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

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

NOTICE OF ACCEPTANCE (NOA)

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

SCOPE:

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

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

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

DESCRIPTION: Series "1500" Aluminum Fixed Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W03-57** Rev **L**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 7 of 7, dated 08/27/03 and last revised on SEP 30, 2026, 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. 25-0929.01** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4, E-5 and E-6, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.** Ishaq I. Chanda

MIAMI-DADE COUNTY APPROVED

NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

E.S. Windows, LLC

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. 13-0910.01)

2. Drawing No. **W03-57**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 7 of 7, dated 07/31/03, with revision **J** dated 07/06/023, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0901.07)

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-5339**, dated 02/11/08, signed and sealed by Michael R. Wenzel, P.E.
(Submitted under NOA No. 08-0417.06)

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 an aluminum fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5054**, dated 10/03/06, signed and sealed by Edmundo Largaespada, P.E.
(Submitted in NOA No. 06-0308.05)

3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-3810**, **FTL-3819** and **FTL-3808**, dated 05/16/03, 06/09/03 and 05/14/03 respectively, all signed and sealed by Joseph C. Chan, P.E.
(Submitted under NOA No. 03-0910.01)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2010, FBC 5th Edition *(*2014) and FBC 6th Edition (2017), dated 09/10/14, 02/09/15 and 09/27/17 and updated on 11/16/20 to comply with FBC 7th Edition (2020), prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-1208.09)

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. **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. **23-0717.28** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 08/24/23, expiring on 07/08/24.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)** and **FBC 8th Edition (2023),** and of no financial interest, dated August 29, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0901.07)

2. Letter from consultant Al-Farooq Corporation, on behalf of **E.S. Windows**, LLC, requesting a 1-year extension to allow time to perform verification test, dated 08/29/23, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0901.07)

3. Testing agreement letter, dated 08/28/23 between QAI Laboratories and E.S. Windows, LLC, issued by QAI Laboratories and signed by Lusinda Delgado, Technical Report Writer
(Submitted under NOA No. 23-0901.07)

4. Distributor Agreement, dated 10/20/10, signed by Carla Garcia Torrente and by Andres Chamorro.
(Submitted under NOA No. 12-0223.41)

5. Laboratory compliance letter for Test Report No. **FTL-6236**, issued by Fenestration Testing Laboratory, Inc., dated 06/15/10, signed and sealed by Jorge A. Causo, P.E.
(Submitted under NOA No. 12-0223.41)

6. Proposal No. **09-1583** issued by Product Control, dated 11/23/09, signed by Jaime D. Gascon, P. E.
(Submitted under NOA No. 08-0417.06)

7. Laboratory compliance letter for Test Report No. **FTL-5054**, issued by Fenestration Testing Laboratory, Inc., dated 10/03/06, signed and sealed by Edmundo Largaespada, P.E.
(Submitted under NOA No. 06-0308.05)

8. Laboratory compliance letter for Test Reports No. **FTL-3810**, **FTL-3819** and **FTL-3808**, issued by Fenestration Testing Laboratory, Inc., dated 05/16/03, 06/09/03 and 05/14/03, all signed and sealed by Joseph C. Chan, P.E.
(Submitted under NOA No. 03-0910.01)

G. OTHERS

1. Notice of Acceptance No. **20-1208.09**, issued to ES Windows, LLC, for their Series "1500" Aluminum Fixed Window – L.M.I., approved on 02/18/21 and expiring on 11/06/23.

2. This is a one-year approval, subjected to successful verification test, the final approval will be issued for a total of 5 years.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED under previous approval

A. DRAWINGS

1. None.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **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. **23-0717.28** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 08/24/23, expiring on 07/08/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023),** and of no financial interest, dated October 30, 2024, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

2. Letter from consultant Al-Farooq Corporation, on behalf of **E.S. Windows**, LLC, requesting a 1-year extension to allow time to perform verification test, dated 10/30/24, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

1. Notice of Acceptance No. **23-0901.07**, issued to E.S. Windows, LLC, for their Series "1500" Aluminum Fixed Window – L.M.I., approved on 10/19/23 and expiring on 11/06/24.

2. This is a one-year approval, subjected to successful verification test, the final approval will be issued for a total of 5 years.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED previous approval

A. DRAWINGS

1. Drawing No. **W03-57** Rev **K**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 7 of 7, dated 08/27/03 and last revised on NOV 07, 2025, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

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 an aluminum fixed window (sample #1 & #2), prepared by IFET, Inc., Test Report No. **TR-IFET-24-0084 R1**, dated 11/10/25, signed and sealed by Arshad Viqar, P.E.

2) 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
   4) Impact Test per ANSI Z-97

along with marked-up drawings and installation diagram of an aluminum fixed window (mock-up #1), prepared by IFET, Inc., Test Report No. **TR-IFET-24-0053 R1**, dated 11/11/25, signed and sealed by Arshad Viqar, P.E.

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**", expiring on 07/04/28.

2. Notice of Acceptance No. **24-0205.08** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**", expiring on 07/08/29.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023),** and of no financial interest, dated AUG 19, 2025, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

1. This NOA **revises** & **renews NOA No. 24-1101.02**, expiring 11/06/2030.

2. Test Proposal # 24-0632 dated June 14, 2024, approved by RER.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. New EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W03-57** Rev **L**, titled "Series-1500 Aluminum Fixed Window (L.M.I.)", sheets 1 through 7 of 7, dated 08/27/03 and last revised on SEP 30, 2026, 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**", expiring on 07/04/28.

2. Notice of Acceptance No. **24-0205.08** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**", expiring on 07/08/29.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 9th Edition (2026)** and **FBC 8th Edition (2023),** and of no financial interest, dated SEP 30, 2026, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

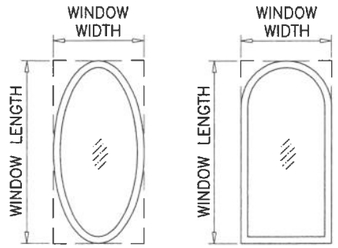
G. OTHERS

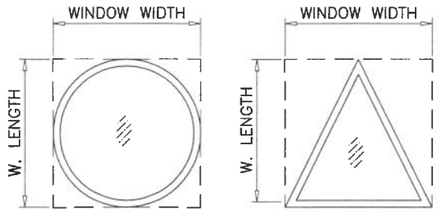
1. This NOA **revises NOA No. 25-0929.10**, expiring 11/06/2030.

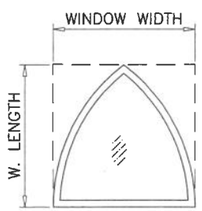
Ishaq I. Chanda

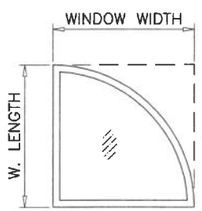
Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 26-1007.06
Expiration Date: November 06, 2030
Approval Date: November 05, 2026

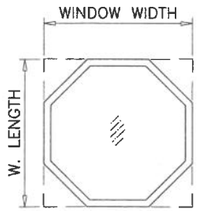
The following pages in this document were submitted by the manufacturer (third party) to represent the product being approved and establish the limits of use. The pages may include technical drawings, schematics and installation details.

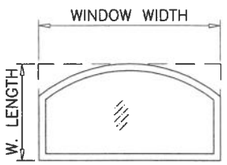


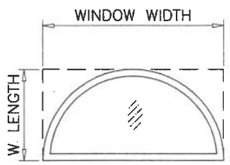


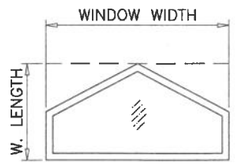






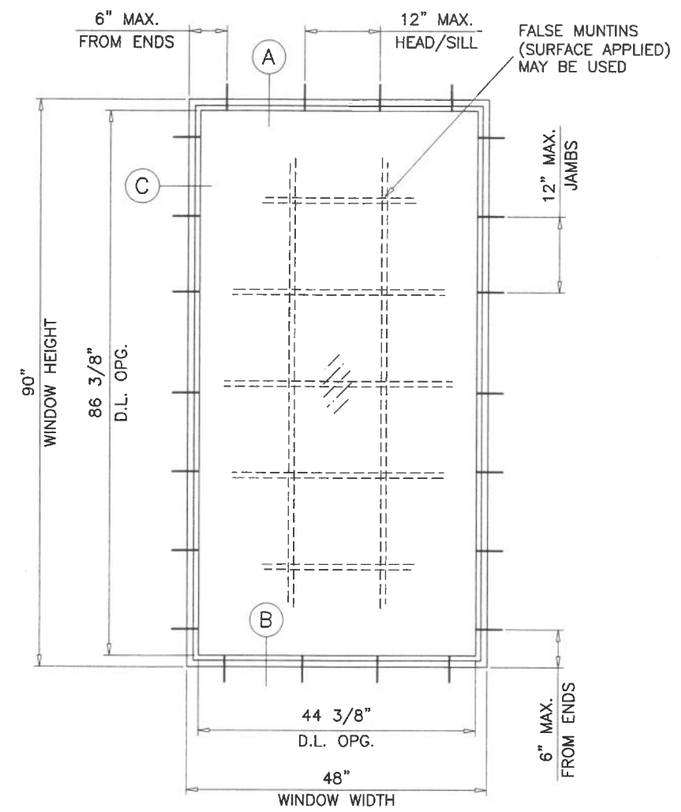






ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 26-1007.06
Expiration Date 11/06/2030
By Ishaq I. Chanda
Miami-Dade Product Control



TYPICAL ELEVATION

SERIES-1500 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 3.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION)/2026 (9TH 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 LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL OR OTHER RIGID MATERIALS).

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023/2026 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)'.

FASTENERS AND CONNECTORS (AS APPLICABLE) SHOWN IN THIS APPROVAL MAY NOT MEET CORROSION RESISTANCE REQUIREMENTS FOR COASTAL OR SALT WATER EXPOSURE ZONES. COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

WINDOWS WITH GLASS TYPES 'C1' AND 'C2' COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

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

SEP 3 0 2026

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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\W03-57ESW

SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

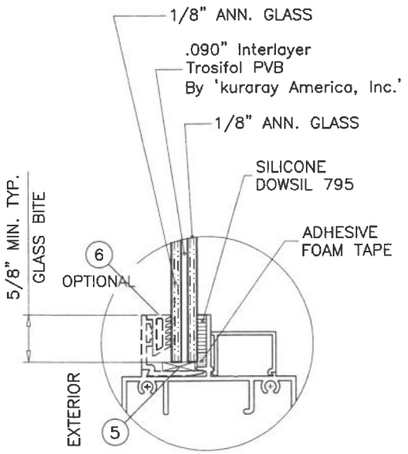
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:		
no	date	by description
H	09.27.17	UPDATED TO 2017 FBC
I	11.12.20	UPDATED TO 2020 FBC
J	07.06.23	UPDATED TO 2023 FBC
K	08.20.25	Z97.1 & GE SILICONE ADDED
L	09.28.26	UPDATED TO 2026 FBC

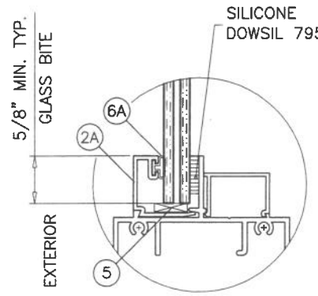
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dr. by: TARIQ
chk. by:

drawing no. W03-57

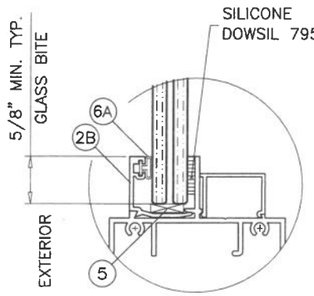
sheet 1 of 7



GLASS TYPE 'A'



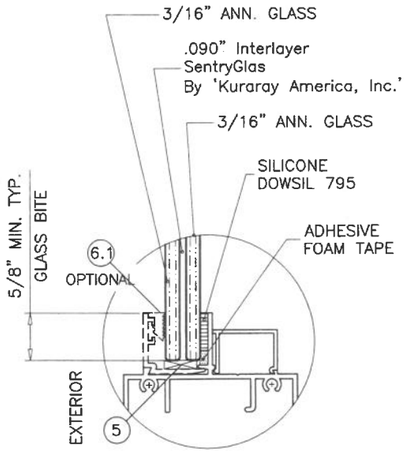
5/16" LAM. GLASS



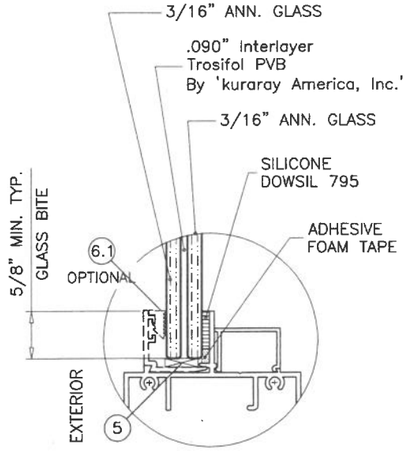
7/16" LAM. GLASS

ALT. GLAZING OPTIONS

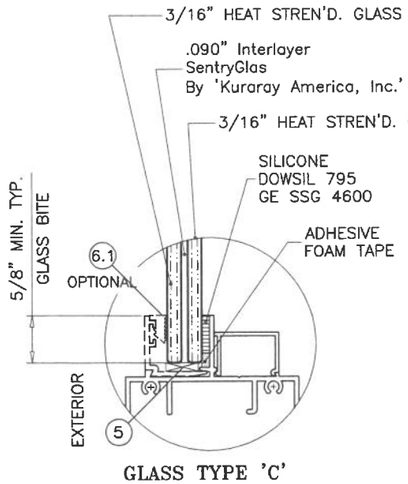
SQUARE GLAZING STOP CAN BE USED WITH ALL GLASS TYPES SHOWN ON THIS SHEET.



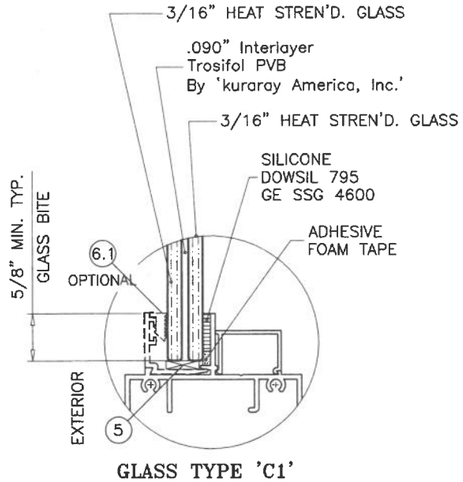
GLASS TYPE 'B'



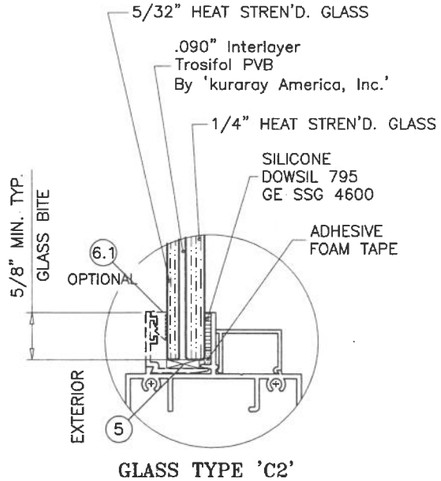
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GLASS TYPE 'C'



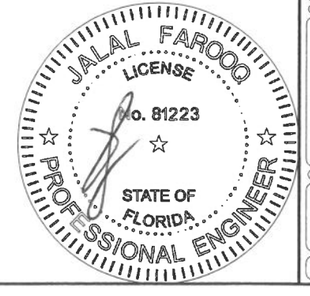
GLASS TYPE 'C1'



GLASS TYPE 'C2'

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 26-1007.06
Expiration Date 11/06/2030
By Ishaq I. Chanda
Miami-Dade Product Control

SEP 3 0 2026



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\W03-57ESW

SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

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

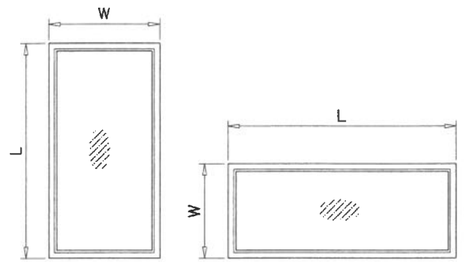
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no	date	by	description
H	09.27.17		UPDATED TO 2017 FBC
I	11.12.20		UPDATED TO 2020 FBC
J	07.06.23		NO CHANGE THIS SHEET
K	08.20.25		Z97.1 & GE SILICONE ADDED
L	09.28.26		NO CHANGE THIS SHEET

date: 07-31-03
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W03-57

DESIGN LOAD CAPACITY – PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'B1'		GLASS TYPES 'C', 'C1' & 'C2'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
18"	36"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		70.0	70.0	70.0	90.0	70.0	80.0
36"		70.0	70.0	70.0	90.0	70.0	80.0
42"		70.0	70.0	70.0	90.0	70.0	80.0
48"		70.0	70.0	70.0	90.0	70.0	80.0
54"		70.0	70.0	70.0	90.0	70.0	80.0
60"		67.3	67.3	70.0	90.0	70.0	80.0
18"	48"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		70.0	70.0	70.0	90.0	70.0	80.0
36"		70.0	70.0	70.0	90.0	70.0	80.0
42"		60.0	60.0	70.0	90.0	70.0	80.0
48"		–	–	70.0	90.0	70.0	80.0
54"		–	–	70.0	90.0	70.0	80.0
60"		–	–	70.0	90.0	70.0	80.0
18"	60"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		70.0	70.0	70.0	90.0	70.0	80.0
36"		67.3	67.3	70.0	90.0	70.0	80.0
42"		–	–	70.0	90.0	70.0	80.0
48"		–	–	70.0	90.0	70.0	80.0
54"		–	–	–	–	62.2	71.1
60"		–	–	–	–	56.0	64.0
18"	72"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		64.2	64.2	70.0	90.0	70.0	80.0
36"		–	–	70.0	90.0	70.0	80.0
42"		–	–	–	–	70.0	80.0
48"		–	–	–	–	70.0	80.0
54"		–	–	–	–	62.2	71.1
60"		–	–	–	–	56.0	64.0
18"	84"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		–	–	70.0	90.0	70.0	80.0
36"		–	–	–	–	70.0	80.0
42"		–	–	–	–	70.0	80.0
48"		–	–	–	–	70.0	80.0
18"	90"	70.0	70.0	70.0	90.0	70.0	80.0
24"		70.0	70.0	70.0	90.0	70.0	80.0
30"		–	–	70.0	90.0	70.0	80.0
36"		–	–	–	–	70.0	80.0
42"		–	–	–	–	70.0	80.0
48"		–	–	–	–	70.0	80.0
18"	96"	70.0	70.0	70.0	90.0	70.0	80.0
24"		–	–	70.0	90.0	70.0	80.0
30"		–	–	70.0	90.0	70.0	80.0
36"		–	–	–	–	70.0	80.0
42"		–	–	–	–	70.0	80.0

DESIGN LOAD CAPACITY – PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'B1'		GLASS TYPES 'C', 'C1' & 'C2'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
18"	108"	70.0	70.0	70.0	90.0	70.0	80.0
24"		–	–	70.0	90.0	70.0	80.0
30"		–	–	–	–	70.0	80.0
36"		–	–	–	–	70.0	80.0
18"	120"	56.2	56.2	70.0	90.0	70.0	80.0
24"		–	–	70.0	90.0	70.0	80.0
30"		–	–	–	–	70.0	80.0
36"		–	–	–	–	70.0	80.0



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

DESIGN LOAD CAPACITY – PSF							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B' & 'B1'		GLASS TYPES 'C', 'C1' & 'C2'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
19–1/8"	26"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		70.0	70.0	70.0	90.0	70.0	80.0
48"		70.0	70.0	70.0	90.0	70.0	80.0
53–1/8"		70.0	70.0	70.0	90.0	70.0	80.0
19–1/8"	38–3/8"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		68.1	68.1	70.0	90.0	70.0	80.0
48"		65.7	65.7	70.0	90.0	70.0	80.0
53–1/8"		65.7	65.7	70.0	90.0	70.0	80.0
19–1/8"	50–5/8"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		68.1	68.1	70.0	90.0	70.0	80.0
48"		–	–	70.0	90.0	70.0	80.0
53–1/8"		–	–	66.4	85.3	66.4	75.9
19–1/8"	58"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		68.1	68.1	70.0	90.0	70.0	80.0
48"		–	–	70.0	90.0	70.0	80.0
53–1/8"		–	–	–	–	63.2	72.3
19–1/8"	63"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		–	–	70.0	90.0	70.0	80.0
48"		–	–	–	–	70.0	80.0
53–1/8"		–	–	–	–	63.2	72.3
19–1/8"	74–1/4"	70.0	70.0	70.0	90.0	70.0	80.0
26–1/2"		70.0	70.0	70.0	90.0	70.0	80.0
37"		–	–	70.0	90.0	70.0	80.0
48"		–	–	–	–	70.0	80.0
53–1/8"		–	–	–	–	63.2	72.3

PRODUCT REVISED
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NOA–No. 26-1007.06
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By Ishaq I. Chanda
Miami–Dade Product Control

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300–16 (3 SEC. GUSTS).

SEP 3 0 2026

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

COMP–ANL\W03–57ESW

SERIES–1500 ALUMINUM FIXED WINDOW (L.M.I.)

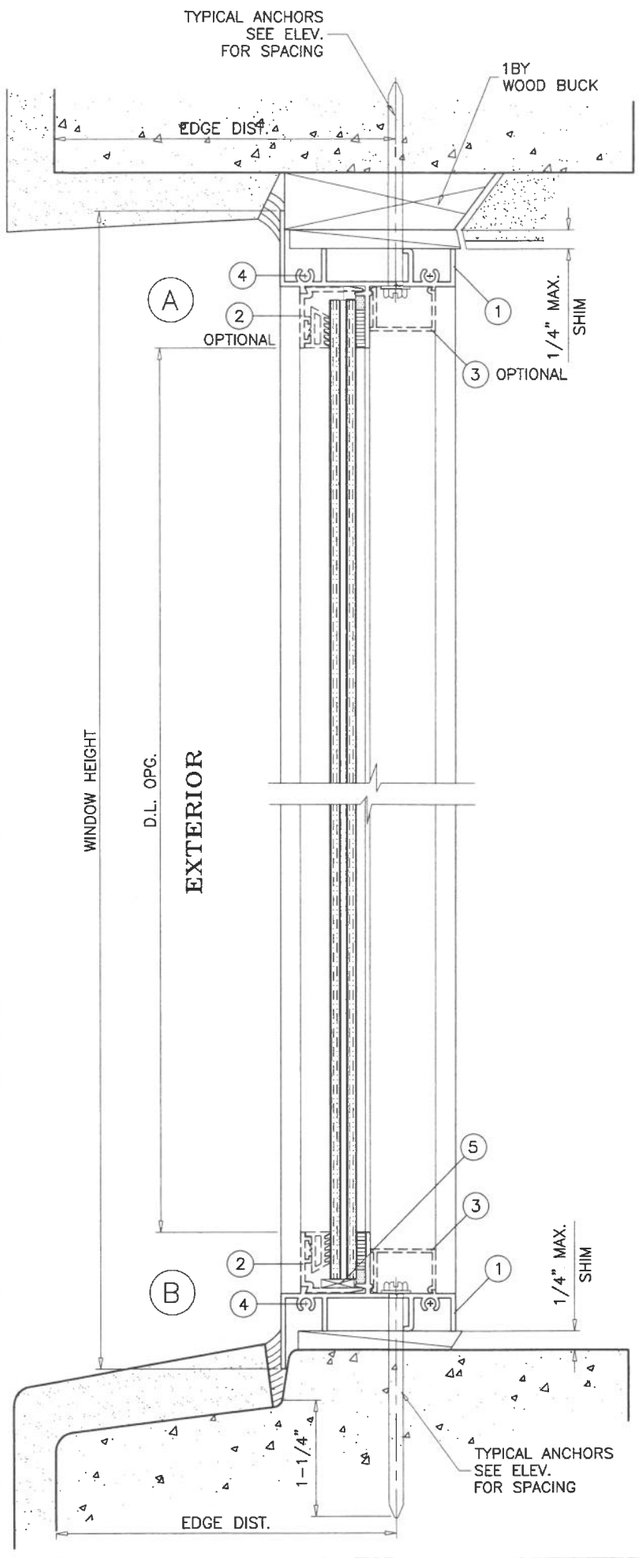
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5151 FAX. (305) 638–5158

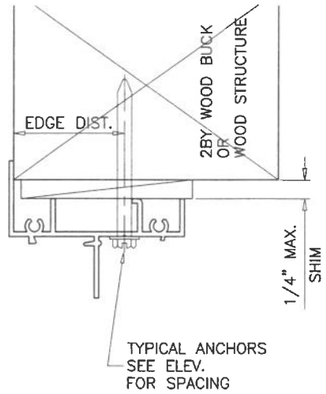
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I	11.12.20		UPDATED TO 2020 FBC
J	07.06.23		NO CHANGE THIS SHEET
K	08.20.25		NO CHANGE THIS SHEET
L	09.28.26		UPDATED TO 2026 FBC

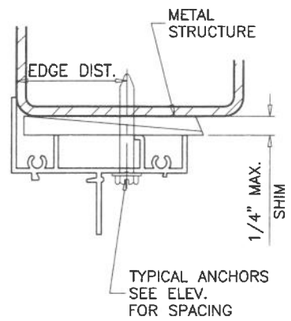
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chk. by:

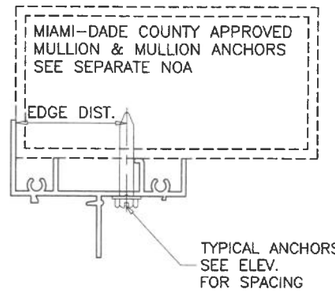
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W03–57

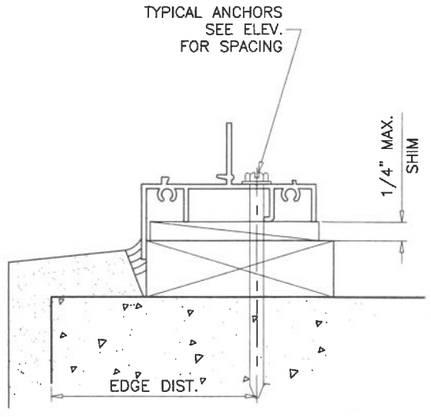
sheet 3 of 7











WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS' 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.

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By Ishaq I. Chanda
Miami-Dade Product Control

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)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO 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
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
(NO SHIM SPACE)
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 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

SEP 3 0 2026

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SERIES-1500 ALUMINUM FIXED WINDOW (L.M.I.)

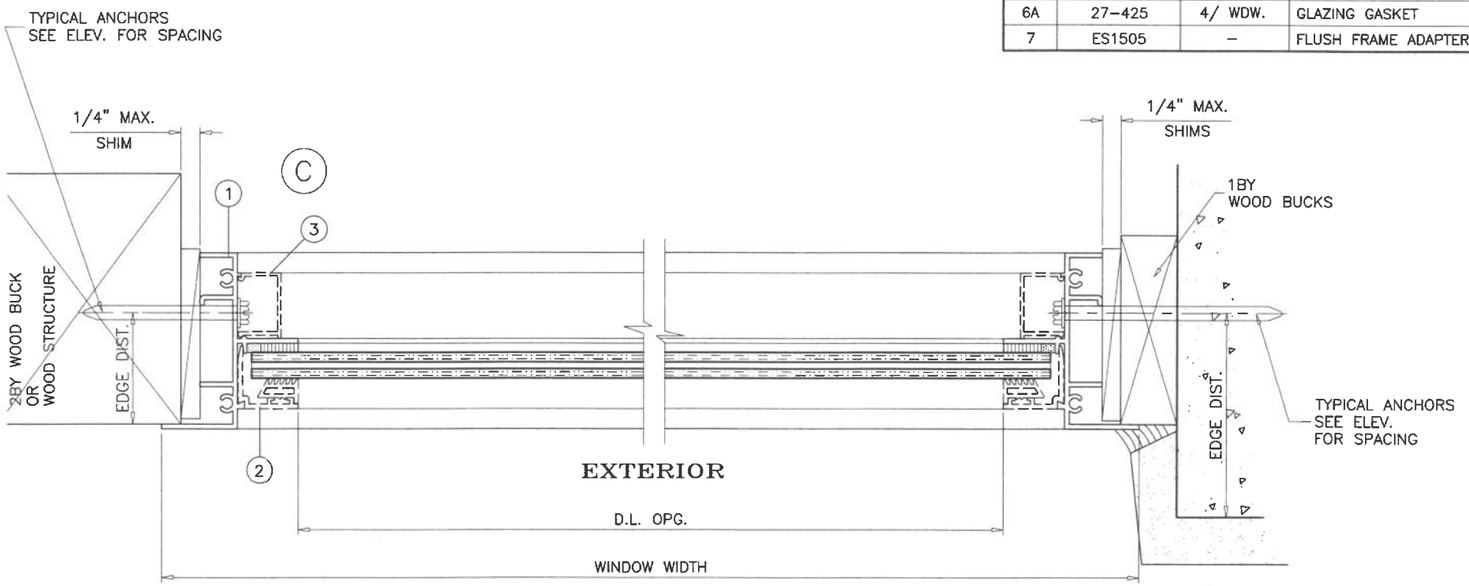
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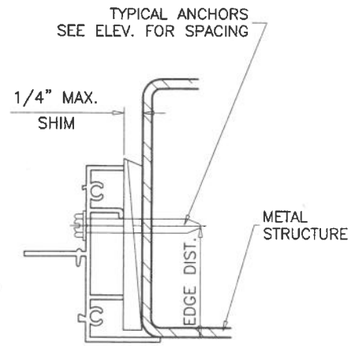
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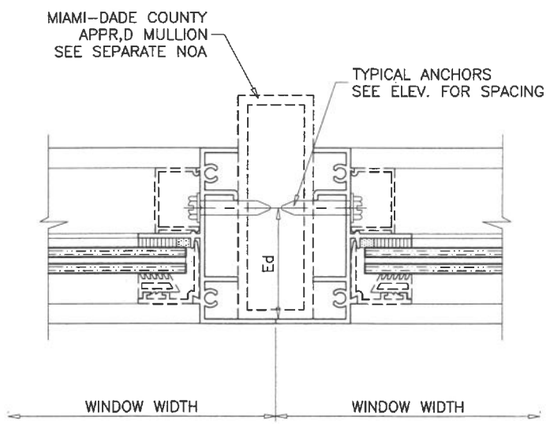
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dr. by: TARIQ
chk. by:

drawing no. W03-57

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES1501	4	WINDOW FRAME	6063-T6	-
2	ES1008	OPTIONAL	GLAZING STOP	6063-T6	-
2A	ES1103	4/ WDW.	GLAZING STOP (5/16" GLASS)	6063-T5	-
2B	ES1017	4/ WDW.	GLAZING STOP (7/16" GLASS)	6063-T5	-
3	ES1502	4	FRAME COVER (OPTIONAL)	6063-T6	-
4	#8 X 1"	AS REQD.	ASSEMBLY SCREWS	CRS	PH SMS
4A	#8 X 1/2"	AS REQD.	ASSEMBLY SCREWS	CRS	FH SMS
5	27-372	2/ LITE	SETTING BLOCK, 7/16" X 3/16" X 3-1/2" LONG	EPDM	DUROMETER 75±5 SHORE A
6	ES1010	OPTIONAL	GLAZING WEDGE	SOFT PVC	DUROMETER 70 SHORE 'A'
6.1	ES4013	OPTIONAL	GLAZING WEDGE	SOFT PVC	DUROMETER 70 SHORE 'A'
6A	27-425	4/ WDW.	GLAZING GASKET	EPDM	DUROMETER 60 SHORE 'A'
7	ES1505	-	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL







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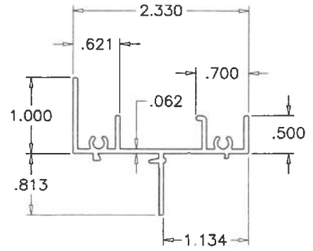
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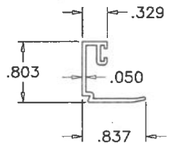
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dr. by: TARIQ
chk. by:

drawing no. W03-57

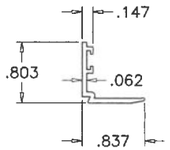
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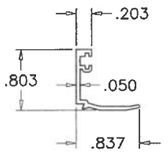
1 FRAME



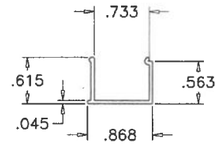
2A SQUARE GLAZING STOP



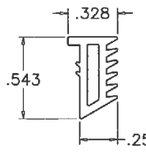
2 GLAZING STOP (OPTIONAL)



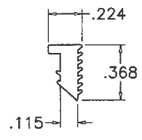
2B SQUARE GLAZING STOP



3 FRAME COVER (OPTIONAL)

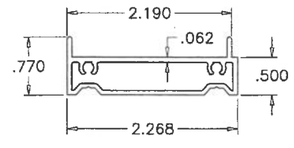


6 GLAZING WEDGE (OPTIONAL)

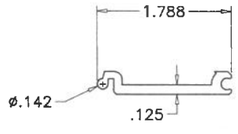


6.1

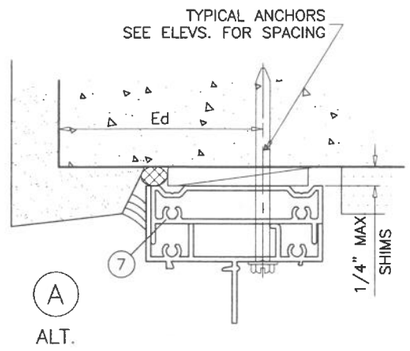
SCALE 1:1



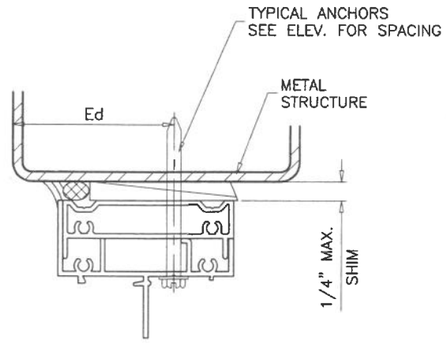
7 FLUSH FRAME ADAPTER

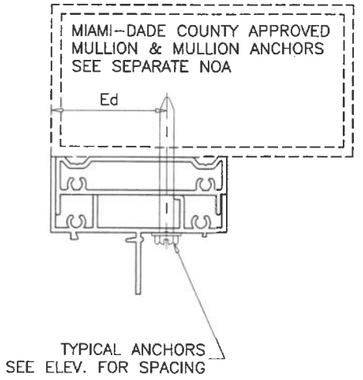


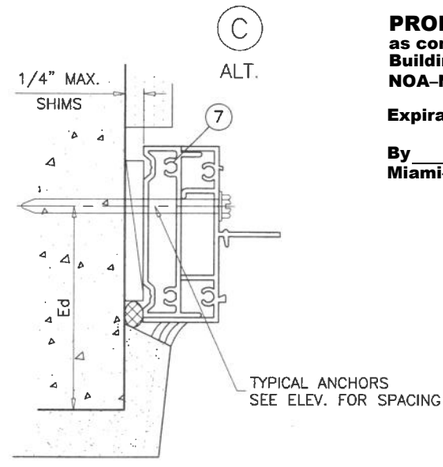
– ALUM CORNER LOCK (6063–T5)



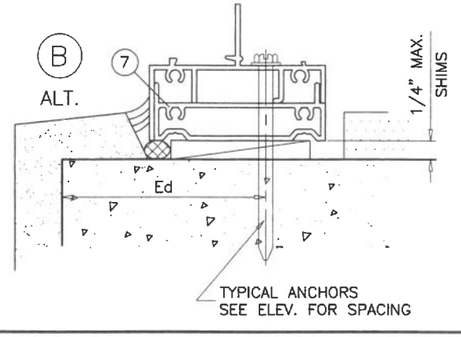
A ALT.







C ALT.



PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 26-1007.06
Expiration Date 11/06/2030
By Ishaq I. Chanda
Miami–Dade Product Control

INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

SEP 3 0 2026

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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\W03–57ESW

SERIES–1500 ALUMINUM FIXED WINDOW (L.M.I.)

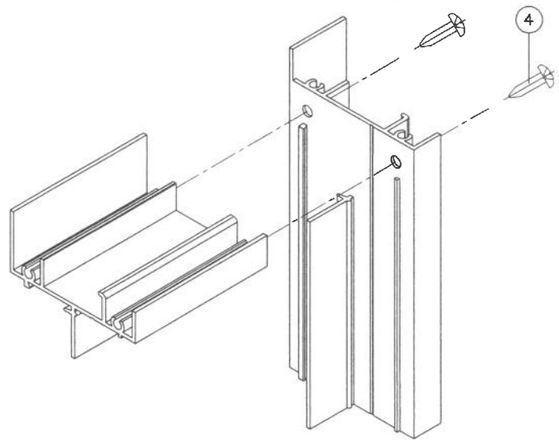
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5151 FAX. (305) 638–5158

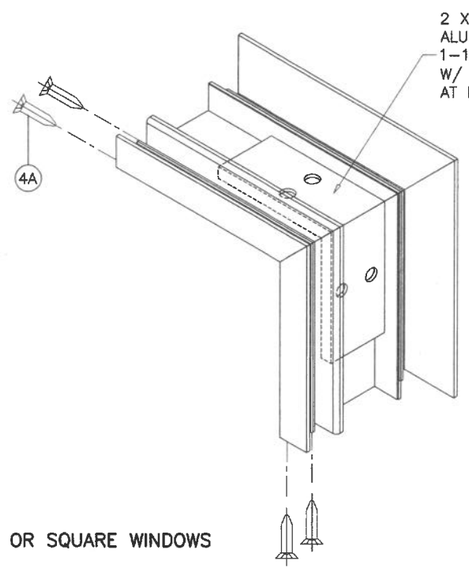
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I	11.12.20		UPDATED TO 2020 FBC
J	07.06.23		NO CHANGE THIS SHEET
K	08.20.25		NO CHANGE THIS SHEET
L	09.28.26		NO CHANGE THIS SHEET

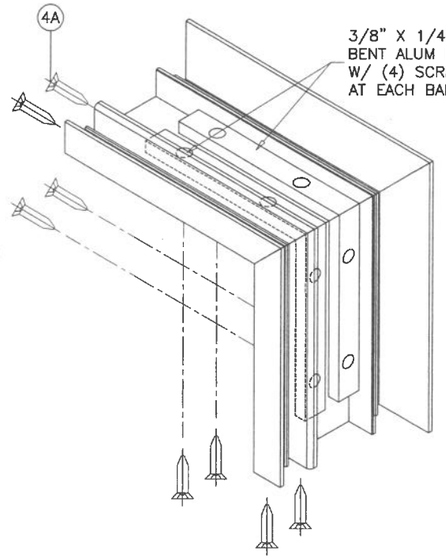
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chk. by:

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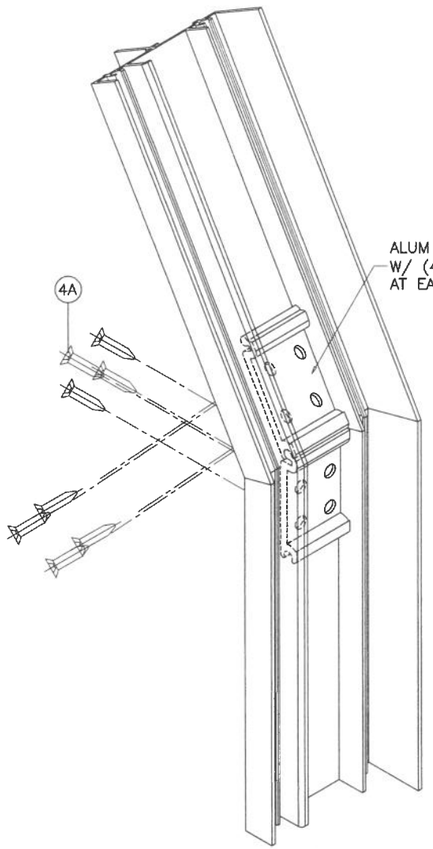
sheet 6 of 7

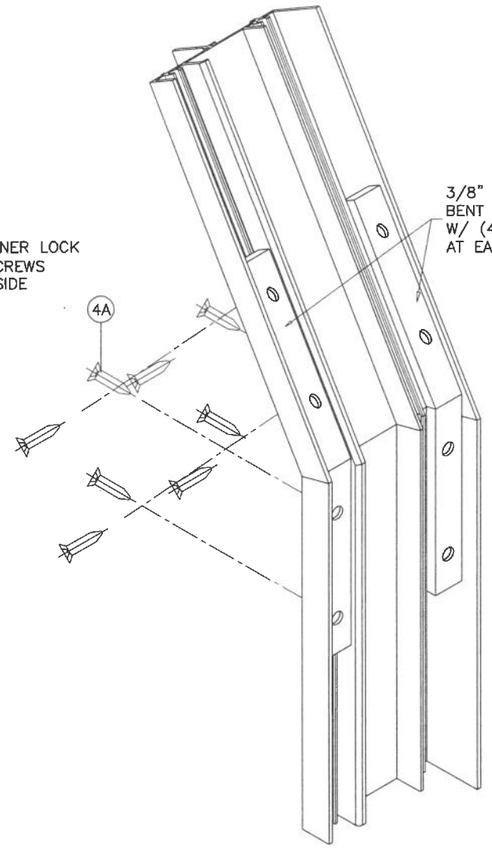






RECT. OR SQUARE WINDOWS





CIRCULAR OR ANGULAR WINDOWS

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 26-1007.06
Expiration Date 11/06/2030
By Ishaq I. Chanda
Miami-Dade Product Control

TYPICAL CORNER DETAILS

SEP 3 0 2026

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

afc

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W03-57

sheet 7 of 7