



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY  
AFFAIRS (PERA)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY, FLORIDA  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

**NOTICE OF ACCEPTANCE (NOA)**

[www.miamidade.gov/pera/](http://www.miamidade.gov/pera/)

**ES Windows, LLC**  
10653 NE Quaybridge Ct.  
Miami, FL 33138

**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 PERA-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. PERA 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 "2000/ 2050" Aluminum Horizontal Sliding Window – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **W03-75**, titled "Series-2000/ 2050 Alum. Horiz. Sliding Wdw. (L.M.I)", sheets 1 through 9 of 10, dated 08/27/03 with revision "G" dated 05/15/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, 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.**

**LIMITATIONS:** Glass lites wider than 36" shall have two setting blocks per FBC requirements.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia**, models/ 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. **09-1008.06** and consists of this page 1, evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**



*J. Gascon*  
*5/23/12*

NOA No. 12-0223.46  
Expiration Date: November 06, 2013  
Approval Date: May 24, 2012  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under previous NOA No. 03-0910.02, 07-0928.13, 08-0527.13 and 09-1008.06)*
2. Drawing No. **W03-75**, titled "Series-2000/ 2050 Alum. Horiz. Sliding Wdw. (L.M.I)", sheets 1 through 9 of 10, dated 08/27/03, with revision "G", dated 05/15/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E.

**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
  - 6) Forced Entry Test, Type "A-A" sliding window, Grade 10, Level LV 1 per ASTM F 588-04/ 07 and per FBC 2411.3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5811**, dated 02/16/09, signed and sealed by Michael R. Wenzel, P. E.  
*(Submitted under previous NOA No. 09-1008.06)*

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
  - 6) Forced Entry Test, Type "A-A" sliding window, Grade 10, Level LV 1 per ASTM F 588-04/ 07 and per FBC 2411.3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.'s **FTL-5338** and **FTL-5475**, dated 01/17/08 and 12/20/07, signed and sealed by Carlos S. Rionda, P. E.  
*(Submitted under previous NOA No. 08-0527.13 and 07-0928.13)*



Jaime D. Gascon, P. E.  
Product Control Section Supervisor  
NOA No. 12-0223.46  
Expiration Date: November 06, 2013  
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**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS (CONTINUED)**

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 "A-A" sliding window, Grade 10, Level LV 1 per ASTM F 588-04/ 07 and per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.'s **FTL-3809** and **FTL-3804**, dated 06/16/03 and 05/15/03, revised & reissued by Fenestration Testing Laboratory dated 08/10/06, all signed and sealed by Joseph C. Chan, P. E.

*(Submitted under previous NOA No. 03-0910.02)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2010, prepared by Al-Farooq Corporation, dated 05/03/12, signed and sealed by Javad Ahmad, P. E.
2. **Glazing complies with ASTM E1300-98/ 04**

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **11-0624.02** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Sentry Glass® Interlayer**" dated 05/26/2010, expiring on 01/14/17.
2. Notice of Acceptance No. **11-0624.01** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Butacite® PVB Interlayer**" dated 09/08/2011, expiring on 12/11/2016.



**Jaime D. Gascon, P. E.**  
**Product Control Section Supervisor**  
**NOA No. 12-0223.46**  
**Expiration Date: November 06, 2013**  
**Approval Date: May 24, 2012**

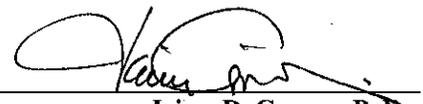
**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**F. STATEMENTS**

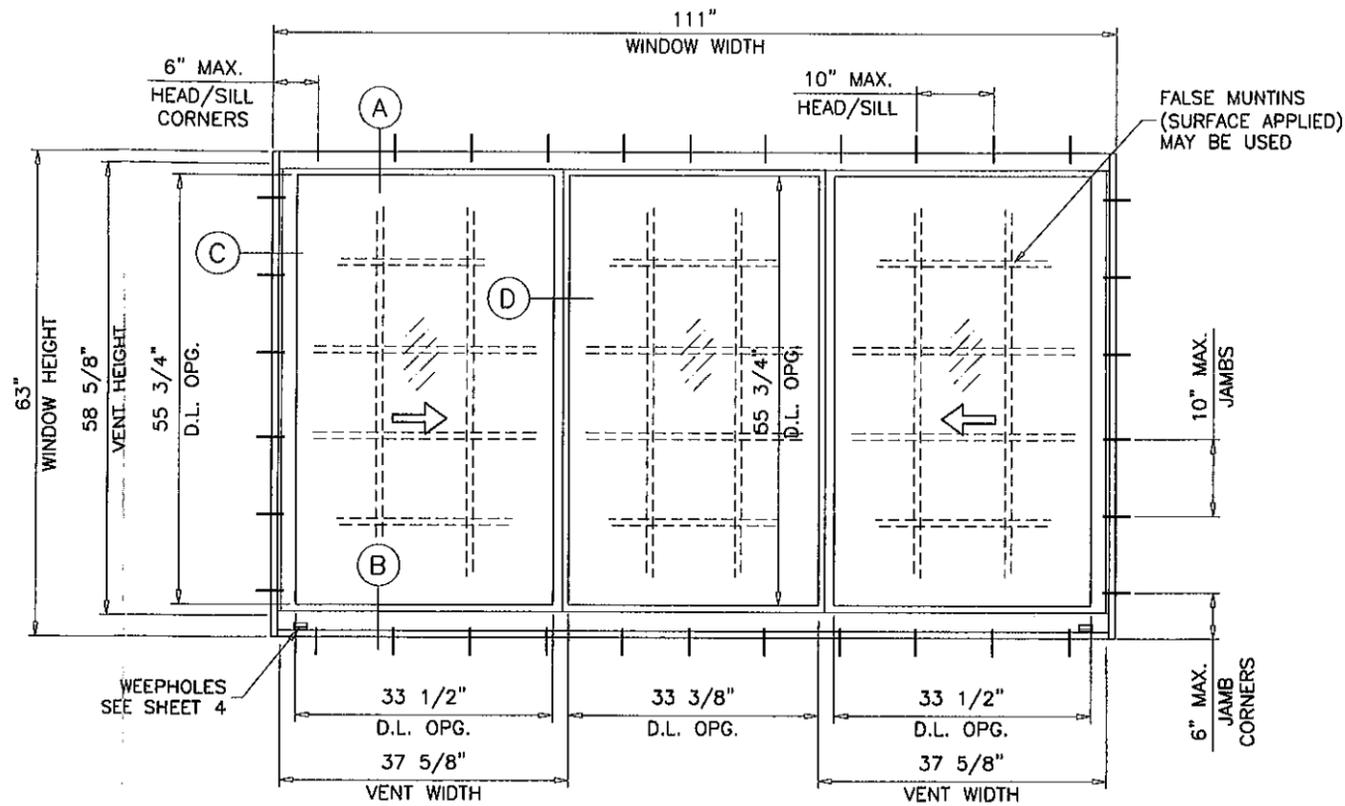
1. Statement letter of no financial interest, conformance and compliance with the FBC-2010, dated 12/08/11, signed and sealed by Javad Ahmad, P. E.
2. Distributor Agreement between, E.S. Windows – Energia Solar S.A., Barranquilla, Colombia and E.S. Windows, LLC, Miami, Florida, U.S.A., dated 10/20/10, signed by Carla Garcia Torrente and by Andres Chamorro, respectively.
3. Laboratory compliance letter for Test Report No. **FTL-5811**, issued by Fenestration Testing Laboratory, Inc., dated 08/13/09, signed and sealed by Michael R. Wenzel, P. E.  
*(Submitted under previous NOA No. 09-1008.06)*
4. Proposal No. **09-1583** issued by Product Control, dated 11/23/09, signed by Jaime D. Gascon, P. E.  
*(Submitted under previous NOA No. 09-1008.06)*
5. Laboratory compliance letter for Test Reports No.'s **FTL-5338** and **FTL-5475**, issued by Fenestration Testing Laboratory, Inc., dated 01/17/08 and 12/20/07, signed and sealed by Carlos S. Rionda, P. E.  
*(Submitted under previous NOA's No.'s 08-0527.13 and 07-0928.13)*
6. Laboratory compliance letter for Test Reports No.'s **FTL-3809** and **FTL-3804**, issued by Fenestration Testing Laboratory, Inc., dated 06/16/03 and 05/15/03, revised & reissued by Fenestration Testing Laboratory dated 08/10/06, all signed and sealed by Joseph C. Chan, P. E.  
*(Submitted under previous NOA No. 03-0910.02)*

**G. OTHERS**

1. Notice of Acceptance No. **09-1008.06**, issued to ES Windows, LLC for their "Series 2000 Aluminum Horizontal Sliding Window – L.M.I.", approved on 12/30/09 and expiring on 11/06/13.



Jaime D. Gascon, P. E.  
Product Control Section Supervisor  
NOA No. 12-0223.46  
Expiration Date: November 06, 2013  
Approval Date: May 24, 2012



TYPICAL ELEVATION  
SERIES 2000

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

**SERIES-2000/2050 ALUM HORIZ. SLIDING WINDOW**

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 2 & 3.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF H.R./H.R. OR H.R. 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 FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

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

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE SECTION 2003.8.4.

LAMINATED GLASS  
LARGE MISSILE IMPACT

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. **12-0223.46**  
Expiration Date **11/06/2013**  
By *[Signature]*  
Miami Dade Product Control

Engr: JAVAD, AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
*[Signature]*  
MAY 17 2012

**afC**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W03-75ES

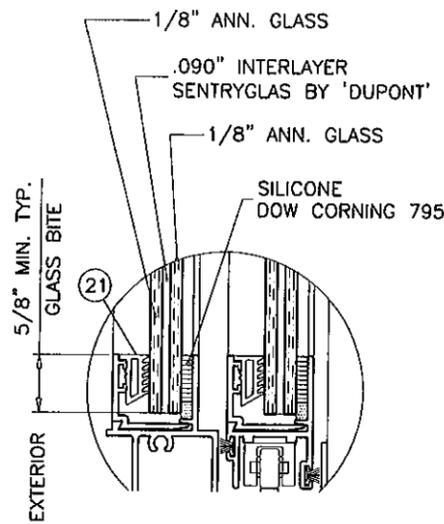
SERIES-2000/2050 ALUM HORIZ. SLIDING WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
5220 N.W. 72 AVE. BAY # 4  
MIAMI, FL. 33166  
TEL. (305) 624-7775 FAX. (305) 624-7777

no	date	by	description
C	09.21.07		GLASS TYPE 'D' ADDED
D	05.12.08		GENERAL REVISION
E	06.25.09		GENERAL REVISION
F	12.09.11		ALT. GLAZING OPTION ADDED
G	05.15.12		REV. PER PERA COMMENTS

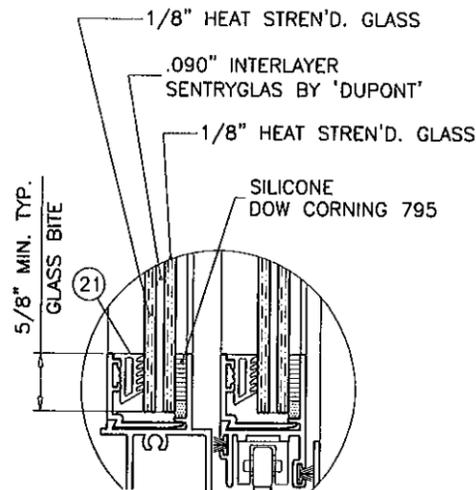
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dr. by: HAMID  
chk. by:

drawing no.  
**W03-75**

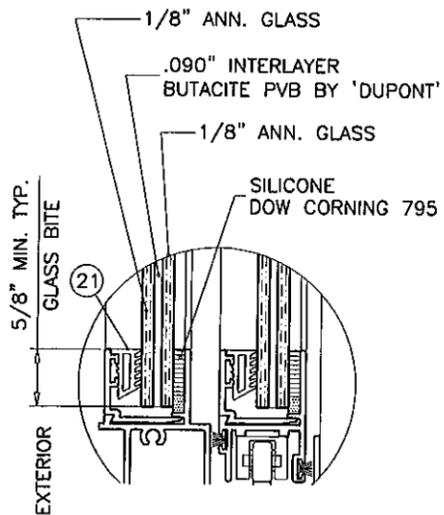
sheet 1 of 9



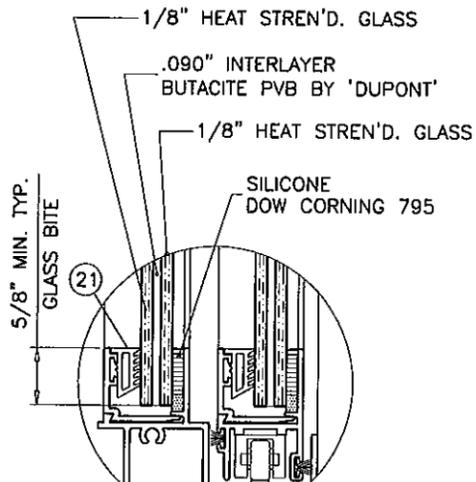
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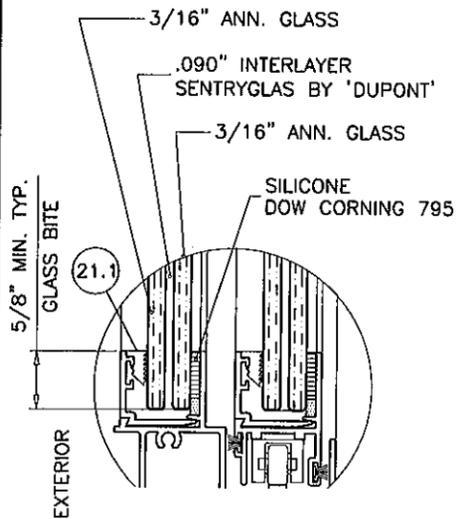
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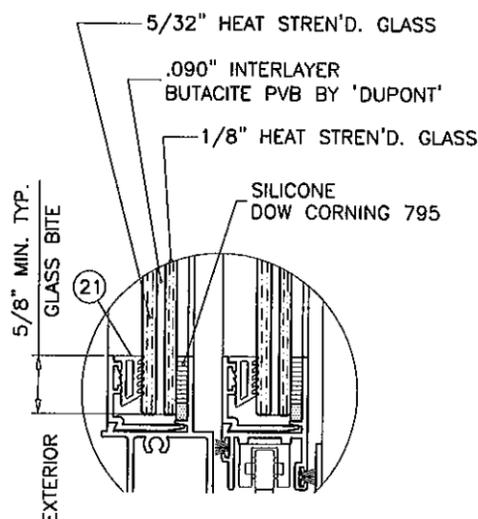
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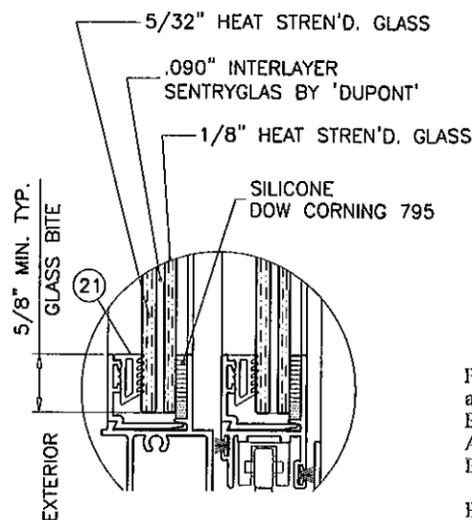
GLASS TYPE 'B1'



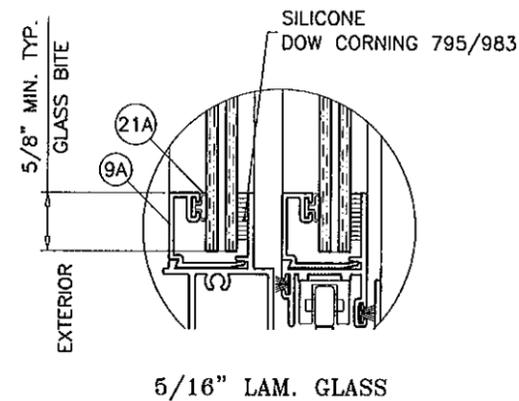
GLASS TYPE 'C'



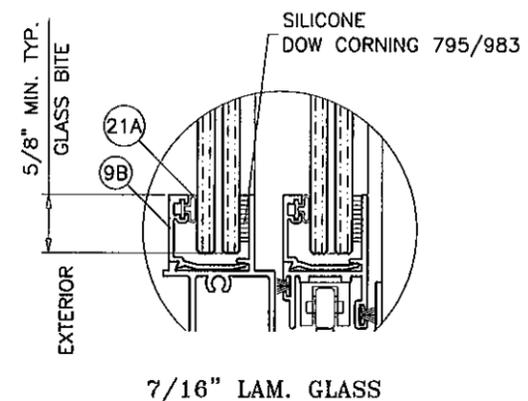
GLASS TYPE 'D'



GLASS TYPE 'E'



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.

PRODUCT REVISED  
 as complying with the Florida  
 Building Code **12-0223.46**  
 Acceptance No.  
 Expiration Date **11/06/2013**  
 By *[Signature]*  
 Miami Dade Product Control

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538  
*[Signature]*  
**MAY 17 2012**

**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1235 S.W. 87 AVE  
 MIAMI, FLORIDA 33174  
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Revisions:	
no	date by description
F	12.09.11 ALT. GLAZING OPTION ADDED
C	05.15.12 NO CHANGE THIS SHEET

date: 08-27-03  
 scale: 1/2"=1'-0"  
 dr. by: HAMID  
 chk. by:

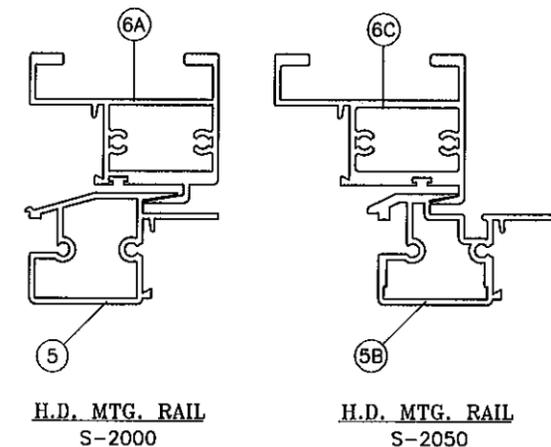
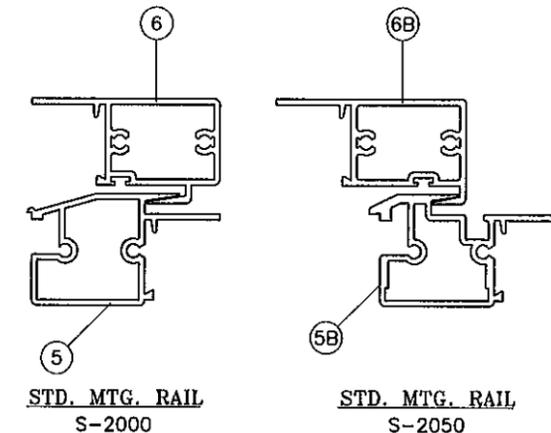
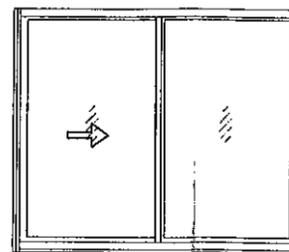
drawing no.  
**W03-75**

sheet 1.1 of 9

DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES) SERIES 2000/2050

WINDOW DIMS. WIDTH HEIGHT		A	STD. MTG. RAIL (FRAME SILL *1, 2, 3 & 4) SEE DETAILS BELOW FOR EXT(+) LOAD LIMITATIONS				H.D. MTG. RAIL (SILL *3 & 4)**			
			GLASS TYPE 'A' GLASS TYPE 'B'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'C'		GLASS TYPE 'D'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'D' GLASS TYPE 'E'	
			EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2" 37" 53-1/8" 74"	26" (3)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
26-1/2" 37" 53-1/8" 74"	38-3/8" (3)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
26-1/2" 37" 53-1/8" 74"	50-5/8" (4)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	-	-	70.0	90.0	70.0	80.0	80.0	90.0
26-1/2" 37" 53-1/8" 74"	63" (5)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	58.9	67.3	70.0	90.0	70.0	80.0	80.0	90.0
		5	42.6	48.7	70.0	86.6	70.0	80.0	80.0	90.0
		7	-	-	-	-	-	-	80.0	90.0
24" 36" 48" 60" 72"	24" (2)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		6	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
24" 36" 48" 60" 72"	36" (3)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		6	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
24" 36" 48" 60" 72"	48" (4)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		6	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
24" 36" 48" 60" 72"	60" (5)	3	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		4	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		5	54.2	61.9	70.0	90.0	70.0	80.0	80.0	90.0
		6	45.1	51.5	70.0	87.3	70.0	80.0	80.0	90.0
		7	-	-	70.0	78.7	70.0	78.7	80.0	90.0

\*\* SEE DETAILS BELOW FOR EXT(+) LOAD LIMITATIONS

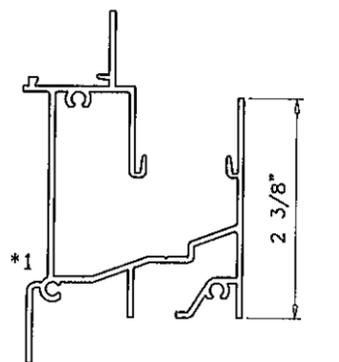


PRODUCT REVISED  
as complying with the Florida  
Building Code **12-0223.46**  
Acceptance No  
Expiration Date **11/06/2013**  
By *[Signature]*  
Miami Trade Product Control

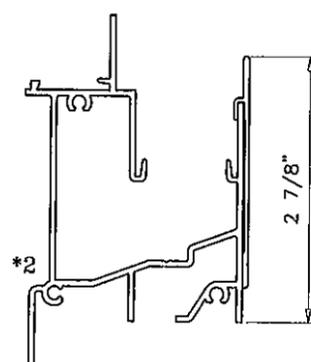
NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-04 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
**MAY 27 2012**

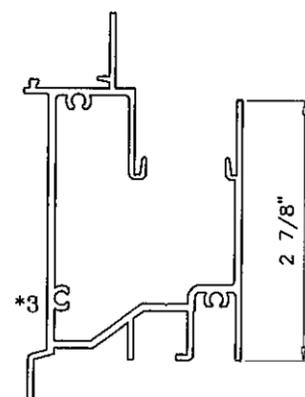
A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB



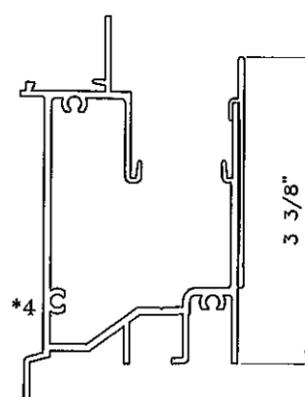
STD. SILL WITHOUT RISER  
LIMIT EXT.(+) LOADS TO 53.3 PSF



STD. SILL WITH RISER  
LIMIT EXT.(+) LOADS TO 70.0 PSF



HI-RISE SILL WITHOUT RISER  
LIMIT EXT.(+) LOADS TO 67.5 PSF



HI-RISE SILL WITH RISER  
LIMIT EXT.(+) LOADS TO 80.0 PSF

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W03-75ES

SERIES-2000/2050 ALUM. HORIZ. SLIDING WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
5220 N.W. 72 AVE. BAY #4  
MIAMI, FL. 33166  
TEL. (305) 624-7775 FAX. (305) 624-7777

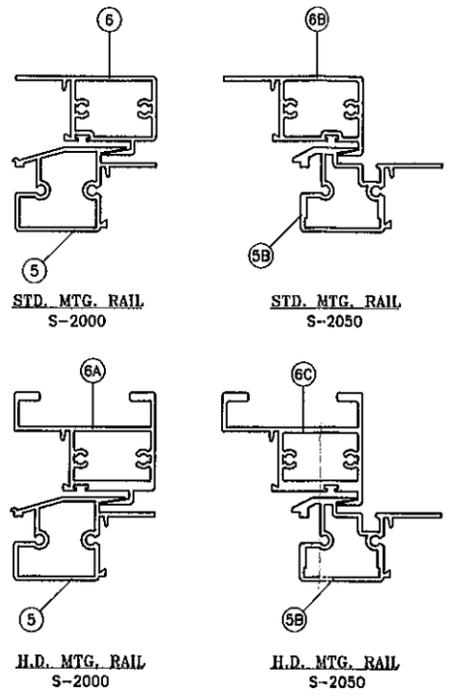
no	date	description	by
C	09.21.07	GLASS TYPE 'D' ADDED	
D	05.12.08	GENERAL REVISION	
E	06.25.09	GENERAL REVISION	
F	12.09.11	NO CHANGE THIS SHEET	
G	05.15.12	REV. PER PERA COMMENTS	

date: 08-27-03  
scale: 1/2"=1'-0"  
dr. by: HAMID  
chk. by:

drawing no.  
**W03-75**  
sheet 2 of 9

DESIGN LOAD CAPACITY - PSF (XOX SIZES) SERIES 2000/2050										
WINDOW DIMS.		A	STD. MTG. RAIL (FRAME SILL *1, 2, 3 & 4) SEE DETAILS BELOW FOR EXT(+) LOAD LIMITATIONS				H.D. MTG. RAIL (SILL *3 & 4)**			
			GLASS TYPE 'A' GLASS TYPE 'B'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'C'		GLASS TYPE 'D'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'D' GLASS TYPE 'E'	
WIDTH	HEIGHT		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74" 106-1/4" 111"	26" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
74" 106-1/4" 111"	38-3/8" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
74" 106-1/4" 111"	50-5/8" (4)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
74" 106-1/4" 111"	63" (5)	7	45.4	51.9	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
72" 84" 96" 108"	24" (2)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		9	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
72" 84" 96" 108"	36" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		9	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
72" 84" 96" 108"	48" (4)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		9	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
72" 84" 96" 108"	60" (5)	7	54.2	61.9	70.0	90.0	70.0	80.0	80.0	90.0
		8	47.6	54.4	70.0	90.0	70.0	80.0	80.0	90.0
		9	-	-	70.0	83.9	70.0	80.0	80.0	90.0
		10	-	-	70.0	78.7	70.0	78.7	80.0	90.0

\*\* SEE DETAILS BELOW FOR EXT(+) LOAD LIMITATIONS



DESIGN LOAD CAPACITY - PSF (XOX SIZES) SERIES 2000/2050										
WINDOW DIMS.		A	STD. MTG. RAIL (FRAME SILL *1, 2, 3 & 4) SEE DETAILS BELOW FOR EXT(+) LOAD LIMITATIONS				H.D. MTG. RAIL (SILL *3 & 4)**			
			GLASS TYPE 'A' GLASS TYPE 'B'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'C'		GLASS TYPE 'D'		GLASS TYPE 'A1' GLASS TYPE 'B1' GLASS TYPE 'D' GLASS TYPE 'E'	
WIDTH	HEIGHT		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
74" 106-1/4" 111"	26" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
74" 106-1/4" 111"	38-3/8" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	-	-	-	-	80.0	90.0
74" 106-1/4" 111"	50-5/8" (4)	7	-	-	70.0	90.0	70.0	80.0	80.0	90.0
		7	-	-	-	-	-	-	80.0	90.0
		7	-	-	-	-	-	-	80.0	90.0
72" 84" 96" 108"	24" (2)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		9	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
72" 84" 96" 108"	36" (3)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		9	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		10	-	-	70.0	90.0	70.0	80.0	80.0	90.0
72" 84" 96" 108"	48" (4)	7	70.0	80.0	70.0	90.0	70.0	80.0	80.0	90.0
		8	-	-	70.0	90.0	70.0	80.0	80.0	90.0
		9	-	-	-	-	-	-	80.0	90.0
		9	-	-	-	-	-	-	80.0	90.0
72" 84"	60" (5)	7	-	-	70.0	90.0	70.0	80.0	80.0	90.0
		7	-	-	-	-	-	-	80.0	90.0

A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB



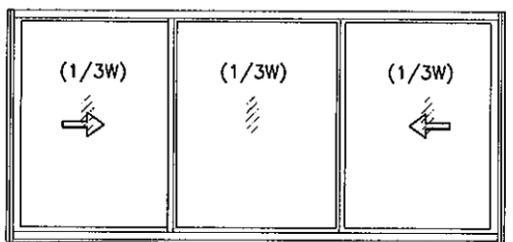
OPERATING VENTS TO BE 1/4 OF THE WINDOW WIDTH

PRODUCT REVISED  
as complying with the Florida  
Building Code **12-0223.46**  
Acceptance No  
Expiration Date **11/06/2013**  
By *[Signature]*  
Miami Dade Product Control

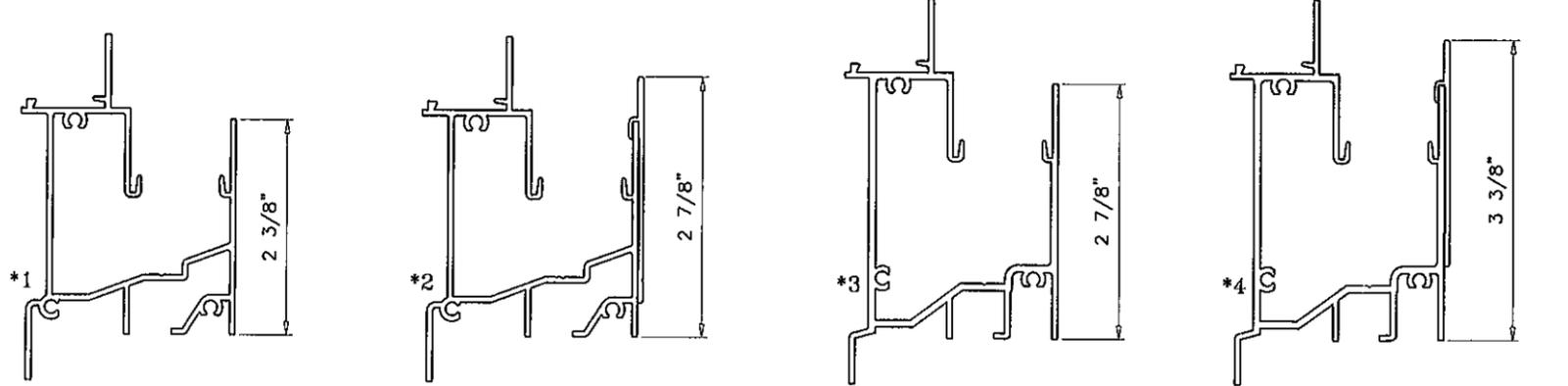
NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-04 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
*[Signature]*  
MAX 11/2012

A = NO. OF ANCHORS PER HEAD & SILL  
( ) = NO. OF ANCHORS PER JAMB



OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH



\*1 STD. SILL WITHOUT RISER LIMIT EXT.(+) LOADS TO 53.3 PSF  
\*2 STD. SILL WITH RISER LIMIT EXT.(+) LOADS TO 70.0 PSF  
\*3 HI-RISE SILL WITHOUT RISER LIMIT EXT.(+) LOADS TO 66.7 PSF  
\*4 HI-RISE SILL WITH RISER LIMIT EXT.(+) LOADS TO 80.0 PSF

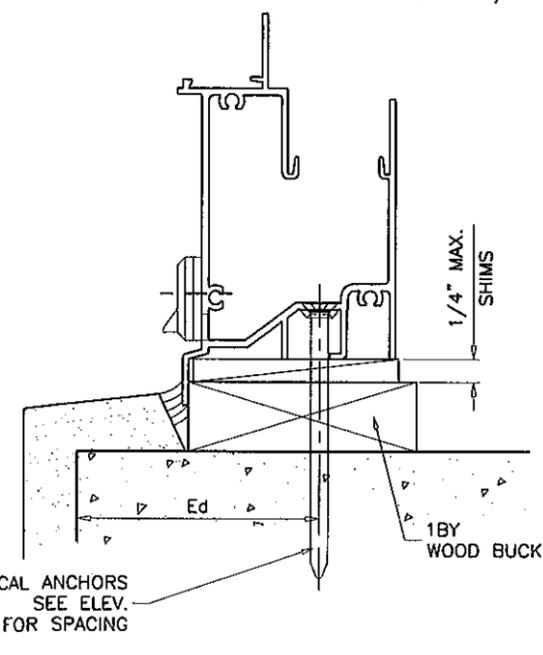
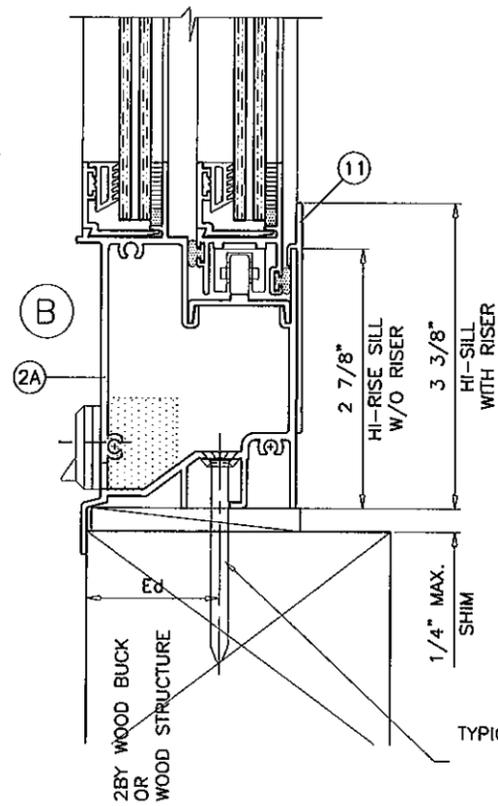
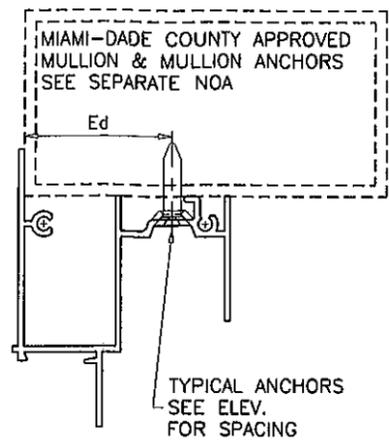
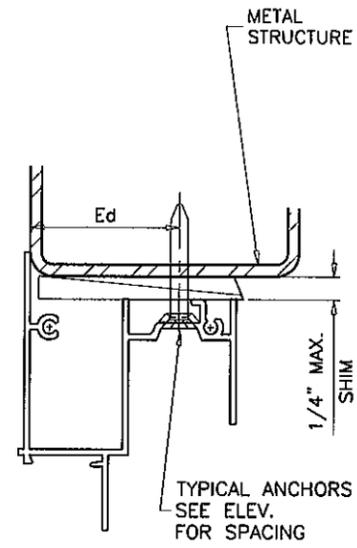
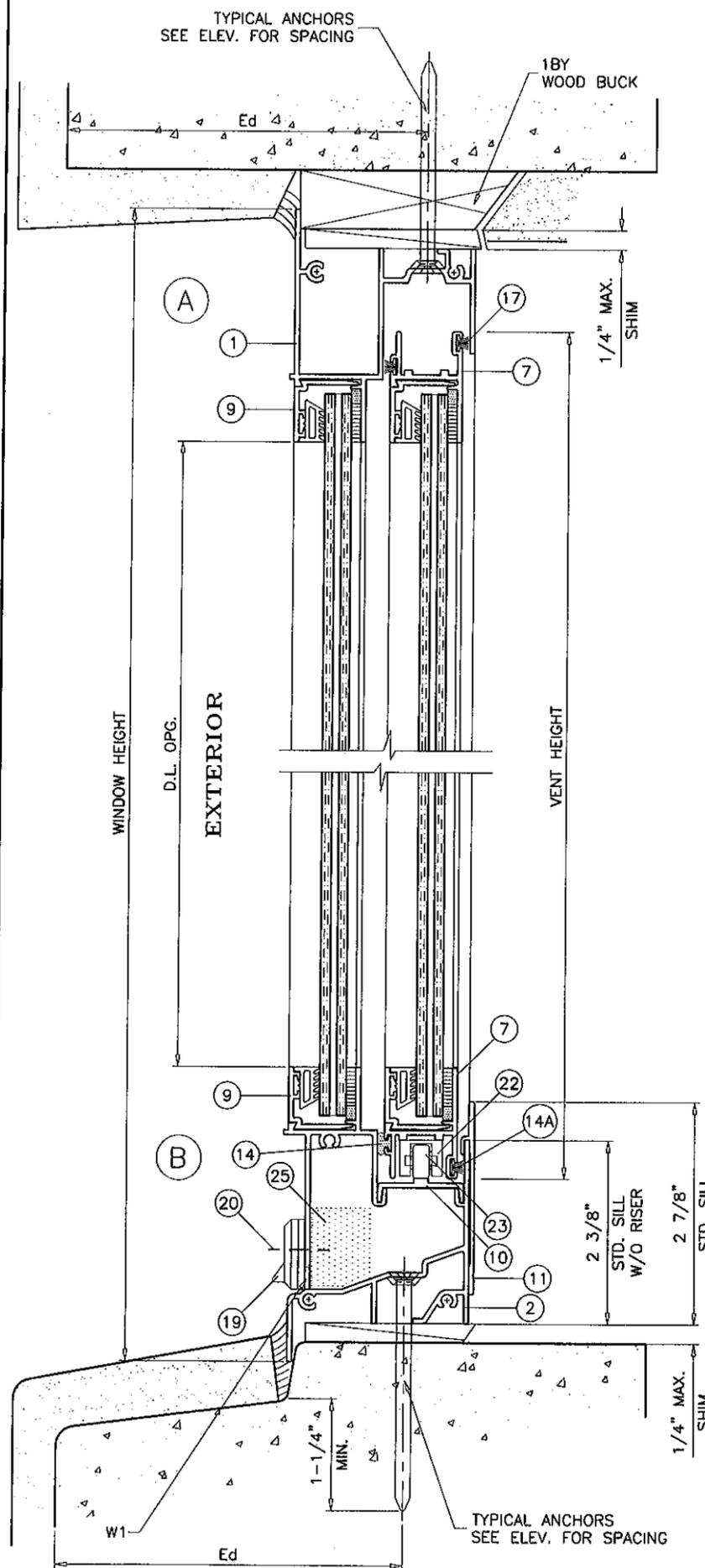
**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W03-75ES

SERIES-2000/2050 ALUM HORIZ. SLIDING WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
5220 N.W. 72 AVE. BAY #4  
MIAMI, FL. 33166  
TEL. (305) 624-7775 FAX. (305) 624-7777

no.	date	description	by
C	09.21.07	GLASS TYPE 'D' ADDED	
D	05.12.08	GENERAL REVISION	
E	06.25.09	GENERAL REVISION	
F	12.09.11	NO CHANGE THIS SHEET	
G	05.15.12	REV. PER PERA COMMENTS	

date: 08-27-03  
scale: 1/2"=1'-0"  
dr. by: HAMID  
chk. by:

drawing no. **W03-75**  
sheet 3 of 9



WOOD BUCKS AND METAL STRUCTURE NOT BY E.S. WINDOWS 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 'ELCO'** (Fu=177 KSI, Fy=155 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-3/8" MIN. PENETRATION INTO WOOD

THRU 1BY BUCKS INTO CONC. OR MASONRY  
 1-1/4" MIN. EMBED INTO CONC. OR MASONRY

DIRECTLY INTO CONC. OR MASONRY  
 1-1/4" MIN. EMBED INTO CONC. OR MASONRY

**#14 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = .090")

INTO METAL STRUCTURES

STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)

ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**Ed = ANCHOR EDGE DISTANCE**

INTO CONCRETE AND MASONRY = 2-1/2" MIN.

INTO WOOD STRUCTURE = 1" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.

C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

**SEALANTS:**

FRAME AND VENT CORNERS AND INSTALLATION SCREWS AT SILL SEALED WITH WHITE/ALUMINUM COLORED SILICONE.

**WEEPHOLES:**

W1 = 1-13/16" X 1/4" WEEPHOLES AT 3" FROM EACH END WITH PLASTIC BAFFLE

W2 = 1/4" WEEPHOLE AT TOP & BOTTOM RAIL 1" FROM EACH END

PRODUCT REVISED as complying with the Florida Building Code  
 Acceptance No. 12-0223.46  
 Expiration Date 11/06/2013  
 By *[Signature]*  
 Miami Dade Product Control

**SERIES-2000**  
**SERIES-2050**

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538

MAY 17 2012

**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
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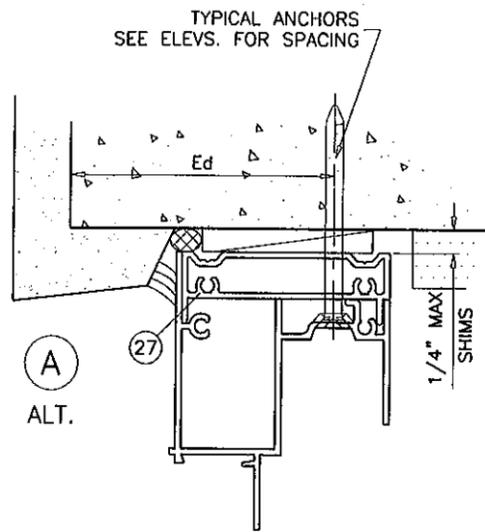
SERIES-2000/2050 ALUM HORIZ. SLIDING WDW. (L.M.I.)  
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C	09.21.07		NO CHANGE THIS SHEET
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E	06.25.09		GENERAL REVISION
F	12.09.11		NO CHANGE THIS SHEET
G	05.15.12		REV. PER PERA COMMENTS

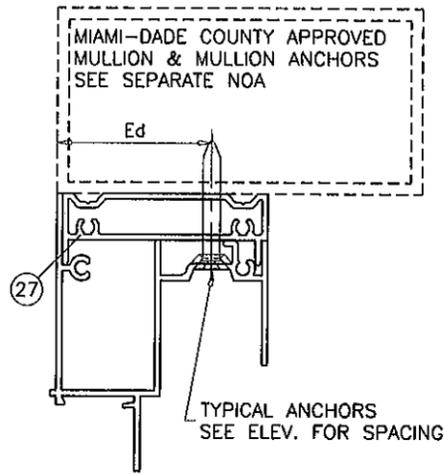
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**W03-75**

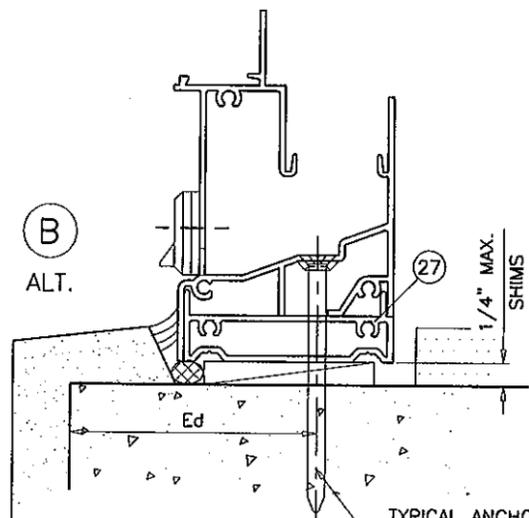
sheet 4 of 9



(A)  
ALT.



TYPICAL ANCHORS  
SEE ELEV. FOR SPACING



(B)  
ALT.

TYPICAL ANCHORS  
SEE ELEV. FOR SPACING

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES1003	1	FRAME HEAD	6063-T6	-
2	ES2001	1	STD. FRAME SILL	6063-T6	-
2A	ES2012	1	HI-RISE FRAME SILL	6063-T6	-
3	ES2003	1	FRAME JAMB	6063-T6	-
5	ES1005	1/ VENT	FIXED RAIL (S-2000)	6063-T6	-
5B	ES1051	1/ VENT	FIXED RAIL (S-2050)	6063-T6	-
6	ES1004	1/ VENT	STD. VENT MEETING RAIL (S-2000)	6063-T6	-
6A	ES2004	1/ VENT	H.D. VENT MEETING RAIL (S-2000)	6063-T6	-
6B	ES1052	1/ VENT	STD. VENT MEETING RAIL (S-2050)	6063-T6	-
6C	ES1053	1/ VENT	H.D. VENT MEETING RAIL (S-2050)	6063-T6	-
7	ES1007	2/ VENT	TOP AND BOTTOM RAIL	6063-T5	-
8	ES1006	1/ VENT	JAMB STILE	6063-T5	-
9	ES1008	AS REQD.	GLAZING BEAD	6063-T5	-
9A	ES1103	AS REQD.	SQUARE GLAZING BEAD (5/16" GLASS)	6063-T5	-
9B	ES1017	AS REQD.	SQUARE GLAZING BEAD (7/16" GLASS)	6063-T5	-
10	ES2002	1	SILL TRACK INSERT	6063-T5	-
11	ES2011	AS REQD.	STD. SILL RISER	6063-T5	-
12	ES1009	2/ VENT	SPRING LOADED VENT LATCH	6063-T6	AT 8" FROM ENDS
12A	SL203	2/ VENT	SWEEP LATCH	ZAMAK	AT 11" FROM ENDS, BY INTERLOCK
12B	#8 X 1"	2/ LATCH	LATCH INSTALLATION SCREWS	GRADE 2 CRS	FH SMS
13	ES1012	1/ LATCH	VENT LATCH SPRING	ST. STEEL	-
14	C1B251N	AS REQD.	FOAM FILLED FABRIC W'STRIPPING	-	SCHLEGEL
15	#8 X 1"	AS REQD.	FRAME/VENT ASSEMBLY SCREWS	CRS	P.H. SMS
16	#8 X 3"	2/ VENT	FIX. RAIL SILL SCREWS (STD. SILL END)	CRS	P.H. SMS
16A	#10 X 4"	2/ VENT	FIX. RAIL SILL SCREWS (HI-RISE SILL END)	CRS	P.H. SMS
17	W23211NG	AS REQD.	VENT & FIX. RAIL W'STRIPPING	-	ULTRAFAB
18	W23291NG	AS REQD.	FRAME JAMB W'STRIPPING	-	ULTRAFAB
19	WPHL-100	2	BAFFLE, AT 3" FROM EACH END	-	M & M PLASTICS
20	#6 X 1/2"	2/ BAFFLE	BAFFLE SCREW	-	F.H. SMS
21	ES1010	AS REQD.	GLAZING WEDGE	SOFT PVC	DUROMETER 70 SHORE 'A'
21.1	ES4013	AS REQD.	GLAZING WEDGE	SOFT PVC	DUROMETER 70 SHORE 'A'
21A	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60 SHORE 'A'
22	ES2007	4/ VENT	ROLLER HOUSING & GUIDE	PLASTIC	-
23	ES2006	2/ VENT	ROLLER	BRASS/ST. ST.	-
24	ES2005	2/ VENT	ROLLER PIN	ST. STEEL	-
25	-	1/ WEEP	OPEN CELL FOAM PAD	-	1" X 3/4" X 1" LONG
26	-	1/ VENT	5/16" BOX SCREEN	-	OPTIONAL
27	ES1505	-	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL

PRODUCT REVISED  
as complying with the Florida  
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By *[Signature]*  
Miami Dade Product Control

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
*[Signature]* 17 2012

**afC**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
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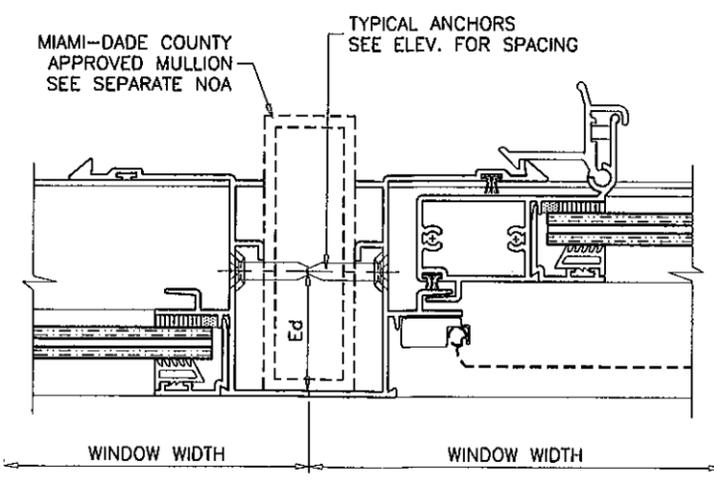
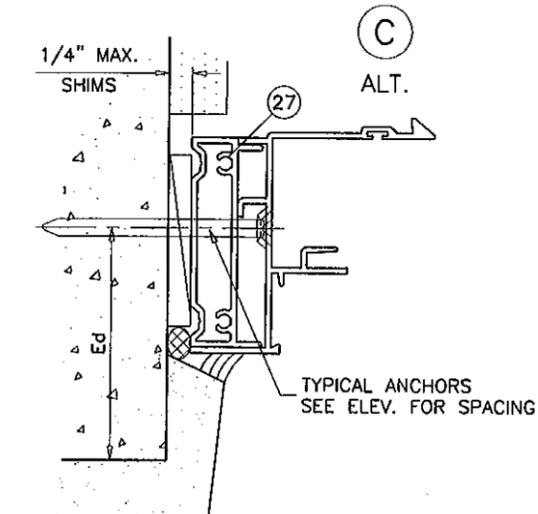
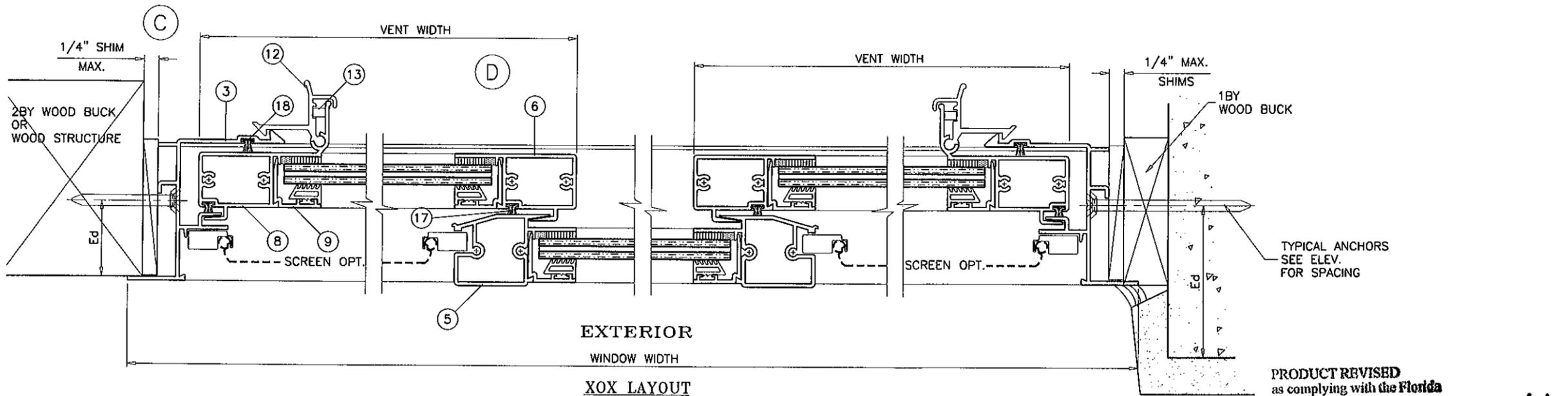
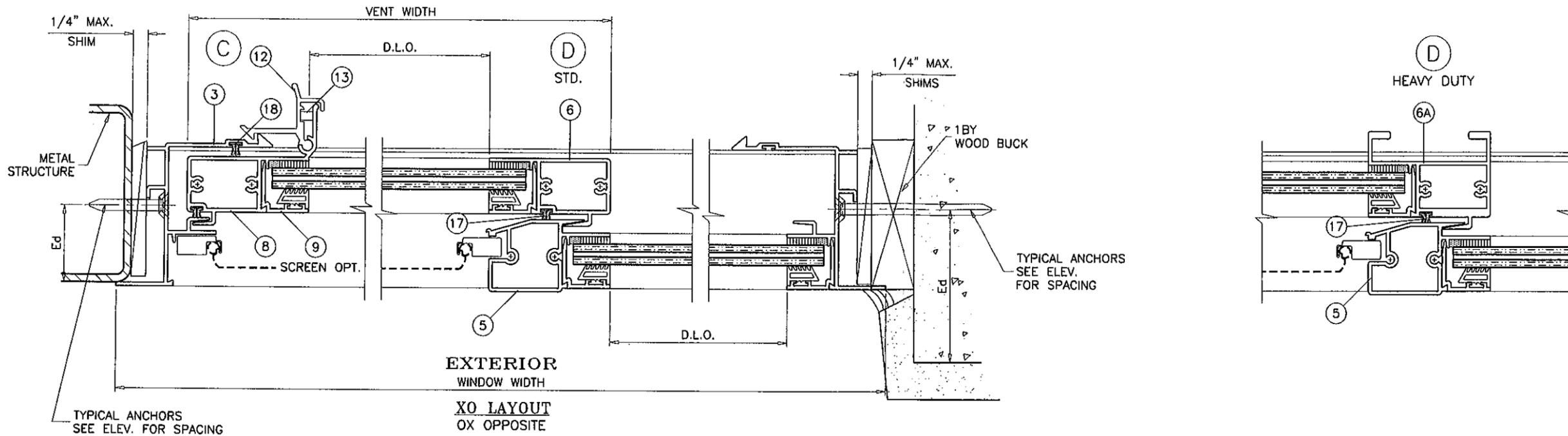
SERIES-2000/2050 ALUM HORIZ. SLIDING WDW. (L.M.I.)  
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revisions:	no	date	by	description
	D	05.12.08		GENERAL REVISION
	E	06.25.09		GENERAL REVISION
	F	12.09.11		ALT. GLAZING OPTION ADDED
	G	05.15.12		REV. PER PERA COMMENTS

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

drawing no.  
**W03-75**

sheet 5 of 9



PRODUCT REVISED  
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 Expiration Date 11/06/2013  
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 Miami Dade Product Control

**SERIES-2000**  
 VENTS WITH SPRING LOADED LATCHES

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538  
*[Signature]* 2012

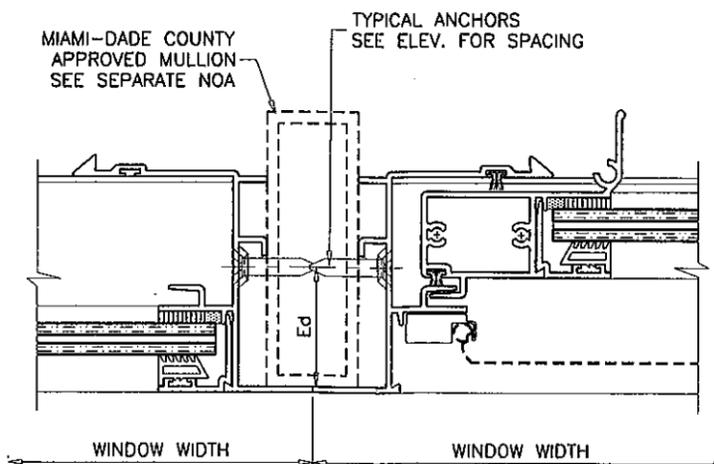
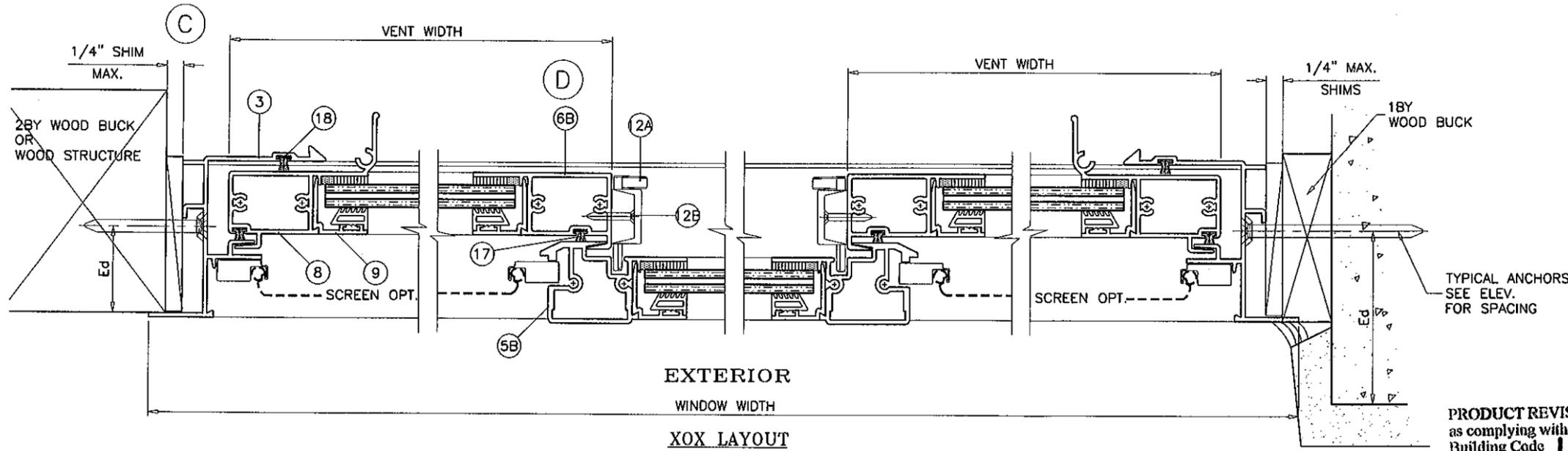
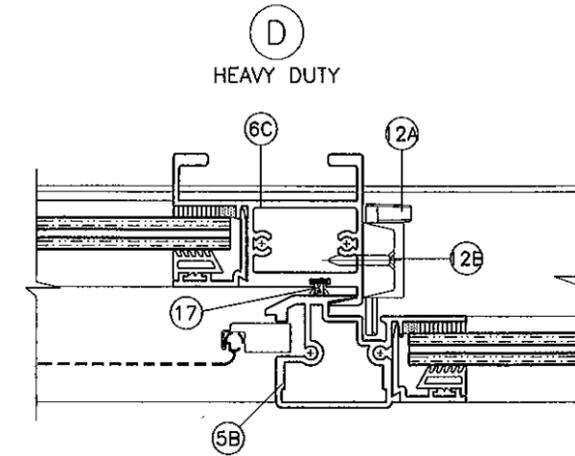
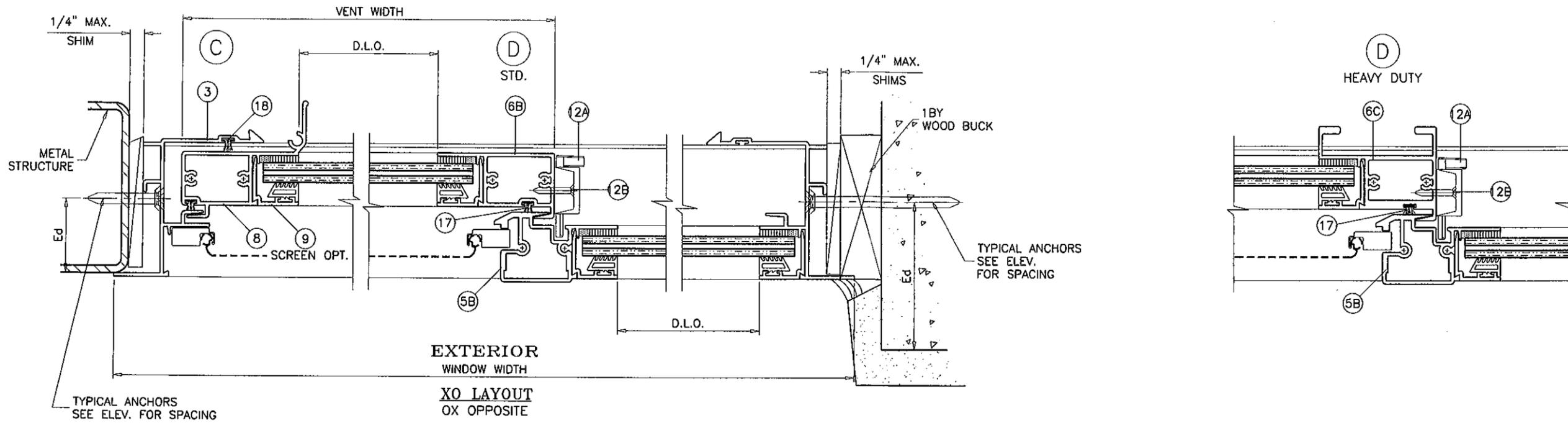
**af c**  
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 sheet 6 of 9



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 Miami Dade Product Control

**SERIES-2050**  
 VENTS WITH SWEEP LATCHES

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70582  
 C.A.N. 3530  
**MAY 17 2012**

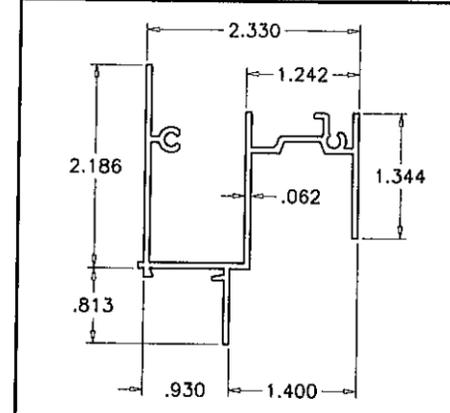
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**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1235 S.W. 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 COMP-ANL\W03-75ES

SERIES-2000/2050 ALUM HORIZ. SLIDING WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
 5220 N.W. 72 AVE. BAY #4  
 MIAMI, FL. 33166  
 TEL. (305) 624-7775 FAX. (305) 624-7777

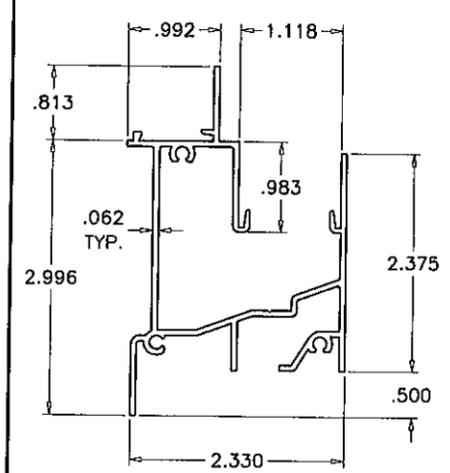
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F	12.09.11		NO CHANGE THIS SHEET
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 chk. by:

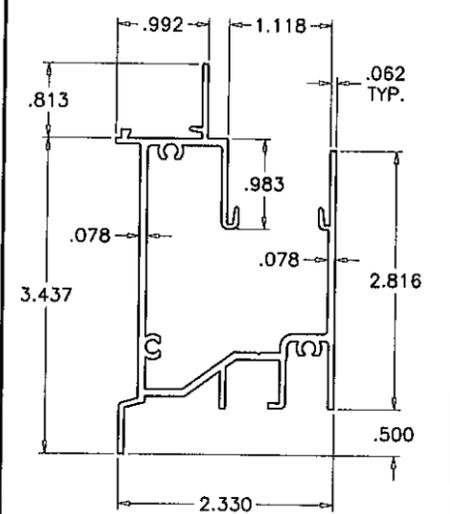
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**W03-75**  
 sheet 7 of 9



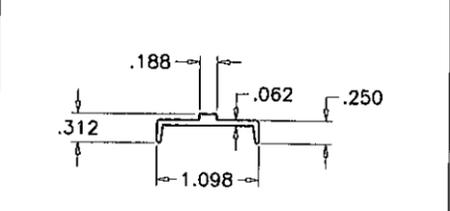
① FRAME HEAD



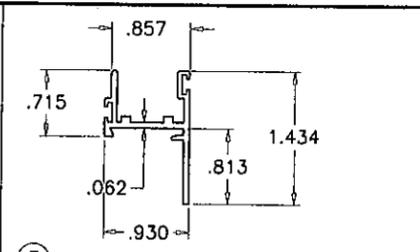
② STD. FRAME SILL



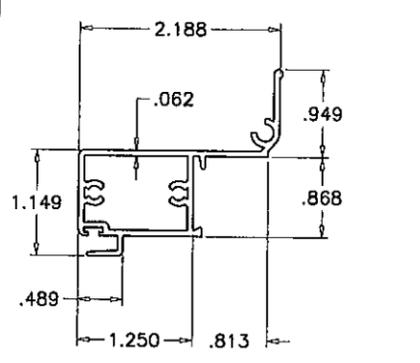
②A HI-RISE FRAME SILL



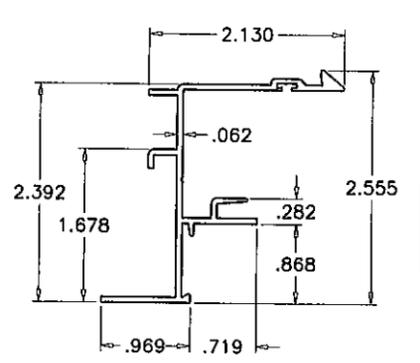
⑩ SILL TRACK



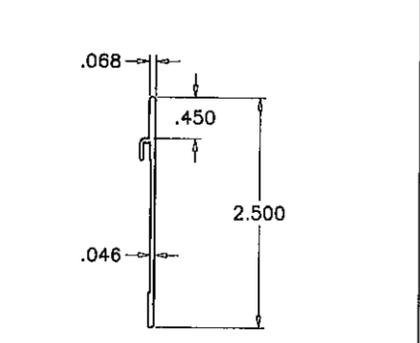
⑦ VENT TOP/BOTTOM RAIL



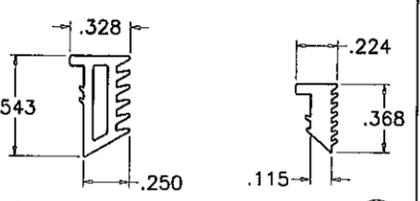
⑧ JAMB STILE



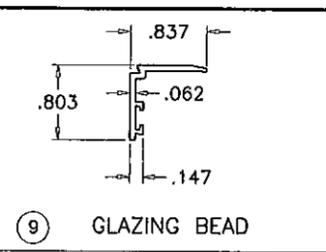
③ FRAME JAMB



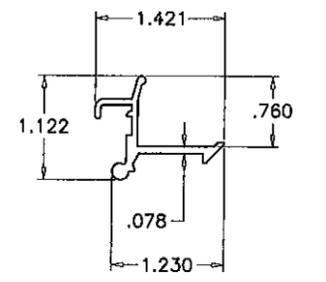
⑪ SILL RISER



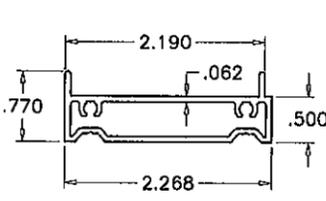
⑪ GLAZING WEDGE  
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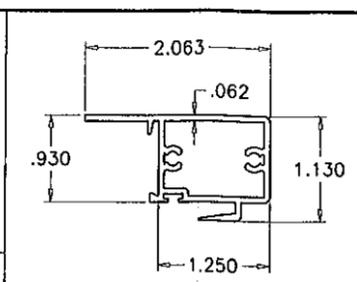
⑨ GLAZING BEAD



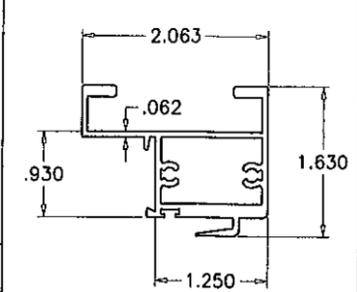
⑫ VENT LATCH



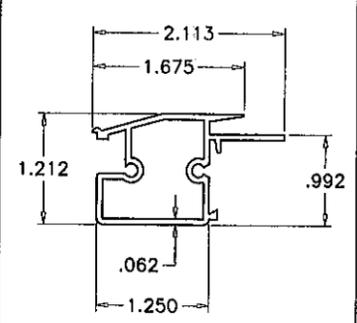
⑳ FLUSH FRAME ADAPTER



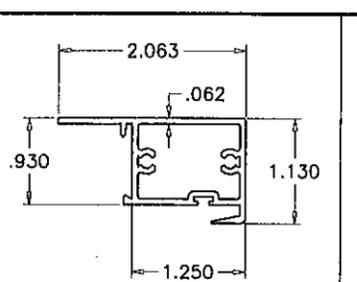
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SERIES-2000



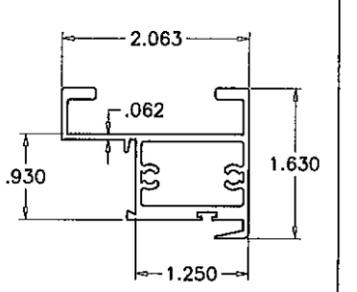
⑥A H.D. MEETING RAIL  
SERIES-2000



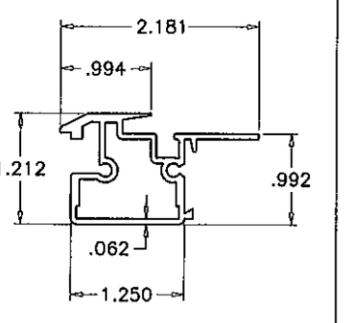
⑤ FIXED RAIL  
SERIES-2000



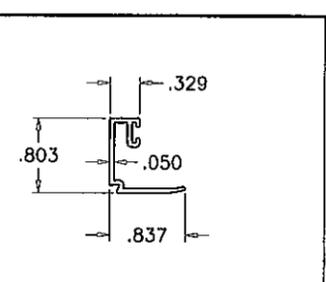
⑥B STD. MEETING RAIL  
SERIES-2050



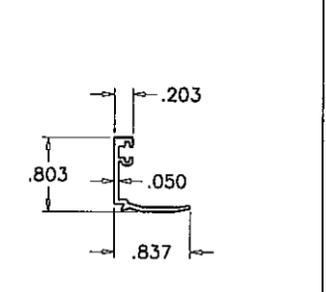
⑥C H.D. MEETING RAIL  
SERIES-2050



⑤B FIXED RAIL  
SERIES-2050



⑨A SQUARE GLAZING STOP



⑨B SQUARE GLAZING STOP

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. **12-0223.46**  
Expiration Date **11/06/2013**  
By *[Signature]*  
Miami Dade Product Control

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
*[Signature]*  
17 2012

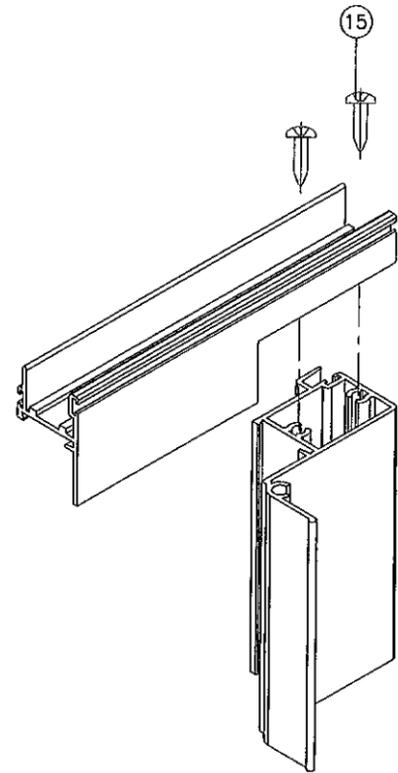
**af c**  
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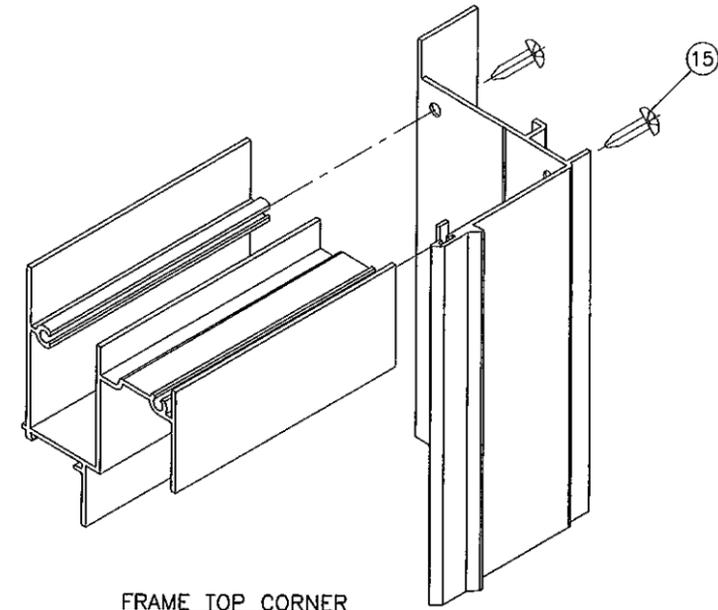
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E	06.25.09 GENERAL REVISION
F	12.09.11 ALT. GLAZING OPTION ADDED
G	05.15.12 REV. PER PERA COMMENTS

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dr. by: HAMID  
chk. by:

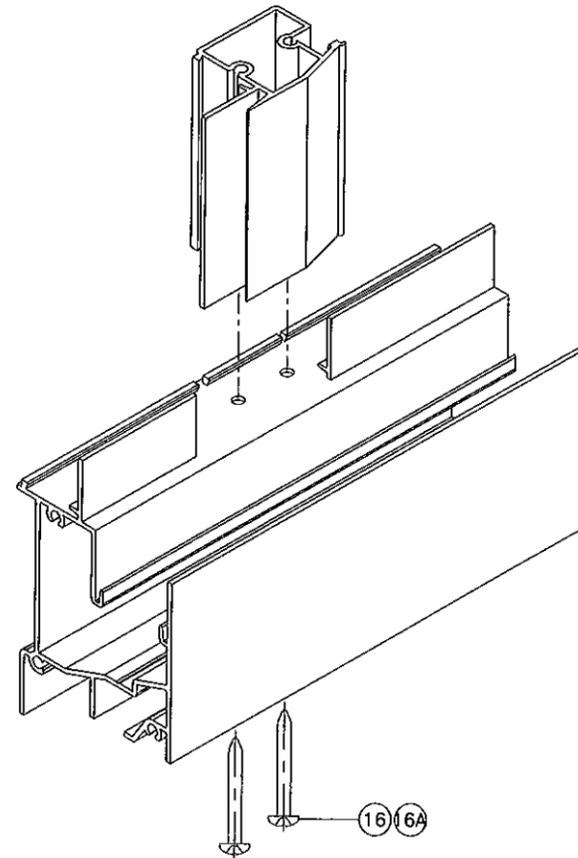
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**W03-75**  
sheet 8 of 9



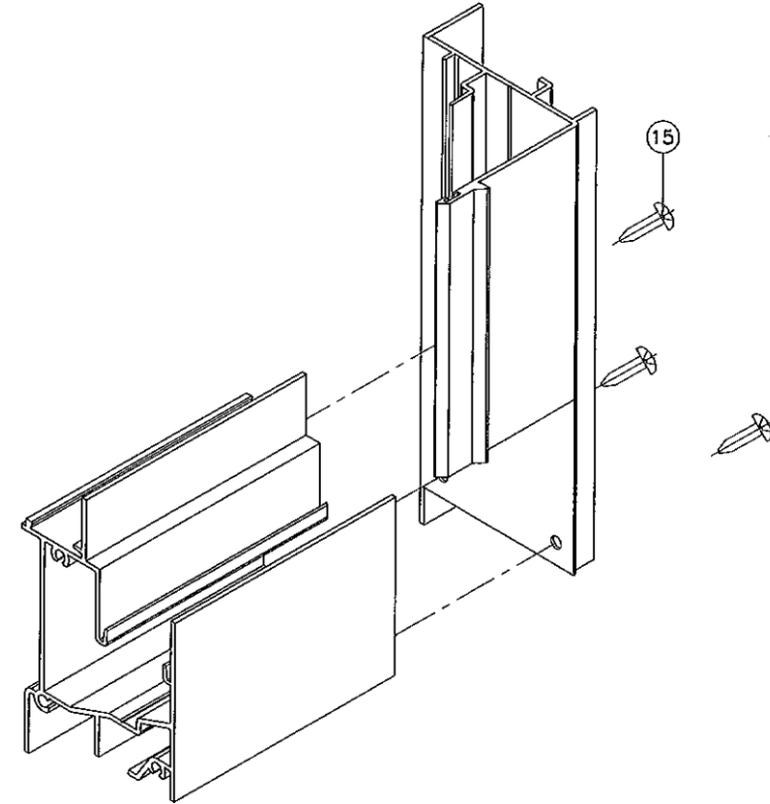
VENT TOP/BOTTOM CORNERS



FRAME TOP CORNER



FIXED MTG. RAIL CORNER



FRAME BOTTOM CORNER

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 Acceptance No **12-0223.46**  
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*[Signature]*  
 MAY 17 2012

**afc**  
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no	date	by	description
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**W03-75**

sheet 9 of 9