

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. WOOD, METAL 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. 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. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
5. SHIMS SHALL BE LOCATED, APPLIED AND MADE FROM MATERIALS AND THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
6. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
7. FRAME MATERIAL: ALUMINUM 6063-T6.
8. UNITS MUST BE GLAZED PER ASTM E1300, SEE SHEET 3 FOR GLASS DETAILS.
9. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
10. FOR ANCHORING INTO WOOD STRUCTURE USE 1/2" LAG BOLTS AND 1/4" LAG BOLTS, REFER TO ANCHORING CHART FOR MINIMUM EMBEDMENT AND EDGE DISTANCES.
11. FOR ANCHORING INTO METAL STRUCTURE USE 1/2"-13 BOLTS AND 1/4"-20 BOLTS WITH WASHERS, LOCKWASHERS AND NUTS. METAL STRUCTURE MUST BE DRILLED AND TAPPED TO ACCOMMODATE ANCHORS. REFER TO ANCHORING CHART FOR MINIMUM EDGE DISTANCES.
12. FOR ANCHORING INTO CONCRETE STRUCTURE USE 1/2" CONCRETE EXPANSION ANCHOR AND 1/4" TAPCONS. REFER TO ANCHORING CHART FOR MINIMUM EDGE DISTANCES.
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:
- A. WOOD: MINIMUM SPECIFIC GRAVITY OF G=0.50
- B. CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
- C. MASONRY: HOLLOW/FILLED BLOCK PER ASTM C90 WITH Fm=2,000PSI MINIMUM.
- D. METAL STRUCTURE: STEEL 5/16" THICK MINIMUM FY=33KSI/FU=52KSI
15. UNITS MAY BE ASSEMBLED TOGETHER TO FORM VARIOUS SHAPES AND CONFIGURATIONS. THESE ASSEMBLIES REQUIRE FURTHER ENGINEERING ANALYSIS BY A LICENSED PROFESSIONAL, REFER TO SHEET 4 FOR CONFIGURATIONS SAMPLES.

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2 – 3	ELEVATIONS
4	APPROVED CONFIGURATIONS
5 – 10	CROSS SECTIONS
11	INSTALLATION DETAILS
12	COMPONENTS

ACURLITE STRUCTURAL SKYLIGHTS

1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT – HVHZ
NOTES

DRAWN:
A.R.

DWG NO.
08-03776

REV
-

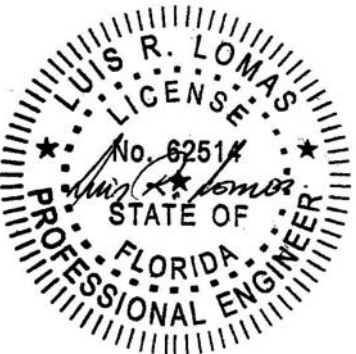
SCALE NTS

DATE 01/04/2022

SHEET 1 OF 12

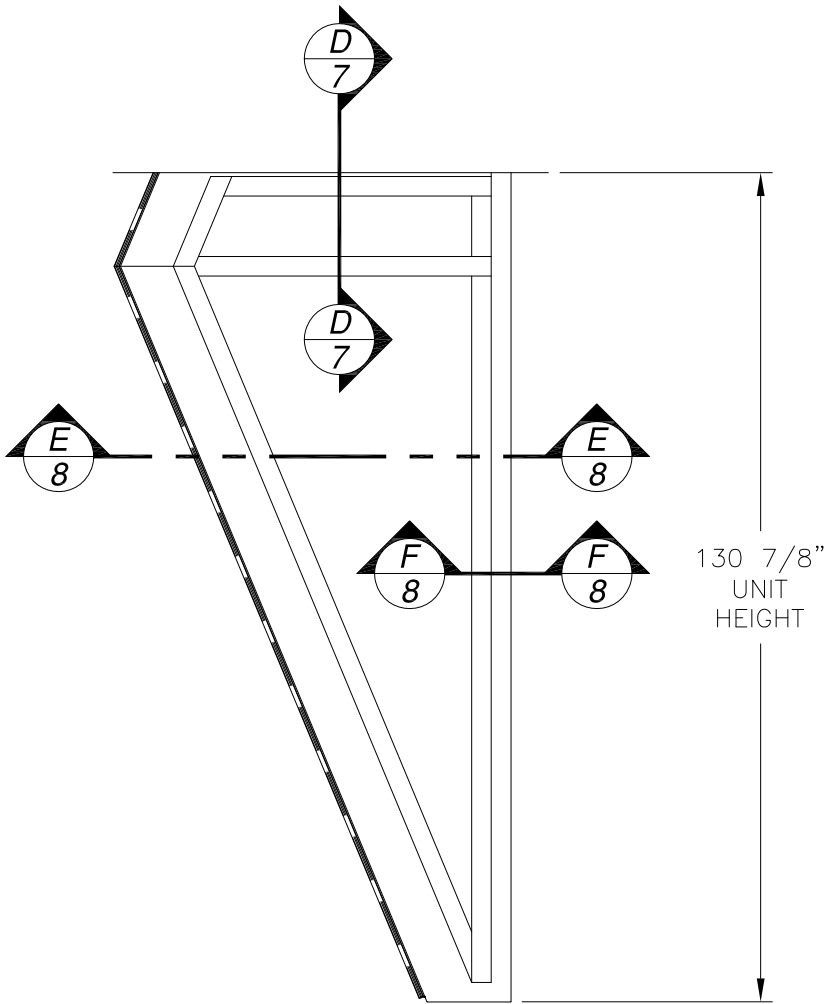
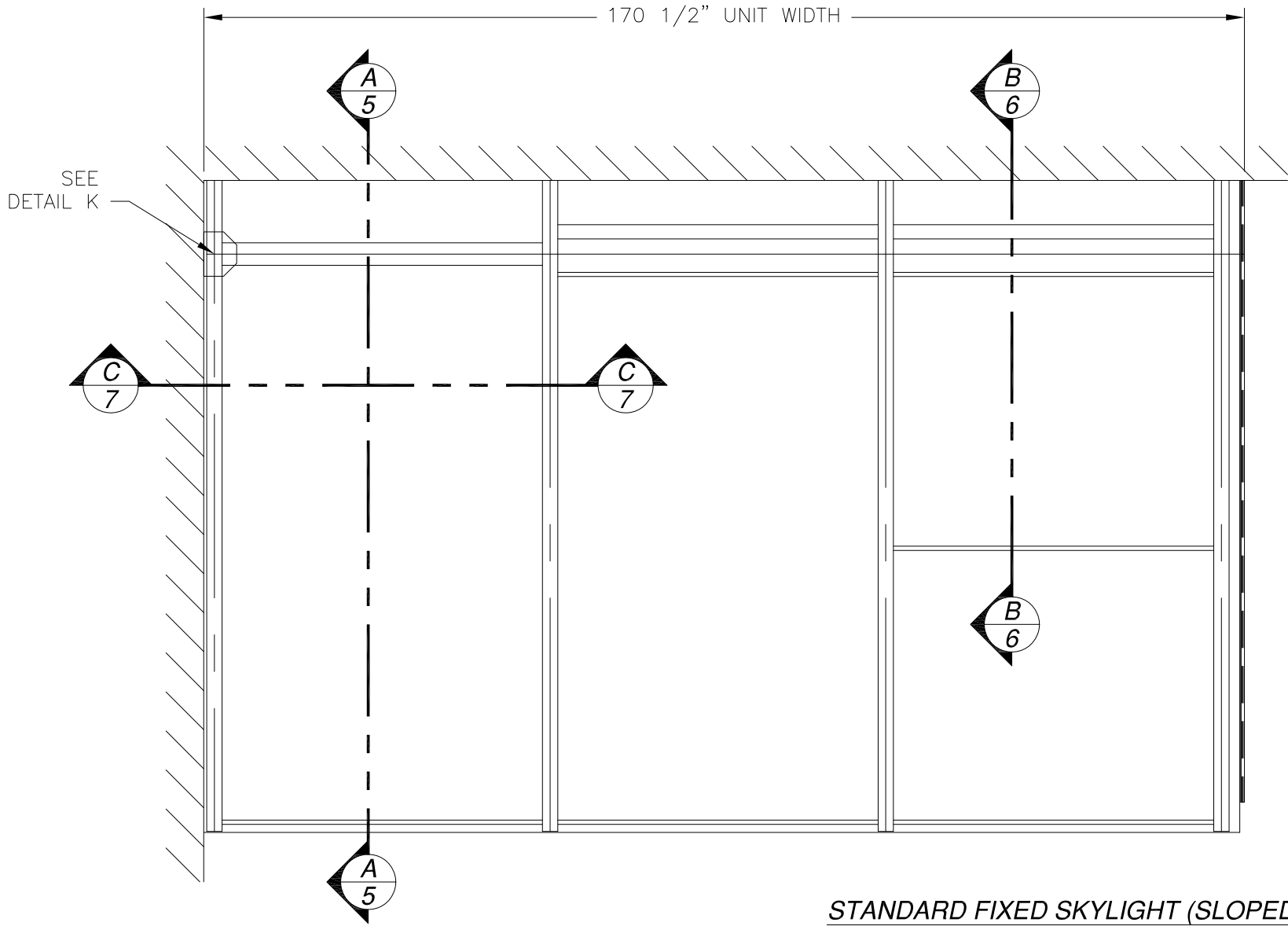
L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 01/11/2022



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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



STANDARD FIXED SKYLIGHT (SLOPED)
 SEE SHEET 4 FOR APPROVED CONFIGURATIONS
 EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
$\pm 80.0\text{PSF}$	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS
1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT – HVHZ
ELEVATION

DRAWN:
A.R.

DWG NO.
08-03776

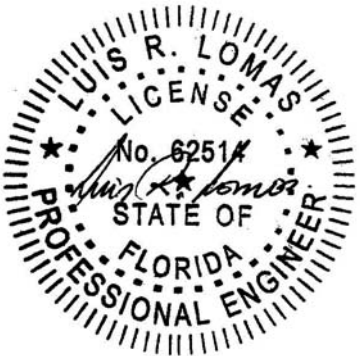
REV
-

SCALE
NTS

DATE
01/04/2022

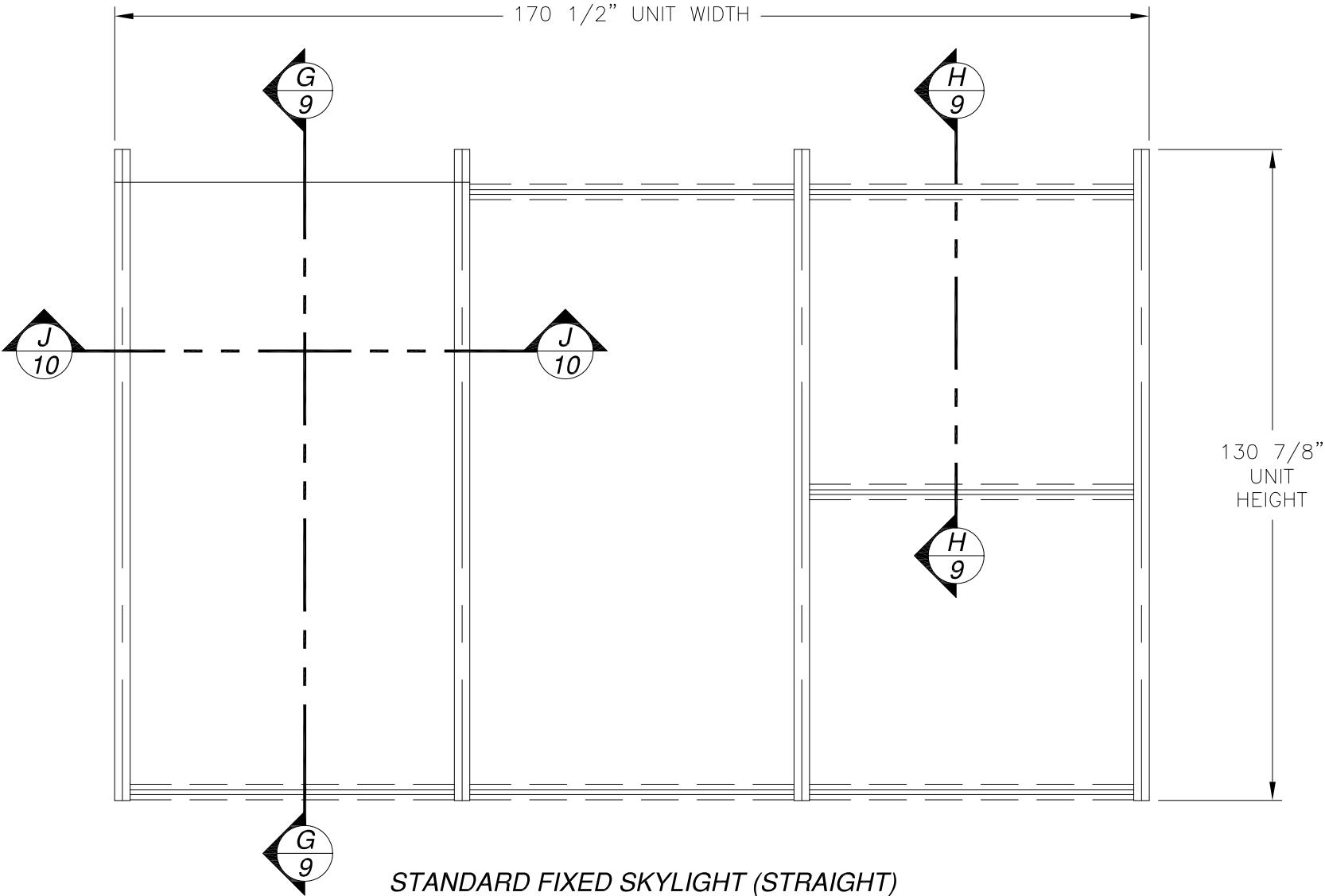
SHEET
2 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com



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

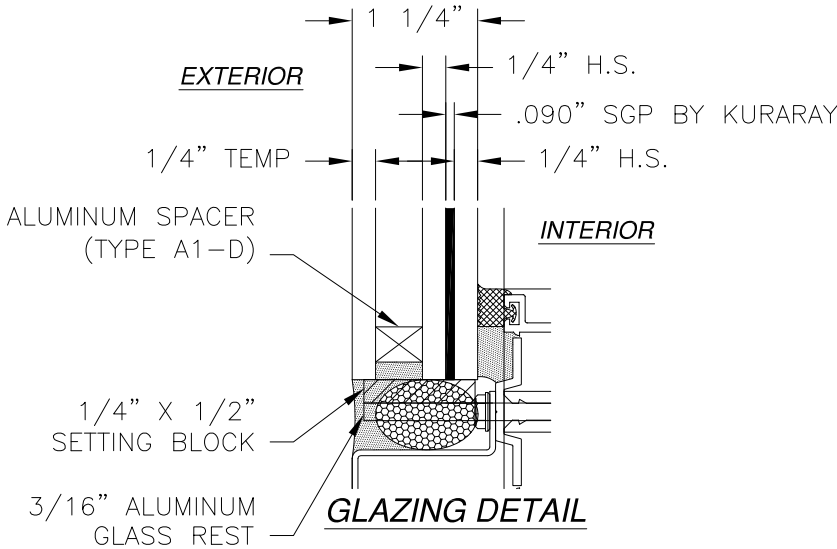
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SEE SHEET 4 FOR APPROVED CONFIGURATIONS
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±80.0PSF	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ



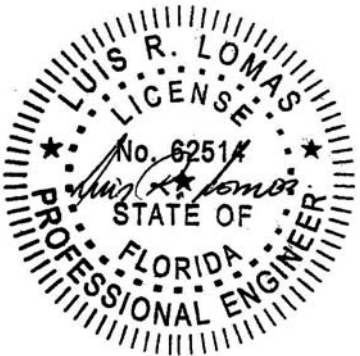
ACURLITE STRUCTURAL SKYLIGHTS
1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT – HVHZ
ELEVATION

DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 2 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

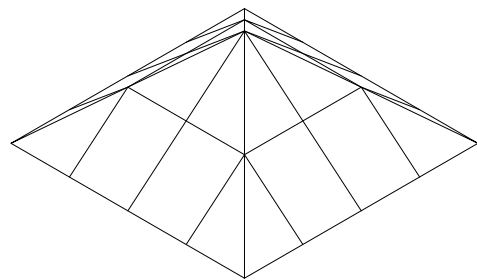
SIGNED: 01/11/2022



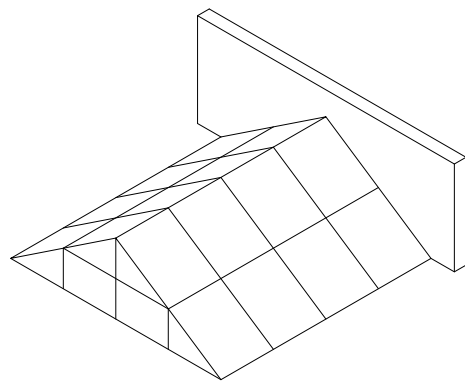
Luis R. Lomas P.E.
FL No.: 62514



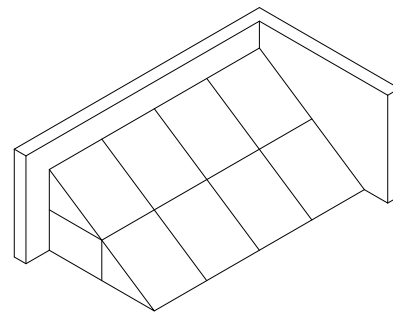
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



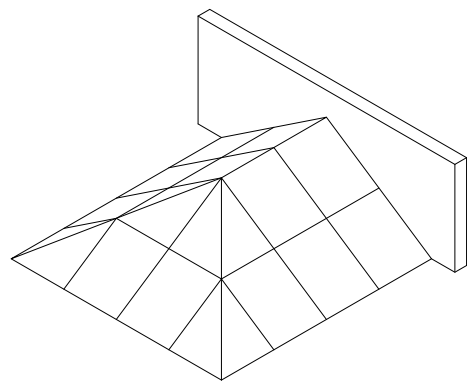
PYRAMID



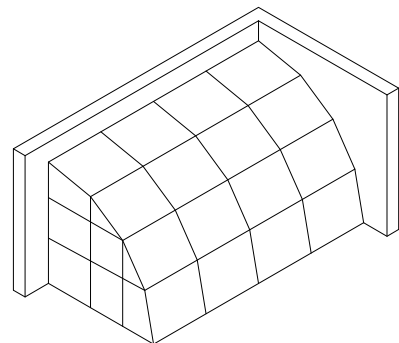
DOUBLE PITCH WITH GABLE



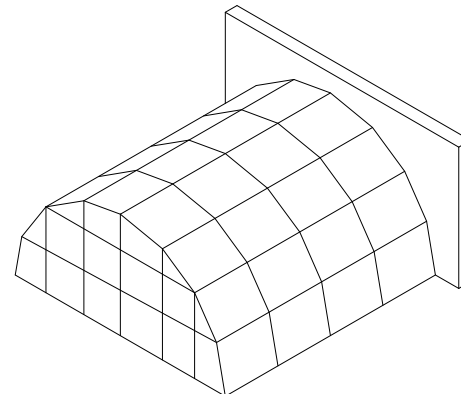
SINGLE PITCH WITH GABLE



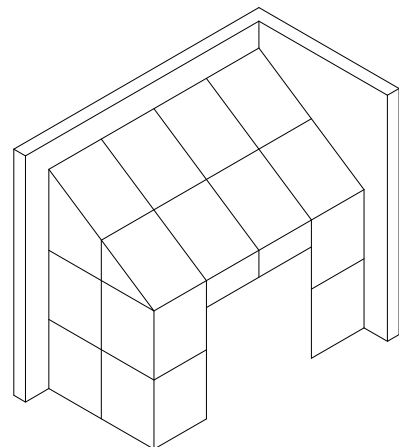
DOUBLE PITCH WITH HIP



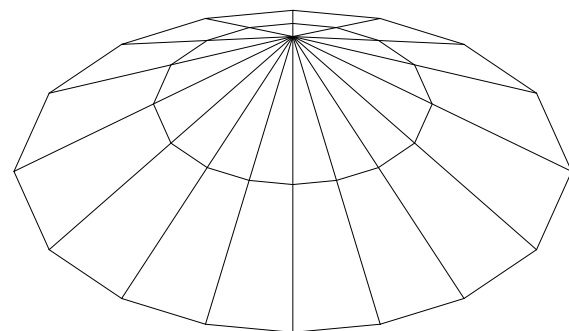
SEGMENTED BARRELL QUATER VAULT
WITH GABLE



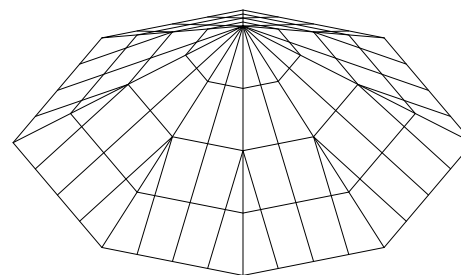
SEGMENTED BARRELL HALF VAULT
WITH GABLE



STRAIGHT EAVE LEAN-TO
WITH GABLE



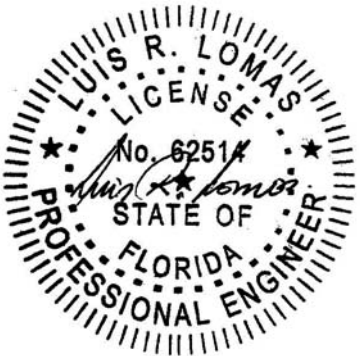
POLYGON



POLYGON WITH JACK RAFTERS

SIGNED: 01/11/2022

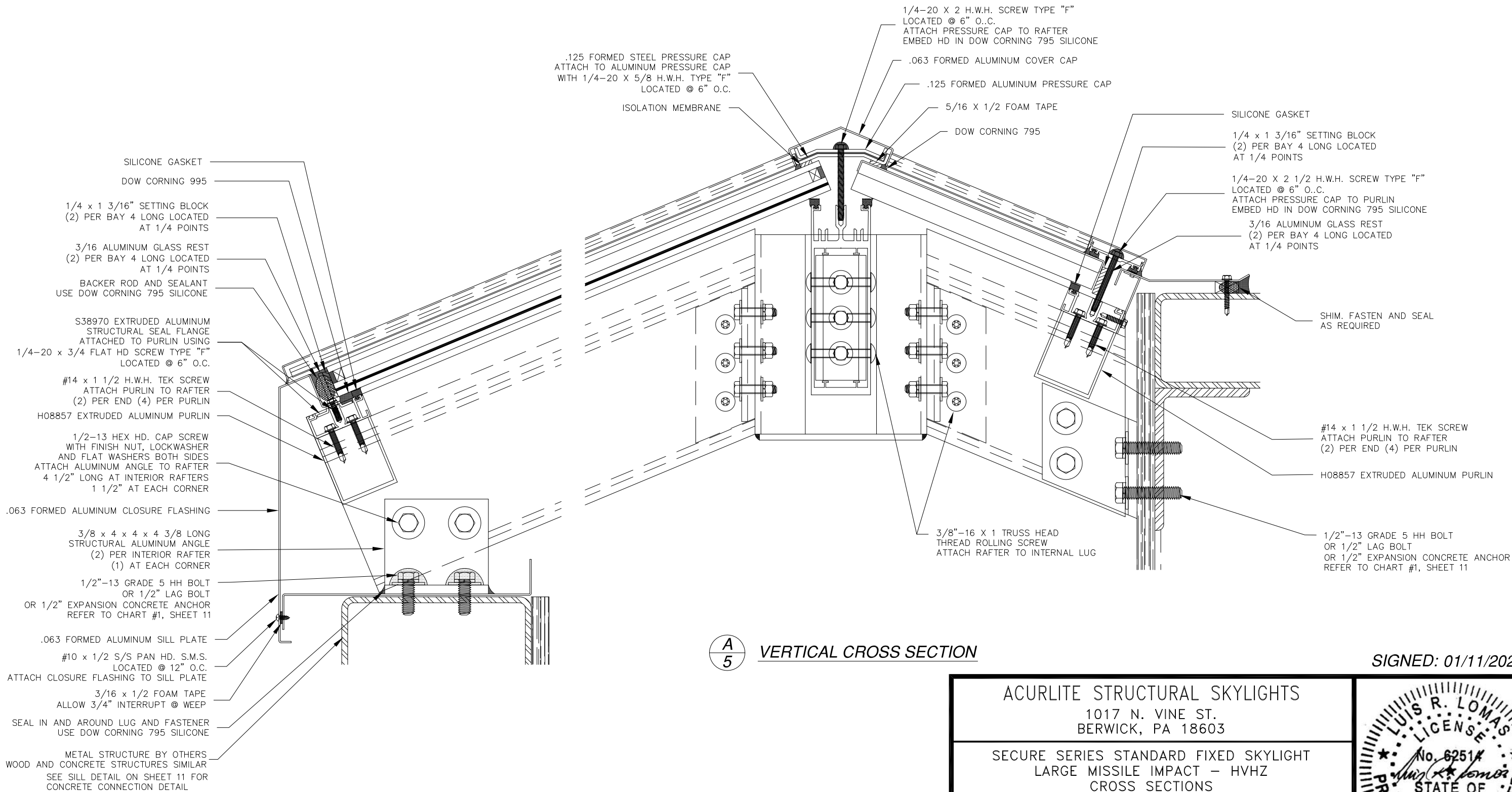
ACURLITE STRUCTURAL SKYLIGHTS 1017 N. VINE ST. BERWICK, PA 18603		
SECURE SERIES STANDARD FIXED SKYLIGHT LARGE MISSILE IMPACT – HVHZ APPROVED CONFIGURATIONS		
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 4 OF 12
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		



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



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



A
5

VERTICAL CROSS SECTION

SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS

1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT - HVHZ
CROSS SECTIONS

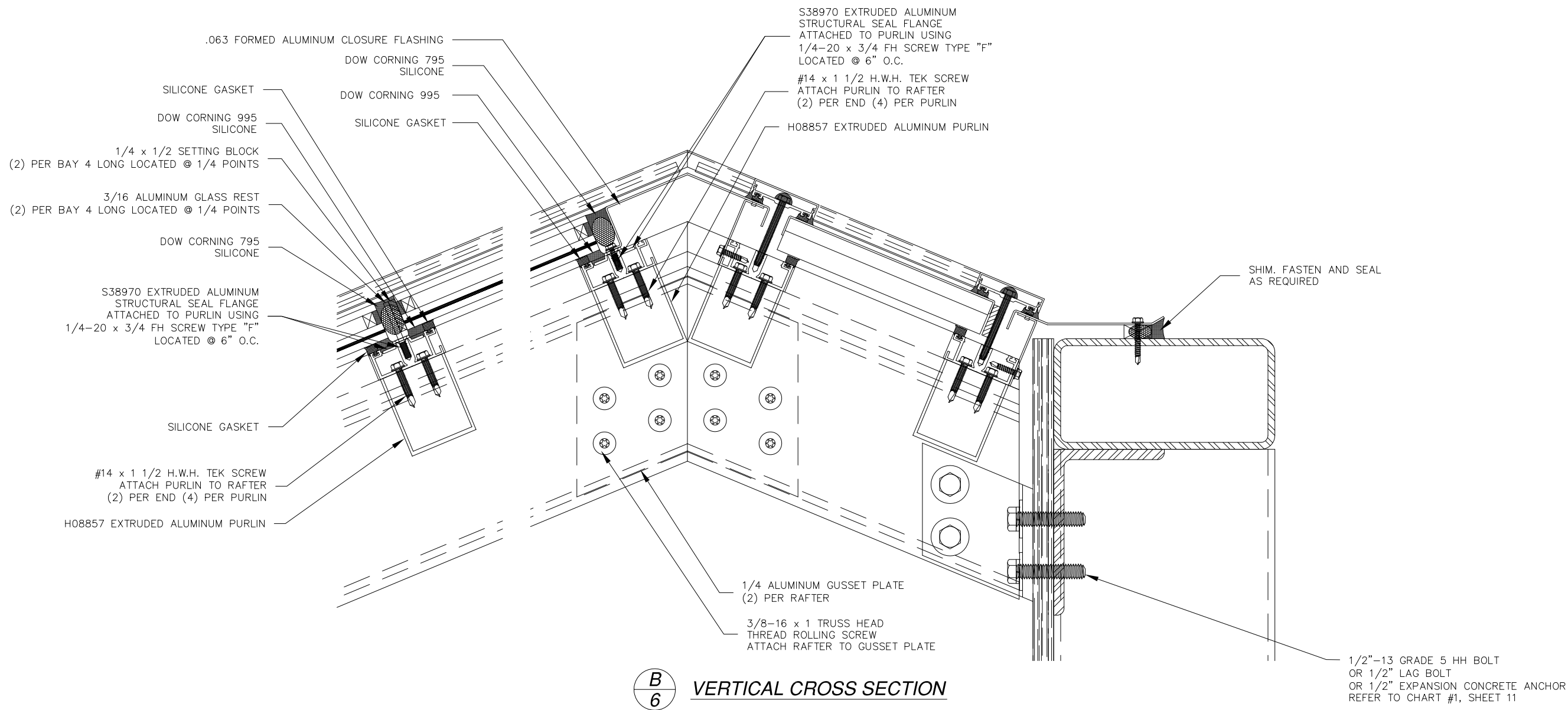
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 5 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com



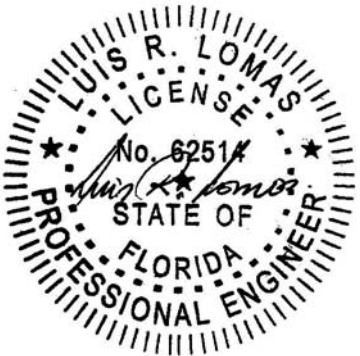
Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



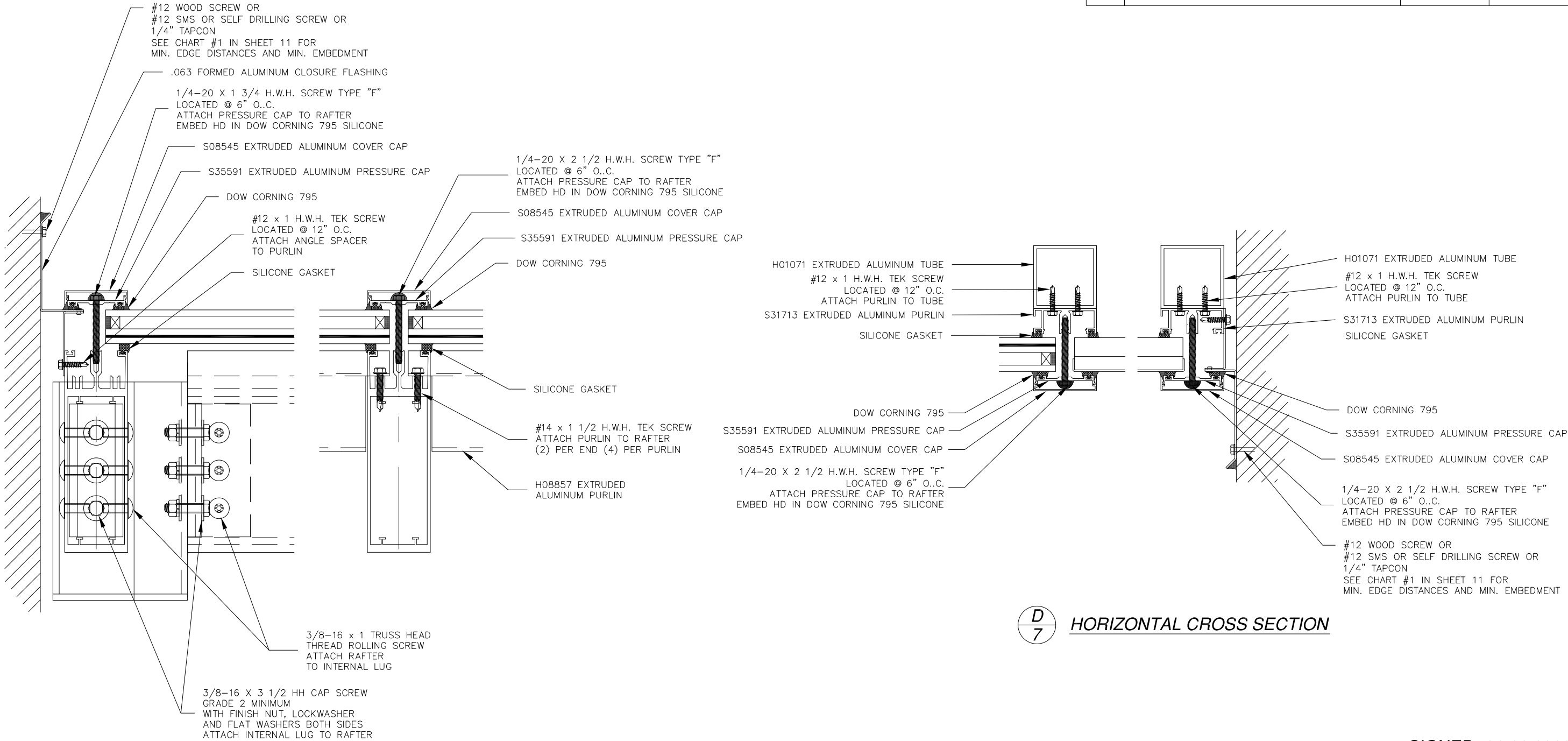
SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS 1017 N. VINE ST. BERWICK, PA 18603		
SECURE SERIES STANDARD FIXED SKYLIGHT LARGE MISSILE IMPACT - HVHZ CROSS SECTIONS		
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 6 OF 12
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		



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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



C
7 **HORIZONTAL CROSS SECTION**

D
7 **HORIZONTAL CROSS SECTION**

SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS
1017 N. VINE ST.
BERWICK, PA 18603

DRAWN:
A.R.

DWG NO.
08-03776

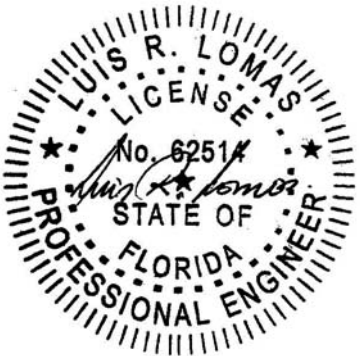
REV
-

SCALE
NTS

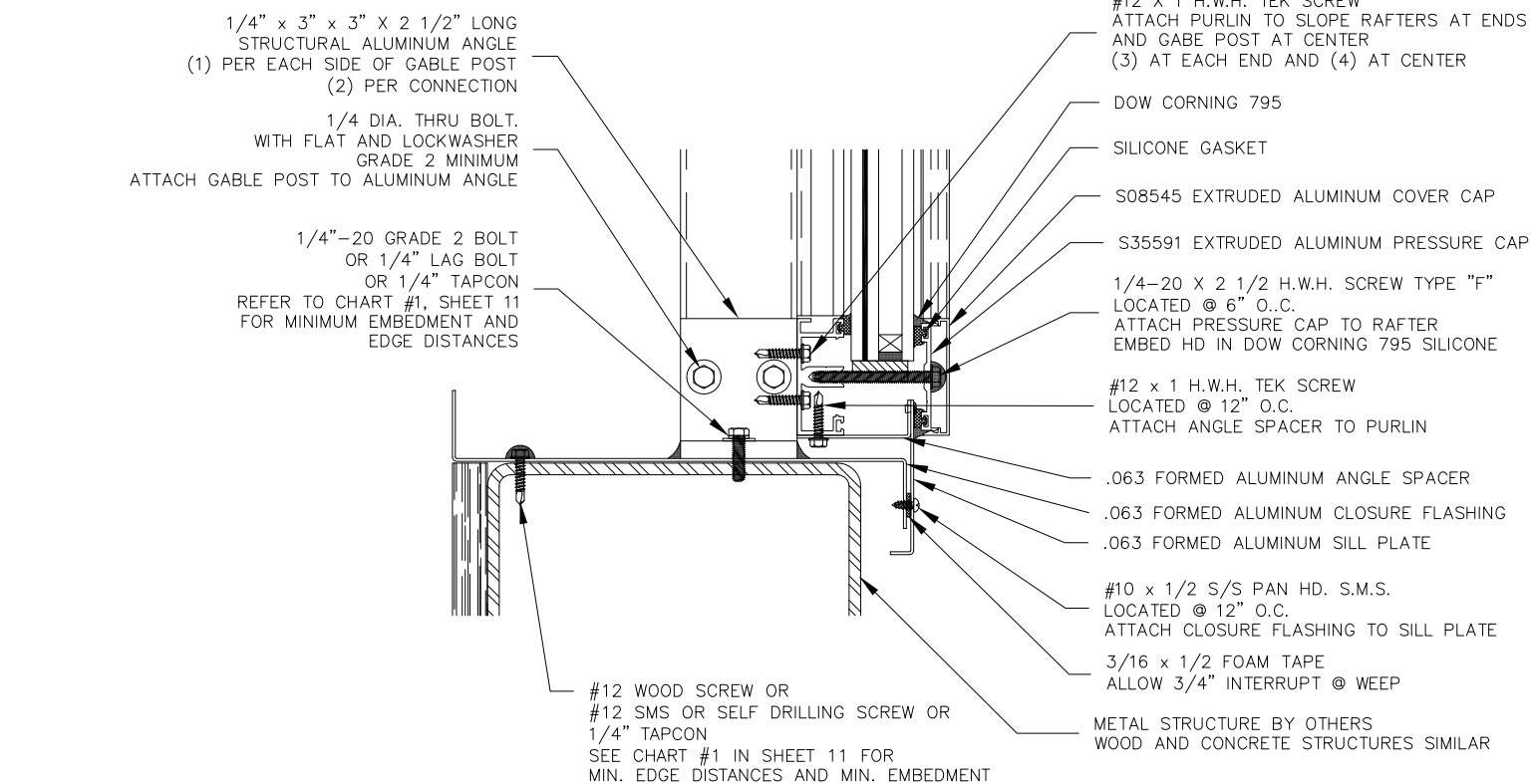
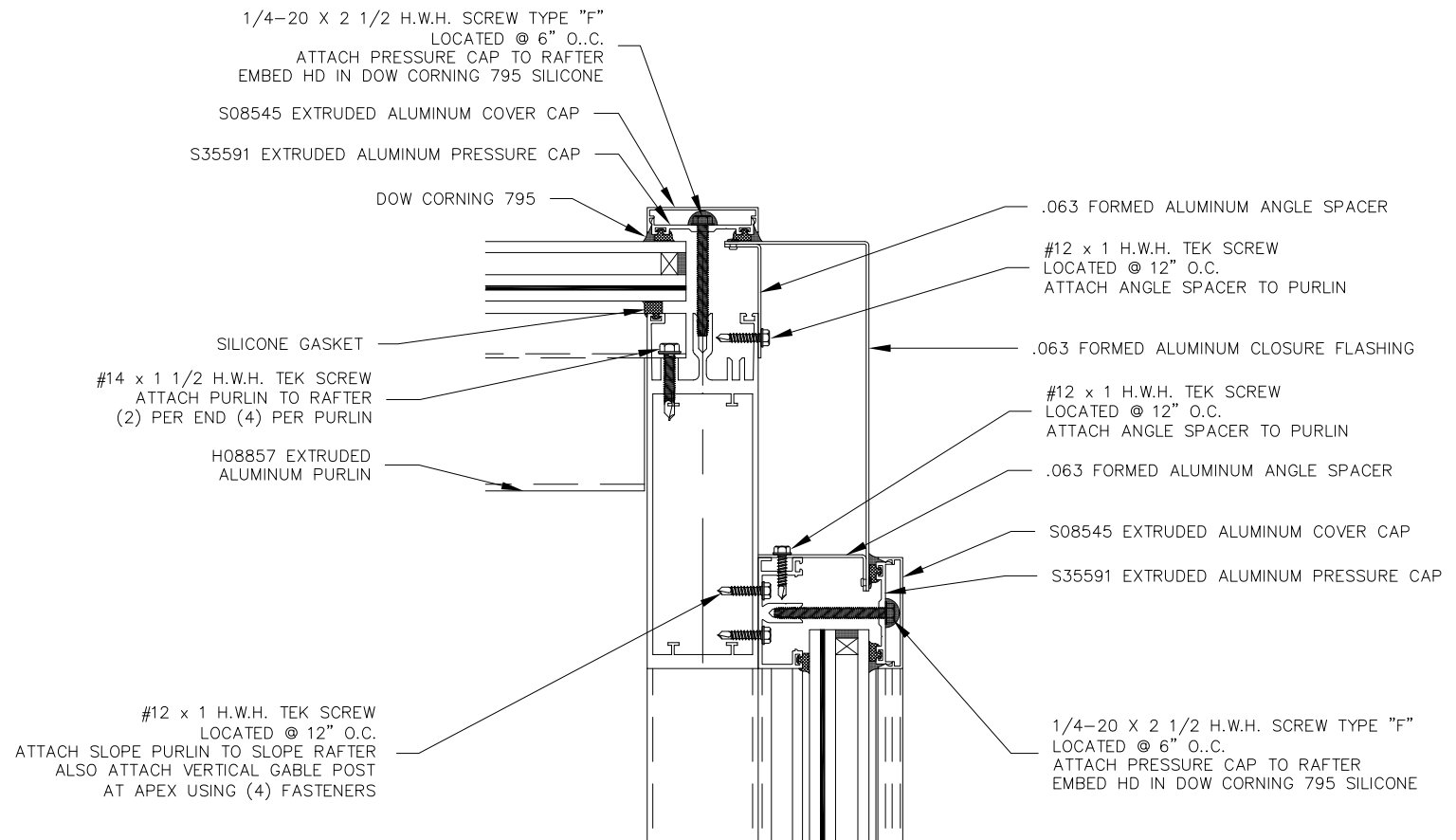
DATE
01/04/2022

SHEET
7 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com



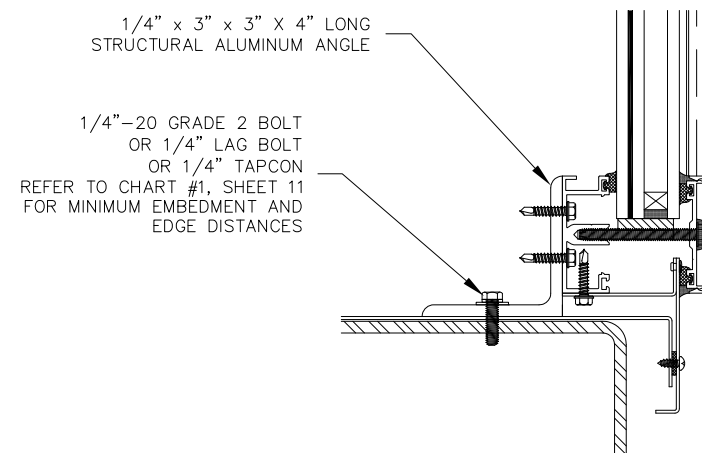
Luis R. Lomas P.E.
FL No.: 62514



E
8

VERTICAL CROSS SECTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



F
8

VERTICAL CROSS SECTION

ACURLITE STRUCTURAL SKYLIGHTS

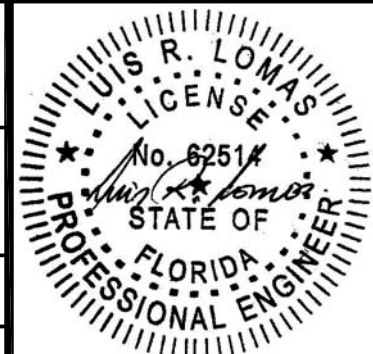
1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT - HVHZ
CROSS SECTIONS

DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 8 OF 12

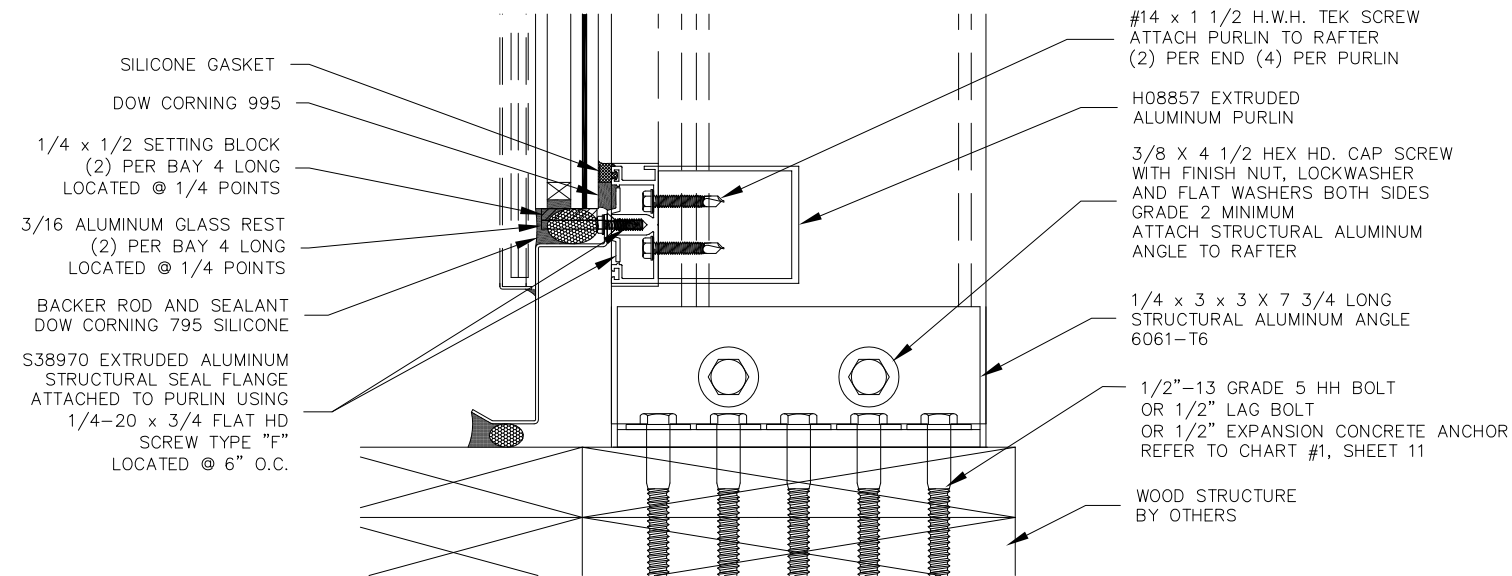
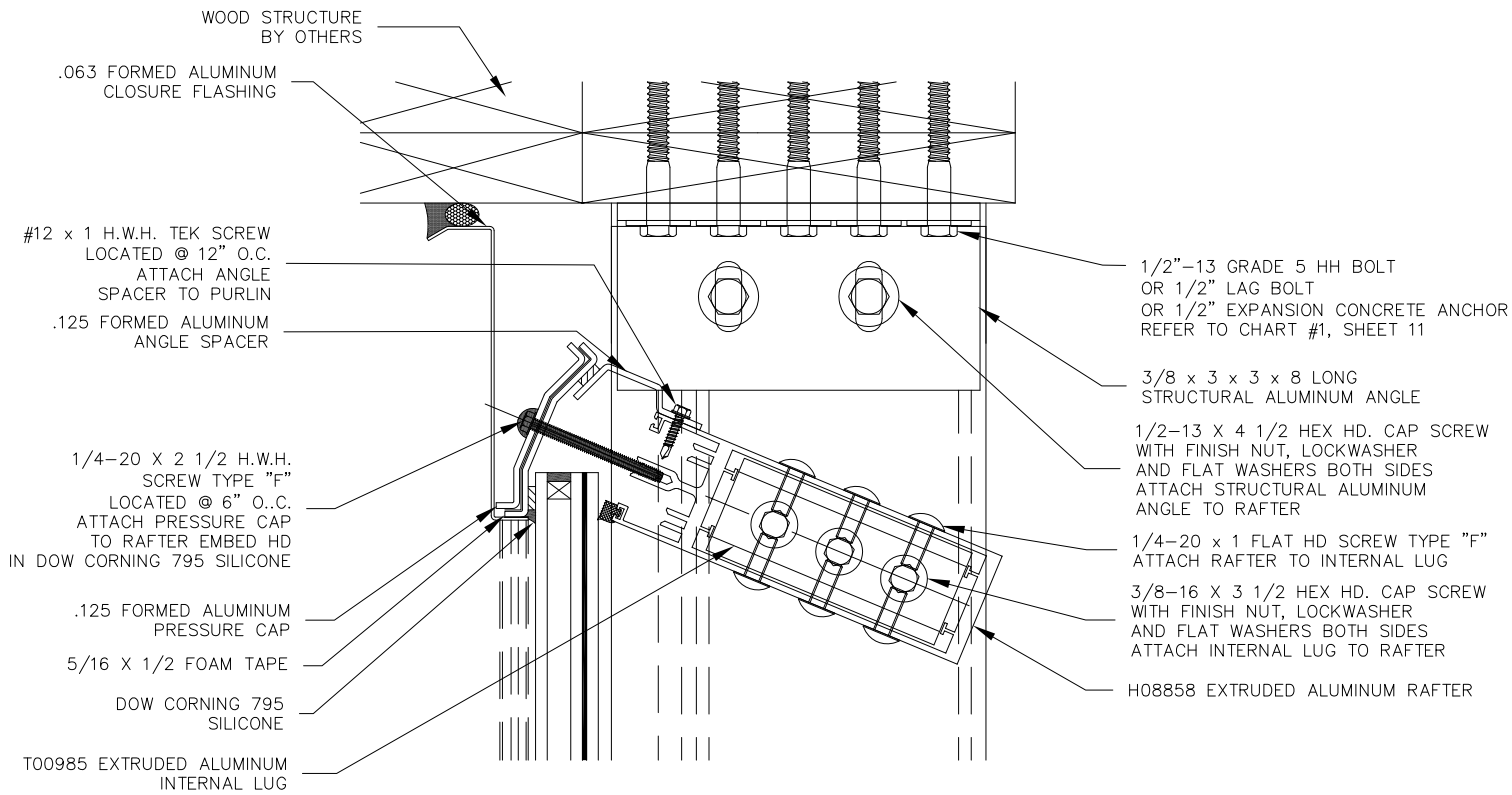
L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 01/11/2022

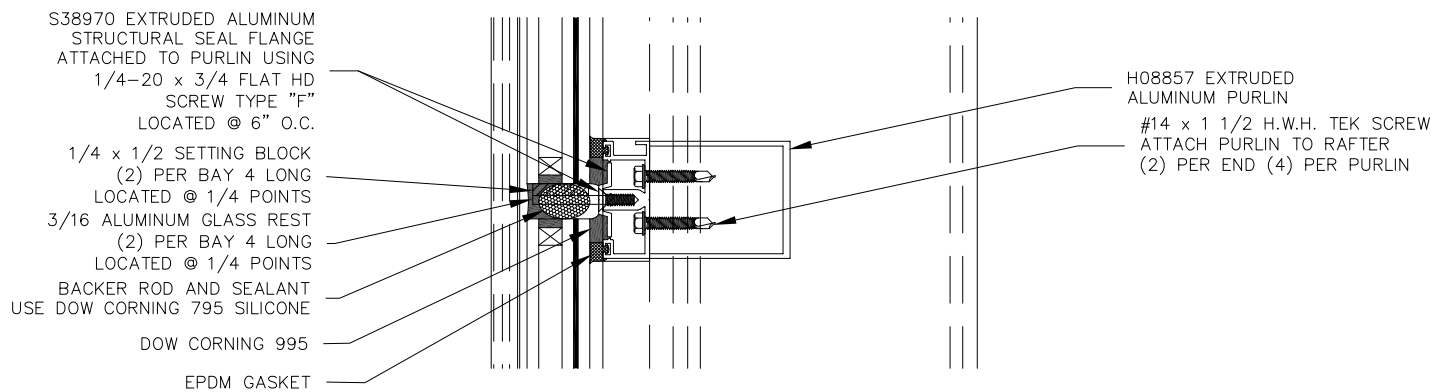
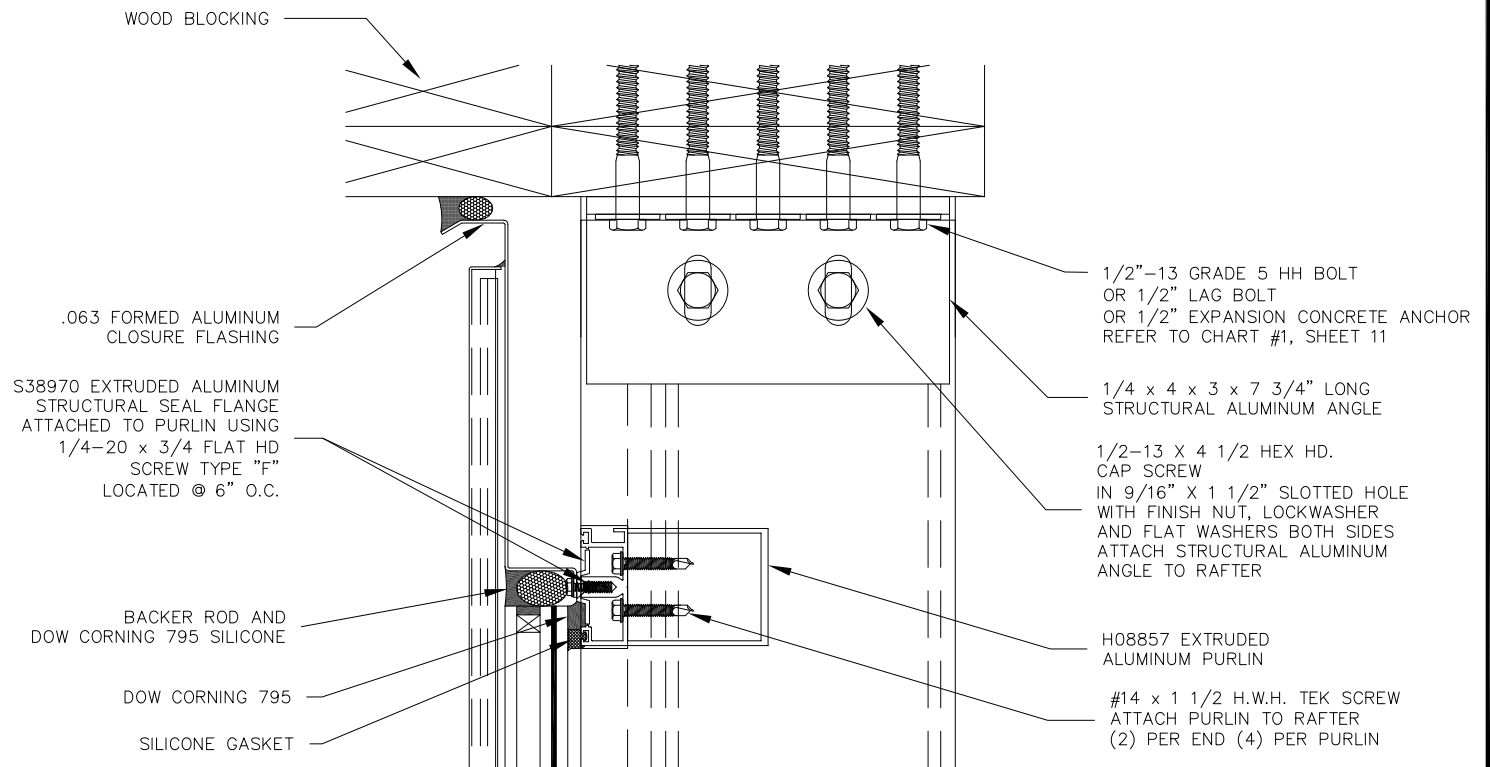


Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



G/9 **VERTICAL CROSS SECTION**



H/9 **VERTICAL CROSS SECTION**

SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS
1017 N. VINE ST.
BERWICK, PA 18603

DRAWN:
A.R.

DWG NO.
08-03776

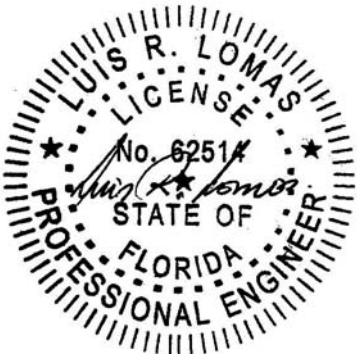
REV
-

SCALE
NTS

DATE
01/04/2022

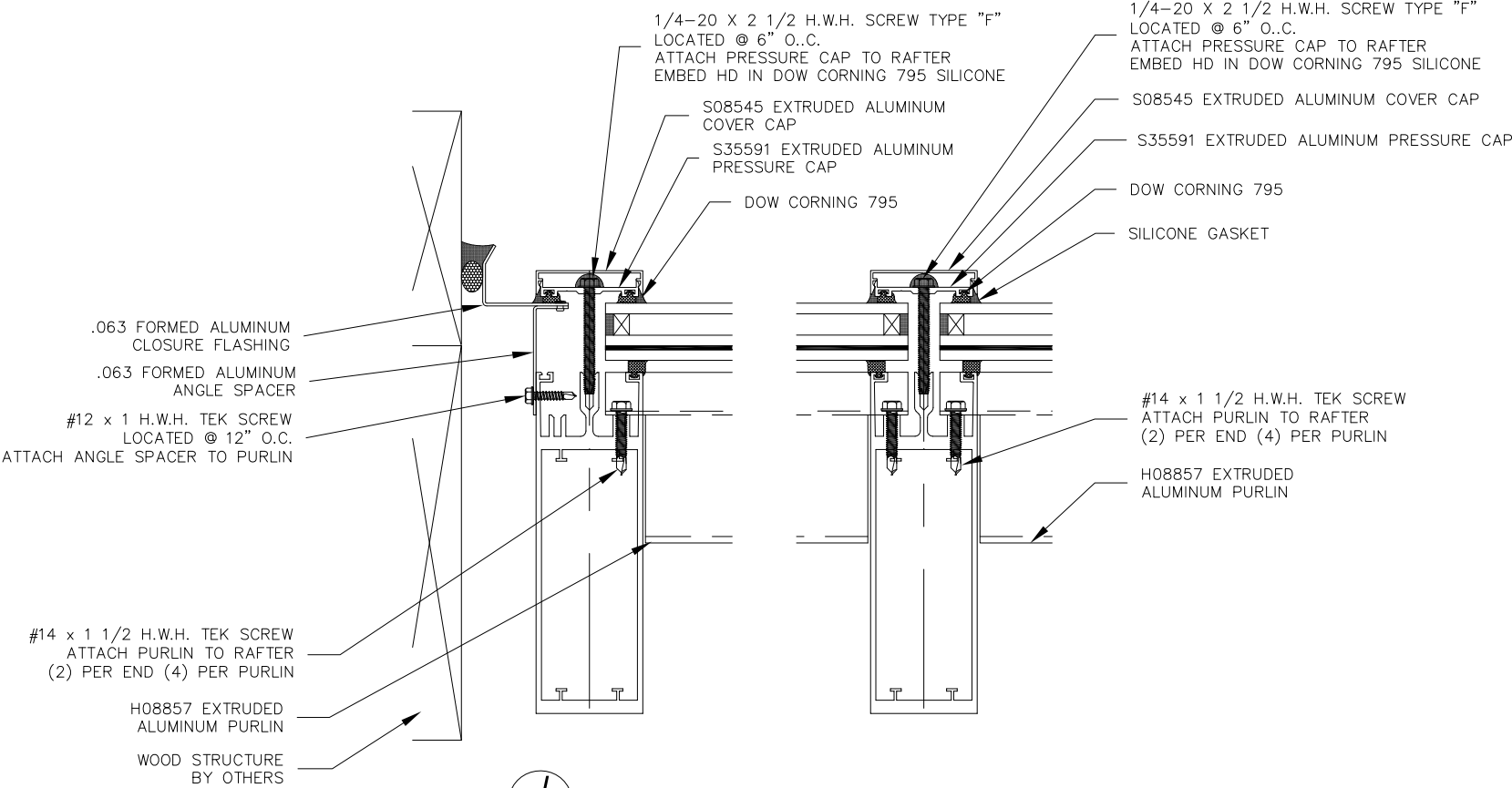
SHEET
9 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com



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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



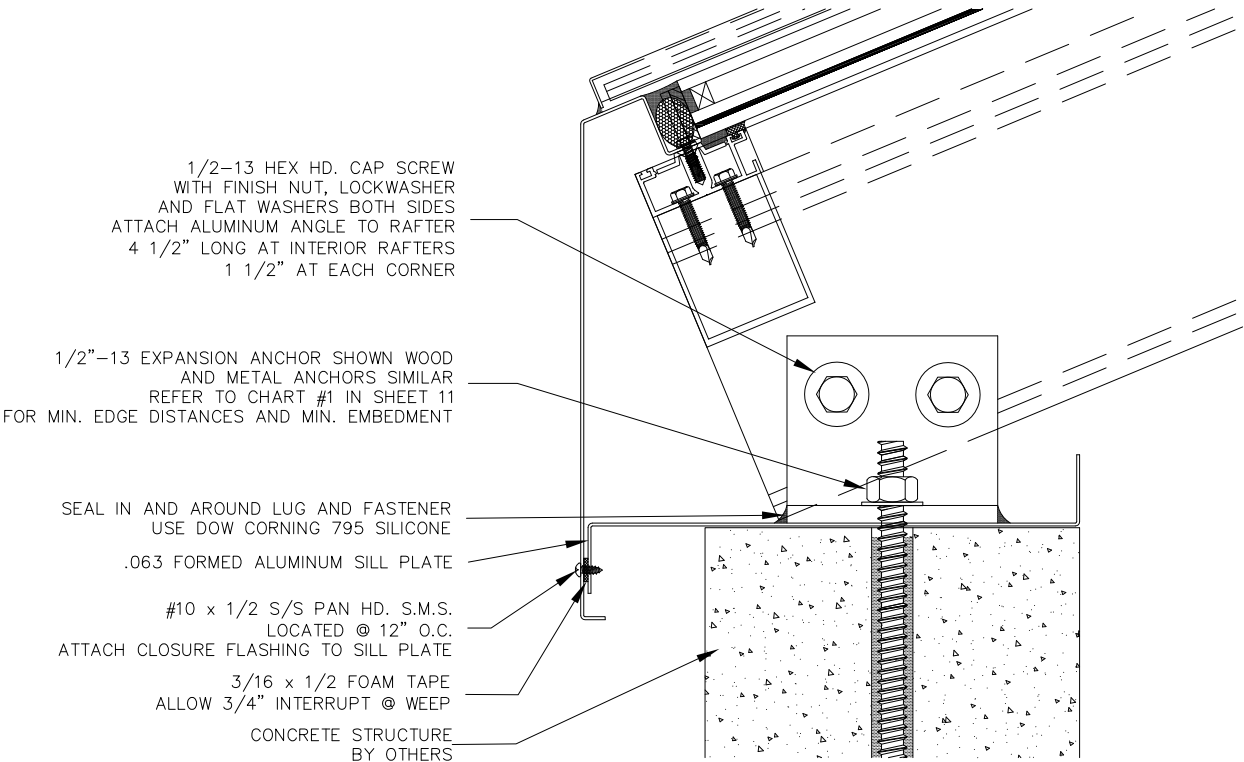
J
10 **HORIZONTAL CROSS SECTION**

SIGNED: 01/11/2022

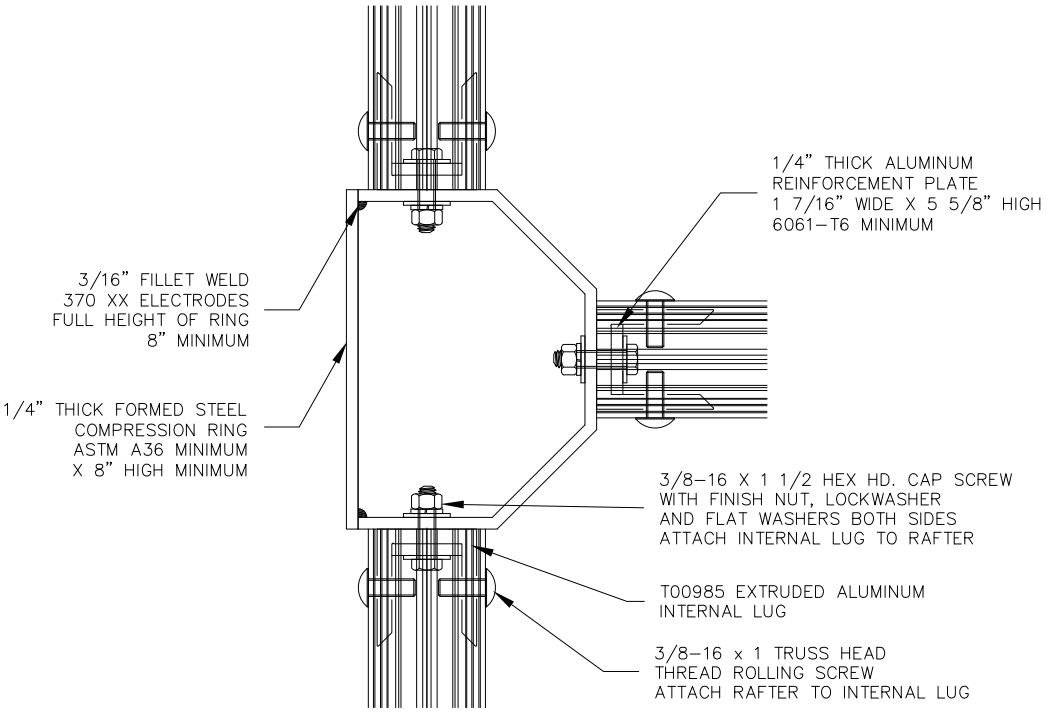
ACURLITE STRUCTURAL SKYLIGHTS 1017 N. VINE ST. BERWICK, PA 18603		
SECURE SERIES STANDARD FIXED SKYLIGHT LARGE MISSILE IMPACT – HVHZ CROSS SECTIONS		
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 10 OF 12
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SILL DETAIL
CONCRETE INSTALLATION



DETAIL K

CHART #1

Anchor Installation Information

SUBSTRATE	ANCHOR		MIN. EDGE DISTANCE	MIN. EMBEDMENT
	Type	Size		
Wood Framing	Lag Screw	1/4"	1"	1 1/2"
		1/2"	2"	3"
Metal Structure	Grade 5 Hex HD. Tap Bolt	1/2 - 13	1 1/4"	N/A
	Bolt Grade 2	1/4" - 20	1/2"	N/A
Concrete/Masonry	Tapcon	1/4"	2"	1 1/4"
	ITW Red Head w/A7 adhesive	1/2"	1 1/8"	4 1/2"

BOLTS INSTALLED INTO METAL STRUCTURE MUST HAVE WASHERS, LOCKWASHER AND NUTS.

SIGNED: 01/11/2022

ACURLITE STRUCTURAL SKYLIGHTS
1017 N. VINE ST.
BERWICK, PA 18603

SECURE SERIES STANDARD FIXED SKYLIGHT
LARGE MISSILE IMPACT – HVHZ
INSTALLATION DETAILS

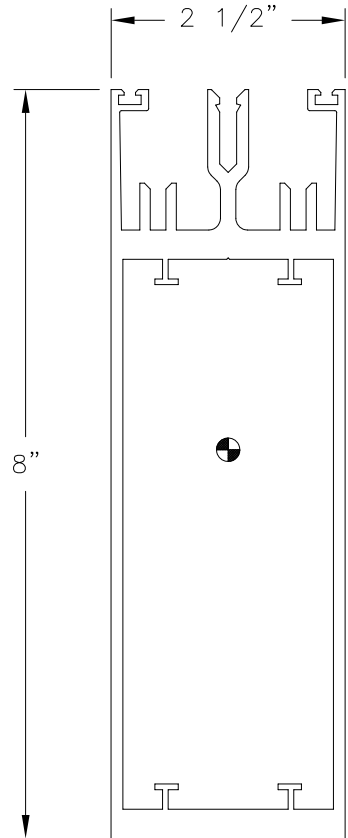
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 11 OF 12

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@lrlomaspe.com

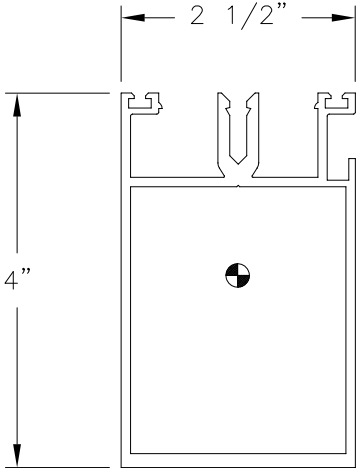


Luis R. Lomas P.E.
FL No.: 62514

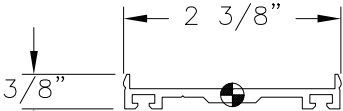
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



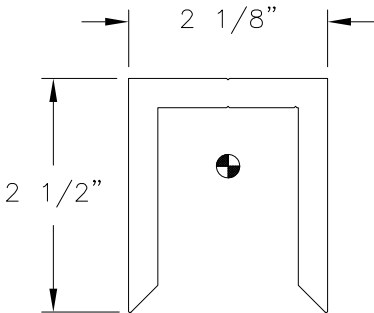
RAFTER (H08858)
ALUMINUM 6063-T6



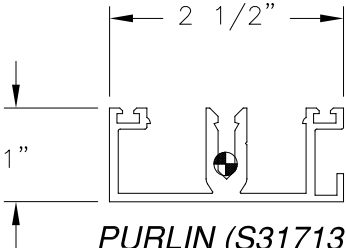
PURLIN (H08857)
ALUMINUM 6063-T6



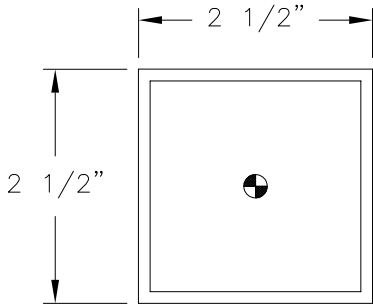
PRESSURE CAP (S35591)
ALUMINUM 6063-T6



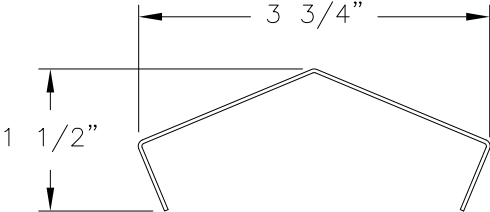
INTERNAL LUG (T00985)
ALUMINUM 6063-T6



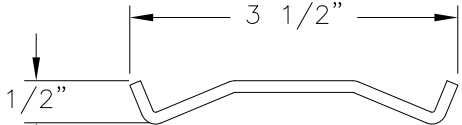
PURLIN (S31713)
ALUMINUM 6063-T6



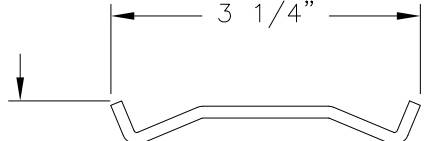
TUBE (H01071)
ALUMINUM 6063-T6



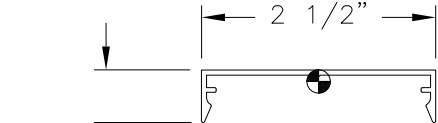
FORMED COVER CAP
ALUMINUM 3003



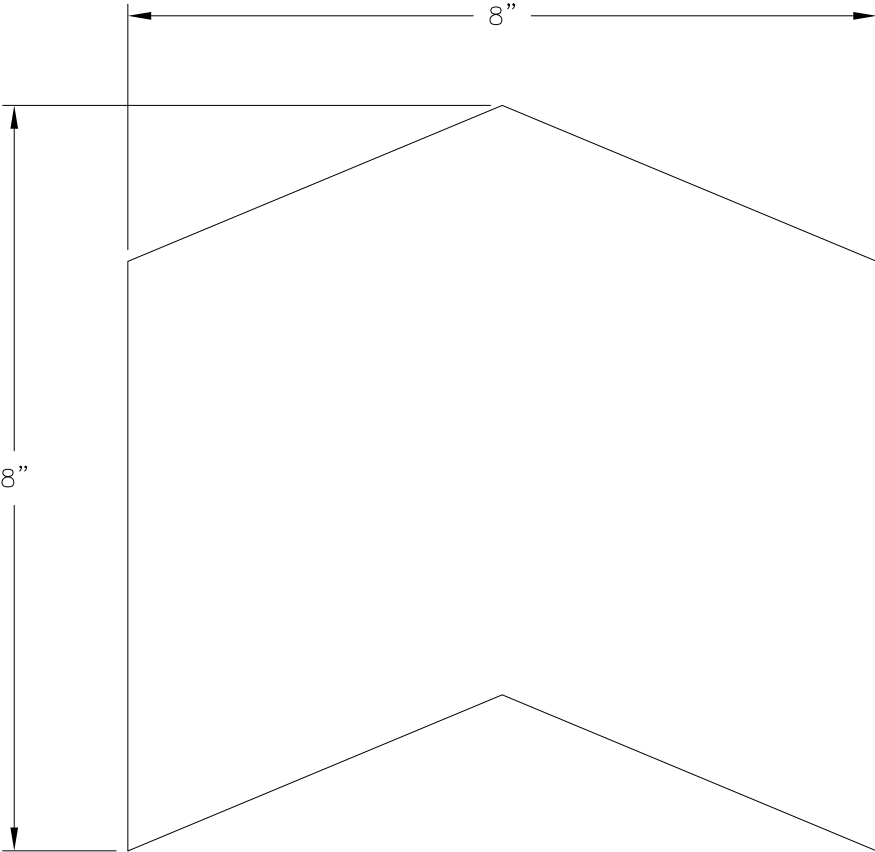
FORMED COVER CAP
ALUMINUM 3003



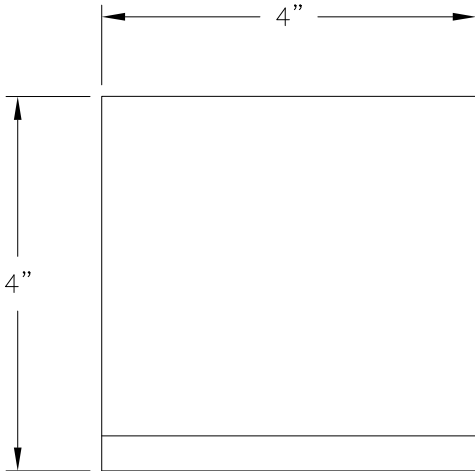
FORMED COVER CAP
STEEL ASTM A36



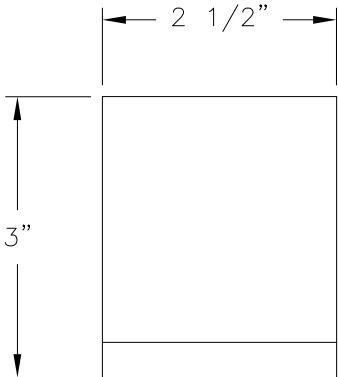
COVER CAP (S08545)
ALUMINUM 6063-T6



GUSSET PLATE
ALUMINUM 6061-T6



STRUCTURAL ANGLE
ALUMINUM 6061-T6



STRUCTURAL ANGLE
ALUMINUM 6061-T6

ACURLITE STRUCTURAL SKYLIGHTS 1017 N. VINE ST. BERWICK, PA 18603		
SECURE SERIES STANDARD FIXED SKYLIGHT LARGE MISSILE IMPACT – HVHZ COMPONENTS		
DRAWN: A.R.	DWG NO. 08-03776	REV -
SCALE NTS	DATE 01/04/2022	SHEET 12 OF 12
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 01/11/2022



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