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Product Approval
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FL #	FL40097-R2
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Eco Window Systems
Address/Phone/Email	8502 NW 80th Street Suite 103 Medley, FL 33166 (305) 885-5299 jrosowski@pgtindustries.com
Authorized Signature	Jens Rosowski jrosowski@pgtindustries.com
Technical Representative	Lynn Miller, P.E.
Address/Phone/Email	1070 Technology Dr N Venice, FL 34275 (941) 486-0100 Ext 21142 lmiller@pgtindustries.com
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 ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	A. Lynn Miller, P.E.
Florida License	PE-58705
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	12/31/2032
Validated By	Steven M. Urlich, PE ☒ Validation Checklist - Hardcopy Received
Certificate of Independence	FL40097_R2_COI_Cert of Independence.pdf
Referenced Standard and Year (of Standard)	Standard TAS 201, 202 & 203 Year 1994
Equivalence of Product Standards Certified By	
Sections from the Code	

Product Approval Method

Method 1 Option D

Date Submitted 10/13/2023
 Date Validated 10/18/2023
 Date Pending FBC Approval 10/25/2023
 Date Approved 12/13/2023

Summary of Products

FL #	Model, Number or Name	Description
40097.1	Series 60 Horizontal Roller	Large Missile Impact Resistant, Aluminum Horizontal Roller Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL40097_R2_II_HR60 - LMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL40097_R2_AE_ECO_HR60LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
40097.2	Series 200 Horizontal Roller	Large Missile Impact Resistant, Aluminum Horizontal Roller Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL40097_R2_II_HR200LM-FPA REV B.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL40097_R2_AE_ECO_HR200LM ENG EVAL REV B.pdf Created by Independent Third Party: No
40097.3	Series 200 Horizontal Roller	Small Missile Impact Resistant, Aluminum Horizontal Roller Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL40097_R2_II_HR200SM-FPA REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL40097_R2_AE_ECO_HR200SM ENG EVAL REV A.pdf Created by Independent Third Party: No
40097.4	Series 250 Horizontal Roller	Large Missile Impact Resistant, Aluminum Horizontal Roller Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL40097_R2_II_HR250FPA - LMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL40097_R2_AE_ECO_HR250LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
40097.5	Series 250 Horizontal Roller	Small Missile Impact Resistant, Aluminum Horizontal Roller Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL40097_R2_II_HR250FPA - SMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL40097_R2_AE_ECO_HR250SMI ENG EVAL REV A.pdf Created by Independent Third Party: No

Back

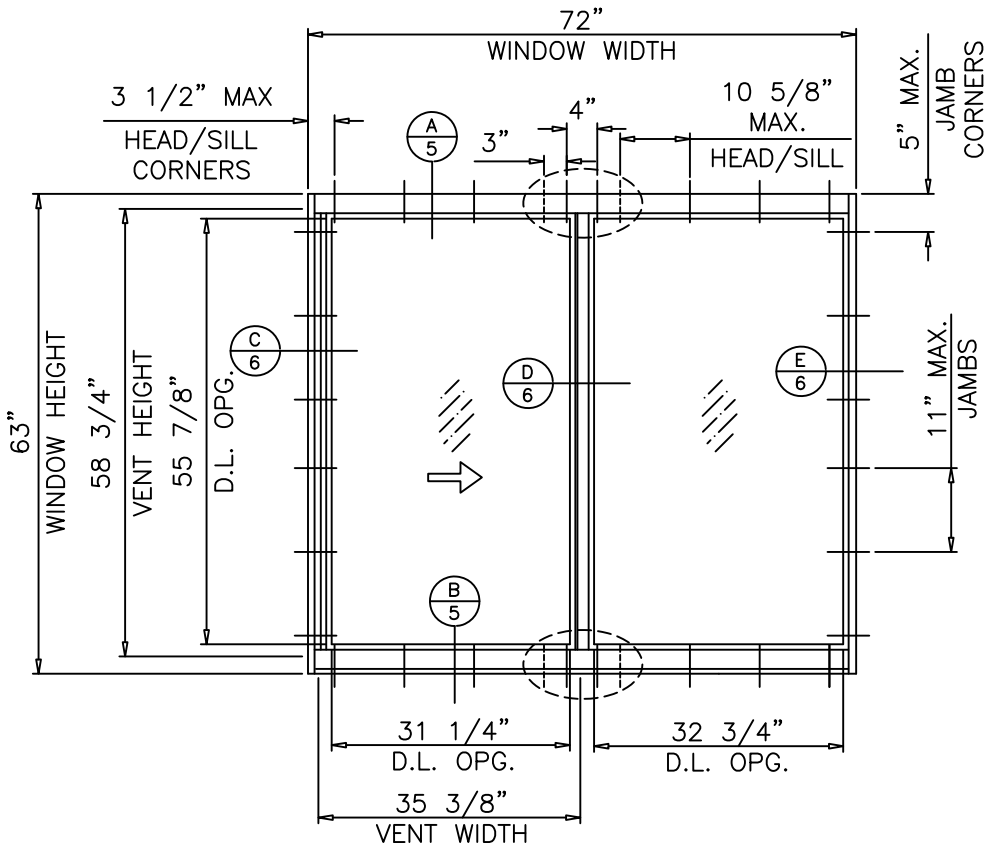
Next

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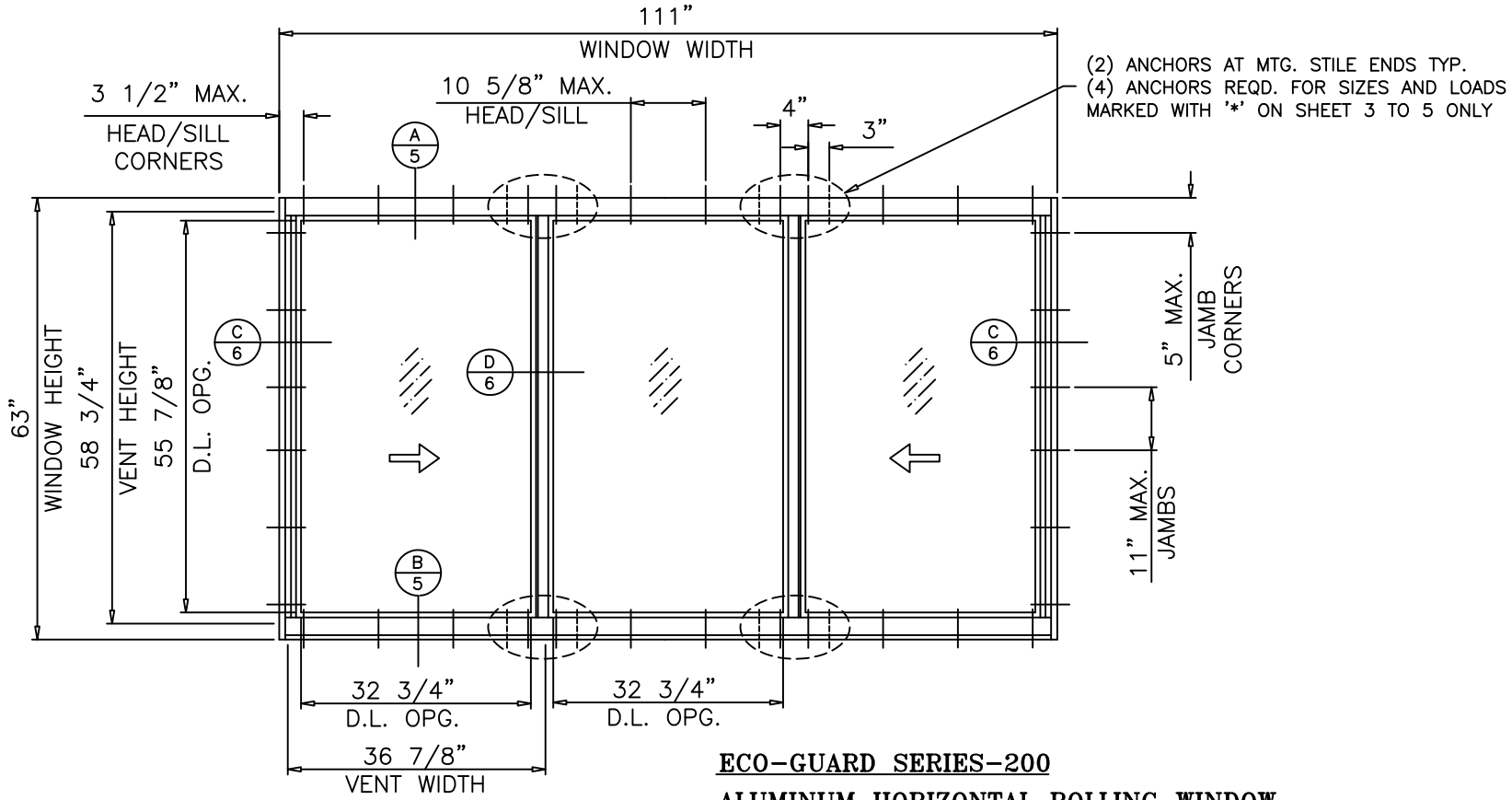
Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click [here](#).

Product Approval Accepts:





TYPICAL ELEVATIONS



ECO-GUARD SERIES-200
ALUMINUM HORIZONTAL ROLLING WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN IN SHEETS 3 TO 5.

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 HVHZ FPA 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 FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST BE TEMPERED.

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.

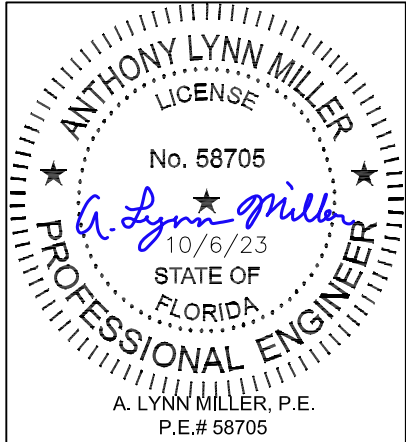
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE & ADOPTED STANDARDS.

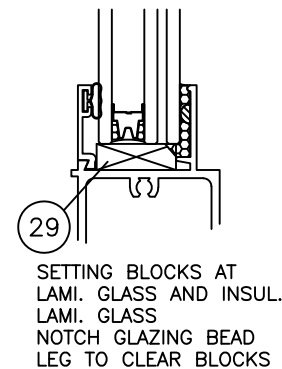
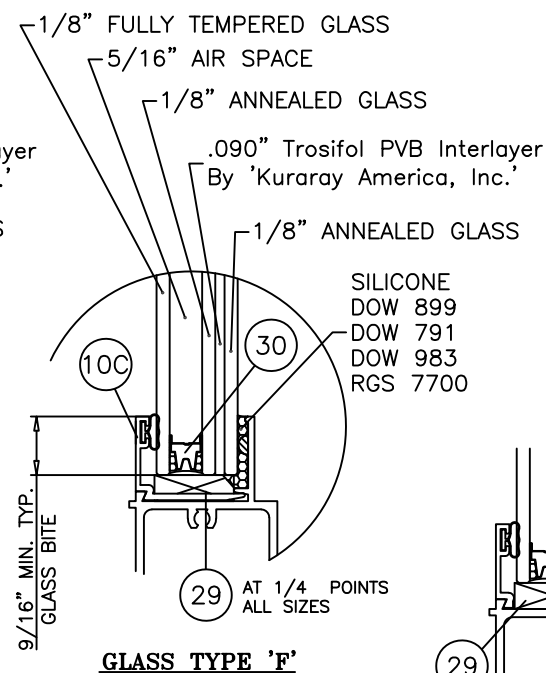
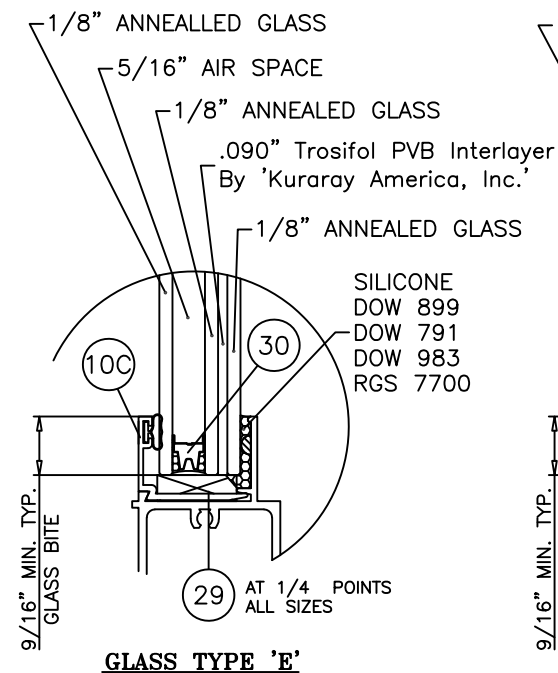
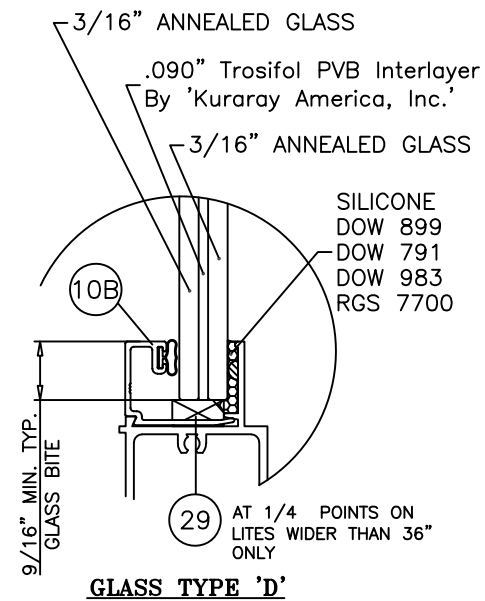
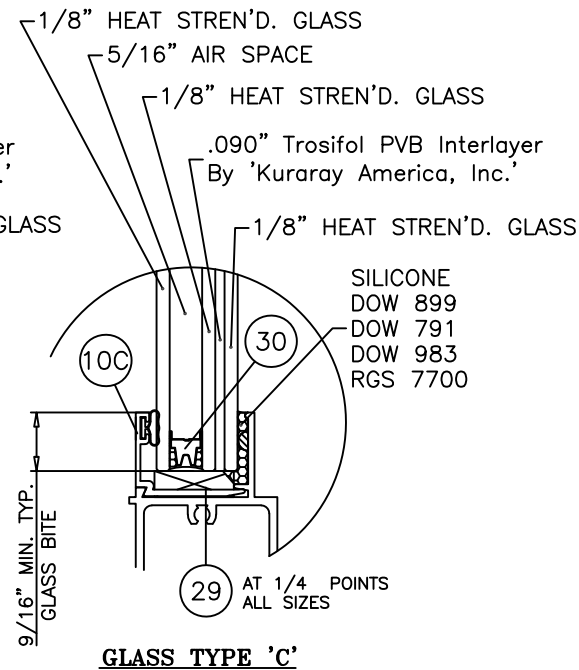
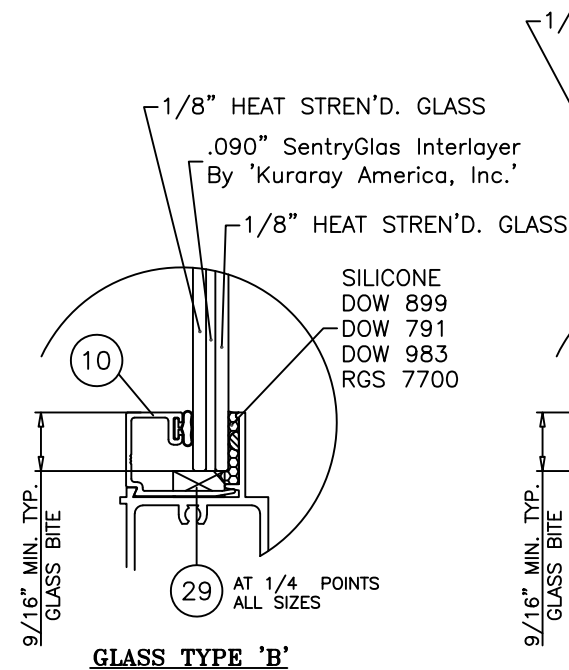
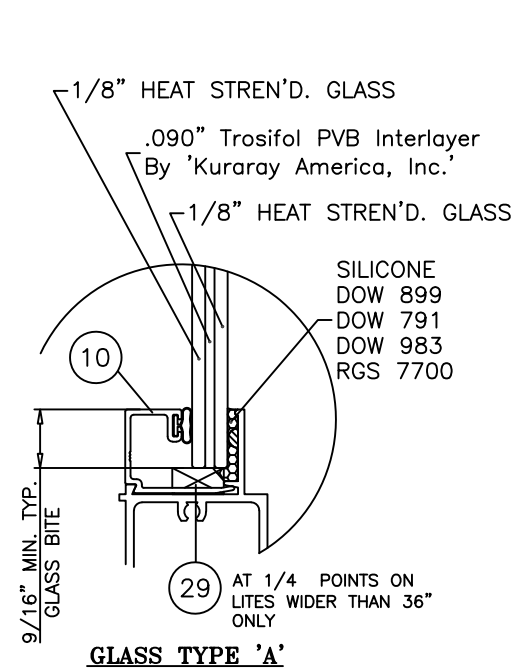
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL DESIGN LOAD SHOWN ARE BASE ON 'ALLOWABLE STRESS DESIGN (ASD)'.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.

Revision:	REVISED TABLE FORMAT, ADDED DP TABLE ROUNING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL
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 ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600				
	REGISTRATION #29296				
	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)		7/15/2022		
	Date		By		
Title		Dawn		HONG C.	
Desc.		GENERAL NOTES, ELEVATION, & GLASS TYPES			
Series		Sheet		1 OF 11	
SERIES 200		DWC No.		HR200LM-FPA	
				Rev.	
				B	

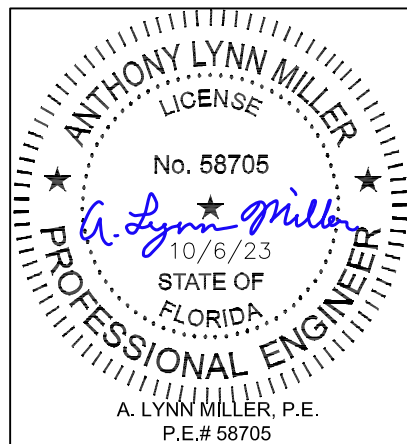




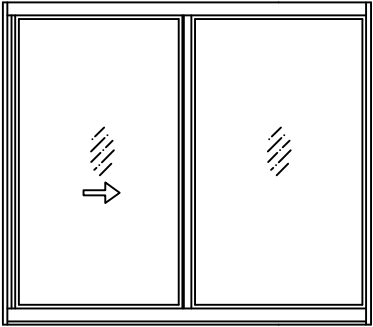
GLAZING OPTIONS

Revision:	REVISED TABLE FORMAT, ADDED DP TABLE ROUNDING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL
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PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	7/15/2022	HONG C.	HR200LM-FPA	B
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)	Date	By	No.	2 OF 11
GLAZING OPTIONS	SERIES 200	Title	Desc.	Sheet	2 OF 11



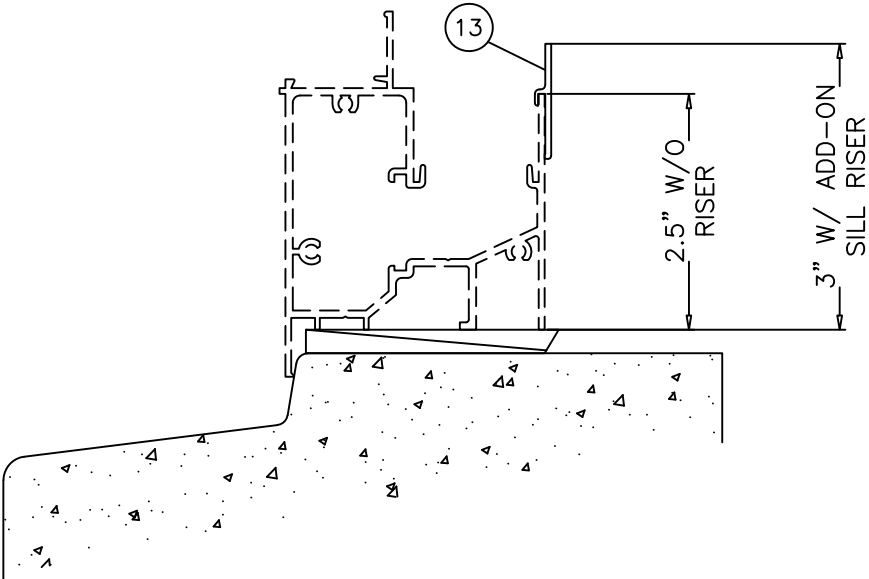
Glass Types B & C w/ Reinforcement			Design Load Capacity - PSF (XO or OX Sizes)															
Window Width (in.)	Head/Sill Anchor Qty.	Glass Type	Window Height (in.) / Jamb Anchor Quantity															
			24"		26"		36"		38-3/8"		48"		50-5/8"		60"		63"	
			3		3		4		4		5		5		6		6	
24"	4	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
26-1/2"	4	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
36"	4	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
37"	4	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
48"	6	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
53-1/8"	6	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
60"	6	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-80.4*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
72"	8	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-87.6*	+80.0	-80.4*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
74"	8	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0				
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0				



'XO OR OX'

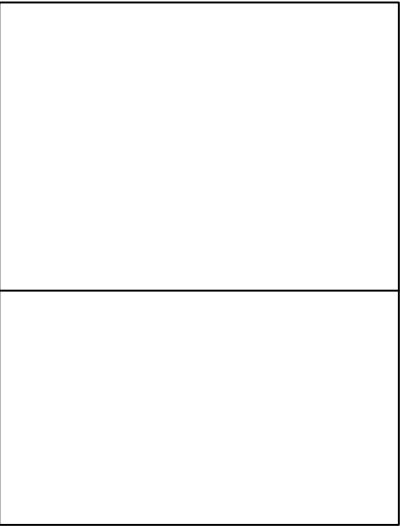
FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

(4) ANCHORS REQUIRED AT MEETING RAIL CLUSTERS FOR SIZES AND LOADS MARKED WITH '*'. SEE ELEVATION ON SHEET 1.



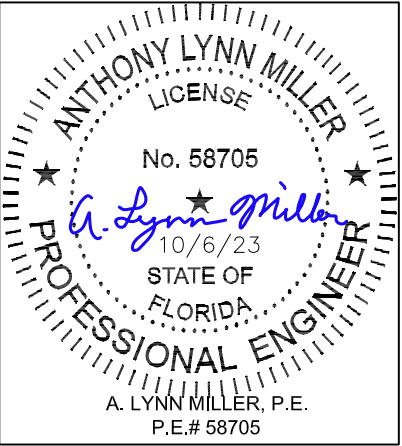
ALL EXTERIOR (+) LOADS SHOWN ON THIS SHEET ARE FROM WINDOWS WITH ADD-ON RISER AT FRAME SILL FOR STD. SILL (NO RISER) LIMIT EXT.(+) LOADS TO 67.0 PSF SEE SHEET ABOVE FOR DETAILS.

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



Revision:
REVISED TABLE
FORMAT,
ADDED DP
TABLE
ROUNDING AND
ANCHOR HEAD
TYPE NOTES,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	7/15/2022	HONG C.	HR200LM-FPA	B
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)	XO/OX CONFIGURATION DESIGN LOADS	4 OF 11	SERIES 200
Series	Desc.	Title	Sheet	No.



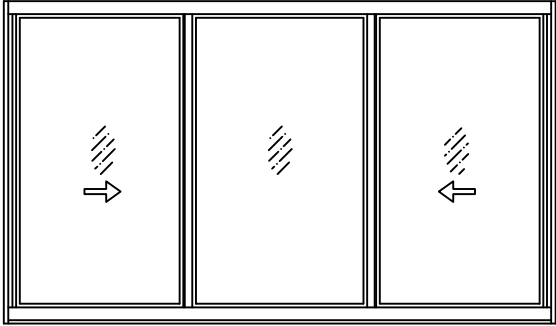
Glass Types A, D, E, & F w/o Reinforcement			Design Load Capacity - PSF (XOX 1/3-1/3-1/3 Sizes)															
Window Width (in.)	Head/Sill Anchor Qty.	Glass Type	Window Height (in.) / Jamb Anchor Quantity															
			24"		26"		36"		38-3/8"		48"		50-5/8"		60"		63"	
			3		3		4		4		5		5		6		6	
72"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
74"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
84"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.5
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-78.3
96"	12	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.5
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-78.3
106-1/4"	12	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-73.9	+70.0	-70.5
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-78.3
108"	12	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-73.9	+68.0	-68.0
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-75.6
111"	12	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+68.0	-68.0	+68.0	-68.0
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-75.6	+70.0	-75.6

Glass Types B & C w/ Reinforcement			Design Load Capacity - PSF (XOX 1/3-1/3-1/3 Sizes)															
Window Width (in.)	Head/Sill Anchor Qty.	Glass Type	Window Height (in.) / Jamb Anchor Quantity															
			24"		26"		36"		38-3/8"		48"		50-5/8"		60"		63"	
			3		3		4		4		5		5		6		6	
72"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
74"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
84"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	82.6*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
96"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0*	+80.0	82.6*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
106-1/4"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-87.6*	+80.0	82.6*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
108"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-87.6*	+80.0	80.4*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
111"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	80.4*	+80.0	80.4*
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0

FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

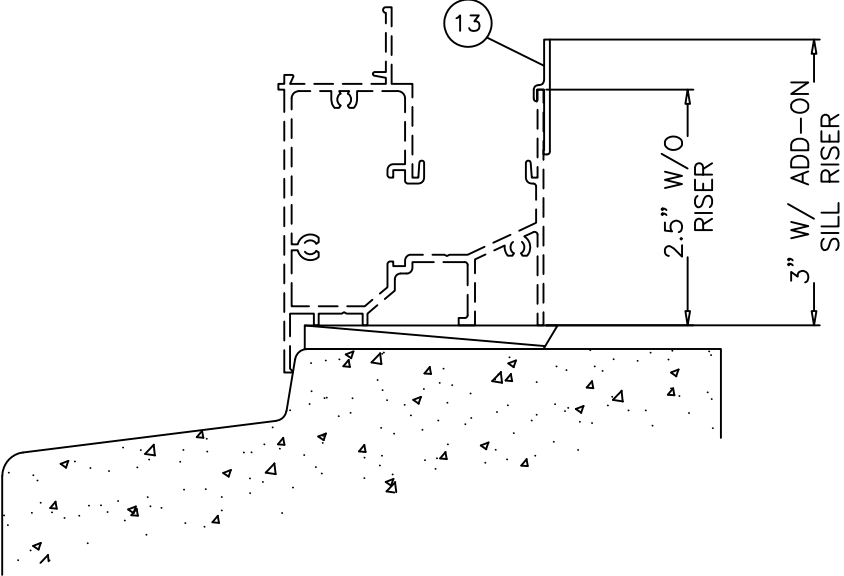
(4) ANCHORS REQUIRED AT MEETING RAIL CLUSTERS FOR SIZES AND LOADS MARKED WITH '*'. SEE ELEVATION ON SHEET 1.

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

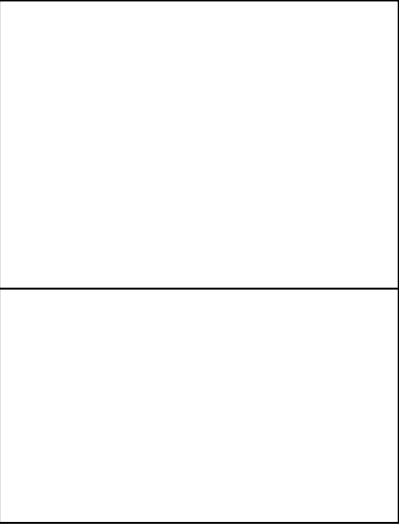


OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

‘XOX’



ALL EXTERIOR (+) LOADS SHOWN ON THIS SHEET ARE FROM WINDOWS WITH ADD–ON RISER AT FRAME SILL FOR STD. SILL (NO RISER) LIMIT EXT.(+) LOADS TO 67.0 PSF SEE SHEET ABOVE FOR DETAILS.



Revision:
REVISED TABLE
FORMAT,
ADDED DP
TABLE
ROUNDING AND
ANCHOR HEAD
TYPE NOTES,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

ECO WINDOW SYSTEMS, LLC.
8602 N.W. 80th ST., MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)

XOX CONFIGURATION DESIGN LOADS

7/15/2022

HONG C.

By

HR200LM-FPA

Rev.

B

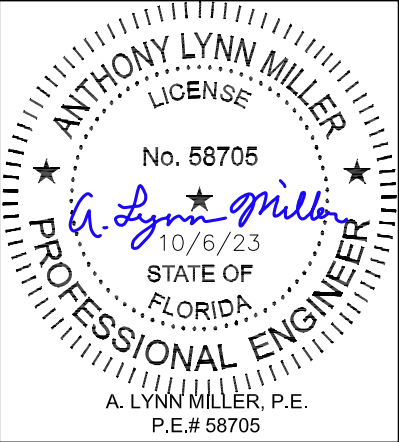
5 OF 11

Sheet

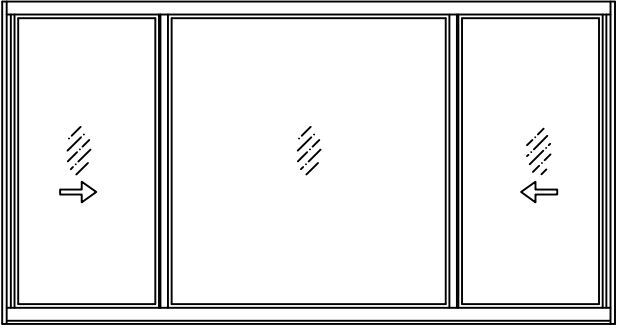
SERIES 200

Series

Desc.



Glass Types A, D, E, & F w/o Reinforcement			Design Load Capacity - PSF (XOX 1/4-1/2-1/4 Sizes)															
Window Width (in.)	Head/Sill Anchor Qty.	Glass Type	Window Height (in.) / Jamb Anchor Quantity															
			24"		26"		36"		38-3/8"		48"		50-5/8"		60"		63"	
			3		3		4		4		5		5		6		6	
72"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-76.3	+70.0	-70.4
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-78.2
74"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.4	+70.0	-70.4
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-78.2	+70.0	-78.2
84"	9	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0						
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
96"	12	A	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-70.0	+70.0	-70.0						
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
106-1/4"	12	A	+70.0	-80.0	+70.0	-80.0	-	-	-	-								
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
108"	12	A	+70.0	-80.0	+70.0	-80.0	-	-	-	-								
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-79.3								
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
111"	12	A	+70.0	-80.0	+70.0	-80.0	-	-	-	-								
		D	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
		E	+70.0	-80.0	+70.0	-80.0	+70.0	-79.3	+70.0	-79.3								
		F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								



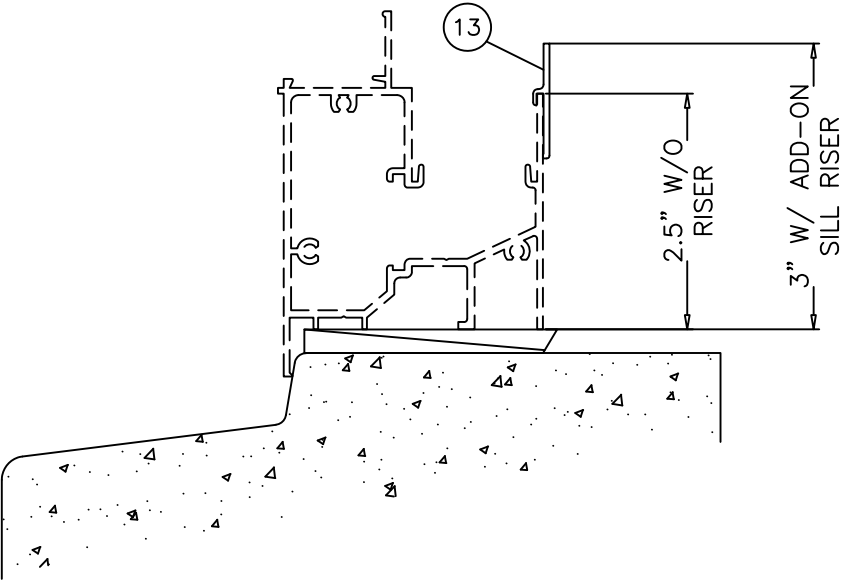
OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

‘XOX’

Glass Types B & C w/ Reinforcement			Design Load Capacity - PSF (XOX 1/4-1/2-1/4 Sizes)															
Window Width (in.)	Head/Sill Anchor Qty.	Glass Type	Window Height (in.) / Jamb Anchor Quantity															
			24"		26"		36"		38-3/8"		48"		50-5/8"		60"		63"	
			3		3		4		4		5		5		6		6	
72"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
74"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
84"	9	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0						
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
96"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0						
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0						
106-1/4"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0								
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
108"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0								
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								
111"	12	B	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0	+80.0	-90.0								
		C	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0								

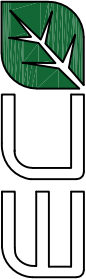
FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

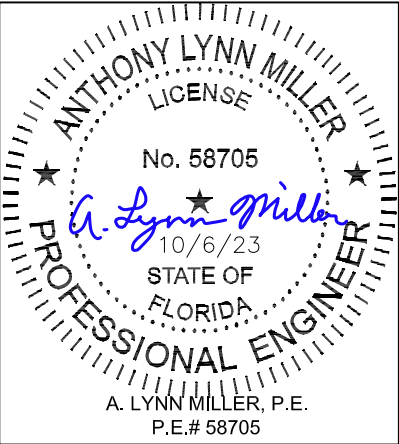
NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300–09 (3 SEC GUSTS)

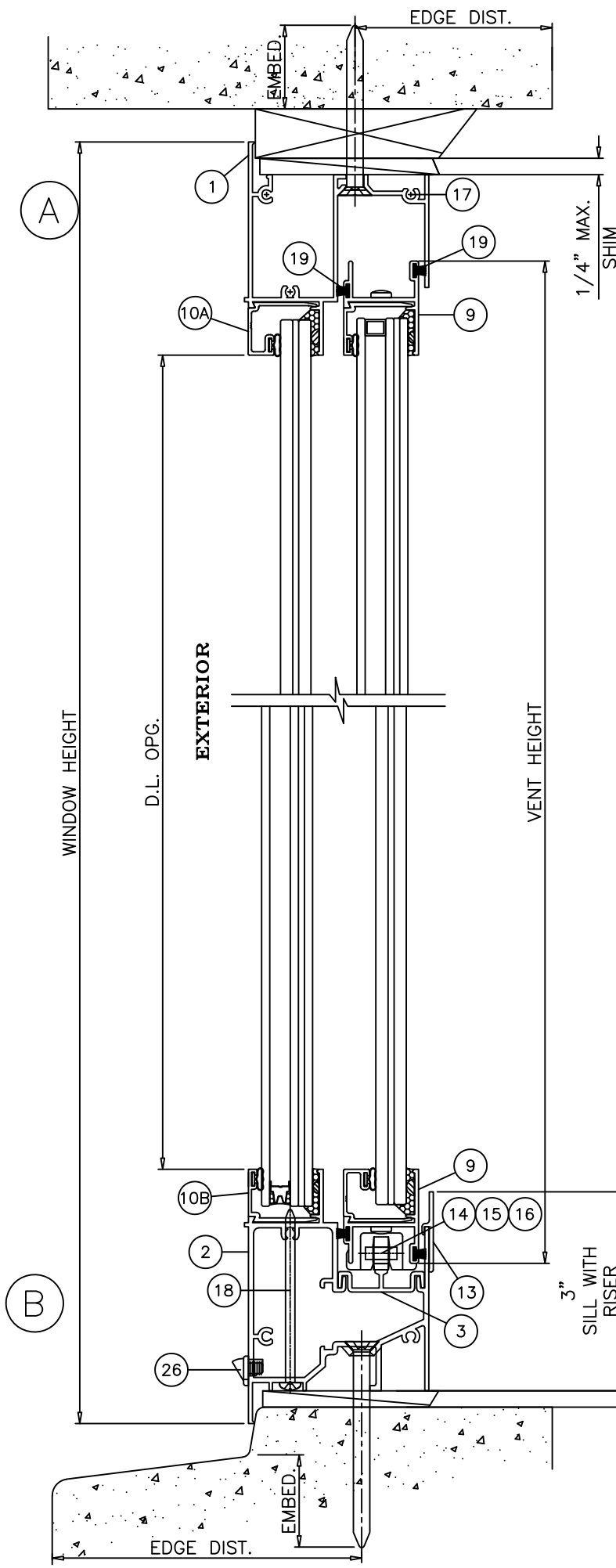


ALL EXTERIOR (+) LOADS SHOWN ON THIS SHEET ARE FROM WINDOWS WITH ADD–ON RISER AT FRAME SILL FOR STD. SILL (NO RISER) LIMIT EXT.(+) LOADS TO 67.0 PSF SEE SHEET ABOVE FOR DETAILS.

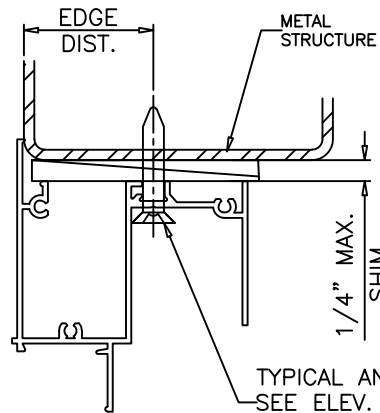
Revision:	REVISED TABLE FORMAT, ADDED DP TABLE ROUNDING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL
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 windows systems ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600					
		REGISTRATION #29296					
ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)		Date	7/15/2022				
XOX CONFIGURATION DESIGN LOADS CONT.		HONG C.					
		Drawn By					
Series	SERIES 200	Sheet	6 OF 11	DWG No.	HR200LM-FPA	Rev.	B

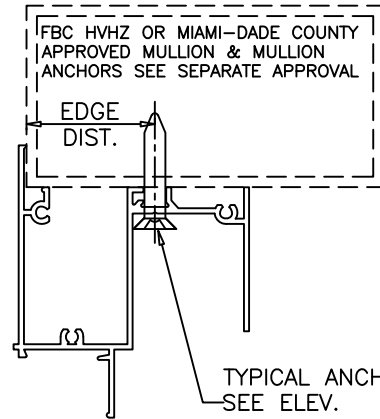




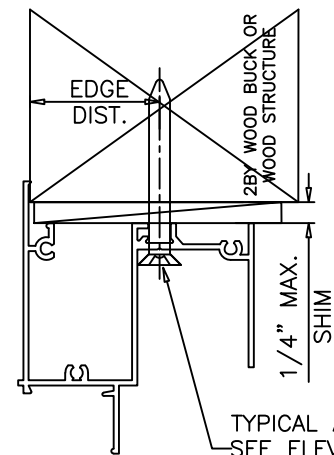
WOOD BUCKS AND METAL STRUCTURE NOT BY 'ECO WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.



TYPICAL ANCHORS
SEE ELEV.
FOR SPACING



TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

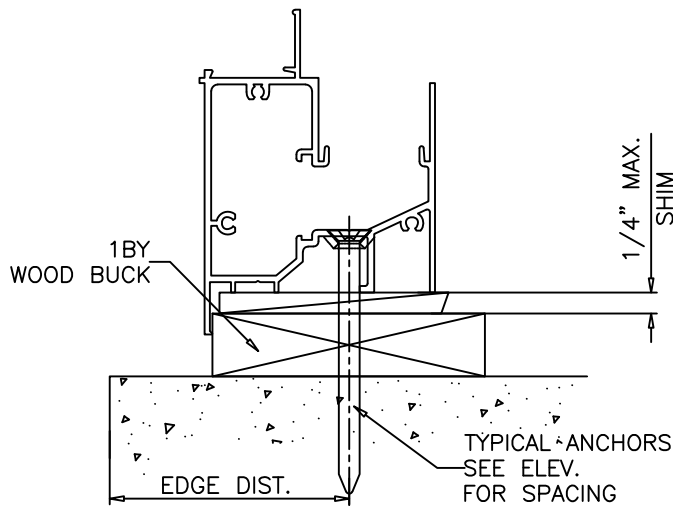


TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. Embedment or Metal Thickness
1/4" DeWalt UltraCon +	All	Southern Pine (SG = 0.55)	1"	1-1/2"
	All	Thru 1BY Buck into Concrete (min. 3 ksi)	2-1/2"	1-1/4"
	Jambs	Thru 1BY Buck into Hollow or Filled Block (ASTM C90, min. 2 ksi)	2-1/2"	1-1/4"
	All	Concrete (min. 3ksi)	2-1/2"	1-1/4"
	Jambs	Hollow or Filled Block (ASTM C90, min. 2 ksi)	2-1/2"	1-1/4"
#12 SMS or Self Drilling Screws	All	Southern Pine (SG = 0.55)	1"	1-3/8"
	All	Approved Mullions	3/4"	(3) Threads min. beyond metal thickness
	All	Aluminum 1/8" Thk. Min. (6063-T5)	3/4"	(3) Threads min. beyond metal thickness
	All	Steel 18 Ga. Min. (min. 33 ksi)	3/4"	(3) Threads min. beyond metal thickness

- STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED
- ALL ANCHOR HEAD TYPES ARE ACCEPTABLE



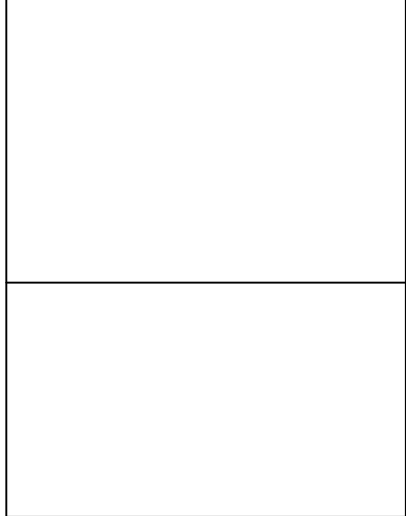
TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

WEEPHOLES:

W1 = 3/8" X 2 1/4" WEEPHOLES AT EACH END
AND 37" O.C. MAX

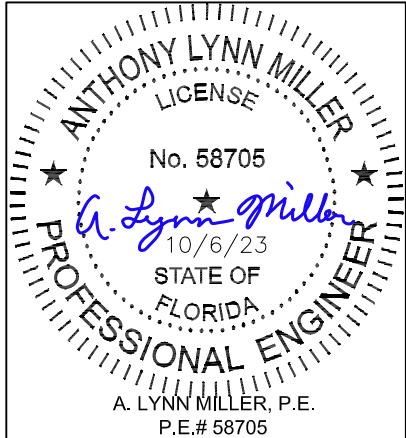
SEALANT:

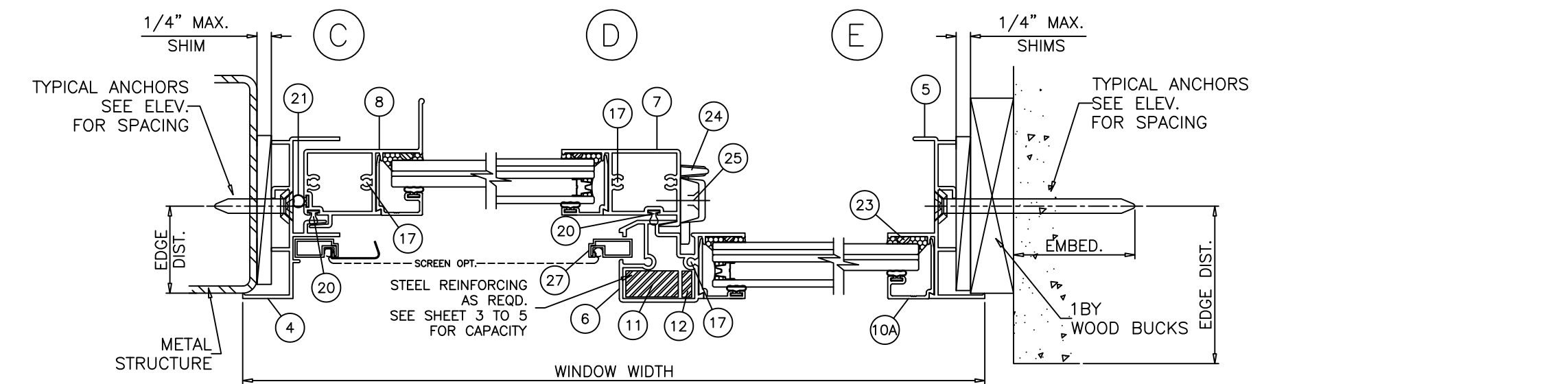
ALL JOINT AND FRAME CONNECTIONS SEALED WITH
JOINT SEALER.



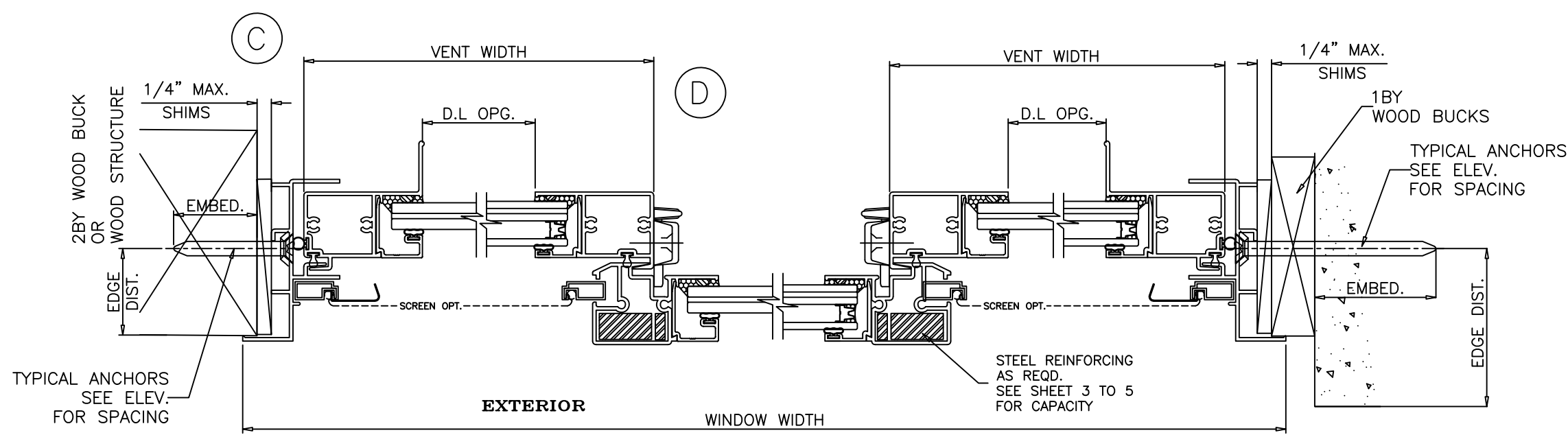
Revision:	REVISED TABLE FORMAT, ADDED DP TABLE ROUNDING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL
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 ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600			
	REGISTRATION #29296			
	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)		7/15/2022	
	Date			
Title	VERTICAL SECTION DETAILS & ANCHORS		HONG C.	
	By		Drawn	
	DWG		No.	
	7 OF 11		HR200LM-FPA	
Series	SERIES 200		Rev.	
Sheet		B		

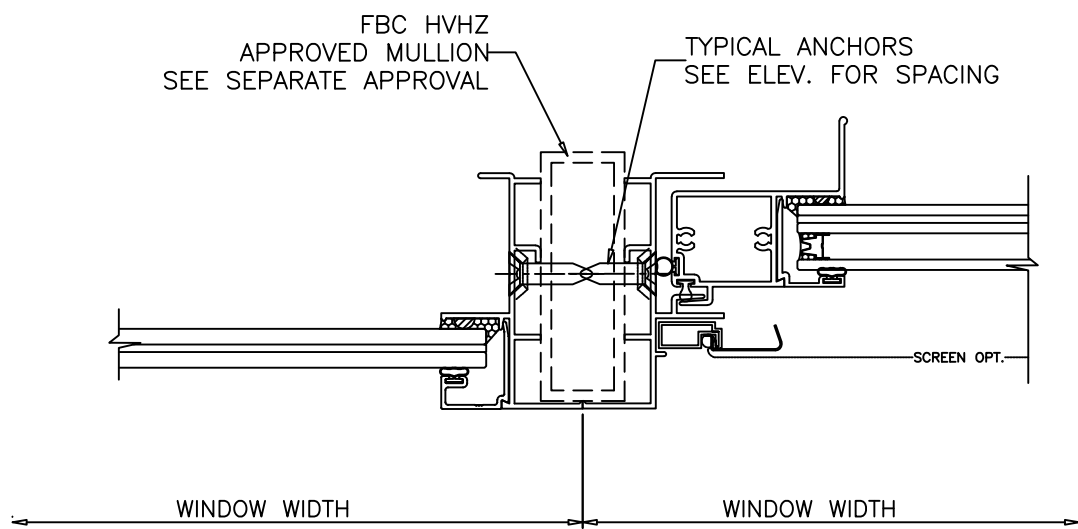




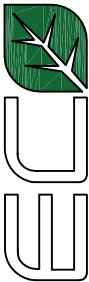
XO LAYOUT

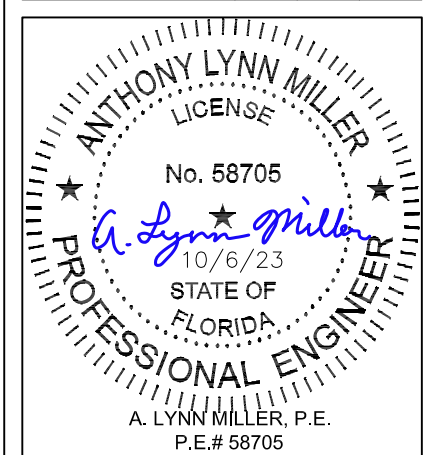


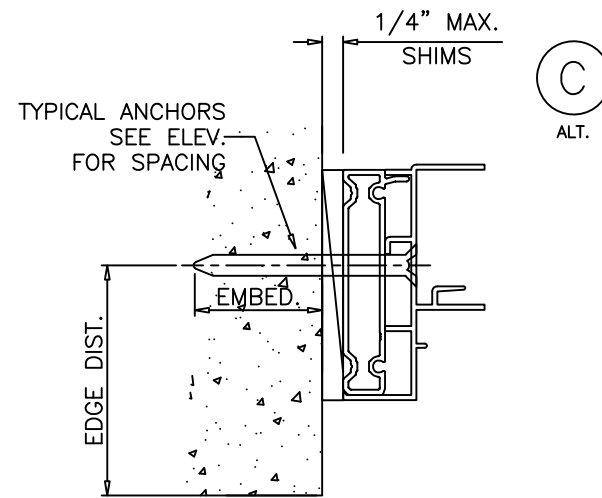
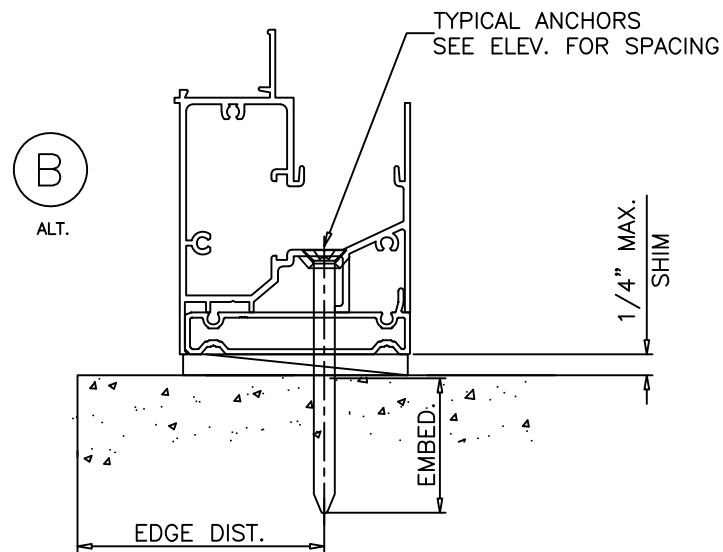
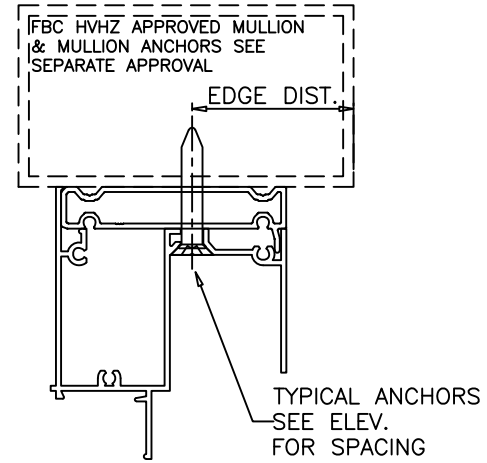
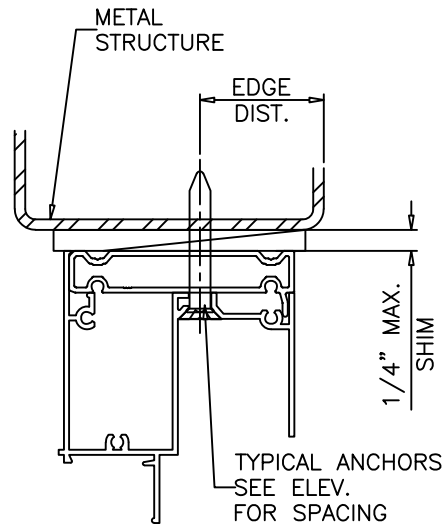
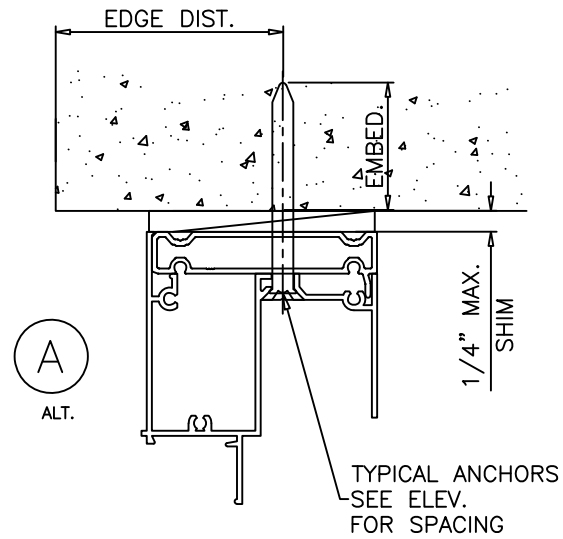
XOX LAYOUT



Revision:	REVISED TABLE FORMAT, ADDED DP TABLE
	ROUNDING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL

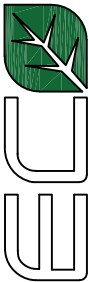
 windows systems	ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	
	REGISTRATION #29296		7/15/2022	
	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)		Date	
Series Desc.	HORIZONTAL SECTION DETAILS		By Drawn	HONG C.
SHEET	SERIES 200	8 OF 11	DWG No.	HR200LM-FPA
			Rev.	B

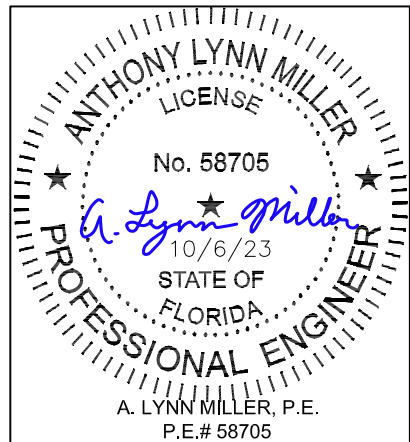


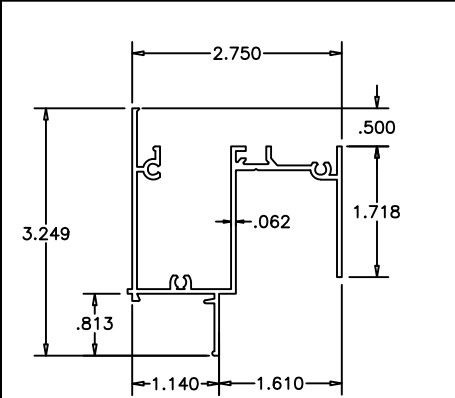


INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

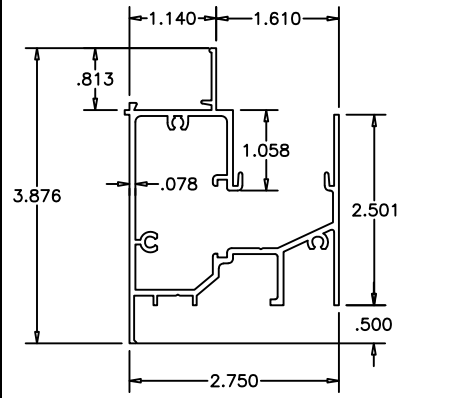
Revision:
REVISED TABLE
FORMAT,
ADDED DP
TABLE
ROUNDING AND
ANCHOR HEAD
TYPE NOTES,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

 EC windows systems	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600			
	REGISTRATION #29296			
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)			
Title	Date		7/15/2022	
ALTERNATIVE FLUSH FRAME DETAIL		By Drawn	HONG C.	
Series	SERIES 200	DWC No.		HR200LM-FPA
9 OF 11		Sheet		Rev.
				B

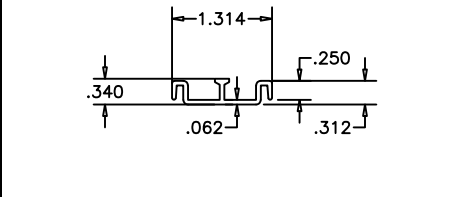




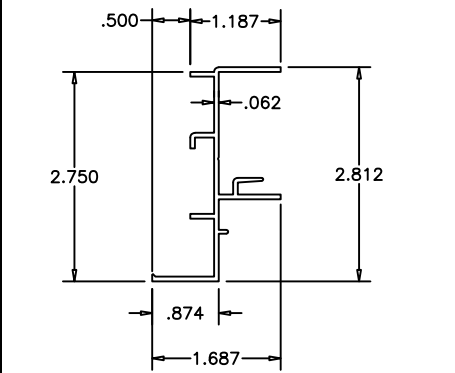
1 FRAME HEAD



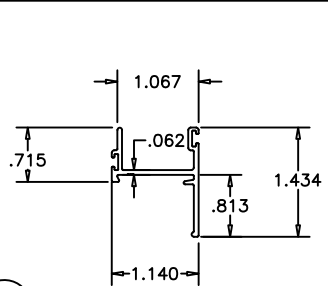
2 FRAME SILL



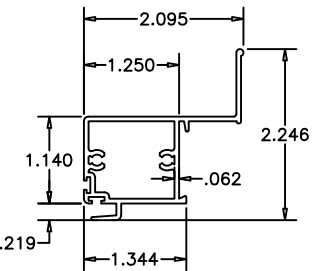
3 SILL TRACK



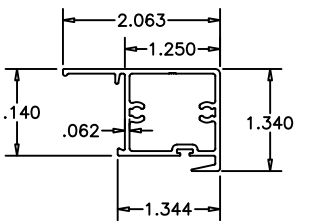
4 MOV. FRAME JAMB



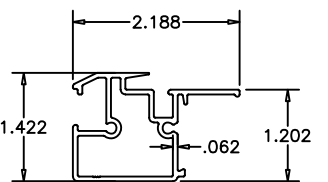
9 VENT TOP/BOT RAIL



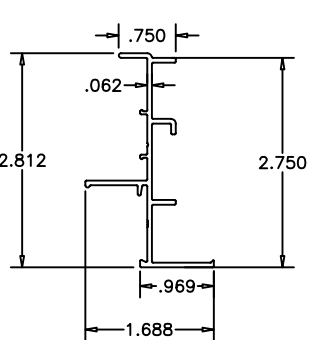
8 JAMB STILE



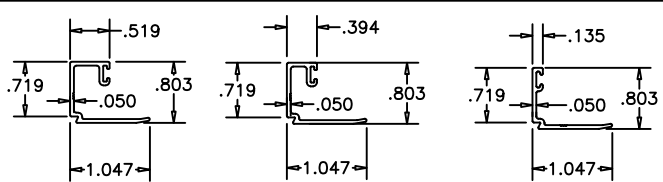
7 METING RAIL



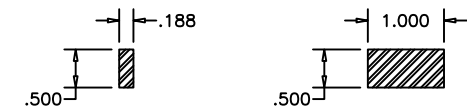
6 FIXED MTG. RAIL



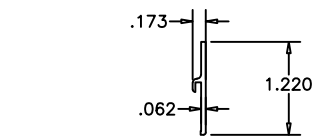
5 FIXED FRAME JAMB



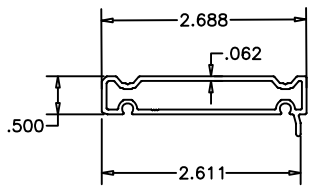
GLAZING BEADS



STEEL REINFORCING

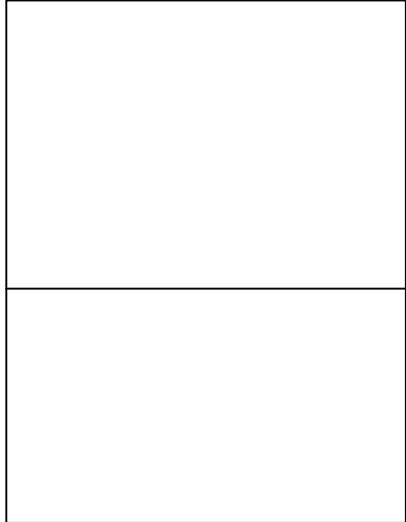


13 ADD-ON SILL RISER

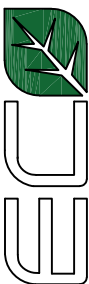


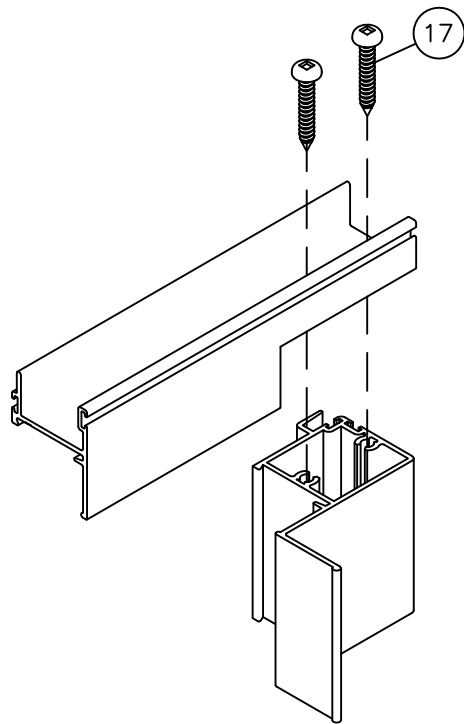
28 FLUSH FRAME ADAPTER

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL
1	FY201	1	FRAME HEAD	6063-T6
2	FY202	1	FRAME SILL	6063-T6
3	FY203	1	SILL TRACK INSERT	6063-T6
4	FY205	AS REQD.	MOV. FRAME JAMB	6063-T6
5	FY101	AS REQD.	FIXED FRAME JAMB	6063-T6
6	FY104	1/VENT	FIXED MTG. RAIL	6063-T6
7	FY105	1/VENT	VENT INTERLOCK	6063-T6
8	FY206	1/VENT	JAMB STILE	6063-T6
9	FY107	2/VENT	TOP AND BOTTOM RAIL	6063-T6
10	FY108	AS REQD.	GLAZING BEAD (5/16" LAM. GLASS)	6063-T6
10A	FY109	AS REQD.	GLAZING BEAD (7/16" LAM. GLASS)	6063-T6
10B	FY110	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T6
11		AS REQD.	1/2" X 3/16" STEEL REINFORCEMENT	STEEL
12		AS REQD.	1/2" X 1" STEEL REINFORCEMENT	STEEL
13	FY204	AS REQD.	ADD-ON SILL RISER	6063-T6
14	FY208	4/VENT	ROLLER HOUSING & GUIDE	CELCON
15	FY209	2/VENT	ROLLER	BRASS
16	FY210	2/VENT	ROLLER PIN	ST. STEEL
17	#8 X 1"	AS REQD.	FRAME/VENT ASSEMBLY SCREWS	CRS
18	#8 X 3"	2/VENT	FIX. RAIL SILL SCREWS (SILL END)	CRS
19	W23181	AS REQD.	FIN SEAL W'STRIPPING	-
20	Q300T190	AS REQD.	BULB SEAL	Q-LON
21	E207	AS REQD.	BULB SEAL	SANTOPRENE
22	E203	AS REQD.	GLAZING BEAD BULB	SANTOPRENE
23	FLB-50	AS REQD.	GLASS OFFSET SPACER	SILICONE
24	SL203P	2/VENT	SWEEP LATCH	-
25	#8 X 5/8"	2/LATCH	LATCH INST. SCREW	ST. STEEL
26	WA2L	AS REQD.	WEEP VALVE	-
27	-	1/VENT	5/16" BOX SCREEN	-
28	FY120	AS REQD.	FLUSH FRAME ADAPTER	6063-T6
29	-	AS REQD.	SETTING BLOCK	EPDM
30	-	AS REQD.	IG SPACER: CARDINAL XL & SUPERSPACER	VARIOUS

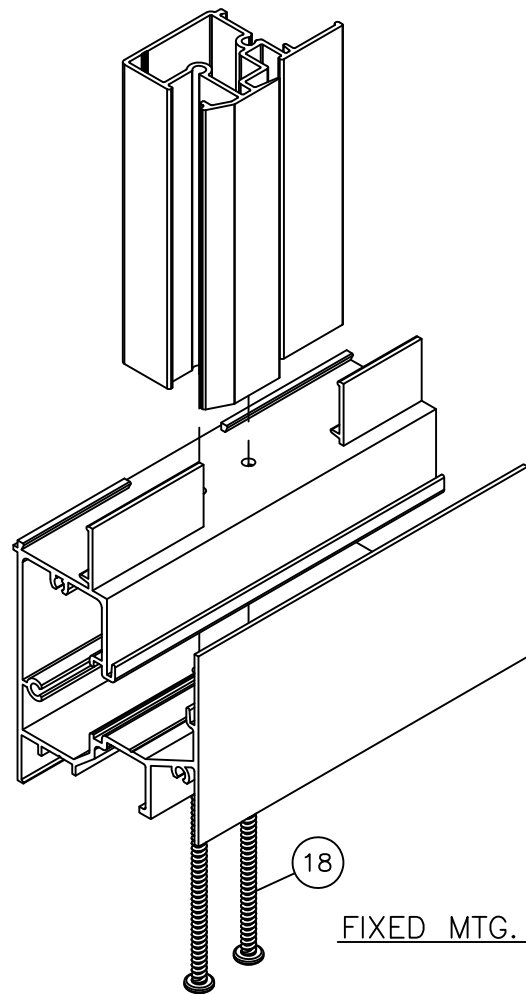


Revision:	REVISED TABLE FORMAT, ADDED DP TABLE ROUNDING AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL
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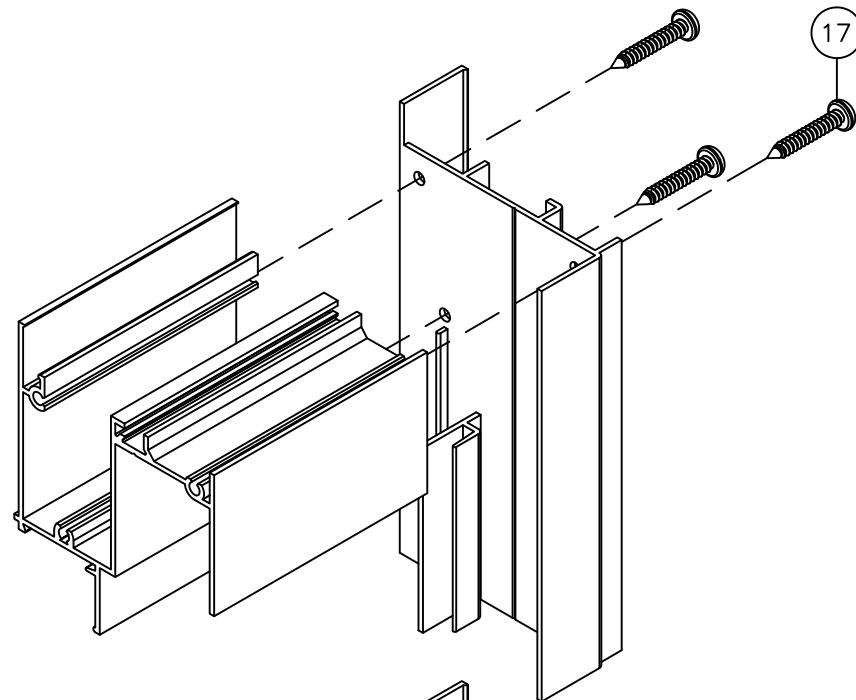
 ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		REGISTRATION #29296		7/15/2022		Rev.	B
				Date			
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)		HONG C.		HR200LM-FPA	
		Title		By Drawn		No.	
Series		DESC.		PROFILES & BOM		10 OF 11	
Series		DESC.		Series 200		Sheet	



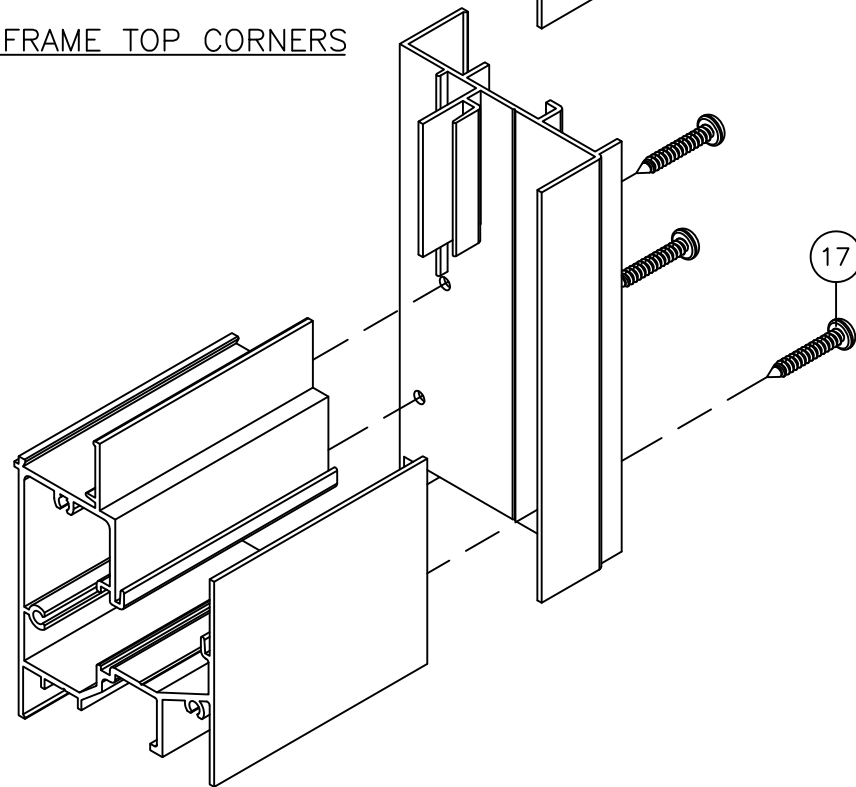
VENT TOP/BOTTOM CORNERS



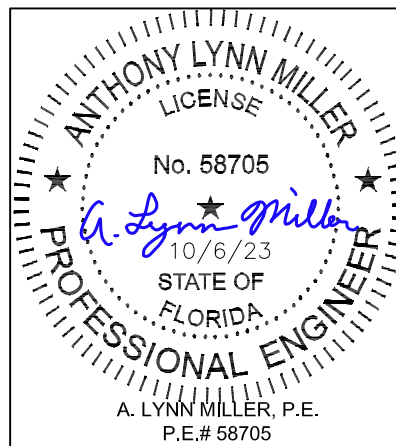
FIXED MTG. RAIL CORNER



FRAME TOP CORNERS



FRAME BOTTOM CORNERS



ECO windows systems
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST., MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

ECO-GUARD SERIES-200 ALUM HORZ. ROLLING WDW (L.M.I.)

CORNER JOINT ASSEMBLY DETAILS

SERIES 200

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

7/15/2022

HONG C.

HR200LM-FPA

11 OF 11

SHEET

Revision:
REVISED TABLE
FORMAT,
ADDED DP
TABLE
ROUNDING AND
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TYPE NOTES,
REMOVED
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INSTALL DETAIL