



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

NOTICE OF ACCEPTANCE (NOA)

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

www.miamidade.gov/pera/

CGI Windows & Doors
10100 NW 25th Street
Miami, FL 33172

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 "Sentinel" Unclipped Extruded Aluminum Tube Mullion – L.M.I.

APPROVAL DOCUMENT: Drawing No. M10-01, titled "Series Sentinel Unclipped Alum. Mullions", sheets 1 through 7 of 7, dated 04/02/10 with revision A dated 10/10/11, 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

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

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

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA revises NOA # 11-0330.22 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



Manuel Perez
3/13/12

NOA No. 11-1031.07
Expiration Date: September 22, 2015
Approval Date: January 12, 2012
Page 1

CGI Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No **M10-01**, titled Series "Sentinel Aluminum Unclipped Mullion", sheets 1 through 7 of 7, dated 04/02/10 with revision A dated 10/10/11, 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
along with marked-up drawings and installation diagram of mullion, prepared by Hurricane test Laboratory, LLC, Test Report No. **HTL-0080-0303-11**, dated March 24, 2011, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.11-0330.22)
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
along with marked-up drawings and installation diagram of mullion, prepared by Hurricane test Laboratory, LLC, Test Report No. **HTL-0080-0301-10**, dated March 30, 2010, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.10-0510.14)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2007 and FBC-2010, prepared by Al-Farooq Corporation, dated 05/06/10 and updated on 10/06/11, signed and sealed by Javad Ahmad, P. E.
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. None.



Manuel Pérez, P.E.
Product Control Examiner
NOA No. 11-1031.07
Expiration Date: September 22, 2015
Approval Date: January 12, 2012

CGI Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

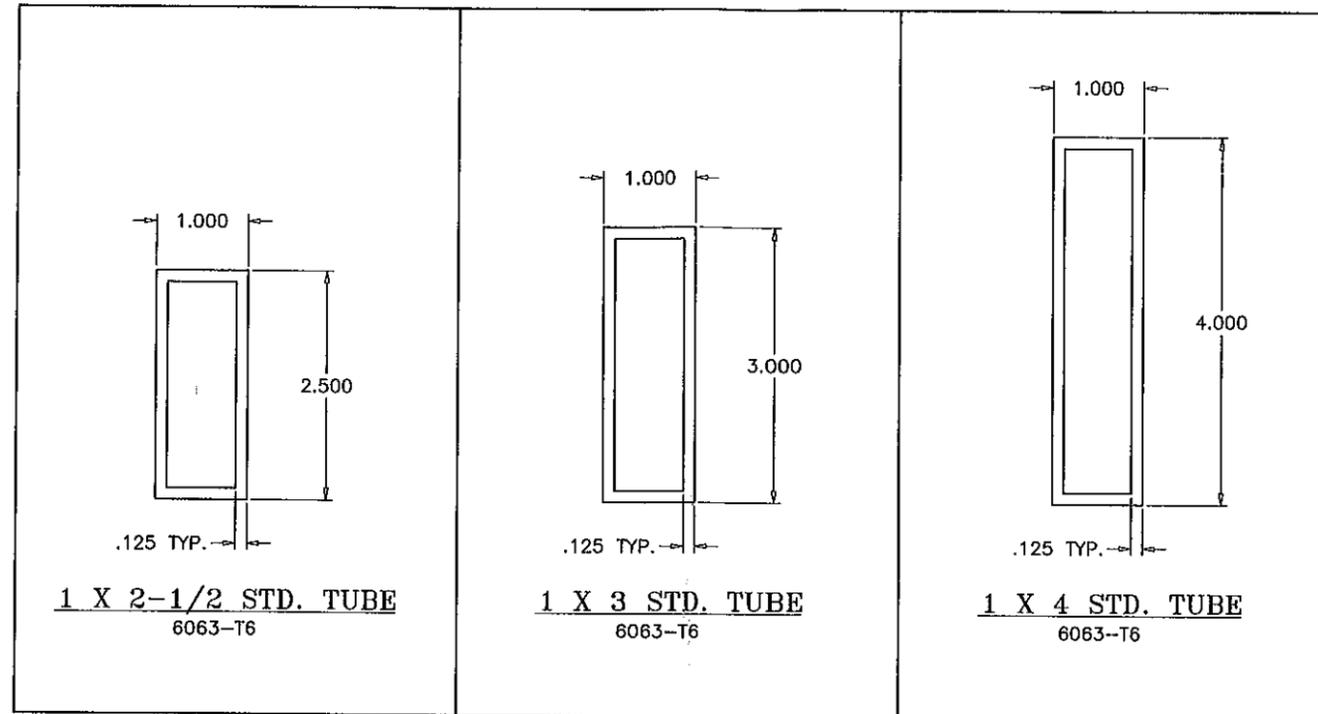
1. Statement letter of conformance, complying with FBC-2007 and FBC-2010 and of no financial interest dated 10/06/11, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Laboratory compliance letter for Test Report No. **HTL-0080-0303-11**, issued by Hurricane Test Laboratory, LLC, dated March 24, 2011, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.11-0330.22)
3. Laboratory compliance letter for Test Report No. **HTL-0080-0301-10**, issued by Hurricane Test Laboratory, LLC, dated March 30, 2010, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No.10-0510.14)
4. Proposal No. **09-1942** issued by BCCO, dated November 05, 2009, signed by Manuel Perez, P.E..
(Submitted under previous NOA No.10-0510.14)

G. OTHERS

1. Notice of Acceptance No. **11-0330.22**, issued to CGI Windows and Doors, Inc. for their Series "Sentinel" Aluminum Unclipped Mullion - L.M.I. approved on 05/12/11 and expiring on 09/22/15.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 11-1031.07

Expiration Date: September 22, 2015
Approval Date: January 12, 2012



**SERIES SENTINEL UNCLIPPED ALUMINUM MULLIONS
WINDOW FRAME MEMBER INCLUDED IN PROPERTIES**

THESE MULLIONS TO BE USED WITH
 SERIES 130 SENTINEL FIXED WINDOW
 SERIES 110 SENTINEL SINGLE HUNG WINDOW
 SERIES 120 SENTINEL HORIZ. SLIDING WINDOW
 FOR WINDOWS IMPACT AND LOAD RATINGS SEE
 CORRESPONDING NOA'S.
 LOWER DESIGN PRESSURE FROM WINDOW APPROVALS
 OR MULLION CHARTS WILL APPLY TO ENTIRE SYSTEM.

NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ALL GLAZING PRODUCTS USED WITH THESE MULLIONS MUST MEET THE APPLICABLE BUILDING CODE REQUIREMENTS I.E: WIND LOAD, WATER INFILTRATION, FORCED ENTRY RESISTANCE, SAFEGUARDS ETC.

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

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL COVERING (STUCCO, TILE ETC.).

ANCHORING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IN ALLOWABLE STRESS 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 MULLIONS ARE RATED FOR LARGE & SMALL MISSILE IMPACT

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN LOAD REQUIRED PER ASCE 7 FOR PARTICULAR OPENING.
- STEP 2** USE CONNECTION OF WINDOWS TO MULLION AS PER PRODUCT APPROVAL.
- STEP 3** USING CHARTS ON SHEETS 3 THRU 5 SELECT MULLION TYPE AND ANCHOR QUANTITIES WITH DESIGN RATING MORE THAN THE DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 4** CAPACITY OF SELECTED CGI'S WINDOWS AND MULLION MUST EQUAL OR EXCEED REQUIRED LOADS.

Engr: JAVAD AHMAD
 CIVIL
 FLA. REG # 70592
 C.A.N. 3538
 JAN 18 2012

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 11-1031.07
 Expiration Date SEPT. 22, 2015
 By Manuel Perez
 Miami Dade Product Control

afc

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978
 MULLION\M10-01CGI

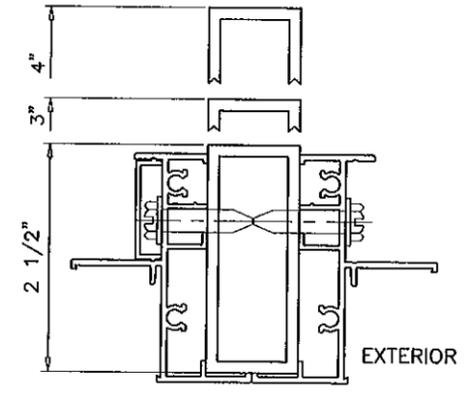
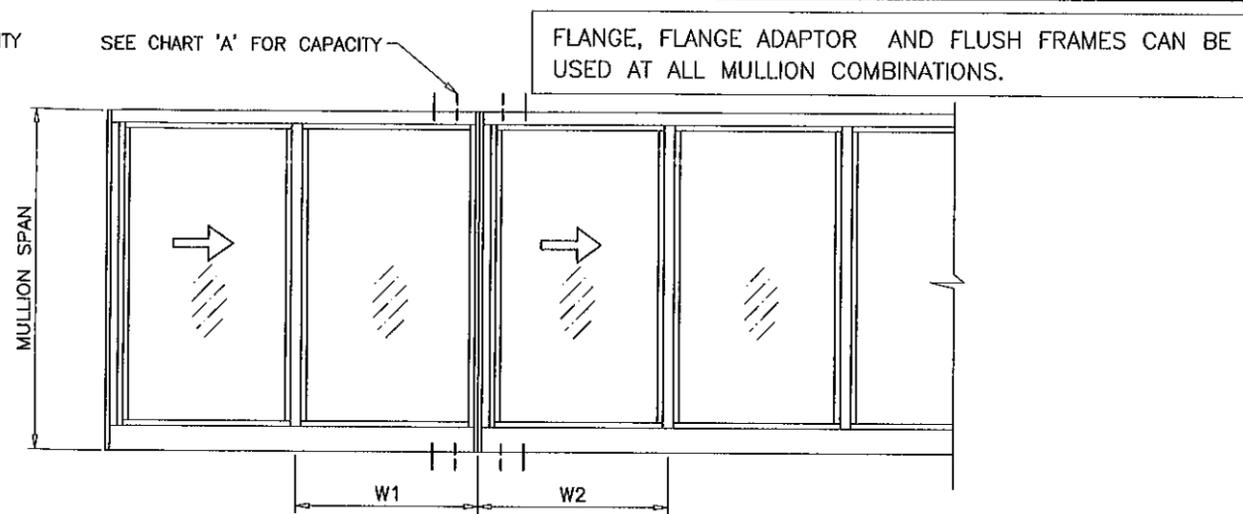
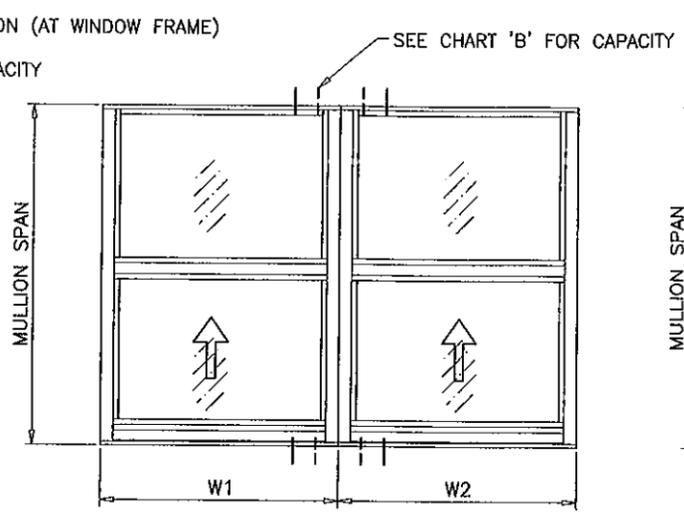
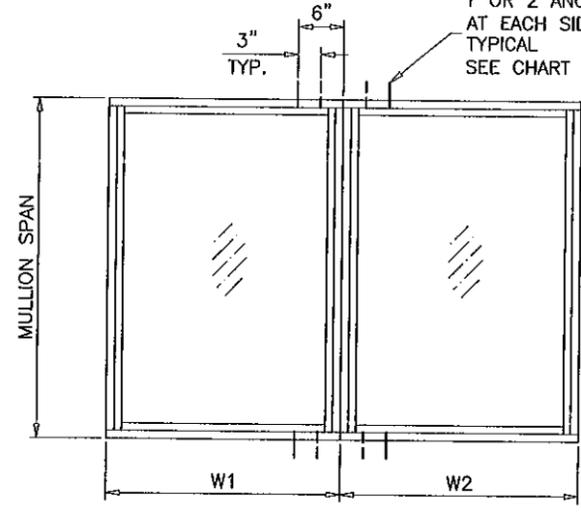
SERIES SENTINEL UNCLIPPED ALUM MULLIONS

CGI WINDOWS & DOORS
 10100 N.W. 25TH STREET
 MIAMI, FL. 33172
 TEL. (305) 593-6590 FAX. (305) 593-6592

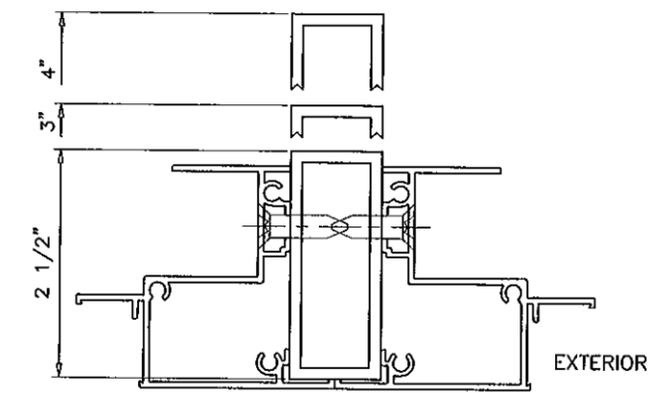
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 chk. by:

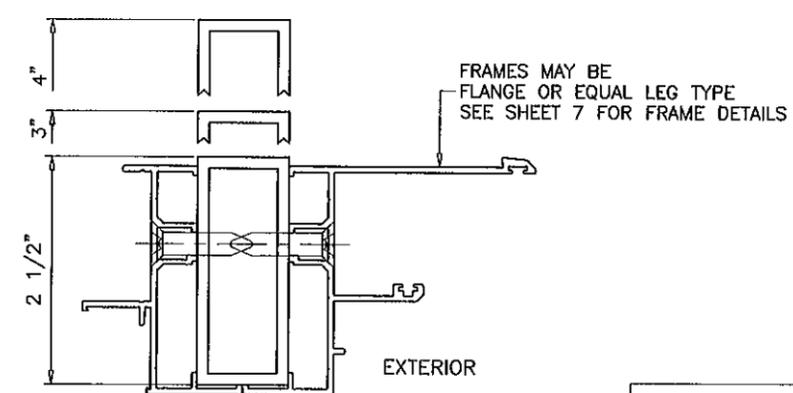
drawing no.
M10-01
 sheet 1 of 7



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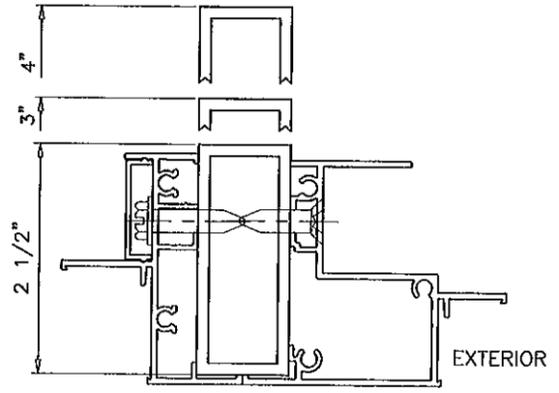
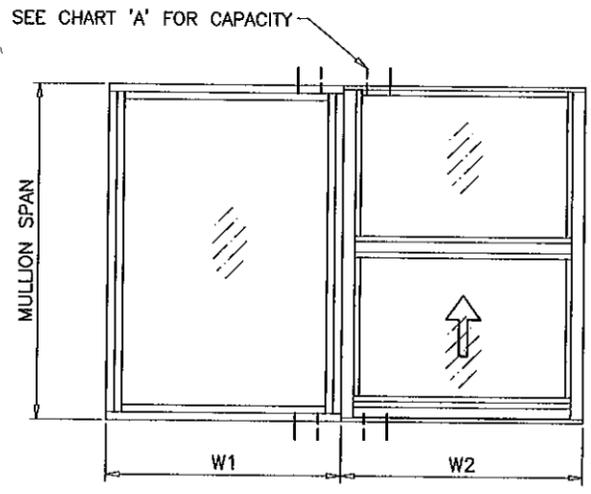


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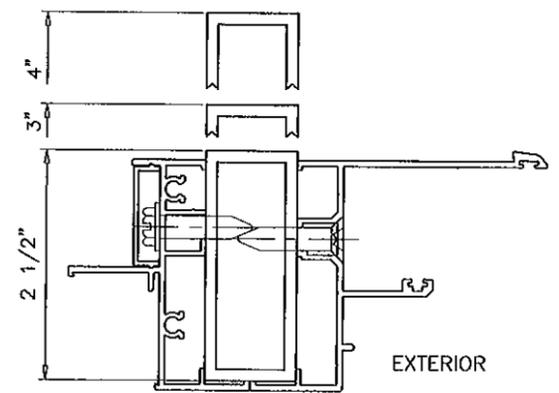
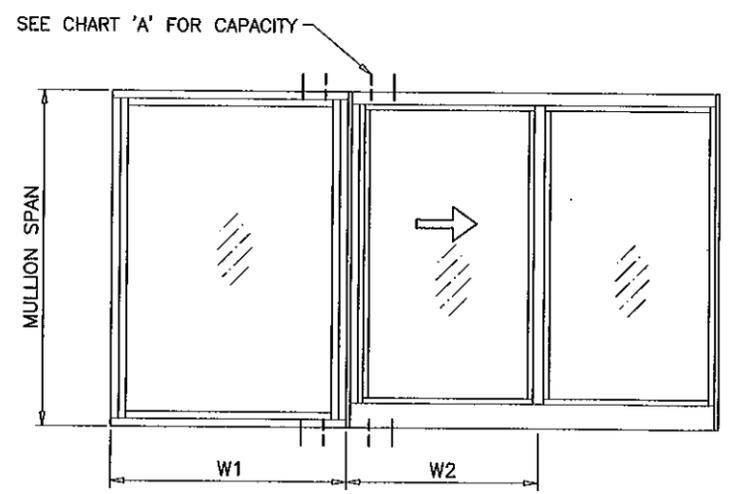


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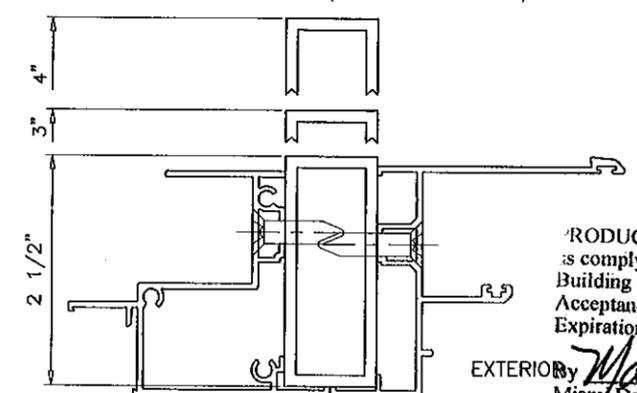
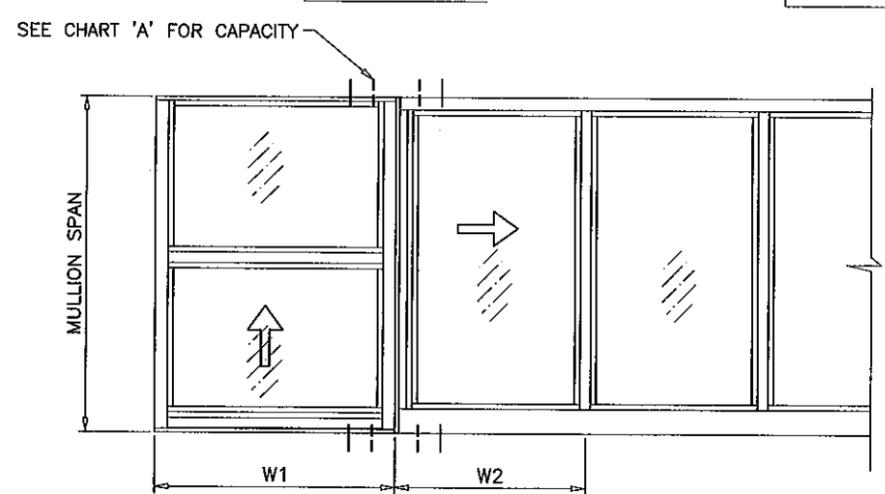
$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



FIXED TO S.H.



FIXED TO H.R.



S.H. TO H.R.

PRODUCT REVISED
 is complying with the Florida
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 By *Manuel Puga*
 Miami Dade Product Control

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
JAVAD AHMAD
 JAN 13 2012

af c
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 ENGINEERS & PRODUCT DEVELOPMENT
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 MULLION\M10-01CGI

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CGI WINDOWS & DOORS
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revisions:	no	date	by	description
	A	10.10.11		NO CHANGE THIS SHEET

date: 04-02-10
 scale: 1/2" = 1"
 dr. by:
 chk. by:
 drawing no.
M10-01
 sheet 2 of 7

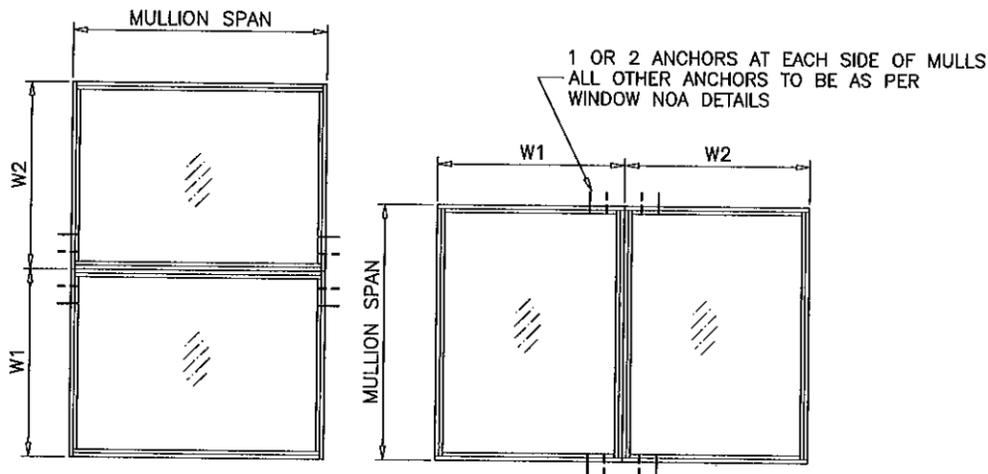
CHART 'A' DESIGN LOAD CAPACITY - PSF
 MULLION WITH ANY COMBINATION OF SERIES SENTINEL
 FIXED, HORIZONTAL SLIDING OR SINGLE HUNG WINDOWS

WINDOW DIMS.		1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WIDTH (W)	MULL SPAN	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4
19-1/8"	50-5/8"	90.0	90.0	90.0	90.0	90.0	90.0
26-1/2"		90.0	90.0	90.0	90.0	90.0	90.0
37"		90.0	90.0	90.0	90.0	90.0	90.0
49"		85.0	85.0	85.0	90.0	90.0	90.0
53-1/8"		85.0	85.0	85.0	90.0	90.0	90.0
19-1/8"	63"	90.0	90.0	90.0	90.0	90.0	90.0
26-1/2"		82.6	82.6	82.6	90.0	90.0	90.0
37"		66.1	66.1	66.1	82.5	90.0	90.0
49"		57.7	57.7	57.7	70.0	90.0	90.0
53-1/8"	56.2	56.2	56.2	67.8	90.0	90.0	
19-1/8"	76"	80.7	85.7	85.7	80.7	90.0	90.0
26-1/2"		59.6	65.5	65.5	59.6	79.5	90.0
37"		44.8	51.2	51.2	44.8	59.8	90.0
49"		36.6	43.1	43.1	36.6	48.8	85.8
53-1/8"	34.9	41.5	41.5	34.9	46.5	81.7	
19-1/8"	85"	57.4	75.5	75.5	57.4	76.5	90.0
26-1/2"		42.2	56.3	57.3	42.2	56.3	90.0
37"		31.4	41.9	44.2	31.4	41.9	73.6
49"		25.2	33.6	36.7	25.2	33.6	59.1
53-1/8"	23.9	31.8	35.1	23.9	31.8	55.9	
19-1/8"	90"	48.2	64.3	70.8	48.2	64.3	90.0
26-1/2"		35.4	47.2	53.5	35.4	47.2	82.9
37"		26.2	35.0	41.2	26.2	35.0	61.4
49"	20.9	27.9	33.9	20.9	27.9	49.0	
19-1/8"	96"	39.6	52.9	65.9	39.6	52.9	90.0
26-1/2"		29.0	38.7	49.6	29.0	38.7	68.0
37"		21.4	28.6	38.0	21.4	28.6	50.2

NOTE:
 MULLIONS RATED IN THESE CHARTS WITH ANY COMBINATION
 OF FIXED, SINGLE HUNG OR HORIZ. SLIDING WINDOWS
 MAY BE ORIENTED VERTICALLY OR HORIZONTALLY.
 (INTERPOLATION BETWEEN WIDTHS ALLOWED)

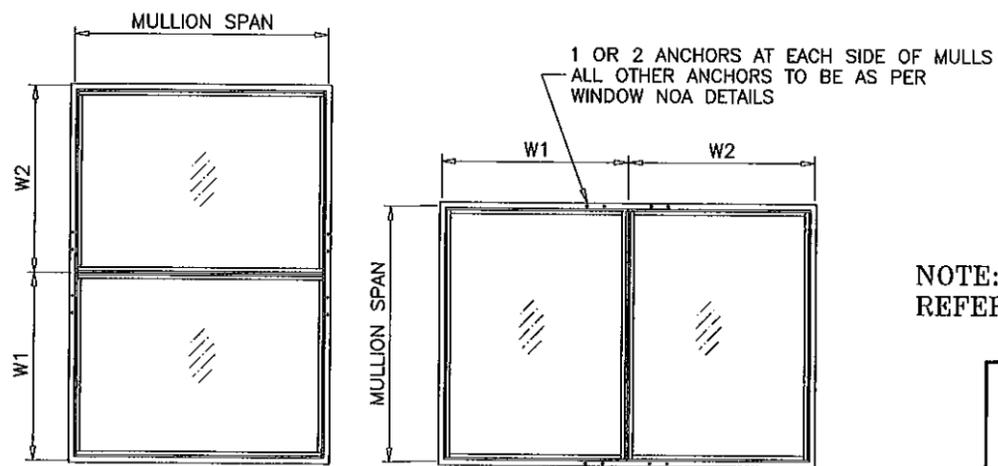
CHART 'A' DESIGN LOAD CAPACITY - PSF
 MULLION WITH ANY COMBINATION OF SERIES SENTINEL
 FIXED, HORIZONTAL SLIDING OR SINGLE HUNG WINDOWS

WINDOW DIMS.		1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WIDTH (W)	MULL SPAN	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4
24"	48"	90.0	90.0	90.0	90.0	90.0	90.0
30"		90.0	90.0	90.0	90.0	90.0	90.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		90.0	90.0	90.0	90.0	90.0	90.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
54"		90.0	90.0	90.0	90.0	90.0	90.0
60"		90.0	90.0	90.0	90.0	90.0	90.0
24"	60"	90.0	90.0	90.0	90.0	90.0	90.0
30"		80.6	80.6	80.6	90.0	90.0	90.0
36"		72.0	72.0	72.0	90.0	90.0	90.0
42"		66.5	66.5	66.5	89.7	90.0	90.0
48"		63.0	63.0	63.0	84.1	90.0	90.0
54"		61.1	61.1	61.1	80.9	90.0	90.0
60"	60.5	60.5	60.5	79.8	90.0	90.0	
24"	72"	75.6	75.6	75.6	77.1	90.0	90.0
30"		63.3	63.7	63.7	63.3	84.4	90.0
36"		54.5	56.0	56.0	54.5	72.7	90.0
42"		48.6	50.8	50.8	48.6	64.8	90.0
48"		44.5	47.3	47.3	44.5	59.4	90.0
54"		41.7	44.8	44.8	41.7	55.7	90.0
60"	39.9	43.2	43.2	39.9	53.3	90.0	
24"	84"	47.9	63.0	63.0	47.9	64.0	90.0
30"		39.1	52.1	52.6	39.1	52.1	90.0
36"		33.3	44.5	45.8	33.3	44.5	78.1
42"		29.4	39.2	41.1	29.4	39.2	68.9
48"		26.6	35.5	37.8	26.6	35.5	62.3
54"		24.6	32.8	35.4	24.6	32.8	57.6
24"	96"	31.9	42.5	54.0	31.9	42.5	74.7
30"		25.9	34.5	44.8	25.9	34.5	60.6
36"		21.9	29.3	38.8	21.9	29.3	51.4
42"		-	25.6	34.6	-	25.6	45.0
48"		-	23.0	31.5	-	23.0	40.4



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

FLANGE OR FLUSH FRAMES



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

FIN FRAMES

NOTE:
 REFER TO PAGE 2 FOR OTHER COMBINATIONS.

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
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no.	date	description
A	10.10.11	NO CHANGE THIS SHEET

date: 04-02-10
 scale: 1/2" = 1"
 dr. by:
 chk. by:
 drawing no.
M10-01
 sheet 3 of 7

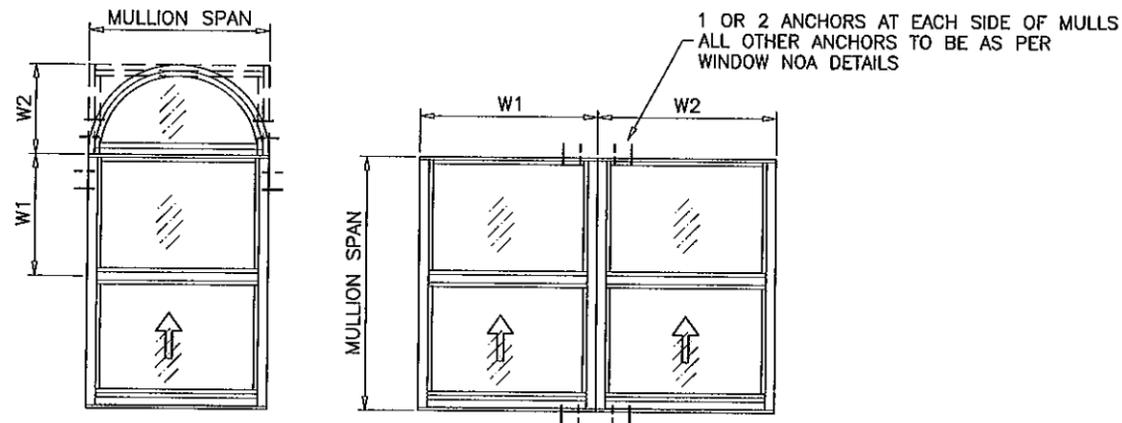
CHART 'B' DESIGN LOAD CAPACITY - PSF
MULLION WITH COMBINATION OF SERIES SENTINEL
SINGLE HUNG WINDOWS OR FIXED TRANSOM

WINDOW DIMS.		1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WIDTH (W)	MULL SPAN	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4
19-1/8"	50-5/8"	90.0	90.0	90.0	90.0	90.0	90.0
26-1/2"		90.0	90.0	90.0	90.0	90.0	90.0
37"		90.0	90.0	90.0	90.0	90.0	90.0
49"		85.0	85.0	85.0	90.0	90.0	90.0
53-1/8"		85.0	85.0	85.0	90.0	90.0	90.0
19-1/8"	63"	90.0	90.0	90.0	90.0	90.0	90.0
26-1/2"		82.6	82.6	82.6	90.0	90.0	90.0
37"		66.1	66.1	66.1	90.0	90.0	90.0
49"		57.7	57.7	57.7	90.0	90.0	90.0
53-1/8"	56.2	56.2	56.2	88.5	90.0	90.0	
19-1/8"	76"	85.7	85.7	85.7	90.0	90.0	90.0
26-1/2"		65.5	65.5	65.5	77.7	90.0	90.0
37"		51.2	51.2	51.2	58.5	73.4	90.0
49"		43.1	43.1	43.1	47.7	60.0	86.3
53-1/8"		41.5	41.5	41.5	45.5	57.2	82.9
19-1/8"	85"	74.8	75.5	75.5	74.8	90.0	90.0
26-1/2"		55.0	57.3	57.3	55.0	69.1	90.0
37"		40.9	44.2	44.2	40.9	51.4	83.1
49"		32.9	36.7	36.7	32.9	41.3	66.8
53-1/8"		31.1	35.1	35.1	31.1	39.1	63.2
19-1/8"	90"	62.9	70.8	70.8	62.9	79.0	90.0
26-1/2"		46.2	53.5	53.5	46.2	58.0	90.0
37"		34.2	41.2	41.2	34.2	43.0	69.4
49"		27.3	33.9	33.9	27.3	34.3	55.4
19-1/8"	96"	51.7	65.0	65.9	51.7	65.0	90.0
26-1/2"		37.9	47.6	49.6	37.9	47.6	76.9
37"		27.9	35.1	38.0	27.9	35.1	56.7

CHART 'B' DESIGN LOAD CAPACITY - PSF
MULLION WITH COMBINATION OF SERIES SENTINEL
SINGLE HUNG WINDOWS OR FIXED TRANSOM

WINDOW DIMS.		1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WIDTH (W)	MULL SPAN	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4
24"	48"	90.0	90.0	90.0	90.0	90.0	90.0
30"		90.0	90.0	90.0	90.0	90.0	90.0
36"		90.0	90.0	90.0	90.0	90.0	90.0
42"		90.0	90.0	90.0	90.0	90.0	90.0
48"		90.0	90.0	90.0	90.0	90.0	90.0
54"		90.0	90.0	90.0	90.0	90.0	90.0
60"		90.0	90.0	90.0	90.0	90.0	90.0
24"	60"	90.0	90.0	90.0	90.0	90.0	90.0
30"		80.6	80.6	80.6	90.0	90.0	90.0
36"		72.0	72.0	72.0	90.0	90.0	90.0
42"		66.5	66.5	66.5	90.0	90.0	90.0
48"		63.0	63.0	63.0	90.0	90.0	90.0
54"		61.1	61.1	61.1	90.0	90.0	90.0
60"		60.5	60.5	60.5	90.0	90.0	90.0
24"	72"	75.6	75.6	75.6	90.0	90.0	90.0
30"		63.7	63.7	63.7	82.5	90.0	90.0
36"		56.0	56.0	56.0	71.1	89.3	90.0
42"		50.8	50.8	50.8	63.4	79.6	90.0
48"		47.3	47.3	47.3	58.1	72.9	90.0
54"		44.8	44.8	44.8	54.4	68.4	89.6
60"		43.2	43.2	43.2	52.1	65.4	86.4
24"	84"	62.6	63.0	63.0	62.6	78.6	90.0
30"		51.0	52.6	52.6	51.0	64.1	90.0
36"		43.5	45.8	45.8	43.5	54.6	88.3
42"		38.4	41.1	41.1	38.4	48.2	77.9
48"		34.7	37.8	37.8	34.7	43.6	70.4
54"		32.1	35.4	35.4	32.1	40.3	65.1
60"		30.5	33.8	33.8	30.5	37.0	60.8
24"	96"	41.6	52.2	54.0	41.6	52.2	84.4
30"		33.7	42.4	44.8	33.7	42.4	68.5
36"		28.6	36.0	38.8	28.6	36.0	58.1
42"		25.1	31.5	34.6	25.1	31.5	50.9
48"		22.5	28.2	31.5	22.5	28.2	45.6

NOTE:
MULLIONS RATED IN THESE CHARTS WITH SINGLE HUNG FRAMES
MAY BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN BELOW.
(INTERPOLATION BETWEEN WIDTHS ALLOWED)



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

Engi: JAYAD. AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
JAN 3 2012

PRODUCT REVISED
is complying with the Florida
Building Code
Acceptance No 11-1031-07
Expiration Date SEPT. 22, 2015
By Manuel Perez
Miami Dade Product Control

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
MULLION\M10-01CGI

SERIES SENTINEL UNCLIPPED ALUM MULLIONS
CGI WINDOWS & DOORS
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

revisions:	no	date	by	description
	A	10.10.11		NO CHANGE THIS SHEET
date:	04-02-10			
scale:	1/2" = 1"			
dr. by:				
chk. by:				
drawing no.	M10-01			
sheet	4 of 7			

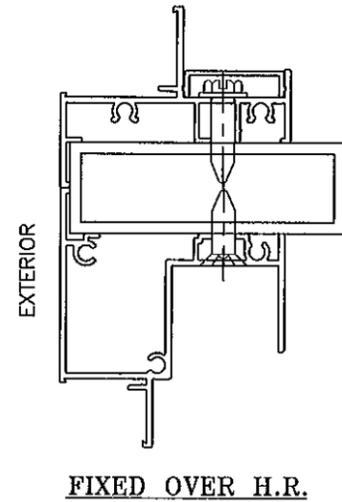
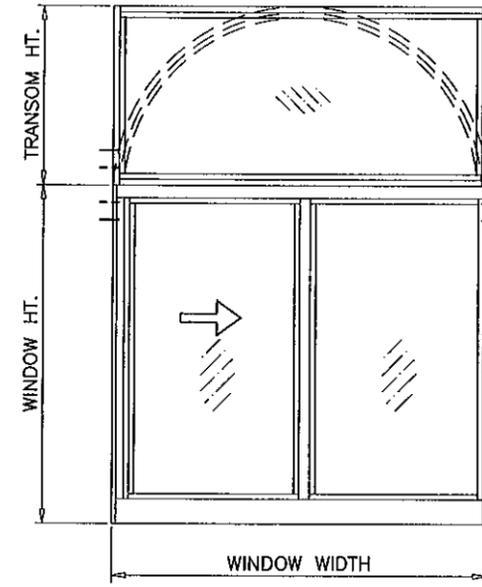
CHART 'C' DESIGN LOAD CAPACITY - PSF
HORIZONTAL MULLION WITH COMBINATION OF SERIES SENTINEL
FIXED OVER HORIZ. SLIDING WINDOW

WINDOW DIMS.			1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WINDOW WIDTH	WINDOW HEIGHT	TRANSOM HEIGHT	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 3	MULL TUBE 1 X 4	
52-1/8"	25"	12"	90.0	90.0	90.0	90.0	90.0	
		18"	90.0	90.0	90.0	90.0	90.0	
		24"	90.0	90.0	90.0	90.0	90.0	
		30"	90.0	90.0	90.0	90.0	90.0	
		36"	90.0	90.0	90.0	90.0	90.0	
		42"	90.0	90.0	90.0	90.0	90.0	
		48"	90.0	90.0	90.0	90.0	90.0	
		73"	12"	90.0	90.0	90.0	90.0	90.0
			18"	90.0	90.0	90.0	90.0	90.0
			24"	90.0	90.0	90.0	90.0	90.0
30"	82.1		82.1	82.1	90.0	90.0		
36"	75.3		75.3	75.3	90.0	90.0		
42"	70.3		70.3	70.3	90.0	90.0		
52-1/8"	37-3/8"	12"	90.0	90.0	90.0	90.0	90.0	
		18"	90.0	90.0	90.0	90.0	90.0	
		24"	90.0	90.0	90.0	90.0	90.0	
		30"	90.0	90.0	90.0	90.0	90.0	
		36"	90.0	90.0	90.0	90.0	90.0	
		42"	90.0	90.0	90.0	90.0	90.0	
		48"	90.0	90.0	90.0	90.0	90.0	
		73"	12"	90.0	90.0	90.0	90.0	90.0
			18"	85.9	86.5	86.5	90.0	90.0
			24"	77.0	77.0	77.0	90.0	90.0
30"	70.1		70.1	70.1	90.0	90.0		
36"	65.1		65.1	65.1	83.4	90.0		
42"	61.3		61.4	61.4	78.4	90.0		
36"	49-5/8"	12"	90.0	90.0	90.0	90.0	90.0	
		18"	90.0	90.0	90.0	90.0	90.0	
		24"	90.0	90.0	90.0	90.0	90.0	
		30"	90.0	90.0	90.0	90.0	90.0	
		36"	90.0	90.0	90.0	90.0	90.0	
		42"	90.0	90.0	90.0	90.0	90.0	
		48"	90.0	90.0	90.0	90.0	90.0	
		52-1/8"	12"	90.0	90.0	90.0	90.0	90.0
			18"	90.0	90.0	90.0	90.0	90.0
			24"	90.0	90.0	90.0	90.0	90.0
30"	90.0		90.0	90.0	90.0	90.0		
36"	76.3		86.3	86.3	90.0	90.0		
42"	83.7		83.7	83.7	90.0	90.0		
73"	12"	79.1	83.3	83.3	90.0	90.0		
	18"	71.2	73.5	73.5	90.0	90.0		
	24"	65.0	66.5	66.5	83.2	90.0		
	30"	60.2	61.3	61.3	77.0	90.0		
	36"	56.4	57.4	57.4	72.1	90.0		
	42"	53.4	54.5	54.5	68.3	90.0		
48"	51.2	52.3	52.3	65.4	90.0			

CHART 'C' DESIGN LOAD CAPACITY - PSF
HORIZONTAL MULLION WITH COMBINATION OF SERIES SENTINEL
FIXED OVER HORIZ. SLIDING WINDOW

WINDOW DIMS.			1 ANCHOR AT EACH SIDE OF MULLION			2 ANCHORS AT EACH SIDE OF MULLION		
WINDOW WIDTH	WINDOW HEIGHT	TRANSOM HEIGHT	MULL TUBE 1 X 2-1/2	MULL TUBE 1 X 3	MULL TUBE 1 X 4	MULL TUBE 1 X 3	MULL TUBE 1 X 4	
36"	62"	12"	90.0	90.0	90.0	90.0	90.0	
		18"	90.0	90.0	90.0	90.0	90.0	
		24"	90.0	90.0	90.0	90.0	90.0	
		30"	90.0	90.0	90.0	90.0	90.0	
		36"	90.0	90.0	90.0	90.0	90.0	
		42"	90.0	90.0	90.0	90.0	90.0	
		48"	90.0	90.0	90.0	90.0	90.0	
		52-1/8"	12"	90.0	90.0	90.0	90.0	90.0
			18"	90.0	90.0	90.0	90.0	90.0
			24"	84.4	84.4	84.4	90.0	90.0
30"	79.8		79.8	79.8	90.0	90.0		
36"	76.5		76.5	76.5	90.0	90.0		
42"	74.5		74.5	74.5	90.0	90.0		
73"	12"	66.3	71.0	71.0	84.8	90.0		
	18"	60.7	63.8	63.8	77.6	90.0		
	24"	56.2	58.4	58.4	71.8	90.0		
	30"	52.5	54.4	54.4	67.2	90.0		
	36"	49.6	51.3	51.3	63.4	90.0		
	42"	47.3	49.0	49.0	60.5	89.3		
48"	45.5	47.2	47.2	58.2	86.1			

1 OR 2 ANCHORS AT EACH SIDE OF MULLION (AT WINDOW FRAME) TYPICAL SEE CHART FOR CAPACITY



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
MULLION M10-01CGI

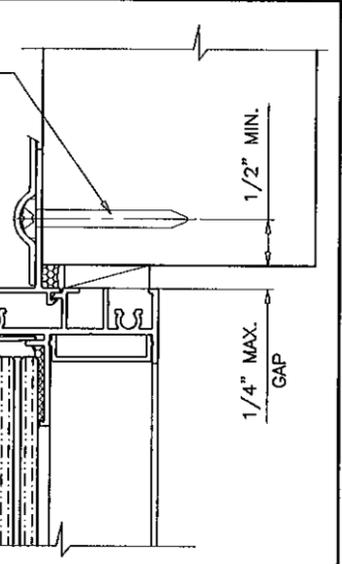
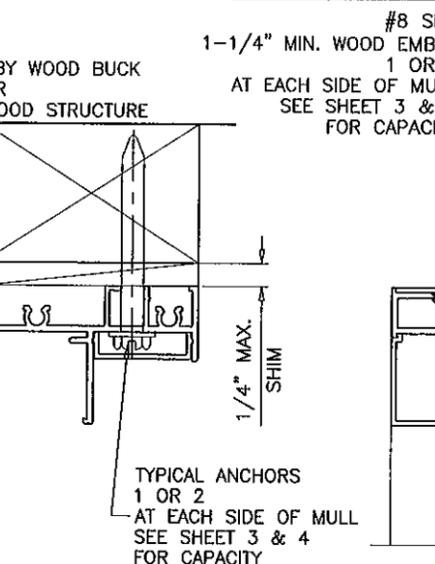
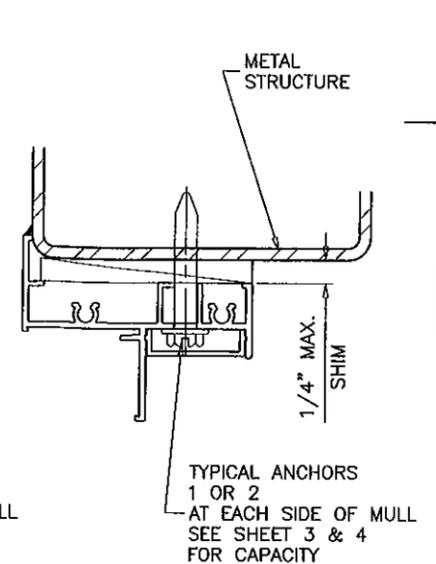
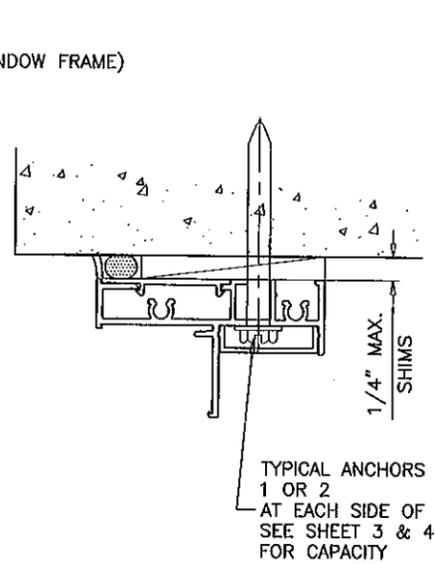
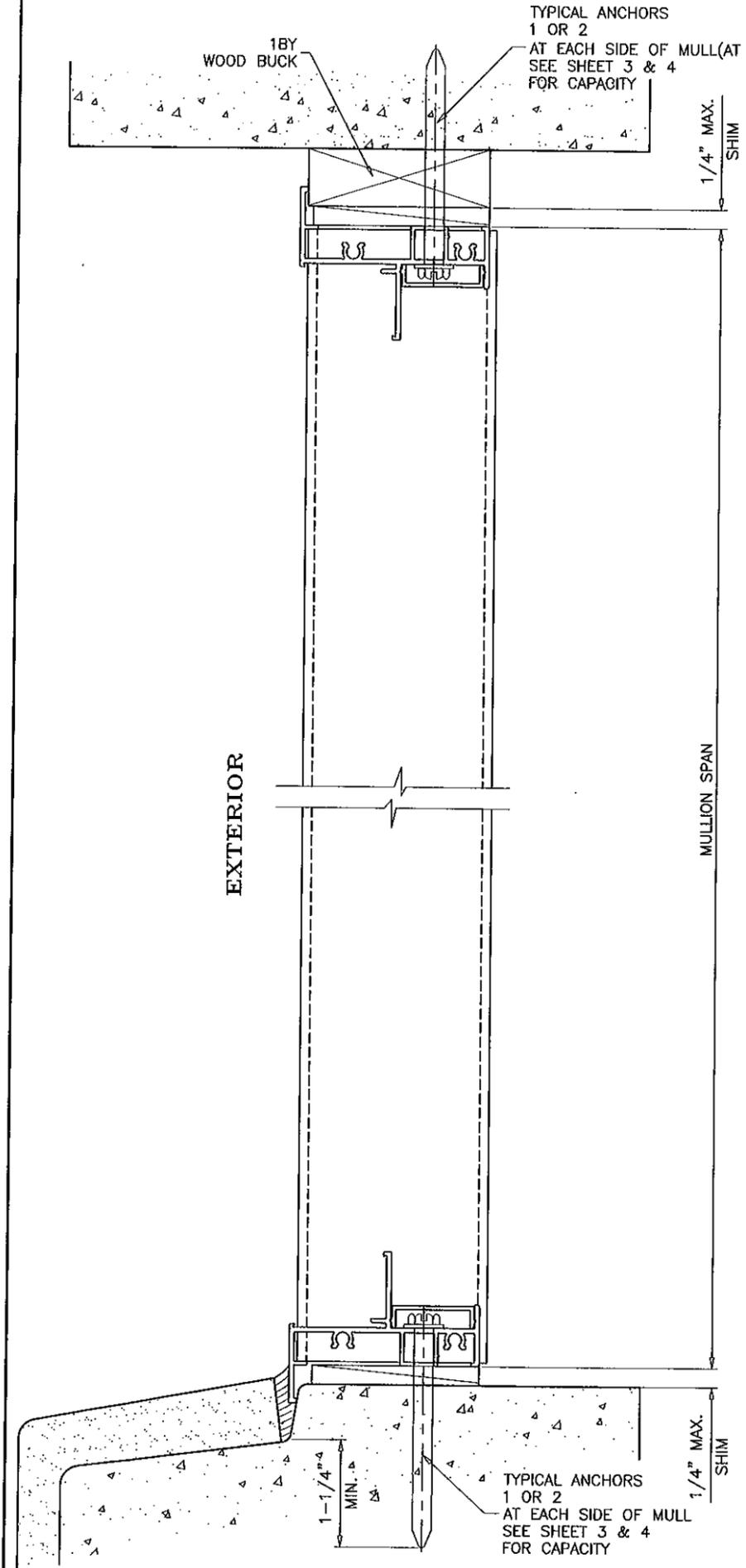
SERIES SENTINEL UNCLIPPED ALUM MULLIONS
CGI WINDOWS & DOORS
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
A	10.10.11	NO CHANGE THIS SHEET

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
JAN 13 2012

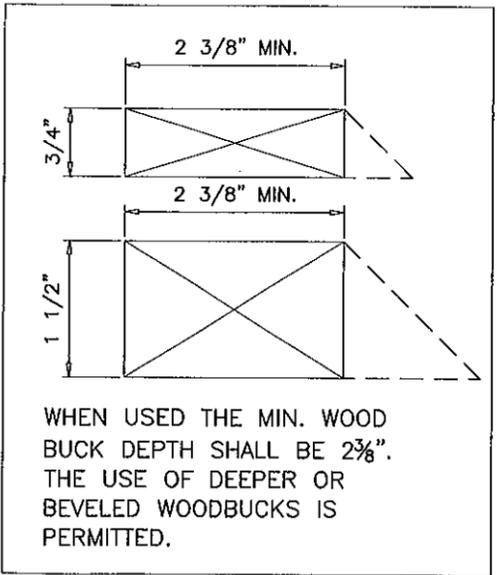
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 11-1031-07
Expiration Date 08/01/2015
By *Mamuel Perez*
Miami Dade Product Control

date: 04-02-10
scale: 1/2" = 1"
dr. by:
chk. by:
drawing no. M10-01
sheet 5 of 7



FLANGE, FLANGE ADAPTOR AND FLUSH FRAMES CAN BE USED AT ALL ANCHORAGE CONDITIONS.

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



TYPICAL ANCHORS: SEE ELEV. FOR SPACING
 1/4" DIA. TAPCON BY 'ITW' (Fu=120 KSI, Fy=92 KSI)
 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 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 = 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.

FIXED WINDOW ANCHOR INSTALLATION DETAILS SHOWN. ALSO APPLICABLE TO SINGLE HUNG AND HORIZONTAL SLIDING WINDOW FRAMES IN FLANGE, EQUAL LEG OR FIN FRAME CONFIGURATIONS.

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3838
 JAN 13 2012

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 11-1031.07
 Expiration Date SEPT. 22, 2015
 By *M. Dade*
 Miami Dade Product Control

afC
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978
 MULLION\M10-01\CGI

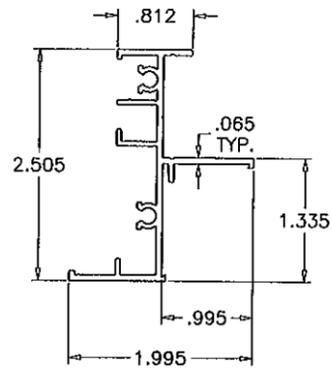
SERIES SENTINEL UNCLIPPED ALUM MULLIONS
CGI WINDOWS & DOORS
 10100 N.W. 25TH STREET
 MIAMI, FL. 33172
 TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	by	description
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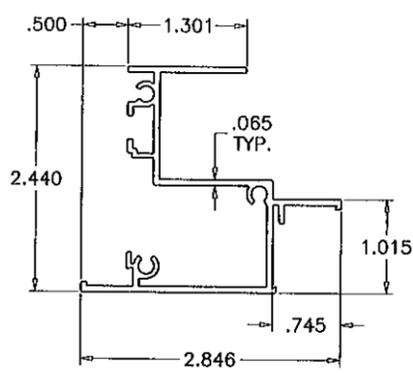
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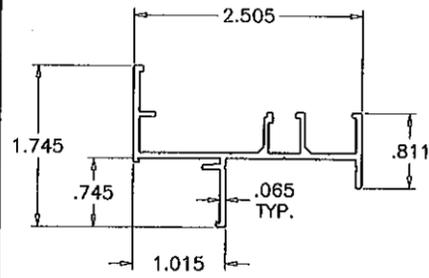
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 sheet 6 of 7



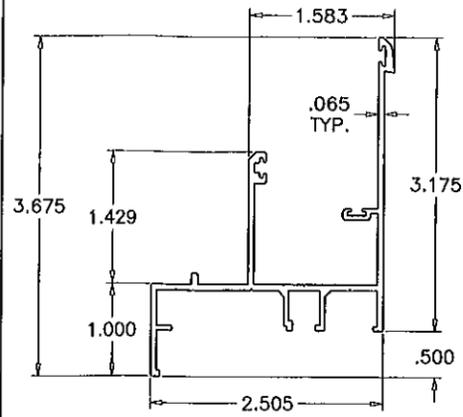
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FIX. WDW. FLANGE FRAME
CGI-118



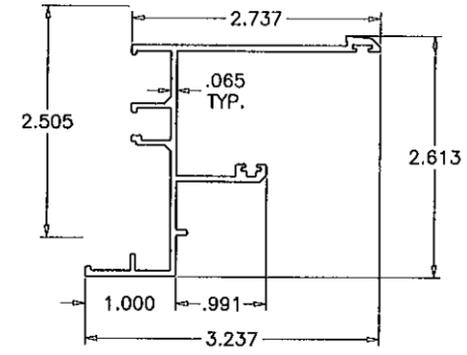
H.R. WDW. FLANGE FRAME HEAD
S.H. WDW. FLANGE FRAME JAMB
CGI-136



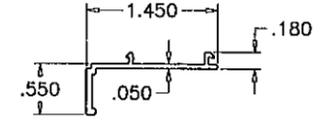
H.R. WDW. FLANGE FRAME JAMB
S.H. WDW. FLANGE FRAME HEAD
CGI-135



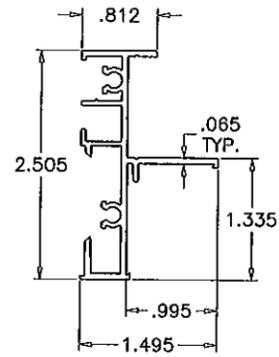
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S.H. WDW. FLANGE FRAME SILL
CGI-137



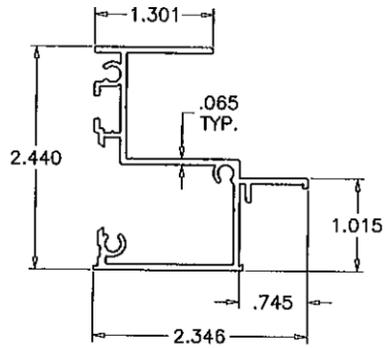
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H.R. WDW. FLANGE FRAME JAMB
CGI-139



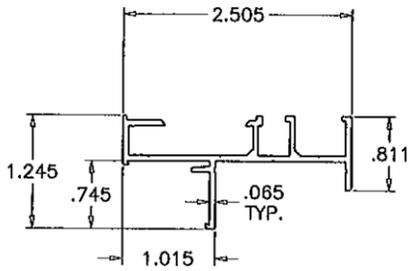
FLANGE ADAPTOR
CGI-109



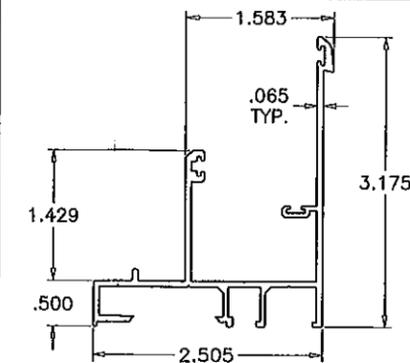
SERIES 130 SENTINEL
FIX. WDW. FLUSH FRAME
CGI-119



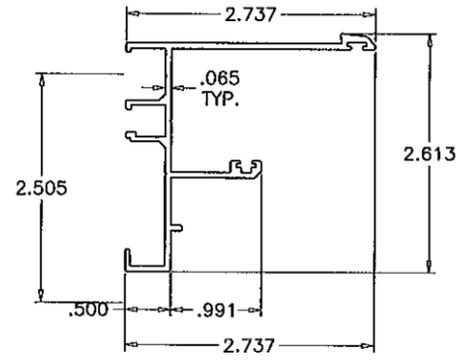
H.R. WDW. FLUSH FRAME HEAD
S.H. WDW. FLUSH FRAME JAMB
CGI-102



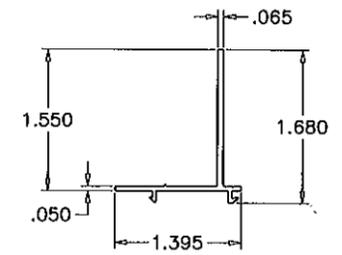
H.R. WDW. FLUSH FRAME JAMB
S.H. WDW. FLUSH FRAME HEAD
CGI-100



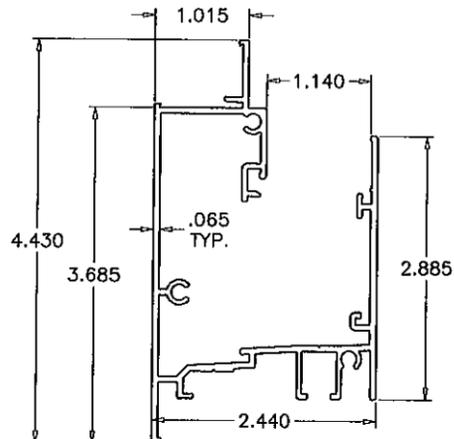
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S.H. WDW. FLUSH FRAME SILL
CGI-101



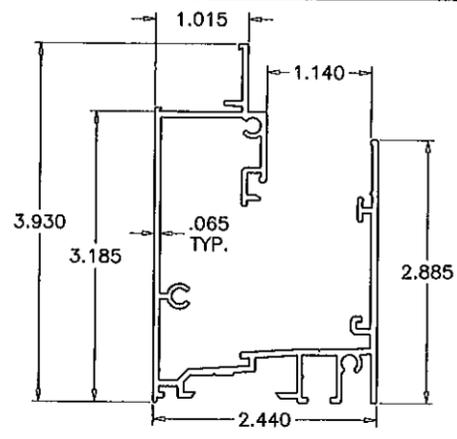
SERIES 120 SENTINEL
H.R. WDW. FLUSH FRAME JAMB
CGI-116



FIN ADAPTOR
CGI-110



SERIES 120 SENTINEL
H.R. WDW. FLANGE FRAME SILL
CGI-138



SERIES 120 SENTINEL
H.R. WDW. FLUSH FRAME SILL
CGI-113

afc

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SERIES SENTINEL UNCLIPPED ALUM MULLIONS

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no	date	by	description
A	10.10.11		NO CHANGE THIS SHEET

date:	04-02-10	scale:	1/2" = 1"
dr. by:		chk. by:	

drawing no.
M10-01
sheet 7 of 7

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
J.A.
JAN 13 2012

PRODUCT REVISED
complying with the Florida
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Acceptance No 11-103607
Expiration Date *SEPT. 22, 2015*
By *Manuel Perez*
Miami Dade Product Control