

SOLATUBE INTERNATIONAL

HSE FIXED SERIES CURB MOUNT SKYLIGHT

INSTALLATION ANCHORAGE DETAILS

PROJECT # 419-1203

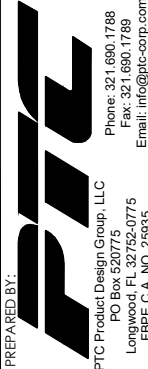
SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE: HSE FIXED SERIES CURB MOUNT SKYLIGHT
GENERAL & INSTALLATION NOTES

DRAWN BY: RJA
DATE: 4/6/2020

SCALE: N.T.S.
DRAWING NO: SOLA0014

REV: --
SHEET: 1 OF 3



Robert J. Amoruso, P.E.
Florida P.E. No. 49752

GENERAL NOTES:

1. THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) REQUIREMENTS EXCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURE STATED HEREIN.
2. THE PRODUCT HAS BEEN TESTED TO AAMA/WDMA/CSA 101/I.S.2/A440-08 AND 11 AND FOUND TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) EXCLUDING THE HIGH VELOCITY HURRICANE ZONE. THE DESIGN PRESSURES SHOWN IN PERFORMANCE RATING TABLE ON SHEET 1 OF THIS DRAWING ARE BASED ON THOSE TEST RESULTS DIVIDED BY A FACTOR OF SAFETY OF 2.
3. ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
5. THIS PRODUCT HAS NOT BEEN TESTED FOR IMPACT RESISTANCE. WHEN USED IN A WIND BOURNE DEBRIS REGION, A PROTECTIVE IMPACT-RATED DEVICE IS REQUIRED.
6. THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE SKYLIGHT TO A ROOF MOUNTED CURB SUPPLIED BY OTHERS. PREPARATION OF THE ROOF SHEATHING, ROOF COVERING(S) AND SUPPORTING 2X WOOD FRAMING TO RECEIVE THE SKYLIGHT SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS AND COMPLIANT WITH CHAPTER 15 OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND CHAPTER 9 OF THE CURRENT EDITION OF THE FLORIDA RESIDENTIAL CODE.
7. IN ACCORDANCE WITH THE CURRENT EDITION FBC DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM FLASHING SHALL HAVE BEEN PROTECTED.
8. MATERIAL/COMPONENT CERTIFICATION:
 - 8.1. LAMINATED IGU INTERLAYER: SAFLEX CLEAR - POLYVINYL BUTYRAL (PVB) INTERLAYER BY EASTMAN CHEMICAL PER THE LATEST MIAMI-DADE NOTICE OF ACCEPTANCE (NOA).
9. GLAZING CONFIGURATION:
 - 9.1. 1' OVERALL LAMINATED IGU
 - 9.2. EXTERIOR LITE: 5/32" (4mm) TEMPERED
 - 9.3. INTERIOR LITE: 1/8" (3mm) ANNEALED X 0.76 SAFLEX CLEAR - POLYVINYL BUTYRAL (PVB) X 1/8" (3mm) ANNEALED
 - 9.4. WARM EDGE SPACER

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON SHEET 3.
2. THE NUMBER OF INSTALLATION ANCHORS REQUIRED BASED ON SKYLIGHT SIZE CAN BE FOUND IN THE PERIMETER ANCHOR REQUIREMENTS FOR FIXED SKYLIGHTS AT 75.19 PSF ON SHEET 3
3. ANCHOR REQUIREMENTS FOR VARIOUS CURB SUBSTRATE CAN BE FOUND IN THE ANCHOR SCHEDULE ON SHEET 3.
4. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE FINISHES.
5. INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
6. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - 6.1. 2X WOOD FRAMING, BLOCKING OR BUCKS WITH A SPECIFIC GRAVITY ≥ 0.42 .
 - 6.2. CONCRETE WITH A MINIMUM 6" THICKNESS, MINIMUM $f_c = 3,000$ PSF UN-CRACKED NORMAL WEIGHT.
 - 6.3. MINIMUM 20 GAUGE (0.0359") THICK ASTM A653 GRADE 33 STEEL SUBSTRATE.
7. INSTALLATION/MOUNTING CONDITIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FOLLOWING SECTIONS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) AND FLORIDA RESIDENTIAL CODE (FRC) SHALL BE MET.
 - 7.1. FBC CHAPTER 24, SLOPED GLAZING AND SKYLIGHTS
 - 7.2. FRC CHAPTER 3, SKYLIGHTS AND SLOPED GLAZING
8. A CURB CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION CLASSIFICATION, BUT AT LEAST 4 INCHES ABOVE THE PLANE OF THE ROOF BY OTHERS IS ALLOWED. ADDITIONAL INSTALLATION DETAILING AND ENGINEERED INSTALLATION EVALUATION BY A LICENSED DESIGN PROFESSIONAL WILL BE REQUIRED FOR SUBMITTAL IN ADDITION TO THIS PRODUCT EVALUATION DOCUMENT.

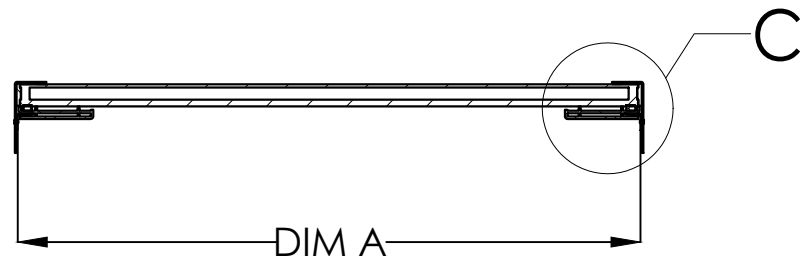
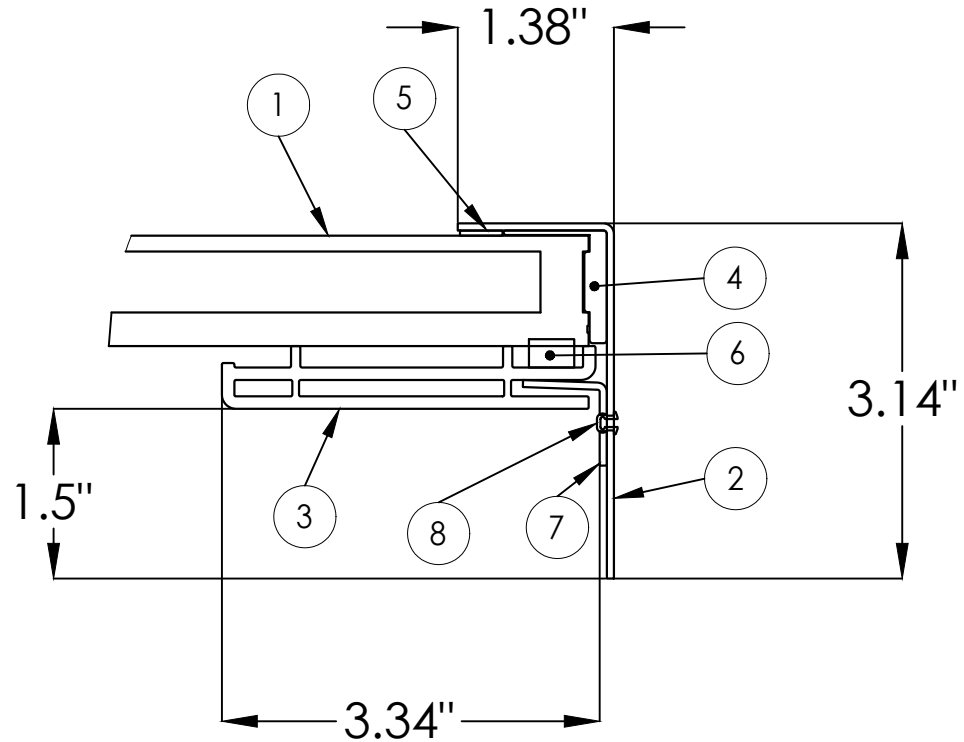
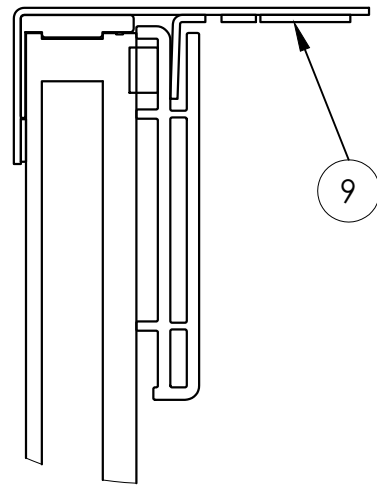
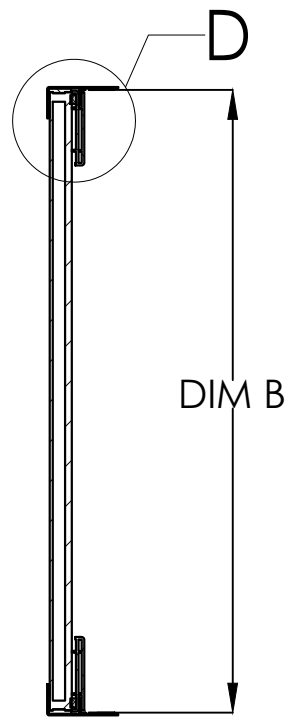
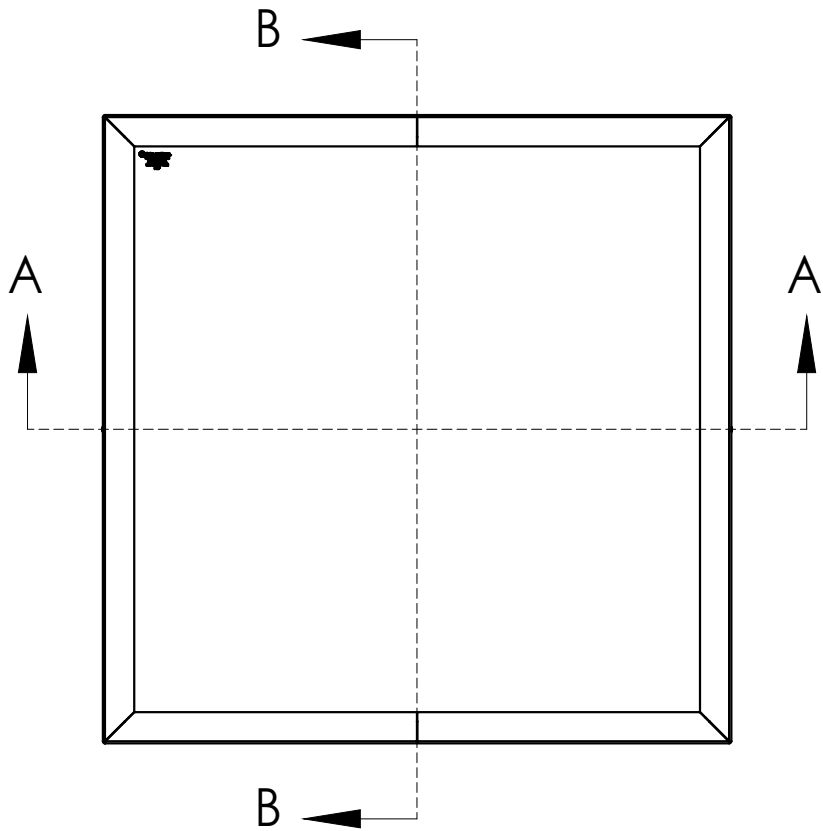
PERFORMANCE RATING			
SKYLIGHT SIZE	GLAZING DETAIL	DESIGN PRESSURE (PSF)	IMPACT RATING
SEE TABLE ON SHEET 2	SEE GENERAL NOTE 9, SHEET 1	+/- 75.19 PSF	NONE

TABLE OF CONTENTS	
SHEET	DESCRIPTION
1	GENERAL AND INSTALLATION NOTES
2	ELEVATIONS, SECTIONS AND BOM
3	INSTALLATION DETAILS

STANDARD SIZES (I.D.)

PART NO.	MODEL	NOM.	DIM A	DIM B
380000	2020	1.5' x 1.5'	20.00"	20.00"
380120	2028	1.5' x 2'	20.00"	27.50"
380230	2052	1.5' x 4'	20.00"	51.50"
380370	2828	2' x 2'	27.50"	27.50"
380450	2836	2' X 3'	27.50"	36.00"
380510	2843	2' x 3.5'	27.50"	43.00"
380680	2852	2' x 4'	27.50"	51.50"
380740	3636	3' x 3'	36.00"	36.00"
380890	3652	3' x 4'	36.00"	51.50"
380960	4343	3.5' x 3.5'	43.00"	43.00"
381010	4352	3.5' x 4'	43.00"	51.50"
381120	5252	4' x 4'	51.50"	51.50"

CURB MOUNT FIXED SKYLIGHT			
ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
1	VARIES	INSULATED GLASS ASSEMBLY	4HT10-Tg14Ar-33.2
2	VARIES	BASE FLANGE	PAINTED ALUMINUM ALLOY
3	381091	BASE EXTRUSION PROFILE	RIGID PVC
4	700358	SEALANT	POLYURETHANE
5	620025	TAPE ACRYLIC FOAM	ACYLIC FOAM
6	381076	CLOSED CELL FOAM	EPDM FOAM
7	VARIES	CLEAT	PAINTED ALUMINUM ALLOY
8	700048	RIVET	ALUMINUM ALLOY
9	831162	JOINER PLATE	PAINTED ALUMINUM ALLOY



SECTION B-B

DETAIL D

DETAIL C

SECTION A-A

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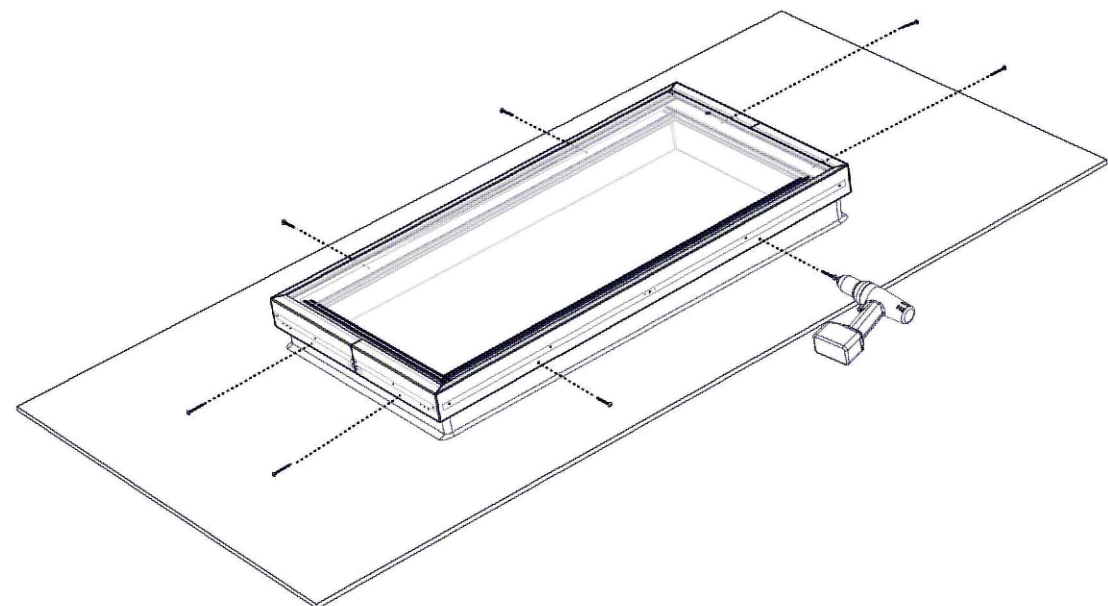
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ELEVATIONS, SECTIONS AND BOM

PREPARED BY:	DATE:	4/6/2020
DRAWN BY: RJA	DRAWING NO: SOLA0014	
SCALE: N.T.S.	SHEET: 2 OF 3	
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ROOF CURB MOUNT ILLUSTRATION

SEE ANCHOR SCHEDULE TABLE FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS
SEE PERIMETER ANCHOR REQUIREMENTS TABLE FOR ANCHOR QUANTITIES AND LOCATIONS

Anchor Schedule		
Substrate	Connection	Substrate Equirements and Installation Details
Steel	#10-16 TEKS Screw connecting Aluminum Base Flange to Steel	<ol style="list-style-type: none"> 1. Full Penetration + 3 Threads 2. Maximum 1/4" Shim Space 3. Minimum 20 Gauge (0.0359") thick ASTM A653 Grade 33 Steel Substrate 4. Qualifies the steel with larger thickness and higher strength
2X Wood Blocking, 2X Wood Buck, 2X Wood Framing	#10 Wood Screw connecting Aluminum Base Flange to 2x Wood Blocking	<ol style="list-style-type: none"> 1. Minimum 1-1/2" Penetration in Wood Blocking 2. Minimum AISI 1018 Steel Screw 3. Maximum 1/4" Shim Space 4. Minimum 1-1/2" thick, Minimum Spruce Pine Fir (SPF), G= 0.42 Wood Blocking Substrate
Concrete	3/16" ITW Redhead Tapcon Anchor connecting Aluminum Base Flange to Concrete	<ol style="list-style-type: none"> 1. Minimum 2" Embedment 2. Minimum 2" Edge Distance 3. Minimum 4" Spacing 4. Maximum 1/4" Shim Space 5. Minimum 6" thick, Minimum f'c = 3,000 psf Un-Cracked Normal Weight Concrete

Perimeter Anchor Requirements for Fixed Skylights at 75.19 psf		
Skylight Sizes (Feet)	Anchor Type	Number of Fasteners Needed Per Side
1.5 x 1.5 1.5 x 2 1.5 x 4 2 x 2 2 x 3	#10-16 TEKS Screw to Steel	Two (2)
	#10 Wood Screw to Wood Blocking	Two (2)
	3/16" Tapcon Anchor to Concrete	Two (2)
2 x 3.5 2 x 4 3 x 3	#10-16 TEKS Screw to Steel	Two (2)
	#10 Wood Screw to Wood Blocking	Three (3)
	3/16" Tapcon Anchor to Concrete	Two (2)
3 x 4 3.5 x 3.5	#10-16 TEKS Screw to Steel	Two (2)
	#10 Wood Screw to Wood Blocking	Four (4)
	3/16" Tapcon Anchor to Concrete	Two (2)
3.5 x 4	#10-16 TEKS Screw to Steel	Two (2)
	#10 Wood Screw to Wood Blocking	Five (5)
	3/16" Tapcon Anchor to Concrete	Two (2)
4 x 4	#10-16 TEKS Screw to Steel	Three (3)
	#10 Wood Screw to Wood Blocking	Five (5)
	3/16" Tapcon Anchor to Concrete	Two (2)

Notes:

1. Place perimeter anchorages within 12" of corner, then per number of fasteners per side in the table above, spaced equally.
2. 3/16" Tapcon Anchor shall have minimum 2" embedment, minimum 2" edge distance and minimum 4" spacing in Concrete.
3. The building substrate is assumed to have the integrity to resist the anchor loads developed by the products.

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