



**Product Approval**  
USER: Public User

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OFFICE OF THE SECRETARY

FL #	FL29240-R4								
Application Type	Revision								
Code Version	2023								
Application Status	Approved								
Comments									
Archived	<input type="checkbox"/>								
Product Manufacturer	Sunshine Windows Manufacturing Inc.								
Address/Phone/Email	1745 West 33rd Place Hialeah, FL 33012 (305) 364-9952 Ext 109 noel_m_2001@yahoo.com								
Authorized Signature	Jalal Farooq veronica@afceng.com								
Technical Representative									
Address/Phone/Email									
Quality Assurance Representative									
Address/Phone/Email									
Category	Windows								
Subcategory	Horizontal Slider								
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received								
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq								
Florida License	PE-81223								
Quality Assurance Entity	Keystone Certifications, Inc.								
Quality Assurance Contract Expiration Date	02/28/2029								
Validated By	Abel Carrasco, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received								
Certificate of Independence	<a href="#">FL29240_R4_COI_SS - Certificate of Independence 2023.pdf</a>								
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th><b>Standard</b></th> <th><b>Year</b></th> </tr> </thead> <tbody> <tr> <td>TAS-201</td> <td>1994</td> </tr> <tr> <td>TAS-202</td> <td>1994</td> </tr> <tr> <td>TAS-203</td> <td>1994</td> </tr> </tbody> </table>	<b>Standard</b>	<b>Year</b>	TAS-201	1994	TAS-202	1994	TAS-203	1994
<b>Standard</b>	<b>Year</b>								
TAS-201	1994								
TAS-202	1994								
TAS-203	1994								
Equivalence of Product Standards Certified By									
Sections from the Code									

Product Approval Method

Method 1 Option D

Date Submitted

08/20/2024

Date Validated

08/29/2024

Date Pending FBC Approval

08/31/2024

Date Approved

10/15/2024

**Summary of Products**

FL #	Model, Number or Name	Description
29240.1	Series 1650 Aluminum Horizontal Rolling Window	Non-impact resistant aluminum horizontal rolling window.
<b>Limits of Use</b> <b>Approved for use in HVHZ:</b> Yes <b>Approved for use outside HVHZ:</b> Yes <b>Impact Resistant:</b> No <b>Design Pressure:</b> +80/-100 <b>Other:</b> See drawing 19-01F for span vs load combinations and installation details.		<b>Installation Instructions</b> <a href="#">FL29240_R4_II_SS - 1650 HR (NI) - DWG 19-01F 2023R1.pdf</a> Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL29240_R4_AE_SS - 1650 HR (NI) - PAE 2023 R1.pdf</a> Created by Independent Third Party: Yes
29240.2	Series 1650 Aluminum Horizontal Rolling Window	Large missile impact resistant aluminum horizontal rolling window.
<b>Limits of Use</b> <b>Approved for use in HVHZ:</b> Yes <b>Approved for use outside HVHZ:</b> Yes <b>Impact Resistant:</b> Yes <b>Design Pressure:</b> +65/-70 <b>Other:</b> See drawing 19-04F for span vs load combinations and installation details.		<b>Installation Instructions</b> <a href="#">FL29240_R4_II_SS - 1650 HR (LMI) - DWG 19-04F 2023R1.pdf</a> Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <a href="#">FL29240_R4_AE_SS - 1650 HR (LMI) - PAE 2023 R1.pdf</a> Created by Independent Third Party: Yes

[Back](#)

[Next](#)

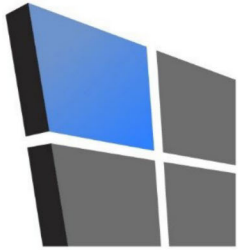
Contact Us :: [2601 Blair Stone Road, Tallahassee FL 32399](#) Phone: 850-487-1824

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**Product Approval Accepts:**





# AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

## PRODUCT APPROVAL EVALUATION RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 29240

Date: 07/28/2024

**Detailed Product Description:**

**Manufacturer:** SUNSHINE WINDOWS MANUFACTURING, INC.

**Manufacturer Address:** 1785 W 33 PLACE, HIALEAH, FL 33012

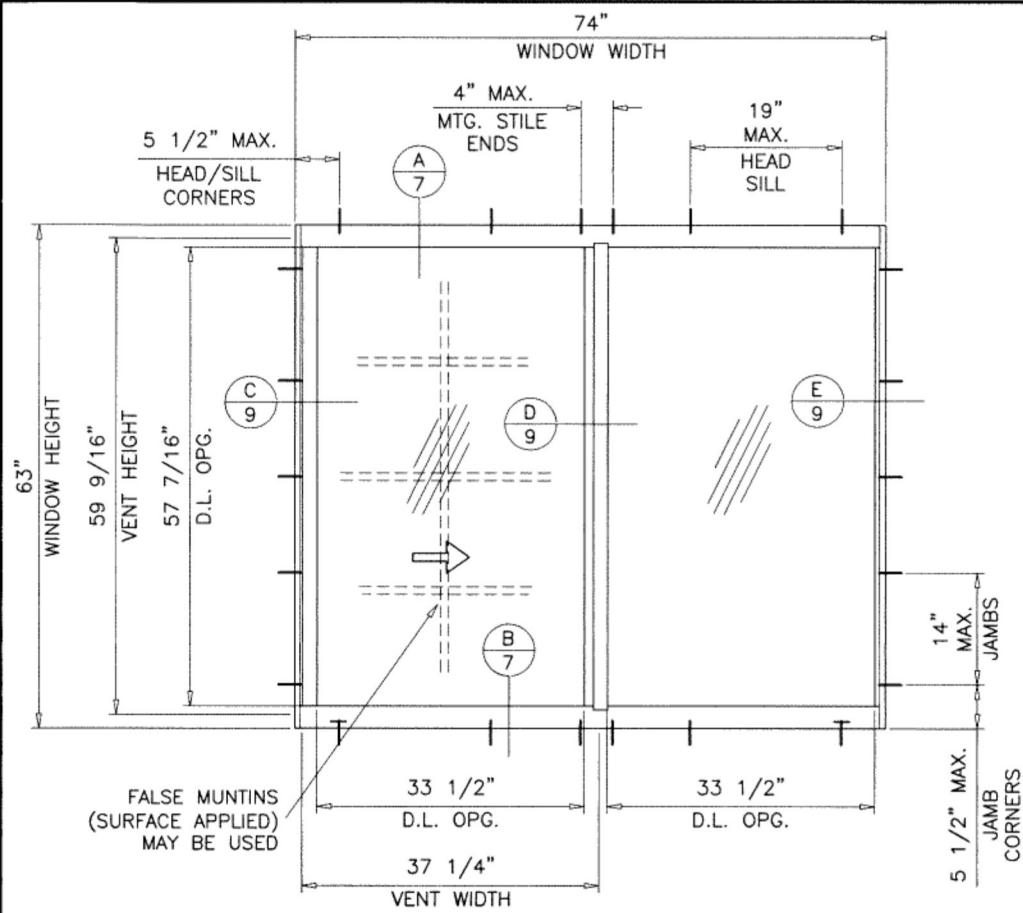
**Model Name:** SERIES "1650" ALUMINUM HORIZONTAL ROLLING WINDOW

**Maximum Load:** +80 PSF, -100 PSF (Non-Impact)

**Installation Drawings #** 19-01F

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.					
For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.					
Comparative analysis used <u> X </u> Yes <u> </u> No					
<b>Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)</b>					
Test	Description	Test Location	Test Report Date	Test Report #	Test Sealed By
ASTM E283	Air Infiltration Leakage	Fenestration Testing Laboratory, Inc	9/28/2018	FTL-10293	Idalmis Ortega, PE
			3/2/2007	FTL-5059	Idalmis Ortega, PE
			3/2/2007	FTL-5060	Idalmis Ortega, PE
			8/27/2007	FTL-5376	Idalmis Ortega, PE
			3/2/2007	FTL-5057	Carlos S Rionda, PE
			1/23/2007	FTL-5058	Carlos S Rionda, PE
			9/14/2007	FTL-5353	Michael R Wenzel, PE
			9/14/2007	FTL-5354	Carlos S Rionda, PE
		QAI	1/26/2024	QAI-13802	Idalmis Ortega, PE
ASTM E331 OR ASTM E547 & TAS 202	Water Penetration	Fenestration Testing Laboratory, Inc	1/7/2019	FTL-10088	Idalmis Ortega, P.E.
			9/28/2018	FTL-10293	Idalmis Ortega, PE
			3/2/2007	FTL-5059	Idalmis Ortega, PE
			3/2/2007	FTL-5060	Idalmis Ortega, PE
			8/27/2007	FTL-5376	Idalmis Ortega, PE
			3/2/2007	FTL-5057	Carlos S Rionda, PE
			1/23/2007	FTL-5058	Carlos S Rionda, PE
			9/14/2007	FTL-5353	Michael R Wenzel, PE
			9/14/2007	FTL-5354	Carlos S Rionda, PE
ASTM E330 & TAS 202	Uniform Static Air Press.	Fenestration Testing Laboratory, Inc	9/28/2018	FTL-10293	Idalmis Ortega, P.E.
			3/2/2007	FTL-5059	Idalmis Ortega, PE
			3/2/2007	FTL-5060	Idalmis Ortega, PE
			8/27/2007	FTL-5376	Idalmis Ortega, PE
			3/2/2007	FTL-5057	Carlos S Rionda, PE
			1/23/2007	FTL-5058	Carlos S Rionda, PE
			9/14/2007	FTL-5353	Michael R Wenzel, PE
			9/14/2007	FTL-5354	Carlos S Rionda, PE
		QAI	1/26/2024	QAI-13802	Idalmis Ortega, PE

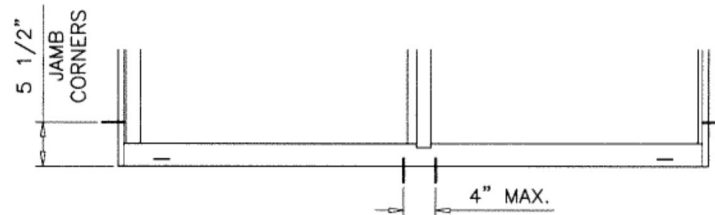




**TYPICAL ELEVATION (TESTED UNIT)**

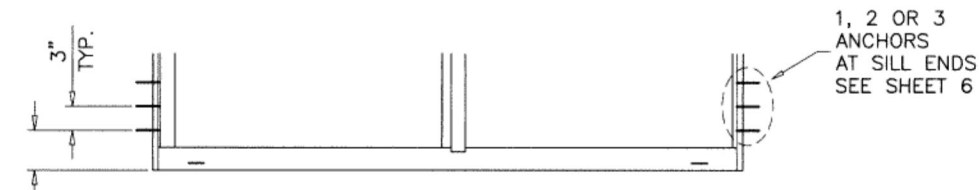
FRAME SILL TYPES '1' & '2'

ANCHORS REQD. AT SILL  
SEE SHEET 3 FOR SILL TYPE '1' CAPACITY AND SHEET 7 FOR DETAIL  
SEE SHEET 5 FOR SILL TYPE '2' CAPACITY AND SHEET 8 FOR DETAIL



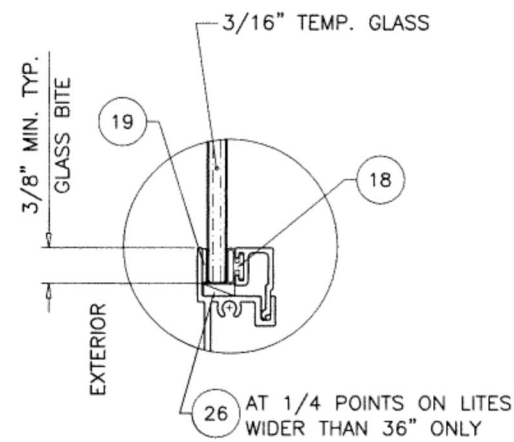
**FRAME SILL TYPE '1' ONLY**

ANCHORS REQD. AT MTG. STILE LOCATION ONLY  
SEE SHEET 4 FOR SILL TYPE '1' CAPACITY AND SHEET 7 FOR DETAIL



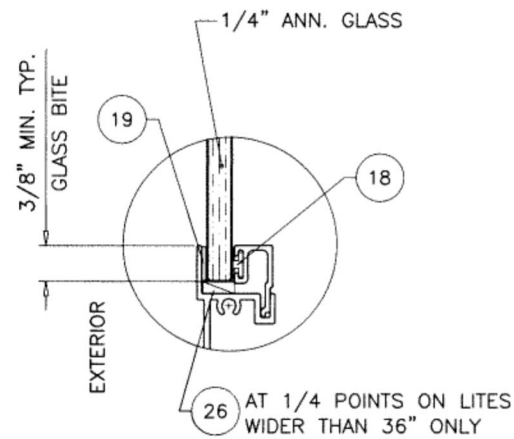
**FRAME SILL TYPE '1' & '3' ONLY**

ANCHORS NOT REQD.  
SEE SHEET 6 FOR SILL TYPE '1' CAPACITY AND SHEET 7 FOR DETAIL  
SEE SHEET 6 FOR SILL TYPE '3' CAPACITY AND SHEET 8 FOR DETAIL



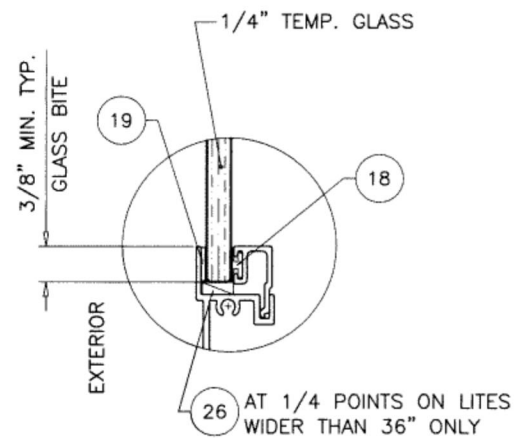
**GLASS TYPE 'A'**

3/16" TEMP. GLASS



**GLASS TYPE 'B'**

1/4" ANN. GLASS



**GLASS TYPE 'C'**

1/4" TEMP. GLASS

**GLAZING OPTIONS**

**SERIES-1650**

**ALUMINUM HORIZONTAL ROLLING WINDOW**

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 3 THRU 6.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF H.R./H.R. OR HORIZONTAL ROLLING 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 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 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.

THESE WINDOWS ARE NOT RATED FOR IMPACT.

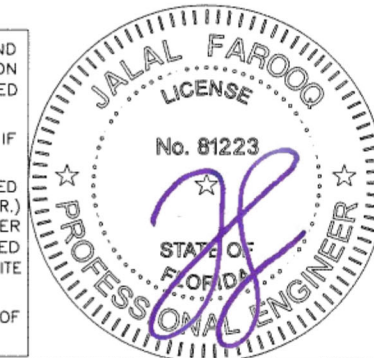
INSTALLATION OF THIS PRODUCT IN THE HVHZ AREA REQUIRES THE USE OF APPROVED SHUTTERS OR EXTERNAL PROTECTION DEVICES COMPLYING WITH HVHZ REQUIREMENTS.

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

Sealed: 8/16/2024

FL #29240

- 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.



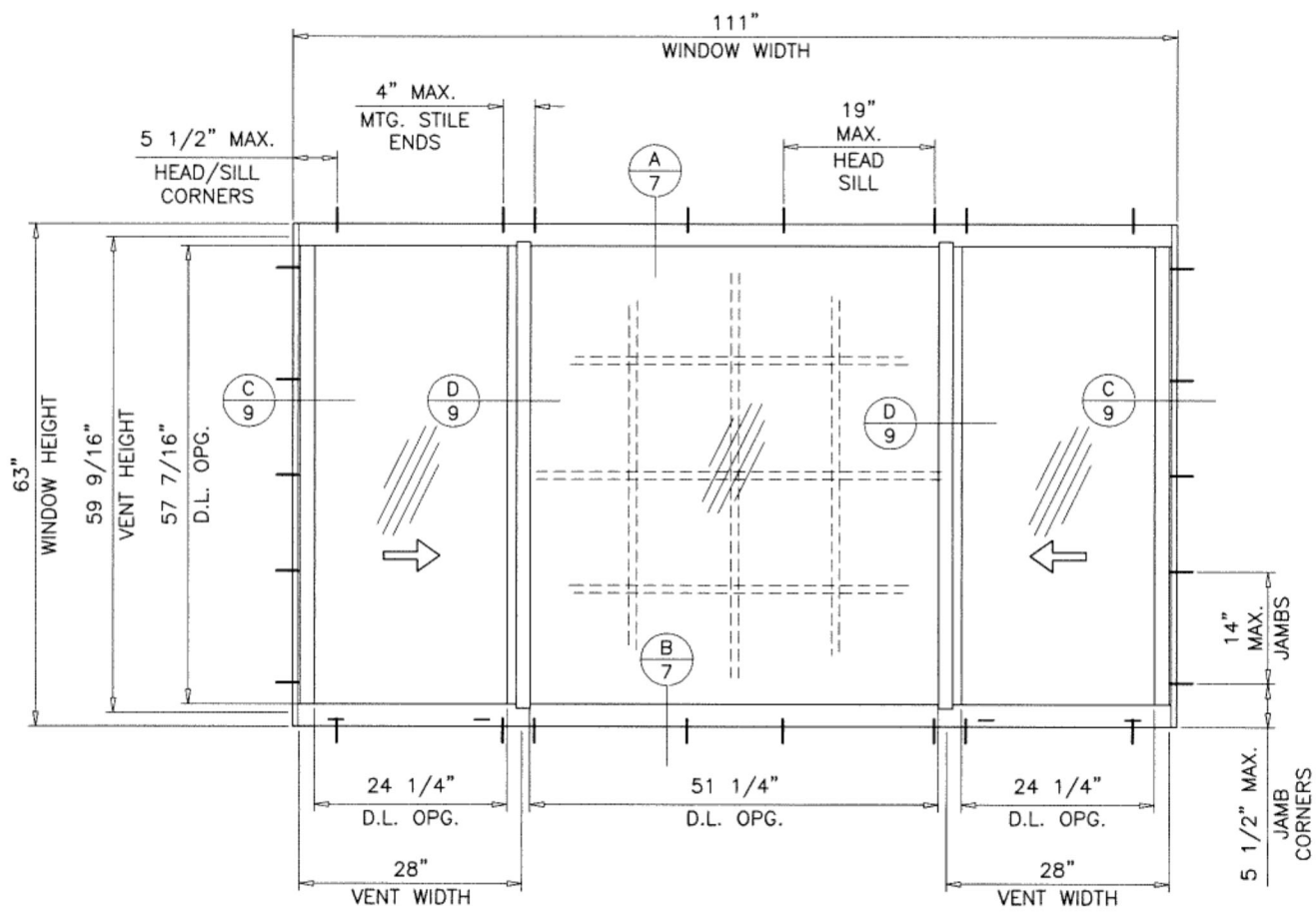
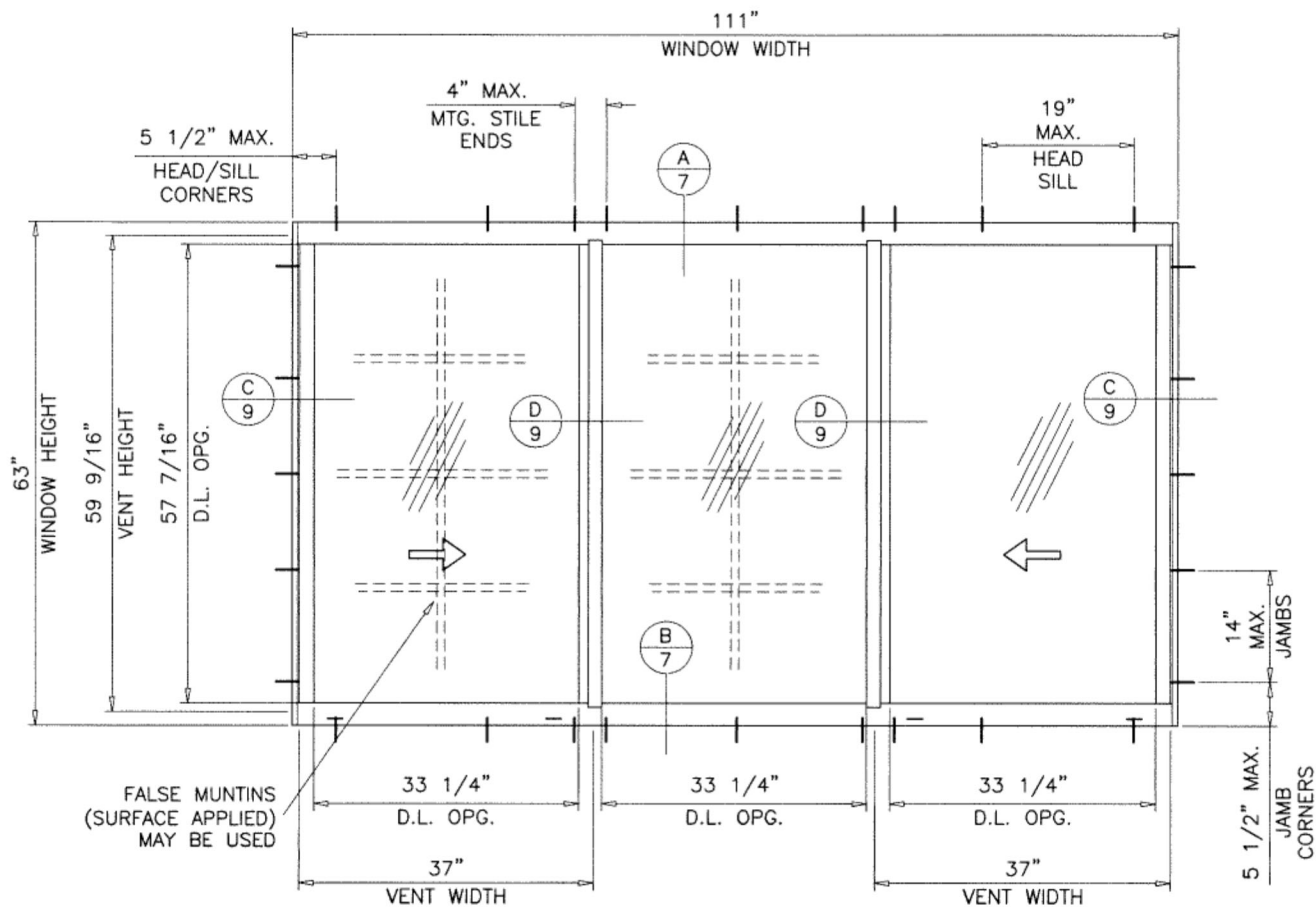
**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 COMP-ANL\19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
**Sunshine Windows Manufacturing, Inc.**  
 1785 West 33rd Place  
 Hialeah, FL. 33012  
 Tel. (305) 364-9952 Fax. (305) 828-5118

no	date	description	by
A	08.31.20	UPDATED TO 2020 FBC	
B	07.22.22	SILL OPTION ADDED	
C	07.21.23	UPDATED TO 2023 FBC	
D	07.15.24	ALT. HEAD/SILL OPTION ADDED	

date:	01-04-19
scale:	1/2"=1'-0"
dr. by:	TARIQ
chk. by:	

drawing no.  
**19-01F**  
 sheet 1 of 11

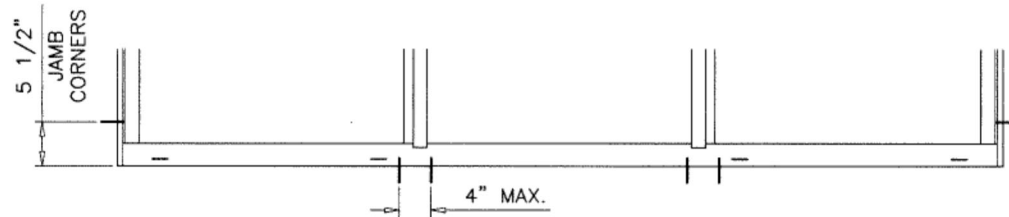


**TYPICAL ELEVATION (TESTED UNIT)**

FRAME SILL TYPES '1' & '2'

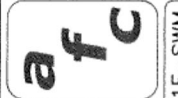
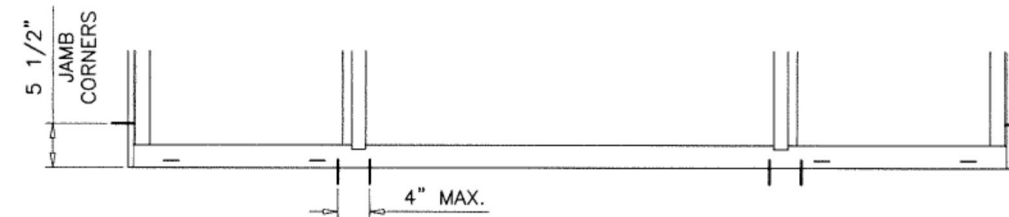
ANCHORS REQD. AT SILL

SEE SHEET 3 FOR SILL TYPE '1' CAPACITY AND SHEET 7 FOR DETAIL  
SEE SHEET 5 FOR SILL TYPE '2' CAPACITY AND SHEET 8 FOR DETAIL



**FRAME SILL TYPE '1' ONLY**

ANCHORS REQD. AT MTG. STILE LOCATION ONLY  
SEE SHEET 4 FOR SILL TYPE '1' CAPACITY AND SHEET 7 FOR DETAIL



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)

**Sunshine Windows Manufacturing, Inc.**

1785 West 33rd Place  
Hialeah, FL. 33012

Tel. (305) 364-9952 Fax. (305) 828-5118

revisions:	no	date	by	description

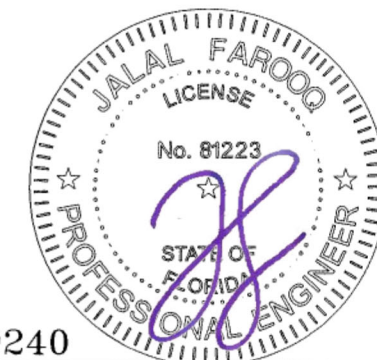
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dr. by: TARIQ  
chk. by:

drawing no.  
**19-01F**

sheet 2 of 11

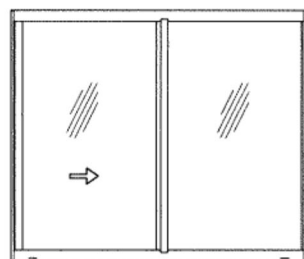
Sealed: 8/16/2024

FL #29240



FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	26"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		80.0	100.0	80.0	100.0	80.0	100.0
26-1/2"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		80.0	100.0	80.0	100.0	80.0	100.0
26-1/2"	50-5/8"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		80.0	100.0	80.0	100.0	80.0	100.0
26-1/2"	63"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	92.0	80.0	87.3	80.0	92.0
74"		70.0	74.5	61.2	61.2	70.0	74.5
24"	24"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	100.0	80.0	100.0	80.0	100.0
24"	36"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	100.0	80.0	100.0	80.0	100.0
24"	48"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	100.0	80.0	100.0	80.0	100.0
24"	60"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	90.7	79.5	79.5	80.0	90.7
72"		76.2	81.5	66.7	66.7	76.2	81.5

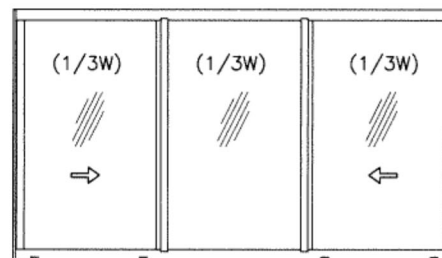


LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	50-5/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	82.4	80.0	100.0
111"		80.0	100.0	80.0	80.5	80.0	100.0
74"	63"	80.0	97.1	80.0	92.2	80.0	97.1
106-1/4"		71.9	76.3	62.8	62.8	71.9	76.3
111"		70.0	74.5	61.2	61.2	70.0	74.5
72"	24"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	36"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	48"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	95.4	80.0	100.0
108"		80.0	100.0	80.0	86.7	80.0	100.0
72"	60"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	94.9	80.0	87.4	80.0	94.9
96"		80.0	87.2	74.2	74.2	80.0	87.2
108"		76.2	81.5	66.7	66.7	76.2	81.5

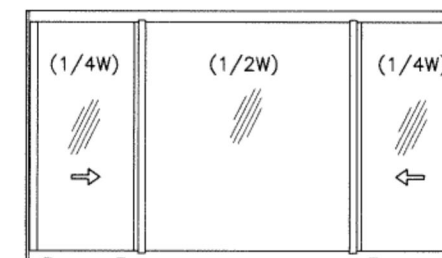


OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

'XOX'

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	74.5	74.5	80.0	100.0
111"		80.0	100.0	70.2	70.2	80.0	100.0
74"	50-5/8"	80.0	100.0	80.0	80.5	80.0	100.0
106-1/4"		80.0	100.0	63.1	63.1	80.0	100.0
111"		80.0	98.4	60.5	60.5	80.0	98.4
74"	63"	80.0	92.3	61.2	61.2	80.0	92.3
106-1/4"		71.4	75.9	52.3	52.3	71.4	75.9
111"		70.0	74.6	50.8	50.8	70.0	74.6
72"	24"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	36"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	86.0	80.0	100.0
108"		80.0	100.0	76.0	76.0	80.0	100.0
72"	48"	80.0	100.0	80.0	86.7	80.0	100.0
84"		80.0	100.0	79.0	79.0	80.0	100.0
96"		80.0	100.0	72.4	72.4	80.0	100.0
108"		80.0	100.0	64.3	64.3	80.0	100.0
72"	60"	80.0	100.0	66.7	66.7	80.0	100.0
84"		80.0	91.9	61.2	61.2	80.0	91.9
96"		80.0	85.9	58.6	58.6	80.0	85.9
108"		76.5	82.0	54.2	54.2	76.5	82.0



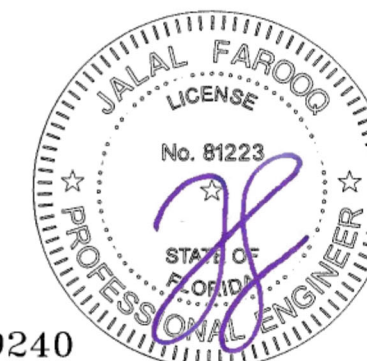
OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

'XOX'

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Sealed: 8/16/2024

FL #29240



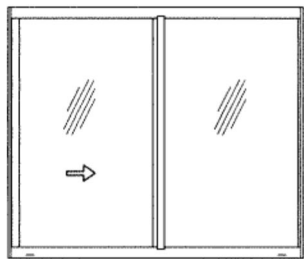
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
**Sunshine Windows Manufacturing, Inc.**  
1785 West 33rd Place  
Hialeah, FL. 33012  
Tel. (305) 364-9952 Fax. (305) 828-5118

revisions:	no.	date	description
date:	01-04-19	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.	19-01F		
sheet	3 of 11		

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)							
SILL ANCHORS AT MTG. STILE ONLY							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	26"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		80.0	100.0	80.0	100.0	80.0	100.0
26-1/2"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		80.0	100.0	80.0	100.0	80.0	100.0
26-1/2"	50-5/8"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0
74"		79.6	79.6	79.6	79.6	79.6	79.6
26-1/2"	63"	80.0	100.0	80.0	100.0	80.0	100.0
37"		80.0	100.0	80.0	100.0	80.0	100.0
53-1/8"		80.0	89.1	80.0	87.3	80.0	89.1
74"		64.0	64.0	61.2	61.2	64.0	64.0
24"	24"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	100.0	80.0	100.0	80.0	100.0
24"	36"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	100.0	80.0	100.0	80.0	100.0
24"	48"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0
72"		80.0	86.3	80.0	86.0	80.0	86.3
24"	60"	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	82.9	79.5	79.5	80.0	82.9
72"		69.1	69.1	66.7	66.7	69.1	69.1

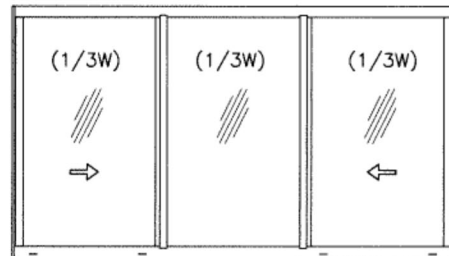


LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS AT MTG. STILE ONLY							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	50-5/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	83.2	80.0	82.4	80.0	83.2
111"		79.6	79.6	79.6	79.6	79.6	79.6
74"	63"	80.0	96.0	80.0	92.2	80.0	96.0
106-1/4"		66.9	66.9	62.8	62.8	66.9	66.9
111"		64.0	64.0	61.2	61.2	64.0	64.0
72"	24"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	36"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	48"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	97.1	80.0	95.4	80.0	97.1
108"		80.0	86.3	80.0	86.3	80.0	86.3
72"	60"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	88.8	80.0	87.4	80.0	88.8
96"		77.7	77.7	74.2	74.2	77.7	77.7
108"		69.1	69.1	66.7	66.7	69.1	69.1

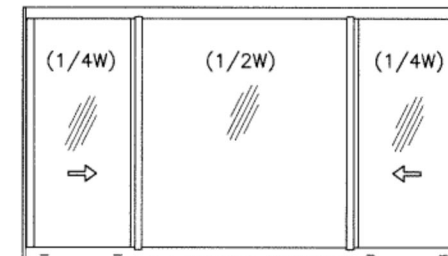


OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

'XOX'

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS AT MTG. STILE ONLY							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	100.0	80.0	100.0	80.0	100.0
111"		80.0	100.0	80.0	100.0	80.0	100.0
74"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0
106-1/4"		80.0	97.6	74.5	74.5	80.0	97.6
111"		80.0	93.4	70.2	70.2	80.0	93.4
74"	50-5/8"	80.0	100.0	80.0	80.5	80.0	100.0
106-1/4"		74.0	74.0	63.1	63.1	74.0	74.0
111"		70.8	70.8	60.5	60.5	70.8	70.8
74"	63"	80.0	85.3	61.2	61.2	80.0	85.3
106-1/4"		59.4	59.4	52.3	52.3	59.4	59.4
111"		56.9	56.9	50.8	50.8	56.9	56.9
72"	24"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	100.0	80.0	100.0
108"		80.0	100.0	80.0	100.0	80.0	100.0
72"	36"	80.0	100.0	80.0	100.0	80.0	100.0
84"		80.0	100.0	80.0	100.0	80.0	100.0
96"		80.0	100.0	80.0	86.0	80.0	100.0
108"		80.0	100.0	76.0	76.0	80.0	100.0
72"	48"	80.0	100.0	80.0	86.7	80.0	100.0
84"		80.0	98.7	79.0	79.0	80.0	98.7
96"		80.0	86.3	72.4	72.4	80.0	86.3
108"		76.7	76.7	64.3	64.3	76.7	76.7
72"	60"	80.0	92.1	66.7	66.7	80.0	92.1
84"		78.9	78.9	61.2	61.2	78.9	78.9
96"		69.1	69.1	58.6	58.6	69.1	69.1
108"		61.4	61.4	54.2	54.2	61.4	61.4



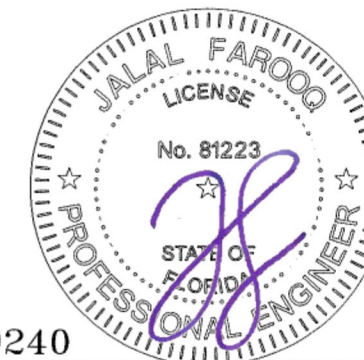
OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

'XOX'

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Sealed: 8/16/2024

FL #29240



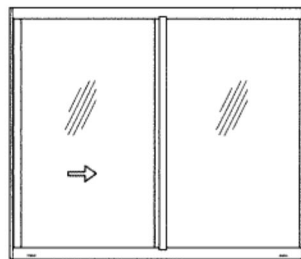
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
**Sunshine Windows Manufacturing, Inc.**  
1785 West 33rd Place  
Hialeah, FL. 33012  
Tel. (305) 364-9952 Fax. (305) 828-5118

revisions:	no.	date	description
date:	01-04-19	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.	19-01F		
sheet	4 of 11		

FRAME SILL TYPE '2'

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	26"	70.0	100.0	70.0	100.0	70.0	100.0
37"		70.0	100.0	70.0	100.0	70.0	100.0
53-1/8"		70.0	100.0	70.0	100.0	70.0	100.0
74"		70.0	100.0	70.0	100.0	70.0	100.0
26-1/2"	38-3/8"	70.0	100.0	70.0	100.0	70.0	100.0
37"		70.0	100.0	70.0	100.0	70.0	100.0
53-1/8"		70.0	99.5	70.0	99.5	70.0	99.5
74"		70.0	81.7	70.0	81.7	70.0	81.7
26-1/2"	50-5/8"	70.0	100.0	70.0	100.0	70.0	100.0
37"		70.0	100.0	70.0	100.0	70.0	100.0
53-1/8"		70.0	91.8	70.0	91.8	70.0	91.8
74"		69.4	69.4	69.4	69.4	69.4	69.4
26-1/2"	63"	70.0	91.6	70.0	91.6	70.0	91.6
37"		70.0	91.6	70.0	91.6	70.0	91.6
53-1/8"		70.0	77.5	70.0	77.5	70.0	77.5
74"		63.7	63.7	61.2	61.2	63.7	63.7
24"	24"	70.0	100.0	70.0	100.0	70.0	100.0
36"		70.0	100.0	70.0	100.0	70.0	100.0
48"		70.0	100.0	70.0	100.0	70.0	100.0
60"		70.0	100.0	70.0	100.0	70.0	100.0
72"		70.0	100.0	70.0	100.0	70.0	100.0
24"	36"	70.0	100.0	70.0	100.0	70.0	100.0
36"		70.0	100.0	70.0	100.0	70.0	100.0
48"		70.0	100.0	70.0	100.0	70.0	100.0
60"		70.0	99.9	70.0	99.9	70.0	99.9
72"		70.0	88.6	70.0	88.6	70.0	88.6
24"	48"	70.0	100.0	70.0	100.0	70.0	100.0
36"		70.0	100.0	70.0	100.0	70.0	100.0
48"		70.0	93.9	70.0	93.9	70.0	93.9
60"		70.0	87.0	70.0	87.0	70.0	87.0
72"		70.0	74.3	70.0	74.3	70.0	74.3
24"	60"	70.0	99.9	70.0	99.9	70.0	99.9
36"		70.0	99.9	70.0	99.9	70.0	99.9
48"		70.0	87.0	70.0	87.0	70.0	87.0
60"		70.0	83.4	79.5	79.5	70.0	83.4
72"		67.8	67.8	66.7	66.7	67.8	67.8



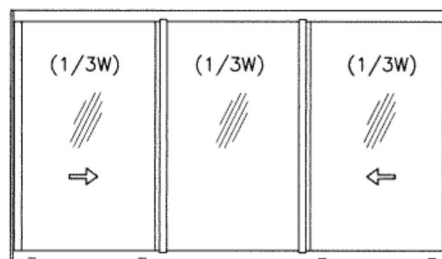
LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

ALL EXT.(+) LOADS SHOWN IN CHART ABOVE ARE FOR WINDOWS WITH APPLIED RISER AT FRAME SILL TYPE '2'.  
FOR FRAME SILL WITHOUT RISER LIMIT EXT.(+) LOADS TO 53.3 PSF SEE DETAIL ON SHEET 8.

FRAME SILL TYPE '2'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	69.3	100.0	69.3	100.0	69.3	100.0
74"	38-3/8"	69.3	86.9	69.3	86.9	69.3	86.9
74"	50-5/8"	69.3	74.1	69.3	74.1	69.3	74.1
74"	63"	61.4	61.4	56.8	61.4	56.8	61.4
72"	24"	69.3	100.0	69.3	100.0	69.3	100.0
84"		69.3	100.0	69.3	100.0	69.3	100.0
72"	36"	69.3	94.0	69.3	94.0	69.3	94.0
84"		69.3	94.0	69.3	94.0	69.3	94.0
72"	48"	69.3	79.3	69.3	79.3	69.3	79.3
84"		69.3	77.6	69.3	77.6	69.3	77.6
72"	60"	67.7	67.7	67.7	67.7	67.7	67.7
84"		67.7	67.7	67.7	67.7	67.7	67.7



OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

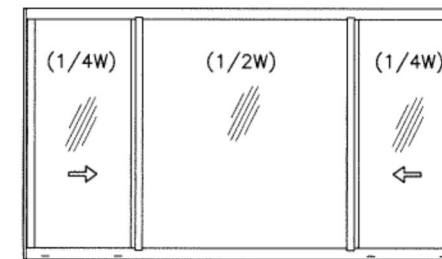
'XOX'

APPLIED RISER AT FRAME SILL TYPE '2' REQUIRED FOR ALL XOX WINDOWS.

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

FRAME SILL TYPE '2'

DESIGN LOAD CAPACITY - PSF (XOX SIZES)							
SILL ANCHORS REQD.							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74"	26"	69.3	100.0	69.3	100.0	69.3	100.0
106-1/4"		69.3	100.0	69.3	100.0	69.3	100.0
111"		69.3	100.0	69.3	100.0	69.3	100.0
74"	38-3/8"	69.3	86.9	69.3	86.9	69.3	86.9
106-1/4"		69.3	80.7	69.3	74.5	69.3	80.7
111"		69.3	79.0	69.3	70.2	69.3	79.0
74"	50-5/8"	69.3	74.1	69.3	74.1	69.3	74.1
106-1/4"		65.5	65.5	63.1	63.1	65.5	65.5
111"		64.4	64.4	60.5	60.5	64.4	64.4
74"	63"	61.4	61.4	61.2	61.2	61.4	61.4
106-1/4"		56.8	56.8	52.3	52.3	56.8	56.8
111"		56.0	56.0	50.8	50.8	56.0	56.0
72"	24"	69.3	100.0	69.3	100.0	69.3	100.0
84"		69.3	100.0	69.3	100.0	69.3	100.0
96"		69.3	100.0	69.3	100.0	69.3	100.0
108"		69.3	100.0	69.3	100.0	69.3	100.0
72"	36"	69.3	94.0	69.3	94.0	69.3	94.0
84"		69.3	94.0	69.3	94.0	69.3	94.0
96"		69.3	86.8	69.3	86.0	69.3	86.8
108"		69.3	81.5	69.3	76.0	69.3	81.5
72"	48"	69.3	79.3	69.3	79.3	69.3	79.3
84"		69.3	77.6	69.3	77.6	69.3	77.6
96"		69.3	70.5	69.3	70.5	69.3	70.5
108"		65.5	65.5	64.3	64.3	65.5	65.5
72"	60"	67.7	67.7	66.7	66.7	67.7	67.7
84"		67.7	67.7	61.2	61.2	67.7	67.7
96"		61.5	61.5	58.6	58.6	61.5	61.5
108"		56.4	56.4	54.2	54.2	56.4	56.4



OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

'XOX'

Sealed: 8/16/2024

FL #29240



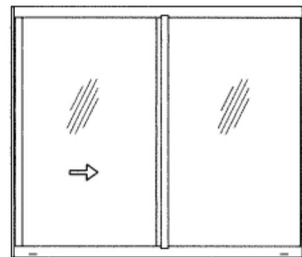
**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 COMP-ANL 19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
**Sunshine Windows Manufacturing, Inc.**  
 1785 West 33rd Place  
 Hialeah, FL. 33012  
 Tel. (305) 364-9952 Fax. (305) 828-5118

revisions:	no.	date	by	description
date:	01-04-19			
scale:	-			
dr. by:	TARIQ			
chk. by:				
drawing no.	19-01F			
sheet	5 of 11			

FRAME SILL TYPE '1'

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)								
SILL ANCHORS NOT REQD.								
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'		NO. OF ANCHORS AT SILL ENDS
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
26-1/2"	26"	80.0	100.0	80.0	100.0	80.0	100.0	2
37"		80.0	100.0	80.0	100.0	80.0	100.0	2
53-1/8"		80.0	100.0	80.0	100.0	80.0	100.0	3
74"		80.0	81.1	80.0	81.1	80.0	81.1	3
26-1/2"	38-3/8"	80.0	100.0	80.0	100.0	80.0	100.0	2
37"		80.0	100.0	80.0	100.0	80.0	100.0	2
53-1/8"		80.0	93.1	80.0	93.1	80.0	93.1	3
74"		66.8	66.8	66.8	66.8	66.8	66.8	3
26-1/2"	50-5/8"	80.0	100.0	80.0	100.0	80.0	100.0	2
37"		80.0	100.0	80.0	100.0	80.0	100.0	2
53-1/8"		79.3	79.3	79.3	79.3	79.3	79.3	3
74"		55.5	55.5	55.5	55.5	55.5	55.5	3
26-1/2"	63"	80.0	100.0	80.0	100.0	80.0	100.0	2
37"		80.0	99.0	80.0	99.0	80.0	99.0	3
53-1/8"		68.9	68.9	68.9	68.9	68.9	68.9	3
74"		44.6	44.6	44.6	44.6	44.6	44.6	3
24"	24"	80.0	100.0	80.0	100.0	80.0	100.0	1
36"		80.0	100.0	80.0	100.0	80.0	100.0	2
48"		80.0	100.0	80.0	100.0	80.0	100.0	2
60"		80.0	100.0	80.0	100.0	80.0	100.0	2
72"		80.0	86.3	80.0	86.3	80.0	86.3	3
24"	36"	80.0	100.0	80.0	100.0	80.0	100.0	1
36"		80.0	100.0	80.0	100.0	80.0	100.0	2
48"		80.0	100.0	80.0	100.0	80.0	100.0	2
60"		80.0	85.3	80.0	85.3	80.0	85.3	3
72"		71.1	71.1	71.1	71.1	71.1	71.1	3
24"	48"	80.0	100.0	80.0	100.0	80.0	100.0	2
36"		80.0	100.0	80.0	100.0	80.0	100.0	2
48"		80.0	90.6	80.0	90.6	80.0	90.6	3
60"		72.5	72.5	72.5	72.5	72.5	72.5	3
72"		60.4	60.4	60.4	60.4	60.4	60.4	3
24"	60"	80.0	100.0	80.0	100.0	80.0	100.0	2
36"		80.0	100.0	80.0	100.0	80.0	100.0	2
48"		78.8	78.8	78.8	78.8	78.8	78.8	3
60"		63.0	63.0	63.0	63.0	63.0	63.0	3
72"		49.5	49.5	49.5	49.5	49.5	49.5	2

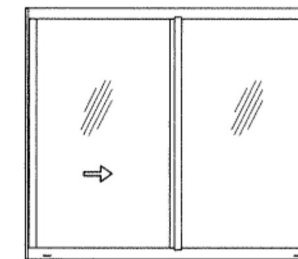


LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

FRAME SILL TYPE '3'

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)								
SILL ANCHORS NOT REQD.								
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'		NO. OF ANCHORS AT SILL ENDS
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
26-1/2"	26"	75.0	90.0	75.0	90.0	75.0	90.0	2
37"		75.0	90.0	75.0	90.0	75.0	90.0	2
53-1/8"		75.0	90.0	75.0	90.0	75.0	90.0	3
26-1/2"	38-3/8"	75.0	90.0	75.0	90.0	75.0	90.0	2
37"		75.0	90.0	75.0	90.0	75.0	90.0	2
53-1/8"		75.0	90.0	75.0	90.0	75.0	90.0	3
26-1/2"	50-5/8"	75.0	90.0	75.0	90.0	75.0	90.0	2
37"		75.0	90.0	75.0	90.0	75.0	90.0	2
53-1/8"		68.3	68.3	68.3	68.3	68.3	68.3	3
26-1/2"	63"	75.0	90.0	75.0	90.0	75.0	90.0	2
37"		74.8	79.1	74.8	79.1	74.8	79.1	3
53-1/8"		54.1	54.9	54.1	54.9	54.1	54.9	3
24"	24"	75.0	90.0	75.0	90.0	75.0	90.0	1
36"		75.0	90.0	75.0	90.0	75.0	90.0	2
48"		75.0	90.0	75.0	90.0	75.0	90.0	2
60"		75.0	90.0	75.0	90.0	75.0	90.0	2
72"		75.0	83.4	75.0	83.4	75.0	73.4	3
24"	36"	75.0	90.0	75.0	90.0	75.0	90.0	1
36"		75.0	90.0	75.0	90.0	75.0	90.0	2
48"		75.0	90.0	75.0	90.0	75.0	90.0	2
60"		75.0	85.3	75.0	85.3	75.0	85.3	3
72"		55.6	55.6	55.6	55.6	55.6	55.6	3
24"	48"	75.0	90.0	75.0	90.0	75.0	90.0	2
36"		75.0	90.0	75.0	90.0	75.0	90.0	2
48"		75.0	90.0	75.0	90.0	75.0	90.0	3
60"		72.1	72.1	72.1	72.1	72.1	72.1	3
72"		41.7	41.7	41.7	41.7	41.7	41.7	3
24"	60"	75.0	90.0	75.0	90.0	75.0	90.0	2
36"		75.0	90.0	75.0	90.0	75.0	90.0	2
48"		65.6	78.8	65.6	78.8	65.6	78.8	3
60"		56.0	57.7	56.0	57.7	56.0	57.7	3
72"		33.4	33.4	33.4	33.4	33.4	33.4	2

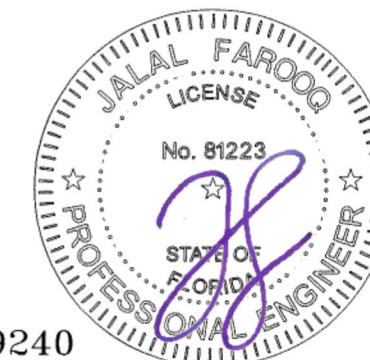


LEFT AND RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

'XO OR OX'

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Sealed: 8/16/2024

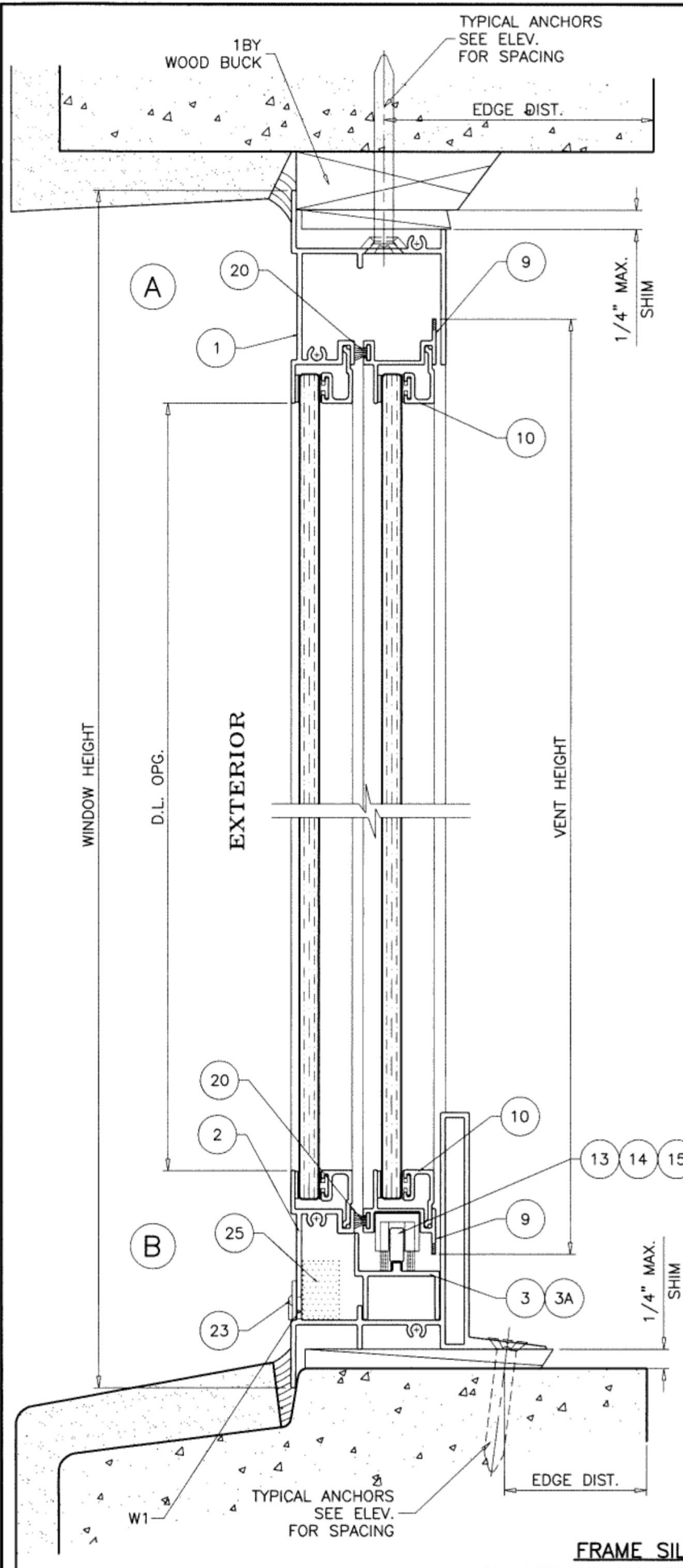


FL #29240

**af c**  
AL-FAROOQ CORPORATION  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\19-01F-SWM

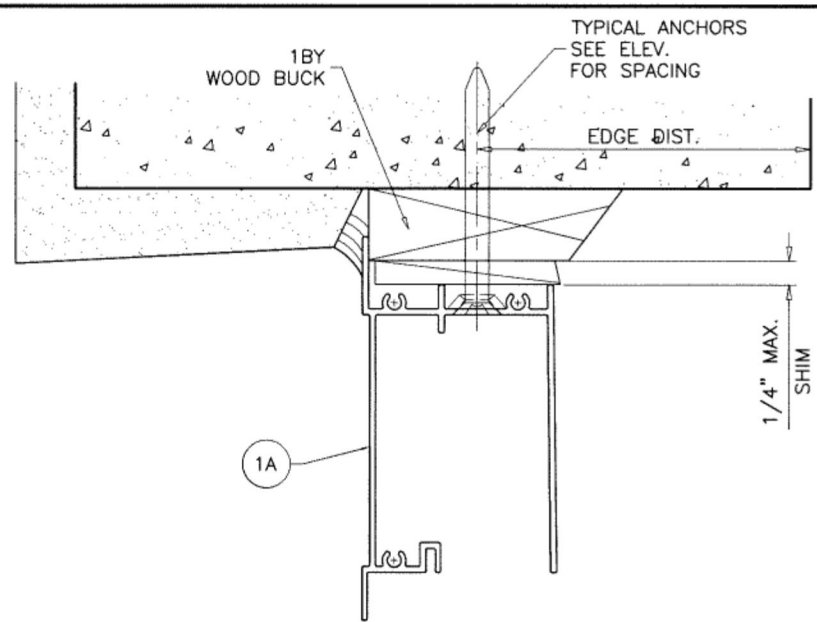
SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
**Sunshine Windows Manufacturing, Inc.**  
1785 West 33rd Place  
Hialeah, FL. 33012  
Tel. (305) 364-9952 Fax. (305) 828-5118

revisions:	no	date	by	description
date:	01-04-19	scale:	-	
dr. by:	TARIQ	chk. by:		
drawing no.	19-01F			
sheet	6 of 11			

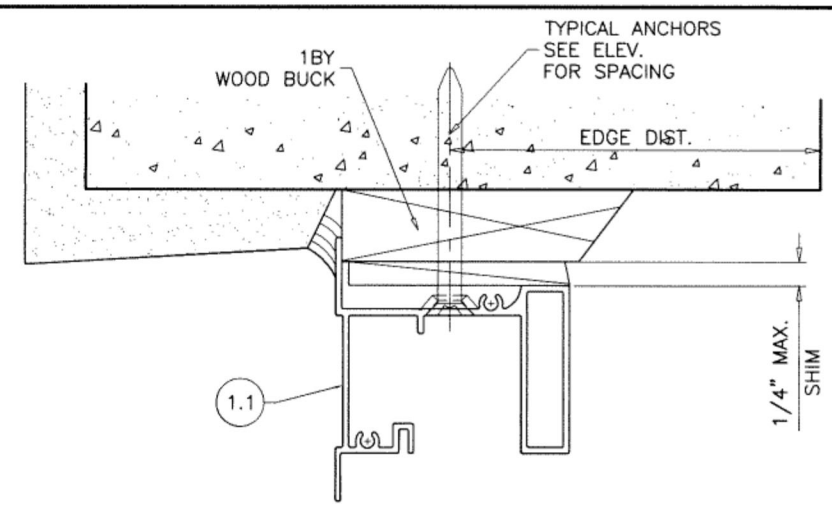


**FRAME SILL TYPE '1'**

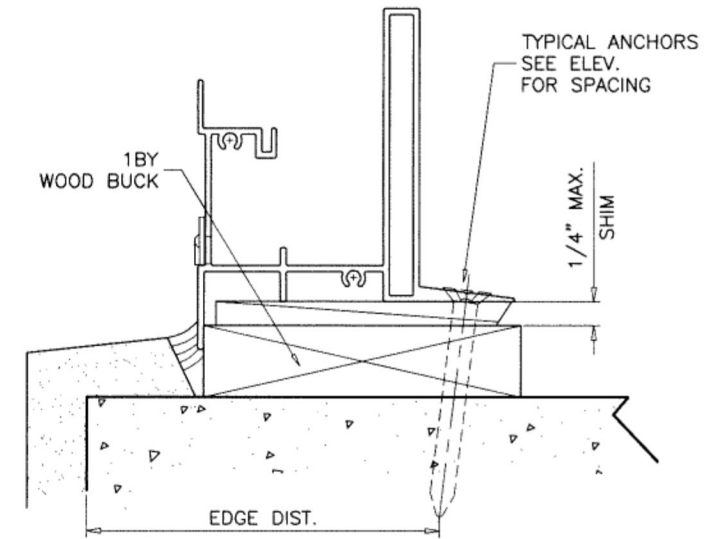
SILL WITH ANCHORS SEE SHEET 3 FOR CAPACITY  
 SILL WITH ANCHORS AT MTG. STILE LOCATION SEE SHEET 4 FOR CAPACITY  
 SILL WITHOUT ANCHORS SEE SHEET 6 FOR CAPACITY



**ALT. FRAME HEAD**



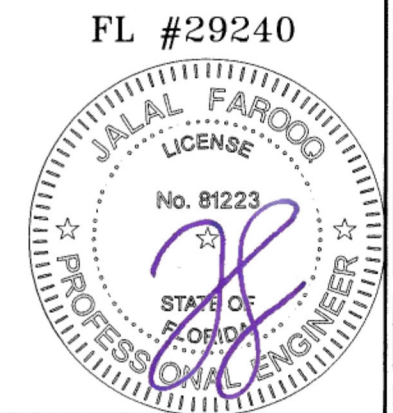
**FRAME HEAD TYPE '3'**



**WEEPHOLES:**

W1 = 1/2" X 2-1/2" WEEPHOLES WITH BAFFLE AT 4-1/2" FROM EACH END AND 36" O.C. MAX.

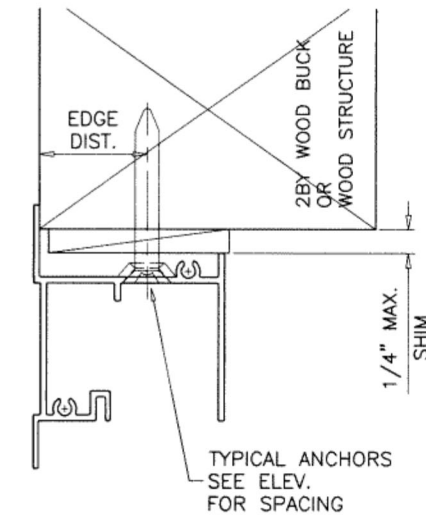
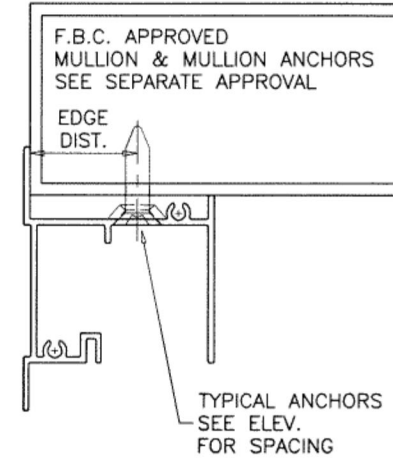
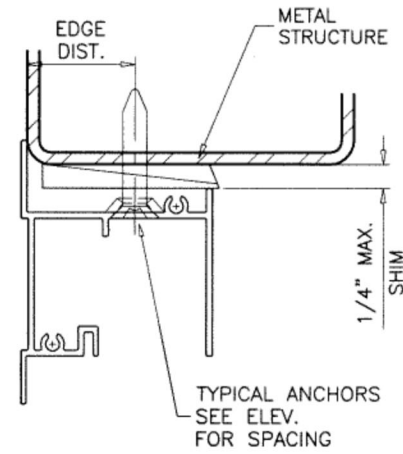
Sealed: 8/16/2024



**afc**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
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 COMP-ANL\19-01F-SWM

SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)  
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revisions:	no	date	by	description
date:	01-04-19	scale:	1/2" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	19-01F			
sheet	7 of 11			



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

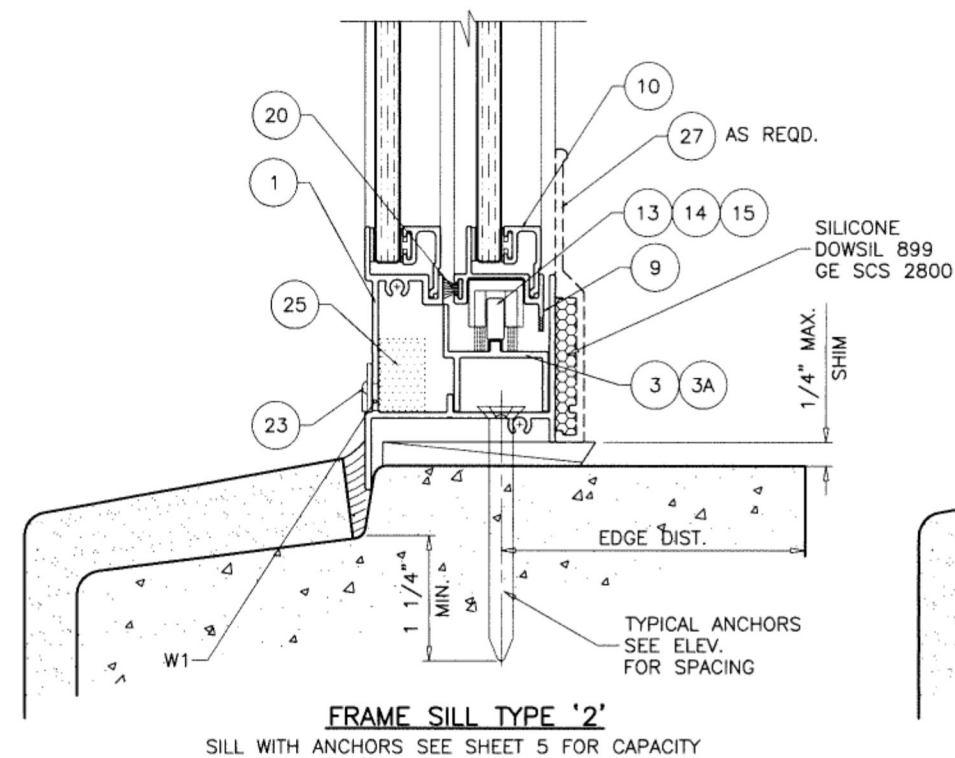
**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING  
**1/4" DIA. ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)  
 THRU 1BY BUCKS INTO CONC. OR BLOCKS  
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)  
 1-1/4" 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)

**1/4" DIA. TEKS OR SELF-DRILLING SCREWS** (GRADE 5 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)

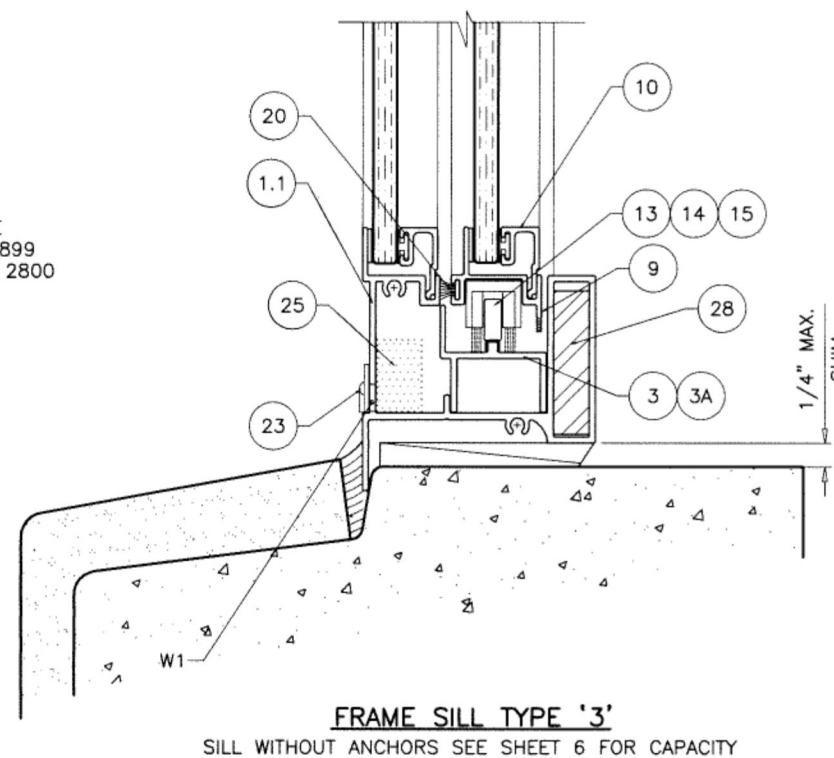
**TYPICAL EDGE DISTANCE**  
 INTO CONCRETE AND BLOCKS = 2-1/2" MIN.  
 INTO WOOD STRUCTURE = 1" MIN.  
 INTO METAL STRUCTURE = 3/4" MIN.

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.

APPLIED RISER AT FRAME SILL TYPE '2'.  
 OPTIONAL AT XO OR OX WINDOWS, SEE CHART ON SHEET 3.1 FOR DESIGN LOAD LIMITATIONS WITH OR WITHOUT APPLIED RISER.  
 RISER REQUIRED AT ALL XOx WINDOWS.



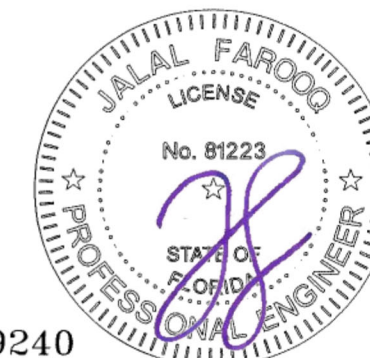
**FRAME SILL TYPE '2'**  
 SILL WITH ANCHORS SEE SHEET 5 FOR CAPACITY



**FRAME SILL TYPE '3'**  
 SILL WITHOUT ANCHORS SEE SHEET 6 FOR CAPACITY

Sealed: 8/16/2024

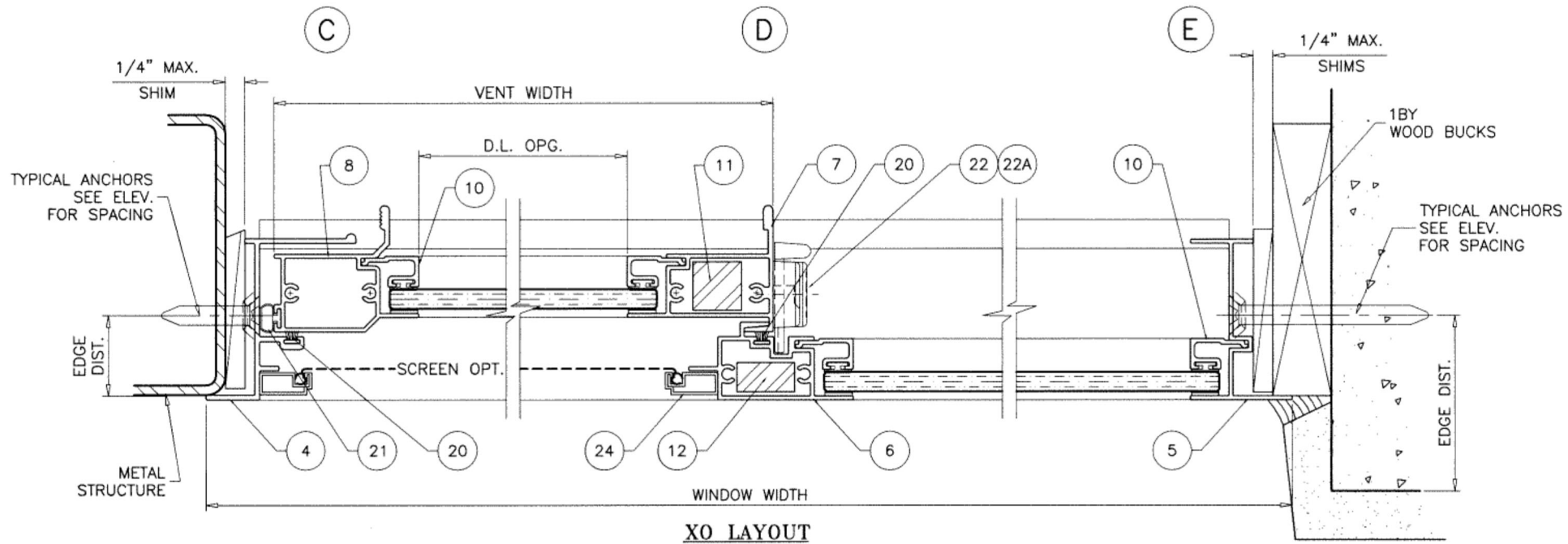
FL #29240



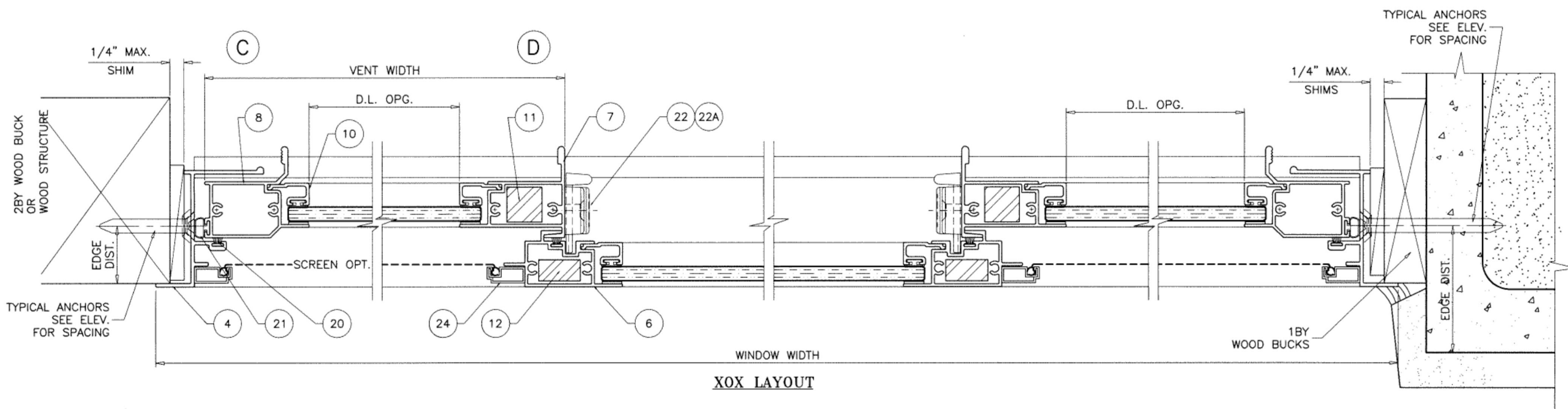
**afc**  
**AL-FAROOQ CORPORATION**  
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 9360 SUNSET DRIVE, SUITE 220  
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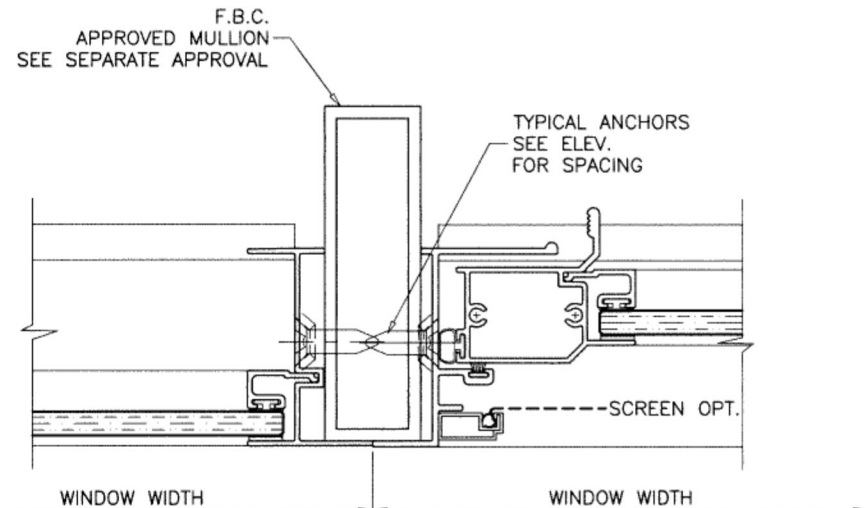
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dr. by:	TARIQ	chk. by:		
drawing no.	19-01F			
sheet	8 of 11			



**XO LAYOUT**



**XOX LAYOUT**



Sealed: 8/16/2024



FL #29240

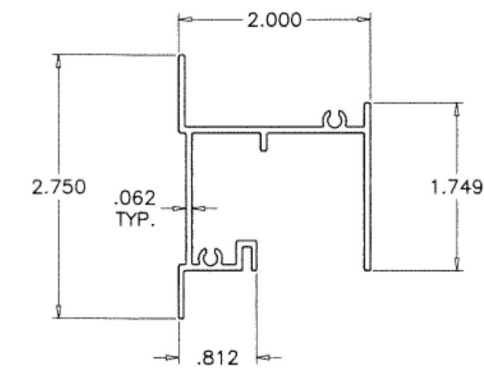
**afc**

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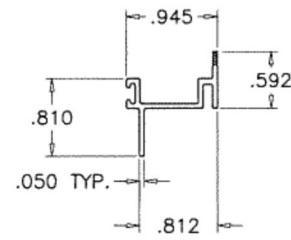
SERIES-1650 ALUM HORIZ. ROLLING WDW. (N.I.)

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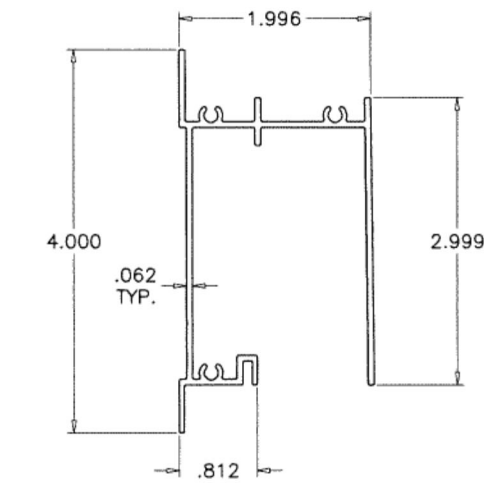
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date:	01-04-19	scale:	1/2" = 1"	dr. by: TARIQ
chk. by:				
drawing no.	19-01F			
sheet	9 of 11			



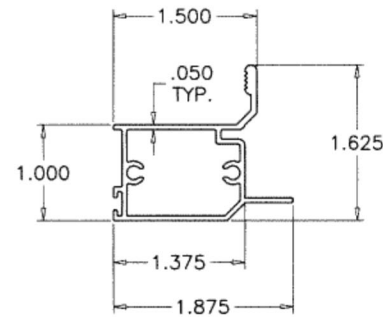
① FRAME HEAD/FRAME SILL TYPE '2'



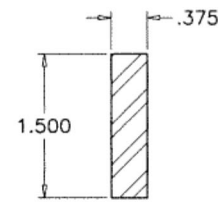
⑨ VENT TOP/BOTTOM RAIL



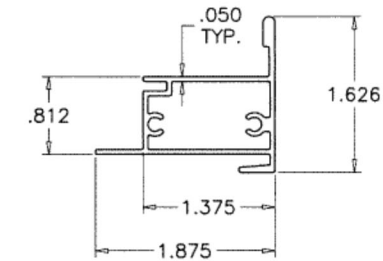
1A ALT. FRAME HEAD



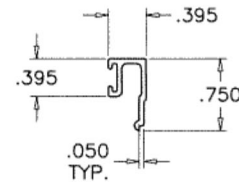
⑧ JAMB STILE



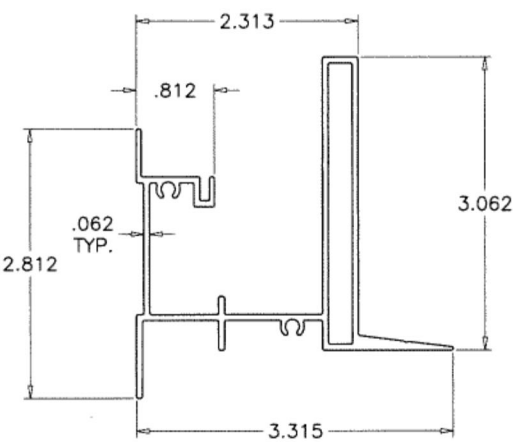
⑳ FRAME SILL REINF.



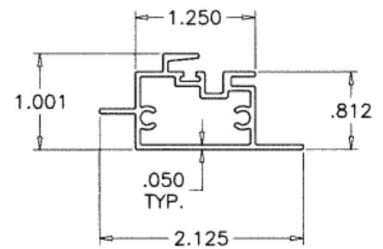
⑦ MEETING RAIL



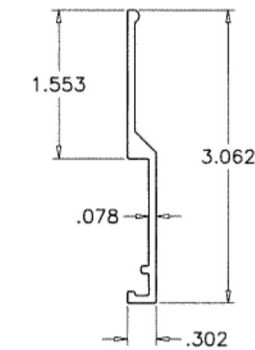
⑩ GLAZING BEAD



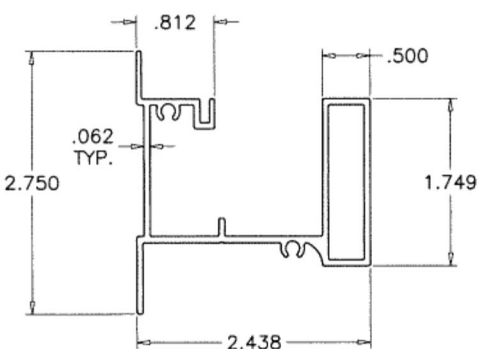
② FRAME SILL TYPE '1'



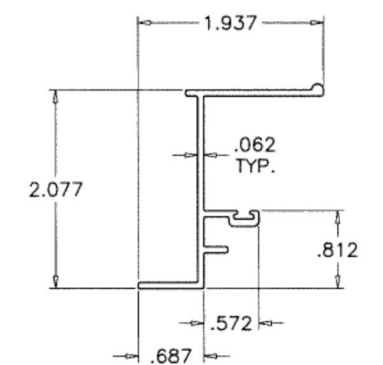
⑥ FIXED MTG. RAIL



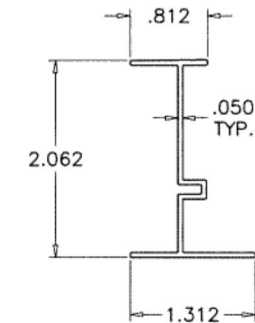
⑳ SILL RISER



①.1 FRAME HEAD/FRAME SILL TYPE '3'



④ MOV. FRAME JAMB

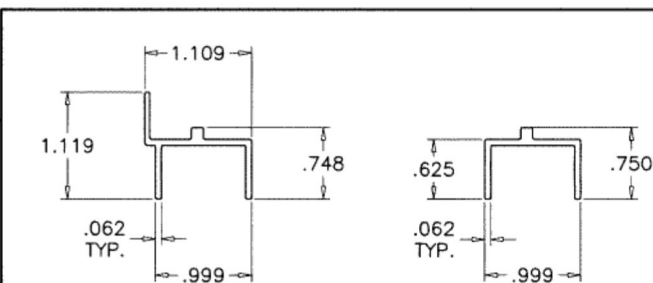


⑤ FIXED FRAME JAMB

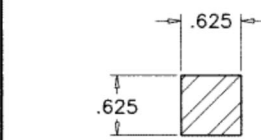
ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	44287A	1	FRAME HEAD/ FRAME SILL TYPE '2'	6063-T6	-
1.1	44287AM	1	FRAME HEAD/FRAME SILL TYPE '3'	6063-T6	-
1A	44287A-1	1	ALT. FRAME HEAD	6063-T6	-
2	HR-001	1	FRAME SILL TYPE '1'	6063-T6	-
3	050173	1	SILL TRACK INSERT	6063-T6	-
3A	SSW-021A	1	SILL TRACK INSERT	6063-T6	-
4	30778	AS REQD.	MOV. FRAME JAMB	6063-T6	-
5	30682C	AS REQD.	FIXED FRAME JAMB	6063-T6	-
6	40111A	1/ VENT	FIXED MTG. RAIL	6063-T6	-
7	30680A	1/ VENT	VENT INTERLOCK	6063-T6	-
8	30776A	1/ VENT	JAMB STILE	6063-T6	-
9	30681A	2/ VENT	TOP AND BOTTOM RAIL	6063-T6	-
10	30684A	AS REQD.	GLAZING BEAD	6063-T6	-
11	-	AS REQD.	MOV. RAIL REINF., FULL LENGTH	STEEL	-
12	-	AS REQD.	FIX. RAIL REINF., FULL LENGTH	STEEL	-
13	-	2/ VENT	ROLLER HOUSING & GUIDE	PLASTIC	-
14	WH 1403	2/ VENT	ROLLER	BRASS	-
15	AX 1337	2/ VENT	ROLLER PIN	ST. STEEL	-
16	#8 X 1"	AS REQD.	FRAME/VENT ASSEMBLY SCREWS	CRS	P.H. SMS
17	#8 X 2-1/2"	2/ VENT	FIX. RAIL SILL SCREWS (SILL END)	CRS	P.H. SMS
18	MPI P/N 83008	AS REQD.	GLAZING BEAD BULB	SANTOPRENE	MELTPOINT, DUROMETER 65±5
19	ZIALOC 750	AS REQD.	GLAZING TAPE	PE FOAM	-
20	W33191NK000B	AS REQD.	FIN SEAL W'STRIPPING	POLYPROPYLENE	ULTRAFAB
21	MPI P/N 83002	AS REQD.	BULB SEAL W'STRIPPING	VINYL	MELTPOINT
22	SL208-BKR/WHR	2/ VENT	SWEEP LATCH, 12-1/2" FROM EACH END	ZINC	SULLIVAN & ASSOCIATES
22A	#8 X 3/4"	2/ LATCH	LATCH INST. SCREW	ST. STEEL	FH SMS
23	-	2/ WDW.	WEEP VALVE	-	-
24	-	1/ VENT	5/16" BOX SCREEN	-	OPTIONAL
25	SW-S10	1/ WEEP	OPEN CELL FOAM PAD	-	1-1/8" X 3-5/8" LONG
26	-	AS REQD.	SETTING BLOCKS AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
27	SSW-998	AS REQD.	SILL RISER	6063-T6	-
28	-	AS REQD.	FRAME SILL REINF., FULL LENGTH	STEEL	-

**SEALANT:**

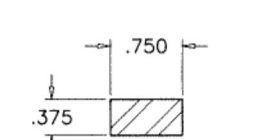
ALL JOINTS AND FRAME CONNECTIONS SEALED WITH SCHNEE MOREHEAD SM-5504 JOINT SEALER.



③ SILL TRACKS



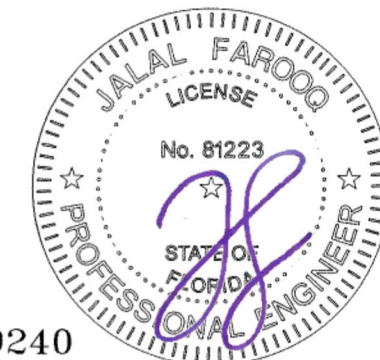
⑪ MTG. RAIL REINF.



⑫ FIX. RAIL REINF.

Sealed: 8/16/2024

FL #29240



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
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revisions:	no.	date	description
date:	01-04-19	scale:	1/2" = 1"
dr. by:	TARIQ	chk. by:	
drawing no.	19-01F		
sheet	10 of 11		

