MIAMI-DADE COUNTY
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
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

CGI Windows and Doors, Inc.
3780 w. 103rd St.
Miami, Fl. 33018

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. **CA238NOA1** Rev **A** (former **W98-100 Rev K**), titled "Series-238 Aluminum Casement Window (L.M.I.)", sheets 1 through 9 of 9 dated 05-22-20, prepared by manufacturer, signed and sealed by Lynn Miller, 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.

his NOA **revises NOA No. 17-0918.11** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4, E-5 and E-6, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED

Ishaq I. Chanda

CGI Windows and Doors, Inc.

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)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

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)

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)

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)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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.

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)***

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

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.

2. EVIDENCE SUBMITTED In PREVIOS SUBMITTAL

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.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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.

3 New Evidence submitted

A. **DRAWINGS**

1. Drawing No. **CA238NOA1** Rev **A** (former **W98-100 Rev K**), titled "Series-238 Aluminum Casement Window (L.M.I.)", sheets 1 through 9 of 9 dated 05-22-20, prepared by manufacturer, signed and sealed by Lynn Miller, P.E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
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 all CGI Windows and Doors, Inc. and PGT Industries, Inc., representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, per Proposal #**19-1155TP**, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.:

CGI Windows and Doors Inc. test specimens:

FTL-20-2108.1, CGI SH360 Aluminum Single Hung Window (unit 1 in proposal) **FTL-20-2108.2,** CGI CA238 Alum. Outswing Casement Window (unit 2 in proposal) **FTL-20-2108.3,** CGI SGD560 Aluminum Sliding Glass Door (unit 3 in proposal) **FTL-20-2108.4**, CGI PW410 Aluminum Fixed Window (unit 4 in proposal) and **FTL-20-2108.5**, CGI SH360 Aluminum Single Hung Window (unit 5 in proposal)all dated 08/24/20 and signed and sealed by Idalmis Ortega, P.E.

PGT Industries, Inc. test specimens:

FTL-7897, PGT PW5520 PVC Fixed Window (unit 6 in proposal), dated 09/03/14
FTL-20-2107.1, PGT SGD780 Aluminum Sliding Glass Door (unit 7 in proposal) **FTL-20-2107.2,** PGT CA740 Alum. Outswing Casement Window (unit 8 in proposal) **FTL-20-2107.3,** PGT PW7620A Aluminum Fixed Window (unit 9 in proposal) and **FTL-20-2107.4**, PGT PW7620A Aluminum Fixed Window (unit 10 in proposal) all dated 07/13/20 and signed and sealed by Idalmis Ortega, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 7th Edition (2020)**, dated 05/22/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

2. Glazing complies with **ASTM E1300-04, -09, -12 and -16**.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-0808.02** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers**", expiring on 07/04/23.

F. STATEMENTS

1. Statement letters of conformance to FBC 2020(**7th** Edition), dated 04/20/20, prepared, signed & sealed by Lynn Miller, P. E.
2. Notification of Successor Engineer per the Florida Administrative Code Section 61G15-27.001, notifying original engineer that the successor engineer is assuming full professional and legal responsibility for all engineering documents pertaining to this NOA, dated 06/12/20, signed and sealed by A. Lynn Miller, P.E

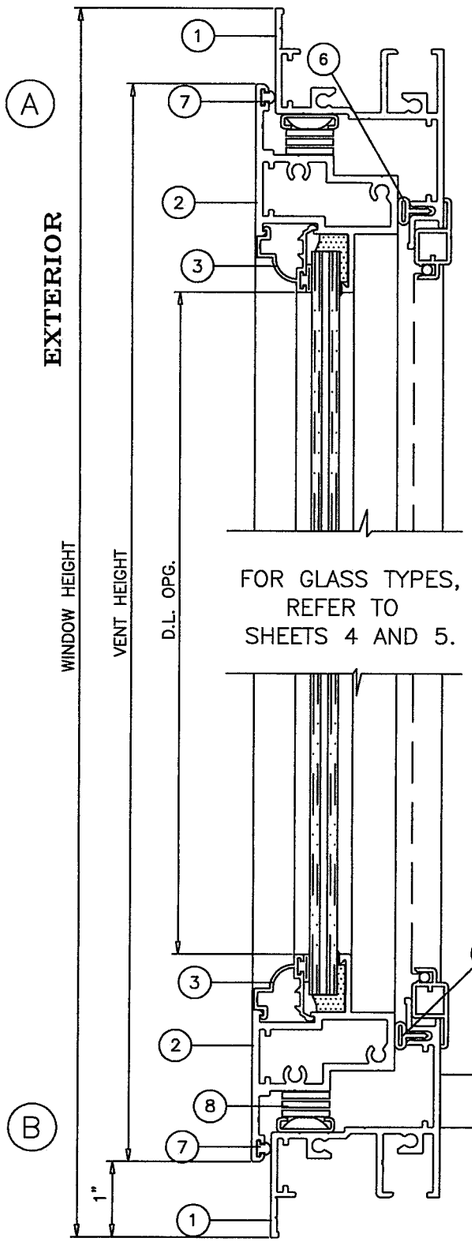
G. OTHER

1. This NOA **revises NOA #17-0918.11** and updates to FBC 2020, expiring 10/26/23.
2. RER Test proposals #**19-1155** dated 01/10/20 approved by Ishaq I. Chanda, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-0528.04
Expiration Date: October 26, 2023
Approval Date: November 12, 2020

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



GENERAL WINDOW SECTIONS
FLANGE FRAME

NOTES:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH EDITION)/2020 (7TH 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 2017/2020 FLORIDA BUILDING 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.

INSTRUCTIONS: USE CHARTS AS FOLLOWS.

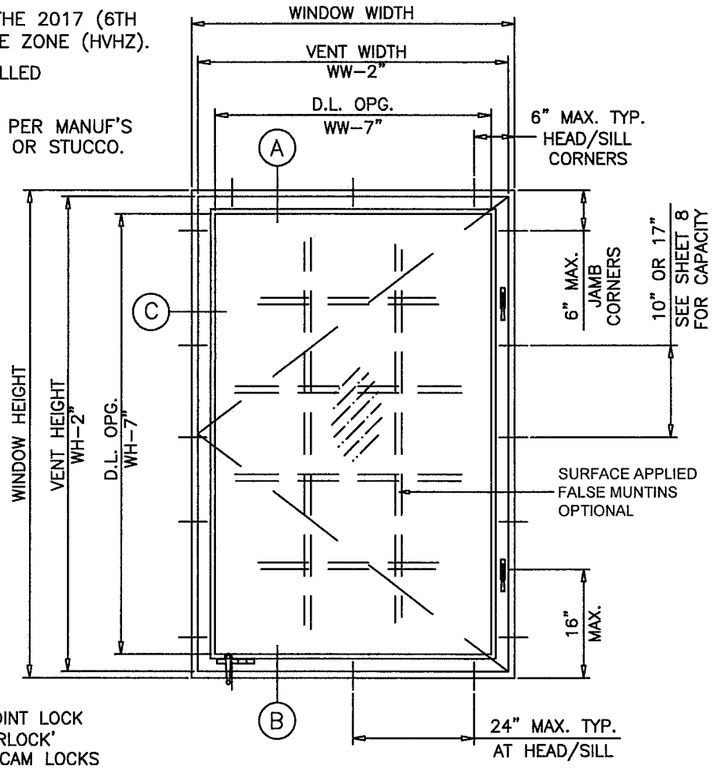
STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2 SEE CHARTS ON SHEETS 4 AND 5 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE/TYPE.

STEP 3 USING CHART ON SHEET 8 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

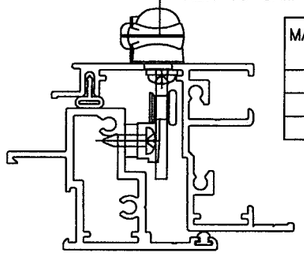
STEP 4 IF ALUMINUM BUCK SYSTEM IS USED USE CHART ON SHEET 9 TO DETERMINE CAPACITY.

STEP 5 THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.



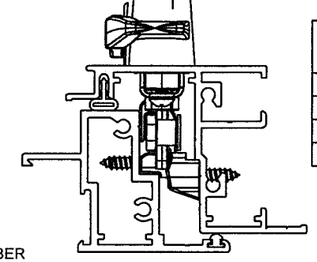
TYPICAL ELEVATION
(FLANGE FRAME)

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

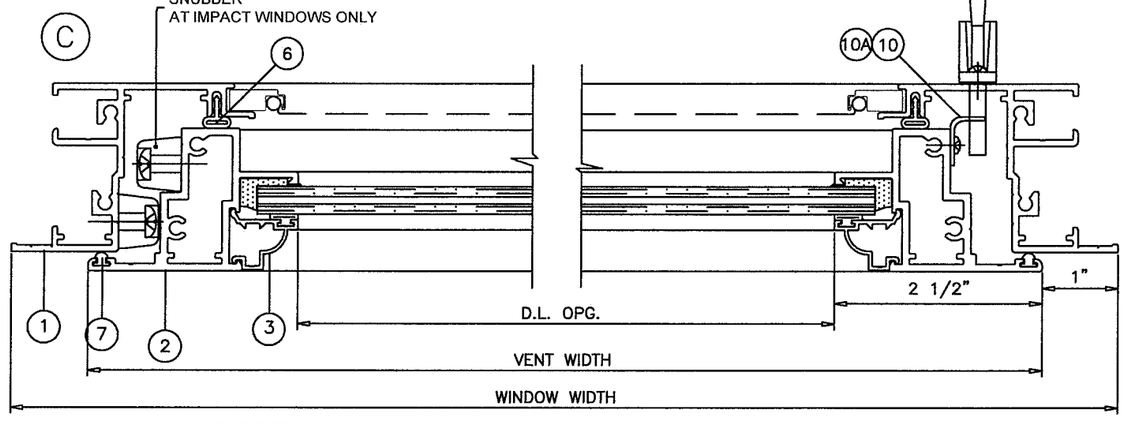


MAX. WDW. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4

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



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



EXTERIOR

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami–Dade Product Control

Revision: REVISED FOR 2020 FBC, ADDED ANCHOR TYPE & REFORMATTED. - JR - 5/15/20

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

SERIES 238 CASEMENT WINDOW - LMI

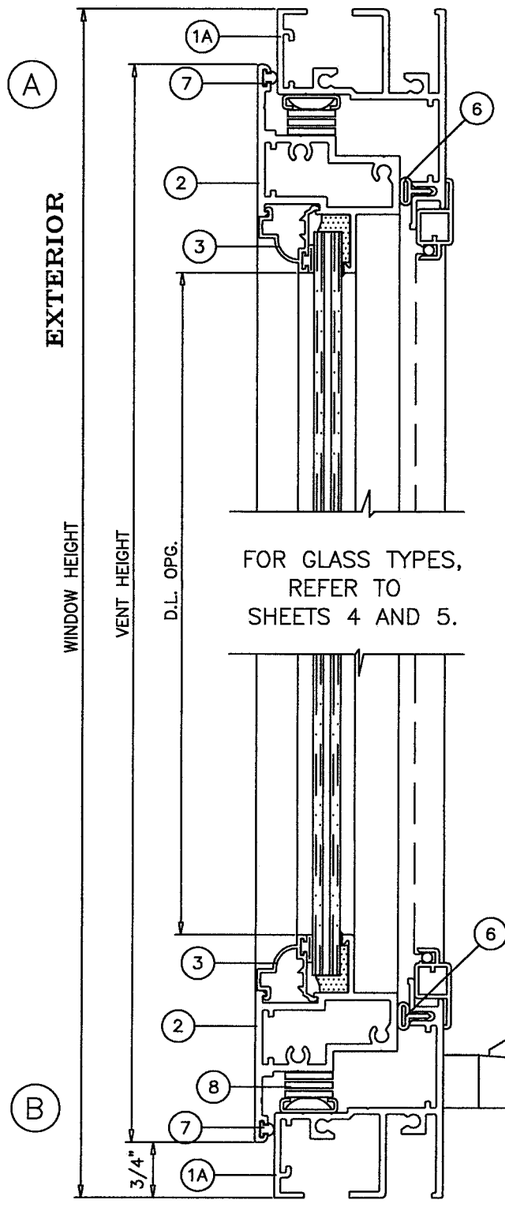
GEN. NOTES, ELEV. & FL. X-SECTIONS

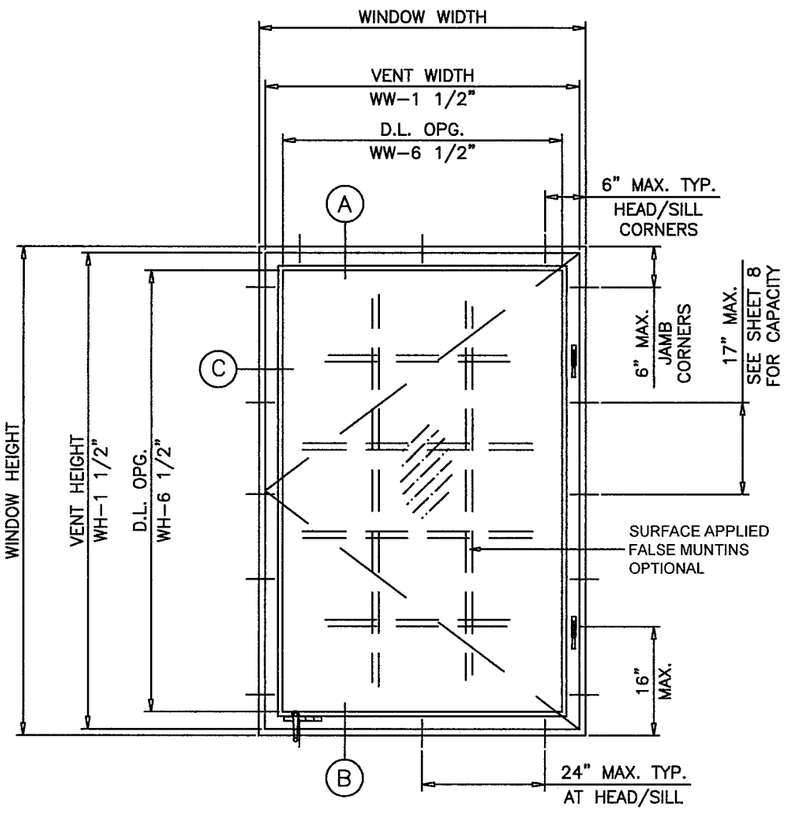
Rev.	Date	Drawn By	DWG No.	Sheet	Scale	Series	Desc.	Title
A	05/15/20	J ROSOWSKI	CA238NOA-1	1 OF 9	NTS	CA238		

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/22/20
A. LYNN MILLER, P.E.
P.E.# 58705

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

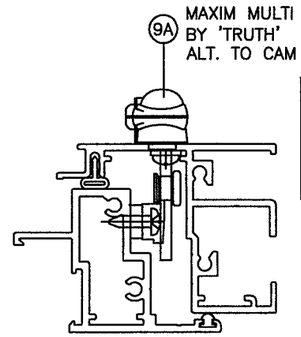




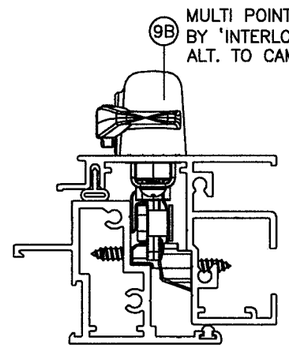
TYPICAL ELEVATION
(EQUAL LEG FRAME)

FOR MULLION/ MULTIPLE UNITS, REFER TO SEPARATE CGI MULLION NOA.

GENERAL WINDOW SECTIONS
EQUAL LEG FRAME

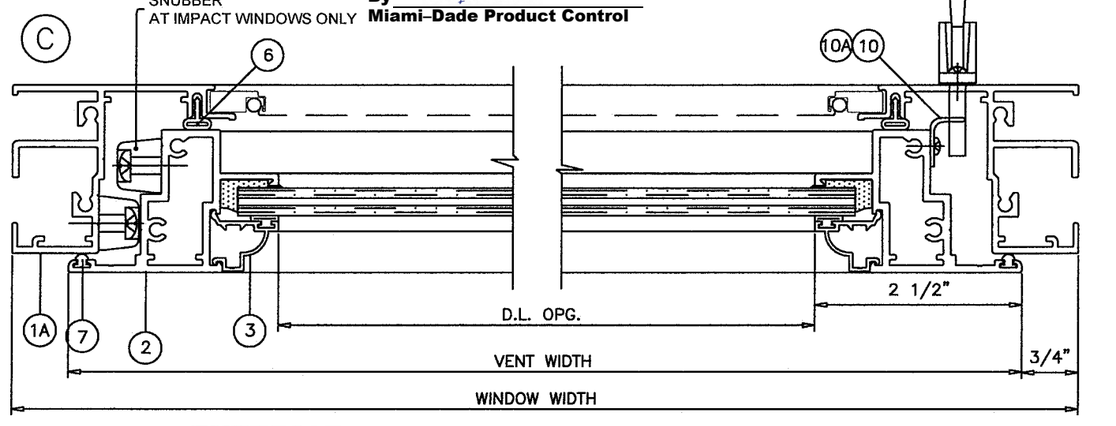


MAX. WDW. HEIGHT	LOCK POINTS
42"	2
63"	3
84"	4



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

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami–Dade Product Control



EXTERIOR

Revision:

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

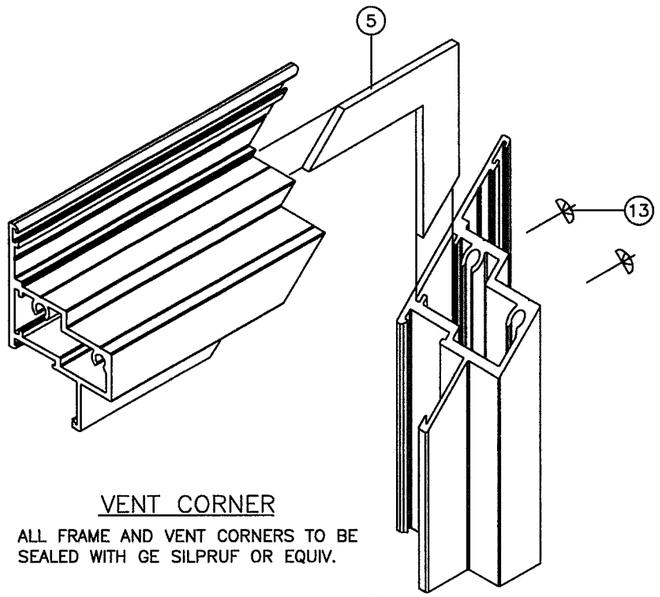
Title	Desc.	Series
SERIES 238 CASEMENT WINDOW - LMI	ELEV. & EL. X-SECTIONS	CA238

Date	Drawn By	Rev.
05/15/20	J ROSOWSKI	A

DWG No.	Sheet	Scale
CA238NOA-1	2 OF 9	NTS

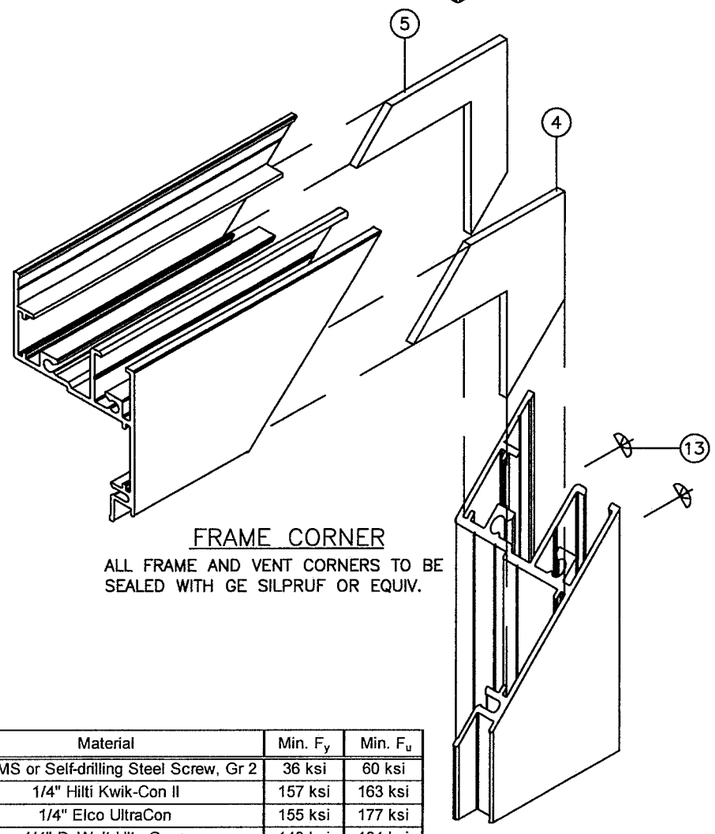
ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
5.22.20

A. LYNN MILLER, P.E.
P.E.# 58705



VENT CORNER

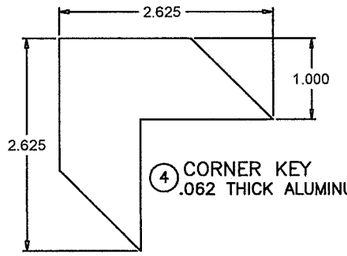
ALL FRAME AND VENT CORNERS TO BE SEALED WITH GE SILPRUF OR EQUIV.



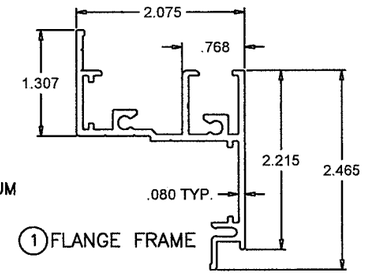
FRAME CORNER

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

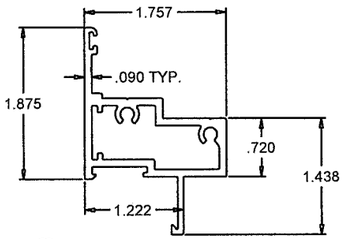
Material	Min. F_y	Min. F_u
#14 SMS or Self-drilling Steel Screw, Gr 2	36 ksi	60 ksi
1/4" Hilti Kwik-Con II	157 ksi	163 ksi
1/4" Elco UltraCon	155 ksi	177 ksi
1/4" DeWalt UltraCon+	148 ksi	164 ksi
6063-T5 Aluminum	16 ksi	22 ksi
A36 Steel	36 ksi	58 ksi
Gr. 33 Steel Stud	33 ksi	45 ksi



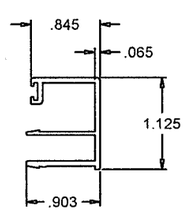
(4) CORNER KEY .062 THICK ALUMINUM



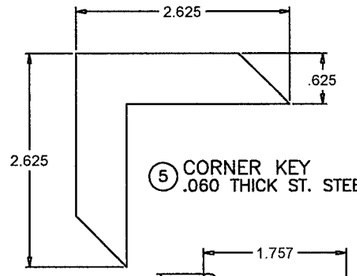
(1) FLANGE FRAME



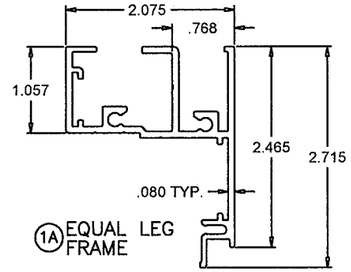
(2) VENT (5/16" LAM. GLASS)



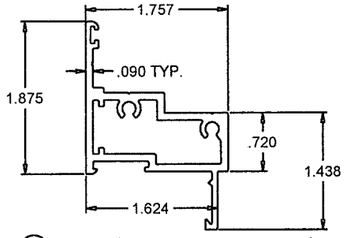
(15) OPT. ALUM BUCK COVER



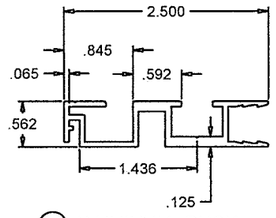
(5) CORNER KEY .060 THICK ST. STEEL



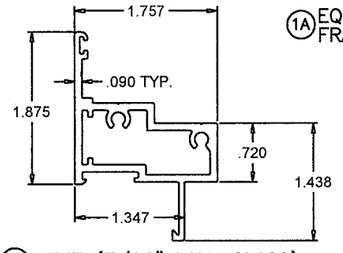
(1A) EQUAL LEG FRAME



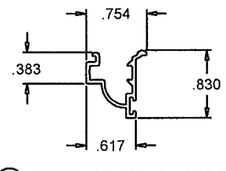
(2B) VENT (INSUL. LAM. GLASS)



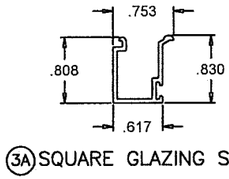
(14) ALUMINUM BUCK



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



(3) OGEE GLAZING STOP



(3A) SQUARE GLAZING STOP

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
14	–	–	ALUMINUM BUCK	6063–T6	INDALEX OR EQUIV.
15	–	–	OPTIONAL ALUMINUM BUCK COVER	6063–T6	INDALEX OR EQUIV.

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Title:	Desc.:	Series
SERIES 238 CASEMENT WINDOW - LMI	BOM & EXTRUSIONS	CA238

Date	Drawn By	Rev.
05/15/20	J ROSOWSKI	A

DWG No.	Sheet	Scale
CA238NOA-1	3 OF 9	NTS

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
5/22/20

A. LYNN MILLER, P.E.
P.E.# 58705

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS

NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)
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

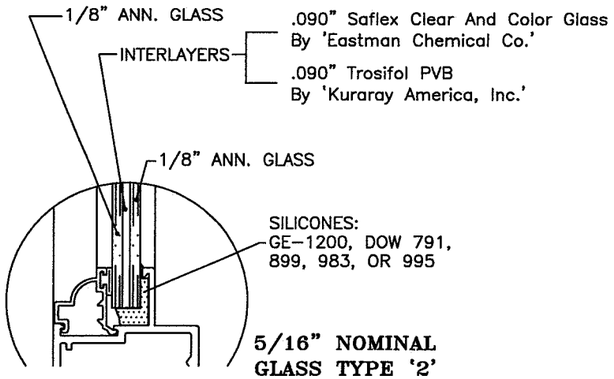
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)
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
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

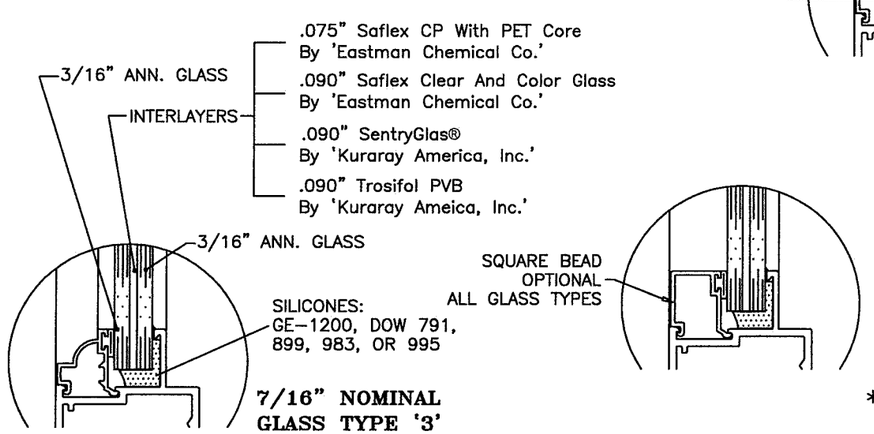
PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS

NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

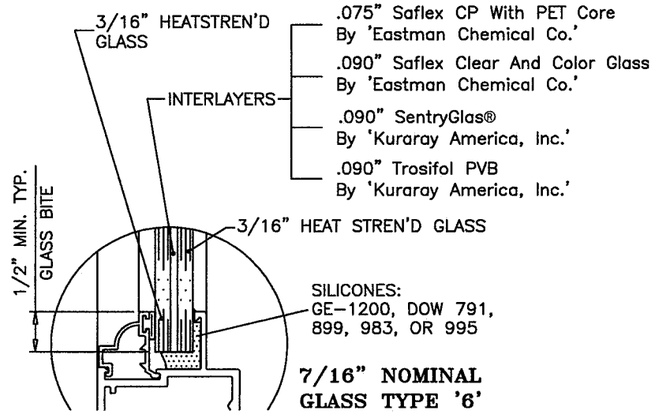
WINDOW DIMS.		GLASS TYPE '2'		GLASS TYPE '3'		GLASS TYPE '6'	
WIDTH	HEIGHT	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)	EXT. (+)	1NT. (–)
19–1/8"	26"	110.0	195.0	110.0	195.0	110.0	195.0
26–1/2"		110.0	195.0	110.0	195.0	110.0	195.0
37"		110.0	145.4	110.0	195.0	110.0	195.0
42"		110.0	128.1	110.0	195.0 *	110.0	195.0 *
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**	56.3**



5/16" NOMINAL GLASS TYPE '2'



7/16" NOMINAL GLASS TYPE '3'



7/16" NOMINAL GLASS TYPE '6'

NOTES:

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

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

*LIMIT MAX. LOADS TO 171.0 PSF WHEN MULTI POINT LOCK BY 'INTERLOCK' (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. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami–Dade Product Control

Revision: REFORMATED & ADDED BACKBEDDING - JR - 5/15/20

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Impact Resistant Windows & Doors WERE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Title	Desc.	Series	Scale	Sheet	DWG No.	Rev.
SERIES 238 CASEMENT WINDOW - LMI	GLASS & WINDOW DP 1	CA238	NTS	4 OF 9	CA238NOA-1	A

Date: 05/15/20
Drawn By: J ROSOWSKI

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/22/20
A. LYNN MILLER, P.E.
P.E.# 58705

PERFORMANCE VALUES OF IMPACT RESISTANT WINDOWS
NO SHUTTERS REQUIRED
REFER TO SHEETS 6 THRU 9 FOR INSTALLATION DETAILS

WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (−)	EXT. (+)	1NT. (−)
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 6 THRU 9 FOR INSTALLATION DETAILS

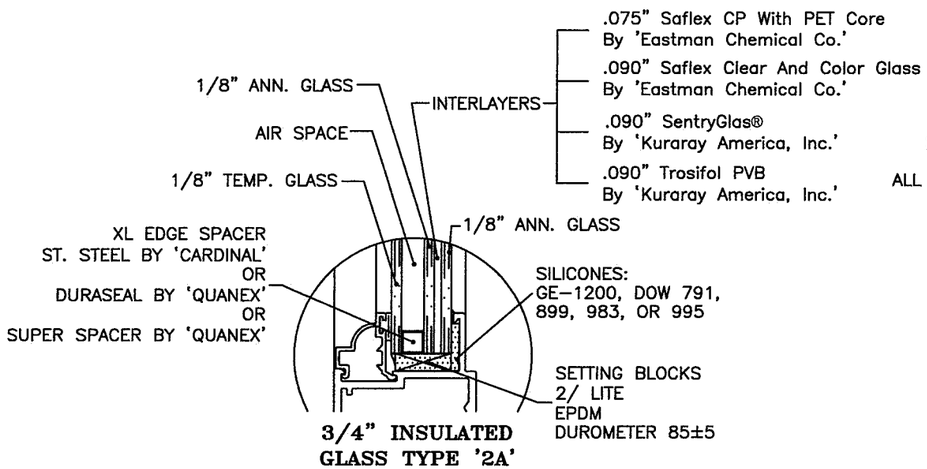
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (−)	EXT. (+)	1NT. (−)
20"	60"	98.8	112.6	110.0	195.0
24"		85.8	95.4	110.0	120.0
28"		76.7	83.3	110.0	120.0
30"		73.2	77.7	110.0	120.0
32"		70.2	72.8	110.0	120.0
36"		64.8	64.8	110.0	120.0
40"		60.0	60.0	–	–
42"		60.0	60.0	–	–
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"	76"	60.0	60.0	–	–
36"		60.0	60.0	–	–
20"	78"	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"	84"	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 6 THRU 9 FOR INSTALLATION DETAILS

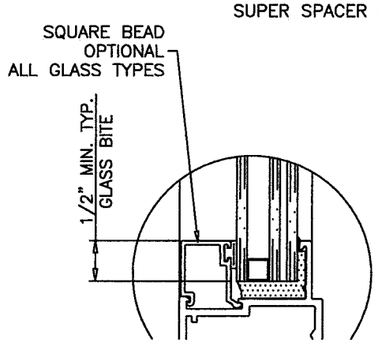
WINDOW DIMS.		GLASS TYPE '2A'		GLASS TYPE '3A'	
WIDTH	HEIGHT	EXT. (+)	1NT. (−)	EXT. (+)	1NT. (−)
19−1/8"	26"	110.0	195.0	110.0	195.0
26−1/2"		110.0	203.0	110.0	195.0
37"		110.0	145.4	110.0	195.0
42"		110.0	128.1	110.0	195.0 *
19−1/8"	38−3/8"	110.0	190.6	110.0	195.0
26−1/2"		110.0	137.5	110.0	195.0
37"		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**	–	–

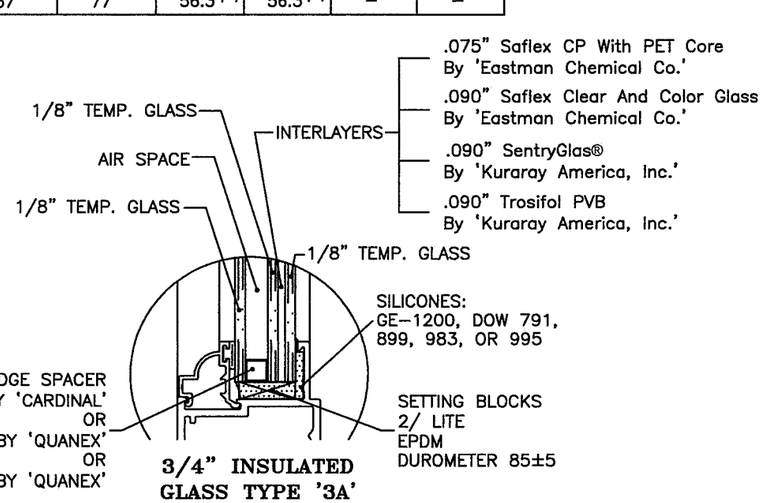
*LIMIT MAX. LOADS TO 171.0 PSF WHEN MULTI POINT LOCK BY 'INTERLOCK' (9B) IS USED.

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



3/4" INSULATED GLASS TYPE '2A'





3/4" INSULATED GLASS TYPE '3A'

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

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

PRODUCT REVISED
as complying with the Florida Building Code
NOA−No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami−Dade Product Control

Revision: REFORMATED & ADDED BACKBEDDING - JR - 5/15/20

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Series	Desc.	Title
CA238	GLASS & WINDOW DP 2	SERIES 238 CASEMENT WINDOW - LMI

Scale	Sheet	DWG NO.	Rev.
NTS	5 OF 9	CA238NOA-1	A

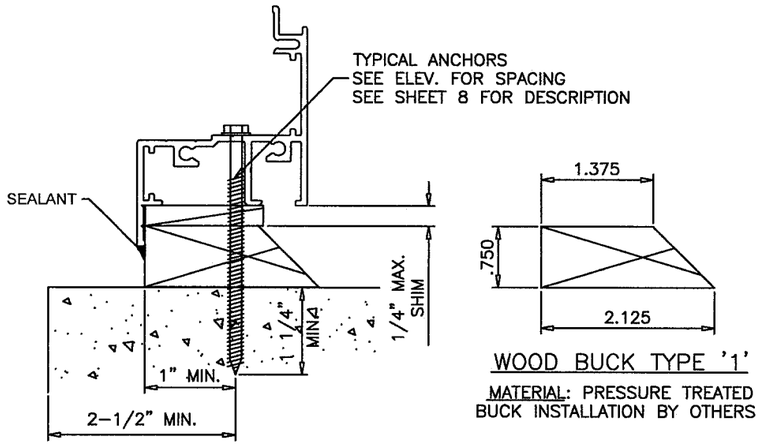
Drawn By: J ROSOWSKI
Date: 05/15/20

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
5/22/20

A. LYNN MILLER, P.E.
P.E.# 58705

INSTALLATION CONDITIONS FLANGE FRAME (APPLIES TO ALL FOUR SIDES)

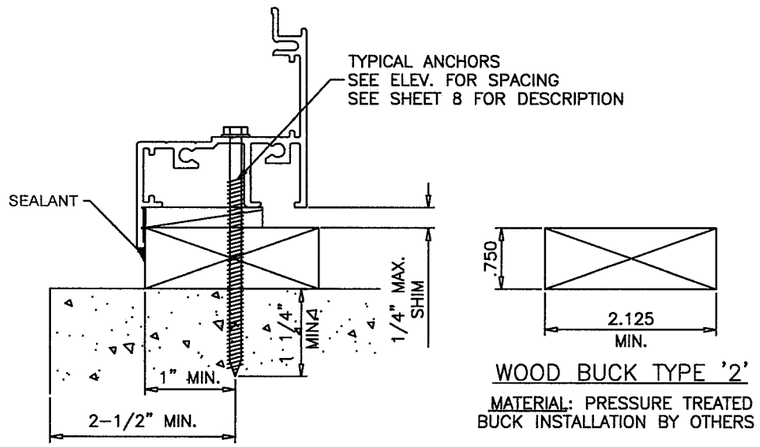
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 8



WOOD BUCK TYPE '1'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

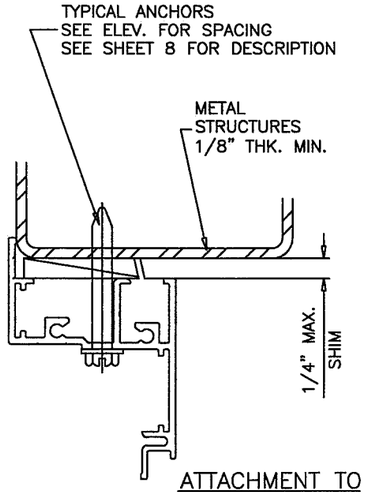
INSTALLATION TYPE '1'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



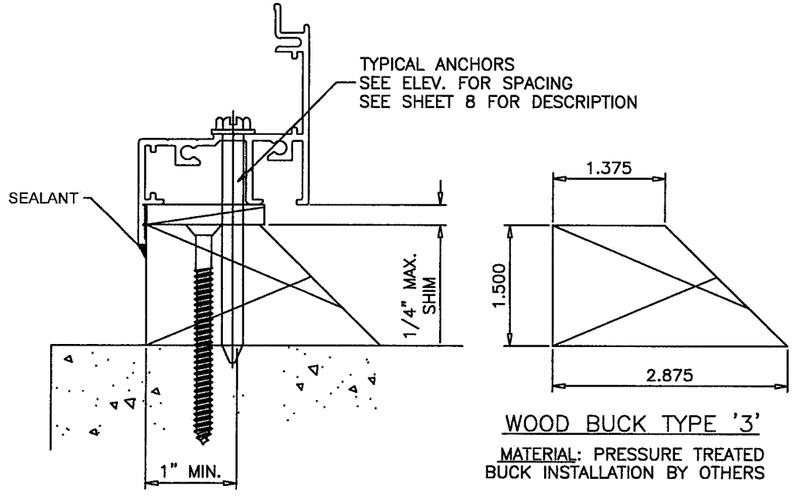
WOOD BUCK TYPE '2'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

INSTALLATION TYPE '2'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



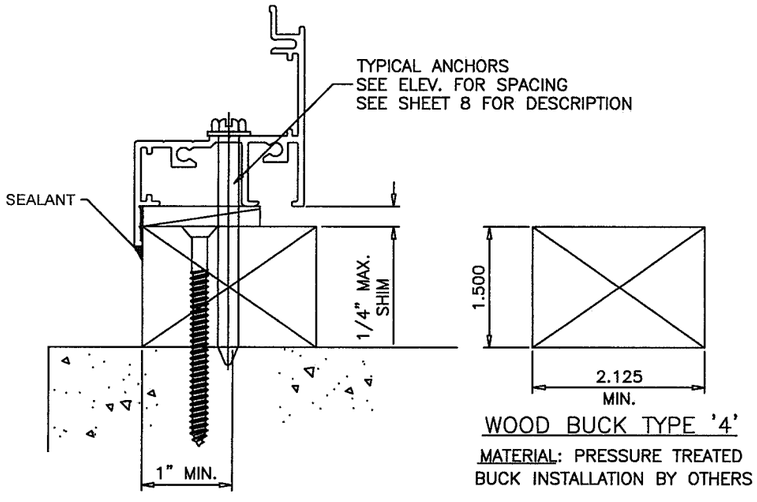
ATTACHMENT TO
METAL STRUCTURES



WOOD BUCK TYPE '3'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

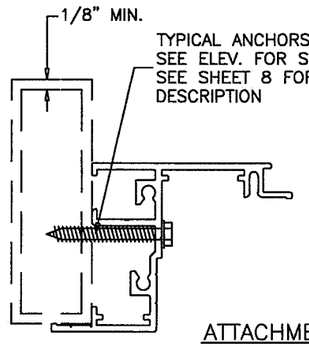
INSTALLATION TYPE '3'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



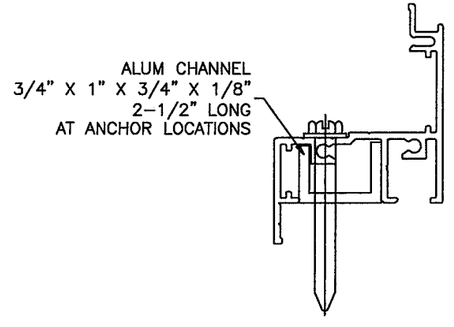
WOOD BUCK TYPE '4'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

INSTALLATION TYPE '4'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



ATTACHMENT TO
APPROVED MULLIONS



ALT. ANCHOR LOCATION
WITH SHEAR CLIP

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

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Impact Resistant Windows & Doors WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Series	Desc. / Title	Sheet	DWG No.	Drawn By	Date	Rev.
CA238	SERIES 238 CASEMENT WINDOW - LMI INSTALLATION CONDITIONS, FL.	NTS	6 OF 9	J ROSOWSKI	05/15/20	A
		Scale				

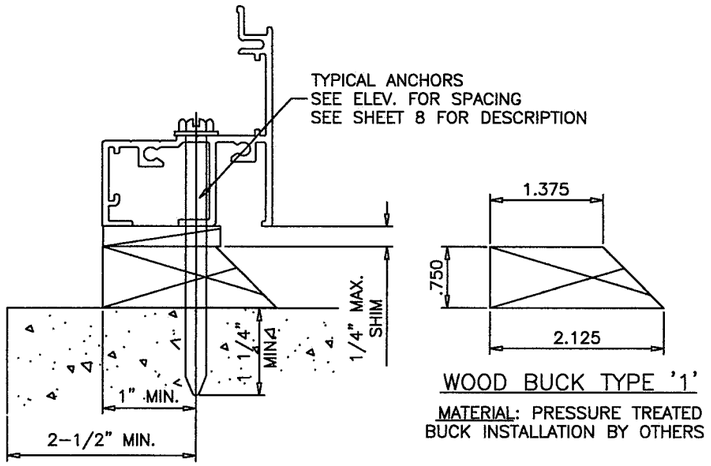
CA238NOA-1

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/22/20

A. LYNN MILLER, P.E.
P.E.# 58705

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

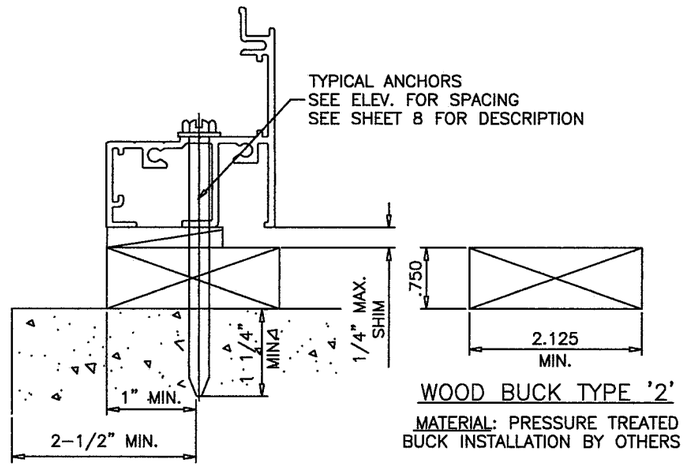
FOR ANCHOR PERFORMANCE VALUES SEE SHEET 8



WOOD BUCK TYPE '1'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

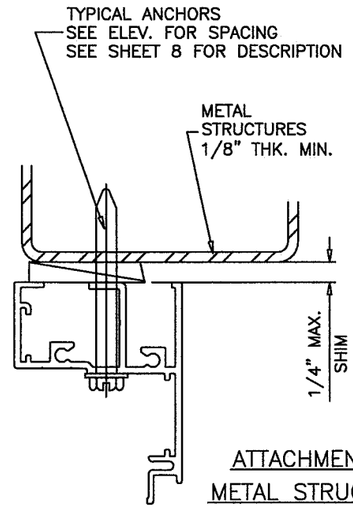
INSTALLATION TYPE '1'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



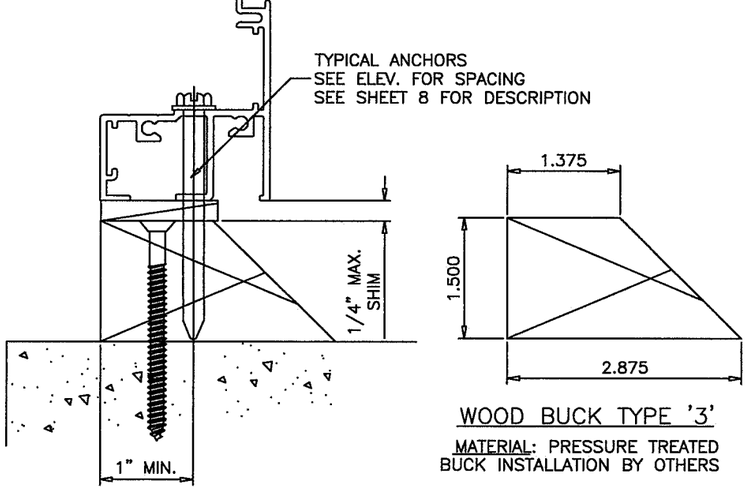
WOOD BUCK TYPE '2'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

INSTALLATION TYPE '2'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



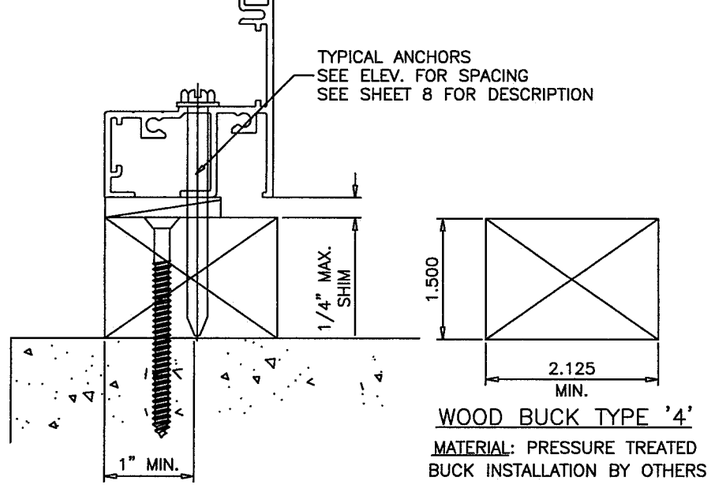
ATTACHMENT TO
METAL STRUCTURES



WOOD BUCK TYPE '3'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

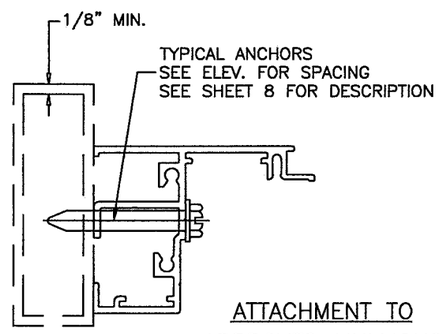
INSTALLATION TYPE '3'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



WOOD BUCK TYPE '4'

MATERIAL: PRESSURE TREATED BUCK INSTALLATION BY OTHERS

INSTALLATION TYPE '4'
TYPICAL INSTALLATION DETAIL
ON ALL FOUR SIDES/USING WOOD



ATTACHMENT TO
APPROVED MULLIONS

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

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Title	Desc.	Series
SERIES 238 CASEMENT WINDOW - LMI	INSTALLATION CONDITIONS, EL.	CA238

Date	Drawn By	Rev.	DWG No.	Sheet	Scale
05/15/20	J ROSOWSKI	A	CA238NOA-1	7 OF 9	NTS

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
5/22/20

A. LYNN MILLER, P.E.
P.E.# 58705

PERFORMANCE VALUES OF INSTALLATION ANCHORS

REFER TO SHEETS 6 & 7 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

PERFORMANCE VALUES OF INSTALLATION ANCHORS

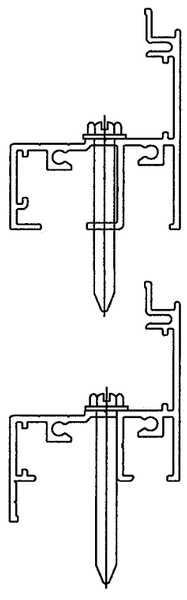
REFER TO SHEETS 6 & 7 FOR DETAILS

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"	72"	195.0	195.0	129.0	180.6
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
32"	76"	133.2	195.0	76.4	122.2
36"		118.4	189.5	67.9	108.6
20"	78"	195.0	195.0	119.1	190.5
24"		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

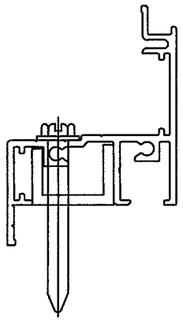
PERFORMANCE VALUES OF INSTALLATION ANCHORS

REFER TO SHEETS 6 & 7 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



ANCHORS W/O SHEAR CLIP



ANCHORS WITH SHEAR CLIP
(MAY NOT BE USED WITH ULTRACON+ ANCHORS)

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)

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 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

(ULTRACON+ ANCHORS MAY NOT BE USED WITH THE SHEAR CLIP)

#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. 20-0528.04
Expiration Date 10/26/2023
By Ishaq I. Chanda
Miami−Dade Product Control

Revision: REFORMATED & ADDED ANCHOR TYPE - JR - 5/15/20

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Impact Resistant Windows & Doors
WE'RE STRONGER™
CGI DOORS AND WINDOWS, INC.
3780 W 104TH STREET
HIALEAH, FL 33018
(305) 593-6590

Series	Desc.	Title
CA238	ANCHORS & DP	SERIES 238 CASEMENT WINDOW - LMI

Scale	Sheet	DWG No.	Rev.
NTS	8 OF 9	CA238NOA-1	A

Drawn By	Date
J ROSOWSKI	05/15/20

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
5/22/20

A. LYNN MILLER, P.E.
P.E.# 58705

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	195.0
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

PERFORMANCE VALUES OF ALUMINUM BUCK INSTALLATION ANCHORS			
WINDOW DIMS.		EXT.(+)	INT.(−)
WIDTH	HEIGHT		
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
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"		88.2	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
19−1/8"	76"	109.9	120.0
26−1/2"		84.0	115.2
37"		60.0	60.0
19−1/8"	77"	108.3	120.0
26−1/2"		82.7	113.4
37"		60.0	60.0

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

B+ − 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONC. OR FILLED BLOCK
1" 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

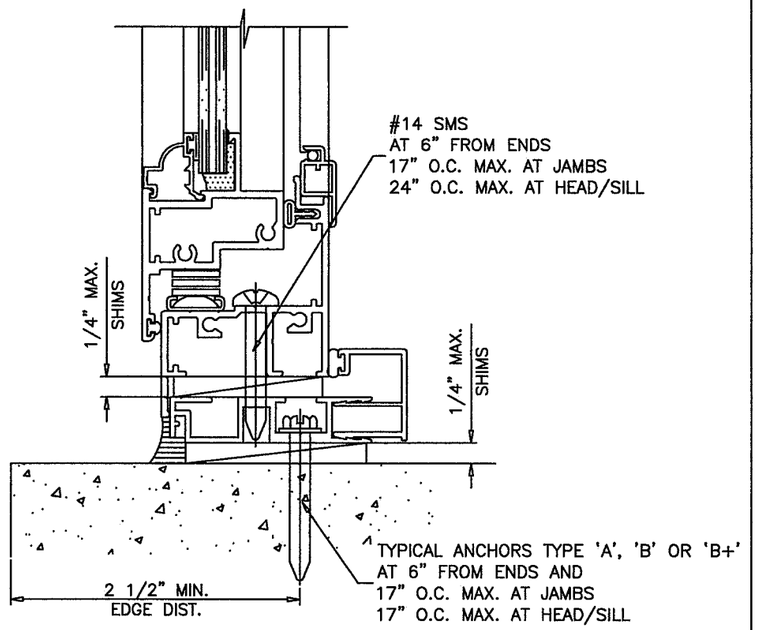
TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY BLOCK = 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.

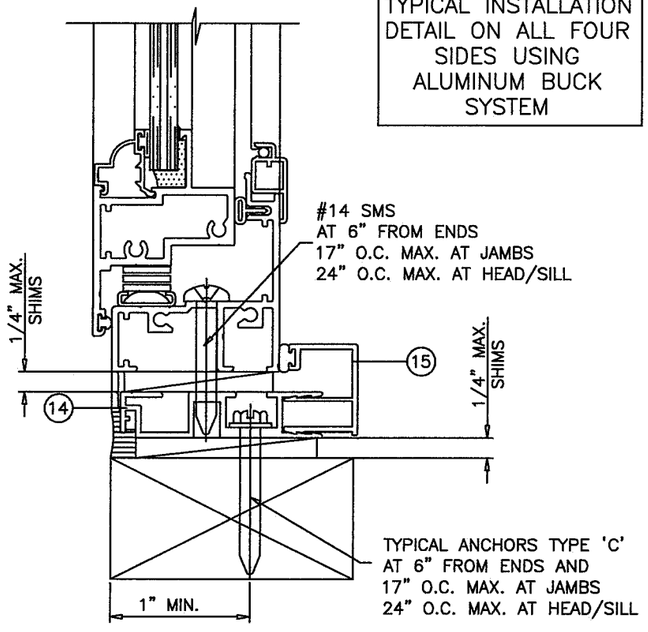
ALUMINUM BUCK FRAMING DETAILS

REFER TO SHEETS 4 THRU 8 FOR WINDOW CAPACITIES
USE LOWER APPLICABLE VALUES.



INSTALLATION TYPE '5'

TYPICAL INSTALLATION DETAIL ON ALL FOUR SIDES USING ALUMINUM BUCK SYSTEM



INSTALLATION TYPE '6'

2BY WOOD BUCK OR WOOD STRUCTURES

PRODUCT REVISED
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Title	Desc.	Series
SERIES 238 CASEMENT WINDOW - LMI	ANCHORS & DP, ALUM. BUCK INSTALL.	CA238

Date	Drawn By	Rev.
05/15/20	J ROSOWSKI	A

DWG No.	Sheet	Scale
CA238NOA-1	9 OF 9	NTS

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