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USER: Public User[Product Approval Menu](#) > [Product or Application Search](#) > [Application List](#) > **Application Detail**OFFICE OF THE
SECRETARY

FL #

FL32389-R5

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

Fixed

Compliance Method

Evaluation Report from a Florida Registered Architect or a Licensed Florida
Professional Engineer
Evaluation Report - Hardcopy ReceivedFlorida 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

[FL32389_R5_COI_Cert of Independence.pdf](#)

Referenced Standard and Year (of Standard)

Standard
TAS 201**Year**
1994

TAS 202
TAS 2031994
1994Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted 10/06/2023
 Date Validated 10/09/2023
 Date Pending FBC Approval 10/18/2023
 Date Approved 12/13/2023

Summary of Products

FL #	Model, Number or Name	Description
32389.1	Series 70 Aluminum Fixed Window	Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW70FPA - LMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW70LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.2	Series 70 Aluminum Fixed Window	Non-impact Resistant, Aluminum Fixed Window
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: No 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 FL32389_R5_II_PW70FPA - NI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW70NI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.3	Series 300 Aluminum Fixed Window	Large Missile Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW300FPA - LMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW300LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.4	Series 300 Aluminum Fixed Window	Small Missile Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW300FPA - SMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW300SMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.5	Series 350 Aluminum Fixed Window	Large Missile Impact Resistant, Aluminum Fixed Window
Limits of Use		Installation Instructions

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.		FL32389_R5_II_PW350FPA - LMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW350LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.6	Series 350 Aluminum Fixed Window	Small Missile Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW350FPA - SMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW350SMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.7	Series 550 Aluminum Fixed Window	Large Missile Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW550FPA - LMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW550LMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.8	Series 550 Aluminum Fixed Window	Small Missile Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW550FPA - SMI REV A2.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW550SMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.9	Series 610 Aluminum Fixed Window	Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW610FSFPA - LMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW610FSLMI ENG EVAL REV A.pdf Created by Independent Third Party: No
32389.10	Series 620 Aluminum Fixed Window	Impact Resistant, Aluminum Fixed 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 FL32389_R5_II_PW620FSFPA - LMI REV A.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL32389_R5_AE_ECO_PW620FSLMI ENG EVAL REV A.pdf Created by Independent Third Party: No

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

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455, F.S., please click [here](#).

Product Approval Accepts:



Credit Card
Safe



Urich Engineering, LLC

6154 Newgate Circle
Mechanicsburg, PA 17050
717-317-8454
steve@urichengrllc.com

October 4, 2017

To Whom it May Concern:

Urich Engineering, LLC is owned and operated by Steven Urich, PE.

Urich Engineering, LLC and Steven Urich, PE do not have, nor intend to acquire, a financial interest in any company manufacturing or distributing a product listed in this product approval;

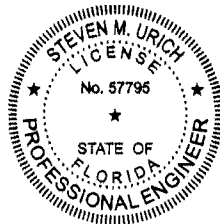
Urich Engineering, LLC and Steven Urich, PE are not affiliated with any company testing or labeling a product under this approval;

Urich Engineering, LLC and Steven Urich, PE do not have, nor intend to acquire, a financial interest in any company involved in the approval process of the products listed in this product approval.

Thank you.

St M Urich

Steven M. Urich, PE
President



This item has been electronically signed and sealed by Steven M. Urich, PE on 10/4/2017 using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Engineering Evaluation Report # 350LM-091523

Prepared by:

A. Lynn Miller, P.E.
1070 Technology Dr.
N. Venice, FL 34275
(941) 480-1600
Registration Number: #29296

Manufacturer:

Eco Window Systems
9114 NW 106 St.
Medley, FL 33178
(305) 885-5299

Product Description:

Series "350", Large Missile Impact Resistant, Aluminum Fixed Window, FL #32389

Compliance:

The above-mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61 G20-3.005 method 1(d). The product listed herein complies with requirements of the current Florida Building Code.

This product has been evaluated and is in compliance with the current Florida Building Code, including the "High Velocity Hurricane Zone" (HVHZ).

Supporting Technical Documentation:

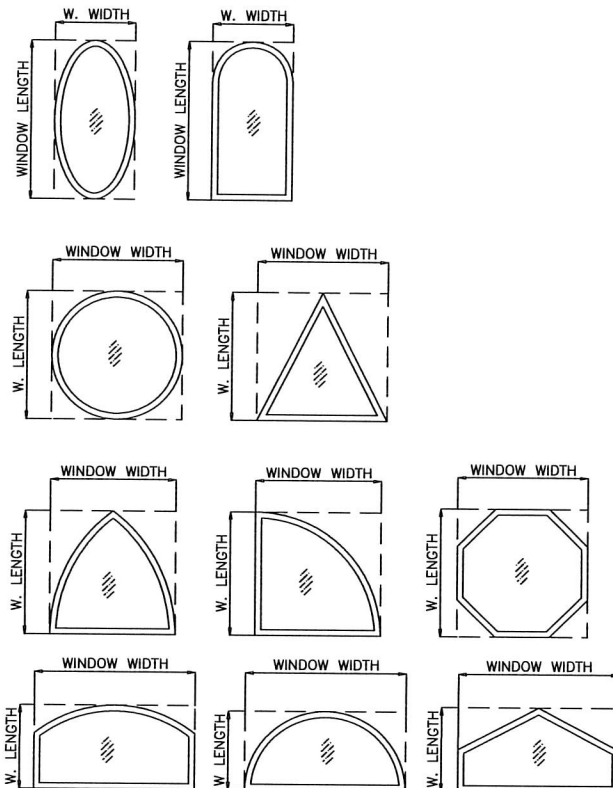
1. Approval Document: drawing number "PW350LM-FPA", signed and sealed by A. Lynn Miller, P.E.
2. Test Report No. FTL-9404, signed by Idalmis Ortega, P.E.; Fenestration Testing Laboratory Inc. Test Standards: TAS 201-94, TAS 202-94, TAS 203-94, & ANSI Z97.1 dated 03/01/17.
3. Anchor verification calculations and structural analysis, dated 06/13/17.

Limitations and Conditions of use:

- Maximum Design Pressure: +75.0/-105.0 psf
- Maximum Tip-to-Tip Frame Size: 63-1/4" x 103-1/4"
- Maximum DLO: 59-5/8" x 99-5/8"
- Units must be glazed per ASTM E1300-09, refer to approval document for glazing details.
- This product is impact resistant and does not require impact protection in wind borne debris regions.
- Frame material to be extruded aluminum.
- Units must be installed in accordance with Approval Document.



A. LYNN MILLER, P.E.
P.E. # 58705



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

SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIXED/FIXED OR FIXED WITH OTHER WINDOW (UNDER SEPARATE APPROVAL) 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.
AHJ TO REVIEW SUCH APPLICATION AND VERIFY TRIBUTARY LOAD AND END LOAD ANCHORS.

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 3.

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.

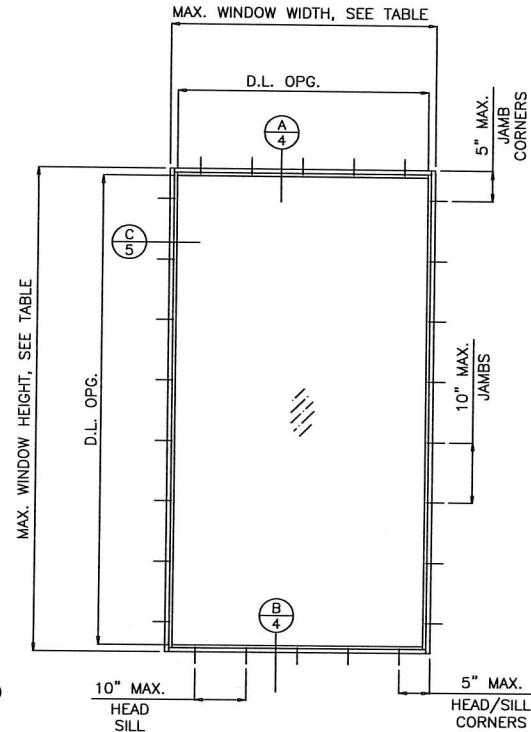
A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY. ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

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)'.



TYPICAL ELEVATION

GLASS D.L.O. DIMS.

D.L.O. HEIGHT = WINDOW HEIGHT - 3.625"

D.L.O. WIDTH = WINDOW WIDTH - 3.625"

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

ALL TEMPERED AND/OR LAMINATED GLASS OPTIONS IN THIS APPROVAL HAVE BEEN CERTIFIED BY THE SGCC FOR COMPLIANCE TO ANSI Z97.1, CLASS A AND CPSC 16 CFR 1201, CATEGORY II. THIS INCLUDES LAMINATED GLASS THAT IS MANUFACTURED WITH ANNEALED GLASS PLIES. FOR APPLICATIONS WHERE THE WINDOW IS BEING USED AS A GUARD, HEAT STRENGTHENED OR TEMPERED LAMINATED GLASS MUST BE USED.

Revision:
ADDED EQUAL
LEG ADAPTER,
REVISED TABLE
FORMAT
ADDED DP
TABLE
ROUNDING
ANSI Z97.1, 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 #29286

Date 2/10/2022

HONG C.

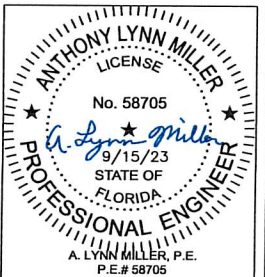
Rev. A

ECO WINDOW SYSTEMS, LLC
8502 N.W. 80th ST., MEDLEY, FL 33166
TEL. (305) 885-5289 FAX. (305) 885-5802

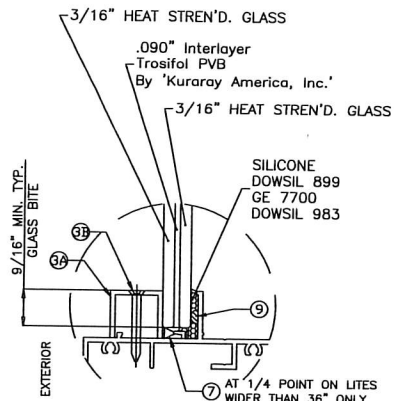
2/10/2022

HONG C.

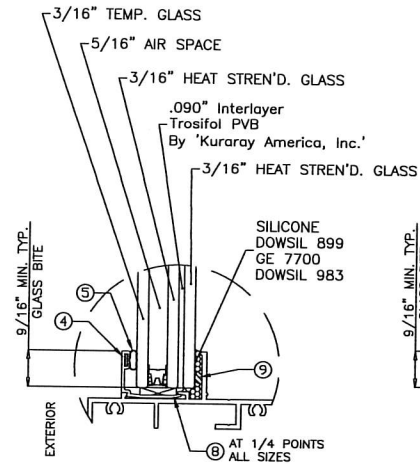
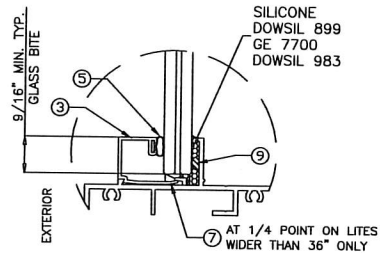
Rev. A



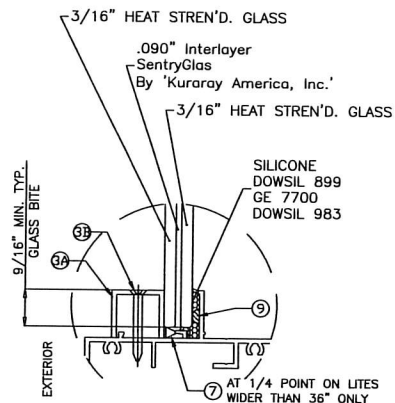
A. LYNN MILLER, P.E.
P.E.# 58705



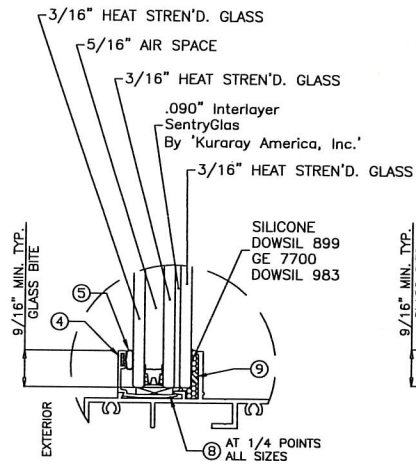
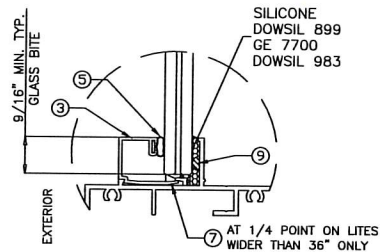
GLASS TYPE 'G2'
7/16" OVERALL LAM. GLASS



GLASS TYPE 'G2i'
15/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'G1'
7/16" OVERALL LAM. GLASS



GLASS TYPE 'G1i*'
15/16" OVERALL INSUL. LAM. GLASS

*

NOTE:
EXTERIOR PLY OF GLASS TYPE 'G1i' MUST BE TEMPERED
TO QUALIFY FOR SMALL MISSILE IMPACT LOCATION.

GLAZING OPTIONS

Revision:
ADDED EQUAL
LEG ADAPTER,
REVISED TABLE
FORMAT
ADDED DP
TABLE
ROUNDING
ANSI Z87.1, AND
ANCHOR HEAD
TYPE NOTES,
REMOVED
SILICONE AND
INSTALL DETAIL

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(841) 480-1600
REGISTRATION #29296
2/10/2022
HONG C.
PW350LM-FPA
A

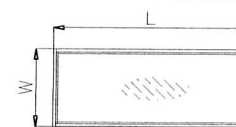
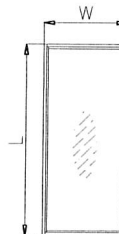
ECO window systems
ECO WINDOW SYSTEMS, LLC
8502 N.W. 80th ST., MEDLEY, FL 33166
TEL. (305) 885-5289 FAX. (305) 885-5802
SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)
GLASS OPTIONS
SERIES 350
2 OF 7
Sheet

ANTHONY LYNN MILLER
LICENSE
No. 58705
9/15/23
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

Design Load Capacity - PSF																							
Window Width (W)	Glass Type	Window Length (L)																					
		38-3/8"	42"	48"	50-5/8"	54"	60"	63"	66"	72"	74-1/4"	78"	84"	90"	96"	102"	103-1/4"	108"	114"	120"			
19-1/8"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
24"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
26-1/2"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
30"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
32"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
36"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
37"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
42"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0	+75.0	-105.0		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
48"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9	+65.6	-91.9		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0		
53-1/8"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+62.2	-87.1	+58.3	-81.7	+59.3	-83.0	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+71.1	-71.1	+66.7	-66.7	+67.8	-67.8	+66.7	-66.7	+67.8	-67.8	+66.7	-66.7	+67.8	-67.8		
54"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+62.2	-87.1	+58.3	-81.7	+58.3	-81.7	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+71.1	-71.1	+66.7	-66.7	+66.7	-66.7	+66.7	-66.7	+66.7	-66.7	+66.7	-66.7	+66.7	-66.7		
60"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+62.2	-87.1	+58.3	-81.7	-	-	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+71.1	-71.1	+66.7	-66.7	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0		
63"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+62.2	-87.1	+58.3	-81.7	-	-	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+71.1	-71.1	+66.7	-66.7	+60.0	-60.0	+57.1	-57.1	+56.9	-56.9	+56.9	-56.9	+56.9	-56.9		
63-1/4"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	+58.3	-81.7	+58.3	-81.7	-	-	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+66.7	-66.7	+66.7	-66.7	+60.0	-60.0	+56.9	-56.9	+56.9	-56.9	+56.9	-56.9	+56.9	-56.9		
66"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+66.7	-66.7	+66.7	-66.7	+60.0	-60.0	+54.5	-54.5	+54.5	-54.5	+54.5	-54.5	+54.5	-54.5		
72"	G1	+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	+80.0	-90.0	+80.0	-90.0		
	G1I	+75.0	-105.0	+75.0	-105.0	+65.6	-91.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	G2 & G2I	+75.0	-75.0	+75.0	-75.0	+75.0	-75.0	+66.7	-66.7	+66.7	-66.7	+60.0	-60.0	-	-	-	-	-	-	-	-		

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

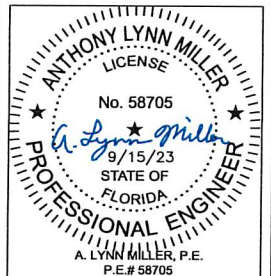
NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)

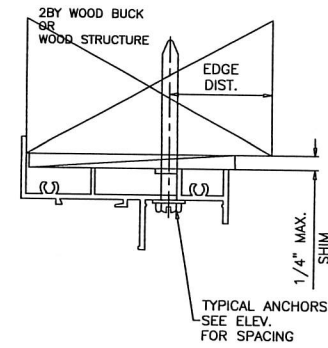
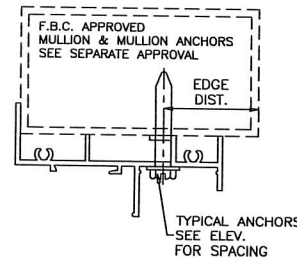
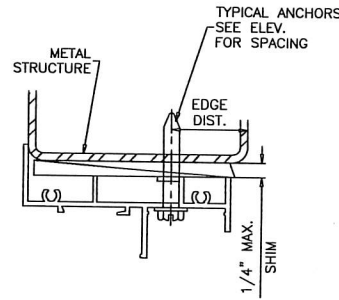
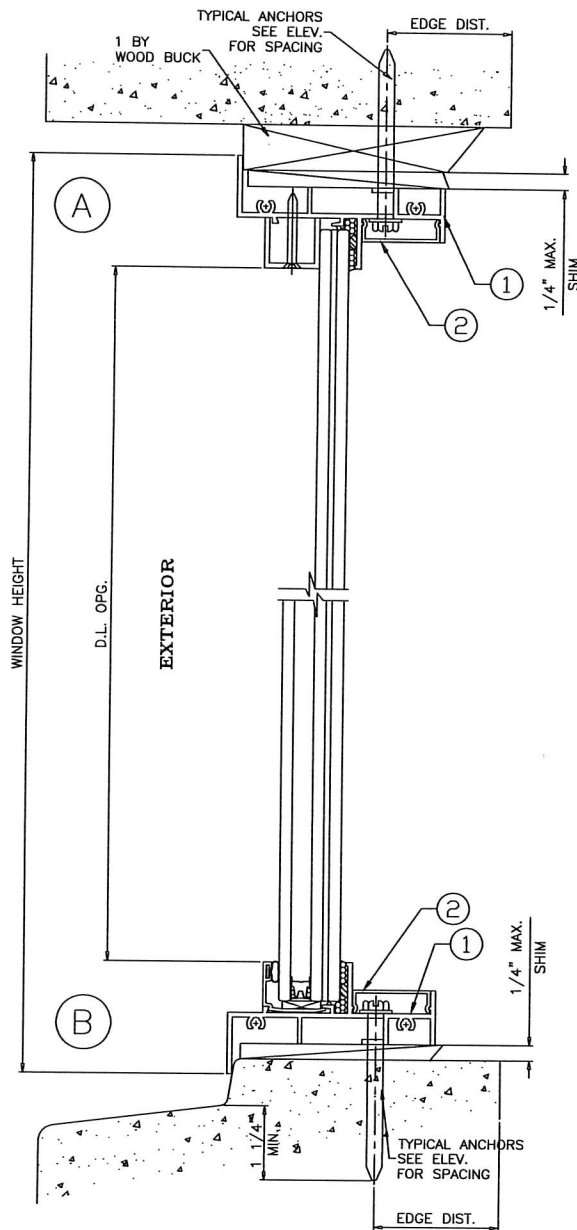


NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE
ORIENTED VERTICALLY OR HORIZONTALLY
AS SHOWN ABOVE.

Revision:
ADDED EQUAL
LEG ADAPTER
REVISED TABLE
FORMAT
ADDED DP
ROUNDING.
ANSI Z97.1, 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) 460-1600		REGISTRATION #29286		2/10/2022		HONG C.		PW350LM-FFA		A	
ECO WINDOW SYSTEMS, LLC 8502 N.W. 80th ST., MIAMI, FL 33166 TEL (305) 885-5289 FAX (305) 885-5802		window systems		Date		By		Dwg No.		Sheet	
SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)		DP CHARTS		3 OF 7		SERIES 350					



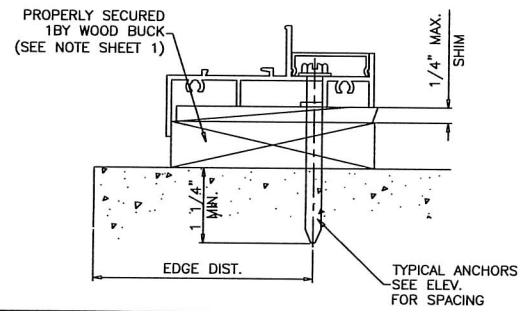


WOOD BUCKS AND METAL STRUCTURE NOT BY 'ECO WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. Embedment or Metal Thickness
1/4" 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 Masonry (ASTM C90, min. 2 ksi)	2-1/2"	1-1/4"
	All	Concrete (min. 3ksi)	2-1/2"	1-1/4"
#14 SMS or Self Drilling Screws (Gr. 2)	Jambs	Filled Block (ASTM C90, min. 2 ksi)	2-1/2"	1-3/4"
	All	F.B.C 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 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



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

Revision:

ADDED EQUAL LEG ADAPTER, REVISED TABLE FORMAT, ADDED DP TABLE ROUNDING, ANSI Z87.1, AND ANCHOR HEAD TYPE NOTES, REMOVED SILICONE AND BACKSTOP ON INSTALL DETAIL

Prepared by: A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34276
(941) 480-1600

REGISTRATION #29296

ECO WINDOW SYSTEMS, LLC
8502 N.W. 80th ST., MEDLEY, FL 33166
TEL (305) 885-5289 FAX (305) 885-5902

SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)

VERTICAL SECTION DETAILS & ANCHOR DETAILS

SERIES 350

2/10/2022

HONG C.

PW350LM-FPA

Rev. A

Sheet 4 OF 7

ANTHONY LYNN MILLER

LICENSE

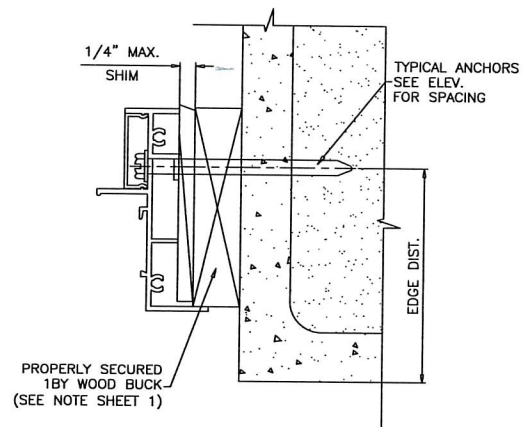
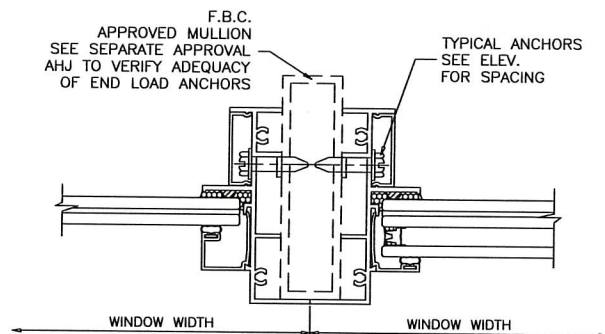
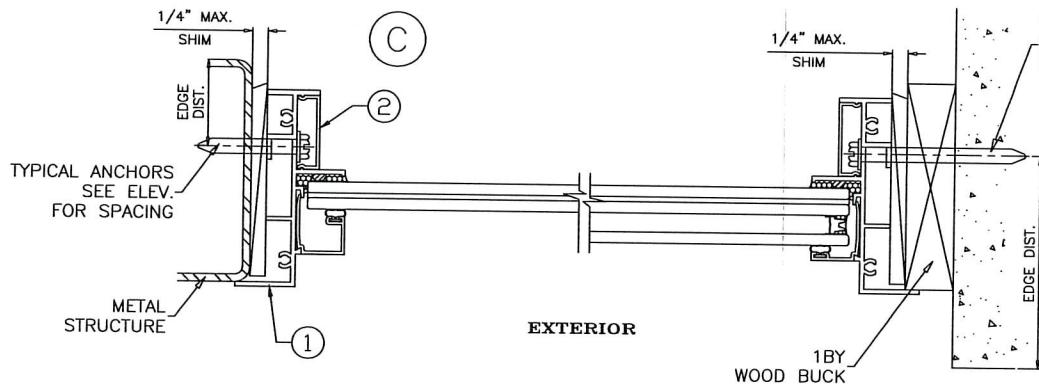
No. 58705

9/15/23

STATE OF FLORIDA

PROFESSIONAL ENGINEER

A. LYNN MILLER, P.E.
P.E.# 58705



ECO window systems
 ECO WINDOW SYSTEMS, LLC
 8502 N.W. 80th ST. MEDLEY, FL 33166
 TEL. (305) 885-5289 FAX. (305) 885-5902

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

REGISTRATION #29296

2/10/2022

SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)

HONG C.

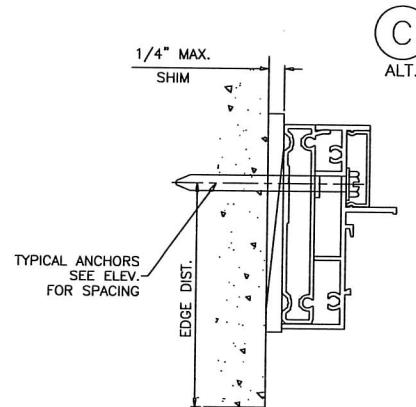
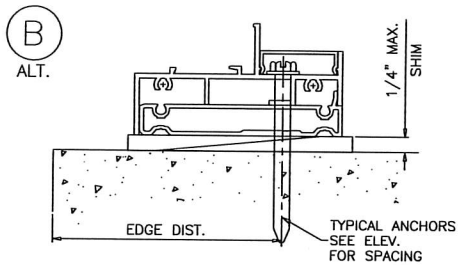
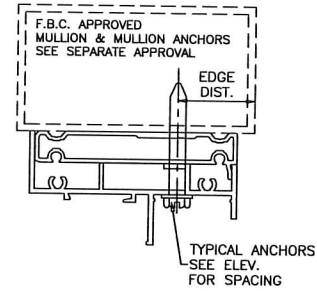
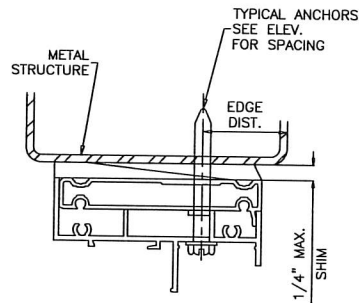
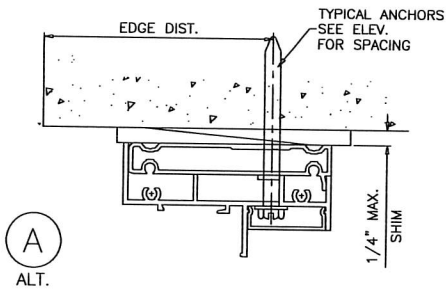
HORIZONTAL SECTION DETAILS

PW350LM-FPA

SERIES 350

5 OF 7

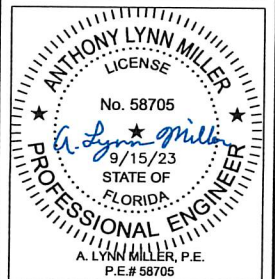
ANTHONY LYNN MILLER
 LICENSE
 No. 58705
A. Lynn Miller
 9/15/23
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER
 A. LYNN MILLER, P.E.
 P.E.# 58705

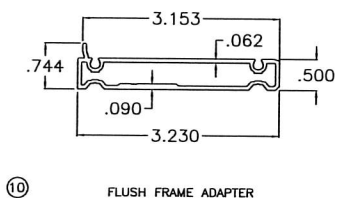
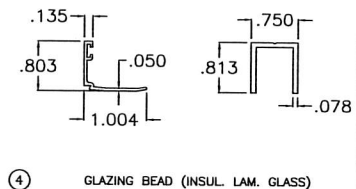
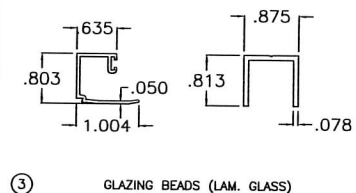
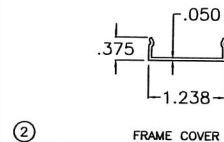
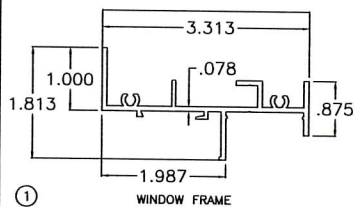


INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

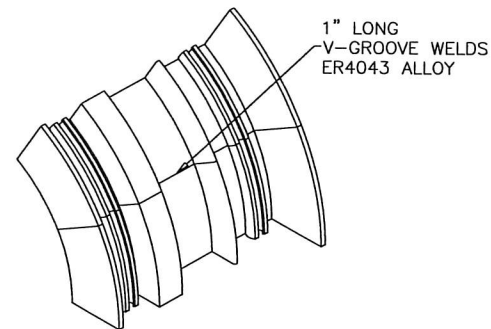
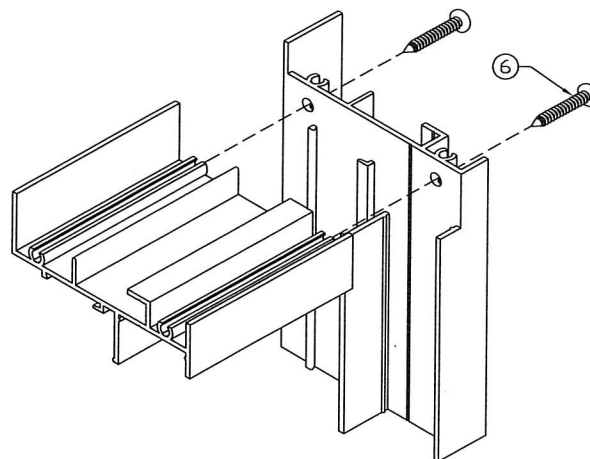
Revision:
ADDED EQUAL
LEG ADAPTER
REVISED TABLE
FORMAT
ADDED DP
TABLE
ROUNDING
ANSI Z97.1, AND
ANCHOR HEAD
TYPE NOTES,
REMOVED
SILICONE AND
BACKSTOP ON
INSTALL DETAIL

		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	
window systems		REGISTRATION #29296	
ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST., MEDLEY, FL 33166 TEL. (305) 885-5289 FAX. (305) 885-5802			
SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)		2/10/2022	
FLUSH FRAME ADAPTER INSTALLATION DETAIL		HONG C.	
Series Desc. Title		Drawn By	
SERIES 350		PW350LM-FPA	
Sheet		DWG. No.	
6 OF 7		Rev.	
A			





ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E351	4	WINDOW FRAME	6063 - T6	-
2	E352	4	FRAME COVER	RIGID PVC	-
3	E353	4/ LITE	GLAZING BEAD - (LAM. GLASS)	6063 - T6	-
3A	E355	4/ LITE	GLAZING BEAD - (LAM. GLASS)	6063 - T6	-
3B	#8 X 1-1/4"	AS REQD.	BEAD FASTENERS, AT 5" FROM ENDS & 13" O.C. MAX.	ST. STEEL	FH SMS
4	E354	4/ LITE	GLAZING BEAD - (INSUL. LAM. GLASS)	6063 - T6	-
4A	-	4/ LITE	GLAZING BEAD - (INSUL. LAM. GLASS)	6063 - T6	-
5	-	AS REQD.	EXTERIOR GLAZING GASKET	VINYL	DUROMETER 70±5 SHORE A
6	#10 X 1-1/4"	2/ CORNER	ASSEMBLY FASTENERS	ST. STEEL	HWH SMS
7	-	2/ LITE	SETTING BLOCK AT 1/4 POINTS (LAM. GLASS)	EPDM	DUROMETER 80±5 SHORE A
8	-	2/ LITE	SETTING BLOCK AT 1/4 POINTS (INSUL. LAM. GLASS)	EPDM	DUROMETER 80±5 SHORE A
9	FLB-50	AS REQD.	GLASS SPACER - 1/8" HIGH	SILICONE	FRANK LOWE
10	E161	-	FLUSH FRAME ADAPTER	6063 - T6	OPTIONAL



CORNER DETAILS

Revisions:
ADDED EQUAL
LEG ADAPTER
REVISED TABLE
FORMAT
ADDED DP
TABLE
ROUNDING,
ANSI Z39.1, 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 #29286
2/10/2022
Date
HONG C.
By
PW350LM-FPA
No.
7 OF 7
Sheet

ECO WINDOW SYSTEMS, LLC
8502 N.W. 80th ST., MELEY FL 33166
TEL (305) 885-5289 FAX (305) 885-5802
SERIES-350 ALUMINUM FIXED WINDOW (L.M.I.)
Title
Dec.
Series
EXTRUSIONS, BOM & CORNER DETAILS
SERIES 350
A

ANTHONY LYNN MILLER
LICENSE
No. 58705
9/15/23
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705