

THESE WINDOWS ARE NOT RATED FOR IMPACT.

INSTALLATION OF THIS PRODUCT IN THE HVHZ AREA REQUIRES THE USE OF APPROVED SHUTTERS OR EXTERNAL PROTECTION DEVICES COMPLYING WITH HVHZ REQUIREMENTS.

INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA MUST MEET THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

SERIES-4230
ALUMINUM FIXED WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2 & 3.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIX./FIX. OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING F.B.C. APPROVED MULLIONS IN BETWEEN.

LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

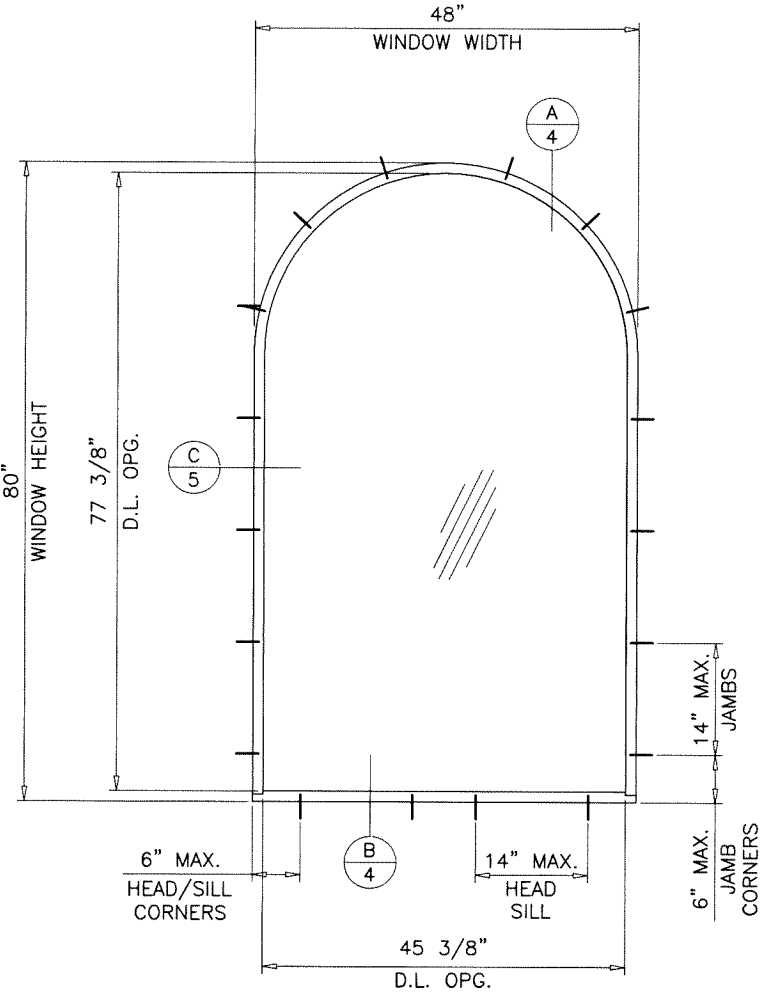
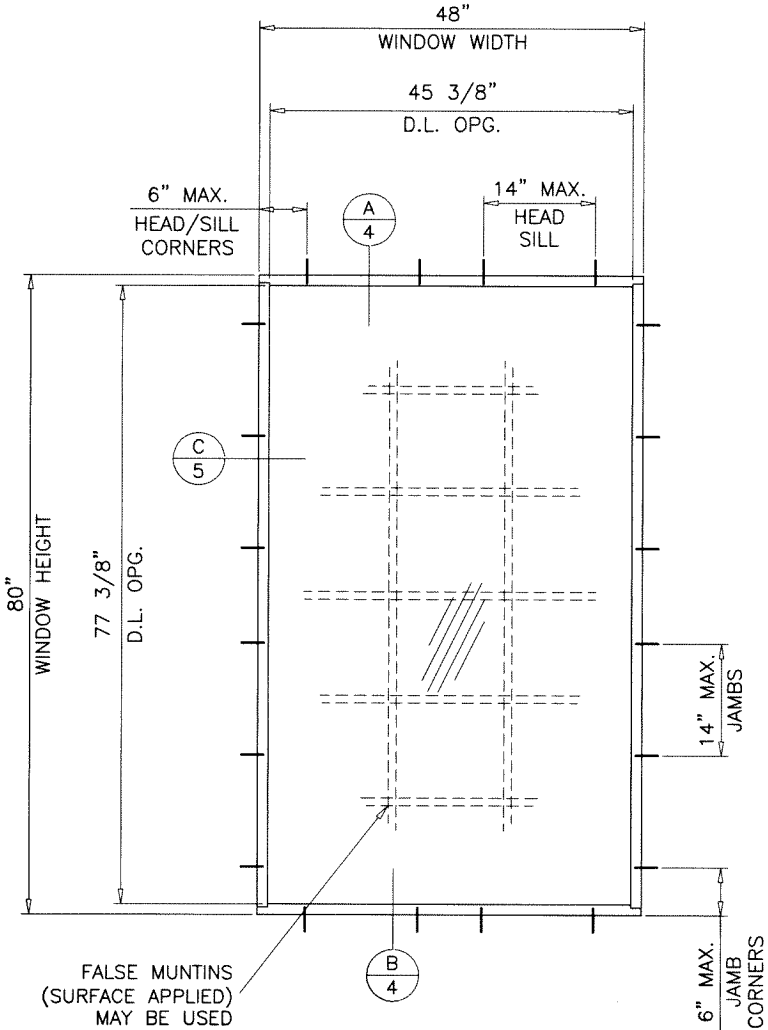
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE.

LABELING TO COMPLY WITH SECTION 1709.9.2.



TYPICAL ELEVATIONS
(TESTED UNITS)

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



Sealed: 7/26/2023 FL #31134



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP -ANL\19-117F-SWM

SERIES-4230 ALUMINUM FIXED WDW. (N.I.)

Sunshine Windows Manufacturing, Inc.
1785 West 33rd Place
Hialeah, FL. 33012
Tel. (305) 364-9952 Fax. (305) 828-5118

no	date	by	description
A	08.27.18		UPDATED TO 2020 FBC
B	07.21.23		UPDATED TO 2023 FBC

date: 11-06-19

scale: 1/2"=1'-0"

dr. by: TARIQ

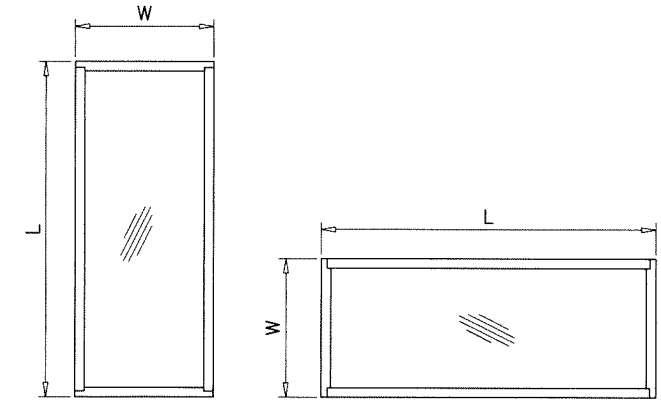
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drawing no.

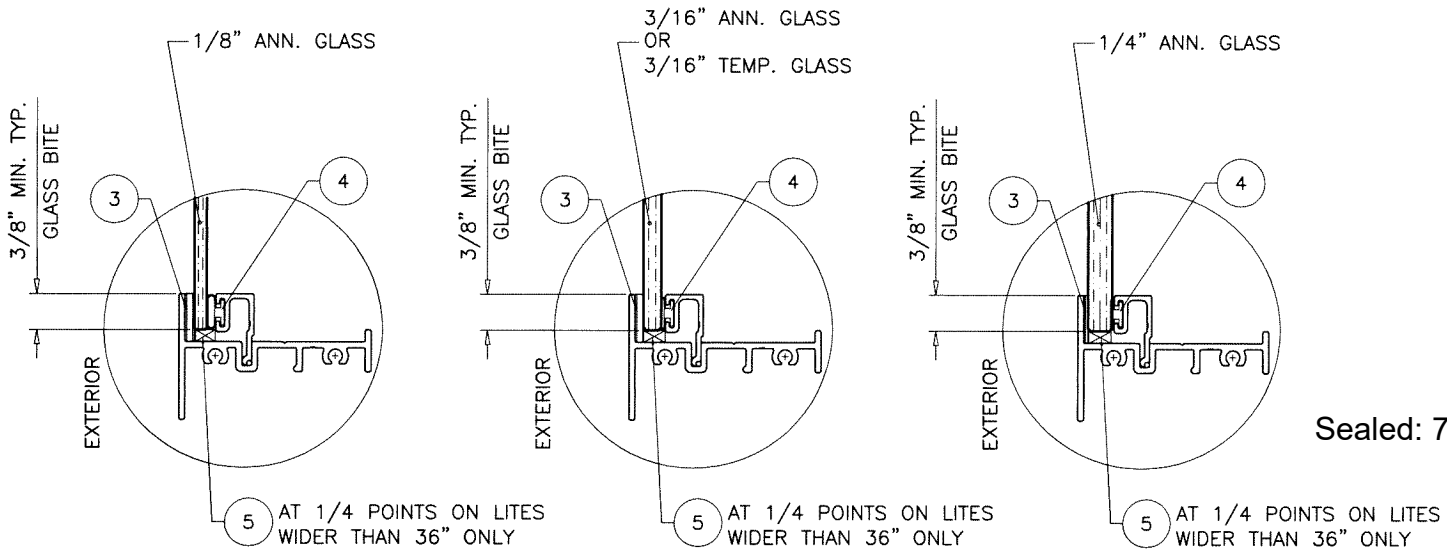
19-117F

sheet 1 of 6

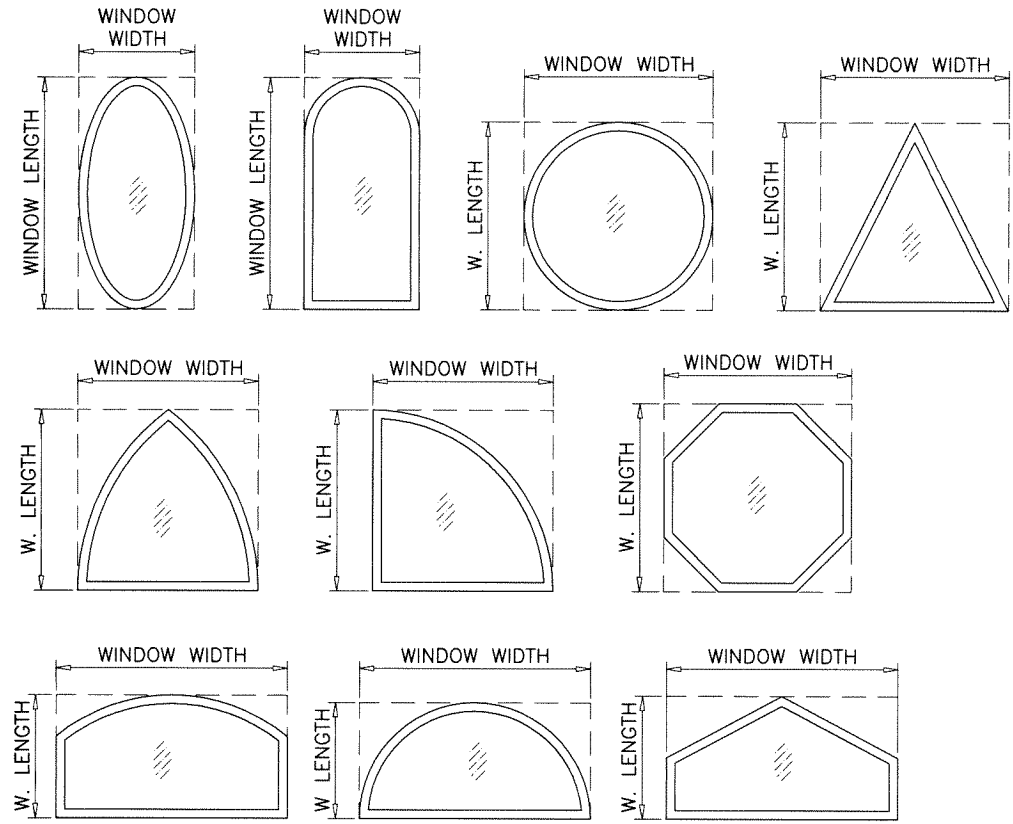
DESIGN LOAD CAPACITY - PSF									
FRAME DIMS.		1/8" ANN. GLASS		3/16" ANN. GLASS		1/4" ANN. GLASS		3/16" TEMP. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	26"	62.4	62.4	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		45.9	45.9	56.9	56.9	75.0	75.0	100.0	100.0
37"		45.9	45.9	56.9	56.9	75.0	75.0	100.0	100.0
53-1/8"		39.4	39.4	56.5	56.5	75.0	75.0	100.0	100.0
19-1/8"	38-3/8"	62.4	62.4	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		45.0	45.0	55.8	55.8	75.0	75.0	100.0	100.0
37"		-	-	40.0	40.0	62.2	62.2	100.0	100.0
53-1/8"		-	-	38.6	38.6	59.9	59.9	100.0	100.0
19-1/8"	50-5/8"	52.1	52.1	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		41.8	41.8	55.8	55.8	75.0	75.0	100.0	100.0
37"		-	-	40.0	40.0	62.2	62.2	100.0	100.0
53-1/8"		-	-	29.2	29.2	45.4	45.4	82.6	82.6
19-1/8"	56"	49.3	49.3	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		-	-	54.9	54.9	75.0	75.0	100.0	100.0
37"		-	-	40.0	40.0	62.2	62.2	100.0	100.0
53-1/8"		-	-	-	-	43.3	43.3	78.7	78.7
19-1/8"	63"	46.8	46.8	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		-	-	53.0	53.0	75.0	75.0	100.0	100.0
37"		-	-	40.0	40.0	57.3	57.3	100.0	100.0
53-1/8"		-	-	-	-	43.3	43.3	78.7	78.7
19-1/8"	72"	44.4	44.4	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		-	-	51.3	51.3	75.0	75.0	100.0	100.0
37"		-	-	39.0	39.0	49.0	49.0	100.0	100.0
53-1/8"		-	-	-	-	43.3	43.3	78.7	78.7
19-1/8"	76"	-	-	60.0	60.0	75.0	75.0	100.0	100.0
26-1/2"		-	-	50.7	50.7	75.0	75.0	100.0	100.0
37"		-	-	-	-	46.1	46.1	100.0	100.0
53-1/8"		-	-	-	-	41.0	41.0	78.7	78.7



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE
ORIENTED VERTICALLY OR HORIZONTALLY
AS SHOWN ABOVE.



GLAZING OPTIONS



ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE
VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS
SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS).

Sealed: 7/26/2023



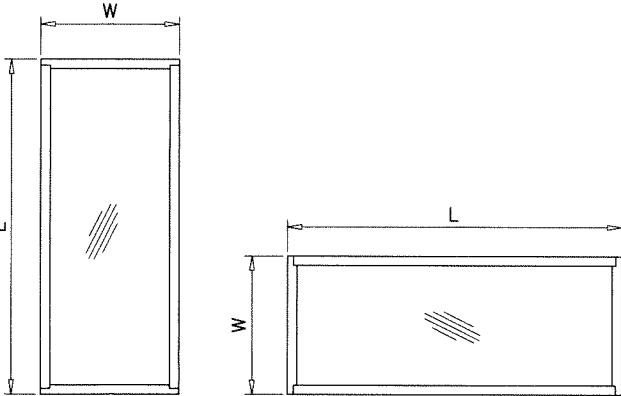
FL #31134

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dr. by: TARIQ
chk. by:
drawing no.
19-117F
sheet 2 of 6

DESIGN LOAD CAPACITY – PSF									
FRAME DIMS.		1/8" ANN. GLASS		3/16" ANN. GLASS		1/4" ANN. GLASS		3/16" TEMP. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
24"	48"	49.7	49.7	60.0	60.0	75.0	75.0	100.0	100.0
30"		–	–	49.3	49.3	75.0	75.0	100.0	100.0
36"		–	–	41.1	41.1	63.9	63.9	100.0	100.0
42"		–	–	35.2	35.2	54.8	54.8	100.0	100.0
48"		–	–	30.8	30.8	47.9	47.9	87.1	87.1
54"		–	–	30.8	30.8	47.9	47.9	87.1	87.1
24"	60"	–	–	57.8	57.8	75.0	75.0	100.0	100.0
30"		–	–	49.3	49.3	73.4	73.4	100.0	100.0
36"		–	–	41.1	41.1	61.4	61.4	100.0	100.0
42"		–	–	35.2	35.2	54.8	54.8	100.0	100.0
48"		–	–	–	–	47.9	47.9	87.1	87.1
54"		–	–	–	–	42.6	42.6	77.4	77.4
24"	72"	–	–	55.5	55.5	75.0	75.0	100.0	100.0
30"		–	–	44.3	44.3	62.5	62.5	100.0	100.0
36"		–	–	39.2	39.2	49.7	49.7	100.0	100.0
42"		–	–	–	–	46.5	46.5	100.0	100.0
48"		–	–	–	–	45.2	45.2	87.1	87.1
54"		–	–	–	–	42.6	42.6	77.4	77.4
24"	84"	–	–	54.0	54.0	75.0	75.0	100.0	100.0
30"		–	–	39.8	39.8	57.4	57.4	100.0	100.0
36"		–	–	–	–	42.1	42.1	100.0	100.0
42"		–	–	–	–	38.5	38.5	100.0	100.0
48"		–	–	–	–	37.4	37.4	87.1	87.1
54"		–	–	–	–	–	–	77.4	77.4
24"	96"	–	–	52.9	52.9	75.0	75.0	100.0	100.0
30"		–	–	–	–	53.9	53.9	100.0	100.0
36"		–	–	–	–	38.8	38.8	100.0	100.0
42"		–	–	–	–	31.9	31.9	100.0	100.0
48"		–	–	–	–	–	–	87.1	87.1
54"		–	–	–	–	–	–	–	–
24"	108"	–	–	52.0	52.0	75.0	75.0	100.0	100.0
30"		–	–	–	–	51.6	51.6	100.0	100.0
36"		–	–	–	–	36.4	36.4	100.0	100.0
42"		–	–	–	–	–	–	98.1	98.1
46"		–	–	–	–	–	–	82.6	82.6
54"		–	–	–	–	–	–	–	–
24"	120"	–	–	–	–	75.0	75.0	100.0	100.0
30"		–	–	–	–	50.1	50.1	100.0	100.0
36"		–	–	–	–	–	–	95.3	95.3



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE
ORIENTED VERTICALLY OR HORIZONTALLY
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NOTE:
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BASED ON ASTM E1300–09 (3 SEC. GUSTS).

Sealed: 7/26/2023



FL #31134

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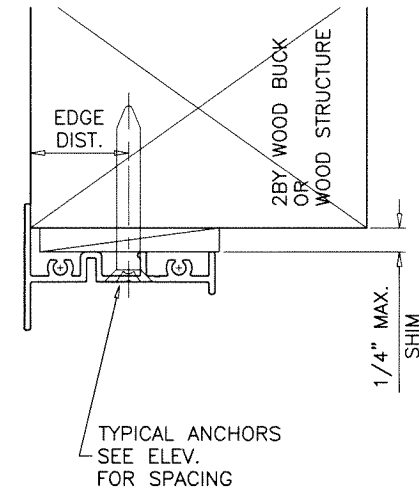
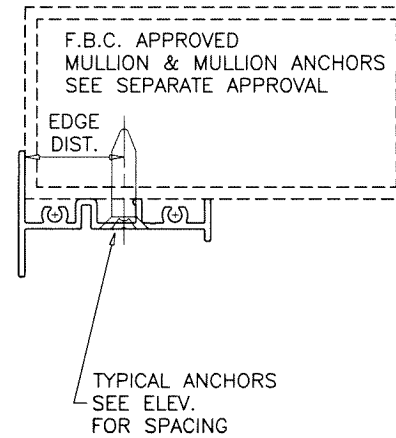
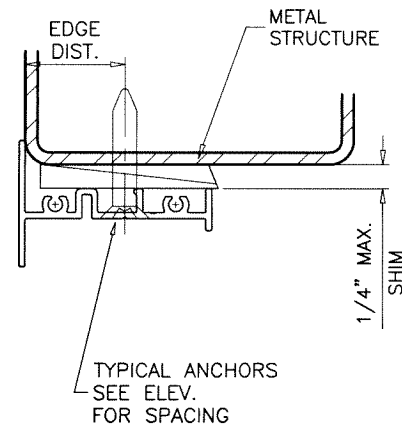
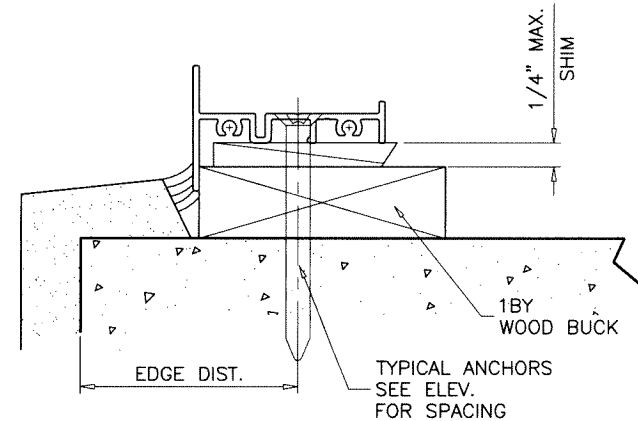
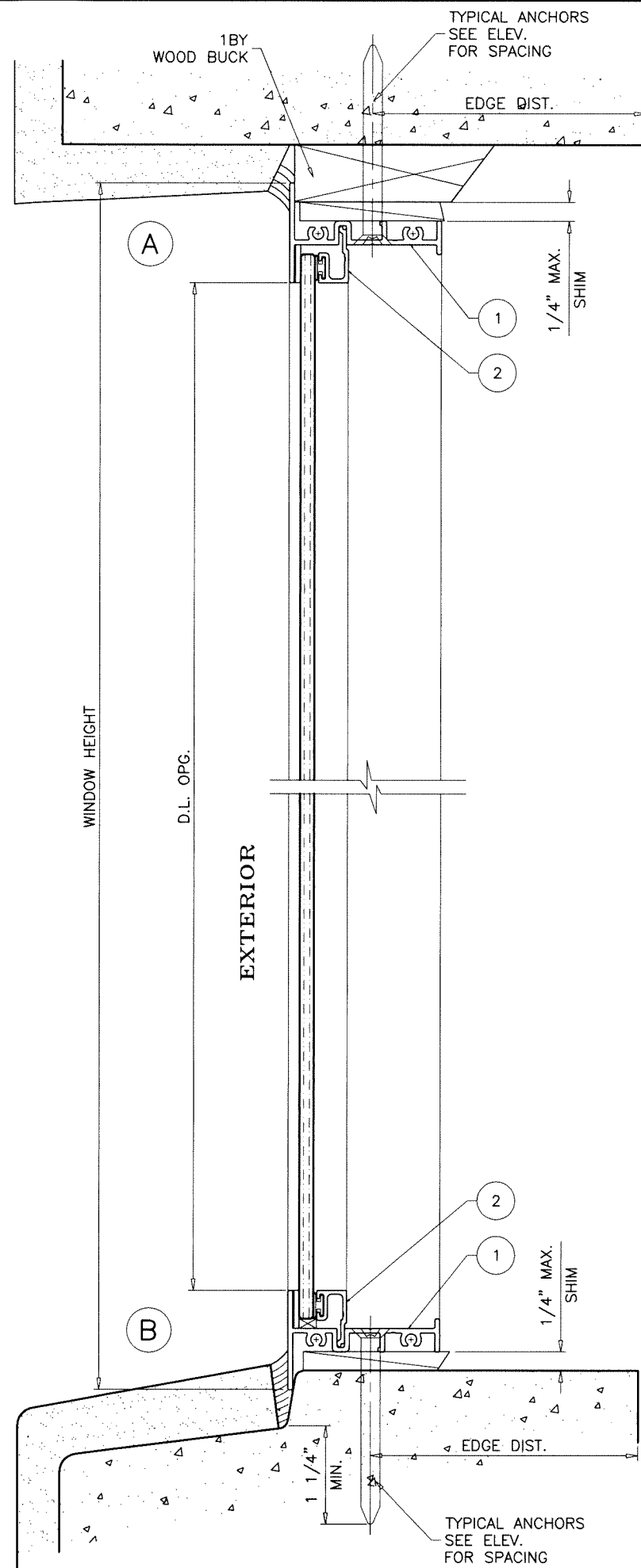
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drawing no.

19-117F

sheet 3 of 6

COMP-ANL\19-117F-SWM



WOOD BUCKS AND METAL STRUCTURE NOT BY 'SUNSHINE WDWS.' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

INTO F.B.C. APPROVED MULLIONS
 OR

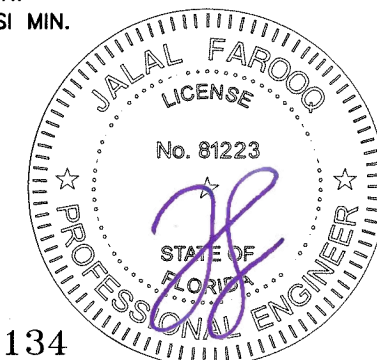
INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND BLOCKS = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

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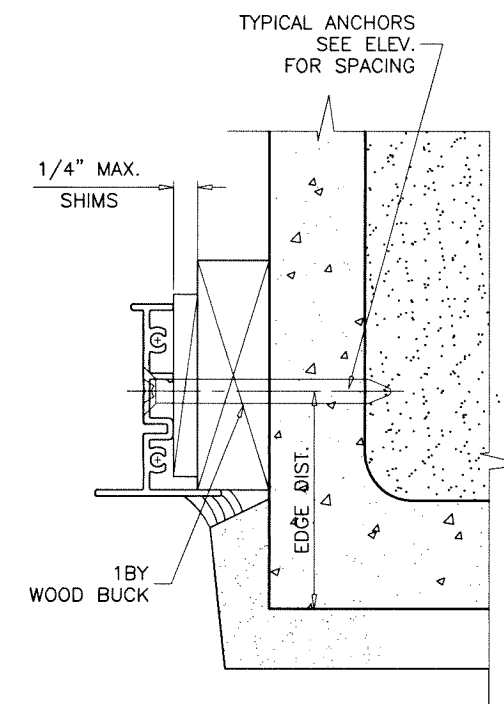
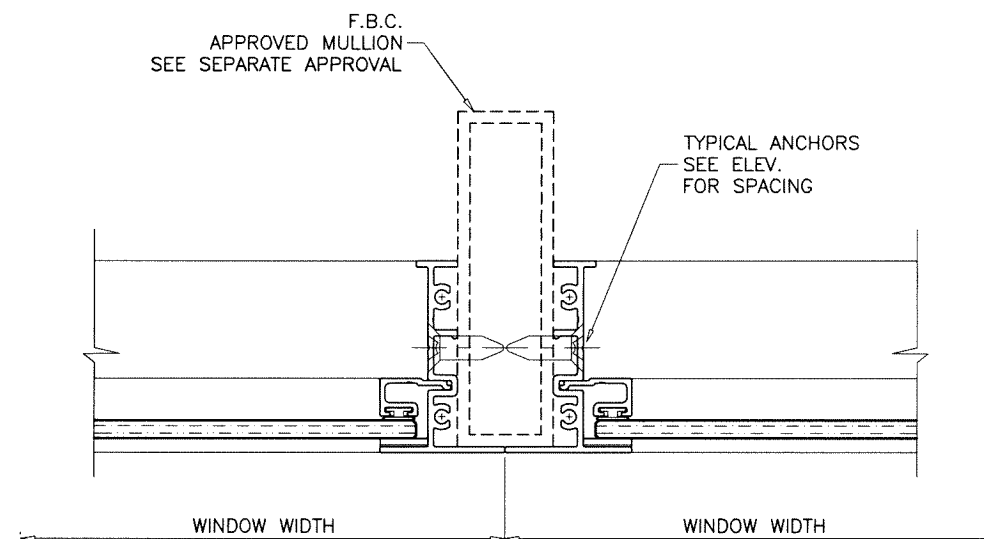
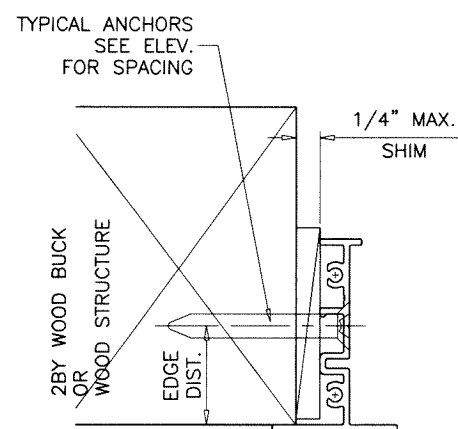
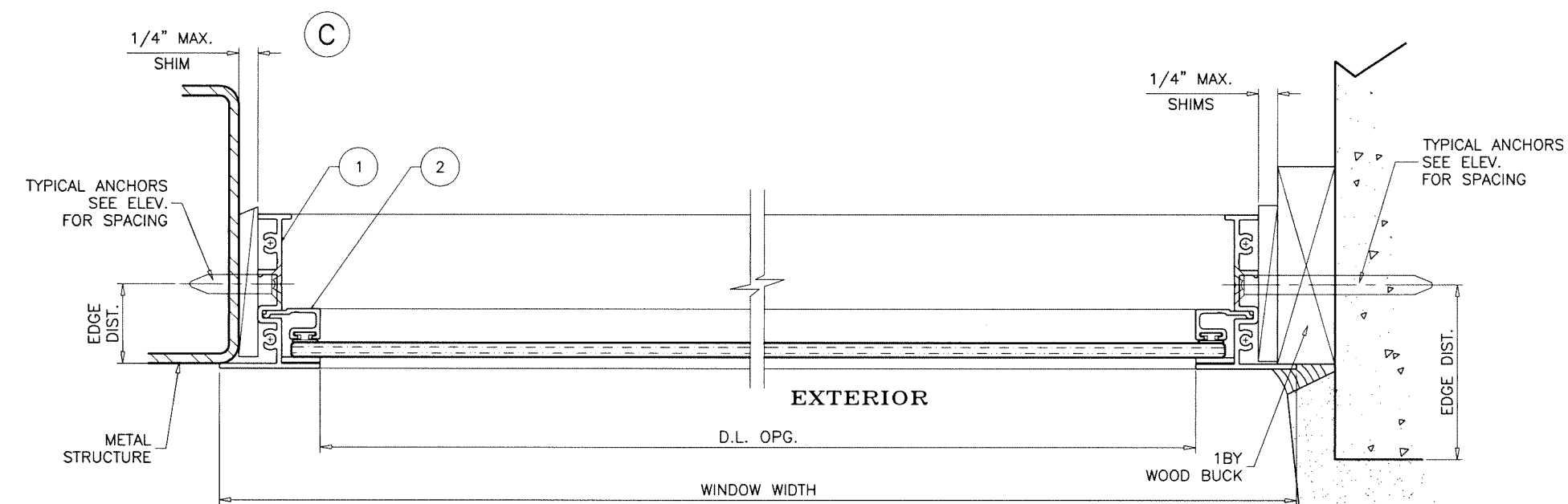
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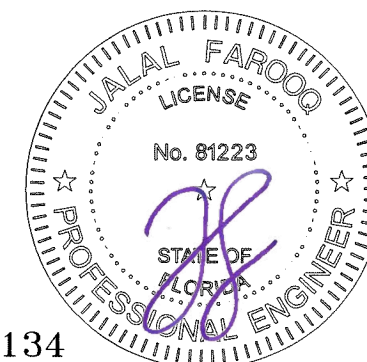
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 sheet 4 of 6



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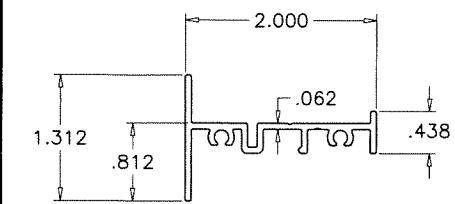
SUNSHINE 1200 ALUMINUM FINISH WDM. (N.A.)

Sunshine Windows Manufacturing, Inc.

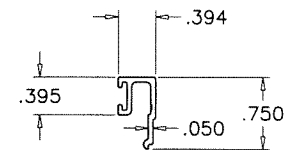
SUNSHINE WINDOWS
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Hialeah, FL. 33012

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1 WINDOW FRAME

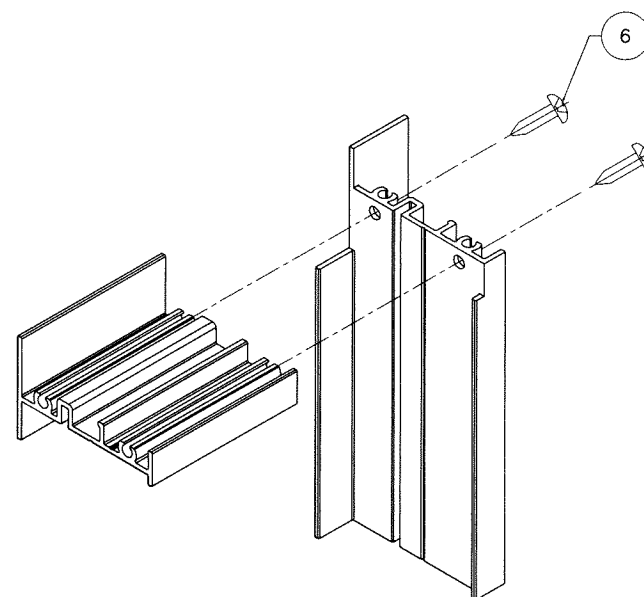


2 GLZING BEAD

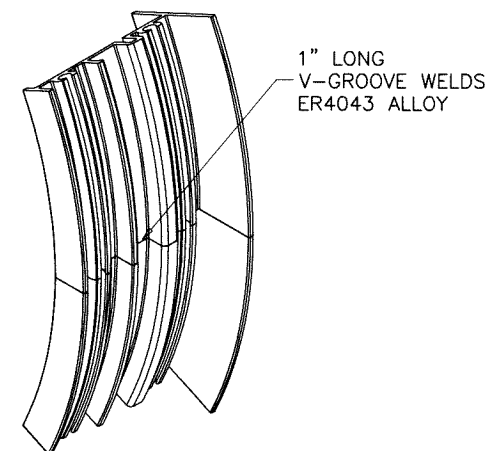
ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	SW-101	4	WINDOW FRAME	6063-T6	-
2	SW-102	4	GLAZING BEAD	6063-T6	-
3	750	AS REQD.	DOUBLE FACE GLAZING TAPE (1/8" X 1/2")	PE FOAM	ZIALOC
4	SW-3082	AS REQD.	GLAZING BEAD BULB	TPV/ POLYPROPYLENE	MELTPPOINT
5	SBEP2	AS REQD.	SETTING BLOCKS AT 1/4 POINTS (1/4" X 5/8")	EPDM	DUROMETER 80±5 SHORE A
6	#8 X 1"	AS REQD.	FRAME ASSEMBLY FASTENERS	CRS	P.H. SMS
7	BOSTIK 915	AS REQD.	EXTERIOR CORNER SEALANT	POLYURETHANE	-
8	-	-	-	-	-

SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH SCHNEE MOREHEAD SM-5504 JOINT SEALER.

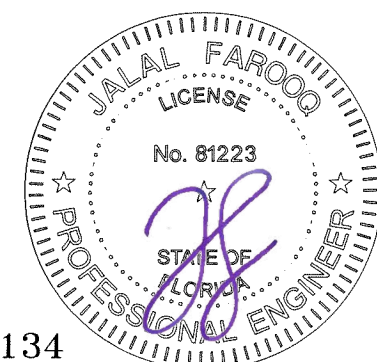


RECT. OR SQUARE WINDOWS



CIRCULAR WINDOWS

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