

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)

BOARD AND CODE ADMINISTRATION DIVISION NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY** PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/building

# E.S. Windows, LLC 3550 NW 49th Street **Miami, FL 33142**

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION:** Series "ES-8000" Aluminum Window Wall System – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **W07-60**, titled "Series 8000 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 2, 3, 4, 4.1, 5, 5.1, 5.2, 6, 6.1, 6.2, 7, 7.1, 8, 9, 9.1, 10, 11 and 12 of 12, dated 08/03/07, with revision H dated 05/10/21, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

# MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla**, Colombia, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA No. 21-0517.02 and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



NOA No. 22-1227.03 Expiration Date: April 03, 2028 Approval Date: January 19, 2023 Page 1

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 15-0826.26)
- 2. Drawing No. **W07-60**, titled "Series 8000 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 2, 3, 4, 4.1, 5, 5.1, 5.2, 6, 6.1, 6.2, 7, 7.1, 8, 9, 9.1, 10, 11 and 12 of 12, dated 08/03/07, with revision **H** dated 05/10/21, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

(Submitted under NOA No. 21-0517.02)

#### B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Forced Entry Test, per FBC 2411.3.2.1 and AAMA 1304-02
  - 5) Large Missile Impact Test per FBC, TAS 201-94
  - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a Series ES-8000 MK-20-001, prepared by Blackwater Testing, Inc., Test Report No. **BT-ESW-20-036A**, dated 12/18/20, signed and sealed by Michael D. Caldwell, P.E.

(Submitted under NOA No. 21-0517.02)

- 2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Forced Entry Test, per FBC 2411.3.2.1 and AAMA 1304-02
  - 5) Large Missile Impact Test per FBC, TAS 201-94
  - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a Series ES-9000 aluminum outswing door, prepared by Blackwater Testing, Inc., Test Report No.

**BT-ESW-18-004**, dated 05/17/18, signed and sealed by Constantin Bortes, P.E. (Submitted under NOA No. 19-1029.08)

- 3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Drop Load Test, per ANSI Z97.1 (400 foot-pound impact)

along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No.

FTL-9605, dated 08/16/17, signed and sealed by Idalmis Ortega, P.E.

(Submitted under NOA No. 18-0129.05)

Manuel Perez, P.E. Product Control Examiner

NOA No. 22-1227.03

Expiration Date: April 03,2028 Approval Date: January 19,2023

#### E.S. Windows, LLC

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- B. TESTS (CONTINUED)
  - 4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
    - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
    - 3) Water Resistance Test, per FBC, TAS 202-94
    - 4) Large Missile Impact Test per FBC, TAS 201-94
    - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No.

FTL-8372, dated 03/24/16, signed and sealed by Idalmis Ortega, P.E.

(Submitted under NOA No. 17-0227.08)

- 5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Drop Load Test, per CPSC 16 CFR 1201 (400 foot-pound impact) along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No.

FTL-5447, dated 12/19/07, signed and sealed by Michael R. Wenzel, P.E.

(Submitted under NOA No. 08-0204.06)

#### C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC** 6<sup>th</sup> Edition (2017), dated 08/30/17 and 09/12/18, and further updated to comply with **FBC** 7<sup>th</sup> Edition (2020), prepared by Al-Farooq Corporation, dated 11/16/20 and 05/07/21, signed and sealed by Jalal Farooq, P.E.

(Submitted under NOA No. 21-0517.02)

2. Glazing complies with ASTM E1300-09

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

Manuel Perez, P.E. Product Control Examiner NOA No. 22-1227.03

Expiration Date: April 03,2028 Approval Date: January 19,2023

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- E. MATERIAL CERTIFICATIONS
  - 1. Notice of Acceptance No. 20-0915.19 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 11/19/20, expiring on 07/04/23.
  - 2. Notice of Acceptance No. 20-0915.22 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 11/19/20, expiring on 07/08/24.

## F. STATEMENTS (CONTINUED)

- 1. Statement letter of conformance, complying with FBC 7<sup>th</sup> Edition (2020), and of no financial interest, dated May 7, 2021, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
  - Submitted under NOA No. 21-0517.02)
- 2. Distributor Agreement between ES Windows-Energia Solar, S.A., Barranquilla, Columbia, S.A. and E.S. Windows, LLC, Miami, Florida, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General Manager respectively on behalf of the companies.
  - (Submitted under NOA No. 12-0308.36)
- 3. Private Labeling Agreement document in conformance to Product Control guidelines dated 04/09/09 signed by Jose Nuñez.
  - (Submitted under NOA No. 12-0308.36)
- 4. Laboratory compliance letter for Test Report No. FTL-5447, issued by Fenestration Testing Laboratory, Inc., dated 12/19/07, signed and sealed by Michael R. Wenzel, P.E. (Submitted under NOA No. 08-0204.06)
- 5. Testing Proposal issued by the Product Control Section, dated 10/16/14, signed by Jaime Gascon, P.E.
  - (Submitted under NOA No. 17-0227.08)

# G. OTHERS

1. Notice of Acceptance No. **20-1118.03**, issued to E.S. Windows, LLC for their Series "ES-8000" Aluminum Window Wall System – L.M.I., approved on 02/11/21 and expiring on 04/03/23.

Manuel Perez, P.E. Product Control Examiner NOA No. 22-1227.03

Expiration Date: April 03,2028 Approval Date: January 19,2023

# E.S. Windows, LLC

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. None.

#### B. TESTS

1. None.

#### C. CALCULATIONS

1. None.

#### D. **QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

# E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 22-1116.01 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 12/15/22, expiring on 07/04/28.
- 2. Notice of Acceptance No. 20-0915.22 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 11/19/20, expiring on 07/08/24.

#### F. STATEMENTS

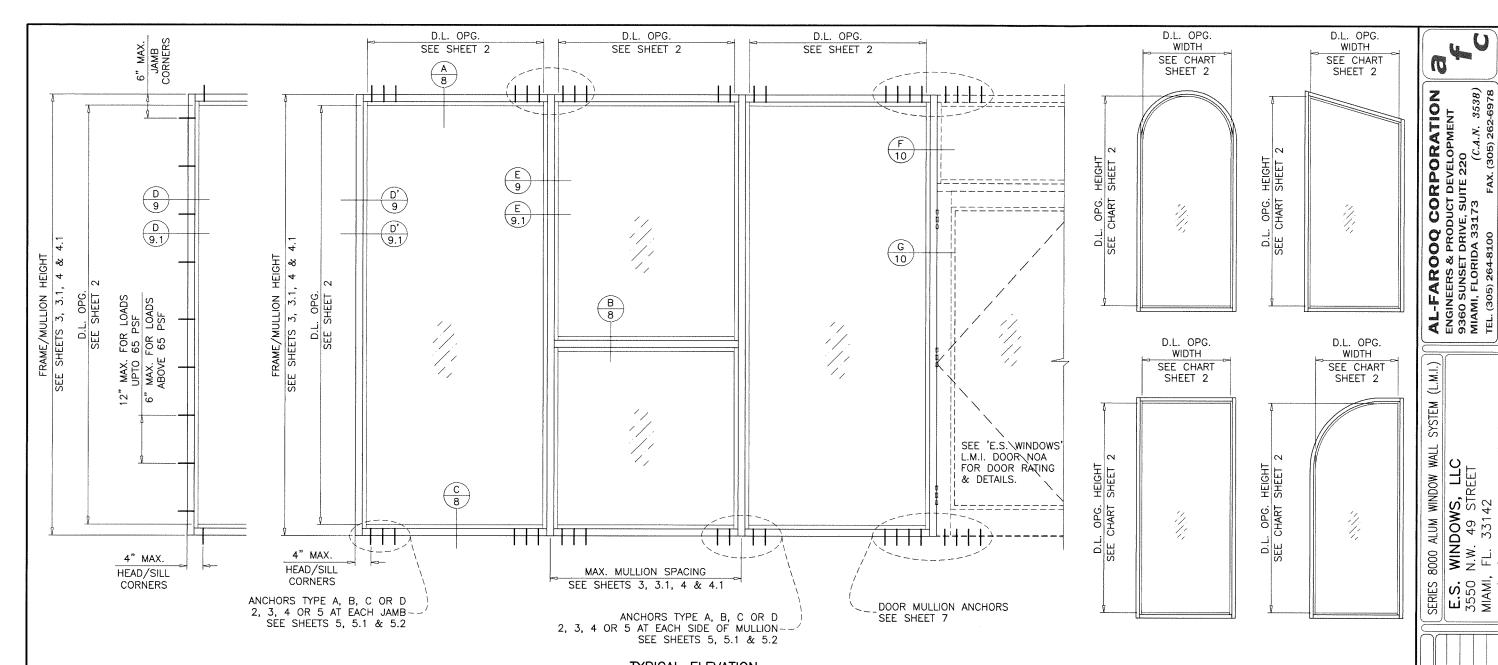
1. Statement letter of conformance, complying with FBC 7<sup>th</sup> Edition (2020), and of no financial interest, dated December 23, 2022, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

#### G. OTHERS

1. Notice of Acceptance No. **21 0517.02**, issued to E.S. Windows, LLC for their Series "ES-8000" Aluminum Window Wall System – L.M.I., approved on 07/01/21 and expiring on 04/03/23.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 22-1227.03

Expiration Date: April 03, 2028 Approval Date: January 19, 2023



# SERIES 8000 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM IS RATED FOR LARGE MISSILE IMPACT SHUTTERS ARE NOT REQUIRED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH 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 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT NOA 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)'

# TYPICAL ELEVATION

#### INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2 SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 3 THRU 4.1 FOR WINDOW WALL MULLION AND SHEETS 6 & 7 FOR DOOR MULLION THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4 CHECK ANCHOR CAPACITY FOR WINDOW WALL SYSTEM USING CHARTS ON SHEETS 5 THRU 5.2 FOR DOOR MULLION ANCHOR CAPACITY SEE CHART ON SHEET 7. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5 THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES. SINGLE LITES MAY BE INSTALLED VERTICALLY AS SHOWN ABOVE OR HORIZONTALLY.

PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1

#### **PRODUCT REVISED** as complying with the Florida Building Code NOA-No. 21-0517.02

**Expiration Date: 04/03/2023** 

By: Manuel Peres

Miami-Dade Product Control

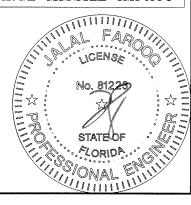
# **PRODUCT RENEWED**

as complying with the Florida Building Code

22-1227.03 Expiration Date: 04/03/2028

Miami-Dade Product Control

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LARGE	MISS	SILE	IMPACT



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by description
UPDATED TO 2017 F
NO CHANGE THIS SH
UPDATED TO 2020 F
GENERAL REVISION

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(C.A.N. 3538) . (305) 262-6978

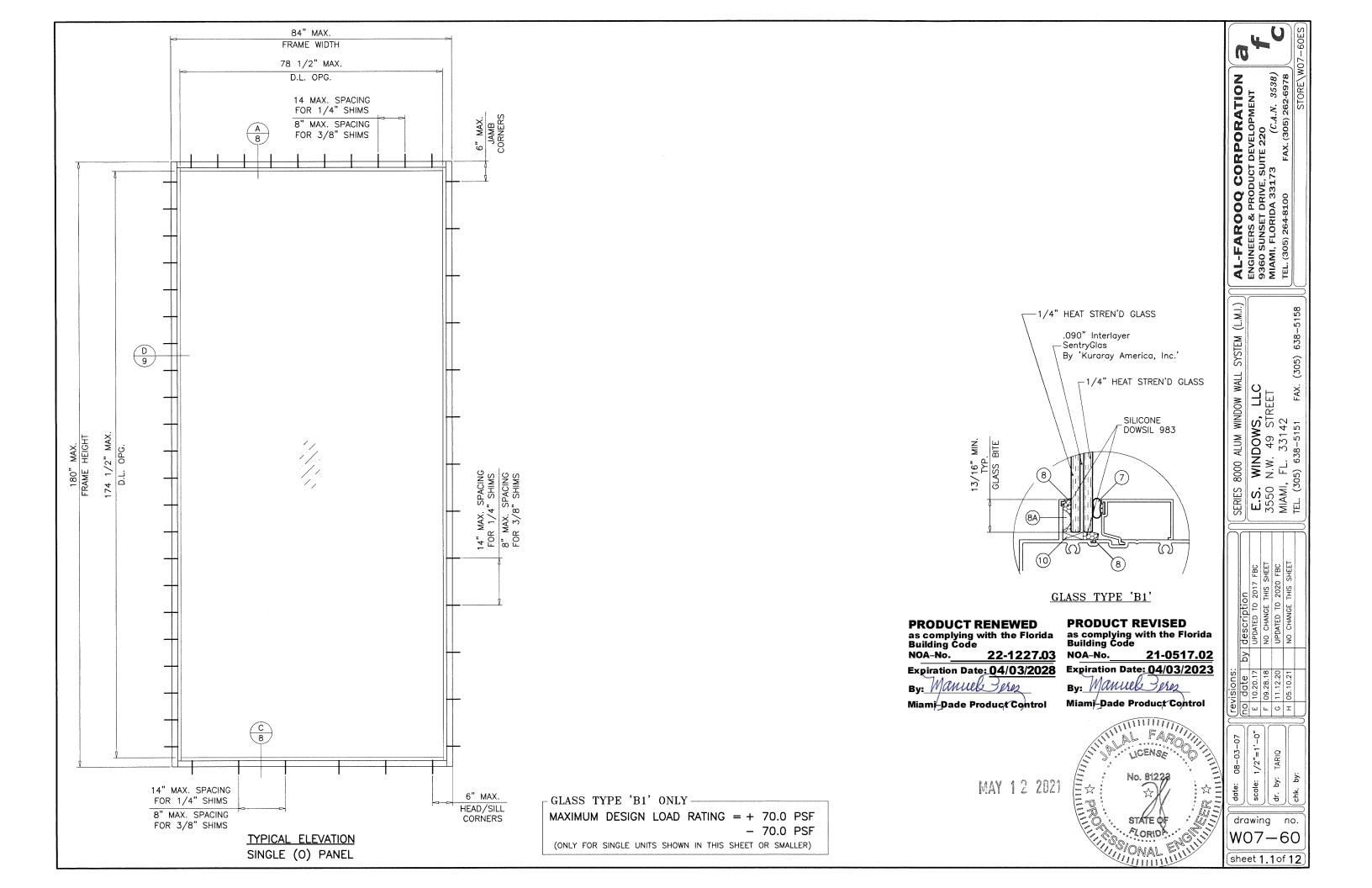
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E.S. WINDOWS, 3550 N.W. 49 STRI MIAMI, FL. 33142 TEL. (305) 638–5151

drawing no.

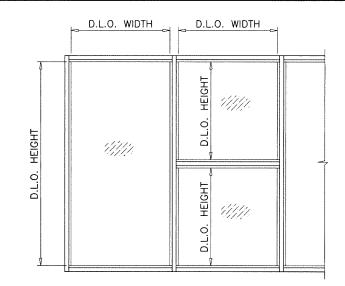
W07-60 sheet 1 of 12

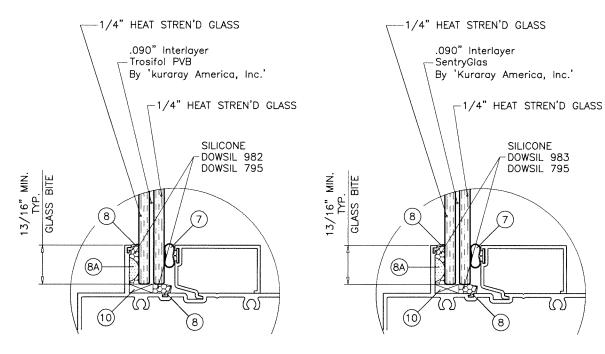


GLASS LOAD CAPACITY - PSF						
NOMINA	AL DIMS.	GLASS TYPE 'A'	GLASS TYPE 'B'			
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)			
28"		80.0	130.0			
32"		80.0	130.0			
36"		80.0	130.0			
40"		80.0	130.0			
44-1/4"	04 1/0"	80.0	130.0			
48"	84-1/2" - - -	80.0	130.0			
52"		80.0	130.0			
56-1/4"		80.0	130.0			
60-1/2"			63.6			
66-1/2"			58.3			
28"		80.0	130.0			
32"		80.0	130.0			
36"	-	80.0	130.0			
40"		80.0	130.0			
44-1/4"	90-1/2"	80.0	130.0			
48"	,	80.0	130.0			
52"		80.0	130.0			
54-1/2"		56.0	70.0			
60-1/2"			63.6			
66-1/2"		<u>—</u>	58.3			
28"		80.0	130.0			
32"	96–1/2"	80.0	130.0			
36"		80.0	130.0			
40"		80.0	130.0			
44-1/4"		80.0	130.0			
48"		80.0	130.0			
52"		80.0	127.2			
54-1/2"		56.0	70.0			
60-1/2"		_	63.6			
66-1/2"		_	58.3			
28"		80.0	130.0			
32"		80.0	130.0			
36"		80.0	130.0			
40"		80.0	130.0			
44-1/4"	102-1/2"	80.0	130.0			
48"		80.0	128.9			
54-1/2"		56.0	70.0			
60-1/2"		_	63.6			
66-1/2"		****	58.3			
28"		80.0	130.0			
32"		80.0	130.0			
36"		80.0	130.0			
40"		80.0	130.0			
44-1/4"	108-1/2"		130.0			
		80.0 62.2				
48" 54_1 /2"			70.0			
54-1/2"		56.0	70.0			
60-1/2"			63.6			
66-1/2"		_	58.3			

]	GLASS LOAD CAPACITY - PSF							
	NOMINA	AL DIMS.	GLASS TYPE 'A'	GLASS TYPE 'B'				
	D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)				
	28"		80.0	130.0				
	32"		80.0	130.0				
	36"		80.0	130.0				
	40"		80.0	130.0				
	44-1/4"	114 1/0"	80.0	130.0				
	48-1/2"	114-1/2"	62.2	90.0				
	51-1/2"		-	90.0				
	54-1/2"		-	70.0				
	60-1/2"		_	63.6				
	66-1/2"		_	58.3				
	44-1/4"		70.0	90.0				
	48" 50" 54-1/2"	120-1/2"	62.2	90.0				
				90.0				
			_	70.0				
	60-1/2"			63.6				
	42-1/4"		70.0	90.0				
	44-1/4"			90.0				
	48"	126-1/2"		90.0				
	48-1/2"		-	70.0				
	54-1/2"			70.0				
	40"		70.0	90.0				
	42-1/4"		` 70.0	90.0				
	44-1/4"		-	90.0				
1	46"	132-1/2"	_	90.0				
l	48-1/2"		<del></del>	70.0				
1	54-1/2"		***	70.0				
	40"		70.0	90.0				
	42-1/4"		70.0	90.0				
l	44-1/4"	138-1/2"	_	90.0				
1	48-1/2"	., .	_	70.0				
	54-1/2"		_	70.0				

INTERPOLATION BETWEEN WIDTHS ALLOWED.





GLASS TYPE 'A'

GLASS TYPE 'B'

# **GLAZING OPTIONS**

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-1227.03 22-1227.03

Expiration Date: 04/03/2028

By: Manuel Pers

Miami-Dade Product Control

**PRODUCT REVISED** as complying with the Florida Building Code NOA-No. 21-0517.02

Expiration Date: 04/03/2023

By: Manuel Pres

Miami-Dade Product Control

MAY 12 2021

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	SERIES 8000 ALLIM WINDOW WALL SYSTEM (LM.)	SCHIES SOUS ALON MINDON MALE SISIEM (E.MI.I.)	E.S. WINDOWS. LLC	3550 NW 49 STRFET	MINNI EI 23170		TEL. (305) 638-5151 FAX. (305) 638-5158
	revisions:	no date by description	E 10.20.17 NO CHANGE THIS SHEET	F 09.28.18 NO CHANGE THIS SHEET	G 11.12.20 UPDATED TO 2020 FBC	H 05.10.21 GENERAL REVISION	
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	date: 08-03-07		scale: 1/2"=1'-0"		dr. by: TARIQ		chk. by:
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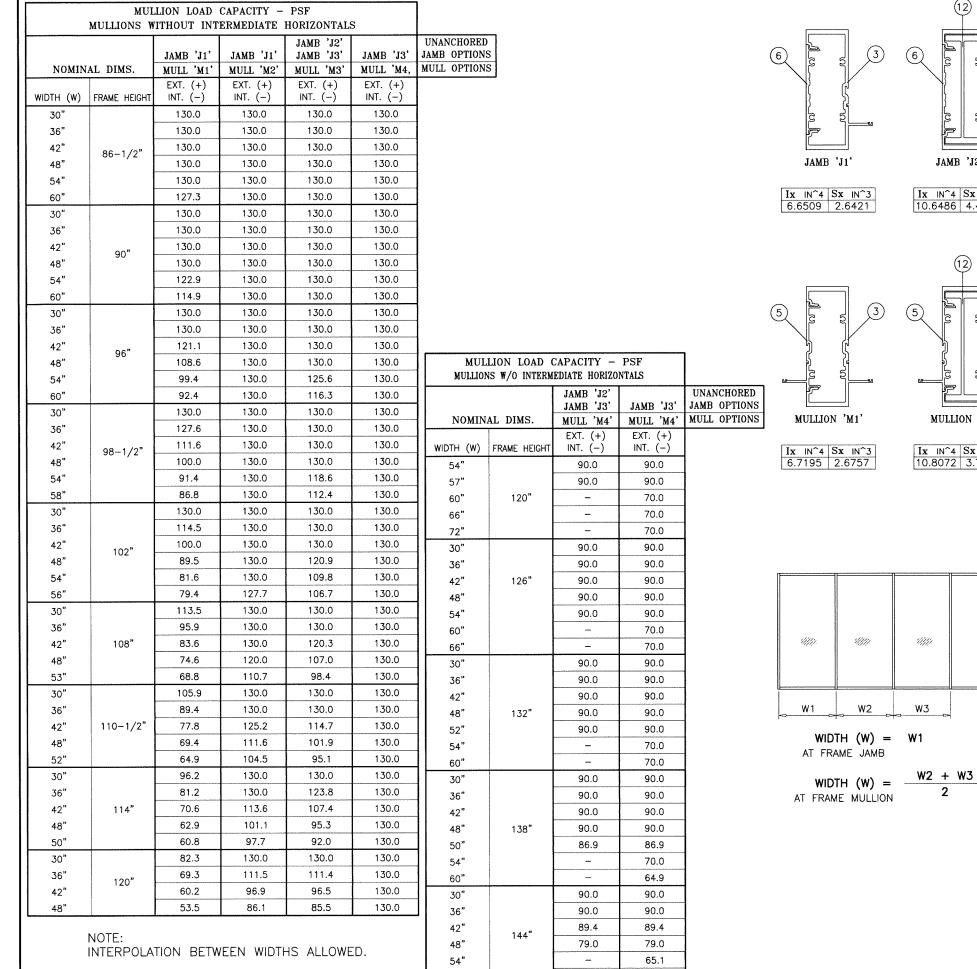
W07-60

sheet 2 of 12

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

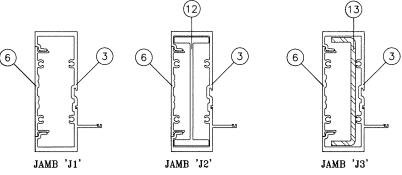
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS).

GLASS



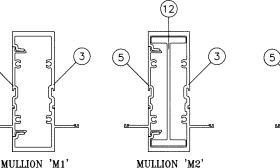
60"

59.3



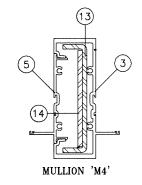
Ix IN^4	Sx IN^3	
10.6486	4.4452	ALU
		STI

	Ix IN^4	Sx IN^
ALUMINUM	6.6509	2.642
STEEL	2.7506	1.2225
TOTAL  x ALUM +  x STL X 2.9	14.6276	



5	3
MULLION	'M3'

13



Ιx	IN^4	Sx	IN^3
10.	3072	2 3.	.7590

HEIGHT

	Ix IN^4	Sx IN
ALUMINUM	6.7195	2.675
STEEL	2.7506	1.222
TOTAL Ix ALUM + Ix STL X 2.9	14.6962	

`3		Ix IN^4	Sx IN^3
7	ALUMINUM	6.7195	2.6757
5	STEEL	3.7533	1.668
	TOTAL  x ALUM +  x STL X 2.9	17.6047	

**PRODUCT RENEWED** as complying with the Florida Building Code NOA-No. 22-1227.03

Expiration Date: 04/03/2028

By: Manuel Peres Miami-Dade Product Control

**PRODUCT REVISED** as complying with the Florida Building Code

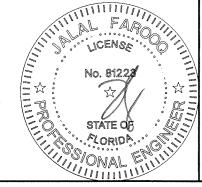
21-0517.02 NOA-No.

Expiration Date: 04/03/2023 By: Manuel Peres

Miami-Dade Product Control

MULLIONS

MAY 12 2021



(C.A.N. 3538) FAX. (305) 262-6978

 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

 $\left( \text{L.M.I.} \right)$ 

SYSTEM 8000 ALUM WINDOW WALL E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL (305) 638-5151 FAX. ( SERIES

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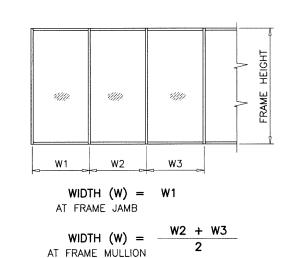
	no date   by description	UPDATED TO 2017 FBC	NO CHANGE THIS SHEET	UPDATED TO 2020 FBC	GENERAL REVISION	
	<u>م</u>					
revisions:	date	E 10.20.17	F 09.28.18	G 11.12.20	H 05.10.21	
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08-03-07		ı		: TARIQ		.y:

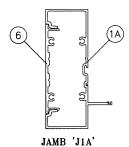
by: å.

drawing no. W07 - 60sheet 3 of 12

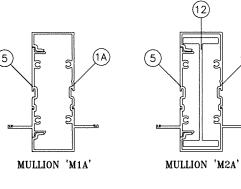
	LION LOAD				
NOMIN	AL DIMS.	JAMB 'J1A' MULL 'M1A'	JAMB 'J1A' MULL 'M2A'		
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)		
30"	TTO UNE TIEIOTT	60.0	70.0		
36"		60.0	70.0		
42"		60.0	70.0		
48"	86-1/2"	60.0	70.0		
54"		60.0	70.0		
60"		60.0	70.0		
30"		60.0	70.0		
36"		60.0	70.0		
42"		60.0	70.0		
48"	90"	60.0	70.0		
54"		60.0	70.0		
60"		60.0	70.0		
30"		60.0	70.0		
		60.0	70.0		
36"		60.0			
42"	96"		70.0		
48"		60.0	70.0		
54"		55.6	70.0		
60"		51.5	70.0		
30"		60.0	70.0		
36"		60.0	70.0		
42"	98-1/2"	60.0	70.0		
48"		57.6	70.0		
54"		52.4	70.0		
30"		60.0	70.0		
36"		60.0	70.0		
42"	102"	59.7	70.0		
48"		53.2	70.0		
54"		48.3	70.0		
30"		60.0	70.0		
36"		60.0	70.0		
42"	108"	52.6	70.0		
48"		46.8	70.0		
54"		-	70.0		
60"			70.0		
30"		60.0	70.0		
36"		57.1	70.0		
42"	110-1/2"	49.7	70.0		
48"		44.3	70.0		
54"		_	70.0		
60"			70.0		
30"		60.0	70.0		
36"		51.8	70.0		
42"	114"	45.1	70.0		
48"		40.1	70.0		
54"			70.0		
30"		52.5	70.0		
36"		44.3	70.0		
42"	120"	38.5	70.0		
48"	5	34.2	66.7		
54"		-	60.4		
57"			57.8		

ALS			CAPACITY - ERMEDIATE F					
$\dashv$					UNANCHORED			
la'			JAMB 'J1A'	JAMB 'J1A'	JAMB OPTIONS			
2A'	NOMINA	NOMINAL DIMS. MULL 'M1A' MULL 'M2A'						
)			EXT. (+)	EXT. (+)				
	WIDTH (W)	FRAME HEIGHT	INT. (-)	INT. (-)				
	30"			70.0				
	36"		_	70.0				
	42"	126"	<del>-</del>	64.6				
	48"	120	_	57.3				
	54"			51.8				
	30"		_	70.0				
	36"			64.5				
	42"	132"		55.9				
	48"	152	-	49.6				
	52"		-	46.2				
	30"		<del>-</del>	67.1				
	36"		_	56.3				
	42"	138"	_	48.8				
	48"	130	-	43.2				
	50"			41.6				
	30"			58.9				
	36"	144"		49.5				
	42"	177	-	42.8				
	48"			37.8				





Ix	IN^4	Sx	IN^3
4.1	316	1.6	902



Ix IN^4 Sx IN^3 4.2902 1.7239

 Ix
 IN^4
 Sx
 IN^3

 8.3779
 3.527

**PRODUCT RENEWED** as complying with the Florida Building Code NOA-No. 22-1227.03

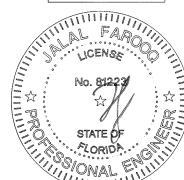
Expiration Date: 04/03/2028

Miami Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code NOA-No. 21-0517.02

Expiration Date: 04/03/2023

Miami-Dade Product Control



MAY 12 2021

**MULLIONS** 

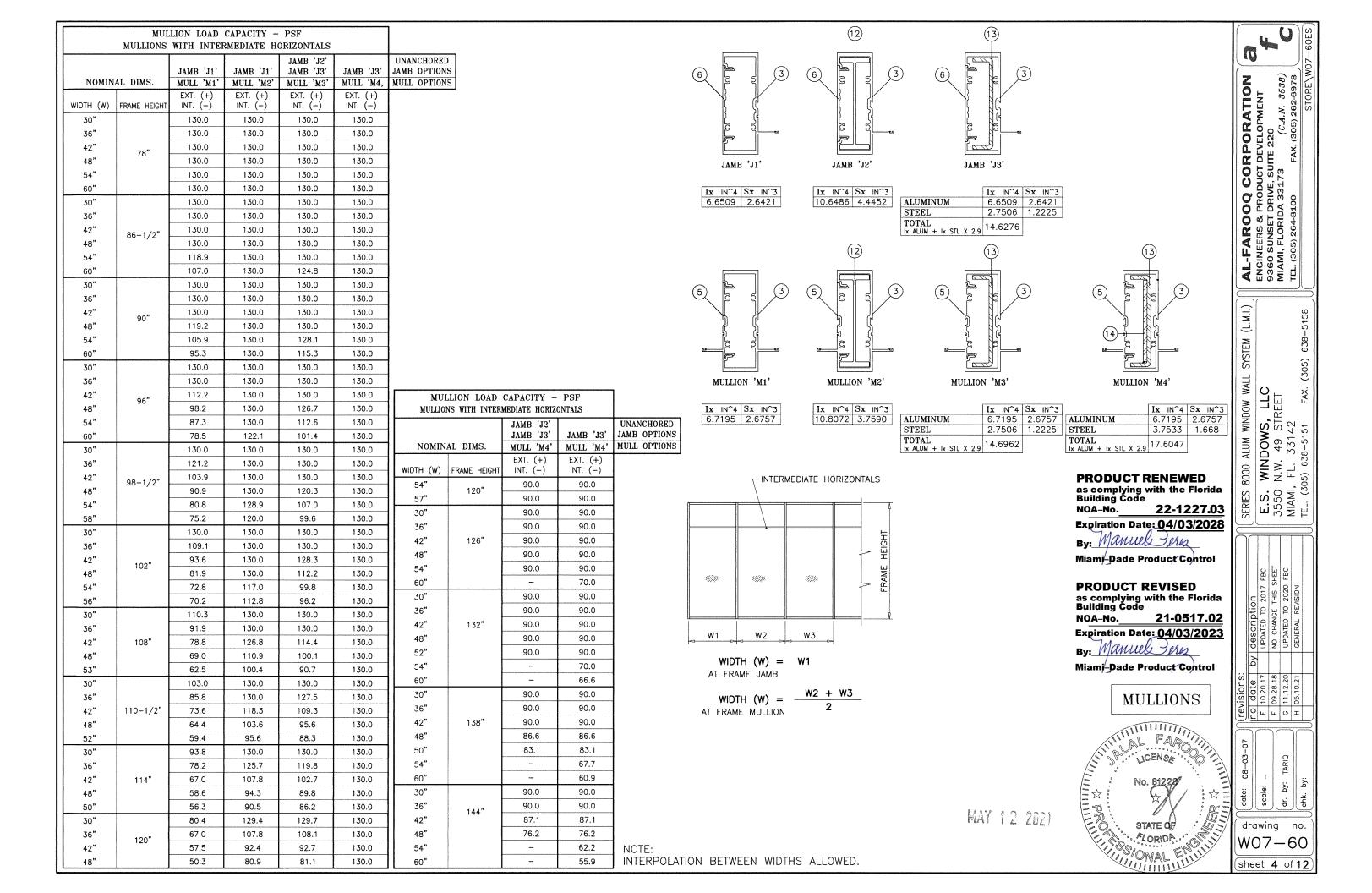
(C.A.N. 3538) FAX. (305) 262-6978 AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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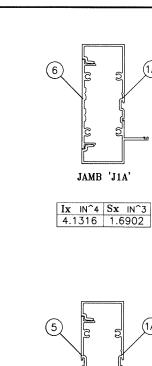
drawing no. W07-60 sheet **3.1**of **12** 

NOTE: INTERPOLATION BETWEEN WIDTHS ALLOWED.



			ORIZONTALS				
NOMIN	AL DIMS.	JAMB 'J1A' MULL 'M1A'	JAMB 'J1A' MULL 'M2A				
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)				
30"		60.0	70.0				
36"		60.0	70.0				
42"		60.0	70.0				
48"	86-1/2"	60.0	70.0				
54"		60.0	70.0				
60"		55.9	70.0				
30"		60.0	70.0				
36"		60.0	70.0				
42"		60.0	70.0				
48"	90"	60.0	70.0				
54"		57.1	70.0				
60"		51.4	70.0				
30"		60.0	70.0				
36"		60.0	70.0				
42"		60.0	70.0				
48"	96"	56.1	70.0				
54"		49.9	70.0				
60"		44.9	70.0				
30"		60.0	70.0				
36"		60.0	70.0				
42"	60.0		70.0				
48"	98-1/2"	53.2	70.0				
54"		47.2	70.0				
30"		60.0	70.0				
36"		60.0	70.0				
42"		56.4	70.0				
48"	102"	49.4	70.0				
54"		43.9	70.0				
30"		60.0	70.0				
36"		58.4	70.0				
42"		50.0	70.0				
48"	108"	43.8	70.0				
54"			70.0				
60"			70.0				
30"		60.0	70.0				
36"		54.8	70.0				
42"		47.0	70.0				
48"	110-1/2"	41.1	70.0				
54"	<b> </b>		70.0				
60"	<u> </u>		70.0				
30"		59.9	70.0				
36"		49.9	70.0				
42"		42.8	70.0				
48"	114"	37.4	70.0				
54"	}		70.0				
30"		51.4	70.0				
36"	-	42.8					
42"		36.7	70.0				
42 48"	120"	32.1	66.7				
46 54"	<u> </u>	JZ.1					
J4			60.4 57.8				

	PSF DRIZONTALS			
NOMIN	AL DIMS.	JAMB 'J1A' MULL 'M1A'	JAMB 'J1A' MULL 'M2A'	UNANCHORED JAMB OPTIONS MULL OPTIONS
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)	
30"			70.0	
36"			70.0	
42"	126"	_	64.6	
48"	120		57.3	
54"			51.8	
30"		-	70.0	
36"		-	64.5	
42"	132"	-	55.9	
48"	102	_	49.6	
52"		_	46.2	
30"		-	67.1	
36"			56.3	
42"	138"		48.8	
48"	,50	-	43.2	
50"		_	41.6	
30"			58.9	
36"	144"	_	49.5	
42"			42.8	
48"			37.8	

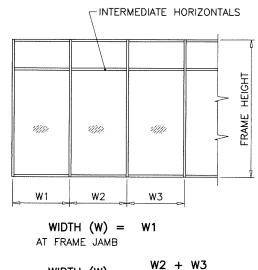


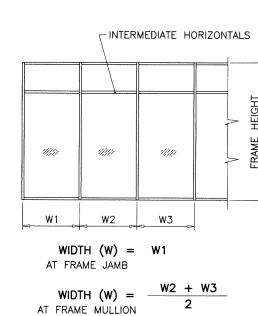
MULLION 'M1A'

Ix IN^4 Sx IN^3 4.2902 1.7239

MULLION 'M2A'

Ix IN^4 Sx IN^3 8.3779 3.527





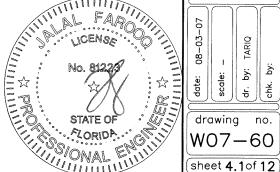
INTERPOLATION BETWEEN WIDTHS ALLOWED.

**PRODUCT RENEWED** as complying with the Florida Building Code NOA-No. 22-1227.03

Miami Dade Product Control

Expiration Date: 04/03/2023

Miami-Dade Product Control



MAY 12 2021

| SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) | E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 | TEL. (305) 638-5151 FAX. (305) 638-5158 |

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 331.73 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

GENERAL REVISION

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<u>ج</u>

drawing

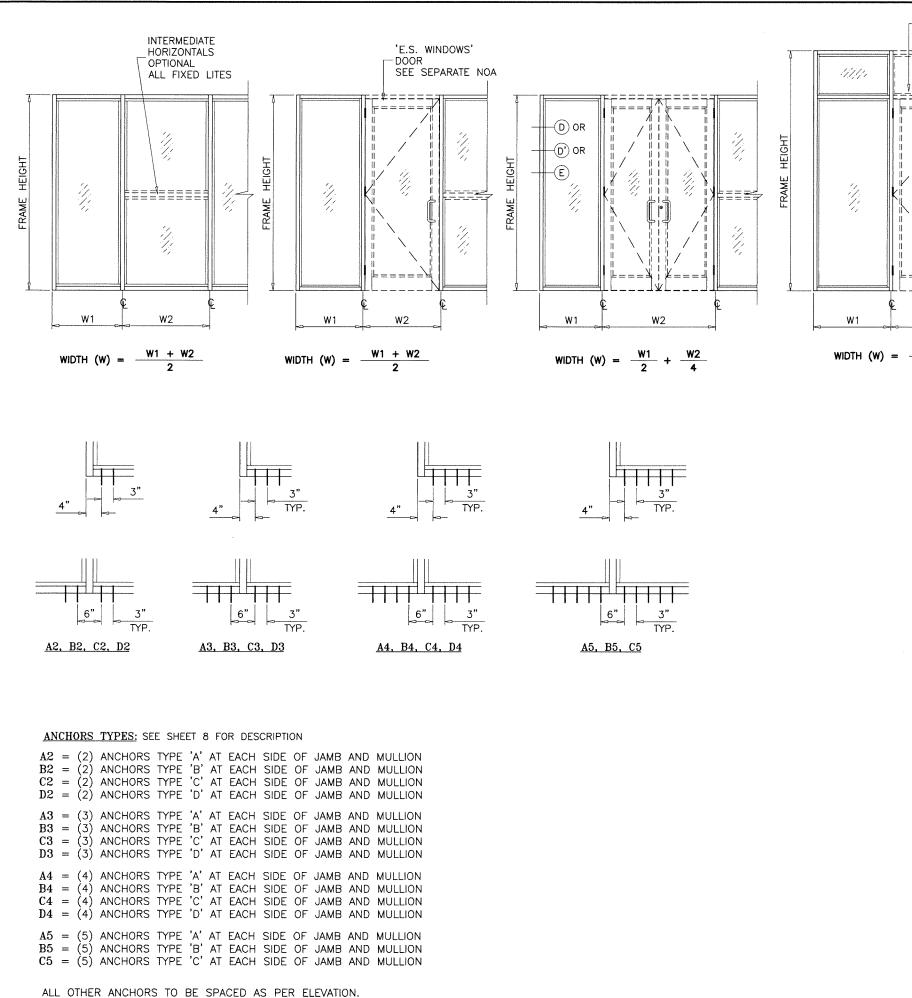
Expiration Date: 04/03/2028

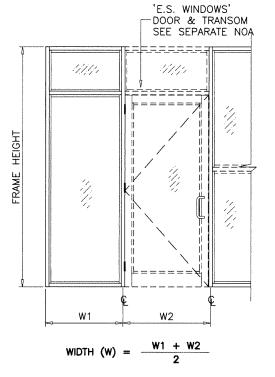
By: Manuel Peres

PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No. 21-0517.02

MULLIONS





**PRODUCT RENEWED** 

as complying with the Florida Building Code NOA-No. 22-1227.03

**Expiration Date: 04/03/2028** 

By: Manuel Perez

Miami-Dade Product Control

**PRODUCT REVISED** as complying with the Florida Building Code

21-0517.02 NOA-No. **Expiration Date: 04/03/2023** 

By: Manuel Perez

Miami-Dade Product Control

SEE SHEETS 5, 5.1, 5.2 & 7 FOR ANCHOR CAPACITY CHART. SEE SHEET 8 FOR ANCHOR DESCRIPTION.

**ANCHORS** 

MAY 12 2021



SERIES ROOD ALLIM WINDOW WALL SYSTEM (LM.) TO BE A BOOD ALLIA WINDOW WALL SYSTEM (LM.)		ENGINEERS & PRODUCT DEVELOPMENT	TT ZA	27/3	TEL. (305) 264-8100 FAX. (305) 262-6978	5158 JU STORE∖	
SERIES 8000 ALLIM WINDOW WALL SYSTEM (1	מבווידט מססט יובטווו וווינסטוו עווידר מוסוביו (ה	E.S. WINDOWS, LLC	3550 N W 49 STREET	MIAMI E1 22140		TEL. (305) 638-5151 FAX. (305) 638-5158	
evisions:	o date   by description	10.20.17 UPDATED TO 2017 FBC	O9.28.18 NO CHANGE THIS SHEET	G 11.12.20 UPDATED TO 2020 FBC	1 05.10.21 NO CHANGE THIS SHEET		
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drawing no.

W07 - 60

sheet 5 of 12

EXT.(+) & INT.(-)																												
			***	Al	CHORS	TYPE	'A'					AN	NCHORS	TYPE	'В'					AN	CHORS	TYPE	'c'			1/4"	MAX.	SHIM
NOMINA	AL DIMS.	3,	/8" SH	IM SPAC		<del></del>	/2" SHI	M SPAC	Œ	3,	/8" SH	IM SPAC	CE	1,	/2" SHI	M SPAC	CE	3,	/8" SHI	M SPAC	CE	1,	/2" SHI	M SPAC	CE	ANCH	ORS TYI	PE 'D'
WIDTH (W)	FRAME HEIGHT	A2	А3	A4	A5	A2	А3	A4	A5	B2	В3	B4	B5	B2	В3	B4	B5	C2	СЗ	C4	C5	C2	СЗ	C4	C5	D2	D3	D4
30"		59.1	88.6	118.2	130.0	46.1	69.2	92.2	115.3	67.9	101.9	130.0	130.0	53.3	79.9	106.5	130.0	115.9	130.0	130.0	130.0	91.4	130.0	130.0	130.0	130.0	130.0	130.0
36"		49.2	73.9	98.5	123.1	38.4	57.7	76.9	96.1	56.6	84.9	113.2	130.0	44.4	66.6	88.8	111.0	96.6	130.0	130.0	130.0	76.2	114.3	130.0	130.0	130.0	130.0	130.0
42"		42.2	63.3	84.4	105.5	32.9	49.4	65.9	82.4	48.5	72.8	97.0	121.3	38.1	57.1	76.1	95.1	82.8	123.7	130.0	130.0	65.3	98.0	130.0	130.0	124.0	130.0	130.0
48"	86-1/2"	36.9	55.4	73.9	92.3	28.8	43.2	57.7	72.1	42.5	63.7	84.9	106.1	33.3	49.9	66.6	83.2	72.4	108.2	130.0	130.0	57.2	85.7	114.3	130.0	108.5	130.0	130.0
54"	00 1/2	32.8	49.2	65.7	82.1	25.6	38.4	51.2	64.1	37.7	56.6	75.5	94.3	29.6	44.4	59.2	74.0	64.4	96.2	128.7	130.0	50.8	76.2	101.6	127.0	96.4	130.0	130.0
60"		29.5	44.3	59.1	73.9	23.1	34.6	46.1	57.7	34.0	50.9	67.9	84.9	26.6	40.0	53.3	66.6	57.9	86.6	115.9	130.0	45.7	68.6	91.4	114.3	86.8	130.0	130.0
66"		26.9	40.3	53.7	67.1	21.0	31.4	41.9	52.4	30.9	46.4	61.8	77.3	24.3	36.4	48.5	60.6	52.7	79.0	105.4	130.0	41.5	62.2	83.0	103.7	78.9	118.3	130.0
72"		24.6	36.9	49.2	61.5		28.8	38.4	48.0	28.3	42.5	56.7	70.8	22.2	33.4	44.5	55.6	48.3	72.4	96.6	120.7	38.0	57.0	76.1	95.1	72.3	108.5	130.0
30"		56.8	85.2	113.6	130.0	44.3	66.5	88.7	110.8	65.3	97.9	130.0	130.0	51.2	76.8	102.4	128.0	111.4	130.0	130.0	130.0	87.9	130.0	130.0	130.0	130.0	130.0	130.0
36"		47.3	71.0	94.6	118.3	36.9	55.4	73.9	92.4	54.4	81.6	108.8	130.0	42.7	64.0	85.3	106.7	92.8	130.0	130.0	130.0	73.2	109.9	130.0	130.0	130.0	130.0	130.0
42"		40.6	60.8	81.1	101.4	31.7	47.5	63.3	79.2	46.6	69.9	93.3	116.6	36.6	54.9	73.1	91.4	79.5	118.9	130.0	130.0	62.8	94.2	125.6	130.0	119.2	130.0	130.0
48"	90"	35.5	53.2	71.0	88.7	27.7	41.6	55.4	69.3	40.8	61.2	81.6	102.0	32.0	48.0	64.0	80.0	69.6	104.0	130.0	130.0	54.9	82.4	109.9	130.0	104.3	130.0	130.0
54"	55	31.5	47.3	63.1	78.9	24.6	36.9	49.3	61.6	36.3	54.4	72.5	90.7	28.4	42.7	56.9	71.1	61.9	92.4	123.7	130.0	48.8	73.2	97.7	122.1	92.7	130.0	130.0
60"		28.4	42.6	56.8	71.0	22.2	33.2	44.3	55.4	32.6	49.0	65.3	81.6	25.6	38.4	51.2	64.0	55.7	83.2	111.4	130.0	43.9	65.9	87.9	109.9	83.4	125.1	130.0
66"		25.8	38.7	51.6	64.5	20.2	30.2	40.3	50.4	29.7	44.6	59.4	74.3	23.3	35.0	46.6	58.3	50.6	76.0	101.3	126.6	39.9	59.8	79.7	99.7	75.8	113.7	130.0
72"		23.7	35.5	47.3	59.2		27.7	36.9	46.2	27.2	40.9	54.5	68.1	21.4	32.1	42.7	53.4	46.4	69.6	92.8	116.0	36.6	54.8	73.1	91.4	69.5	104.3	130.0
30"		53.2	79.9	106.5	130.0	41.6	62.3	83.1	103.9	61.2	91.8	122.4	130.0	48.0	72.0	96.0	120.0	104.4	130.0	130.0	130.0	82.4	123.6	130.0	130.0	130.0	130.0	130.0
36"		44.4	66.6	88.7	110.9	34.6	52.0	69.3	86.6	51.0	76.5	102.0	127.5	40.0	60.0	80.0	100.0	87.0	130.0	130.0	130.0	68.7	103.0	130.0	130.0	130.0	130.0	130.0
42"		38.0	57.0	76.1	95.1	29.7	44.5	59.4	74.2	43.7	65.6	87.4	109.3	34.3	51.4	68.6	85.7	74.6	111.4	130.0	130.0	58.9	88.3	117.7	130.0	111.7	130.0	130.0
48"	96"	33.3	49.9	66.6	83.2	26.0	39.0	52.0	64.9	38.3	57.4	76.5	95.6	30.0	45.0	60.0	75.0	65.3	97.5	130.0	130.0	51.5	77.3	103.0	128.8	97.8	130.0	130.0
54"		29.6	44.4	59.2	73.9	23.1	34.6	46.2	57.7	34.0	51.0	68.0	85.0	26.7	40.0	53.3	66.7	58.0	86.7	116.0	130.0	45.8	68.7	91.6	114.4	86.9	130.0	130.0
60"		26.6	39.9	53.2	66.6	20.8	31.2	41.6	52.0	30.6	45.9	61.2	76.5	24.0	36.0	48.0	60.0	52.2	78.0	104.4	130.0	41.2	61.8	82.4	103.0	78.2	117.3	130.0
66"		24.2	36.3	48.4	60.5		28.3	37.8	47.2	27.9	41.8	55.7	69.6	21.9	32.8	43.7	54.6	47.5	71.2	94.9	118.7	37.4	56.1	74.8	93.5	71.1	106.6	130.0
72"		22.2	33.3	44.4	55.5	_	26.0	34.6	43.3	25.5	38.3	51.1	63.8	20.0	30.1	40.1	50.1	43.5	65.3	87.0	108.8	34.3	51.4	68.5	85.7	65.2	97.8	130.0
30"		51.9	77.8	103.8	129.7	40.5	60.8	81.0	101.3	59.6	89.5	119.3	130.0	46.8	70.2	93.6	117.0	101.8	130.0	130.0	130.0	80.3	120.5	130.0	130.0	130.0	130.0	130.0
36"		43.2	64.9	86.5	108.1	33.8	50.6	67.5	84.4	49.7	74.6	99.4	124.3	39.0	58.5	78.0	97.5	84.8	126.7	130.0	130.0	66.9	100.4		130.0	127.0	130.0	130.0
42"		37.1	55.6	74.1	92.7	28.9	43.4	57.9	72.3	42.6	63.9	85.2	106.5	33.4	50.1	66.8	83.5	72.7	108.6	130.0	130.0	57.4	86.0	114.7	130.0	108.9	130.0	130.0
48"	98-1/2"	32.4	48.6	64.9	81.1	25.3	38.0	50.6	63.3	37.3	55.9	74.6	93.2	29.2	43.9	58.5	73.1	63.6	95.0	127.2	130.0	50.2	75.3	100.4	125.5	95.3	130.0	130.0
54"		28.8	43.2	57.7	72.1	22.5	33.8	45.0	56.3	33.1	49.7	66.3	82.8	26.0	39.0	52.0	65.0	56.5	84.5	113.1	130.0	44.6	66.9	89.2	111.5	84.7	127.0	130.0
60"		25.9	38.9	51.9	64.9	20.3	30.4	40.5	50.6	29.8	44.7	59.6	74.6	23.4	35.1	46.8	58.5	50.9	76.0	101.8	127.2	40.2	60.2	80.3	100.4	76.2	114.3	130.0
66"		23.6	35.4	47.2	59.0		27.6	36.8	46.0	27.1	40.7	54.3	67.9	21.3	31.9	42.6	53.2	46.3	69.4	92.5	115.7		54.6	72.9	91.1	69.3	103.9	130.0
72"		21.6	32.4	43.2	54.1	70.4	25.3	33.8	42.2	24.9	37.3	49.8	62.2	-	29.3	39.0	48.8	42.4	63.6	84.8	106.0	33.4	50.1	66.8	83.5	63.5	95.3	127.0
30"		50.1	75.2	100.2	125.3	39.1	58.7	78.2	97.8	57.6	86.4	115.2	130.0	45.2	67.8	90.4	112.9	98.3	130.0	130.0	<del> </del>	<del> </del>	116.3		130.0	130.0	130.0	130.0
36"		41.8	62.6	83.5	104.4	32.6	48.9	65.2	81.5	48.0	72.0	96.0	120.0	37.6	56.5	75.3	94.1	81.9	122.4	130.0		64.6	96.9		130.0		<del> </del>	<del></del>
42"		35.8	53.7	71.6	89.5	27.9	41.9	55.9	69.8	41.1	61.7	82.3	102.9	32.3	48.4	64.5	80.7	70.2	104.9	130.0	130.0	55.4	83.1		130.0	105.1		+
48"	102"	31.3	47.0	62.6	78.3	24.4	36.7	48.9	61.1	36.0	54.0	72.0	90.0	28.2	42.4	56.5	70.6	61.4	91.8	122.8	130.0	48.5	72.7	96.9	121.2	92.0	130.0	130.0
54"		27.8	41.8	55.7	69.6	21.7	32.6	43.5	54.3	32.0	48.0	64.0	80.0	25.1	37.6	50.2	62.7	54.6	81.6	109.2	130.0	43.1	64.6	86.2	107.7	81.8	122.7	130.0
60"		25.1	37.6	50.1	62.6	_	29.3	39.1	48.9	28.8	43.2	57.6	72.0	22.6	33.9	45.2	56.5	49.1	73.4	98.3	122.8	38.8	58.2	77.6	96.9	73.6	110.4	130.0
66"		22.8	34.2	45.6	56.9		26.7	35.6	44.4	26.2	39.3	52.4	65.5	20.6	30.9	41.1	51.4	44.7	67.0	89.4	111.7	35.2	52.8	70.4	88.0	66.9	100.4	+
72"		20.9	31.3	41.8	52.2	76.0	24.4	32.6	40.7	24.0	36.0	48.1	130.0	42.7	28.3	37.7	47.1	41.0	130.0	81.9	102.4	32.3	100.0	64.5	80.6	61.3	92.0	122.7
30"		47.3	71.0	94.6	118.3	36.9	55.4	73.9	92.4	54.4	81.6	108.8	<del> </del>	42.7	64.0	85.3	106.7	92.8	130.0	130.0	<del>                                     </del>	73.2	109.9		130.0	130.0	130.0	130.0
36"		39.4	59.2	78.9	98.6	30.8	46.2	61.6 52.8	77.0	45.3	68.0	90.7	113.3	35.6	53.3	71.1	88.9	77.3	115.6	130.0	130.0	61.0	91.6		130.0		-	130.0
42"		33.8	50.7	67.6	84.5	26.4	39.6	52.8	66.0 57.7	38.9	58.3	77.7	97.1	30.5	45.7	61.0	76.2	66.3 58.0	99.0	130.0		52.3 45.8	78.5 68.7	104.6	130.0	99.3	130.0	130.0
48"	108"	29.6	30.4	59.2	73.9	23.1	34.6	46.2	57.7	34.0	51.0	68.0	85.0	26.7	40.0	53.3	66.7	58.0	86.7	116.0	130.0	<del> </del>	68.7	91.6	114.4	86.9		<del> </del>
54"		26.3	39.4	52.6	65.7	20.5	30.8	41.0	51.3	30.2	45.3	60.4	75.6 68.0	23.7	35.6	47.4	59.3	51.6	77.0 69.3	92.8	128.9	40.7	61.0 54.9	73.2	101.7	77.2 69.5	115.9	130.0
60"		23.7	35.5	47.3	59.2	<del>-</del>	27.7	36.9	46.2 42.0	27.2 24.8	40.8 37.1	49.5	68.0	21.3	32.0 29.1	38.9	48.6	46.4	63.3	84.4	105.5	36.6 33.2	49.8	66.5	91.6	63.2	94.8	126.4
66"		21.5	32.3 29.6	39.4	53.8 49.3	<del>  _</del> _	23.1	33.6 30.8	38.5	22.7	34.0	45.4	56.7		26.7	35.6	44.5	38.7	58.0	77.4	96.7	30.5	45.7	60.9	76.1	57.9	86.9	115.9
72"		L	29.0	J9.4	+3.3	L	23.1	50.6	J0.5	22./	J4.U	+0.4	50.7		20.7	55.0	+4.5	L 30.7	30.0	1 / / . 4	30.7	1 30.3	73.7		1		NFXT 4	1

ANCHOR LOAD CAPACITY - PSF

CHART CONTINUES NEXT SHEET

SEE SHEETS 5 AND 8 FOR ANCHOR DESCRIPTION.

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-1227.03

Expiration Date: 04/03/2028

By: Manuel Perez

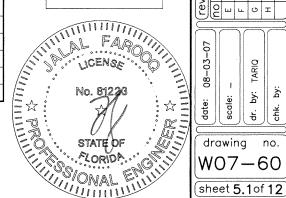
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code NOA-No. 21-0517.02

Expiration Date: 04/03/2023

Miami-Dade Product Control

ANCHORS



(C.A.N. 3538) FAX. (305) 262-6978 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

| SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) | E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 | TEL. (305) 638-5158 | TEL. (305) 638-5158 | EL. (305) 638-5158 | EL. (305) 638-5151 | EAX. (305) 638-5158 | EL. (305) 638-5151 | EAX. (305) 638-5158 | EL. (305) 638-5151 | EL. (305) 638-5158 | EL. (305) 638-5151 | EL. (305) 638-5151 | EL. (305) 638-5151 | EL. (305) 638-5151 | EL. (305) 638-5158 | EL.

dr. by: TARIQ scale:

drawing no.

	ANCHOR LOAD CAPACITY - PSF  EXT.(+) & INT.(-)										ANCI				7 – P	SF												
				Αľ	NCHORS	TYPE	'A'					AN	CHORS	TYPE	'В'					Al	NCHORS	TYPE '	C'			1/4"	MAX.	SHIM
NOMIN	AL DIMS.	3,	/B" SHI	M SPAC	CE	1,	/2" SHI	M SPAC	CE	3,	/8" SH	IM SPAC	CE	1,	/2" SHI	M SPAC	CE	3,	/8" SH	IM SPA	CE	1/	/2" SH	IM SPAC	CE	ANCH	ORS TY	PE 'D'
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A5	A2	A3	A4	A5	B2	В3	B4	B5	B2	В3	B4	B5	C2	С3	C4	C5	C2	C3	C4	C5	D2	D3	D4
30"		46.3	69.4	92.5	115.6	36.1	54.2	72.2	90.3	53.2	79.8	106.3	130.0	41.7	62.6	83.4	104.3	90.7	130.0	130.0	130.0	71.6	107.4	130.0	130.0	130.0	130.0	130.0
36"		38.5	57.8	77.1	96.4	30.1	45.1	60.2	75.2	44.3	66.5	88.6	110.8	34.8	52.1	69.5	86.9	75.6	112.9	130.0	130.0	59.7	89.5	119.3	130.0	113.2	130.0	130.0
42"		33.0	49.6	66.1	82.6	25.8	38.7	51.6	64.5	38.0	57.0	76.0	94.9	29.8	44.7	59.6	74.5	64.8	96.8	129.6	130.0	51.1	76.7	102.3	127.8	97.1	130.0	130.0
48"	110-1/2"	28.9	43.4	57.8	72.3	22.6	33.8	45.1	56.4	33.2	49.8	66.5	83.1	26.1	39.1	52.1	65.2	56.7	84.7	113.4	130.0	44.7	67.1	89.5	111.9	84.9	127.4	130.0
54"	110-1/2	25.7	38.5	51.4	64.2	20.1	30.1	40.1	50.1	29.5	44.3	59.1	73.8	23.2	34.8	46.3	57.9	50.4	75.3	100.8	126.0	39.8	59.7	79.5	99.4	75.5	113.2	130.0
60"		23.1	34.7	46.3	57.8	_	27.1	36.1	45.1	26.6	39.9	53.2	66.5	20.9	31.3	41.7	52.1	45.4	67.8	90.7	113.4	35.8	53.7	71.6	89.5	67.9	101.9	130.0
66"	To Address of the Control of the Con	21.0	31.5	42.0	52.6	_	24.6	32.8	41.0	24.2	36.3	48.4	60.5		28.5	38.0	47.5	41.2	61.9	82.5	103.1	32.5	48.7	65.0	81.2	61.8	92.6	123.5
72"			28.9	38.5	48.2	_	22.6	30.1	37.6	22.2	33.3	44.4	55.5		26.1	34.8	43.5	37.8	56.7	75.6	94.5	29.8	44.7	59.5	74.4	56.6	84.9	113.2
30"		44.8	67.3	89.7	112.1	35.0	52.5	70.0	87.5	51.5	77.3	103.1	128.8	40.4	60.6	80.8	101.1	87.9	130.0	130.0	130.0	69.4	104.1	130.0	130.0	130.0	130.0	130.0
36"		37.4	56.0	74.7	93.4	29.2	43.7	58.3	72.9	42.9	64.4	85.9	107.4	33.7	50.5	67.4	84.2	73.3	109.5	130.0	130.0	57.8	86.7	115.6	130.0	109.8	130.0	130.0
42"		32.0	48.0	64.0	80.1	25.0	37.5	50.0	62.5	36.8	55.2	73.6	92.0	28.9	43.3	57.7	72.2	62.8	93.8	125.6	130.0	49.6	74.3	99.1	123.9	94.1	130.0	130.0
48"	4.4.2	28.0	42.0	56.0	70.1	21.9	32.8	43.7	54.7	32.2	48.3	64.4	80.5	25.3	37.9	50.5	63.2	54.9	82.1	109.9	130.0	43.4	65.1	86.7	108.4	82.3	123.5	130.0
54"	114"	24.9	37.4	49.8	62.3	<del>-</del>	29.2	38.9	48.6	28.6	42.9	57.3	71.6	22.5	33.7	44.9	56.1	48.8	73.0	97.7	122.1	38.5	57.8	77.1	96.4	73.2	109.8	130.0
60"		22.4	33.6	44.8	56.0	_	26.2	35.0	43.7	25.8	38.7	51.5	64.4	20.2	30.3	40.4	50.5	44.0	65.7	87.9	109.9	34.7	52.0	69.4	86.7	65.9	98.8	130.0
66"		20.4	30.6	40.8	50.9		23.9	31.8	39.8	23.5	35.2	46.9	58.6		27.6	36.8	46.0	40.0	60.0	80.0	99.9	31.5	47.2	63.0	78.7	59.9	89.8	119.7
72"			28.0	37.4	46.7	<del>-</del>	21.9	29.2	36.5	21.5	32.3	43.0	53.8	_	25.3	33.7	42.2	36.6	55.0	73.3	91.6	28.9	43.3	57.7	72.1	54.9	82.3	109.8
30"		42.6	63.9	85.2	106.5	33.2	49.9	66.5	83.1	49.0	73.4	97.9	122.4	38.4	57.6	76.8	96.0	83.5	124.8	130.0	130.0	65.9	98.9	130.0	130.0	125.1	130.0	130.0
36"		35.5	53.2	71.0	88.7	27.7	41.6	55.4	69.3	40.8	61.2	81.6	102.0	32.0	48.0	64.0	80.0	69.6	104.0	130.0	130.0	54.9	82.4	109.9	130.0	104.3	130.0	130.0
42"		30.4	45.6	60.8	76.1	23.7	35.6	47.5	59.4	35.0	52.5	69.9	87.4	27.4	41.1	54.9	68.6	59.7	89.1	119.3	130.0	47.1	70.6	94.2	117.7	89.4	130.0	130.0
48"	120"	26.6	39.9	53.2	66.6	20.8	31.2	41.6	52.0	30.6	45.9	61.2	76.5	24.0	36.0	48.0	60.0	52.2	78.0	104.4	130.0	41.2	61.8	82.4	103.0	78.2	117.3	130.0
54"		23.7	35.5	47.3	59.2		27.7	36.9	46.2	27.2	40.8	54.4	68.0	21.3	32.0	42.7	53.3	46.4	69.3	90.0	90.0	36.6	54.9	73.2	90.0	69.5	90.0	90.0
60"		21.3	31.9	42.6	53.2	_	24.9	33.2	41.6	24.5	36.8	49.0	61.3		28.8	38.5	48.1	41.8	62.7	83.6	90.0	32.9	49.3	65.8	82.2	62.6	90.0	90.0
66"		_	29.0	38.7	48.4		22.7	30.2	37.8	22.3	33.4	44.6	55.7	_	26.2	35.0	43.7	38.0	57.0	76.0	90.0	29.9	44.9	59.8	74.8	56.9	85.3	90.0
72"			26.6	35.5	44.4		20.8	27.7	34.6	20.4	30.6	40.9	51.1	_	24.0	32.1	40.1	34.8	52.2	69.6	87.0	27.4	41.1	54.8	68.5	52.1	78.2	90.0
30"		40.6	60.8	81.1	90.0	31.7	47.5	63.3	79.2	46.6	69.9	90.0	90.0	36.6	54.9	73.1	90.0	79.5	90.0	90.0	90.0	62.8	90.0	90.0	90.0	90.0	90.0	90.0
36"		33.8	50.7	67.6	84.5	26.4	39.6	52.8	66.0	38.9	58.3	77.7	90.0	30.5	45.7	61.0	76.2	66.3	90.0	90.0	90.0	52.3	78.5	90.0	90.0	90.0	90.0	90.0
42"		29.0	43.5	57.9	72.4	22.6	33.9	45.2	56.5	33.3	50.0	66.6	83.3	26.1	39.2	52.2	65.3	56.8	84.9	90.0	90.0	44.8	67.3	89.7	90.0	85.1	90.0	90.0
48"	126"	25.4	38.0	50.7	63.4		29.7	39.6	49.5	29.1	43.7	58.3	72.9	22.9	34.3	45.7	57.1	49.7	74.3	90.0	90.0	39.2	58.9	78.5	90.0	74.5	90.0	90.0
54"	.20	22.5	33.8	45.1	56.3		26.4	35.2	44.0	25.9	38.9	51.8	64.8	20.3	30.5	40.6	50.8	44.2	66.0	88.4	90.0	34.9	52.3	69.8	87.2	66.2	90.0	90.0
60"		20.3	30.4	40.6	50.7	_	23.7	31.7	39.6	23.3	35.0	46.7	58.4		27.5	36.6	45.8	39.8	59.7	79.6	90.0	31.3	47.0	62.7	78.3	59.6	89.4	90.0
30"		38.7	58.1	77.4	90.0	30.2	45.3	60.5	75.6	44.5	66.8	89.0	90.0	34.9	52.4	69.8	87.3	75.9	90.0	90.0	90.0	59.9	89.9	90.0	90.0	90.0	90.0	90.0
36"		32.3	48.4	64.5	80.7	25.2	37.8	50.4	63.0	37.1	55.6	74.2	90.0	29.1	43.6	58.2	72.7	63.3	90.0	90.0	90.0	49.9	74.9	90.0	90.0	90.0	90.0	90.0
42"		27.7	41.5	55.3	69.1	21.6	32.4	43.2	54.0	31.8	47.7	63.6	79.5	24.9	37.4	49.9	62.3	54.2	81.0	90.0	90.0	42.8	64.2	85.6	90.0	81.2	90.0	90.0
48"	132"	24.2	36.3	48.4	60.5		28.3	37.8	47.2	27.8	41.7	55.6	69.5	21.8	32.7	43.6	54.5	47.5	70.9	90.0	90.0	37.5	56.2	74.9	90.0	71.1	90.0	90.0
54"		21.5	32.3	43.0	53.8		25.2	33.6	42.0	24.8	37.1	49.5	61.9	_	29.1	38.9	48.6	42.2	53.3	84.4	90.0	33.2	49.8	66.5	83.1	63.2	90.0	90.0
60"		_	29.0	38.7	48.4		22.7	30.2	37.8	22.3	33.4	44.6	55.7	_	26.2	35.0	43.7	38.0	57.0	76.0	90.0	29.9	44.9	59.8	74.8	56.9	85.3	90.0
30"		37.0	55.6	74.1	92.6	28.9	43.4	57.8	72.3	42.6	63.9	85.1	90.0	33.4	50.1	66.8	83.5	72.6	90.0	90.0	90.0	57.3	86.0	90.0	90.0	90.0	90.0	90.0
36"		30.9	46.3	61.7	77.2	24.1	36.1	48.2	60.2	35.5	53.2	71.0	88.7	27.8	41.7	55.7	69.6	60.5	90.0	90.0	90.0	47.8	71.7	90.0	90.0	90.0	90.0	90.0
42"		26.5	39.7	52.9	66.1	20.7	31.0		51.6	30.4	<b>.</b>	<b> </b>		23.9	35.8	47.7	59.6		77.5	+	90.0			81.9				
	138"					20.7	<del> </del>	41.3			45.6	60.8	76.0			<del> </del>	52.2	51.9	<del> </del>	90.0		40.9	61.4	-	90.0	77.7	90.0	90.0
48"		23.1	34.7	46.3	57.9	_	27.1	36.1	45.2	26.6	39.9	53.2	66.5	20.9	31.3	41.7		45.4	67.8	90.0	90.0	35.8	53.7	71.7	89.6	68.0	90.0	90.0
54"		20.6	30.9	41.2	51.4	_	24.1	32.1	40.2	23.7	35.5	47.4	59.2		27.9	37.2	46.5	40.4	60.5	80.7	90.0	31.8	47.7	63.6	79.5	60.4	90.0	90.0
60"		75.5	27.8	37.0	46.3	27.7	21.7	28.9	36.1	21.3	32.0	42.6	53.3	72.0	25.1	33.4	41.8	36.3	54.5	72.7	90.0	28.6	42.9	57.2	71.5	54.4	81.6	90.0
30"		35.5	53.2	71.0	88.7	27.7	41.6	55.4	69.3	40.8	61.2	81.6	90.0	32.0	48.0	64.0	80.0	69.6	90.0	90.0	90.0	54.9	82.4	90.0	90.0	90.0	90.0	90.0
36"		29.6	44.4	59.2	73.9	23.1	34.6	46.2	57.7	34.0	51.0	68.0	85.0	26.7	40.0	53.3	66.7	58.0	86.7	90.0	90.0	45.8	68.7	90.0	90.0	86.9	90.0	90.0
42"	144"	25.4	38.0	50.7	63.4		29.7	39.6	49.5	29.1	43.7	58.3	72.9	22.9	34.3	45.7	57.1	49.7	74.3	90.0	90.0	39.2	58.9	78.5	90.0	74.5	90.0	90.0
48"		22.2	33.3	44.4	55.5		26.0	34.6	43.3	25.5	38.3	51.0	63.8	20.0	30.0	40.0	50.0	43.5	65.0	87.0	90.0	34.3	51.5	68.7	85.8	65.2	90.0	90.0
54"		_	29.6	39.4	49.3	_	23.1	30.8	38.5	22.7	34.0	45.4	56.7		26.7	35.6	44.5	38.7	58.0	77.4	90.0	30.5	45.7	60.9	76.1	57.9	86.9	90.0
60"			26.6	35.5	44.4	_	20.8	27.7	34.6	20.4	30.6	40.9	51.1		24.0	32.1	40.1	34.8	52.2	69.6	87.0	27.4	41.1	54.8	68.5	52.1	78.2	90.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED. SEE SHEET 5 FOR ANCHOR TYPES.



as complying with the Florida Building Code

22-1227.03

21-0517.02

**PRODUCT RENEWED** 

Expiration Date: 04/03/2028

Miami-Dade Product Control

Expiration Date: 04/03/2023

Miami-Dade Product Control

**PRODUCT REVISED** as complying with the Florida Building Code

By: Manuel Perez

NOA-No.

NOA-No.

dr. by: TARIO scale:

W07-60

sheet **5.2** of **12** 

(C.A.N. 3538) FAX. (305) 262-6978 

 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

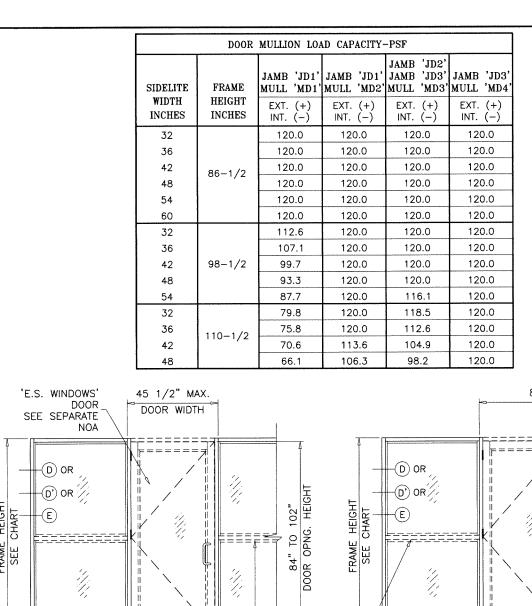
 MIAMI, FLORIDA 33173
 (C.A.N. 3538)

 TEL. (305) 264-8100
 FAX. (305) 262-6978

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

by description
NO CHANGE THIS SHEET
NO CHANGE THIS SHEET
UPDATED TO 2020 FBC
GENERAL REVISION

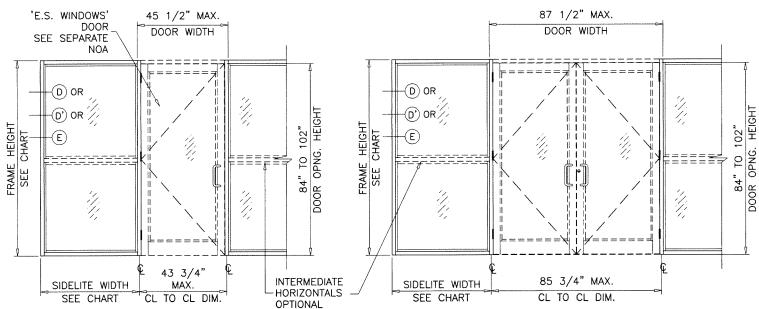
drawing no.



**PRODUCT RENEWED** as complying with the Florida Building Code NOA-No. 22-1227.03

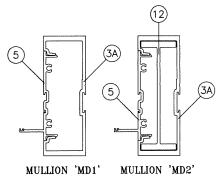
Expiration Date: 04/03/2028

By: Manuel Perez Miami-Dade Product Control



(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		(3) (6) (8) (9) (9)
JAMB 'JD1'	JAMB 'JD2'	JAMB 'JD3'

Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3		Ix IN^4	Sx IN^3
6.570	2.7226	10.6577	3.8057	ALUMINUM	6.570	2.7226
				STEEL	2.7506	1.2224
				TOTAL  x ALUM +  x STL X 2.9	14.5467	



Ix IN <sup>4</sup>	Sx IN^3	Ix IN^4	Sx IN^3
6.7195	2.6757	10.8072	4.4788

(13)
(5) (3A)
MILLION 'MD3'

`3		Ix IN^4	Sx IN^3
8	ALUMINUM	6.7195	2.6757
	STEEL	2.7506	1.224
	TOTAL	14.6962	

5	
14	
MULL	ION 'MD4'

**PRODUCT REVISED** as complying with the Florida Building Code 21-0517.02 NOA-No.

Expiration Date: 04/03/2023

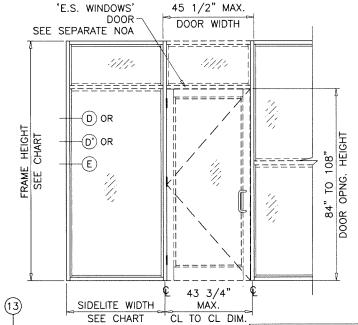
MAY 12 2021

By: Manuel Perez Miami-Dade Product Control

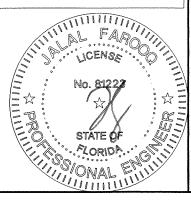
		Ix IN^4	Sx IN^3
٦	ALUMINUM	6.7195	2.6757
	STEEL	3.7533	1.668
	TOTAL Ix ALUM + Ix STL X 2.9	17.6041	

SIDELITE	FRAME	JAMB 'JD1' MULL 'MD1'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'				
WIDTH INCHES	HEIGHT INCHES	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (–)			
32		90.0	90.0	90.0	90.0			
36		90.0	90.0	90.0	90.0			
42	98-1/2	90.0	90.0	90.0	90.0			
48		90.0	90.0	90.0	90.0			
54		87.7	90.0	90.0	90.0			
32		79.8	90.0	90.0	90.0			
36	110-1/2	75.8	90.0	90.0	90.0			
42	110-1/2	70.6	90.0	90.0	90.0			
48		66.1	90.0	90.0	90.0			
32		72.6	90.0	90.0	90.0			
36	114	69.1	90.0	90.0	90.0			
42	114	64.3	90.0	90.0	90.0			
48		60.2	90.0	90.0	90.0			
32		62.3	90.0	90.0	90.0			
36	120	59.2	90.0	90.0	90.0			
42	120	55.2	88.7	89.1	90.0			
48		51.6	83.0	83.4	90.0			
32	0.000		-	**-	90.0			
36	144	_	-		89.8			
42	1 ***	_	-	-	83.6			
48			_	-	78.3			
'E.S. WINDOWS' 45 1/2" MAX.								

DOOR MULLION LOAD CAPACITY-PSF



DOOR-WINDOWALL TRANSITION MULLION



		by description	UPDATED TO 2017 FBC	144 HT. ADDED	UPDATED TO 2020 FBC	NO CHANGE THIS SHEET	
		á					
VI	revisions:	no date	10.20.17	09.28.18	G 11.12.20	H 05.10.21	
	(re)	no	ы	ш	ပ	I	
	$\subseteq$						

(C.A.N. 3538) FAX. (305) 262-6978

 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

(L.M.I.)

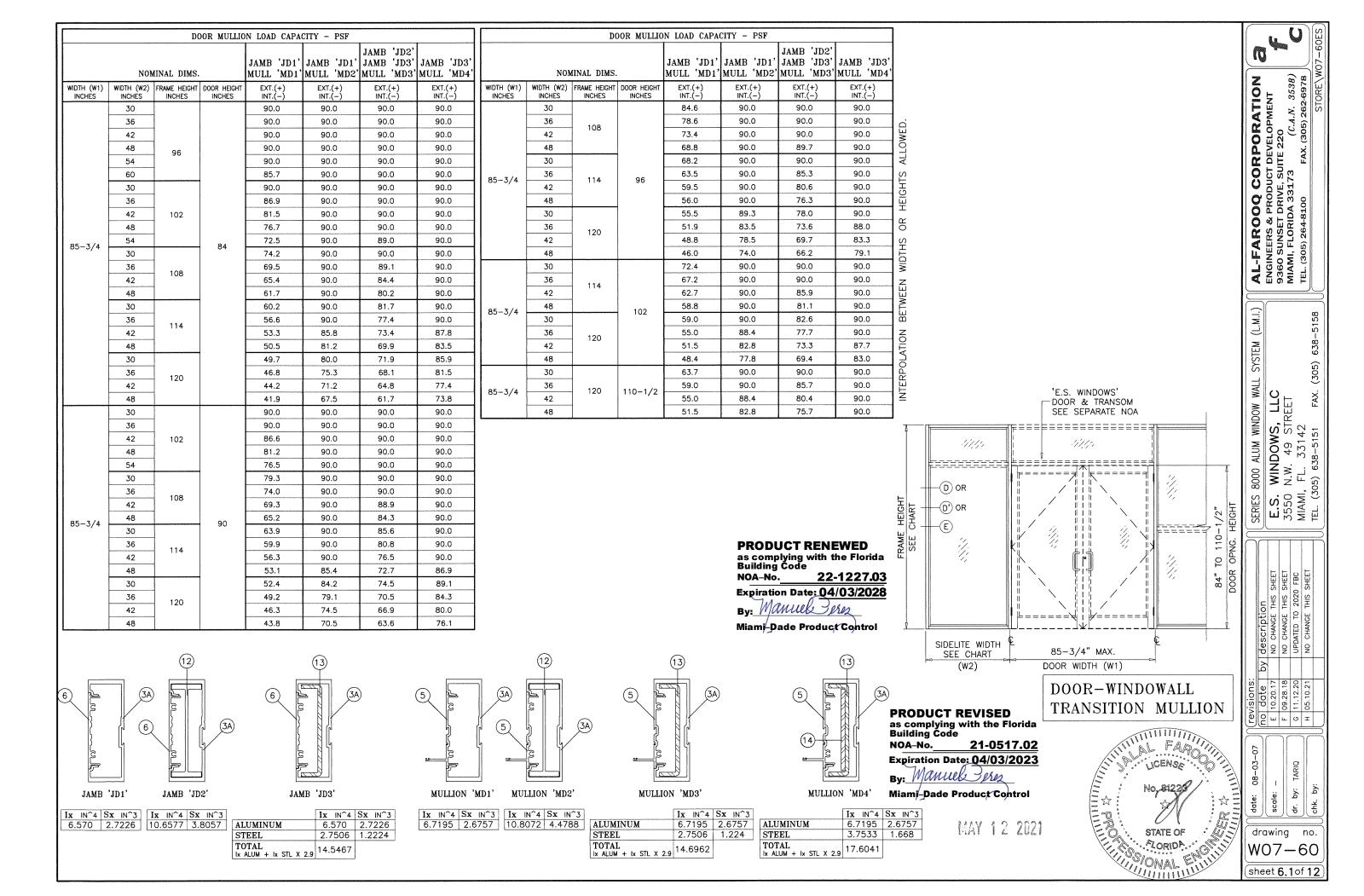
SYSTEM

SERIES 8000 ALUM WINDOW WALL

E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (

-1	<u>ا</u>			
1	=			
	date: 08-03-07	scale: -	dr. by: TARIQ	chk. by:
/	dro	wing	a i	10.

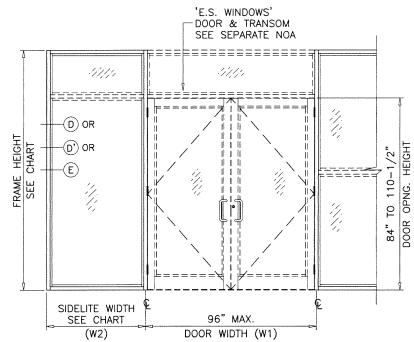
W07-60 sheet 6 of 12



	DOOR MU	LLION LOAD	CAPACITY				
	NOM	(INAL DIMS.		JAMB 'JD3' MULL 'MD4'			
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)			
	30			90.0			
	36			90.0			
	42			90.0			
	48	96		90.0			
	54	30		90.0			
	60			90.0			
	30			90.0			
	36			90.0			
	42	102		90.0			
	48	]		90.0			
0.e	54		84	90.0			
96	30		84	90.0			
	36	100		90.0			
	42	108		90.0			
	48			89.4			
	30			90.0			
	36	114		85.5			
	42	120		81.5			
	48			77.8			
	30			79.1			
	36			75.3			
	42			71.8			
	48						68.7
	30			90.0			
	36			90.0			
	42	102		90.0			
	48	1		90.0			
	54	1		90.0			
	30			90.0			
	36	100		90.0			
	42	108		90.0			
96	48	1	90	90.0			
96	30			90.0			
	36	114		89.5			
	42	114		85.1			
	48	]		81.1			
	30			82.1			
	36	120		78.0			
	42	120		74.3			
		1	I	<del> </del>			

48

		DOOR MUI	LLION LOAD	CAPACITY	- PSF
			JAMB 'JD3' MULL 'MD4'		
	WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)
		30			90.0
		36	108		90.0
		42	100		90.0
		48	90.0		
		30			90.0
	96	36 114 9	96	90.0	
	96	42	''-	30	89.8
		48			85.3
		30			86.1
		36	120		81.6
		42			77.5
		48			73.9
		30			90.0
		36	114		90.0
		42			90.0
	96	48		102	90.0
	30	30		102	90.0
		36	120		86.3
		42	120		81.8
		48			77.7
		30			90.0
	96	36	120	110-1/2	90.0
	30	42	120		90.0
		48			85.1
		30			57.0
	96	36	144	108	54.2
	96	42	1 1 1 1 1	100	51.6
		48			49.2



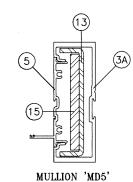
DOOR MULLION LOAD CAPACITY - PSF						
	JAMB 'JD3' MULL 'MD5					
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)		
	30			78.4		
76	36			73.8 69.7		
70	42					
	48			66.1		
	30	144		73.1		
84	36		108	69.1		
O+	42	'	100	65.5		
	48		62.		62.3	
	30		66.		66.3	
96	36			63.0		
	42	60.		60.0		
	48			57.3		

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

| SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) | E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 | TEL. (305) 638-5158 | TEL. (305) 638-5151 | FAX. (305) 638-5158 | EL. (305) 638-5151 | EL. (

144" HEIGHT ADDED UPDATED TO 2020 FBC NO CHANGE THIS SHEET

by description



	Ix IN^4	Sx IN^3
ALUMINUM	6.7195	2.6757
STEEL	4.7506	2.1114
TOTAL	20.3598	

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-1227.03

Expiration Date: 04/03/2028 By: Manuel Peres

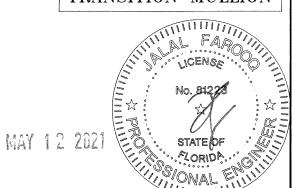
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0517.02

Expiration Date: 04/03/2023 By: Manuel Perez

Miami-Dade Product Control

DOOR-WINDOWATI TRA



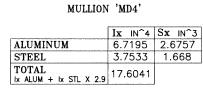
ANSITION MULLION
No. 84228  No. 84228  STATE OF  CORIDA.  CONAL ENTITY  CON

Scale: - Sca	OR-WINDOWALL ANSITION MULLION	evision	date		09.28.1	11.12.2	05.10.2	
	No. 81228	<b>S</b> a	ra /C	wii	ng	dr. by: TARIQ	no.	))

	13)	
6		3A)
	JAMB 'JD3'	

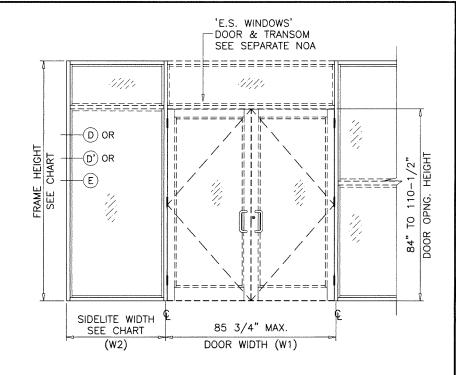
70.9

	Ix IN^4	Sx IN^3
ALUMINUM	6.570	2.7226
STEEL	2.7506	1.2224
TOTAL Ix ALUM + Ix STL X 2.9	14.5467	



	D00	R MULLION	HEAD ANCH	IOR LOAD CAP	ACITY - PSF	· · · · · · · · · · · · · · · · · · ·	
	NOM	MINAL DIMS.		'C4'	'C5'	'C6'	١L
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	WI
	30			89.6	90.0	90.0	
	36			85.0	90.0	90.0	
	42			80.8	90.0	90.0	
	48	96		77.0	90.0	90.0	
	54			73.6	90.0	90.0	
	60	]		70.4	88.0	90.0	<b>]</b>   ε
	30			86.0	90.0	90.0	$\prod$
	36			81.5	90.0	90.0	
	42	102		77.4	90.0	90.0	
	48			73.8	90.0	90.0	
05 7/4	54	1	84	70.4	88.0	90.0	Ш
85-3/4	30		04	82.7	90.0	90.0	
	36	100		78.3	90.0	90.0	
	42	108		74.3	90.0	90.0	
	48			70.8	88.4	90.0	
	30	114		79.7	90.0	90.0	8
	36			75.4	90.0	90.0	
	42			71.5	89.4	90.0	
	48			68.0	85.0	90.0	
	30			76.9	90.0	90.0	11
	36	100		72.6	90.0	90.0	lГ
	42	120		68.9	86.1	90.0	
	48			65.4	81.8	90.0	8
********	30			84.1	90.0	90.0	Ш
	36			79.7	90.0	90.0	
	42	102		75.8	90.0	90.0	
	48			72.3	90.0	90.0	
	54			69.1	86.4	90.0	
	30			80.9	90.0	90.0	
	36	·		76.7	90.0	90.0	
	42	108		72.9	90.0	90.0	1
(.	48	_		69.4	86.8	90.0	
85-3/4	30		90	78.0	90.0	90.0	1
	36	1		73.9	90.0	90.0	1
	42	114		70.1	87.7	90.0	1
	48			66.8	83.5	90.0	1
	30		1	75.3	90.0	90.0	1
	36	1		71.2	89.1	90.0	1
	42	120		67.6	84.5	90.0	1
	48	1		64.3	80.4	90.0	1

	D00	R MULLION	HEAD ANCH	IOR LOAD CAP	ACITY - PSF		]
	NOM	MINAL DIMS.		'C4'	'C5'	'C6'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	
	30	108		79.2	90.0	90.0	
	36			75.1	90.0	90.0	] _:
	42	100		71.5	89.3	90.0	WE
	48			68.1	85.2	90.0	ALLOWED
	30			76.4	90.0	90.0	] ₹
85-3/4	36	114	96	72.4	90.0	90.0	] ည
03-3/4	42	] ''4		68.8	86.0	90.0	IS OR HEIGHTS
	48			65.6	82.0	90.0	
	30	120		73.8	90.0	90.0	
	36			69.9	87.4	90.0	
	42			66.4	83.0	90.0	
	48				63.2	79.0	90.0
	30	114	- 102	74.9	90.0	90.0	INTERPOLATION BETWEEN WIDTHS
	36			71.0	88.8	90.0	
	42			67.6	84.5	90.0	
85-3/4	48			64.4	80.5	90.0	
05 57 +	30			72.4	90.0	90.0	
	36	120		68.6	85.7	90.0	
	42	120		65.2	81.5	90.0	
	48			62.1	77.7	90.0	
	30	120		70.4	88.0	90.0	
85-3/4	36		110-1/2	66.8	83.5	90.0	
05-5/4	42	] '20	110-1/2	63.6	79.5	90.0	ĮΖ
1	48			60.7	75.9	90.0	



**PRODUCT RENEWED** as complying with the Florida Building Code 22-1227.03 NOA-No.

Expiration Date: 04/03/2028 By: Manuel Perez

Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0517.02

Expiration Date: 04/03/2023 By: Manuel Perez

Miami-Dade Product Control

# TRANSITION MULLION ANCHORS

MAY 12 2021

dr. by: drawing no. W07-60

(C.A.N. 3538) FAX. (305) 262-6978

 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

 MIAMI, FLORIDA 33173
 (C.A.N. 3538)

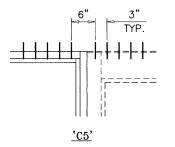
 TEL. (305) 264-8100
 FAX. (305) 262-6978

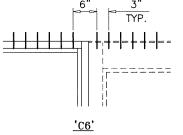
SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.)

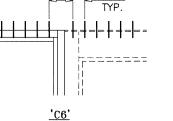
E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (

sheet 7 of 12

3" TYP. <u>'C4'</u>







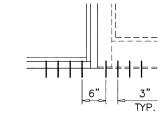
#### ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

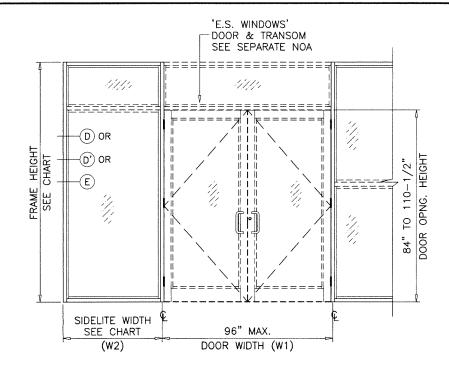
ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.



'C4' AT SILL ALL CASES

	D00	R MULLION	HEAD ANCE	IOR LOAD CAP	ACITY - PSF	T****
NOMINAL DIMS.				'C4'	'C5'	'C6'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
	30			82.4	90.0	90.0
	36			78.5	90.0	90.0
	42			74.9	90.0	90.0
	48	96		71.7	89.6	90.0
	54			68.7	85.8	90.0
	60			65.9	82.4	90.0
	30			79.2	90.0	90.0
	36			75.3	90.0	90.0
	42	102		71.8	89.8	90.0
	48			68.7	85.8	90.0
96	54		84	65.8	82.2	90.0
90	30		04	76.2	90.0	90.0
	36	100		72.4	90.0	90.0
	42	108		69.0	86.3	90.0
	48	]		65.9	82.4	90.0
	30	114		73.4	90.0	90.0
	36			69.8	87.2	90.0
	42			66.4	83.0	90.0
	48			63.4	79.2	90.0
	30			70.9	88.6	90.0
	36			67.3	84.1	90.0
	42	120		64.0	80.0	90.0
	48			61.0	76.3	90.0
	30			77.3	90.0	90.0
	36	1		73.7	90.0	90.0
	42	102		70.3	87.9	90.0
	48			67.3	84.1	90.0
	54	1		64.5	80.6	90.0
	30			74.5	90.0	90.0
	36	1		70.9	88.6	90.0
	42	108		67.6	84.5	90.0
0.0	48	1	00	64.6	80.8	90.0
96	30		90	71.8	89.8	90.0
	36	1		68.3	85.4	90.0
	42	114		65.1	81.4	90.0
	48	1		62.2	77.7	90.0
	30			69.4	86.7	90.0
	36	1		65.9	82.4	90.0
	42	120		62.8	78.5	90.0
	48	1		59.9	74.9	89.9

٦ſ		D00	R MULLION	HEAD ANCH	IOR LOAD CAI	PACITY - PSF		]	
$\prod$		NOM	IINAL DIMS.		'C4'	'C5'	'C6'		
11	WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)		
71		30			72.8	90.0	90.0		
11		36	108		69.4	86.7	90.0		
11		42			66.3	82.8	90.0		
11		48			63.4	79.2	90.0		
11		30			70.3	87.9	90.0		
11	0.0	36	114	0.6	66.9	83.7	90.0		
11	96	42	114	96	63.8	79.8	90.0		
11		48			61.0	76.3	90.0	ן נ	
11		30			68.0	84.9	90.0		
11		36	120		64.6	80.8	90.0	] ;	
11		42	120		61.6	77.0	90.0		
11	48	48	1		58.9	73.6	88.3	1 :	
11		30			68.8	86.1	90.0	Citi	
11		36	1		65.6	82.0	90.0		
11		42	114	102	62.6	78.3	90.0	3	
11	0.0	48			102	59.9	74.9	89.9	
11	96	30				66.6	83.2	90.0	1
11		36	100		63.4	79.2	90.0	F 0	
11		42	120		60.5	75.6	90.0		
11		48			57.8	72.3	86.7	1 1	
11		30			64.7	80.9	90.0		
11		36	120	440 4 (0	61.7	77.1	90.0	ا [	
11	96	42	120	110-1/2	58.9	73.7	88.4		
11		48			56.4	70.5	84.6	1 5	
11		30			57.8	72.3	86.7	TACIFY TO COLLET	
11	0.0	36	1 ,,,		54.9	68.7	82.4	18	
11	96	42	144	108	52.3	65.4	78.5	1 6	
11	48	48	1		49.9	62.4	74.9	1 :	



**PRODUCT RENEWED** as complying with the Florida Building Code

NOA-No. 22-1227.03 Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code NOA-No. 21-0517.02

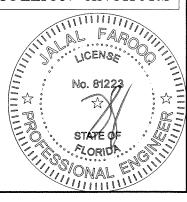
Expiration Date: 04/03/2023

By: Manuel Pres

Miami-Dade Product Control

TRANSITION MULLION ANCHORS

MAY 12 2021



3" TYP.

<u>'C6'</u>

ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

<u>'C5'</u>

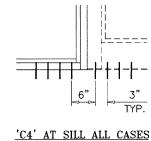
<u>'C4'</u>

C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.



drawing no. W07-60

revisions: no date

dr. by: chk. by:

sheet **7.1** of **12** 

(C.A.N. 3538) FAX. (305) 262-6978

 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

SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.)

E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (

