



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)

**Labrador & Fundora Corp. dba V & V Windows**  
**14150 NW 56<sup>th</sup> Court, Suite 600**  
**Opa-Locka, FL 33054**

### 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 "400" Outswing Aluminum Casement Window – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **W14-28**, titled "Series-400 Alum P.O. Casement Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 08/20/14, with revision **D** dated 06/07/23, 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, city, state, 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.

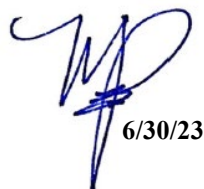
**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**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. 20-0929.14** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4, and E-5, as well as approval document mentioned above.

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



  
6/30/23

NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
Approval Date: July 06 2023  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

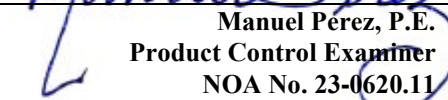
**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under NOA No. 14-0909.17)*
2. Drawing No. **W14-28**, titled "Series-400 Alum P.O. Casement Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 08/20/14, with revision **C** dated 07/15/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.  
*(Submitted under NOA No. 20-0929.14)*

**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  
along with marked-up drawings and installation diagram of mulled aluminum fixed and fixed casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5009**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
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 mulled aluminum fixed and fixed casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5010**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of mulled aluminum operable casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5011**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
4. 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 mulled aluminum operable casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. Report No. **HETI-14-5012**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*

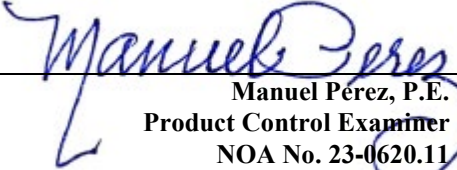
  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
Approval Date: July 06 2023

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

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

**B. TESTS (CONTINUED)**

5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of mulled aluminum operable casement and fixed casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5013**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
6. 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 mulled aluminum operable casement and fixed casement windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5014**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
7. 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 an aluminum fixed window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5015**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.
8. 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 an aluminum operable casement window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5016**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
9. 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 mulled aluminum operable casement and fixed windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5017**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*

  
Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
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**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

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

**B. TESTS (CONTINUED)**

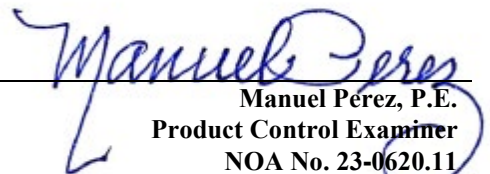
- 10.** Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of mulled aluminum operable casement and fixed windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5018**, dated 06/11/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
- 11.** Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94  
along with marked-up drawings and installation diagram of an aluminum operable casement window, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5019**, dated 04/23/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*
- 12.** 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 mulled aluminum operable casement and fixed windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HETI-14-5052**, dated 10/21/14, signed and sealed by Rafael E. Droz-Seda, P.E.  
*(Submitted under NOA No. 14-0909.17)*

**C. CALCULATIONS**

- 1.** Anchor verification calculations and structural analysis, complying with **FBC 5<sup>th</sup> Edition (2014)** and **FBC 6<sup>th</sup> Edition (2017)** dated 07/10/17 and updated on 09/10/20 to comply with **FBC 7<sup>th</sup> Edition (2020)**, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.  
*(Submitted under NOA No. 20-0929.14)*
- 2.** Glazing complies with **ASTM E1300-09**

**D. QUALITY ASSURANCE**

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

  
Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
Approval Date: July 06 2023

**Labrador & Fundora Corp. dba V & V Windows**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

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

**E. MATERIAL CERTIFICATIONS**

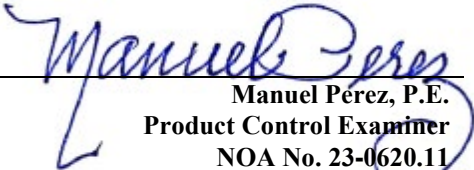
1. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**" dated 05/23/19, expiring on 05/23/24.
2. Notice of Acceptance No. **20-0622.01** issued to **Eastman Chemical Company (MA)** for their "**Saflex PVB Clear and Color Glass Interlayers**" dated 08/06/20, expiring on 05/21/21.

**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 September 10, 2020, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.  
*(Submitted under NOA No. 20-0929.14)*
2. Proposal issued by the Product Control Section, dated 08/27/13, signed by Jaime Gascon, P.E., Product Control Supervisor.  
*(Submitted under NOA No. 14-0909.17)*

**G. OTHERS**

1. Notice of Acceptance No. **19-1210.01**, issued to Labrador & Fundora Corp. dba V & V Windows for their Series "400" Outswing Aluminum Casement Window - L.M.I., approved on 01/23/20 and expiring on 12/24/24.

  
Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
Approval Date: July 06 2023

**Labrador & Fundora Corp. dba V & V Windows**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **W14-28**, titled “Series-400 Alum P.O. Casement Wdw. (L.M.I.)”, sheets 1 through 6 of 6, dated 08/20/14, with revision **D** dated 06/07/23, 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**

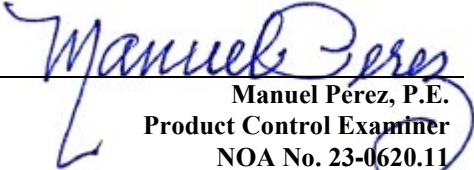
1. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 12/15/22, expiring on 07/04/28.
2. Notice of Acceptance No. **21-0216.01** issued to **Eastman Chemical Company (MA)** for their “**Saflex PVB Interlayers - Clear and Colored for Glass**” dated 04/29/21, expiring on 05/21/26.

**F. STATEMENTS**

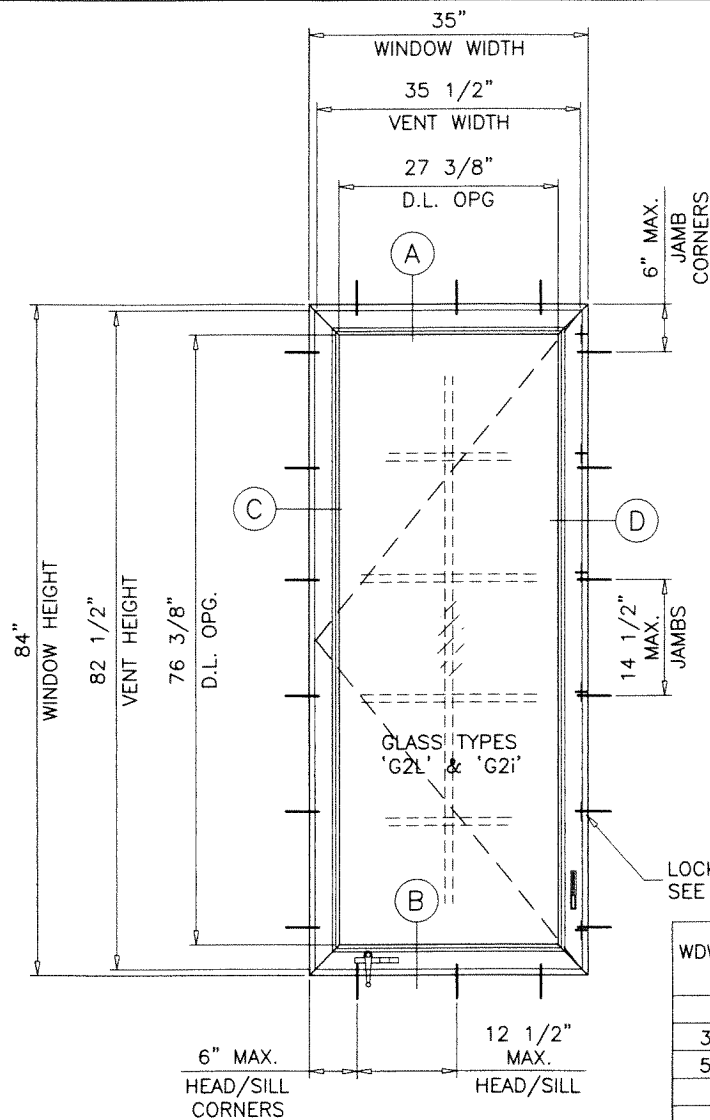
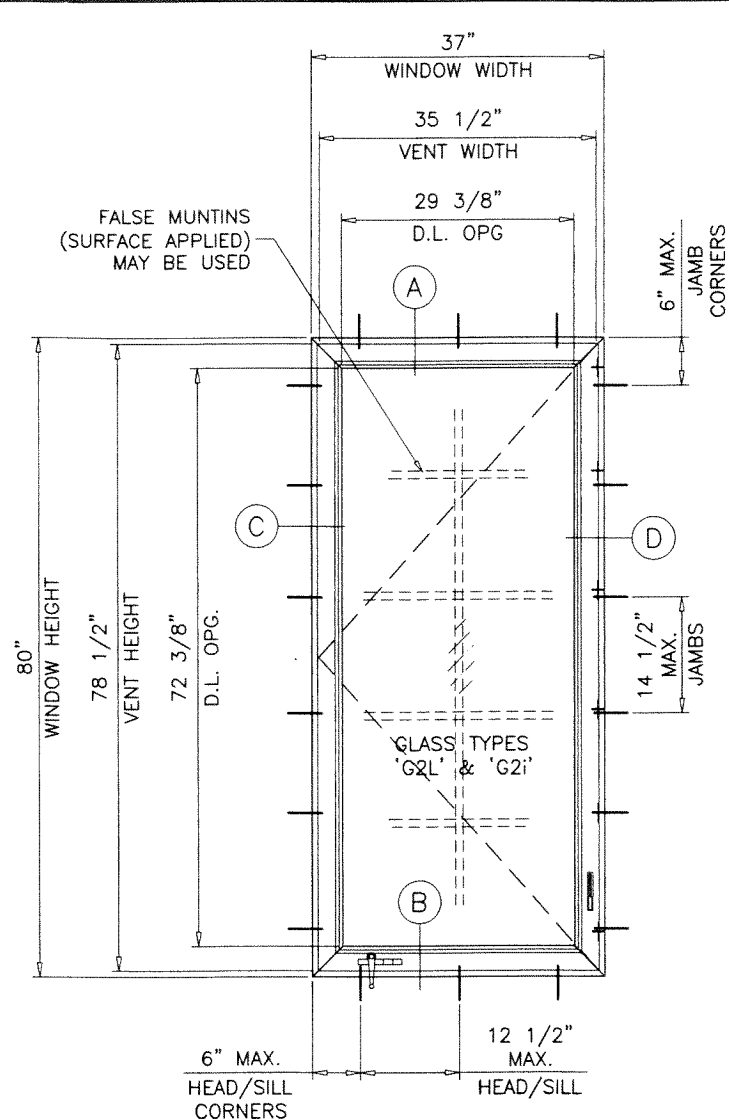
1. Statement letter of conformance, complying with **FBC 7<sup>th</sup> Edition (2020)**, with **FBC 8<sup>th</sup> Edition (2023)** and of no financial interest, dated June 07, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

**G. OTHERS**

1. Notice of Acceptance No. **20-0929.14**, issued to Labrador & Fundora Corp. dba V & V Windows for their Series “400” Outswing Aluminum Casement Window - L.M.I., approved on 12/17/20 and expiring on 12/24/24.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 23-0620.11  
Expiration Date: December 24, 2024  
Approval Date: July 06 2023

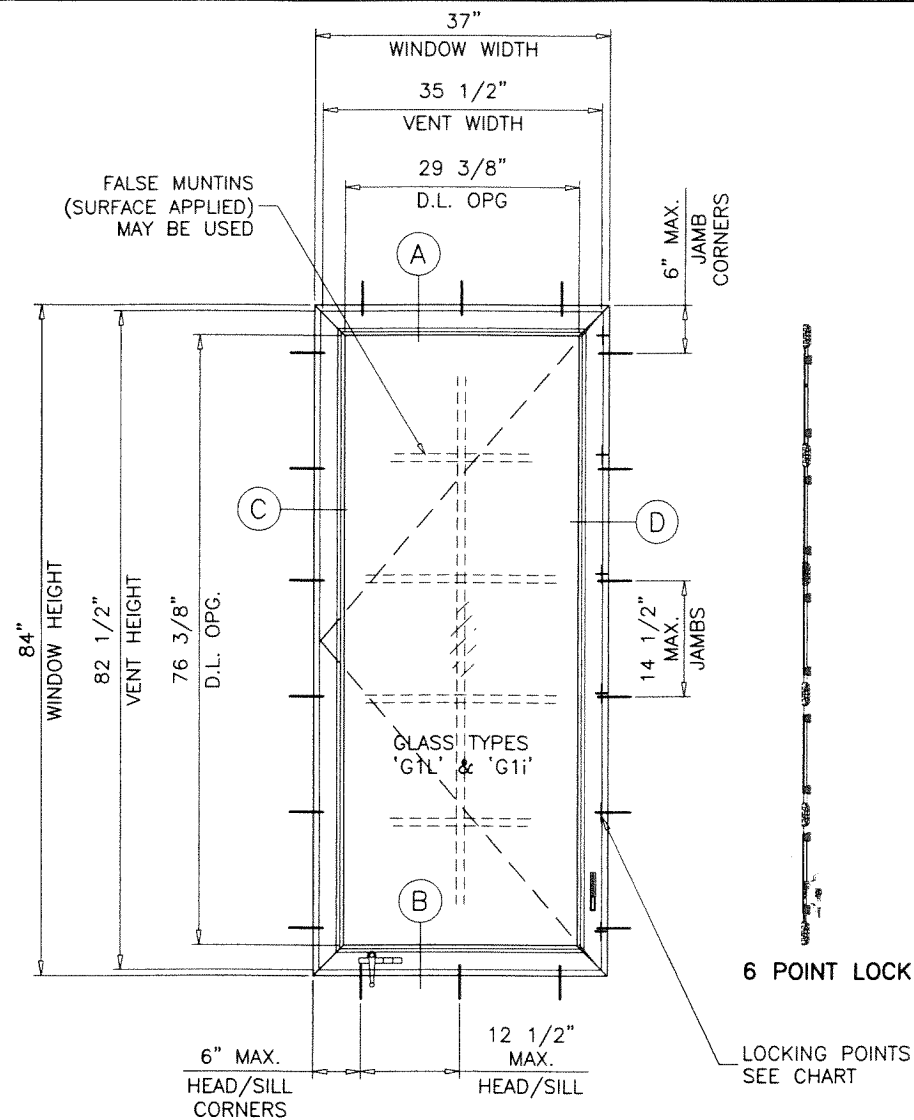




WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
38-3/8"	3
50-5/8"	4
63"	5
72"	6
74-1/4"	6
80"	6
84"	6

### TYPICAL ELEVATIONS

GLASS TYPES 'G2L' & 'G2i'  
 MAXIMUM DESIGN LOAD RATING = + 70.0 PSF  
 (FOR SIZES SHOWN ABOVE OR SMALLER) - 75.0 PSF



### TYPICAL ELEVATION

GLASS TYPES 'G1L' & 'G1i'  
 MAXIMUM DESIGN LOAD RATING = + 85.0 PSF  
 (FOR SIZE SHOWN ABOVE OR SMALLER) - 85.0 PSF

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

## SERIES-400

### ALUMINUM PROJECT-OUT CASEMENT WINDOW

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF CASMT./CASMT. OR CASEMENT WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL 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.

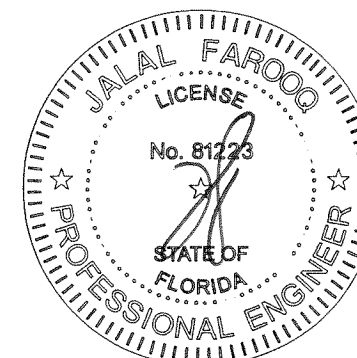
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY,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

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

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. **23-0620.11**  
 Expiration Date: **12/24/2024**  
 By: *Manuel Perez*  
 Miami-Dade Product Control

JUN 13 2023



**af c**  
**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\W14-28W

SERIES-400 ALUM P.O. CASEMENT WDW. (L.M.I.)

Labrador & Fundora Corp.

dba-V & V Windows

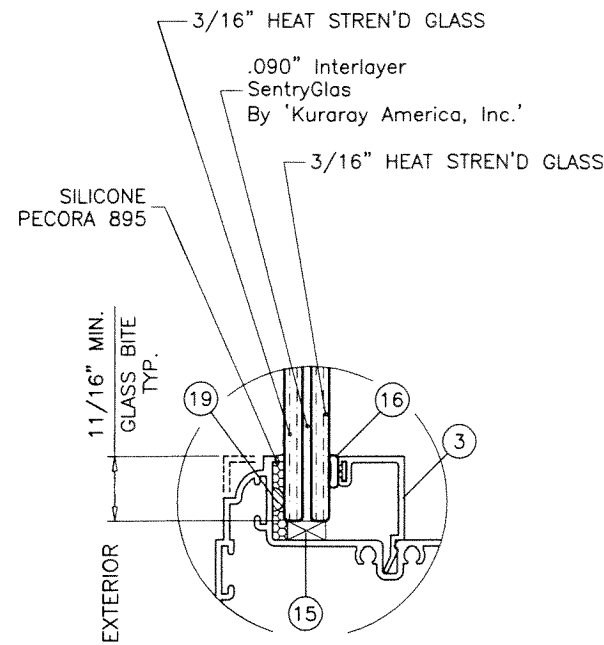
14150 N.W. 56th Court, Suite 600  
 Opa-Locka, FL. 33054

Tel. (305) 888-4151 www.vvwindows.com

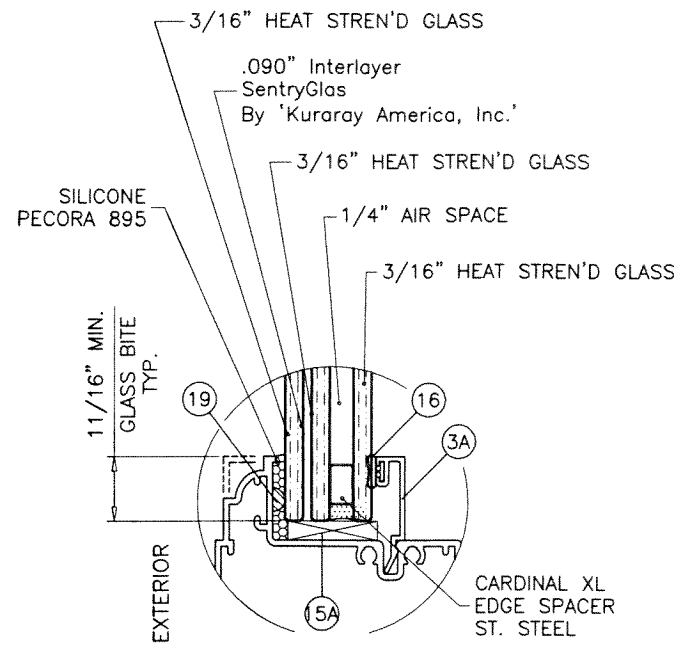
revisions:	no	date	by	description
	A	07.14.17		UPDATED TO 2017 FBC
	B	12.02.19		EDITORIAL CHANGES ONLY
	C	07.15.20		UPDATED TO 2020 FBC
	D	06.07.23		UPDATED TO 2023 FBC

date: 08-20-14  
 scale: 1/2"=1'-0"  
 dr. by: TARIQ  
 chk. by:

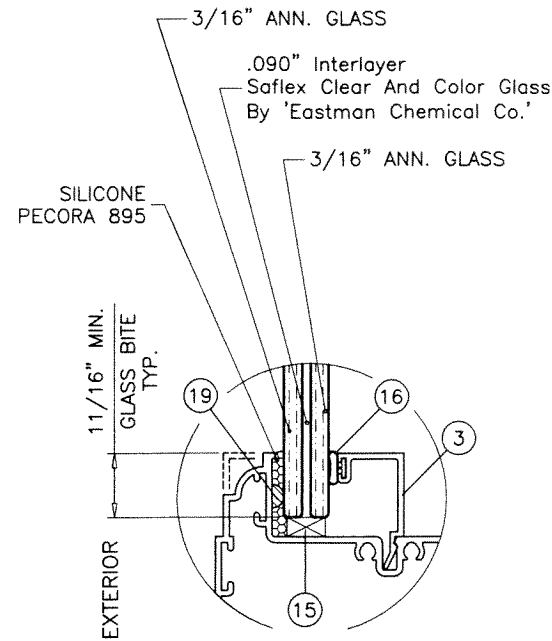
drawing no.  
**W14-28**  
 sheet 1 of 6



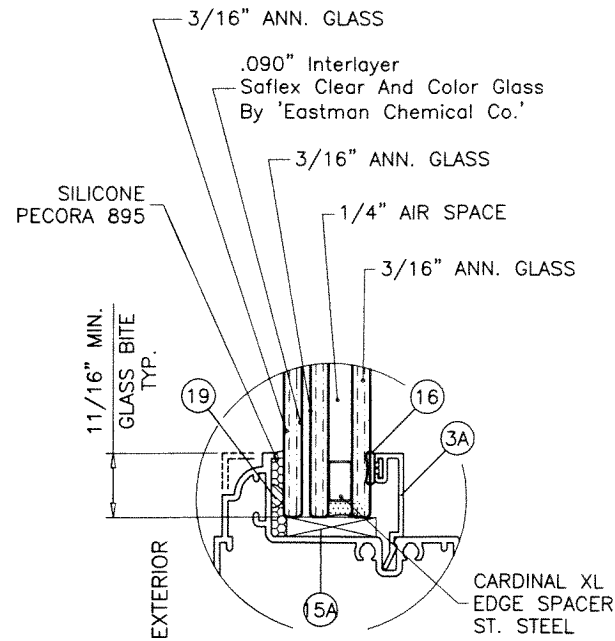
**GLASS TYPE 'G1L'**  
7/16" OVERALL NOM.



**GLASS TYPE 'G1i'**  
1" OVERALL NOM.



**GLASS TYPE 'G2L'**  
7/16" OVERALL NOM.

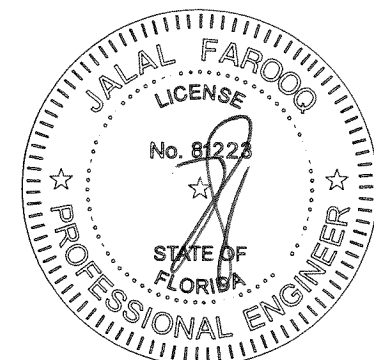


**GLASS TYPE 'G2i'**  
1" OVERALL NOM.

**GLAZING OPTIONS**

**PRODUCT REVISED**  
As complying with the Florida  
Building Code  
NOA-No. **23-0620.11**  
Expiration Date: **12/24/2024**  
By: *Manuel Ferrer*  
Miami-Dade Product Control

JUN 13 2023

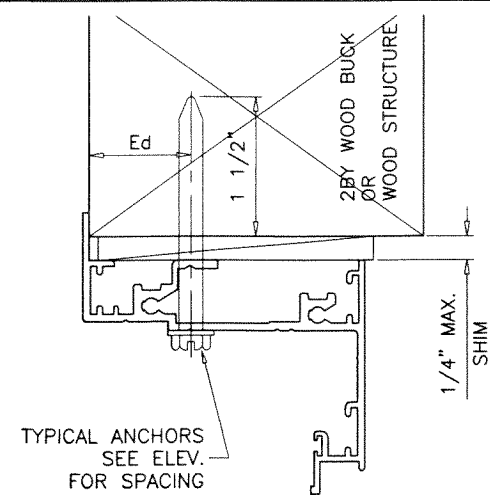
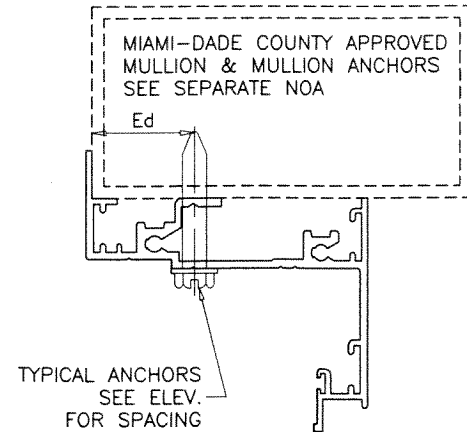
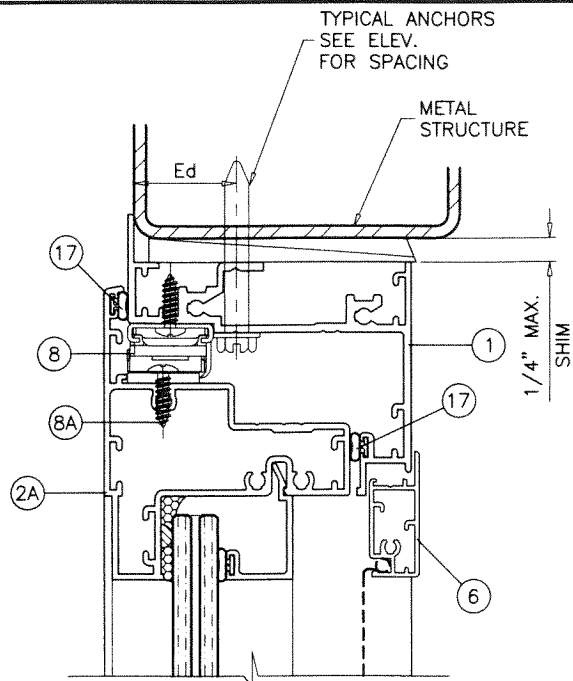
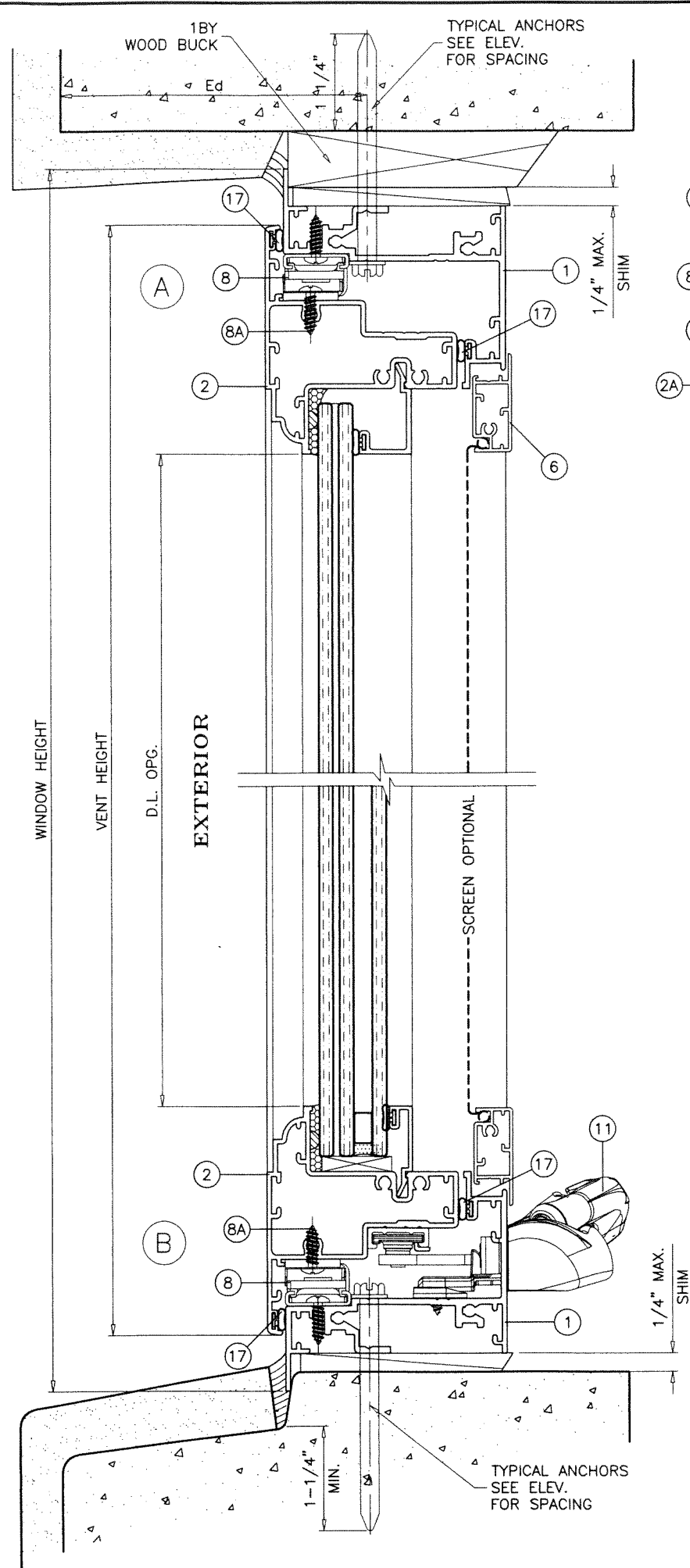


**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W14-28W

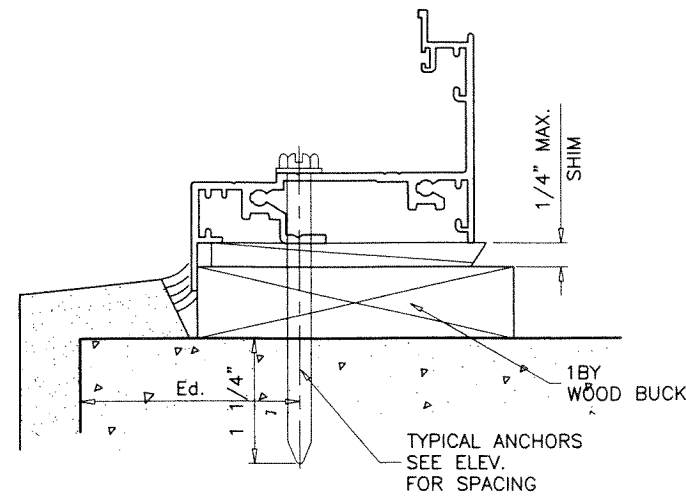
SERIES-400 ALUM P.O. CASEMENT WDW. (L.M.I.)  
**Labrador & Fundora Corp.**  
**dba-V & V Windows**  
14150 N.W. 56th Court, Suite 600  
Opa-Locka, FL. 33054  
Tel. (305) 888-4151 www.vvwindows.com

date: 08-20-14		scale: 1/2" = 1"		drawing no.	
dr. by: TARIQ		chk. by:		W14-28	
sheet 2 of 6					
revisions:					
no	date	by	description		
A	07.14.17		UPDATED TO 2017 FBC		
B	12.02.19		NO CHANGE THIS SHEET		
C	07.15.20		EDITORIAL CHANGES		
D	06.07.23		UPDATED TO 2023 FBC		



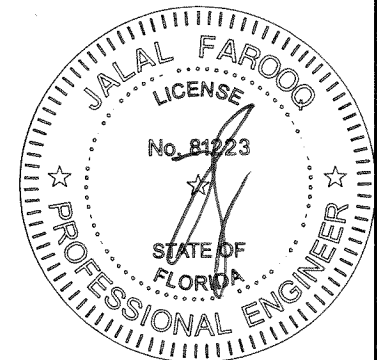


WOOD BUCKS AND METAL STRUCTURE NOT BY 'V & V WDW.' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.



**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  
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.) (NO SHIM SPACE)  
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.) (NO SHIM SPACE)  
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)  
**Ed = 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.

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 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\W14-28W

SERIES-400 ALUM P.O. CASEMENT WDW. (L.M.I.)

**Labrador & Fundora Corp.**  
 dba-V & V Windows  
 14150 N.W. 56th Court, Suite 600  
 Opa-Locka, FL. 33054  
 Tel. (305) 888-4151 www.vvwindows.com

no	date	by	description
A	07.14.17		UPDATED TO 2017 FBC
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C	07.15.20		UPDATED TO 2020 FBC
D	06.07.23		UPDATED TO 2023 FBC

date: 08-20-14

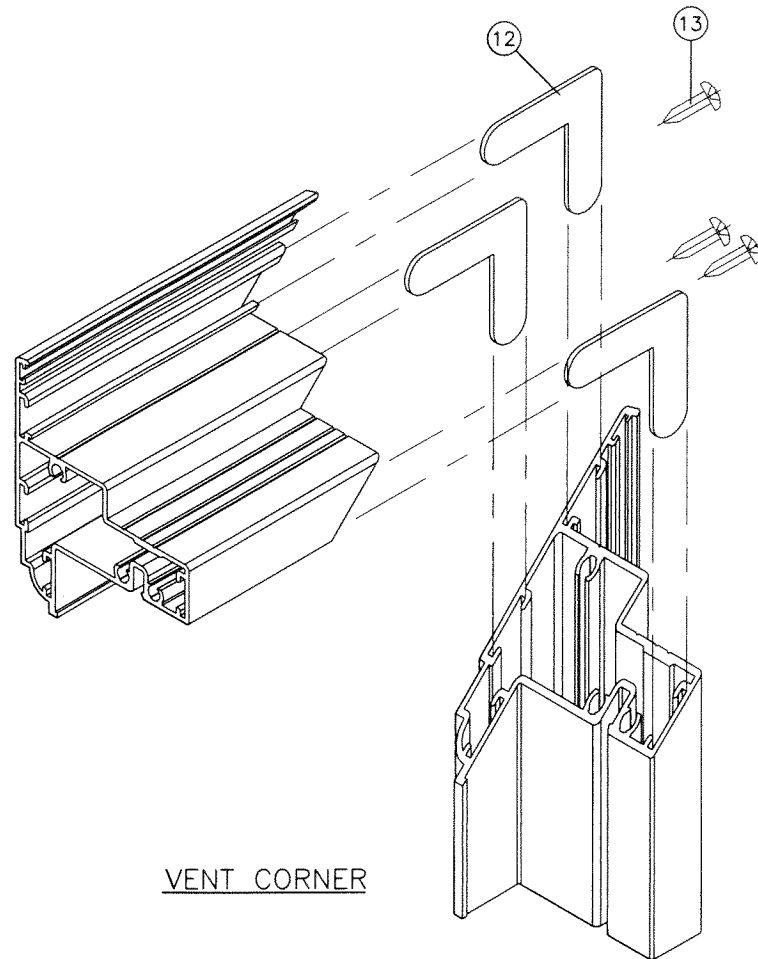
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dr. by: TARIQ

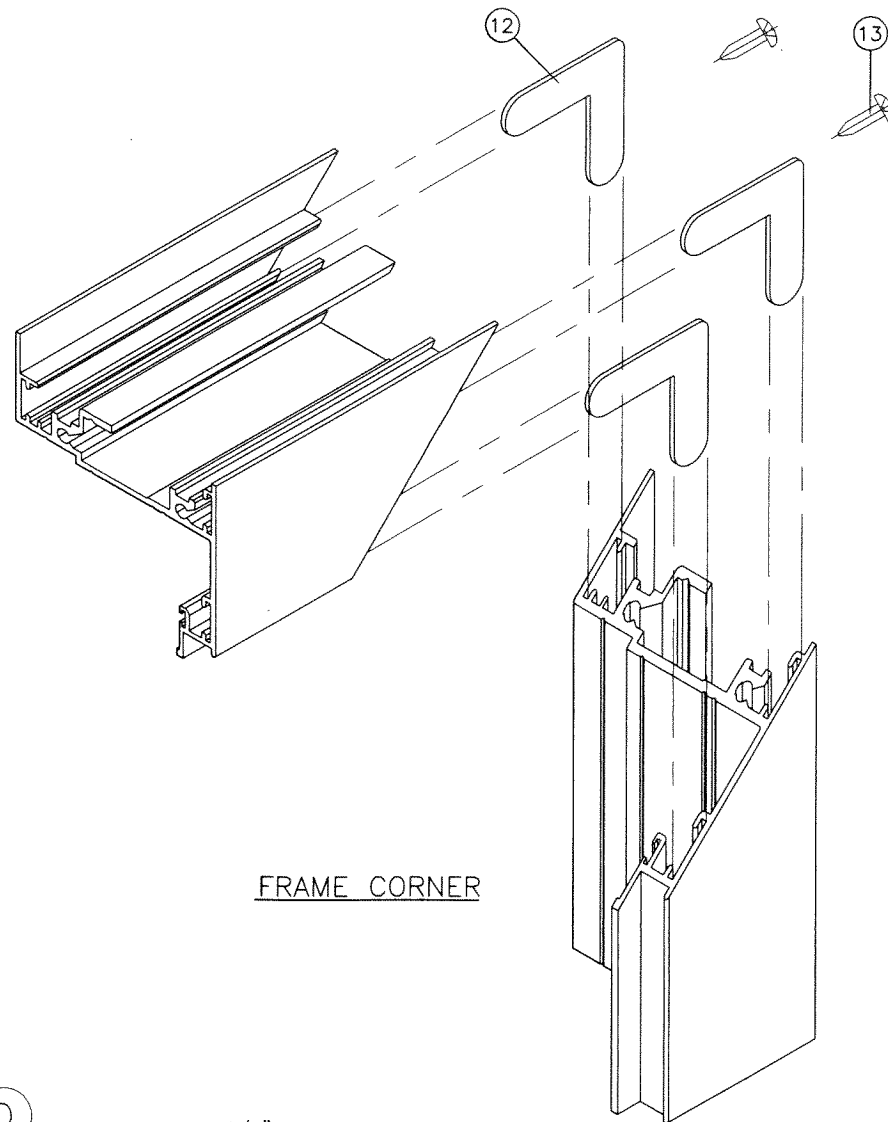
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drawing no.  
**W14-28**

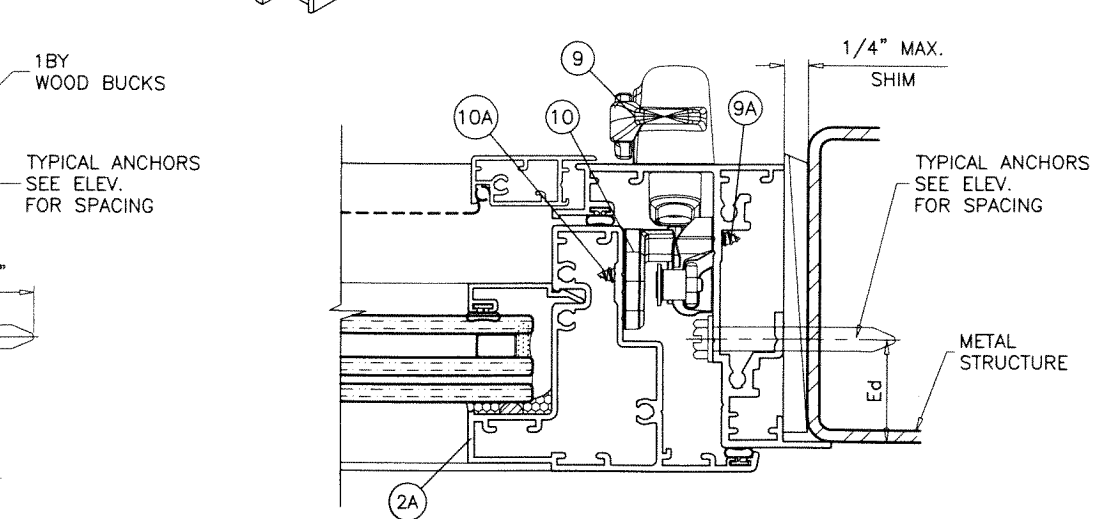
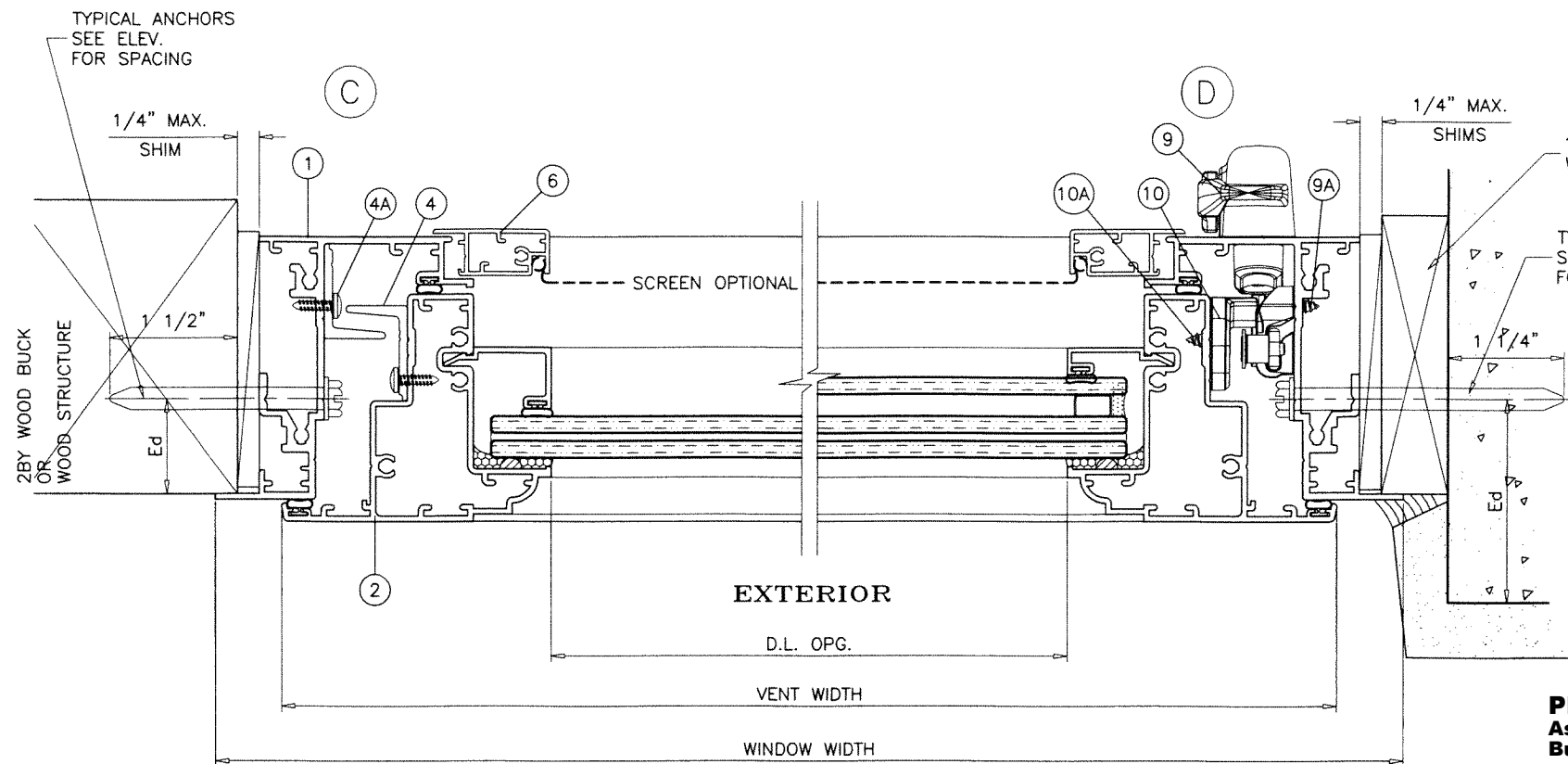
sheet 3 of 6



VENT CORNER

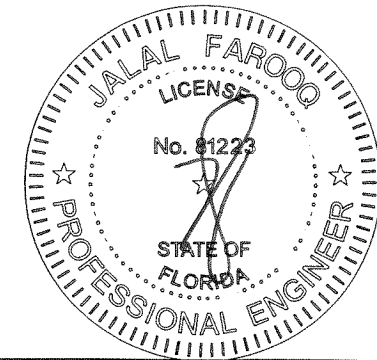


FRAME CORNER



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COMP-ANL\W14-28W

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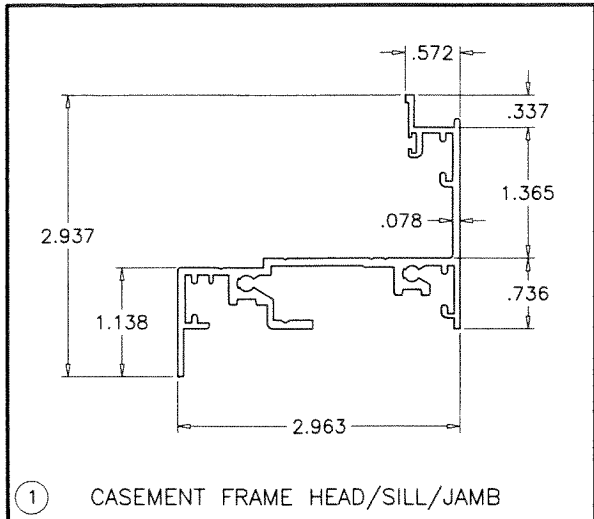
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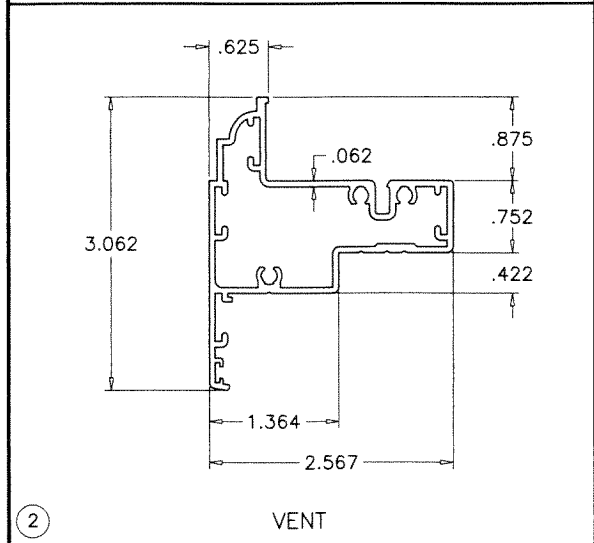
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 chk. by:

drawing no.  
**W14-28**  
 sheet 4 of 6

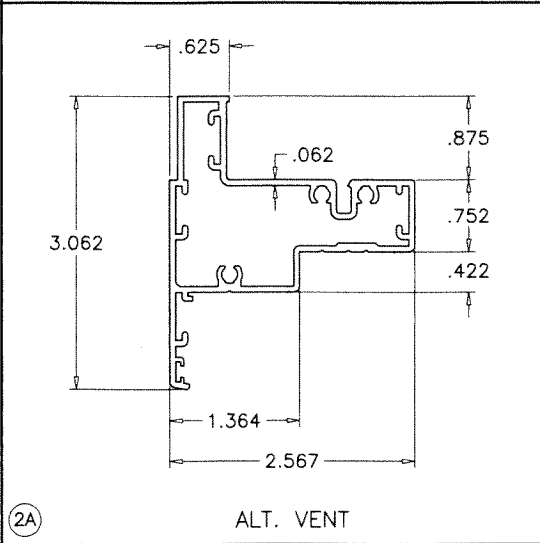




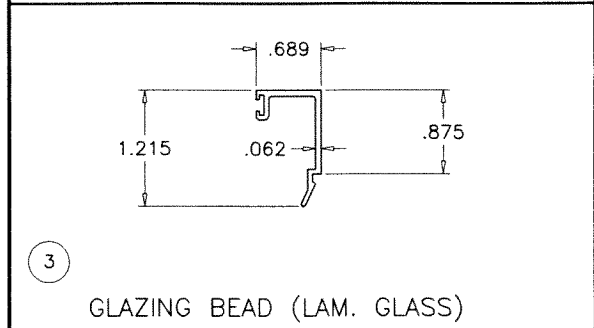
① CASEMENT FRAME HEAD/SILL/JAMB



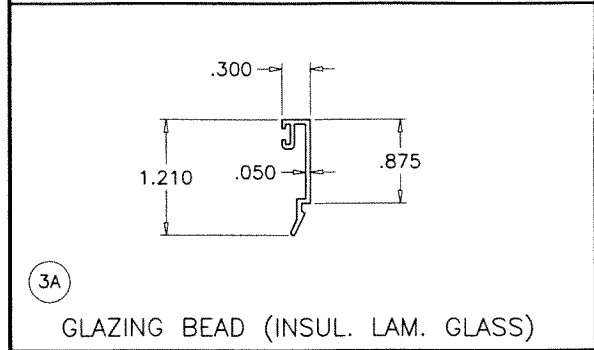
② VENT



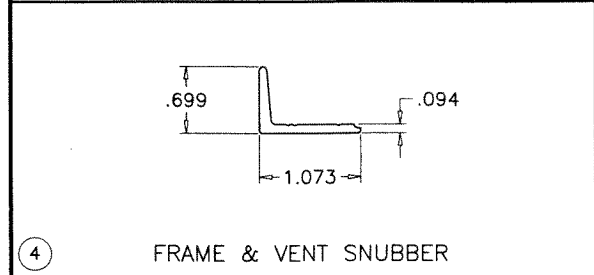
②A ALT. VENT



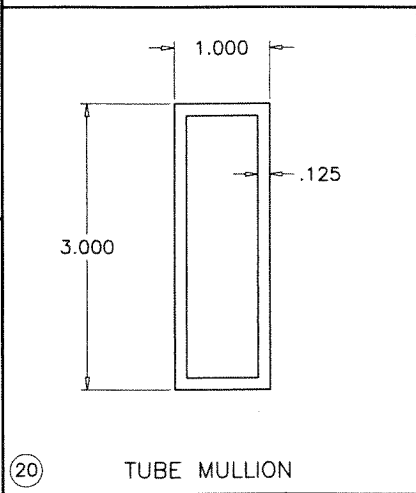
③ GLAZING BEAD (LAM. GLASS)



③A GLAZING BEAD (INSUL. LAM. GLASS)



④ FRAME & VENT SNUBBER



②0 TUBE MULLION

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	V401	4/ WDW.	FRAME HEAD/SILL/JAMB	6063-T6	-
2	V402	4/ WDW.	VENT	6063-T6	-
2A	V411	4/ WDW.	ALT. VENT	6063-T6	-
3	V405	4/ WDW.	GLAZING BEAD (LAM. GLASS)	6063-T5	-
3A	V406	4/ WDW.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T5	-
4	V407	AS REQD.	VENT AND FRAME SNUBBERS	6063-T6	LENGTH = FRAME HEIGHT - 18"
4A	#8 X 1/2"	AS REQD.	SNUBBER MOUNTING SCREWS	ST. STEEL	PPH SMS, AT 1-1/4" FROM ENDS & 10-1/2" O.C.
6	V409	AS REQD.	SCREEN	6063-T5	OPTIONAL
8	-	2	4 BAR HINGE AT TOP & BOTTOM	ST. STEEL	SULLIVAN & ASSOC.
8A	#10 X 1/2"	2/ HINGE	HINGE INSTALLATION SCREWS	ST. STEEL	PPH STS
9	-	1	FACE MOUNT MULTI POINT LOCK	ST. STEEL	INTERLOCK
9A	#8 X 1/2"	2/ LOCK	LOCK INSTALLATION SCREWS	ST. STEEL	THREAD FORMING SCREWS
10	-	1	LOCK KEEPER FACING LOCK	-	INTERLOCK
10A	#8 X 1/2"	2/ KEEPER	KEEPER INSTALLATION SCREWS	ST. STEEL	THREAD FORMING SCREWS
11	-	1	VENT OPERATOR	-	INTERLOCK
11A	#10 X 1/2"	6/ OPERATOR	OPERATOR INSTALLATION SCREWS	ST. STEEL	FH MS
11B	#10 X 1/2"	3/ TRACK	OPERATOR TRACK INSTALLATION SCREWS	ST. STEEL	FH MS
12	PJ540-SS	AS REQD.	CORNER KEY	ST. STEEL	SULLIVAN & ASSOC.
13	#10 X 1-1/4"	AS REQD.	FRAME AND VENT ASSEMBLY SCREWS	CRS	PH SMS
15	-	AS REQD.	SETTING BLOCK	EPDM	ULTRAFAB, DUROMETER 80±5 SHORE A
15A	-	AS REQD.	SETTING BLOCK	EPDM	ULTRAFAB, DUROMETER 80±5 SHORE A
16	-	AS REQD.	GLAZING GASKET	VINYL	CENTRAL PLASTICS, DUROMETER 65±5 SHORE A
17	9146	AS REQD.	FRAME & VENT W'STRIPPING	VINYL	CENTRAL PLASTICS, DUROMETER 65±5 SHORE A
19	-	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE, DUROMETER 65±5 SHORE A
20	-	AS REQD.	TUBE MULLION	6063-T6	-

### SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH 'PECORA 1215' SEAM SEALER.

PARIMETER CAULKING 'DYMONIC FC POLYURETHANE' ON EXTERIOR ONLY.

### LOCKS:

MULTIPOINT LOCK SYSTEM #CLO2 BY 'INTERLOCK' AT FRAME JAMB

LOCK OPERATOR #CLO2-0600 AT 10" FROM SILL

FASTENED TO JAMBS WITH (2) #10 X 1/2" PPH SELF TAPPING SCREWS

LOCK BAR SECURED TO JAMB WITH LOCK GUIDES #CLO2-2035-00E

SPACED AT 6" O.C. MAX.

EACH GUIDE FASTENED WITH (2) #8 X 1/2" PFH SELF TAPPING SCREWS

PLASTIC KEEPERS #CLO2-2046-030 AT VENT

EACH FASTENED WITH (4) #8 X 1/2" PFH SELF TAPPING SCREWS

SEE CHART ON SHEET 1 FOR QUANTITIES

### HINGES:

4 BAR ST/ST HINGES #304CJ200-16AE BY 'SULLIVAN & ASSOC.'

LOCATED AT TOP AND BOTTOM CORNERS

FASTENED WITH (2) #10 X 1/2" PPH SELF TAPPING SCREWS

### OPERATOR:

SINGLE ARM ROTO OPERATOR #C011-152-02 BY 'SULLIVAN & ASSOC.'

LOCATED AT SILL END

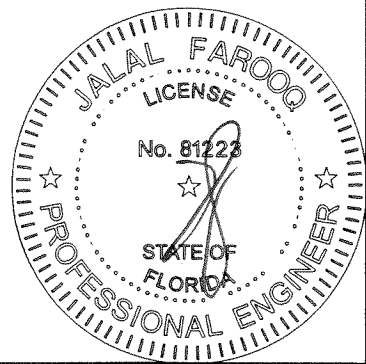
FASTENED WITH (6) #10 X 1/2" PFH SELF TAPPING SCREWS

OPERATOR TRACK #C011-0705 AT BOTTOM RAIL

FASTENED WITH (3) #10 X 1/2" PFH SELF TAPPING SCREWS

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Miami-Dade Product Control

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**af c**  
**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  
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dba-V & V Windows

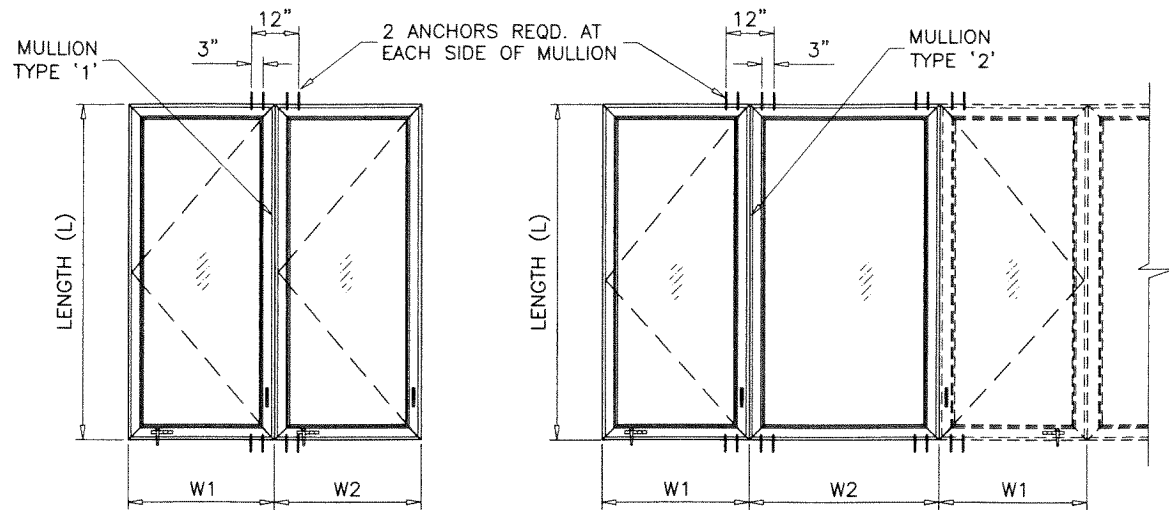
14150 N.W. 56th Court, Suite 600

Opa-Locka, FL. 33054

Tel. (305) 888-4151

www.vvwindows.com

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dr. by:	TARIQ			
chk. by:				
drawing no.	W14-28			
sheet	5 of 6			



### TYPICAL ELEVATIONS

SIDE BY SIDE WINDOWS

SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

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

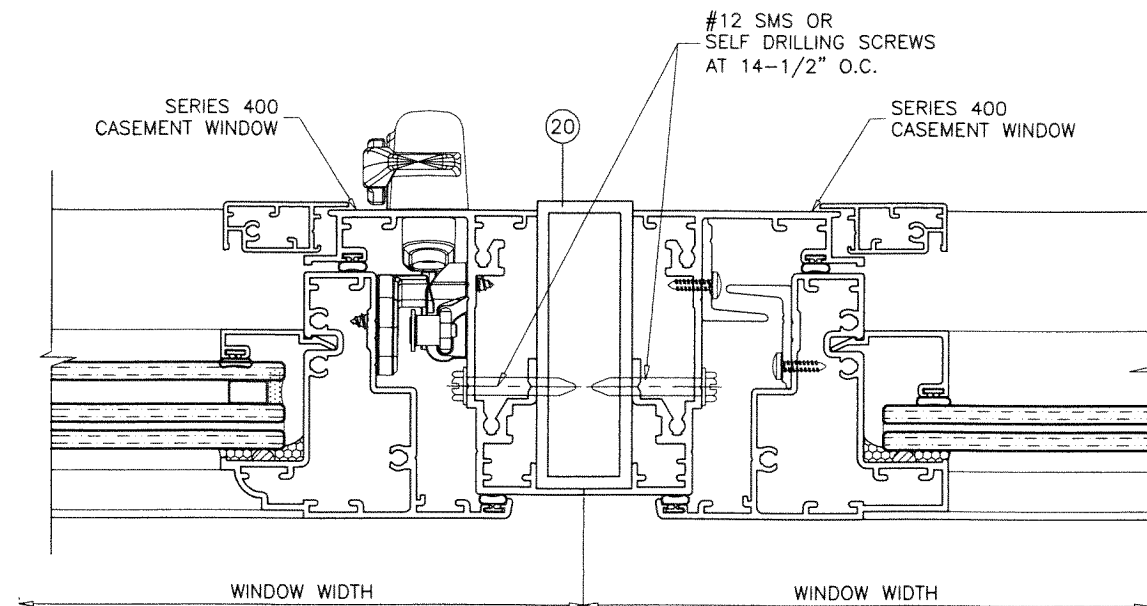
MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		MULLION TYPE '1'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
19-1/8"	80"	85.0	85.0
26-1/2"		85.0	85.0
37"		85.0	85.0
19-1/8"	84"	85.0	85.0
26-1/2"		85.0	85.0
37"		83.3	83.3
18"	84"	85.0	85.0
24"		85.0	85.0
30"		85.0	85.0
36"		85.0	85.0

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		MULLION TYPE '2'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
31-3/4"	84"	85.0	85.0
37"		85.0	85.0
45-1/16"		85.0	85.0
48-1/2"		85.0	85.0
36"	84"	85.0	85.0
39"		85.0	85.0
42"		85.0	85.0
45"		85.0	85.0
48"		85.0	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 1.
3. FOR FIXED WINDOWS CAPACITY SEE SEPARATE NOA.
4. LOWER VALUES FROM STEPS 1, 2 OR 3 WILL APPLY TO ENTIRE SYSTEM.

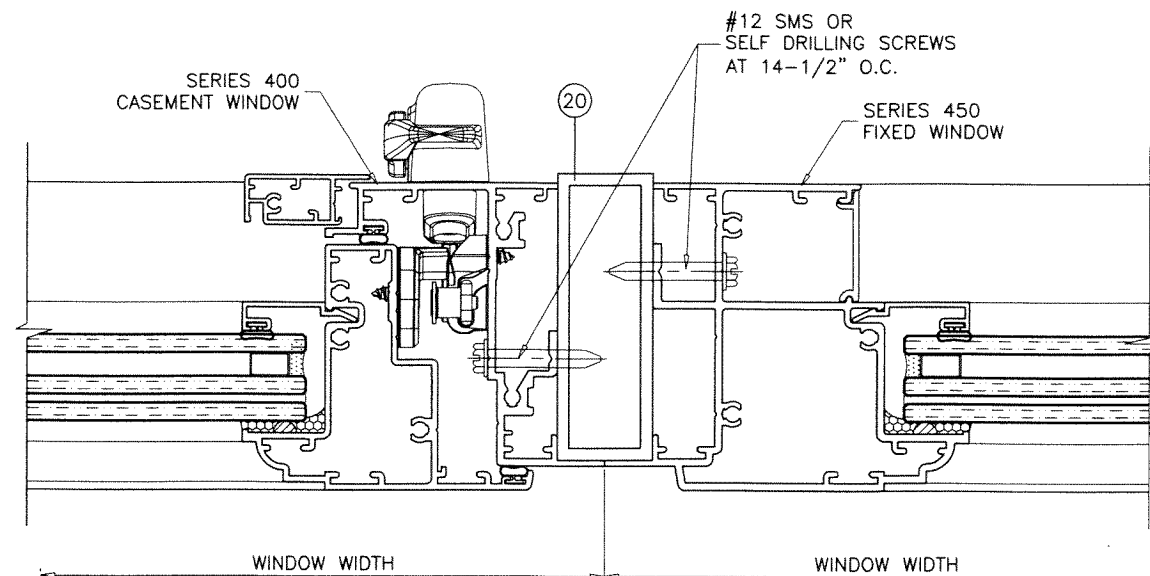
### UN-CLIPPED MULLIONS



### MULLION TYPE '1'

#### TOTAL PRPERTIES

Ix = 2.7522 IN<sup>4</sup>  
Sx = 1.5718 IN<sup>3</sup>



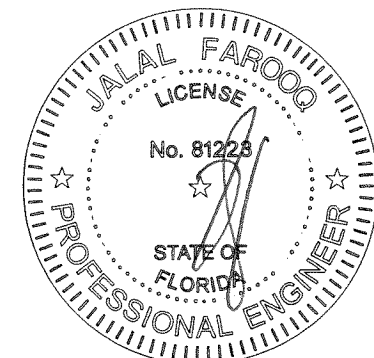
### MULLION TYPE '2'

#### TOTAL PRPERTIES

Ix = 3.4700 IN<sup>4</sup>  
Sx = 1.9209 IN<sup>3</sup>

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