

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

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/economy

# **NOTICE OF ACCEPTANCE (NOA)**

ESR Impact System LLC 12400 SW 134<sup>th</sup> Street, Suite 8 Miami, FL 33186

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. **24-86D**, titled "Series 8000 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 1.2, 2, 3, 3.1, 4, 4.1, 5, 5.1, 5.2, 6, 6.1, 6.2, 7, 7.1, 8, 9, 9.1, 10, 10.1, 11 and 12 of 12, dated 11/27/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E., bearing the Miami-Dade County Product Control Revision 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 revises NOA No. 24-0321.07 and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

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



NOA No. 24-1219.04 Expiration Date: April 03, 2028 Approval Date: February 13, 2025 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, 1.2, 2, 3, 3.1, 4, 4.1, 5, 5.1, 5.2, 6, 6.1, 6.2, 7, 7.1, 8, 9, 9.1, 10, 10.1, 11 and 12 of 12, dated 08/03/07, with revision **J** dated 03/11/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. (Submitted under NOA No. 24-0321.07)

## B. TESTS

- 1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a series ES-8000 aluminum fixed window, prepared by Blackwater Testing, Inc., Test Report No. **BT-ESW-22-023**, dated 01/12/23, signed and sealed by Michael D. Caldwell, P.E.

# (Submitted under NOA No. 24-0321.07)

- 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) 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 a series ES-8000T/ES-5000 aluminum fixed window mulled to a casement window, prepared by (QAI) Fenestration Testing Laboratory, Inc., Test Report No. **FTL-12112**, dated 06/19/20 with revision #1 dated 08/11/20, signed and sealed by Idalmis Ortega, P.E.

## (Submitted under NOA No. 24-0321.07)

- 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) 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)

Manuel Perez, P.E. Product Control Examiner

NOA No. 24-1219.04

## 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) 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)

- 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 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)

- 6. 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)

Manuel Perez, P.E. Product Control Examiner NOA No. 24-1219.04

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- B. TESTS (CONTINUED)
  - 7. 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 8<sup>th</sup> Edition (2023), dated 03/15/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

(Submitted under NOA No. 24-0321.07)

2. Glazing complies with ASTM E1300-09

## D. QUALITY ASSURANCE

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

## E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 23-0717.30 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 08/31/23, expiring on 07/04/28.
- 2. Notice of Acceptance No. 24-0205.28 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 03/21/24, expiring on 07/08/29.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 24-1219.04

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)

#### F. STATEMENTS

1. Statement letter of conformance, complying with FBC 8<sup>th</sup> Edition (2023) and of no financial interest, dated March 15, 2024, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

Submitted under NOA No. 24-0321.07)

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. 23-0724.11, issued to E.S. Windows, LLC for their Series "ES-8000" Aluminum Window Wall System – L.M.I., approved on 09/14/23 and expiring on 04/03/28.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 24-1219.04

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. **24-86D**, titled "Series 8000 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 1.2, 2, 3, 3.1, 4, 4.1, 5, 5.1, 5.2, 6, 6.1, 6.2, 7, 7.1, 8, 9, 9.1, 10, 10.1, 11 and 12 of 12, dated 11/27/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

#### 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. 23-0717.30 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 08/31/23, expiring on 07/04/28.
- 2. Notice of Acceptance No. 24-0205.28 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 03/21/24, expiring on 07/08/29.

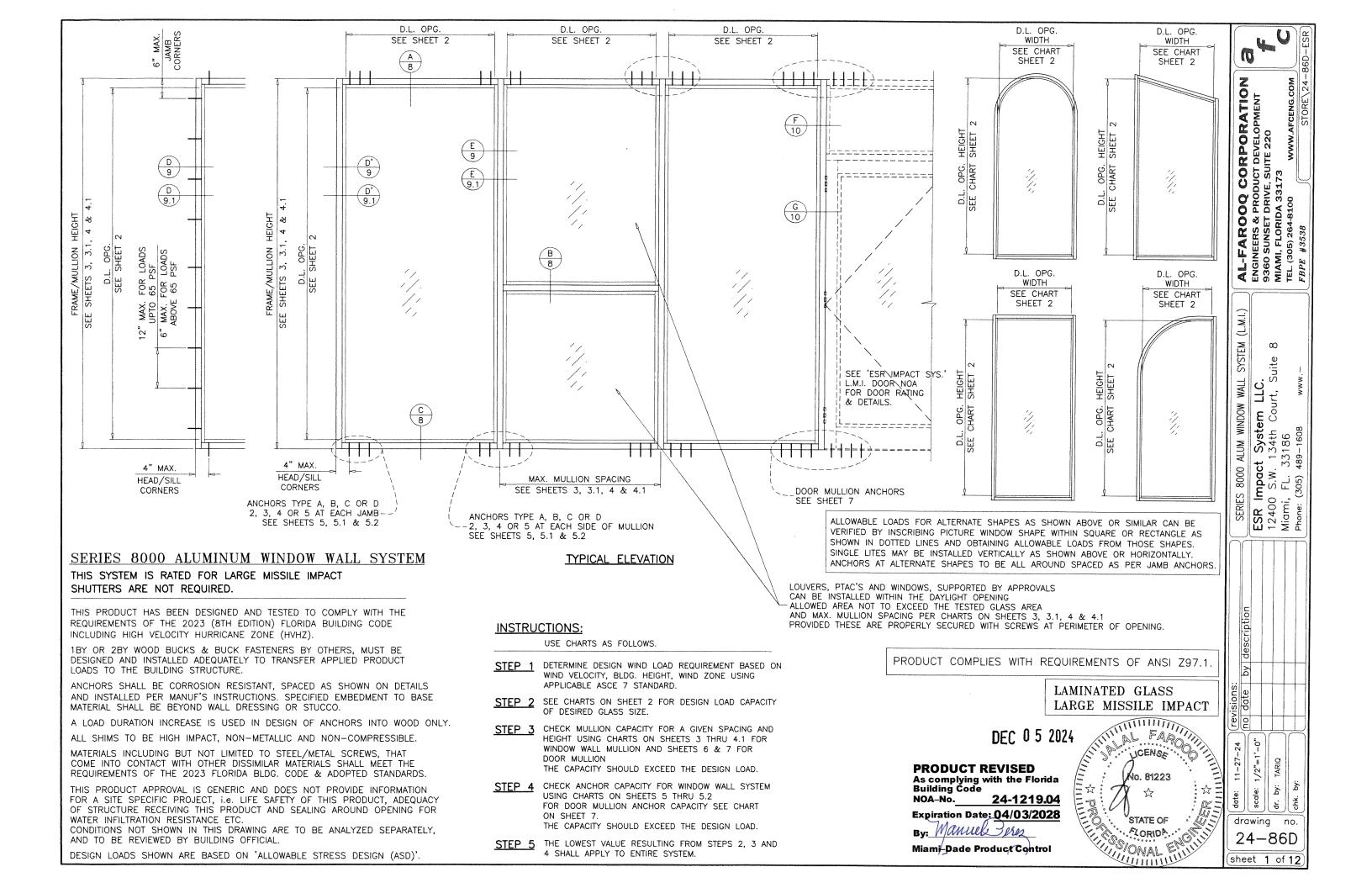
### F. STATEMENTS

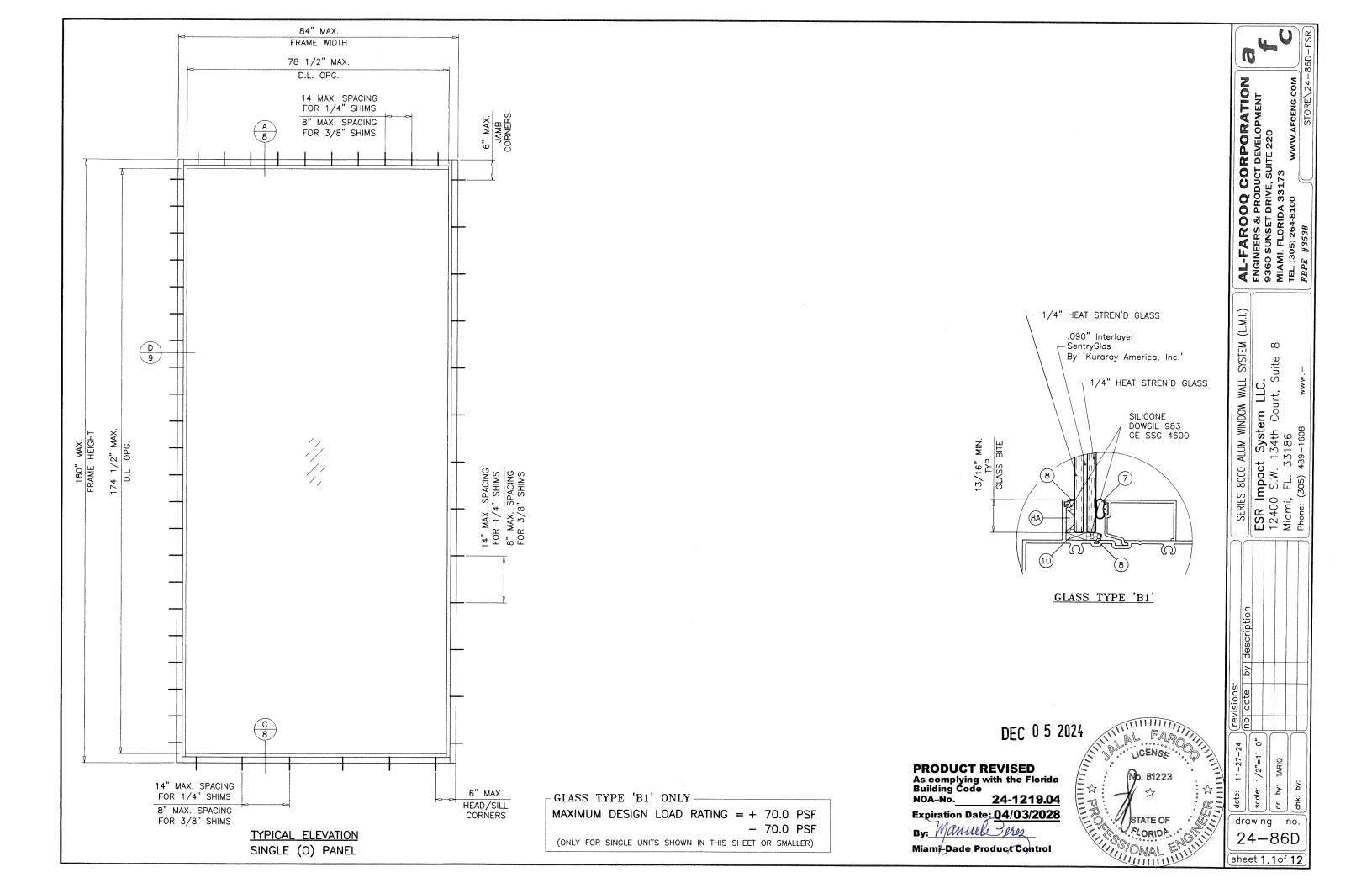
- 1. Statement letter of conformance, complying with **FBC 8<sup>th</sup> Edition (2023)** and of no financial interest, dated November 26, 2024, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Distributor Agreement between Energia Solar, S.A., Barranquilla, Columbia, S.A. and ESR Impact System LLC, Miami, Florida, dated 01/22/25, signed by Ms. Adrea Zanbrano, General Counsel and Raul Losada, President, respectively on behalf of the companies.
- 3. Private Labeling Agreement document in conformance to Product Control guidelines.

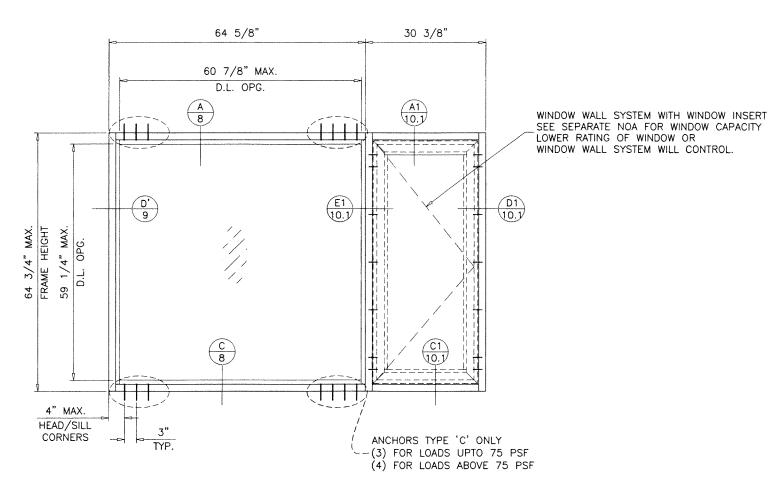
## G. OTHERS

1. Notice of Acceptance No. **24-0321.07**, issued to E.S. Windows, LLC for their Series "ES-8000" Aluminum Window Wall System – L.M.I., approved on 06/06/24 and expiring on 04/03/28.

Manuel Perez, P.E. Product Control Examiner NOA No. 24-1219.04







GLASS TYPE 'A' -MAXIMUM DESIGN LOAD RATING = + 75.0 PSF - 75.0 PSF (ONLY FOR SINGLE UNITS SHOWN IN THIS SHEET)

GLASS TYPE 'B' -MAXIMUM DESIGN LOAD RATING = + 78.0 PSF - 114.0 PSF (ONLY FOR SINGLE UNITS SHOWN IN THIS SHEET)

DEC 0 5 202

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control

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	CONAL EN	

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538 SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) ESR Impact System LLC. 12400 S.W. 134th Court, Suite Miami, FL. 33186 Phone: (305) 489–1608 www.–

revisions:
no date by description scale: 1/2"=1"-0"

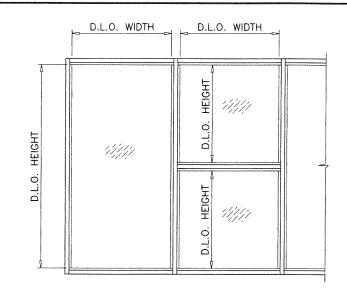
dr. by: chk. by: drawing no. 24-86D

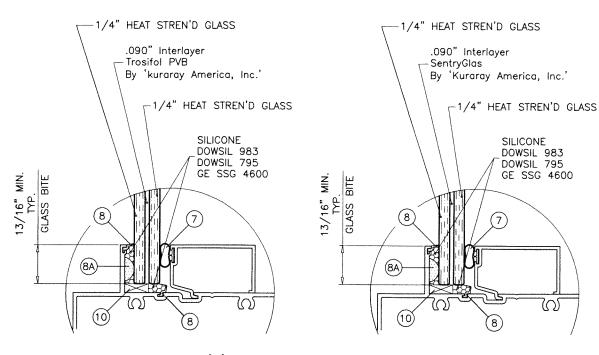
sheet **1.2** of **12** 

	GLASS LOAD	D CAPACITY - 1	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"	0.4.4.67	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"			58.3
28"		80.0	130.0
32"		80.0	130.0
36"		80.0	130.0
40"	96-1/2"	80.0	130.0
44-1/4"	.,2	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"		<del></del>	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"	80.0	130.0
48"		62.2	70.0
54-1/2"		56.0	70.0
60-1/2"		_	63.6
66-1/2"			58.3

	gr			
_		GLASS LOAI	CAPACITY - I	
B'	NOMIN	AL DIMS.	GLASS TYPE 'A'	
	D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
	28"		80.0	130.0
	32"	AMPROPAGA AND AND AND AND AND AND AND AND AND AN	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"		62.2	90.0
	50"	120-1/2"	-	90.0
	54-1/2"		_	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
7	48-1/2"	120-1/2	_	70.0
	54-1/2"			70.0
$\Box$	40"		70.0	90.0
	42-1/4"		70.0	90.0
	44-1/4"		****	90.0
	46"	132-1/2"	-	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"	138-1/2"		90.0
	48-1/2"	130-1/2		70.0
	54-1/2"			70.0
1				

NOTE: INTERPOLATION BETWEEN WIDTHS ALLOWED.





GLASS TYPE 'A'

GLASS TYPE 'B'

# **GLAZING OPTIONS**

PRODUCT REVISED
As complying with the Florida
Building Code NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control

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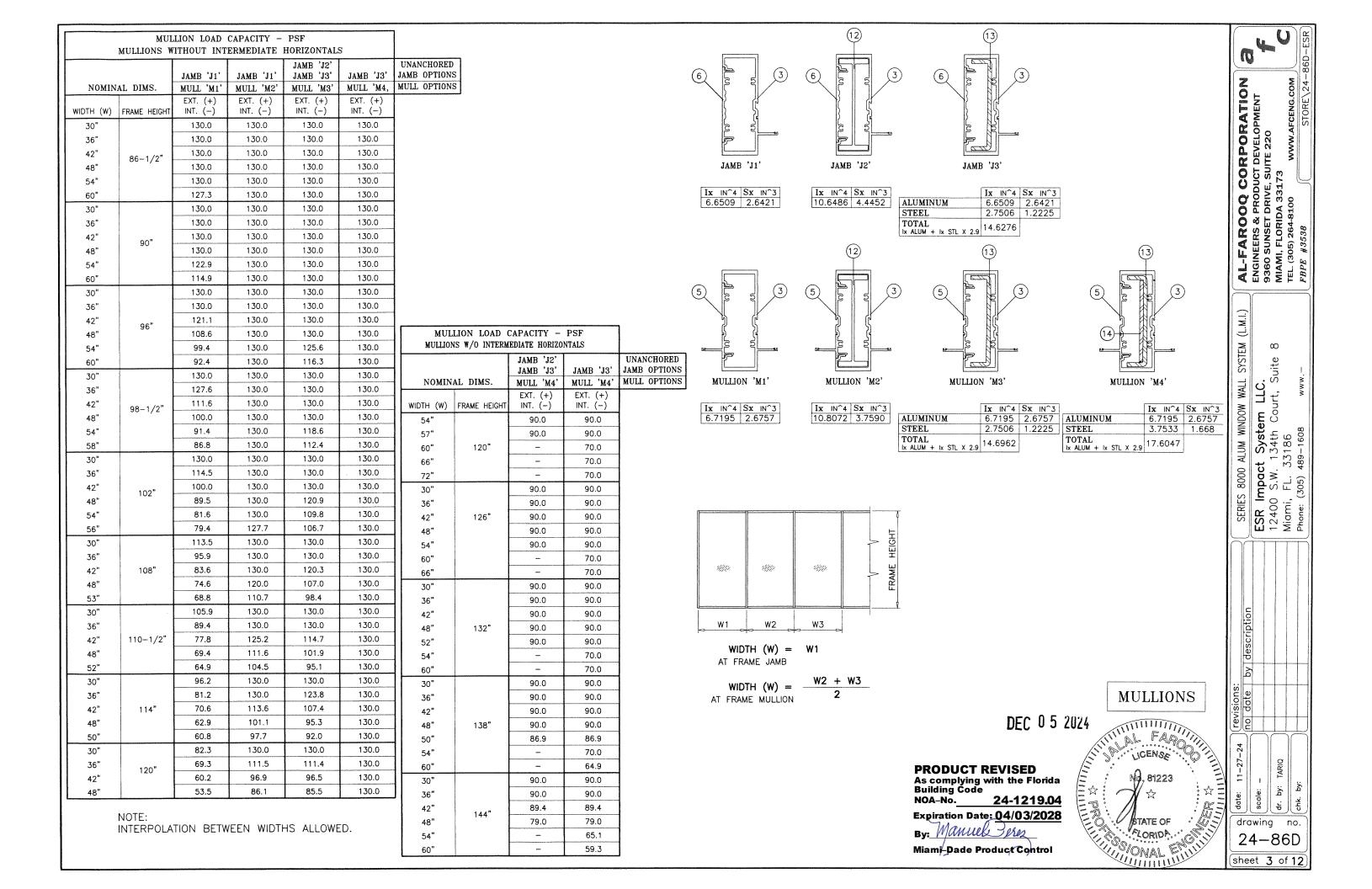
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538 SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) ESR Impact System LLC. 12400 S.W. 134th Court, Suite Miami, FL. 33186 Phone: (305) 489–1608 www.revisions: no date by description

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

GLASS

dr. by: TARIQ chk. by: drawing no. 24-86D sheet 2 of 12

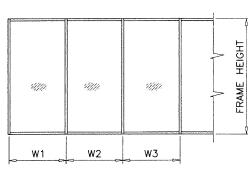
scale: 1/2"



	LLION LOAD WITHOUT INT	CAPACITY - ERMEDIATE I					
	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"	00 1 (0"	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"	90"	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				
36"		60.0	70.0				
42"	96"	60.0	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 70.0 70.0				
30"		60.0					
36"		60.0	70.0				
42" 48"	102"	59.7 53.2	70.0				
40 54"		48.3	70.0				
30"	<del>                                     </del>	60.0	70.0				
36"		60.0	70.0				
42"		52.6	70.0				
48"	108"	46.8	70.0				
54"		was	70.0				
60"			70.0				
30"		60.0	70.0				
36"		57.1	70.0				
42"	110-1/2"	49.7	70.0				
48"	110-1/2"	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"	''7	40.1	70.0				
54"		-	70.0				
30"		52.5	70.0				
36"		44.3	70.0				
42"	120"	38.5	70.0				
48"		34.2	66.7				
54"			60.4				

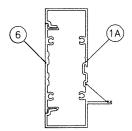
	MULLION LOAD CAPACITY - PSF
ı	MULLIONS WITHOUT INTERMEDIATE HORIZONTALS

1				
		JAMB 'J1A'	JAMB 'J1A'	UNANCHORED JAMB OPTIONS
NOMINAL	NOMINAL DIMS.		MULL 'M2A'	MULL OPTIONS
WIDTH (W) F	RAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	met Park With Middle Handwood and community and construction and and
30"		<del>-</del>	70.0	
36"		_	70.0	
42"	126"	_	64.6	
48"	120		57.3	
54"			51.8	
30"		_	70.0	
36"		****	64.5	
42"	132"	Ann	55.9	
48"	- 49.6		49.6	
52"			46.2	
30"			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	



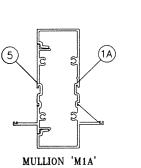
WIDTH (W) = W1AT FRAME JAMB

WIDTH (W) = 
$$\frac{\text{W2} + \text{W3}}{2}$$
AT FRAME MULLION

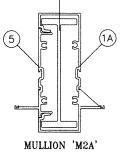


JAMB 'J1A'

Ix IN^4 Sx IN^3 4.1316 1.6902



Ix IN^4 Sx IN^3 4.2902 1.7239



 Ix
 IN^4
 Sx
 IN^3

 8.3779
 3.527

DEC 0 5 2024

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pro

Miami-Dade Product Control

MULLIONS No. 81223

STATE OF

VICENSE

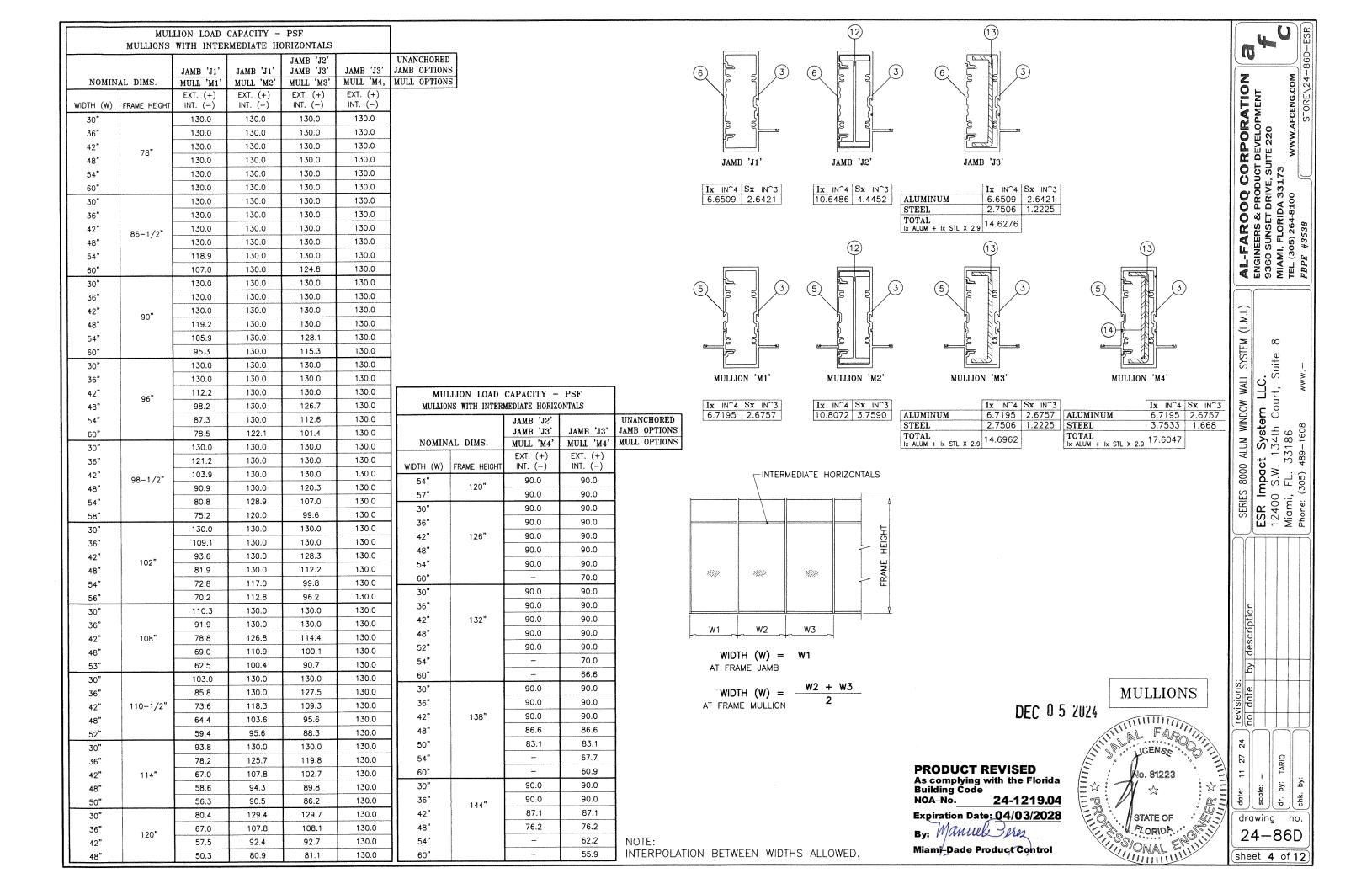
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538 | SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) | ESR Impact System LLC. | 12400 S.W. 134th Court, Suite 8 | Miami, FL. 33186 | Phone: (305) 489-1608 | www.-

by description revisions: no date dr. by: chk. by: date:

drawing

24-86D sheet **3.1**of **12** 

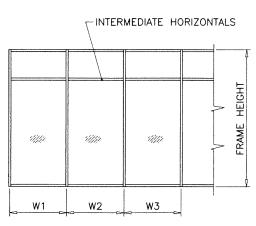
NOTE: INTERPOLATION BETWEEN WIDTHS ALLOWED.



	LION LOAD WITH INTER					
NOMIN	AL DIMS.	JAMB 'J1A' MULL 'M1A'	JAMB 'J1A' MULL 'M2A'			
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (-)			
30"	TIVAME TEIOTT	60.0	70.0			
36"		60.0	70.0			
42"		60.0	70.0			
48"	86-1/2"	60.0				
54"		60.0	70.0			
60"		55.9	70.0			
30"		60.0	70.0			
36"		60.0	70.0			
42"	90"	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"	96"	60.0	70.0			
48"		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"	98-1/2"	60.0	70.0			
48"		53.2	70.0			
54"		47.2	70.0			
30"	60.0		70.0			
36"		60.0	70.0			
42" 48"	102"	56.4 49.4	70.0 70.0			
40 54"·		43.9	70.0			
30"		60.0	70.0			
36"		58.4	70.0			
42"	-	50.0	70.0 70.0			
48"	108"	43.8				
54"			70.0			
60"			70.0			
30"		60.0	70.0			
36"		54.8	70.0			
42"	110-1/2"	47.0	70.0			
48"	''-	41.1	70.0			
54"			70.0			
60"			70.0			
30"		59.9	70.0			
36"		49.9	70.0			
42"	114"	42.8	70.0			
48"		37.4	70.0			
54"			70.0			
30"		51.4	70.0			
36"		42.8	70.0			
42" 48"	120"	36.7 32.1	70.0 66.7			
48 54"		JZ.1 _				
J4	1		60.4 57.8			

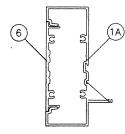
-			MANAGEMENT OF THE PARTY OF THE		
	MULLION	LOAD	CAPACITY		PSF
ı	MULLIONS WITH	INTE	RMEDIATE	но	RIZONTALS

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"	152		49.6	
52"		_	46.2	
30"		<del>-</del>	67.1	
36"			56.3	
42"	138"	••••	48.8	
48"	150	_	43.2	
50"		-	41.6	
30"		<del>-</del>	58.9	
36"	144"		49.5	
42"	177		42.8	
48"			37.8	



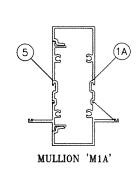
WIDTH (W) = W1 AT FRAME JAMB

WIDTH (W) = 
$$\frac{\text{W2 + W3}}{2}$$

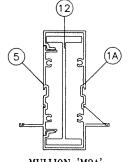


JAMB 'J1A'

Ιx	IN^4	Sx	IN^3
4.1	316	1.6	5902







MULLION 'M2A'

Ix IN^4	Sx 1N^3
8.3779	3.527

MULLIONS

DEC 0 5 2024

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control

STATE OF ALORIDA STATE

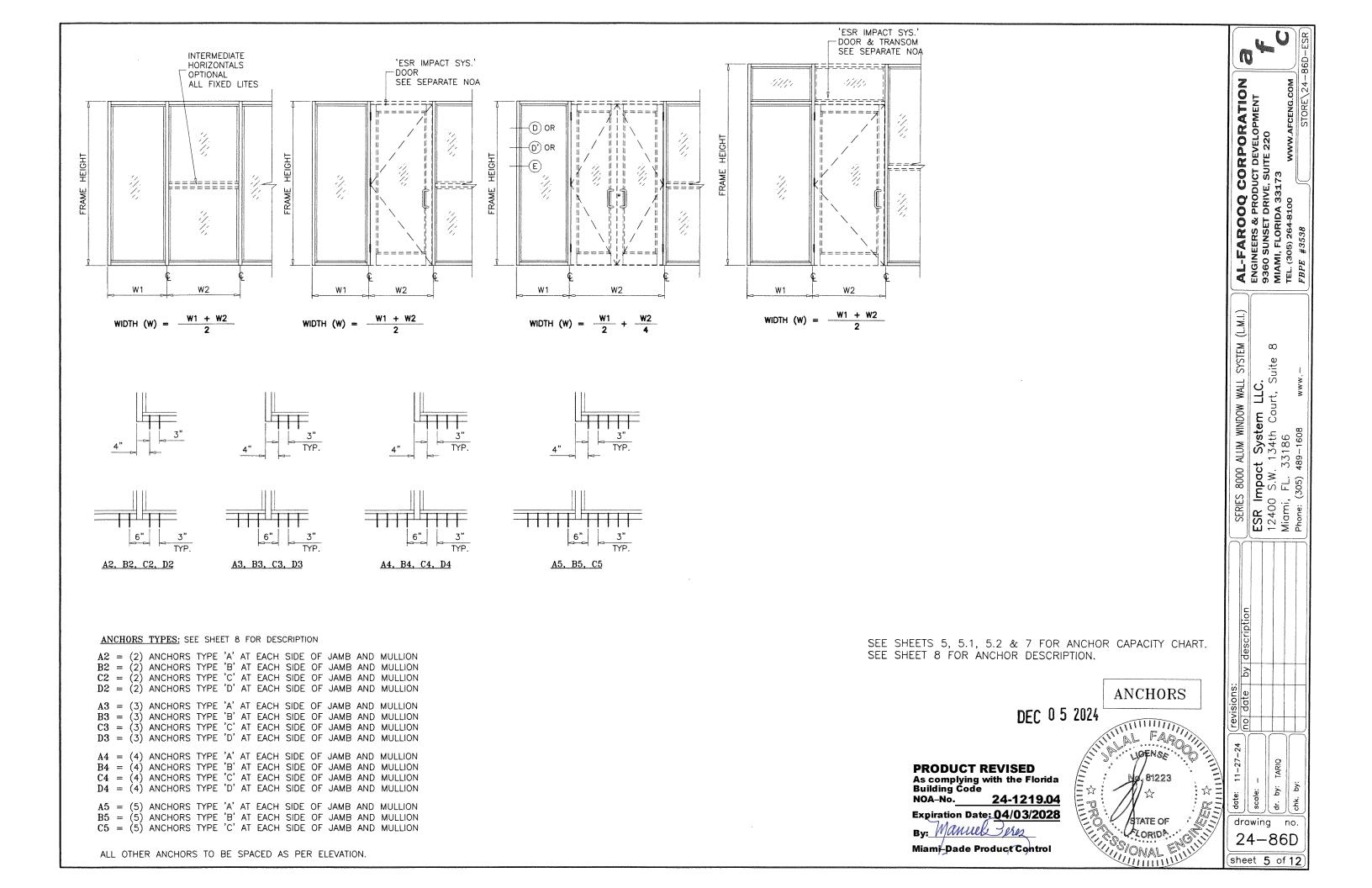
by: 유 | 유 | drawing no.

24-86D sheet **4.1**of **12** 

NOTE: INTERPOLATION BETWEEN WIDTHS ALLOWED.

SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) ESR Impact System LLC. 12400 S.W. 134th Court, Suite 8 Miami, FL. 33186 Phone: (305) 489–1608 www.– revisions: no date by description

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



NOMINAL DIMS.  WIDTH (W) FRAME HEID  30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 98-1/2"	IGHT A2 59. 49.2	1 88.6 2 73.9 2 63.3 9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0			TYPE 4 A2 46.1 38.4 32.9 28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	A3 69.2 57.7 49.4 43.2 38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	A4 92.2 76.9 65.9 57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	E A5 115.3 96.1 82.4 72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3 61.6	3, B2 67.9 56.6 48.5 42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6 40.8	/8" SHI B3 101.9 84.9 72.8 63.7 56.6 50.9 46.4 42.5 97.9 81.6 69.9	AN SPACE B4 130.0 113.2 97.0 84.9 75.5 67.9 61.8 56.7 130.0 108.8	(+) & 1 ICHORS E B5 130.0 130.0 121.3 106.1 94.3 84.9 77.3 70.8 130.0 130.0	TYPE	B' /2" SHI  B3  79.9 66.6 57.1 49.9 44.4 40.0 36.4 33.4 76.8	M SPAC B4 106.5 88.8 76.1 66.6 59.2 53.3 48.5 44.5	B5 130.0 111.0 95.1 83.2 74.0 66.6 60.6	3/ C2 115.9 96.6 82.8 72.4 64.4 57.9 52.7	78" SHI C3 130.0 130.0 123.7 108.2 96.2 86.6 79.0	M SPAC C4 130.0 130.0 130.0 130.0 128.7 115.9	CHORS E C5 130.0 130.0 130.0 130.0 130.0 130.0 130.0 130.0 120.7			IM SPAC C4 130.0 130.0 130.0 114.3 101.6 91.4 83.0 76.1	C5 130.0 130.0 130.0 130.0 127.0 114.3 103.7 95.1	ANCHO D2 130.0 130.0 124.0 108.5 96.4 86.8 78.9 72.3	MAX. S DRS TYI  D3  130.0  130.0  130.0  130.0  130.0  130.0  130.0  130.0  130.0  130.0  130.0	
WIDTH (W) FRAME HER 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 96"	1GHT A2 59. 49.2 36.9 22" 36.9 24.6 26.9 24.6 35.1 40.6 35.1 28.6 25.8 23.7 44.6 38.6 33.3	A3 1 88.6 2 73.9 2 63.3 9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	M SPAC A4 118.2 98.5 84.4 73.9 65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	E A5 130.0 123.1 105.5 92.3 82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	1/A2 46.1 38.4 32.9 28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	/2" SHII  A3  69.2  57.7  49.4  43.2  38.4  34.6  31.4  28.8  66.5  55.4  47.5  41.6  36.9  33.2	A4 92.2 76.9 65.9 57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	A5 115.3 96.1 82.4 72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	B2 67.9 56.6 48.5 42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6	B3 101.9 84.9 72.8 63.7 56.6 50.9 46.4 42.5 97.9 81.6	B4 130.0 113.2 97.0 84.9 75.5 67.9 61.8 56.7 130.0	B5 130.0 130.0 121.3 106.1 94.3 84.9 77.3 70.8 130.0	B2 53.3 44.4 38.1 33.3 29.6 26.6 24.3 22.2	B3 79.9 66.6 57.1 49.9 44.4 40.0 36.4 33.4	B4 106.5 88.8 76.1 66.6 59.2 53.3 48.5	B5 130.0 111.0 95.1 83.2 74.0 66.6 60.6	C2 115.9 96.6 82.8 72.4 64.4 57.9	C3 130.0 130.0 123.7 108.2 96.2 86.6	C4 130.0 130.0 130.0 130.0 128.7 115.9 105.4	C5 130.0 130.0 130.0 130.0 130.0 130.0 130.0	C2 91.4 76.2 65.3 57.2 50.8 45.7 41.5	C3 130.0 114.3 98.0 85.7 76.2 68.6 62.2	C4 130.0 130.0 130.0 114.3 101.6 91.4 83.0	C5 130.0 130.0 130.0 130.0 127.0 114.3 103.7	D2 130.0 130.0 124.0 108.5 96.4 86.8 78.9 72.3	D3 130.0 130.0 130.0 130.0 130.0 130.0 130.0 118.3 108.5	D4 130.0 130.0 130.0 130.0 130.0 130.0 130.0
30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2"	59. 49.2 36.9 29.5 24.6 56.8 47.3 40.6 35.8 23.3 44.4 38.6 33.3	1 88.6 2 73.9 2 63.3 9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	118.2 98.5 84.4 73.9 65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	130.0 123.1 105.5 92.3 82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	46.1 38.4 32.9 28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	69.2 57.7 49.4 43.2 38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	92.2 76.9 65.9 57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	115.3 96.1 82.4 72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	67.9 56.6 48.5 42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6	101.9 84.9 72.8 63.7 56.6 50.9 46.4 42.5 97.9 81.6	130.0 113.2 97.0 84.9 75.5 67.9 61.8 56.7 130.0	130.0 130.0 121.3 106.1 94.3 84.9 77.3 70.8 130.0	53.3 44.4 38.1 33.3 29.6 26.6 24.3 22.2	79.9 66.6 57.1 49.9 44.4 40.0 36.4 33.4	106.5 88.8 76.1 66.6 59.2 53.3 48.5	130.0 111.0 95.1 83.2 74.0 66.6 60.6	115.9 96.6 82.8 72.4 64.4 57.9	130.0 130.0 123.7 108.2 96.2 86.6	130.0 130.0 130.0 130.0 128.7 115.9 105.4	130.0 130.0 130.0 130.0 130.0 130.0 130.0	91.4 76.2 65.3 57.2 50.8 45.7 41.5	130.0 114.3 98.0 85.7 76.2 68.6 62.2	130.0 130.0 130.0 114.3 101.6 91.4 83.0	130.0 130.0 130.0 130.0 127.0 114.3 103.7	130.0 130.0 124.0 108.5 96.4 86.8 78.9 72.3	130.0 130.0 130.0 130.0 130.0 130.0 118.3 108.5	130.0 130.0 130.0 130.0 130.0 130.0 130.0
36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2"	49.2 42.2 36.8 29.5 26.9 24.6 47.3 40.6 35.8 25.8 23.3 44.4 38.6 33.3	2 73.9 2 63.3 9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	98.5 84.4 73.9 65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	123.1 105.5 92.3 82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	38.4 32.9 28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	57.7 49.4 43.2 38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	76.9 65.9 57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	96.1 82.4 72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	56.6 48.5 42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6	84.9 72.8 63.7 56.6 50.9 46.4 42.5 97.9 81.6	97.0 84.9 75.5 67.9 61.8 56.7 130.0	130.0 121.3 106.1 94.3 84.9 77.3 70.8 130.0	44.4 38.1 33.3 29.6 26.6 24.3 22.2	66.6 57.1 49.9 44.4 40.0 36.4 33.4	88.8 76.1 66.6 59.2 53.3 48.5	95.1 83.2 74.0 66.6 60.6	96.6 82.8 72.4 64.4 57.9	130.0 123.7 108.2 96.2 86.6	130.0 130.0 130.0 128.7 115.9 105.4	130.0 130.0 130.0 130.0 130.0 130.0	76.2 65.3 57.2 50.8 45.7 41.5	114.3 98.0 85.7 76.2 68.6 62.2	130.0 130.0 114.3 101.6 91.4 83.0	130.0 130.0 130.0 127.0 114.3 103.7	130.0 124.0 108.5 96.4 86.8 78.9 72.3	130.0 130.0 130.0 130.0 130.0 118.3 108.5	130.0 130.0 130.0 130.0 130.0 130.0
42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	42.2 36.9 29.5 24.6 56.8 47 40.6 35.5 28.4 25.8 23 44.4 38.6 33	2 63.3 9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	84.4 73.9 65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	105.5 92.3 82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	32.9 28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	49.4 43.2 38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	65.9 57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	82.4 72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	48.5 42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6	72.8 63.7 56.6 50.9 46.4 42.5 97.9 81.6	97.0 84.9 75.5 67.9 61.8 56.7 130.0	121.3 106.1 94.3 84.9 77.3 70.8 130.0	38.1 33.3 29.6 26.6 24.3 22.2	57.1 49.9 44.4 40.0 36.4 33.4	76.1 66.6 59.2 53.3 48.5	95.1 83.2 74.0 66.6 60.6	82.8 72.4 64.4 57.9	123.7 108.2 96.2 86.6	130.0 130.0 128.7 115.9 105.4	130.0 130.0 130.0 130.0 130.0	65.3 57.2 50.8 45.7 41.5	98.0 85.7 76.2 68.6 62.2	130.0 114.3 101.6 91.4 83.0	130.0 130.0 127.0 114.3 103.7	124.0 108.5 96.4 86.8 78.9 72.3	130.0 130.0 130.0 130.0 118.3 108.5	130.0 130.0 130.0 130.0 130.0
48" 86-1/2 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	2" 36.9 32.8 29.5 24.6 56.8 47 40.6 35.5 28.6 25.8 23.7 44.6 38.6 33.3	9 55.4 8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	73.9 65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	92.3 82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	28.8 25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	43.2 38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	57.7 51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	72.1 64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	42.5 37.7 34.0 30.9 28.3 65.3 54.4 46.6	63.7 56.6 50.9 46.4 42.5 97.9 81.6	84.9 75.5 67.9 61.8 56.7 130.0 108.8	106.1 94.3 84.9 77.3 70.8 130.0	33.3 29.6 26.6 24.3 22.2	49.9 44.4 40.0 36.4 33.4	66.6 59.2 53.3 48.5	83.2 74.0 66.6 60.6	72.4 64.4 57.9	108.2 96.2 86.6	130.0 128.7 115.9 105.4	130.0 130.0 130.0 130.0	57.2 50.8 45.7 41.5	85.7 76.2 68.6 62.2	114.3 101.6 91.4 83.0	130.0 127.0 114.3 103.7	108.5 96.4 86.8 78.9 72.3	130.0 130.0 130.0 118.3 108.5	130.0 130.0 130.0 130.0
54" 60" 66" 72" 30" 36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 96"	2" 32.8 29.5 26.9 24.6 56.8 47.3 40.6 35.5 28.6 23.7 53.3 44.6 38.0 33.3	8 49.2 5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	65.7 59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	82.1 73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	25.6 23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	38.4 34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	51.2 46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	64.1 57.7 52.4 48.0 110.8 92.4 79.2 69.3	37.7 34.0 30.9 28.3 65.3 54.4 46.6	56.6 50.9 46.4 42.5 97.9 81.6	75.5 67.9 61.8 56.7 130.0 108.8	94.3 84.9 77.3 70.8 130.0	29.6 26.6 24.3 22.2	44.4 40.0 36.4 33.4	59.2 53.3 48.5	74.0 66.6 60.6	64.4 57.9	96.2 86.6	128.7 115.9 105.4	130.0 130.0 130.0	50.8 45.7 41.5	76.2 68.6 62.2	101.6 91.4 83.0	127.0 114.3 103.7	96.4 86.8 78.9 72.3	130.0 130.0 118.3 108.5	130.0 130.0 130.0
54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2"	32.8 29.5 24.6 56.8 47 40.6 35.5 28.4 25.8 23.7 44.4 38.6 33	5 44.3 9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	59.1 53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	73.9 67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	23.1 21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	34.6 31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	46.1 41.9 38.4 88.7 73.9 63.3 55.4 49.3	57.7 52.4 48.0 110.8 92.4 79.2 69.3	34.0 30.9 28.3 65.3 54.4 46.6	50.9 46.4 42.5 97.9 81.6	67.9 61.8 56.7 130.0 108.8	84.9 77.3 70.8 130.0	26.6 24.3 22.2	40.0 36.4 33.4	53.3 48.5	66.6 60.6	57.9	86.6	115.9 105.4	130.0 130.0	45.7 41.5	68.6 62.2	91.4 83.0	114.3 103.7	86.8 78.9 72.3	130.0 118.3 108.5	130.0
66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2"	26.9 24.6 56.8 47 40.6 35.9 21.9 25.8 23 44 38.6 33	9 40.3 6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	53.7 49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	67.1 61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	21.0 - 44.3 36.9 31.7 27.7 24.6 22.2 20.2	31.4 28.8 66.5 55.4 47.5 41.6 36.9 33.2	41.9 38.4 88.7 73.9 63.3 55.4 49.3	52.4 48.0 110.8 92.4 79.2 69.3	30.9 28.3 65.3 54.4 46.6	46.4 42.5 97.9 81.6	61.8 56.7 130.0 108.8	77.3 70.8 130.0	24.3 22.2	36.4 33.4	48.5	60.6			105.4	130.0	41.5	62.2	83.0	103.7	78.9 72.3	118.3 108.5	130.0
72" 30" 36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2"	24.6 56.8 47 40.6 35.5 31.5 28.6 25.8 23.7 44.6 38.6 33.3	6 36.9 8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	49.2 113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	61.5 130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	- 44.3 36.9 31.7 27.7 24.6 22.2 20.2	28.8 66.5 55.4 47.5 41.6 36.9 33.2	38.4 88.7 73.9 63.3 55.4 49.3	48.0 110.8 92.4 79.2 69.3	28.3 65.3 54.4 46.6	42.5 97.9 81.6	56.7 130.0 108.8	70.8 130.0	22.2	33.4			52.7	79.0							72.3	108.5	
30" 36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 96" 66" 72" 30" 36" 42" 48" 98-1/2	56.8 47.3 40.6 35.8 31.5 28.4 25.8 23.7 53.3 44.4 38.0	8 85.2 3 71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	113.6 94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	130.0 118.3 101.4 88.7 78.9 71.0 64.5 59.2	36.9 31.7 27.7 24.6 22.2 20.2	66.5 55.4 47.5 41.6 36.9 33.2	88.7 73.9 63.3 55.4 49.3	110.8 92.4 79.2 69.3	65.3 54.4 46.6	97.9 81.6	130.0 108.8	130.0			44.5					120.7	38.0	57.0	76.1	95.1			130.0
36" 42" 48" 90" 66" 72" 30" 36" 42" 48" 96" 66" 72" 30" 36" 42" 48" 98-1/2	47 40.6 35.5 31.5 28.4 25.6 23 53 44.4 38.0	71.0 6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	94.6 81.1 71.0 63.1 56.8 51.6 47.3 106.5	118.3 101.4 88.7 78.9 71.0 64.5 59.2	36.9 31.7 27.7 24.6 22.2 20.2	55.4 47.5 41.6 36.9 33.2	73.9 63.3 55.4 49.3	92.4 79.2 69.3	54.4 46.6	81.6	108.8		51.2	76.8		55.6	48.3	72.4	96.6						1700	1300	<del> </del>
42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	40.6 35.8 31.5 28.4 25.8 23.7 44.2 38.6 33.3	6 60.8 5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	81.1 71.0 63.1 56.8 51.6 47.3 106.5 88.7	101.4 88.7 78.9 71.0 64.5 59.2	31.7 27.7 24.6 22.2 20.2	47.5 41.6 36.9 33.2	63.3 55.4 49.3	79.2 69.3	46.6			130.0 <b> </b>			102.4	128.0	111.4	130.0	130.0	130.0	87.9	130.0	130.0	130.0	130.0		130.0
48" 90" 54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	35.6 31.6 28.6 25.8 23.7 53.6 44.6 38.6 33.3	5 53.2 5 47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	71.0 63.1 56.8 51.6 47.3 106.5 88.7	88.7 78.9 71.0 64.5 59.2	27.7 24.6 22.2 20.2	41.6 36.9 33.2	55.4 49.3	69.3		69.9			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
54" 60" 66" 72" 30" 36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2	31.5 28.4 25.6 23.7 53.3 44.4 38.0	47.3 4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	63.1 56.8 51.6 47.3 106.5 88.7	78.9 71.0 64.5 59.2	24.6 22.2 20.2	36.9 33.2	49.3		40.8		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
54" 60" 66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	28.4 25.8 23.2 53.2 44.2 38.0 33.3	4 42.6 8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	56.8 51.6 47.3 106.5 88.7	71.0 64.5 59.2	22.2	33.2		616		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
66" 72" 30" 36" 42" 48" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	25.8 23.7 53.3 44.4 38.0 33.3	8 38.7 7 35.5 2 79.9 4 66.6 0 57.0	51.6 47.3 106.5 88.7	64.5 59.2	20.2		117	01.0	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
72" 30" 36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2	23.7 53.2 44.2 38.6 33.3	7 35.5 2 79.9 4 66.6 0 57.0	47.3 106.5 88.7	59.2		1 30 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
30" 36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2	53.3 44.4 38.0 33.3	2 79.9 4 66.6 0 57.0	106.5 88.7		_		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
36" 42" 48" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2	38.0 33.3	4 66.6 0 57.0	88.7	130.0		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
42" 48" 96" 96" 60" 66" 72" 30" 36" 42" 48" 98-1/2	38.0 33.0	0 57.0	1		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
48" 96" 54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	33		76.1	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
54" 60" 66" 72" 30" 36" 42" 48" 98-1/2	<b></b>	3 49.9	T	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
60" 66" 72" 30" 36" 42" 48" 98-1/2	29.0		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
66" 72" 30" 36" 42" 48" 98-1/2	<b></b>	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
72" 30" 36" 42" 48" 98–1/2	26.0		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		117.3	130.0
30" 36" 42" 48" 98-1/2	24.2		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
36" 42" 48" 98-1/2	22.		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
42" 48" 98-1/2	51.5	_	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
48" 98-1/2	43.:		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	130.0	127.0	130.0	130.0
98-1/2	37.		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
54"			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
!	28.		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		51.9	64.9	20.3	30.4	40.5	50.6	29.8	44.7	59.6 54.3	74.6	23.4	35.1	46.8	58.5 53.2	50.9	76.0 69.4	101.8	127.2	40.2 36.4	60.2 54.6	80.3 72.9	91.1	76.2 69.3	114.3	130.0
66"	23.0		47.2	59.0	_	27.6	36.8	46.0	27.1	40.7		67.9		31.9	42.6		46.3		92.5	115.7			, 2.0			103.9	130.0
72"	21.0	-	43.2	54.1	70.4	25.3	33.8	42.2	24.9	37.3	49.8	62.2	45.0	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.		100.2	125.3	39.1	58.7	78.2	97.8	57.6	<del> </del>	115.2	130.0	45.2	67.8	90.4	112.9	98.3	130.0	130.0	130.0	77.6	116.3		130.0	130.0	130.0	130.0
36"	41.6	<del></del>	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	122.7		
42"	35.8		71.6	89.5	27.9	41.9	55.9	69.8	41.1	61.7	82.3	102.9	32.3 28.2	48.4 42.4	64.5 56.5	80.7	70.2	91.8	130.0	130.0	55.4 48.5	83.1 72.7	110.8 96.9	121.2	105.1 92.0	130.0	130.0 130.0
48" 102"	31		62.6	78.3	24.4	36.7	48.9	61.1	36.0	54.0	72.0 64.0	90.0		37.6		70.6 62.7	61.4 54.6	81.6	109.2	130.0	43.1	64.6	86.2	107.7	81.8	122.7	130.0
54"	27.		55.7	69.6	21.7	32.6	43.5	54.3 48.9	32.0 28.8	48.0	57.6	80.0 72.0	25.1 22.6	33.9	50.2 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
60"	25.		50.1	62.6	_	29.3 26.7	39.1 35.6		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	130.0
66"	22.		45.6	56.9		<del>   </del>		44.4		<del> </del>	48.1	60.1	20.0	28.3	37.7	47.1	41.0	61.4	81.9	102.4	32.3	48.4	64.5	80.6	61.3	92.0	122.7
72"	20.		94.6	52.2 118.3	- 36.9	24.4 55.4	32.6 73.9	40.7 92.4	24.0 54.4	36.0 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
30"	47		<del> </del>			<del>                                     </del>		77.0	45.3	68.0	90.7	113.3	35.6	53.3	71.1		77.3	115.6	130.0	130.0	61.0	91.6	122.1	130.0	115.9		130.0
36"	39.		78.9	98.6 84.5	30.8	46.2 39.6	61.6 52.8	66.0	38.9	58.3	77.7	97.1	30.5	45.7	61.0	76.2	66.3	99.0	130.0	130.0	52.3	78.5	<del> </del>	130.0	99.3	130.0	130.0
42"	33.		67.6		26.4	İ		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
48" 108"	29.		59.2	73.9 65.7	23.1	34.6 30.8	46.2	51.3	30.2	45.3	60.4	75.6	23.7	35.6	47.4	59.3	51.6	77.0	103.1	128.9	40.7	61.0	81.4	101.7		115.9	130.0
54"	26.		52.6		20.5	27.7	41.0	46.2	27.2	40.8	54.4	68.0	21.3	32.0	42.7	53.3	46.4	69.3	92.8	116.0	36.6	54.9	73.2	91.6	69.5	104.3	130.0
60"	23.		47.3	59.2 53.8		25.2	36.9 33.6	42.0	24.8	37.1	49.5	61.9	-	29.1	38.9	48.6	42.2	63.3	84.4	105.5	33.2	49.8	66.5	83.1	63.2	94.8	126.4
66"	7.1	5 32.3	39.4	49.3		23.2		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		115.9
72"	21.		39.4	43.3	L	20.1	50.6	JU.J	22.1	1 37.0	70.4	50.7	L	20.7	JJ.0	17.5	50.7	55.0	,,,,	JU./	50.5	10.7				NEXT S	

ANCHOR LOAD CAPACITY - PSF

SEE SHEETS 5 AND 8 FOR ANCHOR DESCRIPTION.

PRODUCT REVISED

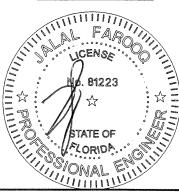
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pers

Miami-Dade Product Control

ANCHORS



SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.) ESR Impact System LLC.
12400 S.W. 134th Court, Suite 8
Miami, FL. 33186
Phone: (305) 489–1608 www.– by description revisions: no date drawing no. 24-86D

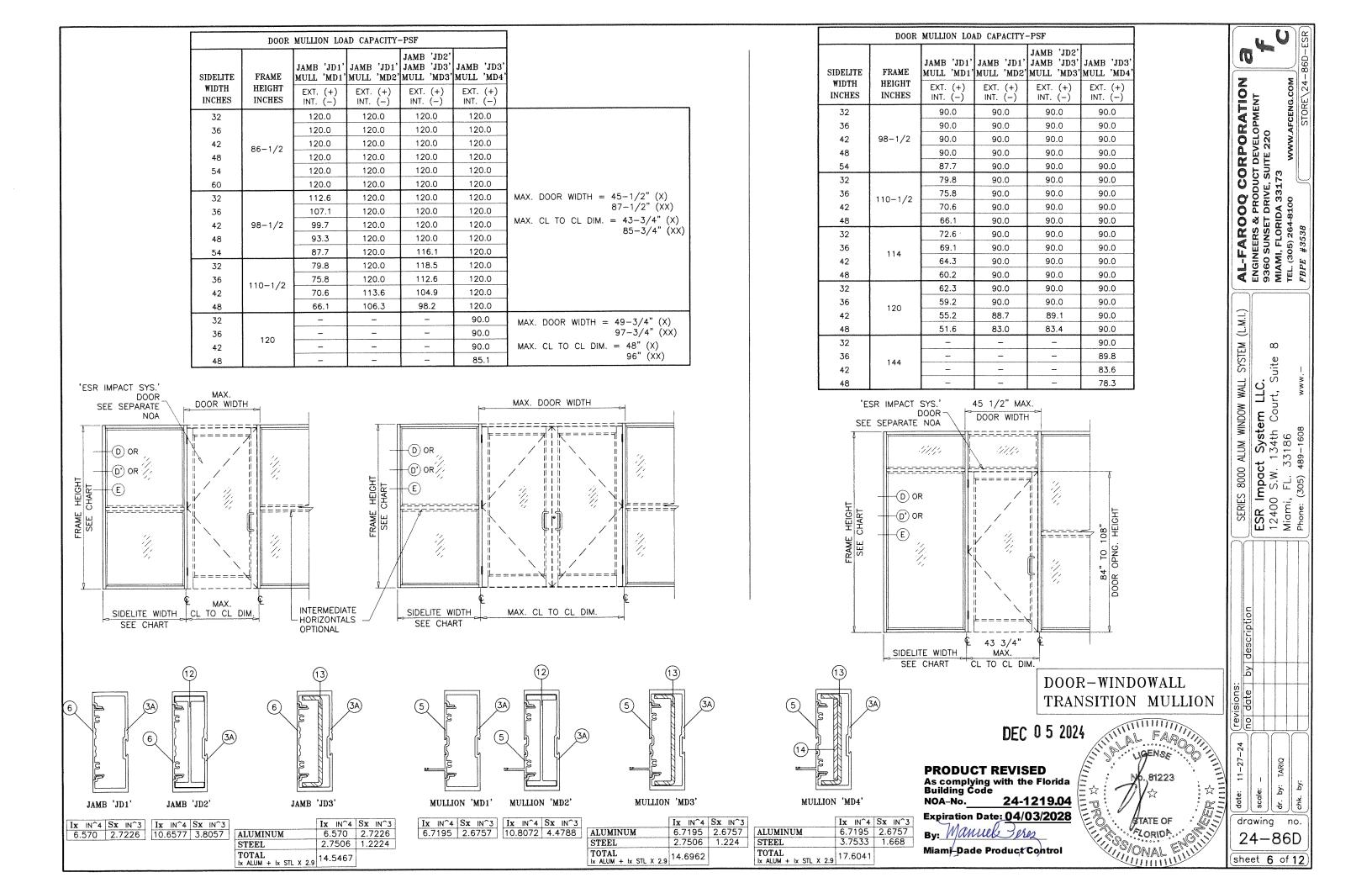
sheet **5.1**of **12**)

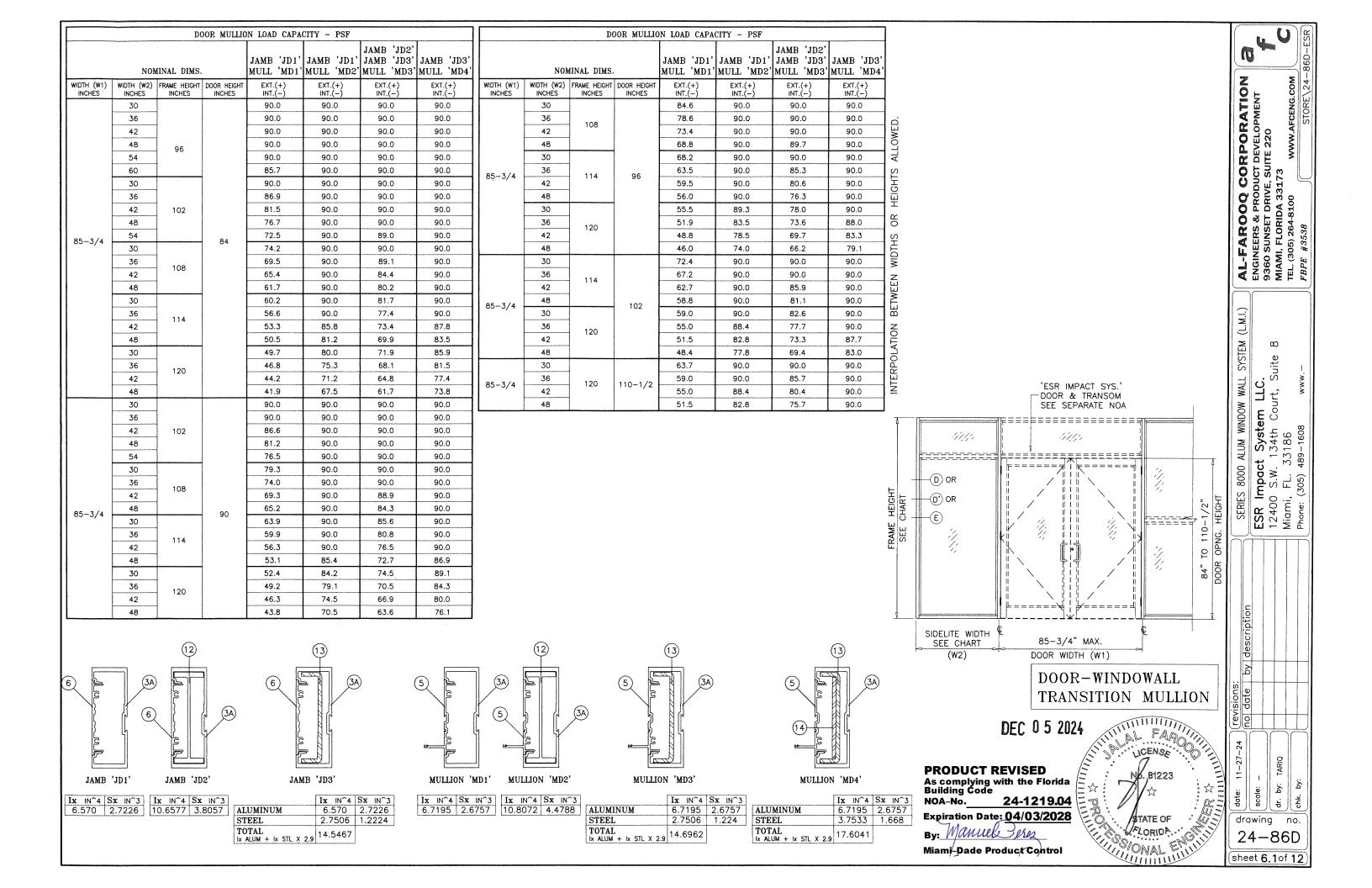
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL (305) 264-8100
WWW.AFCENG.COM

DEC 0 5 2024

			m						10000000000000000000000000000000000000	****	ANCI			APACIT	Y - P	SF		**************************************	Paralle Construction of Street Sping Construction			***************************************		***************************************			**********		]
	Market and the second s	r						·>>		T			T.(+) &			dament management and the second		·	COLOCULO CON ANCARANTE							<del>, , , , , , , , , , , , , , , , , , , </del>			4
Novem	ur price		/o" am		NCHORS	·		TM ODA	OD.		/n" OII			TYPE		73.4 CD 4.	OD.	<del>                                     </del>	/n" ort		NCHORS	·		W 00 4	A.D.	<del>                                     </del>	" MAX.		
	AL DIMS.	<b></b>	/8" SH	T	1	<b>-</b>	<del></del>	IM SPA	T	<b></b>	/8" SH	7	т	<del> </del>	<u></u>	IM SPA	T	<del></del>	3/8" SH	т	T	+	Т	IM SPA	T	<del> </del>	ORS TY	T	
30"	FRAME HEIGHT	A2 46.3	A3 69.4	<b>A4</b> 92.5	A5	A2 36.1	A3 54.2	72.2	<b>A5</b> 90.3	B2 53.2	79.8	B4	B5	B2	B3 62.6	B4 83.4	B5	90.7	130.0	130.0	C5	C2	C3	C4	C5	D2	D3	D4	4
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		52.1	69.5	86.9	75.6	112.9	<del> </del>	+	71.6 59.7	107.4 89.5	130.0	130.0	<del> </del>	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	4	51.1	76.7	102.3	<del> </del>	97.1	130.0	+	-
48"		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	+	44.7	67.1	89.5	111.9	84.9	127.4		
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"		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	+	58.3	72.9	42.9	64.4	85.9	107.4	+	50.5	67.4	84.2	73.3	109.5	+	+	57.8	86.7	115.6	+	109.8	+	+	-[
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	+	49.6	74.3	99.1	123.9	94.1	130.0		
48" 54"	114"	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	<del></del>	43.4	65.1	86.7	108.4	82.3	123.5	130.0	- <del>1</del>
60"		24.9	37.4	49.8	62.3 56.0	<u> </u>	29.2	38.9	48.6	28.6 25.8	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 52.0	77.1	96.4 86.7	73.2	109.8	130.0	-1
66"		20.4	30.6	40.8	50.9		23.9	31.8	39.8	23.5	35.2	46.9	58.6	20.2	27.6	36.8	46.0	40.0	60.0	80.0	+	31.5	47.2	63.0	78.7	65.9 59.9	89.8	130.0	-
72"			28.0	37.4	46.7	-	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	+	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	<del> </del>	66.5	83.1	49.0	73.4	97.9	122.4	38.4	57.6	76.8	96.0	83.5	124.8		+	65.9	98.9	+	130.0	125.1	130.0	+	4
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	<del> </del>	48.0	64.0	80.0	69.6	104.0	+	+	54.9	82.4	109.9	130.0	104.3	+	+	1
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	1
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	74.7	20.8	27.7	34.6	20.4	30.6	40.9	51.1	70.0	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	<del> </del>	
30" 36"		40.6 33.8	60.8 50.7	81.1 67.6	90.0	31.7 26.4	47.5 39.6	63.3 52.8	79.2	46.6 38.9	69.9 58.3	90.0	90.0	36.6	54.9 45.7	73.1	90.0	79.5 66.3	90.0	90.0	90.0	62.8	90.0 78.5	90.0	90.0	90.0	90.0	+	acceptance of the control of the con
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	52.3	67.3	90.0	90.0	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	1
54"		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	<b> </b> -	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"	132"	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	DRODUCT DEVICED
48"		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	PRODUCT REVISED As complying with the Flo
54"		21.5	32.3	43.0	53.8	_	25.2	33.6	42.0	24.8	37.1	49.5	61.9	<del>-</del>	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	Building Code
60"		77.0	29.0	38.7	48.4	28.9	22.7 43.4	30.2 57.8	37.8 72.3	22.3 42.6	33.4 63.9	44.6	55.7	33.4	26.2	35.0	43.7 83.5	38.0	57.0	76.0	90.0	29.9	44.9	59.8	74.8	56.9	85.3	90.0	NOA-No. <u>24-1219</u> Expiration Date: 04/03/2
30" 36"		37.0 30.9	55.6 46.3	74.1	92.6	24.1	36.1	48.2	60.2	35.5	53.2	85.1 71.0	90.0	27.8	50.1	66.8 55.7	69.6	72.6 60.5	90.0	90.0	90.0	57.3 47.8	86.0 71.7	90.0	90.0	90.0	90.0	90.0	7.1
42"		26.5	39.7	52.9	66.1	20.7	31.0	41.3	51.6	30.4	45.6	60.8	76.0	23.9	35.8	47.7	59.6	51.9	77.5	90.0	90.0	40.9	61.4	81.9	90.0	77.7	90.0	90.0	By: Manuel Peres
48"	138"	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	52.2	45.4	67.8	90.0	90.0	35.8	53.7	71.7	89.6	68.0	90.0	90.0	Miami-Dade Product Cont
54"		20.6	30.9	41.2	51.4	<b> </b>	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"		_	27.8	37.0	46.3	_	21.7	28.9	36.1	21.3	32.0	42.6	53.3	_	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	ANCHORS
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	AL FARON
48"		22.2	33.3	44.4	55.5	<b> </b>	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	ACENSE O
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	FAROUSE NO. 81223
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	
																					ERPOLA E SHEE					HEIGH	ITS ALI	LOWED.	
																				JEI	_ JIILL	.1 5 10	ZIV AIN	J1101\ 1	11 LJ.			0001	STATE OF
																										DE	05	2024	CORIDA.
																													WONAL ENT
	**************************************				NANCONA CONTROL MATERIAL DE		MATERIA MATERI		**************************************	NICONSTRUCTO STATE		PROPERTY STORES	oonoonuu uu oo aa oo dharee	2100A972110X2-15-44-0-44-00-0		***************************************	NEUCONDANIA PROGRAMA				MODELLANDON			***************************************			**************************************	***************************************	STATE OF A CORIDA

	AL-FAROOQ CORPORATI ENGINEERS & PRODUCT DEVELOPMEN 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 TEL. (305) 264-8100 WWW.AFCENG FBPE #3538
	SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.)  ESR Impact System LLC. 12400 S.W. 134th Court, Suite 8 Miami, FL. 33186 Phone: (305) 489-1608 www
PRODUCT REVISED As complying with the Florida Building Code NOA-No. 24-1219.04 Expiration Date: 04/03/2028 By: Manuel Product Control  ANCHORS  No. 81223  STATE OF  CORIDA	Scale: -   Cevisions:   Cevis

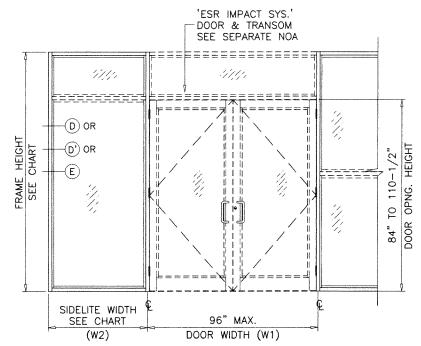




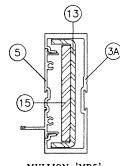
	DOOR MU	LLION LOAD	CAPACITY	
	NOM	MINAL DIMS.		JAMB 'JD3' MULL 'MD4
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)
	30			90.0
	36			90.0
	42			90.0
	48	96		90.0
	54	30		90.0
	60			90.0
	30			90.0
	36			90.0
	42	102		90.0
	48	]		90.0
0.E	54		84	90.0
96	30		04	90.0
	36	100		90.0
	42	108		90.0
	48	1		89.4
	30			90.0
	36	1		85.5
	42	114		81.5
	48			77.8
	30			79.1
	36	120		75.3
	42	120		71.8
	48	1		68.7
	30			90.0
	36	1		90.0
	42	102		90.0
	48	1		90.0
	54	1		90.0
	30		1	90.0
	36	1		90.0
	42	108		90.0
96	48		90	90.0
30	30		1	90.0
	36	1		89.5
	42	114		85.1
	48			81.1
	30			82.1
	36	100		78.0
	42	120		74.3
		⊣	1	

48

		DOOR MU	LLION LOAD	CAPACITY	- PSF
		NON	MINAL DIMS.		JAMB 'JD3' MULL 'MD4'
	WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)
1		30			90.0
		36	108		90.0
		42	106		90.0
		48			90.0
		30			90.0
	0.6	36	114	96	90.0
	96	42	114	30	89.8
1		48			85.3
1		30			86.1
		36	120		81.6
		42	120		77.5
1		48			73.9
1		30			90.0
		36	114		90.0
		42	1 114		90.0
1	96	48		102	90.0
1	96	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
1	30	42	] '20	110 1/2	90.0
		48			85.1
1		30			57.0
1	96	36	144	108	54.2
]	30	42	177	100	51.6
		48			49.2

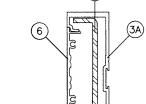


	DOOR MU	LLION LOAD	CAPACITY	- PSF
	NOM	MINAL DIMS.		JAMB 'JD3' MULL 'MD5
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)
	30			78.4
76	36			73.8
, 0	42			69.7
	48			66.1
	30			73.1
84	36	144	108	69.1
01	42	1 7 7	100	65.5
	48			62.3
	30			66.3
96	36			63.0
	42			60.0
	48			57.3



MULLION 'MD5'

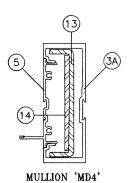
	Ix IN^4	Sx IN^3
ALUMINUM	6.7195	2.6757
STEEL	4.7506	2.1114
TOTAL Ix ALUM + Ix STL X 2.9	20.3598	



70.9

JAMB 'JD3'

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



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

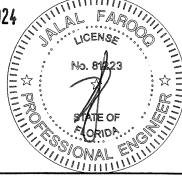
DOOR-WINDOWALL
TRANSITION MULLION

DEC 0 5 2024

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Programmer Miami-Dade Product Control





sheet **6.2** of **12** 

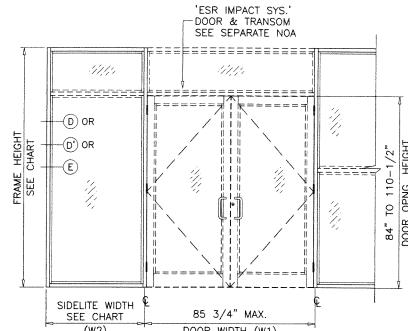
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538

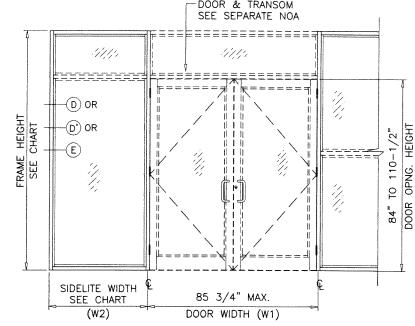
SERIES 8000 ALUM WINDOW WALL SYSTEM (L.M.I.)

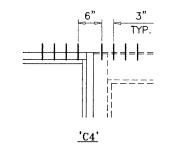
ESR Impact System LLC. 12400 S.W. 134th Court, Suite Miami, FL. 33186 Phone: (305) 489–1608 www.–

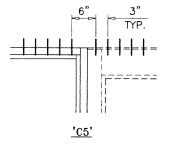
	D00	R MULLION	HEAD ANCE	IOR LOAD CAI	PACITY - PSF		$\prod$	
	NOM	MINAL DIMS.		'C4'	'C5'	'C6'	JL	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	W	
	30			89.6	90.0	90.0	][	
	36			85.0	90.0	90.0	$\prod$	
	42			80.8	90.0	90.0	$\Pi$	
	48	96		77.0	90.0	90.0		
	54			73.6	90.0	90.0	]	
	60			70. <del>4</del>	88.0	90.0	]] ,	
	30			86.0	90.0	90.0	]] `	
	36			81.5	90.0	90.0		
	42	102		77.4	90.0	90.0		
	48			73.8	90.0	90.0	$\prod$	
85-3/4	54		84	70.4	88.0	90.0		
00-0/4	30		04	82.7	90.0	90.0	$\mathbb{L}$	
	36	108		78.3	90.0	90.0	1Г	
	42	106		74.3	90.0	90.0		
	48			70.8	88.4	90.0		
	30			79.7	90.0	90.0	]] ,	
	36	114		75.4	90.0	90.0	11 '	
	42	] ''-		71.5	89.4	90.0	$\Pi$	
	48			68.0	85.0	90.0	11	
	30			76.9	90.0	90.0	11	
	36	120		72.6	90.0	90.0	1Г	
	42	120		68.9	86.1	90.0	]] ,	
	48			65.4	81.8	90.0		
	30			84.1	90.0	90.0	]L	
	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	108		76.7	90.0	90.0		
	42	100		72.9	90.0	90.0		
85-3/4	48		90	69.4	86.8	90.0		
00 0/ 1	30		30	78.0	90.0	90.0		
	36	114		73.9	90.0	90.0		
	42	,,,		70.1	87.7	90.0		
	48			66.8	83.5	90.0		
	30		[	75.3	90.0	90.0		
	36	120		71.2	89.1	90.0	1	
	42	.20		67.6	84.5	90.0		
	48			64.3	80.4	90.0		

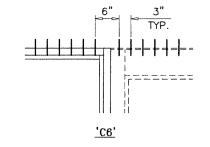
	D00	R MULLION	HEAD ANCE	HOR LOAD CAF	ACITY - PSF		1
	NOM	MINAL DIMS.		'C4'	'C5'	'C6'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	]
	30			79.2	90.0	90.0	]
	36	108		75.1	90.0	90.0	٦.
	42	100		71.5	89.3	90.0	ALLOWED
	48			68.1	85.2	90.0	] 0
	30			76.4	90.0	90.0	₹
85-3/4	36	114	96	72.4	90.0	90.0	S
85-3/4	42	114	96	68.8	86.0	90.0	DTHS OR HEIG
	48			65.6	82.0	90.0	
	30			73.8	90.0	90.0	
	36	120		69.9	87.4	90.0	
	42	120		66.4	83.0	90.0	
	48			63.2	79.0	90.0	] =
	30	114	102	74.9	90.0	90.0	] ₹
	36			71.0	88.8	90.0	
	42			67.6	84.5	90.0	BETWEEN
85-3/4	48			64.4	80.5	90.0	] ≥
00-5/4	30		102	72.4	90.0	90.0	BE
	36	120		68.6	85.7	90.0	١z
	42	,20		65.2	81.5	90.0	] 은
	48			62.1	77.7	90.0	۱۵
	30			70.4	88.0	90.0	NTERPOLATION
85-3/4	36	120	110-1/2	66.8	83.5	90.0	]臣
00-0/4	42	120	110-1/2	63.6	79.5	90.0	ĮΞ
	48			60.7	75.9	90.0	

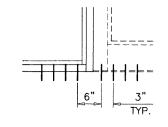












'C4' AT SILL ALL CASES

#### 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.

TRANSITION MULLION ANCHORS

DEC 0 5 2024

# PRODUCT REVISED As complying with the Florida Building Code NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control



by description revisions: no date dr. by: drawing no.

U

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

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

ESR Impact System LLC. 12400 S.W. 134th Court, Suite E Miami, FL. 33186 Phone: (305) 489–1608 www.-

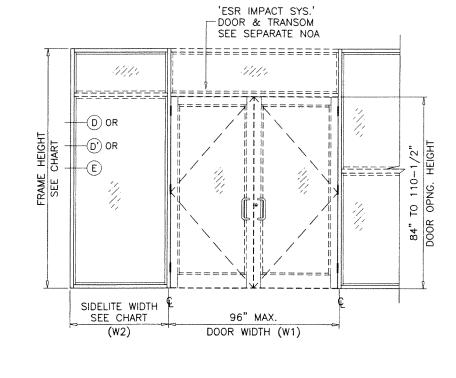
24-86D

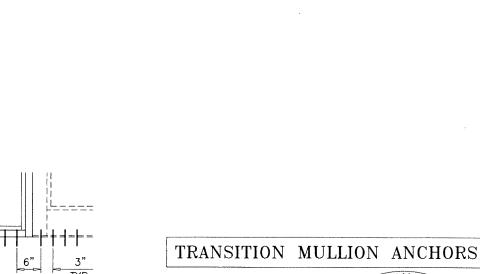
sheet 7 of 12

				IOR LOAD CAP	·	r
	·	IINAL DIMS.	p	'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	and a constant of the constant		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
30	30		"	76.2	90.0	90.0
	36	109		72.4	90.0	90.0
	42	108		69.0	86.3	90.0
	48			65.9	82.4	90.0
	30			73.4	90.0	90.0
	36	114		69.8	87.2	90.0
	42	114		66.4	83.0	90.0
	48	120		63.4	79.2	90.0
	30			70.9	88.6	90.0
	36			67.3	84.1	90.0
	42			64.0	80.0	90.0
	48			61.0	76.3	90.0
	30			77.3	90.0	90.0
	36			73.7	90.0	90.0
	42	102		70.3	87.9	90.0
	48			67.3	84.1	90.0
	54			64.5	80.6	90.0
	30			74.5	90.0	90.0
	36	100		70.9	88.6	90.0
	42	108		67.6	84.5	90.0
96	48		90	64.6	80.8	90.0
30	30		<b>3</b> 0	71.8	89.8	90.0
	36	114		68.3	85.4	90.0
	42	] ''*		65.1	81.4	90.0
	48			62.2	77.7	90.0
	30			69.4	86.7	90.0
	36	120		65.9	82.4	90.0
	42	120		62.8	78.5	90.0
	48			59.9	74.9	89.9

	D00	R MULLION	HEAD ANCE	IOR LOAD CAI	PACITY - 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			72.8	90.0	90.0
	36	100		69.4	86.7	90.0
	42	108		66.3	82.8	90.0
	48			63.4	79.2	90.0
	30			70.3	87.9	90.0
96	36	114	96	66.9	83.7	90.0
96	42	114		63.8	79.8	90.0
	48			61.0	76.3	90.0
	30	120		68.0	84.9	90.0
	36			64.6	80.8	90.0
	42	120		61.0 76.3 68.0 84.9	90.0	
	48			58.9	73.6	88.3
	30	114	102	68.8	86.1	90.0
	36			65.6	82.0	90.0
	42			62.6	78.3	90.0
0.6	48			59.9	74.9	89.9
96	30	100		66.6	83.2	90.0
	36			63.4	79.2	90.0
	42	120		60.5	75.6	90.0
	48			57.8	72.3	86.7
	30			64.7	80.9	90.0
0.0	36	120	110 1/0	61.7	77.1	90.0
96	42	120	110-1/2	58.9	73.7	88.4
	48			56.4	70.5	84.6
	30			57.8	72.3	86.7
0.0	36		100	54.9	68.7	82.4
96	42	144	108	52.3	65.4	78.5
	48			49.9	62.4	74.9

<u>'C6'</u>





ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

<u>'C4'</u>

<u>'C5'</u>

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

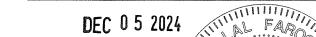
C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

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

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.



'C4' AT SILL ALL CASES

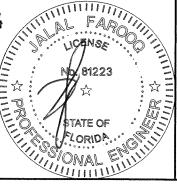


PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 24-1219.04

Expiration Date: 04/03/2028

By: Manuel Pres

Miami-Dade Product Control



visions: date Tho Levi dr. by: chk. by: drawing no. 24-86D sheet 7.1of 12

by description

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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