Product Approval
USER: Public User

FL #	FL32415-R4
Application Type	Revision
Code Version	2023
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 Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq
Florida License	PE-81223
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	04/30/2035
Validated By	Abel Carrasco, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL32415_R4_COI_SS - Certificate of Independence 2023.pdf

Referenced Standard and Year (of Standard)

Standard	Year
AAMA 501	2015
TAS 201/203	1994
TAS 202	1994

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	08/11/2025
Date Validated	08/14/2025
Date Pending FBC Approval	08/15/2025
Date Approved	10/14/2025

Summary of Products

FL #	Model, Number or Name	Description
32415.1	Series MG-250 Aluminum Single Hung Window Wall System	Small missile impact resistant aluminum single hung window wall system.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +85/-130 **Other:** See attached drawing 20-43F for span vs load combinations and installation instructions.		**Installation Instructions** FL32415_R4_II_SS - MG-250 SH WW (SMI) - DWG 20-43F 2023 R1.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL32415_R4_AE_SS - MG-250 SH WW (SMI) - PAE 2023 R1.pdf Created by Independent Third Party: Yes
32415.2	Series MG-250 Aluminum Single Hung Window Wall System	Large missile impact resistant aluminum single hung window wall system.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +85/-130 **Other:** See drawing 20-65F for span vs load combination and installation details		**Installation Instructions** FL32415_R4_II_SS - MG-250 SH WW (LMI) - DWG 20-65F 2023 R1.pdf Verified By: Jalal Farooq PE 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL32415_R4_AE_SS - MG-250 SH WW (LMI) - PAE 2023 R1.pdf Created by Independent Third Party: Yes

Back Next

The State of Florida is an AA/EEO employer. Copyright 2007-2013 State of Florida. :: Privacy Statement :: Accessibility Statement :: Refund Statement

Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click here .

Product Approval Accepts:

Credit Card Safe securityMETRICS

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

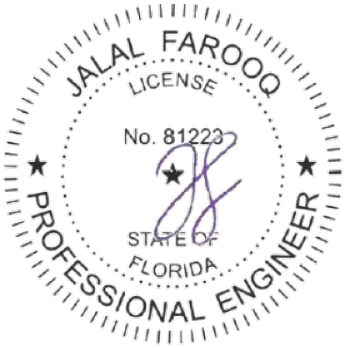
January 23, 2023

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,



Jalal Farooq, P.E.
CFO

Sealed: 1/23/2023

9360 Sunset Drive, Suite 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 32415
Date: 8/4/2025

Detailed Product Description:
Manufacturer: MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
Manufacturer Address: 8051 N.W. 79TH PLACE. MEDLEY, FL 33166
Model Name: SERIES "MG-250" ALUMINUM SINGLE HUNG WINDOW WALL SYSTEM
Maximum Load: +85 PSF, -130 PSF (Large Missile Impact)
Installation Drawings # 20-65F

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

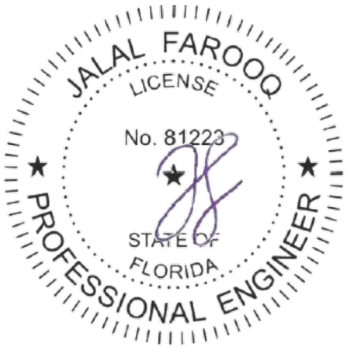
Mandatory Tests (Tested in accordance with AAMA 501/101/I.S.2/NAFS/TAS 202)

Test	Description	Test Location	Test Report Date	Test Report #	Test Sealed By
ASTM E283	Air Infiltration Leakage	Hurricane Engineering & Testing, Inc	4/26/2020	HETI-20-8043	Rafael E.Droz-Seda, PE
			5/20/2021	HETI-21-7021	Rafael E.Droz-Seda, PE
			5/21/2021	HETI-21-7024	Rafael E.Droz-Seda, PE
			3/15/2025	HETI-25-8277	Dr. Ram N. Tewari, PE
			3/17/2025	HETI-25-8311	Dr. Ram N. Tewari, PE
			6/5/2025	HETI-25-8275	Dr. Ram N. Tewari, PE
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Hurricane Engineering & Testing, Inc	4/26/2020	HETI-20-8043	Rafael E.Droz-Seda, PE
			5/20/2021	HETI-21-7021	Rafael E.Droz-Seda, PE
			5/21/2021	HETI-21-7024	Rafael E.Droz-Seda, PE
			3/15/2025	HETI-25-8277	Dr. Ram N. Tewari, PE
			3/17/2025	HETI-25-8311	Dr. Ram N. Tewari, PE
			6/5/2025	HETI-25-8275	Dr. Ram N. Tewari, PE
ASTM E330 & TAS 202	Uniform Static Air Pressure	Hurricane Engineering & Testing, Inc	4/26/2020	HETI-20-8041	Rafael E.Droz-Seda, PE
			4/26/2020	HETI-20-8043	Rafael E.Droz-Seda, PE
			6/29/2020	HETI-20-8072	Rafael E.Droz-Seda, PE
			5/20/2021	HETI-21-7021	Rafael E.Droz-Seda, PE
			5/21/2021	HETI-21-7024	Rafael E.Droz-Seda, PE
			3/15/2025	HETI-25-8277	Dr. Ram N. Tewari, PE
			3/17/2025	HETI-25-8311	Dr. Ram N. Tewari, PE
			6/5/2025	HETI-25-8275	Dr. Ram N. Tewari, PE
ASTM F588	Forced Entry	Hurricane Engineering & Testing, Inc	4/26/2020	HETI-20-8043	Rafael E.Droz-Seda, PE
			5/20/2021	HETI-21-7021	Rafael E.Droz-Seda, PE
			3/15/2025	HETI-25-8277	Dr. Ram N. Tewari, PE

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)					
Test	**Description**	**Test Location**	**Test Report Date**	**Test Report#**	**Test Sealed By**
FBC 1626.2 (TAS 201 & 203) ASTM E1886/1996 ANSI Z97.1	Large Missile Impact & Cyclic	Hurricane Engineering & Testing, Inc	6/29/2020	HETI-20-8070	Rafael E.Droz-Seda, PE
			6/29/2020	HETI-20-8072	Rafael E.Droz-Seda, PE
			5/20/2021	HETI-21-7021	Rafael E.Droz-Seda, PE
			5/21/2021	HETI-21-7024	Rafael E.Droz-Seda, PE
			3/15/2025	HETI-25-8277	Dr. Ram N. Tewari, PE
			3/17/2025	HETI-25-8311	Dr. Ram N. Tewari, PE
			6/5/2025	HETI-25-8275	Dr. Ram N. Tewari, PE
			7/30/2025	HETI-25-8356	Dr. Ram N. 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:



Jalal Farooq PE # 81223

Al-Farooq Corporation EB # 3538

Sealed: 8/11/2025

	INDEX OF DRAWING
SHEET NO.	DESCRIPTION
1 & 1.1	GENERAL NOTES, TESTED ELEVATION
2	APPROVED CONFIGURATIONS, GLAZING OPTIONS
3 & 3.1	SINGLE HUNG OVER FIXED WINDOW CAPACITY CHARTS
4	FIXED WINDOW CAPACITY CHARTS
4.1	JAMB AND MULLION CAPACITY CHARTS
5 THRU 7	VERTICAL AND HORIZONTAL SECTION DETAILS
8	BILL OF MATERIALS
9	EXTRUSION DETAILS
10	CORNER CONSTRUCTION DETAILS

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

MG-250 (L.M.I.)
ALUMINUM SINGLE HUNG WINDOW WALL SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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.

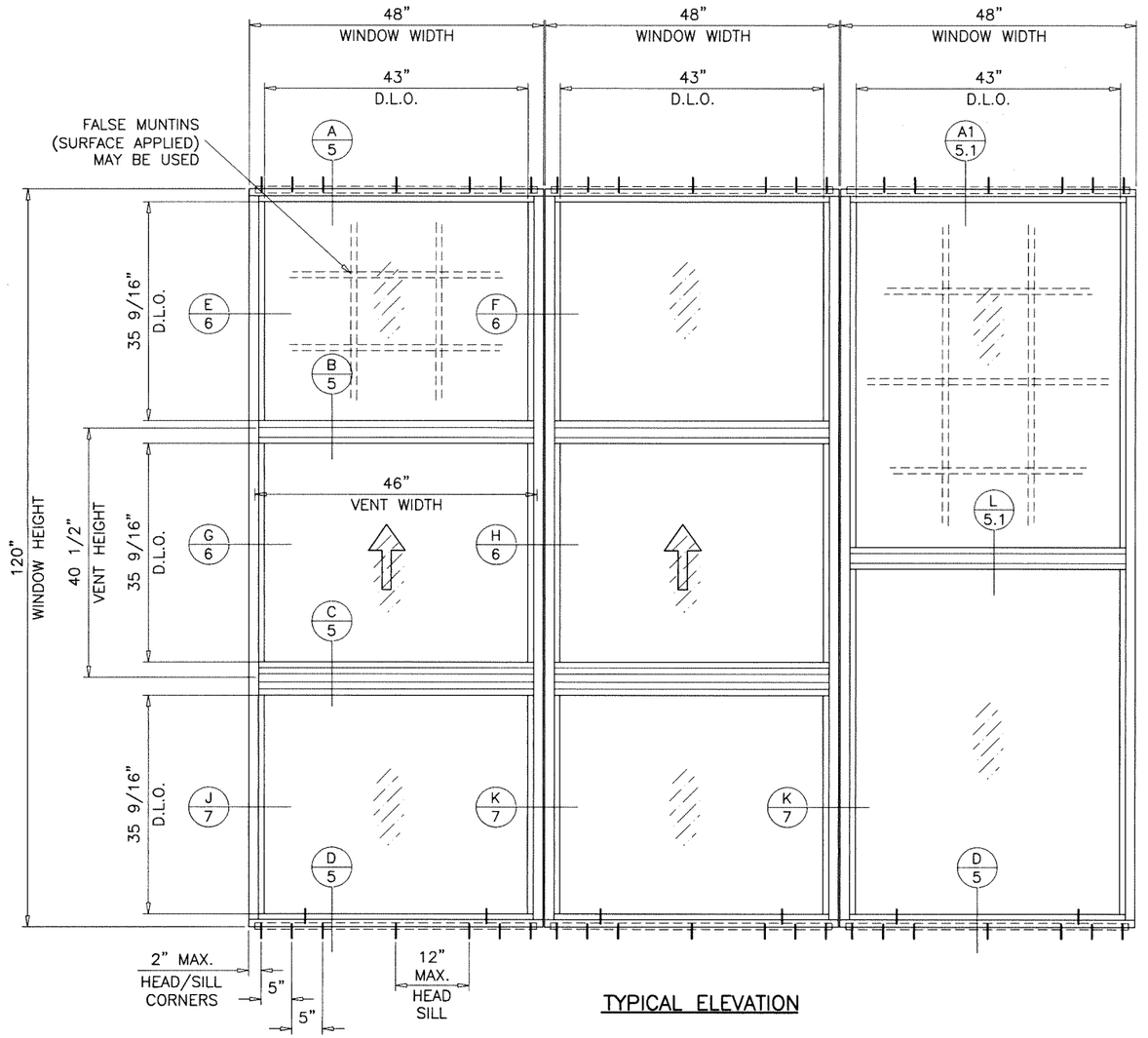
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 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.



TYPICAL ELEVATION

PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1
WHEN USED AS A GUARD, VERIFY LIFE SAFETY REQUIREMENTS

LAMINATED GLASS
INSUL. LAM. GLASS
LARGE MISSILE IMPACT

Sealed: 8/11/2025

FL #32415

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.

C- 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.

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

afc
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

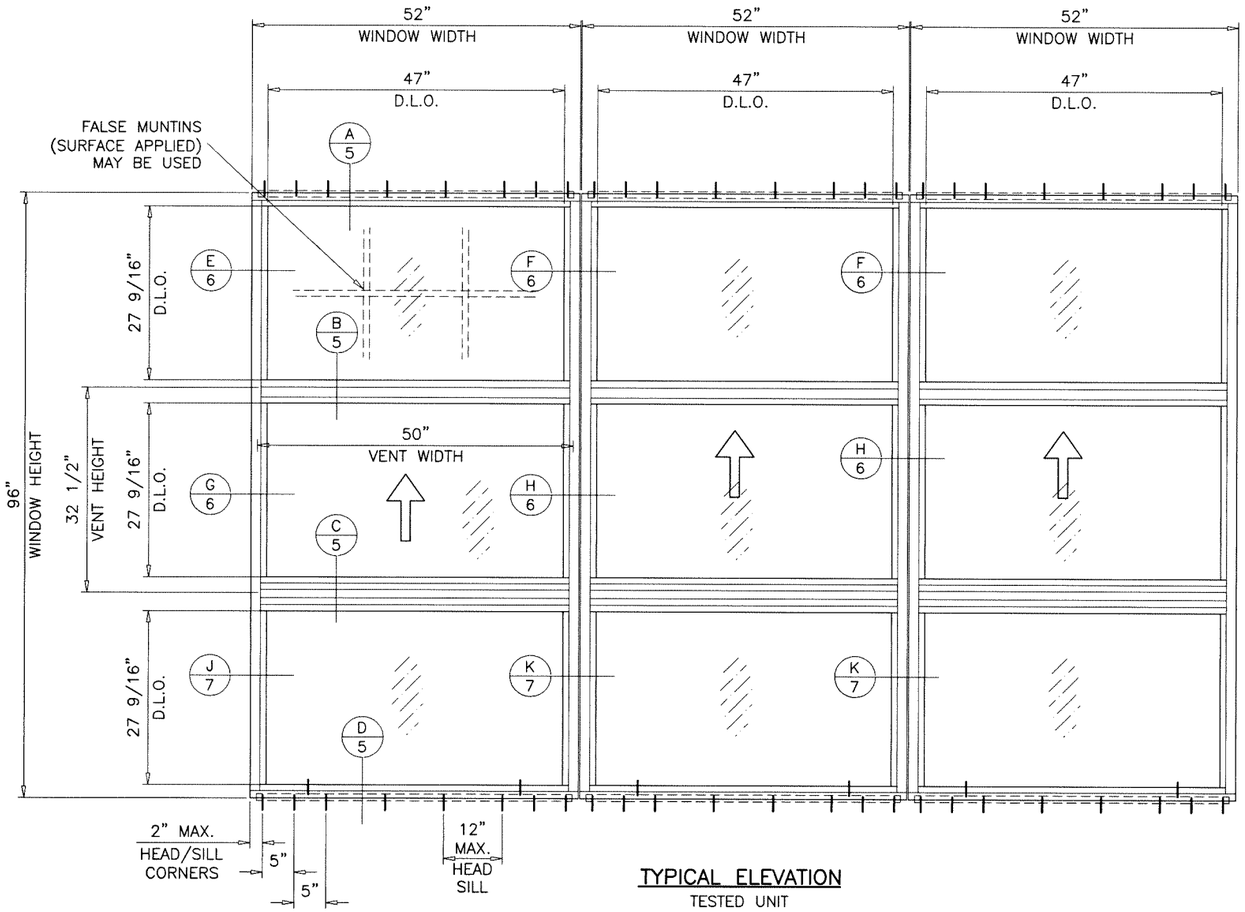
MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:			
no	date	by	description
A	07.21.21		NEW TEST ADDED
B	07.18.23		UPDATED TO 2023 FBC
C	07.09.25		GENERAL REVISION

date: 08-13-20
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

sheet 1 of 10



TYPICAL ELEVATION
TESTED UNIT

MAXIMUM DESIGN LOAD RATING = + 80.0 PSF
– 115.0 PSF

Sealed: 8/11/2025

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP–ANL\20–65F–MG

MG–250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

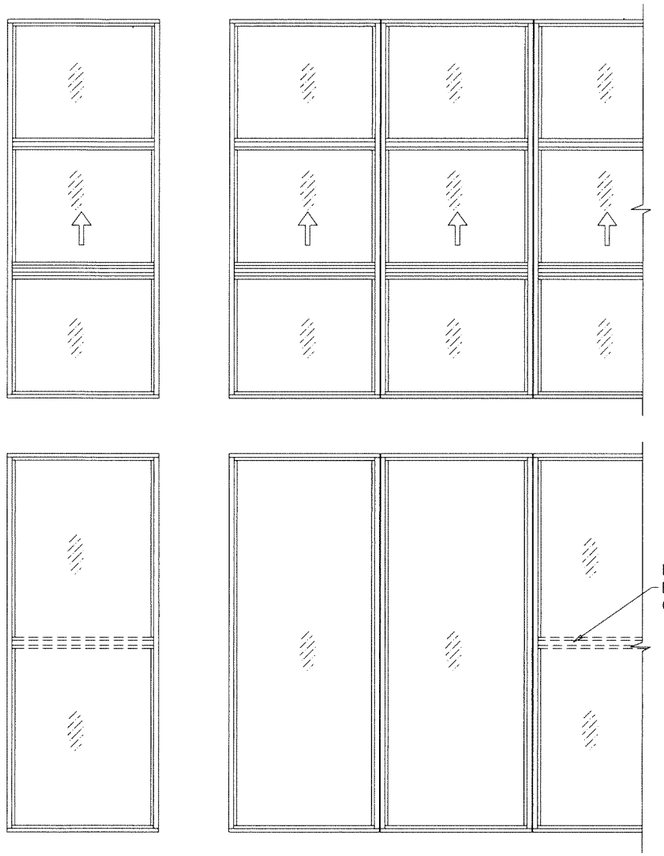
revisions:

no	date	by	description
A	07.21.21		NEW TEST ADDED

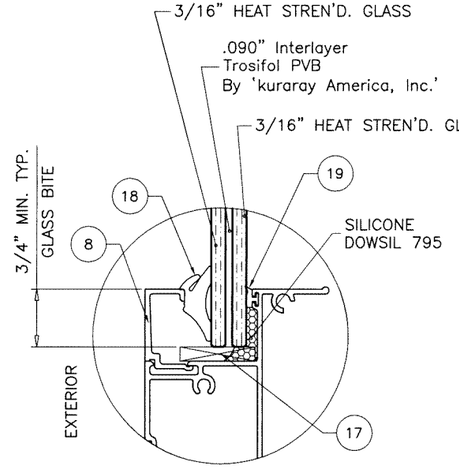
date: 08–13–20
scale: 1/2"=1'–0"
dr. by: TARIQ
chk. by:

drawing no.
20–65F

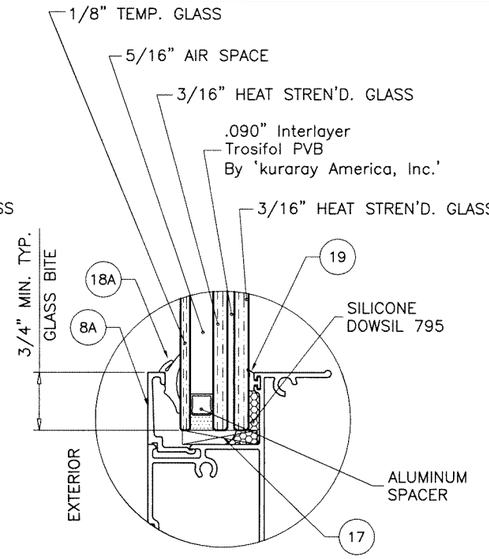
sheet 1.1 of 10



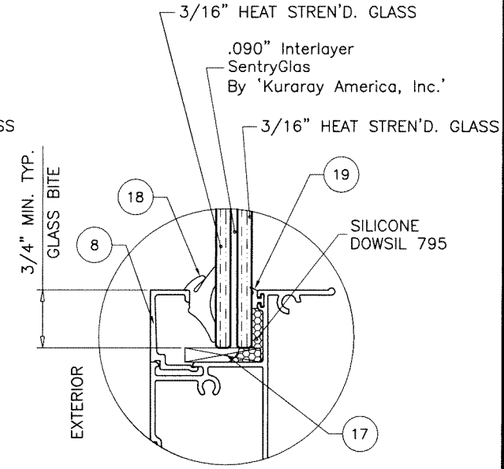
APPROVED CONFIGURATIONS



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

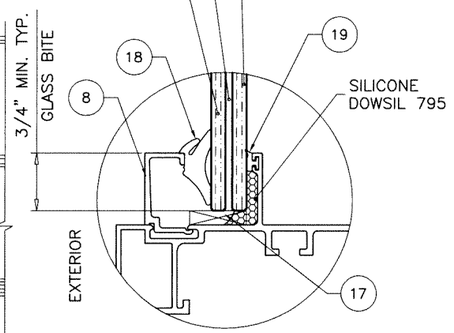


GLASS TYPE 'Ai'
7/8" OVERALL INSUL. LAM. GLASS

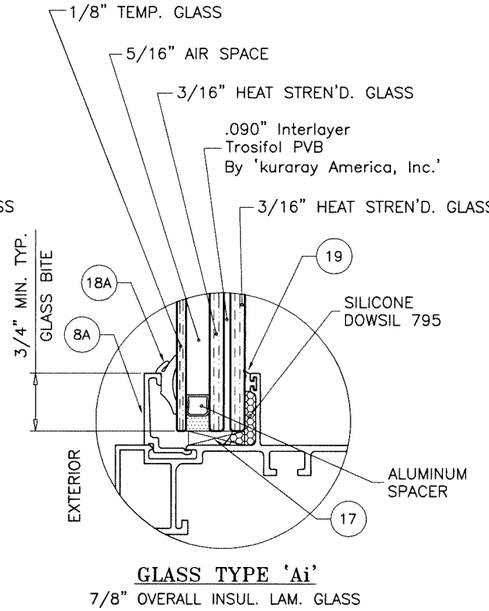


GLASS TYPE 'B'
7/16" OVERALL LAM. GLASS

GLAZING OPTIONS
S.H. OVER FIXED WINDOW

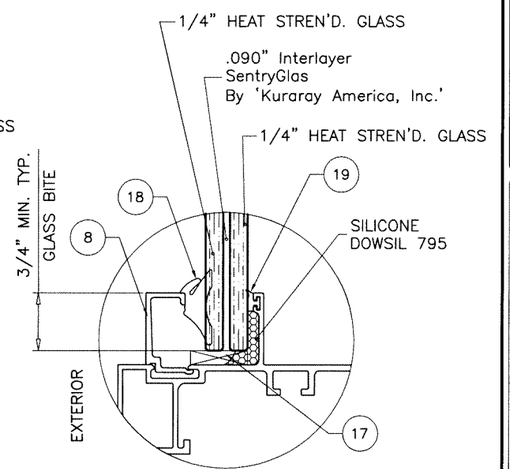


GLASS TYPE 'A'
7/16" OVERALL LAM. GLASS



GLASS TYPE 'Ai'
7/8" OVERALL INSUL. LAM. GLASS

GLAZING OPTIONS
FIXED WINDOW



GLASS TYPE 'C'
9/16" OVERALL LAM. GLASS

APPROVAL APPLIES TO
INDIVIDUAL UNITS OF SINGLE HUNG OVER FIXED WINDOWS.
INDIVIDUAL UNITS OF FIXED WINDOWS.
SIDE BY SIDE COMBINATIONS OF S.H./FIX. TO S.H./FIX. IN MODULES OF TWO OR MORE UNITS.
SIDE BY SIDE COMBINATIONS OF FIXED TO FIXED IN MODULES OF TWO OR MORE WINDOWS.
ANY COMBINATIONS OF S.H./FIX. TO FIXED IN MODULES OF TWO OR MORE WINDOWS.

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:

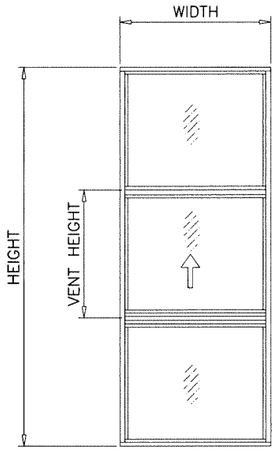
no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

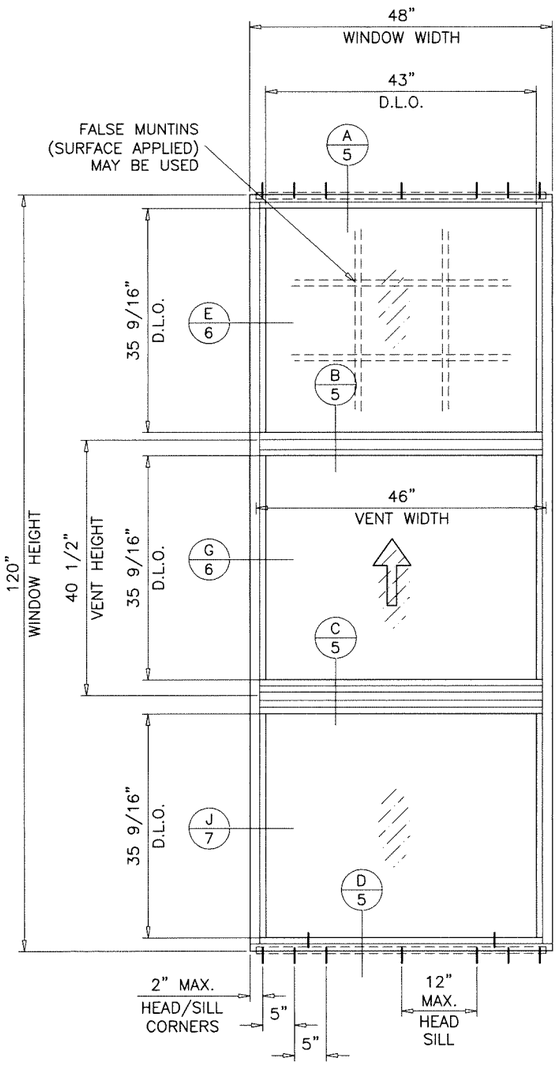
drawing no. 20-65F

DESIGN LOAD CAPACITY – PSF SINGLE HUNG OVER FIXED WINDOWS GLASS TYPES 'A' & 'Ai'						
WINDOW WIDTH	D.L.O. WIDTH	D.L.O. HEIGHT	VENT HEIGHT	TOTAL HEIGHT	EXT.(+)	INT.(–)
48"	43"	35.5"	40.4"	120"	80.0	80.0
45"	40"	38.2"	43.1"	128.1"	80.0	80.0
42"	37"	41.3"	46.2"	137.4"	80.0	80.0
39"	34"	44.9"	49.8"	148.3"	80.0	80.0
36"	31"	49.2"	54.2"	161.3"	80.0	80.0

FOR HEIGHTS ABOVE 120" JAMB ANCHORS ARE REQUIRED AT 6" FROM ENDS AND 14" O.C.
SEE SHEET 6 FOR DETAIL.



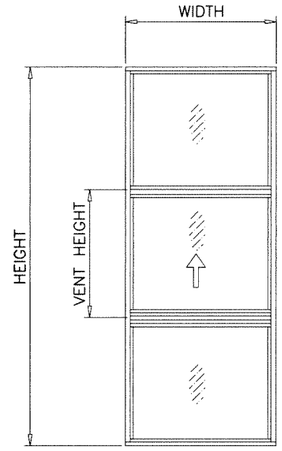
SINGLE HUNG OVER FIXED WINDOWS



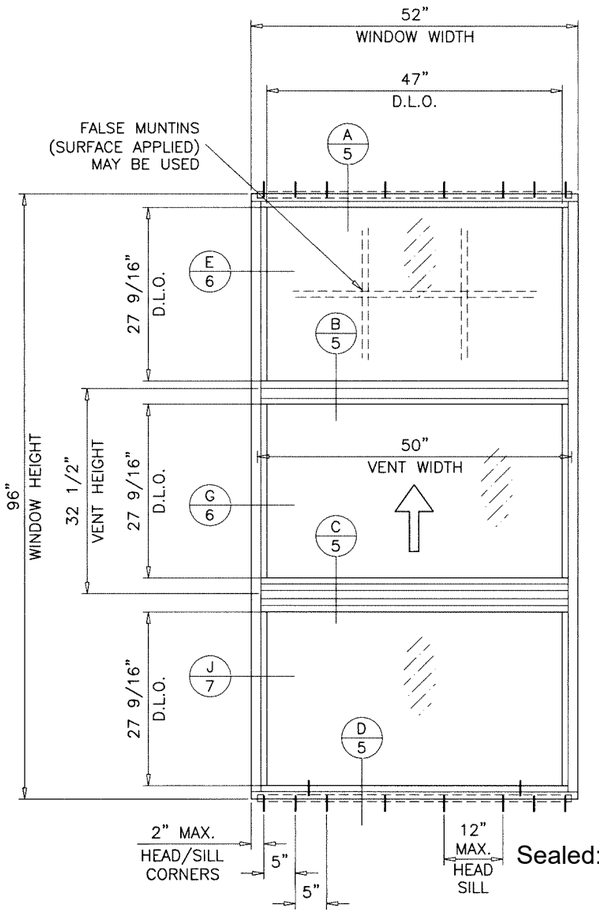
TYPICAL ELEVATION

DESIGN LOAD CAPACITY – PSF SINGLE HUNG OVER FIXED WINDOWS GLASS TYPES 'A' & 'Ai'						
WINDOW WIDTH	D.L.O. WIDTH	D.L.O. HEIGHT	VENT HEIGHT	TOTAL HEIGHT	EXT.(+)	INT.(–)
52"	47"	27.6"	32.6"	96"	80.0	115.0
48"	43"	30.3"	35.3"	104"	80.0	115.0
45"	40"	32.7"	37.6"	110.9"	80.0	115.0
42"	37"	35.4"	40.3"	118.9"	80.0	115.0
36"	31"	42.1"	47"	138.7"	80.0	115.0

FOR HEIGHTS ABOVE 96" JAMB ANCHORS ARE REQUIRED AT 6" FROM ENDS AND 9" O.C.
SEE SHEET 6 FOR DETAIL.



SINGLE HUNG OVER FIXED WINDOWS



TYPICAL ELEVATION

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

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP–ANL\20–65F–MG

MG–250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR–GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

revisions:

no	date	by	description

date: 08–13–20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

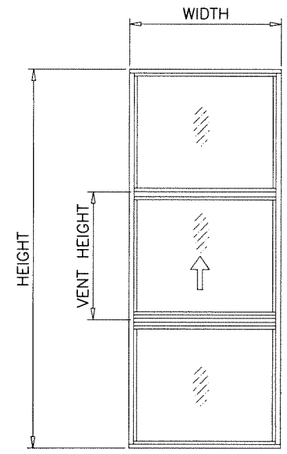
drawing no. 20–65F

sheet 3 of 10

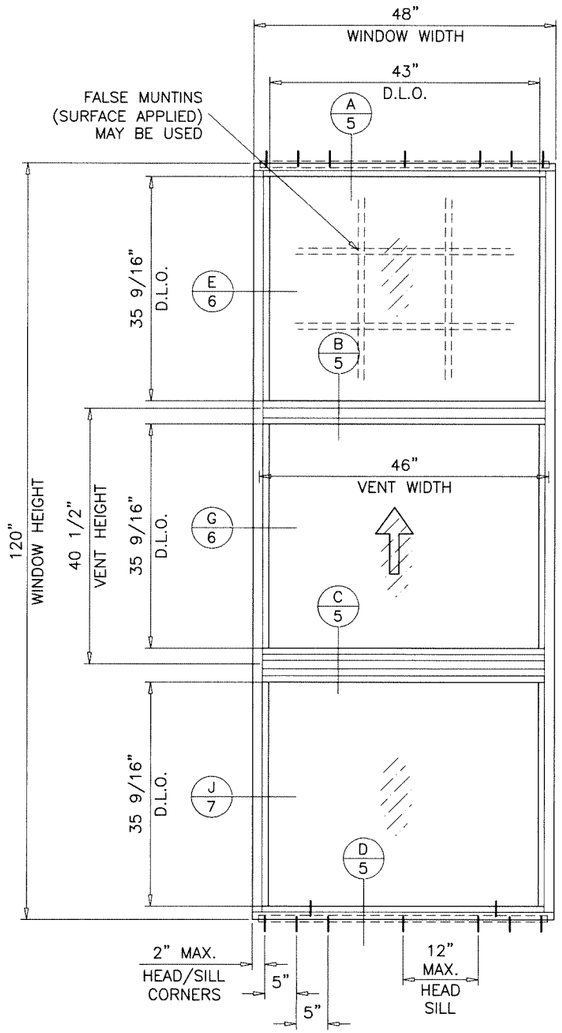
DESIGN LOAD CAPACITY – PSF
SINGLE HUNG OVER FIXED WINDOWS
GLASS TYPE 'B'

WINDOW WIDTH	D.L.O. WIDTH	D.L.O. HEIGHT	VENT HEIGHT	TOTAL HEIGHT	FREE JAMBS		ANCHORED JAMBS	
					EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
48"	43"	29.56"	34.5"	102"	85.0	130.0	85.0	130.0
45"	40"	31.78"	36.7"	108.7"	80.0	80.0	85.0	130.0
42"	37"	34.35"	39.3"	116.4"	80.0	80.0	85.0	130.0
40.75"	35.75"	35.56"	40.5"	120.0"	80.0	80.0	85.0	130.0
39"	34"	37.39"	42.3"	125.5"	–	–	85.0	130.0
36"	31"	40.89"	45.8"	136.0"	–	–	85.0	130.0
33"	28"	45.02"	50.0"	148.4"	–	–	85.0	130.0
30"	25"	49.96"	54.9"	163.2"	–	–	85.0	130.0

JAMB ANCHORS ARE REQUIRED
AT 6" FROM ENDS AND
14" O.C. FOR LOADS UP TO 80.0 PSF AND HEIGHTS ABOVE 120"
9–3/4" O.C. FOR LOADS ABOVE 80.0 PSF AND HEIGHTS ABOVE 102"
SEE SHEET 6 FOR DETAIL.



SINGLE HUNG OVER FIXED WINDOWS



TYPICAL ELEVATION

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

Sealed: 8/11/2025

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL #32415

afc
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 *(C.A.N. 3538)*
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP–ANL\20–65F–MG

MG–250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR–GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

revisions:

no	date	by	description

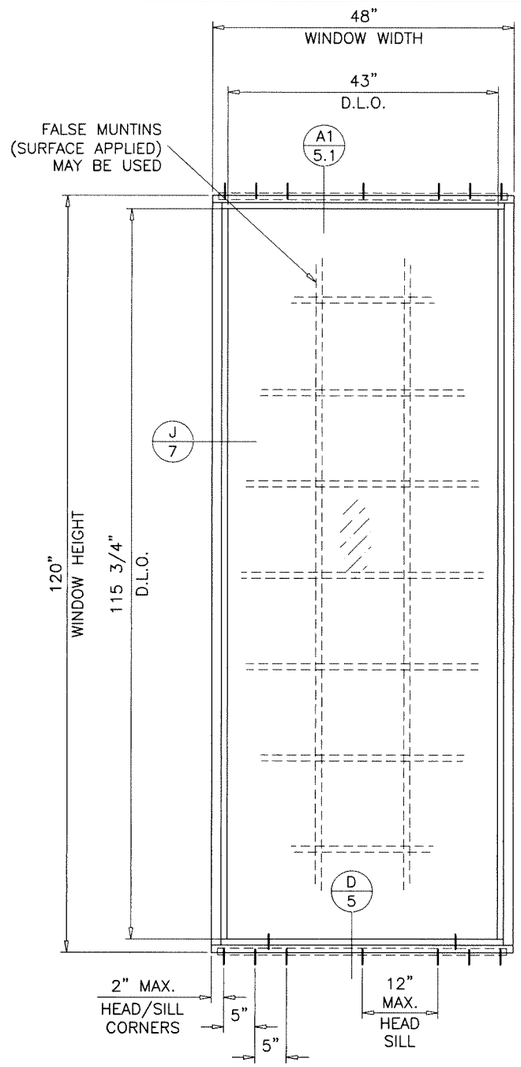
date: 08–13–20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
20–65F

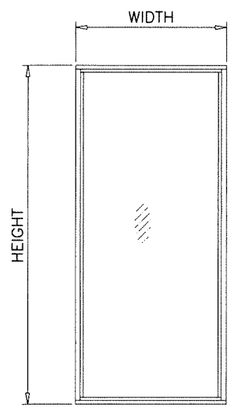
DESIGN LOAD CAPACITY – PSF FIXED WINDOWS			
WINDOW DIMS.		GLASS TYPE 'A'	
WIDTH	HEIGHT	EXT.(+)	INT.(–)
36"	72"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
50"		76.8	76.8
52"		73.8	73.8
53"		72.5	72.5
54"		71.1	71.1
56"		68.6	68.6
60"		64.0	64.0
66"		58.2	58.2
68"		56.5	56.5
36"	84"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
50"		76.8	76.8
52"		73.8	73.8
53"		72.5	72.5
54"		71.1	71.1
56"		68.6	68.6
36"	96"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
50"		76.8	76.8
36"	102"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
36"	114"	80.0	80.0
42"		80.0	80.0
36"	120"	80.0	80.0

DESIGN LOAD CAPACITY – PSF FIXED WINDOWS			
WINDOW DIMS.		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(–)
36"	72"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
50"		81.6	124.8
53"		77.0	117.7
54"		75.6	115.6
56"		72.9	111.4
60"		68.0	104.0
66"		61.8	94.5
68"		60.0	91.8
36"	84"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
50"		81.6	124.8
53"		77.0	117.7
54"		75.6	115.6
56"		72.9	111.4
36"	96"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
50"		81.6	124.8
36"	102"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
36"	114"	85.0	130.0
42"		85.0	130.0
36"	120"	85.0	130.0

JAMB ANCHORS ARE REQUIRED
AT 6" FROM ENDS AND 9–3/4" O.C.
FOR LOADS ABOVE 80.0 PSF AND HEIGHTS ABOVE 102"
SEE SHEET 6 FOR DETAIL.



TYPICAL ELEVATION



FIXED WINDOWS

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

Sealed: 8/11/2025

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP–ANL\20–65F–MG

MG–250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

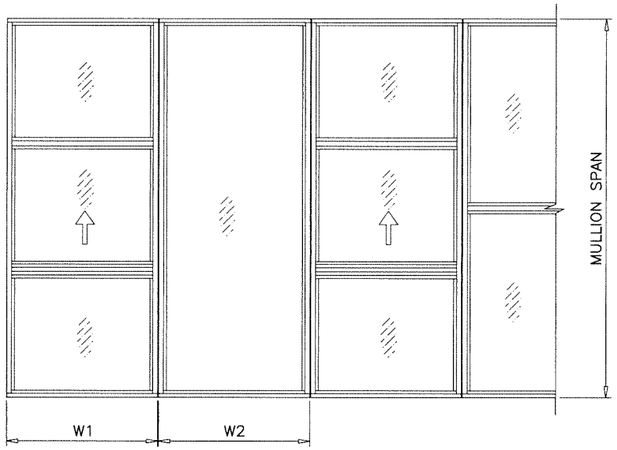
MR–GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

revisions:			
no	date	by	description

date: 08–13–20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

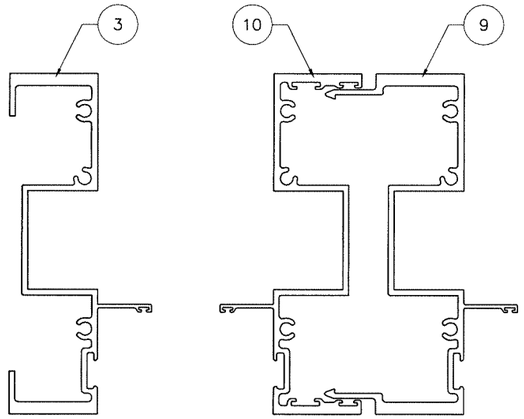
drawing no. 20–65F

JAMB/MULLION LOAD CAPACITY – PSF			
WINDOW DIMS.		JAMB/MULLION	
WIDTH (W)	MULL SPAN	EXT.(+)	INT.(–)
36"	84"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
54"		85.0	130.0
58"		85.0	130.0
60"		80.0	80.0
66"		80.0	80.0
68"		80.0	80.0
36"	96"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
51"		85.0	130.0
54"		80.0	80.0
58"		80.0	80.0
60"		80.0	80.0
36"	102"	85.0	130.0
42"		85.0	130.0
48"		85.0	130.0
54"		80.0	80.0
56"		80.0	80.0
36"	108"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
53"		80.0	80.0
36"	114"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0
50"		80.0	80.0
36"	120"	80.0	80.0
42"		80.0	80.0
48"		80.0	80.0



SINGLE HUNG/FIXED WINDOWS
FIXED WINDOWS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



JAMB

Ix IN^4	Sx IN^3
8.671	2.875

MULLION

Ix IN^4	Sx IN^3
16.903	5.592

SEE SHEETS 3 & 3.1 FOR DESIGN LOAD CAPACITY OF SINGLE HUNG OVER FIXED WINDOWS.

SEE CHART ON SHEET 4 FOR DESIGN LOAD CAPACITY OF FIXED WINDOW.

REFER TO CHARTS ABOVE TO OBTAIN JAMB AND MULLION CAPACITIES.

USE LOWEST VALUES OF WINDOW CAPACITY CHARTS OR JAMB/MULLION CAPACITY CHART.

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

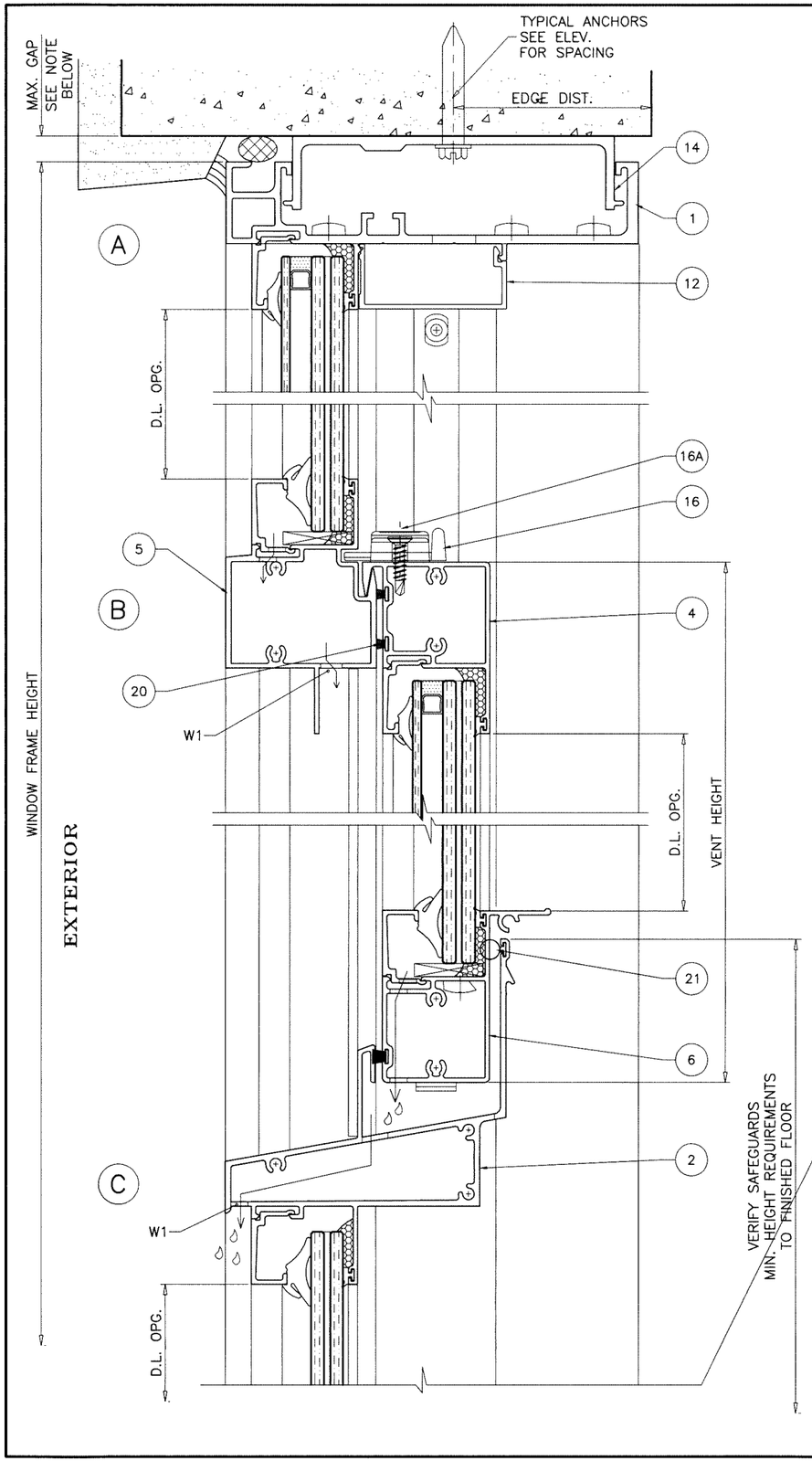
MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

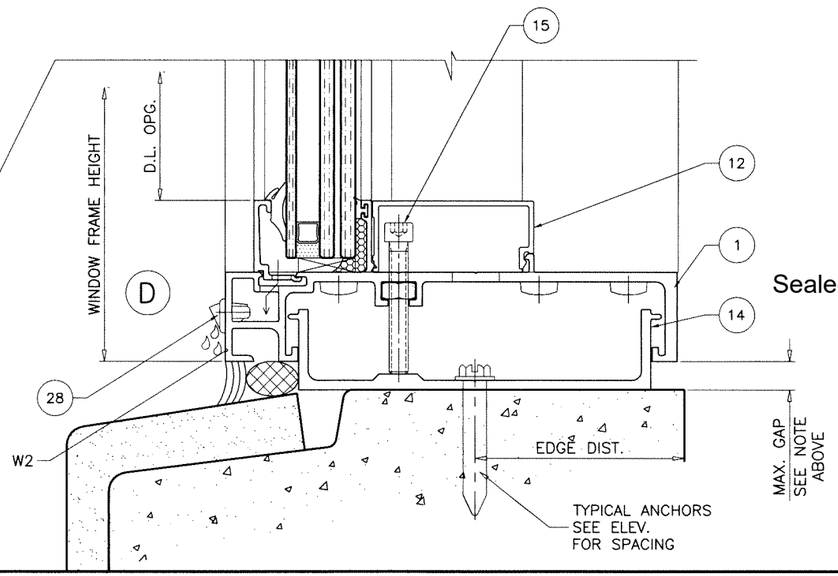
revisions:			
no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F



GAP AT HEAD/SILL:
3/4" MAX. FOR HEIGHTS UP TO 102"
3/8" MAX. FOR HEIGHTS ABOVE 102"



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

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

AT HEAD/SILL

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE

5/16" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)
INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 3/16" THK. MIN. (6063-T5 MIN.)
STEEL: 3/16" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2-5/16" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD/SILL f'c = 3500 PSI MIN.

WEEPHOLES:

W1 = 3/8" X 1" WEEPHOLES AT 5" FROM EACH END

W2 = 3/8" X 1" WEEPHOLES AT 1-1/2" FROM EACH END

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

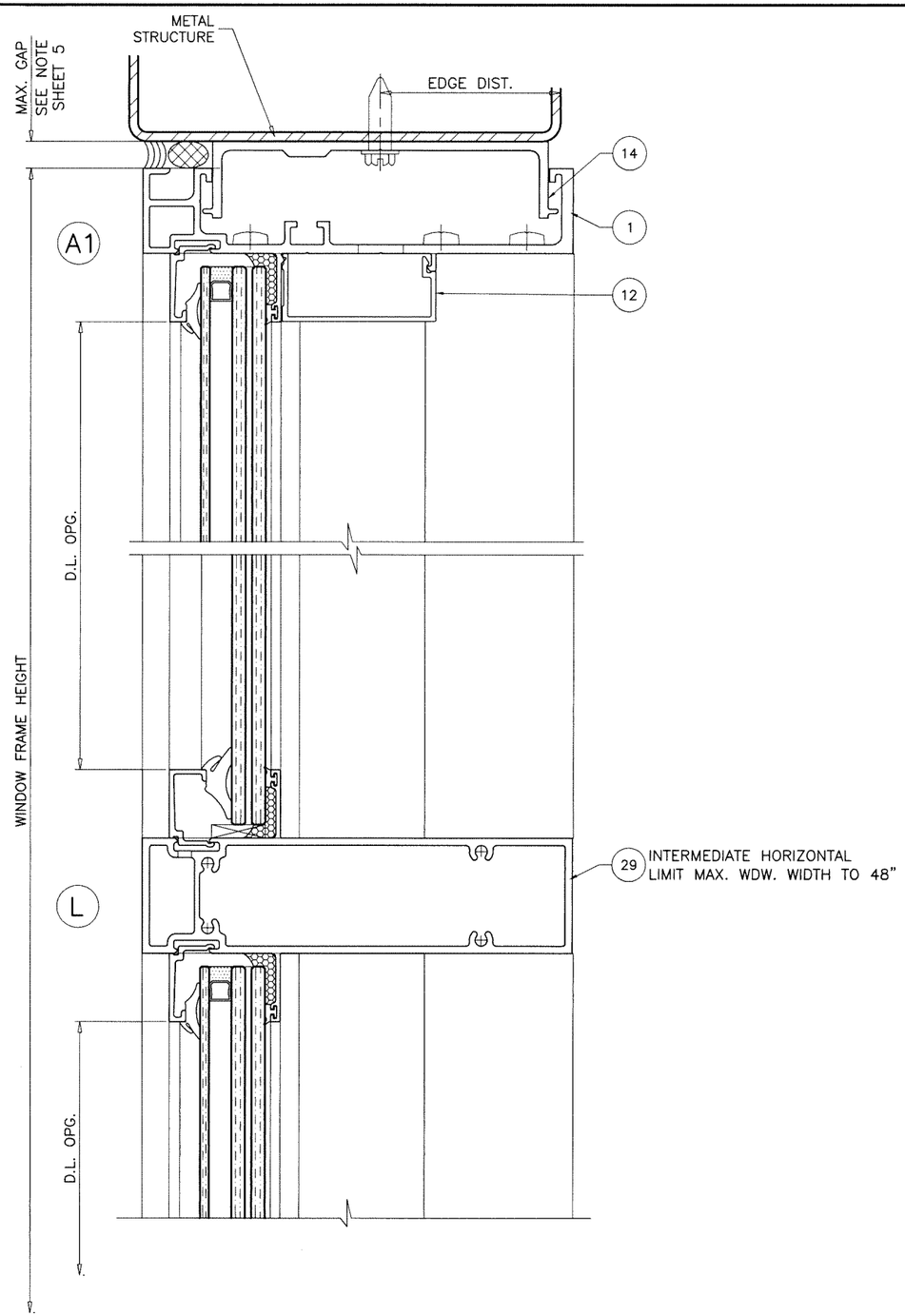
MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:			
no	date	by	description

date: 08-13-20 | scale: 1/2" = 1" | dr. by: TARIQ | chk. by:

drawing no. 20-65F

sheet 5 of 10



Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 *(C.A.N. 3538)*
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

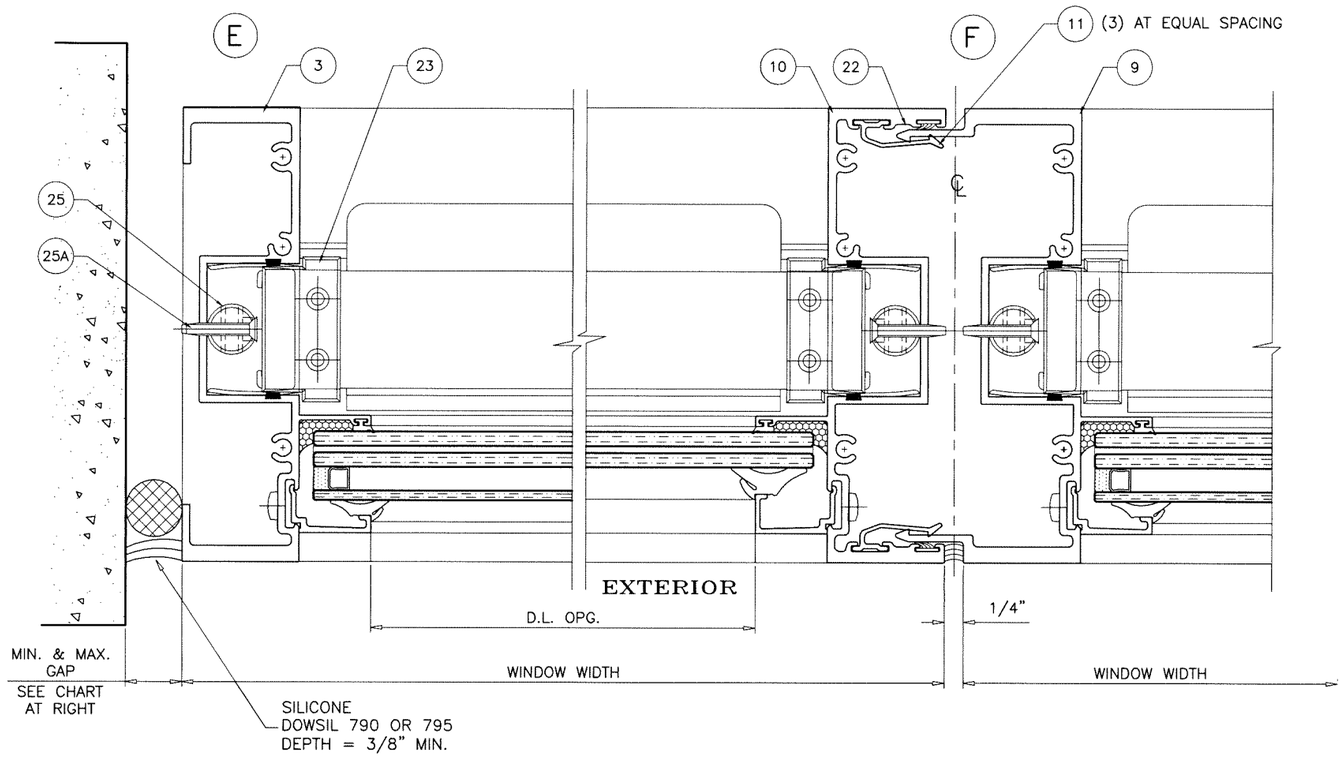
revisions:

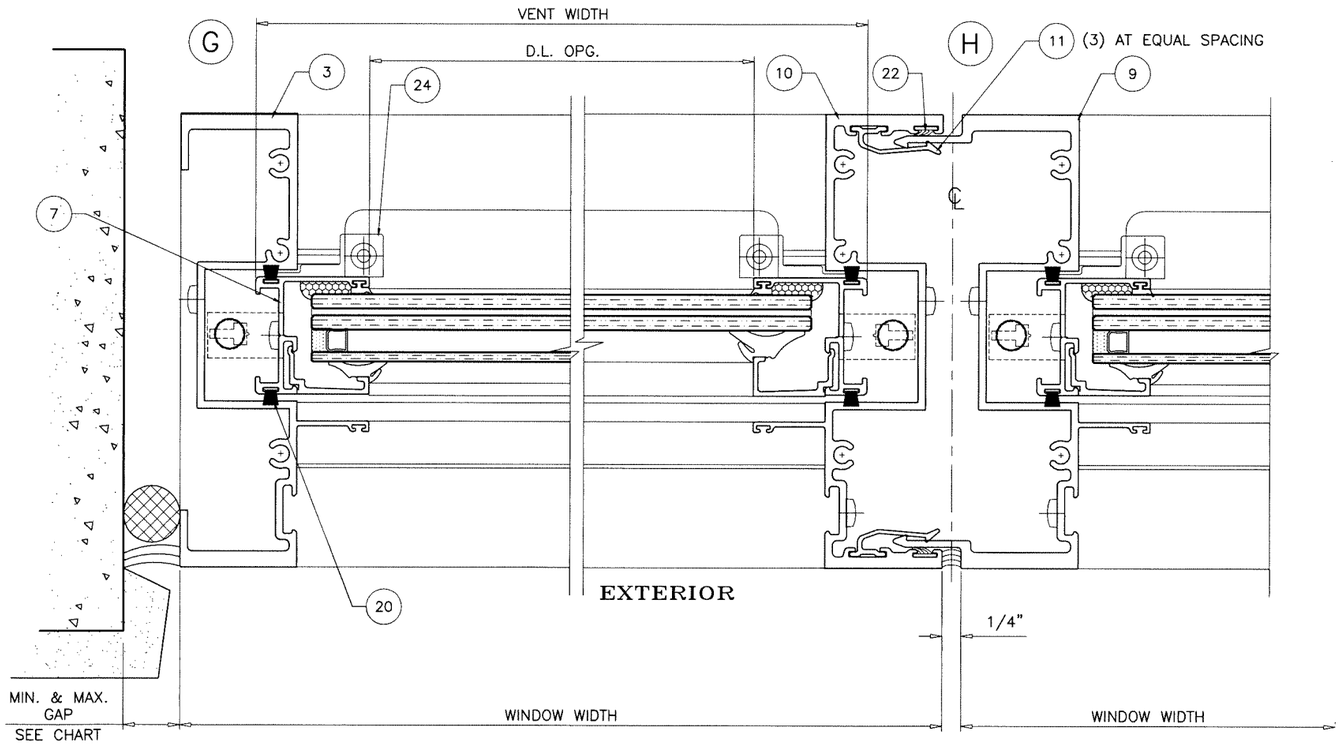
no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

sheet 5.1 of 10





MAX. FRAME HEIGHTS UPTO	GAP	
	MIN.	MAX.
96"	1/2"	3/4"
108"	9/16"	3/4"
120"	5/8"	3/4"

NOTE:
MAX. MOVEMENT CONSIDERED=100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.
ALTERNATE SEALANTS AT JAMB AND JAMB GAPS OTHER THAN THOSE IN CHART CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.
GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

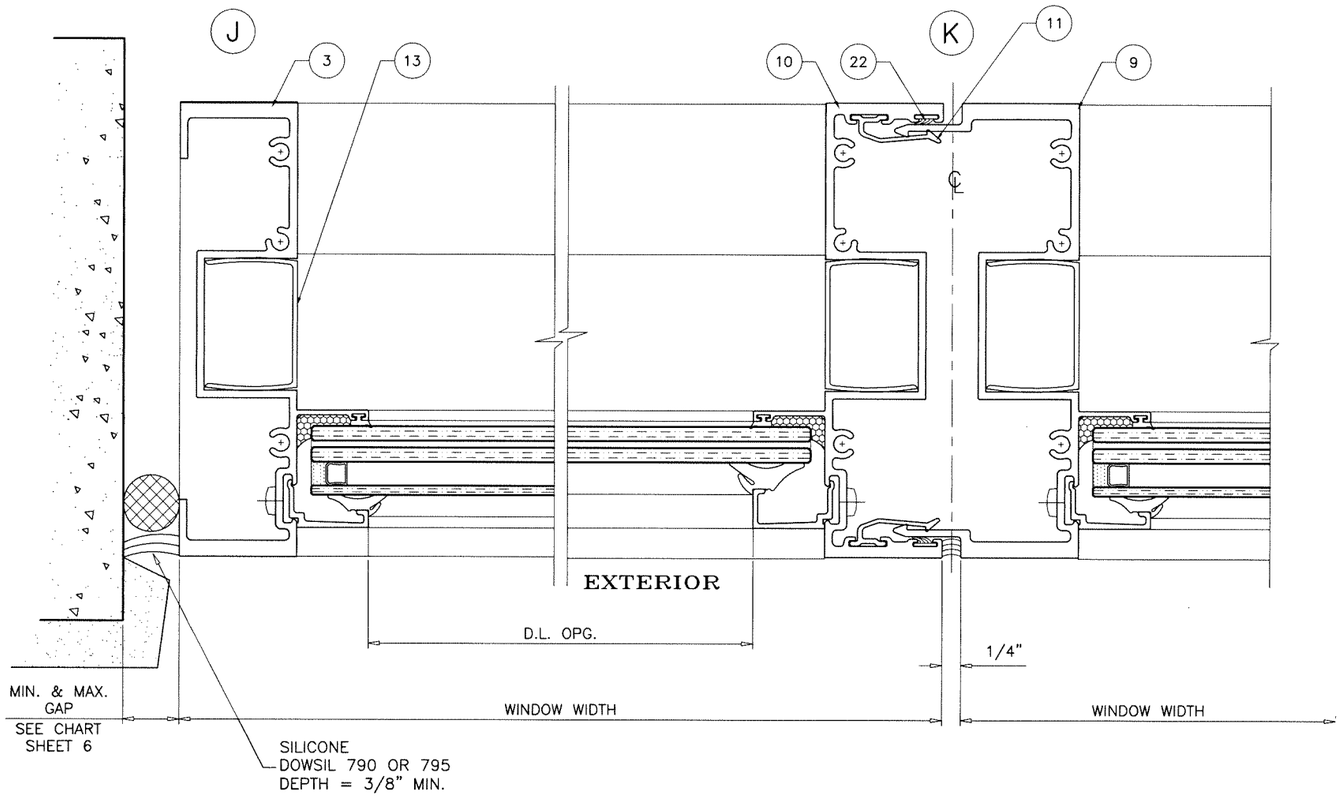
MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

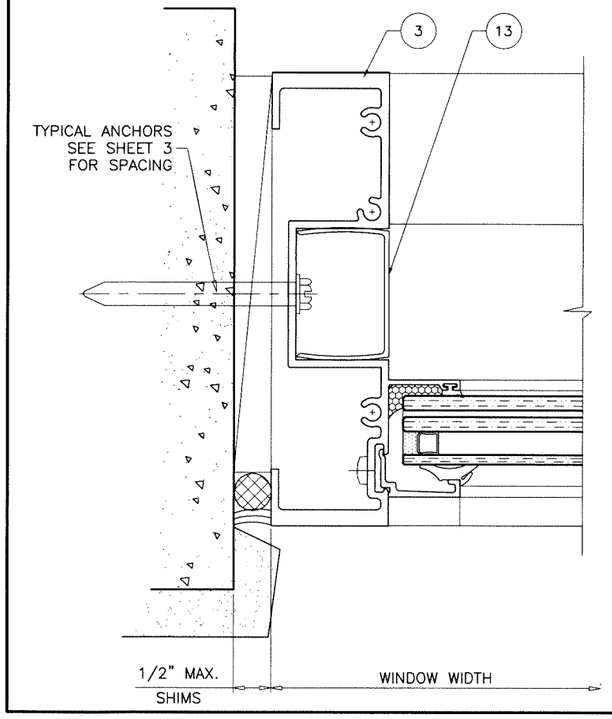
revisions:

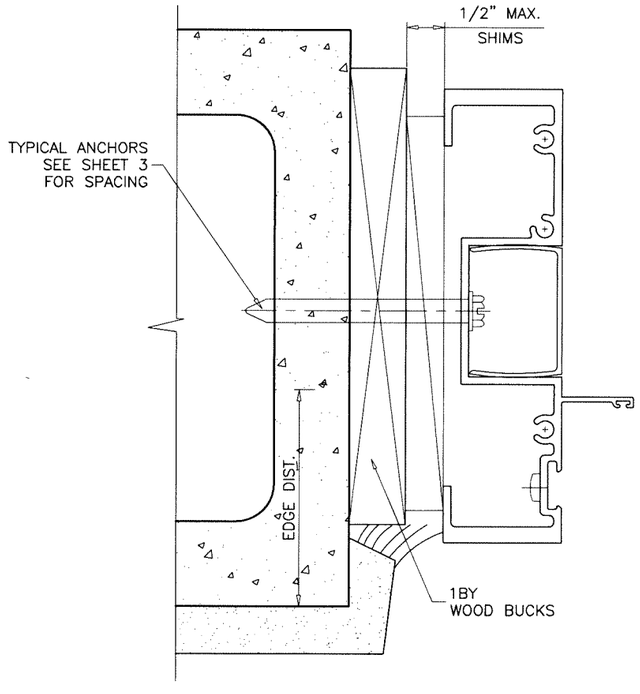
no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F







TYPICAL ANCHORS: SEE ELEV. FOR SPACING

AT JAMBS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
THRU 1BY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE OR BLOCKS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE OR BLOCKS

5/16" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 3/16" THK. MIN. (6063-T5 MIN.)
STEEL: 3/16" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND BLOCKS = 2-5/16" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT JAMBS SG = 0.55 MIN.
CONCRETE AT JAMBS f'c = 3500 PSI MIN.
C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:			
no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

sheet 7 of 10

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E250A	1	FRAME HEAD/SILL	6063–T6	–
2	E251	1	INTERMEDIATE SILL	6063–T6	–
3	E256	2	FRAME JAMB	6063–T6	–
4	E261	1	VENT TOP RAIL	6063–T6	–
5	E252	1	FIXED MTG. RAIL	6063–T6	–
6	E260	1	VENT BOTTOM RAIL	6063–T6	–
7	E262	2	VENT SIDE RAIL	6063–T6	–
8	E9003	AS RQD.	GLAZING BEAD (LAM. GLASS)	6063–T6	–
8A	E9002	AS RQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063–T6	–
9	E254	–	MALE MULLION	6063–T6	–
10	E255	–	FEMALE MULLION	6063–T6	–
11	E9007	AS REQD.	ANTI–BUCKLING CLIP, 4" LONG	6063–T6	–
12	E257	AS REQD.	HORIZONTAL COVER	6063–T6	–
13	E258	AS REQD.	VENT STOP AND VERTICAL COVER	6063–T6	–
14	E253	AS REQD.	ADJUSTABLE ANCHOR (LENGTH = WINDOW WIDTH – 2")	6005–T5	–
15	1/4–20 X 2"	2/VENT	ANTI–LIFT FASTENERS, AT 4–1/2" FROM EACH END	ST. STEEL	SOCKET SCEWS WITH HEX NUT
16	L20–01	2/VENT	SWEEP LATCH, AT 9" FROM ENDS	ZAMAK	–
16A	#8 X 5/8"	2/ LATCH	LATCH INST. SCREWS	ST. STEEL	FH SMS
17	G25–08	AS REQD.	SETTING BLOCKS, AT 1/4 POINTS	SILICONE	DUROMETER 80±5 SHORE A
18	G6–01	AS REQD.	EXTERIOR WEDGE GASKET (LAM. GLASS)	EPDM	DUROMETER 70±5 SHORE A
18A	G10–04	AS REQD.	EXTERIOR WEDGE GASKET (INSUL. LAM. GLASS)	EPDM	DUROMETER 70±5 SHORE A
19	G25–01	AS REQD.	INTERIOR SPACER	SANTOPRENE	DUROMETER 80±5 SHORE A
20	G25–02	AS REQD.	FIN SEAL W'STRIPPING	–	ULTRAFAB
21	G25–03	AS REQD.	BOTTOM RAIL SEAL	FOAM/VINYL	–
22	G30–02	AS REQD.	AIR SEAL	SANTOPRENE	–
23	M25–01	2/ VENT	VENT TOP GUIDE	DERLIN	M&M PLASTICS
24	M25–02	4/ VENT	VENT BOTTOM GUIDE	DERLIN	M&M PLASTICS
24A	#8 X 5/8"	1/ GUIDE	VENT GUIDE INST. FASTENERS	CRS	FH SMS TYPE B
25	M20–03/M20–04	2/VENT	ULTRALIFT SPIRAL BALANCE	–	CALDWELL
25A	#8 X 1"	1/ BALANCE	BALANCE INST. FASTENERS	ST. STEEL	PH SMS
26	#14 X 2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST. STEEL	PH SMS
27	#10 X 1–1/2"	AS REQD.	VENT ASSEMBLY FASTENERS	ST. STEEL	PH SMS
28	G2–01	2	HI–FLOW WEEPER	–	–
29	E259	AS REQD.	INTERMEDIATE HORIZONTAL	6063–T6	–
30	–	–	–	–	–

SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH DOWSIL 795 SEALANT.

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

afc

COMP–ANL\20–65F–MG

MG–250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR–GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

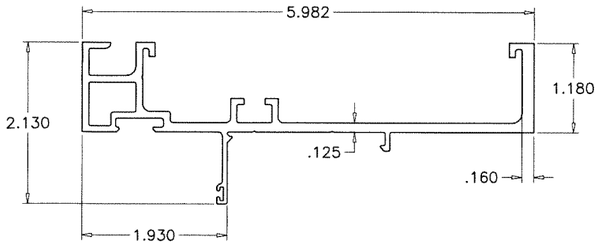
revisions:

no	date	by	description

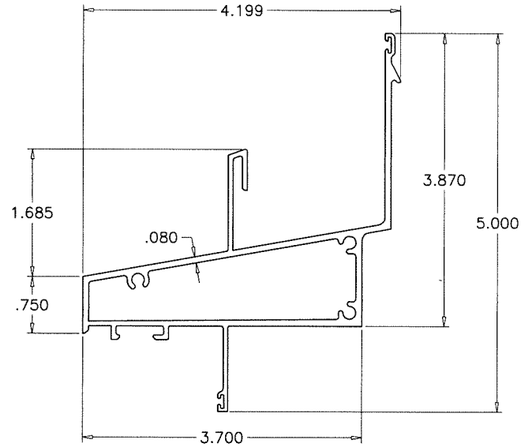
date: 08–13–20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20–65F

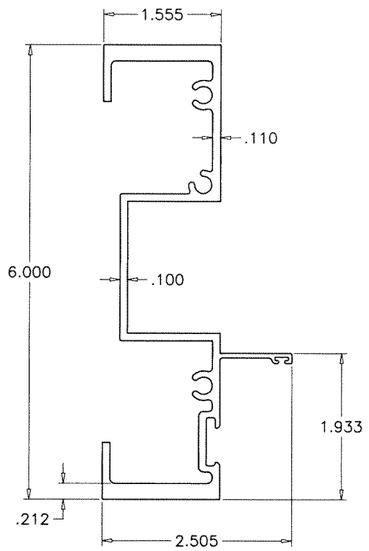
sheet 8 of 10



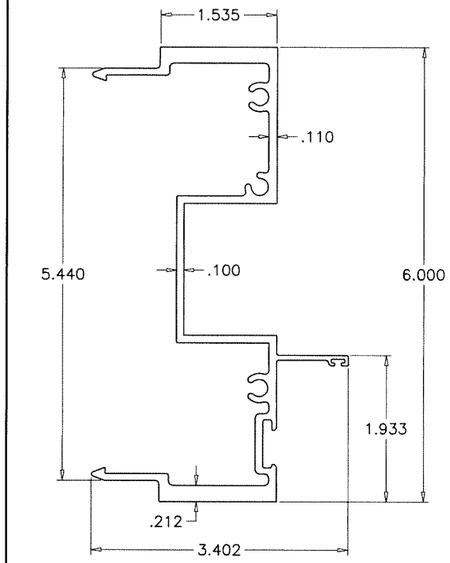
① FRAME HEAD/SILL



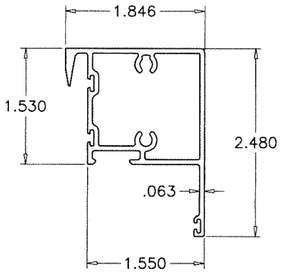
② INTERMEDIATE SILL



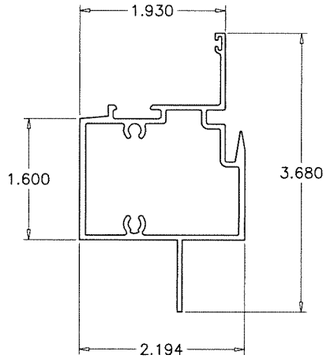
③ FRAME JAMB



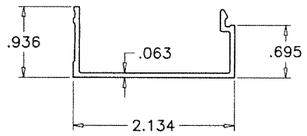
⑨ MALE MULLION



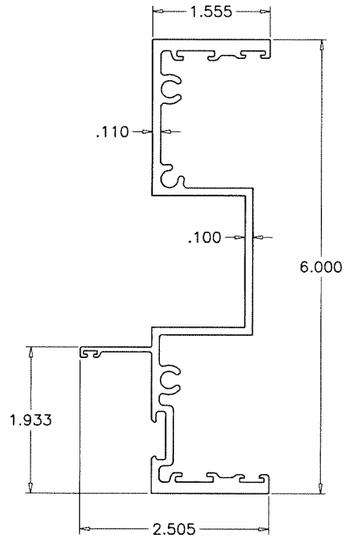
④ VENT TOP RAIL



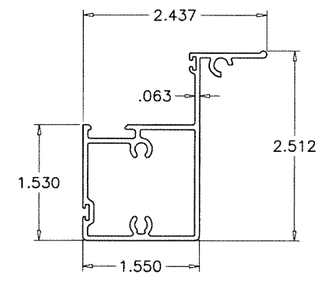
⑤ FIX. MEETING RAIL



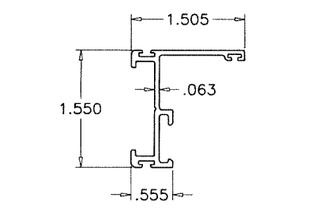
⑫ HORIZONTAL COVER



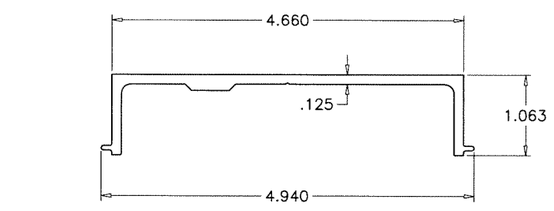
⑩ FEMALE MULLION



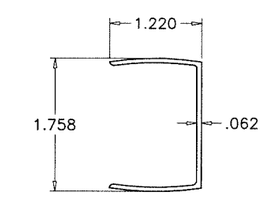
⑥ VENT BOTTOM RAIL



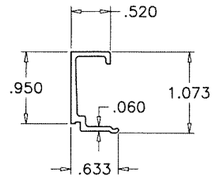
⑦ VENT SIDE RAIL

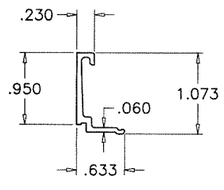


⑭ ADJUSTABLE ANCHOR

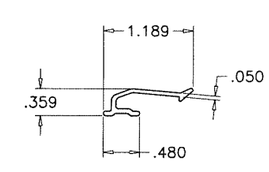


⑬ VENT STOP & VERTICAL COVER





⑧ GLAZING BEADS ⑧A



⑪ ANTI-BUCKLING CLIP

Sealed: 8/11/2025

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

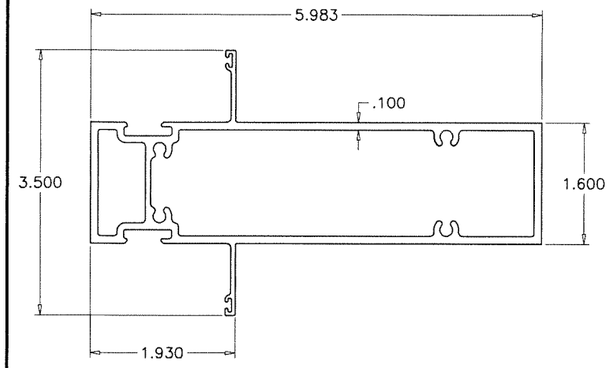
MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:		
no	date	by description

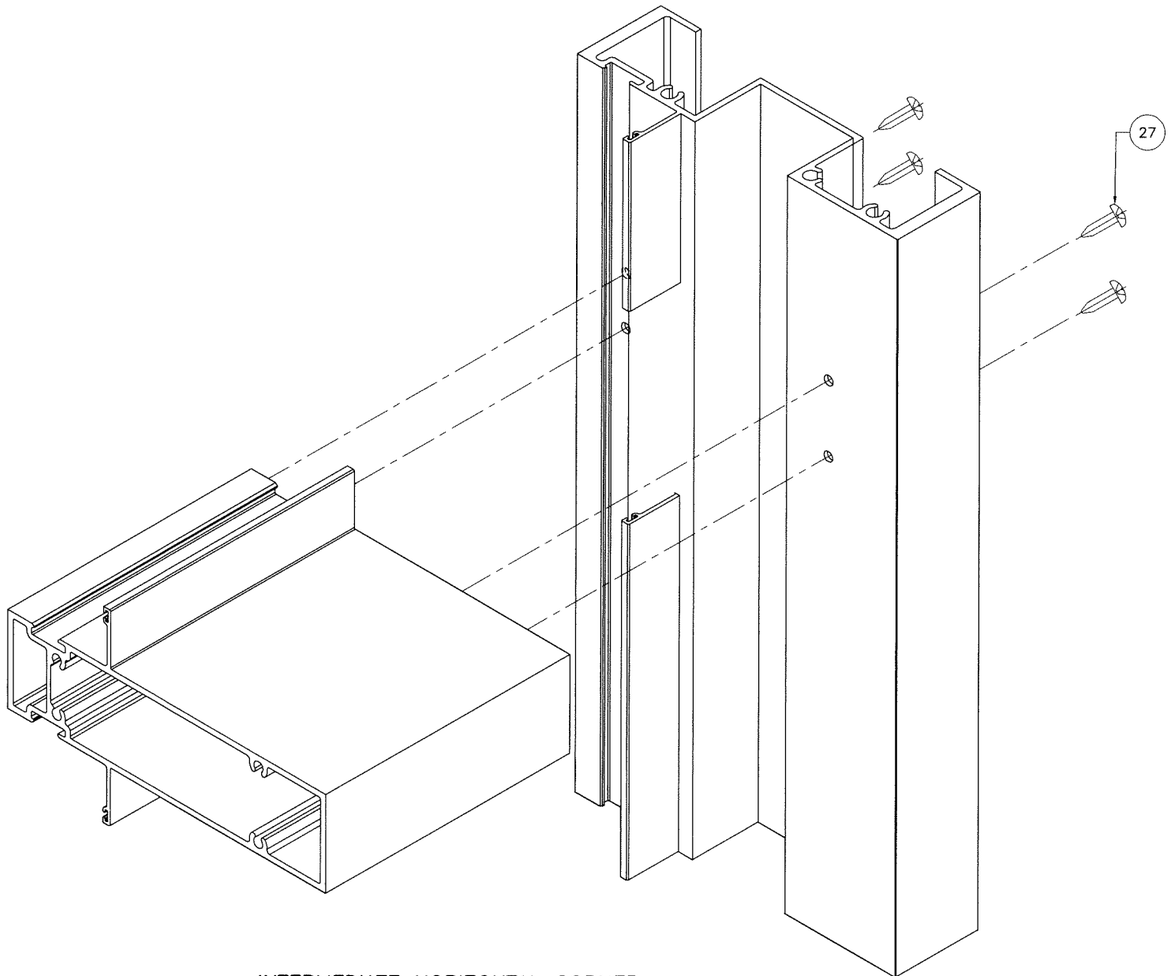
date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

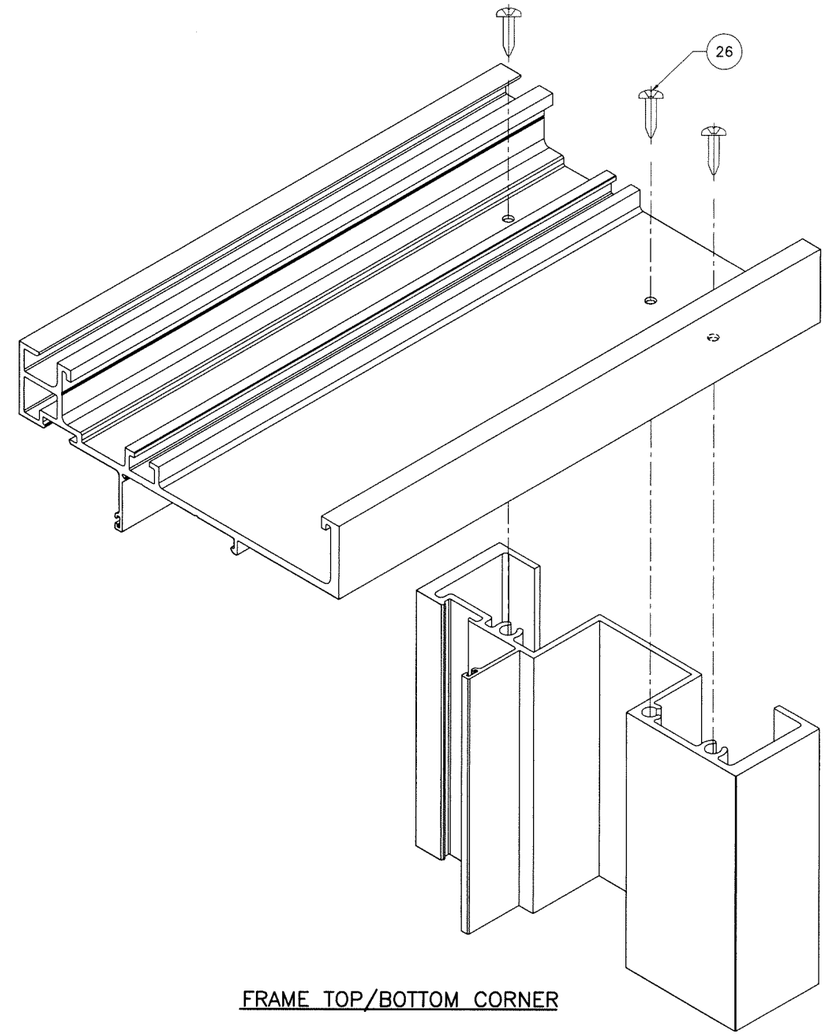
sheet 9 of 10



(29) INTERMEDIATE HORIZONTAL



INTERMEDIATE HORIZONTAL CORNER



FRAME TOP/BOTTOM CORNER

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

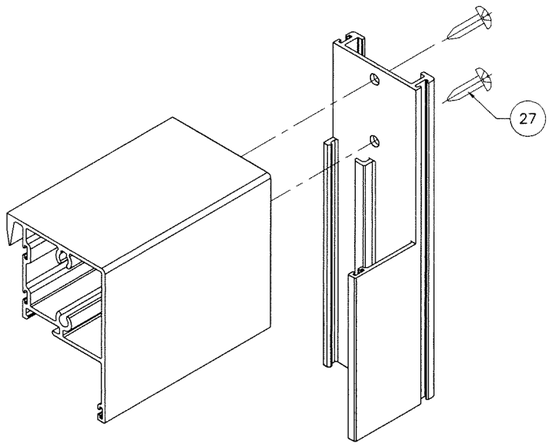
revisions:

no	date	by	description

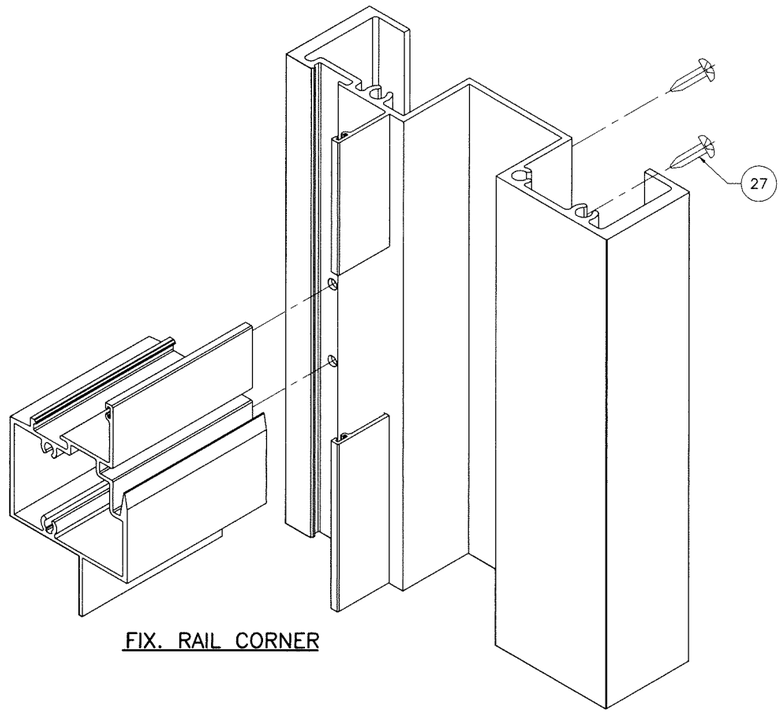
date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

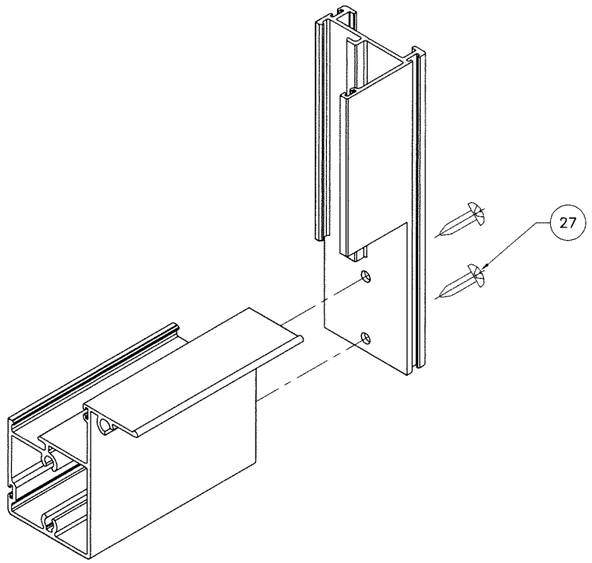
sheet 10 of 10



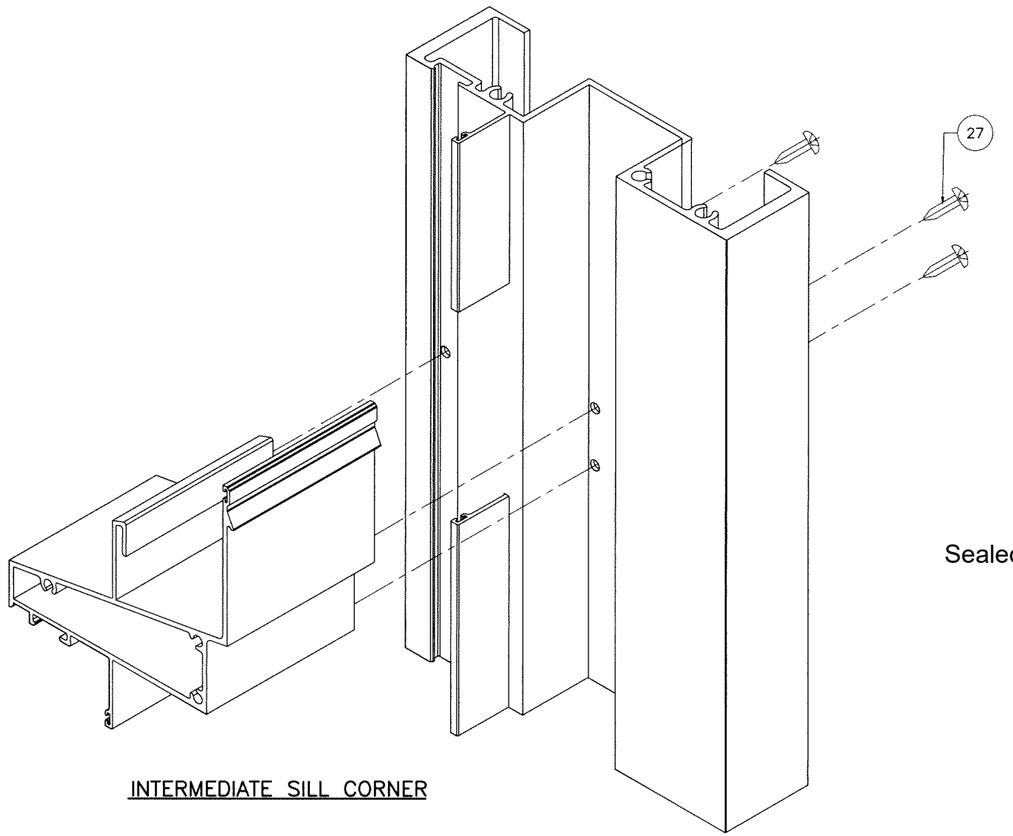
VENT TOP CORNER



FIX. RAIL CORNER



VENT BOTTOM CORNER



INTERMEDIATE SILL CORNER

Sealed: 8/11/2025

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #32415

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\20-65F-MG

MG-250 ALUM S.H./WINDOW WALL SYSTEM (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

revisions:

no	date	by	description

date: 08-13-20
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 20-65F

sheet 10.1 of 10