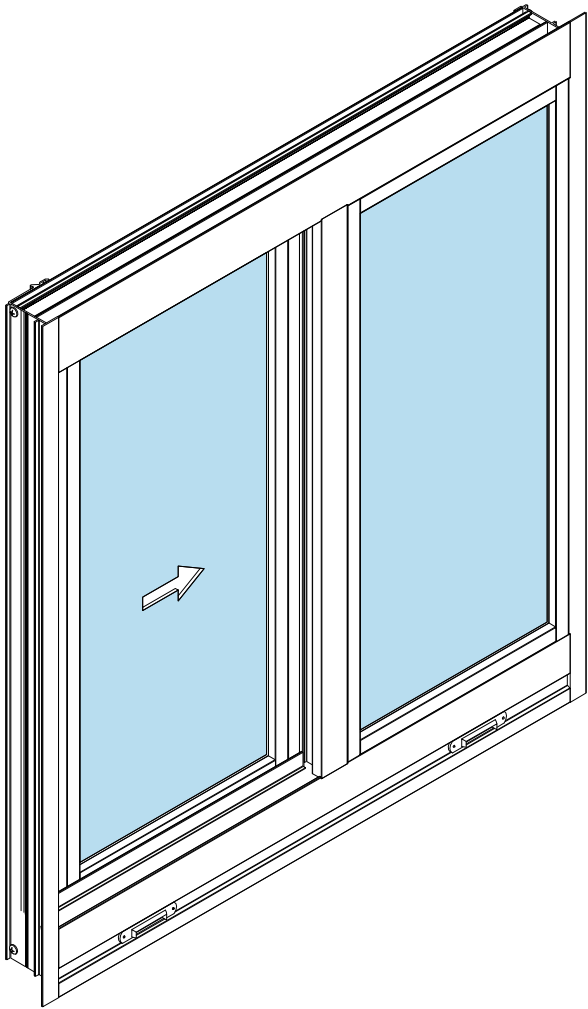


SHEET INDEX	
101	COVER PAGE
102	TYPICAL ELEVATIONS & GLAZING DETAILS
103	SECTIONAL DETAILS
104	SECTIONAL DETAILS
105	ANCHORAGE & SUBSTRATE LAYOUT
106	PARTS LIST & BILL OF MATERIAL
107	FRAME ASSEMBLY

NOTE:

- THIS PRODUCT CAN BE COMBINED WITH OTHER FBC APPROVED ECO WINDOW SYSTEMS LLC. WHEN MULLED COMBINATIONS, THE LOWER DESIGN PRESSURE FROM EACH PRODUCT WILL APPLY TO THE ENTIRE SYSTEM. FINAL APPROVAL OF ALL DESIGNS SHALL BE GRANTED BY THE GOVERNING MUNICIPALITY.
- IF THE DESIGN PRESSURES/ FRAME DIMENSIONS ON SITE EXCEEDS THE PRESSURES GIVEN IN THIS APPROVAL, PLEASE CONTACT ECO WINDOW SYSTEMS LLC.

ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)



HORIZONTAL ROLLING WINDOW

DESIGN PRESSURE RATING		
FRAME SIZE	DESIGN PRESSURE	MISSILE IMPACT RATING
74-1/8" x 63" (2-PANEL)	+55 / -60 PSF	LARGE & SMALL MISSILE IMPACT
111" x 63" (3-PANEL)		

GENERAL NOTES:

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201/202/203.
- GLASS CAPACITIES MENTIONED IN THE PRESSURE CHARTS IN THIS CERTIFICATION ARE BASED ON ASTM E1300-16 (3 SEC. GUSTS).
- DESIGN PRESSURES MENTIONED IN THIS CERTIFICATION AS ALLOWABLE PRESSURES (ASD) BASED ON TESTED PRESSURE DIVIDED BY A FACTOR OF SAFETY OF 1.5.
- THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH THE STANDARDS IN NOTE 1 OF THE GENERAL NOTES AND IS LARGE MISSILE IMPACT RESISTANT AND DOES NOT REQUIRE IMPACT RESISTANT SHUTTERS.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.

- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE ANY SITE SPECIFIC INSTALLATION INFORMATION. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A QUALIFIED ENGINEER LICENSED IN THE STATE OF FLORIDA SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- FASTENERS DESCRIBED IN THIS CERTIFICATION ARE PERMITTED TO BE SUBSTITUTE PROVIDED
- THE STRENGTH OF THE ALTERNATIVE ANCHOR IS EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED ANCHOR. FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE BY OTHERS.
- FASTENERS SHALL BE CADMIUM PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3 OF THE CURRENT CODE BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
- ENGINEER'S SEAL AFFIXED HERE VALIDATES THE STRUCTURAL DESIGN AS SHOWN ONLY. THE USE OF THIS SPECIFICATION BY THE CONTRACTOR, ET AL., INDEMNIFIES AND SAVES HARMLESS THIS ENGINEER FROM ALL COSTS AND DAMAGES, INCLUDING LEGAL FEES AND APPELLATE FEES, RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES, AND FROM DEVIATIONS OF THIS PLAN.
- THIS PRODUCT IS APPROVED FOR FORCED ENTRY RESISTANCE AS PER ASTM F588.

- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
- SAFEGUARDS MUST BE OBSERVED (NOT IN THIS CERTIFICATION).
- PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF
- ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:
ECO WINDOW SYSTEMS, LLC
8502 N.W. 80TH ST. MEDLEY, FL 33166
APPROVED BY FLORIDA BUILDING COMMISSION
FLORIDA PRODUCT APPROVAL FL# 40097.1

THIS SYSTEM IS APPROVED FOR INSTALLATION WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT.

FL# 40097.1



JAVAD AHMAD PE, inc
7320 NW 58th St, Miami,
FL 33166.
Ph: (305) 424-8001
support@ja-pe.com

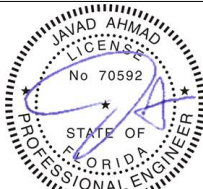
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

drawing no.	JA-1171-26	drawn by:	MA
date:	04-15-26	check by:	SR
REVISION			
No.	DATE	BY	DESCRIPTION

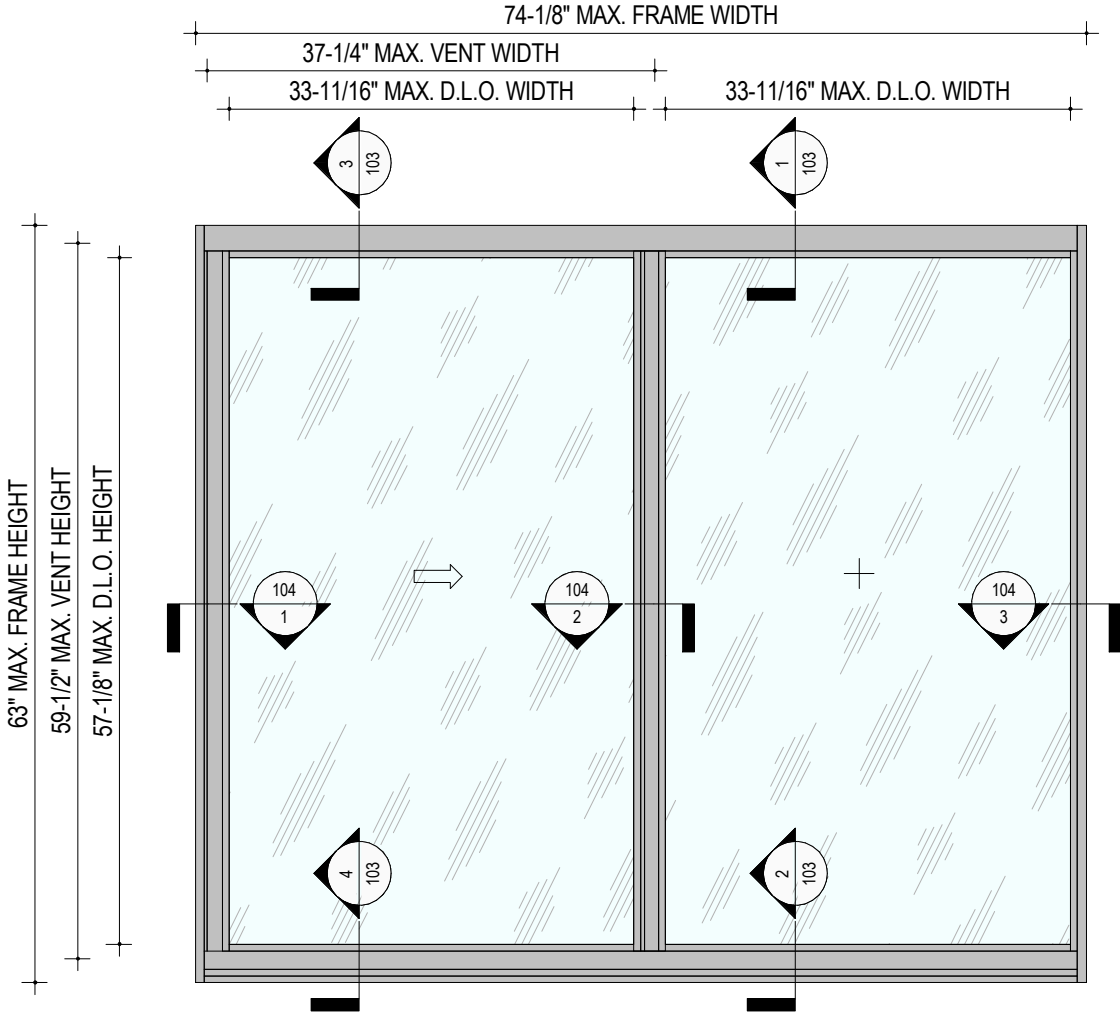
ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)



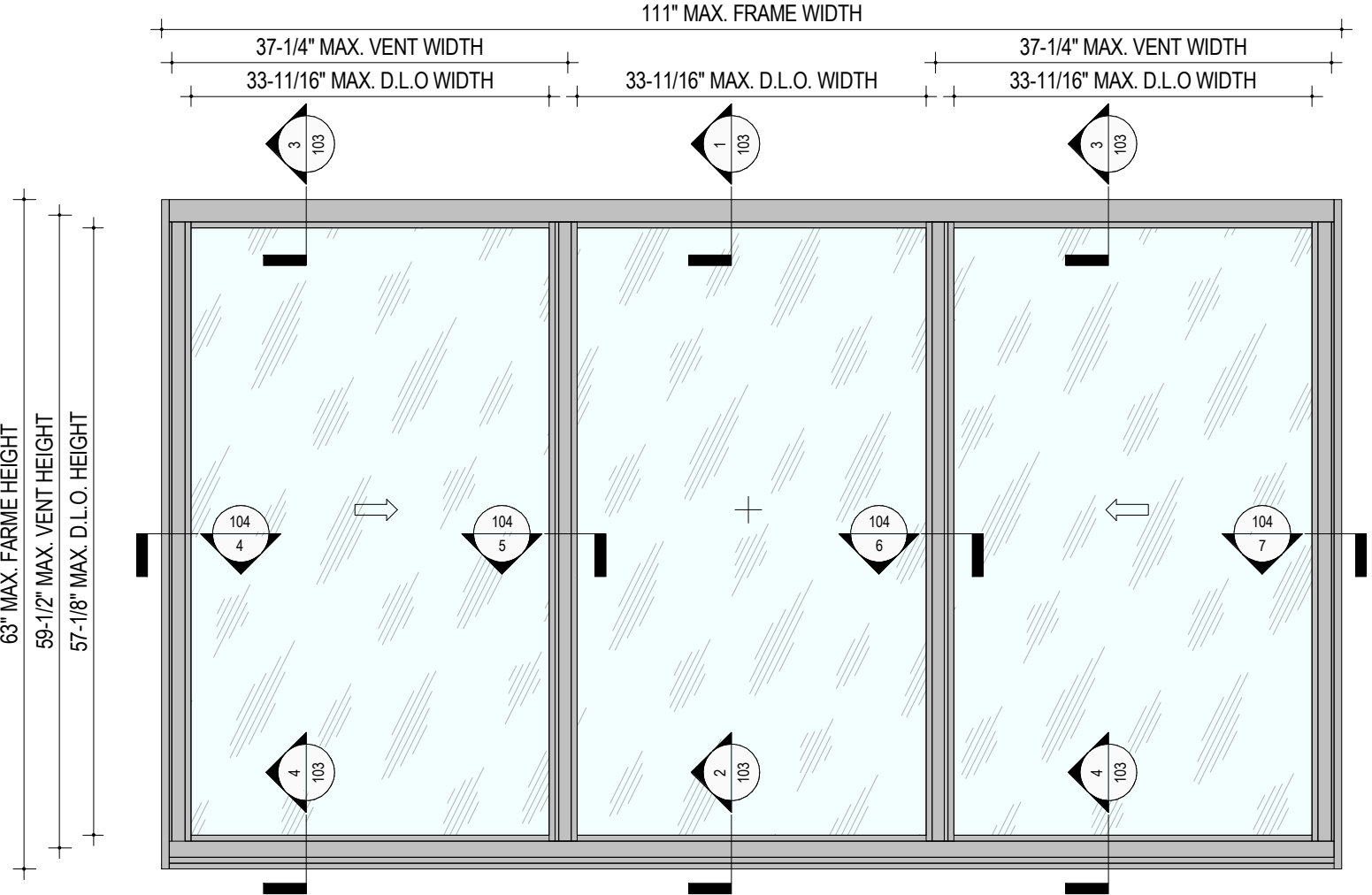
ECO WINDOW SYSTEMS, LLC
8502 N.W. 80TH ST. MEDLEY, FL 33166
TEL: (305) 885-5259 FAX: (305) 885-5902



SEALED: 04-15-2026



1
102
TYPICAL ELEVATION (2 - PANEL) - OX/XO
NOT TO SCALE



2
102
TYPICAL ELEVATION (3 - PANEL) - OXO
NOT TO SCALE

WEEPHOLES:

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

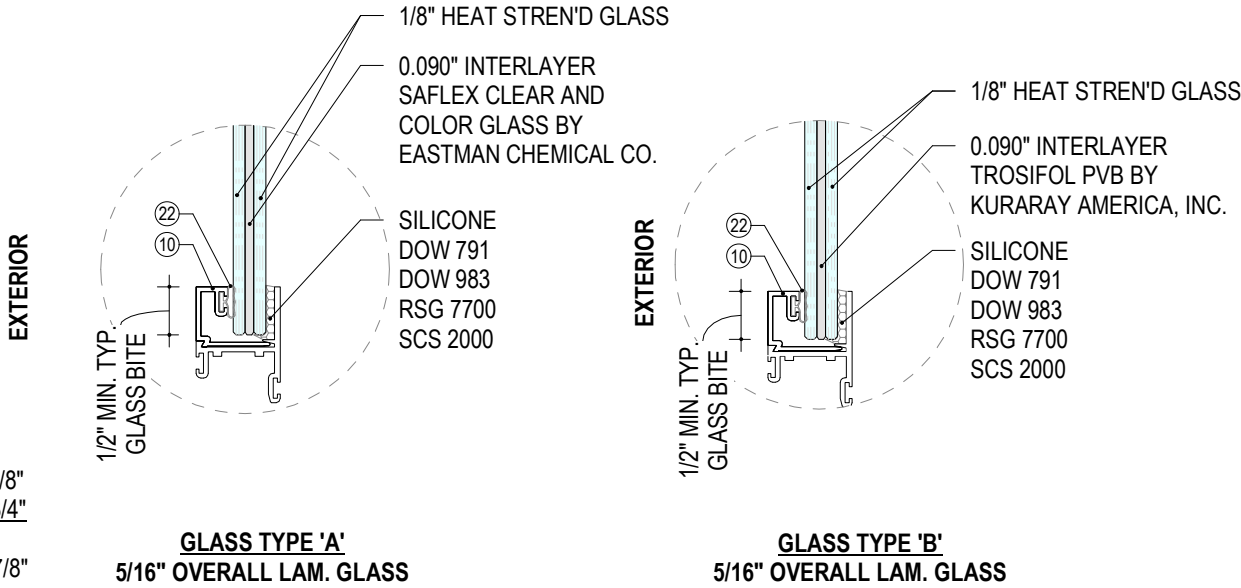
NOTE:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH JOINT SEALER.

SYSTEM	MAX. D.L.O. WIDTH	MAX. D.L.O. HEIGHT	MAX. FRAME WIDTH	MAX. FRAME HEIGHT
2 - PANEL	33-11/16"	57-1/8"	74-1/8"	63"
3 - PANEL	33-11/16"	57-1/8"	111"	63"

D.L.O. CALCULATION

- 2 - PANEL - D.L.O. HEIGHT = FRAME HEIGHT - 5-7/8"
D.L.O. WIDTH = $\frac{\text{FRAME WIDTH}}{2}$ - 6-3/4"
- 3 - PANEL - D.L.O. HEIGHT = FRAME HEIGHT - 5-7/8"
D.L.O. WIDTH = $\frac{\text{FRAME WIDTH}}{3}$ - 9-7/8"



JAVAD AHMAD PE, inc
7320 NW 58th St, Miami,
FL 33166.
Ph: (305) 424-8001
support@ja-pe.com

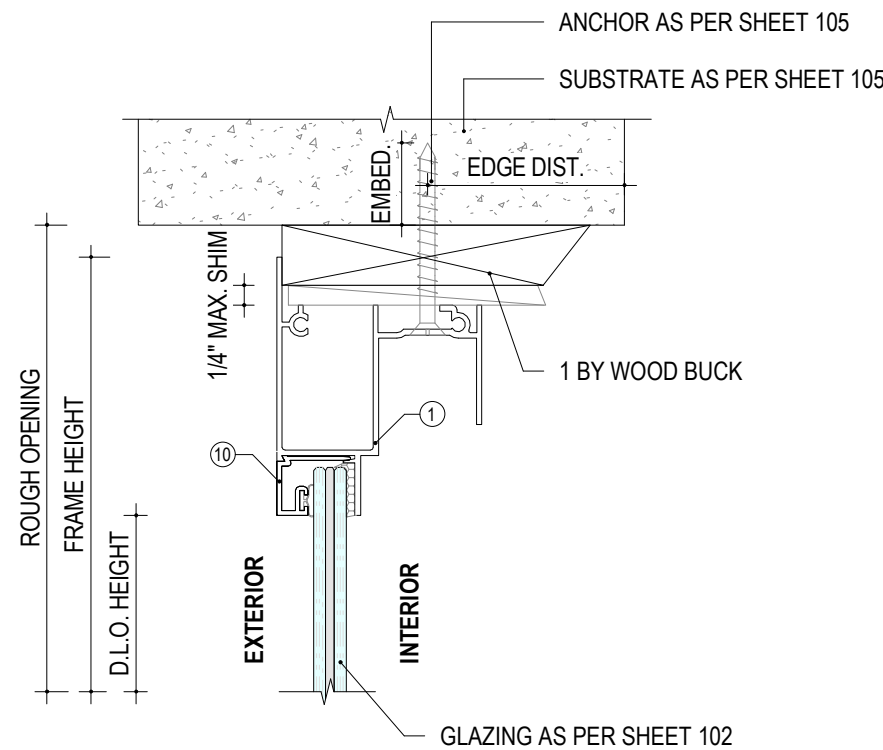
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

drawing no.	date:	JA-1171-26	drawn by:	MA
No.	DATE	BY	DESCRIPTION	SR

**ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW**
(LARGE AND SMALL MISSILE IMPACT RATED)

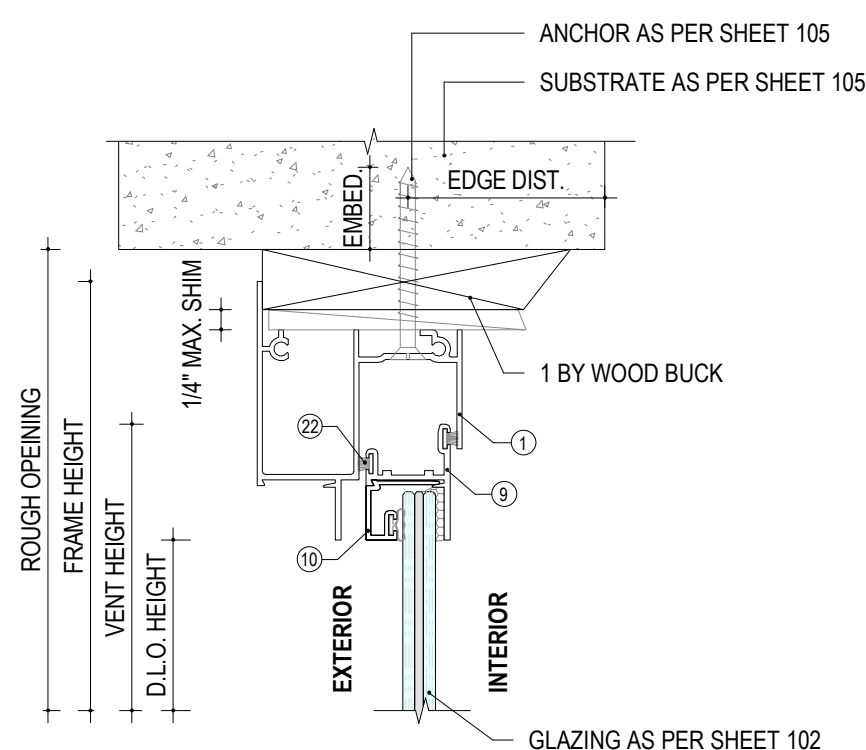


SEALED: 04-15-2026



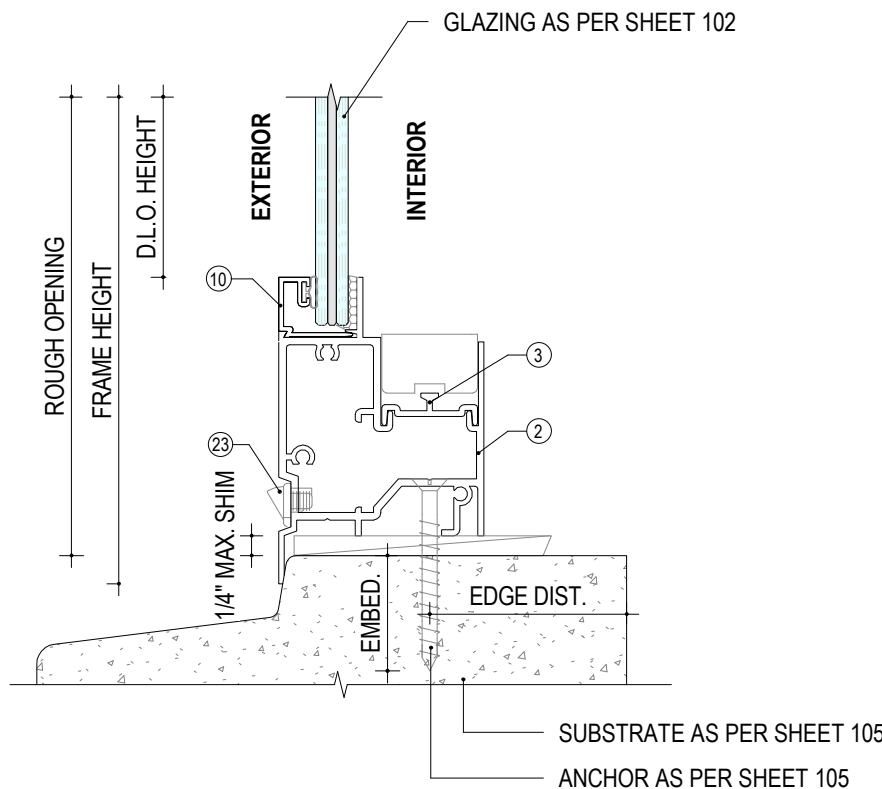
1
103

HEAD INACTIVE
NOT TO SCALE



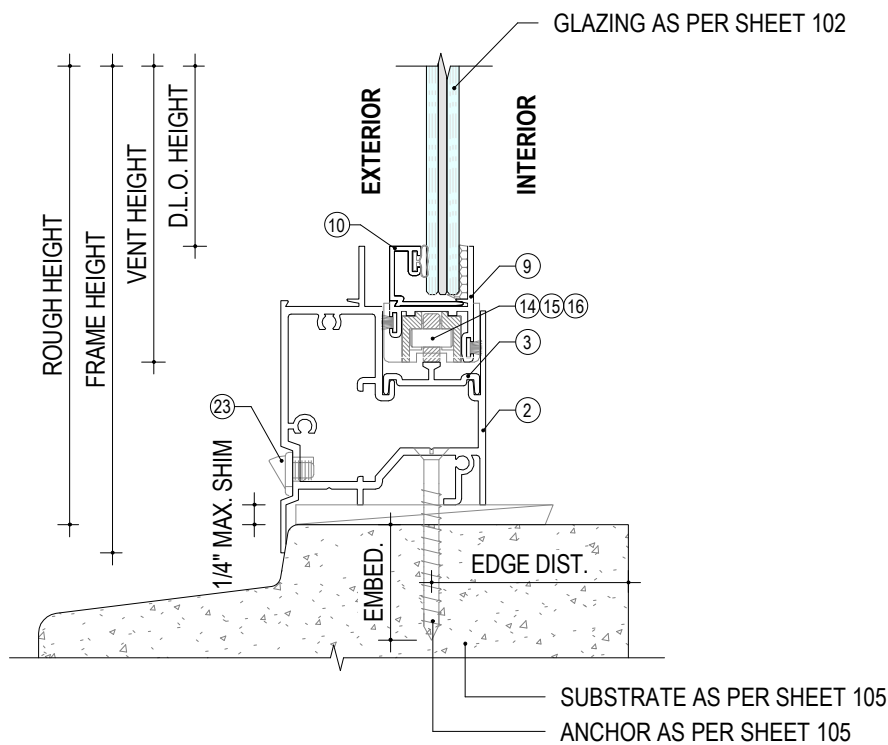
3
103

HEAD ACTIVE
NOT TO SCALE



2
103

SILL INACTIVE
NOT TO SCALE



4
103

SILL ACTIVE
NOT TO SCALE



JAVAD AHMAD PE, inc

7320 NW 58th St, Miami,
FL 33166.

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

drawing no.	JA-1171-26	drawn by:	MA
date:	04-15-26	check by:	SR
REVISION			
No.	DATE	BY	DESCRIPTION

ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)



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

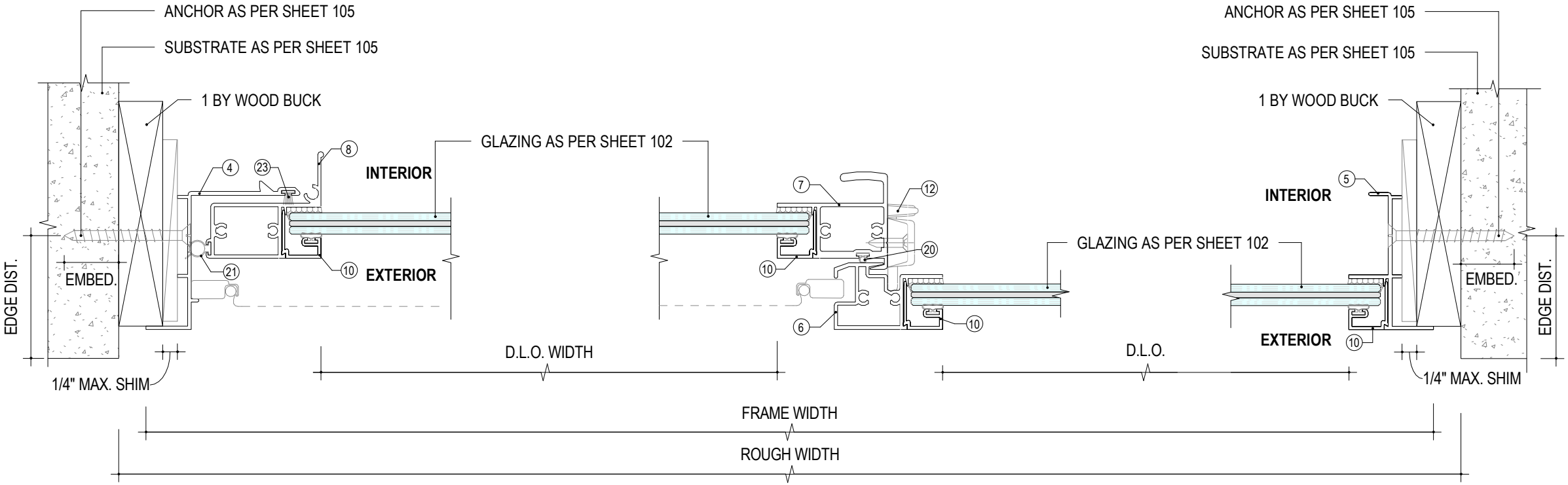


SEALED: 04-15-2026



JAVAD AHMAD PE, inc
7320 NW 58th St, Miami,
FL 33166.
Ph: (305) 424-8001
support@ja-pe.com

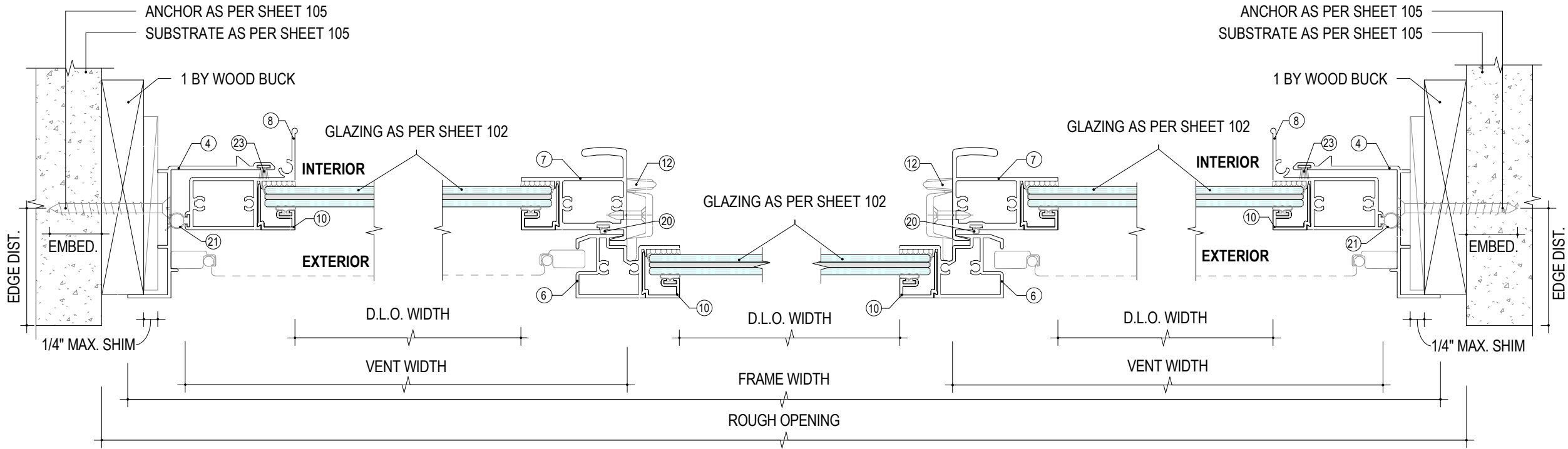
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS



1 LEFT JAMB (2-PANEL)
NOT TO SCALE

2 INTERMEDIATE (2-PANEL)
NOT TO SCALE

3 RIGHT JAMB (2-PANEL)
NOT TO SCALE



4 LEFT JAMB (3-PANEL)
NOT TO SCALE

5 INTERMEDIATE (3-PANEL)
NOT TO SCALE

6 INTERMEDIATE (3-PANEL)
NOT TO SCALE

7 RIGHT JAMB (3-PANEL)
NOT TO SCALE

drawing no.	date:	JA-1171-26	drawn by:	MA	REVISION		
					BY	DATE	DESCRIPTION
			04-15-26	SR			

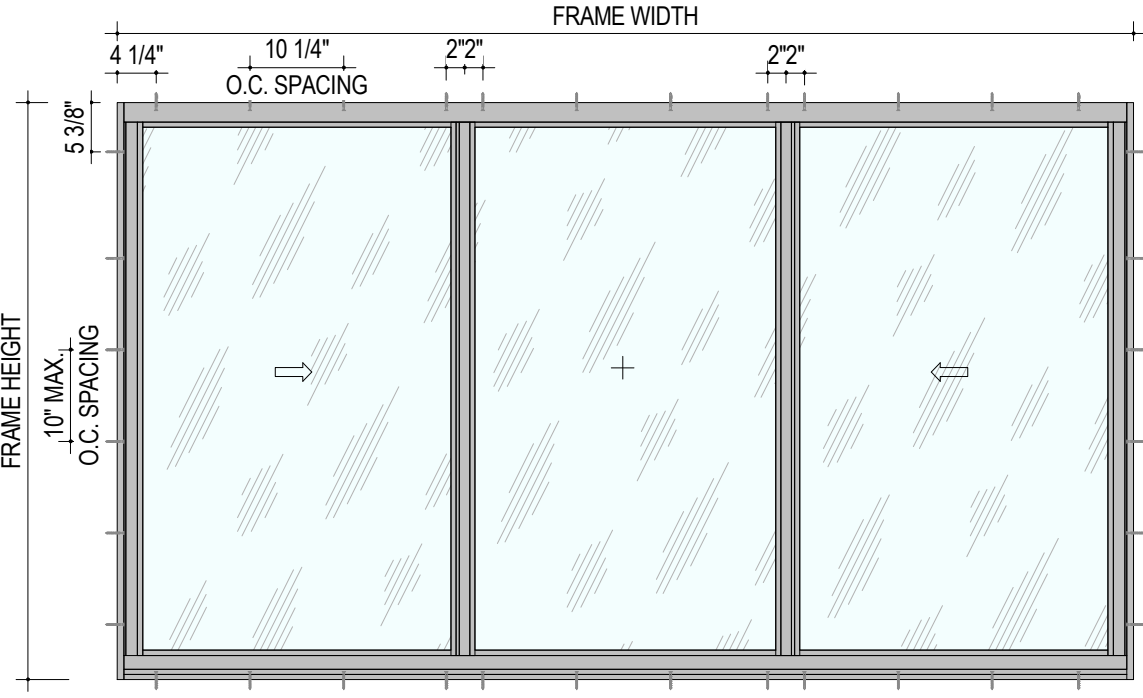
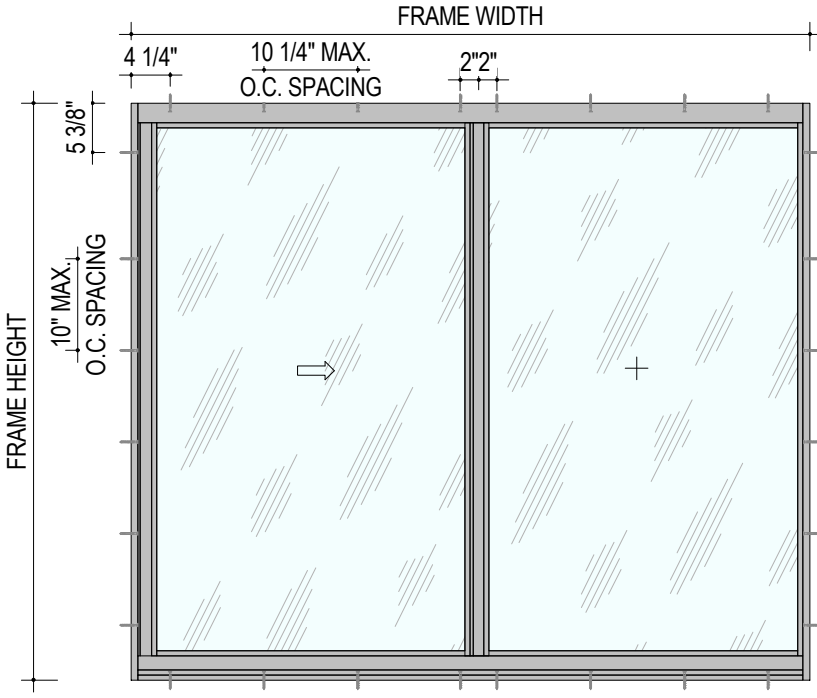
ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)



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

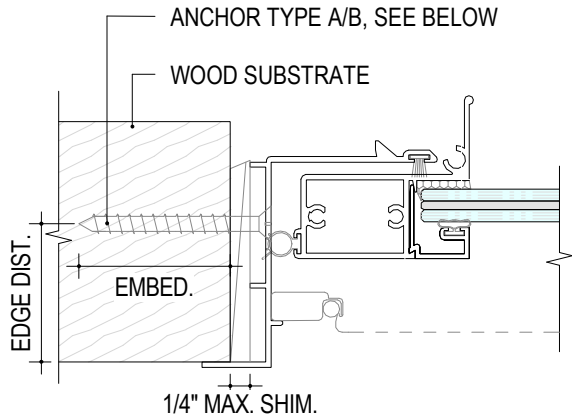
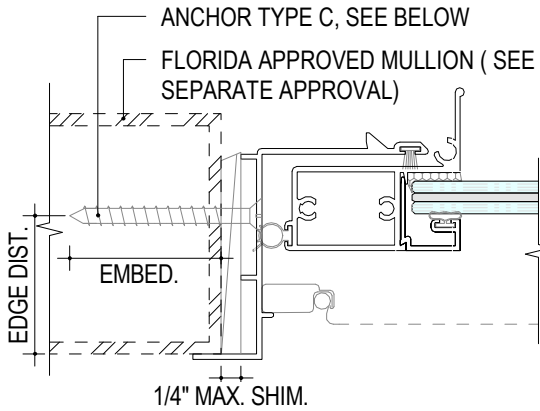
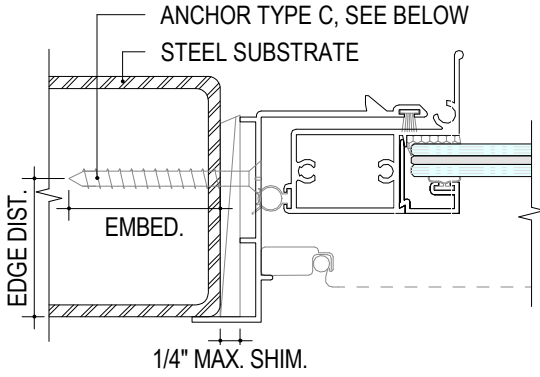
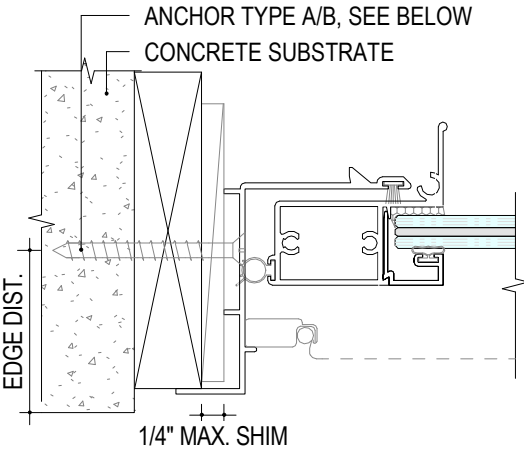


SEALED: 04-15-2026



1
105
ANCHORAGE LAYOUT (2 - PANEL)
NOT TO SCALE

2
105
ANCHORAGE LAYOUT (3 - PANEL)
NOT TO SCALE



3
105
ANCHORAGE IN CONCRETE / GFCMU
NOT TO SCALE

4
105
ANCHORAGE INTO METAL STRUCTURE
NOT TO SCALE

5
105
ANCHORAGE INTO ALUMINUM STRUCTURE
NOT TO SCALE

6
105
ANCHORAGE INTO WOOD STRUCTURE
NOT TO SCALE

TYPICAL ANCHOR TYPES, SEE ELEVATION FOR SPACING

TYPE A -1/4" ITW TAPCON

- INTO 2BY WOOD WITH SOUTHERN YELLOW PINE (SG = 0.55) AS THE SUBSTRATE, PROVIDING A MINIMUM PENETRATION OF 1-1/2" AND A MINIMUM EDGE DISTANCE OF 1" AT HEAD SILL AND JAMBS
- THRU 1BY INTO CONCRETE WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS
- THRU INTO HOLLOW OR FILLED BLOCK WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT JAMBS
- DIRECTLY INTO CONCRETE WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS
- DIRECTLY INTO HOLLOW OR FILLED BLOCK WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT JAMBS

TYPE B -1/4" DEWALT ULTRACON+ (Fu = 164,000 PSI, Fy = 148,000 PSI)

- INTO 2BY WOOD WITH SOUTHERN YELLOW PINE (SG = 0.55) AS THE SUBSTRATE, PROVIDING A MINIMUM PENETRATION OF 1-1/2" AND A MINIMUM EDGE DISTANCE OF 1" AT HEAD SILL AND JAMBS
- THRU 1BY INTO CONCRETE WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS
- THRU INTO HOLLOW OR FILLED BLOCK WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT JAMBS
- DIRECTLY INTO CONCRETE WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS
- DIRECTLY INTO HOLLOW OR FILLED BLOCK WITH 1-1/4" EMBEDMENT, 2-1/2" MIN EDGE DISTANCE AT JAMBS

TYPE C- 14" SMS OR SELF DRILLING SCREWS (GRADE 2 MIN)

- INTO 1/8" MIN. THK. ALUMINUM / STEEL WITH (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS, AND 3/4" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS
- INTO MIN. 1/8" THK. APPROVED MULLIONS WITH (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS, AND 3/4" MIN EDGE DISTANCE AT HEAD/SILL AND JAMBS

ANCHOR / SUBSTRATE NOTES:

- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 3000 PSI
- C-90 HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm= 2000 PSI
- STEEL (1/8" THK., A36 MIN) AT HEAD OR JAMBS
- ALUMINUM (1/8" THK., 6063-T5 MIN) AT HEAD, SILL OR JAMBS
- STEEL IN CONTACT WITH ALUMINUM TO BE PAINTED

NOTE:

THE WOOD BUCKS, CONCRETE AND METAL STRUCTURE SHOWN ON THIS SHEET SHALL BE DESIGNED BY OTHERS AND ARE NOT PART OF THIS APPROVAL. THEY MUST BE CAPABLE OF WITHSTANDING THE LOADS IMPOSED BY THE GLAZING SYSTEM AND TRANSFERRING THEM TO THE BUILDING STRUCTURE.



JAVAD AHMAD PE, inc
7320 NW 58th St, Miami,
FL 33166.
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

**ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW**
(LARGE AND SMALL MISSILE IMPACT RATED)



ECO WINDOW SYSTEMS, LLC
5802 N.W. 80th ST. MEDLEY, FL 33166
TEL: (305) 885-6299 FAX: (305) 885-5902



SEALED: 04-15-2026

PARTS LIST & BILL OF MATERIAL

FL# 40097.1

FRAME HEAD E536063 - T6	FRAME SILL E616063 - T6	SILL TRACK INSERT E626063 - T6
MOV. FRAME JAMB E526063 - T6	FIXED FRAME JAMB E516063 - T6	FIXED MTG. RAIL E546063 - T6
VENT MEETING STILE E666063 - T6	VENT JAMB STILE E566063 - T6	TOP AND BOTTOM RAIL E576063 - T6
GLAZING BEAD E586063 - T6	FLUSH FRAME ADAPTER E606063 - T6	

BILL OF MATERIALS					
ITEM #	QUANTITY	PART #	DESCRIPTION	MATERIAL	MANF. / SUPPLIER/ REMARKS
1	1	E53	FRAME HEAD	6063 - T6	-
2	1	E61	FRAME SILL	6063 - T6	-
3	1	E62	SILL TRACK INSERT	6063 - T6	-
4	AS REQD.	E52	MOV. FRAME JAMB	6063 - T6	-
5	AS REQD.	E51	FIXED FRAME JAMB	6063 - T6	-
6	1/ VENT	E54	FIXED MTG. RAIL	6063 - T6	-
7	1/ VENT	E66	VENT MEETING STILE	6063 - T6	-
8	1/ VENT	E56	VENT JAMB STILE	6063 - T6	-
9	2/ VENT	E57	TOP AND BOTTOM RAIL	6063 - T6	-
10	AS REQD.	E58	GLAZING BEAD	6063 - T6	-
12	2/ VENT.	SL203P	SWEEP LATCH	-	SULLIVAN & ASSOC.
13	2/ LATCH	#8 X 5/8"	LATCH INST. SCREW	ST. STEEL	FH SMS
14	2/ VENT	E63	ROLLER HOUSING & GUIDE	CELCON	-
15	2/ VENT	E64	ROLLER	BRASS	-
16	2/ VENT	E65	ROLLER PIN	ST. STEEL	-
17	AS REQD.	#8 X 1"	FRAME/ VENT ASSEMBLY SCREW	CRS	P.H. SMS
18	2/ VENT	#8 X 3"	FIXED RAIL SILL SCREWS (SILL END)	CRS	P.H. SMS
19	AS REQD.	W23181	PILE WITH INTEGRAL FIN W'STRIPPING	-	ULTRAFEB
20	AS REQD.	-	BULB SEAL	SANTOPRENE	ULTRAFEB
21	AS REQD.	E207	BULB SEAL	SANTOPRENE	ULTRAFEB
22	AS REQD.	E203	GLAZING BEAD BULB	SANTOPRENE	ULTRAFEB
23	2/ WDW.	WA2L	WEEP VALVE	-	PREFERRED ENG. PRODUCTS
24	1/ VENT	-	5/16" BOX SCREEN	-	OPTIONAL
25	-	E60	FLUSH FRAME ADAPTER	6063 - T6	OPTIONAL



JAVAD AHMAD PE, inc

7320 NW 58th St, Miami, FL 33166.

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

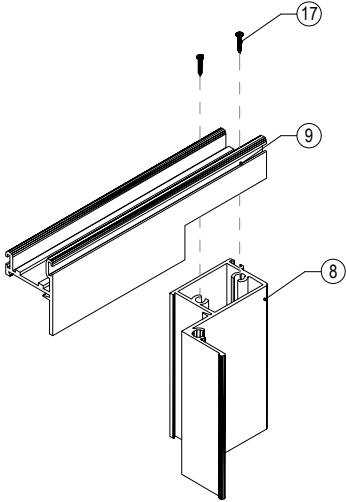
ECO-GUARD SERIES-60 ALUMINUM HORIZONTAL ROLLING WINDOW (LARGE AND SMALL MISSILE IMPACT RATED)



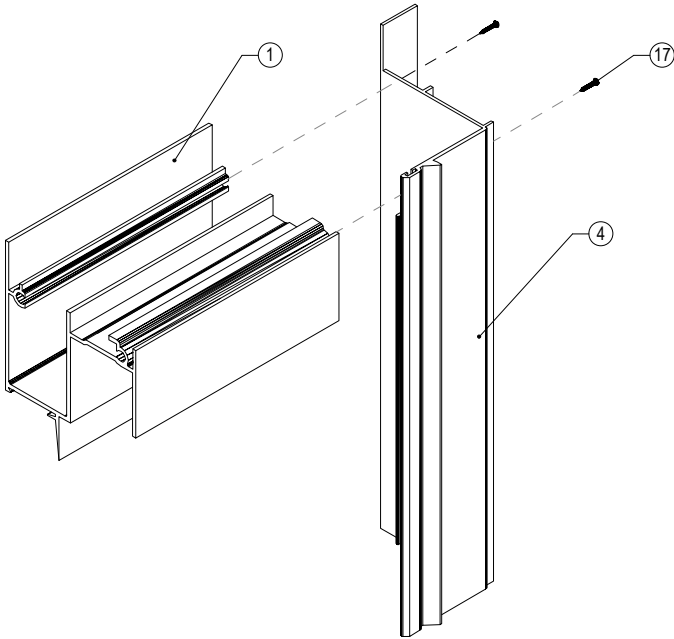
ECO WINDOW SYSTEMS, LLC. 8802 N.W. 80th St. MEDLEY, FL 33166 TEL: (305) 885-5299 FAX: (305) 885-5902



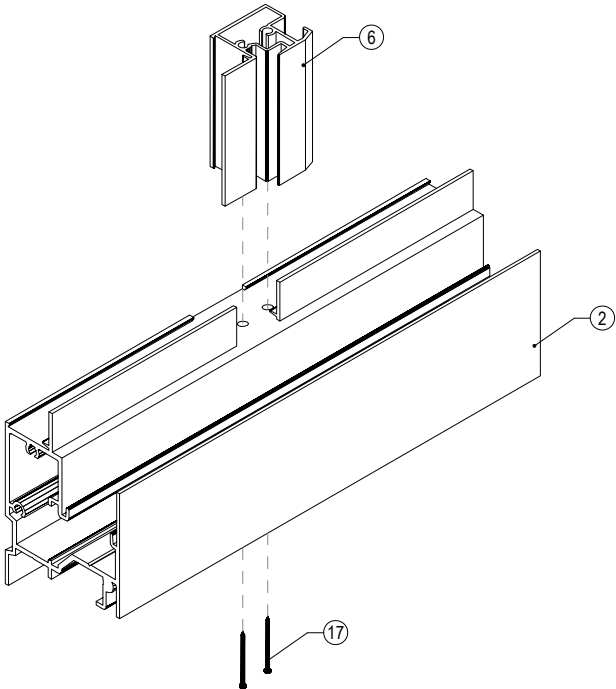
SEALED: 04-15-2026



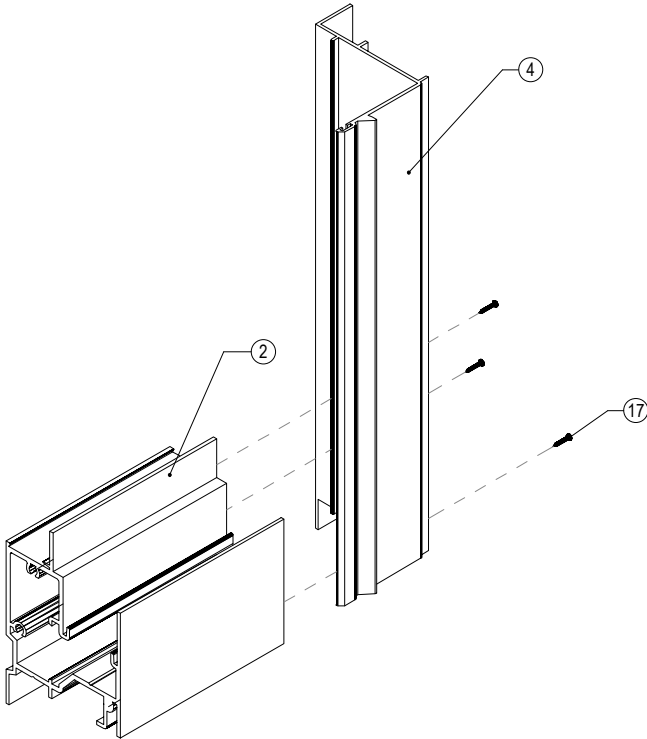
VENT TOP/BOTTOM CORNERS



FRAME TOP CORNER



FIXED MTG. RAIL CORNER



FRAME BOTTOM CORNER



JAVAD AHMAD PE, inc
7320 NW 58th St, Miami,
FL 33166.
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

drawing no.	JA-1171-26	drawn by:	MA
date:	04-15-26	check by:	SR
REVISION			
No.	DATE	BY	DESCRIPTION

ECO-GUARD SERIES-60 ALUMINUM
HORIZONTAL ROLLING WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)



ECO WINDOW SYSTEMS, LLC.
5802 N.W. 80th ST., MEDLEY, FL 33166
TEL: (305) 885-5259 FAX: (305) 885-5902



SEALED: 04-15-2026