



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/economy

CGI Windows and Doors, Inc.
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 RER - 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. RER 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 Designer Fixed Window", sheets 1 through 8 of 8, dated 12/27/01, with revision F dated 04/10/15, 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# 14-0903.07 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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



Handwritten signature and date: 8/31/15

NOA No. 15-0512.15
Expiration Date: October 20, 2018
Approval Date: September 10, 2015
Page 1

CGI Windows and Doors, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 96-0603.07)
2. Drawing No. **W01-83**, titled "Series-238 Designer Fixed Window", sheets 1 through 8 of 8, dated 12/27/01, with revision F dated 04/10/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 7500 PVC fixed window, to qualify DuPont "Butacite" PVB interlayer, Duraseal® and Super Spacer® insulating glass spacer, prepared by Certified Test Laboratories, Test Report No. **CTLA-3056 WA**, dated 03/03/15, signed and sealed by Ramesh C. Patel, P.E.
2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 7400 PVC project out window, to qualify DuPont "Butacite" PVB interlayer, Duraseal® and Super Spacer® insulating glass spacer, prepared by Certified Test Laboratories, Test Report No. **CTLA-3056 WB**, dated 03/03/15, signed and sealed by Ramesh C. Patel, P.E.
3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 238 aluminum fixed window, to qualify DuPont "Butacite" PVB interlayer, Duraseal® and Super Spacer® insulating glass spacer, prepared by Certified Test Laboratories, Test Report No. **CTLA-3056 WC**, dated 04/16/15, signed and sealed by Ramesh C. Patel, P.E.
4. 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) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
5) Large Missile Impact Test per FBC, TAS 201-94
6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
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 NOA No. 09-0303.01)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 15-0512.15

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B. TESTS (CONTINUED)

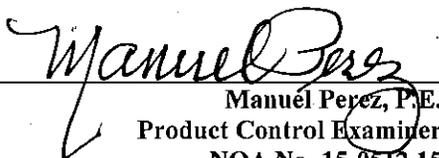
5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum fixed window, prepared by Hurricane Test Laboratory, Inc., Test Reports No. **HTL-0080-0303-96** and **HTL-0080-0502-97**, dated 03/05/96 and 05/02/97, both signed and sealed by Timothy S. Marshall, P.E.
(Submitted under NOA No 96-0603.07)
6. Test reports on: 1) Large Missile Impact Test per SFBC, PA 201-94,
2) Cyclic Wind Pressure Loading per FBC, TAS 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 NOA No. 96-0603.07)
7. Test reports on: 1) Large Missile Impact Test, per SFBC, PA 202-94
2) Cyclic Wind Pressure Loading, per SFBC, PA 202-94
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 Kurí, P.E.
(Submitted under NOA No. 96-0603.07)

B. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-5th Edition (2014)**, dated 07/16/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under previous NOA No. 14-0903.07)
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).


Manuel Perez, P.E.
Product Control Examiner
NOA No. 15-0512.15
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E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **14-0423.17** issued to **Eastman Chemical Company (MA)** for their “**Saflex Clear and Color Glass Interlayers**” dated 06/19/14, expiring on 05/21/16.
2. Notice of Acceptance No. **14-0916.10** issued to **Kuraray America, Inc.** for their “**Butacite® PVB Glass Interlayer**” dated 04/25/15, expiring on 12/11/16.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC-5th Edition (2014)**, and of no financial interest, dated August 6, 2014, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under previous NOA No. 14-0903.07)
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 NOA No. 09-0303.01)
3. Laboratory compliance letters for Test Reports No. **HTL-0080-0303-96** and **HTL-0080-0502-97**, issued by Hurricane Test Laboratory, Inc., dated 03/05/96 and 05/02/97, both signed and sealed by Timothy S. Marshall, P.E.
(Submitted under 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 NOA No. 96-0603.07)
5. Test Proposal for the qualification of **Butacite® PVB** glass interlayer by DuPont as well as **Duraseal®** and **Super Spacer® Standard** warm-edge flexible insulating glass spacers, dated December 16, 2014, issued by RER, Product Control Section, signed by Jaime Gascon, P.E., Supervisor, Product Control Section.

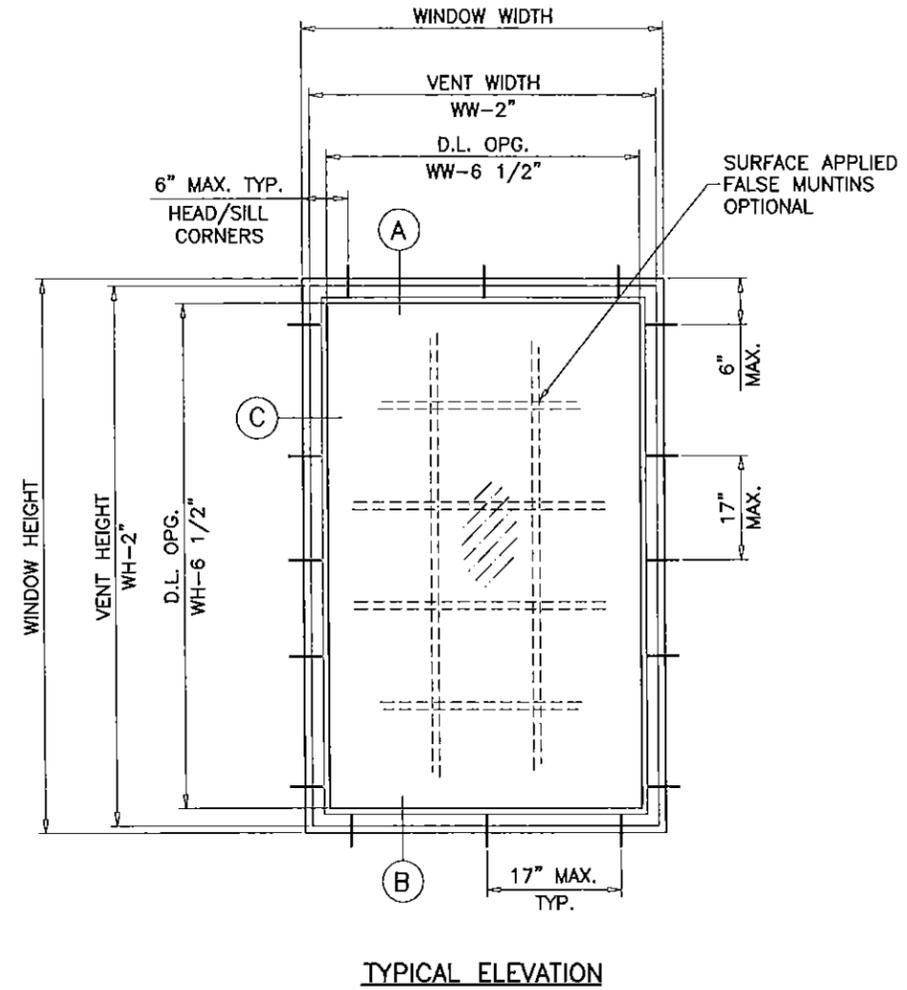
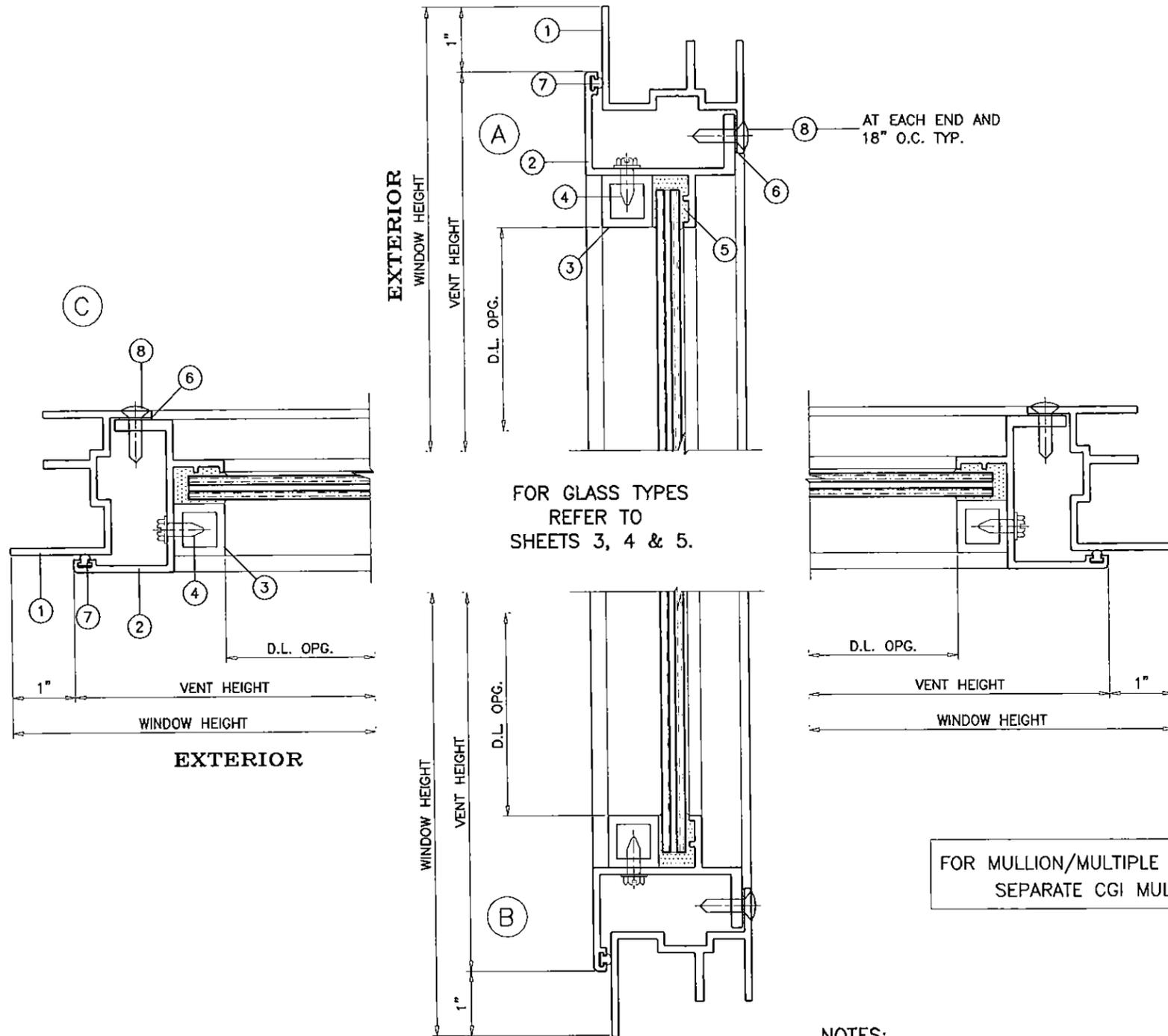
G. OTHERS

1. Notice of Acceptance No. **14-0903.07**, issued to CGI Windows & Doors for their “**Series-238 Designer**” Aluminum Fixed Window - L.M.I.”, approved on 12/24/14 and expiring on 10/20/18.


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 15-0512.15

Expiration Date: October 20, 2018
Approval Date: September 10, 2015

GENERAL WINDOW SECTIONS



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.

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

Engr: JAVAD AHMAD
 CIVIL
 FLA. RE # 70592
 C.A.N. 3538
 MAY 04 2015

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 15-0512.15
 Expiration Date Oct 20 2018
 By: *Manuel Perez*
 Miami Dade Product Control

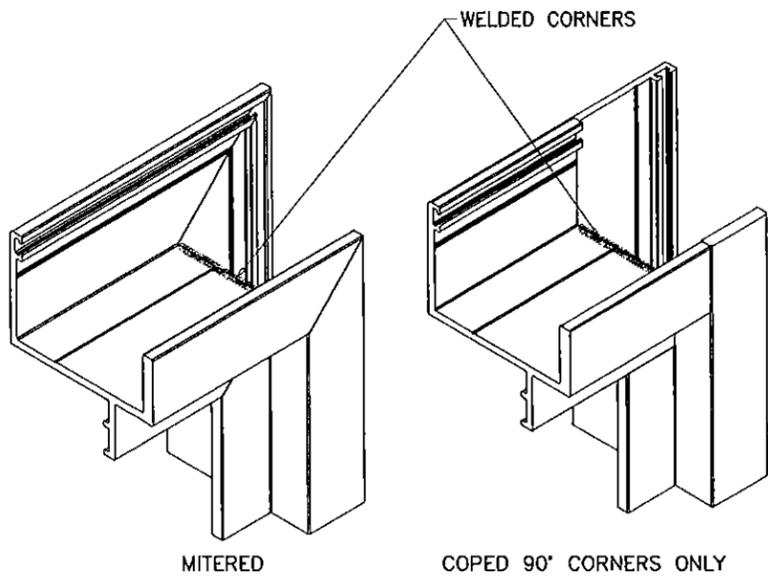
afc
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\W01-83CG

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
C	11.23.11		UPDATED TO 2010 FBC
D	07.31.13		NO CHANGE THIS SHEET
E	08.13.14		UPDATED TO 2014 FBC
F	04.10.15		NO CHANGE THIS SHEET

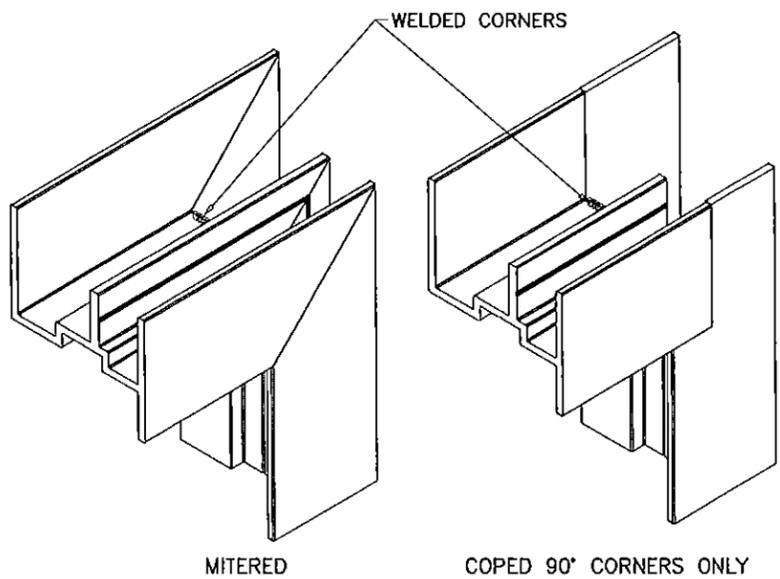
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 scale: 1/2" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
W01-83
 sheet 1 of 8

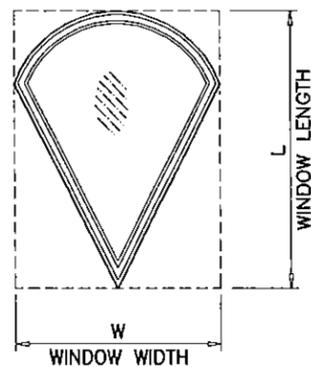


VENT CORNER

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

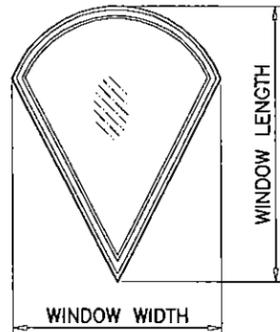


FRAME CORNER

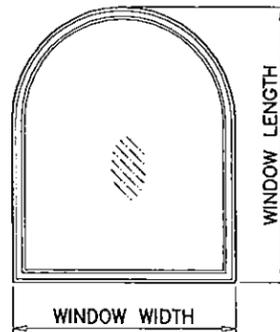


VERIFY LOAD CAPACITY OF WINDOW BY INSCRIBING SHAPE OF WINDOW WITHIN A RECTANGULAR OR SQUARE SHAPE AND USING THOSE DIMENSIONS TO CONSULT CHARTS ON SHEETS 3, 4 & 5 FOR GLASS AND SHEET 7 FOR ANCHORS AS ON SAMPLE ABOVE.

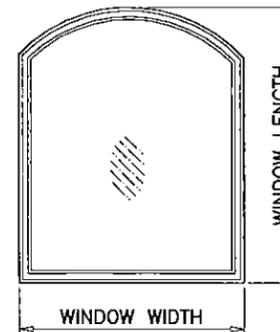
ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	CGI-386	4	FRAME	6063-T6	INDALEX OR EQUIV.
2	CGI-387	4	VENT	6063-T6	INDALEX OR EQUIV.
2A	CGI-387IG	4	VENT (INSUL GLASS)	6063-T6	INDALEX OR EQUIV.
3	CGI-	4	GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
4	-	AS REQD.	GLAZING BEAD SCREWS @ 6" FROM 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
10	-	2/ LITE	SETTING BLOCK	EPDM	DUROMETER 80±5 SHORE A



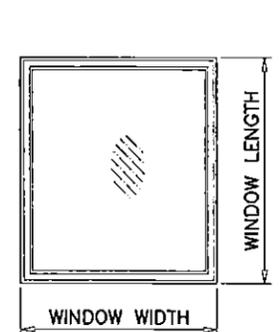
PARTIAL CIRCLE



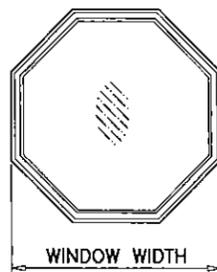
TUMBSTONE



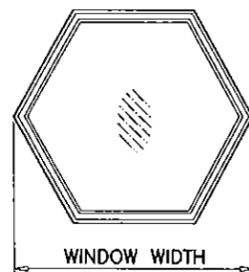
ARCH TOP



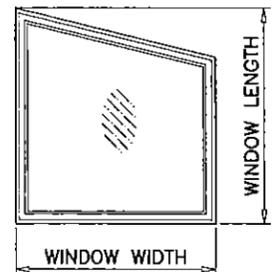
SQUARE OR RECTANGLE



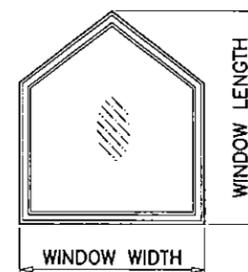
OCTAGON



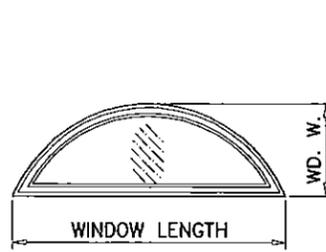
HEXAGON



TRAPEZOID



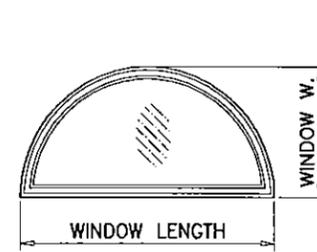
PENTAGON



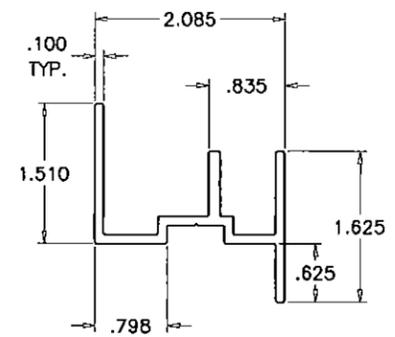
ELLIPSE



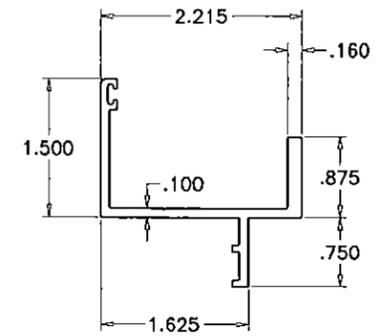
FULL CIRCLE



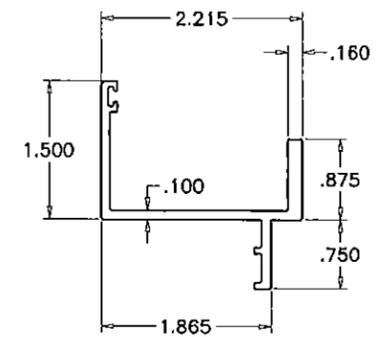
HALF CIRCLE



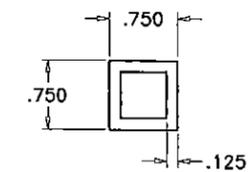
FRAME



VENT



VENT (INSUL GLASS)



GLAZING STOP

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
C	11.23.11		NO CHANGE THIS SHEET
D	07.31.13		NO CHANGE THIS SHEET
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date:	12-27-01
scale:	1/2" = 1"
dr. by:	HAMID
chk. by:	

Engr: JAVAD AHMAD
 CML
 FLA. PE # 70592
 C.A.N. 3538
 MAY 14 2015

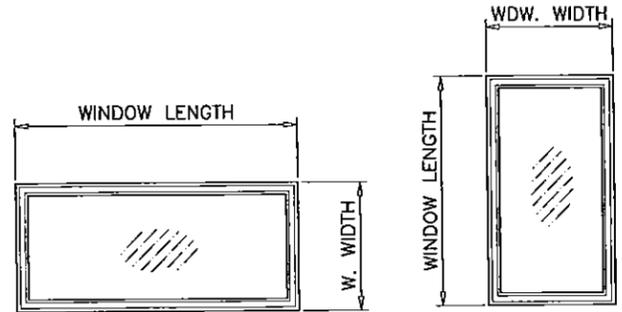
PRODUCT REVISED
 as complying with the Florida
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 By *Manuel Perez*
 Miami/Dade Product Control

drawing no.
W01-83
 sheet 2 of 8

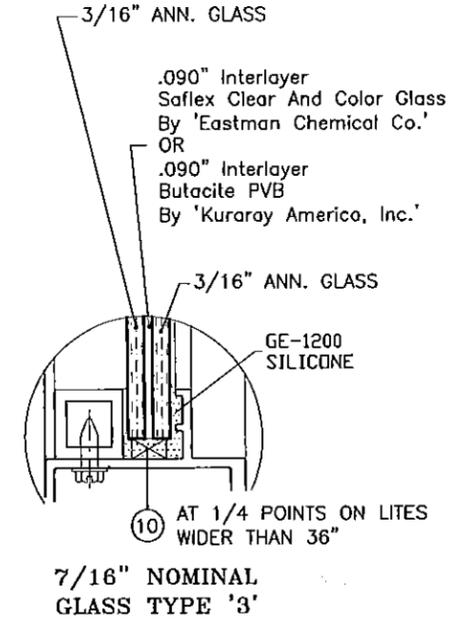
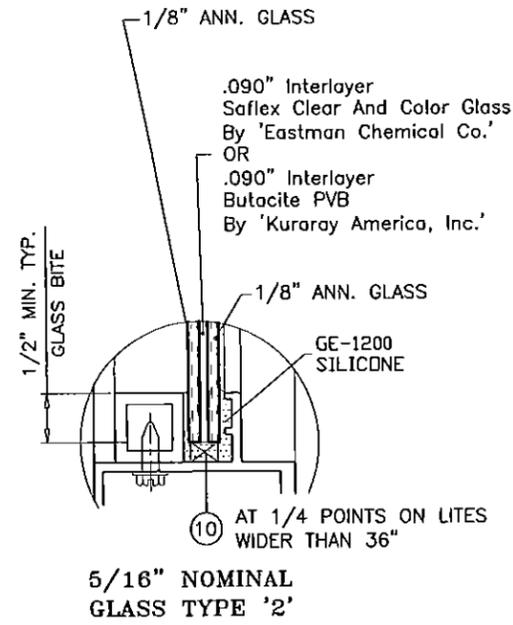
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	36"	110.0	180.0	110.0	180.0
30"		110.0	144.0	110.0	144.0
36"		110.0	120.0	110.0	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
54"		51.2	51.2	90.0	90.0
24"	72"	105.4	105.4	110.0	120.0
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
42"		41.6	41.6	90.0	90.0
24"	96"	87.5	87.5	110.0	120.0
30"		56.3	56.3	90.0	90.0
36"		41.6	41.6	90.0	90.0
42"		35.5	35.5	90.0	90.0
24"	108"	69.6	69.6	90.0	90.0
30"		53.5	53.5	90.0	90.0
24"	120"	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"		81.9	81.9	110.0	112.6
19-1/8"	50-5/8"	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"		66.6	66.6	85.3	85.3
19-1/8"	63"	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"		56.6	56.6	81.3	81.3
19-1/8"	74-1/4"	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 E1300-09 (3 SEC. GUSTS)

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
MAY 04 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0512.15
Expiration Date Oct. 20, 2018
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
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
C	11.23.11	NO CHANGE THIS SHEET
D	07.31.13	REV. PER PER COMMENTS
E	08.13.14	UPDATED TO 2014 FBC
F	04.10.15	INTERLAYER REV.

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

drawing no.
W01-83
sheet 3 of 8

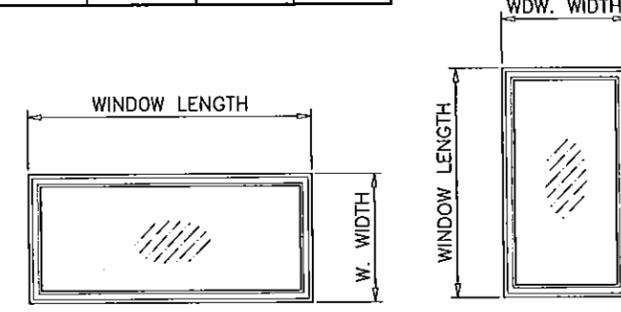
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS			
WINDOW DIMS.		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
24"	36"	110.0	195.8
30"		110.0	156.6
36"		110.0	130.5
42"		110.0	120.0
48"		110.0	120.0
54"		110.0	120.0
60"	110.0	120.0	
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
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"		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	

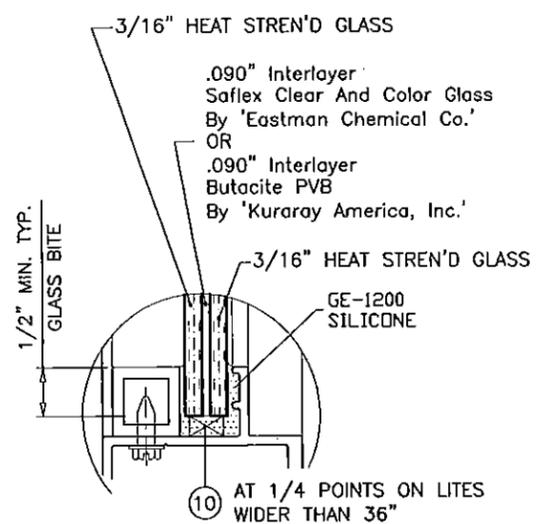
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS NO SHUTTERS REQUIRED REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS			
WINDOW DIMS.		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)
24"	84"	110.0	120.0
30"		90.0	90.0
36"		90.0	90.0
42"		70.0	70.0
45"		70.0	70.0
48"		70.0	70.0
51"		70.0	70.0
54"		70.0	70.0
57"		70.0	70.0
60"		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"	96"	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"		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"	90.0	90.0	
72"	90.0	90.0	
75"	70.0	70.0	
78"	70.0	70.0	
81"	70.0	70.0	
84"	70.0	70.0	
87"	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	
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 '6'		
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	
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 '6'	
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.



7/16" NOMINAL
GLASS TYPE '6'

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
MAY 04 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0512.15
Expiration Date Oct 20, 2018
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
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

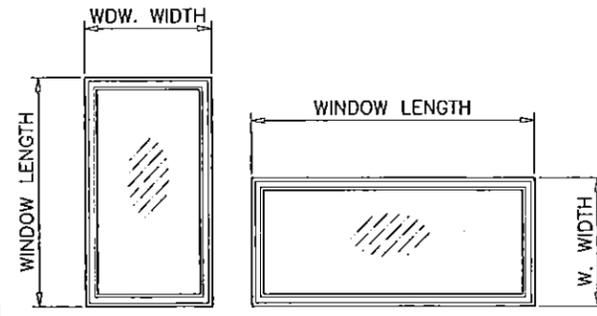
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C	11.23.11		NO CHANGE THIS SHEET
D	07.31.13		REV. PER PER COMMENTS
E	08.13.14		UPDATED TO 2014 FBC
F	04.10.15		INTERLAYER REV.

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

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

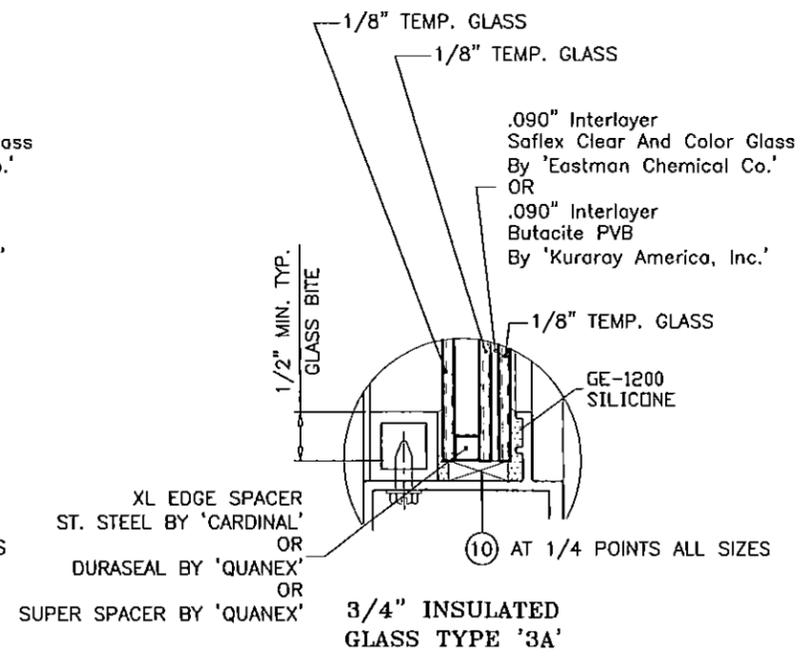
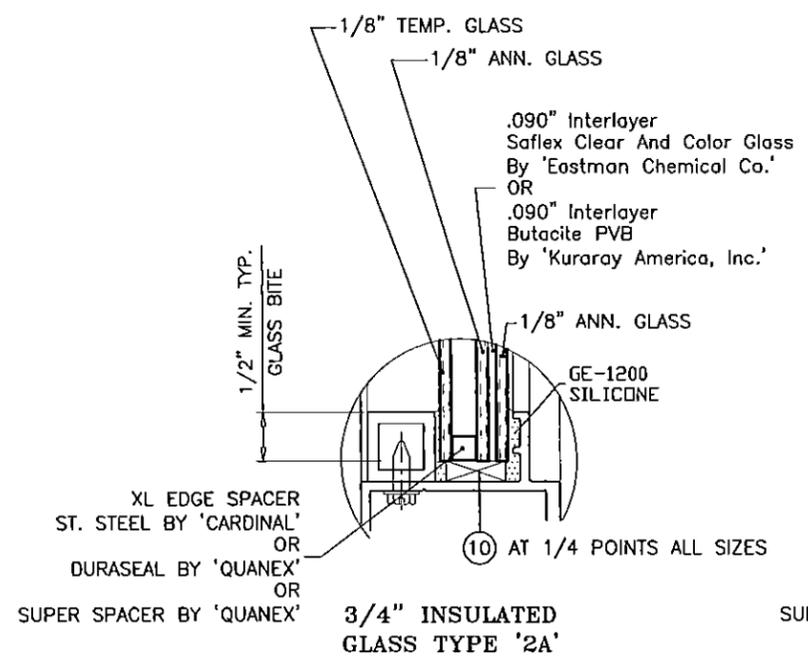
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS					
NO SHUTTERS REQUIRED					
REFER TO SHEETS 6 AND 7 FOR INSTALLATION DETAILS					
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
24"	36"	110.0	180.0	110.0	195.8
30"		110.0	144.0	110.0	156.6
36"		110.0	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
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
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"		62.5	62.5	90.0	90.0



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

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:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS)

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
MAY 04 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0512.15
Expiration Date OCT. 20, 2018
By *Manuel Perez*
Miami Dade Product Control

af c
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SERIES-238 DESIGNER FIXED WINDOW
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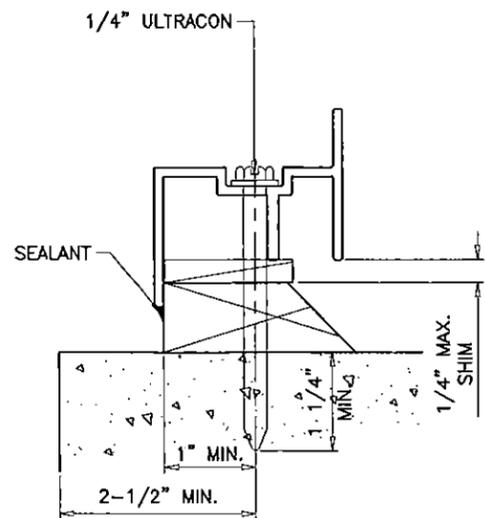
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C	11.23.11	UPDATED TO 2010 FBC	
D	07.31.13	REV. PER RER COMMENTS	
E	08.13.14	UPDATED TO 2014 FBC	
F	04.10.15	INTERLAYER & SPACER REV.	

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

drawing no.
W01-83
sheet 5 of 8

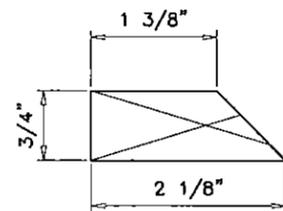
INSTALLATION CONDITIONS (APPLIES TO ALL FOUR SIDES)

FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



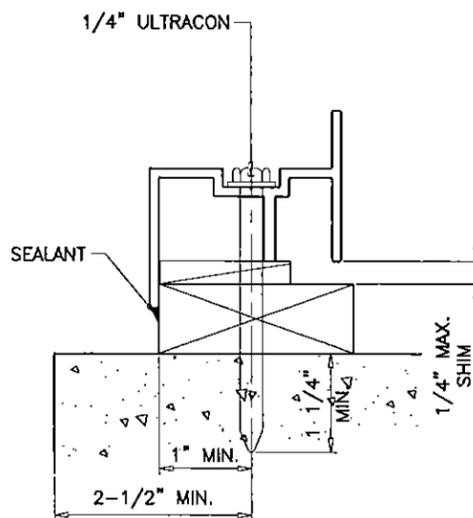
INSTALLATION TYPE '1'

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



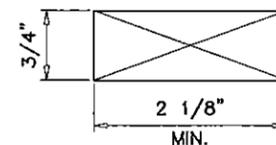
WOOD BUCK TYPE '1'

MATERIAL: PRESSURE TREATED



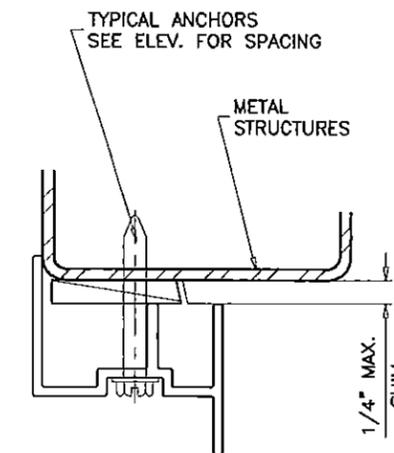
INSTALLATION TYPE '2'

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD

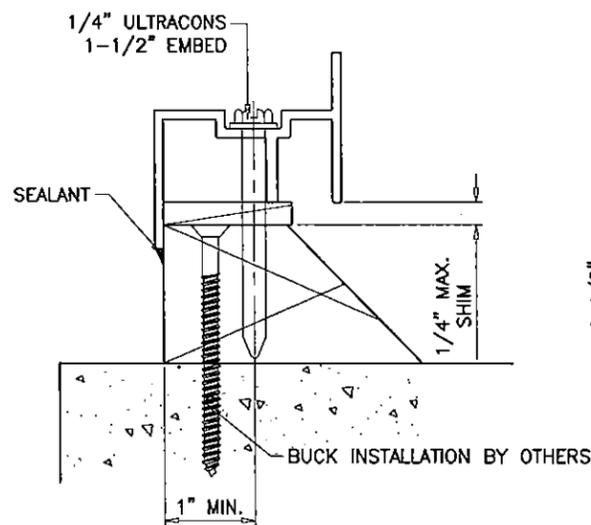


WOOD BUCK TYPE '2'

MATERIAL: PRESSURE TREATED

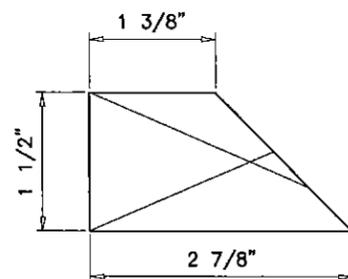


ATTACHMENT TO
METAL STRUCTURES



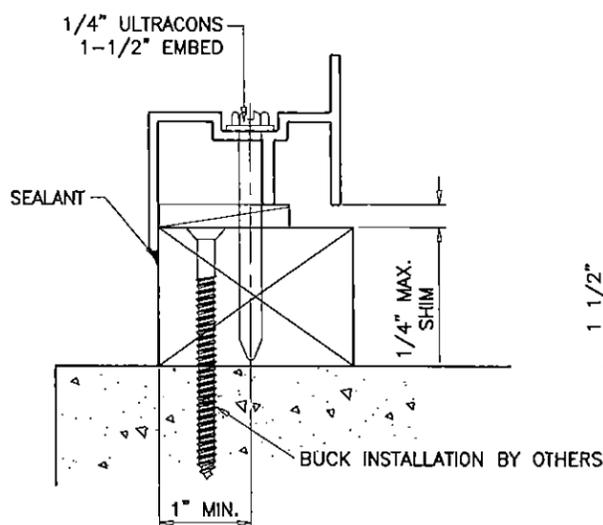
INSTALLATION TYPE '3'

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



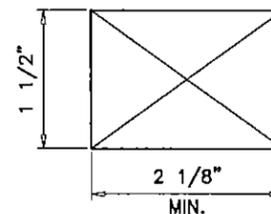
WOOD BUCK TYPE '3'

MATERIAL: PRESSURE TREATED



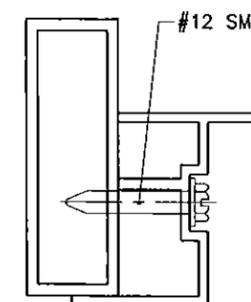
INSTALLATION TYPE '4'

TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



WOOD BUCK TYPE '4'

MATERIAL: PRESSURE TREATED



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
CML
FLA. PE # 70592
C.A.N. 3538

MAY 14 2015

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 15-0512.15
Expiration Date 03.20.2018

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

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
C	11.23.11	ANCHORS REV	NO CHANGE THIS SHEET
D	07.31.13	NO CHANGE THIS SHEET	NO CHANGE THIS SHEET
E	08.13.14	NO CHANGE THIS SHEET	NO CHANGE THIS SHEET
F	04.10.15	NO CHANGE THIS SHEET	NO CHANGE THIS SHEET

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

drawing no.
W01-83

sheet 6 of 8

COMP-ANL\W01-83CG

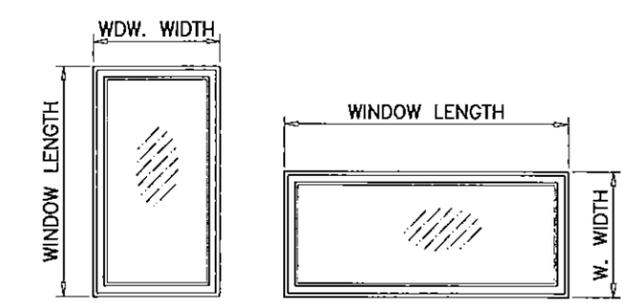
PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	36"	210.0
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		210.0
60"		190.5
63"		177.8
66"		208.3
69"		196.1
72"		185.2
75"		175.4
78"		166.7
81"		190.5
84"		181.8
87"		173.9
90"		166.7
24"		42"
30"	210.0	
36"	210.0	
42"	210.0	
48"	210.0	
54"	207.8	
60"	175.8	
63"	163.3	
66"	190.5	
69"	178.6	
72"	168.1	
75"	158.7	
78"	150.4	
81"	171.4	
84"	163.3	
87"	155.8	
90"	149.1	
24"	48"	
30"		210.0
36"		210.0
42"		210.0
48"		210.0
54"		200.0
60"		166.7
63"		153.8
66"		178.6
69"		166.7
72"		156.3
75"		147.1
78"		138.9
81"		157.9
84"		150.0
87"		142.9
90"		136.4

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	54"	210.0
30"		210.0
36"		210.0
42"		207.8
48"		200.0
54"		197.5
60"		161.6
63"		148.1
66"		170.9
69"		158.7
72"		148.1
75"		138.9
78"		130.7
81"		148.1
84"		140.4
87"		133.3
90"		127.0
24"		60"
30"	210.0	
36"	190.5	
42"	175.8	
48"	166.7	
54"	161.6	
60"	160.0	
63"	145.5	
66"	160.0	
69"	153.8	
72"	142.9	
75"	133.3	
78"	125.0	
81"	141.2	
84"	133.3	
87"	126.3	
90"	120.0	
24"	66"	
30"		210.0
36"		208.3
42"		190.5
48"		178.6
54"		170.9
60"		160.0
63"		145.1
66"		165.3
69"		151.5
72"		139.9
75"		129.9
78"		121.2
81"		136.4
84"		128.3
87"		121.2
90"		114.8

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS			
WINDOW DIMS.		EXT. (+) INT. (-)	
WIDTH	HEIGHT		
24"	72"	210.0	
30"		210.0	
36"		185.2	
42"		168.1	
48"		156.3	
54"		148.1	
60"		142.9	
63"		141.1	
66"		139.9	
69"		139.1	
72"		138.9	
75"		128.2	
78"		119.0	
81"		133.3	
84"		125.0	
87"		117.6	
90"		111.1	
24"		78"	210.0
30"	190.5		
36"	166.7		
42"	150.4		
48"	138.9		
54"	130.7		
60"	125.0		
63"	122.9		
66"	121.2		
69"	119.9		
72"	119.0		
75"	118.5		
78"	118.3		
81"	118.3		
84"	118.3		
87"	115.4		
24"	84"		210.0
30"			208.7
36"		181.8	
42"		163.3	
48"		150.0	
54"		140.4	
60"		133.3	
63"		130.6	
66"		128.3	
69"		126.5	
72"		125.0	
75"		123.9	
78"		118.3	
81"		122.6	
84"		121.0	
87"		117.8	
90"		114.8	
24"		96"	210.0
30"	177.8		
36"	153.8		
42"	137.1		
48"	125.0		
54"	115.9		
60"	109.1		
63"	106.3		
66"	103.9		
69"	101.8		
72"	100.0		

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 6 FOR DETAILS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH	HEIGHT	
24"	108"	210.0
30"		180.6
36"		155.6
42"		137.9
48"		125.0
54"		115.2
60"	107.7	
63"	104.6	
24"	120"	210.0
30"		182.9
36"		156.9
42"		138.5
48"		125.0
54"		114.7
24"	132"	210.0
30"		184.6
36"		157.9
42"		139.0
48"		125.0
54"		114.7
24"	144"	210.0
30"		167.4
36"		142.9
42"		125.4
48"		112.5
54"		114.7
24"	156"	208.3
30"		170.2
36"		144.9
42"		127.0
48"		112.5
54"		114.7

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"	38-3/8"	210.0
19-1/8"		210.0
26-1/2"		210.0
37"	50-5/8"	210.0
53-1/8"		210.0
19-1/8"		210.0
26-1/2"	63"	210.0
37"		210.0
53-1/8"		204.5
19-1/8"	74-1/4"	210.0
26-1/2"		210.0
37"		174.9
53-1/8"	74-1/4"	148.8
19-1/8"		210.0
26-1/2"		210.0
37"		174.5
53-1/8"	74-1/4"	142.1
19-1/8"		210.0
26-1/2"		210.0
37"		174.5



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.
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
 MAY 04 2015

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 15-0512.15
 Expiration Date 02.20.2018
 By: *Manuel Perez*
 Miami Dade Product Control

af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
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 COMP-ANL\W01-83CG

SERIES-238 DESIGNER FIXED WINDOW
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no	date	by	description
C	11.23.11	ANCHORS REV.	
D	07.31.13	NO CHANGE THIS SHEET	
E	08.13.14	UPDATED TO 2014 FBC	
F	10.10.15	NO CHANGE THIS SHEET	

revisions:

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	
WIDTH	HEIGHT	AT 17" O.C.	AT 10" O.C.
24"	36"	207.8	210.0
30"		189.9	210.0
36"		184.7	210.0
42"		138.5	184.7
48"		147.7	184.7
54"		123.1	184.7
60"		105.5	158.3
63"		98.5	172.4
66"		115.4	161.6
69"		108.6	152.1
72"		102.6	143.6
75"		97.2	155.5
78"		92.3	147.7
81"		105.5	140.7
84"		100.7	151.1
87"	96.3	144.5	
90"	92.3	138.5	
24"	42"	166.2	210.0
30"		147.7	197.0
36"		138.5	184.7
42"		135.7	180.9
48"		135.7	175.9
54"		115.1	172.7
60"		97.4	146.1
63"		90.4	158.3
66"		105.5	147.7
69"		98.9	138.5
72"		93.1	130.4
75"		87.9	140.7
78"		83.3	133.3
81"		95.0	126.6
84"		90.4	135.7
87"	86.3	129.5	
90"	82.6	123.9	
24"	48"	184.7	210.0
30"		161.2	201.5
36"		147.7	184.7
42"		135.7	175.9
48"		138.5	173.1
54"		110.8	166.2
60"		92.3	138.5
63"		85.2	149.2
66"		98.9	138.5
69"		92.3	129.3
72"		86.6	121.2
75"		81.5	130.4
78"		76.9	123.1
81"		87.5	116.6
84"		83.1	124.7
87"	79.1	118.7	
90"	75.5	113.3	

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS	
WIDTH	HEIGHT	AT 17" O.C.	AT 10" O.C.
24"	54"	158.3	210.0
30"		136.4	204.6
36"		123.1	184.7
42"		115.1	172.7
48"		110.8	166.2
54"		109.4	164.1
60"		89.5	134.3
63"		82.1	143.6
66"		94.7	132.6
69"		87.9	123.1
72"		82.1	114.9
75"		76.9	123.1
78"		72.4	115.9
81"		82.1	109.4
84"		77.8	116.6
87"	73.9	110.8	
90"	70.3	105.5	
24"	60"	138.5	207.8
30"		118.2	177.3
36"		105.5	158.3
42"		97.4	146.1
48"		92.3	138.5
54"		89.5	134.3
60"		88.6	133.0
63"		80.6	133.0
66"		88.6	129.3
69"		85.2	119.3
72"		79.1	110.8
75"		73.9	118.2
78"		69.3	110.8
81"		78.2	104.3
84"		73.9	110.8
87"	70.0	105.0	
90"	66.5	99.7	
24"	66"	153.9	210.0
30"		130.4	182.5
36"		115.4	161.6
42"		105.5	147.7
48"		98.9	138.5
54"		94.7	132.6
60"		88.6	129.3
63"		80.4	128.5
66"		91.6	128.2
69"		83.9	117.5
72"		77.5	108.5
75"		71.9	115.1
78"		67.2	107.4
81"		75.5	100.7
84"		71.1	106.7
87"	67.2	100.7	
90"	63.6	95.4	

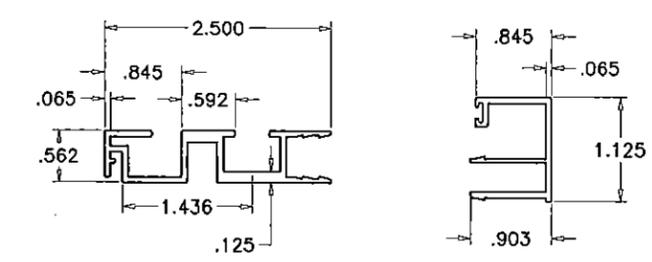
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS	
WIDTH	HEIGHT	AT 17" O.C.	AT 10" O.C.
24"	72"	138.5	193.9
30"		116.6	163.3
36"		102.6	143.6
42"		93.1	130.4
48"		86.6	121.2
54"		82.1	114.9
60"		79.1	110.8
63"		78.2	109.4
66"		77.5	108.5
69"		77.1	107.9
72"		76.9	107.7
75"		71.0	107.7
78"		66.0	105.5
81"		73.9	98.5
84"		69.3	103.9
87"	65.2	97.8	
90"	61.6	92.3	
24"	78"	125.9	201.5
30"		105.5	168.8
36"		92.3	147.7
42"		83.3	133.3
48"		76.9	123.1
54"		72.4	115.9
60"		69.3	110.8
63"		68.1	108.9
66"		67.2	107.4
69"		66.4	106.3
72"		66.0	105.5
75"		65.7	105.1
78"		65.6	104.9
81"		65.6	97.4
84"		65.6	102.3
87"	63.9	95.9	
24"	84"	138.5	207.8
30"		115.6	173.4
36"		100.7	151.1
42"		90.4	135.7
48"		83.1	124.7
54"		77.8	116.6
60"		73.9	110.8
63"		72.4	108.5
66"		71.1	106.7
69"		70.1	105.1
72"		69.3	103.9
75"		68.6	102.9
78"		65.6	102.3
81"		67.9	97.3
24"		96"	118.7
30"	98.5		164.1
36"	85.2		142.1
42"	76.0		126.6
48"	69.3		115.4
54"	64.2		107.1
60"	60.4		100.7
63"	58.9		98.2
66"	57.6		95.9
69"	56.4		94.0
72"	55.4		92.3

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS	
WIDTH	HEIGHT	AT 17" O.C.	AT 10" O.C.
24"	108"	121.2	190.4
30"		100.1	157.3
36"		86.2	135.4
42"		76.4	120.1
48"		69.3	108.8
54"		63.8	100.3
60"		59.7	93.8
63"		57.9	91.0
24"		120"	123.1
30"	101.3		152.0
36"	86.9		130.4
42"	76.7		115.1
48"	69.3		103.9
24"	132"	124.7	180.1
30"		102.3	147.7
36"		87.5	126.4
42"		77.0	111.2
24"	144"	113.3	188.9
30"		92.8	154.6
36"		79.1	131.9
42"		69.5	115.8
24"	156"	115.4	184.7
30"		94.3	150.9
36"		80.3	128.5
42"		70.3	112.6

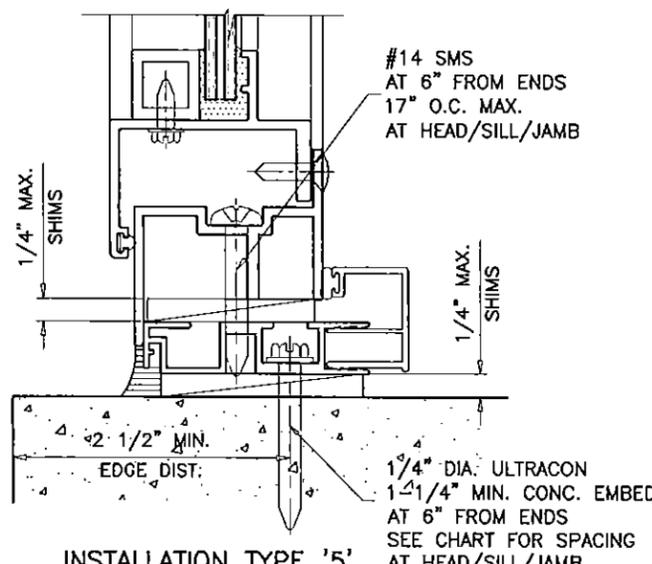
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		ANCHORS	
WIDTH	HEIGHT	AT 17" O.C.	AT 10" O.C.
19-1/8"	26"	210.0	210.0
26-1/2"		210.0	210.0
37"		191.8	210.0
53-1/8"	38-3/8"	152.9	210.0
19-1/8"		210.0	210.0
26-1/2"		179.7	210.0
37"	50-5/8"	162.7	210.0
53-1/8"		122.5	183.8
19-1/8"		203.2	210.0
26-1/2"	63"	161.1	201.4
37"		134.2	167.8
53-1/8"		113.3	155.6
19-1/8"	74-1/4"	156.1	210.0
26-1/2"		121.0	210.0
37"		96.9	169.6
53-1/8"	74-1/4"	161.2	210.0
26-1/2"		123.4	197.4
37"		96.7	154.7
53-1/8"		78.7	126.0

ALUMINUM BUCK FRAMING DETAILS

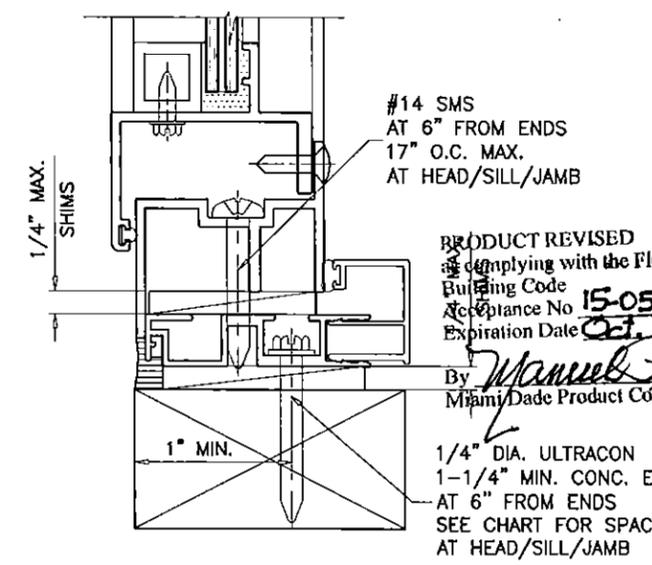
REFER TO SHEETS 3 THRU 6 FOR WINDOW CAPACITIES
USE LOWER APPLICABLE VALUES.



ALUMINUM BUCK 6063-T6
OPTIONAL COVER 6063-T6



INSTALLATION TYPE '5'



INSTALLATION TYPE '6'
2BY WOOD BUCK OR WOOD STRUCTURES

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

MAY 04 2015

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
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SERIES-238 DESIGNER FIXED WINDOW
CGI WINDOWS & DOORS
10100 N.W. 25TH STREET
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TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description	by
C	11.23.11	ANCHORS REV.	
D	07.31.13	NO CHANGE THIS SHEET	
E	08.13.14	UPDATED TO 2014 FBC	
F	04.10.15	NO CHANGE THIS SHEET	

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

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

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