



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/

ES Windows, LLC
10653 N.E. 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 "5100 Casement" Aluminum Fixed Window - L. M. I.

APPROVAL DOCUMENT: Drawing No. W11-15, titled "Series 5100 Aluminum Fixed Wdw. (L.M.I.)", sheets 1 through 7 of 7, dated 03/22/2011 with revision "B" dated 02/20/2012, 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.

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. 11-0531.09 and consists of this page 1, evidence pages E-1 and E-2, 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. 12-0223.43
Expiration Date: September 22, 2016
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. 11-0531.09)
2. Drawing No. **W11-15**, titled "Series 5100 Aluminum Fixed Wdw. (L.M.I.)", sheets 1 through 7 of 7, dated 03/22/2011 with revision "**B**" dated 02/20/2012, 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 203-94along with marked-up drawings and installation diagram of an Aluminum fixed casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.'s **FTL-6294** and **FTL-6295**, dated 02/25/11 and 03/16/11, both signed and sealed by Marlin D. Brinson, P. E.
(Submitted under previous NOA No. 11-0531.09)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC, prepared by Al-Farooq Corporation, dated 05/25/11, signed, sealed and dated 09/09/11 by Javad Ahmad, P. E.
(Submitted under previous NOA No. 11-0531.09)
2. **Glazing complies with ASTM E1300-04**

D. QUALITY ASSURANCE

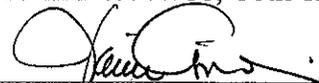
1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

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.

F. STATEMENTS

1. Statement letter of no financial interest, conformance and compliance with the **FBC-2010**, dated 02/21/12, signed and sealed by Javad Ahmad, P. E.
2. Laboratory compliance letters for Test Reports No.'s **FTL-6294** and **FTL-6295**, issued by Fenestration Testing Laboratory, Inc., dated 02/25/11 and 03/16/11, both signed and sealed by Marlin D. Brinson, P. E.
(Submitted under previous NOA No. 11-0531.09)



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0223.43
Expiration Date: September 22, 2016
Approval Date: May 24, 2012

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

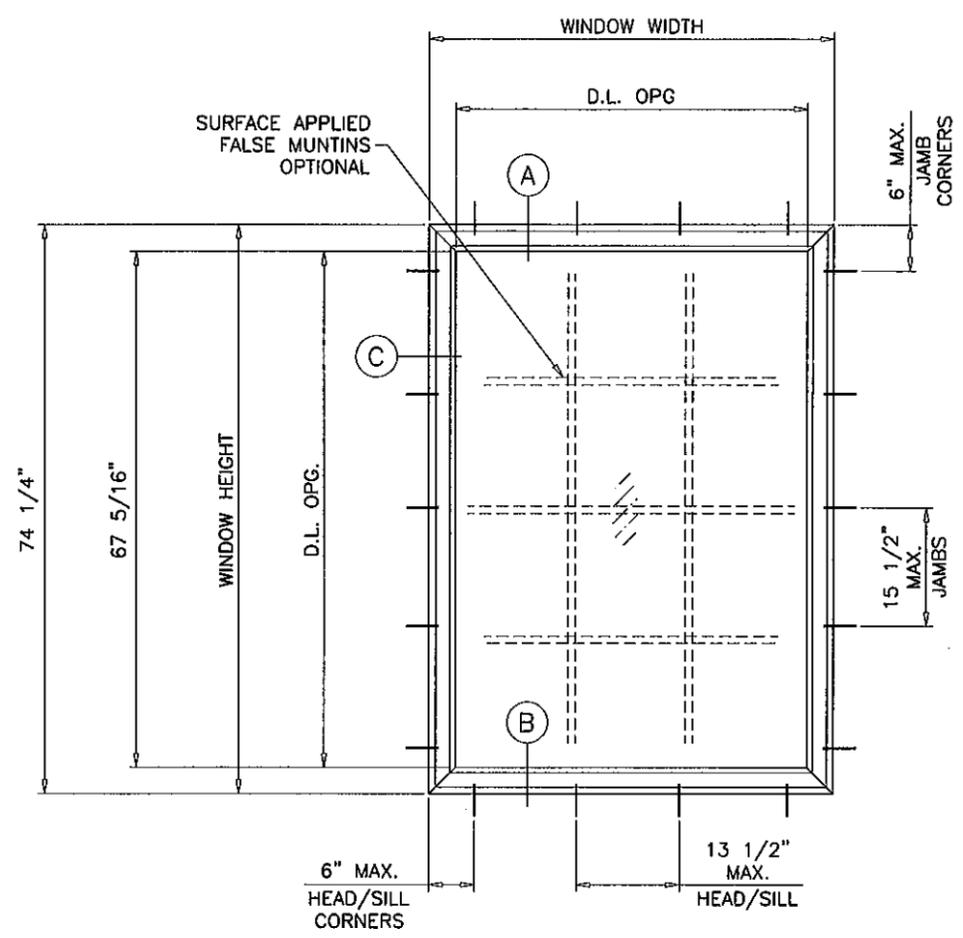
3. Proposal No. **10-0505** issued by Product Control, dated 06/29/10, signed by Manuel Perez, P. E.
(Submitted under previous NOA No. 11-0531.09)
4. Distributor Agreement between, E.S. Windows – Energia Solar S.A., Barranquilla, Colombia and E.S. Windows, LLC, Miami, Florida, U.S.A., dated 10/20/10, signed by Carla Garcia Torrente and by Andres Chamorro, respectively.
(Submitted under previous NOA No. 11-0531.09)

G. OTHERS

1. Notice of Acceptance No. **11-0531.09**, issued to ES Windows, LLC, for their Series **“5100 Casement Aluminum Fixed Window – L.M.I.”**, approved on 09/22/11 and expiring on 09/22/16.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0223.43
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TYPICAL ELEVATION

DAYLITE OPENINGS:
 D.L.O. HEIGHT = WINDOW HEIGHT - 6.9375"
 D.L.O. WIDTH = WINDOW WIDTH - 6.9375"

SERIES 5100
ALUMINUM FIXED WINDOW

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

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIX./FIX. OR FIXED WITH SERIES 5000 CASEMENT 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 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.

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

Engr. JAVAD AHMAD
 CIVIL
 FLA. PEI # 70592
 C.A.N. 3538
 FEB 21 2012

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. **12-0223.43**
 Expiration Date **09/22/2016**
 By *[Signature]*
 Miami Dade Product Control

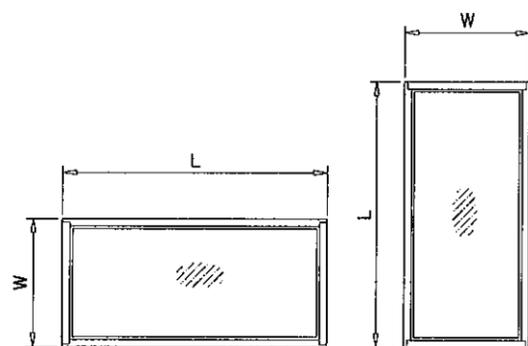
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B	02.20.12	UPDATED TO 2010 FBC	

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dr. by:	HAMID
chk. by:	

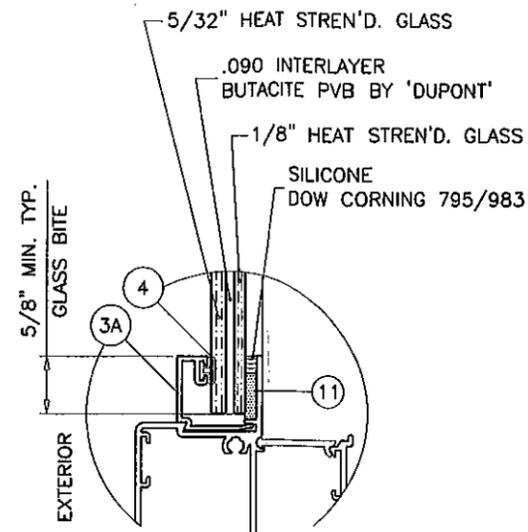
drawing no.	W11-15
sheet	1 of 7

DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		GLASS TYPES 'C', 'D', 'E' & 'F'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
24"	42"	90.0	90.0
30"		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	
24"	48"	90.0	90.0
30"		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	
24"	54"	90.0	90.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		88.5	88.5
54"		88.5	88.5
60"		88.5	88.5
62"	88.5	88.5	
24"	60"	90.0	90.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		88.5	88.5
60"		79.7	79.7
62"	79.7	79.7	
24"	66"	90.0	90.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		88.5	88.5
59"		81.0	81.0
24"	72"	90.0	90.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		88.5	88.5
60"		79.7	79.7
24"	76"	90.0	90.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		88.5	88.5
60"		79.7	79.7

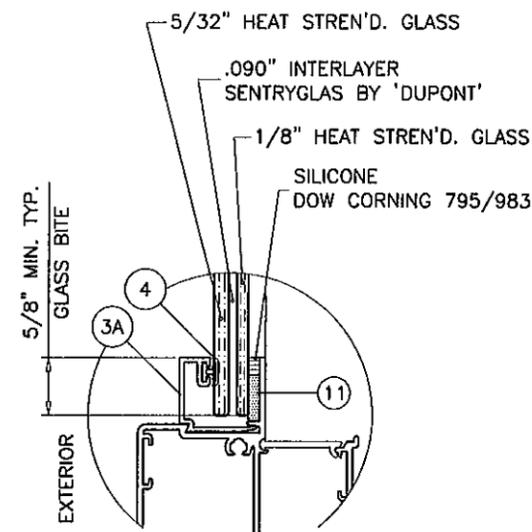
DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		GLASS TYPES 'C', 'D', 'E' & 'F'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
19-1/8"	26"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
62"		90.0	90.0
19-1/8"	38-3/8"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
62"		90.0	90.0
19-1/8"	50-5/8"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
62"		90.0	90.0
19-1/8"	63"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		77.1	77.1
62"		77.1	77.1
19-1/8"	74-1/4"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
62"		90.0	90.0
19-1/8"	76"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
62"		90.0	90.0



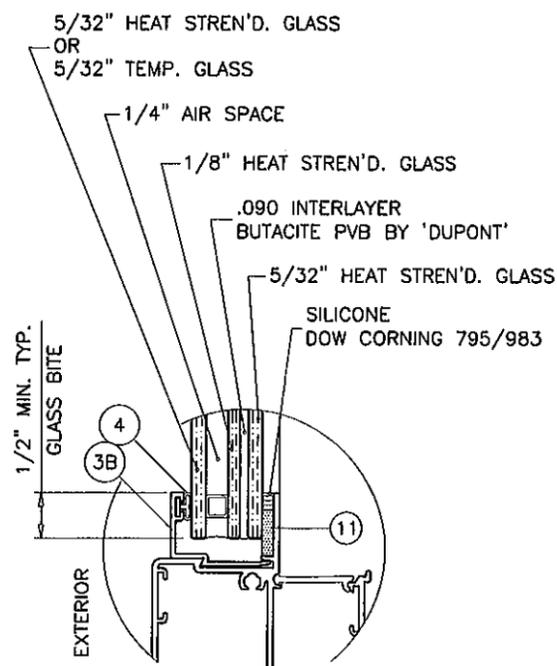
NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.



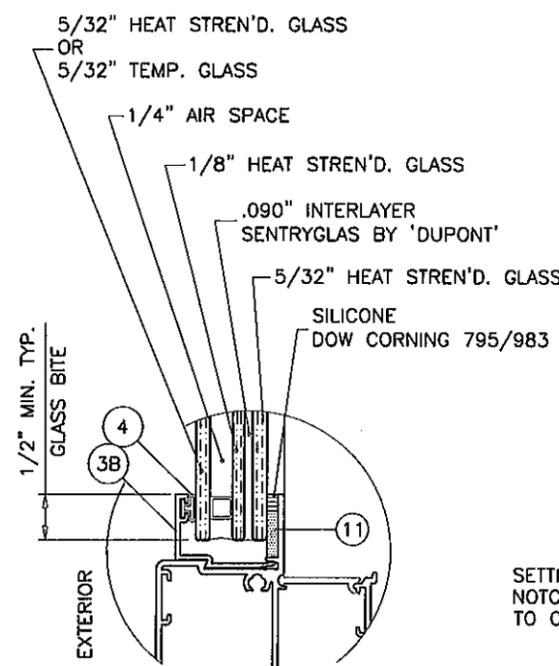
GLASS TYPE 'C'



GLASS TYPE 'D'



GLASS TYPE 'E'



GLASS TYPE 'F'

GLAZING OPTIONS

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

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-04 (3 SEC. GUSTS).

Engr. JAYAD AHMAD
CIVIL
FLA. PE (#) 70592
C.A.N. 3538
FEB 21 2012

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 12-0223.43
Expiration Date 09/22/2016
By: [Signature]
Miami Dade Product Control

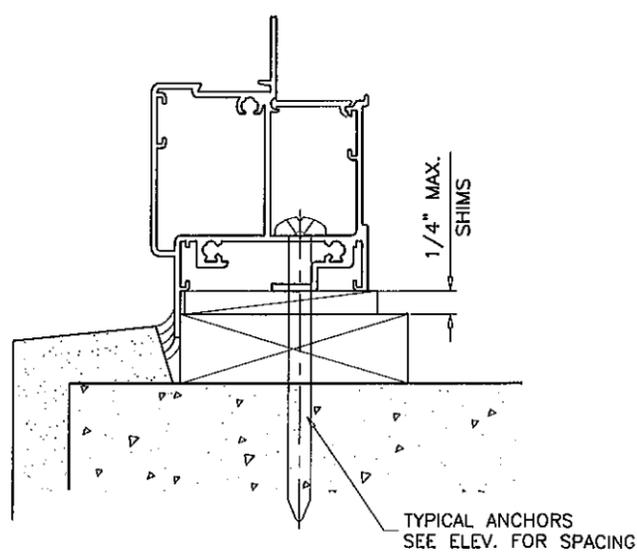
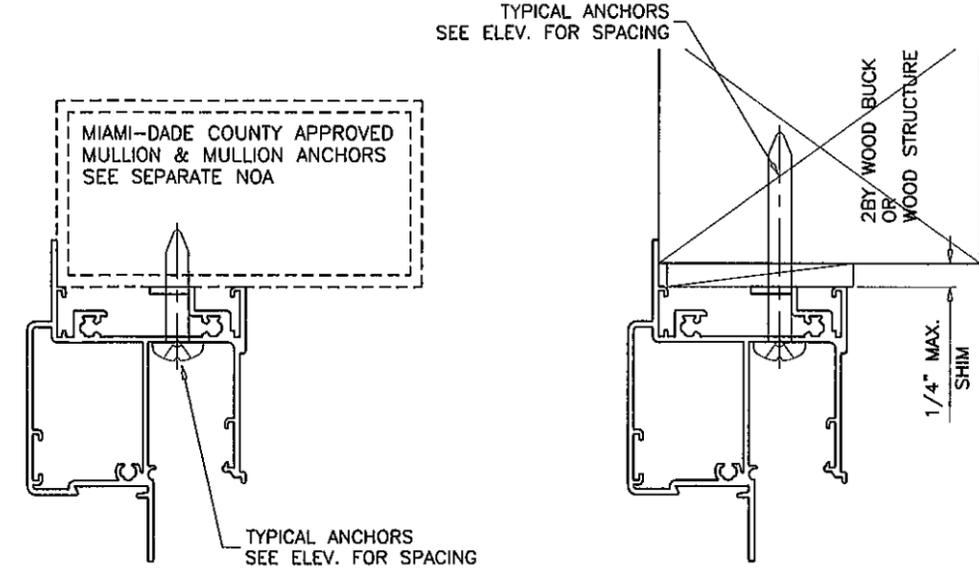
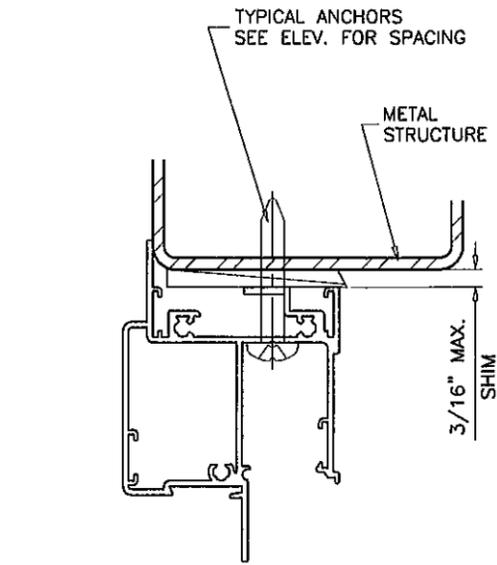
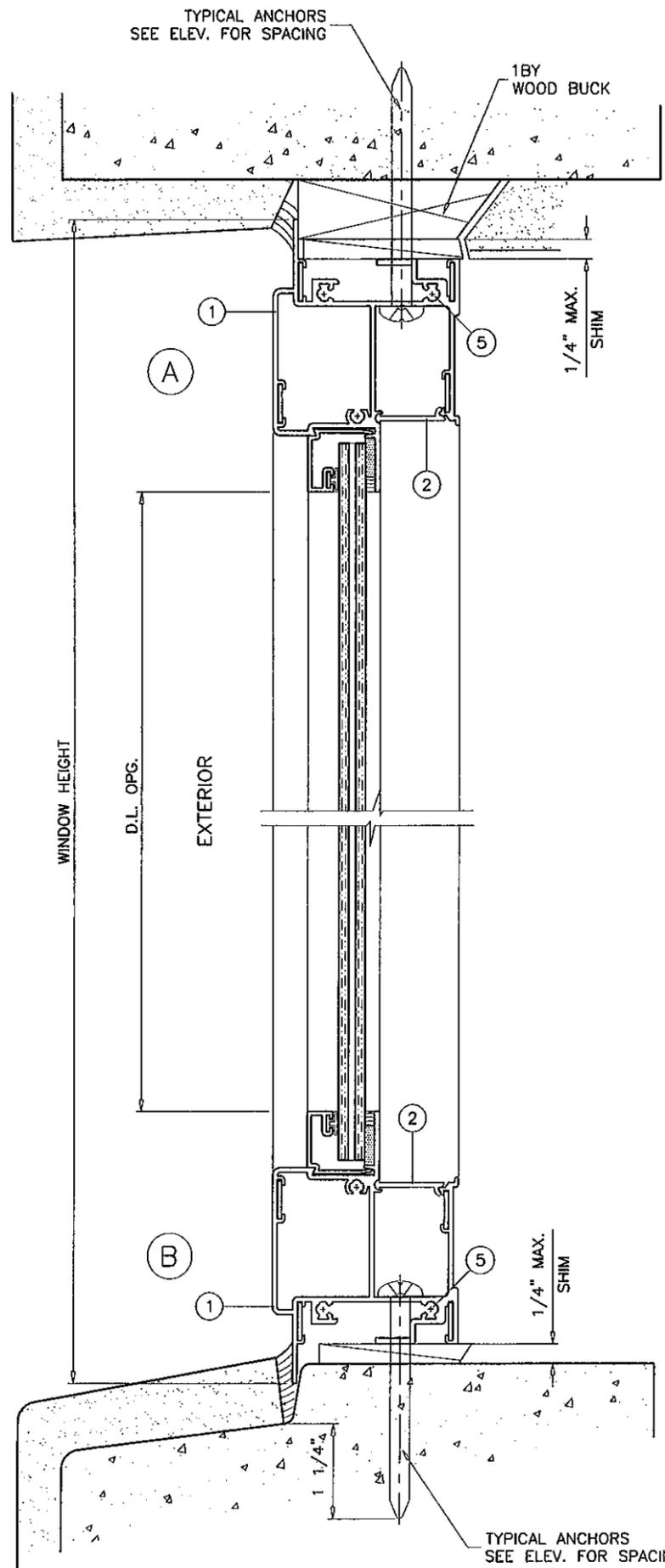
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W11-15ESW

SERIES 5100 ALUMINUM FIXED 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
A	08.03.11	REV. PER BNC COMMENTS
B	02.20.12	GLAZING DETAIL REV.

date: 03-22-11
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no.
W11-15
sheet 2 of 7



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

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 : 12 GA. MIN. (Fy = 36 KSI MIN.)
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE
 INTO CONCRETE AND MASONRY = 2" MIN.
 INTO WOOD STRUCTURE = 3/4" 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.

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

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PRODUCT REVISED
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Miami Dade Product Control

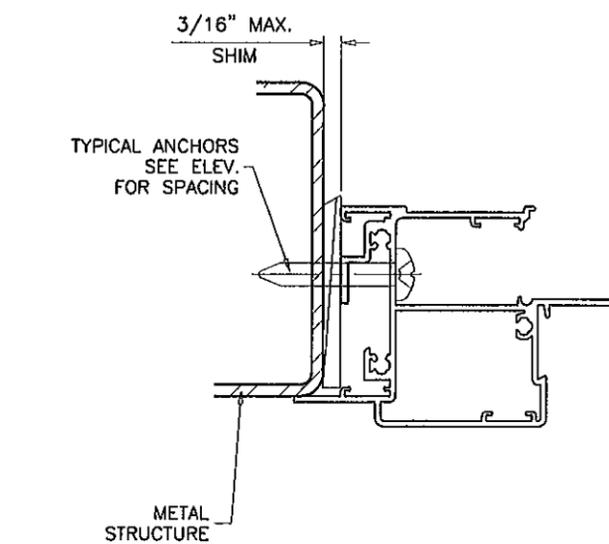
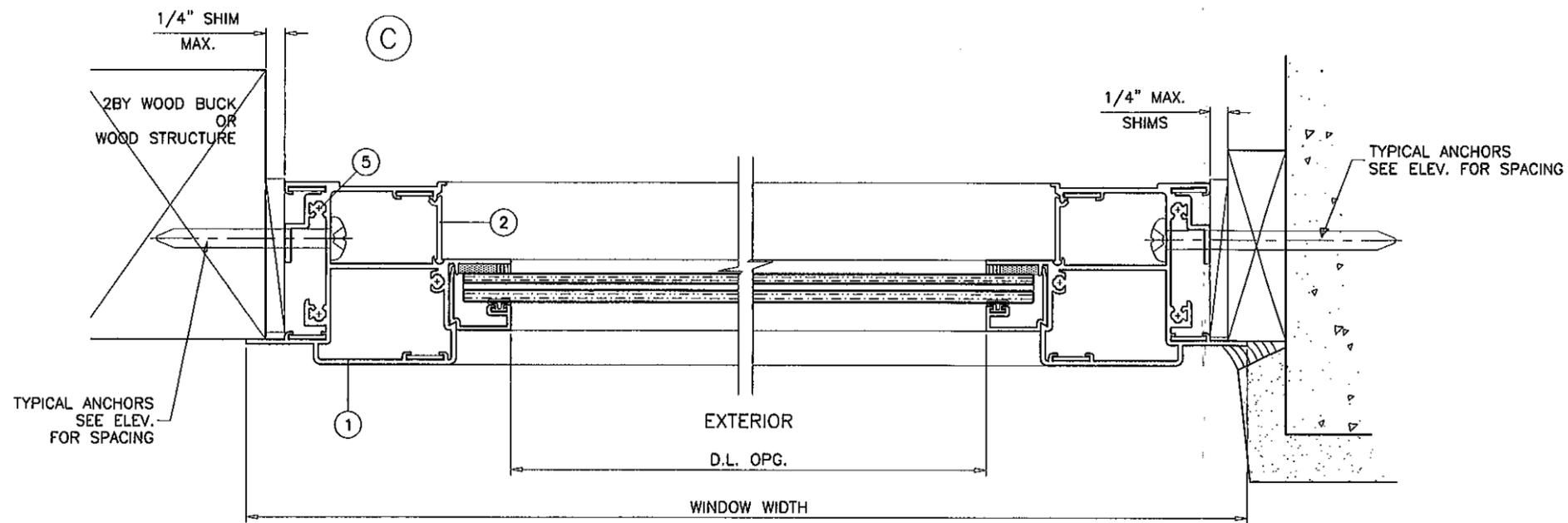
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revisions:	no	date	by	description
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date: 03-22-11
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 dr. by: HAMID
 chk. by:

drawing no.
W11-15
 sheet 3 of 7



afc

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
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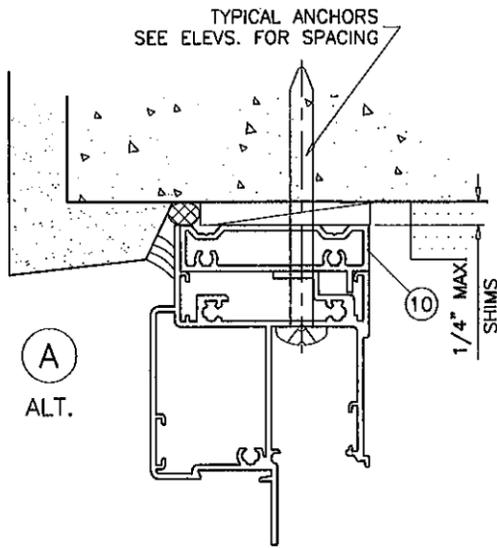
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B	02.20.12		GLAZING DETAIL REV.

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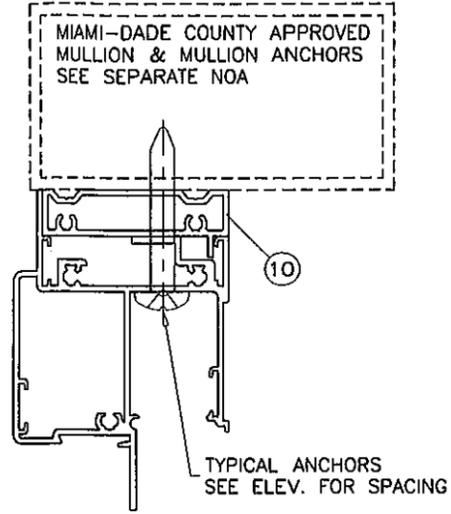
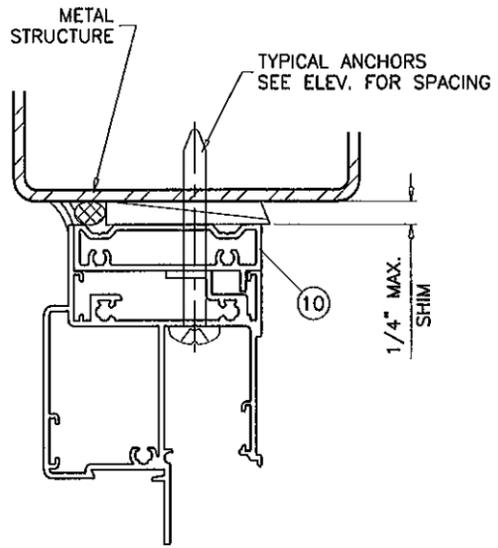
Engr: JAVAD AHMAD
 CIVIL
 FEA. PE # 70592
 C.A.N. 3638
 FEB 21 2012

PRODUCT REVISED
 as complying with the Florida
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 Acceptance No **12-022343**
 Expiration Date **09/22/2016**
 By *[Signature]*
 Miami Dade Product Control

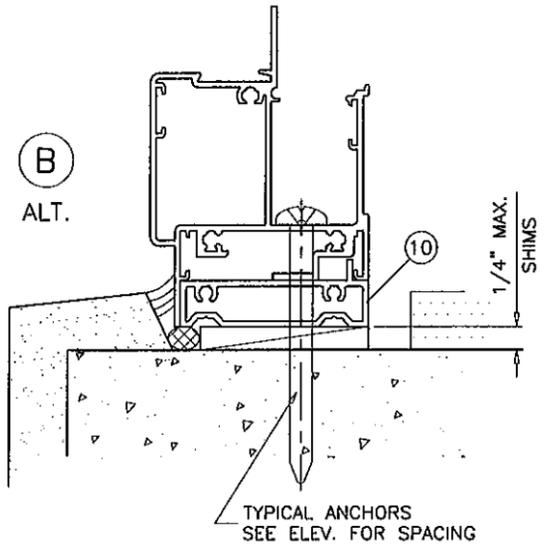
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W11-15
 sheet 4 of 7



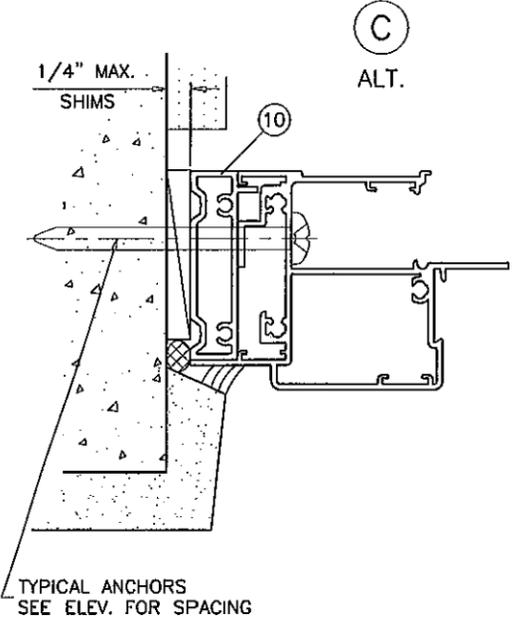
(A)
ALT.



(C)
ALT.



(B)
ALT.



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

Engr. JAVAD AHMAD
Civil
FLA. REG. # 70592
C.A.N. 3538
FEB 21 2012

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afc
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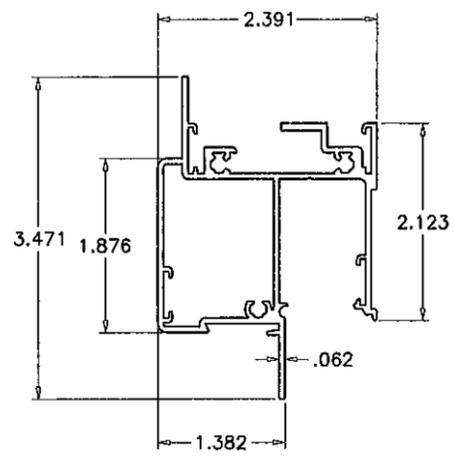
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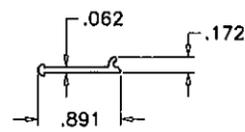
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chk. by:	

drawing no.
W11-15

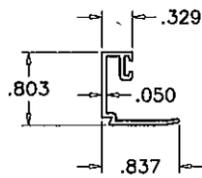
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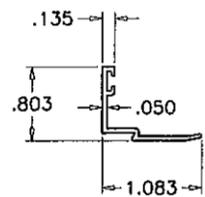
① FIX. WDW. FRAME



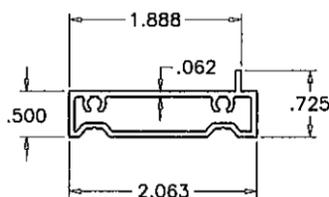
② FIX. FRAME COVER



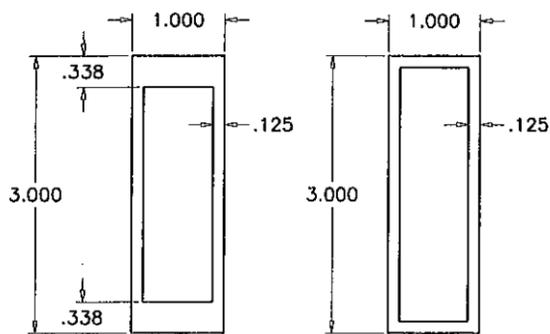
③A GLAZING STOP (LAM. GLASS)



③B GLAZING STOP (INSUL. LAM. GLASS)

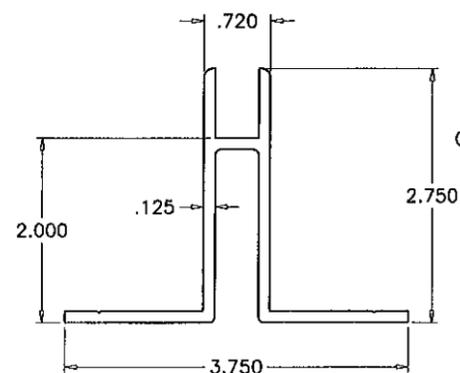


⑩ FLUSH FRAME ADAPTER

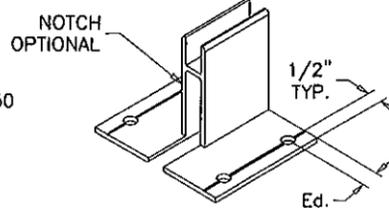


⑦ 1 X 3 CUSTOM MULLION

⑦A 1 X 3 STD. MULLION



⑧ MULLION CLIP

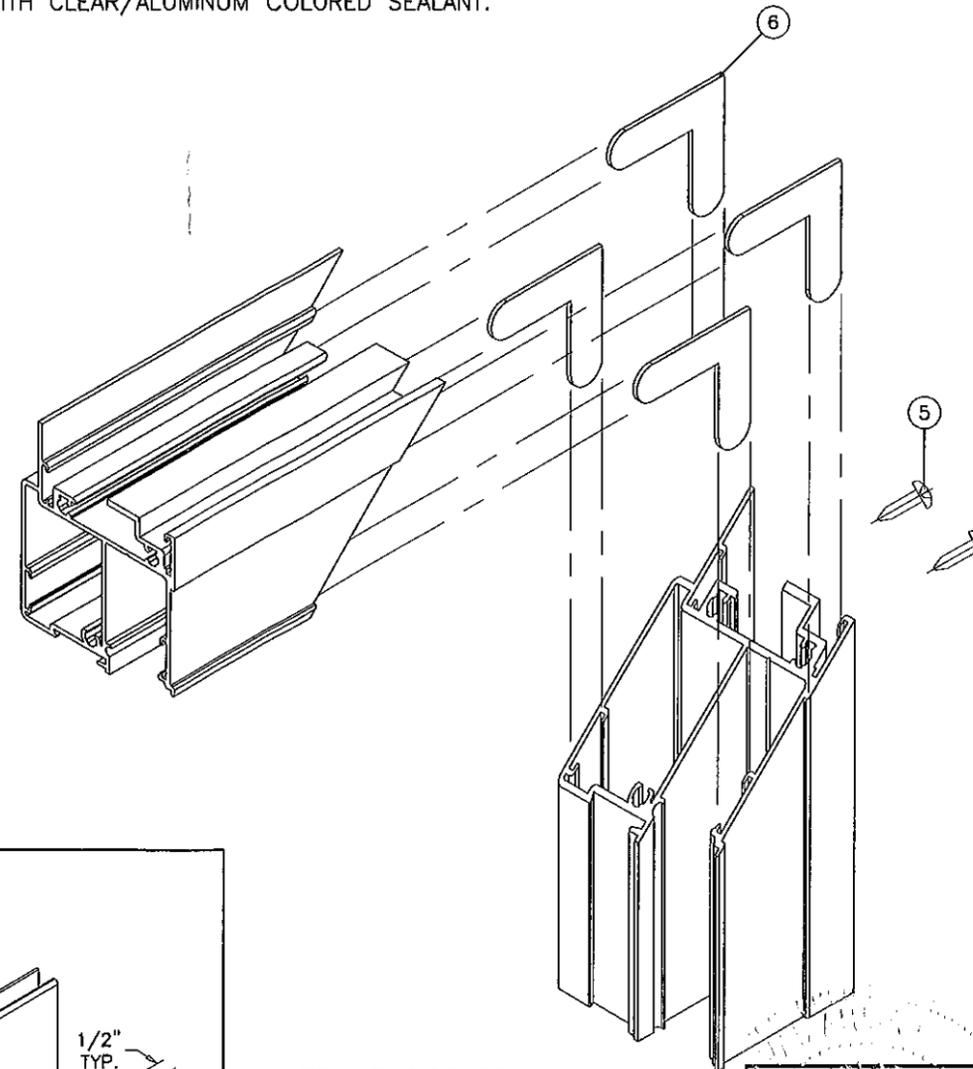


FRAME CORNER

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES5015	4	FIX. WDW. FRAME	6063-T6	-
2	ES5016	4	FIX. FRAME COVER	6063-T6	-
3A	ES1103	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T5	-
3B	ES1017	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T5	-
4	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60 SHORE 'A'
5	-	AS REQD.	FRAME ASSEMBLY SCREWS	-	#10 X 1" PH SMS
6	PJS40-SS	AS REQD.	CORNER LOCK	ST. STEEL	SULLIVAN & ASSOCIATES
7	-	AS REQD.	1X3 CUSTOM MULLION	6063-T6	-
7A	-	AS REQD.	1X3 STANDARD MULLION	6063-T6	-
8	-	AS REQD.	MULLION CLIP	6063-T6	-
9	-	2/ LITE	SETTING BLOCK, 5/16" X 5/8" X 4" LONG	EPDM	AT 6" FROM EACH END, DUROMETER ±65
10	ES-5017	AS REQD.	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL
11	-	AS REQD.	GLAZING TAPE (1/4" X 1/2")	FOAM	-

SEALANTS:

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



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

FEB 21 2012

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 12-0223.43
Expiration Date 09/22/2016
By: *Javad Ahmad*
Miami Dade Product Control

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W11-15ESW

SERIES 5100 ALUMINUM FIXED 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

revisions:	no	date	description
	A	08-03-11	REV. PER BNC COMMENTS
	B	02-20-12	GLAZING TAPE ADDED

date:	03-22-11
scale:	1/2" = 1"
dr. by:	HAMID
chk. by:	

drawing no.	W11-15
sheet	6 of 7

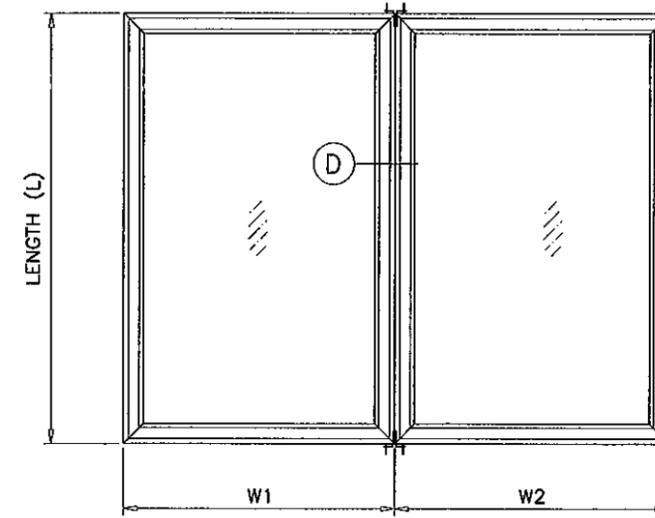
CLIPPED MULLIONS

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"		82.5	90.0
45"		78.6	90.0
48"		75.4	89.1
53-1/8"		71.0	89.2
26-1/2"	76"	90.0	90.0
37"		84.2	90.0
42"		76.4	90.0
45"		72.8	90.0
48"		69.7	87.4
51"		67.1	84.2

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"			83.6	90.0
54"	78.4		90.0	
30"	76"		90.0	90.0
36"			86.1	90.0
42"			76.4	90.0
48"			69.7	87.4
51"			67.1	84.2

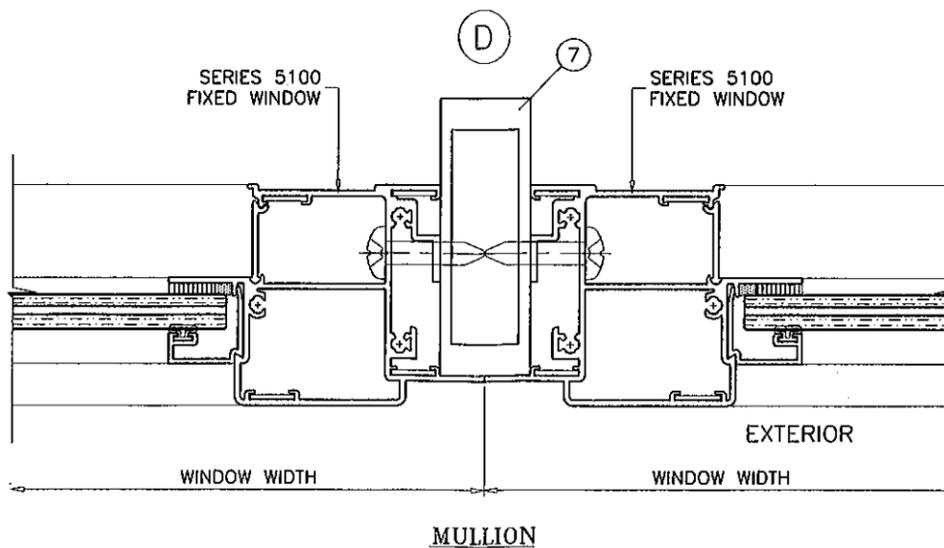
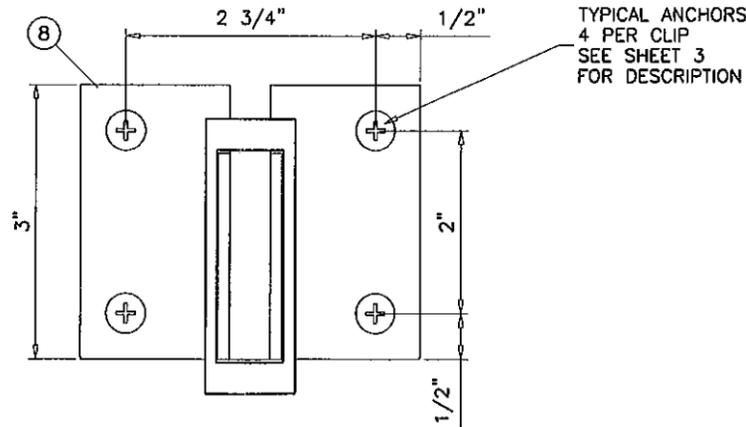
NOTES:

1. USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
2. FOR FIXED WINDOW CAPACITY SEE SHEET 2 OF 7.
3. LOWER VALUES FROM STEPS 1 OR 2 WILL APPLY TO ENTIRE SYSTEM.



TYPICAL ELEVATION
SIDE BY SIDE WINDOWS
SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

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



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no.	date	description
A	08.03.11	NO CHANGE THIS SHEET
B	02.20.12	NO CHANGE THIS SHEET

date: 03-22-11
scale: 1/2" = 1"
dr. by: HAMID
chk. by:

drawing no. **W11-15**
sheet 7 of 7