

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 20352

Date: 01/08/2018

Detailed Product Description:

Manufacturer: MR. GLASS DOORS AND WINDOWS INC.

Manufacturer Address: 8120 NW 84TH STREET, MEDLEY, FL 33166


Model Name: SERIES MG-200 ALUMINUM SINGLE HUNG WINDOW

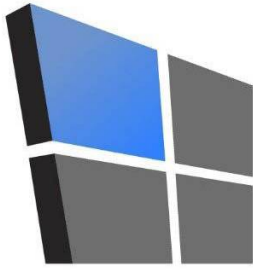
Maximum Width: 53-1/8"

Maximum Frame Height: 84"

Maximum Load: +80 PSF, -140 PSF (Small Missile Impact)

Installation Drawings # W16-21

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.					
The above maximum parameters do not occur simultaneously. See installation drawings for combination of span vs loads.					
Comparative analysis used <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)					
TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
ASTM E283	Air Infiltration Leakage	Fenestration Testing Laboratory, Inc.	03/11/2016	FTL-8827	Idalmis Ortega, P.E.
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Fenestration Testing Laboratory, Inc.	03/11/2016	FTL-8827	Idalmis Ortega, P.E.
ASTM E330 & TAS 202	Uniform Static Air Press.	Fenestration Testing Laboratory, Inc.	03/11/2016	FTL-8827	Idalmis Ortega, P.E.
ASTM F 588	Forced Entry	Fenestration Testing Laboratory, Inc.	03/11/2016	FTL-8827	Idalmis Ortega, P.E.
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)	Large Missile Impact & Cyclic	Fenestration Testing Laboratory, Inc.	03/11/2016	FTL-8827	Idalmis Ortega, P.E.
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 2017 Florida Building Code.					
Evaluation Report Engineer:		 Sealed: 1/12/2018			
Javad Ahmad Al-Farooq Corporation	PE # 70592 EB # 3538				



AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

January 12, 2018

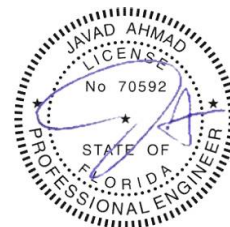
Product Approval Administrator
Building Codes & Standards Section
Department of Business & Professional Regulations
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399-2100

Ref: Mr. Glass Doors & Windows, Inc.
Series MG-200 Aluminum Single Hung Window (L.M.I. and S.M.I.)
Certificate of Independence

Dear Sirs,

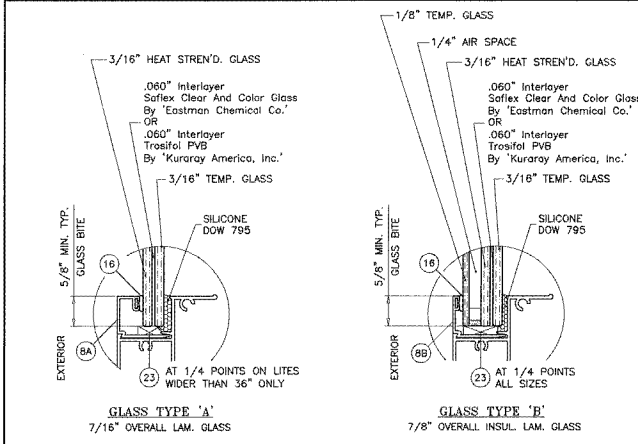
As the design engineer retained by Mr. Glass Doors & Windows, Inc. on the product referenced above, I do hereby declare that I do not have and will not have any financial interest in any company manufacturing or distributing the above referenced product, nor do I have or will have any financial interest with any other entity involved in the approval process of the product.

Sincerely,



Sealed: 1/12/2018

Javad Ahmad, P.E.
Chief Engineer



GLAZING OPTIONS

**SERIES MG-200
ALUMINUM SINGLE HUNG 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 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 2017 (6TH 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.

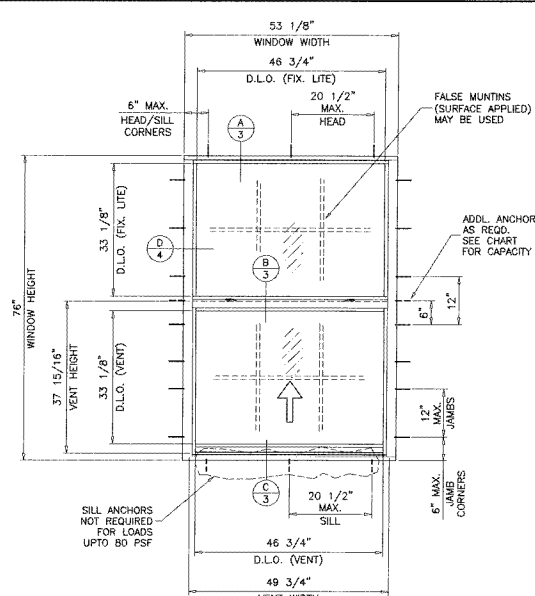
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

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.

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.

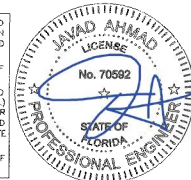
1/4" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER BY 'LINGERMANN GMBH' AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOW CORNING 791
GE 2000
OR
'DURASEAL' EDGE SEAL SYSTEM BY 'QUANEX'

THESE WINDOWS ARE RATED FOR SMALL MISSILE IMPACT. F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.



FL #20352.2

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HERE/SHE DOES NOT DEPART 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.O. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.O. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
D- THIS P.E.O. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



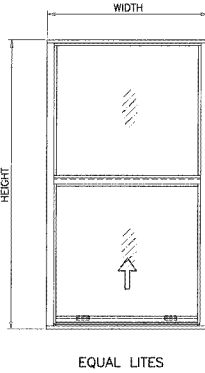
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9560 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL: (305) 264-8100 FAX: (305) 262-6978
C.A.N. 3528
COMP-ANLW16-21MC

MG-200 ALUM. SINGLE HUNG WINDOW (S.M.I.)
MR. GLASS DOORS & WINDOWS INC.
8120 N.W. 84 STREET
MEDLEY, FL. 33165
TEL: (305) 470-8284 FAX: (305) 470-8285

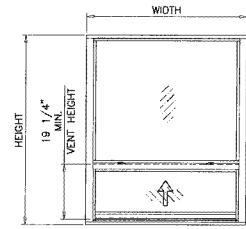
revisions:
no. date by description
1 10.12.18 updated to 2017 FBC
date: 04-15-16
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:
drawing:
W16-21
sheet 1 of 7

Sealed: 1/12/2018

EQUAL LITES WINDOWS			
DESIGN LOAD CAPACITY - PSF			
FLANGE DIMS.		GLASS TYPES 'A' & 'B'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
19-1/8"	26"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(4)	80.0	140.0
19-1/8"	38-3/8"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(4)	80.0	140.0
19-1/8"	50-5/8"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(6)	80.0	140.0
19-1/8"	63"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(6)	80.0	140.0
19-1/8"	74-1/4"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(8)	80.0	129.6
19-1/8"	76"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(8)	80.0	128.5
19-1/8"	84"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"	(8)	80.0	124.7
53-1/8"	74-1/4"	80.0	140.0
53-1/8"	76"	80.0	140.0
53-1/8"	84"	80.0	140.0



UNEQUAL LITES WINDOWS			
DESIGN LOAD CAPACITY - PSF			
FLANGE DIMS.		GLASS TYPES 'A' & 'B'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
19-1/8"	50-5/8"	80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
32"		80.0	140.0
36"		80.0	140.0
37"	(6)	80.0	140.0
48"	63"	80.0	140.0
53-1/8"		80.0	140.0
19-1/8"		80.0	140.0
26-1/2"		80.0	140.0
30"		80.0	140.0
32"	(6)	80.0	140.0
36"	74-1/4"	80.0	140.0
37"		80.0	140.0
48"		80.0	140.0
53-1/8"		80.0	140.0
19-1/8"		80.0	140.0
26-1/2"	(8)	80.0	140.0
30"	76"	80.0	140.0
32"		80.0	140.0
36"		80.0	140.0
19-1/8"		80.0	140.0
26-1/2"		(8)	80.0
30"	84"	80.0	140.0
32"		80.0	140.0
36"		80.0	140.0



NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.

NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.

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

FL #20352.2



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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9380 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3516)
TEL. (305) 264-8200 FAX. (305) 262-6978
COMP-ANL W16-2 1MG

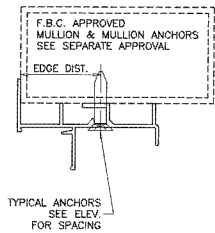
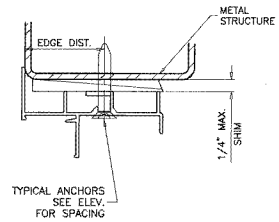
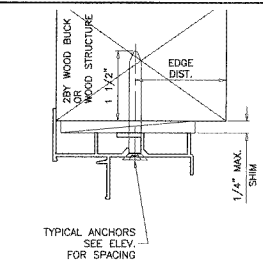
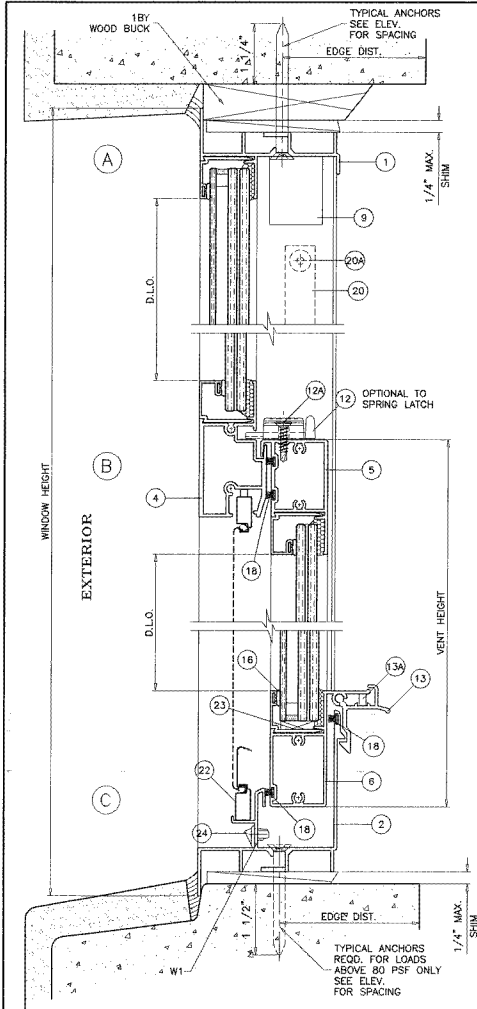
MG-200 ALUM SINGLE HUNG WINDOW (S.M.I.)
MR. GLASS DOORS & WINDOWS INC.
8120 N.W. 84 STREET
MEDLEY, FL 33166
TEL. (305) 470-8984 FAX. (305) 470-8265

Revisions:
no. date by description

date: 04-19-18
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chk. by:

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W16-21
sheet 2 of 7

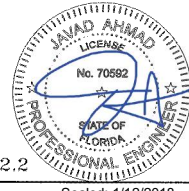
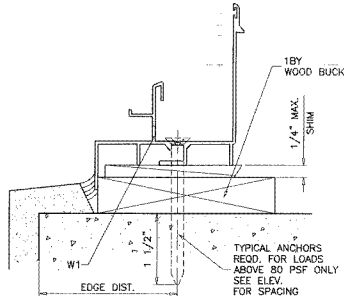
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WOOD BUCKS AND METAL STRUCTURE NOT BY MR. GLASS MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

WEEPHOLES:
 W1 = 1-1/2" X 5/16" WEEPHOLES AT 5-1/2" FROM EACH END

TYPICAL ANCHORS: SEE ELEV. FOR SPACING
 1/4" DIA. ULTRACON BY 'FELCO' (F_u=177 KSI, F_y=155 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
 DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
#14 SMS OR SELF-DRILLING SCREWS (GRADE 2 CRS)
 INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (F_y = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
CRITICAL EDGE DISTANCE
 INTO CONCRETE AND BLOCKS = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'_c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'_m = 2000 PSI MIN.



FL #20352.2

Sealed: 1/12/2018

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9380 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX (305) 262-6978
 COMP-ANL W16-21 MC

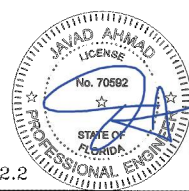
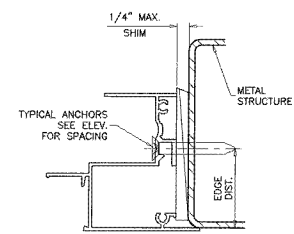
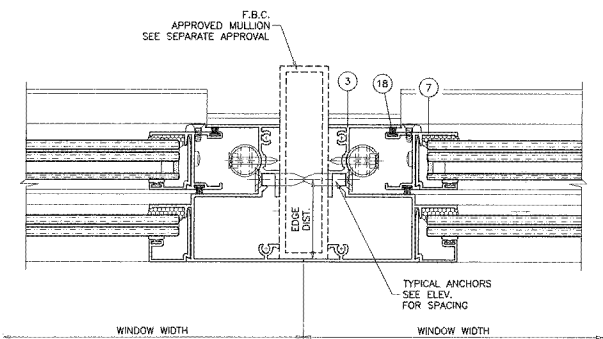
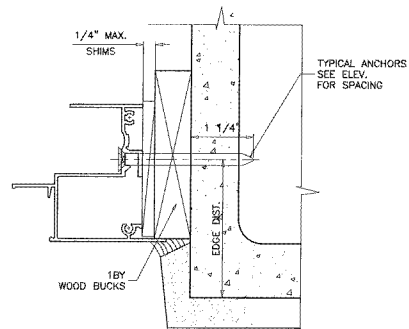
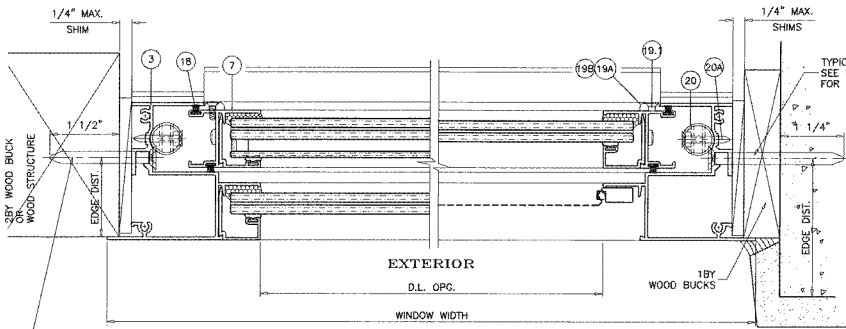
MR. CLASS DOORS & WINDOWS INC.
 8120 N.W. 84 STREET
 MEDLEY, FL 33166
 TEL. (305) 470-8284 FAX (305) 470-8285

MC-200 ALUM SINGLE HUNG WINDOW (S.M.I.)

Revisions:	no	date	by	description
1		04-15-16		

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W16-21
 sheet 3 of 7



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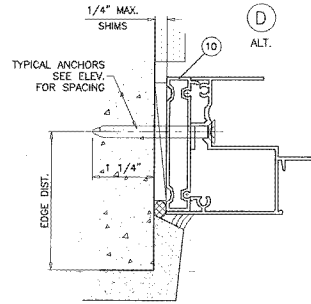
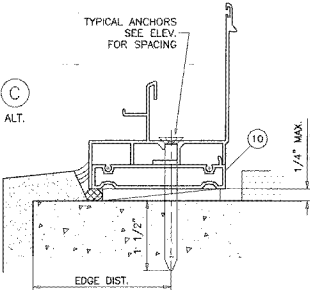
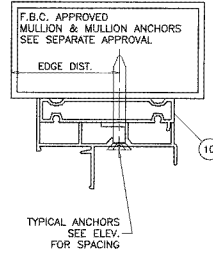
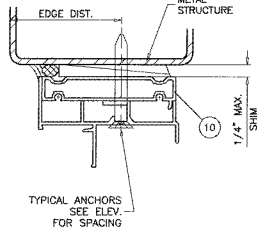
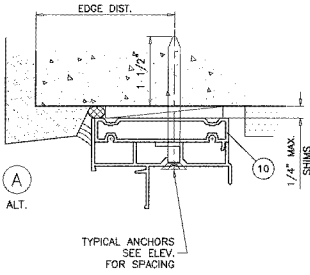
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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9380 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3638)
 TEL: (305) 264-8100 FAX: (305) 262-6978
 COMP-ANL W16-21 MG

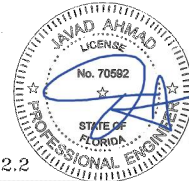
MG-200 ALUM SINGLE HUNG WINDOW (S.M.I.)
MR. GLASS DOORS & WINDOWS INC.
 8120 N.W. 84 STREET
 MEDLEY, FL 33166
 TEL: (305) 470-9284 FAX: (305) 470-8285

Revisions:	no.	date	by	description

date: 04-19-16
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W16-21
 sheet 4 of 7



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER



FL #20352.2

Sealed: 1/12/2018

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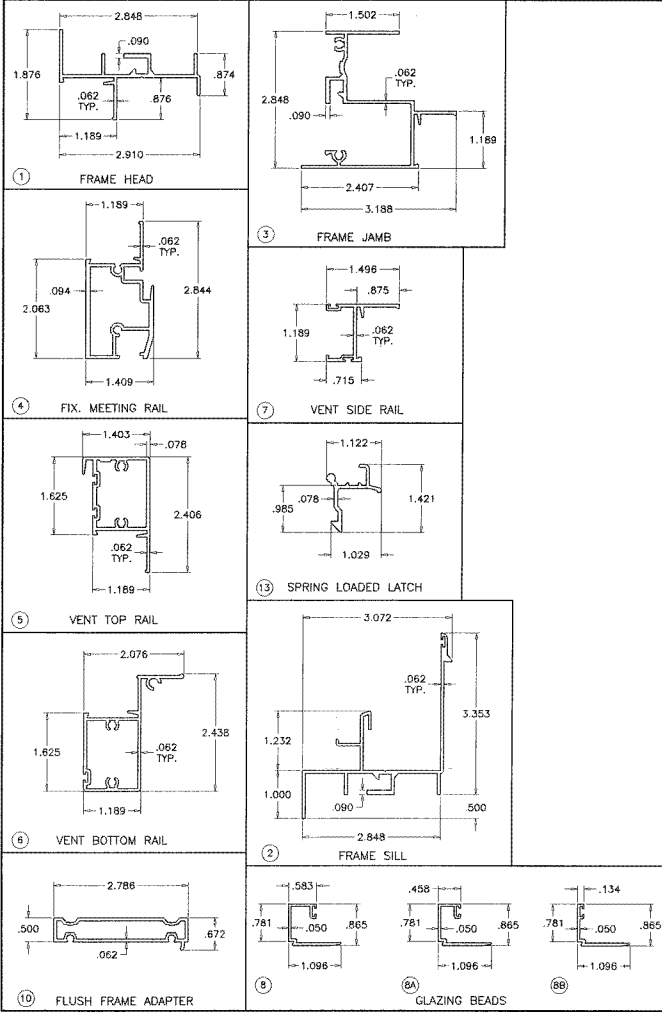
AL-FAROOQ CORPORATION
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 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-8978
 COMP-ANIL W16-21 MG

MC-200 ALUM SINGLE HUNG WINDOW (S.M.I.)
MR. GLASS DOORS & WINDOWS INC.
 8120 N.W. 84 STREET
 MEDLEY, FL. 33186
 TEL. (305) 470-8284 FAX. (305) 470-8285

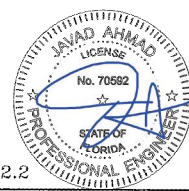
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drawing no.
W16-21
 sheet 5 of 7



ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	MG201	1	FRAME HEAD	6063-T6	-
2	MG202	1	FRAME SILL	6063-T6	-
3	MG203	2	FRAME JAMB	6063-T6	-
4	MG204	1	FIXED MTC. RAIL	6063-T6	-
5	MG205	1	VENT TOP RAIL	6063-T6	-
6	MG206	1	VENT BOTTOM RAIL	6063-T6	-
7	MG207	2	VENT SIDE RAIL	6063-T6	-
8A	MG209	AS REQD.	GLAZING BEAD (7/16" GLASS)	6063-T6	-
8B	MG210	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T6	-
9	-	2/VENT	SASH STOP	6063-T6	-
10	MG212	AS REQD.	FLUSH FRAME ADAPTER	6063-T6	-
11	-	-	-	-	-
12	SL203P	2/ VENT	SWEEP LATCH	ZAMAK	SULLIVAN & ASSOC.
12A	#8 X 5/8"	2/ LATCH	LATCH INST. SCREWS	ST. STEEL	OH SMS
13	MG211	2/ VENT	SPRING LOADED LATCH	6063-T6	ALTERNATE TO SWEEP LATCH
13A	-	2/ LATCH	LATCH SPRING	ST. STEEL	-
14	#10 X 1"	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	CRS	PH SMS
16	E202	AS REQD.	GLAZING BEAD BULB	NEOPRENE	ULTRAFAB
18	W73231NK000B	AS REQD.	SIDE RAIL FIN SEAL W'STRIPPING	-	ULTRAFAB
19A	MG221	2/ VENT	VENT BOTTOM GUIDE	CELCON	M&M PLASTICS
19B	MG222	2/ VENT	VENT TOP GUIDE	CELCON	M&M PLASTICS
19.1	#6 X 5/8"	1/ GUIDE	SASH GUIDE INST. SCREW	CRS	FH SMS TYPE B
20	SL-14A-044	2/VENT	ULTRALIFT SPIRAL BALANCE	-	CALDWELL
20A	#10 X 1-1/4"	1/ BALANCE	BALANCE INST. SCREW	-	OH SMS TYPE B
22	-	1	5/16" BOX SCREEN	-	OPTIONAL
23	-	2/ LITE	SETTING BLOCK AT 1/4 POINTS	EPM	DIUROMETER 80±5 SHORE A
24	-	2	HI-FLOW WEEPER	-	PREFERRED ENGINEERING PRODUCTS



FL #20352.2

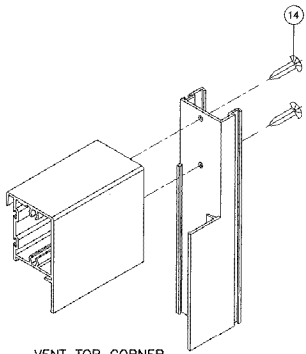
Sealed: 1/12/2018

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 2538)
TEL: (305) 264-8100 FAX: (305) 262-8978
COMP-ANL W16-2 IMG

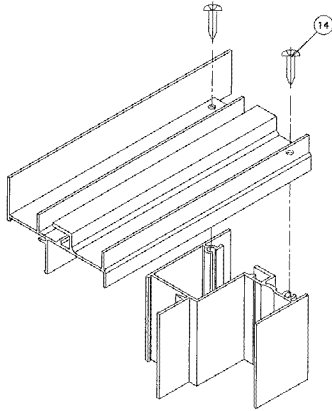
MG-200 ALUM SINGLE HUNG WINDOW (S.M.I.)
MR. GLASS DOORS & WINDOWS INC.
8120 N.W. 84 STREET
MEDLEY, FL. 33166
TEL: (305) 470-8284 FAX: (305) 470-8285

Revisions: _____
No. 04-19-16
date: 04-19-16
scale: 1/2" = 1"
dr. by: TARIQ
chk. by: _____

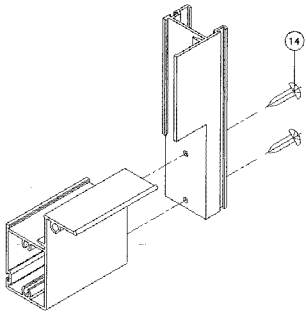
drawing no. **W16-21**
sheet 6 of 7



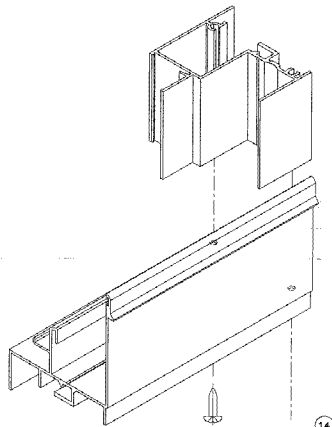
VENT_TOP_CORNER



FRAME_TOP_CORNER

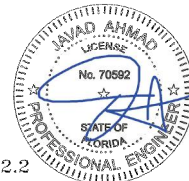


VENT_BOTTOM_CORNER



FRAME_BOTTOM_CORNER

FL #20352.2



Sealed: 1/12/2018

afc	
AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9380 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 3538) TEL: (305) 264-8100 FAX: (305) 262-8978 COMP-ANL W16-21MG	
MG-200 ALUM SINGLE HING WINDOW (S.M.I.) MR. GLASS DOORS & WINDOWS INC. 3120 N.W. 84 STREET MEDLEY, FL. 33166 TEL: (305) 470-8284 FAX: (305) 470-8985	
Revisions: No. Date By Description	date: 04-15-16 scale: 1/2" = 1" dr. by: TARIQ chk. by:
drawing no. W16-21	
sheet 7 of 7	