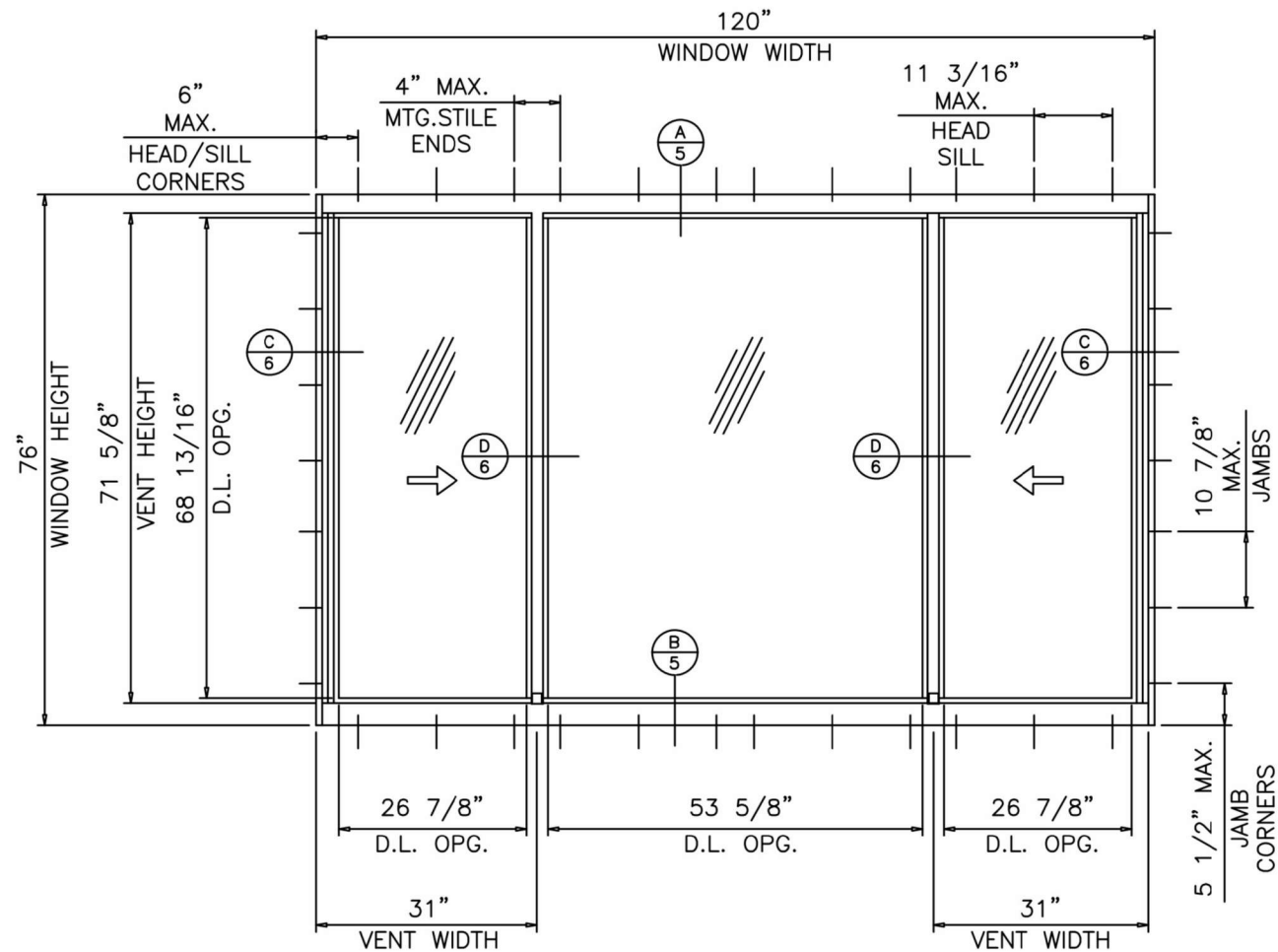
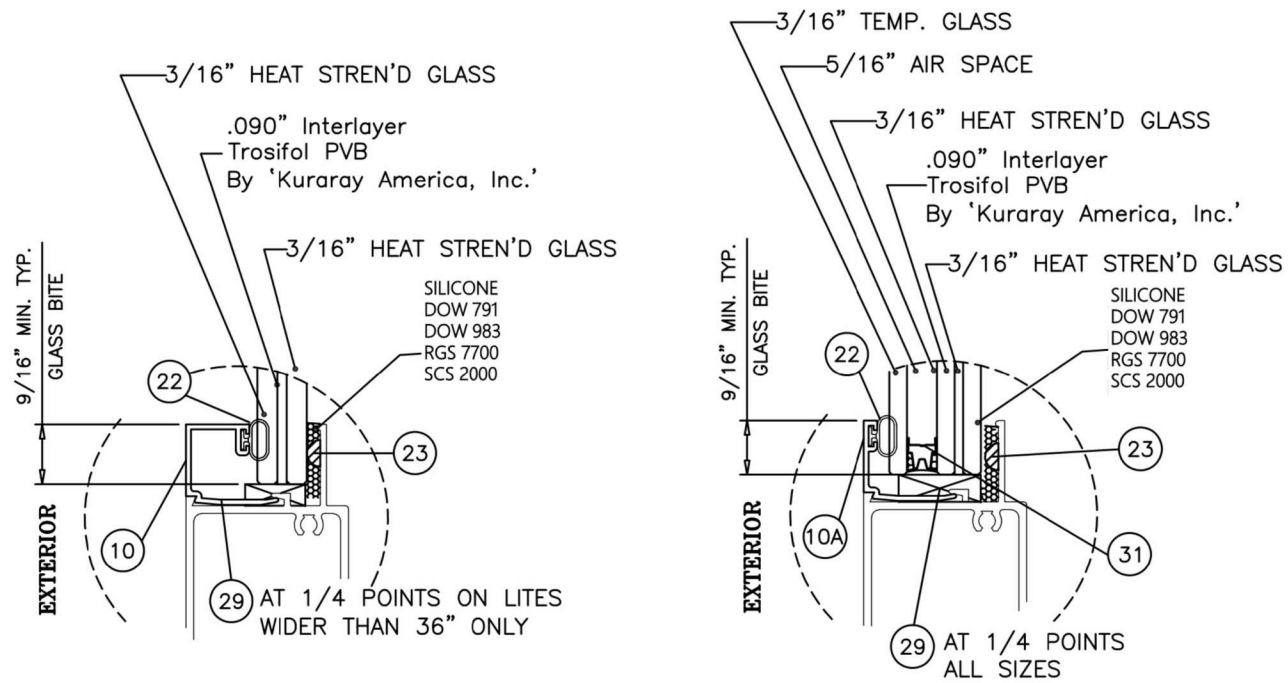




SERIES-250 (L.M.I.)
ALUMINUM HORIZONTAL ROLLING WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

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)'.

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



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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

drawing no.	date:	JA-1844-24	12/31/2024	MA	BS	No.	DATE	BY	DESCRIPTION

SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW (L.M.I.)
LARGE MISSILE IMPACT RATED

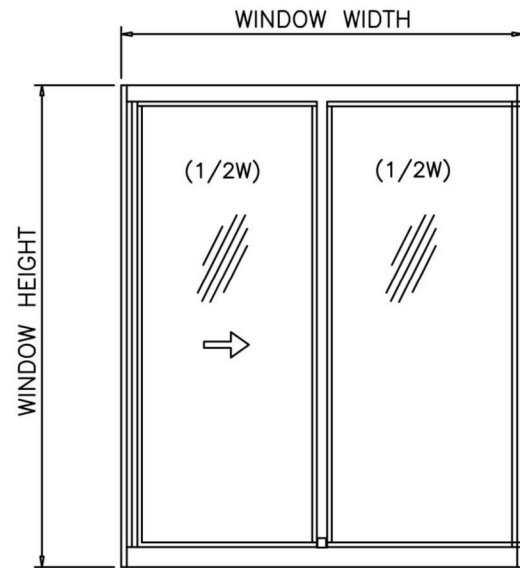


ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902



SEALED:12/31/2024

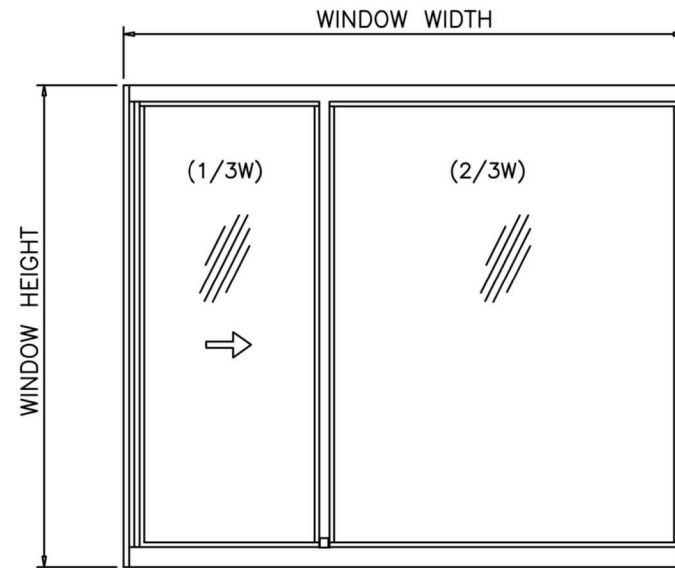
FL#40097.4



XO OR OX

LEFT & RIGHT VENTS TO BE OF EQUAL GLASS DLO WIDTHS

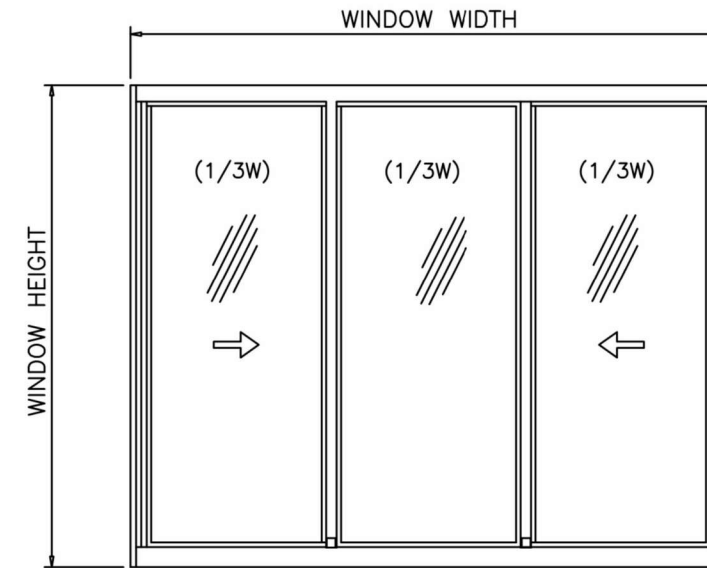
WINDOW DIMS.		MAX. D.L.O. WIDTHS	
WIDTH	HEIGHT	VENT	FIXED
84"	50- 5/ 8"	38"	38"
74"	63"	33"	33"
64"	72"	28"	28"
61"	76"	26- 1/ 2"	26- 1/ 2"



XO OR OX

OPERATING VENT TO BE 1/3 OF THE WINDOW WIDTH

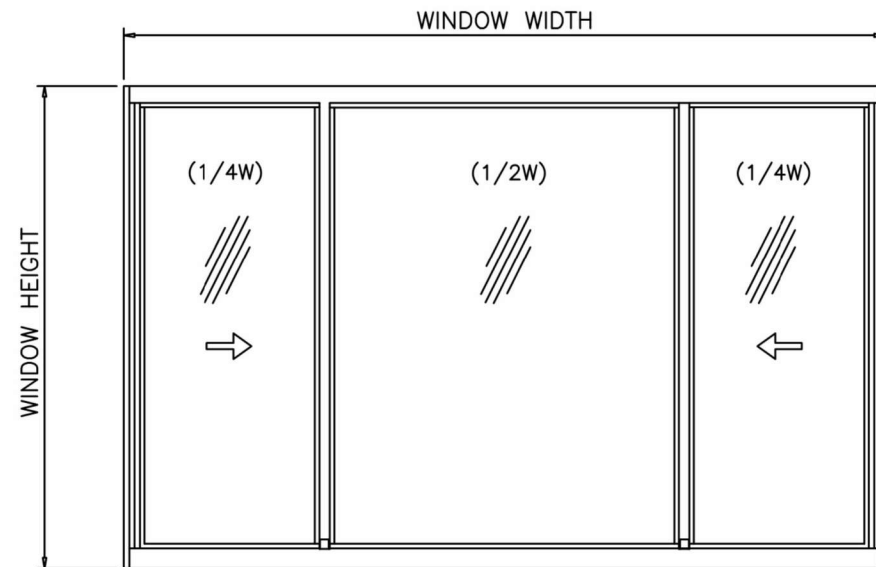
WINDOW DIMS.		MAX. D.L.O. WIDTHS	
WIDTH	HEIGHT	VENT	FIXED
120"	50- 5/ 8"	37- 5/ 16"	74- 11/ 16"
106"	63"	32- 11/ 16"	65- 5/ 16"
93"	72"	28- 5/ 16"	56- 11/ 16"
88"	76"	26- 11/ 16"	53- 5/ 16"



XOX

OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH

WINDOW DIMS.		MAX. D.L.O. WIDTHS	
WIDTH	HEIGHT	VENT	FIXED
120"	50- 5/ 8"	35- 13/ 16"	35- 13/ 16"
113"	63"	33- 7/ 16"	33- 7/ 16"
99"	72"	28- 13/ 16"	28- 13/ 16"
92"	76"	26- 7/ 16"	26- 7/ 16"



XOX

OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

WINDOW DIMS.		MAX. D.L.O. WIDTHS	
WIDTH	HEIGHT	VENT	FIXED
144"	50- 5/ 8"	32- 7/ 8"	65- 11/ 16"
144"	63"	32- 7/ 8"	65- 11/ 16"
126"	72"	28- 3/ 8"	56- 11/ 16"
120"	76"	26- 7/ 8"	53- 11/ 16"

GLASS TYPES 'A' & 'A1'
 MAXIMUM DESIGN LOAD RATING = + 70.0 PSF
 (FOR SIZES SHOWN ABOVE OR SMALLER) - 70.0 PSF

INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED
 USE ABOVE LOADS FOR WINDOWS WITHOUT ADD-ON RISER.

INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED
 USE ADD-ON RISER FOR ABOVE LOADS.
 OR
 LIMIT MAX. EXTERIOR(+) LOADS TO +60.0 PSF FOR WINDOWS WITHOUT
 RISER.

SEE SHEET 5 FOR DETAIL.



JAVAD AHMAD PE, inc
 7875 NW 12th St., Suite 102 Doral,
 FL 33126
 Ph: (305) 424-8001
 support@ja-pe.com

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

drawing no.	date:	JA-1844-24	MA	BS	drawn by:	check by:	REVISION			
							No.	DATE	BY	DESCRIPTION

SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
 (L.M.I.)
 LARGE MISSILE IMPACT RATED

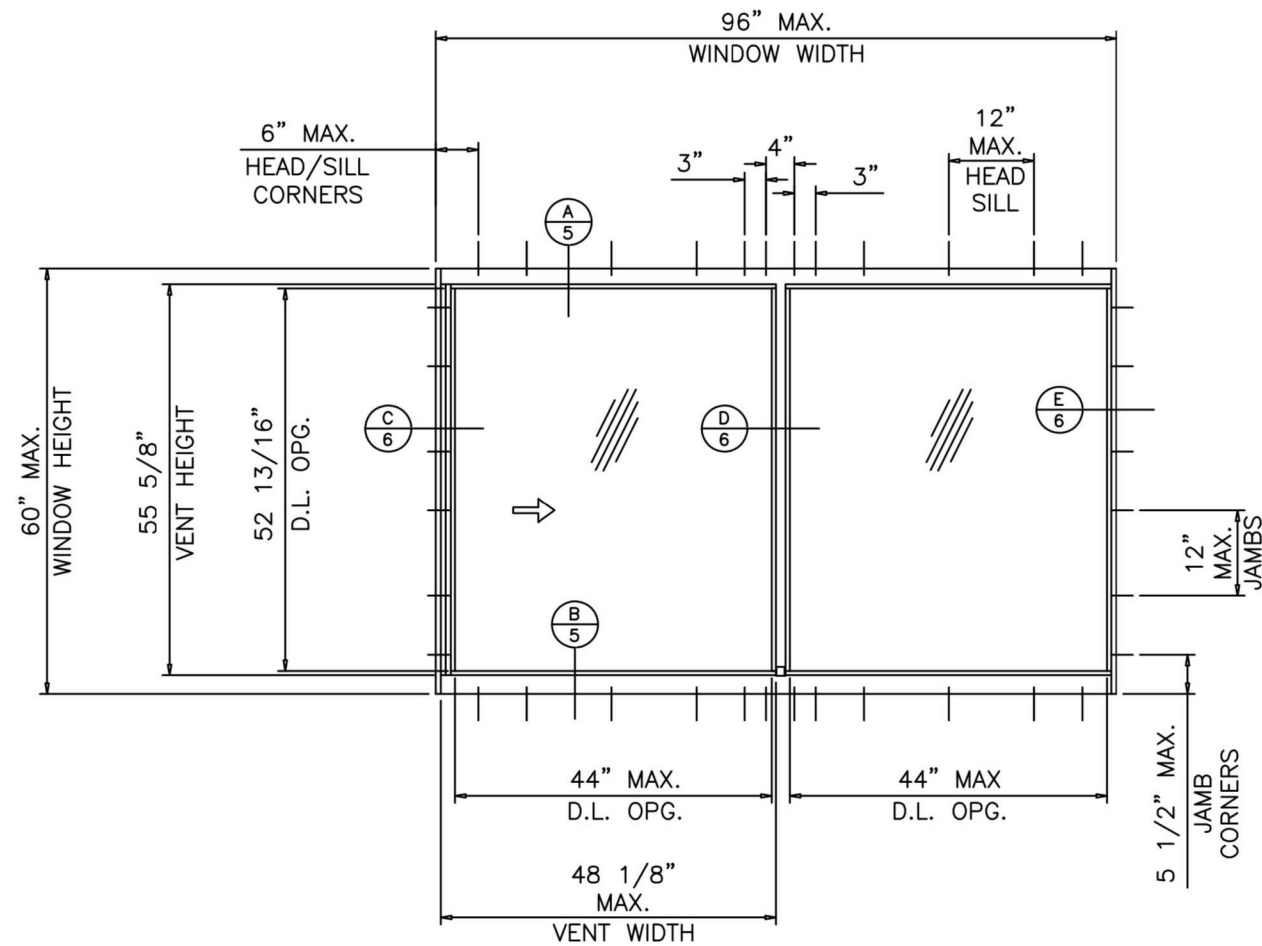


ECO WINDOW SYSTEMS, LLC.
 8502 N.W. 80th ST. MEDLEY, FL 33166
 TEL. (305) 885-5299 FAX. (305) 885-5902



SEALED:12/31/2024

FL#40097.4

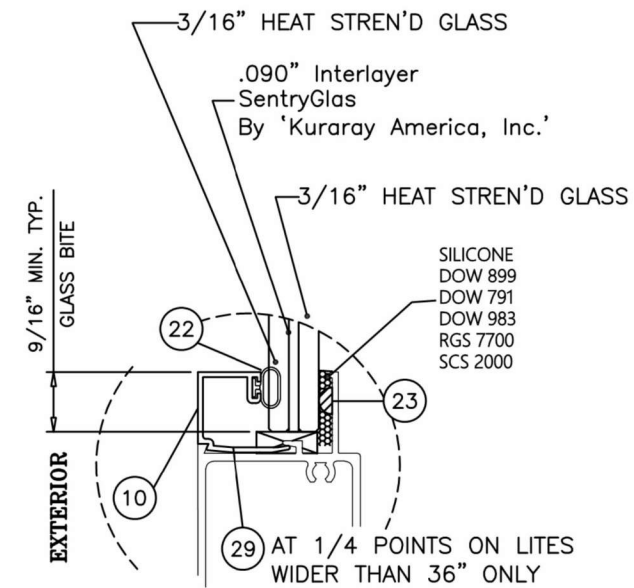


TYPICAL ELEVATION
(TESTED UNIT)

GLASS TYPES 'B'

MAXIMUM DESIGN LOAD RATING = + 80.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER) - 90.0 PSF

FRAME SILL WITH ADD-ON RISER (ITEM #13)
LOCK TYPE 1 (ITEM #24) ONLY.
XO SHOWN OX OPPOSITE.



GLASS TYPE 'B'

7/16" OVERALL LAM. GLASS



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

drawing no.	MA	drawn by:	BS
JA-1844-24			
date:	REVISION	DESCRIPTION	
12/31/2024	BY		
	DATE		
	No.		

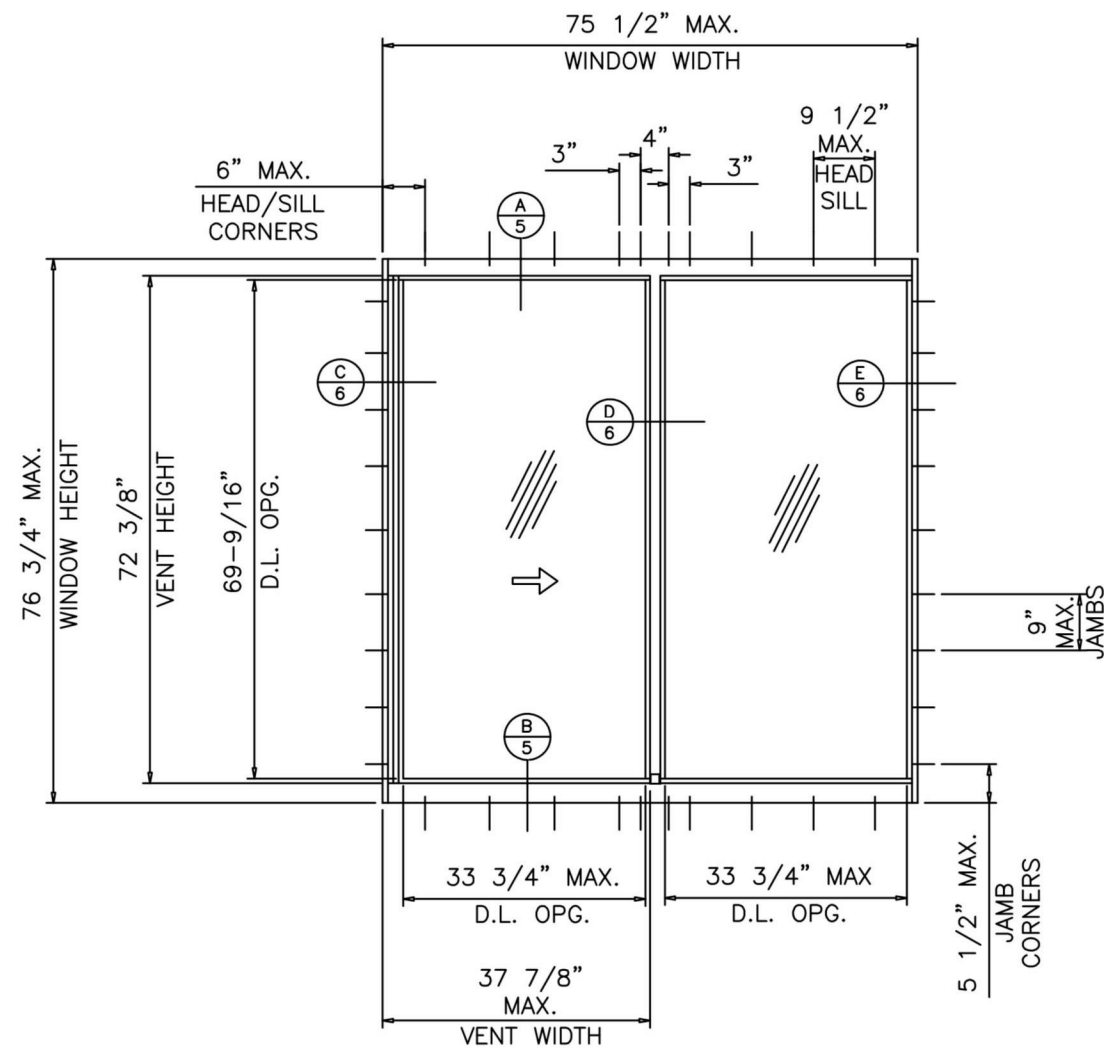
SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
(L.M.I.)
LARGE MISSILE IMPACT RATED

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



SEALED: 12/31/2024

FL#40097.4



TYPICAL ELEVATION
(TESTED UNIT)

GLASS TYPES 'B'

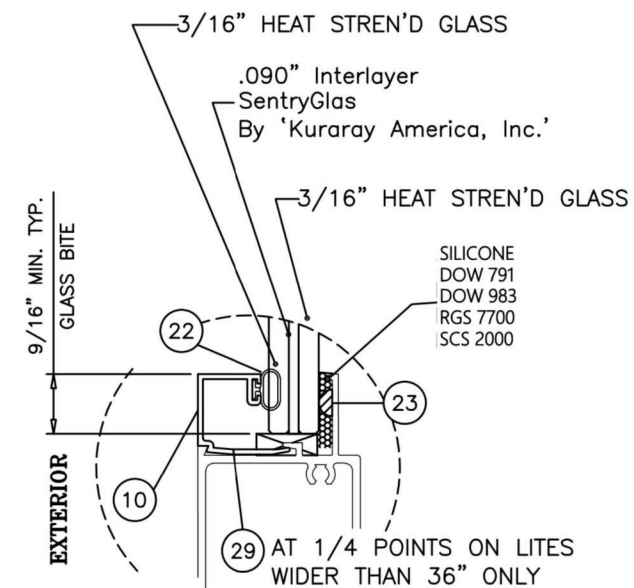
MAXIMUM DESIGN LOAD RATING = + 90.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER) - 130.0 PSF

HD VENT INTERLOCK (ITEM #7A) ONLY.
XO SHOWN OX OPPOSITE.

INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED
USE ABOVE LOADS FOR WINDOWS WITHOUT ADD-ON RISER.

INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED
USE ADD-ON RISER FOR ABOVE LOADS.
OR
LIMIT MAX. EXTERIOR(+) LOADS TO +80.0 PSF FOR WINDOWS WITHOUT
RISER.

SEE SHEET 5 FOR DETAIL.



GLASS TYPE 'B'

7/16" OVERALL LAM. GLASS



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

drawing no.	MA	drawn by:	BS
JA-1844-24			
date:	REVISION	DESCRIPTION	
12/31/2024	BY		
	DATE		
	No.		

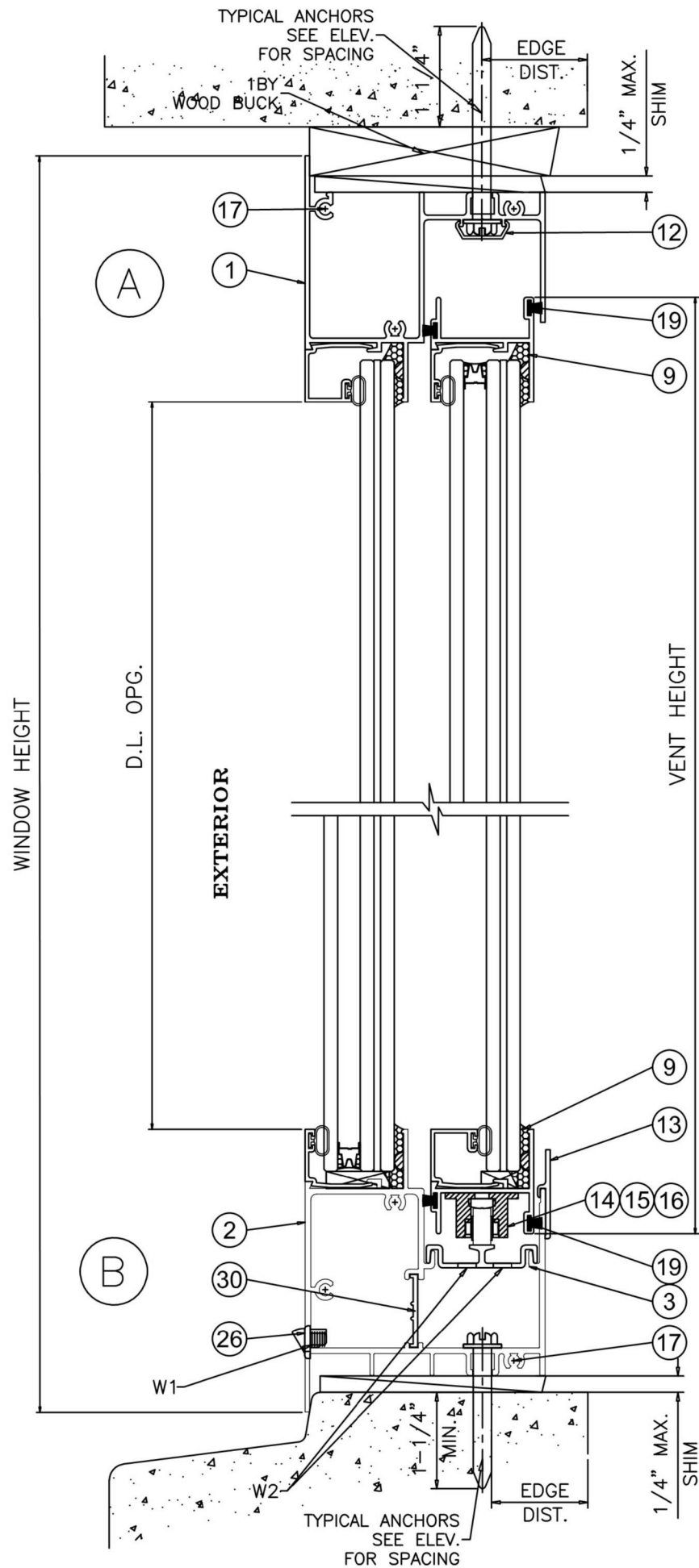
SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
(L.M.I.)
LARGE MISSILE IMPACT RATED

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



SEALED:12/31/2024

FL#40097.4

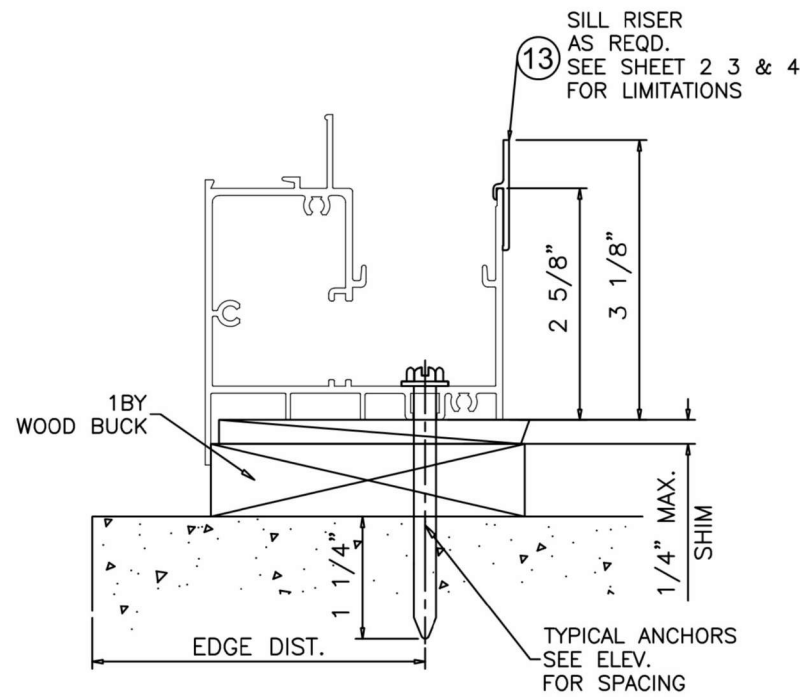


WOOD BUCKS AND METAL STRUCTURE NOT BY 'ECO WDW.'
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

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 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	F.B.C Approved Mullions	3/4"	(3) Threads min. beyond metal thickness
	All	Aluminum 1/8" Thk. Min. (6063-T5) (No Shim Space)	3/4"	(3) Threads min. beyond metal thickness
	All	Steel 1/8" Thk. Min. (min. 36 ksi) (No Shim Space)	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 2-1/4" WEEPHOLES WITH BAFFLE AT 4" FROM EACH END AND 37-1/2" O.C. MAX.
- W2 = (3) 1/4" DIA. WEEPHOLES AT 1/2" O.C. AT CENTER OF EACH LITE.

FL#40097.4



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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

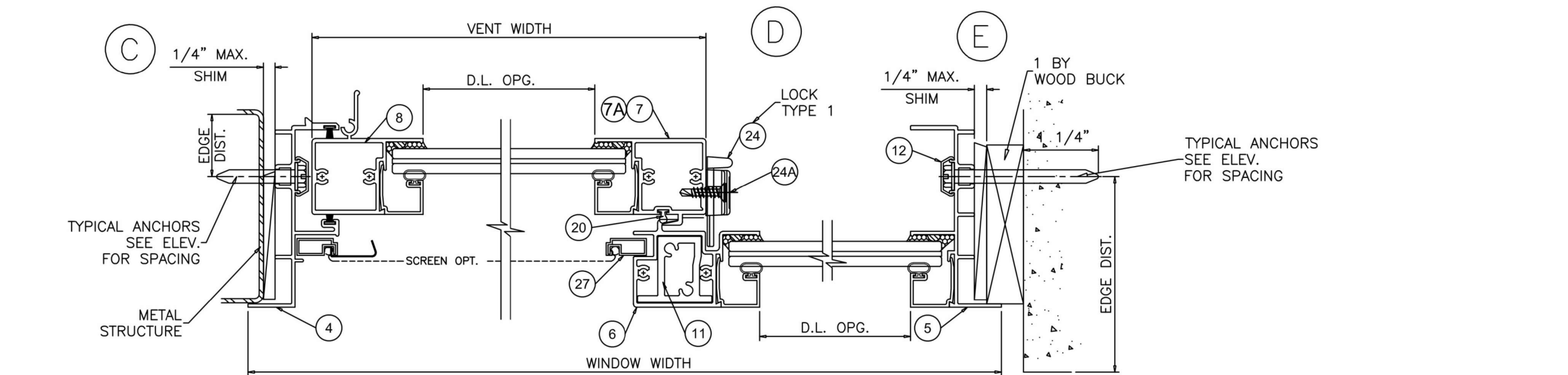
SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
(L.M.I.)
LARGE MISSILE IMPACT RATED



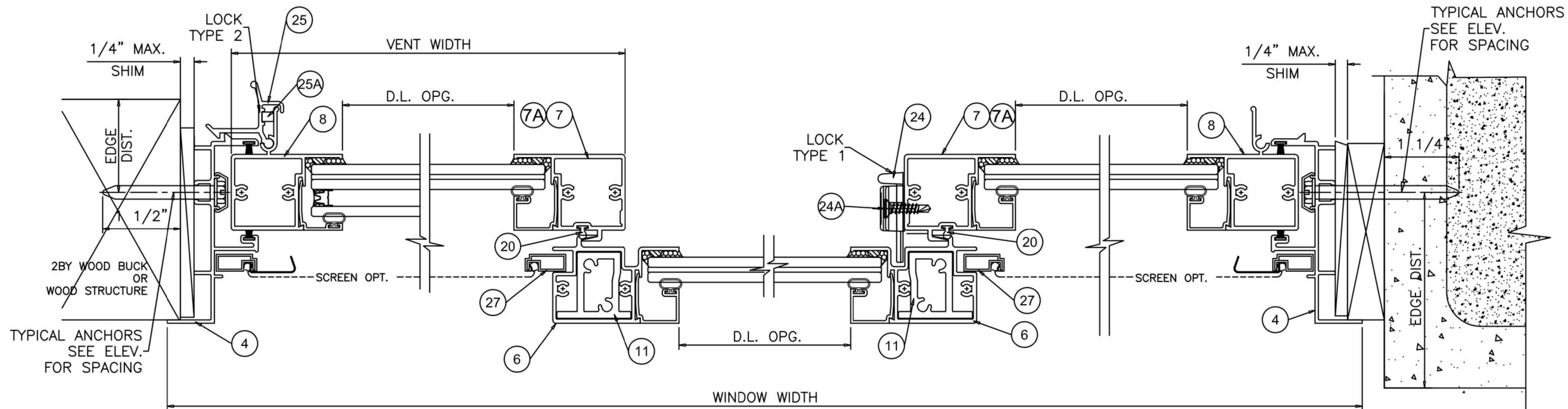
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902



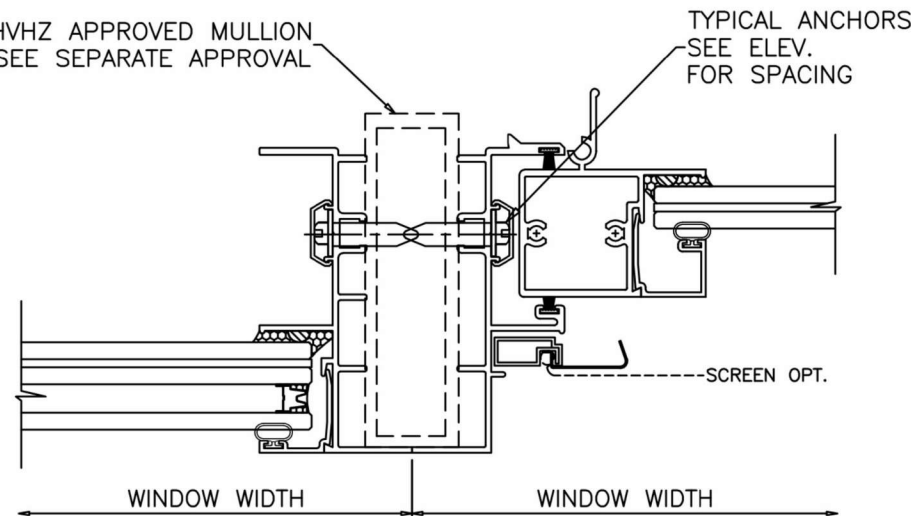
SEALED: 12/31/2024



X0 LAYOUT



XOX LAYOUT



JAVAD AHMAD PE, inc
 7875 NW 12th St., Suite 102 Doral,
 FL 33126
 Ph: (305) 424-8001
 support@ja-pe.com

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

drawing no.	MA	drawn by:	BS
JA-1844-24			
date:	REVISION	DESCRIPTION	
12/31/2024	BY		
	DATE		
	No.		

SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
 (L.M.I.)
 LARGE MISSILE IMPACT RATED

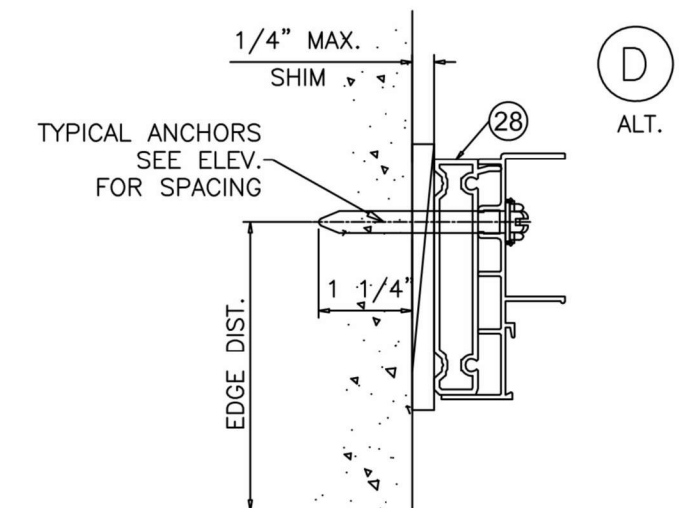
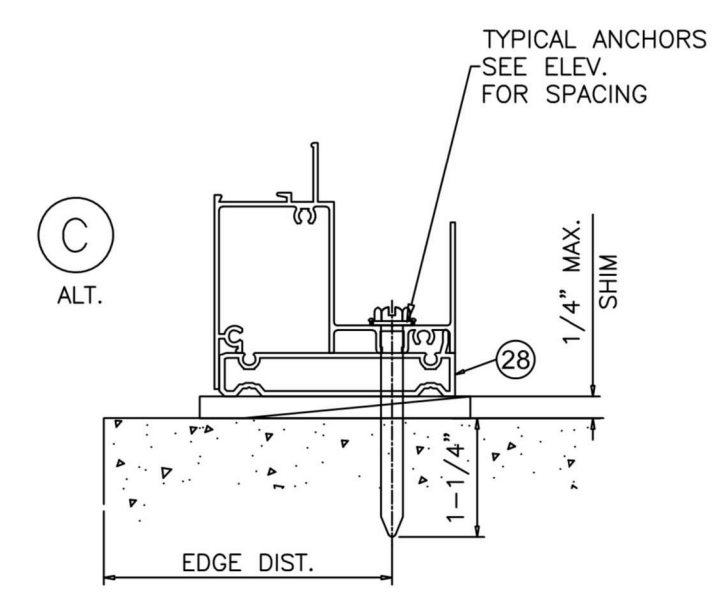
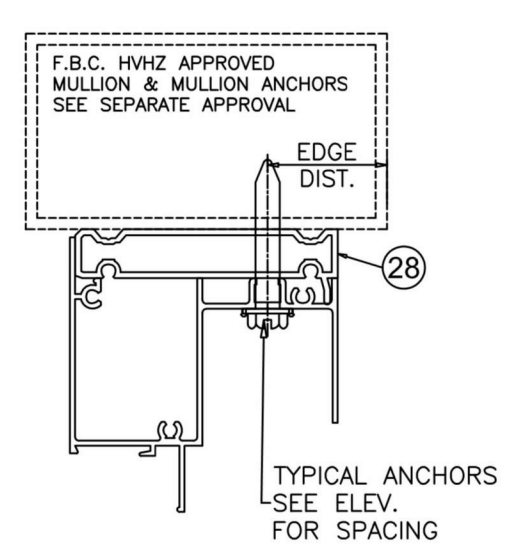
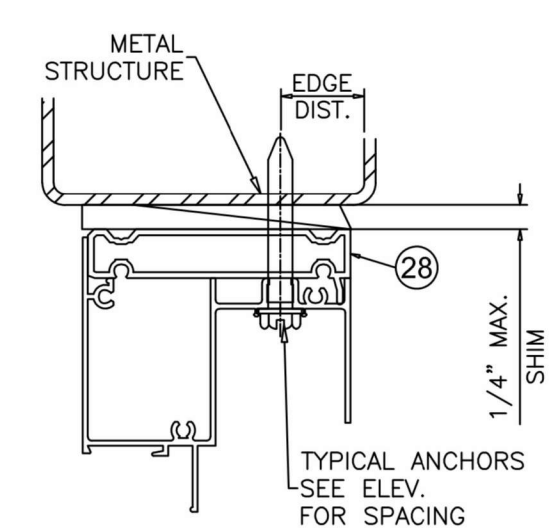
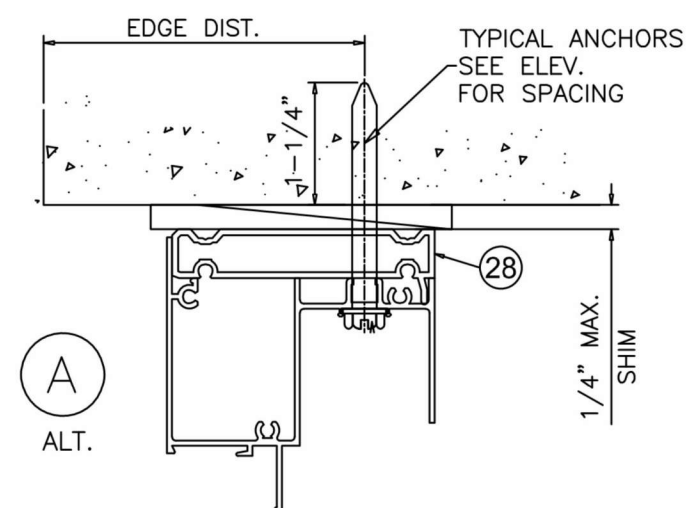


ECO WINDOW SYSTEMS, LLC.
 8502 N.W. 80th ST. MEDLEY, FL 33166
 TEL. (305) 885-5299 FAX. (305) 885-5902



SEALED: 12/31/2024

FL#40097.4



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

FL#40097.4



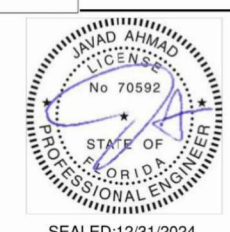
JAVAD AHMAD PE, inc
 7875 NW 12th St., Suite 102 Doral,
 FL 33126
 Ph: (305) 424-8001
 support@ja-pe.com

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

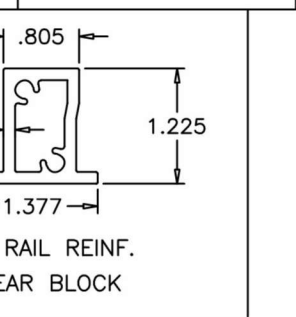
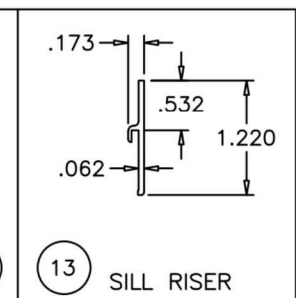
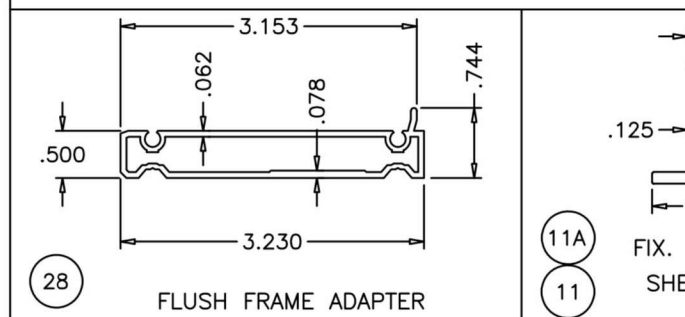
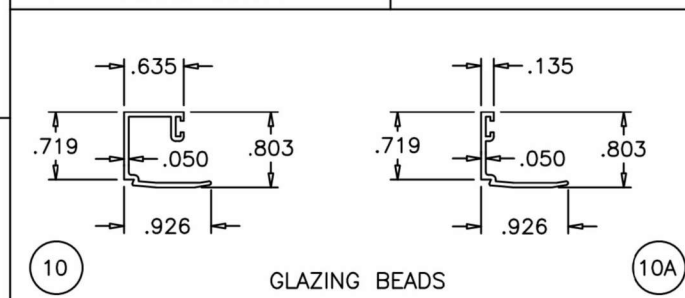
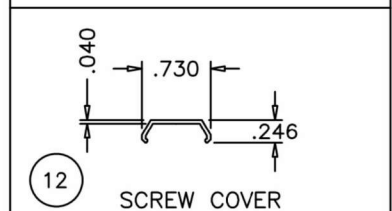
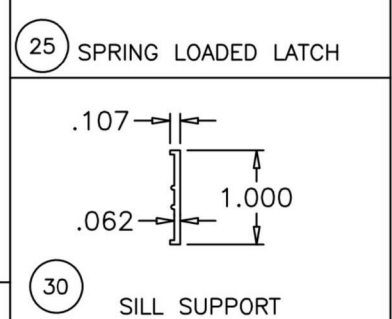
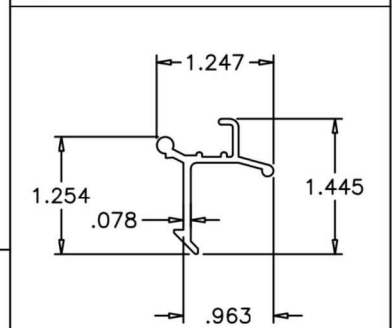
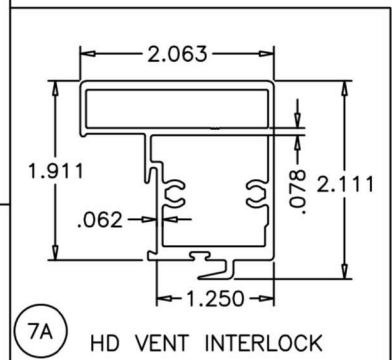
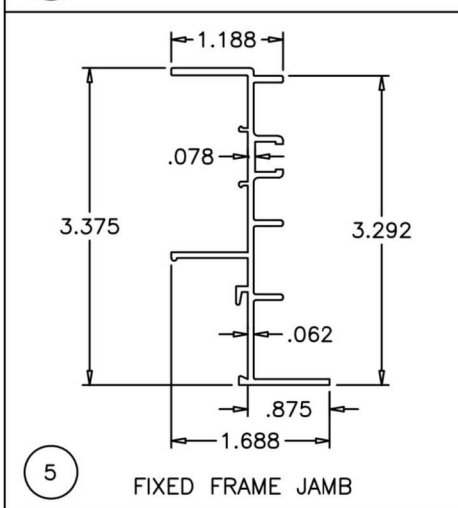
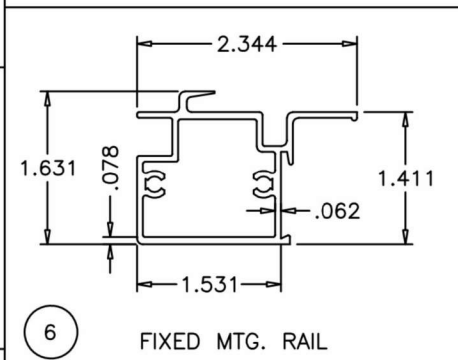
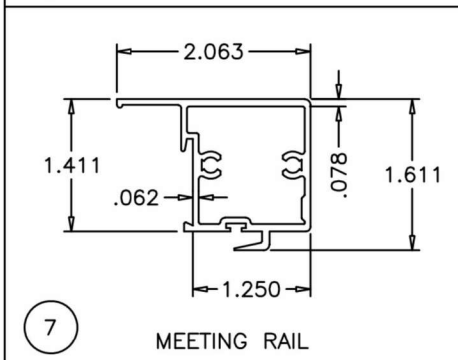
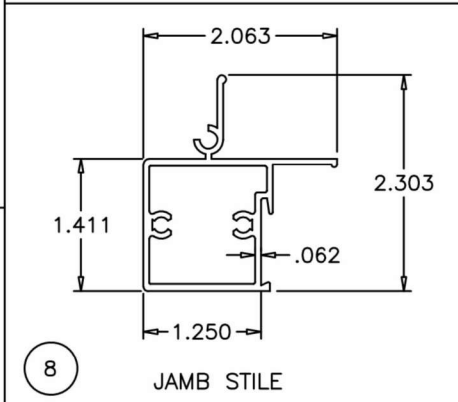
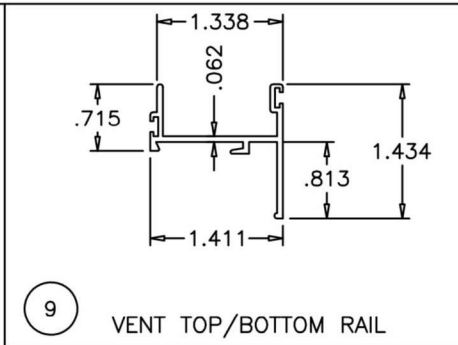
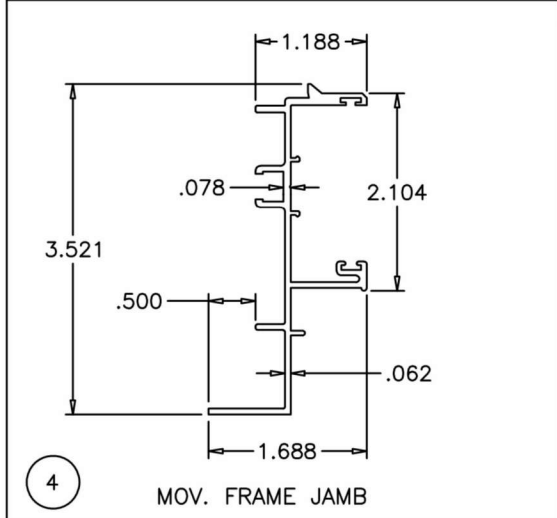
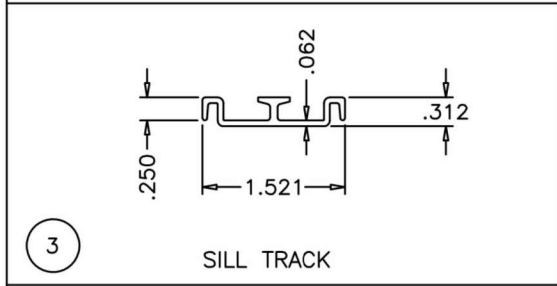
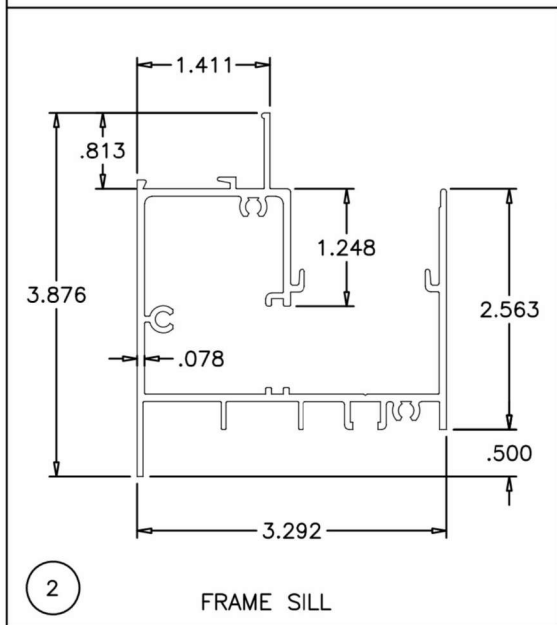
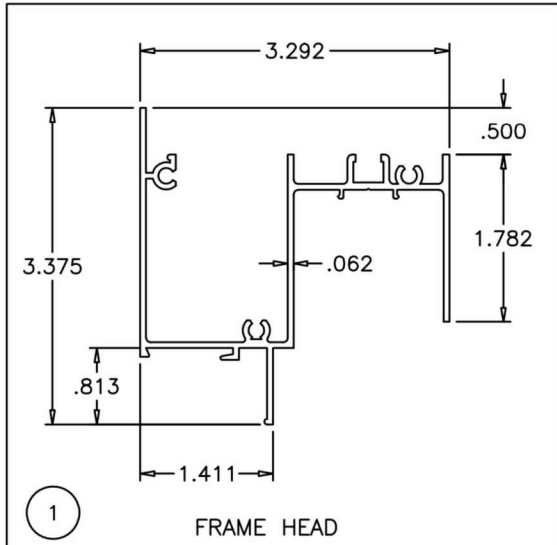
drawing no.	JA-1844-24	drawn by:	MA
date:	12/31/2024	check by:	BS
REVISION			
No.	DATE	BY	DESCRIPTION

SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
 (L.M.I.)
 LARGE MISSILE IMPACT RATED

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



SEALED: 12/31/2024



ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E251	1	FRAME HEAD	6063 - T6	-
2	E252	1	FRAME SILL	6063 - T6	-
3	E255	1	SILL TRACK INSERT	6063 - T6	-
4	E253	AS REQD.	MOV. FRAME JAMB	6063 - T6	-
5	E151	AS REQD.	FIXED FRAME JAMB	6063 - T6	-
6	E154	1 / VENT	FIXED MTG. RAIL	6063 - T6	-
7	E155	1 / VENT	VENT INTERLOCK	6063 - T6	-
7A	E258	1 / VENT	HD VENT INTERLOCK	6063 - T6	-
8	E254	1 / VENT	JAMB STILE	6063 - T6	-
9	E157	2 / VENT	TOP AND BOTTOM RAIL	6063 - T6	-
10	E159	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063 - T6	-
10A	E158	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063 - T6	-
11	E256	AS REQD.	FX. RAIL REINF. FULL LENGHT	6063 - T6	-
11A	E256	AS REQD.	SHEAR BLOCK, 2" LONG	6063 - T6	-
12	E162	AS REQD.	SCREW COVER	PVC	OPTIONAL
13	E204	AS REQD.	ADD-ON SILL RISER	6063 - T6	USE AS REQD.
14	E257	4 / VENT	ROLLER HOUSING & GUIDE	CELCON	-
15	FY209	2 / VENT	ROLLER	BRASS	-
16	FY210	2 / VENT	ROLLER PIN	ST. STEEL	-
17	#10 X 1"	AS REQD.	FRAME / VENT ASSEMBLY SCREWS	CRS	P.H. SMS
17A	#10 X 1-1/4"	2 / CORN.	FLUSH FRAME ADAPTER FASTENER	CRS	FH SMS
18	#10 X 3"	2 / VENT	FIX. RAIL SILL SCREWS (SILL END)	CRS	P.H. SMS
19	W23181	AS REQD.	FIN SEAL W'STRIPPING	-	ULTRAFAB
20	Q300T190	AS REQD.	BULB SEAL	Q-LON	SCHLEGEL
22	E203	AS REQD.	GLAZING BEAD BULB	SANTOPRENE	ULTRAFAB, DUROMETER 65±5
23	FLB-50	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE
24	SL203P	2 / VENT	SWEEP LATCH	-	SULLIVAN & ASSOC.
24A	#8 X 1/8"	2 / LATCH	LATCH INS. SCREW	ST. STEEL	OH SMS
25	FY113	2 / VENT	SPRING LOADED LATCH	6063 - T6	-
25A	-	1 / LATCH	LATCH SPRING	ST. STEEL	-
26	WA2L	2 / WDW.	WEEP VALVE	-	PREFERRED ENG. PRODUCTS
27	-	1 / VENT	5/16" BOX SCREEN	-	OPTIONAL
28	E161	-	FLUSH FRAME ADAPTER	6063 - T6	OPTIONAL
29	-	2 / LITE	SETTING BLOCK	EPDM	DUROMETER 80± SHORE A
30	-	1	SILL SUPPORT INSERT	3063 - T6	-
31	-	-	INSUL. GLASS. SPACER	VARIOUS	VARIOUS

SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH JOINT SEALER.

FL#40097.4



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

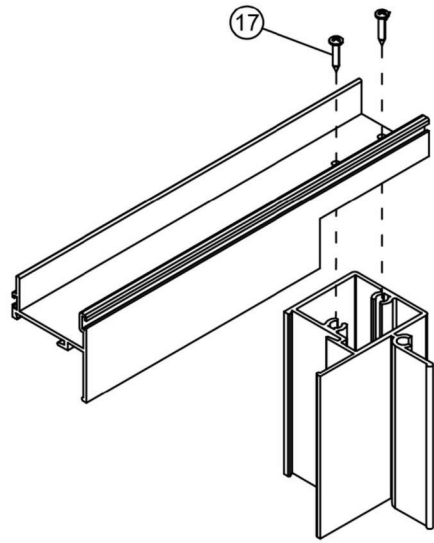
SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
(L.M.I.)
LARGE MISSILE IMPACT RATED



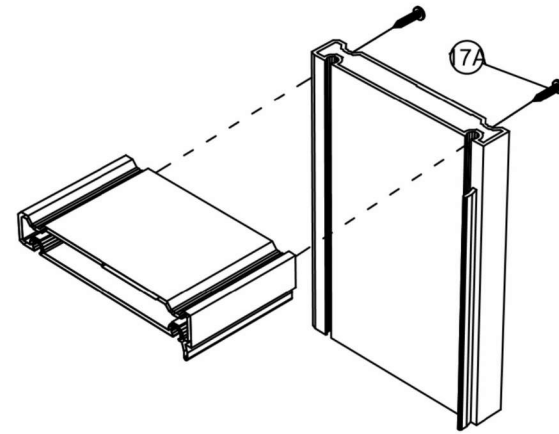
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902



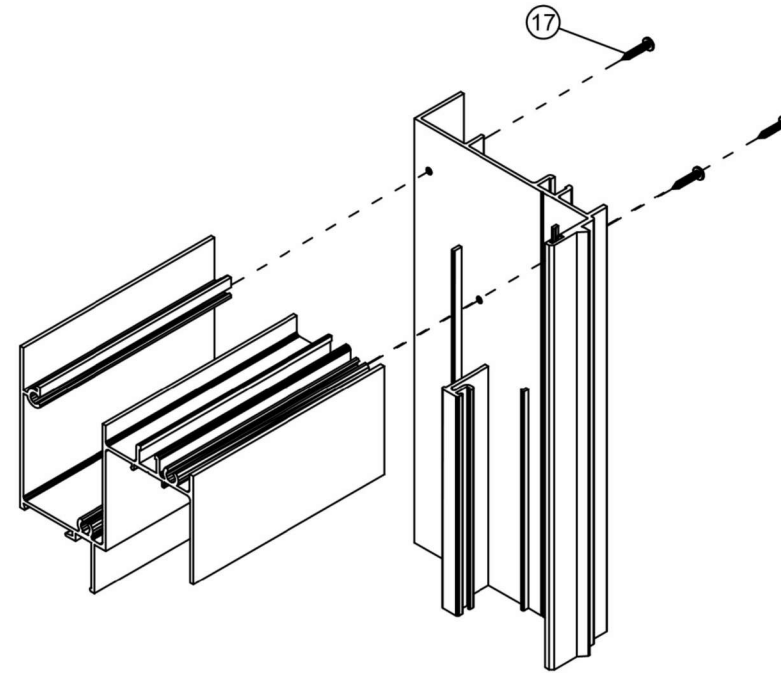
SEALED:12/31/2024



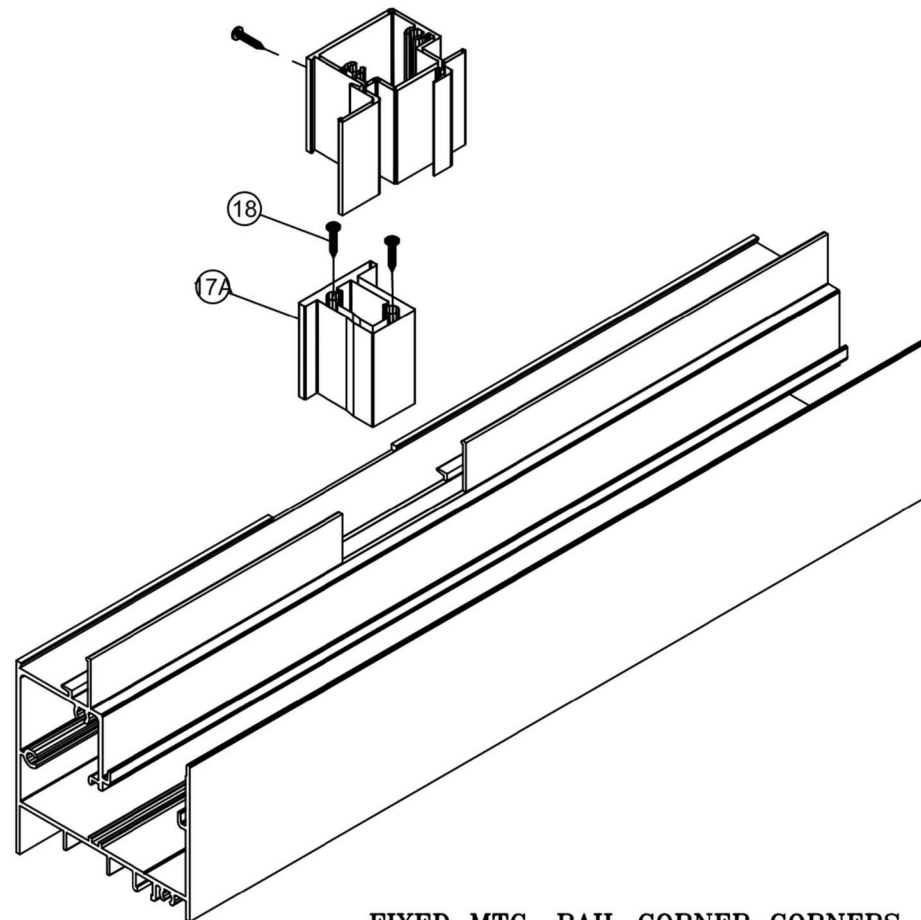
VENT TOP/BOTTOM CORNERS



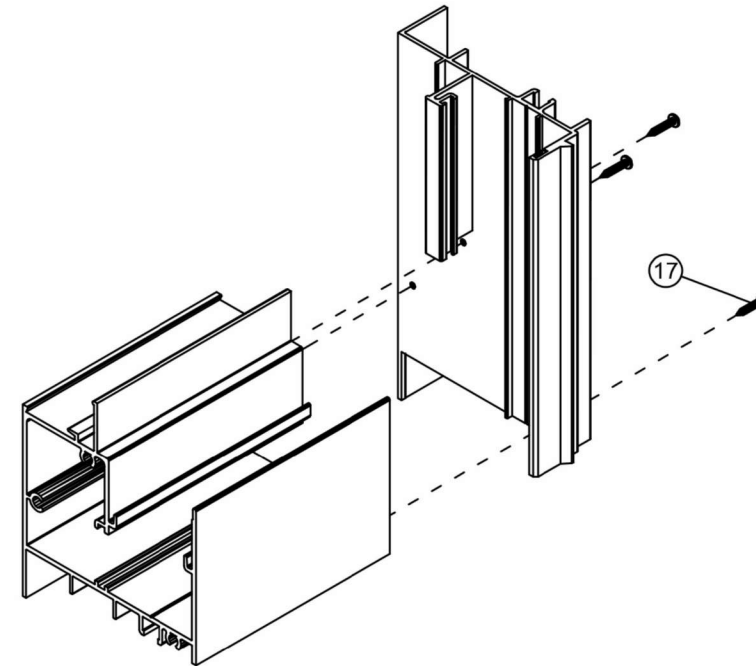
FLUSH FRAME ADAPTER CORNERS



FRAME TOP CORNERS



FIXED MTG. RAIL CORNER CORNERS



FRAME BOTTOM CORNERS

FL#40097.4



JAVAD AHMAD PE, inc
 7875 NW 12th St., Suite 102 Doral,
 FL 33126
 Ph: (305) 424-8001
 support@ja-pe.com

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

drawing no.	JA-1844-24	MA
date:	12/31/2024	BS
REVISION		
No.	DATE	DESCRIPTION

SERIES 250: ECO-GUARD ALUMINUM HORIZONTAL ROLLING WINDOW
 (L.M.I.)
 LARGE MISSILE IMPACT RATED



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



SEALED:12/31/2024