

FLORIDA DEPARTMENT OF
Business & Professional Regulation



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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

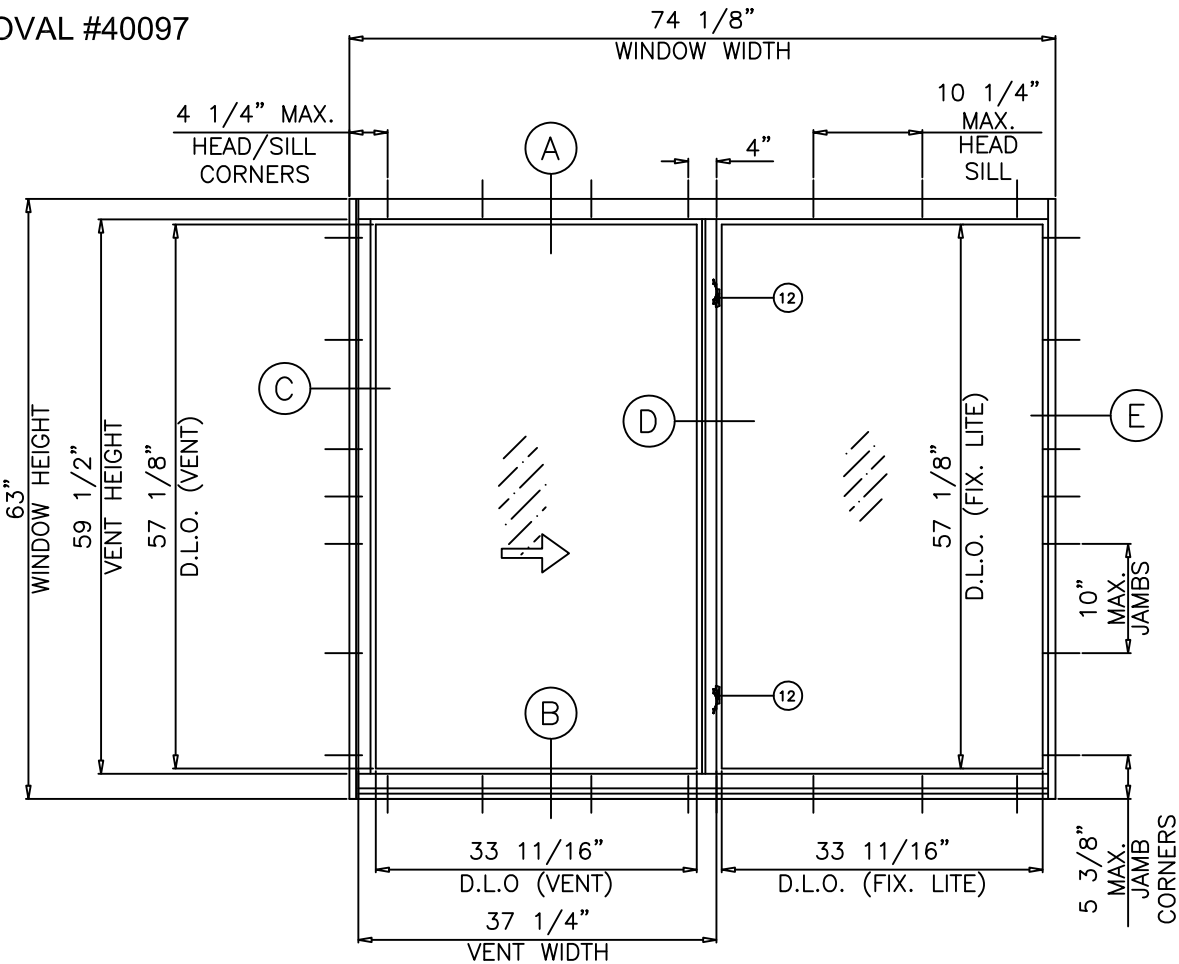
Next

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Product Approval Accepts:





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

TYPICAL ELEVATION

MAXIMUM DESIGN LOAD RATING = + 55.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER) - 60.0 PSF

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

ECO-GUARD SERIES-60
ALUMINUM HORIZONTAL ROLLING WINDOW

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. HVHZ 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).

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.

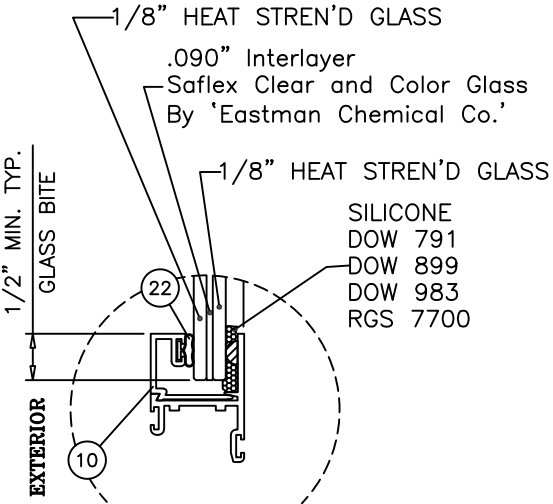
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

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.

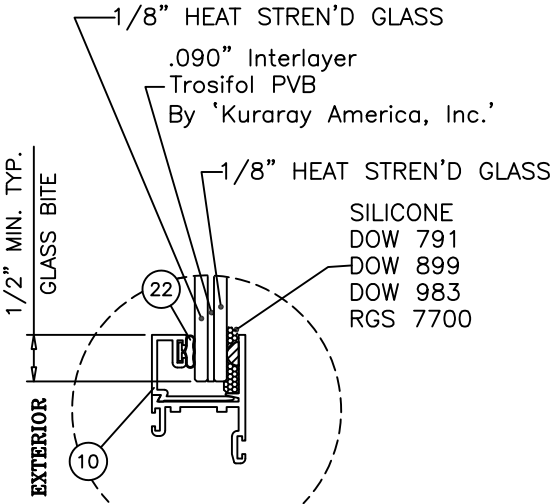
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION
FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR
WATER INFILTRATION RESISTANCE ETC.

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

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



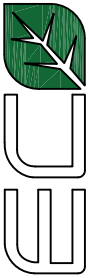
GLASS TYPE 'A'
5/16" OVERALL LAM. GLASS

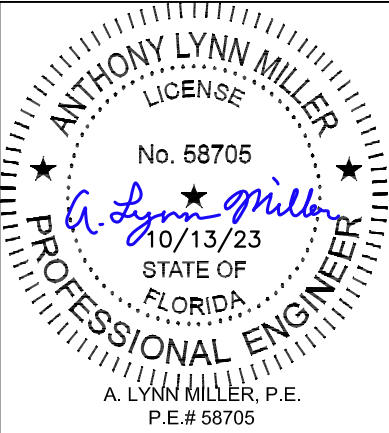


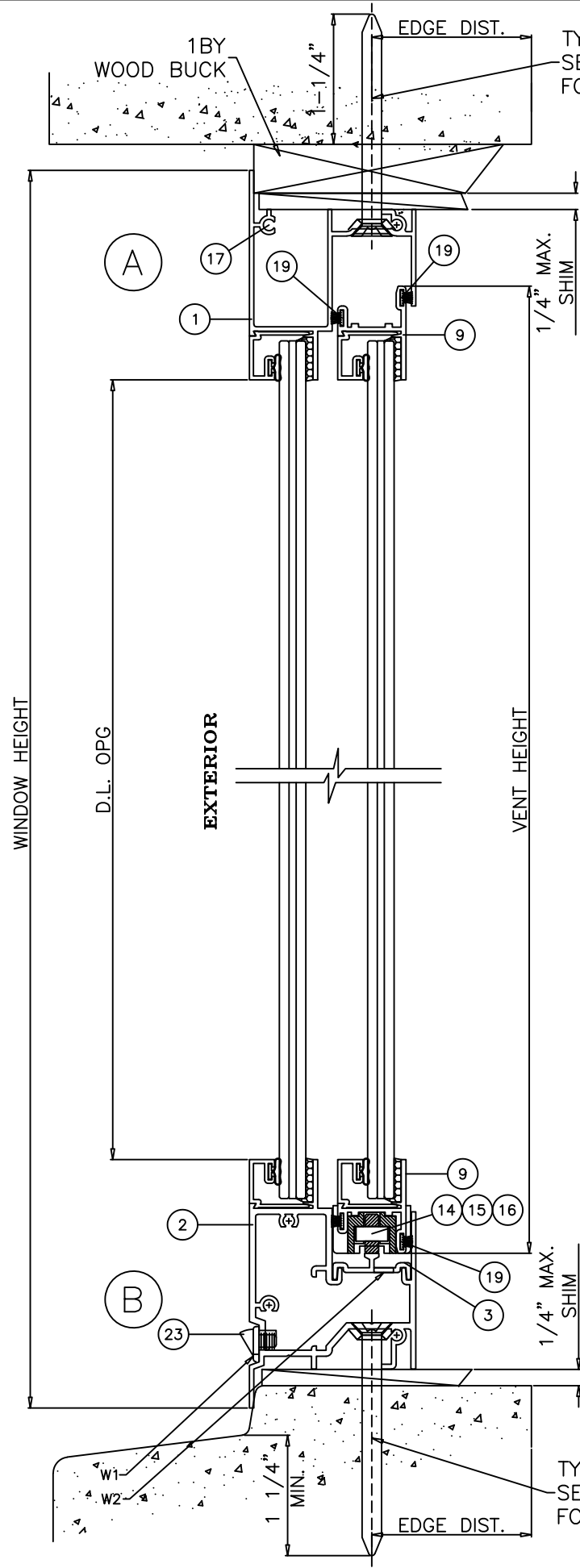
GLASS TYPE 'B'
5/16" OVERALL LAM. GLASS

GLAZING OPTIONS

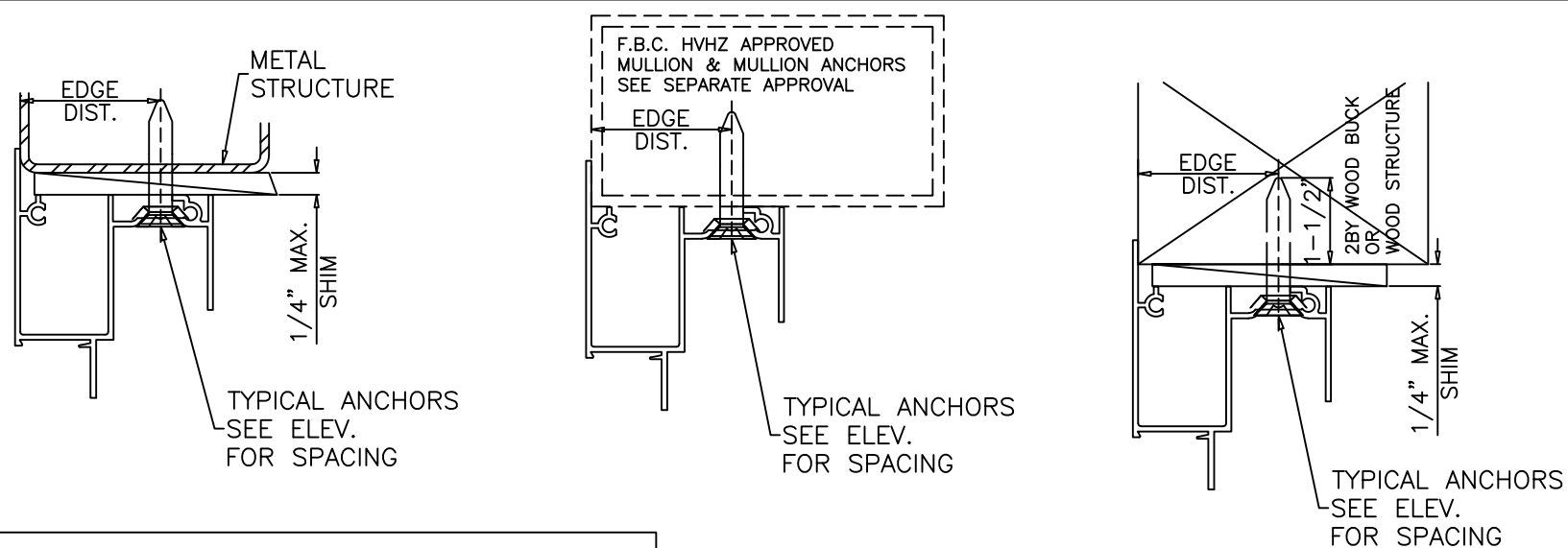
Revision:
ADDED EQUAL
LEG ADAPTER,
PLACED
ANCHORS IN
TABLE
FORMAT,
ADDED
ANCHOR HEAD
TYPE NOTE,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

 window 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									
		Date 8/1/2022									
		SERIES 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)									
Title		GENERAL INFORMATION, ELEVATION, GLASS TYPES, & DESIGN LOADS		A. M.		Dwg No.		HR60 - LMI		Rev.	
Series Desc.		SERIES 60		Sheet		1 OF 6		Dwg No.		A	





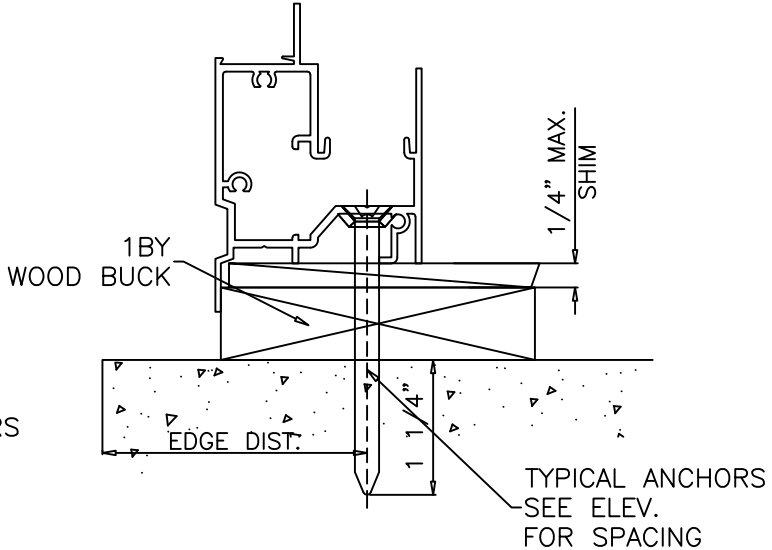
WOOD BUCKS AND METAL STRUCTURE NOT BY 'ECO WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.



TYPICAL ANCHORS SEE ELEV. FOR SPACING

Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. Embedment or Metal Thickness
1/4" ITW Tapcon or 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"
#14 SMS or Self Drilling Screws (Gr. 2)	All	Aluminum 1/8" Thk. Min. (6063-T5)	3/4"	(3) Threads min. beyond metal thickness
	All	Steel 1/8" Thk. Min. (min. 36 ksi)	3/4"	(3) Threads min. beyond metal thickness

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



WEEPHOLES:
W1 = 1/4" X 1-5/8" WEEPHOLES WITH BAFFLE AT 4" FROM EACH END AND AT MIDSPAN.
W2 = 1/4" X 1" WEEPHOLES AT 2-1/4" FROM EACH END AND AT MIDSPAN.

SEALANT:
ALL JOINTS AND FRAME CONNECTIONS SEALED WITH JOINT SEALER.

Revision:
ADDED EQUAL LEG ADAPTER, PLACED ANCHORS IN TABLE FORMAT, ADDED ANCHOR HEAD TYPE NOTE, 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.
8502 N.W. 80th ST., MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

8/1/2022

By A. M.

Series 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)

VERTICAL CROSS SECTIONS & ANCHOR SPECIFICATIONS

Series Desc.

Rev. A

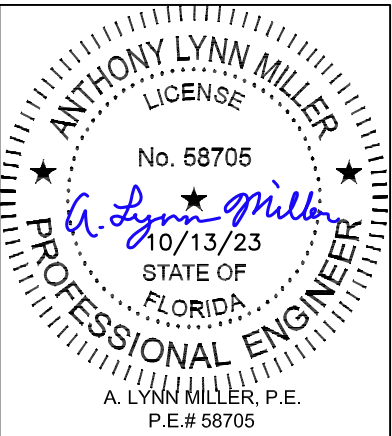
HR60 - LMI

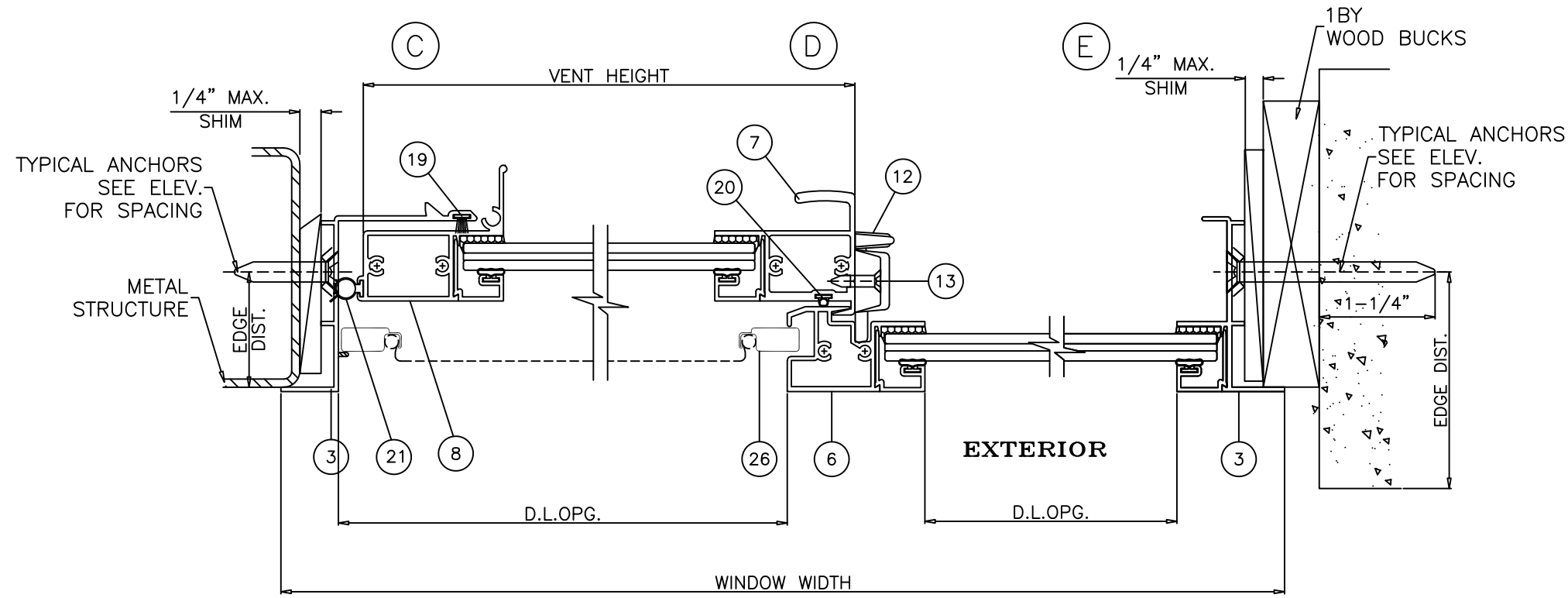
DWG No.

2 OF 6

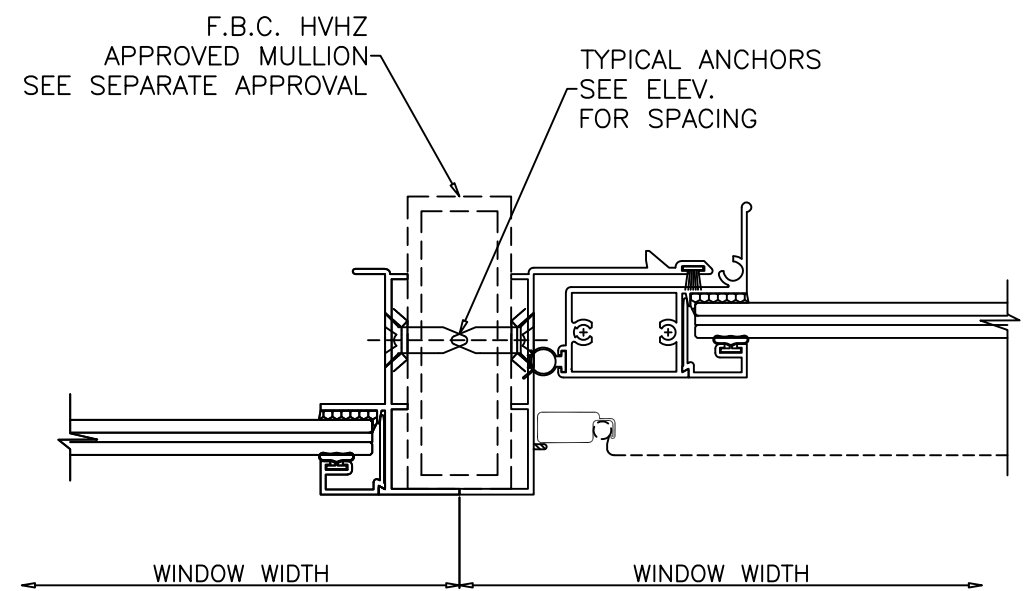
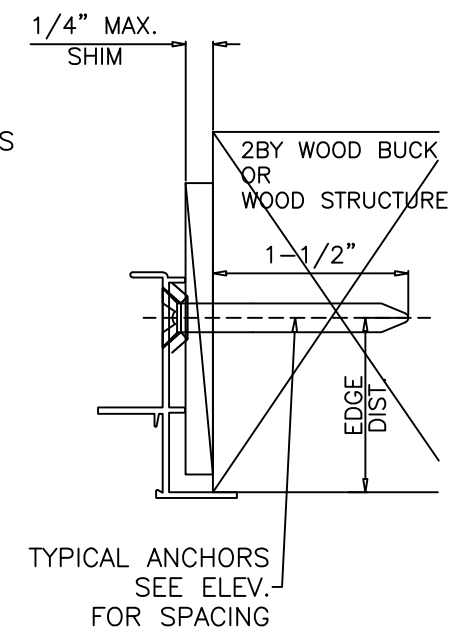
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Series 60



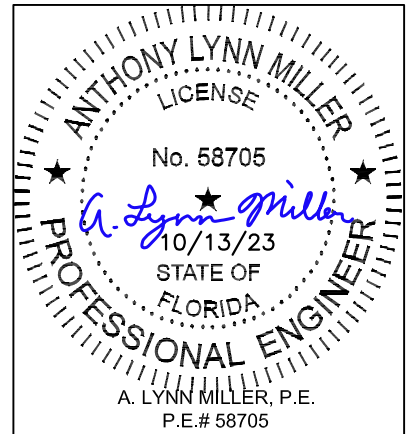


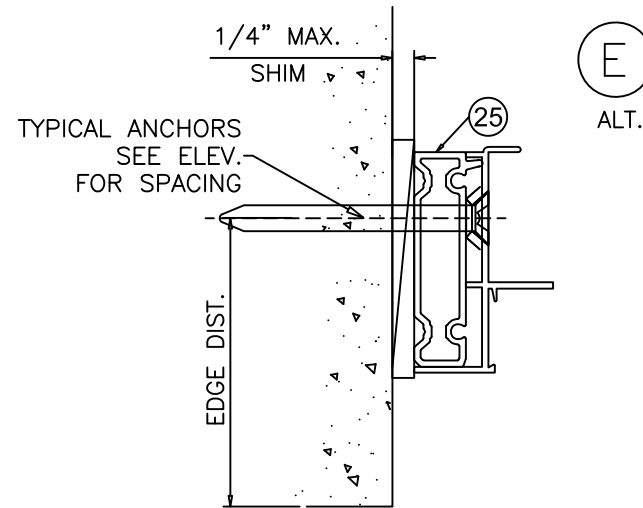
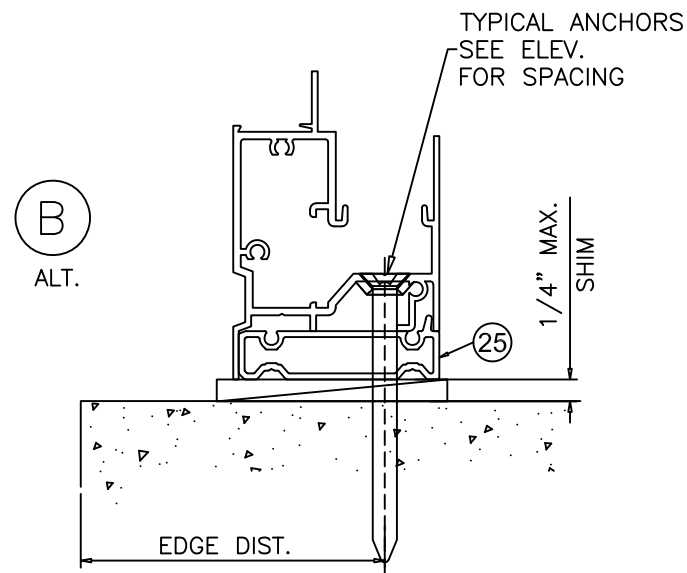
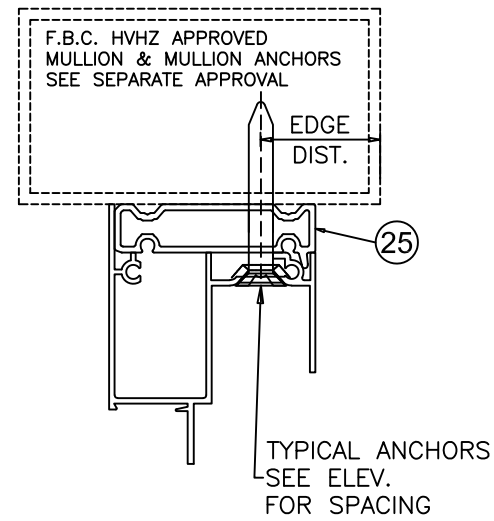
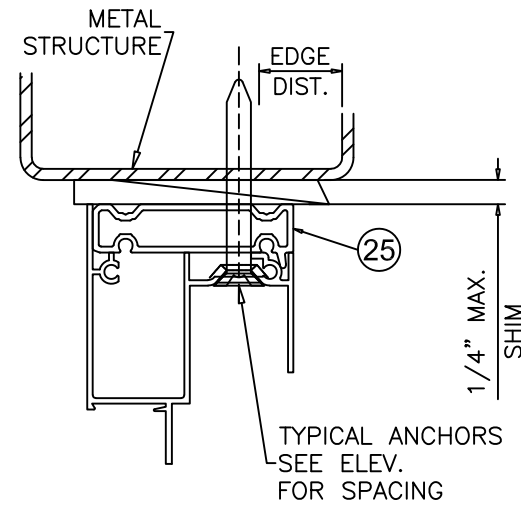
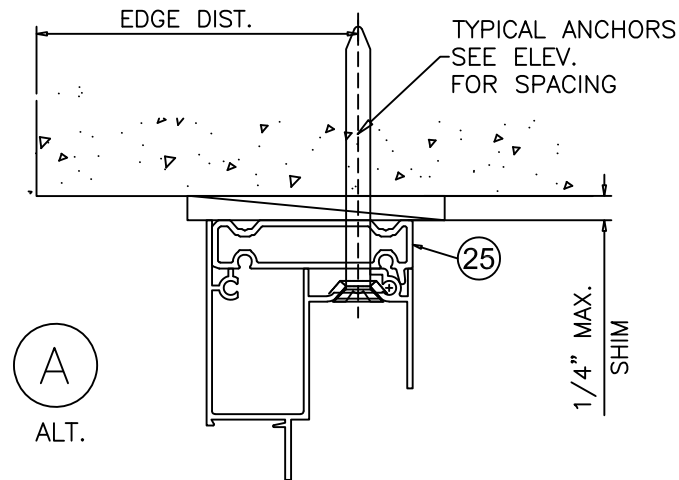
XO LAYOUT



Revision:
 ADDED EQUAL LEG ADAPTER, PLACED ANCHORS IN TABLE FORMAT, ADDED ANCHOR HEAD TYPE NOTE, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296		8/1/2022		A	
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		SERIES 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)		A. M.		HR60 - LMI	
HORIZONTAL CROSS SECTIONS		3 OF 6		SERIES 60		Sheet	
Title		Desc.		Series		Rev.	

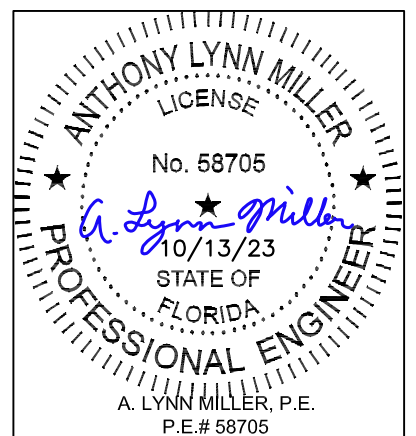


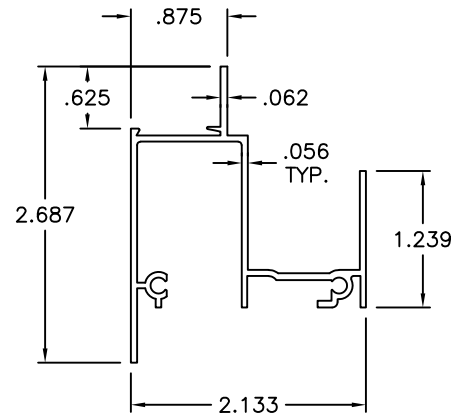


INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

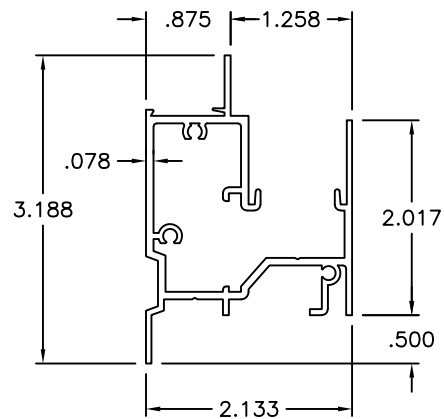
Revision:
 ADDED EQUAL
 LEG ADAPTER,
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 TABLE
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PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296		8/1/2022		A	
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		SERIES 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)		A. M.		HR60 - LMI	
FLUSH FRAME INSTALLATION DETAILS		No.		Dwg		Rev.	
SERIES 60		4 OF 6		Sheet		A	

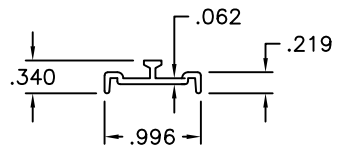




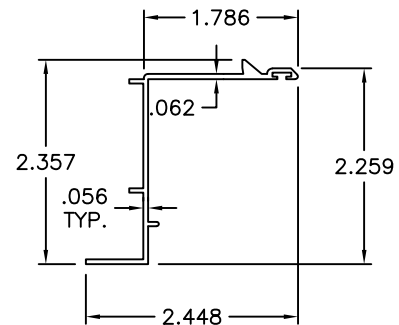
① FRAME HEAD



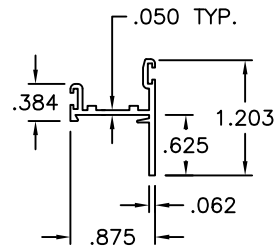
② FRAME SILL



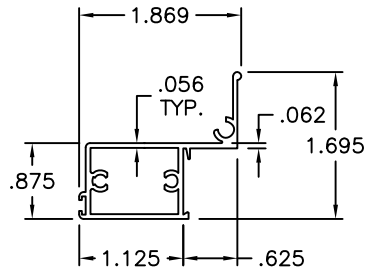
③ SILL TRACK



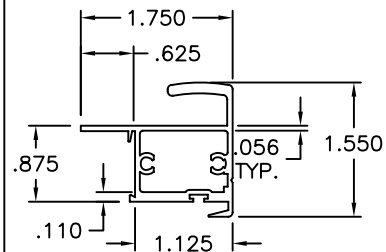
④ MOV. FRAME JAMB



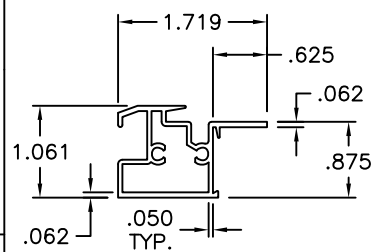
⑨ VENT TOP/BOTTOM RAIL



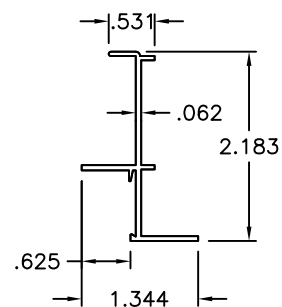
⑧ JAMB STILE



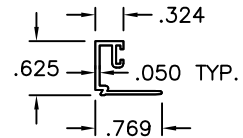
⑦ MEETING RAIL



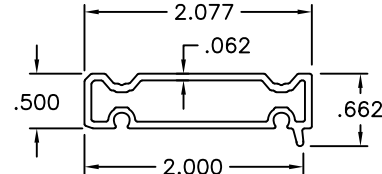
⑥ FIXED MTG. RAIL



⑤ FIXED FRAME JAMB



⑩ GLAZING BEAD



⑫ FLUSH FRAME ADAPTER

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E53	1	FRAME HEAD	6063 - T6	-
2	E61	1	FRAME SILL	6063 - T6	-
3	E62	1	SILL TRACK INSERT	6063 - T6	-
4	E52	AS REQD.	MOV. FRAME JAMB	6063 - T6	-
5	E51	AS REQD.	FIXED FRAME JAMB	6063 - T6	-
6	E54	1/ VENT	FIXED MTG. RAIL	6063 - T6	-
7	E66	1/ VENT	VENT MEETING STILE	6063 - T6	-
8	E56	1/ VENT	VENT JAMB STILE	6063 - T6	-
9	E57	2/ VENT	TOP AND BOTTOM RAIL	6063 - T6	-
10	E58	AS REQD.	GLAZING BEAD	6063 - T6	-
12	SL203P	2/ VENT	SWEEP LATCH, AT 9-1/2" FROM TOP AND BOTTOM	-	SULLIVAN & ASSOC.
13	#8 X 5/8"	2/ LATCH	LATCH INST. SCREW	ST. STEEL	FH SMS
14	E63	2/ VENT	ROLLER HOUSING & GUIDE	CELCON	-
15	E64	2/ VENT	ROLLER	BRASS	-
16	E65	2/ VENT	ROLLER PIN	ST. STEEL	-
17	#8 X 1"	AS REQD.	FRAME/VENT ASSEMBLY SCREWS	CRS	P.H. SMS
18	#8 X 3"	2/ VENT	FIX. RAIL SILL SCREWS (SILL END)	CRS	P.H. SMS
19	W23181	AS REQD.	PILE WITH INTEGRAL FIN W'STRIPPING	-	ULTRAFAB
21	E207	AS REQD.	BULB SEAL	SANTOPRENE	ULTRAFAB, DUROMETER 65±5
22	E203	AS REQD.	GLAZING BEAD BULB	SANTOPRENE	ULTRAFAB, DUROMETER 65±5
23	WA2L	2/ WDW.	WEEP VALVE	-	PREFERRED ENG. PRODUCTS
24	-	1/ VENT	5/16" BOX SCREEN	-	OPTIONAL
25	E060	-	FLUSH FRAME ADAPTER	6063 - T6	OPTIONAL

Revision:
ADDED EQUAL
LEG ADAPTER,
PLACED
ANCHORS IN
TABLE
FORMAT,
ADDED
ANCHOR HEAD
TYPE NOTE,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

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

REGISTRATION #29296

Date 8/1/2022

By A. M.

Drawn

Rev. A

HR60 - LMI

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

REGISTRATION #29296

SERIES 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)

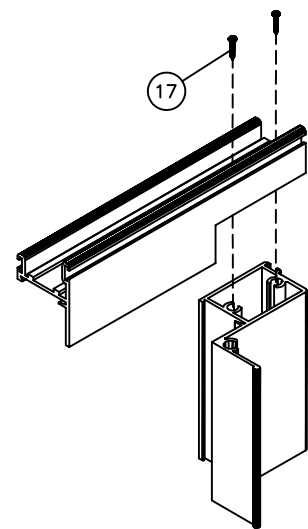
EXTRUSION PROFILES & BOM

SERIES 60

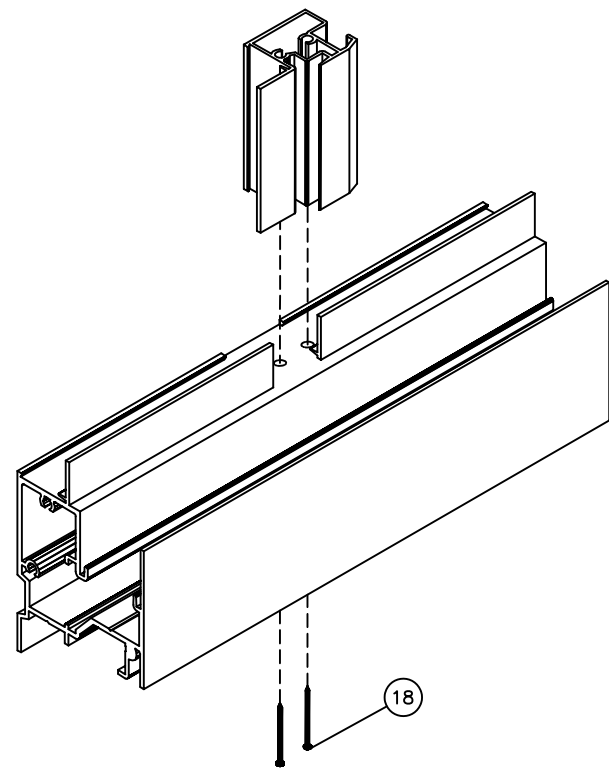
5 OF 6

Sheet

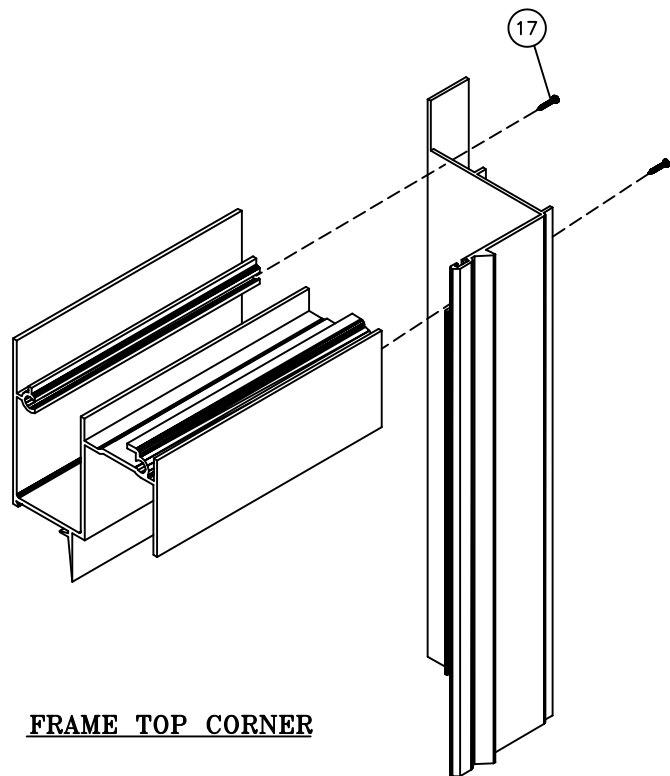
ANTHONY LYNN MILLER
LICENSE
No. 58705
10/13/23
STATE OF
FLORIDA
A. LYNN MILLER, P.E.
P.E.# 58705



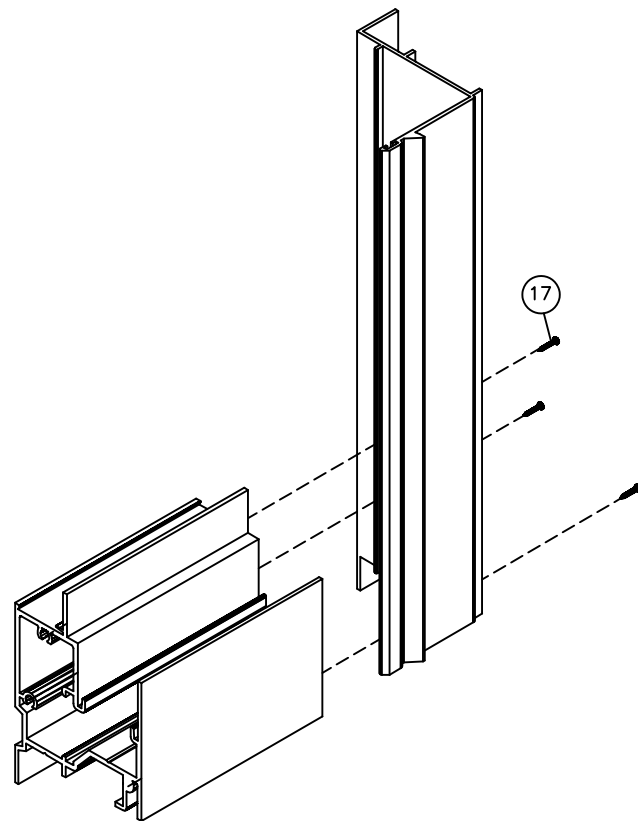
VENT TOP/BOTTOM CORNERS



FIXED MTG. RAIL CORNER



FRAME TOP CORNER



FRAME BOTTOM CORNER

Revision:
ADDED EQUAL
LEG ADAPTER,
PLACED
ANCHORS IN
TABLE
FORMAT,
ADDED
ANCHOR HEAD
TYPE NOTE,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296		8/1/2022		A	
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		SERIES 60 ALU. HORIZONTAL ROLLING WINDOW (L.M.I.)		A. M.		HR60 - LMI	
CORNER ASSEMBLY DETAILS		6 OF 6		6 OF 6		A	
SERIES 60		DWC		No.		Rev.	
Title		Desc.		Sheet		By	

