



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 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 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" Outswing Aluminum Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. **W98-100**, titled "Series-238 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1, 1.1, 2, 3, 4, 5, 5.1, 6 and 7 of 7, dated 12/04/98, with revision **K** dated 08/30/17, 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 and renews NOA No. 15-0512.19** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

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



MP
11/21/17

NOA No. 17-0918.11

Expiration Date: October 26, 2023

Approval Date: November 30, 2017

Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

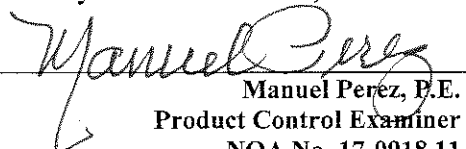
1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W98-100**, titled "Series-238 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1, 1.1, 2, 3, 4, 5, 5.1, 6 and 7 of 7, dated 12/04/98, with revision **J** dated 04/10/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

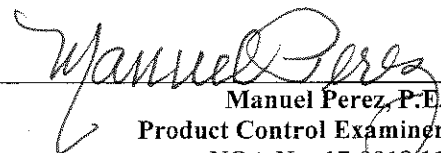
1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 7500 PVC fixed window, to qualify DuPont "Butacite" 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) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
along with marked-up drawings and installation diagram of a series 318 outswing aluminum casement window, prepared by Certified Testing Laboratories, Test Report No. **CTL-3009WB**, dated 03/24/14, signed and sealed by Ramesh C. Patel, P.E.
(Submitted under NOA # 14-0506.01)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 17-0918.11
Expiration Date: October 26, 2023
Approval Date: November 30, 2017

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
along with marked-up drawings and installation diagram of an aluminum casement window, prepared by American Test Lab of South Florida, Inc., Test Report No. **ATLSF-1109.01-12**, dated 11/20/12, signed and sealed by Henry Hattem, P.E.
(Submitted under NOA # 12-1220.14)
6. 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
along with marked-up drawings and installation diagram of an aluminum casement window, prepared by Hurricane Testing Lab., Inc., Test Reports No. **HTL-0080-0301-07** for specimen **A** and **B**, and **HTL-0080-0905-07** for specimen **B** and **C**, dated 09/21/07 and 10/12/06, both signed and sealed by Vinu J. Abraham, P.E.
(Submitted under NOA # 08-1010.02)
7. 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 outswing casement window, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-08-2143**, **HETI-08-2144**, **HETI-08-4287** and **HETI-07-4298**, dated 06/27/08 and 07/17/08, all signed and sealed by Candido F. Font, P.E.
(Submitted under NOA # 08-1010.02)
8. 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 casement window, prepared by Hurricane Test Laboratory, Inc., Test Reports No. **HTL-0080-0303-96** and **HTL-0080-1107-98**, dated 03/06/96 and 11/10/98, both signed and sealed by Timothy S. Marshall, P.E.
(Submitted under NOA's # 96-0417.03 and # 01-1002.03)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 17-0918.11

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B. TESTS (CONTINUED)

9. 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
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
along with marked-up drawings and installation diagram of an aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-1003** and **FTL-1041**, dated 10/14/94, both signed and sealed by Yamil Kuri, P.E.
(Submitted under NOA # 96-0417.03)

C. CALCULATIONS

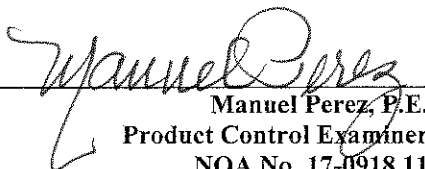
1. Anchor verification calculations and structural analysis, complying with **FBC-2010**, dated 4/24/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under NOA # 14-0506.01)
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 06/25/15, expiring on 07/04/18.
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.
3. Notice of Acceptance No. **14-0423.15** issued to **Eastman Chemical Company (MA)** for their "**Saflex CP - Saflex and Saflex HP Composite Glass Interlayers with PET Core**" dated 06/19/14, expiring on 12/11/18.
4. 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.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 17-0918.11
Expiration Date: October 26, 2023
Approval Date: November 30, 2017


NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC- 5th Edition (2014)**, dated April 11, 2014, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under previous NOA # 14-0506.01)
2. Proposal No. **13-1098** issued by the Product Control Section, dated October 02, 2013 and revised on February 24, 2014, signed by Manuel Perez, P.E.
(Submitted under previous NOA # 14-0506.01)
3. Laboratory compliance letters for Test Reports No. **HTL-0080-0301-07** for specimen A and B and **HTL-0080-0905-07** for specimen B and C, issued by Hurricane Test Laboratory, Inc., dated 09/21/07 and 10/12/06, both signed and sealed by Vinu J. Abraham, P.E.
(Submitted under NOA # 08-1010.02)
4. Laboratory compliances letters for Test Reports No. **HETI-08-2143**, **HETI-08-2144**, **HETI-08-4287** and **HETI-07-4298**, issued by Hurricane Engineering & Testing, Inc., dated 06/27/08 and 07/17/08, all signed and sealed by Candido F. Font, P.E.
(Submitted under NOA # 08-1010.02)
5. Laboratory compliance letters for Test Reports No. **HTL-0080-0303-96** and **HTL-0080-1107-98**, issued by Hurricane Test Laboratory, Inc., dated 03/06/96 and 11/10/98, both signed and sealed by Timothy S. Marshall, P.E.
(Submitted under NOA # 96-0417.03 and 01-1002.03)
6. Laboratory compliance letters for Test Reports No. **FTL-1003** and **FTL-1041**, issued by Fenestration Testing Laboratory, Inc., dated 10/14/94, both signed and sealed by Yamil Kuri, P.E.
(Submitted under NOA # 96-0417.03)
7. Test Proposal for the qualification of **Butacite®** PVB glass interlayer by Kuraray America, Inc., 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. **14-0506.01**, issued to CGI Windows & Doors, Inc. for their Series "238" Outswing Aluminum Casement Window - L.M.I., approved on 06/26/14 and expiring on 10/26/18.



Manuel Perez, P.E.
Product Control Examiner
NOA No. 17-0918.11
Expiration Date: October 26, 2023
Approval Date: November 30, 2017

CGI Windows and Doors, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W98-100**, titled "Series-238 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1, 1.1, 2, 3, 4, 5, 5.1, 6 and 7 of 7, dated 12/04/98, with revision **K** dated 08/30/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 06/25/15, expiring on 07/04/18.
2. Notice of Acceptance No. **16-1117.01** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Interlayers**" dated 01/19/17, expiring on 07/08/19.
3. Notice of Acceptance No. **17-0712.03** issued to **Eastman Chemical Company (MA)** for their "**Saflex CP – Saflex and Saflex HP Composite Glass Interlayers with PET Core**" dated 09/07/17, expiring on 12/11/18.
4. Notice of Acceptance No. **17-0712.05** issued to **Eastman Chemical Company (MA)** for their "**Saflex Clear and Color Glass Interlayers**" dated 09/07/17, expiring on 05/21/21.

F. STATEMENTS

1. Statement letter of conformance, of complying with **FBC 5th Edition (2014)**, with **FBC 6th Edition (2017)** and of no financial interest, dated August 30, 2017, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

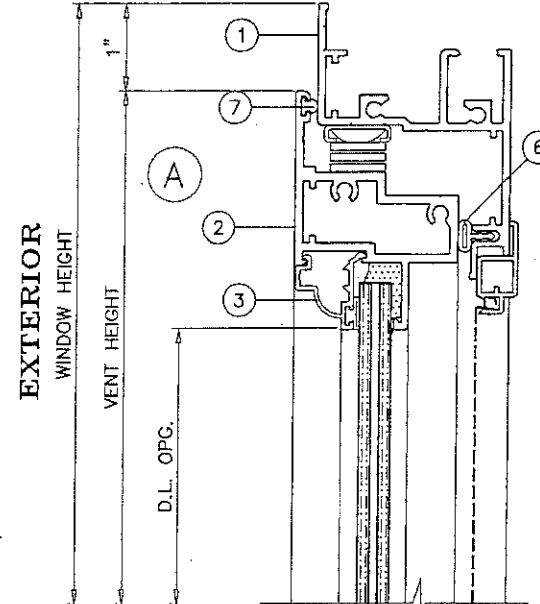
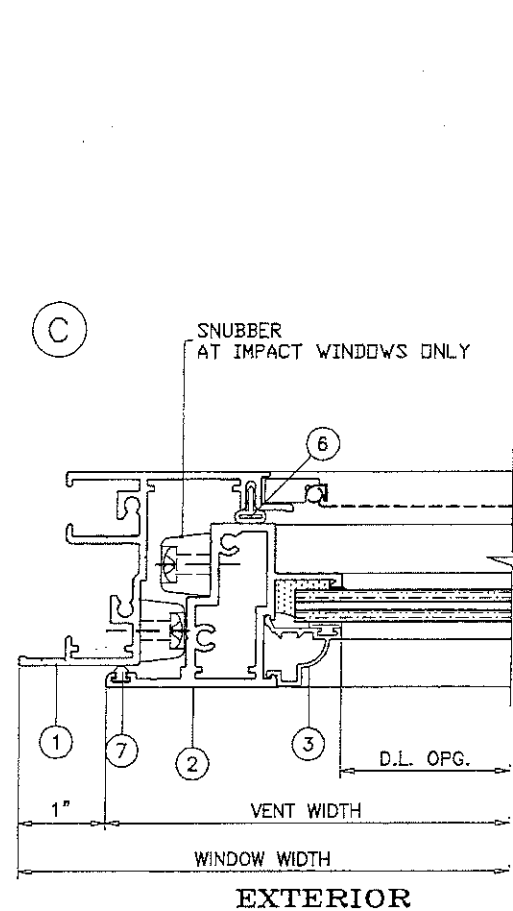
G. OTHERS

1. Notice of Acceptance No. **15-0512.19**, issued to CGI Windows and Doors, Inc. for their Series "238" Outswing Aluminum Casement Window - L.M.I., approved on 09/17/15 and expiring on 10/26/18.

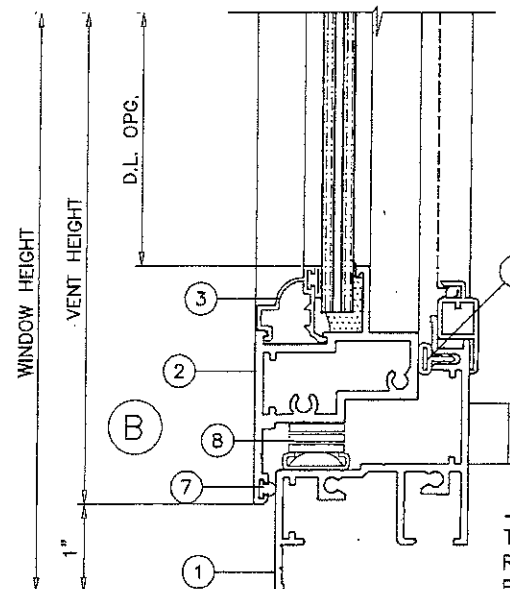
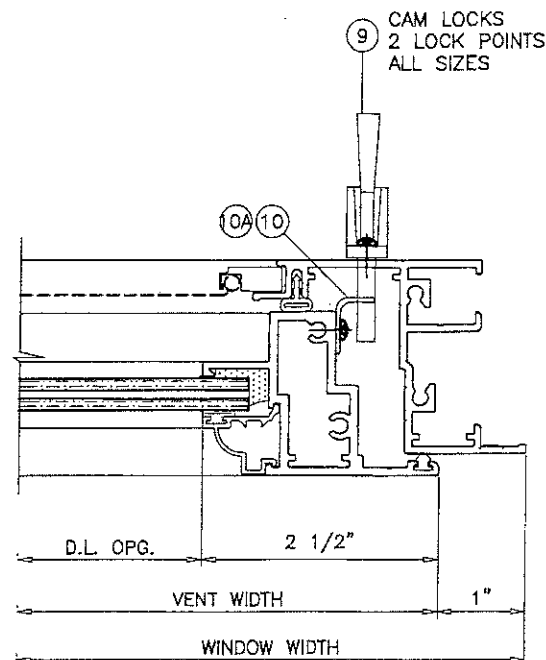

Manuel Perez, P.E.
Product Control Examiner
NOA No. 17-0918.11

Expiration Date: October 26, 2023
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**GENERAL WINDOW SECTIONS
FLANGE FRAME**



FOR GLASS TYPES,
REFER TO
SHEETS 3 AND 4.



NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 (5TH EDITION)/2017 (6TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

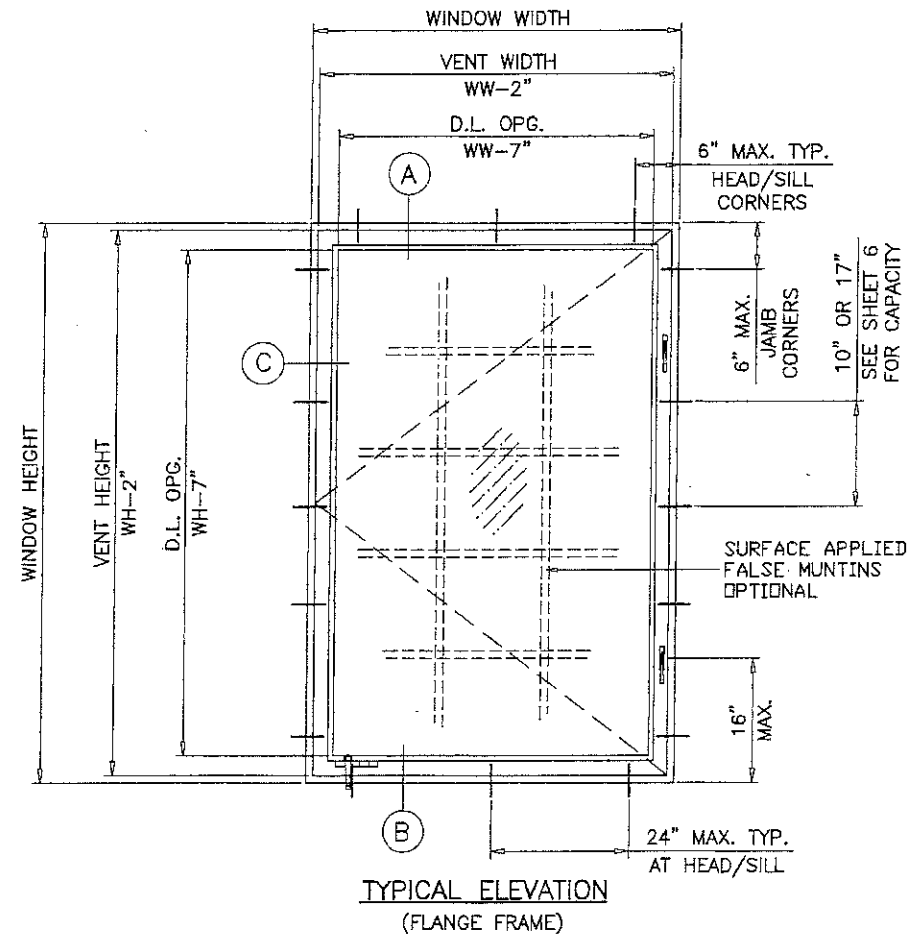
A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

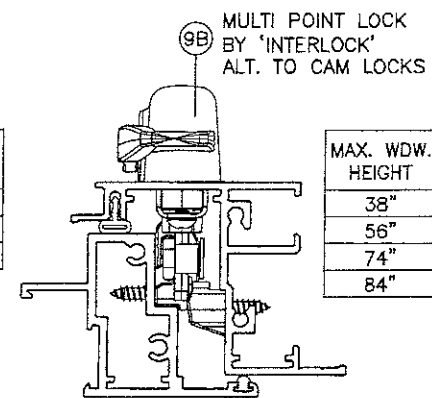
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2014/2017 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.E. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.



**TYPICAL ELEVATION
(FLANGE FRAME)**



MAX. WDW. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4

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

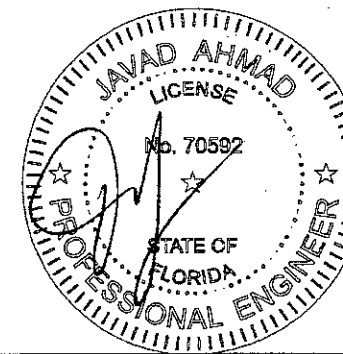
FOR MULLION/MULTIPLE UNITS, REFER TO SEPARATE CGI MULLION N.O.A.

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 AND 4 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE/TYPE.
- STEP 3** USING CHART ON SHEET 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 4** IF ALUMINUM BUCK SYSTEM IS USED USE CHART ON SHEET 7 TO DETERMINE CAPACITY.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

SEP 03 2017
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 17-0918.11
Expiration Date 10/26/2023
By *Manuel Perez*
Miami-Dade Product Control



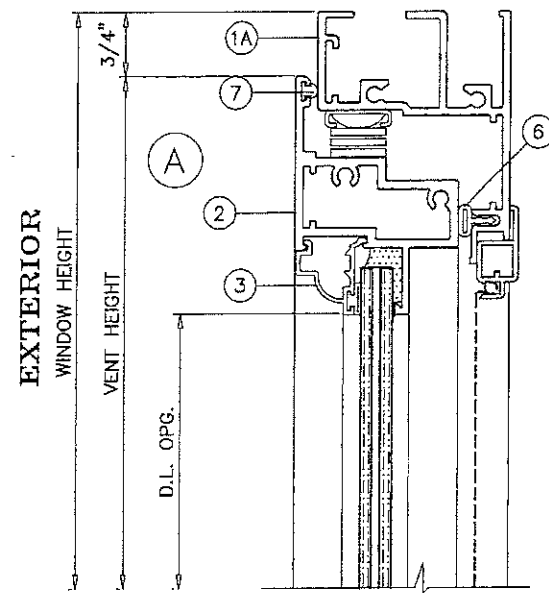
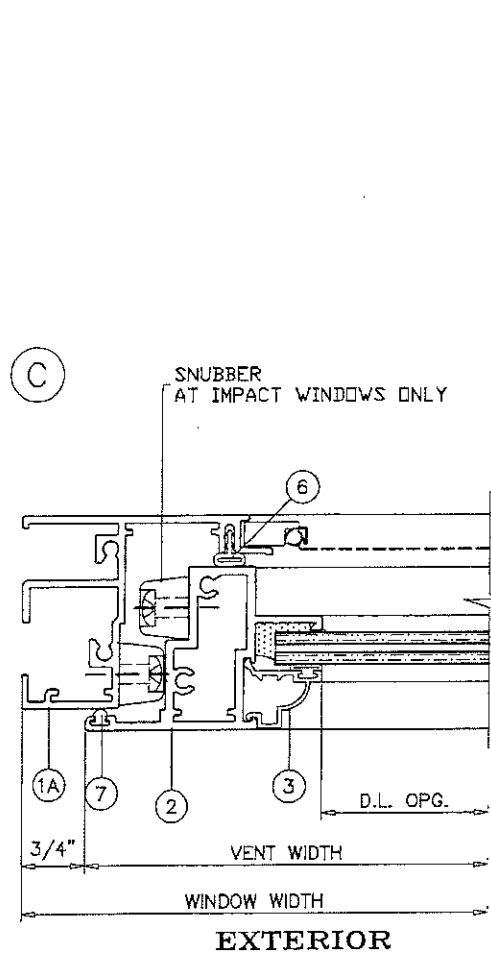
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 353B)
TEL. (305) 264-8100 FAX. (305) 262-8978
COMP-ANI\W98-100CGI

SERIES-238 ALUM OUTSWING CASEMENT WDW. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

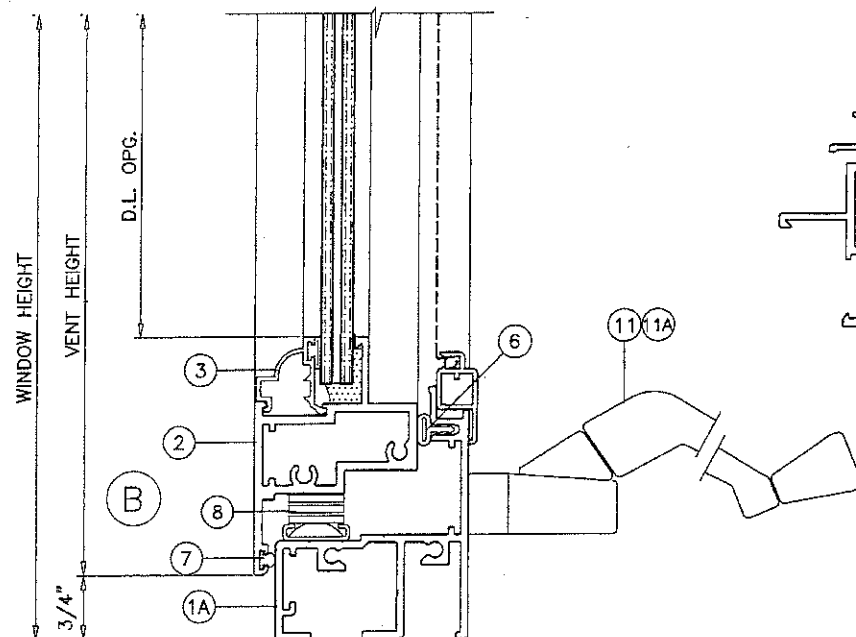
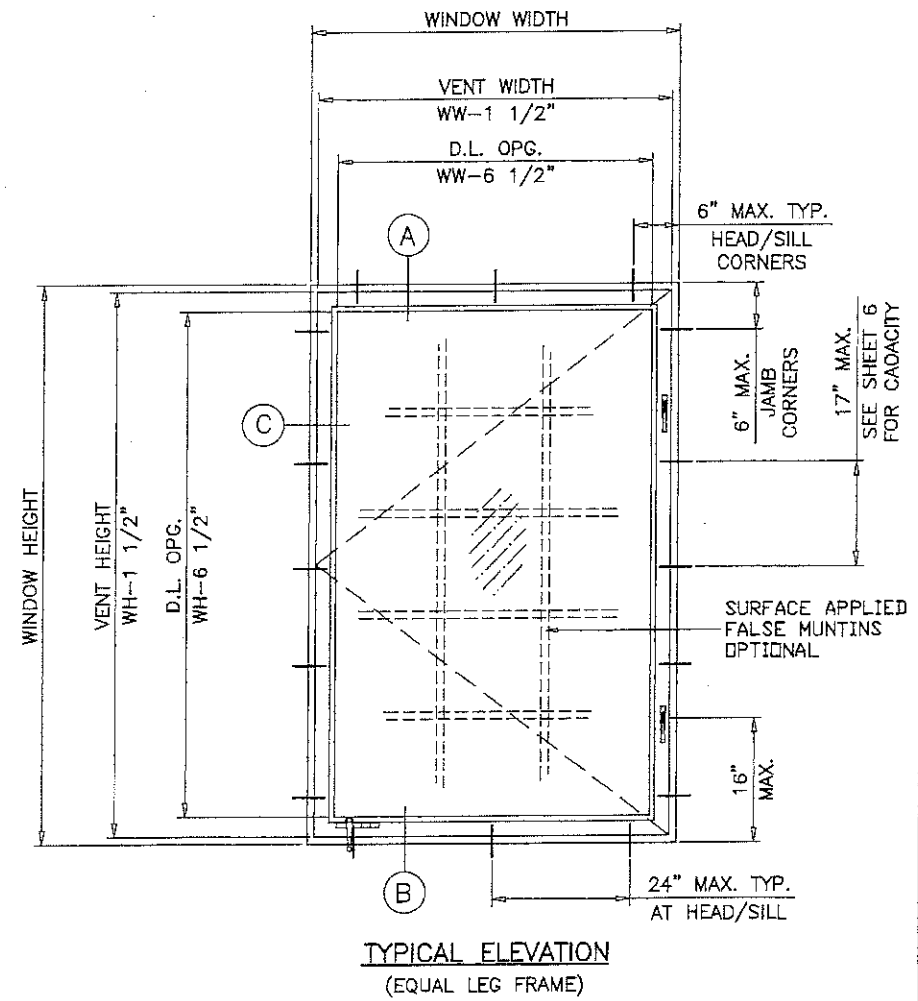
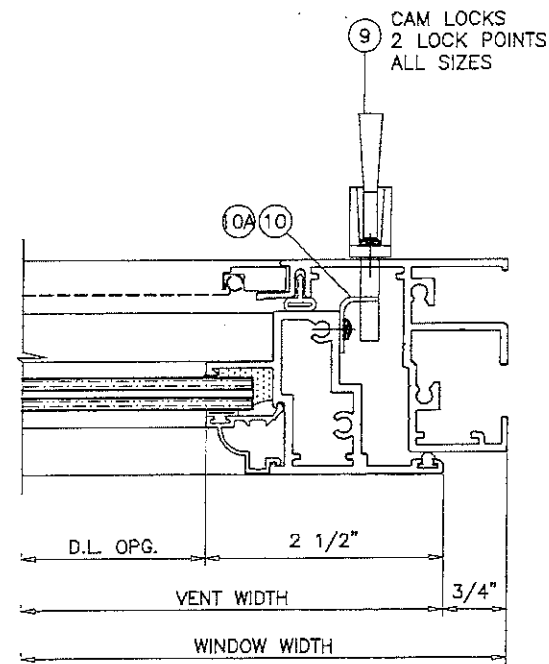
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H	02.28.13	REV. PER RER COMMENTS
I	04.25.14	GENERAL REVISION
J	04.10.15	NO CHANGE THIS SHEET
K	08.30.17	UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no. W98-100
sheet 1 of 7

**GENERAL WINDOW SECTIONS
EQUAL LEG FRAME**



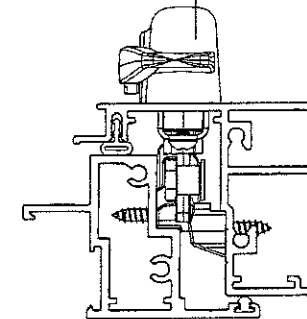
FOR GLASS TYPES,
REFER TO
SHEETS 3 AND 4.



9A MAXIM MULTI POINT LOCK
BY 'TRUTH'
ALT. TO CAM LOCKS

MAX. WD.W. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4

9B MULTI POINT LOCK
BY 'INTERLOCK'
ALT. TO CAM LOCKS



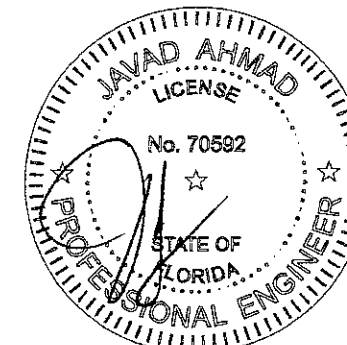
MAX. WD.W. HEIGHT	LOCK POINTS
38"	2
56"	3
74"	4
84"	5

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 17-0918.11

Expiration Date 10/26/2023

By *Manuel Perez*
Miami-Dade Product Control

SEP 05 2017



SERIES-238 ALUM OUTSWING CASEMENT WD.W. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

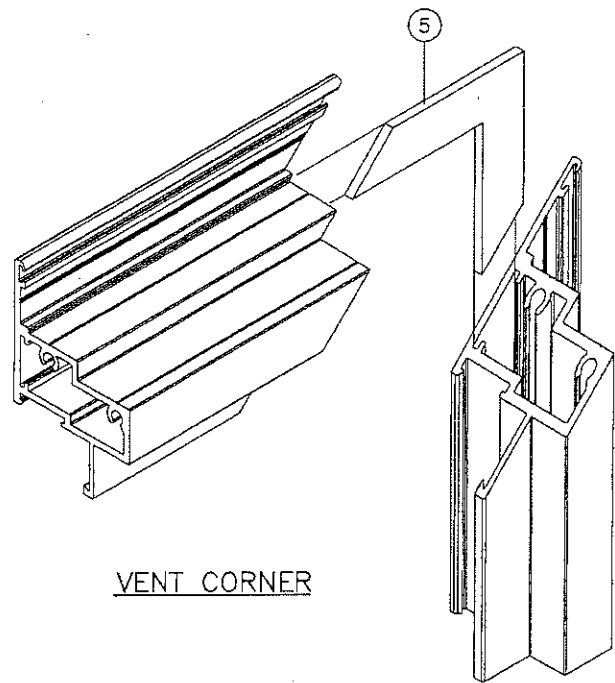
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 9638)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W98-100CGI

revisions:

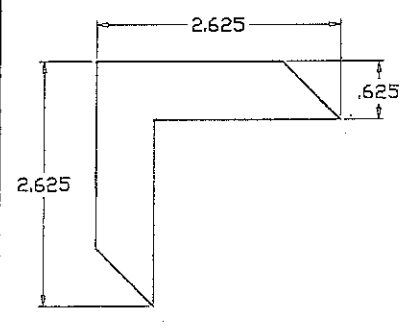
no	date	by	description
H	02.28.13		REV. PER RER COMMENTS
I	04.25.14		NO CHANGE THIS SHEET
J	04.10.15		NO CHANGE THIS SHEET
K	08.30.17		UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

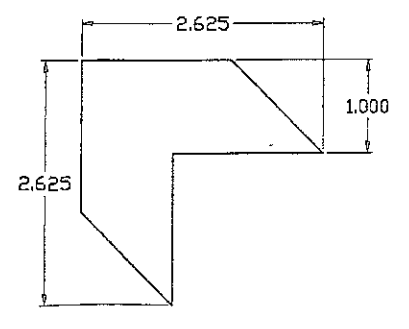
drawing no.
W98-100
sheet 1.1 of 7



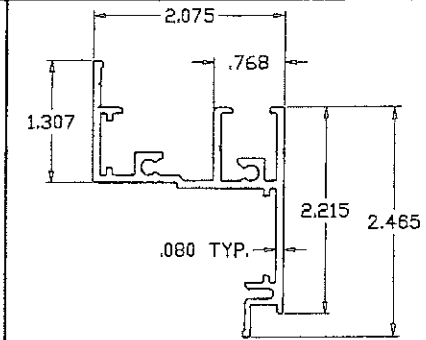
VENT CORNER



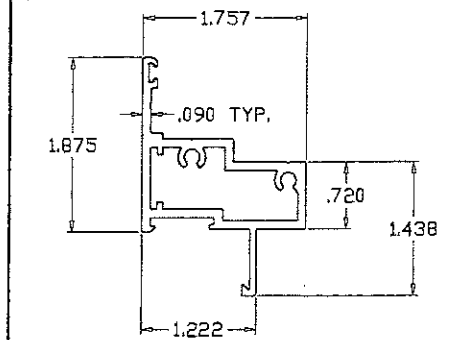
5 CORNER KEY
.060 THICK ST. STEEL



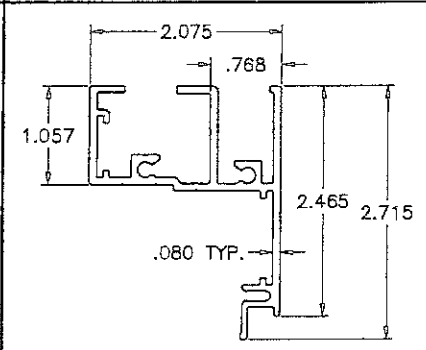
4 CORNER KEY
.062 THICK ALUMINUM



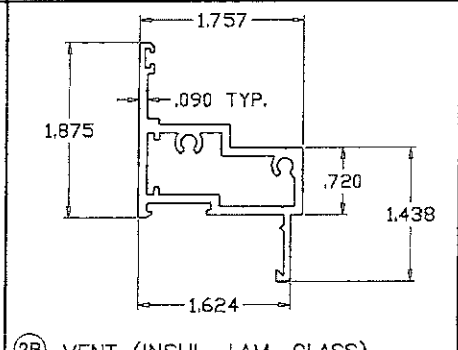
1 FLANGE FRAME



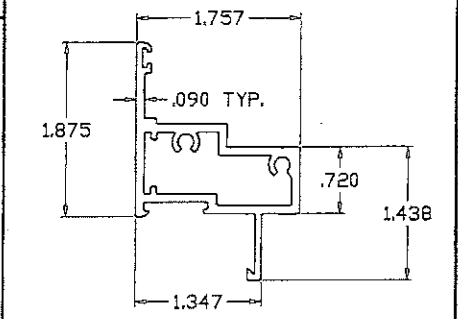
2 VENT (5/16" LAM. GLASS)



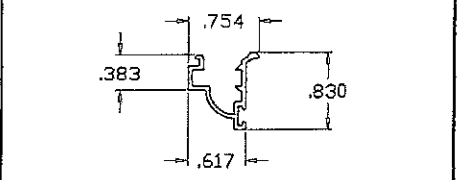
1A EQUAL LEG FRAME



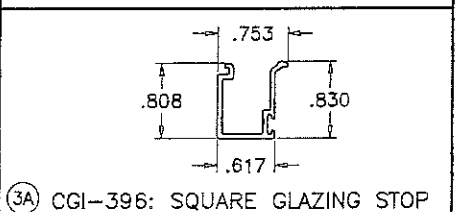
2B VENT (INSUL. LAM. GLASS)



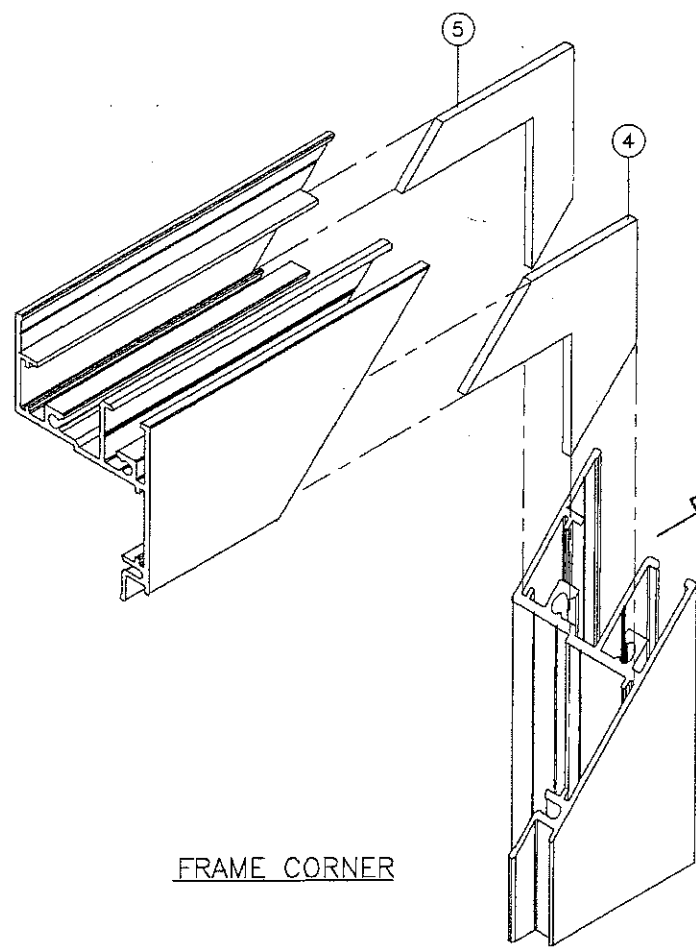
2C VENT (7/16" LAM. GLASS)



3 CGI-375: OGEE GLAZING STOP



3A CGI-396: SQUARE GLAZING STOP



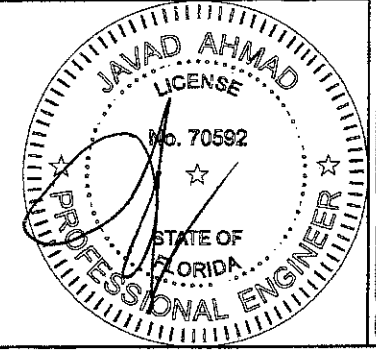
FRAME CORNER

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

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	CGI-373	4	FLANGE FRAME	6063-T6	INDALEX OR EQUIV.
1A	CGI-397	4	EQUAL LEG FRAME	6063-T6	INDALEX OR EQUIV.
2	CGI-378	4	VENT (5/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2B	CGI-381	4	VENT (INSUL. LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
2C	CGI-385	4	VENT (7/16" LAM. GLASS)	6063-T6	INDALEX OR EQUIV.
3	CGI-375	4	OGEE GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
3A	CGI-396	4	SQUARE GLAZING BEAD	6063-T5	INDALEX OR EQUIV.
4	-	4	.060 THICK CORNER KEY	ALUMINUM	-
5	-	8	.060 THICK CORNER KEY	ST. STEEL	-
6	AP-425	AS REQD.	FRAME WEATHERSTRIPPING	-	SCHLEGEL APTUS
7	Q250-K-190	AS REQD.	VENT WEATHERSTRIPPING	-	SCHLEGEL Q-LON
8	35-10-00-101	2/ VENT	4 BAR HINGE, AT TOP AND BOTTOM	STEEL	TRUTH, ATTACHED W/ (6) #8 X 3/8" SS SMS
9	24-13-00-202	2/ VENT	FACE MOUNT LOCK	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SMS
9A	-	1/ VENT	MULTI POINT LOCK	-	TRUTH
9B	-	1/ VENT	MULTI POINT LOCK	-	INTERLOCK
10	-	2/ VENT	.110 THICK LOCK KEEPER, AT FRAME JAMB FACING LOCK	STEEL	CGI, ATTACHED W/ (2) #10 X 3/8" SS SMS
11	-	1	OPERATOR (OPTIONAL)	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SS SMS
11A	-	1	OPERATOR (OPTIONAL)	STEEL	INTERLOCK
12	30175	1	OPERATOR TRACK	STEEL	TRUTH, ATTACHED W/ (2) #8 X 3/8" SS SMS
13	-	2/ CORNER	FRAME AND VENT ASSEMBLY SCREWS	-	#10 X 1-1/4" SS SMS

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0918.11**
Expiration Date **10/26/2023**
By *Manuel Perez*
Miami-Dade Product Control

SEP 06 2017

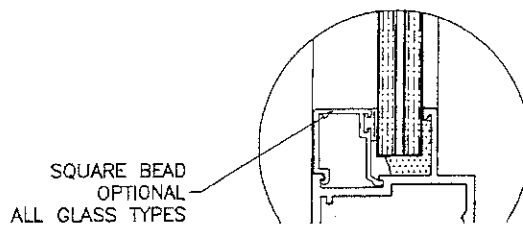
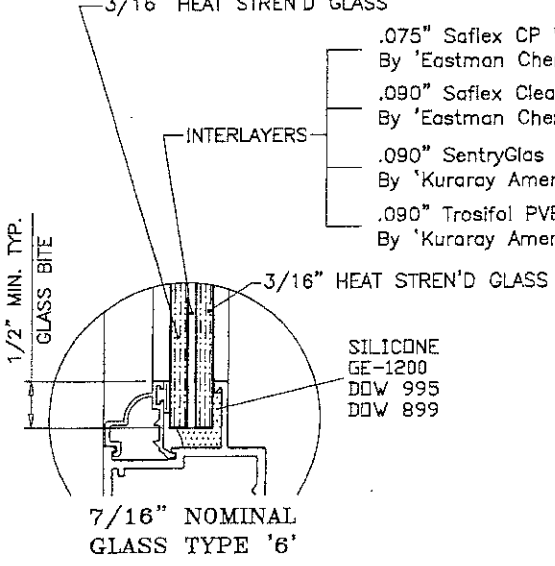
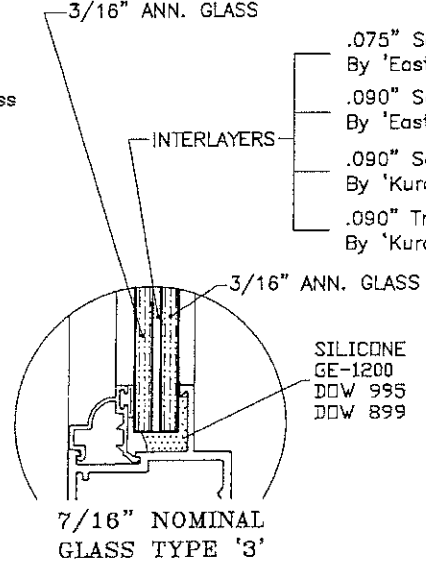
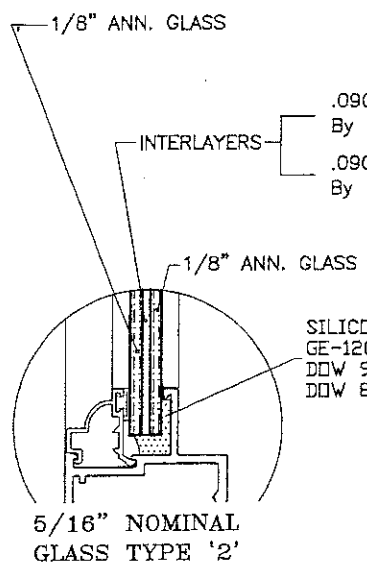


AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W98-100CGI

SERIES-238 ALUM OUTSWING CASEMENT WDW. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	by	description
H	02.28.13	H	REV. PER RER COMMENTS
I	04.25.14	I	NO CHANGE THIS SHEET
J	04.10.15	J	NO CHANGE THIS SHEET
K	08.30.17	K	UPDATED TO 2017 FBC

date: 12-04-88
scale: 1/2" = 1"
dr. by: TARIO
chk. by:
drawing no.
W98-100
sheet 2 of 7



PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
20"	36"	110.0	194.3	110.0	195.0	110.0	195.0
24"		110.0	161.9	110.0	195.0	110.0	195.0
28"		110.0	138.8	110.0	195.0	110.0	195.0
30"		110.0	129.5	110.0	195.0	110.0	195.0
32"		110.0	121.4	110.0	195.0	110.0	195.0
36"		107.9	107.9	110.0	195.0	110.0	195.0
40"		97.1	97.1	110.0	195.0	110.0	120.0
42"		92.5	92.5	110.0	120.0	60.0	60.0
20"	42"	110.0	166.5	110.0	195.0	110.0	195.0
24"		110.0	138.8	110.0	195.0	110.0	195.0
28"		110.0	118.9	110.0	195.0	110.0	195.0
30"		110.0	111.0	110.0	195.0	110.0	195.0
32"		104.1	104.1	110.0	195.0	110.0	120.0
36"		92.5	92.5	110.0	120.0	110.0	120.0
40"		83.3	83.3	110.0	120.0	110.0	120.0
42"		79.3	79.3	110.0	120.0	60.0	60.0
20"	48"	110.0	145.7	110.0	195.0	110.0	195.0
24"		110.0	121.4	110.0	195.0	110.0	195.0
28"		103.8	104.1	110.0	195.0	110.0	120.0
30"		97.1	97.1	110.0	195.0	110.0	120.0
32"		91.1	91.1	110.0	120.0	110.0	120.0
36"		80.9	80.9	110.0	120.0	110.0	120.0
40"		72.8	72.8	110.0	120.0	110.0	120.0
42"		69.4	69.4	110.0	120.0	60.0	60.0
20"	54"	110.0	129.5	110.0	195.0	110.0	195.0
24"		98.0	107.9	110.0	195.0	110.0	195.0
28"		88.2	92.5	110.0	120.0	110.0	120.0
30"		84.4	86.3	110.0	120.0	110.0	120.0
32"		80.9	80.9	110.0	120.0	110.0	120.0
36"		71.9	71.9	110.0	120.0	110.0	120.0
40"		64.8	64.8	110.0	120.0	110.0	120.0
42"		61.7	61.7	110.0	120.0	60.0	60.0

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'		
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	
20"	60"	98.8	112.6	110.0	195.0	110.0	195.0	
24"		85.8	95.4	110.0	195.0	110.0	120.0	
28"		76.7	83.3	110.0	120.0	110.0	120.0	
30"		73.2	77.7	110.0	120.0	110.0	120.0	
32"		70.2	72.8	110.0	120.0	110.0	120.0	
36"		64.8	64.8	110.0	120.0	110.0	120.0	
40"		-	-	60.0	60.0	60.0	60.0	
42"		-	-	60.0	60.0	60.0	60.0	
20"	66"	86.7	86.7	110.0	195.0	110.0	195.0	
24"		73.4	73.4	110.0	120.0	110.0	120.0	
28"		64.2	64.2	110.0	120.0	110.0	120.0	
30"		60.6	60.6	110.0	120.0	110.0	120.0	
32"		57.5	57.5	110.0	120.0	110.0	120.0	
36"		-	-	60.0	60.0	60.0	60.0	
40"		-	-	60.0	60.0	60.0	60.0	
42"		-	-	60.0	60.0	60.0	60.0	
20"	72"	66.4	66.4	110.0	195.0	110.0	120.0	
24"		56.1	56.1	110.0	120.0	110.0	120.0	
28"		48.9	48.9	110.0	120.0	110.0	120.0	
30"		46.0	46.0	110.0	120.0	110.0	120.0	
32"		43.6	43.6	110.0	120.0	110.0	120.0	
36"		-	-	60.0	60.0	60.0	60.0	
32"		76"	-	-	60.0	60.0	60.0	60.0
36"			-	-	60.0	60.0	60.0	60.0
20"	78"		52.0	52.0	110.0	120.0	110.0	120.0
24"			43.8	43.8	110.0	120.0	110.0	120.0
28"		38.1	38.1	110.0	120.0	110.0	120.0	
30"		-	-	110.0	120.0	60.0	60.0	
32"		-	-	60.0	60.0	60.0	60.0	
20"		84"	41.5	41.5	110.0	120.0	110.0	120.0
24"			34.9	34.9	110.0	120.0	110.0	120.0
28"			-	-	110.0	120.0	54.5	54.5
30"	-		-	51.2	51.2	51.2	51.2	
32"	-		-	48.3	48.3	48.3	48.3	

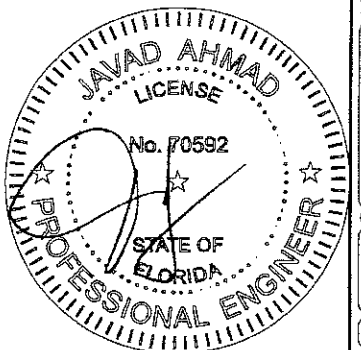
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	195.0	110.0	195.0	110.0	195.0
26-1/2"		110.0	195.0	110.0	195.0	110.0	195.0
37"		110.0	145.4	110.0	195.0	110.0	195.0
42"		110.0	128.1	110.0	195.0*	110.0	195.0*
19-1/8"	38-3/8"	110.0	190.6	110.0	195.0	110.0	195.0
26-1/2"		110.0	137.5	110.0	195.0	110.0	195.0
37"		98.5	98.5	110.0	194.5	110.0	120.0
42"		86.8	86.8	110.0	120.0	110.0	120.0
19-1/8"	50-5/8"	110.0	144.5	110.0	195.0	110.0	195.0
26-1/2"		99.7	104.3	110.0	195.0	110.0	195.0
37"		74.7	74.7	110.0	120.0	110.0	120.0
42"		65.8	65.8	110.0	120.0	110.0	120.0
19-1/8"	63"	96.7	104.2	110.0	195.0	110.0	195.0
26-1/2"		74.9	77.9	110.0	120.0	110.0	120.0
37"		60.0	60.0	110.0	120.0	110.0	120.0
42"		-	-	60.0	60.0	60.0	60.0
19-1/8"	74-1/4"	63.0	63.0	110.0	195.0	110.0	120.0
26-1/2"		46.6	46.6	110.0	120.0	110.0	120.0
37"		-	-	59.8	59.8	59.8	59.8
37"		77"	-	-	56.3	56.3	56.3

* LIMIT MAX. LOADS TO 171.0 PSF WHEN MULTI POINT LOCK BY 'INETRLOCK' (9B) IS USED

** SIZE 37" X 77" APPLICABLE TO FLANGE FRAMES ONLY SEE SHEET 1

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **17-0918.11**
Expiration Date **10/26/2023**
By *Manuel Paez*
Miami-Dade Product Control



SEP 06 2017

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

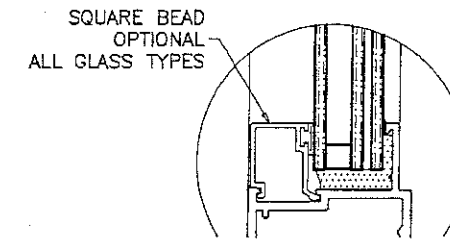
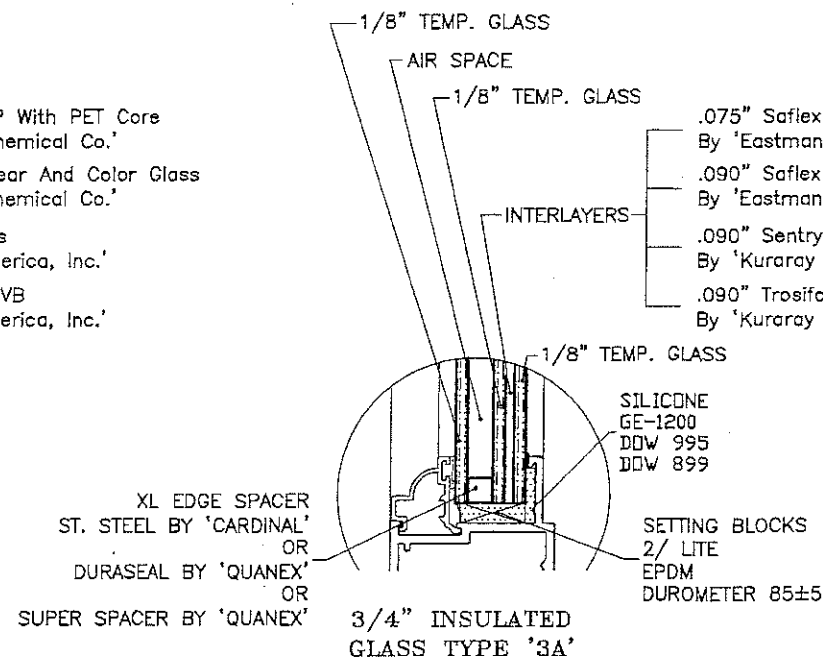
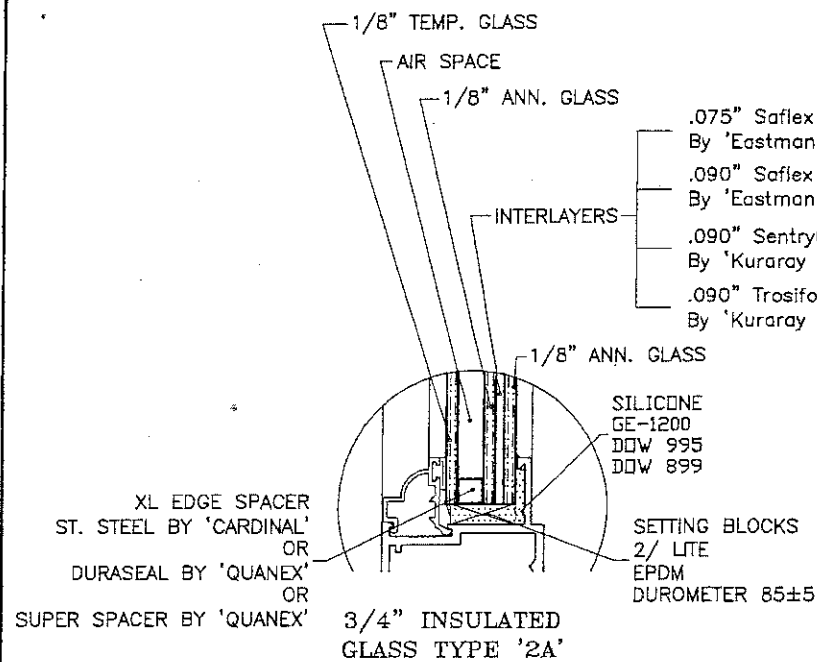
NOTE:
LOAD/AREA LIMITS
FOR +110.0, -120.0 PSF = 16.34 SQ. FT.
+110.0, -195.0 PSF = 10.00 SQ. FT.

afC
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W98-100CGI

SERIES-238 ALUM OUTSWING CASEMENT WDW. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no.	date	description
H	02.28.13	REV. PER RER COMMENTS
I	04.25.14	GENERAL REVISION
J	04.10.15	INTERLAYER REV.
K	08.30.17	UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no.
W98-100
sheet 3 of 7



PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
20"	36"	110.0	194.3	110.0	195.0
24"		110.0	161.9	110.0	195.0
28"		110.0	138.8	110.0	195.0
30"		110.0	129.5	110.0	195.0
32"		110.0	121.4	110.0	195.0
36"		107.9	107.9	110.0	195.0
40"		97.1	97.1	110.0	120.0
42"	92.5	92.5	110.0	120.0	
20"	42"	110.0	166.5	110.0	195.0
24"		110.0	138.8	110.0	195.0
28"		110.0	118.9	110.0	195.0
30"		110.0	111.0	110.0	195.0
32"		104.1	104.1	110.0	120.0
36"		92.5	92.5	110.0	120.0
40"		83.3	83.3	110.0	120.0
42"	79.3	79.3	110.0	120.0	
20"	48"	110.0	145.7	110.0	195.0
24"		110.0	121.4	110.0	195.0
28"		104.1	104.1	110.0	120.0
30"		97.1	97.1	110.0	120.0
32"		91.1	91.1	110.0	120.0
36"		80.9	80.9	110.0	120.0
40"		72.8	72.8	110.0	120.0
42"	69.4	69.4	110.0	120.0	
20"	54"	110.0	129.5	110.0	195.0
24"		98.0	107.9	110.0	195.0
28"		92.5	92.5	110.0	120.0
30"		84.4	86.3	110.0	120.0
32"		80.9	80.9	110.0	120.0
36"		71.9	71.9	110.0	120.0
40"		64.8	64.8	110.0	120.0
42"	61.7	61.7	110.0	120.0	

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
20"	60"	98.8	112.6	110.0	195.0
24"		85.8	95.4	110.0	120.0
28"		76.7	83.3	110.0	120.0
30"		73.2	77.7	110.0	120.0
32"		70.2	72.8	110.0	120.0
36"		64.8	64.8	110.0	120.0
40"		60.0	60.0	-	-
42"	60.0	60.0	-	-	
20"	66"	86.7	86.7	110.0	169.0
24"		73.4	73.4	110.0	120.0
28"		64.2	64.2	110.0	120.0
30"		60.6	60.6	110.0	118.2
32"		57.5	57.5	110.0	112.2
36"		60.0	60.0	-	-
40"		60.0	60.0	-	-
20"	72"	66.4	66.4	110.0	120.0
24"		56.1	56.1	109.3	109.3
28"		48.9	48.9	95.3	95.3
30"		46.0	46.0	89.8	89.8
32"		43.6	43.6	85.0	85.0
36"		60.0	60.0	-	-
32"		60.0	60.0	-	-
20"	76"	52.0	52.0	101.3	101.3
24"		43.8	43.8	85.4	85.4
28"		38.1	38.1	74.3	74.3
32"		60.0	60.0	-	-
20"	78"	41.5	41.5	80.8	80.8
24"		34.9	34.9	68.0	68.0
28"		54.5	54.5	-	-
30"		51.2	51.2	-	-
32"	48.3	48.3	-	-	

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 5 THRU 7 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
19-1/8"	26"	110.0	195.0	110.0	195.0
26-1/2"		110.0	203.0	110.0	195.0
37"		110.0	145.4	110.0	195.0
42"		110.0	128.1	110.0	195.0 *
19-1/8"	38-3/8"	110.0	190.6	110.0	195.0
26-1/2"		110.0	137.5	110.0	195.0
37"		98.5	98.5	110.0	120.0
42"	86.8	86.8	110.0	120.0	
19-1/8"	50-5/8"	110.0	144.5	110.0	195.0
26-1/2"		99.7	104.3	110.0	195.0
37"		74.7	74.7	110.0	120.0
42"		65.8	65.8	110.0	120.0
19-1/8"	63"	96.7	104.2	110.0	195.0
26-1/2"		74.9	77.9	110.0	120.0
37"		60.0	60.0	110.0	117.0
42"		60.0	60.0	-	-
19-1/8"	74-1/4"	63.0	63.0	110.0	120.0
26-1/2"		46.6	46.6	90.9	90.9
37"		59.8	59.8	-	-
37"	77"	56.3	56.3	-	-

* LIMIT MAX. LOADS TO 171.0 PSF
WHEN MULTI POINT LOCK BY 'INETRLOCK' (9B)
IS USED

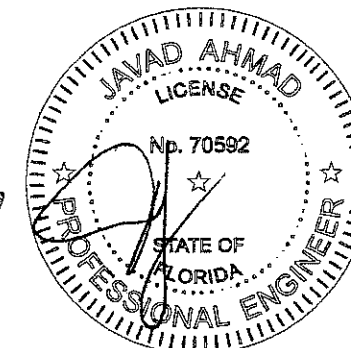
** SIZE 37" X 77" APPLICABLE TO FLANGE FRAMES ONLY
SEE SHEET 1

NOTE:
LOAD/AREA LIMITS
FOR +110.0, -120.0 PSF = 16.34 SQ. FT.
+110.0, -195.0 PSF = 10.00 SQ. FT.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0918.11**
Expiration Date **10/26/2023**
By *Manuel Perez*
Miami Dade Product Control

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

SEP 06 2017



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 262-8100 FAX. (305) 262-8978
COMP-ANL\W98-100CGI

SERIES-238 ALUM. OUTSWING CASEMENT WDW. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

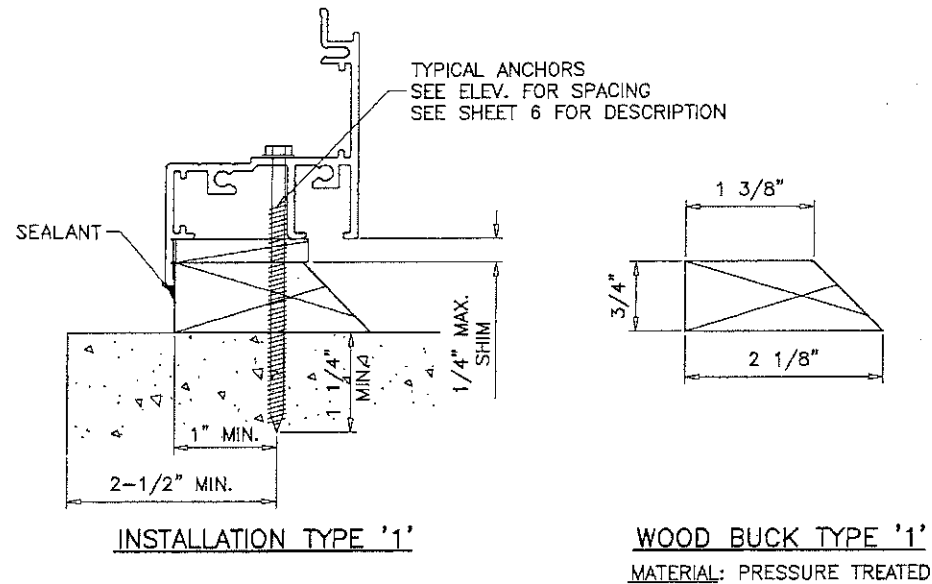
NO.	DATE	BY	DESCRIPTION
H	02.28.13		REV. PER RFR COMMENTS
I	04.25.14		GENERAL REVISION
J	04.10.15		INTERLAYER & SPACER REV.
K	08.30.17		UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

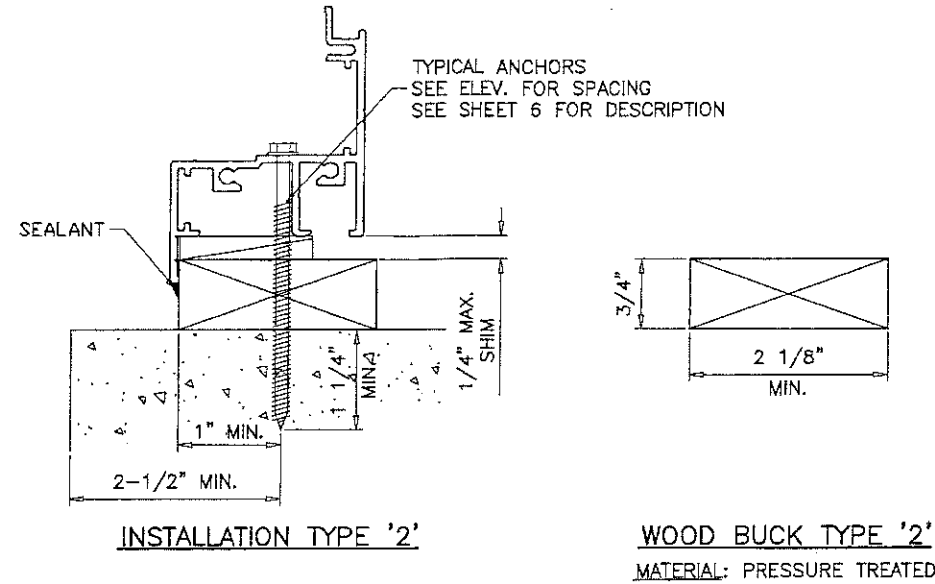
drawing no.
W98-100
sheet 4 of 7

INSTALLATION CONDITIONS FLANGE FRAME (APPLIES TO ALL FOUR SIDES)

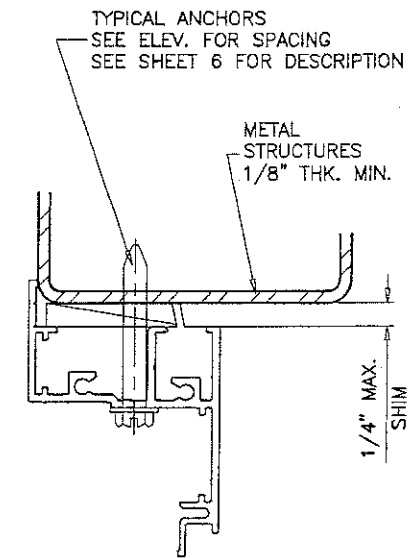
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



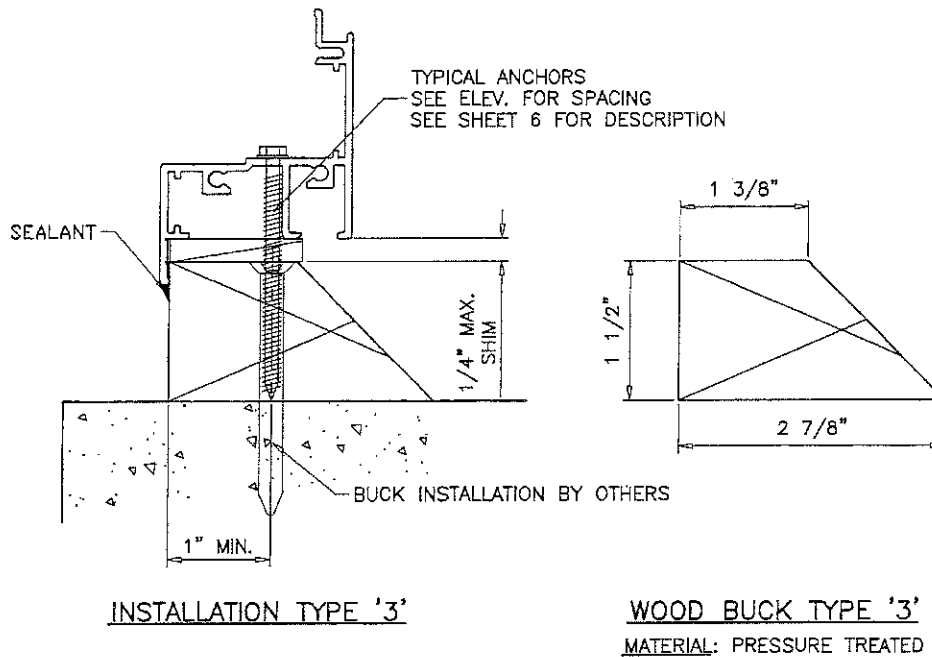
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



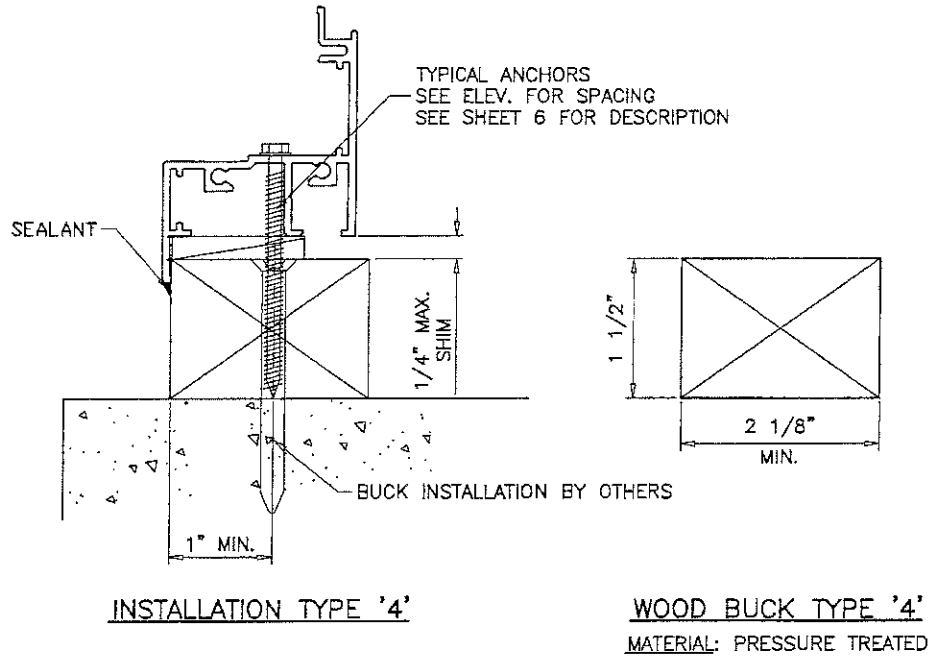
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



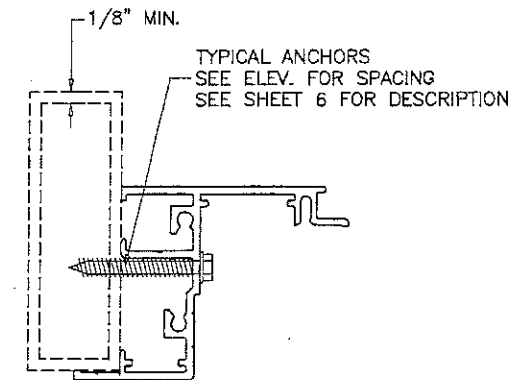
ATTACHMENT TO
METAL STRUCTURES



TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD

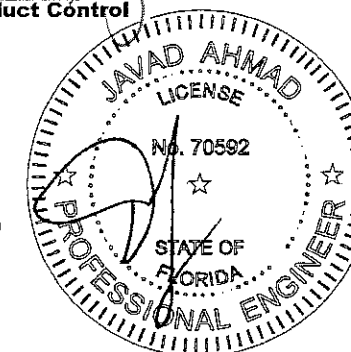


ATTACHMENT TO
APPROVED MULLIONS

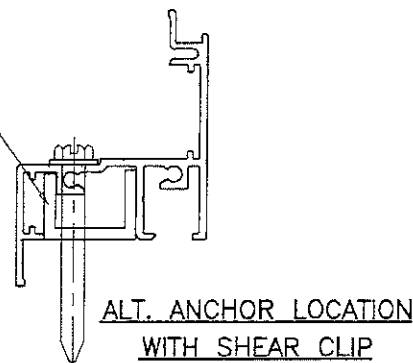
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0918.11**

Expiration Date **10/26/2023**

By *Manuel Perez*
Miami-Dade Product Control



ALUM CHANNEL
3/4" X 1" X 3/4" X 1/8"
2-1/2" LONG
AT ANCHOR LOCATIONS



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

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3638)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP--ANL W98-100CGI

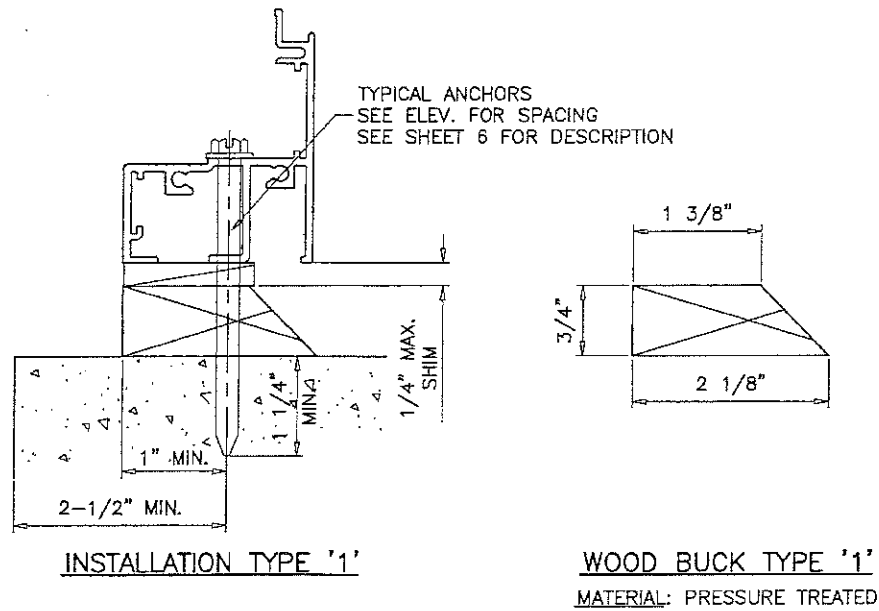
SERIES-238 ALUM OUTSWING CASEMENT WDW. (L.M.I.)
CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL. 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

NO.	DATE	BY	DESCRIPTION
H	02.28.13	REV. PER RER COMMENTS	
I	04.25.14	NO CHANGE THIS SHEET	
J	04.10.15	NO CHANGE THIS SHEET	
K	08.30.17	UPDATED TO 2017 FBC	

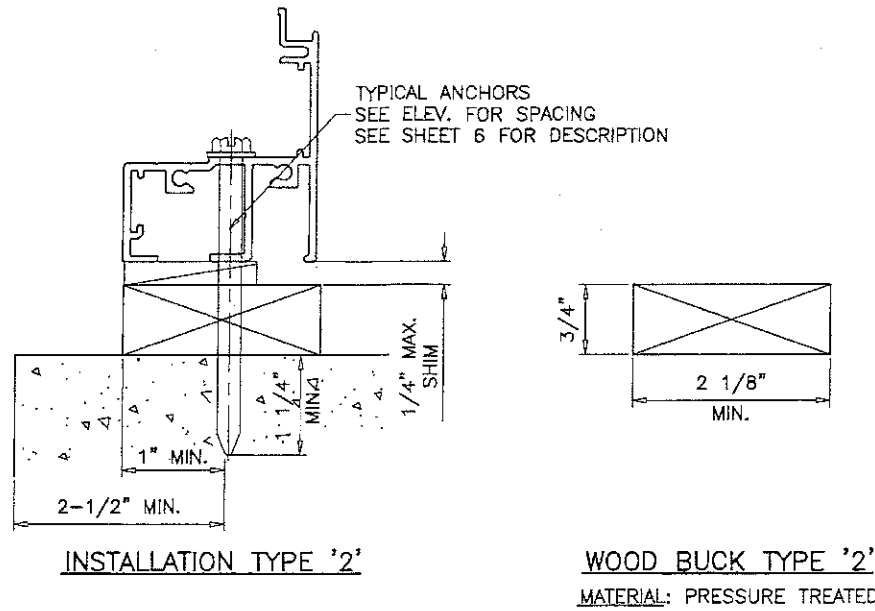
date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no.
W98-100
sheet 5 of 7

INSTALLATION CONDITIONS EQUAL LEG FRAME (APPLIES TO ALL FOUR SIDES)

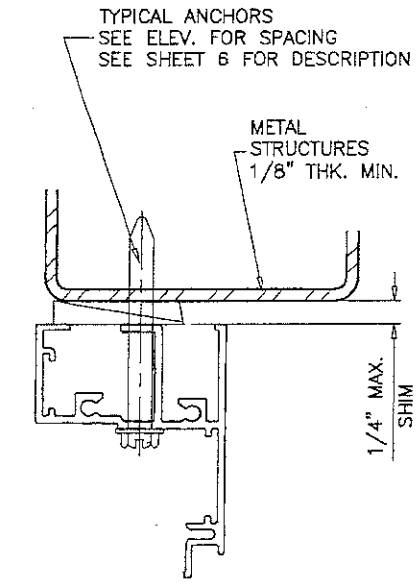
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 6



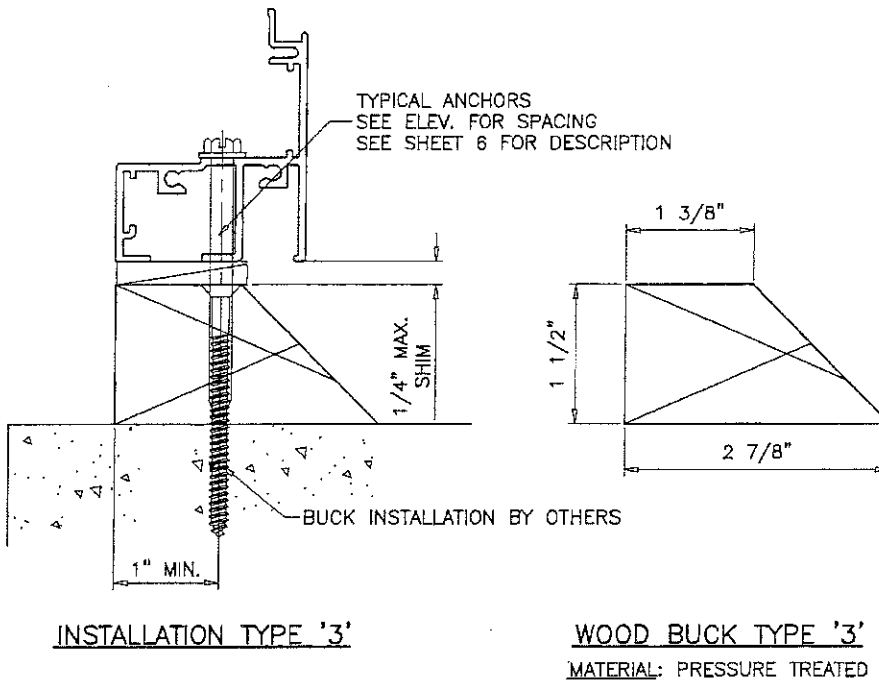
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



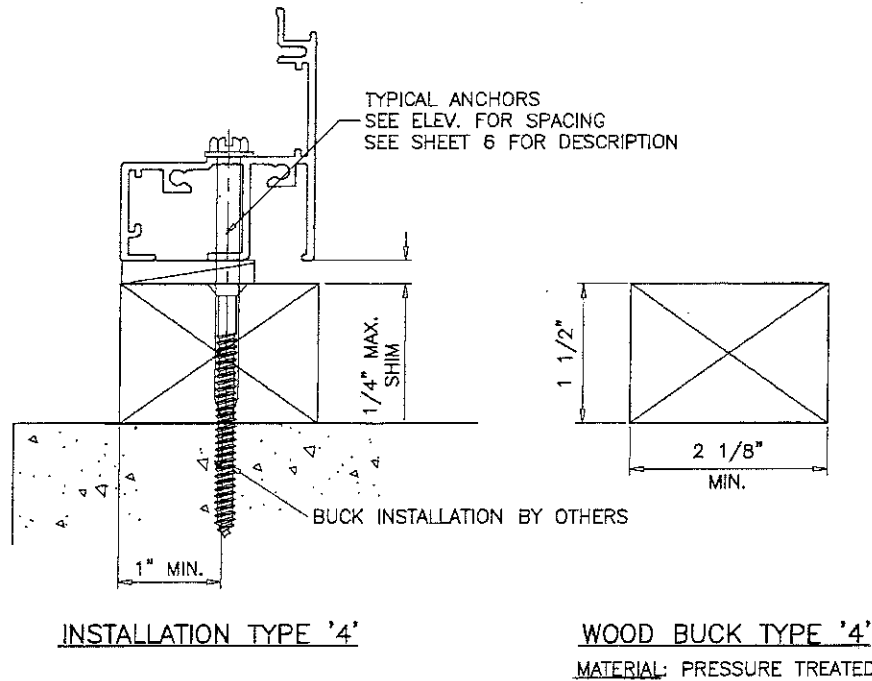
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



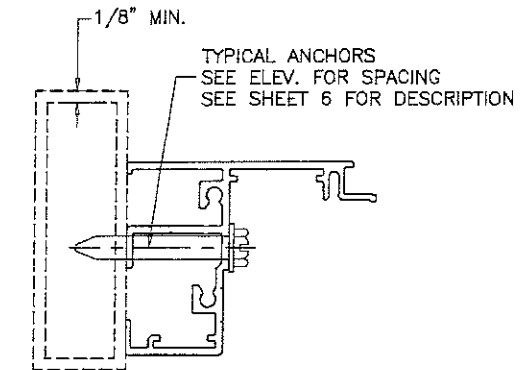
ATTACHMENT TO
METAL STRUCTURES



TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD

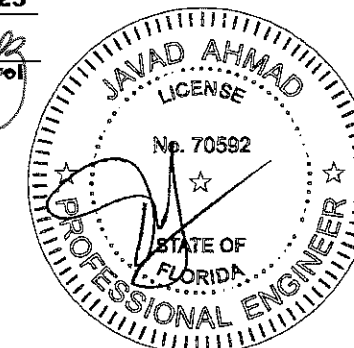


ATTACHMENT TO
APPROVED MULLIONS

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0918.11**

Expiration Date **10/26/2023**

By *Manuel Perez*
Miami-Dade Product Control



SEP 03 2017

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

af c

AL-FAROOQ CORPORATION
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NO	date	by	description
H	02.28.13	REV. PER RER COMMENTS	NO CHANGE THIS SHEET
I	04.25.14	NO CHANGE THIS SHEET	NO CHANGE THIS SHEET
J	04.10.15	NO CHANGE THIS SHEET	NO CHANGE THIS SHEET
K	08.30.17	UPDATED TO 2017 FBC	UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

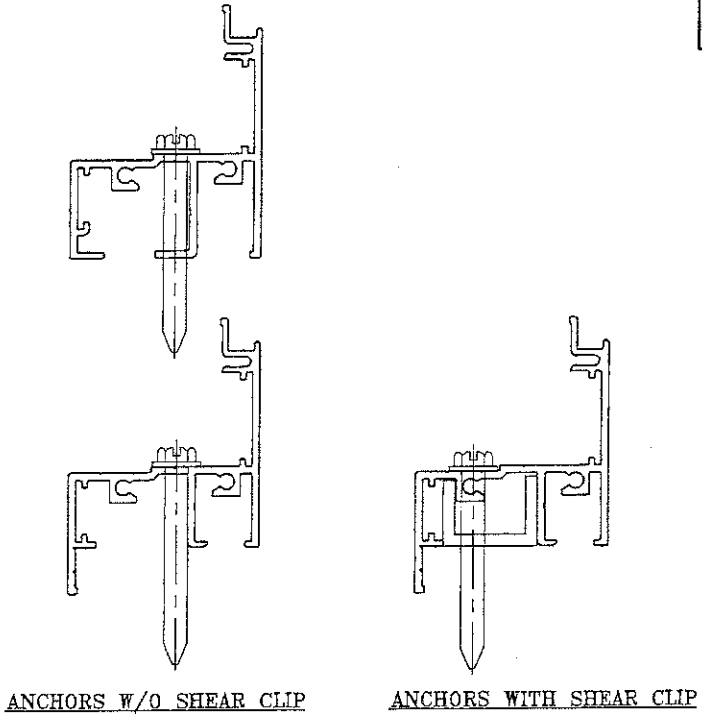
drawing no.
W98-100

sheet 5.1 of 7

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 5 FOR DETAILS					
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP	
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
20"	36"	195.0	195.0	154.8	195.0
24"		195.0	195.0	129.0	172.0
28"		192.9	195.0	110.6	147.4
30"		180.0	195.0	103.2	137.6
32"		168.8	195.0	96.8	129.0
36"		150.0	195.0	86.0	114.7
40"		135.0	180.0	77.4	103.2
42"		128.6	171.4	73.7	98.3
20"	42"	195.0	195.0	132.7	176.9
24"		192.9	195.0	110.6	147.4
28"		165.3	195.0	94.8	126.4
30"		154.3	195.0	88.5	117.9
32"		144.6	192.9	82.9	110.6
36"		128.6	171.4	73.7	98.3
40"		115.7	154.3	66.3	88.5
42"		110.2	146.9	63.2	84.2
20"	48"	195.0	195.0	154.8	193.5
24"		195.0	195.0	129.0	161.3
28"		192.9	195.0	110.6	138.2
30"		180.0	195.0	103.2	129.0
32"		168.8	195.0	96.8	120.9
36"		150.0	187.5	86.0	107.5
40"		135.0	168.8	77.4	96.8
42"		128.6	160.7	73.7	92.1
20"	54"	195.0	195.0	137.6	195.0
24"		195.0	195.0	114.7	172.0
28"		171.4	195.0	98.3	147.4
30"		160.0	195.0	91.7	137.6
32"		150.0	195.0	86.0	129.0
36"		133.3	195.0	76.4	114.7
40"		120.0	180.0	68.8	103.2
42"		114.3	171.4	65.5	98.3
20"	60"	195.0	195.0	123.8	185.8
24"		180.0	195.0	103.2	154.8
28"		154.3	195.0	88.5	132.7
30"		144.0	195.0	82.6	123.8
32"		135.0	195.0	77.4	116.1
36"		120.0	180.0	68.8	103.2
40"		108.0	162.0	61.9	92.9
42"		102.9	154.3	59.0	88.5
20"	66"	195.0	195.0	140.7	195.0
24"		195.0	195.0	117.3	164.2
28"		175.3	195.0	100.5	140.7
30"		163.6	195.0	93.8	131.3
32"		153.4	195.0	88.0	123.1
36"		136.4	190.9	78.2	109.5
40"		122.7	171.8	70.4	98.5
20"		72"	195.0	195.0	129.0
24"	187.5		195.0	107.5	150.5
28"	160.7		195.0	92.1	129.0
30"	150.0		195.0	86.0	120.4
32"	140.6		195.0	80.6	112.9
36"	125.0		175.0	71.7	100.3

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 5 FOR DETAILS					
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP	
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
32"	76"	133.2	195.0	76.4	122.2
36"		118.4	189.5	67.9	108.6
20"		195.0	195.0	119.1	190.5
24"	78"	173.1	195.0	99.2	158.8
28"		148.4	195.0	85.1	136.1
30"		138.5	195.0	79.4	127.0
32"		129.8	195.0	74.4	119.1
20"	84"	195.0	195.0	132.7	195.0
24"		195.0	195.0	110.6	165.9
28"		165.3	195.0	94.8	142.2
32"		154.3	195.0	88.5	132.7

PERFORMANCE VALUES OF INSTALLATION ANCHORS REFER TO SHEET 5 FOR DETAILS					
WINDOW DIMS.		ANCHORS W/O SHEAR CLIP		ANCHORS WITH SHEAR CLIP	
		AT 17" O.C.	AT 10" O.C.	AT 17" O.C.	AT 10" O.C.
WIDTH	HEIGHT	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)	EXT.(+)/INT.(-)
19-1/8"	26"	195.0	195.0	149.4	195.0
26-1/2"		195.0	195.0	107.8	161.8
37"		195.0	195.0	77.2	115.9
19-1/8"	38-3/8"	195.0	195.0	151.9	195.0
26-1/2"		191.2	195.0	109.6	146.1
37"		136.9	182.6	78.5	104.7
19-1/8"	50-5/8"	195.0	195.0	153.5	191.9
26-1/2"		193.2	195.0	110.8	138.5
37"		138.4	173.0	79.3	99.2
19-1/8"	63"	195.0	195.0	123.3	195.0
26-1/2"		155.3	195.0	89.0	155.8
37"		111.2	194.6	63.8	111.6
42"		98.0	171.4	56.2	98.3
19-1/8"	74-1/4"	195.0	195.0	130.8	195.0
26-1/2"		164.7	195.0	94.4	151.1
37"		117.9	188.6	67.6	108.1



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. KWIK-CON II BY 'HILTI' (Fu=163 KSI, Fy=157 KSI)

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

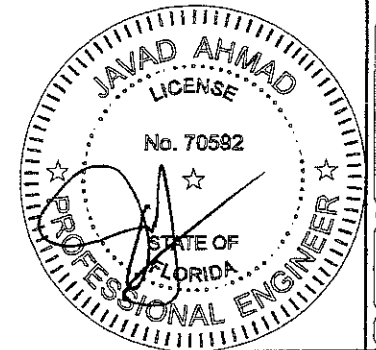
DIRECTLY INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = .090")
INTO METAL STRUCTURES
STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)
ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE
INTO CONCRETE AND MASONRY = 2-1/2" 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.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0918.11**
Expiration Date **10/26/2023**
By *Manuel Perez*
Miami-Dade Product Control



afC
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no.	date	by	description
H	02.28.13	H	REV. PER RER COMMENTS
I	04.25.14	I	GENERAL REVISION
J	04.10.15	J	NO CHANGE THIS SHEET
K	09.30.17	K	UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W98-100
sheet 6 of 7

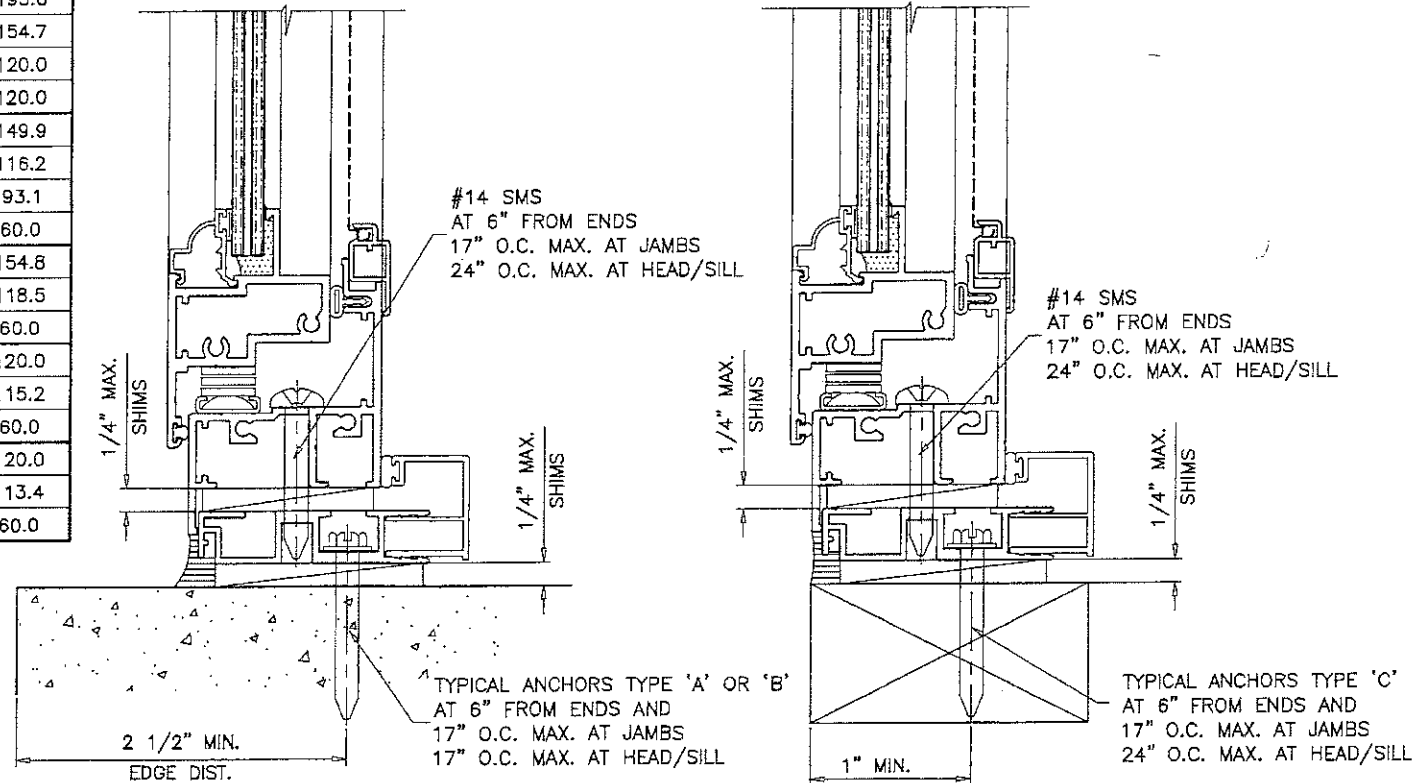
PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		EXT.(+)	INT.(-)
WIDTH	HEIGHT		
20"	36"	110.0	195.0
24"		110.0	195.0
28"		110.0	186.5
30"		110.0	182.4
32"		110.0	179.5
36"		110.0	177.3
40"		105.8	145.1
42"		97.0	120.0
20"	42"	110.0	179.5
24"		110.0	159.6
28"		106.9	146.6
30"		103.5	141.9
32"		100.7	138.1
36"		97.0	120.0
40"		95.2	120.0
42"		95.0	120.0
20"	48"	110.0	174.1
24"		110.0	177.3
28"		110.0	160.9
30"		110.0	154.8
32"		109.1	120.0
36"		103.5	120.0
40"		99.8	120.0
42"		95.0	120.0
20"	54"	110.0	174.1
24"		110.0	152.0
28"		99.8	120.0
30"		95.5	120.0
32"		91.9	120.0
36"		86.2	118.2
40"		82.2	112.7
42"		80.6	110.5
20"	60"	110.0	153.2
24"		97.0	133.0
28"		86.8	119.0
30"		82.8	113.5
32"		79.4	108.8
36"		73.9	101.3
40"		60.0	60.0
42"		60.0	60.0
20"	66"	110.0	171.0
24"		107.8	120.0
28"		95.9	120.0
30"		91.3	120.0
32"		87.3	119.7
36"		60.0	60.0
40"		60.0	60.0
42"		60.0	60.0
20"	72"	110.0	154.5
24"		97.0	120.0
28"		86.0	117.9
30"		81.7	112.0
32"		77.9	106.9
36"		60.0	60.0

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS				
WINDOW DIMS.		EXT.(+)	INT.(-)	
WIDTH	HEIGHT			
20"	76"	105.8	120.0	
24"		90.9	120.0	
28"		80.5	110.3	
30"		76.3	104.7	
32"		60.0	60.0	
36"		60.0	60.0	
20"		78"	102.7	120.0
24"			86.2	120.0
28"	77.9		120.0	
30"	73.9		101.3	
32"	60.0		60.0	
20"	84"		110.0	120.0
24"			97.0	120.0
28"			85.5	117.3
30"		60.0	60.0	
32"		60.0	60.0	

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		EXT.(+)	INT.(-)
WIDTH	HEIGHT		
19-1/8"	26"	110.0	195.0
26-1/2"		110.0	195.0
37"		110.0	184.2
42"		110.0	152.4
19-1/8"	38-3/8"	110.0	195.0
26-1/2"		110.0	172.6
37"		110.0	156.3
42"		95.7	120.0
19-1/8"	50-5/8"	110.0	195.0
26-1/2"		110.0	154.7
37"		94.0	120.0
42"		89.8	120.0
19-1/8"	63"	109.3	149.9
26-1/2"		84.8	116.2
37"		67.9	93.1
42"		60.0	60.0
19-1/8"	74-1/4"	110.0	154.8
26-1/2"		86.4	118.5
37"		60.0	60.0
42"		60.0	60.0
19-1/8"	76"	109.9	120.0
26-1/2"		84.0	115.2
37"		60.0	60.0
42"		60.0	60.0
19-1/8"	77"	108.3	120.0
26-1/2"		82.7	113.4
37"		60.0	60.0
42"		60.0	60.0

ALUMINUM BUCK FRAMING DETAILS

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



INSTALLATION TYPE '5'

INSTALLATION TYPE '6'

2BY WOOD BUCK OR WOOD STRUCTURES

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

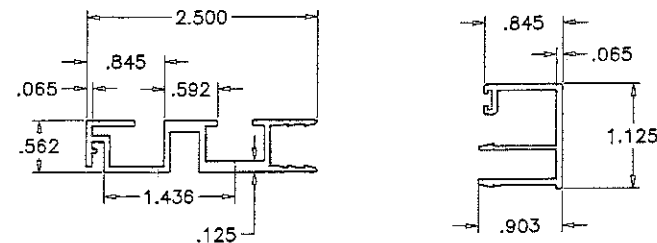
- A - 1/4" DIA. KWIK-CON II BY 'HILTI' (Fu=163 KSI, Fy=157 KSI)
DIRECTLY INTO CONC. OR MASONRY
1-1/4" MIN. EMBED INTO CONC. OR MASONRY
- B - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONC. OR FILLED BLOCK
1-1/4" MIN. EMBED INTO CONCRETE
2-1/4" MIN. EMBED INTO GROUT FILLED BLOCKS
- C - #14 SMS (GRADE 2 CRS)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

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

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



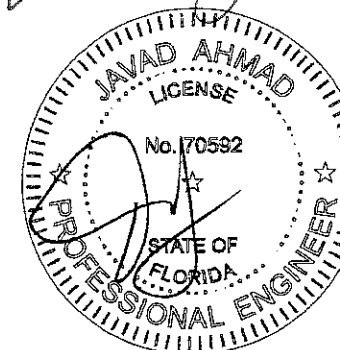
ALUMINUM BUCK
6063-T6

OPTIONAL COVER
6063-T6

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 17-0918.11

Expiration Date 10/26/2023

By *Manuel Perez*
Miami Dade Product Control



SEP 03 2017

CGI Windows and Doors, Inc.
10100 N.W. 25TH STREET
MIAMI, FL 33172
TEL. (305) 593-6590 FAX. (305) 593-6592

no	date	description
H	02.28.13	REV. PER RER COMMENTS
I	04.25.14	GENERAL REVISION
J	04.10.15	NO CHANGE THIS SHEET
K	06.30.17	UPDATED TO 2017 FBC

date: 12-04-98
scale: 1/2" = 1"
dr. by: TARIO
chk. by:
drawing no. W98-100
sheet 7 of 7

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\WBB-100CGI