# **Business & Professional Regulation**



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FL41887-R1 FL# Application Type Revision 2023 Code Version **Application Status** Approved

Comments Archived

**Product Manufacturer** Mr-Glass Doors & Windows Manufacturing, LLC

Address/Phone/Email 8051 NW 79th Place Medley, FL 33166 (305) 470-8284

ulises@mrglasswindows.com

Authorized Signature Ulises Senaris

ulises@mrglasswindows.com

Technical Representative Augusto Arias Address/Phone/Email 8120 NW 84th St Medley, FL 33166

(305) 470-8284

aarias@mrglasswindows.com

Quality Assurance Representative

Address/Phone/Email

Category Windows Subcategory Single Hung

Compliance Method Evaluation Report from a Florida Registered Architect or a Licensed Florida

Jalal Farooq

Professional Engineer

Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who developed

the Evaluation Report

Florida License PE-81223

Quality Assurance Entity Keystone Certifications, Inc.

Quality Assurance Contract Expiration Date

Referenced Standard and Year (of Standard)

Validated By

04/30/2035

Abel Carrasco, PE

✓ Validation Checklist - Hardcopy Received

Certificate of Independence FL41887 R1 COI SS - Certificate of Independence 2023.pdf

**Standard** 

TAS 201 1994 TAS 202 1994 **TAS 203** 1994

<u>Year</u>

Equivalence of Product Standards

Certified By

**Product Approval Method** Method 1 Option D

**Date Submitted** 07/25/2023 Date Validated 07/25/2023 Date Pending FBC Approval 08/01/2023 Date Approved 10/18/2023

#### **Summary of Products**

FL #	Model, Number or Name	Description
41887.1	Series MG-350 Aluminum Single Hung Window	Large missile impact resistant aluminum single hung window
Limits of Use Approved for use in H Approved for use out: Impact Resistant: Yes Design Pressure: +65 Other: See attached dr combination and installa	side HVHZ: Yes ; /-80 awing 23-02F for span vs. load	Installation Instructions  FL41887 R1 II SS - MG-350 SH (LMI) -DWG 23-02F  2023.pdf  Verified By: Jalal Farooq PE # 81223  Created by Independent Third Party: Yes  Evaluation Reports  FL41887 R1 AE SS - MG-350 SH (LMI) -PAE 2023.pdf  Created by Independent Third Party: Yes





Contact Us: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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#### **Product Approval Accepts:**















# AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

### PRODUCT APPROVAL EVALUATION RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 41887

Date: 07/21/2023

**Detailed Product Description:** 

Manufacturer: MR-GLASS DOORS & WINDOWS MANUFACTURING LLC. Manufacturer Address: 8051 NW 79th PLACE, MEDLEY, FL 33166 Model Name: SERIES MG-350 ALUMINUM SINGLE HUNG WINDOW

Maximum Load: +65 PSF, -80 PSF (Large Missile Impact)

Installation Drawings # 23-02F

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used X Yes No

### Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT	TEST REPORT #	Test Sealed by
ASTM E283	Air Infiltration Leakage	Hurricane Engineering & Testing, Inc	11/14/2022	HETI-22-7211	Dr. Ram Tewari, PE
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Hurricane Engineering & Testing, Inc	11/14/2022 11/09/2022	HETI-22-7211 HETI 22-7232	Dr. Ram Tewari, PE
ASTM E330 & TAS 202	Uniform Static Air Press.	Hurricane Engineering & Testing, Inc	11/14/2022 11/09/2022 01/11/2023	HETI-22-7211 HETI 22-7232 HETI 23-8000	Dr. Ram Tewari, PE
ASTM F 588	Forced Entry	Hurricane Engineering & Testing, Inc	11/14/2022	HETI-22-7211	Dr. Ram Tewari, PE

## Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

TEST	DESCRIPTION	TEST LOCATION	TEST	TEST	Test
			REPORT	REPORT #	Sealed by
FBC 1626.2 (TAS 201 & 203) ASTME1886/1996	Large Missile Impact & Cyclic	Hurricane Engineering & Testing, Inc	11/14/2022 11/09/2022 01/11/2023	HETI-22-7211 HETI 22-7232 HETI 23-8000	Dr. Ram Tewari, PE

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code.

**Evaluation Report Engineer:** 

Sealed: 7/21/2023

PE # 81223 Jalal Farooq Al-Farooq Corporation EB # 3538



# AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

January 23, 2023

Product Approval Administrator
Building Codes & Standards Section
Department of Business & Professional Regulations
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399-2100

To whom it may concern,

As the design engineer retained to prepare the product approval(s) associated with this letter as shown below on this same web page, I do hereby declare that I do not have and will not have any financial interest in any company manufacturing or distributing the referenced product(s), nor do I have or will have any financial interest with any other entity involved in the approval process of the referenced product(s).

Sincerely,

AL FARO

No. 81223

No. 81223

STATE OF

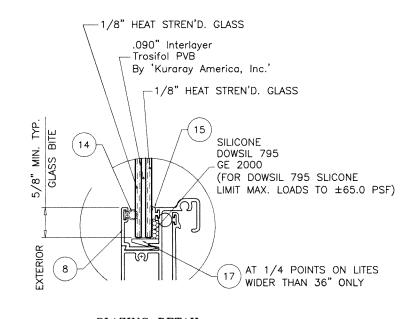
LORIDA CONIDA

STATE OF

Jalal Farooq, P.E. CFO

Sealed: 1/23/2023

DESIGN	LOAD CAF	PACITY -	PSF		DESIGN	LOAD CAF	ACITY -	PSF
FRAME	DIMS.	5/16" GL			FRAME	DIMS.	5/16" GL	
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	П	WIDTH	HEIGHT	EXT.(+)	1NT.(-)
19-1/8"		65.0	80.0	П	24"		65.0	80.0
26-1/2"	2.07	65.0	80.0		30"		65.0	80.0
37"	26"	65.0	80.0		36"	36"	65.0	80.0
53-1/8"		65.0	80.0		42"		65.0	80.0
19-1/8"		65.0	80.0		48"		65.0	80.0
26-1/2"	70 7 (0"	65.0	80.0		24"		65.0	80.0
37"	38-3/8"	65.0	80.0	Ш	30"		65.0	80.0
53-1/8"		65.0	80.0		36"	48"	65.0	80.0
19-1/8"		65.0	80.0		42"		65.0	80.0
26-1/2"	(-)	65.0	80.0	Ш	48"		65.0	80.0
37"	50-5/8"	65.0	80.0		24"		65.0	80.0
53-1/8"		65.0	80.0	Ш	30"		65.0	80.0
19-1/8"		65.0	80.0		36"	60"	65.0	80.0
26-1/2"		65.0	80.0		42"		65.0	80.0
37"	56"	65.0	80.0	Ш	48"		65.0	80.0
53-1/8"		65.0	80.0		24"		65.0	80.0
19-1/8"		65.0	80.0		30"		65.0	80.0
26-1/2"		65.0	80.0	Ш	36"	72"	65.0	80.0
37"	63"	65.0	80.0	Ш	42"		65.0	80.0
53-1/8"		65.0	80.0		48"		65.0	80.0
19-1/8"		65.0	80.0		24"		65.0	80.0
26-1/2"	"	65.0	80.0		30"		65.0	80.0
37"	72"	65.0	80.0		36"	78"	65.0	80.0
53-1/8"		65.0	80.0	Ш	42"		65.0	80.0
19-1/8"		65.0	80.0		48"		65.0	80.0
26-1/2"		65.0	80.0		24"		65.0	80.0
37"	76"	65.0	80.0	$\  \ $	30"		65.0	80.0
53-1/8"		65.0	80.0		36"	84"	65.0	80.0
	•			۱	42"		65.0	80.0
				١	48"		65.0	80.0



GLAZING DETAIL 5/16" OVERALL LAM. GLASS

GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

# 53 1/8" WINDOW WIDTH 47 1/4" D.L.O. (FIX. LITE) 13 3/4" 6" MAX. MAX. HEAD HEAD 2 **CORNERS** LITE) D.L.0. 3 2 13/16" T HEIGHT (VENT) D.L.0. FALSE MUNTINS (SURFACE APPLIED) MAY BE USED 47 1/4" D.L.O. (VENT) 49 3/4" VENT WIDTH

### TYPICAL ELEVATION

TESTED UNIT

### MG - 350

## ALUMINUM SINGLE HUNG WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ABOVE.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW 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.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) 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 2020/2023 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 LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

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

# Sealed: 7/21/2023

- A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW
- D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT



description UPDATED TO 2023 F þ P O € -09-23 0 by: drawing

CORPORATION

(L.M.I.) 끔

HUNG

SINGLE

ALUMINUM

MG-350

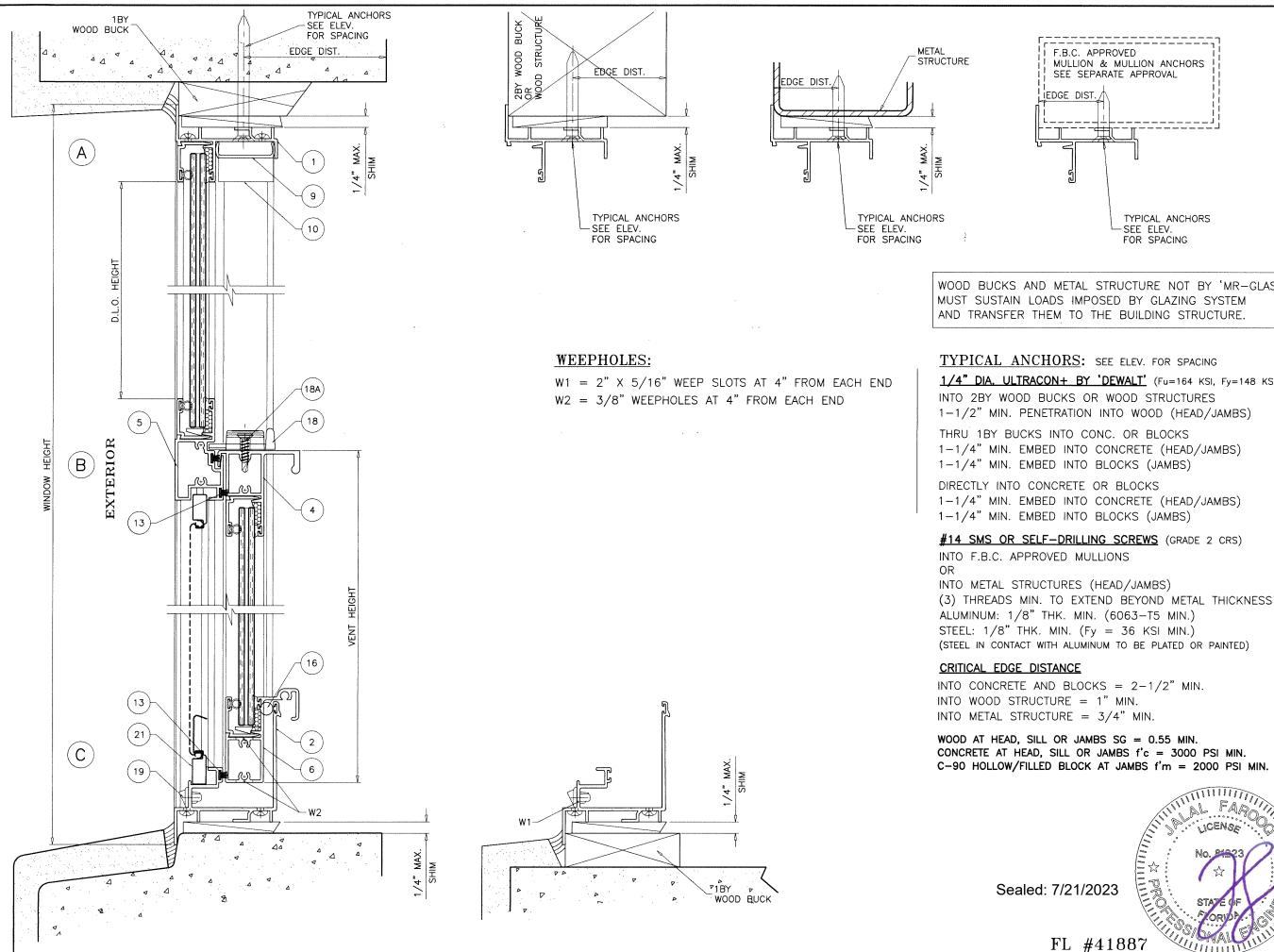
MANUFACTURING, WDW.

MR-GLASS DOORS & WINDOWS M 8051 N.W. 79th Place Medley, FL. 33166 Tel. (305) 764-3963 www.r

AL-FAROOQ CORPO ENGINEERS & PRODUCT DEVE 9360 SUNSET DRIVE, SUITE 2: MIAMI, FLORIDA 33173 TEL. (305) 264-8100 www

no. 23-02F

sheet 1 of 5



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

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

### #14 SMS OR SELF-DRILLING SCREWS (GRADE 2 CRS)

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

by description

drawing no. 23-02F

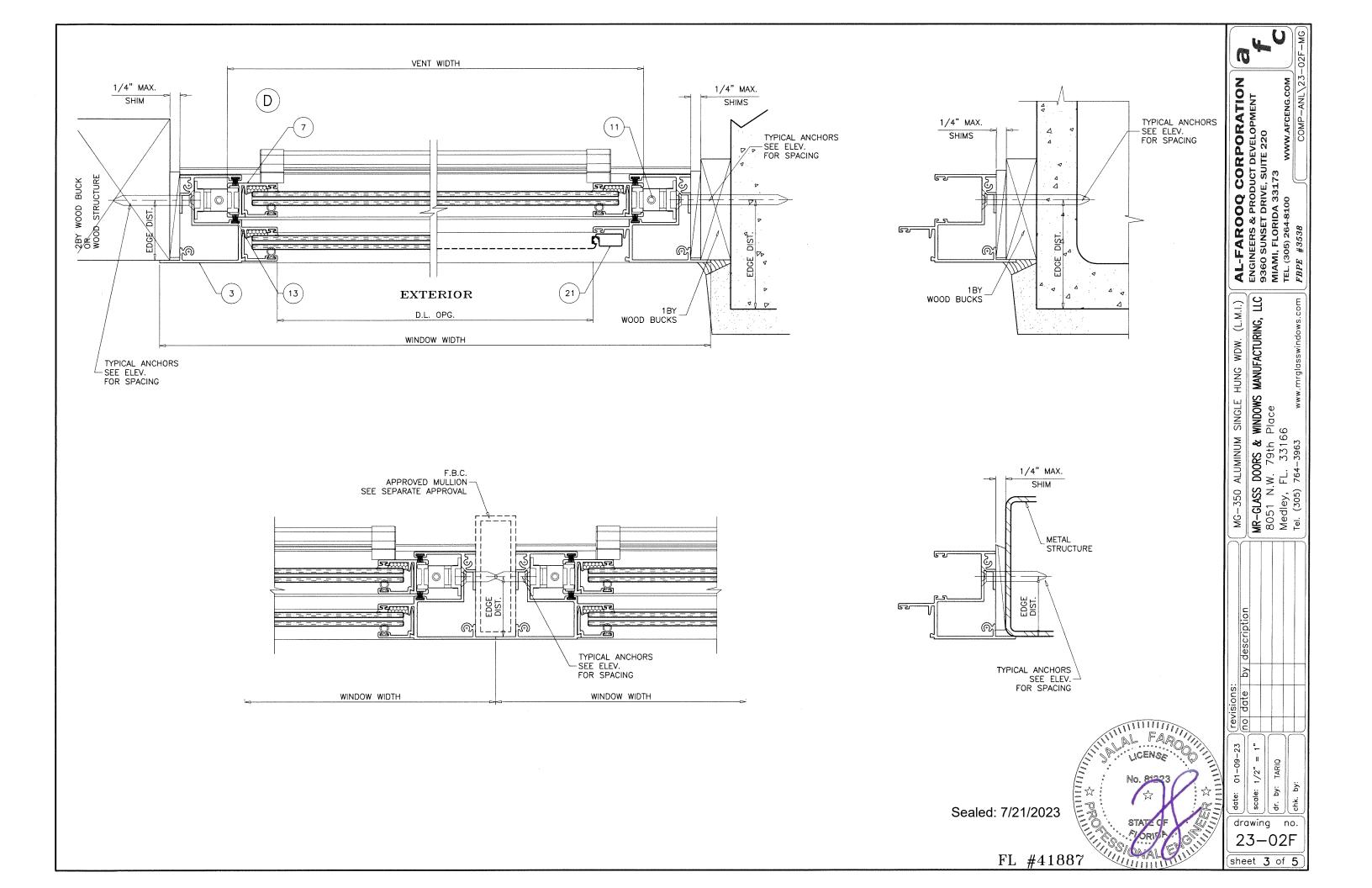
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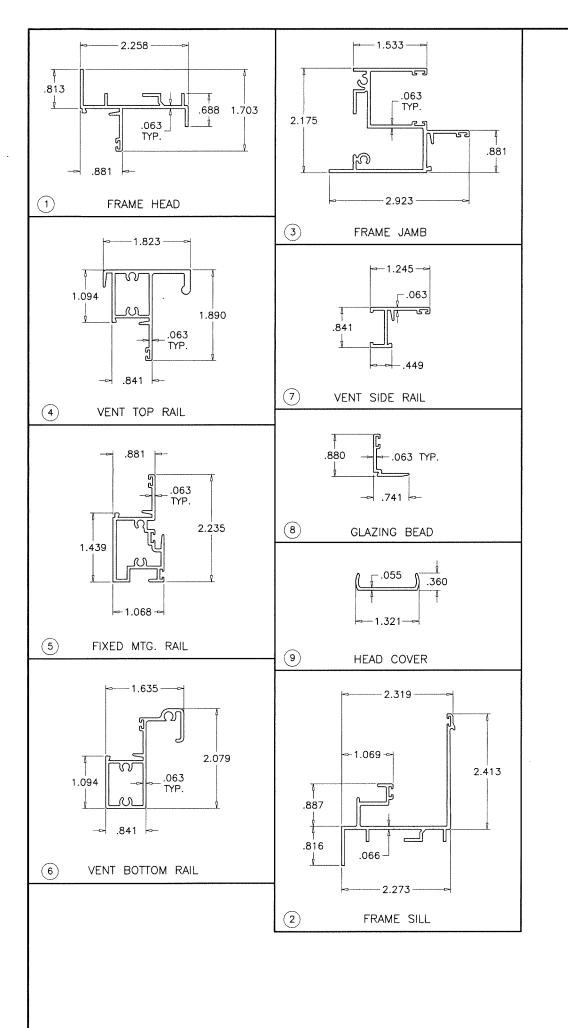
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL (305) 264-8100
WWW.AFCENG.COM

임

MG-350 ALUMINUM SINGLE HUNG WDW. (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, 8051 N.W. 79th Place Medley, FL. 33166 Tel. (305) 764-3963 www.mrglasswindows.c





ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E-354	1	FRAME HEAD	6063-T6	_
2	E-353	2	FRAME SILL	6063-T6	_
3	E-352	2	FRAME JAMB	6063-T6	_
4	E-357	1/ VENT	VENT TOP RAIL	6063-T6	_
5	E-355	1	FIXED MTG. RAIL	6063-T6	_
6	E-358	1/ VENT	VENT BOTTOM RAIL	6063-T6	_
7	E-356	2/ VENT	VENT SIDE RAIL	6063-T6	
8	E-361	AS REQD.	GLAZING BEAD	6063-T6	_
9	E-365	AS REQD.	HEAD COVER	6063-T5	_
10	E-366	AS REQD.	VENT STOP	6063-T5	_
11		2/ VENT	BLOCK & TACKLE BALANCE	_	_
12	#8 X 1-1/2"	AS REQD.	FRAME/VENT ASSEMBLY SCREWS	ST. STEEL	PH SMS
13	G35-01	AS REQD.	FIN SEAL W'STRIPPING (.19 X .187)	_	ULTRAFAB
14	G20-07	AS REQD.	EXTERIOR GLAZING GASKET	NEOPRENE	ULTRAFAB
15	G25-01	AS REQD.	INTERIOR GLAZING GASKET	NEOPRENE	CPI
16	G25-03	AS REQD.	SILL W'STRIPPING	VINYL/FOAM	AMESBURY
17	G35-02	AS REQD.	SETTING BLOCKS, AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
18	L2-01	2/ VENT	SWEEP LATCH, AT 9" FROM EACH END	ZAMAK	SULLIVAN & ASSOC.
18A	#8 X 1"	2/ LATCH	LATCH INST. SCREW	ST. STEEL	FH SMS
19	G2-01	2/ WDW.	HI-FLOW WEEPER	****	PREFERRED ENGINEERING PRODUCTS
20		2/ VENT	VENT GUIDE		IDH
21	_	1/ VENT	5/16" BOX SCREEN	-	OPTIONAL
22		_	_		_

# **SEALANTS:**

ALL FRAME AND VENT CORNERS AND FIXED MEETING RAIL AT EACH END SEALED WITH ALUMINUM COLORED SEALANT.

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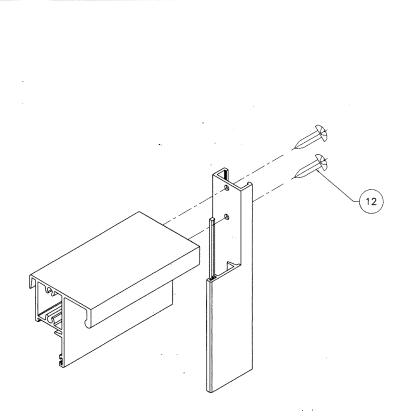
date: 01-09-23	revisions:	MG-350 ALLIMINI M SINGLE HING WOW (LMI)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	no date by description	THE SOO TECHNISON SHOCK HONG HOM. (E.M.I.)
scale: 1/2" = 1"	_	MR-GLASS DOORS & WINDOWS MANUFACTURING, 11C
		8051 N W 70+k Dl~2
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chk. by:		Tel. (305) 764—3963 www.mrglasswindows.com

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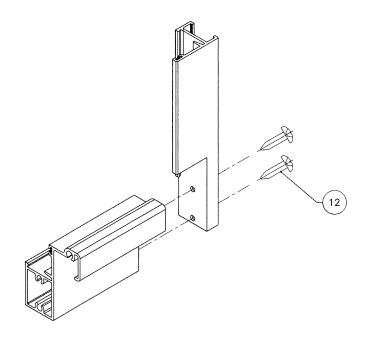
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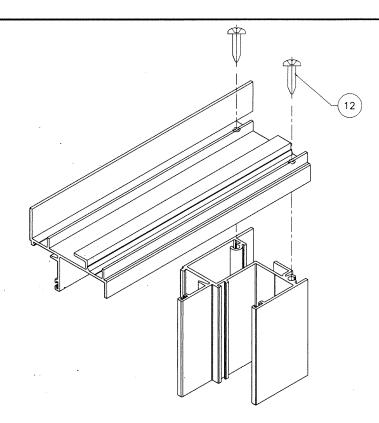
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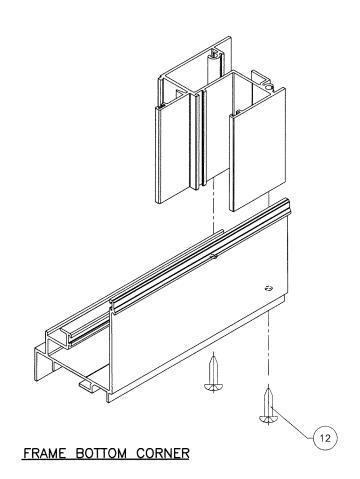
VENT TOP CORNER



VENT BOTTOM CORNER



FRAME TOP CORNER



Sealed: 7/21/2023

FL #41887

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9360 SUNSET DRIVE, SUITE 220
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FBPE #3538
COMP-ANL\23-0

MG-350 ALUMINUM SINGLE HUNG WDW. (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 www.mrglasswindows.com

(revisions:
| no date | by description |

date: 01–09–23 (revi

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sheet 5 of 5