



**BUILDING AND NEIGHBORHOOD COMPLIANCE DEPARTMENT (BNC)
BOARD AND CODE ADMINISTRATION DIVISION**

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

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/building

**E. S. Windows, LLC
10653 N.E. Quaybridge Court
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 BNC-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. BNC 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" Aluminum Fixed Casement 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 "A" dated 08/03/2011, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and Approval 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 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
9/15/11*

**NOA No. 11-0531.09
Expiration Date: September 22, 2016
Approval Date: September 22, 2011
Page 1**

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
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 "A" dated 08/03/2011, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E.

B. TESTS

1. 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 window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6295**, dated 03/16/2011, signed and sealed by Marlin D. Brinson, P. E.
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
along with marked-up drawings and installation diagram of window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6294**, dated 02/25/2011, signed and sealed by Marlin D. Brinson, P. E.

C. CALCULATIONS

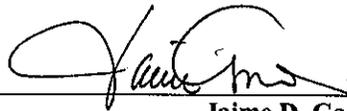
1. Anchor verification calculations and structural analysis, complying with FBC-2007, prepared by Al-Farooq Corporation, dated 05/25/2011, signed, sealed and dated 09/09/2011 by Javad Ahmad, P. E.
Complies with ASTM E1300-04

D. QUALITY ASSURANCE

1. Miami-Dade County Building and Neighborhood Compliance Department (BNC).

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 01/14/12.
2. Notice of Acceptance No. **11-0624.02** 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. 11-0531.09

Expiration Date: September 22, 2016

Approval Date: September 22, 2011

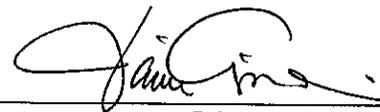
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

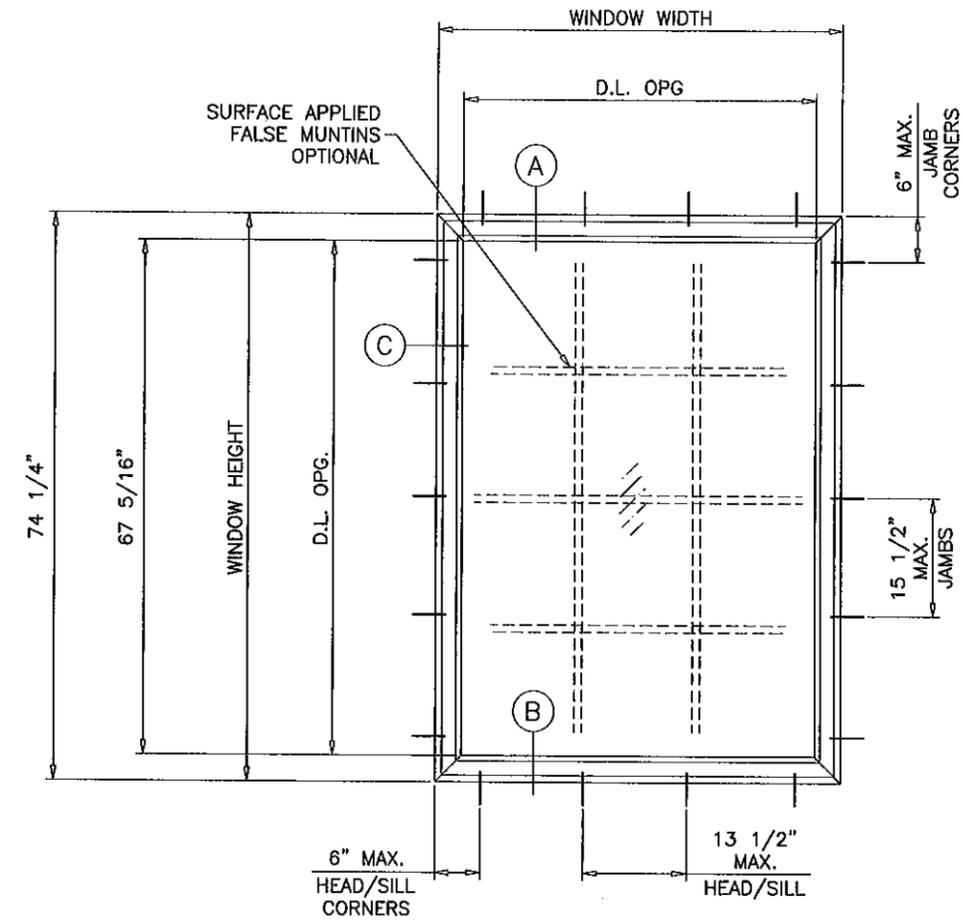
1. Statement letter of conformance, no financial interest and compliance with the FBC-2007, dated April 06, 2011, signed and sealed by Javad Ahmad, P. E.
2. Laboratory compliance letter for Test Report No. **FTL-6294**, issued by Fenestration Testing Laboratory, Inc., dated 02/25/2011, signed and sealed by Marlin D. Brinson, P. E.
3. Laboratory compliance letter for Test Report No. **FTL-6295**, issued by Fenestration Testing Laboratory, Inc., dated 03/16/2011, signed and sealed by Marlin D. Brinson, P. E.
4. Proposal No. **10-0505** issued by Product Control, dated 06/29/2010, signed by Manuel Perez, P. E.

G. OTHERS

1. None.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
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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 2007 EDITION 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 2007 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. PE # 70592
 C.A.N. 3538
 09/22/2011

Approved as complying with the Florida Building Code
 Date: 09/22/2011
 NOA# 71-8531.09
 Miami Dade Product Control
 By: *[Signature]*

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\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

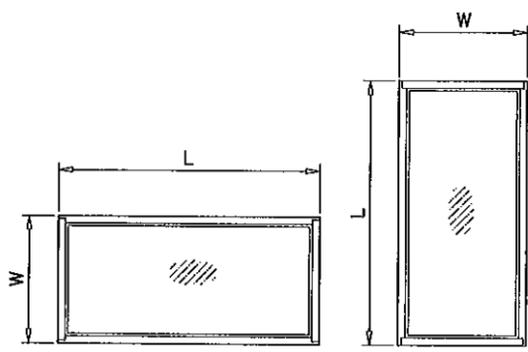
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A	08.03.11		REV. PER BNC COMMENTS

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 dr. by: HAMID
 chk. by:

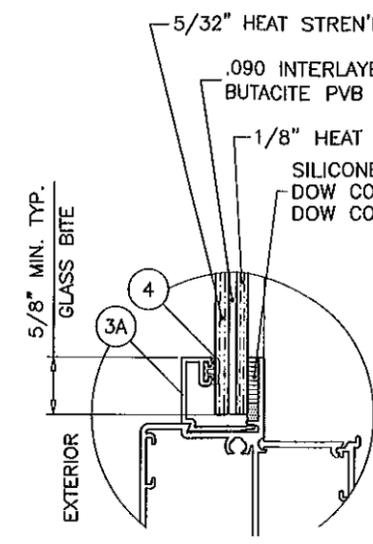
drawing no.
W11-15
 sheet 1 of 7

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
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	
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
51"		90.0	90.0

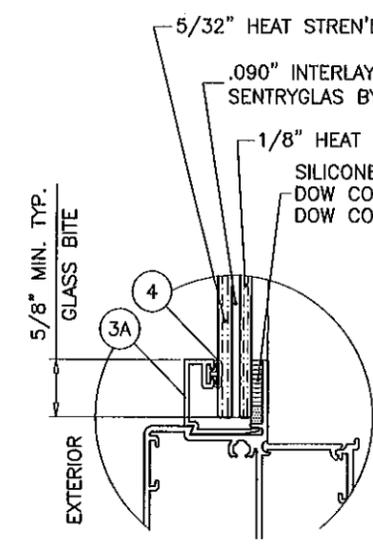
DESIGN LOAD CAPACITY - PSF			
WINDOW DIMS.		GLASS TYPES 'C', 'D', 'E' & 'F'	
WIDTH (W)	LENGTH (L)	EXT.(+)	INT.(-)
19-1/8"	26"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"	90.0	90.0	
19-1/8"	38-3/8"	90.0	90.0
26-1/2"		90.0	90.0
37"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"	90.0	90.0	
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	
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	
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	
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
51"	90.0	90.0	



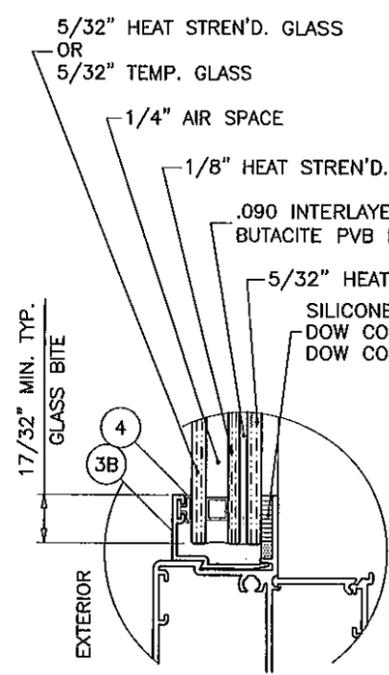
NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.



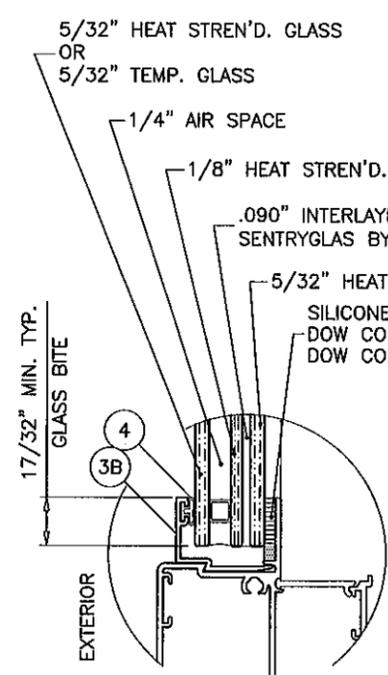
GLASS TYPE 'C'



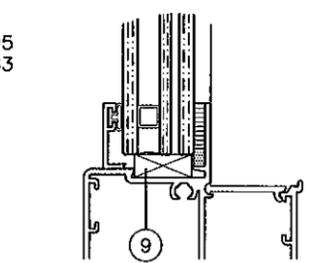
GLASS TYPE 'D'



GLASS TYPE 'E'



GLASS TYPE 'F'



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

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: JAVAD AHMAD
CIVIL
FLA. PE # 70592
S.A.N. 3538
SEP 09 2011

Approved as complying with the Florida Building Code
Date 09/22/2011
NOA# 11-0531.09
Miami Dade Product Control
By [Signature]

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\W11-15ESW

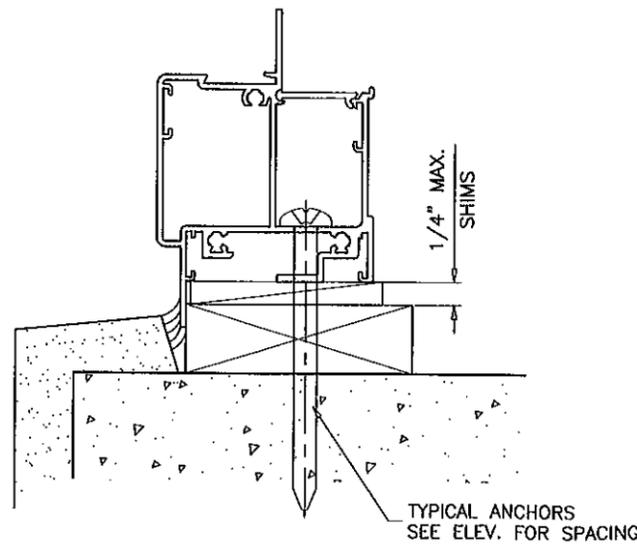
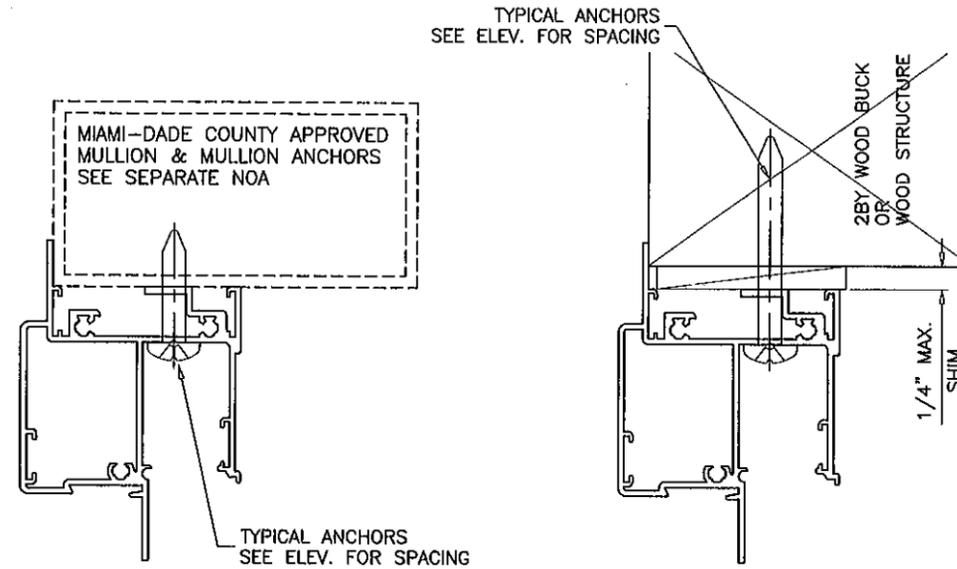
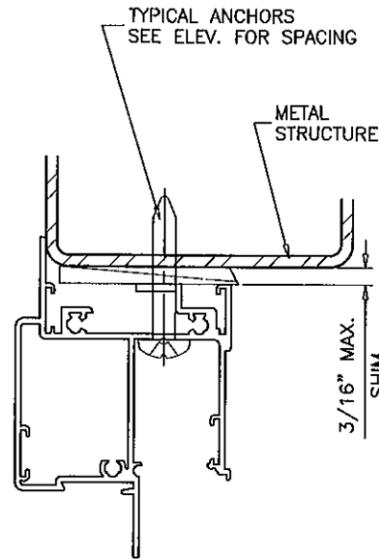
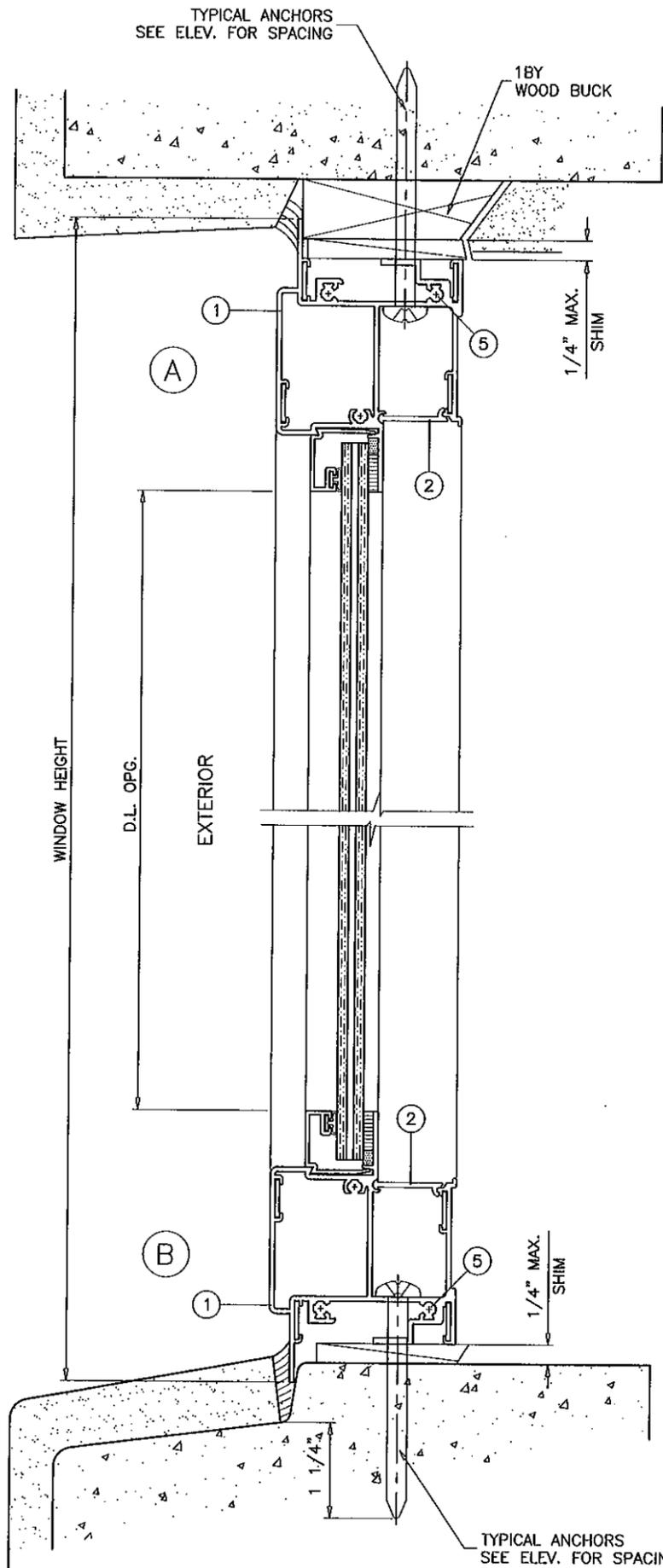
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NO.	DATE	BY	DESCRIPTION
1	08.03.11	A	REV. PER BNC COMMENTS

revisions:

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. P.E. # 70592
 C.A.N. 3538
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 Miami-Dade Product Control
 By *[Signature]*

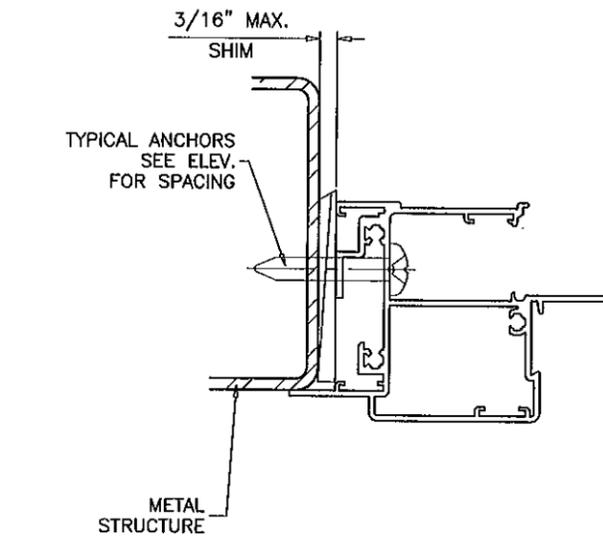
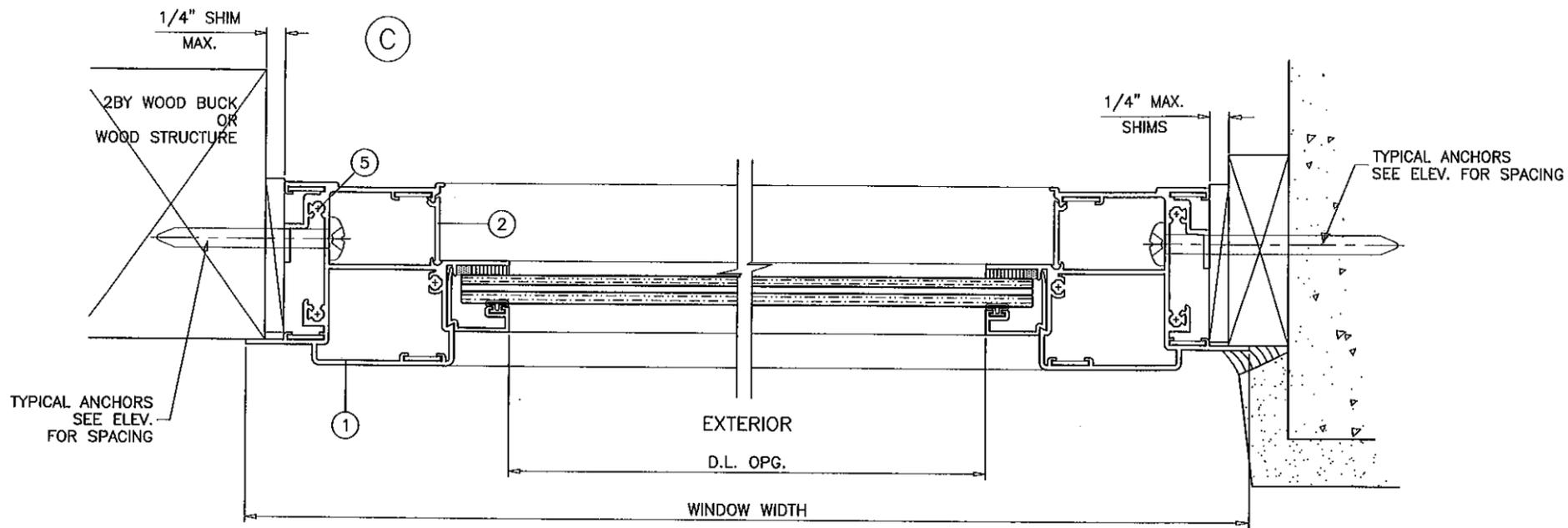
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drawing no.
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 sheet 3 of 7



Eng: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 I.C.A.N. 3538
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afc

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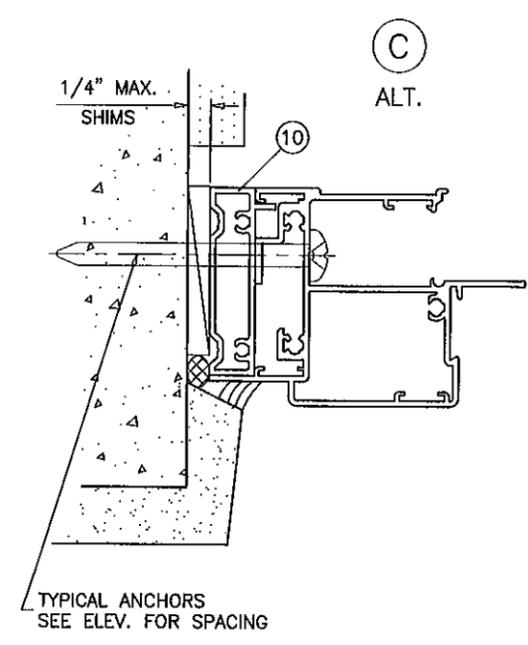
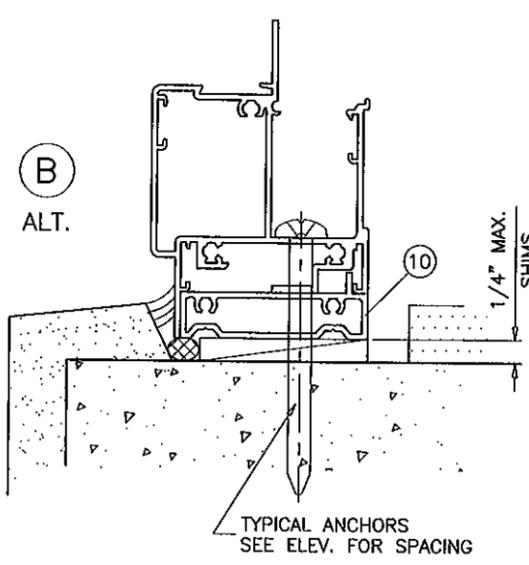
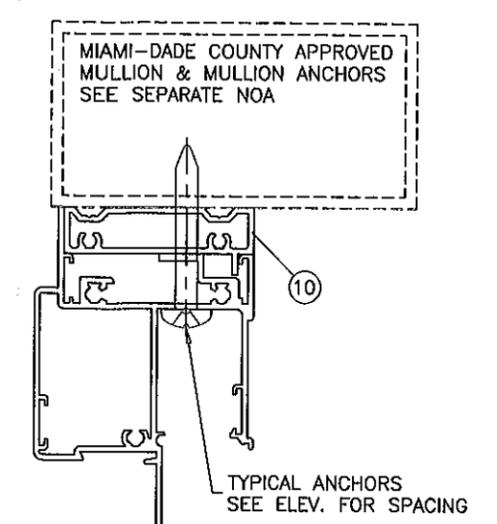
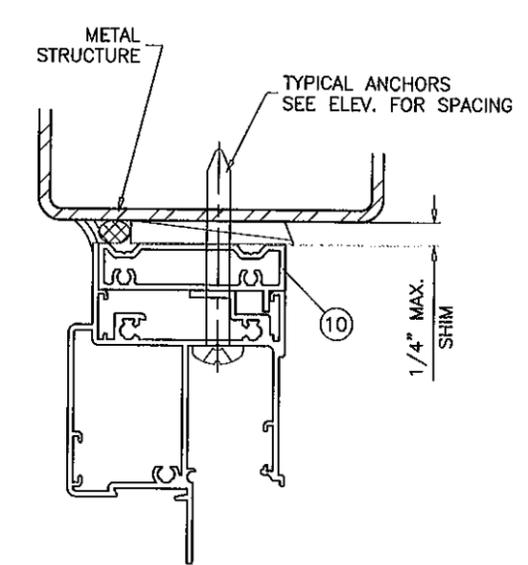
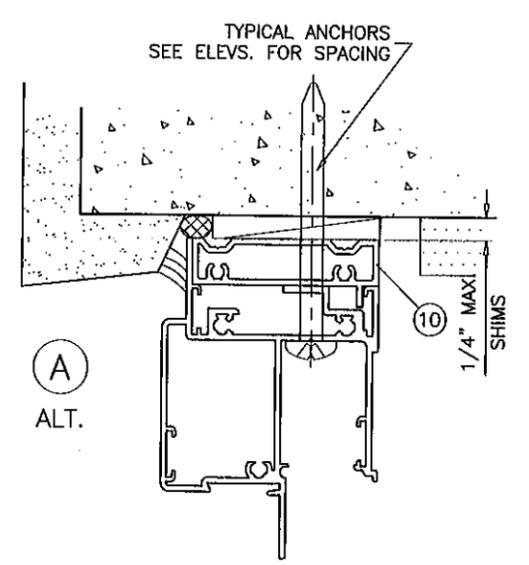
no.	date	by	description
A	08.03.11		NO CHANGE THIS SHEET

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

drawing no.
W11-15
 sheet 4 of 7

revisions:	
no	description
A	08.03.11 REV. PER BNC COMMENTS

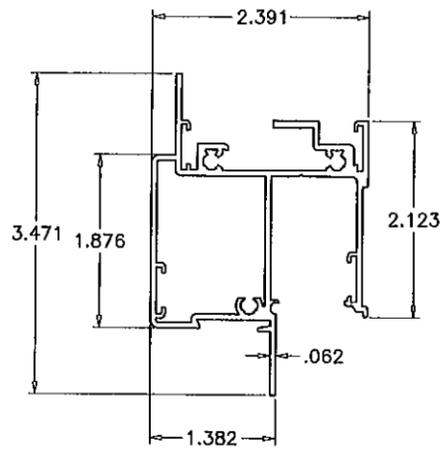
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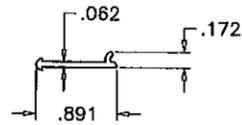
INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

Engr: JAVAD AHMAD
 CIVIL
 FLA. (P.E. #) 70592
 C.A.N. 3538
 SEP 09 2011

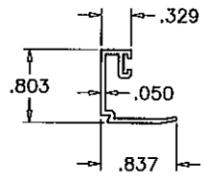
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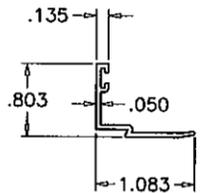
① FIX. WDW. FRAME



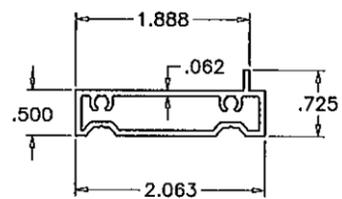
② FIX. FRAME COVER



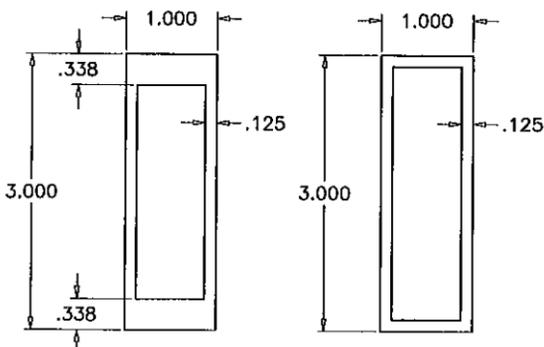
③A GLAZING STOP (LAM. GLASS)



③B GLAZING STOP (INSUL. LAM. GLASS)

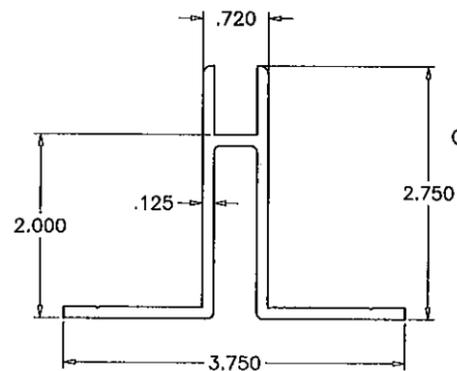


⑩ FLUSH FRAME ADAPTER

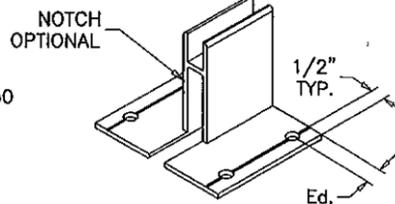


⑦ 1 X 3 CUSTOM MULLION

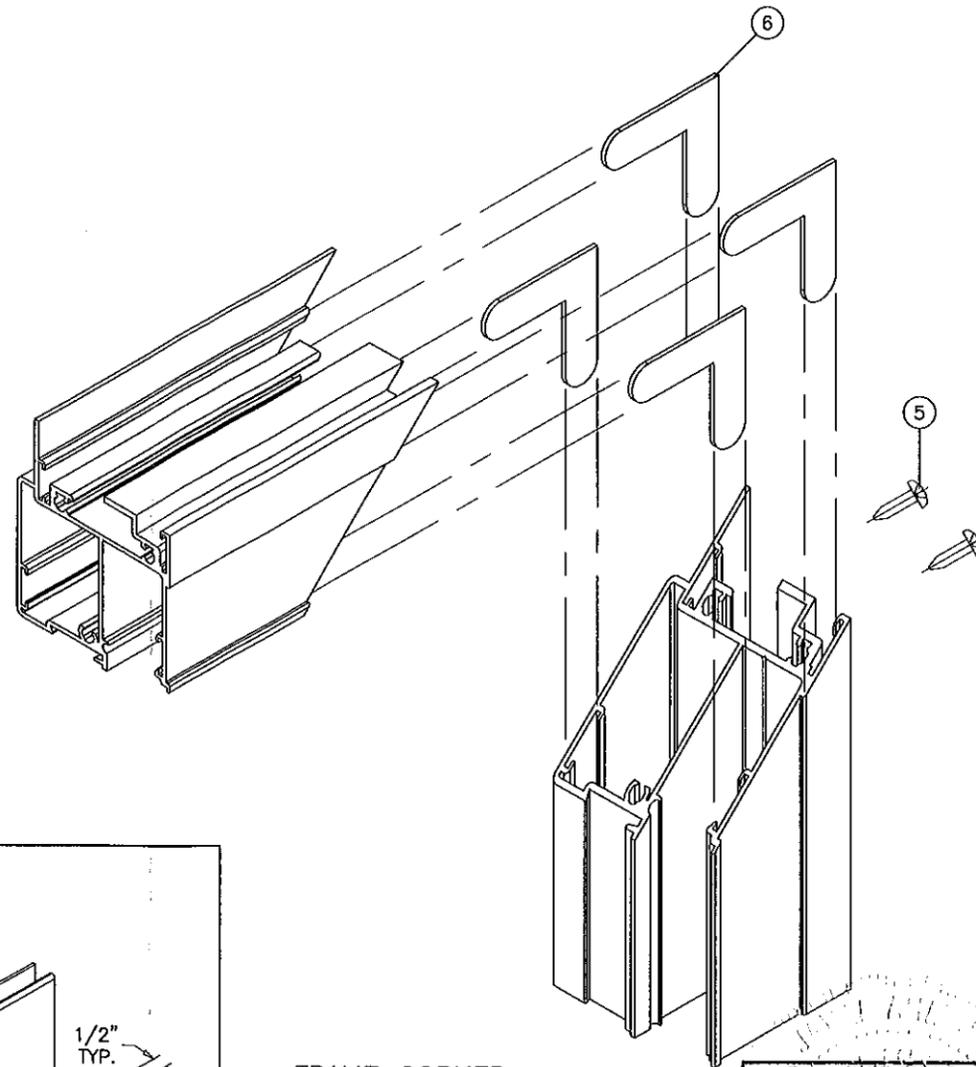
⑦A 1 X 3 STD. MULLION



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	-	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 1-1/2" 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, 1/4" X 5/8" X 4" LONG	NEOPRENE	AT 6" FROM EACH END, DUROMETER ±65
10	ES-5017	AS REQD.	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL

SEALANTS:

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

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\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	by	rev. per BNC COMMENTS
A	08.03.11			

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

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
O.A.N. 3638
SEP 09 2011

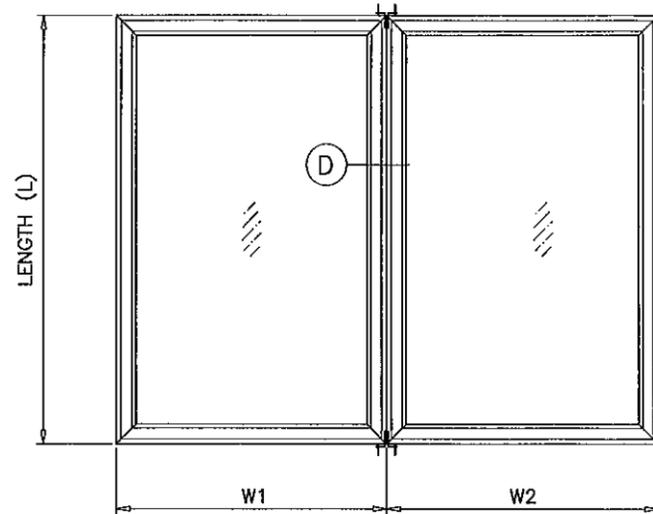
Approved as complying with the
Florida Building Code
Date: 09/22/2011
NOA# 71-8531.09
Miami Date Product Control
By: *[Signature]*

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

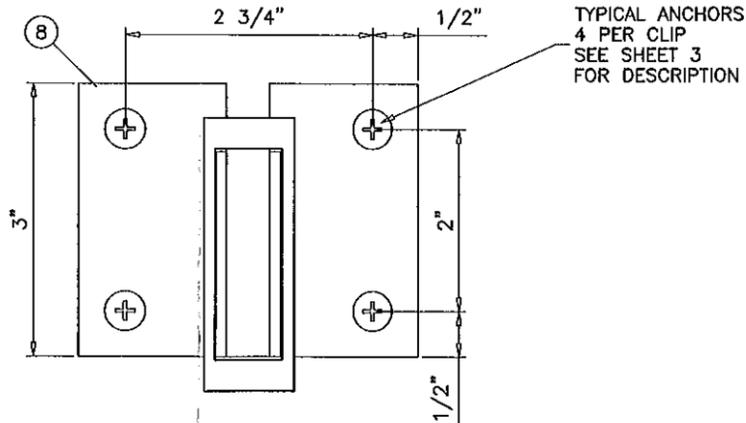


TYPICAL ELEVATION
SIDE BY SIDE WINDOWS
SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

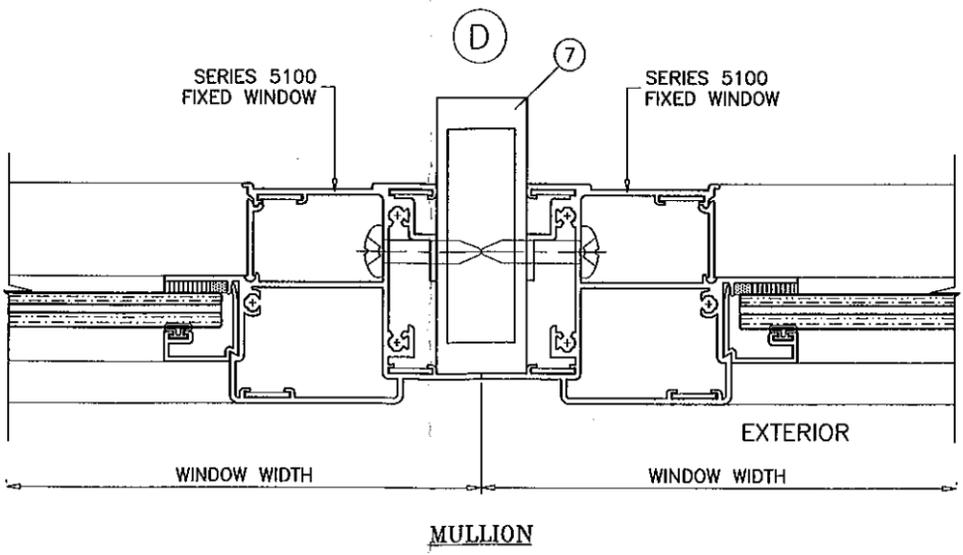
$$WIDTH (W) = \frac{W1 + W2}{2}$$

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 ANCHORS
4 PER CLIP
SEE SHEET 3
FOR DESCRIPTION



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

J. Ahmad
09/22/2011

Approved as complying with the
Florida Building Code
Date **09/22/2011**
NOA# **11-0531.09**
Miami Dade Product Control

By *[Signature]*

afC

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revisions:	no	date	description
	A	08.03.11	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