



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](http://www.miamidade.gov/building)

E.S. Windows, LLC  
3550 NW 49<sup>th</sup> 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 "1600" Aluminum Fixed Window – S.M.I.

**APPROVAL DOCUMENT:** Drawing No. **W05-46**, titled "Series-1600 Aluminum Fixed Window (S.M.I.)", sheets 1 through 5 of 5, dated 09/09/05, with revision **I** dated 11/05/20, 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: 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.

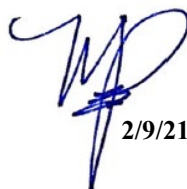
**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**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** and **renews** NOA No. **17-1114.11** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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



  
2/9/21

NOA No. 20-1208.08  
Expiration Date: March 31, 2026  
Approval Date: February 18, 2021  
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. 05-1213.01)*
2. Drawing No. **W05-46**, titled "Series-1600 Aluminum Fixed Window (L.M.I.)", sheets 1 through 5 of 5, dated 09/09/05, with revision **H** dated 10/09/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.  
*(Submitted under NOA No. 17-1114.11)*

**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) 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 fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5695**, dated 07/20/09, signed and sealed by Julio E. Gonzalez, P.E.  
*(Submitted under NOA No. 09-1008.03)*
2. Test reports on: 1) Small Missile Impact Test per FBC, TAS 201-94  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of a fixed window, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-05-1954**, dated 05/02/05, **HETI-05-1955**, dated 05/05/05, **HETI-05-1956**, dated 06/22/05 and **HETI-05-1957**, dated 07/22/05, all signed and sealed by Ivonne Ghia, P. E.  
*(Submitted under NOA No. 05-1213.01)*
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  
along with marked-up drawings and installation diagram of a fixed window, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-05-1450**, dated 06/22/05 and **HETI-05-1449**, dated 04/28/05, both signed and sealed by Ivonne Ghia, P.E.  
*(Submitted under NOA No. 05-1213.01)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with **FBC 5<sup>th</sup> Edition (2014)**, dated 12/22/15 and **FBC 6<sup>th</sup> Edition (2017)**, dated 09/22/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with **ASTM E1300-09**

  
Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 20-1208.08  
Expiration Date: March 31, 2026  
Approval Date: February 18, 2021

**E.S. Windows, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)**

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**


1. Notice of Acceptance No. **17-0808.02** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers"** dated 12/28/17, expiring on 07/04/23.
2. Notice of Acceptance No. **16-1117.01** issued to **Kuraray America, Inc.** for their **"Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers"** dated 01/19/17, expiring on 07/08/19.

**F. STATEMENTS**

1. Statement letter of conformance, complying to **FBC 5<sup>th</sup> Edition (2014)** and **FBC 6<sup>th</sup> Edition (2017)** and of no financial interest dated September 27, 2017, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.  
*(Submitted under NOA No. 17-1114.11)*
2. Distributor Agreement between, E.S. Windows – Energia Solar S.A., Barranquilla, Colombia and E.S. Windows, LLC, Miami, Florida, U.S.A., dated 10/20/10, signed by Carla Garcia Torrente and by Andres Chamorro, respectively.  
*(Submitted under NOA No. 12-0308.39)*
3. Laboratory compliance letter for Test Report No. **FTL-5695**, issued by Fenestration Testing Laboratory, Inc., dated 07/20/09, signed and sealed by Julio E. Gonzalez, P.E.  
*(Submitted under NOA No. 09-1008.03)*
4. Proposal issued by Product Control, dated 06/12/08, signed by Jaime D. Gascon, P.E.  
*(Submitted under NOA No. 09-1008.03)*
5. Laboratory compliance letter for Test Reports No. **HETI-05-1450**, dated 06/22/05, **HETI-05-1449**, dated 04/28/05, **HETI-05-1954**, dated 05/02/05, **HETI-05-1955**, dated 05/05/05, **HETI-05-1956**, dated 06/22/05 and **HETI-05-1957**, dated 07/22/05, all issued by Hurricane Engineering and Testing, Inc., all signed and sealed by Ivonne Ghia, P.E.  
*(Submitted under NOA No. 05-1213.01)*
6. Proposal issued by Product Control, dated 02/14/06, signed by Ishaq Chanda, P.E.  
*(Submitted under NOA No. 05-1213.01)*

**G. OTHERS**

1. Notice of Acceptance No. **16-0309.03**, issued to ES Windows, LLC, for their Series "1600 Aluminum Fixed Window – S.M.I.", approved on 03/31/16 and expiring on 03/31/21.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 20-1208.08  
Expiration Date: March 31, 2026  
Approval Date: February 18, 2021

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **W05-46**, titled “Series-1600 Aluminum Fixed Window (L.M.I.)”, sheets 1 through 5 of 5, dated 09/09/05, with revision **I** dated 11/05/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

**B. TESTS**

1. **None.**

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with **FBC-2010, FBC 5<sup>th</sup> Edition (2014)** dated 12/22/15 and with **FBC 6<sup>th</sup> Edition (2017)** dated 09/22/17, and updated on 11/16/20 to comply with **FBC 7<sup>th</sup> Edition (2020)**, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
2. Glazing complies with **ASTM E1300-09**

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

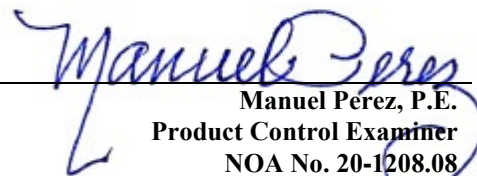
1. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their “**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**” dated 05/23/19, expiring on 05/23/24.
2. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their “**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**” dated 05/09/19, expiring on 07/08/24.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC 6<sup>th</sup> Edition (2017)**, with **FBC 7<sup>th</sup> Edition (2020)**, and of no financial interest, dated November 16, 2020, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

**G. OTHERS**

1. Notice of Acceptance No. **17-1114.11**, issued to ES Windows, LLC, for their Series “1600 Aluminum Fixed Window – S.M.I.”, approved on 02/01/18 and expiring on 03/31/21.

  
Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 20-1208.08  
Expiration Date: March 31, 2026  
Approval Date: February 18, 2021

## SERIES-1600 ALUMINUM FIXED WINDOW

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIXED/FIXED OR FIXED WITH OTHER MIAMI-DADE COUNTY APPR'D WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

DESIGN LOAD RATING FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH EDITION)/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.

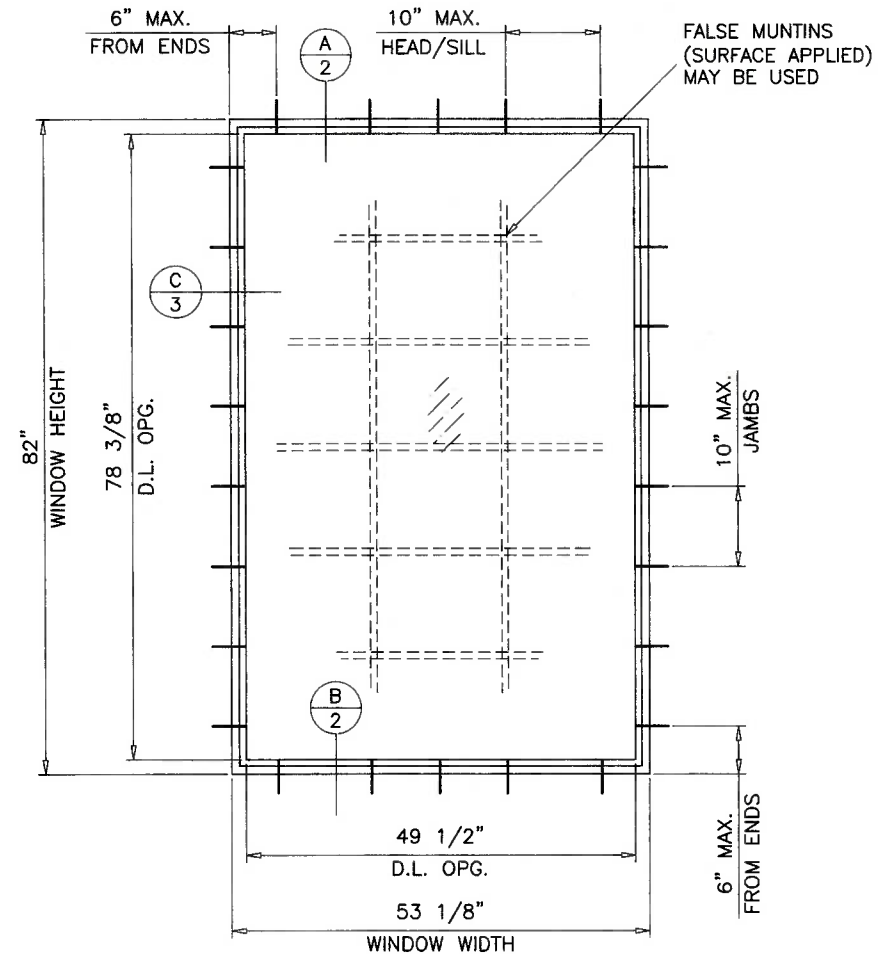
ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2017/2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.



TYPICAL ELEVATION  
TESTED UNIT

DAYLITE OPENINGS:  
D.L.O. HEIGHT = WINDOW HEIGHT - 3.625"  
D.L.O. WIDTH = WINDOW WIDTH - 3.625"

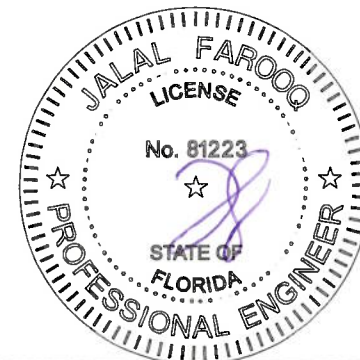
THESE WINDOWS ARE RATED FOR SMALL MISSILE IMPACT. MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. **20-1208.08**

Expiration Date: **03/31/2026**

By: *Manuel Perez*  
Miami-Dade Product Control

DEC 01 2020



SERIES-1600 ALUMINUM FIXED WINDOW (S.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 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W05-46ESW

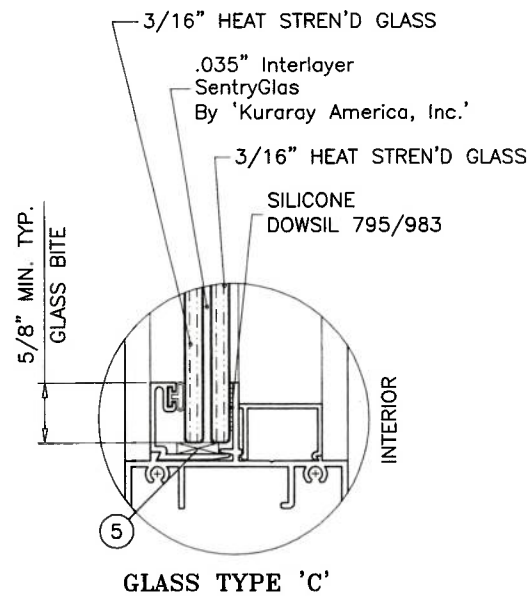
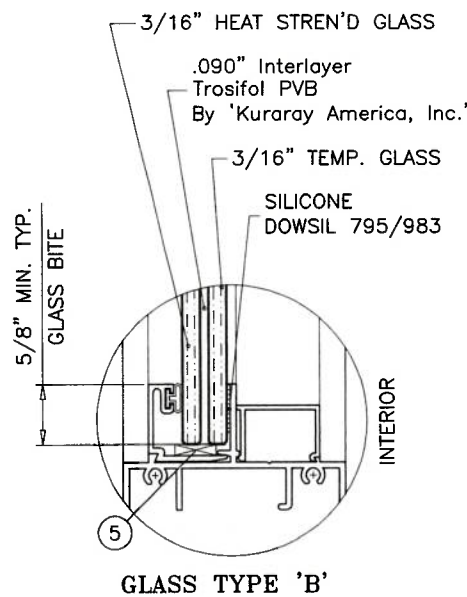
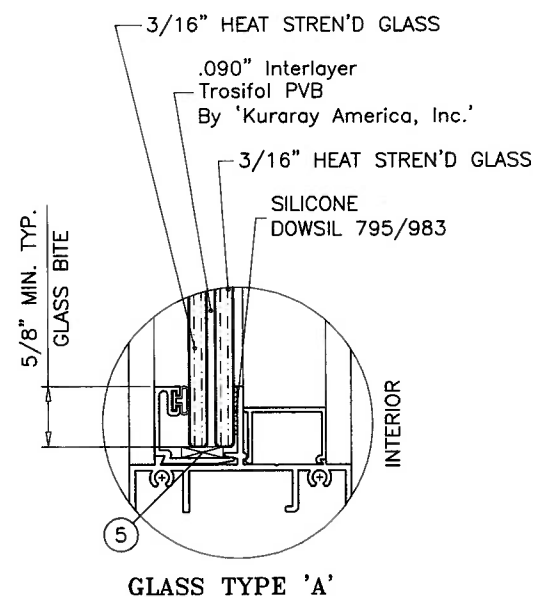
revisions:		date	by	description
no	date	by	description	
E	02.24.12			UPDATED TO 2010 FBC
F	08.22.14			UPDATED TO 2014 FBC
G	12.23.15			UPDATED TO RER REQMS.
H	10.09.17			UPDATED TO 2017 FBC
I	11.05.20			UPDATED TO 2020 FBC
date:	09-09-05	scale:	1/2"=1'-0"	
dr. by:	TARIQ	chk. by:		
drawing no.	W05-46	sheet	1 of 5	

DESIGN LOAD CAPACITY - PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
18"	36"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	140.0	100.0	140.0	100.0	140.0
36"		90.0	132.8	100.0	140.0	100.0	140.0
42"		90.0	132.8	100.0	140.0	100.0	140.0
48"		90.0	132.8	100.0	140.0	100.0	140.0
54"		90.0	127.9	100.0	140.0	100.0	140.0
60"		90.0	121.9	100.0	140.0	100.0	140.0
18"	48"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	140.0	100.0	140.0	100.0	140.0
36"		90.0	132.8	100.0	140.0	100.0	140.0
42"		90.0	113.8	100.0	126.5	88.1	123.3
48"		90.0	99.6	100.0	110.7	77.1	107.9
54"		90.0	99.6	100.0	110.7	77.1	107.9
60"		90.0	90.0	90.0	90.0	90.0	90.0
18"	60"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	136.5	100.0	140.0	100.0	140.0
36"		90.0	121.9	100.0	140.0	100.0	140.0
42"		90.0	112.5	100.0	126.5	88.1	123.3
48"		90.0	90.0	90.0	90.0	90.0	90.0
54"		88.5	88.5	90.0	90.0	88.5	88.5
60"		79.7	79.7	88.5	88.5	79.7	79.7
18"	72"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	129.3	100.0	140.0	100.0	140.0
36"		90.0	113.7	100.0	133.0	100.0	140.0
42"		90.0	90.0	90.0	90.0	90.0	90.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
54"		88.5	88.5	90.0	90.0	88.5	88.5
60"		-	-	88.5	88.5	79.7	79.7

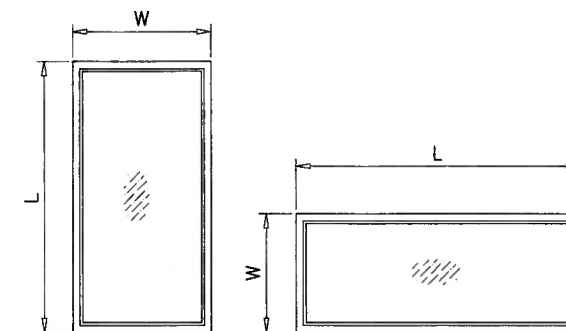
DESIGN LOAD CAPACITY - PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
18"	84"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	124.6	100.0	140.0	100.0	140.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		90.0	90.0	90.0	90.0	90.0	90.0
48"		-	-	90.0	90.0	90.0	90.0
18"	90"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	122.8	100.0	140.0	100.0	140.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		90.0	90.0	90.0	90.0	90.0	90.0
48"		-	-	90.0	90.0	90.0	90.0
18"	96"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	90.0	90.0	90.0	90.0	90.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		-	-	90.0	90.0	90.0	90.0
48"		-	-	90.0	90.0	90.0	90.0
18"	108"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	140.0	100.0	140.0	100.0	140.0
30"		90.0	90.0	90.0	90.0	90.0	90.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		-	-	90.0	90.0	90.0	90.0
48"		-	-	90.0	90.0	90.0	90.0
18"	120"	90.0	140.0	100.0	140.0	100.0	140.0
24"		90.0	90.0	90.0	90.0	90.0	90.0
30"		90.0	90.0	90.0	90.0	90.0	90.0
36"		-	-	90.0	90.0	90.0	90.0

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

DESIGN LOAD CAPACITY - PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	26"	90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	140.0	100.0	140.0	100.0	140.0
48"		90.0	140.0	100.0	140.0	100.0	140.0
53-1/8"		90.0	140.0	100.0	140.0	100.0	140.0
19-1/8"	38-3/8"	90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	129.2	100.0	140.0	100.0	140.0
48"		90.0	124.6	100.0	138.4	96.4	135.0
53-1/8"	50-5/8"	90.0	124.6	100.0	138.4	96.4	135.0
19-1/8"		90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	129.2	100.0	140.0	100.0	140.0
48"		90.0	99.6	100.0	110.7	77.1	107.9
53-1/8"	58"	90.0	94.4	100.0	104.9	73.1	102.3
19-1/8"		90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	121.9	100.0	140.0	100.0	140.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
53-1/8"	63"	90.0	90.0	90.0	90.0	90.0	90.0
19-1/8"		90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	117.5	100.0	137.4	100.0	140.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
53-1/8"	74-1/4"	90.0	90.0	90.0	90.0	90.0	90.0
19-1/8"		90.0	140.0	100.0	140.0	100.0	140.0
26-1/2"		90.0	140.0	100.0	140.0	100.0	140.0
37"		90.0	110.5	100.0	129.3	100.0	140.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
53-1/8"		90.0	90.0	90.0	90.0	90.0	90.0



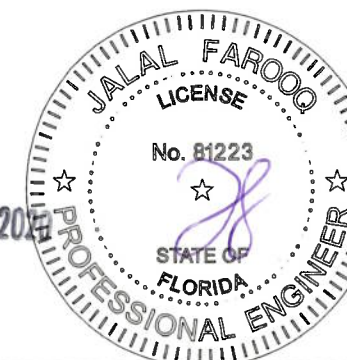
GLAZING OPTIONS



NOTE:  
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED  
VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

PRODUCT REVISED  
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Building Code  
NOA-No. 20-1208.08  
Expiration Date: 03/31/2026  
By: Manuel Perez  
Miami-Dade Product Control

DEC 01 2024



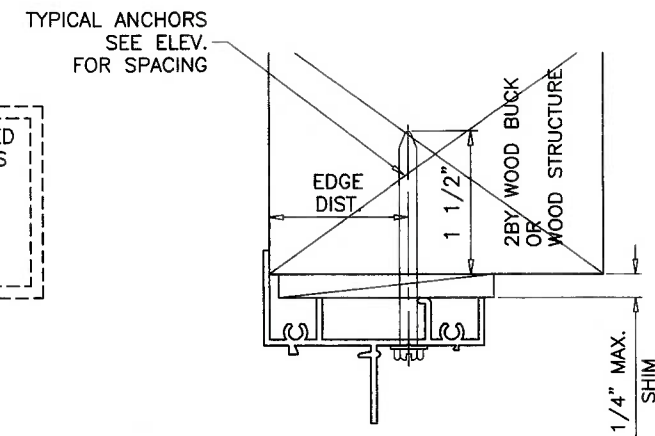
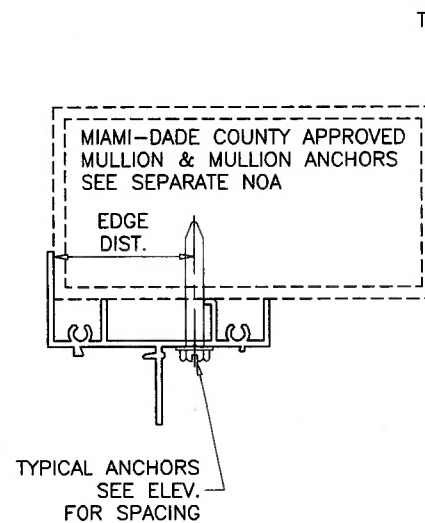
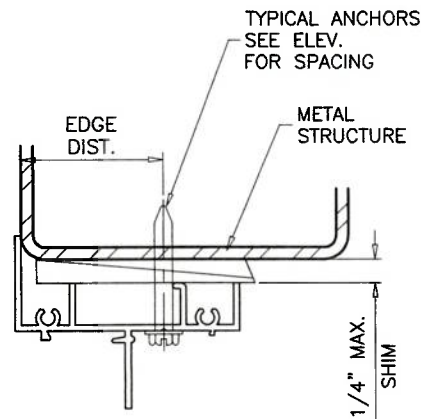
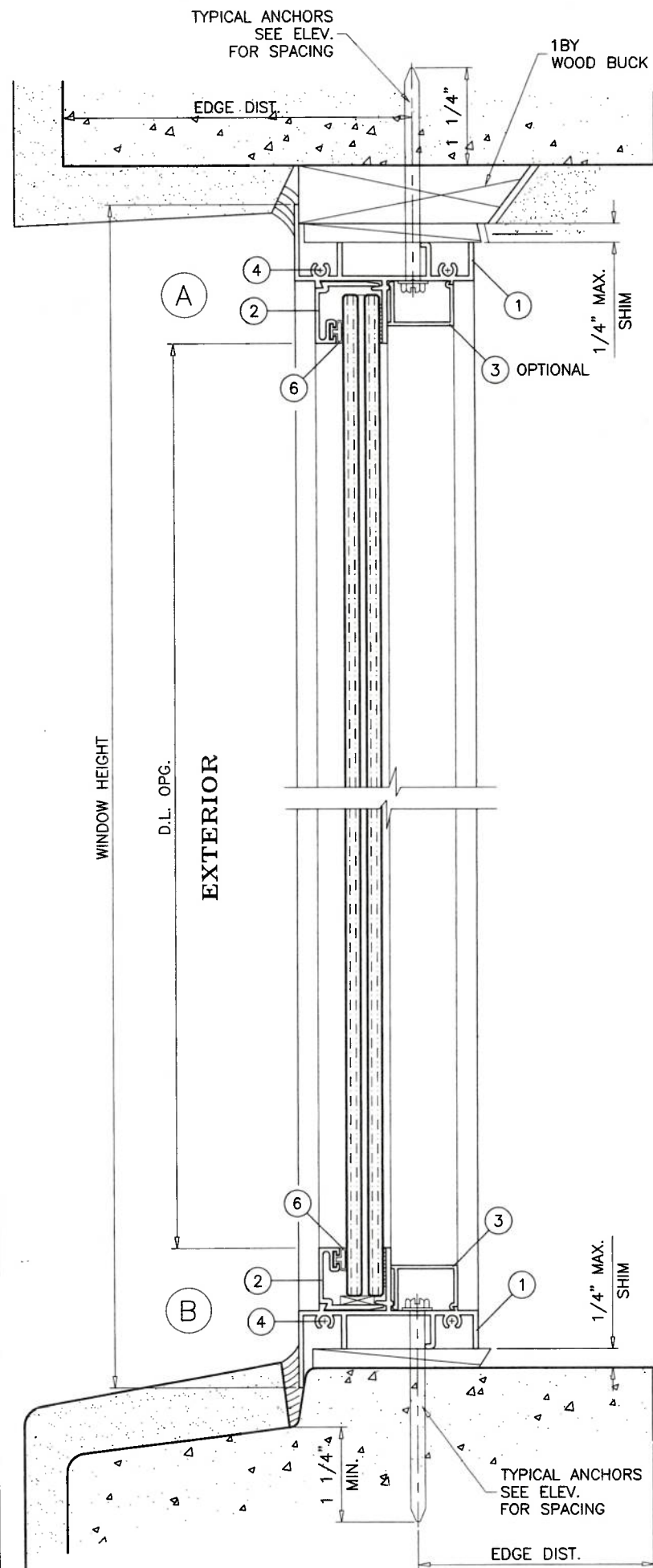
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 262-6978  
FAX. (305) 262-6978  
COMP-ANL\W05-46ESW

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

revisions:

no	date	by	description
E	02.24.12		UPDATED TO 2010 FBC
F	08.22.14		NO CHANGE THIS SHEET
G	12.23.15		UPDATED TO RER REOMTS.
H	10.09.17		UPDATED TO 2017 FBC
I	11.05.20		UPDATED TO 2020 FBC

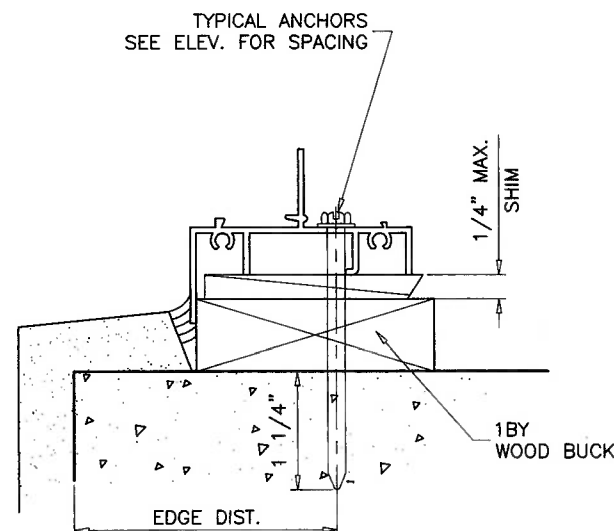
date: 09-09-05  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:  
drawing no. W05-46  
sheet 2 of 5



WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WDW.' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

### SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH WHITE/ALUM COLOR SILICONE.



**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**1/4" DIA. ULTRACON+ BY 'DEWALT'** (Fu=164 KSI, Fy=148 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS) THRU 1BY BUCKS INTO CONC. OR BLOCKS 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS) 1-3/4" MIN. EMBED INTO BLOCKS (JAMBS) DIRECTLY INTO CONCRETE OR BLOCKS 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS) 1-3/4" MIN. EMBED INTO BLOCKS (JAMBS)

**#14 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS) INTO METAL STRUCTURES (HEAD/SILL/JAMBS) (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.) STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.) (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

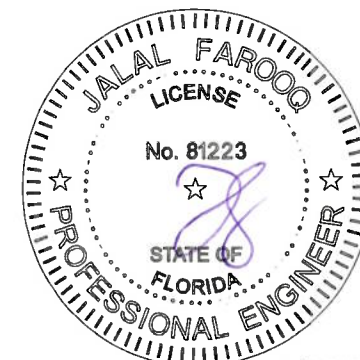
**#12 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS) INTO MIAMI-DADE COUNTY APPROVED MULLIONS (NO SHIM SPACE) (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.) STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.) (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

### TYPICAL EDGE DISTANCE

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

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.  
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.  
C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

**PRODUCT REVISED**  
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NOA-No. **20-1208.08** **DEC 01 2020**  
Expiration Date: **03/31/2026**  
By: *Manuel Perez*  
Miami-Dade Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W05-46ESW

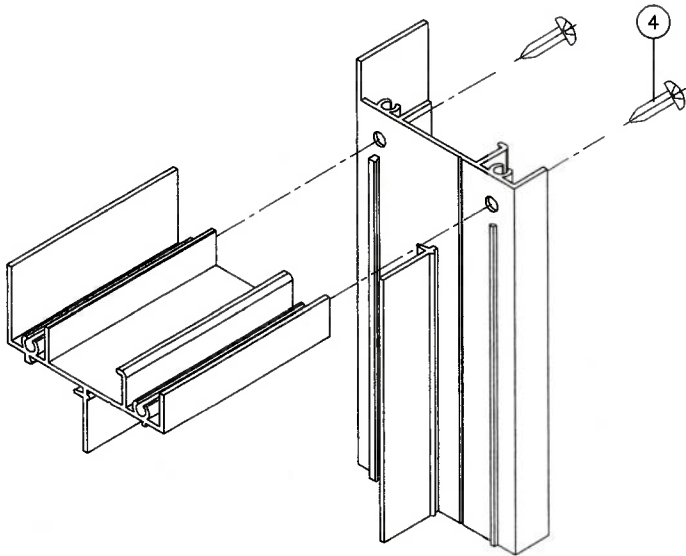
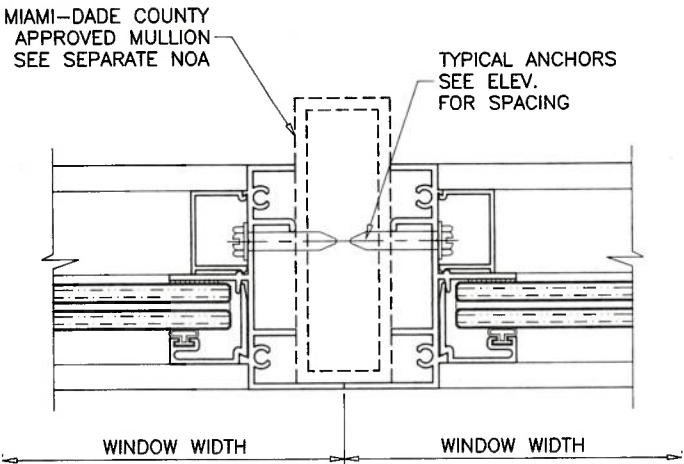
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
E	02.24.12		NO CHANGE THIS SHEET
F	08.22.14		UPDATED TO 2014 FBC
G	12.23.15		UPDATED TO RER REOMTS.
H	10.09.17		UPDATED TO 2017 FBC
I	11.05.20		UPDATED TO 2020 FBC

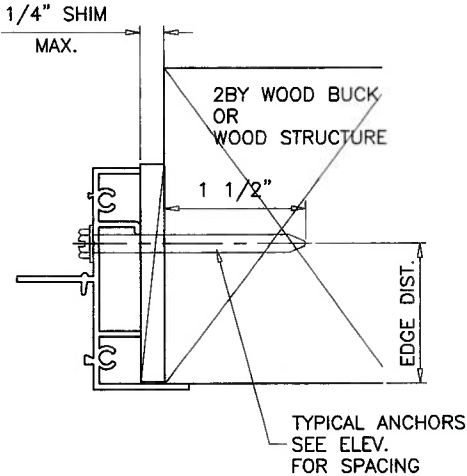
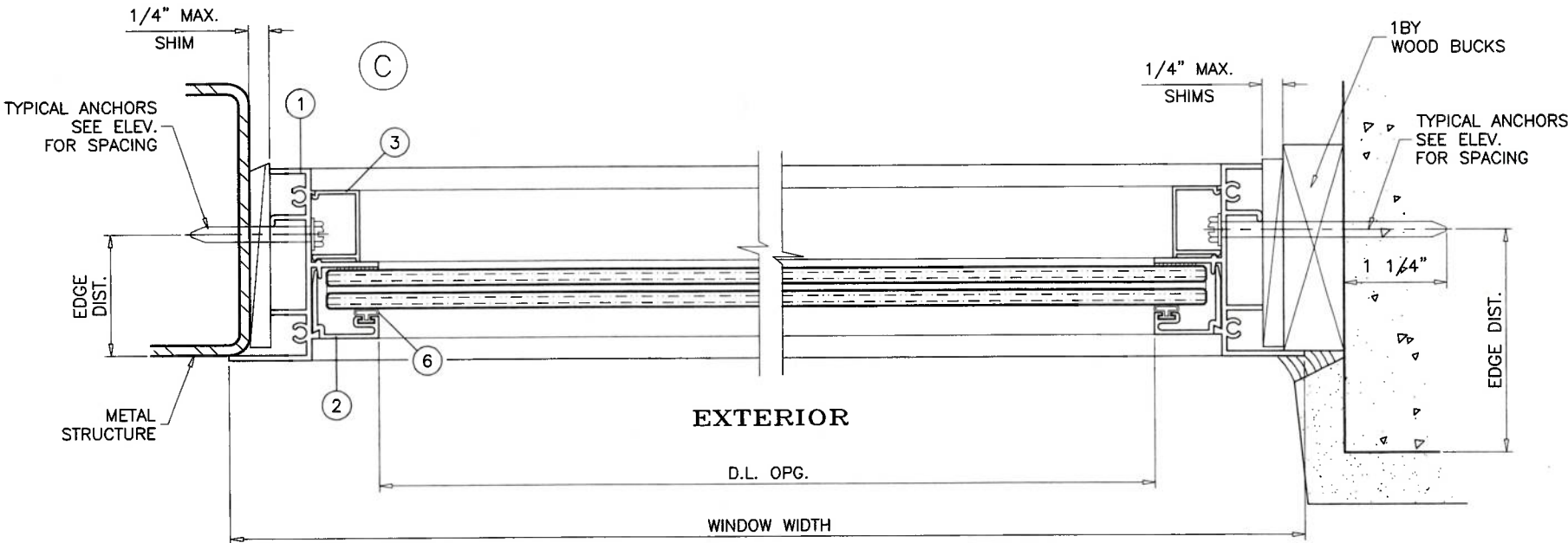
date: 09-09-05  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
**W05-46**  
sheet 3 of 5

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES1501	4	WINDOW FRAME	6063-T6	-
2	ES1106	4	GLAZING STOP	6063-T5	-
3	ES1502	4	FRAME COVER (OPTIONAL)	6063-T5	-
4	#8 X 1"	2/ CORNER	ASSEMBLY SCREWS	CRS	PH SMS
5	-	2/ LITE	SETTING BLOCKS, 7/16" X 3/16" X 3-1/2" LONG	EPDM	DUROMETER 75±5 SHORE A
6	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60±5 SHORE A
7	ES1505	-	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL

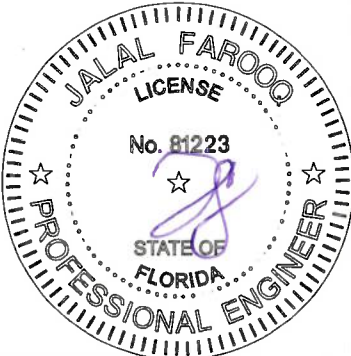


TYPICAL CORNER DETAIL



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Miami-Dade Product Control

DEC 01 2020



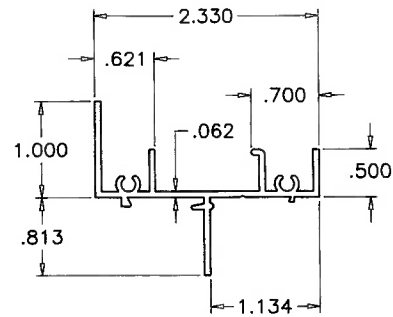
SERIES-1600 ALUMINUM FIXED WINDOW (S.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
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	G	12.23.15		UPDATED TO RER REQMTS.
	H	10.09.17		NO CHANGE THIS SHEET
	I	11.05.20		UPDATED TO 2020 FBC

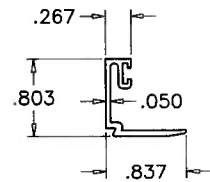
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chk. by:

drawing no.  
**W05-46**  
sheet 4 of 5

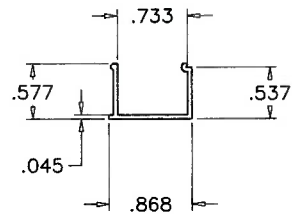
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W05-46ESW



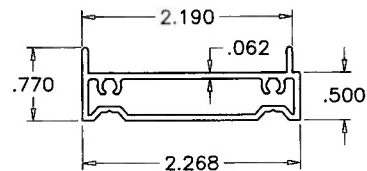
1 FRAME



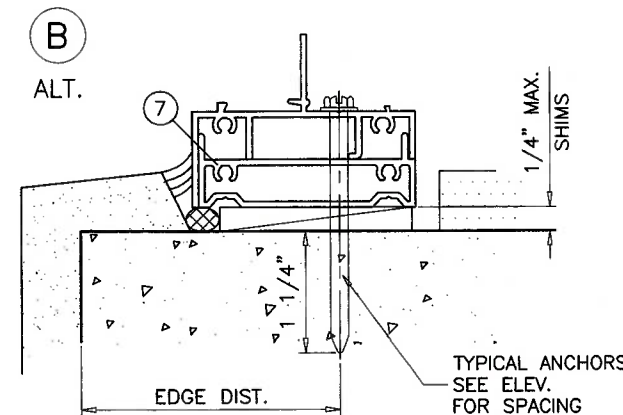
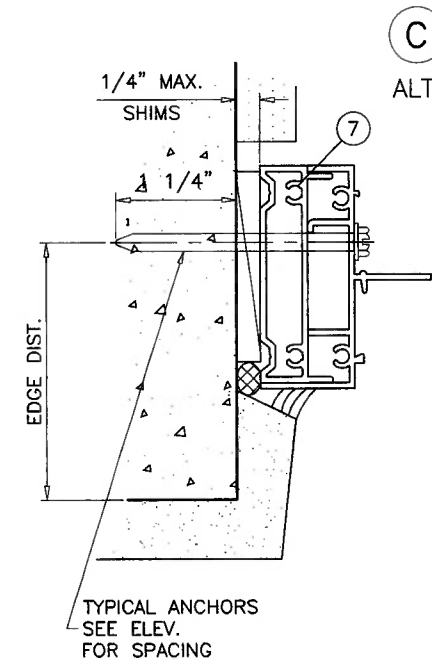
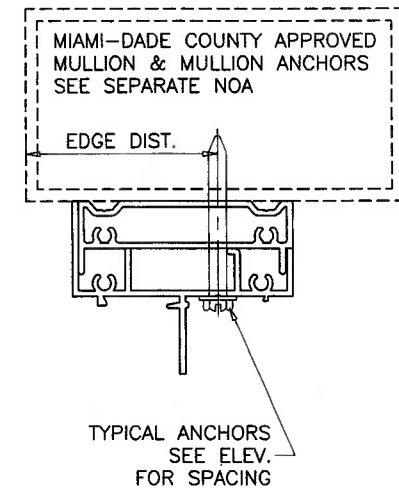
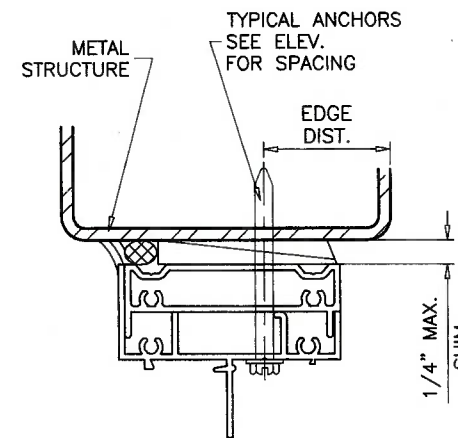
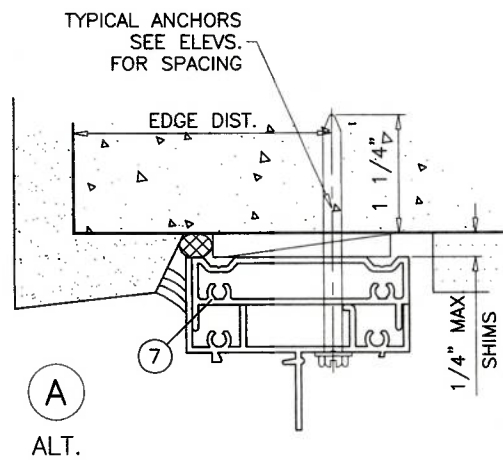
2 GLAZING STOP



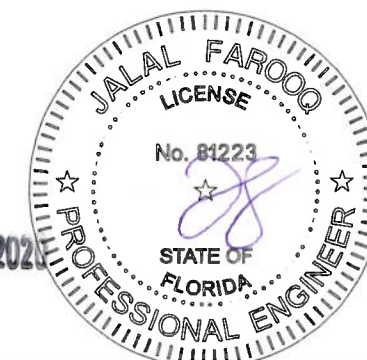
3 FRAME COVER (OPTIONAL)



7 FLUSH FRAME ADAPTER



**PRODUCT REVISED**  
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Miami-Dade Product Control



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
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SERIES-1600 ALUMINUM FIXED WINDOW (S.M.I.)  
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dr. by: TARIQ  
chk. by:

drawing no.  
**W05-46**  
sheet 5 of 5

DEC 01 2020