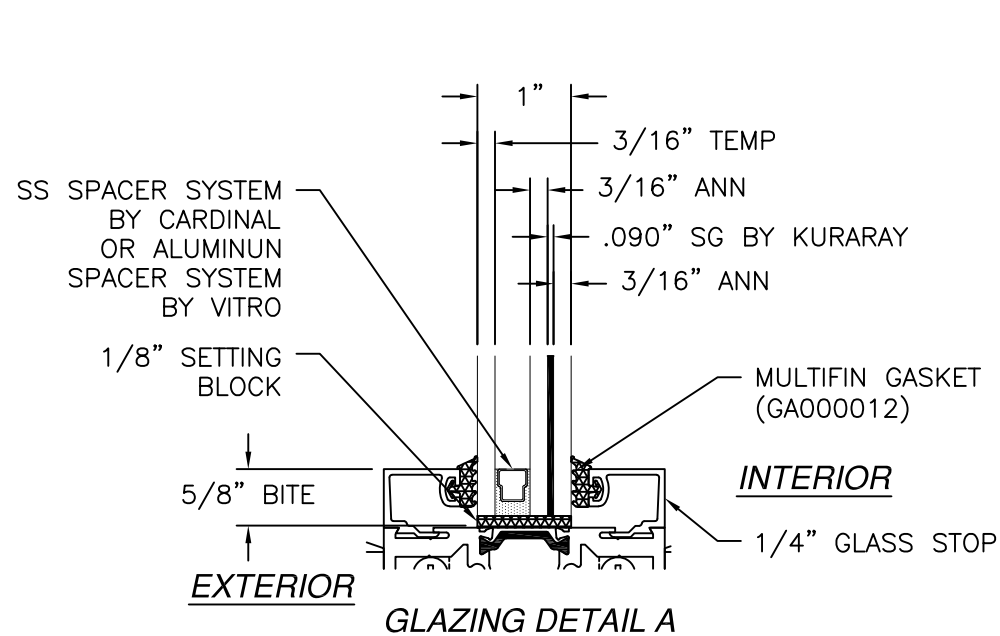


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FL No.: 62514

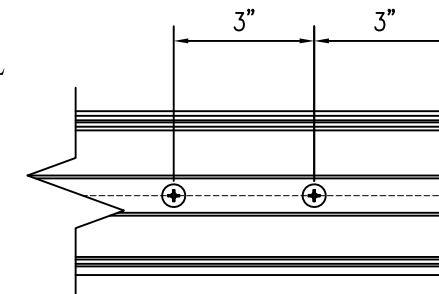
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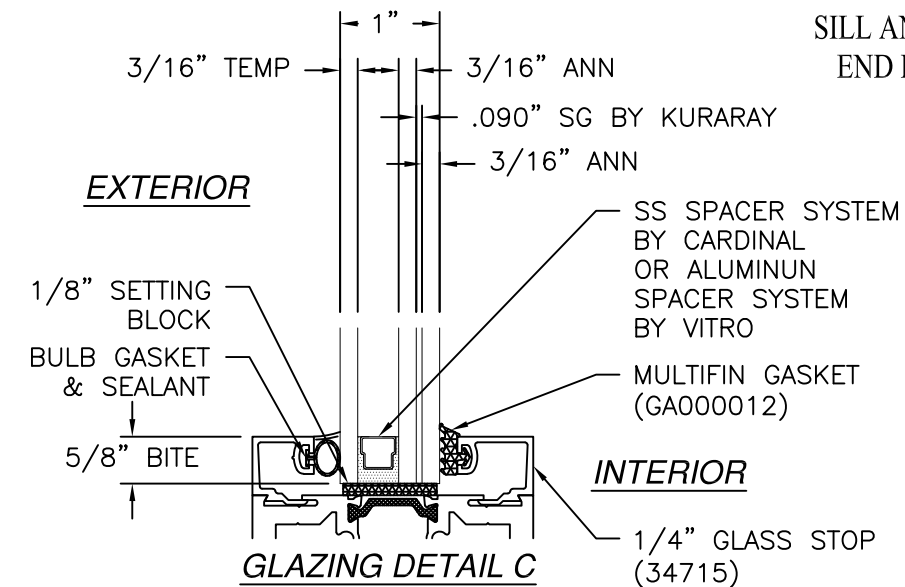
ANCHOR LAYOUT
APPLICABLE TO ALL CONFIGURATIONS.



SILL AND HEAD
CLUSTER DETAIL



SILL AND HEAD
END DETAIL



SIGNED: 05/02/2026

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SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
LITE RAIL OUT-FOLD ALUMINUM
ANCHOR LAYOUT, GLAZING DETAIL & DP CHART

DRAWN: V.L.

DWG NO. 08-01861G

REV G

SCALE NTS

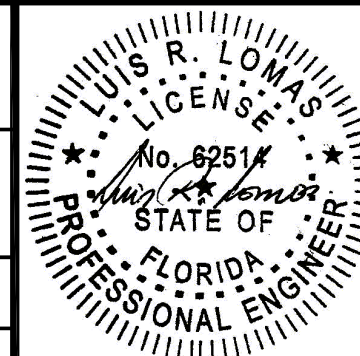
DATE 12/03/12

SHEET 3 OF 10

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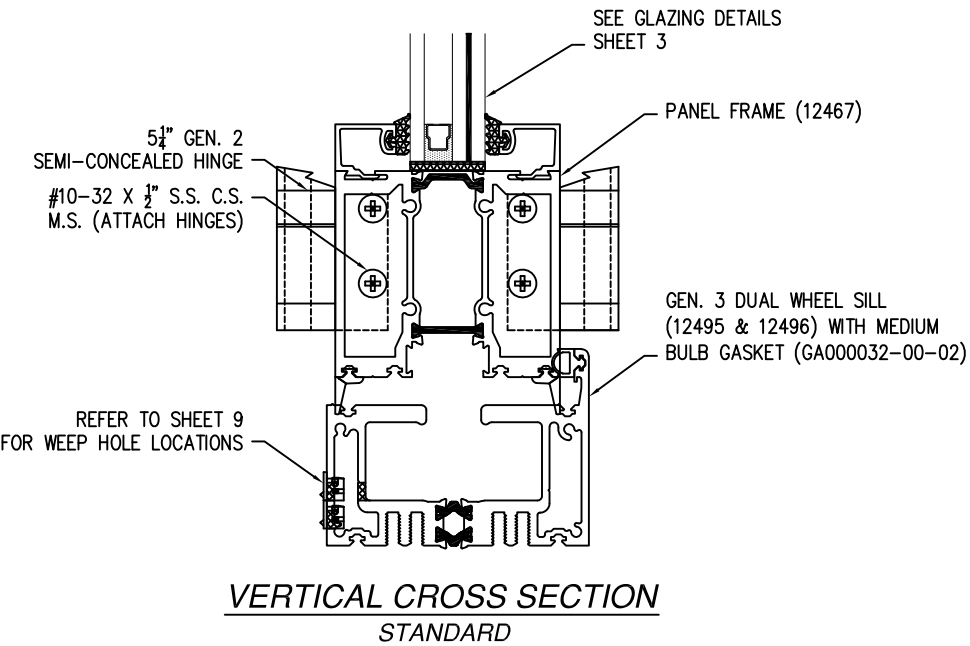
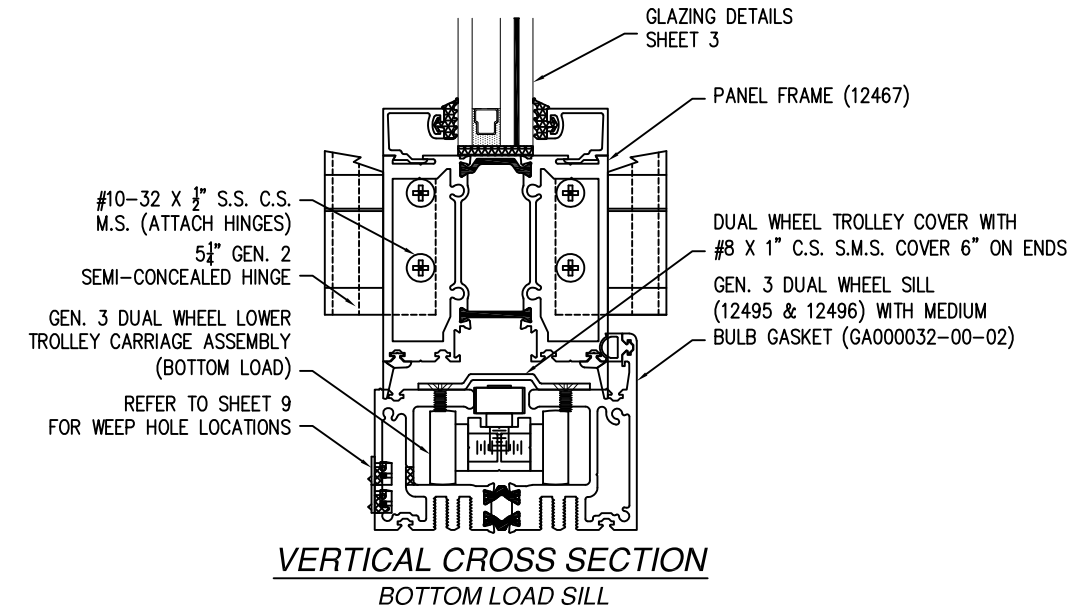
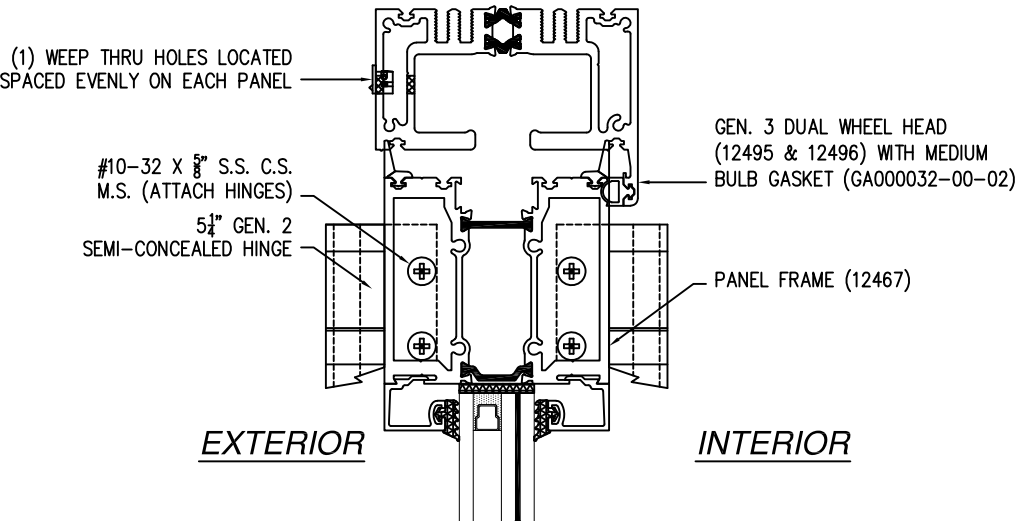
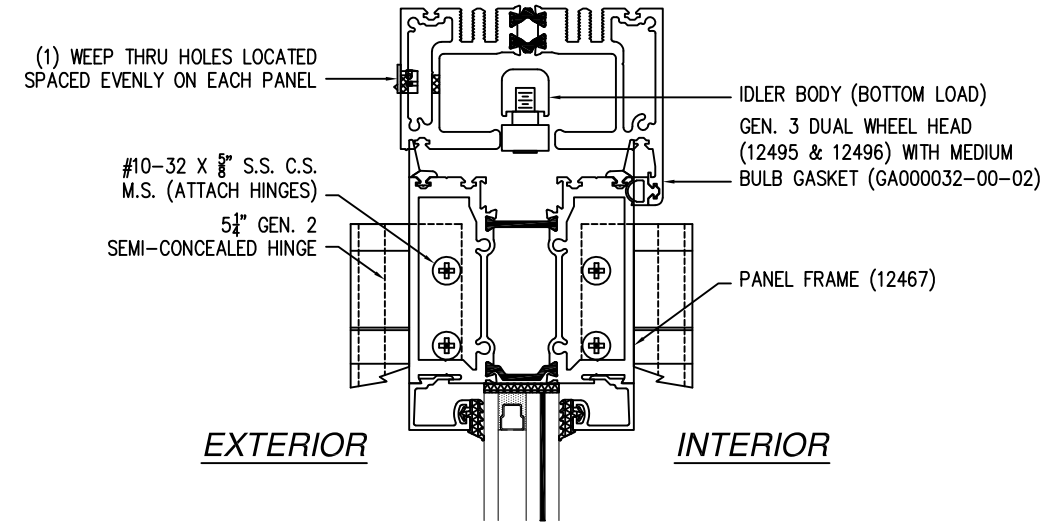
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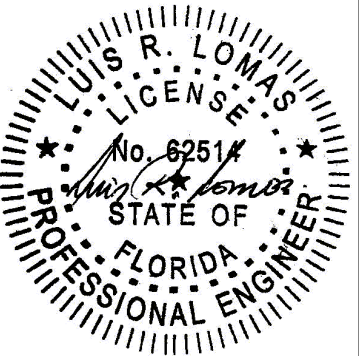
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FOR INSTALLATION DETAILS REFER TO SHEETS 7 - 8

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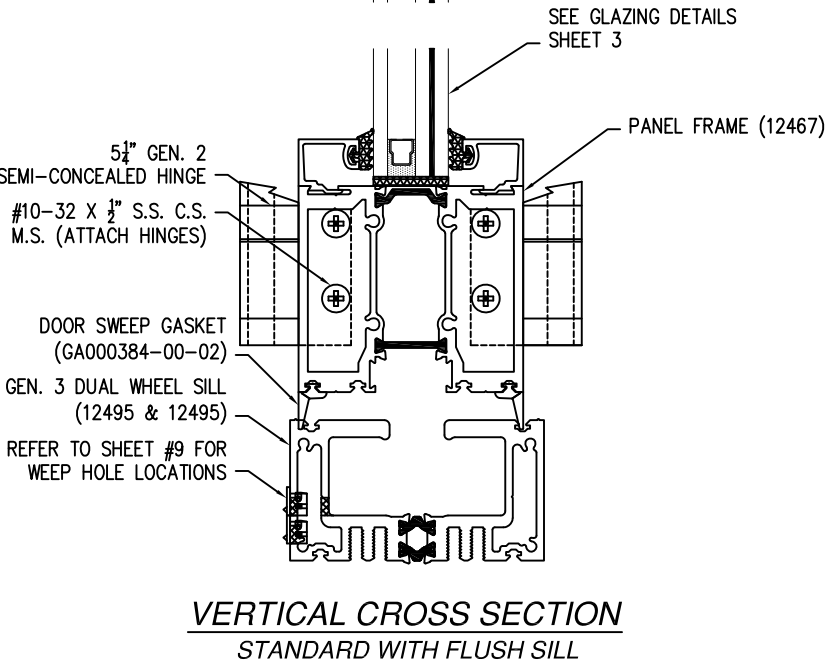
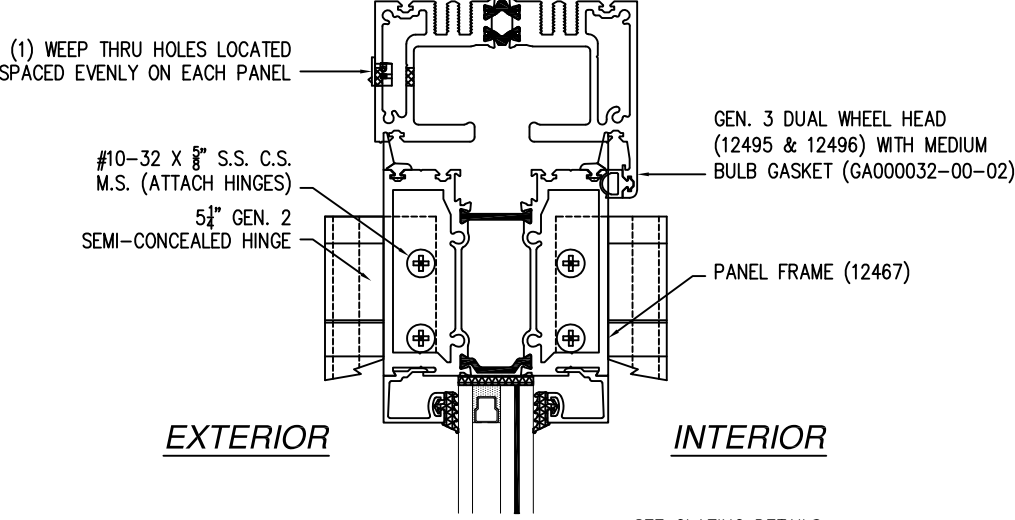
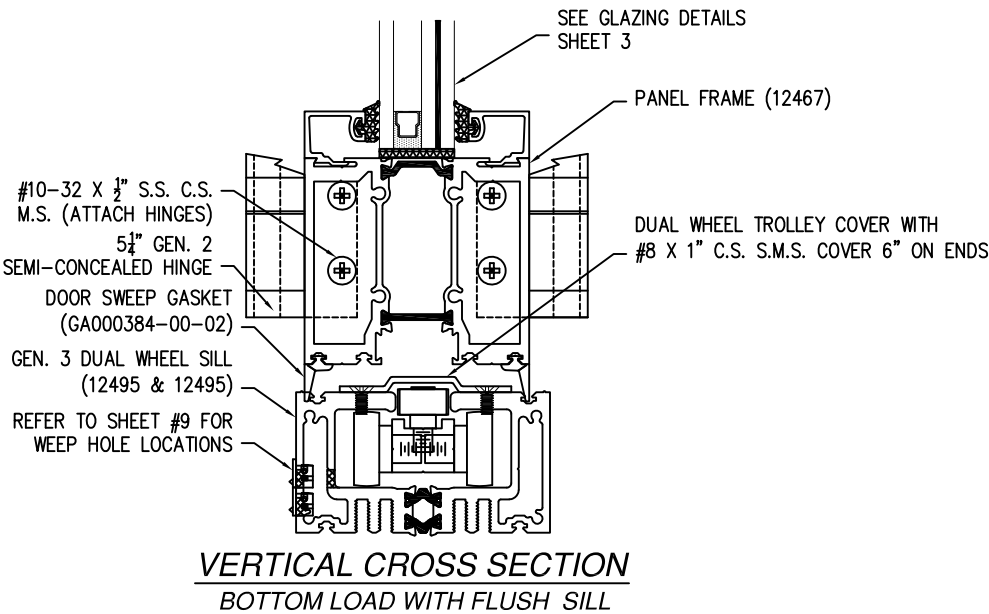
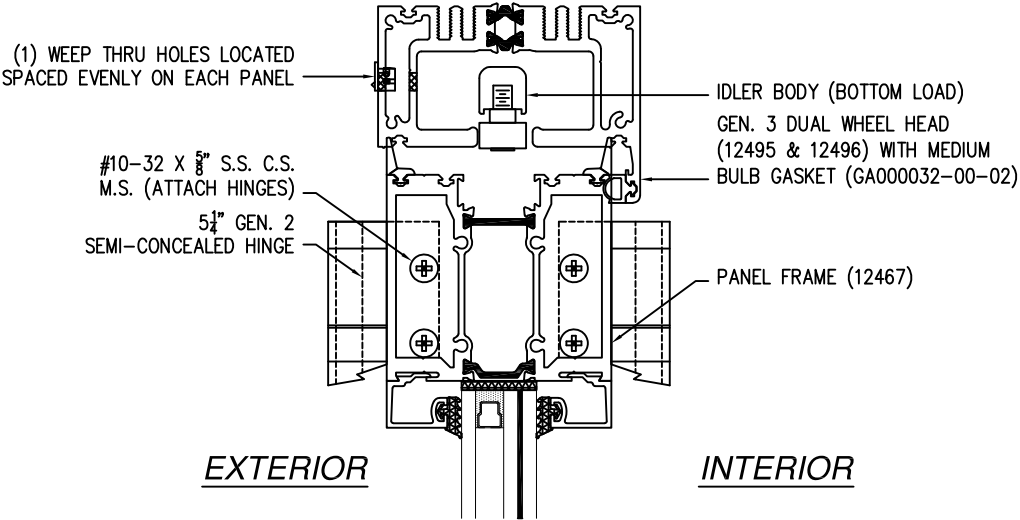
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31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL LITE RAIL OUT-FOLD ALUMINUM VERTICAL CROSS SECTIONS		
DRAWN: V.L.	DWG NO. 08-01861G	REV G
SCALE NTS	DATE 12/03/12	SHEET 4 OF 10
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



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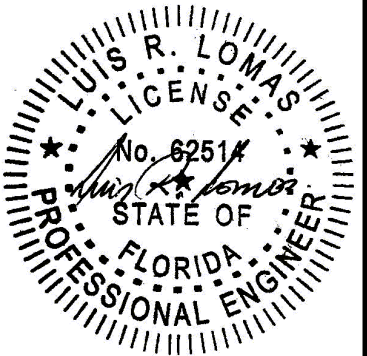
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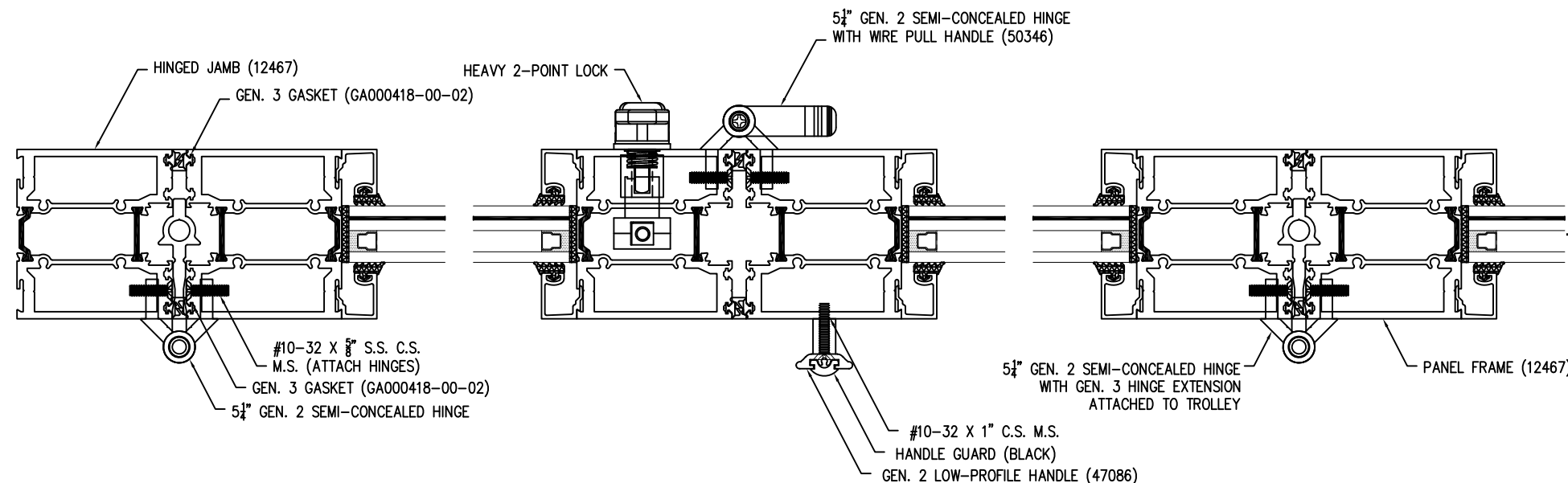


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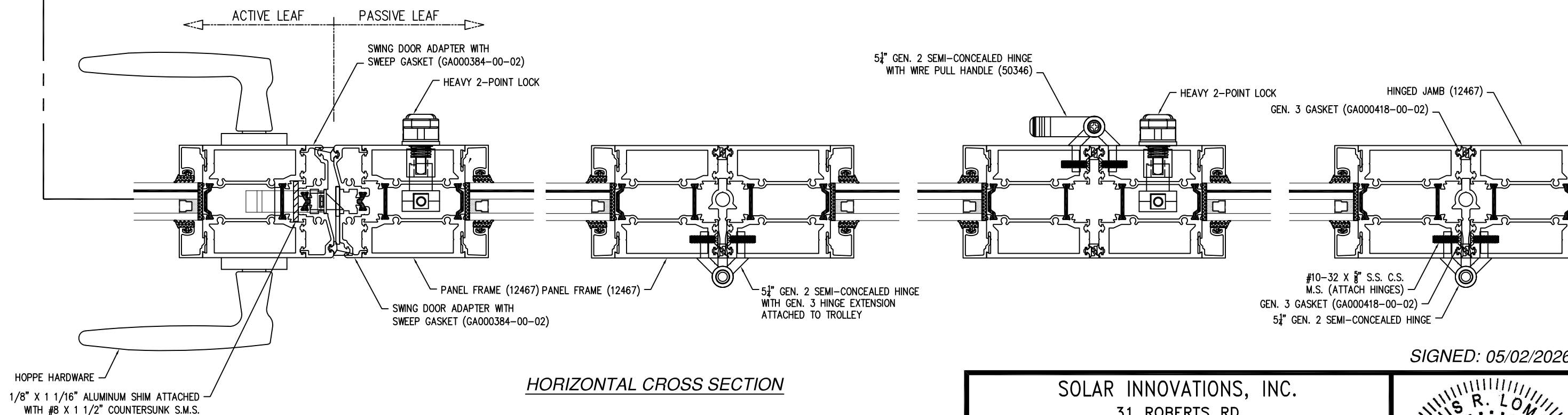
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HORIZONTAL CROSS SECTION

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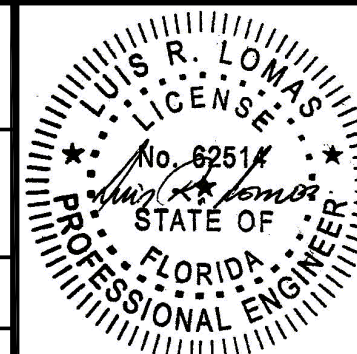
SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
LITE RAIL OUT-FOLD ALUMINUM
HORIZONTAL CROSS SECTIONS

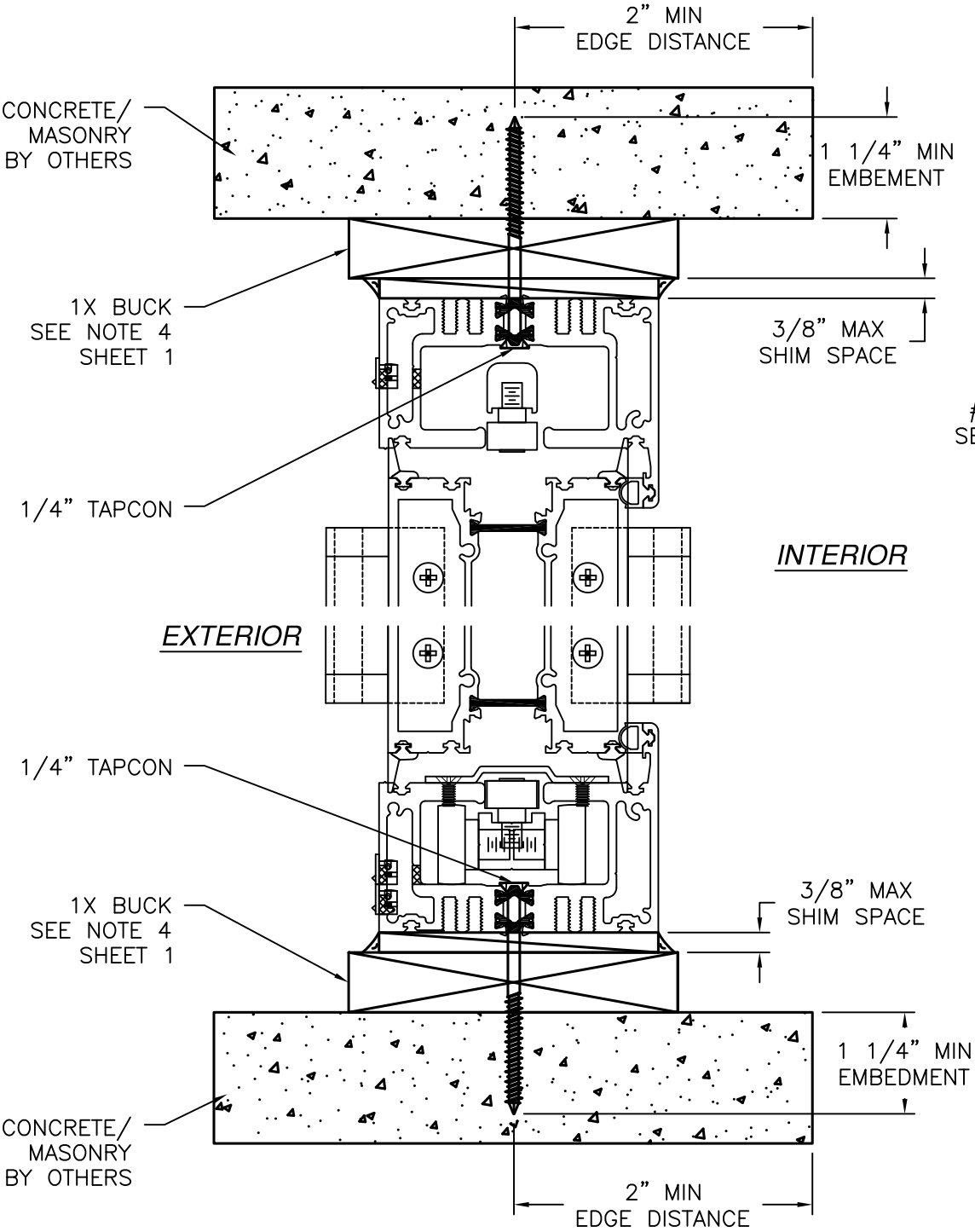
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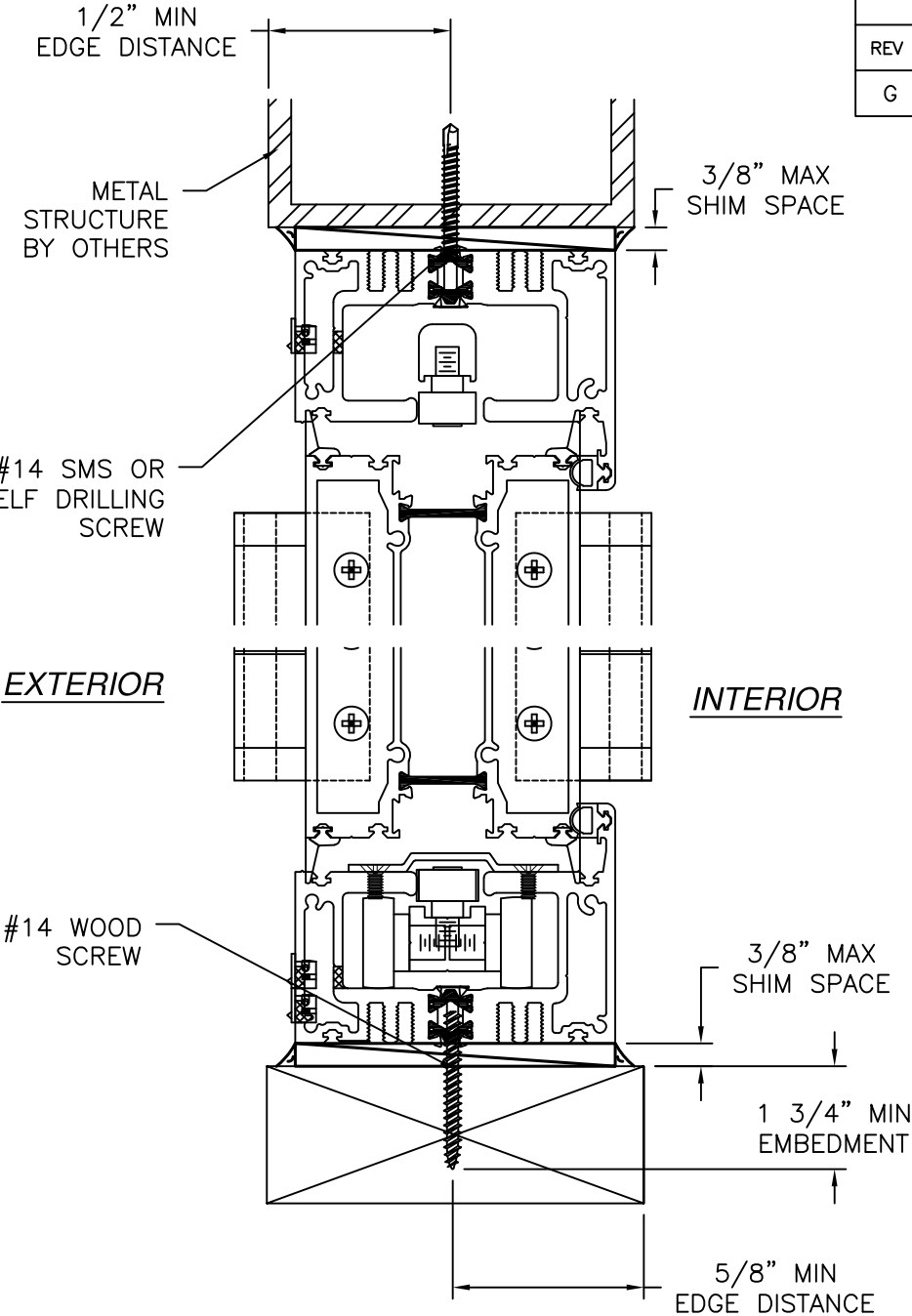


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VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK
OR METAL STRUCTURE 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

SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

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

DRAWN:
V.L.

DWG NO.
08-01861G

REV
G

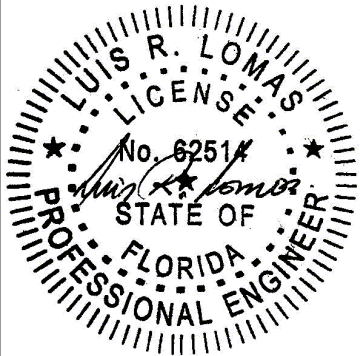
SCALE
NTS

DATE
12/03/12

SHEET
7 OF 10

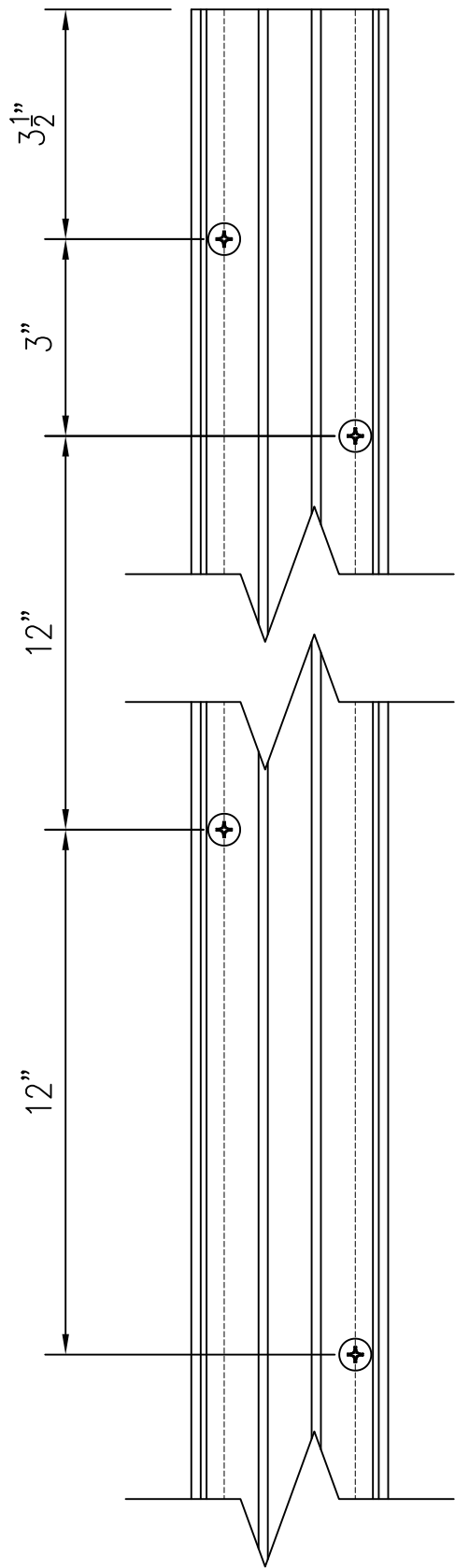
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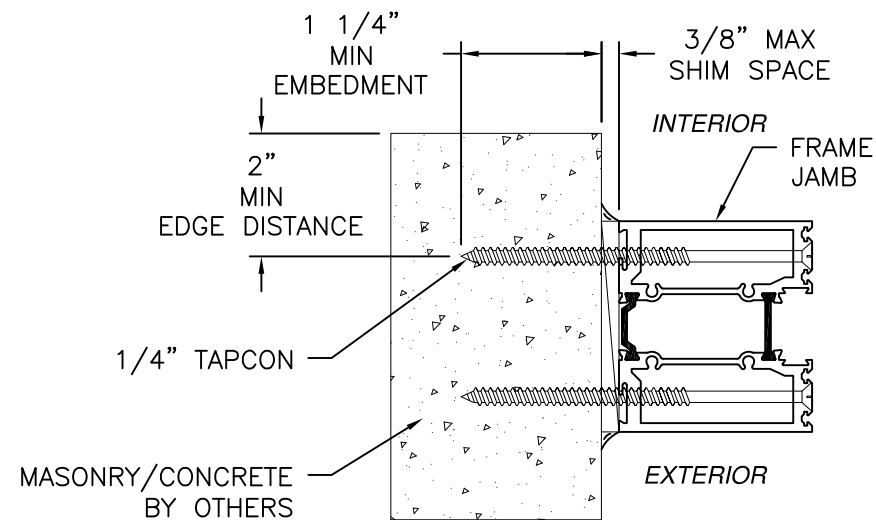


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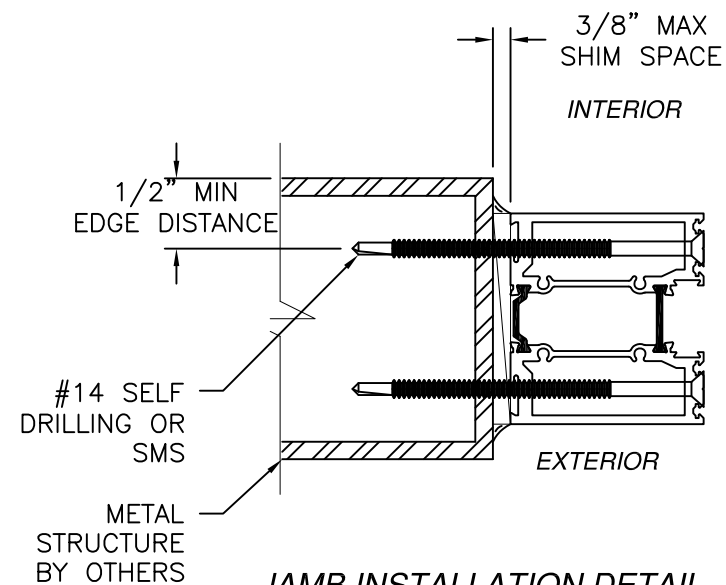
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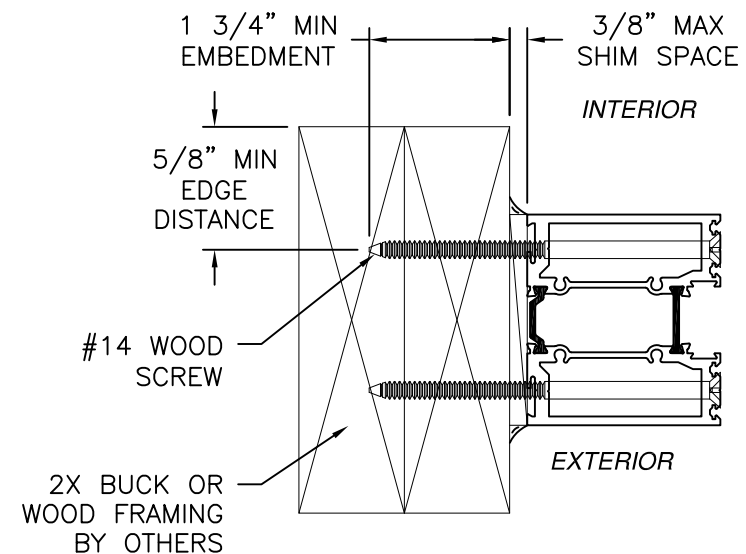
JAMB ANCHOR LOCATIONS
DETAIL



JAMB INSTALLATION DETAIL
MASONRY/CONCRETE



JAMB INSTALLATION DETAIL
METAL STRUCTURE

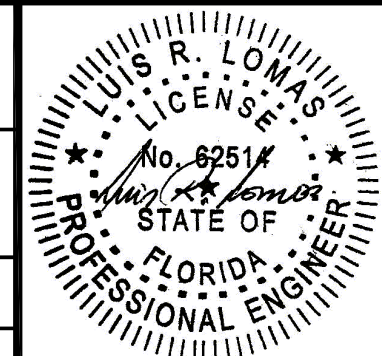


JAMB INSTALLATION DETAIL
2X BUCK OR WOOD FRAMING

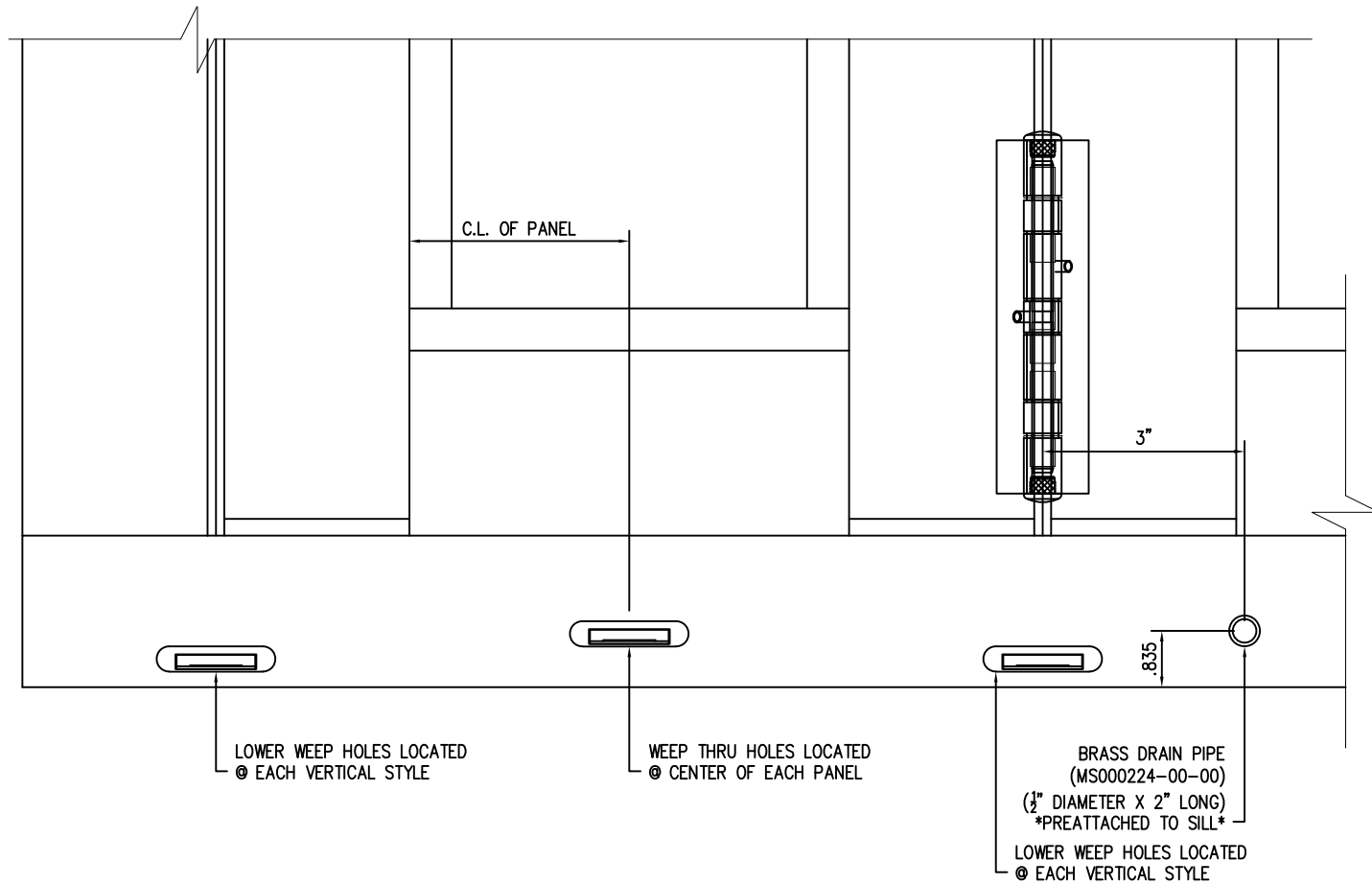
- NOTES:
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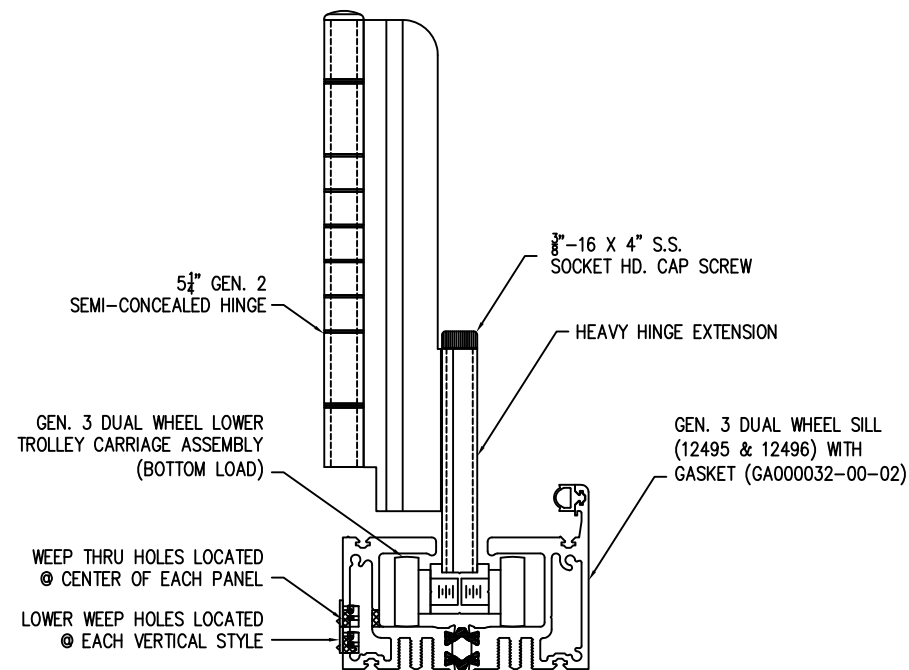
SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL LITE RAIL OUT-FOLD ALUMINUM INSTALLATION DETAILS		
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SCALE NTS	DATE 12/03/12	SHEET 8 OF 10
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



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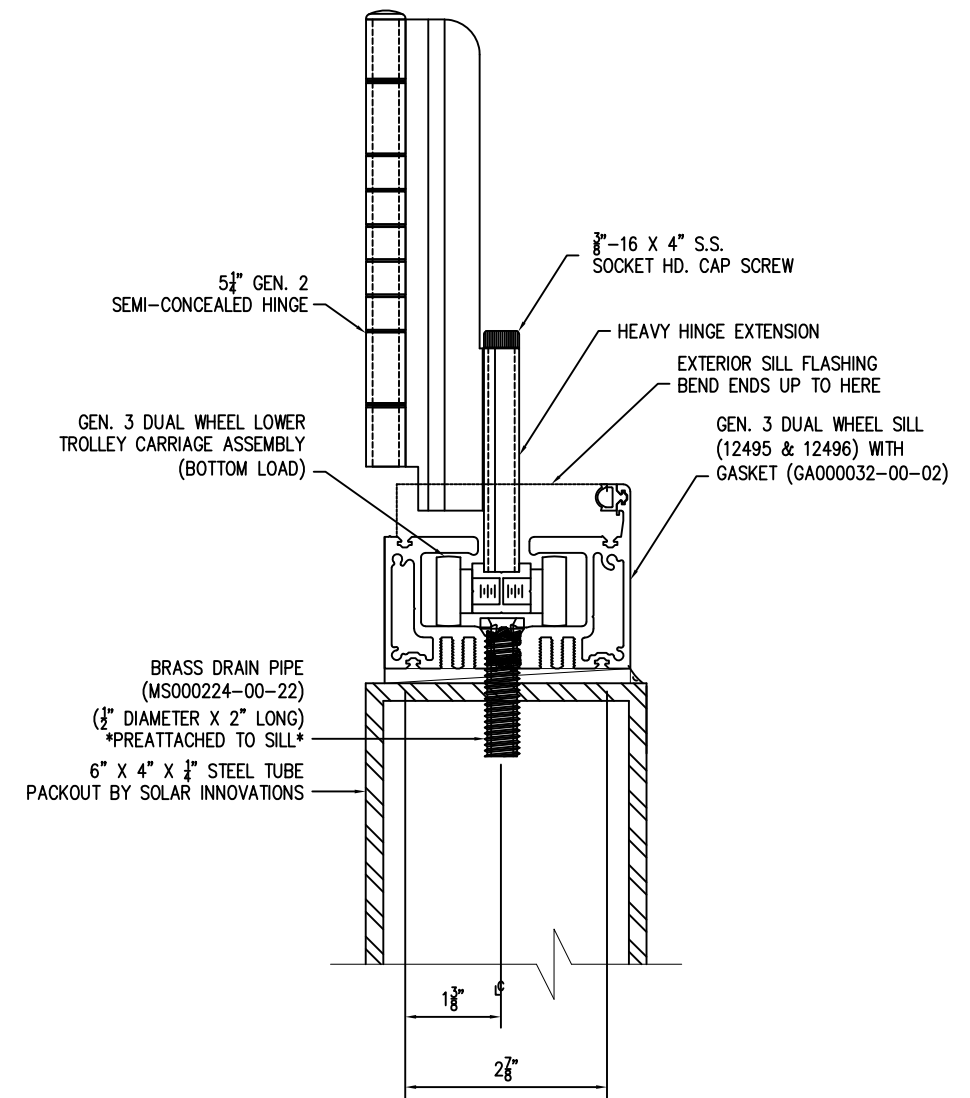


WEEP HOLES DETAILS



WEEP HOLES AND HINGE EXTENSION
DETAIL

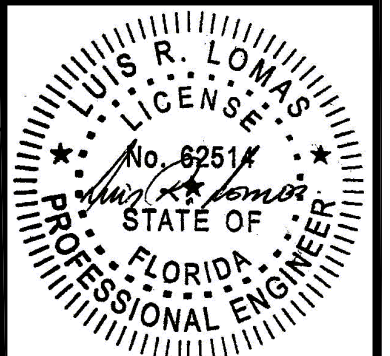
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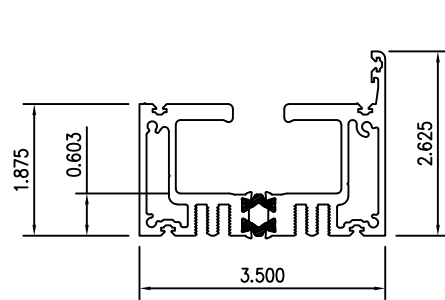
DRAIN PIPE AND HINGE EXTENSION
DETAILS

SIGNED: 05/02/2026

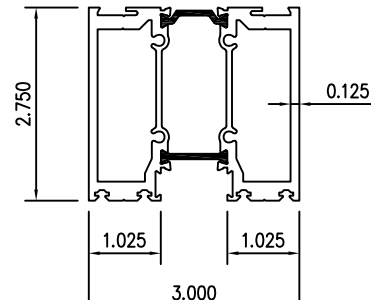
SOLAR INNOVATIONS, INC. 31 ROBERTS RD PINE GROVE, PA 17963		
SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL LITE RAIL OUT-FOLD ALUMINUM WEEP HOLES DETAILS		
DRAWN: V.L.	DWG NO. 08-01861G	REV G
SCALE NTS	DATE 12/03/12	SHEET 9 OF 10
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



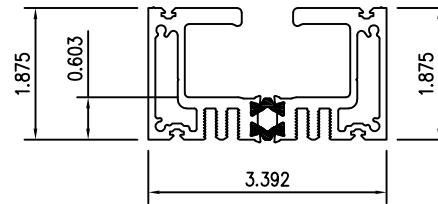
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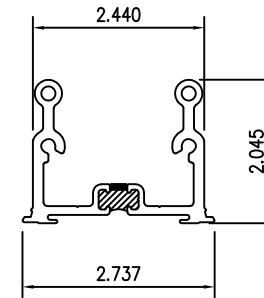
DUAL WHEEL
HEAD / SILL



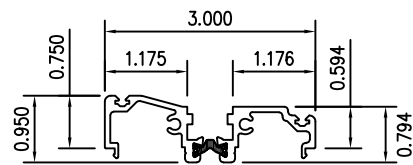
LIGHT THERMAL
FRAME



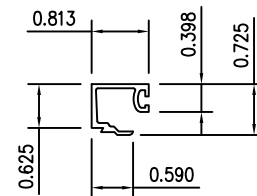
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SILL



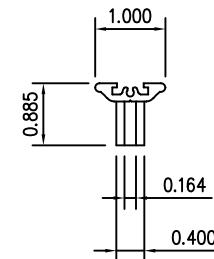
FRAME
LUG



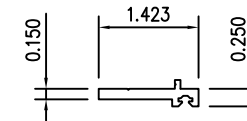
3rd GENERATION
DOOR ADAPTOR



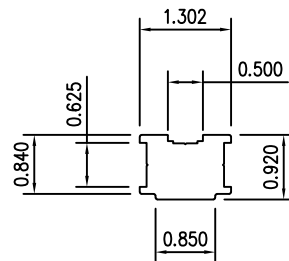
1/4" GLASS
STOP



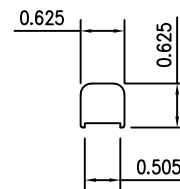
2nd GENERATION
HANDLE



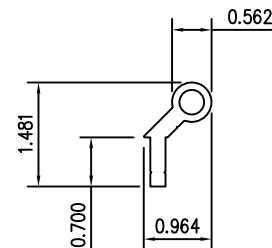
FRAME
CAP



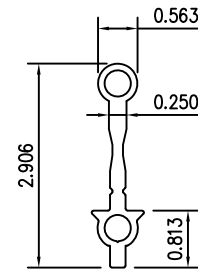
TROLLEY
BODY



IDLER
BODY



5 1/4" SEMI-
CONCEALED HINGE



HINGE
EXTENSION

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

SIGNED: 05/02/2026

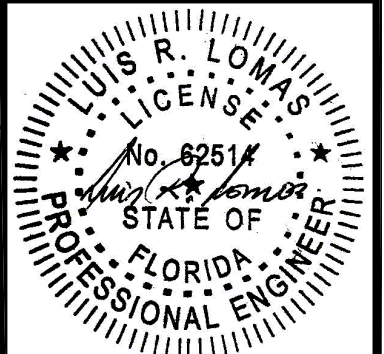
SOLAR INNOVATIONS, INC.

31 ROBERTS RD
PINE GROVE, PA 17963

SERIES SI3000 G3 IMPACT FGW 3.5 X 9.5 PANEL
LITE RAIL OUT-FOLD ALUMINUM
COMPONENTS

DRAWN: V.L.	DWG NO. 08-01861G	REV G
SCALE NTS	DATE 12/03/12	SHEET 10 OF 10

L. ROBERTO LOMAS P.E.
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Luis R. Lomas P.E.
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