



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/)

**CGI Windows & Doors**  
**10100 NW 25 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 "238 Designer" Aluminum Fixed Window - L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **W01-83**, titled "Series-238 Aluminum Designer Fixed Window", sheets 1 through 8 of 8, dated 12/27/01, prepared by Al-Farooq Corporation, with the latest revision "C" dated 11/23/11, 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, city, state, model/ series and following statement: "Miami-Dade County Product Control Approved" unless otherwise noted herein.

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

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

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

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. **09-0303.01** 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*  
*4/26/12*

NOA No. 12-0214.07  
Expiration Date: October 20, 2013  
Approval Date: May 03, 2012  
Page 1

**CGI Windows & Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.  
*(Submitted under previous NOA's No.'s 96-0603.07 and 09-0303.01)*
2. Drawing No. **W01-83**, titled "Series-238 Aluminum Designer Fixed Window", sheets 1 through 8 of 8, dated 12/27/01, prepared by Al-Farooq Corporation, with the latest revision "C", dated 11/23/11, signed and sealed by Javad Ahmad, P. E.

**B. TESTS**

1. Test reports on:
  - 1) Air Infiltration Test, per FBC, TAS 201-94
  - 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 TAS 201-94
  - 5) Cyclic Wind Pressure Loading, per TAS 203-94
  - 6) Forced Entry Test, Type "D-A" fixed window, Grade 10, per FBC 2411 3.2.1, TAS 202-94, per ASTM F 588-04, AAMA 1302.5-04 and CAWM 301-04

along with marked-up drawings and installation diagram of aluminum fixed windows, prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0080-0105-08**, dated 01/08/08, signed and sealed by Vinu J. Abraham, P. E.

*(Submitted under previous NOA No. 09-0303.01)*

2. Test reports on:
  - 1) Air Infiltration Test, per SFBC, PA 201-94
  - 2) Uniform Static Air Pressure Test, Loading per SFBC, PA 202-94
  - 3) Water Resistance Test, per SFBC, PA 202-94
  - 4) Large Missile Impact Test, per SFBC, PA 202-94
  - 5) Cyclic Wind Pressure Loading, per SFBC, PA 202-94

along with marked-up drawings and installation diagram of an aluminum fixed Window, prepared by Hurricane Test Laboratory, Inc., Test Reports No.'s **HTL-0080-0303-96** and **HTL-0080-0502-97**, dated 03/05/96, 05/01/97 and 05/02/97, all signed and sealed by Timothy S. Marshall, P.E.

*(Submitted under previous NOA's No.'s 96-0603.07)*

3. Test reports on:
  - 1) Large Missile Impact Test per SFBC, PA 201-94,
  - 2) Cyclic Wind Pressure Loading per SFBC, PA 203-94,

along with marked-up drawings and installation diagram of aluminum casement, project-out and fixed windows, prepared by American Test Lab of South Florida, Inc., Test Report No. **ATLSF-1209.01-94**, dated 12/09/94 to 12/14/94, signed and sealed by Gerard B. Sullivan, P. E.

*(Submitted under previous NOA No. 96-0603.07)*



Jaime D. Gascon, P. E.  
Product Control Section Supervisor  
NOA No. 12-0214.07  
Expiration Date: October 20, 2013  
Approval Date: May 03, 2012

CGI Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**B. TESTS (CONTINUED)**

4. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94,  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94,  
along with marked-up drawings and installation diagram of an aluminum project-out window, prepared by Fenestration Testing Laboratory, Inc. Report No. **FTL-1018**, dated 09/26/94, signed and sealed by Yamil Kurf, P.E.  
*(Submitted under previous NOA No. 96-0603.07)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2010, dated 02/02/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E.
2. **Glazing complies with ASTM E1300-04/ 09**

**D. QUALITY ASSURANCE**

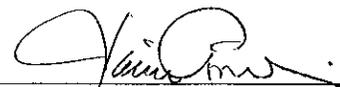
1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **11-0325.05** issued to Solutia Inc. for their "**Saflex and Vanceva clear and color interlayers**" dated 05/05/11, expiring on 05/21/16.

**F. STATEMENTS**

1. Statement letter of no financial interest, conformance and compliance with the FBC-2010, dated 02/02/12, signed and sealed by Javad Ahmad, P. E.
2. Laboratory compliance letters for Test Report No. **HTL-0080-0105-08**, issued by Hurricane Test Laboratory, Inc., dated 01/08/08, signed and sealed by Vinu J. Abraham, P. E.  
*(Submitted under previous NOA No. 09-0303.01)*
3. Laboratory compliance letters for Test Reports No.'s **HTL-0080-0303-96** and **HTL-0080-0502-97**, issued by Hurricane Test Laboratory, Inc., dated 03/05/96, 05/01/97 and 05/02/97, all signed and sealed by Timothy S. Marshall, P. E.  
*(Submitted under previous NOA No. 96-0603.07)*
4. Laboratory compliance letters for Test Report No. **ATLSF-1209.01-94**, issued by American Test Lab of South Florida, Inc., dated 12/09/94 to 12/14/94, signed and sealed by Gerard B. Sullivan, P. E.  
*(Submitted under previous NOA No. 96-0603.07)*



Jaime D. Gascón, P. E.  
Product Control Section Supervisor  
NOA No. 12-0214.07  
Expiration Date: October 20, 2013  
Approval Date: May 03, 2012

**CGI Windows & Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**F. STATEMENTS (CONTINUED)**

5. Laboratory compliance letters for Test Report No. **FTL-1018**, issued by Fenestration Testing Laboratory, Inc., dated 09/26/94, signed and sealed by Candido F. Font, P. E. *(Submitted under previous NOA No. 96-0603.07)*

**G. OTHERS**

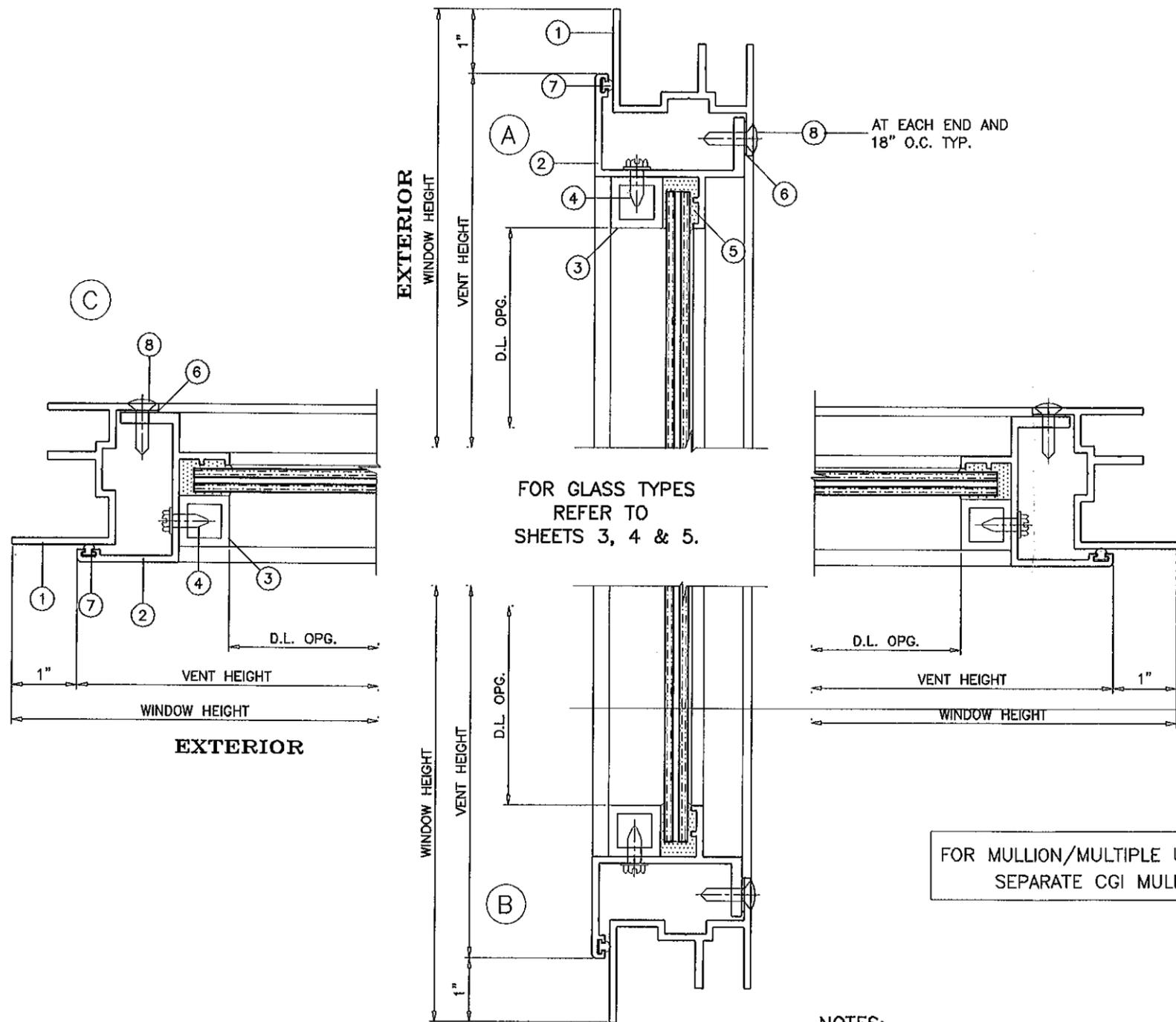
1. Notice of Acceptance No. **09-0303.01**, issued to CGI Windows & Doors for their "Series 238 Designer Aluminum Fixed Window - L.M.I.", approved on 03/25/09 and expiring on 10/20/13.



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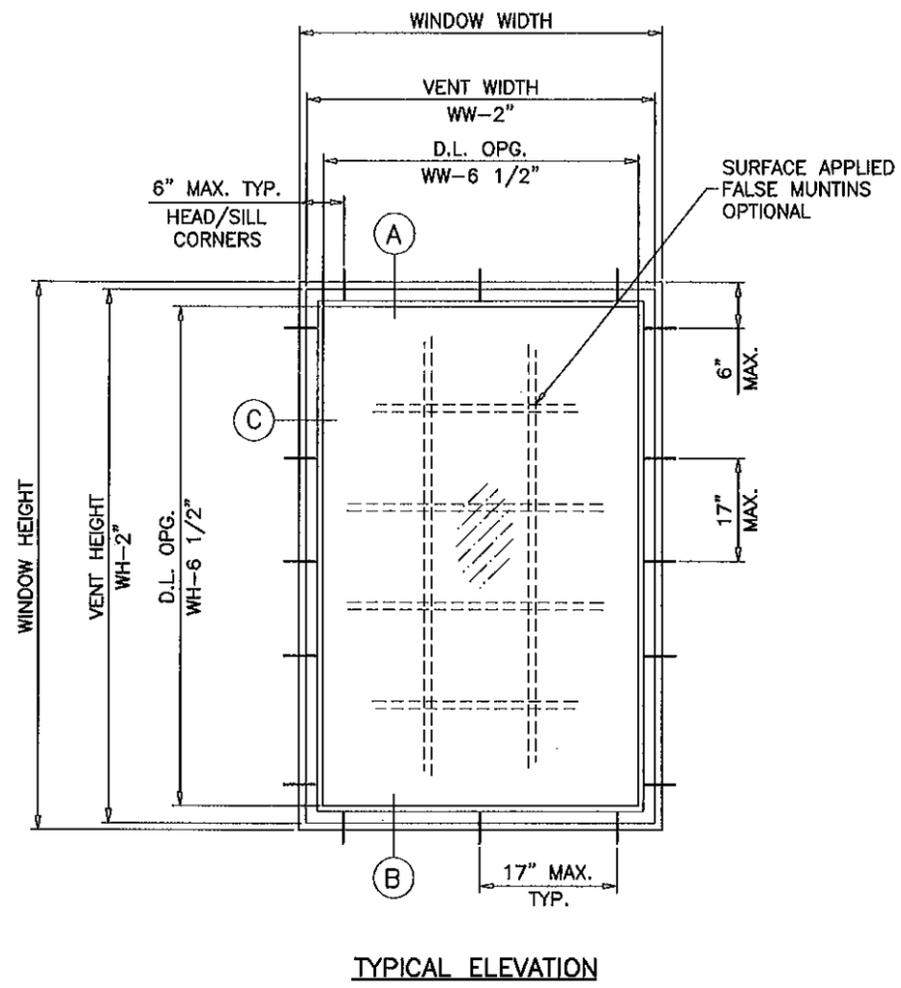
**Jaime D. Gascon, P. E.**  
**Product Control Section Supervisor**  
**NOA No. 12-0214.07**  
**Expiration Date: October 20, 2013**  
**Approval Date: May 03, 2012**

**GENERAL WINDOW SECTIONS**



FOR GLASS TYPES REFER TO SHEETS 3, 4 & 5.

FOR MULLION/MULTIPLE UNITS, REFER TO SEPARATE CGI MULLION N.O.A.



TYPICAL ELEVATION

**INSTRUCTIONS:**

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEETS 3 THRU 5 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE BASED ON APPLICABLE WIND DURATION.
- STEP 3** USING CHART ON SHEET 7 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 4** THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL 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).

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 MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
FEB 02 2012

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 12-0214.07  
Expiration Date 10/20/2013  
By: [Signature]  
Miami Dade Product Control

**af c**

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1236 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W01-83CG

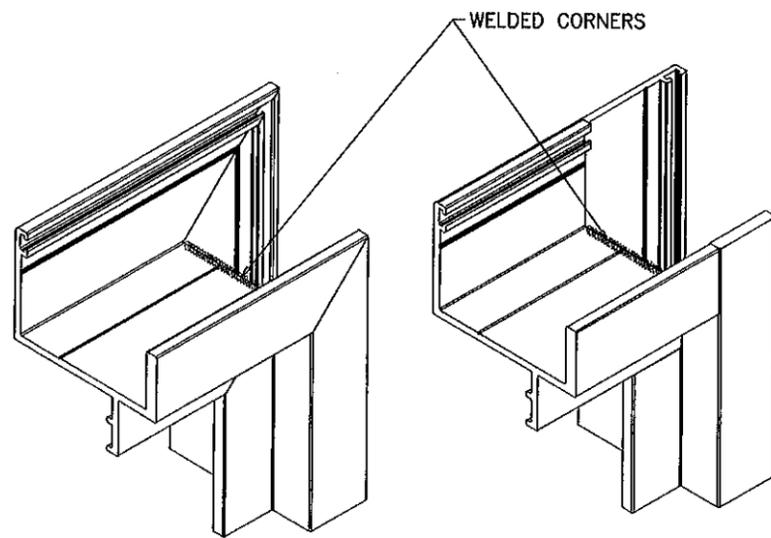
SERIES-238 DESIGNER FIXED WINDOW  
CGI WINDOWS & DOORS  
10100 N.W. 25TH STREET  
MIAMI, FL. 33172  
TEL. (305) 593-6590 FAX. (305) 593-6592

NO	DATE	DESCRIPTION
A	04.30.07	REV. PER BCCO COMMENTS
B	05.16.08	NOTE REV.
C	11.23.11	UPDATED TO 2010 FBC

revisions:

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no. W01-83  
sheet 1 of 8

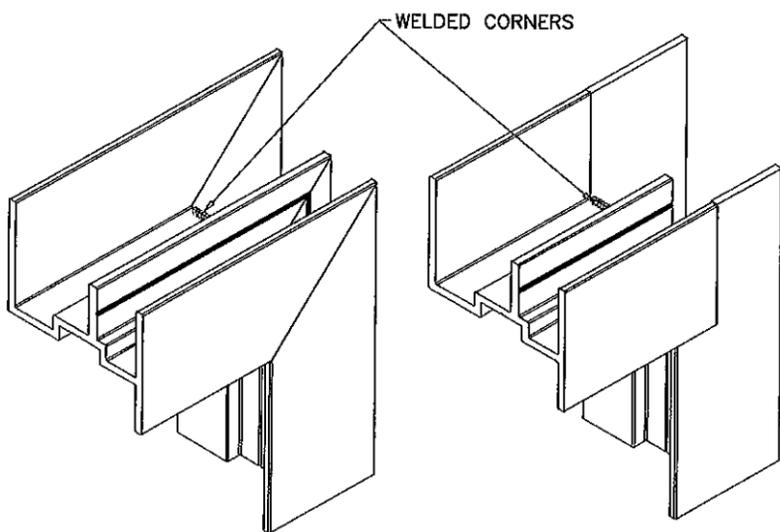


MITERED

COPED 90° CORNERS ONLY

VENT CORNER

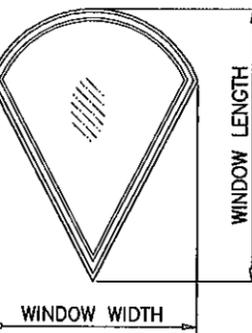
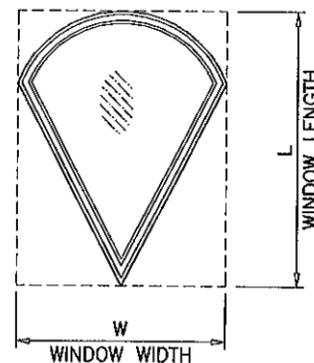
ALL FRAME AND VENT CORNERS TO BE SEALED WITH GE SILPRUF OR EQUIV.



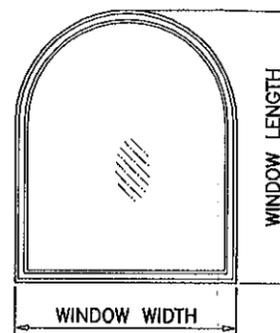
MITERED

COPED 90° CORNERS ONLY

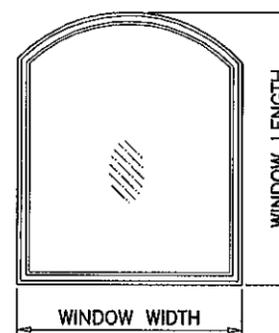
FRAME CORNER



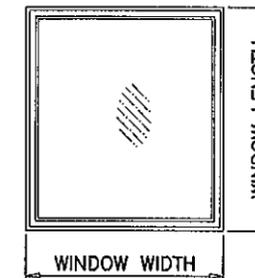
PARTIAL CIRCLE



TUMBSTONE



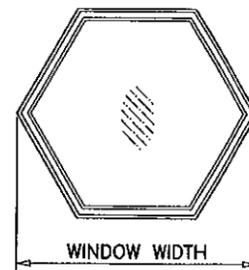
ARCH TOP



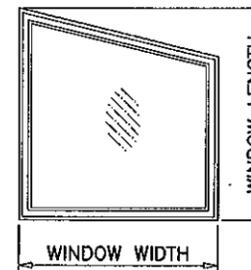
SQUARE OR RECTANGLE



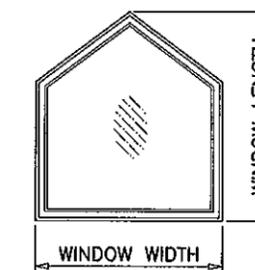
OCTAGON



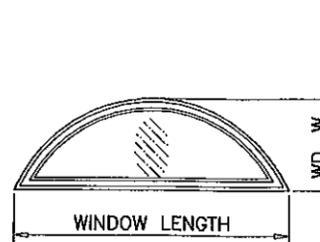
HEXAGON



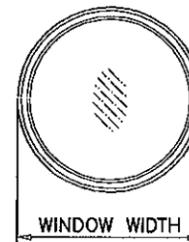
TRAPEZOID



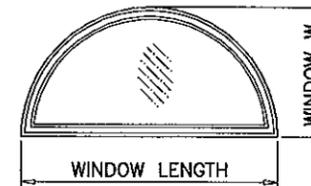
PENTAGON



ELLIPSE

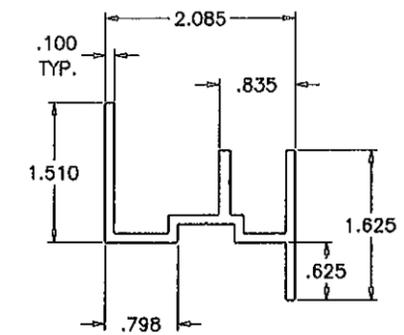


FULL CIRCLE

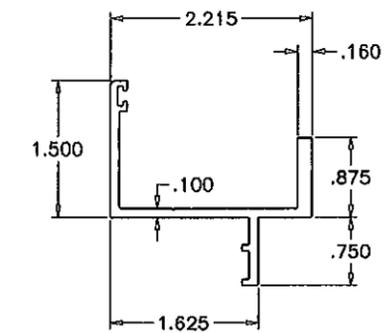


HALF CIRCLE

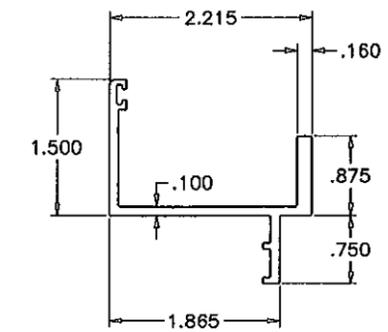
ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	CGI-386	4	FRAME	6063-T6	INDALEX OR EQUIV.
2	CGI-387	4	VENT	6063-T6	INDALEX OR EQUIV.
2A	CGI-387IG	4	VENT (INSUL GLASS)	6063-T6	INDALEX OR EQUIV.
3	CGI-	4	GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
4	-	AS REQD.	GLAZING BEAD SCREWS @ 6" FROM ENDS & 20" O.C. MAX.	-	#12 X 5/8" SMS
5	-	-	GLAZING COMPOUND	SILICONE	GE-1000 (NON-IMPACT)
5A	-	-	GLAZING COMPOUND	SILICONE	GE-1200 (IMPACT)
6	-	4	1/2" X .090" SINGLE FACED GLAZING TAPE	FOAM	-
7	Q200 X190	AS REQD.	VENT WEATHERSTRIPPING	-	SCHLEGEL Q-LON
8	-	AS REQD.	VENT SCREWS @ 17" O.C. TYP.	-	#10 X 1" SS SMS
9	-	2/ CORNER	FRAME AND VENT ASSEMBLY SCREWS	-	#10 X 1-1/4" SS SMS



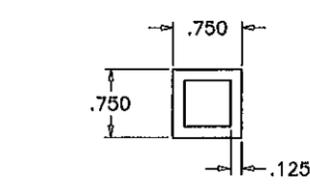
FRAME



VENT



VENT (INSUL GLASS)



GLAZING STOP

**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\W01-83CG

SERIES-238 DESIGNER FIXED WINDOW  
**CGI WINDOWS & DOORS**  
 10100 N.W. 25TH STREET  
 MIAMI, FL 33172  
 TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
B	05.16.08	NO CHANGE THIS SHEET
C	11.23.11	NO CHANGE THIS SHEET

date:	12-27-01
scale:	1/2" = 1"
dr. by:	HAMID
chk. by:	

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 3538  
 FEB 02 2012

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 12-0214.07  
 Expiration Date 10/20/2013  
 By: [Signature]  
 Miami Dade Product Control

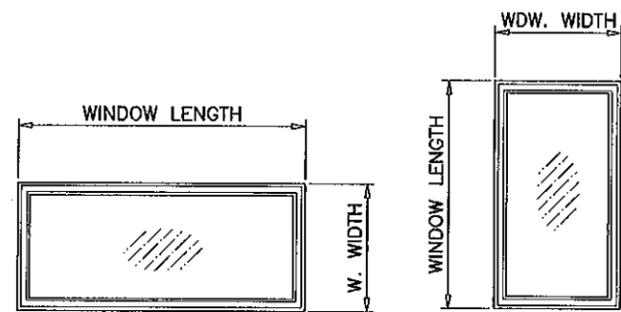
drawing no.  
**W01-83**  
 sheet 2 of 8

VERIFY LOAD CAPACITY OF WINDOW BY INSCRIBING SHAPE OF WINDOW WITHIN A RECTANGULAR OR SQUARE SHAPE AND USING THOSE DIMENSIONS TO CONSULT CHARTS ON SHEETS 3, 4 & 5 FOR GLASS AND SHEET 7 FOR ANCHORS AS ON SAMPLE ABOVE.

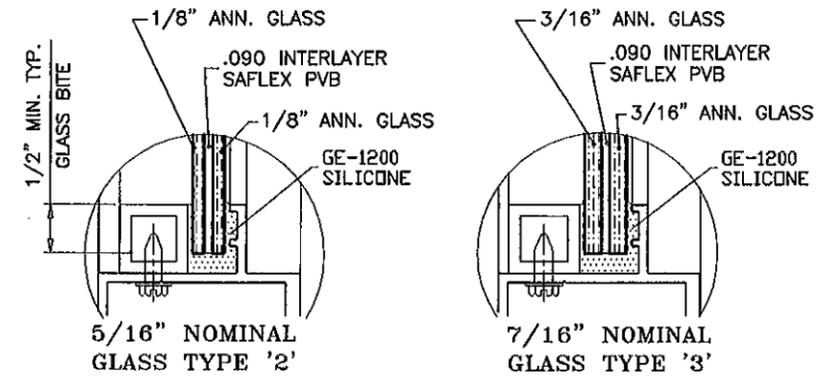
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	36"	110.0	180.0	110.0	180.0
30"		110.0	144.0	110.0	144.0
36"		110.0	120.0	110.0	120.0
42"		110.0	120.0	110.0	120.0
48"		101.4	101.4	110.0	120.0
54"		84.8	84.8	110.0	120.0
60"	74.7	74.7	110.0	114.3	
24"	42"	110.0	166.4	110.0	168.0
30"		110.0	142.5	110.0	144.0
36"		110.0	120.0	110.0	120.0
42"		102.9	102.9	102.9	102.9
48"		85.0	85.0	102.9	102.9
54"		75.1	75.1	102.9	102.9
60"	66.4	66.4	90.0	90.0	
24"	48"	110.0	153.1	110.0	160.0
30"		110.0	117.6	110.0	120.0
36"		101.4	101.4	110.0	120.0
42"		85.0	85.0	102.9	102.9
48"		75.5	75.5	90.0	90.0
54"		68.4	68.4	90.0	90.0
60"	63.6	63.6	90.0	90.0	
24"	54"	110.0	134.8	110.0	154.3
30"		99.4	99.4	110.0	120.0
36"		84.8	84.8	110.0	120.0
42"		75.1	75.1	102.9	102.9
48"		68.4	68.4	90.0	90.0
54"		65.8	65.8	80.0	80.0
60"	59.0	59.0	80.0	80.0	
24"	60"	110.0	119.4	110.0	120.0
30"		87.8	87.8	110.0	120.0
36"		74.7	74.7	110.0	114.3
42"		66.4	66.4	90.0	90.0
48"		63.6	63.6	90.0	90.0
54"		59.0	59.0	80.0	80.0
24"	66"	110.0	112.5	110.0	120.0
30"		82.1	82.1	110.0	120.0
36"		66.6	66.6	90.0	90.0
42"		58.1	58.1	90.0	90.0
48"		56.1	56.1	90.0	90.0
24"		72"	105.4	105.4	110.0
30"	74.0		74.0	110.0	120.0
36"	59.2		59.2	90.0	90.0
42"	51.2		51.2	90.0	90.0
48"	49.8		49.8	83.9	83.9

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	78"	97.5	97.5	110.0	120.0
30"		67.2	67.2	90.0	90.0
36"		50.8	50.8	90.0	90.0
42"		46.1	46.1	86.1	86.1
24"	84"	103.0	103.0	110.0	120.0
30"		63.0	63.0	90.0	90.0
36"		47.3	47.3	90.0	90.0
24"		96"	87.5	87.5	110.0
30"	56.3		56.3	90.0	90.0
36"	41.6		41.6	90.0	90.0
24"	108"		69.6	69.6	90.0
30"		53.5	53.5	90.0	90.0
24"		58.8	58.8	90.0	90.0

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	210.0	110.0	210.0
26-1/2"		110.0	166.2	110.0	166.2
37"		110.0	166.2	110.0	166.2
53-1/8"		110.0	120.0	110.0	120.0
19-1/8"	38-3/8"	110.0	200.6	110.0	200.6
26-1/2"		110.0	163.0	110.0	163.0
37"		110.0	116.8	110.0	116.8
53-1/8"	50-5/8"	81.9	81.9	110.0	112.6
19-1/8"		110.0	185.7	110.0	185.7
26-1/2"		110.0	125.2	110.0	147.2
37"		92.1	92.1	110.0	116.8
53-1/8"	63"	66.6	66.6	85.3	85.3
19-1/8"		110.0	177.5	110.0	177.5
26-1/2"		98.1	98.1	110.0	120.0
37"		68.6	68.6	110.0	110.2
53-1/8"	74-1/4"	56.6	56.6	81.3	81.3
19-1/8"		110.0	120.0	110.0	120.0
26-1/2"		85.2	85.2	110.0	120.0
37"	55.4	55.4	90.0	90.0	



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



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

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592;  
C.A.N. 3538  
FEB 02 2012

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No. 12-0214.07  
Expiration Date 10/20/2013  
By: [Signature]  
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  
COMP-ANL\W01-83CC

SERIES-238 DESIGNER FIXED WINDOW  
**CGI WINDOWS & DOORS**  
10100 N.W. 25TH STREET  
MIAMI, FL. 33172  
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
B	05.16.08	NOTE REV.
C	11.23.11	NO CHANGE THIS SHEET

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**W01-83**  
sheet 3 of 8

**PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS**

WINDOW DIMS.		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
24"	36"	110.0	195.8
30"		110.0	156.6
36"		110.0	130.5
42"		110.0	120.0
48"		110.0	120.0
54"		110.0	120.0
60"		110.0	120.0
24"	42"	110.0	193.6
30"		110.0	156.6
36"		110.0	120.0
42"		96.9	111.9
48"		96.9	111.9
54"		96.9	111.9
60"		90.0	90.0
24"	48"	110.0	184.4
30"		110.0	120.0
36"		110.0	120.0
42"		96.9	111.9
48"		84.8	97.9
54"		90.0	90.0
60"		90.0	90.0
24"	54"	110.0	177.8
30"		110.0	120.0
36"		110.0	120.0
42"		96.9	111.9
48"		90.0	90.0
54"		80.0	80.0
60"		80.0	80.0
24"	60"	110.0	120.0
30"		110.0	120.0
36"		110.0	120.0
42"		90.0	90.0
48"		90.0	90.0
54"		80.0	80.0
60"		70.0	70.0
63"		70.0	70.0
66"		70.0	70.0
69"		70.0	70.0
72"		70.0	70.0
75"		70.0	70.0
78"		70.0	70.0
81"		70.0	70.0
84"		50.0	50.0
87"	50.0	50.0	

**PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS**

WINDOW DIMS.		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
24"	66"	110.0	120.0
30"		110.0	120.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		70.0	70.0
57"		70.0	70.0
60"		70.0	70.0
63"		68.6	68.6
66"		65.5	65.5
69"		65.5	65.5
72"		65.5	65.5
75"		50.0	50.0
78"		50.0	50.0
81"		50.0	50.0
84"	50.0	50.0	
87"	50.0	50.0	
24"	72"	110.0	120.0
30"		110.0	120.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
51"		70.0	70.0
54"		70.0	70.0
57"		70.0	70.0
60"		70.0	70.0
63"		68.6	68.6
66"		65.5	65.5
69"		50.0	50.0
72"		50.0	50.0
75"		50.0	50.0
78"		50.0	50.0
81"	50.0	50.0	
84"	50.0	50.0	
87"	50.0	50.0	
24"	78"	110.0	120.0
30"		90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
45"		70.0	70.0
48"		70.0	70.0
51"		70.0	70.0
54"		70.0	70.0
57"		70.0	70.0
60"		70.0	70.0
63"		50.0	50.0
66"		50.0	50.0
69"		50.0	50.0
72"		50.0	50.0
75"		50.0	50.0
78"	50.0	50.0	
81"	50.0	50.0	

**PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS**

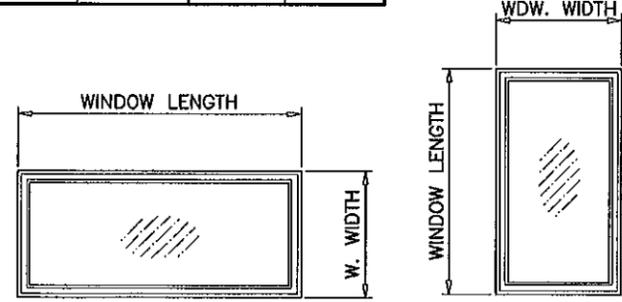
WINDOW DIMS.		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
24"	84"	110.0	120.0
30"		90.0	90.0
36"		90.0	90.0
42"		70.0	70.0
45"		70.0	70.0
48"		70.0	70.0
51"		70.0	70.0
54"		70.0	70.0
57"		70.0	70.0
60"		70.0	70.0
63"		50.0	50.0
66"		50.0	50.0
69"		50.0	50.0
72"		50.0	50.0
75"		50.0	50.0
24"	96"	110.0	120.0
30"		90.0	90.0
36"		70.0	70.0
42"		70.0	70.0
45"		70.0	70.0
48"		70.0	70.0
51"		70.0	70.0
54"		50.0	50.0
57"		50.0	50.0
60"		50.0	50.0
63"		50.0	50.0
66"		50.0	50.0
69"		50.0	50.0
72"		50.0	50.0
75"		50.0	50.0
24"	108"	90.0	90.0
30"		90.0	90.0
33"		70.0	70.0
36"		70.0	70.0
39"		70.0	70.0
42"		70.0	70.0
45"		70.0	70.0
48"		50.0	50.0
51"		50.0	50.0
54"		50.0	50.0
57"		50.0	50.0
60"		50.0	50.0
63"		50.0	50.0
66"		50.0	50.0
69"		50.0	50.0
72"	50.0	50.0	
24"	120"	90.0	90.0
30"		70.0	70.0
33"		70.0	70.0
36"		70.0	70.0
39"		70.0	70.0
42"		50.0	50.0
45"		50.0	50.0
48"		50.0	50.0
51"		50.0	50.0
54"		50.0	50.0

**PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS**

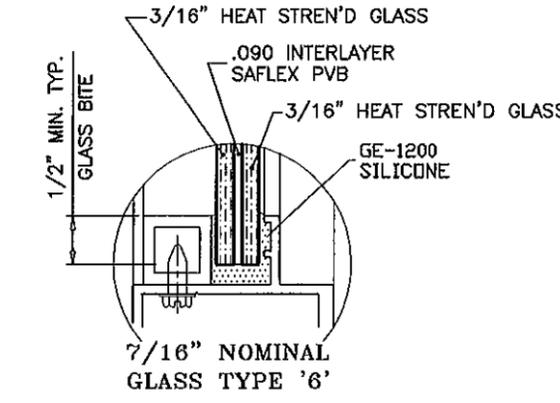
WINDOW DIMS.		GLASS TYPE '8'		
WIDTH	HEIGHT	EXT. (+)	INT. (-)	
24"	132"	70.0	70.0	
30"		70.0	70.0	
33"		70.0	70.0	
36"		70.0	70.0	
39"		50.0	50.0	
42"		50.0	50.0	
45"		50.0	50.0	
48"		50.0	50.0	
24"		144"	70.0	70.0
30"			70.0	70.0
33"			70.0	70.0
36"			50.0	50.0
39"			50.0	50.0
42"			50.0	50.0
45"			50.0	50.0
48"	50.0		50.0	
24"	156"		70.0	70.0
30"			70.0	70.0
33"			50.0	50.0
36"			50.0	50.0
39"			50.0	50.0

**PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 5 AND 6 FOR INSTALLATION DETAILS**

WINDOW DIMS.		GLASS TYPE '8'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	210.0
26-1/2"		110.0	180.7
37"		110.0	180.7
53-1/8"		110.0	120.0
19-1/8"	38-3/8"	110.0	210.0
26-1/2"		110.0	177.3
37"		110.0	120.0
53-1/8"		110.0	120.0
19-1/8"	50-5/8"	110.0	210.0
26-1/2"		110.0	169.7
37"		110.0	120.0
53-1/8"		85.3	85.3
19-1/8"	63"	110.0	204.6
26-1/2"		110.0	120.0
37"		110.0	120.0
53-1/8"		81.3	81.3
19-1/8"	74-1/4"	110.0	120.0
26-1/2"		110.0	120.0
37"		90.0	90.0
53-1/8"		70.0	70.0



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



Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
*FEB 02 2012*

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. **12-0214.07**  
Expiration Date **10/20/2013**  
By *[Signature]*  
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  
COMP-ANI\W01-83CG

SERIES-238 DESIGNER FIXED WINDOW

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

no.	date	by	description	NOTE REV.	NO CHANGE THIS SHEET
B	05.16.08				
C	11.23.11				

revisions:

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no. **W01-83**  
sheet 4 of 8

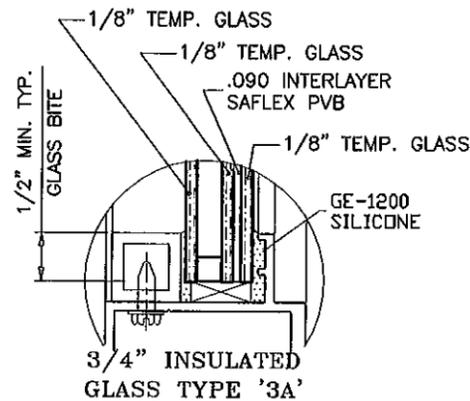
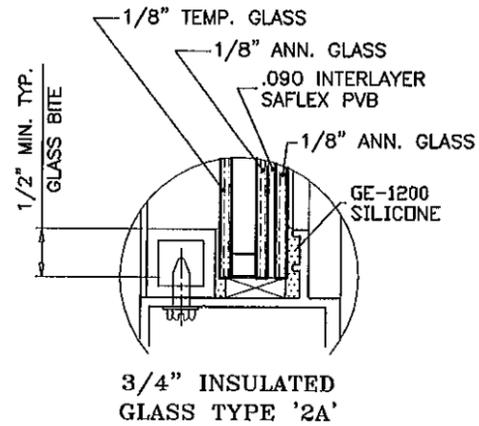
**NOTE:**  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-04 (3 SEC. GUSTS)

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS  
NO SHUTTERS REQUIRED  
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	36"	110.0	180.0	110.0	195.8
30"		110.0	144.0	110.0	156.6
36"		110.0	120.0	110.0	130.5
42"		110.0	120.0	110.0	120.0
48"		107.7	107.7	110.0	120.0
54"		90.1	90.1	110.0	120.0
60"		79.3	79.3	110.0	120.0
24"	42"	110.0	168.0	110.0	193.6
30"		110.0	144.0	110.0	156.6
36"		110.0	120.0	110.0	120.0
42"		102.9	102.9	96.9	111.9
48"		90.3	90.3	96.9	111.9
54"		79.8	79.8	96.9	111.9
60"		70.5	70.5	90.0	90.0
24"	48"	110.0	160.0	110.0	184.4
30"		110.0	120.0	110.0	120.0
36"		107.7	107.7	110.0	120.0
42"		90.3	90.3	96.9	111.9
48"		80.2	80.2	84.8	97.9
54"		72.7	72.7	90.0	90.0
60"		67.6	67.6	90.0	90.0
24"	54"	110.0	143.3	110.0	177.8
30"		105.6	105.6	110.0	120.0
36"		90.1	90.1	110.0	120.0
42"		79.8	79.8	96.9	111.9
48"		72.7	72.7	90.0	90.0
54"		69.9	69.9	80.0	80.0
60"		62.7	62.7	80.0	80.0
24"	60"	110.0	120.0	110.0	120.0
30"		93.3	93.3	110.0	120.0
36"		79.3	79.3	110.0	120.0
42"		70.5	70.5	90.0	90.0
48"		67.6	67.6	90.0	90.0
54"	62.7	62.7	80.0	80.0	
24"	66"	110.0	119.5	110.0	120.0
30"		87.2	87.2	110.0	120.0
36"		70.7	70.7	90.0	90.0
42"		61.7	61.7	90.0	90.0
48"		59.6	59.6	90.0	90.0
24"	72"	110.0	111.9	110.0	120.0
30"		78.6	78.6	110.0	120.0
36"		62.9	62.9	90.0	90.0
42"		54.4	54.4	90.0	90.0
48"		52.9	52.9	90.0	90.0

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS  
NO SHUTTERS REQUIRED  
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	78"	103.6	103.6	110.0	120.0
30"		71.4	71.4	90.0	90.0
36"		54.0	54.0	90.0	90.0
42"		48.9	48.9	90.0	90.0
24"	84"	109.4	109.4	110.0	120.0
30"		67.0	67.0	90.0	90.0
36"		50.2	50.2	90.0	90.0
24"	96"	92.9	92.9	110.0	120.0
30"		59.8	59.8	90.0	90.0
36"		44.2	44.2	90.0	90.0
24"		108"	74.0	74.0	90.0
30"	56.8		56.8	90.0	90.0
24"	120"	62.5	62.5	90.0	90.0

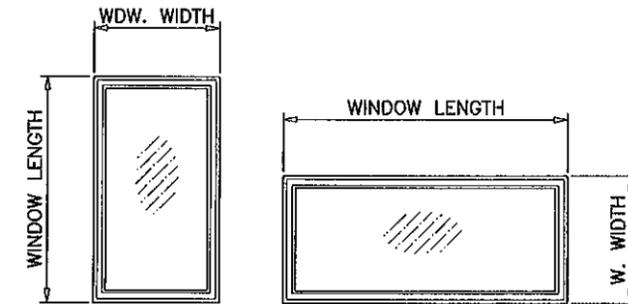


AIR SPACE CONSISTING OF:  
SPACER:  
METAL SPACER AROUND  
THE PERIMETER OF THE GLASS.

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

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS  
NO SHUTTERS REQUIRED  
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	210.0	110.0	210.0
26-1/2"		110.0	166.2	110.0	180.7
37"		110.0	166.2	110.0	180.7
53-1/8"		110.0	120.0	110.0	120.0
19-1/8"	38-3/8"	110.0	200.6	110.0	210.0
26-1/2"		110.0	163.0	110.0	177.3
37"		110.0	116.8	110.0	120.0
53-1/8"		87.0	87.0	110.0	120.0
19-1/8"	50-5/8"	110.0	185.7	110.0	210.0
26-1/2"		110.0	133.0	110.0	169.7
37"		97.9	97.9	110.0	120.0
53-1/8"		70.8	70.8	85.3	85.3
19-1/8"	63"	110.0	177.5	110.0	204.6
26-1/2"		104.3	104.3	110.0	120.0
37"		72.9	72.9	110.0	120.0
53-1/8"		60.1	60.1	81.3	81.3
19-1/8"	74-1/4"	110.0	120.0	110.0	120.0
26-1/2"		90.5	90.5	110.0	120.0
37"		58.8	58.8	90.0	90.0



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

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
FEB 02 2012

PRODUCT REVISED  
As complying with the Florida  
Building Code  
Acceptance No. 12-021407  
Expiration Date 12/23/2013  
By: [Signature]  
Miami Dade Product Control

**af c**  
AL-FAROOQ CORPORATION  
ENGINEERS & PRODUCT DEVELOPMENT  
12335 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL/W01-83CG

SERIES-238 DESIGNER FIXED WINDOW  
CGI WINDOWS & DOORS  
10100 N.W. 25TH STREET  
MIAMI, FL. 33172  
TEL. (305) 593-6590 FAX. (305) 593-6592

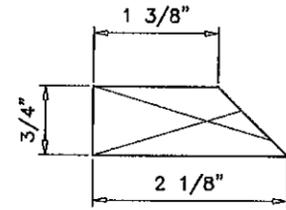
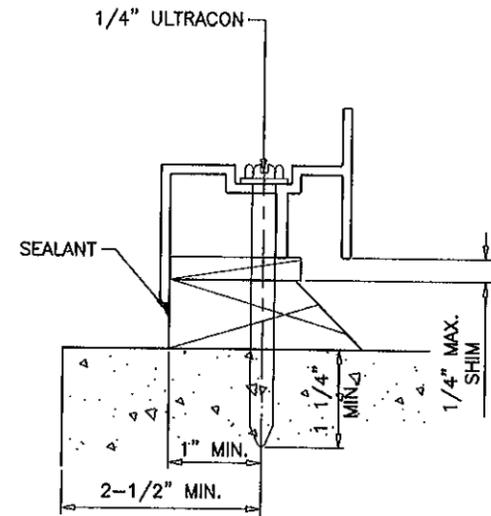
no	date	by	description
B	05.16.08		NOTE REV.
C	11.23.11		UPDATED TO 2010 FBC

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
W01-83  
sheet 5 of 8

**INSTALLATION CONDITIONS (APPLIES TO ALL FOUR SIDES)**

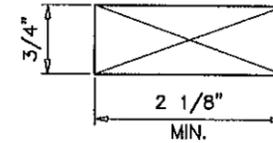
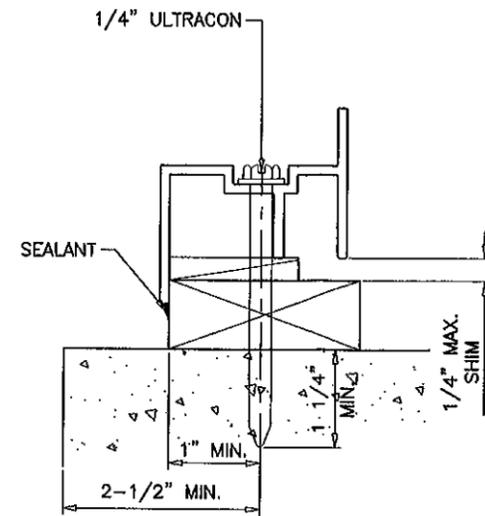
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



**INSTALLATION TYPE '1'**

**WOOD BUCK TYPE '1'**  
MATERIAL: PRESSURE TREATED

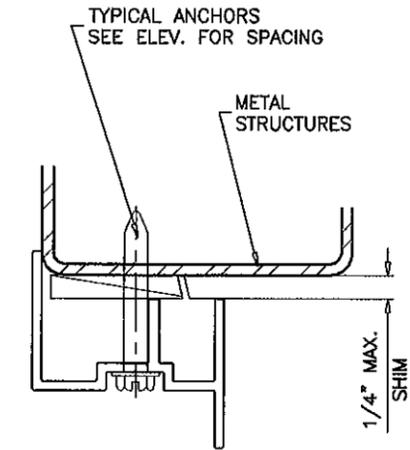
TYPICAL INSTALLATION DETAIL  
ON ALL FOUR SIDES/USING WOOD



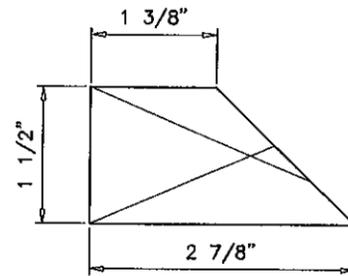
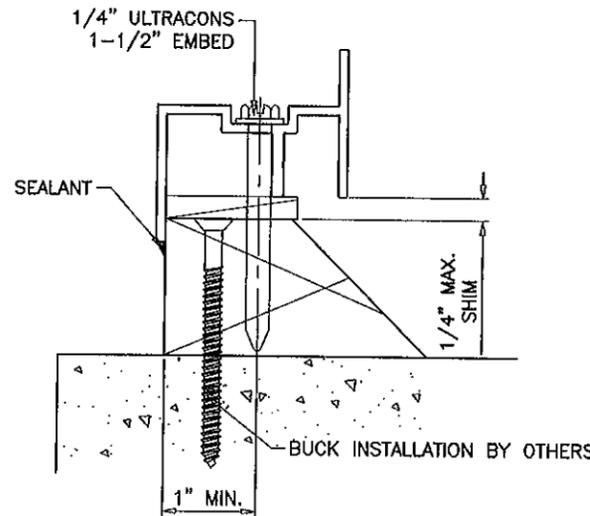
**INSTALLATION TYPE '2'**

**WOOD BUCK TYPE '2'**  
MATERIAL: PRESSURE TREATED

TYPICAL INSTALLATION DETAIL  
ON ALL FOUR SIDES/USING WOOD



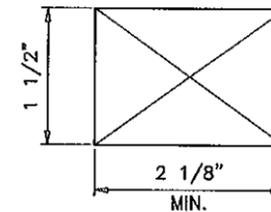
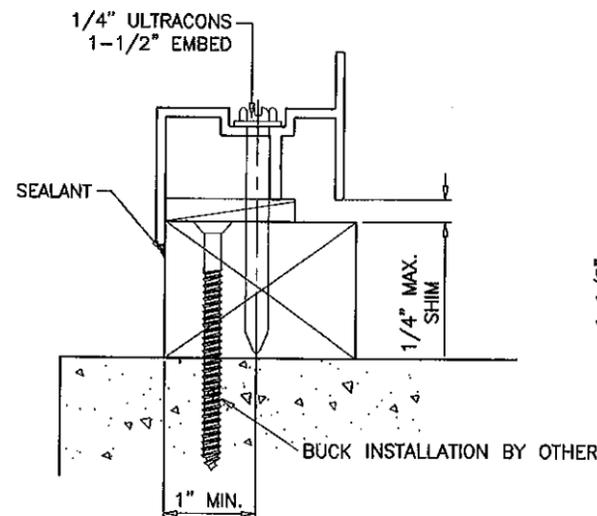
ATTACHMENT TO  
METAL STRUCTURES



**INSTALLATION TYPE '3'**

**WOOD BUCK TYPE '3'**  
MATERIAL: PRESSURE TREATED

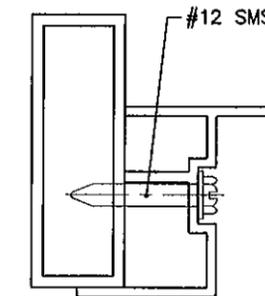
TYPICAL INSTALLATION DETAIL  
ON ALL FOUR SIDES/USING WOOD



**INSTALLATION TYPE '4'**

**WOOD BUCK TYPE '4'**  
MATERIAL: PRESSURE TREATED

TYPICAL INSTALLATION DETAIL  
ON ALL FOUR SIDES/USING WOOD



ATTACHMENT TO  
APPROVED MULLIONS

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

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
FEB 02 2012

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-0214.07  
Expiration Date 10/20/2013  
By: [Signature]  
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  
COMP-ANL\W01-83CG

SERIES-238 DESIGNER FIXED WINDOW  
**CGI WINDOWS & DOORS**  
10100 N.W. 25TH STREET  
MIAMI, FL. 33172  
TEL. (305) 593-6590 FAX. (305) 593-6592

no.	date	by	description
B	05.16.08		NO CHANGE THIS SHEET
C	11.23.11		ANCHORS REV.

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

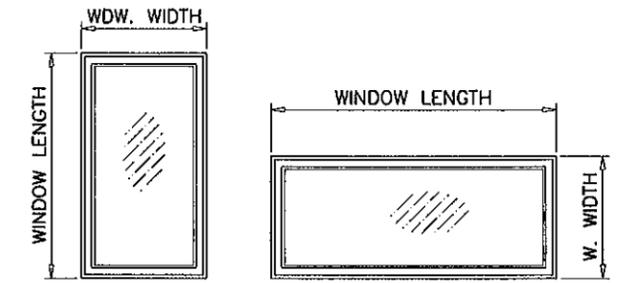
drawing no.  
**W01-83**  
sheet 6 of 8

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	36"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		209.8
60"		179.8
66"		196.7
72"		174.8
78"		157.3
84"	171.6	
90"	157.3	
24"	42"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		196.2
60"		166.0
66"		179.8
72"		158.7
78"		142.0
84"	154.1	
90"	140.7	
24"	48"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		188.8
60"		157.3
66"		168.6
72"		147.5
78"		131.1
84"	141.6	
90"	128.7	
24"	54"	210.0
30"		210.0
36"		209.8
42"		196.2
48"		188.8
54"		186.5
60"		152.6
66"		161.4
72"		139.9
78"		123.4
84"	132.5	
90"	119.9	

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	60"	210.0
30"		201.4
36"		179.8
42"		166.0
48"		157.3
54"		152.6
60"		151.0
66"		151.0
72"		134.9
78"		118.0
84"	125.9	
90"	113.3	
24"	66"	210.0
30"		210.0
36"		196.7
42"		179.8
48"		168.6
54"		161.4
60"		151.0
66"		156.0
72"		132.0
78"		114.4
84"	121.2	
90"	108.4	
24"	72"	210.0
30"		198.7
36"		174.8
42"		158.7
48"		147.5
54"		139.9
60"		134.9
66"		132.0
72"		131.1
78"		112.4
84"	118.0	
90"	104.9	
24"	78"	210.0
30"		179.8
36"		157.3
42"		142.0
48"		131.1
54"		123.4
60"		118.0
66"		114.4
72"		112.4
78"		111.7
84"	111.7	

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS				
WINDOW DIMS.		EXT. (+) INT. (-)		
WIDTH	HEIGHT			
24"	84"	210.0		
30"		197.0		
36"		171.6		
42"		154.1		
48"		141.6		
54"		132.5		
60"		125.9		
66"		121.2		
72"		118.0		
78"		111.7		
24"	96"	202.3		
30"		167.8		
36"		145.2		
42"		129.5		
48"		118.0		
54"		109.4		
60"		103.0		
66"		98.1		
72"		94.4		
24"		108"	206.5	
30"	170.5			
36"	146.8			
42"	130.2			
48"	118.0			
54"	108.8			
60"	101.7			
24"	120"		209.8	
30"			172.6	
36"			148.1	
42"		130.8		
48"		118.0		
54"		108.3		
60"		101.7		
24"		132"	210.0	
30"			174.3	
36"			149.1	
42"	131.2			
48"	118.0			
54"	108.3			
60"	101.7			
24"	144"		193.1	
30"			158.1	
36"			134.9	
42"		118.4		
48"		106.2		
24"		156"	196.7	
30"			160.7	
36"			136.8	
42"			119.9	

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
19-1/8"	26"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		210.0
19-1/8"	38-3/8"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		208.8
19-1/8"	50-5/8"	210.0
26-1/2"		210.0
37"		210.0
53-1/8"		193.1
19-1/8"	63"	210.0
26-1/2"		206.2
37"		165.1
53-1/8"		140.4
19-1/8"	74-1/4"	210.0
26-1/2"		210.0
37"		164.8
53-1/8"		134.1



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

**1/4" DIA. ULTRACON BY 'ELCO'** (Fu=177 KSI, Fy=155 KSI)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-1/2" 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)

**#12 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS)  
 INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = 1/8")  
 (NO SHIM SPACE)

**TYPICAL 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.

Engr: JAVAD AHMAD  
 CIVIL  
 FLA. PE # 70592  
 C.A.N. 353B  
 FEB 02 2012

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**afC**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 1235 S.W. 87 AVE  
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SERIES-238 DESIGNER FIXED WINDOW  
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no	date	by	description
B	05.16.08		NO CHANGE THIS SHEET
C	11.23.11		ANCHORS REV.

date: 12-27-01  
 scale: 1/2" = 1"  
 dr. by: HAMID  
 chk. by:  
 drawing no.  
**W01-83**  
 sheet 7 of 8

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS AT 17" O.C.	ANCHORS AT 10" O.C.
WIDTH	HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)
24"	36"	210.0	210.0
30"		198.9	210.0
36"		193.3	210.0
42"		145.0	193.3
48"		154.7	193.3
54"		128.9	193.3
60"		110.5	165.7
66"		120.8	169.2
72"		107.4	150.4
78"		96.7	154.7
84"	105.5	158.2	
90"	96.7	145.0	
24"	42"	174.0	210.0
30"		154.7	206.2
36"		145.0	193.3
42"		142.0	189.4
48"		142.0	184.1
54"		120.5	180.8
60"		102.0	153.0
66"		110.5	154.7
72"		97.5	136.5
78"		87.2	139.5
84"	94.7	142.0	
90"	86.5	129.7	
24"	48"	193.3	210.0
30"		168.7	210.0
36"		154.7	193.3
42"		142.0	184.1
48"		145.0	181.3
54"		116.0	174.0
60"		96.7	145.0
66"		103.6	145.0
72"		90.6	126.9
78"		80.6	128.9
84"	87.0	130.5	
90"	79.1	118.6	
24"	54"	165.7	210.0
30"		142.8	210.0
36"		128.9	193.3
42"		120.5	180.8
48"		116.0	174.0
54"		114.6	171.9
60"		93.7	140.6
66"		99.1	138.8
72"		85.9	120.3
78"		75.8	121.3
84"	81.4	122.1	
90"	73.7	110.5	

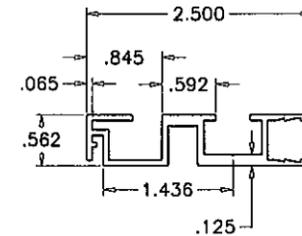
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS AT 17" O.C.	ANCHORS AT 10" O.C.
WIDTH	HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)
24"	60"	145.0	210.0
30"		123.7	185.6
36"		110.5	165.7
42"		102.0	153.0
48"		96.7	145.0
54"		93.7	140.6
60"		92.8	139.2
66"		92.8	135.3
72"		82.9	116.0
78"		72.5	116.0
84"	77.3	116.0	
90"	69.6	104.4	
24"	66"	161.1	210.0
30"		136.5	191.1
36"		120.8	169.2
42"		110.5	154.7
48"		103.6	145.0
54"		99.1	138.8
60"		92.8	135.3
66"		95.9	134.2
72"		81.1	113.6
78"		70.3	112.5
84"	74.4	111.7	
90"	66.6	99.9	
24"	72"	145.0	203.0
30"		122.1	170.9
36"		107.4	150.4
42"		97.5	136.5
48"		90.6	126.9
54"		85.9	120.3
60"		82.9	116.0
66"		81.1	113.6
72"		80.6	112.8
78"		69.0	110.5
84"	72.5	108.8	
90"	64.4	96.7	
24"	78"	131.8	210.0
30"		110.5	176.8
36"		96.7	154.7
42"		87.2	139.5
48"		80.6	128.9
54"		75.8	121.3
60"		72.5	116.0
66"		70.3	112.5
72"		69.0	110.5
78"		68.6	109.8
84"	68.6	107.1	

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS				
WINDOW DIMS.		ANCHORS AT 17" O.C.	ANCHORS AT 10" O.C.	
WIDTH	HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	
24"	84"	145.0	210.0	
30"		121.0	181.6	
36"		105.5	158.2	
42"		94.7	142.0	
48"		87.0	130.5	
54"		81.4	122.1	
60"		77.3	116.0	
66"		74.4	111.7	
72"		72.5	108.8	
78"		68.6	107.1	
24"	96"	124.3	207.1	
30"		103.1	171.9	
36"		89.2	148.7	
42"		79.5	132.6	
48"		72.5	120.8	
54"		67.2	112.1	
60"		63.3	105.5	
66"		60.3	100.4	
72"		58.0	96.7	
24"		108"	126.9	199.4
30"	104.8		164.6	
36"	90.2		141.8	
42"	80.0		125.7	
48"	72.5		113.9	
54"	66.8		105.0	
24"	120"		128.9	193.3
30"			106.1	159.1
36"			91.0	136.5
42"			80.3	120.5
48"		72.5	108.8	
54"		66.5	99.8	
24"		132"	130.5	188.5
30"			107.1	154.7
36"			91.6	132.3
42"			80.6	116.4
48"	72.5		104.7	
24"	144"		118.6	197.7
30"			97.1	161.9
36"			82.9	138.1
42"			72.8	121.3
48"			65.3	108.8
24"		156"	120.8	193.3
30"			98.7	158.0
36"			84.1	134.5
42"			73.7	117.8

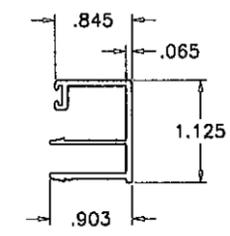
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS AT 17" O.C.	ANCHORS AT 10" O.C.
WIDTH	HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)
19-1/8"	26"	210.0	210.0
26-1/2"		210.0	210.0
37"		200.8	210.0
53-1/8"		160.1	210.0
19-1/8"	38-3/8"	210.0	210.0
26-1/2"		188.2	210.0
37"		170.4	210.0
53-1/8"		128.3	192.4
19-1/8"	50-5/8"	210.0	210.0
26-1/2"		168.7	210.0
37"		140.5	175.7
53-1/8"		118.6	162.9
19-1/8"	63"	163.4	210.0
26-1/2"		126.7	210.0
37"		101.5	177.5
53-1/8"		86.3	151.0
19-1/8"	74-1/4"	168.8	210.0
26-1/2"		129.2	206.7
37"		101.2	162.0
53-1/8"		82.4	131.9

### ALUMINUM BUCK FRAMING DETAILS

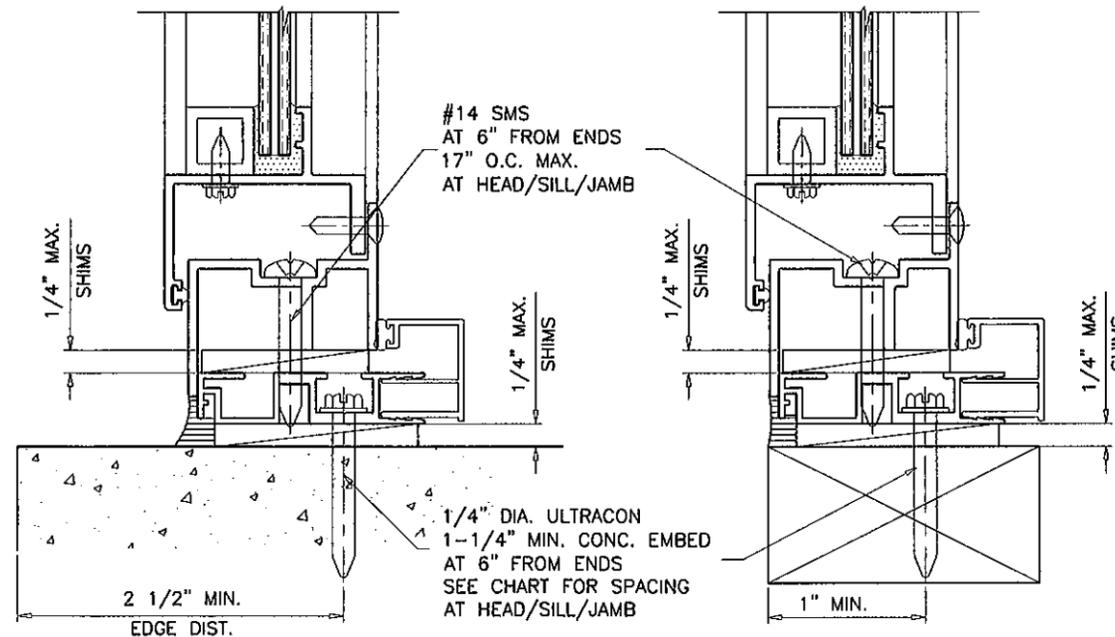
REFER TO SHEETS 3 THRU 6 FOR WINDOW CAPACITIES  
USE LOWER APPLICABLE VALUES.



ALUMINUM BUCK  
6063-T6



OPTIONAL COVER  
6063-T6



INSTALLATION TYPE '5'

INSTALLATION TYPE '6'

2x4 WOOD BUCK OR WOOD STRUCTURES

TYPICAL INSTALLATION DETAIL  
ON ALL FOUR SIDES/USING ALUMINUM BUCK SYSTEM

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538  
FEB 02 2012

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 12-024.07  
Expiration Date 10/20/2013  
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Miami Dade Product Control

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
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MIAMI, FLORIDA 33174  
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SERIES-238 DESIGNER FIXED WINDOW  
**CGI WINDOWS & DOORS**  
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revisions:	no	date	by	description
	B	05.16.08		ALUM BUCK ADDED
	C	11.23.11		ANCHORS REV.

date: 12-27-01  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**W01-83**  
sheet 8 of 8