



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

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, FL 33175
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

WinDoor, Inc.
104 Triple Diamond Blvd.
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 "9000 Deep, Thermally Broken" Extruded Aluminum Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. 2x5-5/8 TB-LMI-NOA, titled "9000 Series Deep Thermally Broken 2" x 5-5/8" Mullion - LMI", sheets 1 through 13 of 13, dated 08/14/20, 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# 17-0307.06 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**



S.Z.
11/12/2020

NOA No. 20-0826.05
Expiration Date: November 29, 2023
Approval Date: November 12, 2020
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections. (*Submitted under NOA# 17-0307.06*)
2. Drawing No. **2x5-5/8 TB-LMI-NOA**, titled "9000 Series Deep Thermally Broken 2" x 5-5/8" Mullion - LMI", sheets 1 through 13 of 13, dated 08/14/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, 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 aluminum fixed windows with series 9000 deep, thermally broken aluminum mullions, prepared by Fenestration Testing Laboratory, Test Report No. **FTL-18-8201**, dated 08/03/18, signed and sealed by Idalmis Ortega, P.E. (*Submitted under NOA# 17-0307.06*)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, dated 08/27/18, prepared, signed and sealed by Luis R. Lomas, P.E. (*Submitted under NOA# 17-0307.06*)

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Test report No. **ATI-61261.01-106-18**, prepared by Architectural Testing, Inc., dated 12/08/05, with revision date 01/04/06, issued to **Technoform**, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D635-03** "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position" and **ASTM D2843-99** "Standard Test Method for the Density of Smoke from the Burning Decomposition of Plastics", signed and sealed by Joseph A. Reed, P.E. (*Submitted under NOA# 17-0307.06*)
2. Test report No. **ETC-07-1043-19094.0**, prepared by ETC Laboratories, dated 02/04/08, issued to Technoform Bautech NA, Inc., for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D638-03** "Standard Test Methods for Tensile Properties of Plastics", for exposed & unexposed sample per Xenon Arc after 4500 Hours, signed and sealed by Joseph Labora Doldan, P.E. (*Submitted under NOA# 17-0307.06*)



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0826.05

Expiration Date: November 29, 2023
Approval Date: November 12, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS (CONTINUED)

3. Test report No. **ETC-08-1043-20974.0**, prepared by ETC Laboratories, dated 07/01/08, issued to Technoform, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D1929-96** “*Standard Test Method for Ignition Properties of Plastics*”, signed and sealed by Joseph Doldan, P.E.
(Submitted under NOA# 17-0307.06)
4. Material Data Sheet for “insulating profiles made of PA 66 GF25 – dry impact resistant, to fit into Technoform I-Strut™ Aluminum Standard Reglet.
(Submitted under NOA# 17-0307.06)

F. STATEMENTS

1. Statement letter of conformance, of complying with FBC 6th Edition (2017), and FBC 7th Edition (2020), and of no financial interest, dated August 17, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Notification of Successor Engineer for manufacturer’s NOA document per Section 61G15-27.001 of the Florida Administrative Code, dated August 17, 2020, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. This NOA revises NOA #17-0307.06, expiring on 11/29/23.



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0826.05
Expiration Date: November 29, 2023
Approval Date: November 12, 2020

- NOTES:
- 1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE 6TH EDITION (2017) AND 7TH EDITION (2020) INCLUDING THE HVHZ.
 - 2. WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
 - 3. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
 - 4. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
 - 5. DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
 - 6. SINGLE WINDOWS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. WINDOWS MUST BE MANUFACTURED BY WinDoor INC.
 - 7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW OR DOOR UNIT.
 - 8. UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.
 - 9. VERTICAL AND HORIZONTAL MULLION INSTALLATION IS SHOWN.

- ANCHORING NOTES:
- 1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
 - 2. FOR ANCHORING INTO CONCRETE USE 1/4" ELCO CRETE-FLEX WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
 - 3. FOR ANCHORING INTO METAL STRUCTURE USE #14 SMS GRADE 5 OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
 - 4. FOR ATTACHING WINDOW UNITS TO MULLION USE #10 GRADE 5 SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST THE MULLION WALL. LOCATE SCREWS IN ACCORDANCE WITH WINDOW ANCHORING SCHEDULE AS SHOWN IN WINDOW SEPARATE APPROVAL.
 - 5. ALL FASTENERS TO BE CORROSION RESISTANT.
 - 6. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,350 PSI.
 - C. NORMAL WEIGHT MASONRY HOLLOW FILLED BLOCK PER AS ASTM C90 WITH F'm= 2,000 PSI MINIMUM.
 - D. METAL STRUCTURE: STEEL 18GA (.048"), Fy= 33KSI/ Fu= 52KSI OR ALUMINUM 6063-T5 Fu= 30KSI 1/8" THICK MINIMUM


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SHEET NO.	DESCRIPTION
1	NOTES
2-3	VERTICAL MULLION CHARTS
4-8	HORIZONTAL MULLION CHARTS
9-13	INSTALLATION DETAILS & COMPONENTS

PRODUCT REVISED

as complying with the Florida Building Code

NOA-No. 20-0826.05

Expiration Date 11/29/2023

By 

Miami-Dade Product Control

Revision:

UPDATES FOR 2020 FBC. UPDATED MANUFACTURING ADDRESS.

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1800
REGISTRATION #29296

WinDoor®

INCORPORATED

WINDOOR INCORPORATED
104 TRIPLE DIAMOND BLVD.
NORTH VENICE, FL 34275
(833) 554-5432

2"x5-5/8" THERMALLY BROKEN MULLION (LM)

9000 SERIES DEEP

GENERAL NOTES

MULLION

By ERIN KOSS

Date 08/14/20

Rev.

1 OF 13

2x5-5/8 TB-LMI-NOA

ANTHONY LYNN MILLER

LICENSE

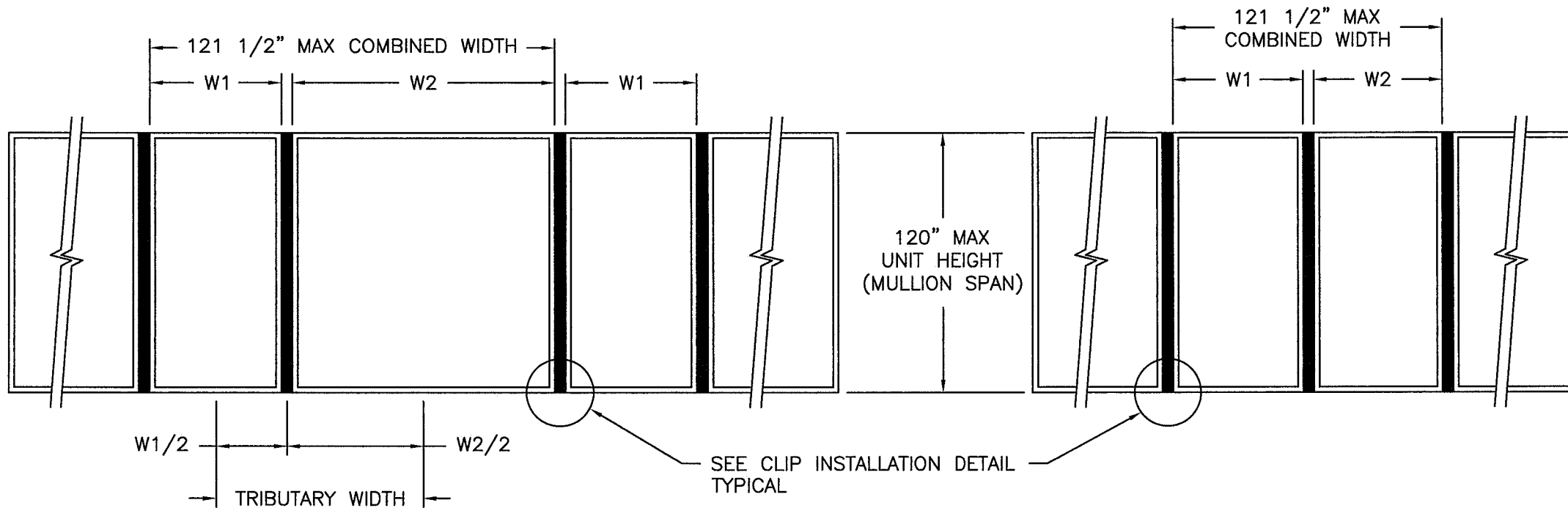
No. 58705

928/1720

STATE OF FLORIDA

PROFESSIONAL ENGINEER

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



VERTICAL MULLION
SINGLE UNITS
SEE CHART #1 FOR RATINGS

CHART #1

Maximum Design Pressure Capacity Chart (psf)					
Mullion Span (in)	Tributary Width (in)				
	37.00	43.00	49.00	55.00	61.00
48.00	150.0	150.0	150.0	150.0	150.0
54.00	150.0	150.0	150.0	150.0	150.0
60.00	150.0	150.0	150.0	150.0	150.0
66.00	150.0	150.0	150.0	150.0	150.0
72.00	150.0	150.0	150.0	150.0	150.0
78.00	150.0	150.0	150.0	150.0	150.0
84.00	150.0	150.0	150.0	150.0	146.7
90.00	150.0	150.0	149.1	139.2	131.9
96.00	150.0	149.4	136.6	127.1	119.8
102.00	150.0	138.3	126.0	116.8	109.7
108.00	144.5	128.7	117.0	108.1	101.3
114.00	135.5	120.3	109.1	100.6	94.0
120.00	127.5	113.0	102.3	94.1	87.7

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

DESIGN PRESSURE TABLE INSTRUCTIONS:

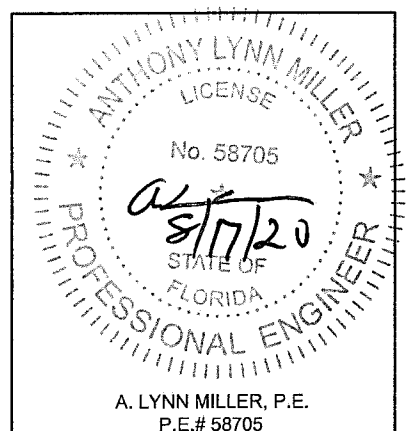
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
4. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + MULLION WIDTH]/2. SEE FORMULA BELOW.

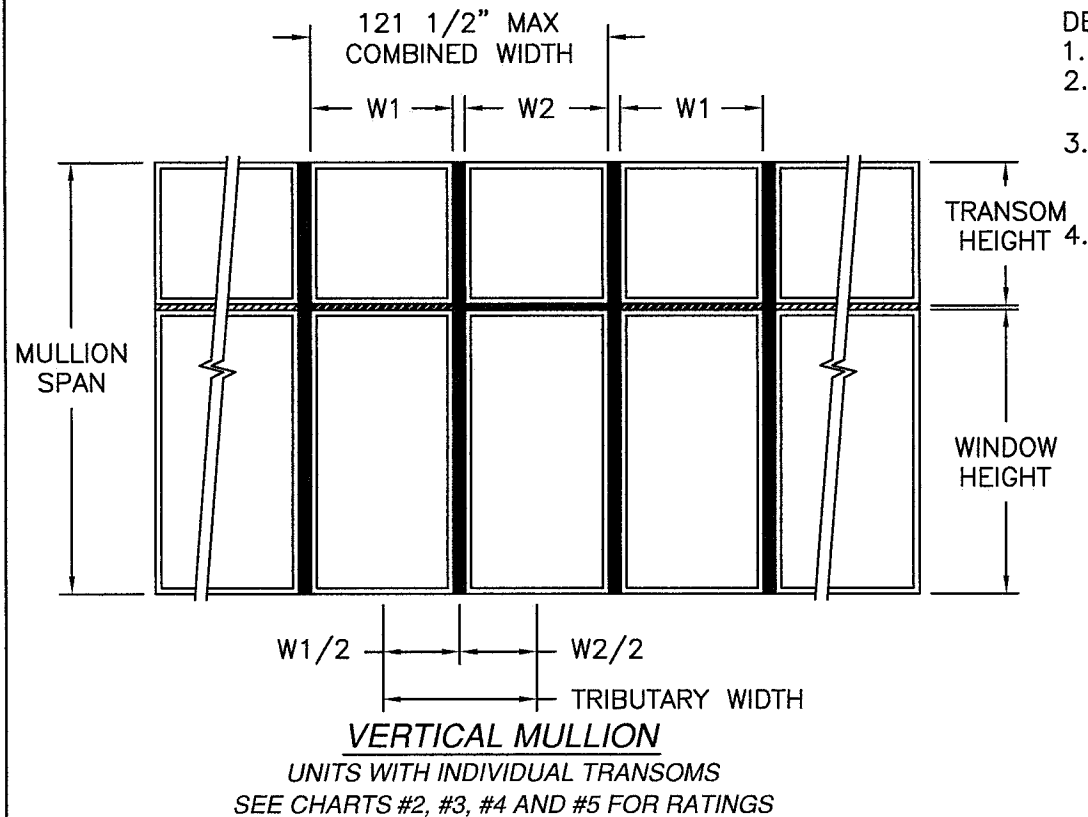
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + \text{MULLION WIDTH}}{2}$$

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By
Miami-Dade Product Control

NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	Date		08/14/20	Rev.	
	By		ERIN KOSS	2x5-5/8 TB-LMI-NOA	
	Title		2"x5-5/8" THERMALLY BROKEN MULLION (LM)	DWC	
	Series		9000 SERIES DEEP	2 OF 13	
WinDoor® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	Desc.		SINGLE UNITS MULLION	Sheet	
	Title		SINGLE UNITS MULLION	2 OF 13	
	Series		SINGLE UNITS MULLION	2 OF 13	
	Desc.		SINGLE UNITS MULLION	2 OF 13	





- DESIGN PRESSURE TABLE INSTRUCTIONS:
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
 2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
 3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
 4. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + MULLION WIDTH]/2. SEE FORMULA BELOW.

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + \text{MULLION WIDTH}}{2}$$

CHART #4

Design pressure chart (psf)									
Mullion span (in)	Window Height (in)	Transom Height (in)	Tributary width (in)						
			25.00	31.00	37.00	43.00	49.00	55.00	61.00
86.00	36.00	48.00	120.0	112.7	98.7	88.7	80.9	74.6	69.1
92.00	42.00	48.00	120.0	103.6	90.5	81.2	74.3	68.5	63.6
98.00	48.00	48.00	114.7	95.9	83.5	74.7	68.3	63.1	58.7
104.00	54.00	48.00	107.0	89.3	77.5	69.1	63.0	58.2	54.2
110.00	60.00	48.00	100.2	83.5	72.3	64.3	58.5	53.9	50.2
116.00	66.00	48.00	94.3	78.4	67.7	60.2	54.6	50.2	46.6
122.00	72.00	48.00	89.1	73.9	63.7	56.5	51.1	46.9	43.5
128.00	78.00	48.00	84.3	69.9	60.2	53.3	48.1	44.1	40.8
134.00	84.00	48.00	80.1	66.3	57.0	50.4	45.4	41.6	38.4

LARGE & SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #2

Design pressure chart (psf)									
Mullion span (in)	Window Height (in)	Transom Height (in)	Tributary width (in)						
			25.00	31.00	37.00	43.00	49.00	55.00	61.00
74.00	36.00	36.00	120.0	120.0	120.0	109.0	99.2	91.1	84.2
80.00	42.00	36.00	120.0	120.0	108.7	98.0	89.4	82.2	76.1
86.00	48.00	36.00	120.0	112.7	98.7	88.7	80.9	74.6	69.1
92.00	54.00	36.00	120.0	103.6	90.5	80.9	73.6	67.8	63.0
98.00	60.00	36.00	114.7	95.9	83.5	74.4	67.5	62.0	57.6
104.00	66.00	36.00	107.0	89.3	77.5	68.9	62.3	57.2	53.0
110.00	72.00	36.00	100.2	83.5	72.3	64.1	57.9	53.0	49.0
116.00	78.00	36.00	94.3	78.4	67.7	60.0	54.1	49.4	45.6
122.00	84.00	36.00	89.1	73.9	63.7	56.3	50.7	46.2	42.6

LARGE & SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #3

Design pressure chart (psf)									
Mullion span (in)	Window Height (in)	Transom Height (in)	Tributary width (in)						
			25.00	31.00	37.00	43.00	49.00	55.00	61.00
80.00	36.00	42.00	120.0	120.0	108.7	98.0	89.4	82.2	76.1
86.00	42.00	42.00	120.0	112.7	98.8	89.0	81.4	75.0	69.5
92.00	48.00	42.00	120.0	103.6	90.5	81.2	74.3	68.5	63.6
98.00	54.00	42.00	114.7	95.9	83.5	74.7	68.1	62.8	58.4
104.00	60.00	42.00	107.0	89.3	77.5	69.1	62.8	57.8	53.8
110.00	66.00	42.00	100.2	83.5	72.3	64.3	58.3	53.5	49.7
116.00	72.00	42.00	94.3	78.4	67.7	60.2	54.4	49.9	46.2
122.00	78.00	42.00	89.1	73.9	63.7	56.5	51.0	46.7	43.1
128.00	84.00	42.00	84.3	69.9	60.2	53.3	48.0	43.8	40.5

LARGE & SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #5

Design pressure chart (psf)									
Mullion span (in)	Window Height (in)	Transom Height (in)	Tributary width (in)						
			25.00	31.00	37.00	43.00	49.00	55.00	61.00
92.00	36.00	54.00	120.0	103.6	90.5	80.9	73.6	67.8	63.0
98.00	42.00	54.00	114.7	95.9	83.5	74.7	68.1	62.8	58.4
104.00	48.00	54.00	107.0	89.3	77.5	69.1	63.0	58.2	54.2
110.00	54.00	54.00	100.2	83.5	72.3	64.3	58.5	54.0	50.4
116.00	60.00	54.00	94.3	78.4	67.7	60.2	54.6	50.3	46.9
122.00	66.00	54.00	89.1	73.9	63.7	56.5	51.1	47.0	43.7
128.00	72.00	54.00	84.3	69.9	60.2	53.3	48.1	44.2	41.0
134.00	78.00	54.00	80.1	66.3	57.0	50.4	45.4	41.6	38.6
140.00	84.00	54.00	76.3	63.0	54.1	47.8	43.0	39.4	36.4

LARGE & SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #6

Design pressure chart (psf)									
Mullion span (in)	Window Height (in)	Transom Height (in)	Tributary width (in)						
			25.00	31.00	37.00	43.00	49.00	55.00	61.00
98.00	36.00	60.00	114.7	95.9	83.5	74.4	67.5	62.0	57.6
104.00	42.00	60.00	107.0	89.3	77.5	69.1	62.8	57.8	53.8
110.00	48.00	60.00	100.2	83.5	72.3	64.3	58.5	53.9	50.2
116.00	54.00	60.00	94.3	78.4	67.7	60.2	54.6	50.3	46.9
122.00	60.00	60.00	89.1	73.9	63.7	56.5	51.1	47.0	43.8
128.00	66.00	60.00	84.3	69.9	60.2	53.3	48.1	44.2	41.1
134.00	72.00	60.00	80.1	66.3	57.0	50.4	45.4	41.6	38.7
140.00	78.00	60.00	76.3	63.0	54.1	47.8	43.0	39.4	36.5
146.00	84.00	60.00	72.8	60.1	51.5	45.4	40.9	37.4	34.6

LARGE & SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05

Expiration Date 11/29/2023

By 
Miami-Dade Product Control

NO CHANGES THIS SHEET.

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

WinDoor®
INCORPORATED
WINDOOR INCORPORATED
104 TRIPLE DIAMOND BLVD.
NORTH VENICE, FL 34275
(833) 554-5432

2"x5-5/8" THERMALLY BROKEN MULLION (LM)
9000 SERIES DEEP
SINGLE W/TRANSOM MULLION TO
SINGLE W/TRANSOM
MULLION

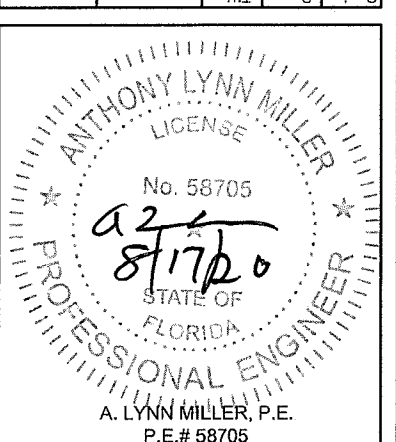


CHART #7

Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	30.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
48.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
54.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
60.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
66.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
72.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
78.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
84.0	42.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0

LARGE AND SMALL MISSILE IMPACT - HVHZ

CHART #8

Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	30.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
48.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
54.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
60.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
66.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	174.7
72.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	174.1
78.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	174.1
84.0	48.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	174.1

LARGE AND SMALL MISSILE IMPACT - HVHZ

CHART #9

Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	30.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
48.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
54.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
60.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	172.2
66.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	170.3
72.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	169.7
78.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	169.7
84.0	54.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	169.7

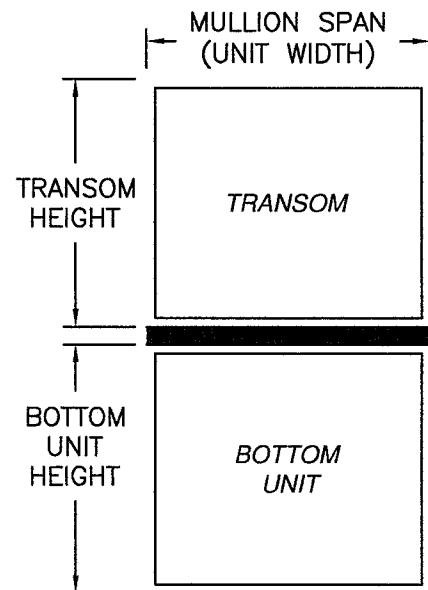
LARGE AND SMALL MISSILE IMPACT - HVHZ

CHART #10

Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	30.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
48.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
54.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	172.2
60.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	169.1
66.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	167.3
72.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	166.7
78.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	166.7
84.0	60.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	166.7

LARGE AND SMALL MISSILE IMPACT - HVHZ


**HORIZONTAL MULLION**

SINGLE WITH TRANSOM

SEE CHARTS #6, #7, #8, #9 AND #10 FOR RATINGS

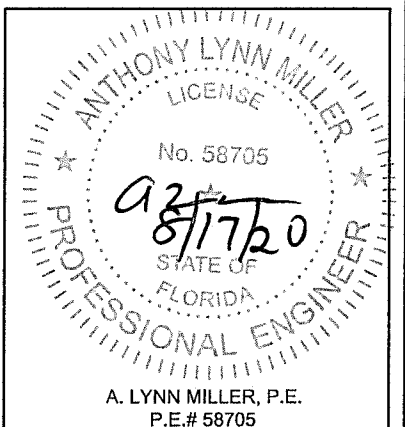
DESIGN PRESSURE TABLE INSTRUCTIONS:

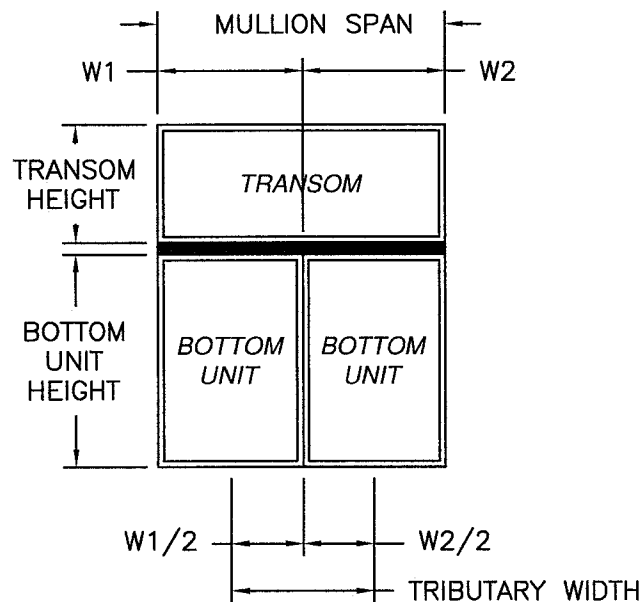
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE MULLION SPAN BASED ON PRODUCT TO BE INSTALLED.
3. TO DETERMINE MULLION RATING LOCATE MULLION SPAN COLUMN AND BOTTOM UNIT HEIGHT ROW. RATING FOR MULLION IS LOCATED AT INTERSECTION OF COLUMN (MULLION SPAN) AND ROW (BOTTOM UNIT HEIGHT).
4. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
5. IF TRANSOM TO BE INSTALLED IS NOT LISTED IN THESE CHARTS GO TO NEXT HIGHER TRANSOM CHART. FOR EXAMPLE IF TRANSOM TO BE INSTALLED IS 20" HIGH THEN USE CHART FOR 24" TRANSOM.
6. WINDOW/DOOR AND TRANSOMS TO BE ANCHORED ON ALL FOUR SIDES.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By 
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

WINDOOR® INCORPORATED		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432		2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP	
Series		Date	
Desc.		08/14/20	
HORIZONTAL SINGLE w/TRANSOM		ERIN KOSS	
MULLION		By Drawn	
4 OF 13		2x5-5/8 TB-LMI-NOA	
Sheet		Rev.	





HORIZONTAL MULLION
TWIN UNITS WITH SINGLE TRANSOM
SEE CHARTS #11, #12, #13, #14 AND #15 FOR RATINGS

- DESIGN PRESSURE TABLE INSTRUCTIONS:
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
 2. DETERMINE MULLION SPAN AND TRIBUTARY WIDTH OF PRODUCT TO BE INSTALLED BASED ON FORMULA FOR TRIBUTARY WIDTH BELOW.
 3. TO DETERMINE MULLION RATING LOCATE COLUMN FOR MULLION SPAN AND TRIBUTARY WIDTH THEN LOCATE CORRESPONDING ROW FOR BOTTOM AND TRANSOM HEIGHTS. FIND THE INTERSECTION OF THIS COLUMN AND ROW. MULLION RATING IS LOCATED AT THIS INTERSECTION.
 4. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
 5. IF TRANSOM TO BE INSTALLED IS NOT LISTED IN THESE CHARTS GO TO NEXT HIGHER TRANSOM CHART. FOR EXAMPLE IF TRANSOM TO BE INSTALLED IS 20" HIGH THEN USE CHART FOR 24" TRANSOM.
 6. WINDOW/DOOR AND TRANSOMS TO BE ANCHORED ON ALL FOUR SIDES.
 7. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + MULLION WIDTH]/2. SEE FORMULA BELOW.

CHART #13
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)						
		76.00	88.00	100.00	112.00	124.00	136.00	148.00
		Tributary width (in)						
Window	Transom	37.00	43.00	49.00	55.00	61.00	67.00	73.00
48.00	48.00	175.0	160.5	134.8	116.0	101.8	87.7	67.4
54.00	48.00	175.0	153.9	129.4	111.2	97.3	83.0	63.7
60.00	48.00	175.0	147.7	124.5	107.1	93.6	79.0	60.6
66.00	48.00	173.2	142.1	119.9	103.3	90.4	75.4	57.8
72.00	48.00	166.5	136.8	115.6	99.7	87.4	72.2	55.3
78.00	48.00	160.3	132.0	111.6	96.4	84.6	69.2	53.1
84.00	48.00	154.6	127.4	107.9	93.3	81.9	66.5	51.0

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + \text{MULLION WIDTH}}{2}$$

CHART #11
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)						
		76.00	88.00	100.00	112.00	124.00	136.00	148.00
		Tributary width (in)						
Window	Transom	37.00	43.00	49.00	55.00	61.00	67.00	73.00
48.00	36.00	175.0	175.0	148.8	128.7	113.3	98.9	76.1
54.00	36.00	175.0	168.1	142.3	122.8	107.9	93.0	71.5
60.00	36.00	175.0	160.8	136.4	117.8	103.3	87.9	67.6
66.00	36.00	175.0	154.1	130.9	113.2	99.4	83.5	64.1
72.00	36.00	175.0	148.0	125.8	109.0	95.8	79.6	61.1
78.00	36.00	171.4	142.3	121.1	105.0	92.4	76.1	58.4
84.00	36.00	164.8	137.1	116.8	101.4	89.2	72.8	55.9

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #14
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)						
		76.00	88.00	100.00	112.00	124.00	136.00	148.00
		Tributary width (in)						
Window	Transom	37.00	43.00	49.00	55.00	61.00	67.00	73.00
48.00	54.00	175.0	155.0	129.6	111.2	97.3	83.2	63.9
54.00	54.00	175.0	148.8	124.6	106.8	93.3	79.0	60.6
60.00	54.00	175.0	143.1	120.0	103.0	89.9	75.3	57.7
66.00	54.00	169.0	137.8	115.8	99.5	86.9	72.1	55.2
72.00	54.00	162.6	132.8	111.8	96.2	84.1	69.1	52.9
78.00	54.00	156.7	128.3	108.1	93.1	81.5	66.4	50.9
84.00	54.00	151.2	124.0	104.6	90.2	79.0	63.9	49.0

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #12
Maximum design pressure capacity chart (psf)


Height (in)		Mullion Span (in)						
		76.00	88.00	100.00	112.00	124.00	136.00	148.00
		Tributary width (in)						
Window	Transom	37.00	43.00	49.00	55.00	61.00	67.00	73.00
48.00	42.00	175.0	167.4	141.1	121.7	107.0	92.9	71.4
54.00	42.00	175.0	160.2	135.2	116.5	102.1	87.6	67.3
60.00	42.00	175.0	153.6	129.8	112.0	98.1	83.1	63.8
66.00	42.00	175.0	147.5	124.8	107.8	94.5	79.2	60.7
72.00	42.00	171.7	141.8	120.2	103.9	91.2	75.6	58.0
78.00	42.00	165.2	136.6	115.9	100.3	88.1	72.4	55.6
84.00	42.00	159.1	131.7	112.0	97.0	85.3	69.5	53.3

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #15
Maximum design pressure capacity chart (psf)

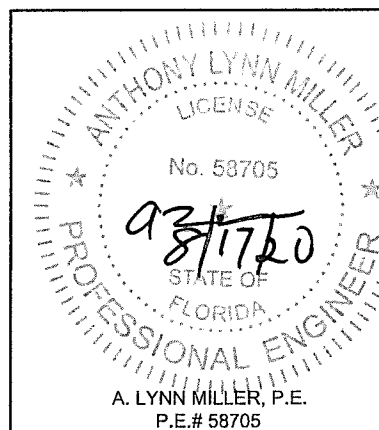
Height (in)		Mullion Span (in)						
		76.00	88.00	100.00	112.00	124.00	136.00	148.00
		Tributary width (in)						
Window	Transom	37.00	43.00	49.00	55.00	61.00	67.00	73.00
48.00	60.00	175.0	150.8	125.4	107.2	93.6	79.4	60.9
54.00	60.00	175.0	144.9	120.8	103.1	89.9	75.6	57.9
60.00	60.00	172.7	139.5	116.5	99.6	86.7	72.2	55.3
66.00	60.00	166.0	134.4	112.4	96.3	83.9	69.2	52.9
72.00	60.00	159.9	129.7	108.7	93.2	81.3	66.5	50.8
78.00	60.00	154.1	125.3	105.2	90.3	78.9	64.0	49.0
84.00	60.00	148.8	121.2	101.9	87.6	76.6	61.7	47.2

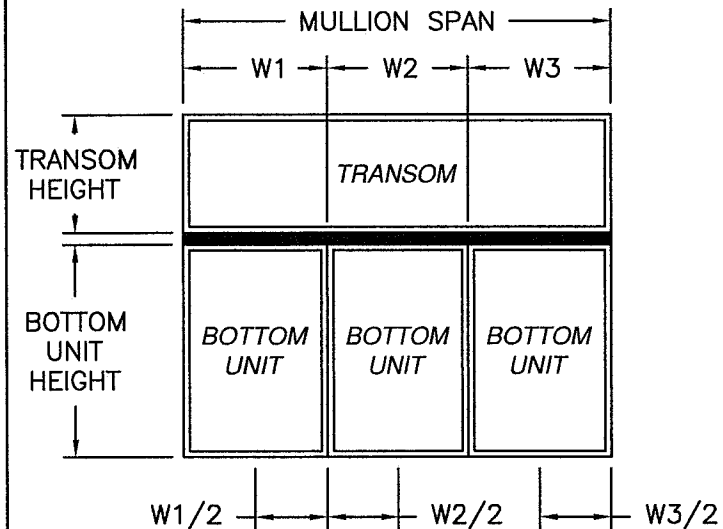
LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By 
Miami-Dade Product Control

NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP	HORIZONTAL TWIN UNIT w/TRANSOM	ERIN KOSS	Rev.				
					Date				
					By				
					No.				
5 OF 13					DWG				
MULLION					Sheet				





HORIZONTAL MULLION
TRIPLE UNITS WITH SINGLE TRANSOMS
SEE CHARTS #16, #17, #18, #19 AND #20 FOR RATINGS

CHART #18
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)				
		80.0	92.0	104.0	116.0	128.0
Bottom unit	Transom	Tributary width (in)				
		25.33	29.33	33.33	37.33	41.33
48.00	48.00	175.0	147.1	126.1	110.1	97.6
54.00	48.00	166.7	139.5	119.7	104.7	92.9
60.00	48.00	158.3	132.7	114.0	99.8	88.6
66.00	48.00	150.7	126.5	108.9	95.4	84.7
72.00	48.00	143.8	120.9	104.1	91.3	81.1
78.00	48.00	137.6	115.8	99.8	87.5	77.9
84.00	48.00	131.8	111.0	95.8	84.1	74.9

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #16
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)				
		80.0	92.0	104.0	116.0	128.0
Bottom unit	Transom	Tributary width (in)				
		25.33	29.33	33.33	37.33	41.33
48.00	36.00	175.0	162.0	139.7	122.6	109.0
54.00	36.00	175.0	152.9	132.0	116.0	103.2
60.00	36.00	171.2	144.8	125.1	110.0	98.0
66.00	36.00	162.4	137.4	118.9	104.6	93.2
72.00	36.00	154.4	130.8	113.3	99.7	88.9
78.00	36.00	147.2	124.8	108.2	95.3	85.0
84.00	36.00	140.6	119.4	103.5	91.2	81.4

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #17
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)				
		80.0	92.0	104.0	116.0	128.0
Bottom unit	Transom	Tributary width (in)				
		25.33	29.33	33.33	37.33	41.33
48.00	42.00	175.0	153.7	132.2	115.8	102.8
54.00	42.00	173.0	145.5	125.3	109.8	97.6
60.00	42.00	164.0	138.1	119.1	104.4	92.9
66.00	42.00	155.9	131.4	113.4	99.6	88.6
72.00	42.00	148.5	125.4	108.3	95.1	84.7
78.00	42.00	141.8	119.9	103.6	91.1	81.2
84.00	42.00	135.7	114.8	99.3	87.4	77.9

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #19
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)				
		80.0	92.0	104.0	116.0	128.0
Bottom unit	Transom	Tributary width (in)				
		25.33	29.33	33.33	37.33	41.33
48.00	54.00	170.5	141.7	121.0	105.4	93.2
54.00	54.00	161.8	134.7	115.2	100.4	88.9
60.00	54.00	153.9	128.3	109.9	95.9	85.0
66.00	54.00	146.7	122.6	105.1	91.8	81.4
72.00	54.00	140.2	117.3	100.6	88.0	78.1
78.00	54.00	134.2	112.4	96.6	84.5	75.1
84.00	54.00	128.7	108.0	92.8	81.3	72.2

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH


CHART #20
Maximum design pressure capacity chart (psf)

Height (in)		Mullion Span (in)				
		80.0	92.0	104.0	116.0	128.0
Bottom unit	Transom	Tributary width (in)				
		25.33	29.33	33.33	37.33	41.33
48.00	60.00	166.4	137.4	116.8	101.4	89.5
54.00	60.00	158.1	130.8	111.4	96.8	85.5
60.00	60.00	150.5	124.8	106.4	92.6	81.9
66.00	60.00	143.7	119.4	101.9	88.8	78.5
72.00	60.00	137.4	114.3	97.7	85.2	75.5
78.00	60.00	131.7	109.7	93.9	82.0	72.6
84.00	60.00	126.4	105.5	90.4	78.9	70.0

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

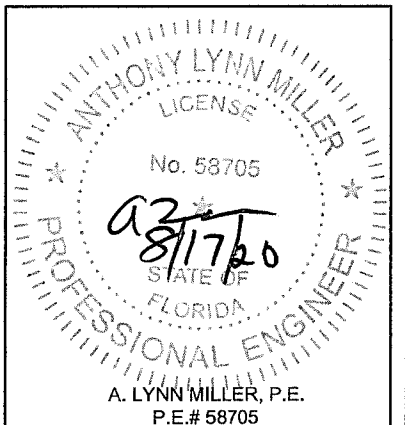
- DESIGN PRESSURE TABLE INSTRUCTIONS:
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
 2. DETERMINE MULLION SPAN AND TRIBUTARY WIDTH OF PRODUCT TO BE INSTALLED BASED ON FORMULA FOR TRIBUTARY WIDTH BELOW.
 3. TO DETERMINE MULLION RATING LOCATE COLUMN FOR MULLION SPAN AND TRIBUTARY WIDTH THEN LOCATE CORRESPONDING ROW FOR BOTTOM AND TRANSOM HEIGHTS. FIND THE INTERSECTION OF THIS COLUMN AND ROW. MULLION RATING IS LOCATED AT THIS INTERSECTION.
 4. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
 5. IF TRANSOM TO BE INSTALLED IS NOT LISTED IN THESE CHARTS GO TO NEXT HIGHER TRANSOM CHART. FOR EXAMPLE IF TRANSOM TO BE INSTALLED IS 20" HIGH THEN USE CHART FOR 24" TRANSOM.
 6. WINDOW/DOOR AND TRANSOMS TO BE ANCHORED ON ALL FOUR SIDES.
 7. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + WINDOW WIDTH (W3) + (2 X MULLION WIDTH)]/3. SEE FORMULA BELOW.

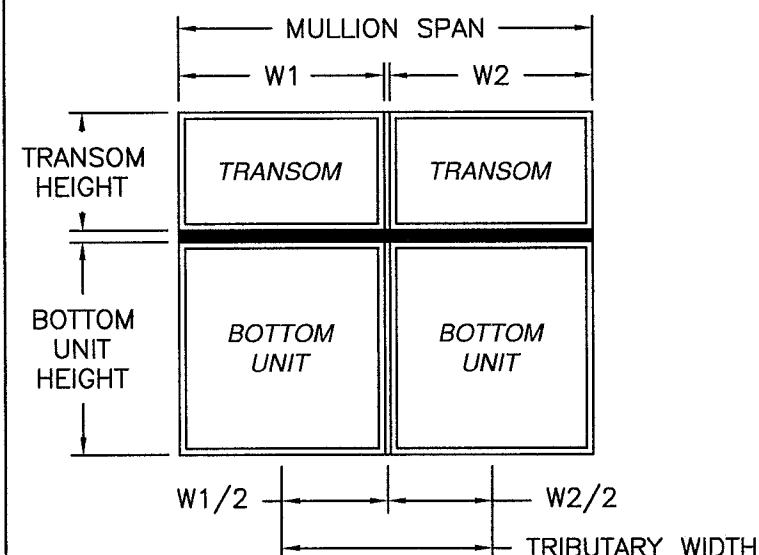
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + W3 + (2 \times \text{MULLION WIDTH})}{3}$$

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By 
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	08/14/20	ERIN KOSS	2x5-5/8 TB-LMI-NOA
WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP HORIZONTAL TRIPLE UNIT W/TRANSOM	6 OF 13	MULLION





HORIZONTAL MULLION

TWIN UNITS WITH TWIN TRANSOMS

SEE CHARTS #21, #22, #23, #24 AND #25 FOR RATINGS

CHART #21

Design pressure chart (psf)								
Height (in)		Mullion span and Tributary width (in)						
		76.0	88.0	100.0	112.0	124.0	136.0	148.0
Window	Transom	37.0	43.0	49.0	55.0	61.0	67.0	73.0
36.0	36.0	150.0	150.0	150.0	144.5	127.8	114.6	88.0
42.0	36.0	150.0	150.0	150.0	135.8	119.9	106.5	81.8
48.0	36.0	150.0	150.0	148.8	128.7	113.3	99.7	76.5
54.0	36.0	150.0	150.0	142.3	122.8	107.9	93.9	72.0
60.0	36.0	150.0	150.0	136.4	117.8	103.3	88.9	68.1
66.0	36.0	150.0	150.0	130.9	113.2	99.4	84.5	64.7
72.0	36.0	150.0	148.0	125.8	109.0	95.8	80.6	61.7
78.0	36.0	150.0	142.3	121.1	105.0	92.4	77.1	59.0
84.0	36.0	150.0	137.1	116.8	101.4	89.2	73.8	56.5

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #22

Design pressure chart (psf)								
Height (in)		Mullion span and Tributary width (in)						
		74.0	86.0	98.0	110.0	122.0	134.0	146.0
Window	Transom	37.0	43.0	49.0	55.0	61.0	67.0	73.0
36.0	42.0	150.0	150.0	150.0	135.8	119.9	106.5	81.8
42.0	42.0	150.0	150.0	148.0	128.1	112.8	99.5	76.4
48.0	42.0	150.0	150.0	141.1	121.7	107.0	93.6	71.8
54.0	42.0	150.0	150.0	135.2	116.5	102.1	88.4	67.8
60.0	42.0	150.0	150.0	129.8	112.0	98.1	84.0	64.3
66.0	42.0	150.0	147.5	124.8	107.8	94.5	80.0	61.2
72.0	42.0	150.0	141.8	120.2	103.9	91.2	76.5	58.5
78.0	42.0	150.0	136.6	115.9	100.3	88.1	73.3	56.1
84.0	42.0	150.0	131.7	112.0	97.0	85.3	70.4	53.9

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #23

Design pressure chart (psf)								
Height (in)		Mullion span and Tributary width (in)						
		74.0	86.0	98.0	110.0	122.0	134.0	146.0
Window	Transom	37.0	43.0	49.0	55.0	61.0	67.0	73.0
36.0	48.0	150.0	150.0	148.8	128.7	113.3	99.7	76.5
42.0	48.0	150.0	150.0	141.1	121.7	107.0	93.6	71.8
48.0	48.0	150.0	150.0	134.8	116.0	101.8	88.3	67.7
54.0	48.0	150.0	150.0	129.4	111.2	97.3	83.7	64.1
60.0	48.0	150.0	147.4	124.5	107.1	93.6	79.7	61.0
66.0	48.0	150.0	141.8	119.9	103.3	90.4	76.1	58.2
72.0	48.0	150.0	136.6	115.6	99.7	87.4	73.0	55.8
78.0	48.0	150.0	131.7	111.6	96.4	84.6	70.0	53.6
84.0	48.0	150.0	127.2	107.9	93.3	81.9	67.4	51.5

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #24

Design pressure chart (psf)								
Height (in)		Mullion span and Tributary width (in)						
		74.0	86.0	98.0	110.0	122.0	134.0	146.0
Window	Transom	37.0	43.0	49.0	55.0	61.0	67.0	73.0
36.0	54.0	150.0	150.0	142.3	122.8	107.9	93.9	72.0
42.0	54.0	150.0	150.0	135.2	116.5	102.1	88.4	67.8
48.0	54.0	150.0	150.0	129.4	111.2	97.3	83.7	64.1
54.0	54.0	150.0	147.4	124.4	106.8	93.3	79.6	60.9
60.0	54.0	150.0	141.8	119.9	103.0	89.9	75.9	58.1
66.0	54.0	150.0	136.6	115.6	99.5	86.9	72.7	55.6
72.0	54.0	150.0	131.7	111.6	96.2	84.1	69.8	53.3
78.0	54.0	150.0	127.2	107.9	93.1	81.5	67.1	51.3
84.0	54.0	147.9	123.0	104.5	90.2	79.0	64.6	49.4

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #25

Design pressure chart (psf)								
Height (in)		Mullion span and Tributary width (in)						
		74.0	86.0	98.0	110.0	122.0	134.0	146.0
Window	Transom	37.0	43.0	49.0	55.0	61.0	67.0	73.0
36.0	60.0	150.0	150.0	136.4	117.8	103.3	88.9	68.1
42.0	60.0	150.0	150.0	129.8	112.0	98.1	84.0	64.3
48.0	60.0	150.0	147.4	124.5	107.1	93.6	79.7	61.0
54.0	60.0	150.0	141.8	119.9	103.0	89.9	75.9	58.1
60.0	60.0	150.0	136.6	115.6	99.5	86.7	72.6	55.5
66.0	60.0	150.0	131.7	111.6	96.2	83.9	69.6	53.2
72.0	60.0	150.0	127.2	107.9	93.1	81.3	67.0	51.1
78.0	60.0	147.9	123.0	104.5	90.2	78.9	64.5	49.3
84.0	60.0	142.9	119.1	101.2	87.5	76.6	62.2	47.6

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

DESIGN PRESSURE TABLE INSTRUCTIONS:

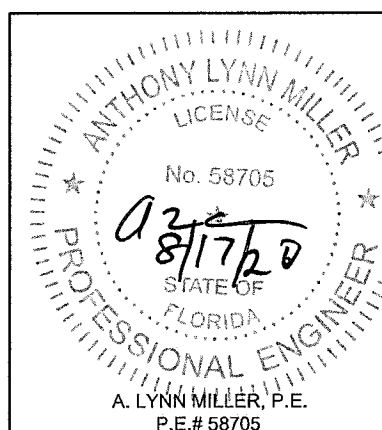
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE MULLION SPAN AND TRIBUTARY WIDTH OF PRODUCT TO BE INSTALLED BASED ON FORMULA FOR TRIBUTARY WIDTH BELOW.
3. TO DETERMINE MULLION RATING LOCATE COLUMN FOR MULLION SPAN AND TRIBUTARY WIDTH THEN LOCATE CORRESPONDING ROW FOR BOTTOM AND TRANSOM HEIGHTS. FIND THE INTERSECTION OF THIS COLUMN AND ROW. MULLION RATING IS LOCATED AT THIS INTERSECTION.
4. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
5. IF TRANSOM TO BE INSTALLED IS NOT LISTED IN THESE CHARTS GO TO NEXT HIGHER TRANSOM CHART. FOR EXAMPLE IF TRANSOM TO BE INSTALLED IS 20" HIGH THEN USE CHART FOR 24" TRANSOM.
6. WINDOW/DOOR AND TRANSOMS TO BE ANCHORED ON ALL FOUR SIDES.
7. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + MULLION WIDTH]/2. SEE FORMULA BELOW.

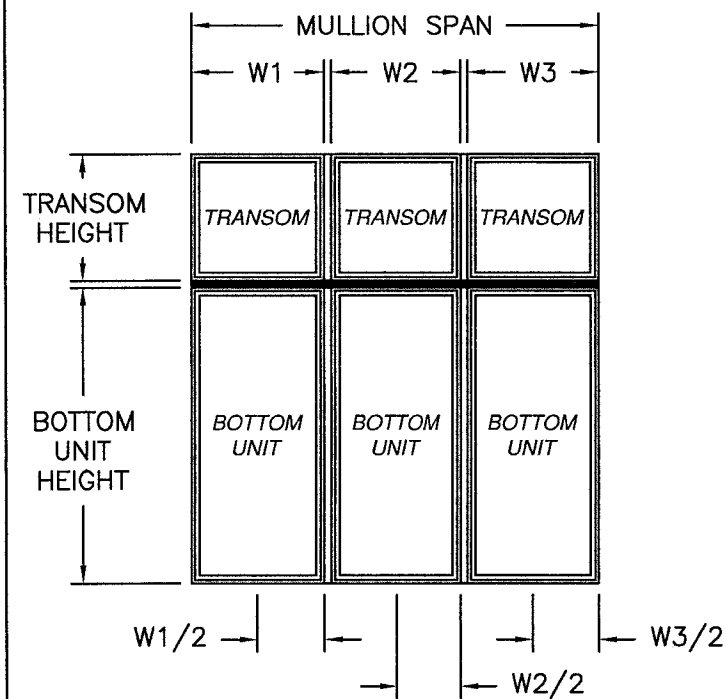
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + \text{MULLION WIDTH}}{2}$$

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By
Miami-Dade Product Control

NO CHANGES THIS SHEET.

WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP HORIZONTAL TWIN UNIT w/TWIN TRANSOM MULLION	ERIN KOSS By DWC	08/14/20 Date	Rev.
				2x5-5/8 TB-LMI-NOA
				No.
				7 OF 13





HORIZONTAL MULLION
TRIPLE UNIT WITH TRIPLE TRANSOM
SEE CHARTS #26, #27, #28 AND #29 FOR RATINGS

CHART #26

Design pressure (psf)							
Height (in)		Mullion span and Tributary width (in)					
		80.0	98.0	116.0	134.0	152.0	170.0
Window	Transom	25.3	31.3	37.3	43.3	49.3	55.3
36.0	36.0	150.0	150.0	150.0	129.3	87.0	61.3
42.0	36.0	150.0	150.0	150.0	120.0	80.7	56.9
48.0	36.0	150.0	150.0	150.0	112.1	75.3	53.0
54.0	36.0	150.0	150.0	150.0	105.1	70.7	49.7
60.0	36.0	150.0	150.0	150.0	98.9	66.6	46.9
66.0	36.0	150.0	150.0	147.3	93.5	62.9	44.3
72.0	36.0	150.0	150.0	139.5	88.6	59.6	42.0
78.0	36.0	150.0	150.0	132.5	84.2	56.7	40.0
84.0	36.0	150.0	150.0	126.2	80.2	54.0	38.1

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #27

Design pressure (psf)							
Height (in)		Mullion span and Tributary width (in)					
		80.0	98.0	116.0	134.0	152.0	170.0
Window	Transom	25.3	31.3	37.3	43.3	49.3	55.3
36.0	42.0	150.0	150.0	150.0	120.0	80.7	56.9
42.0	42.0	150.0	150.0	150.0	111.9	75.2	53.0
48.0	42.0	150.0	150.0	150.0	105.0	70.5	49.6
54.0	42.0	150.0	150.0	150.0	98.9	66.5	46.8
60.0	42.0	150.0	150.0	147.3	93.4	62.8	44.2
66.0	42.0	150.0	150.0	139.5	88.5	59.5	41.9
72.0	42.0	150.0	150.0	132.5	84.1	56.6	39.9
78.0	42.0	150.0	150.0	126.2	80.1	53.9	38.0
84.0	42.0	150.0	150.0	120.4	76.5	51.5	36.3

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #28

Design pressure (psf)							
Height (in)		Mullion span and Tributary width (in)					
		80.0	98.0	116.0	134.0	152.0	170.0
Window	Transom	25.3	31.3	37.3	43.3	49.3	55.3
36.0	48.0	150.0	150.0	150.0	112.1	75.3	53.0
42.0	48.0	150.0	150.0	150.0	105.0	70.5	49.6
48.0	48.0	150.0	150.0	150.0	98.8	66.4	46.7
54.0	48.0	150.0	150.0	147.3	93.4	62.8	44.1
60.0	48.0	150.0	150.0	139.5	88.5	59.5	41.9
66.0	48.0	150.0	150.0	132.5	84.1	56.6	39.8
72.0	48.0	150.0	150.0	126.2	80.1	53.9	37.9
78.0	48.0	150.0	150.0	120.4	76.5	51.5	36.3
84.0	48.0	150.0	150.0	115.2	73.2	49.3	34.7

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #29

Design pressure (psf)							
Height (in)		Mullion span and Tributary width (in)					
		80.0	98.0	116.0	134.0	152.0	170.0
Window	Transom	25.3	31.3	37.3	43.3	49.3	55.3
36.0	54.0	150.0	150.0	150.0	105.1	70.7	49.7
42.0	54.0	150.0	150.0	150.0	98.9	66.5	46.8
48.0	54.0	150.0	150.0	147.3	93.4	62.8	44.1
54.0	54.0	150.0	150.0	139.5	88.5	59.5	41.8
60.0	54.0	150.0	150.0	132.5	84.1	56.6	39.8
66.0	54.0	150.0	150.0	126.2	80.1	53.9	37.9
72.0	54.0	150.0	150.0	120.4	76.5	51.5	36.2
78.0	54.0	150.0	150.0	115.2	73.2	49.3	34.7
84.0	54.0	150.0	150.0	110.4	70.1	47.2	33.3

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

CHART #30

Design pressure (psf)							
Height (in)		Mullion span and Tributary width (in)					
		80.0	98.0	116.0	134.0	152.0	170.0
Window	Transom	25.3	31.3	37.3	43.3	49.3	55.3
36.0	60.0	150.0	150.0	150.0	98.9	66.6	46.9
42.0	60.0	150.0	150.0	147.3	93.4	62.8	44.2
48.0	60.0	150.0	150.0	139.5	88.5	59.5	41.9
54.0	60.0	150.0	150.0	132.5	84.1	56.6	39.8
60.0	60.0	150.0	150.0	126.2	80.1	53.9	37.9
66.0	60.0	150.0	150.0	120.4	76.5	51.5	36.2
72.0	60.0	150.0	150.0	115.2	73.2	49.3	34.7
78.0	60.0	150.0	150.0	110.4	70.1	47.2	33.3
84.0	60.0	150.0	150.0	106.0	67.3	45.4	32.0

LARGE AND SMALL MISSILE IMPACT - HVHZ
TRIBUTARY WIDTH INCLUDES MULLION WIDTH

DESIGN PRESSURE TABLE INSTRUCTIONS:

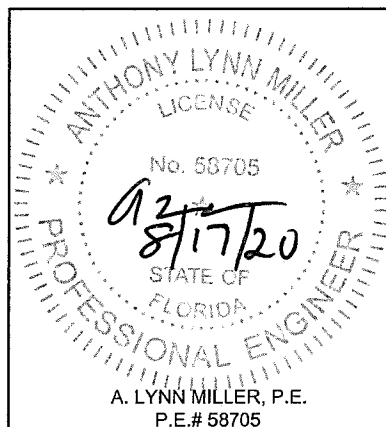
1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE MULLION SPAN AND TRIBUTARY WIDTH OF PRODUCT TO BE INSTALLED BASED ON FORMULA FOR TRIBUTARY WIDTH BELOW.
3. TO DETERMINE MULLION RATING LOCATE COLUMN FOR MULLION SPAN AND TRIBUTARY WIDTH THEN LOCATE CORRESPONDING ROW FOR BOTTOM AND TRANSOM HEIGHTS. FIND THE INTERSECTION OF THIS COLUMN AND ROW. MULLION RATING IS LOCATED AT THIS INTERSECTION.
4. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.
5. IF TRANSOM TO BE INSTALLED IS NOT LISTED IN THESE CHARTS GO TO NEXT HIGHER TRANSOM CHART. FOR EXAMPLE IF TRANSOM TO BE INSTALLED IS 20" HIGH THEN USE CHART FOR 24" TRANSOM.
6. WINDOW/DOOR AND TRANSOMS TO BE ANCHORED ON ALL FOUR SIDES.
7. TRIBUTARY WINDOW WIDTH (TW)= [WINDOW WIDTH (W1) + WINDOW WIDTH (W2) + WINDOW WIDTH (W3) + (2 X MULLION WIDTH)]/3. SEE FORMULA BELOW.

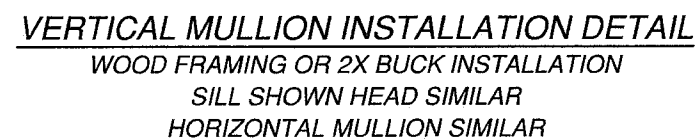
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + W3 + (2 \times \text{MULLION WIDTH})}{3}$$

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

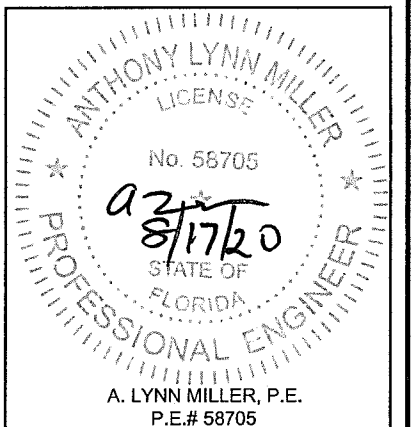
<div>WINDOOR® INCORPORATED</div> <div>WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432</div>	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296			
	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP		Date08/14/20	
	HORIZONTAL TRIPLE UNIT		ByERIN KOSS	
	W/TRIPLE TRANSOM		Dwg2x5-5/8 TB-LM-NOA	
	MULLION		Rev	
Sheet8 OF 13		DWCNo.2x5-5/8 TB-LM-NOA		

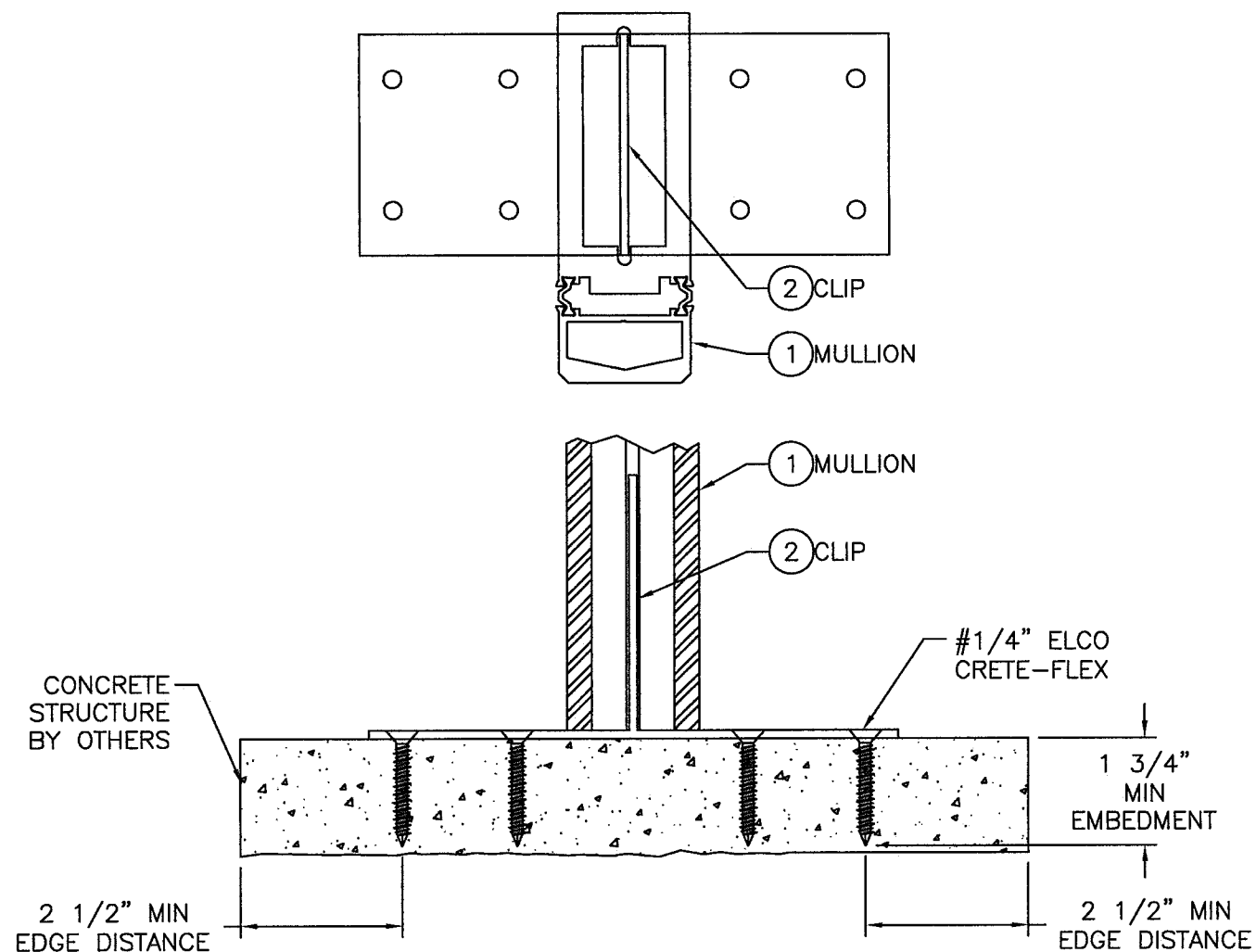




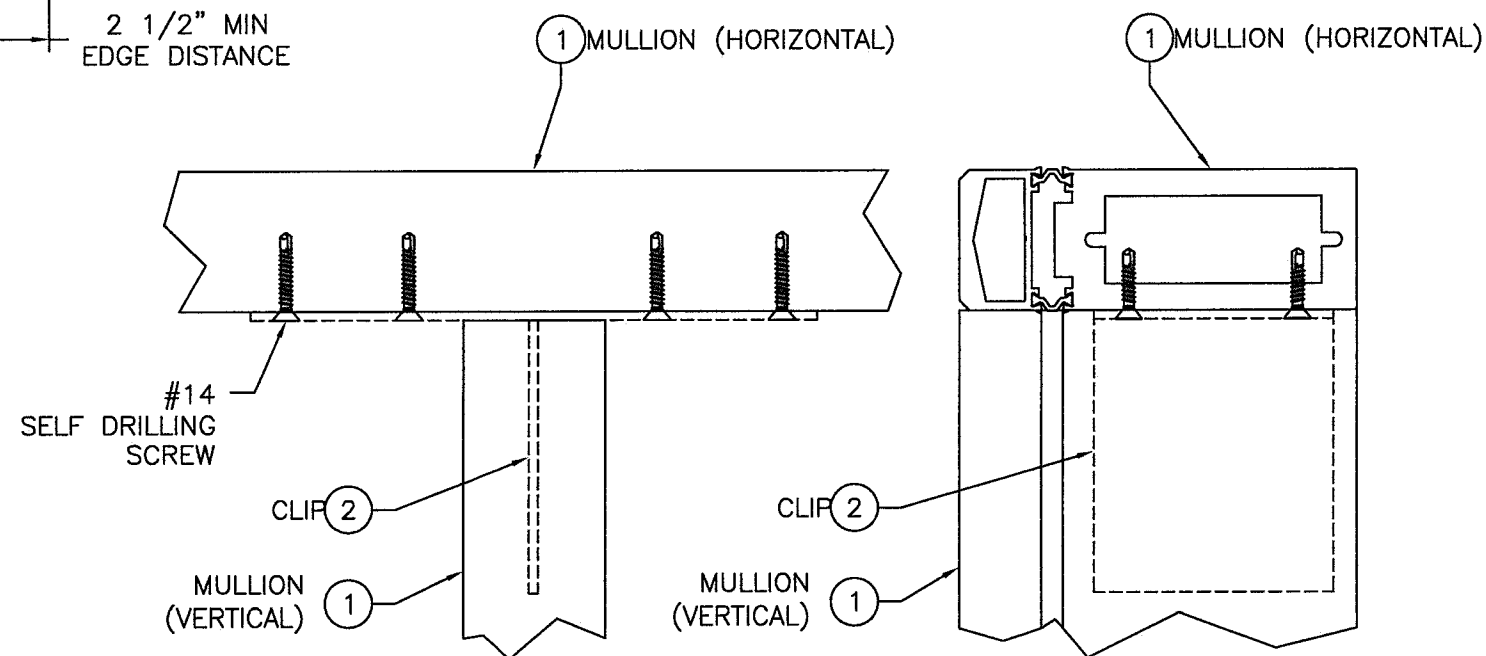
Revision:

W ^{INDOOR} [®]		PREPARED BY A. LYNN MILLER			
INCORPORATED		1070 TECHNOLOGY DRIVE			
WINDOOR INCORPORATED		N. VENICE, FL 34275			
104 TRIPLE DIAMOND BLVD.		(941) 480-1600			
NORTH VENICE, FL 34275		REGISTRATION #29296			
(833) 554-5432					
2"x5-5/8" THERMALLY BROKEN MULLION (LM)		Date		08/14/20	
9000 SERIES DEEP		Drawn By		ERIN KOSS	
INSTALLATION DETAILS - WOOD &					
METAL					
MULLION		9 OF 13		2x5-5/8 TB-LM-NOA	
Sheet		No.		Rev.	
Series		DWG			





VERTICAL MULLION ISNTALLATION DETAIL
 CONCRETE/MASONRY INSTALLATION
 SILL SHOWN HEAD SIMILAR
 HORIZONTAL MULLION SIMILAR



VERTICAL TO HORIZONTAL MULLION CONNECTION DETAIL
 HORIZONTAL TO VERTICAL MULLION SIMILAR

PRODUCT REVISED
 as complying with the Florida
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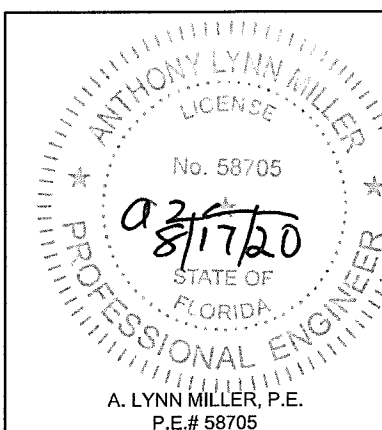
NOA-No. 20-0826.05

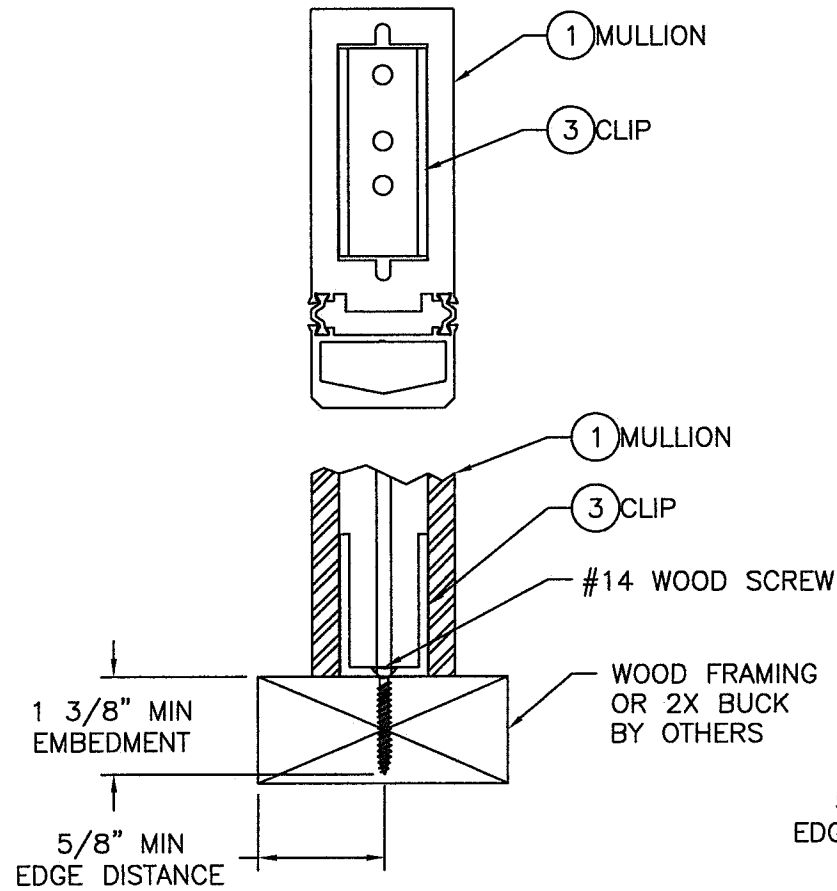
Expiration Date 11/29/2023

By 
 Miami-Dade Product Control

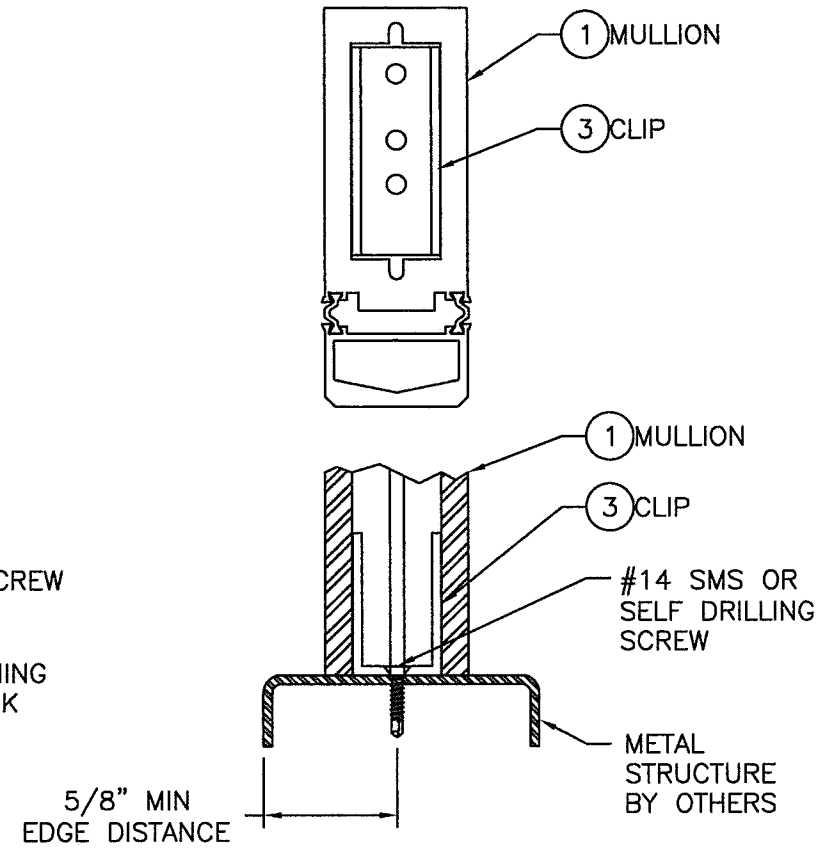
Revision: NO CHANGES THIS SHEET.

<div>WinDoor®</div> <div>INCORPORATED</div>	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP INSTALLATION DETAILS - MASONRY & MULL-MULL CONNECTION	08/14/20
Sheet	10 OF 13	DWG No
MULLION	2x5-5/8 TB-LMI-NOA	Rev.
Drawn By	ERIN KOSS	Date

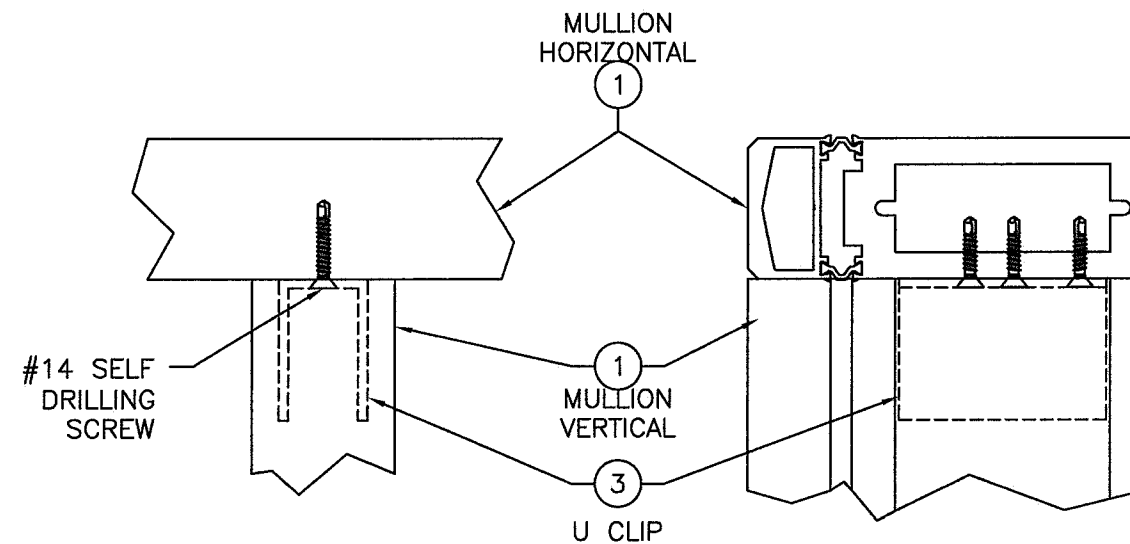




**VERTICAL MULLION INSTALLATION
WITH U CLIP DETAIL**
WOOD FRAMING OR 2X BUCK INSTALLATION
SILL SHOWN HEAD SIMILAR
HORIZONTAL MULLION SIMILAR



**VERTICAL MULLION INSTALLATION
WITH U CLIP DETAIL**
METAL STRUCTURE INSTALLATION
SILL SHOWN HEAD SIMILAR
HORIZONTAL MULLION SIMILAR

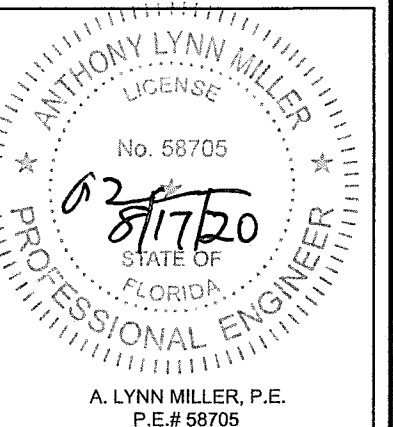


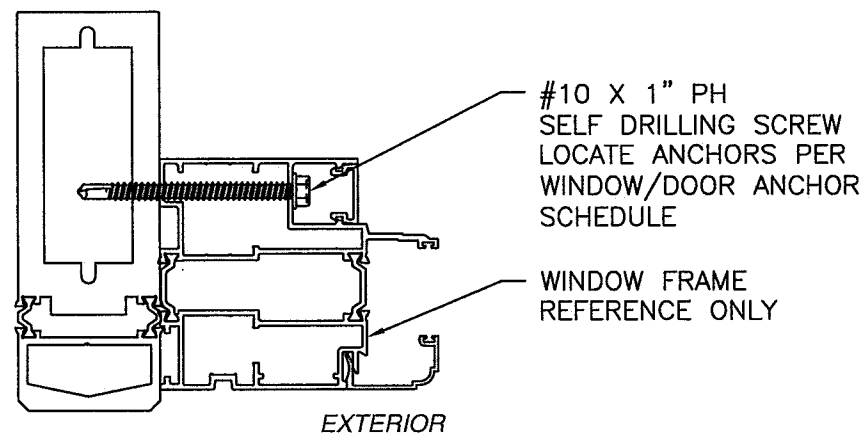
**VERTICAL TO HORIZONTAL MULLION CONNECTION DETAIL
W/U CLIP**
HORIZONTAL TO VERTICAL MULLION SIMILAR

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By *[Signature]*
Miami-Dade Product Control

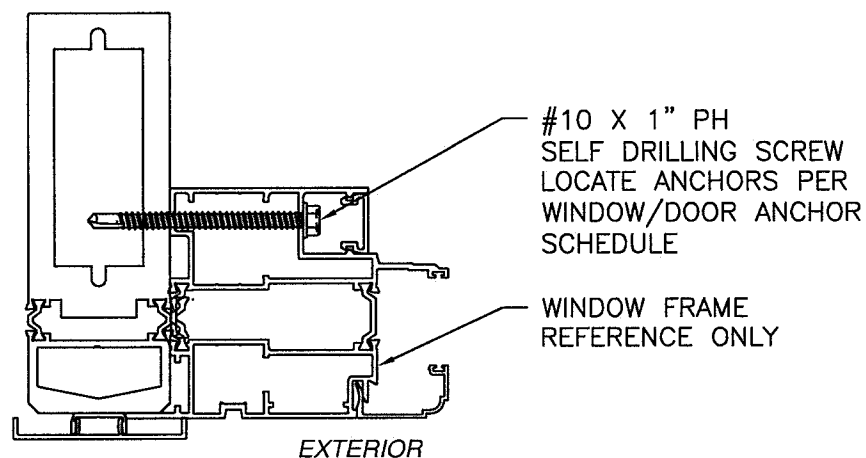
NO CHANGES THIS SHEET.

WINDOOR® INCORPORATED		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432		2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP	
Title		Date	
Series		08/14/20	
Dess.		By	
INSTALLATION DETAILS - U-CLIP		ERIN KOSS	
MULLION		2x5-5/8 TB-LMI-NOA	
Sheet		Rev.	
11 OF 13		DWG No.	



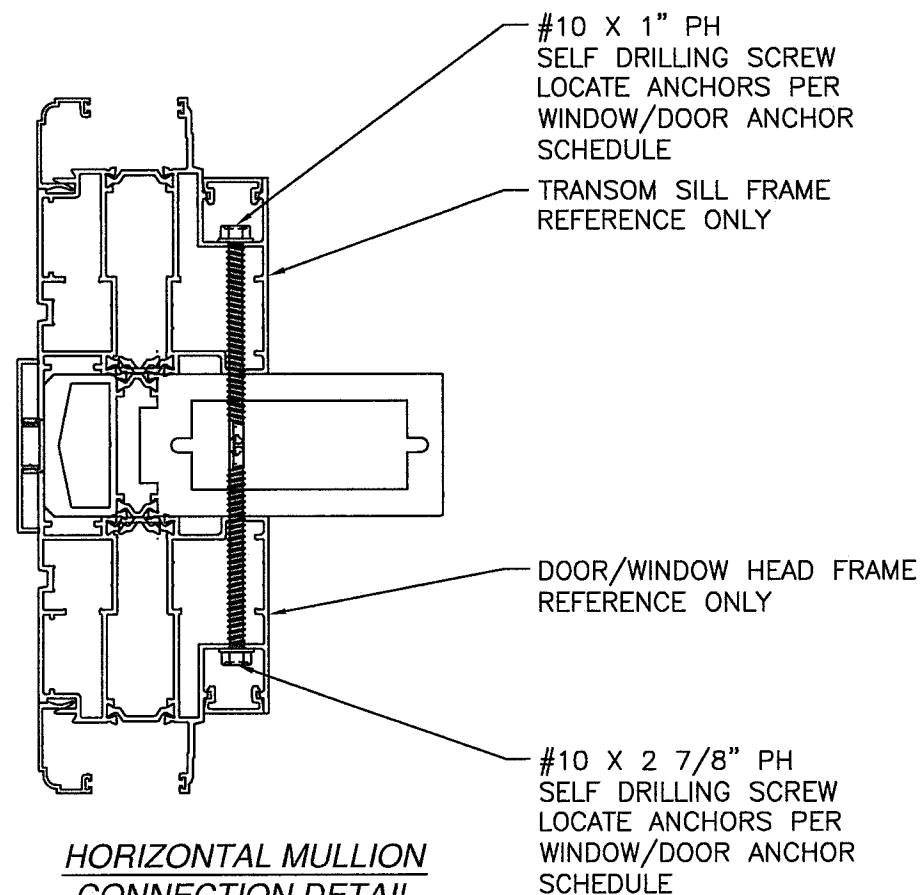


WINDOW TO MULLION FLUSH INSTALLATION DETAIL
WINDOW FRAME SHOWN FOR DETAIL PURPOSES ONLY, MULLION IS
NOT LIMITED TO THIS PRODUCT



WINDOW TO MULLION FLANGE INSTALLATION DETAIL
WINDOW FRAME SHOWN FOR DETAIL PURPOSES ONLY, MULLION IS
NOT LIMITED TO THIS PRODUCT

EXTERIOR

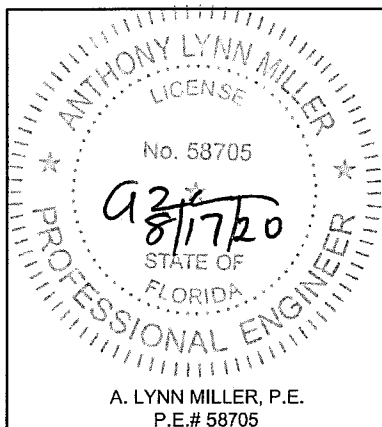


**HORIZONTAL MULLION
CONNECTION DETAIL**

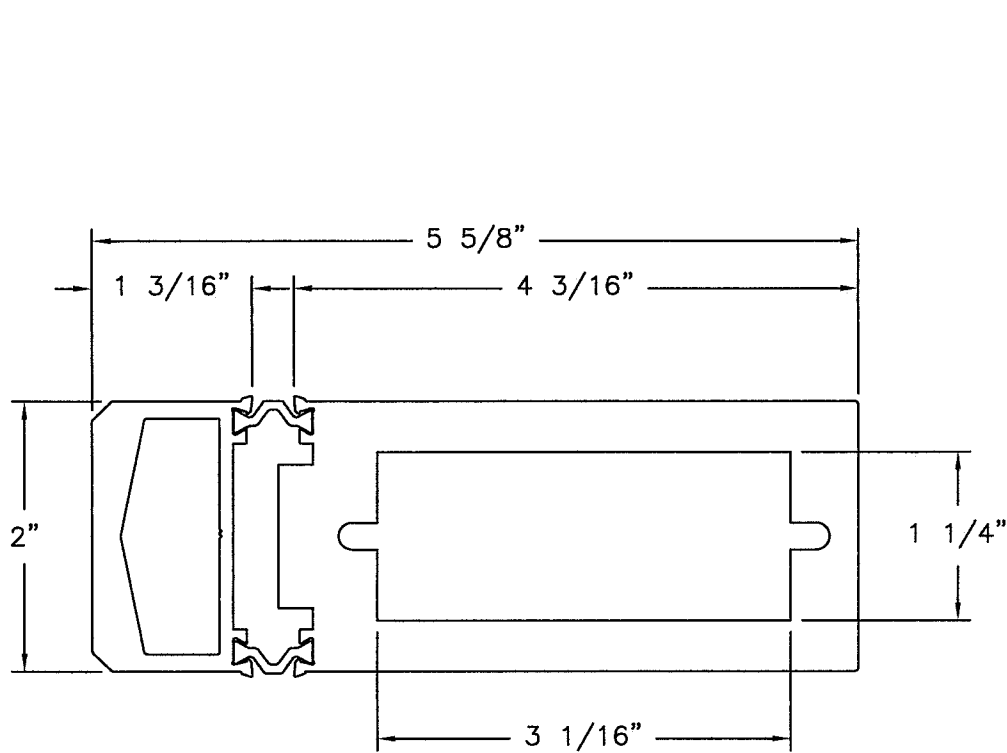
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By *CS*
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

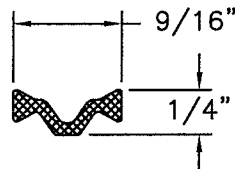
WINDOOR® <u>INCORPORATED</u>	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296			
	WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432			
Title	2"x5-5/8" THERMALLY BROKEN MULLION (LM)		Date	08/14/20
	9000 SERIES DEEP		By	
Desc.	INSTALLATION DETAILS - WINDOW			
	OR DOOR TO MULLION			
Sheet	MULLION		DWG No	ERIN KOSS
	12 OF 13		No	2x5-5/8 TB-LM-NOA
				Rev.



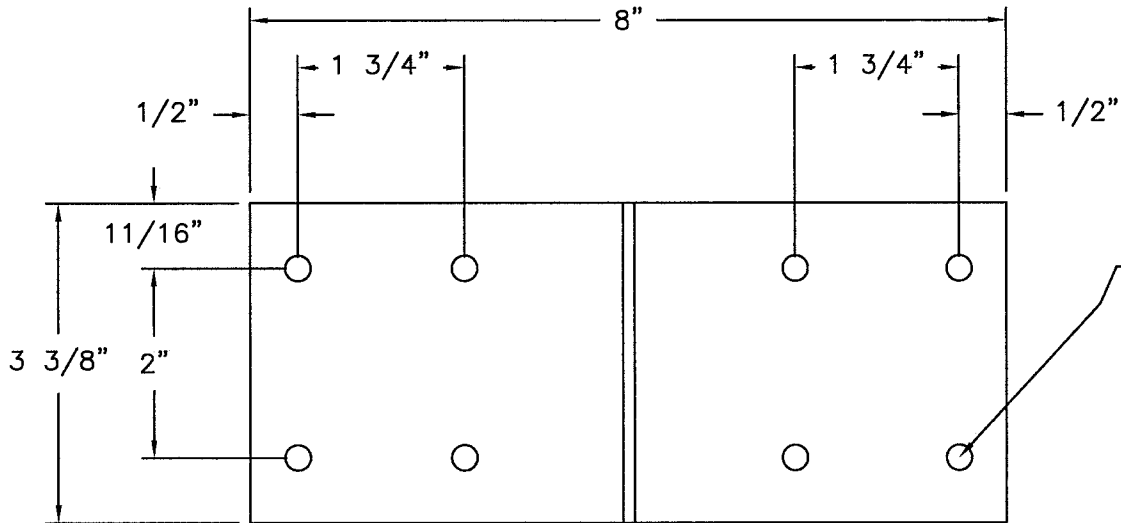
BILL OF MATERIALS				
ITEM NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	010424-WDI	2" x 5 1/2" THERMALLY BROKEN MULLION ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
2	15316	CLIP	KEYMARK	ALUMINUM 6063-T6
3	15315	U CLIP	KEYMARK	ALUMINUM 6063-T6
4		TECATHERM 66F-INSULBAR	ENSINGER INC	NYLON POLYAMIDE



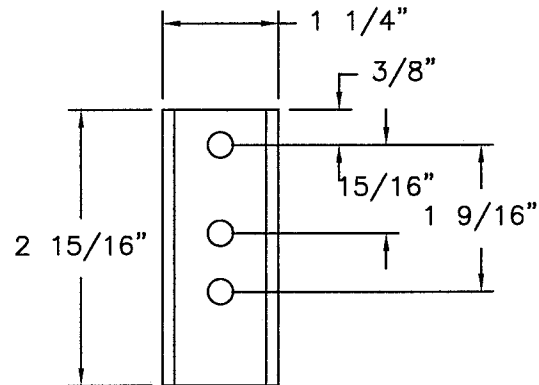
1 **MULLION ASSEMBLY 010424-WDI**
ALUMINUM 6063-T6
MOMENT OF INERTIA: 16.3082 IN⁴
SECTION MODULUS: 5.5436 IN³



4 **14.6MM THERMAL STRUT**
NYLON POLYAMIDE .070" THICK




2 **CLIP (15316)**
ALUMINUM 6063-T6 .125" THICK



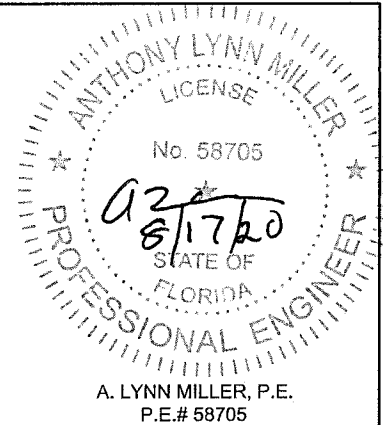
3 **U CLIP (15315)**
ALUMINUM 6063-T6 .125" THICK

HOLES ARE CSK
FOR #12 SCREW

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.05
Expiration Date 11/29/2023
By 
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

WinDoor® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296		08/14/20	Rev.
	2"x5-5/8" THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP	ERIN KOSS	2x5-5/8 TB-LMI-NOA	
BOM & EXTRUSIONS MULLION	13 OF 13	DWG No.	13 OF 13	Sheet



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