MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
www.miamidade.gov/building

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)

NOTICE OF ACCEPTANCE (NOA)

PGT Industries, Inc.
1070 Technology Drive
North Venice, FL 34275

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 "CA-740" Outswing Aluminum Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. **MD-CA740-LM**, Rev **F** titled "Casement Window Details – LM & SM", sheets 1 through 11 of 11, dated 08/08/12 and last revised on 07/31/23, prepared by manufacturer, signed and sealed by Anthony 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.

This NOA **revises NOA No. 23-0303.04** 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 **Ishaq I. Chanda, P.E.**

Ishaq I. Chanda

PGT Industries, Inc.

NOTICE OF ACCEPTANCE; EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
   (Submitted under NOA No. 12-1218.09)
2. Drawing No. **MD-CA740-LM**, titled "Casement Window Details – LM & SM", sheets 1 through 11 of 11, dated 08/08/12, with revision D dated 03/13/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 20-0402.02)

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
   6) Forced Entry Test, per ASTM F588 and TAS 202-94

   along with marked-up drawings and installation diagram of all PGT Industries, Inc. representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.: **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) dated 07/13/20, all signed and sealed by Idalmis Ortega, P.E.
   (Submitted under NOA No. 20-0402.02)
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 PVC sliding glass door, a PVC fixed window and an aluminum sliding glass door, using: Kodispace 4SG TPS spacer system, Duraseal® spacer system, Super Spacer® NXT™ spacer system and XL Edge™ spacer system at insulated glass, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-8717, FTL-8968** and **FTL-8970**, dated 11/16/15, 06/07/16 and 06/02/16 respectively, all signed and sealed by Idalmis Ortega, P.E.
   (Submitted under NOA No. 16-0629.21)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0816.12
Expiration Date: April 11, 2028
Approval Date: September 07, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

I. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

B. TESTS (CONTINUED)

3. 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 CA740 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc. Test Report No. **FTL-7065**, dated 10/05/12, signed and sealed by Marlin D. Brinson, P.E. ***(Submitted under NOA No. 12-1218.09)***

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, prepared by manufacturer, dated 06/09/17 and revised and updated to the **FBC 7th Edition (2020)** on 03/25/20, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 20-0402.02)
2. Glazing complies with **ASTM E1300-04**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 05/09/19, expiring on 07/08/24.
2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**" dated 05/23/19, expiring on 05/23/24.

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0816.12
Expiration Date: April 11, 2028
Approval Date: September 07, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and the **FBC 7th Edition (2020)**, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 20-0402.02)
2. Statement letter of no financial interest, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 20-0402.02)
3. Proposal No. **19-1155 TP** issued by the Product Control Section, dated January 10, 2020, signed by Ishaq Chanda, P.E.
   (Submitted under NOA No. 20-0402.02)
4. Proposal No. **16-0125** issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.
   (Submitted under NOA No. 16-0629.21)

G. OTHERS

1. Notice of Acceptance No. **17-0614.14**, issued to PGT Industries, Inc. for their Series "CA-740" Outswing Aluminum Casement Window – L.M.I." approved on 09/14/17 and expiring on 04/11/23.

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0816.12
Expiration Date: April 11, 2028
Approval Date: September 07, 2023

NOTICE OF ACCEPTANCE; EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED under previous approval

A. DRAWINGS

1. Drawing No. **MD-CA740-LM**, titled "Casement Window Details – LM & SM", sheets 1 through 11 of 11, dated 08/08/12, with revision **E** dated 03/01/23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, 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. **20-0915.22** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 11/19/20, expiring on 07/08/24.
2. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 12/15/22, expiring on 07/04/28.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)**, dated March 1, 2023, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of no financial interest, dated March 1, 2023, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. Notice of Acceptance No. **20-0402.02**, issued to PGT Industries, Inc. for their Series "CA-740" Outswing Aluminum Casement Window – L.M.I." approved on 08/13/20 and expiring on 04/11/23.

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0816.12
Expiration Date: April 11, 2028
Approval Date: September 07, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **MD-CA740-LM**, REV. **F** titled "Casement Window Details – LM & SM", sheets 1 through 11 of 11, dated 08/08/12 and last revised on 07/31/23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, 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. **20-0915.22** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 11/19/20, expiring on 07/08/24.
2. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 12/15/22, expiring on 07/04/28.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023)**, dated 07/31/23, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. *This NOA **revises NOA No. 23-0301.04**, updates to FBC 2023, expiring 04/11/28.*

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0816.12
Expiration Date: April 11, 2028
Approval Date: September 07, 2023

GENERAL NOTES: SERIES 740 IMPACT RESISTANT CASEMENT WINDOW

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

2) SHUTTERS ARE NOT REQUIRED WHEN USED AS WIND BORNE DEBRIS REQUIRING FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (EXPOSED) MUST BE TEMPERED.

3) FOR MIAMI-DADE APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ANCHORS, WHICH ALSO INCLUDE FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASPHALT OR CONCRETE SINGLE/WOOD UNITS AND CONCRETE WITH MIN. 3.0 PSI (REVISION TYPE 2&3) TABLE 1, SHEET 4.

4) ALL WATER PLUGGED ITEMS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED AS INSTALLATIONS. NO WATER BLOCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. ANY OPENINGS EXPECTED AS (A) ARE 1-1/2" THICK OR GREATER, (A) AND (C) BOTH WIDTH (WIDTH) SHALL BE DESIGNED TO PROPERLY TRANSMIT LOADS TO THE STRUCTURE. WHERE SUCH DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

5) ANCHOR EMBEDMENT TO WOOD MATERIAL SHALL BE INTO THE WALL (PREFERRED OR EXACTLY) USE DIAMETER OF SUPPLIED EMBEDMENT AS SPECIFIED ON TABLE 1, SHEET 4. MINIMUM JOINT REQUIRED TO HAVE ON ALL FOUR CORNERS OF THE FRAME. INSTALLATION ANCHORS SHOULD BE MEANS OVERALL. DRAINAGE PLUGGING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE CHOSE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

6) SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS, WOOD SHIMS BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE WINDOW.

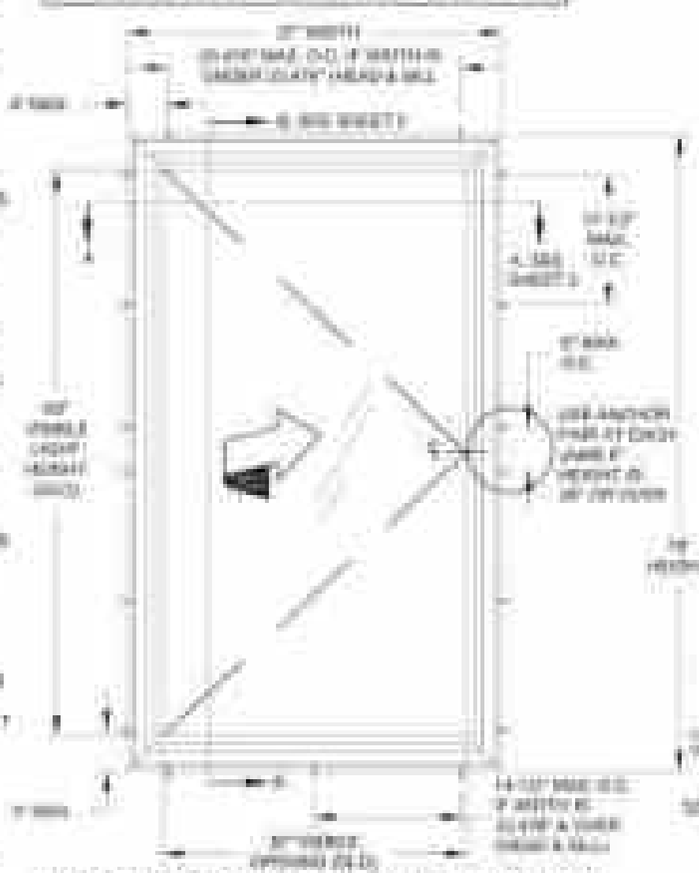
7) DESIGN PRESSURES:
A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL/ULTIMATE TEST PRESSURE. FRAME (MULLION AND GLASS) PER ASTM E1300.
B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE. STRUCTURAL/ULTIMATE TEST PRESSURE. FRAME (MULLION AND GLASS) PER ASTM E1300.
C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

8) THE ENGINEERING METHOD WHICH HAS BEEN UTILIZED TO PROVE THE WINDOWS CONFORMANCE TO THE REQUIRED DESIGN PRESSURE, THE 33.33% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR HAS BEEN USED FOR THE EVALUATION OF ANCHORS WITH WOOD ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

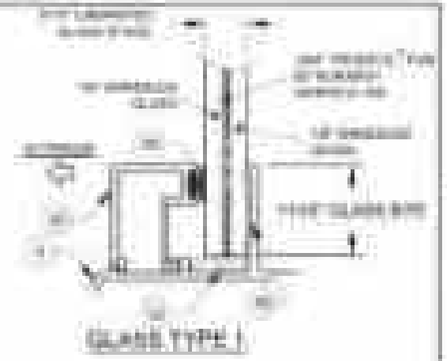
9) REINFORCED TEST REPORTS (TILTING JETS, DBS, TDS, DENSITY ULTRASONIC INCLUDED) ULTRASONIC (W.M. DESIGN) TILTED CENTERS (W.M. ORIENTATION) FOR DRIVE CONSTRUCTION AND SIDE ULTRASONIC DESIGN MANUAL.

10) FRAME FLANGES OR REMOVAL PREHUNG MAY TRANSMIT A FAILS TO UPLIFT MATERIAL (AS FRAME THE EXPOSED ALUMINUM EDGE MUST BE PAINTED TO PROTECT AGAINST CORROSION.

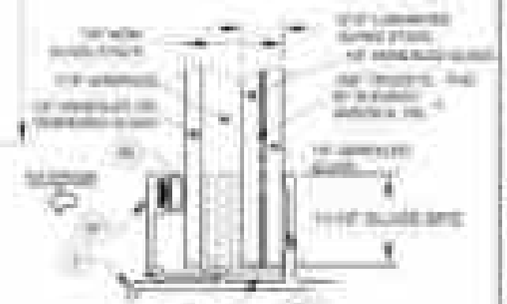
DESIGN PRESSURE RATING	IMPACT RATING
VARIES - SEE SHEETS 5-8	WIND BORNE DEBRIS LARGE & SMALL MISSILE IMPACT RESISTANCE

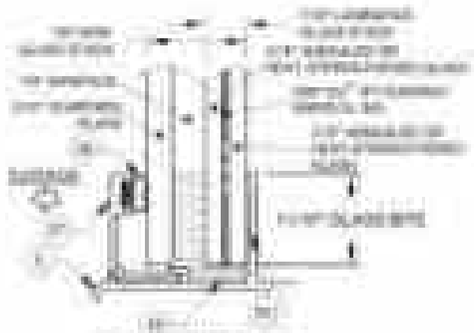


TYP. ELEVATION OF CASEMENT WINDOW









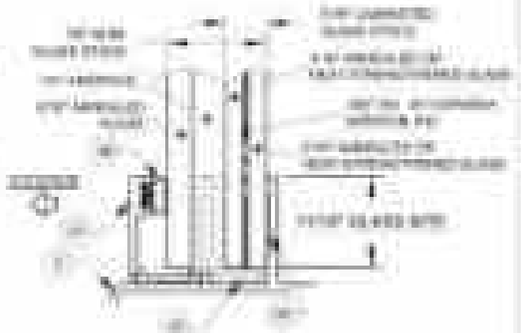


Table 1

	Glass Types	Sheet #
1	5/16" Lami (.09 Air - .060" PVB) - (16 Air)	5
2	7/16" Lami (2/16 Air - .090" PVB) - (2/16 Air)	6
3	9/16" Lami (5/16 Air - .090" PVB) - (2/16 Air)	7
4	7/16" Lami (2/16 Air - 1/16" Air - 1/16" Air - .060" PVB - 7/16" Air)	5
5	7/16" Lami (2/16" Air - 1/16" Air - 1/16" Air - .060" PVB - 7/16" Air)	6
6	7/16" Lami (2/16/90" Air - 1/4" Air - 5/16" Air - .090" PVB - 5/16" Air)	6
7	7/16" Lami (2/16/90" Air - 1/4" Air - 5/16" Air - .090" PVB - 1/16" Air)	7
8	7/16" Lami (2/16/90" Air - 1/4" Air - 5/16" Air - .090" PVB - 5/16" Air)	7
9	7/16" Lami (2/16/90" Air - 1/4" Air - 5/16" Air - .090" PVB - 5/16" Air)	7

GENERAL NOTES 1
ELEVATION 1
GLAZING DETAILS 2
INSTALLATION 3
ANCHOR & TYPE DETAILS 3
ANCHOR SPECIFICATIONS 4
ANCHOR SUBSTRATES 4
DESIGN PRESSURES 5-8
ASSEMBLY DETAILS/SECTIONS 10
SYSTEM DESIGNATION 11

CODES / STANDARDS USED:
- 2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION
- 2023 FLORIDA RESIDENTIAL CODE (FRC), 7TH EDITION
- ASTM E1300-16
- AMERICAN FOREST & PAPER ASSOCIATION
- ALUMINUM DESIGN MANUAL, ADM 2020
- AISI S100-16
- AISC 360-16

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0818.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F) UPDATED TO FBC 2023

DRAWN BY:	A. MORELEIN	10
DESIGN PRESSURE		9
		8
		7
		6
		5
		4
		3
		2
		1
		CA TW

PGT
CASEMENT WINDOW (LAM)
GENERAL NOTES, GLAZING & ELEVATION



INSTALLATION OPTION 1

INSTALLATION OPTION 2

INSTALLATION OPTION 4

VERTICAL SECTION B-B

HORIZONTAL SECTION A-A

INSTALLATION OPTION 3

PRODUCT REVISED
as complying with the Florida Building Code.
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Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (LM)

CROSS SECTION & INFET

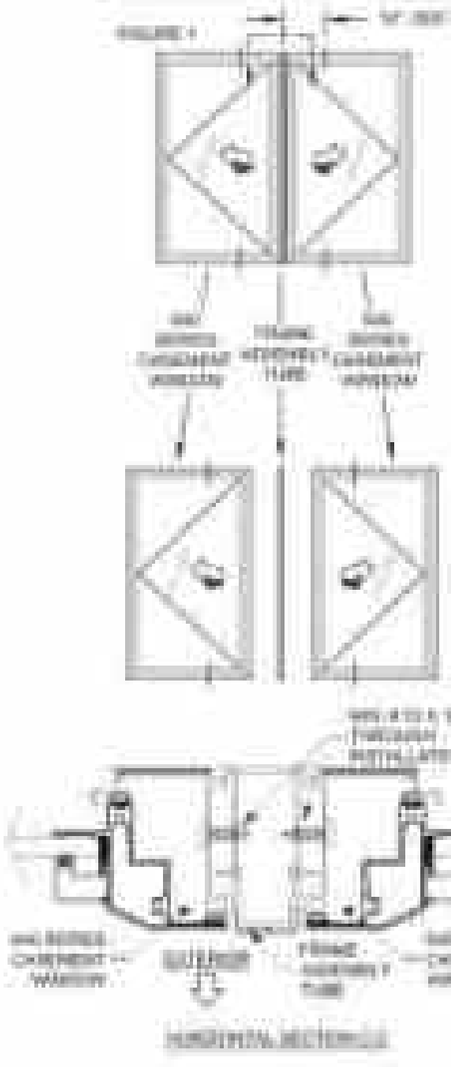
CA.1W

REGISTERED ARCHITECT
STATE OF FLORIDA
PROFESSIONAL ENGINEER

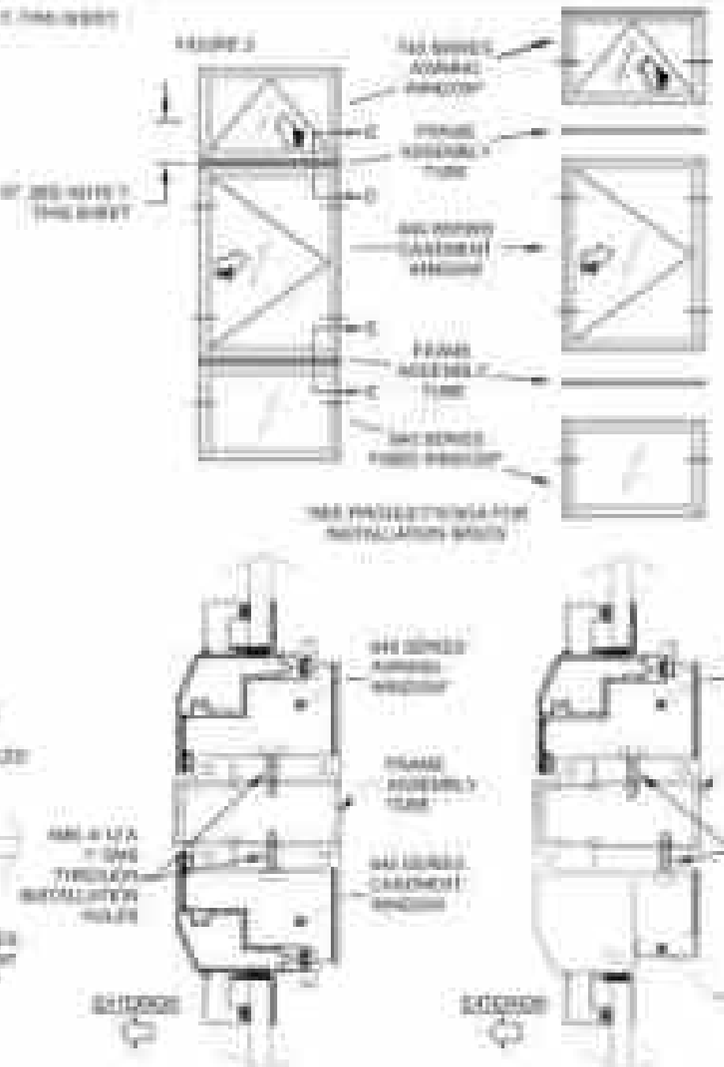
CASEMENT (X)



CASEMENT / CASEMENT (XX)



AWNING / CASEMENT / FIXED CASEMENT (XXO)



FOR SINGLE UNITS:

1) DETERMINE YOUR WINDOW SIZE AND GLASS

2) KNOWING YOUR WINDOW TYPE AND SUBSTRATE, DETERMINE YOUR ANCHOR GROUP FROM TABLE 3, SHEET 4.

3) FROM SHEET 5 OR 6, FIND THE SHEET FOR YOUR GLASS TYPE. FIND THE PRODUCT'S DESIGN PRESSURE FROM THE TABLE. LINEAR INTERPOLATION (DPI) FOR SINGLE WINDOWS, ALL ANCHOR SPACING!

4) DIMENSIONS SHOWN ARE FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLES.

5) USING THE TABLE LABELED "WINDOW ANCHORS REQUIRED" (TABLE 2, SHEET 4), DETERMINE THE NUMBER OF ANCHORS REQUIRED IN THE HEAD, SILL AND JAMBS OF YOUR WINDOW.

6) INSTALL AS PER THE INSTRUCTIONS ON SHEET 3.

FOR EACH WINDOW IN A VERTICAL / OR HORIZONTAL / COMBINED ASSEMBLY:

1) DETERMINE EACH INDIVIDUAL WINDOW TYPE, SIZE AND GLASS MAKEUP. SEE FIGURES 1 & 2 THIS SHEET. DETERMINE YOUR ANCHOR GROUP FROM TABLE 3, SHEET 4.

2) FROM SHEETS 5 OR 6, FIND THE SHEET FOR YOUR GLASS TYPE.

3) FIND THE DESIGN PRESSURE FROM THE TABLES LABELED "DESIGN PRESSURE (PSF) FOR WINDOWS ATTACHED TO A VERTICAL FRAME ASSEMBLY TUBE" OR "DESIGN PRESSURE (PSF) FOR WINDOWS ATTACHED TO A HORIZONTAL FRAME ASSEMBLY TUBE" DEPENDING ON WHICH WAY THE FRAME ASSEMBLY TUBE IS ORIENTATED. THIS MUST BE DONE FOR EACH WINDOW IN THE ASSEMBLY, AND THE LOWEST DESIGN PRESSURE APPLIES TO THE ENTIRE ASSEMBLY. DIMENSIONS SHOWN ARE FOR TO BE FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSIONS SHOWN ON THE TABLES.

4) USING THE TABLE LABELED "WINDOW ANCHORS REQUIRED" (TABLE 2, SHEET 4), DETERMINE THE NUMBER OF ANCHORS NEEDED IN THE HEAD, SILL AND JAMBS OF YOUR WINDOW.

5) INSTALL AS PER THE INSTRUCTIONS ON SHEETS 3. NOTE THAT ADDITIONAL ANCHORS THROUGH THE WINDOW FRAME INTO THE SUBSTRATE MAY BE REQUIRED (SEE SHEET 3), AND THAT MIN. #12 X 3" ANCHORS ARE TO BE USED THROUGH THE FRAME INTO THE FRAME ASSEMBLY TUBE (SEE DETAILS ON THIS SHEET).

FRAME ASSEMBLY TUBE NOTES:

1) DIMENSIONS SHOWN ARE TO CENTERLINES FOR EACH INDIVIDUAL WINDOW. FOUR SIDED NON-STRUCTURAL WINDOW TUBE MAY BE UTILIZED UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLES.

2) ANY SAY SERIES PRODUCT (CASEMENT, AWNING OR FIXED CASEMENT) MAY BE ATTACHED TO THE FRAME ASSEMBLY TUBE. FOR ALL OPENINGS, USE THE WINDOWS NOA FOR ARCHITECTURAL SIZE AND DESIGN PRESSURE LIMITATIONS.

3) ALL WINDOWS IN THE COMBINATION UNIT MUST BE HELD TO INDIVIDUALLY COMPLY WITH THE NOA PARAMETERS OF THEIR RESPECTIVE NOA.

4) FRAME ASSEMBLY TUBE TO BE FASTENED TO WINDOW AS SHOWN IN DETAIL 5, WITH MIN. #12 X 3" SHEET METAL SCREWS. USE THE SAME SPACING AND QUANTITY AS THE OPPOSITE FRAME MEMBER.

5) THE FRAME ASSEMBLY TUBE MAY NOT BE FASTENED BY HELEVATOR (OR SIMILAR) BLADE FLANGED WINDOW OR BE USED IN THE CHLOROX CONFIGURATIONS.

6) THE FRAME ASSEMBLY TUBE IS NOT REQUIRED TO BE CLIPPED TO THE SUBSTRATE. ALL EXTERIOR JOINTS TO BE SEALED BY INSTALLER.

7) FOR ALL CURTAIN WALL UNITS, ADDITIONAL INSTALLATION ANCHORS MAY NEED TO BE INSTALLED THROUGH THE WINDOW FRAMES AT 24" MAX. FROM EACH SIDE OF THE FRAME ASSEMBLY TUBE JOINTS/LINE. SEE TABLE BELOW.

WIND ZONE	WINDOW WIDTH OR HEIGHT	ANCHOR TYPE A	ANCHOR TYPE B, C & D
ZONE 1	24" - 36.00"	1	1
	36"+	1	1
ZONE 2	24" - 36.00"	1	1
	36"+	1	1
ZONE 3	24" - 36.00"	1	1
	36"+	1	1

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date 04.11.2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (UM)
FRAME ASSEMBLY TUBE
DETAILS

A. MORLEIN

MD-CA-FW

CA FW

3 OF 11

STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 2

Window Anchors Required

Design Pressure	Width	Height	Corner (12" - 24") Anchors Req'd			Header/Sill (12" - 24") Anchors Req'd			Jamb (12" - 24") Anchors Req'd			Corner (24" - 48") Anchors Req'd			Header/Sill (24" - 48") Anchors Req'd			Jamb (24" - 48") Anchors Req'd		
			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
+50 / -50	12"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	24"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	36"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	48"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	50"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	60"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
	72"	12"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		24"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		36"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		48"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		60"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
		72"	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0

USE THIS TABLE FOR ALL WINDOWS FOR THE ELEVATION SHOWN ON SHEET 1. WINDOWS NOT SHOWN ARE SMALLER THAN THE SIZE SHOWN. REFER UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

TABLE 3

Group	Substrate	Embedment	Min. Edge Distance	Min. End Distance	Min. Embedment	Anchor Plate Required?
A	8" thick CMU (100% solid) or 8" thick CMU (100% grout filled cells) or 8" thick 3000 psi concrete	1" Min.	3.00"	3"	1.00"	No
		2000 PSI Min.	3.00"	3.00"	1.00"	No
		3,000 PSI	3.00"	3.00"	1.00"	No
		4,000 PSI or Greater	3.00"	3.00"	1.00"	No
	1-1/2" Lintel (Minimum)	1" Min.	3"	3"	1.00"	No
		2000 PSI Min.	3"	3"	1.00"	No
		3,000 PSI	3"	3"	1.00"	No
B	1-1/2" Lintel (Minimum)	1" Min.	3.00"	3"	1.00"	No
		2000 PSI Min.	3"	3"	1.00"	No
		3,000 PSI or Greater	3.00"	3"	1.00"	No
C	3-1/2" Lintel (Minimum)	1" Min.	3"	3"	1.00"	No
		2000 PSI Min.	3"	3"	1.00"	No
		3,000 PSI or Greater	3"	3"	1.00"	No
	1-1/2" to 3-1/2" Lintel Min.	1" Min.	3"	3"	1.00"	No
		2000 PSI Min.	3"	3"	1.00"	No
		3,000 PSI or Greater	3"	3"	1.00"	No
D	8" thick 3000 psi concrete or 8" thick CMU (100% solid) or 8" thick CMU (100% grout filled cells)	1" Min.	3.00"	3"	1.00"	No
		2000 PSI Min.	3.00"	3.00"	1.00"	No
		3,000 PSI or Greater	3.00"	3.00"	1.00"	No
	1-1/2" to 3-1/2" Lintel Min.	1" Min.	3"	3"	1.00"	No
		2000 PSI Min.	3"	3"	1.00"	No
		3,000 PSI or Greater	3"	3"	1.00"	No
	3-1/2" Lintel (Minimum)	1" Min.	3.00"	3"	1.00"	No
		2000 PSI Min.	3.00"	3"	1.00"	No
		3,000 PSI or Greater	3.00"	3"	1.00"	No
	1-1/2" Lintel (Minimum)	1" Min.	3.00"	3"	1.00"	No
		2000 PSI Min.	3.00"	3"	1.00"	No
		3,000 PSI or Greater	3"	3"	1.00"	No

1) MARINE SUBSTRATE CONDITIONS REQUIRE ANCHORAGE FROM MORE THAN ONE OF THE ANCHOR GROUPS ABOVE. CHOOSE THE ANCHOR GROUP OF THE LOWEST LETTER FOR ALL SUBSEQUENT TABLES IN THIS APPROVAL.
2) ANCHOR MUST EXTEND A MINIMUM OF 2 THREADS BEYOND ANY METAL SUBSTRATE.
3) ANCHORS MAY BE HOOKED, PANNED, OR FLATHEAD.
4) FOR ALTERNATE EDGE AND END DISTANCES, REFER TO FIGURE 2.

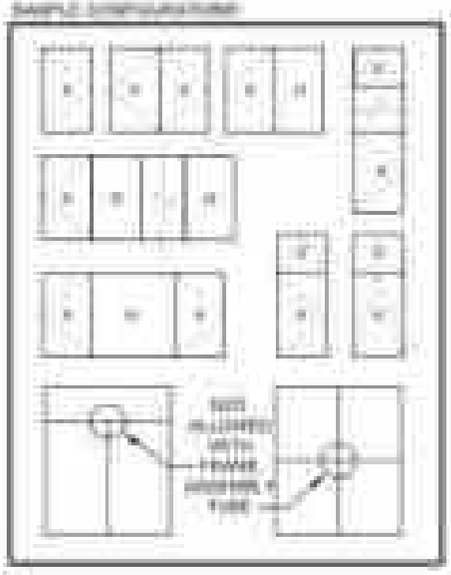
TABLE 1

Jamb Shubber Locations

		Glass Type	
		PVB (Panels 1, 2, 4 & 5)	SG (Panels 2, 3 & 4 Ply)
Glass Thickness	5/32" thick glass	None Required	72" max. from each end & 36" max. O.C.
	Low-E glass	72" max. from each end & 36" max. O.C.	72" max. from each end & 36" max. O.C.

"PGT" IS REGISTERED TRADEMARK OF PGT INDUSTRIES, INC.
"ECO" IS REGISTERED TRADEMARK OF PGT INDUSTRIES, INC.

SAMPLE CONFIGURATION



SAMPLE 1: FOR WINDOW COMBINATION SHOWN BELOW THAT HAVE ATTACHMENTS (REMOVED GLASS, OR TRACKING) AND BOTH ARE CONCRETE, CMU OR EQUIV. OF REQUIRED

OVERHEAD ANCHORS
A) FROM TABLE 1/2: ANCHOR(S) C & D ALLOW A DP OF +50 PSF

B) FOR THE JAMB, FROM TABLE 3, ANCHOR TYPE C AND THE ANCHOR AND SUBSTRATE DESCRIBED AND DOES NOT REQUIRE THE ANCHOR PLATE IF USING THE CRESTFLEX ANCHOR

C) FROM TABLE 2, 4 ANCHORS ARE REQUIRED IN EACH JAMB

D) FROM B/S 1, 3 ANCHORS ARE REQUIRED IN THE HEAD & SILL

E) DISTRIBUTE ANCHORS FOLLOWING GUIDELINES FROM ELEVATION ON SHEET 1.

F) PER RULES ON CHAPTER 2 R 5, INSTALL 1 ADDITIONAL ANCHOR ON THE FRAME ADJACENT TO BE SIDE OF THE HANDLE ON BOTH SIDES OF SILL

FIXED OVERHEAD ANCHORS
G) FROM TABLE 1/1, A 36" X 61" FIXED CASEMENT WINDOW HAS A DESIGN PRESSURE OF +50 PSI (DSMA) AND NEEDS (C) OR (D)

H) FOR THE JAMB, FROM TABLE 3, ANCHOR TYPE C AND THE ANCHOR AND SUBSTRATE DESCRIBED AND DOES NOT REQUIRE THE ANCHOR PLATE IF USING THE CRESTFLEX ANCHOR

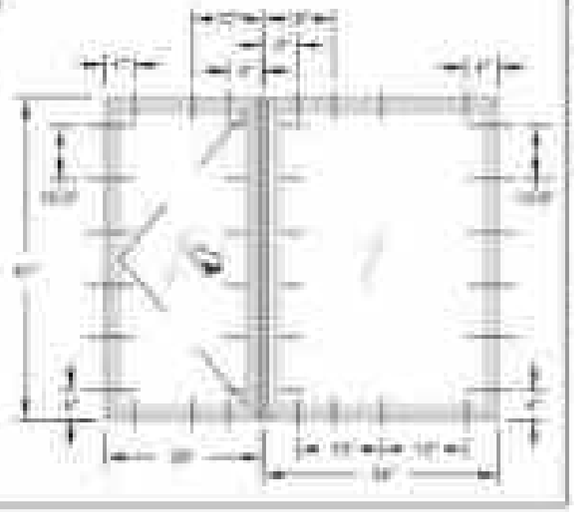
I) FROM TABLE 2A, 5 ANCHORS ARE REQUIRED IN EACH JAMB

J) SAME AS F, 5 ANCHORS ARE REQUIRED IN THE HEAD & SILL

K) DISTRIBUTE ANCHORS FOLLOWING GUIDELINES FROM ELEVATION ON SHEET 1

L) PER RULES ON SHEET 2, INSTALL 1 ADDITIONAL ANCHOR ON THE FRAME ADJACENT TO BE SIDE OF THE FIXED CASEMENT (SHOWN AT SILL)

Dimensions	Type C	Type D
Edge Distance	3.00 min.	3.00 min.
End Distance	3" min.	3" min.
Base Material	1400 psi min.	1400 psi min.
1/4" Diameter Anchor	1400 psi min.	1400 psi min.
5/16" Diameter Anchor	1400 psi min.	1400 psi min.
Edge Distance	3.00 min.	3.00 min.
End Distance	3" min.	3" min.
Base Material	2000 psi min.	2000 psi min.
1/4" Diameter Anchor	2000 psi min.	2000 psi min.
5/16" Diameter Anchor	2000 psi min.	2000 psi min.



PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date 04.11.2028
By
Miami-Dade Product Control

F) REMOVED UL FRACON FROM ANCHOR TABLES

PGT

CASEMENT WINDOW (LM)

ANCHOR TYPES & QUANTITY

A. MORLEIN

MIAMI-DADE

11-18-22

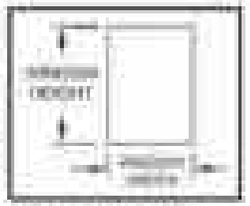
4 OF 11

CA.TW

WILLIAM LYNN MILLER
No. 59705
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 2

	Design Pressure (psf) for Single Windows (A) Anchor Groups						
	Window Width						
	under 21"	21-1/16"	27-3/4"	39"	53-1/2"	75"	97"
under 21"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
21-1/16"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
27-3/4"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
39"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
53-1/2"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
75"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
97"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
117"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
145"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
169"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80



SEE SHEETS 1 & 2 FOR WINDOW AND DOOR ANCHOR LOCATIONS AND QUANTITIES.

FOR GLASS TYPES:

1) 5/16" LAMI (1/8 AN - .090" PVB - 1/8 AN)
4) 7/8" LAMI. IG: (1/8" AN - 7/16" AIR - 1/8" AN - .090" PVB - 1/8" AN)

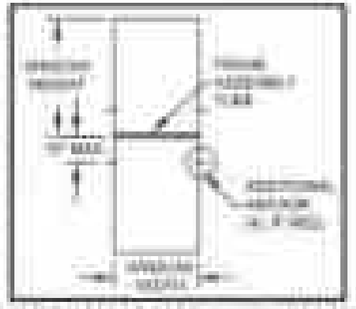
MAY INCORPORATE HEAT STRENGTHENED GLASS, ETC.

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

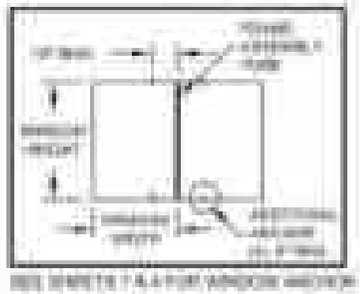
F.) NO CHANGES IN THIS SHEET.

TABLE 3

	Design Pressure (psf) for Windows Attached to a Vertical Frame Assembly Tube																					
	Window Width																					
	under 21"			21-1/16"			27-3/4"			39"			53-1/2"			75"			97"		
	Anchor Group			Anchor Group			Anchor Group			Anchor Group			Anchor Group			Anchor Group			Anchor Group		
	A	B	C	D	A	B	C & D	A	B	C & D	A	B	C & D	A	B	C & D	A	B (A)	A	B (A)
under 21"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
21-1/16"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
27-3/4"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
39"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
53-1/2"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
75"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
97"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
117"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
145"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80
169"	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80	+70/-80



SEE SHEETS 1 & 2 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL SECTIONS REQUIRED FOR OVER FRAME ASSEMBLY TUBE.



SEE SHEETS 1 & 2 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL SECTIONS REQUIRED FOR OVER FRAME ASSEMBLY TUBE.

NOTES:
1.) SEE SHEET 1 FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.
2.) SEE SHEET 1 FOR DRAWING REVISIONS.

PGT
CASEMENT WINDOW (CW)
DESIGN PRESSURE PER GLAZING TYPE
A. MORLEIRA
SCALE: NTS
SHEET NO. 4 OF 4
CW-III

STATE OF FLORIDA
PROFESSIONAL ENGINEER

FOR GLASS TYPES:

2) 7/16" LAMI (3/16 AN - .060" SG - 3/16 AN)

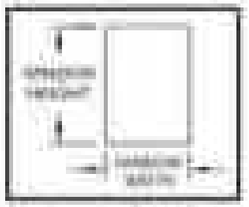
"SG") MANUFACTURED BY GUARDIAN GLASS, INC.

TABLE A

Design Pressure (psf) for Single Windows, All Active Groups

Mullion (CW)

Height (CH)	Up to 24"	24 1/4"	32"	32 1/4" - 40"	40 1/4"	48"
Up to 24"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
24 1/4" - 32"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
32 1/4" - 40"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
40 1/4" - 48"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
48 1/4" - 56"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
56 1/4" - 64"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
64 1/4" - 72"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
72 1/4" - 80"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
80 1/4" - 88"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
88 1/4" - 96"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50



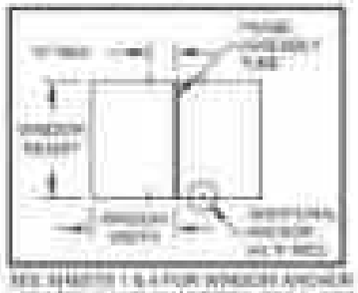
SEE SHEET 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES

TABLE B

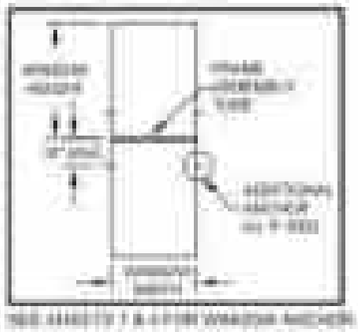
Design Pressure (psf) for Window Attached to a Separate Frame Assembly Tube

Mullion (CW)

Height (CH)	Up to 24" Active Single	24 1/4" - 32" Active Single	32 1/4" - 40" Active Single	40 1/4" - 48" Active Single	48 1/4" - 56" Active Single	56 1/4" - 64" Active Single	64 1/4" - 72" Active Single	72 1/4" - 80" Active Single
	A	A	A	A	A	A	A	A
Up to 24"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
24 1/4" - 32"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
32 1/4" - 40"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
40 1/4" - 48"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
48 1/4" - 56"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
56 1/4" - 64"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
64 1/4" - 72"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
72 1/4" - 80"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50



SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 2 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE.



SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 2 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE.

NOTES:
1. SEE SHEET 2 FOR ADDITIONAL GLASS CONFIGURATIONS.
2. SEE SHEET 3 FOR DESIGN PRESSURE TYPE.

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0816.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (UM)
DESIGN PRESSURE PER
GLASS TYPES

A. MORLEIN

REVISIONS

A	10/27/23	ADD CA-TUB
B	11/27/23	ADD CA-TUB

SCALE: 1 1/2" = 1'-0"

CA-TUB

M-CA-TUB-DP-1

STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 11

Design Pressure (psf) for Single Architect (A) Picture (Single)

Picture (POS)

Glass Type	width 23"	35-15/16"	47-3/4"	59"	70-1/16"	82"	94"
width 23"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
23-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
35-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
47-3/4"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
59"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
70-1/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
82"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
94"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
106"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
118"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
130"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
142"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
154"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
166"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
178"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
190"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
202"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
214"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
226"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
238"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
250"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
262"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
274"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
286"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
298"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
310"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
322"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
334"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
346"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
358"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
370"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
382"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
394"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50

FOR GLASS TYPES:
3) 7/16" LAMI (3/16 HS - .090" SG - 3/16 HS)
F) 7/8" LAMI. IG: (3/16" AN - 1/4" AIR - 3/16" HS - .090" SG - 3/16" HS)
B) 7/8" LAMI. IG: (3/16" T - 1/4" AIR - 3/16" HS - .090" SC - 3/16" HS)

SEE SHEET G-1 & 1-1 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES

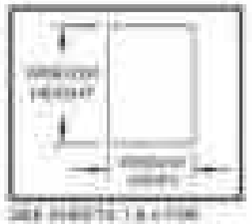


TABLE 12

Design Pressure (psf) for Window Attached to a Vertical Frame Assembly Type

Window (W28)

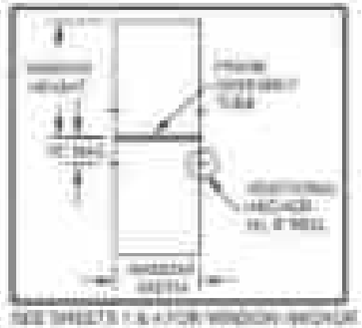
Glass Type	width 23"	35-15/16"	47-3/4"	59"	70-1/16"	82"	94"	106"	118"
	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A
	A	A	A	A	A	A	A	A	A
width 23"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
23-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
35-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
47-3/4"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
59"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
70-1/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
82"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
94"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
106"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
118"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
130"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
142"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
154"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
166"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
178"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
190"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
202"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
214"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
226"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
238"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
250"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
262"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
274"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
286"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
298"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
310"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
322"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
334"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
346"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
358"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
370"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
382"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
394"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50

TABLE 13

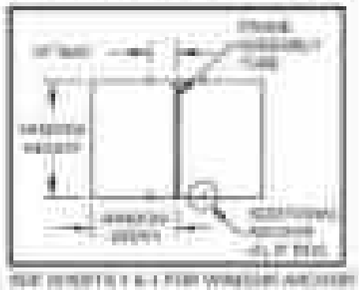
Design Pressure (psf) for Window Attached to a Horizontal Frame Assembly Table

Window (W28)

Glass Type	width 23"	35-15/16"	47-3/4"	59"	70-1/16"	82"	94"
	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A	Anchor Group A
	A	A	A	A	A	A	A
width 23"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
23-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
35-15/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
47-3/4"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
59"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
70-1/16"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
82"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
94"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
106"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
118"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
130"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
142"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
154"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
166"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
178"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
190"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
202"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
214"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
226"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
238"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
250"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
262"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
274"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
286"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
298"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
310"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
322"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
334"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
346"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
358"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
370"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
382"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
394"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50



SEE SHEETS 1 & 1-1 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 2 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE.



SEE SHEETS 1 & 1-1 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 2 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE.

NOTES:
1. SEE SHEET 1-1 FOR ADDITIONAL SHAPE 2 CERTIFICATIONS.
2. SEE SHEET 1-1 FOR ADDITIONAL NOTES.

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (UM)
DESIGN PRESSURE RATINGS
CASEMENT

DRAWN BY:	M.C.
DATE:	7-27-11
SCALE:	AS NOTED
DRAWING NO.	CA-TW
SHEET NO.	G-1

REVISIONS
A. MORLEIN
FLORIDA PRODUCT APPROVAL

REGISTERED ARCHITECT
No. 30705
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FOR GLASS TYPES:

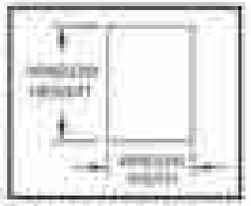
5) 7/8" LAMI. IG (1/8" T - 7/16" AIR - 1/8" AN - .090" PVB - 1/8" AN)

TABLE 1A

Design Pressure (psf) for Single Window, All Anchor Design

Window Width

Window Height	24"	30"	36"	42"	48"	54"	60"
24"							
30"							
36"							
42"							
48"							
54"							
60"							
66"							
72"							



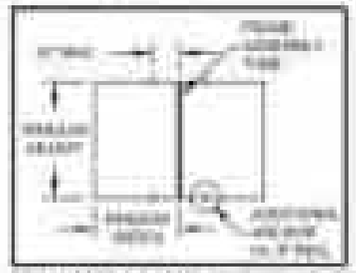
SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES

TABLE 1B

Design Pressure (psf) for Window Attached to a Mulling Frame Assembly Test

Window Width

Window Height	24"	30"	36"	42"	48"	54"	60"	66"	72"
24"									
30"									
36"									
42"									
48"									
54"									
60"									
66"									
72"									



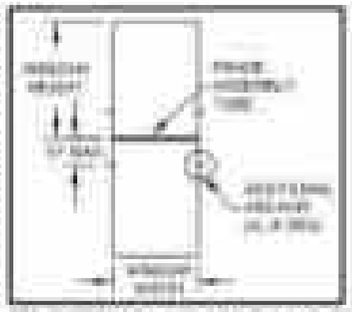
SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE

TABLE 1C

Design Pressure (psf) for Window Attached to a Mulling Frame Assembly Test

Window Width

Window Height	24"	30"	36"	42"	48"	54"	60"	66"	72"
24"									
30"									
36"									
42"									
48"									
54"									
60"									
66"									
72"									



SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TUBE

NOTES:
1) SEE SHEET 1 & 4 FOR ADDITIONAL SPECIFICATIONS.
2) SEE SHEET 3 FOR ADDITIONAL INFORMATION.

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (UM)
DESIGN PRESSURES FOR GLASS TYPES

SHEET NUMBER: 2 OF 11
CA 11.0

REVISIONS

#	DESCRIPTION	DATE
1		

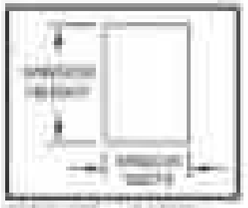
DRAWN BY: A. MORLEIN
CHECKED BY:

PRODUCT APPROVAL ACCEPTANCE

STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 17

	Design Pressure (psf) for Single Windows, All Nominal Designs						
	Window Width						
	Leader 20"	20 1/2-24"	25"-34"	35"	35 1/2"-47"	48"	50"
Window Height							
Leader 20"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
20 1/2-24"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
25"-34"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
35"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
35 1/2"-47"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
48"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
50"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
52"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
60"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50
64"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50



SEE SHEETS 1 & 2 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES.

FOR GLASS TYPES:

6) 7/8" LAMI: SQ: (3/16" AN - 1/4" AIR - 3/16" AN) - .060" SQ - 3/16" AN)
8) 7/8" LAMI: IG: (3/16"T - 1/4" AIR - 3/16" AN - .090" SG - 3/16" AN)

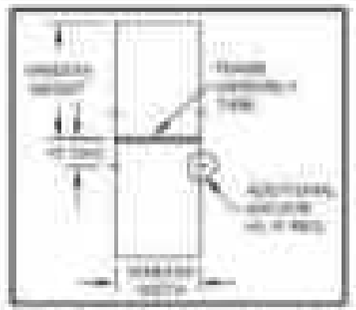
TUV = IDENTIFIQUE BY KUIPERS AMERICA, INC.

TABLE 18

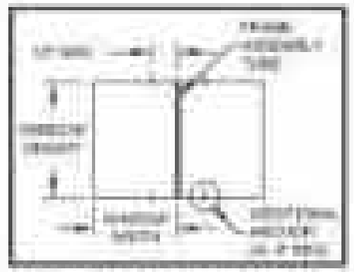
	Design Pressure (psf) for Windows Attached to a Cabinet Fabric Hurricane Screen																							
	Window Width																							
	Leader 20"				20 1/2-24"				25"-34"				35"				35 1/2"-47"				48"				50"			
	Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips			
Window Height	A	B	C	D	A	B	C & D		A	B	C & D		A	B	C	D	A	B	C	D	A	B	C & D		A	B	C	D
Leader 20"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
20 1/2-24"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
25"-34"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
35"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
35 1/2"-47"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
48"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
50"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
52"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
60"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
64"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50

TABLE 19

	Design Pressure (psf) for Windows Attached to a Cabinet Fabric Hurricane Screen																							
	Window Width																							
	Leader 20"				20 1/2-24"				25"-34"				35"				35 1/2"-47"				48"				50"			
	Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips				Anchor Clips			
Window Height	A	B	C	D	A	B	C & D		A	B	C & D		A	B	C	D	A	B	C	D	A	B	C & D		A	B	C	D
Leader 20"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
20 1/2-24"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
25"-34"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
35"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
35 1/2"-47"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
48"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
50"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
52"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
60"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50
64"	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50	+50/-50		+50/-50	+50/-50	+50/-50	+50/-50



SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TYPE.



SEE SHEETS 1 & 4 FOR WINDOW ANCHOR LOCATIONS AND QUANTITIES. SEE SHEET 3 FOR ANY ADDITIONAL ANCHORS REQUIRED FOR THE FRAME ASSEMBLY TYPE.

NOTES:
1. SEE SHEET 3 FOR ADDITIONAL ANCHOR REQUIREMENTS.
2. SEE SHEET 1 FOR GENERAL REQUIREMENTS.

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0918.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F.) NO CHANGES IN THIS SHEET.

PGT

CASEMENT WINDOW (LM)
DESIGN PRESSURE RATING
(SINGLE)

CA 110

DRAWN BY	T.V.
CHECKED BY	A. MORLEIN
DATE	10/18/23
SCALE	AS NOTED
SHEET NO.	4 OF 11

REVISIONS

A	

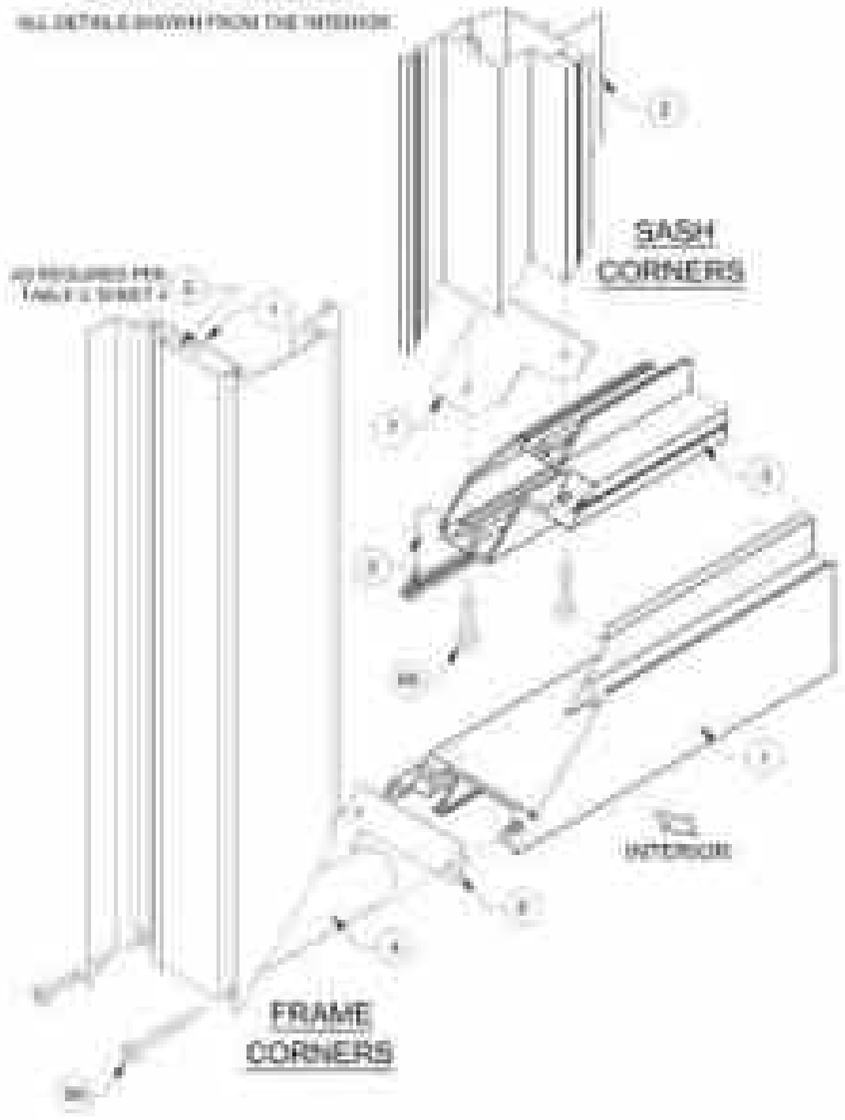
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE OF

Item	Dwg. #	Description	Material
1	1000	Main Frame Head, Sill & Jamb	6063-T5 Alum
2	1001	Anchor Plate	6063-T5 Alum
3	1002	Sash Top, Bottom & Side Rail	6063-T5 Alum
4	1003	Frame Corner Key	Steel
5	1004	Sash Corner Key	Steel
6	1005	Frame Gasket	Vinyl Foam
7	1006	Sash Corner Gasket	Vinyl Foam
8	1007	Sill Weatherstrip, 90° x 2.09"	Poly Pile Fin
9	1008	Interior Sash Pivot Lock	Steel
10	1009	Lock Support Pipe	Steel
11	1010	Multi-Lock Keeper	Steel
12	1011	Pivot Bar Guide	Nylon
13	1012	Tilt Bar Assembly	Steel & SS
14	1013	Interior Sash Operator, 2000 mm	Steel
15	1014	Interior Sash Arm Operator, 2000 mm	Steel
16	1015	Operator Gasket	Vinyl Foam
17	1016	Operator Mounting Plate	Steel
18	1017	Operator Support Block	Nylon
19	1018	Wool Insert	Foam
20	1019	Sample Track & Glide (Dual Arm)	Steel
21	1020	Keeper Hinge (Hex Body, Metal to Pivot	Steel
22	1021	Keeper Hinge (Hex Body, Metal to Post	Steel
23		Shoulder Arm Retainer Clip	Steel
24	1110	Setting Block, 0.50" x 4.00" x 1.125"	EPDM
25	1114	Setting Block, 0.50" x 7.00" x 1.125"	EPDM
26	1026	Lock Pivot R	6063-T5 Alum
27	1027	Lock Pivot L	6063-T5 Alum
28	1028	Lock Shaft R	6063-T5 Alum
29	1029	Lock Shaft L	6063-T5 Alum
30	1030	Vinyl Bulb Wedge (Tenon)	Poly PVC-70
31	1031	Vinyl Bulb Wedge (Mull)	Poly PVC-70
32		Clip (TE, 2pk x 4in) Interlocking	Nylon
33	1033	Screen Frame	6063-T5 Alum
34	1034	Screen Corner Key	Polycarbonate
35		Screen Cloth	Fiberglass
36	1036	Screen Spline	EPDM
37	1037	Screen Clamp	Stainless Steel
38	1038	Screen Bracket	6063-T5 Alum
39	1039	Plastic Keeper Cap	6063-T5 Alum
40		#8-32 x 1/2" PH, Pin Head, SS TYPE B	Stainless Steel
41	1107	#8 x 1/2" PH, PS (Mill)	Stainless Steel
42		#8 x 3/8" FH, PS (Mill)	Stainless Steel
43		#8 x 7/8" FH, PS (Mill)	Stainless Steel
44		#8 x 1" FH, PS (Mill)	Stainless Steel
45		#8 x 1" Self PS (Mill)	Stainless Steel
46		#8 x 1 1/2" Self PS (Mill)	Stainless Steel
47		#10 x 1/2" PS, PH (Mill)	Stainless Steel
48		#10-24 x 4-1/2" PS, PH, Thread 3"	Stainless Steel
49		#14 x 1" PS, PH (Mill)	Stainless Steel

ASSEMBLY DETAILS

ALL DETAILS SHOWN FROM THE INTERIOR.

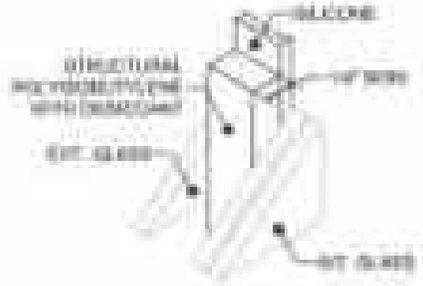


PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0818.12
Expiration Date 04.11.2028
By
Miami-Dade Product Control

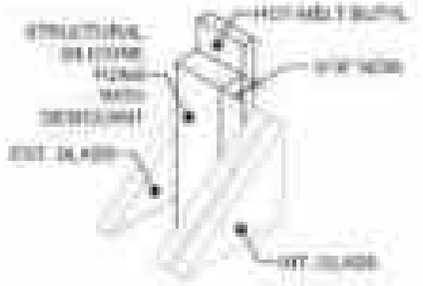
F) NO CHANGES IN THIS SHEET.

DESIGNED BY:	A. MORLEIN		
DRAWN BY:			
CHECKED BY:			
DATE:			
SCALE:			
PGT	CASEMENT WINDOW (UM)	SILL & CORNER VIEW	CA UM

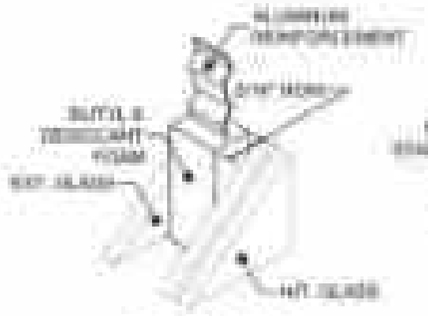
INTERCONTINENTAL BUILDER SERVICES
PROFESSIONAL ENGINEER
STATE OF FLORIDA



(59) KODISPACE 4SG TPS



(51) SUPER SPACER® NXT™



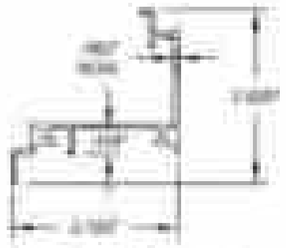
(61) DURASEAL® SPACER



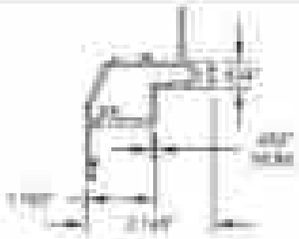
(62) XL EDGE™ SPACER

Part #	Description	Material
100	Intermediate 4SG TPS Spacer System:	See this Sheet for Markings
101	Quanex Super Spacer nBT with Hot Melt Butyl	
102	Quanex Duraseal Spacer	
103	Cardinal XL Edge Spacer	

REFERENCE TEST REPORTS: PTL-2117-4886.4-R05



(1) FRAME HEAD, SILL & JAMB
#1002, 6063-T6



(3) SASH TOP, BOTTOM & SIDE
#1003, 6063-T6



(71) FRAME REINFORCEMENT TUBE
#1004, 6063-T6



(2) ANCHOR PLATE
#1011, 6063-T6



(50) FIXED SCREEN FRAME
#1006, 3105-H16



(70) SCREEN FLANGE
#1134, 6063-T6



(35) HEAD II
#1010, 6063-T6



(36) HEAD I
#1041, 6063-T6



(37) HEAD O
#1009, 6063-T6

PRODUCT REVISED
as complying with the Florida Building Code.
NOA No. 23-0818.12
Expiration Date: OCT 1 2028
By
Miami-Dade Product Control

F) NO CHANGES IN THIS SHEET.
