SHOP DRAWING / SUBMITTAL REVIEW
☑ APPROVED ☐ APPROVED AS NOTED
☐ REVISE AND RESUBMIT ☐ REJECTED
SUBMITTAL WAS REVIEWED FOR DESIGN CONFORMITY AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH OTHER TRADES, AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS.
By: C.O. Date: 06/08/2026
ALAYM AGUILAR, P.E.
LIC# 92154

MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND BOARD AND CODE ADMINISTRATION

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

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 "5000" Outswing Aluminum Casement Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W08-08**, titled "S-5000 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1 through 10 of 10, dated 01/23/08, with revision **I** dated 07/06/23, 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. 22-1227.02** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

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

MIAMI-DADE COUNTY APPROVED

8/18/23

NOA No. 23-0717.25
Expiration Date: April 03, 2028
Approval Date: August 25, 2023

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. 11-0419.01)

2. Drawing No. **W08-08**, titled "S-5100 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1 through 10 of 10, dated 01/23/08, with revision **H** dated 08/25/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-0915.02)

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) 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 mulled series 5000 outswing aluminum casement and a fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-12112**, dated 06/19/20, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 20-0915.02)

2. Test reports on: 1) Large 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 series 5000 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-9711**, dated 07/26/18, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 19-0708.03)

3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Type "B" Window, Grade 10, per FBC 2411 3.2.1, TAS 202-94 and per ASTM F 588-07
along with marked-up drawings and installation diagram of series 5000 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-6294** and **FTL-6295**, dated 02/25/11 and 03/16/11 respectively, both signed and sealed by Marlin D. Brinson, P.E.
(Submitted under NOA No. 11-0419.01)

Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-0717.25
Expiration Date: April 03, 2028
Approval Date: August 25, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

B. TESTS (CONTINUED)

4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Type "B" Window, Grade 10, per FBC 2411 3.2.1, TAS 202-94 and per ASTM F 588-04

along with marked-up drawings and installation diagram of series 5000 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5336**, dated 11/16/07, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No.08-0204.05)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, dated 10/27/14, revised on 09/22/17 and updated to comply with **FBC 7th Edition (2020)**, prepared by Al-Farooq Corporation, dated 08/27/20, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-0915.02)

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. **20-0915.22** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 11/19/20, expiring on 07/08/24.

2. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers**" dated 12/15/22, expiring on 07/04/28.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-0717.25
Expiration Date: April 03, 2028
Approval Date: August 25, 2023

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 of no financial interest, dated December 23, 2022, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 22-1227.02)

2. Laboratory compliance letter for Test Reports No. **FTL-6294** and **FTL-6295**, issued by Fenestration Testing Laboratory, Inc., dated 02/25/11 and 03/16/11 respectively, both signed and sealed by Marlin D. Brinson, P.E.
(Submitted under NOA No. 11-0419.01)

3. Laboratory compliance letter for Test Report No. **FTL-5336**, issued by Fenestration Testing Laboratory, Inc., dated 11/16/07, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 08-0204.05)

G. OTHERS

1. Notice of Acceptance No. **20-0915.02**, issued to E.S. Windows, LLC, for their Series "5000" Outswing Aluminum Casement Window – L.M.I., approved on 12/17/20 and expiring on 04/03/23.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-0717.25
Expiration Date: April 03, 2028
Approval Date: August 25, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W08-08**, titled "S-5100 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1 through 10 of 10, dated 01/23/08, with revision **I** dated 07/06/23, 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. **20-0915.22** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 11/19/20, expiring on 07/08/24.

2. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers**" dated 12/15/22, expiring on 07/04/28.

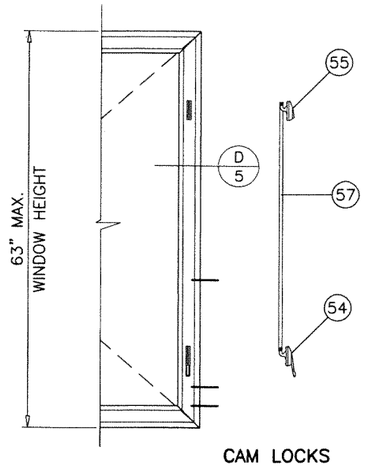
F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020),** with **FBC 8th Edition (2023),** and of no financial interest, dated July 14, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

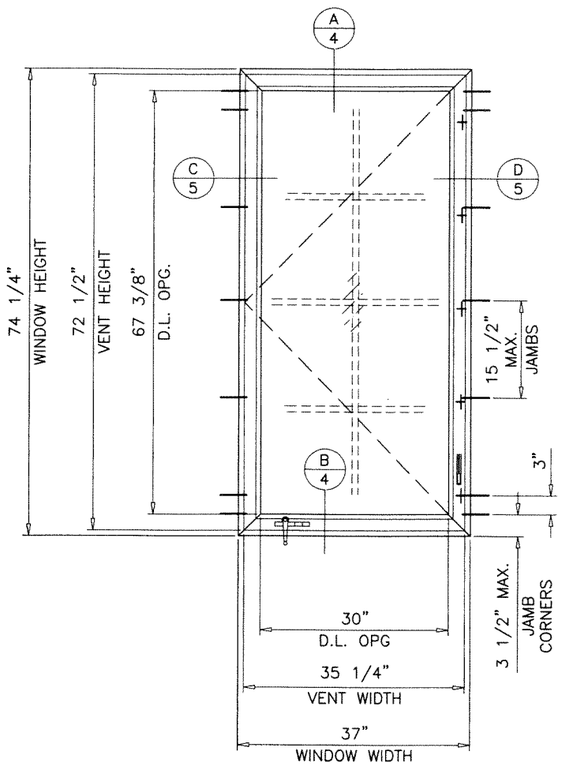
G. OTHERS

1. Notice of Acceptance No. **22-1227.02**, issued to E.S. Windows, LLC, for their Series "5000" Outswing Aluminum Casement Window – L.M.I., approved on 01/19/23 and expiring on 04/03/28.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-0717.25
Expiration Date: April 03, 2028
Approval Date: August 25, 2023

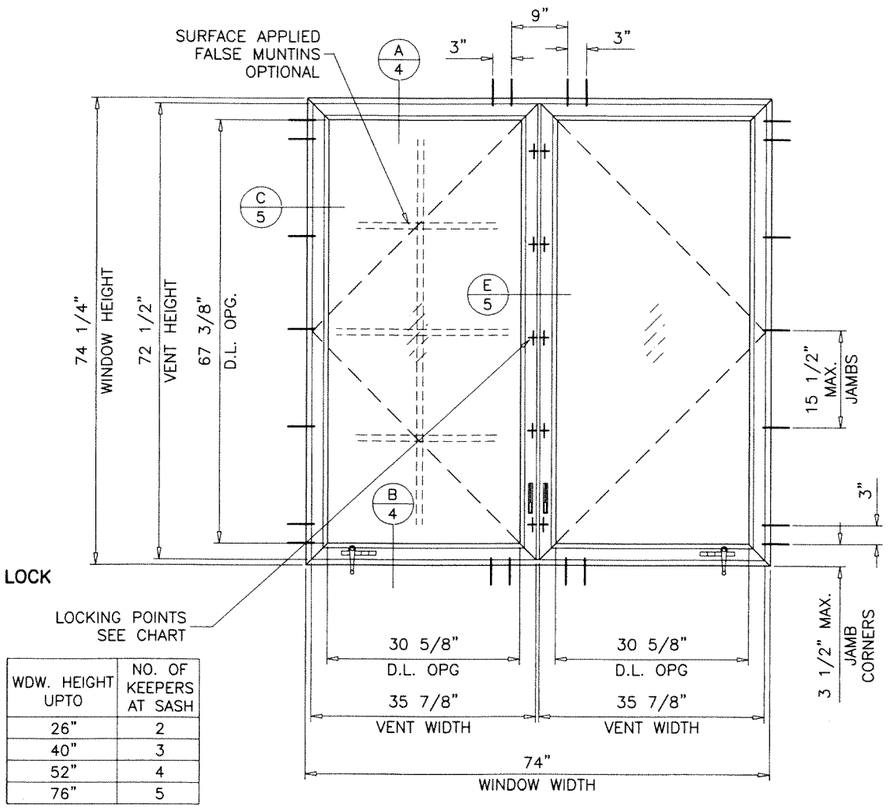


CAM LOCKS
(2) LOCKING POINTS
ALL SIZES



SINGLE (X)

MULTI POINT LOCK



WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
40"	3
52"	4
76"	5

DOUBLE (XX)

TYPICAL ELEVATIONS

SERIES 5000
ALUMINUM OUTSWING CASEMENT WINDOW

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

APPROVAL APPLIES TO SINGLE OR DOUBLE WINDOWS OR SIDE BY SIDE COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH SERIES 5100 FIXED WINDOWS USING MULLIONS IN BETWEEN.
LOWER DESIGN PRESSURE FROM CASEMENT WINDOW, FIXED WINDOW OR MULLION CHART WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

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

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 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)'.

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

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-0717.25
Expiration Date: 04/03/2028
By: Manuel Perez
Miami-Dade Product Control

JUL 07 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

afc
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\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (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
E	05.06.15		REV. PER RER COMMENTS
F	10.16.17		UPDATED TO 2017 FBC
G	09.27.18		NO CHANGE THIS SHEET
H	08.25.20		UPDATED TO 2020 FBC
I	07.06.23		UPDATED TO 2023 FBC

date: 01-23-08
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no.
W08-08

sheet 1 of 10

DESIGN LOAD CAPACITY – PSF FOR (X) SIZES

WINDOW DIMS.		WITH CAM LOCKS		WINDOWS WITH MULTI POINT LOCK							
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPES 'C', 'D', 'E', 'F'		GLASS TYPE 'G'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
19–1/8"	26"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
26–1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	102.8
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	90.6
19–1/8"	38–3/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
26–1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	104.5
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	92.0
19–1/8"	50–5/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
26–1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	105.6
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	93.0
19–1/8"	63"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
26–1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	106.1
42"		–	–	–	–	–	–	90.0	90.0	90.0	93.4
19–1/8"	74–1/4"	–	–	–	–	–	–	90.0	90.0	90.0	114.0
26–1/2"		–	–	–	–	–	–	90.0	90.0	90.0	114.0
37"		–	–	–	–	–	–	90.0	90.0	90.0	90.0
19–1/8"	76"	–	–	–	–	–	–	90.0	90.0	90.0	114.0
26–1/2"		–	–	–	–	–	–	90.0	90.0	90.0	111.1
36"		–	–	–	–	–	–	85.4	85.4	85.4	85.4
24"	48"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
40"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	103.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	98.1
24"	54"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
40"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	109.0
24"	60"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
40"		–	–	–	–	–	–	90.0	90.0	90.0	103.0
42"		–	–	–	–	–	–	90.0	90.0	90.0	98.1
24"	66"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0
36"		–	–	–	–	–	–	90.0	90.0	90.0	104.1
40"		–	–	–	–	–	–	90.0	90.0	90.0	93.7
24"	72"	–	–	–	–	–	–	90.0	90.0	90.0	114.0
28"		–	–	–	–	–	–	90.0	90.0	90.0	114.0
32"		–	–	–	–	–	–	90.0	90.0	90.0	107.3
36"		–	–	–	–	–	–	90.0	90.0	90.0	95.4
24"	76"	–	–	–	–	–	–	90.0	90.0	90.0	114.0
28"		–	–	–	–	–	–	90.0	90.0	90.0	105.7
32"		–	–	–	–	–	–	90.0	90.0	90.0	94.1
36"		–	–	–	–	–	–	85.4	85.4	85.4	85.4
26–3/8"	60–3/4"	–	–	–	–	–	–	–	–	90.0	114.0

DESIGN LOAD CAPACITY – PSF FOR (XX) SIZES

WINDOW DIMS.		WITH CAM LOCKS		WINDOWS WITH MULTI POINT LOCK					
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPES 'C', 'D', 'E', 'F', 'G'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
37"	26"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53–1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	38–3/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53–1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
74"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	50–5/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53–1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
74"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	63"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53–1/8"		79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
74"		61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
84"		–	–	–	–	–	–	56.5	56.5
37"	74–1/4"	–	–	–	–	–	–	66.6	66.6
53–1/8"		–	–	–	–	–	–	47.6	47.6
74"		–	–	–	–	–	–	36.0	36.0
37"	76"	–	–	–	–	–	–	62.0	62.0
53–1/8"		–	–	–	–	–	–	44.3	44.3
74"		–	–	–	–	–	–	33.4	33.4
48"	48"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
64"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
72"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
80"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
48"	54"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
64"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
72"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
80"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
48"	60"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	88.9	88.9	88.9	88.9
64"		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
72"		73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
80"		–	–	–	–	–	–	68.7	68.7
84"		–	–	–	–	–	–	66.8	66.8
48"	66"	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
56"		65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
64"		58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9
72"		–	–	–	–	–	–	53.8	53.8
80"		–	–	–	–	–	–	49.9	49.9
48"	72"	–	–	–	–	–	–	57.4	57.4
56"		–	–	–	–	–	–	50.0	50.0
64"		–	–	–	–	–	–	44.6	44.6
72"		–	–	–	–	–	–	40.6	40.6
48"	76"	–	–	–	–	–	–	48.6	48.6
56"		–	–	–	–	–	–	42.3	42.3
64"		–	–	–	–	–	–	37.6	37.6
72"		–	–	–	–	–	–	34.1	34.1

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

PRODUCT REVISED
As complying with the Florida Building Code
NOA–No. 23-0717.25
Expiration Date: 04/03/2028
By: Manuel Perez
Miami–Dade Product Control

JUL 07 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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\W08–08ESW

S–5000 ALUM OUTSWING CASEMENT WDW. (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
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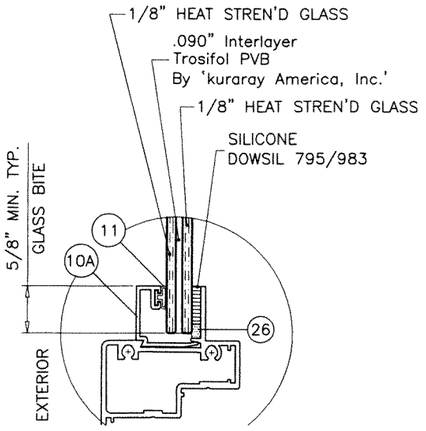
F	10.16.17		UPDATED TO 2017 FBC
G	09.27.18		GLASS OPTION ADDED
H	08.25.20		UPDATED TO 2020 FBC
I	07.06.23		NO CHANGE THIS SHEET

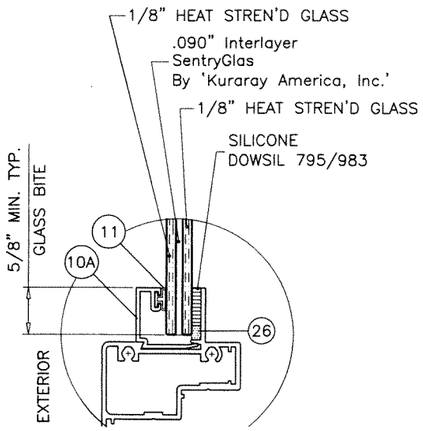
date: 01–23–08
scale: 1/2"=1'–0"
dr. by: TARIQ
chk. by:

drawing no. W08–08

sheet 2 of 10



GLASS TYPE 'A'



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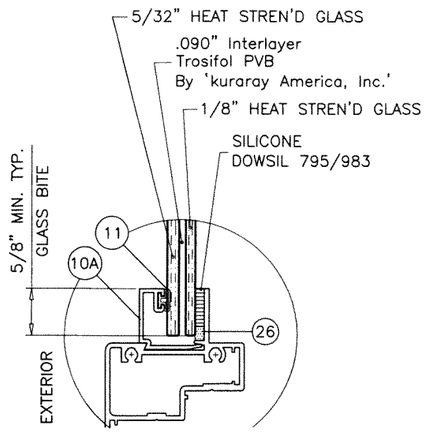

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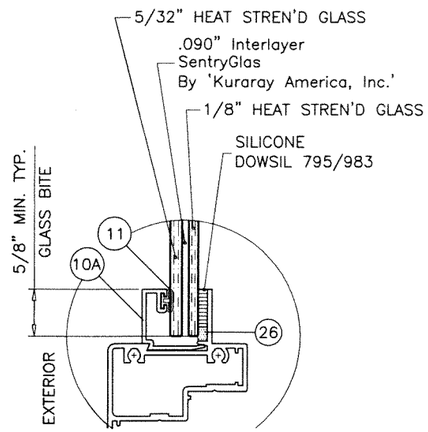
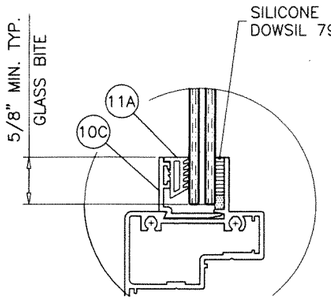
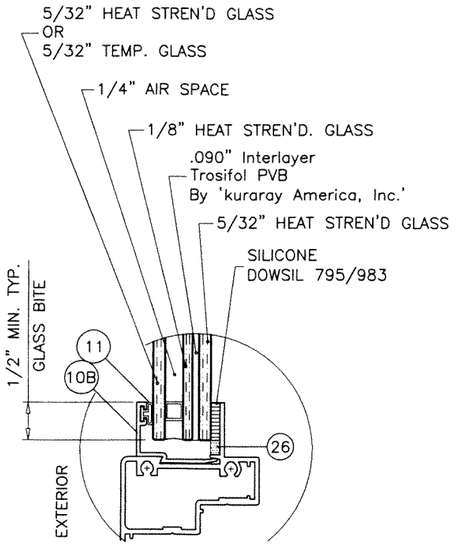


GLASS TYPE 'D'

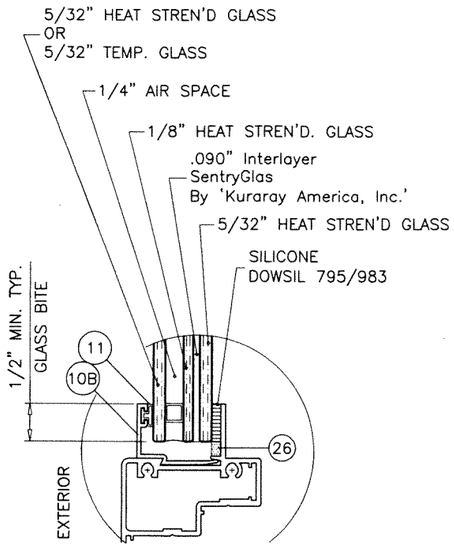


ALT. GLAZING OPTION

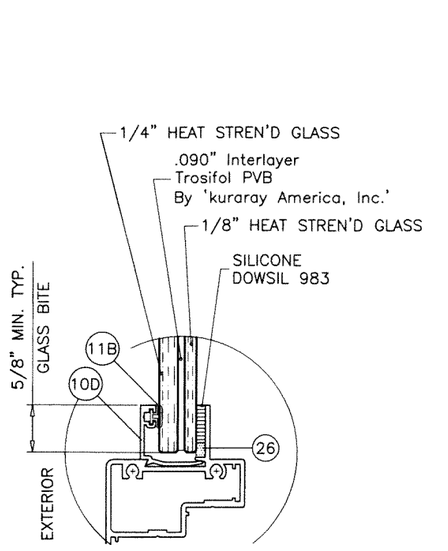
THESE GLAZING STOP CAN BE USED WITH GLASS TYPES 'A', 'B', 'C' & 'D'.



GLASS TYPE 'E'



GLASS TYPE 'F'



GLASS TYPE 'G'

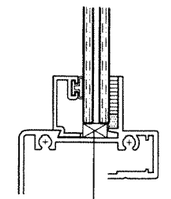
GLAZING OPTIONS

NOTE:
TO QUALIFY FOR SMALL MISSILE IMPACT RATING
EXTERIOR PLY OF GLASS TYPES 'E' & 'F' MUST BE TEMPERED.

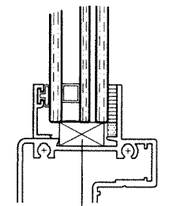
1/4" AIR SPACE CONSISTING OF:

SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.

PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000



SETTING BLOCKS AT LAM. GLASS
NOTCH GLAZING BEAD LEG
TO CLEAR BLOCKS



SETTING BLOCKS AT INSUL. LAM. GLASS
NOTCH GLAZING BEAD LEG
TO CLEAR BLOCKS

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-0717.25
Expiration Date: 04/03/2028
By: Manuel Perez
Miami-Dade Product Control

JUL 07 2023

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\W08-08ESW

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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
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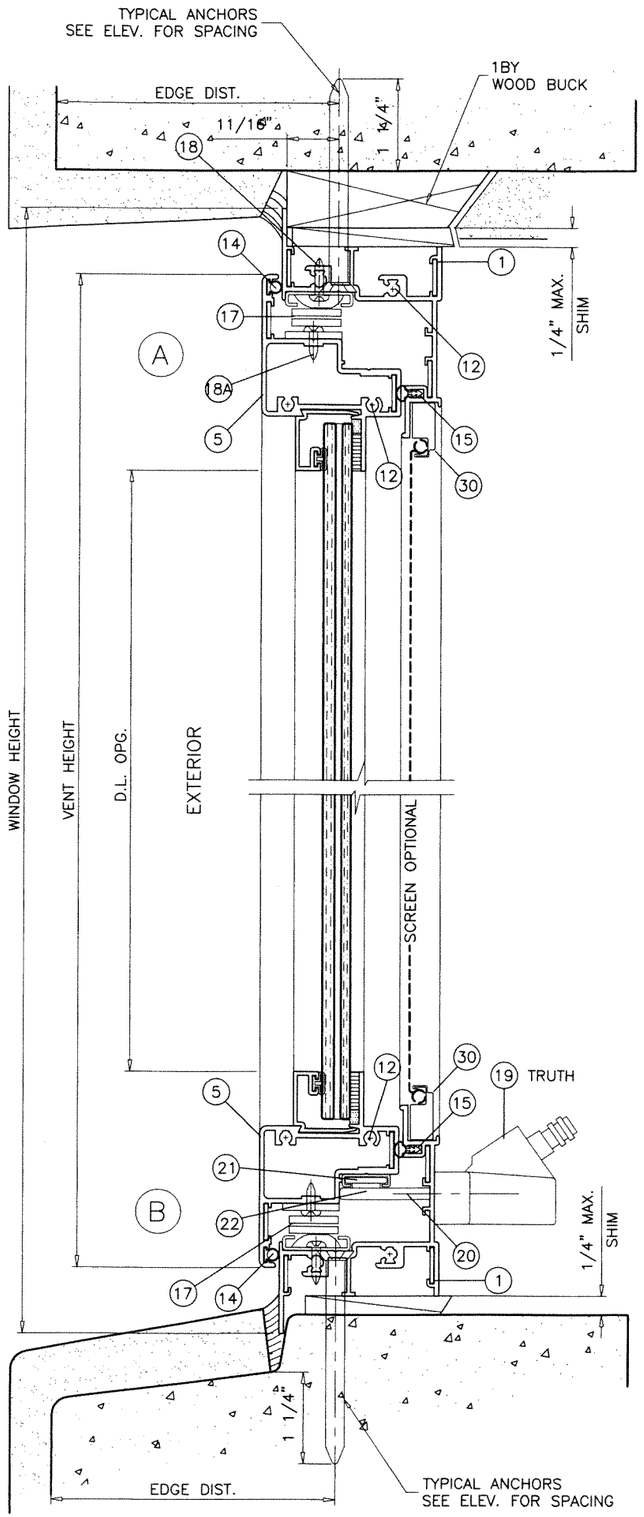
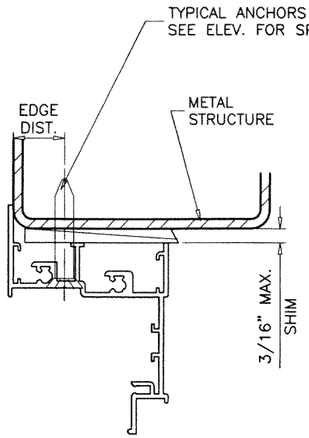
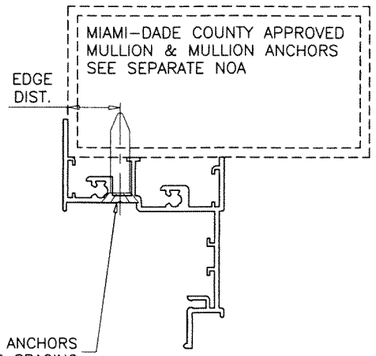
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

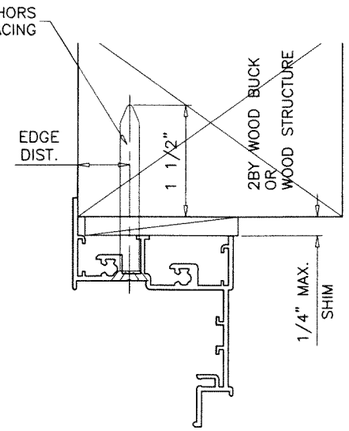
drawing no.
W08-08

sheet 3 of 10

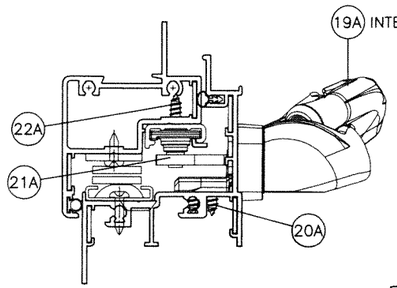


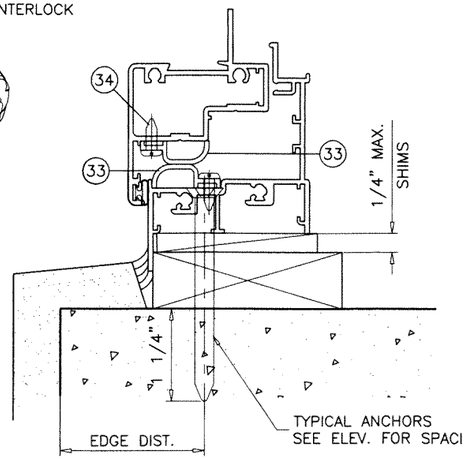






WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.





PRODUCT REVISED
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NOA-No. 23-0717.25
Expiration Date: 04/03/2028
By: Manuel Perez
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)
1-3/4" MIN. EMBED INTO CONC. (FOR MULLION CLIPS ONLY)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS
OR
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)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO CONCRETE = 1-1/2" MIN. (INTERIOR ANCHORS AT MULL CLIP)
INTO WOOD STRUCTURE = 11/16" MIN.
INTO METAL STRUCTURE = 11/16" 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.

JUL 07 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
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MIAMI, FLORIDA 33173
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COMP-ANL\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

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3550 N.W. 49 STREET
MIAMI, FL. 33142
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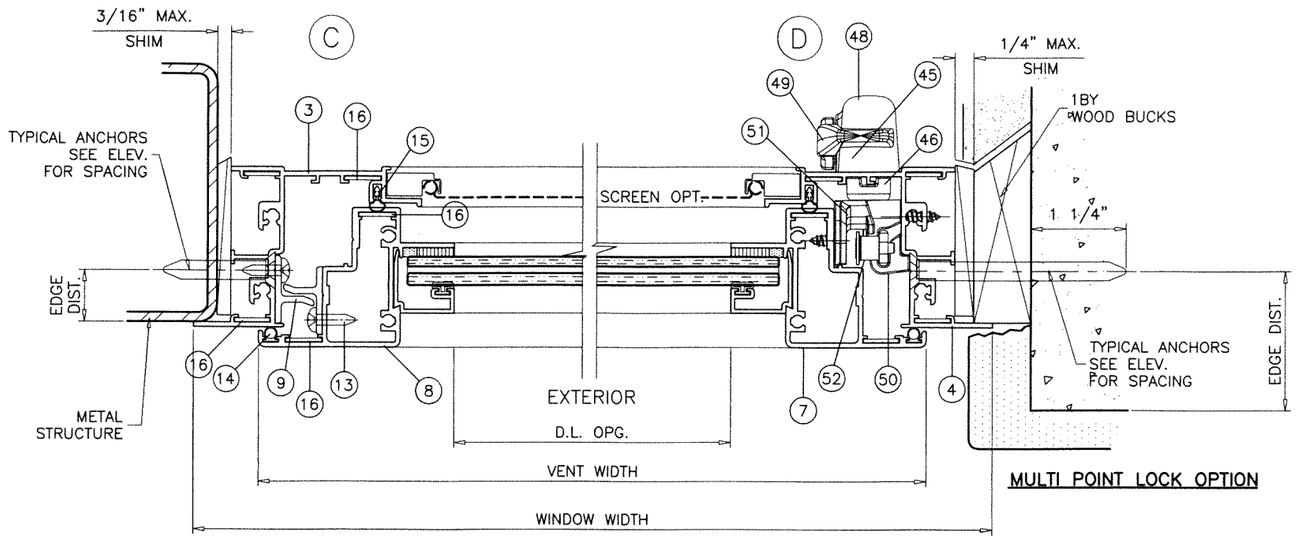
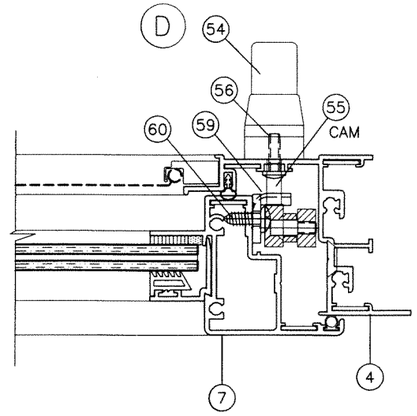
dr. by: TARIQ
chk. by:

drawing no. W08-08

sheet 4 of 10

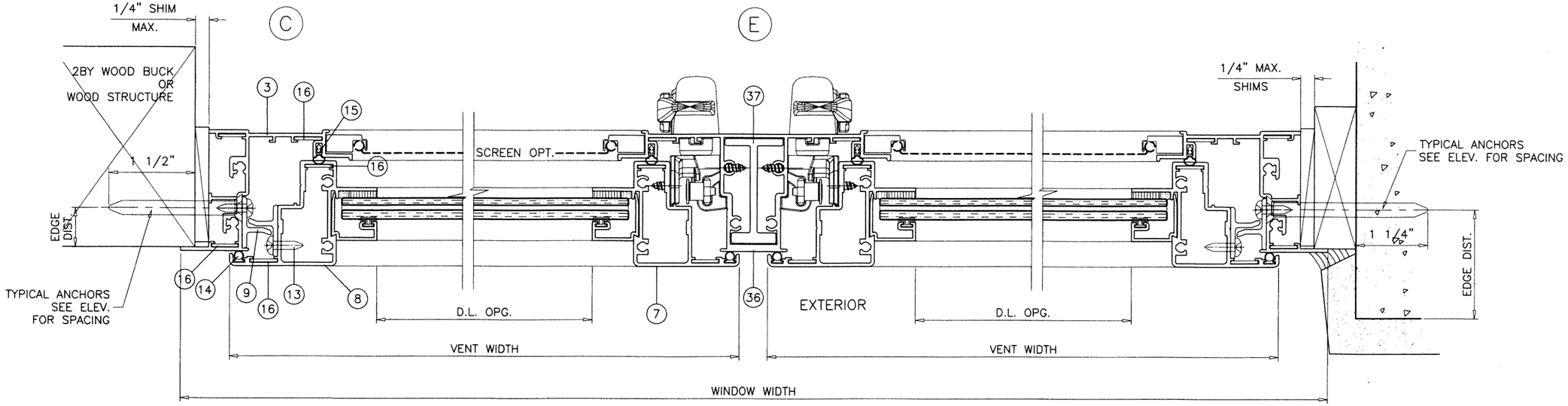


MULTI POINT LOCK OPTION



CAM LOCKS OPTION

SINGLE VENT WINDOWS



DUAL VENT WINDOWS

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-0717.25 JUL 07 2023
Expiration Date: 04/03/2028
By: Manuel Perez
Miami-Dade Product Control

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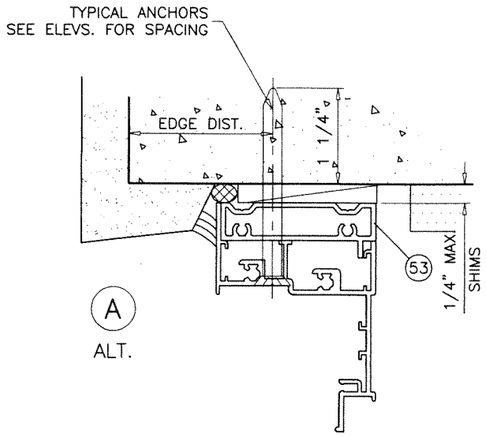
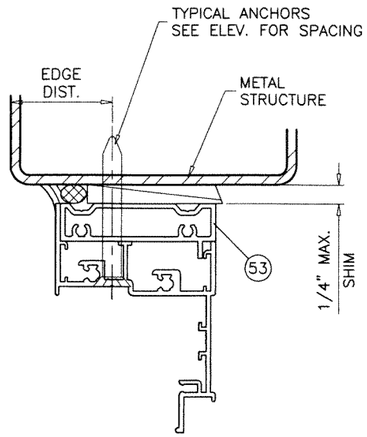
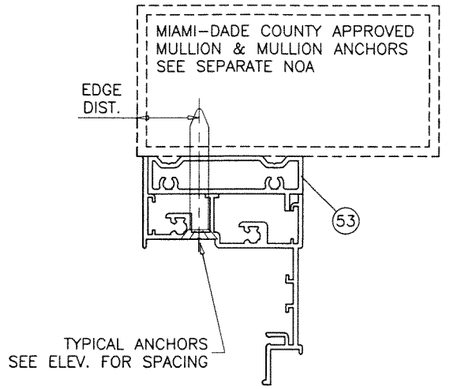
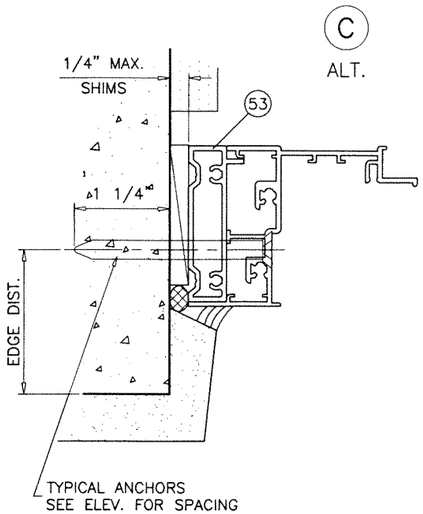
W08-08

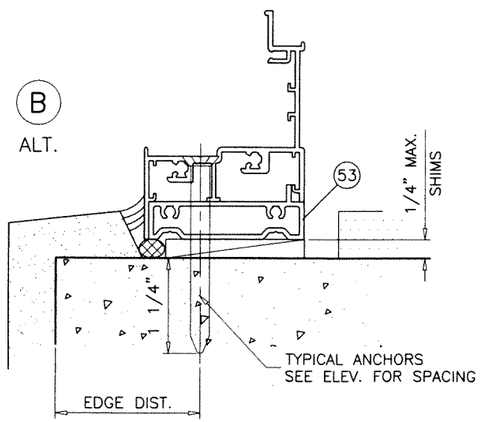
sheet 5 of 10











INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

PRODUCT REVISED
As complying with the Florida Building Code
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Miami-Dade Product Control

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chk. by:

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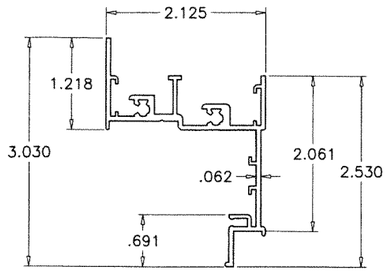
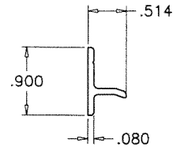
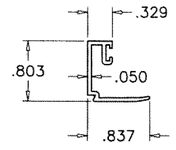
sheet 6 of 10



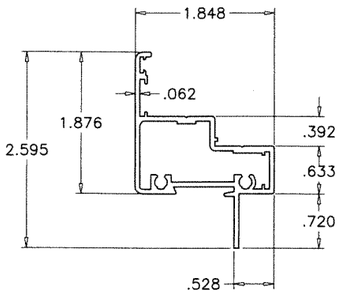
(1)(2)(3)(4) FRAME



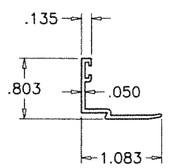
(9) SNUBBER



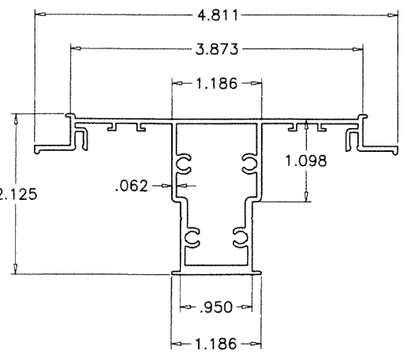
(10A) GLAZING STOP (LAM. GLASS)



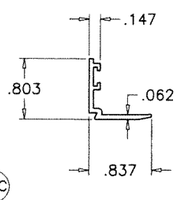
(5)(6)(7)(8) VENT



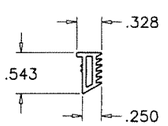
(10B) GLAZING STOP (INSUL. LAM. GLASS)



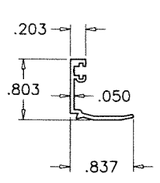
(36) IMPOST



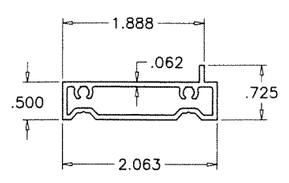
(10C) GLAZING STOP (LAM. GLASS)



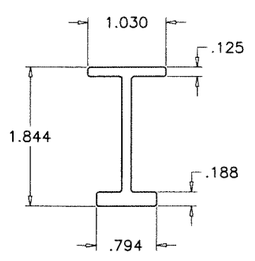
(11A) GLAZING WEDGE



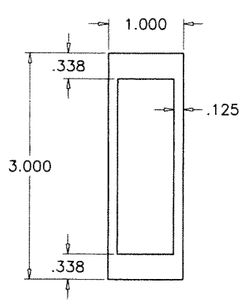
(10D) GLAZING STOP (LAM. GLASS)



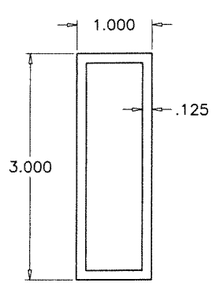
(53) FLUSH FRAME ADAPTER



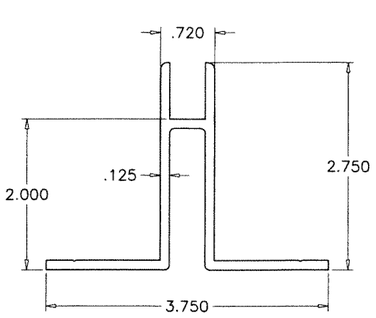
(37) IMPOST STIFFENER



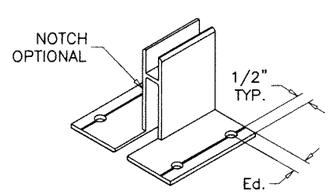
1 X 3 (23) CUSTOM MULLION



1 X 3 (23A) STD. MULLION



(24) MULLION CLIP



PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-0717.25
Expiration Date: 04/03/2028
By: Manuel Perez
Miami-Dade Product Control

JUL 07 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (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
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dr. by: TARIQ
chk. by:

drawing no.
W08-08

sheet 7 of 10

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES5001	1	FRAME HEAD	6063-T6	-
2	ES5001	1	FRAME SILL	6063-T6	-
3	ES5001	1/ VENT	FRAME JAMB-HINGE SIDE	6063-T6	-
4	ES5001	1/ VENT	FRAME JAMB-LATCH SIDE	6063-T6	-
5	ES5002	1/ VENT	VENT TOP RAIL	6063-T6	-
6	ES5002	1/ VENT	VENT BOTTOM RAIL	6063-T6	-
7	ES5002	1/ VENT	VENT SIDE RAIL-HINGE SIDE	6063-T6	-
8	ES5002	1/ VENT	VENT SIDE RAIL-LATCH SIDE	6063-T6	-
9	ES5004	2/ VENT	SNUBBERS, 2-1/2" LONG	6063-T6	-
10A	ES1103	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T5	-
10B	-	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T5	-
10C	ES1008	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T6	-
10D	ES-1017	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T6	-
11	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60±5 SHORE 'A'
11A	ES1010	AS REQD.	GLAZING WEDGE	SOFT PVC	DUROMETER 65±5 SHORE 'A'
11B	5008A	AS REQD.	GLAZING WEDGE	SILICONE	DUROMETER 65±5 SHORE 'A'
12	-	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	-	#10 X 1-1/2" PH SMS
13	-	2/ SNUBBER	SNUBBER INSTALLATION SCREWS	-	#8 X 1/2" PH SMS
14	E202	AS REQD.	OUTER WEATHERSTRIPPING (POLYPROPYLENE BASE, TPE BULB)	-	DUROMETER 65 SHORE 'A'
15	ES5005	AS REQD.	INNER WEATHERSTRIPPING	EPDM	DUROMETER 60 SHORE 'A'
16	PJS40-SS	AS REQD.	CORNER LOCK	ST. STEEL	SULLIVAN & ASSOCIATES
17	301SS	2/ VENT	4 BAR HINGES-HEAVY DUTY	-	TRUTH HARDWARE
18	-	3/ HINGE	HINGE MOUNTING SCREWS AT FRAME	-	#10 X 1/2" PH SMS
18A	-	4/ HINGE	HINGE MOUNTING SCREWS AT VENT	-	#10 X 1/2" PH SMS
19	23 SERIES	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	TRUTH HARDWARE
19A	NOVA	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	INTERLOCK
20	-	4/ OPER.	OPERATOR MOUNTING SCREWS	-	#10-24 X 3/8" PH SMS
20A	-	8/ OPER.	OPERATOR MOUNTING SCREWS	-	#8 X 1/2" FH SMS
21	30175	1/ OPER.	13-3/4" LONG TRACK	ST. STEEL	TRUTH HARDWARE
21A	-	1/ OPER.	OPERATOR TRACK	ST. STEEL	INTERLOCK
22	-	2/ TRACK	TRACK MOUNTING SCREWS	-	#10 X 3/8" PH SS SMS
22A	-	3/ TRACK	TRACK MOUNTING SCREWS	-	#8 X 1/2" FH SMS
23	-	AS REQD.	1X3 CUSTOM MULLION	6063-T6	-
23A	-	AS REQD.	1X3 STANDARD MULLION	6063-T6	-
24	-	AS REQD.	MULLION CLIP	6063-T6	-
25	27-372	2/ LITE	SETTING BLOCK, 7/16" X 3/16" X 3-1/2" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
25A	-	2/ LITE	SETTING BLOCK, 5/16" X 5/8" X 4" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
26	-	8/ LITE	TAPE SPACER (1/4" X 1/2")	FOAM	AT 6" FROM GLASS ENDS
30	-	OPTIONAL	5/16" BOX SCREEN	-	-
33	ES5009	2/ VENT	ANTI SAG SKATE, 2" LONG	NYLON/CELCON	M&M PLASTICS
34	-	2/ SKATE	SKATE MOUNTING SCREWS	-	#6 x 1/2" PHSMS
36	ES5003	1	IMPOST	6063-T6	
37	ES5010	AS RQD.	IMPOST STIFFENER	6063-T6	
45	CL01-0500	-	MULTI-POINT LOCK MECHANISM		INTERLOCK
46	-	-	LOCK FASTENER PLATE		-
47	-	2/ LOCK	LOCK FASTENER SCREWS		THREAD FORMING
48	CL01-2250-XXX	-	SNAP ON COVER		-
49	CL01-1050-XXX	-	SNAP ON HANDLE		-
50	-	-	GUIDE (ACETAL)		-
51	-	-	KEEPER (ACETAL)		-
52	-	-	LOCK BAR (304 ST/ST)		-
53	ES-5017	AS REQD.	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL
54	-	1/ VENT	LOCKING HANDLE	-	SULLIVAN & ASSOC.
55	-	2/ VENT	LOCKING CAM (AT 11-1/2" & 50-1/2" FROM BOTTOM)	-	SULLICAN & ASSOC.
56	-	2/ LOCK	LOCK MOUNTING SCREWS	-	#6-32 x 1/2 PH MS
57	ES5013	1/VENT	LOCK HANDLE/CAM CONNECTOR	-	1/4" x 1/2" ALUM. BAR
58	ES5011	2/ BAR	CONNECTOR SCREWS	-	CUSTOM
59	CS-200K-SS	2/ VENT	KEEPERS (AT 12" & 51" FROM BOTTOM)	ST STEEL	SULLIVAN & ASSOC.
60	-	2/ KEEPER	KEEPER MOUNTING SCREWS	-	#10 X 3/8" PH SMS

SEALANTS:

ALL FRAME AND VENT CORNERS AND INSTALLATION SCREWS SEALED WITH CLEAR/ALUMINUM COLORED SEALANT.

PRODUCT REVISED
As complying with the Florida Building Code
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By: Manuel Perez
Miami-Dade Product Control

JUL 07 2023

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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\W08-08ESW

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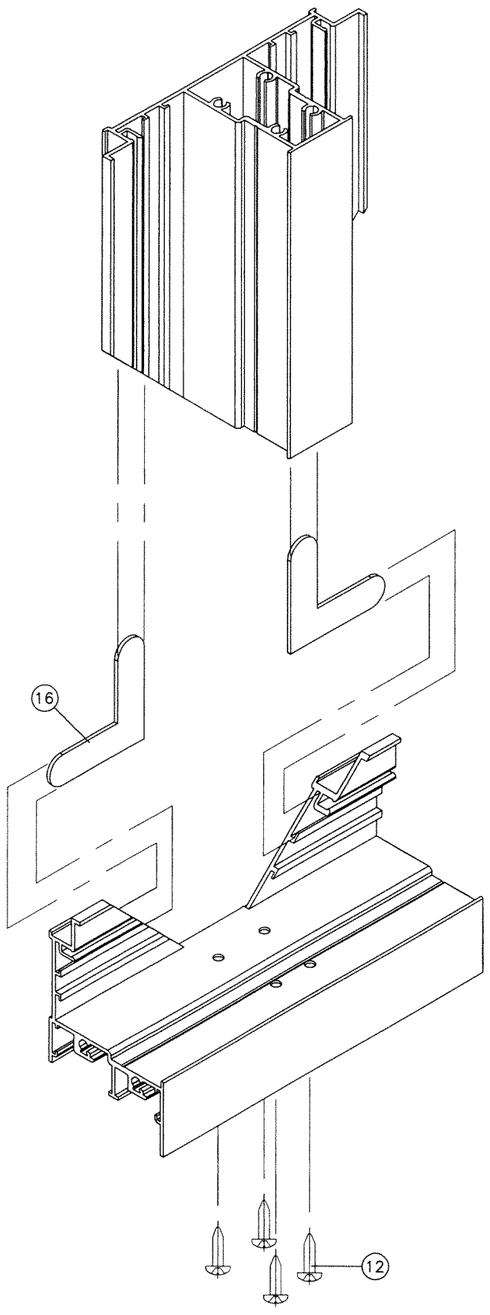
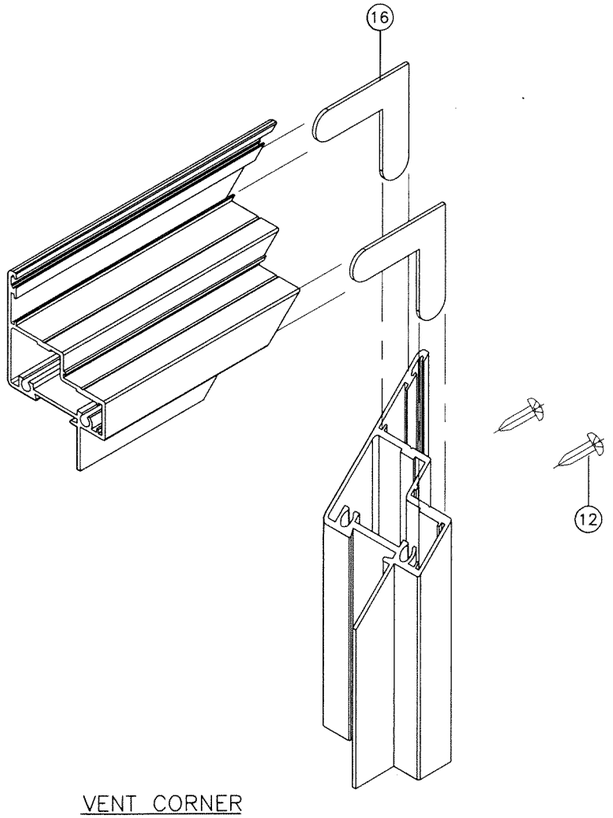
dr. by: TARIQ
chk. by:

drawing no. W08-08

sheet 8 of 10



IMPOST CORNER



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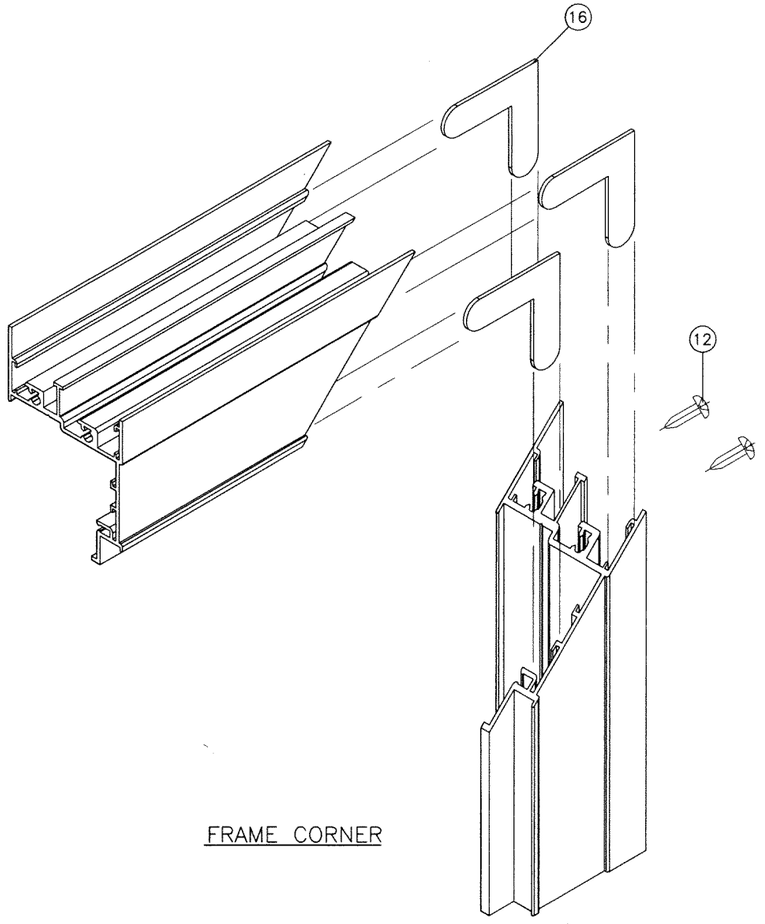

FRAME CORNER

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sheet 9 of 10

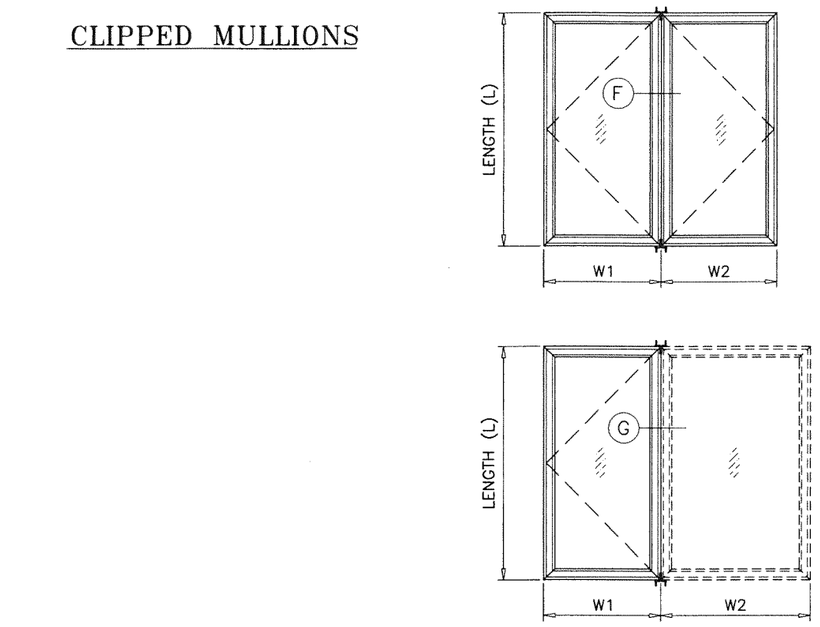
MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(−)	EXT.(+) INT.(−)
26-1/2"	58"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	63"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	74-1/4"	90.0	90.0
37"		90.0	90.0
42"		83.3	90.0
45"		79.4	90.0
48"		76.1	90.0
53-1/8"		71.7	90.0
26-1/2"	76"	90.0	90.0
37"		85.0	90.0
42"		77.2	90.0
45"		73.5	90.0
48"		70.4	88.3
51"		67.8	85.0

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(−)	EXT.(+) INT.(−)
30"	54"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	60"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	66"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
59"		90.0	90.0
30"	72"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		84.5	90.0
54"		79.2	90.0
30"	76"	90.0	90.0
36"		86.9	90.0
42"		77.2	90.0
48"		70.4	88.3
51"		67.8	85.0

NOTES:

1. USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
2. FOR CASEMENT WINDOW CAPACITY SEE SHEET 2 OF 10.
3. FOR FIXED WINDOW CAPACITY SEE SEPARATE NOA.
4. LOWER VALUES FROM STEPS 1, 2 OR 3 WILL APPLY TO ENTIRE SYSTEM.

CLIPPED MULLIONS

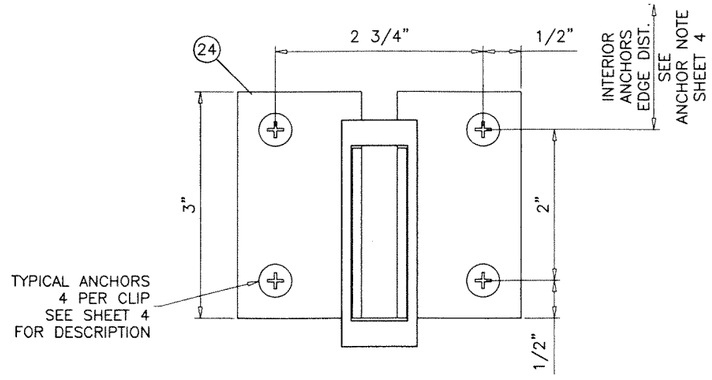


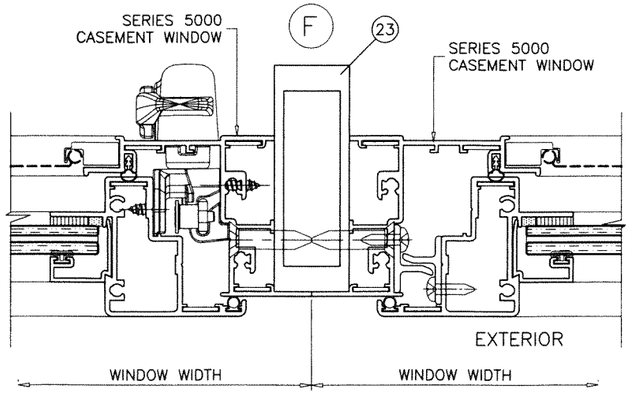
TYPICAL ELEVATIONS

SIDE BY SIDE WINDOWS

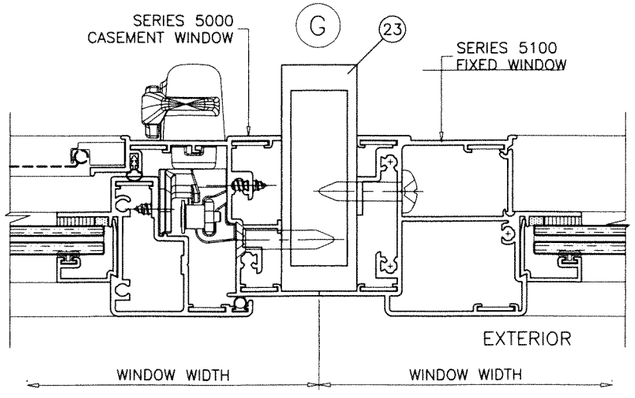
SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$





CASEMENT TO CASEMENT MULLION



CASEMENT TO FIXED MULLION

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