



**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

11805 SW 26 Street, Room 208

Miami, FL 33175

T (786) 315-2590 F (786) 315-2599

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

NOTICE OF ACCEPTANCE (NOA)

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 Shallow 2"x 5" Thermally Broken" Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. **2x5 TB-LMI-NOA**, titled "9000 Series 2"x5" Thermally Broken Mullion – LMI", sheets 1 through 11 of 11, 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 and renews NOA# 18-0725.14** and consists of 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.

10/01/2020

NOA No. 20-0826.01
Expiration Date: October 08, 2025
Approval Date: October 01, 2020
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **08-02201**, titled "9000 Series Shallow Horizontal Mullion – LMI & SMI", sheets 1 through 11 of 11, dated 08/15/13, with revision D dated 07/03/18, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 9020 horizontal shallow thermally broken aluminum mullion as a transom to two mulled series 9020 thermally broken aluminum fixed windows, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3995-01**, dated 01/26/15, signed and sealed by Gerard J. Ferrara, P.E.


C. CALCULATIONS:

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 09/11/15, prepared, signed and sealed by Luis R. Lomas, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Material Data Sheet for "insulating profiles made of PA 66 GF25 – dry impact resistant, to fit into Technoform I-Strut™ Aluminum Standard Reglet.
2. 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.
3. 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.
4. 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. 

Sifang Zhao, P.E.

Product Control Examiner

NOA No. 20-0826.01

Expiration Date: October 08, 2025

Approval Date: October 01, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance, complying with FBC 6th Edition (2017), and of no financial interest, dated 07/03/2018, issued, signed and sealed by Luis R. Lomas, P.E.
2. Proposal #11-1698 issued by Product Control on 02/28/12 signed by Manuel Perez, P.E.

G. OTHERS

1. Notice of Acceptance No. 13-0827.09, issued to WinDoor, Inc. for their Series “9000 Shallow 180° Thermally Broken” Clipped, Horizontal Aluminum Tube Mullion - L.M.I., approved on 10/08/15 and expiring on 10/08/20.

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 2x5 TB-LMI-NOA, titled “9000 Series 2”x5” Thermally Broken Mullion – LMI”, sheets 1 through 11 of 11, 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. None.

F. STATEMENTS

1. Statement letter of conformance, complying with FBC 6th Edition (2017) and with FBC 7th Edition (2020), and of no financial interest, dated 08/17/2020, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of successor engineer per 61G15-27.001 Florida Administrative Code.

G. OTHERS

1. Notice of Acceptance No. **18-0725.14**, issued to WinDoor, Inc. for their Series “9000 Shallow 180° Thermally Broken” Clipped, Horizontal Aluminum Tube Mullion - L.M.I., approved on 10/08/15 and expiring on 10/08/20.



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0826.01

Expiration Date: October 08, 2025
Approval Date: October 01, 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. FENESTRATION UNITS MUST BE APPROVED UNDER SEPARATE APPROVAL.
- 6. SINGLE FENESTRATION UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. FENESTRATION UNITS 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 FENESTRATION UNIT.

ANCHORING NOTES:

- 1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT WITH 9/16" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
- 2. FOR ANCHORING INTO MASONRY/CONCRETE USE 1/4" CRETE-FLEX TAPCON 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 #12 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL WITH 7/8" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 4. ALL FASTENERS TO BE CORROSION RESISTANT.
- 5. 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. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
 - D. METAL STRUCTURE: STEEL 18GA, 33KSI OR ALUMINUM 6063-T5 1/8" THICK MINIMUM.

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SHEET NO.	DESCRIPTION
1	NOTES
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8	APPROVED CONFIGURATIONS
9	INSTALLATION DETAILS
10-11	BOM & COMPONENTS

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
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) 480-1600
REGISTRATION #29296

WinDoor®

INCORPORATED

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

2"x5" THERMALLY BROKEN MULLION (LM)
9000 SERIES SHALLOW

GENERAL NOTES

08/17/20

By ERIN KOSS

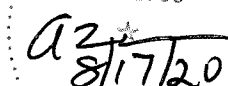
No. 2x5 TB-LMI-NOA

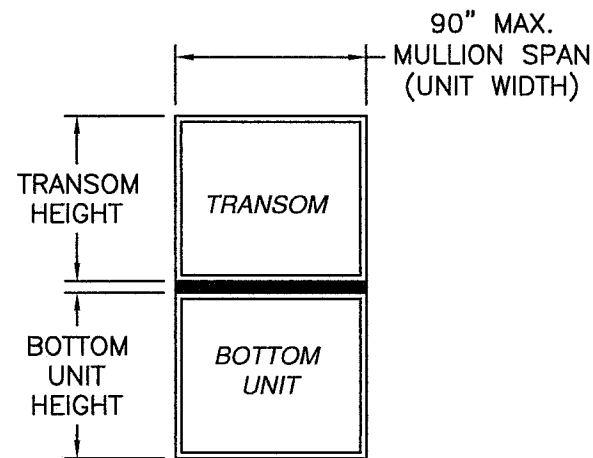
DWG

1 OF 11

Sheet

MULLION

ANTHONY LYNN MILLER
LICENSE
No. 58705

8/17/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

CHART 1
18" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	18.0	175.0	175.0	175.0	166.3	145.0	128.6	115.5	104.8
66.0	18.0	175.0	175.0	175.0	165.4	142.9	125.8	112.4	101.5
72.0	18.0	175.0	175.0	175.0	165.4	142.2	124.2	110.3	99.1
78.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	109.0	97.5
84.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.5
90.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2
96.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2
102.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2
108.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2
114.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2
120.0	18.0	175.0	175.0	175.0	165.4	142.2	123.7	108.6	96.2

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 2
24" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	24.0	175.0	175.0	175.0	153.3	133.8	118.7	106.7	96.8
66.0	24.0	175.0	175.0	175.0	152.5	132.0	116.4	104.0	94.1
72.0	24.0	175.0	175.0	175.0	152.5	131.4	115.0	102.2	92.0
78.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	101.2	90.6
84.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.8
90.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5
96.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5
102.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5
108.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5
114.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5
120.0	24.0	175.0	175.0	175.0	152.5	131.4	114.6	100.8	89.5

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 3
30" TRANSOM


Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	30.0	175.0	175.0	168.2	143.6	125.3	111.1	99.8	90.6
66.0	30.0	175.0	175.0	168.2	142.9	123.7	109.0	97.5	88.1
72.0	30.0	175.0	175.0	168.2	142.9	123.2	107.8	95.9	86.3
78.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	95.0	85.1
84.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.4
90.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1
96.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1
102.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1
108.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1
114.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1
120.0	30.0	175.0	175.0	168.2	142.9	123.2	107.4	94.7	84.1

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 4
36" TRANSOM

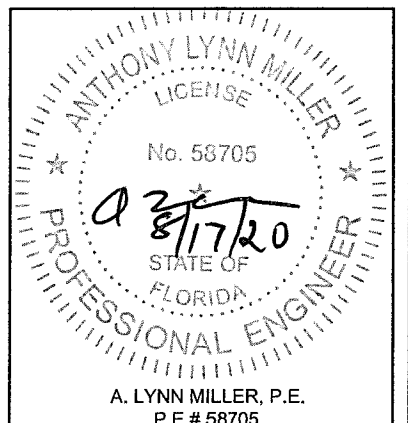
Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	36.0	175.0	175.0	160.0	136.3	118.7	105.1	94.4	85.6
66.0	36.0	175.0	175.0	160.0	135.7	117.3	103.3	92.3	83.4
72.0	36.0	175.0	175.0	160.0	135.7	116.8	102.2	90.9	81.8
78.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	90.0	80.7
84.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	80.0
90.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8
96.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8
102.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8
108.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8
114.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8
120.0	36.0	175.0	175.0	160.0	135.7	116.8	101.9	89.8	79.8

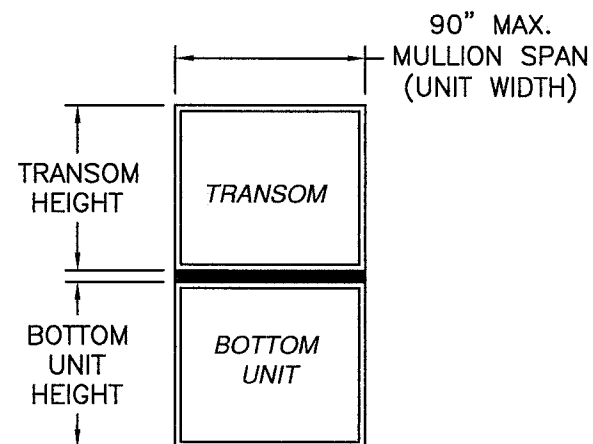
IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
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" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW DP CHARTS - SINGLE UNIT w/ TRANSOM - MASONRY/CONCRETE MULLION	Date 08/17/20	By ERIN KOSS	DWG No. 2x5 TB-LMI-NOA	Sheet 2 OF 11	Rev.





DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

CHART 5
18" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	159.9	136.5
66.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	153.9	130.7
72.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	149.7	126.4
78.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	147.3	123.4
84.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	121.5
90.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9
96.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9
102.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9
108.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9
114.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9
120.0	18.0	175.0	175.0	175.0	175.0	175.0	175.0	146.4	120.9

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 6
24" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	24.0	175.0	175.0	175.0	175.0	175.0	175.0	147.6	126.2
66.0	24.0	175.0	175.0	175.0	175.0	175.0	170.4	142.5	121.2
72.0	24.0	175.0	175.0	175.0	175.0	175.0	167.4	138.9	117.4
78.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.8	114.8
84.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	113.2
90.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7
96.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7
102.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7
108.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7
114.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7
120.0	24.0	175.0	175.0	175.0	175.0	175.0	166.4	136.0	112.7

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 7
30" TRANSOM


Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	30.0	175.0	175.0	175.0	175.0	175.0	163.3	137.5	117.5
66.0	30.0	175.0	175.0	175.0	175.0	175.0	158.9	133.0	113.2
72.0	30.0	175.0	175.0	175.0	175.0	175.0	156.4	129.9	109.9
78.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	128.0	107.6
84.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	106.3
90.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8
96.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8
102.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8
108.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8
114.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8
120.0	30.0	175.0	175.0	175.0	175.0	175.0	155.5	127.4	105.8

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 8
36" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate									
Height (in)		Mullion Span (Unit width) (in)							
Bottom	Transom	48.0	54.0	60.0	66.0	72.0	78.0	84.0	90.0
60.0	36.0	175.0	175.0	175.0	175.0	175.0	153.4	129.1	110.4
66.0	36.0	175.0	175.0	175.0	175.0	175.0	149.6	125.2	106.6
72.0	36.0	175.0	175.0	175.0	175.0	175.0	147.3	122.4	103.7
78.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.8	101.6
84.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.4
90.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0
96.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0
102.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0
108.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0
114.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0
120.0	36.0	175.0	175.0	175.0	175.0	175.0	146.5	120.2	100.0

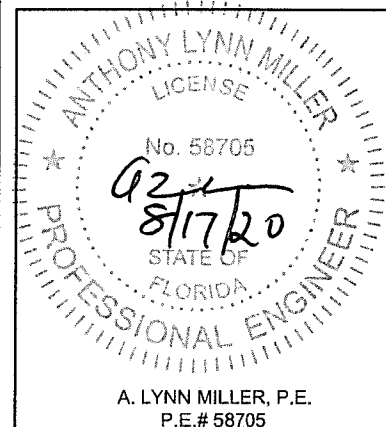
IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By 
Miami-Dade Product Control

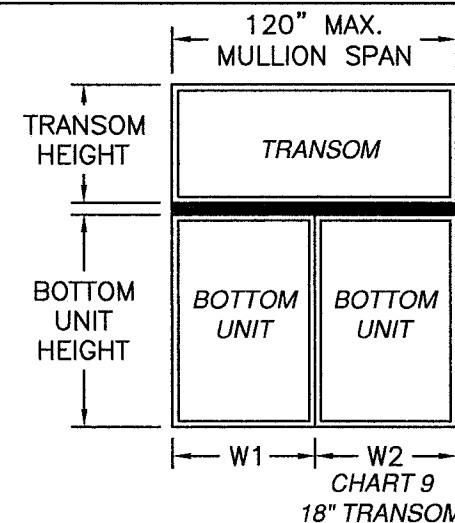
NO CHANGES THIS SHEET.

Revision:

<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" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW	
DP CHARTS - SINGLE UNIT w/ TRANSOM - WOOD & METAL		ERIN KOSS	
MULLION		Date 08/17/20	
Series Desc. Title		Drawn By	
Sheet 3 OF 11		No. 2x5 TB-LMI-NOA	
		Rev.	



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



DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

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

CHART 11
30" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (in)							
		48.00	60.00	72.00	84.00	96.00	108.00	120.00	
		Tributary width (in)							
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
60.00	18.00	175.0	167.3	134.4	111.5	94.7	76.5	55.1	
66.00	18.00	175.0	158.3	127.4	105.9	90.0	71.8	51.7	
72.00	18.00	175.0	150.2	121.2	100.8	85.8	67.7	48.8	
78.00	18.00	175.0	142.9	115.5	96.2	82.0	64.0	46.2	
84.00	18.00	175.0	136.3	110.3	92.0	78.5	60.7	43.8	
90.00	18.00	168.2	130.3	105.5	88.1	75.3	57.7	41.7	
96.00	18.00	160.9	124.7	101.2	84.6	72.3	55.0	39.8	
102.00	18.00	154.1	119.7	97.2	81.3	69.0	52.6	38.0	
108.00	18.00	147.9	115.0	93.5	78.3	65.7	50.3	36.4	
114.00	18.00	142.2	110.7	90.0	75.5	62.7	48.3	34.9	
120.00	18.00	136.9	106.7	86.8	72.9	60.0	46.4	33.5	

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 10
24" TRANSOM


Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (in)							
		48.00	60.00	72.00	84.00	96.00	108.00	120.00	
		Tributary width (in)							
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
60.00	24.00	175.0	155.8	124.7	103.3	87.6	71.0	51.1	
66.00	24.00	175.0	147.9	118.7	98.5	83.6	66.9	48.2	
72.00	24.00	175.0	140.9	113.2	94.1	80.0	63.3	45.7	
78.00	24.00	175.0	134.4	108.2	90.0	76.7	60.1	43.4	
84.00	24.00	167.3	128.6	103.7	86.3	73.6	57.2	41.3	
90.00	24.00	160.0	123.2	99.5	82.9	70.8	54.5	39.4	
96.00	24.00	153.3	118.2	95.6	79.8	68.1	52.1	37.7	
102.00	24.00	147.2	113.7	92.0	76.9	65.7	49.9	36.1	
108.00	24.00	141.5	109.4	88.7	74.2	62.9	47.9	34.6	
114.00	24.00	136.3	105.5	85.6	71.6	60.1	46.0	33.3	
120.00	24.00	131.4	101.9	82.7	69.3	57.6	44.3	32.0	

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 12
36" TRANSOM

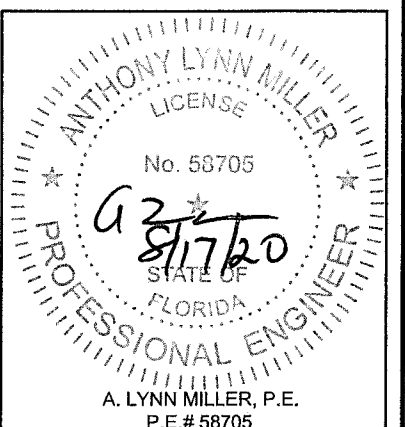
Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate									
Height (in)		Mullion Span (in)							
		48.00	60.00	72.00	84.00	96.00	108.00	120.00	
		Tributary width (in)							
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
60.00	36.00	175.0	140.9	111.5	91.7	77.5	62.4	44.9	
66.00	36.00	175.0	134.4	106.7	87.9	74.3	59.3	42.7	
72.00	36.00	171.2	128.6	102.2	84.4	71.5	56.5	40.7	
78.00	36.00	163.6	123.2	98.1	81.1	68.8	53.9	38.8	
84.00	36.00	156.6	118.2	94.4	78.1	66.3	51.5	37.1	
90.00	36.00	150.2	113.7	90.9	75.3	64.0	49.4	35.6	
96.00	36.00	144.3	109.4	87.6	72.7	61.8	47.4	34.2	
102.00	36.00	138.9	105.5	84.6	70.3	59.8	45.5	32.9	
108.00	36.00	133.8	101.9	81.8	68.0	58.0	43.8	31.7	
114.00	36.00	129.1	98.5	79.1	65.9	55.7	42.3	30.5	
120.00	36.00	124.7	95.3	76.7	63.9	53.6	40.8	29.5	

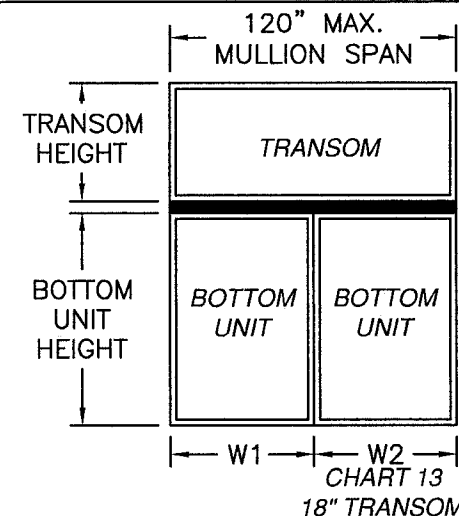
IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By 
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" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW	
DP CHARTS - TWIN UNIT w/ TRANSOM - MASONRY/CONCRETE		ERIN KOSS	
MULLION		Date 08/17/20	
Sheet		Dwg No.	
4 OF 11		2x5 TB-LMI-NOA	
Series Desc.		Rev.	





DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

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

CHART 15
30" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate								
Height (in)		Mullion Span (in)						
		48.00	60.00	72.00	84.00	96.00	108.00	120.00
		Tributary width (in)						
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00
60.00	18.00	175.0	175.0	175.0	138.9	106.2	76.5	55.1
66.00	18.00	175.0	175.0	175.0	128.9	98.6	71.8	51.7
72.00	18.00	175.0	175.0	163.9	120.3	92.0	67.7	48.8
78.00	18.00	175.0	175.0	153.7	112.8	86.3	64.0	46.2
84.00	18.00	175.0	175.0	144.6	106.1	81.2	60.7	43.8
90.00	18.00	175.0	175.0	136.5	100.2	76.7	57.7	41.7
96.00	18.00	175.0	175.0	129.3	94.9	72.6	55.0	39.8
102.00	18.00	175.0	175.0	122.8	90.2	69.0	52.6	38.0
108.00	18.00	175.0	168.6	117.0	85.9	65.7	50.3	36.4
114.00	18.00	175.0	160.9	111.6	82.0	62.7	48.3	34.9
120.00	18.00	175.0	153.9	106.8	78.4	60.0	46.4	33.5

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 14
24" TRANSOM


Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate								
Height (in)		Mullion Span (in)						
		48.00	60.00	72.00	84.00	96.00	108.00	120.00
		Tributary width (in)						
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00
60.00	24.00	175.0	175.0	175.0	129.5	99.0	71.0	51.1
66.00	24.00	175.0	175.0	164.9	120.8	92.3	66.9	48.2
72.00	24.00	175.0	175.0	154.5	113.2	86.5	63.3	45.7
78.00	24.00	175.0	175.0	145.3	106.5	81.4	60.1	43.4
84.00	24.00	175.0	175.0	137.2	100.6	76.9	57.2	41.3
90.00	24.00	175.0	175.0	129.9	95.2	72.8	54.5	39.4
96.00	24.00	175.0	175.0	123.4	90.5	69.2	52.1	37.7
102.00	24.00	175.0	169.6	117.4	86.1	65.9	49.9	36.1
108.00	24.00	175.0	161.9	112.1	82.2	62.9	47.9	34.6
114.00	24.00	175.0	154.8	107.2	78.6	60.1	46.0	33.3
120.00	24.00	175.0	148.3	102.7	75.3	57.6	44.3	32.0

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 16
36" TRANSOM

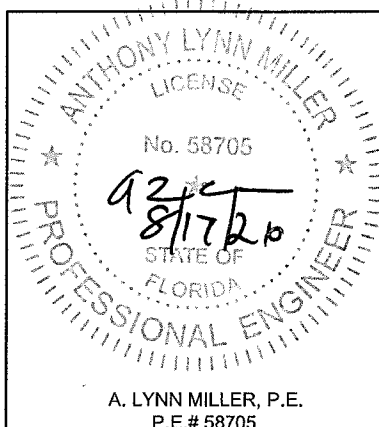
Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate								
Height (in)		Mullion Span (in)						
		48.00	60.00	72.00	84.00	96.00	108.00	120.00
		Tributary width (in)						
Window	Transom	24.00	30.00	36.00	42.00	48.00	54.00	60.00
60.00	36.00	175.0	175.0	158.0	115.1	87.6	62.4	44.9
66.00	36.00	175.0	175.0	148.4	108.2	82.4	59.3	42.7
72.00	36.00	175.0	175.0	139.9	102.0	77.7	56.5	40.7
78.00	36.00	175.0	175.0	132.4	96.6	73.6	53.9	38.8
84.00	36.00	175.0	175.0	125.6	91.6	69.9	51.5	37.1
90.00	36.00	175.0	173.9	119.5	87.2	66.5	49.4	35.6
96.00	36.00	175.0	165.7	113.9	83.2	63.4	47.4	34.2
102.00	36.00	175.0	158.3	108.8	79.5	60.6	45.5	32.9
108.00	36.00	175.0	151.5	104.2	76.1	58.1	43.8	31.7
114.00	36.00	175.0	145.2	100.0	73.0	55.7	42.3	30.5
120.00	36.00	175.0	139.5	96.0	70.2	53.6	40.8	29.5

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By 
Miami-Dade Product Control

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			
	2"x5" THERMALLY BROKEN MULLION (LM)		Date	08/17/20
	9000 SERIES SHALLOW		Drawn By	ERIN KOSS
	DP CHARTS - TWIN UNIT w/ TRANSOM - WOOD & METAL		No.	2x5 TB-LMI-NOA
MULLION	Sheet	5 OF 11		Rev.



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

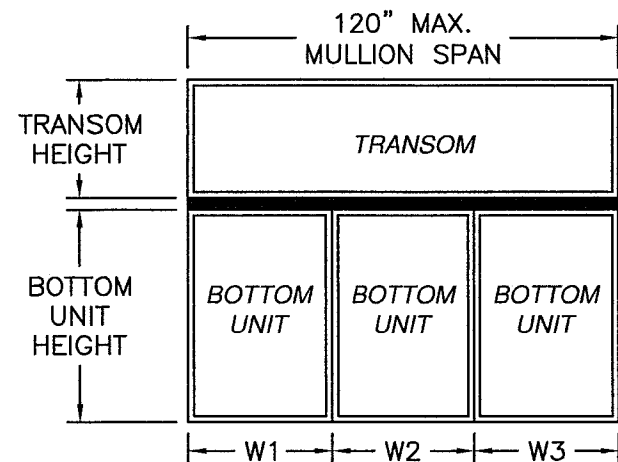


CHART 17
18" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	18.00	123.2	103.9	89.5	75.6	54.8
66.00	18.00	115.5	97.4	84.1	70.4	51.1
72.00	18.00	108.6	91.8	79.3	65.9	47.9
78.00	18.00	102.6	86.7	75.0	62.0	45.0
84.00	18.00	97.2	82.2	71.1	58.5	42.5
90.00	18.00	92.3	78.1	67.6	55.4	40.2
96.00	18.00	87.9	74.4	64.5	52.6	38.2
102.00	18.00	83.9	71.1	61.6	50.0	36.4
108.00	18.00	80.2	68.0	58.9	47.7	34.7
114.00	18.00	76.9	65.2	56.5	45.6	33.2
120.00	18.00	73.8	62.6	54.3	43.7	31.8

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 18
24" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	24.00	115.0	96.7	83.2	70.2	50.9
66.00	24.00	108.2	91.1	78.5	65.7	47.7
72.00	24.00	102.2	86.1	74.3	61.8	44.9
78.00	24.00	96.8	81.7	70.5	58.3	42.4
84.00	24.00	92.0	77.7	67.0	55.2	40.1
90.00	24.00	87.6	74.0	63.9	52.4	38.1
96.00	24.00	83.6	70.7	61.1	49.9	36.3
102.00	24.00	80.0	67.7	58.5	47.6	34.6
108.00	24.00	76.7	64.9	56.1	45.5	33.1
114.00	24.00	73.6	62.3	53.9	43.6	31.7
120.00	24.00	70.8	59.9	51.9	41.9	30.4

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

CHART 19
30" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	30.00	108.6	91.0	78.1	65.7	47.6
66.00	30.00	102.6	86.1	73.9	61.7	44.8
72.00	30.00	97.2	81.6	70.2	58.3	42.3
78.00	30.00	92.3	77.6	66.8	55.2	40.0
84.00	30.00	87.9	73.9	63.7	52.4	38.0
90.00	30.00	83.9	70.6	60.9	49.9	36.2
96.00	30.00	80.2	67.6	58.3	47.6	34.6
102.00	30.00	76.9	64.8	56.0	45.5	33.0
108.00	30.00	73.8	62.3	53.8	43.6	31.7
114.00	30.00	70.9	59.9	51.8	41.8	30.4
120.00	30.00	68.3	57.7	49.9	40.2	29.2

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 20
36" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into masonry/concrete substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	36.00	103.7	86.5	74.0	61.8	44.8
66.00	36.00	98.1	82.0	70.2	58.3	42.3
72.00	36.00	93.2	77.9	66.8	55.2	40.0
78.00	36.00	88.7	74.3	63.8	52.4	38.0
84.00	36.00	84.6	70.9	60.9	49.9	36.2
90.00	36.00	80.9	67.9	58.4	47.6	34.6
96.00	36.00	77.5	65.1	56.0	45.5	33.0
102.00	36.00	74.3	62.5	53.8	43.6	31.7
108.00	36.00	71.5	60.1	51.8	41.9	30.4
114.00	36.00	68.8	57.9	49.9	40.2	29.2
120.00	36.00	66.3	55.9	48.2	38.7	28.1

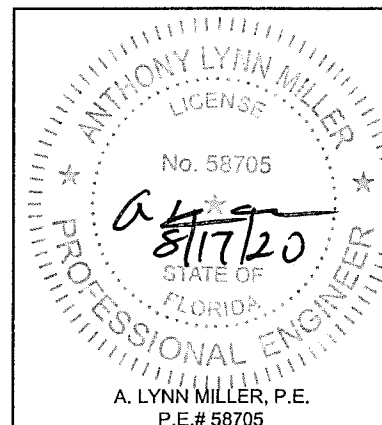
IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

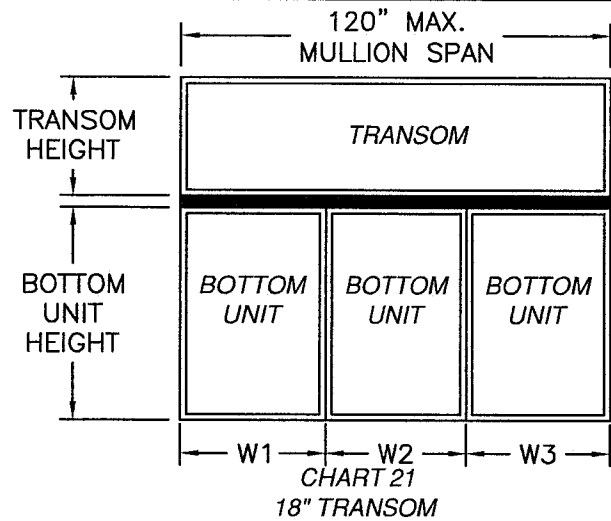
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + W3}{3}$$

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
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	2"x5" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW DP CHARTS - TRIPLE UNIT w/ TRANSOM - MASONRY/CONCRETE MULLION	By ERIN KOSS	Date 08/17/20	Rev.
				DWG
				No.
				2x5 TB-LMI-NOA
WINDOOR [®] INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	6 OF 11	Sheet	Title	Series
				Desc.
				DP CHARTS - TRIPLE UNIT w/ TRANSOM - MASONRY/CONCRETE MULLION
				9000 SERIES SHALLOW 2"x5" THERMALLY BROKEN MULLION (LM)





DESIGN PRESSURES SHOWN IN CHARTS ARE FOR POSITIVE AND NEGATIVE DESIGN PRESSURES.

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.

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2 + W3}{3}$$

CHART 23
30" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	30.00	174.4	126.7	94.0	65.7	47.6
66.00	30.00	164.0	119.3	88.4	61.7	44.8
72.00	30.00	154.8	112.6	83.4	58.3	42.3
78.00	30.00	146.5	106.7	79.0	55.2	40.0
84.00	30.00	139.1	101.4	74.9	52.4	38.0
90.00	30.00	132.5	96.5	71.3	49.9	36.2
96.00	30.00	126.4	92.1	68.0	47.6	34.6
102.00	30.00	120.8	88.1	65.0	45.5	33.0
108.00	30.00	115.8	84.4	62.3	43.6	31.7
114.00	30.00	111.1	81.1	59.8	41.8	30.4
120.00	30.00	106.8	77.9	57.4	40.2	29.2

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 24
36" TRANSOM

Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	36.00	165.1	119.6	88.7	61.8	44.8
66.00	36.00	155.8	113.0	83.7	58.3	42.3
72.00	36.00	147.4	107.0	79.2	55.2	40.0
78.00	36.00	139.9	101.6	75.1	52.4	38.0
84.00	36.00	133.2	96.8	71.5	49.9	36.2
90.00	36.00	127.0	92.3	68.2	47.6	34.6
96.00	36.00	121.4	88.3	65.2	45.5	33.0
102.00	36.00	116.3	84.6	62.4	43.6	31.7
108.00	36.00	111.6	81.2	59.9	41.9	30.4
114.00	36.00	107.3	78.1	57.6	40.2	29.2
120.00	36.00	103.2	75.2	55.4	38.7	28.1

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 21
18" TRANSOM


Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	18.00	175.0	145.5	108.1	75.6	54.8
66.00	18.00	175.0	135.8	100.7	70.4	51.1
72.00	18.00	174.3	127.2	94.3	65.9	47.9
78.00	18.00	163.9	119.7	88.6	62.0	45.0
84.00	18.00	154.7	113.0	83.6	58.5	42.5
90.00	18.00	146.5	107.1	79.1	55.4	40.2
96.00	18.00	139.1	101.7	75.1	52.6	38.2
102.00	18.00	132.4	96.8	71.4	50.0	36.4
108.00	18.00	126.3	92.4	68.1	47.7	34.7
114.00	18.00	120.8	88.4	65.1	45.6	33.2
120.00	18.00	115.7	84.7	62.4	43.7	31.8

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

CHART 22
24" TRANSOM

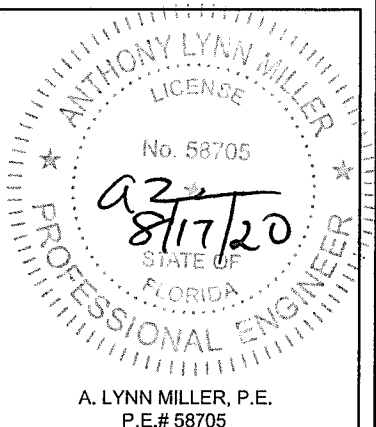
Maximum design pressure capacity chart (psf) Units installed into wood or metal substrate						
Height (in)		Mullion Span (in)				
		72.00	84.00	96.00	108.00	120.00
Bottom unit	Transom	Tributary width (in)				
		24.00	28.00	32.00	36.00	40.00
60.00	24.00	175.0	135.3	100.4	70.2	50.9
66.00	24.00	174.0	126.8	94.0	65.7	47.7
72.00	24.00	163.7	119.3	88.4	61.8	44.9
78.00	24.00	154.5	112.7	83.4	58.3	42.4
84.00	24.00	146.3	106.8	78.9	55.2	40.1
90.00	24.00	138.9	101.4	74.9	52.4	38.1
96.00	24.00	132.2	96.6	71.3	49.9	36.3
102.00	24.00	126.2	92.2	68.0	47.6	34.6
108.00	24.00	120.7	88.2	65.0	45.5	33.1
114.00	24.00	115.6	84.5	62.3	43.6	31.7
120.00	24.00	110.9	81.1	59.8	41.9	30.4

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

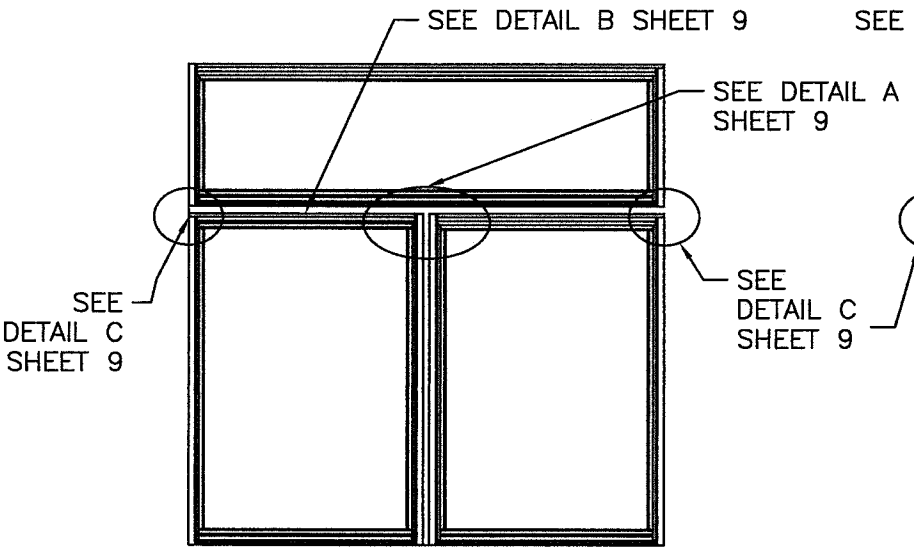
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By 
Miami-Dade Product Control

NO CHANGES THIS SHEET.

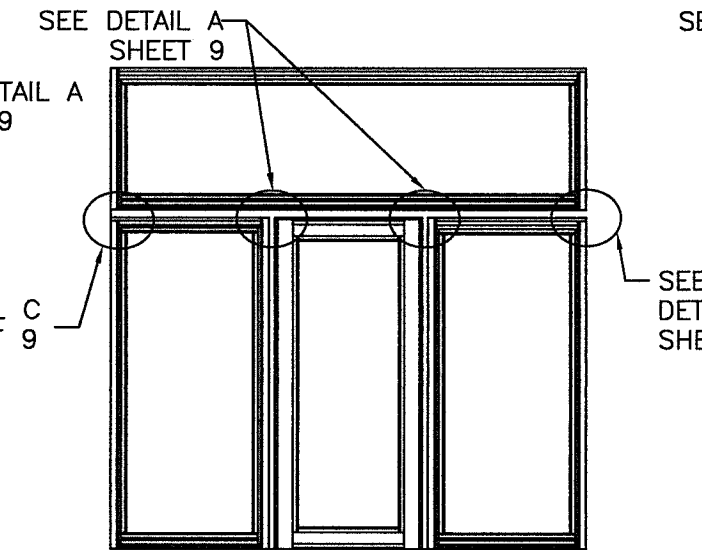
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	Date	08/17/20	By	ERIN KOSS	DWC No.	2x5 TB-LMI-NOA	Rev.
WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432	Series	2"x5" THERMALLY BROKEN MULLION (LM)	Desc.	9000 SERIES SHALLOW DP CHARTS - TRIPLE UNIT w/ TRANSOM - WOOD & METAL	Sheet	7 OF 11	MULLION



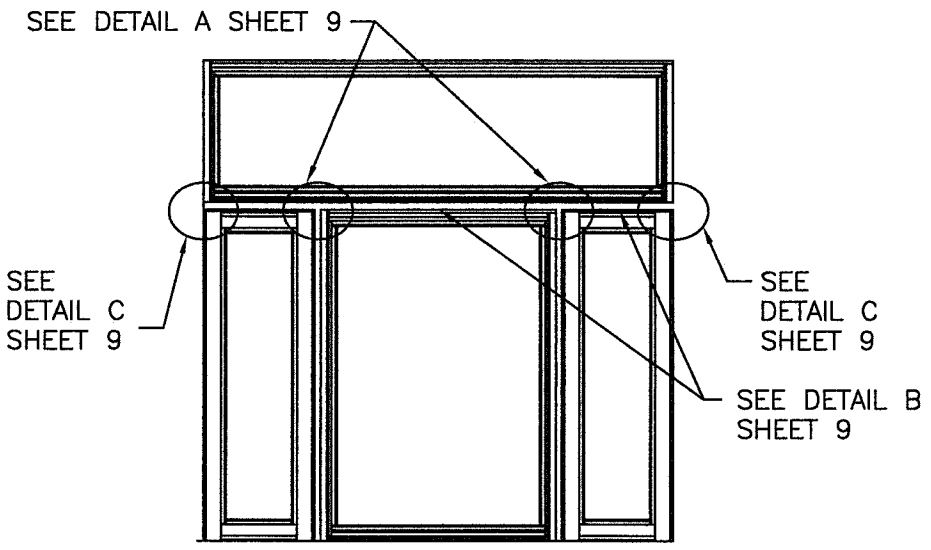
A. LYNN MILLER, P.E.
P.E.# 58705



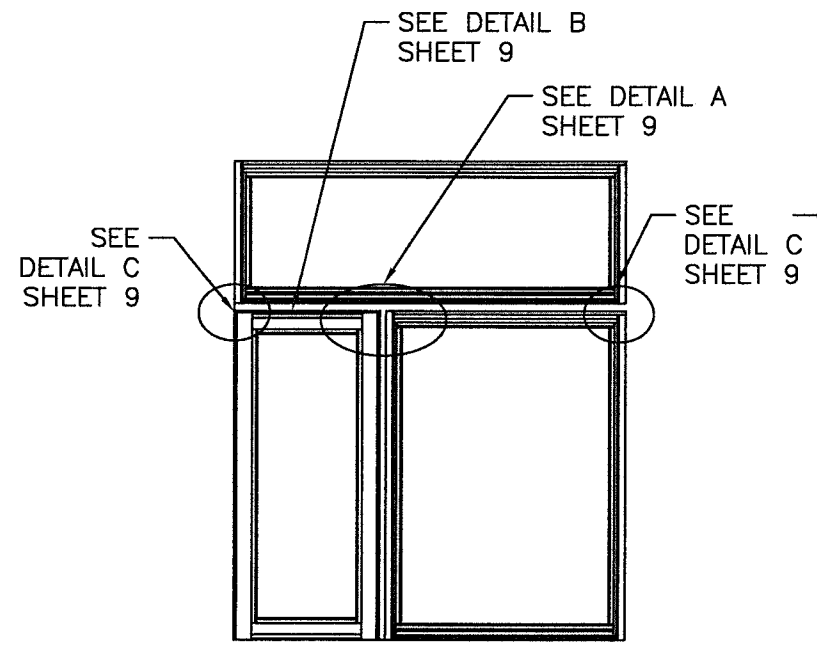
TWIN WITH TRANSOM
REFER TO SHEETS 4 & 5 FOR LIMITATIONS AND RATINGS



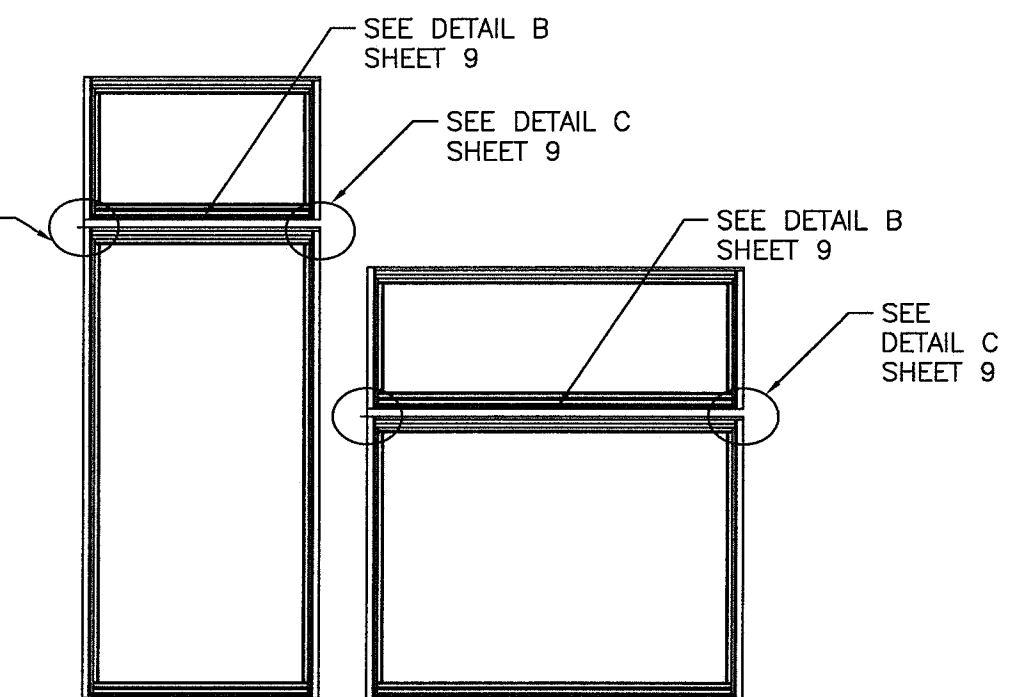
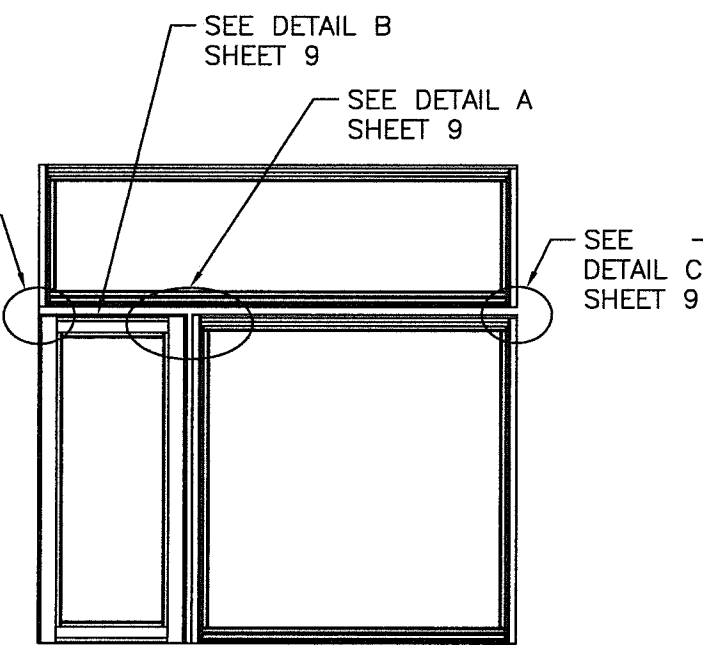
TRIPLE WITH TRANSOM
REFER TO SHEETS 6 & 7 FOR LIMITATIONS AND RATINGS



3 UNITS WITH TRANSOM
REFER TO SHEETS 6 & 7 FOR LIMITATIONS AND RATINGS



TWO UNITS WITH TRANSOM
REFER TO SHEETS 4 & 5 FOR LIMITATIONS AND RATINGS



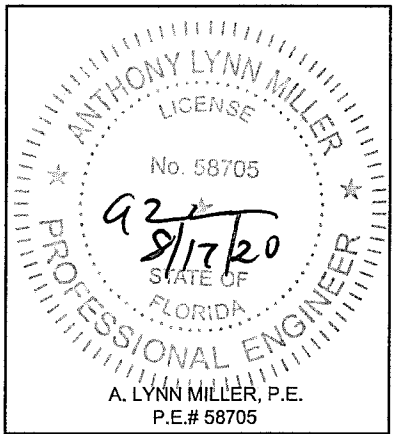
SINGLE WITH TRANSOM
REFER TO SHEETS 2 & 3 FOR LIMITATIONS AND RATINGS

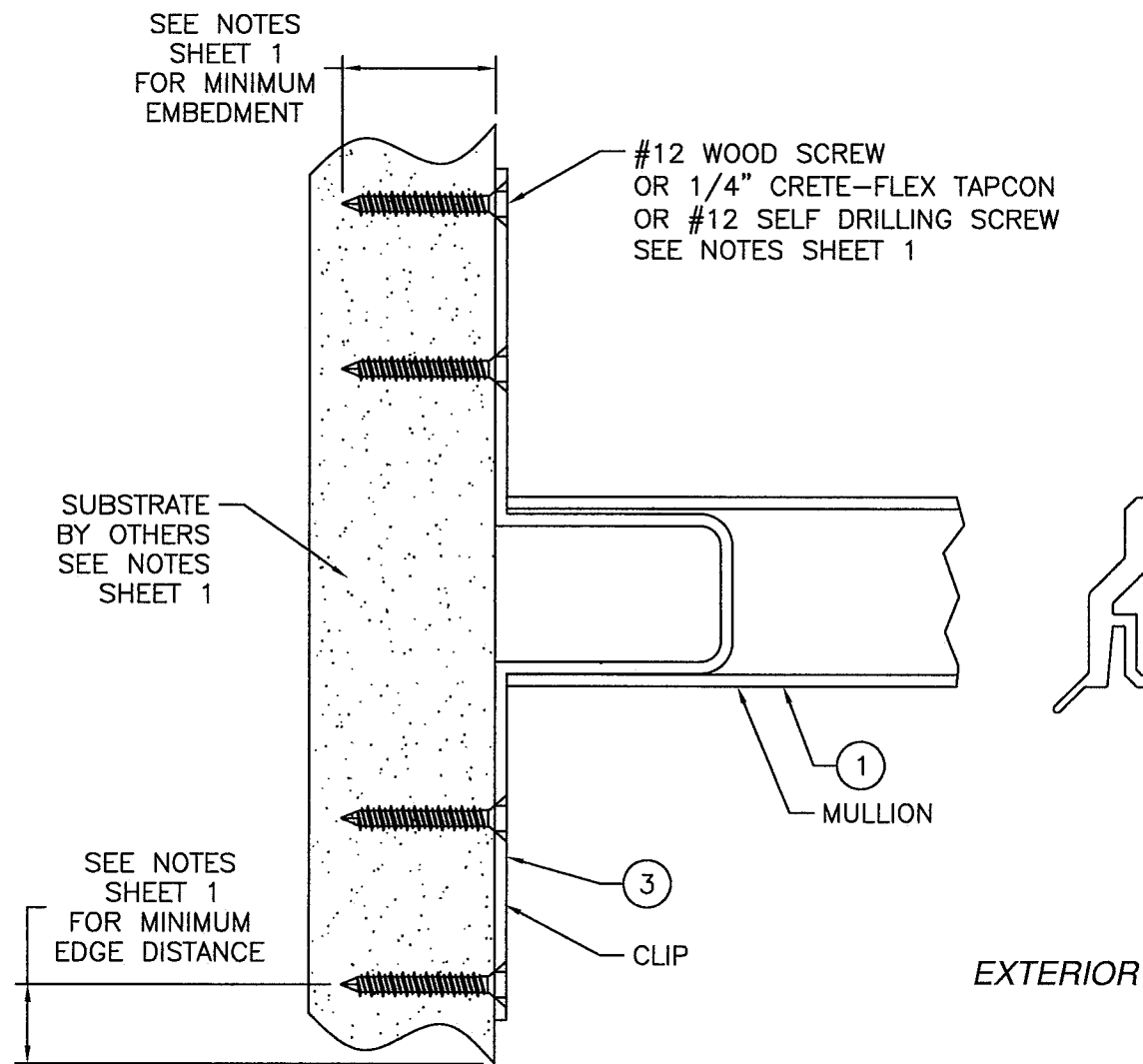
NOTES:
1. MULLED UNITS MAY BE OPERABLE OR FIXED.

PRODUCT REVISED
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Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By *[Signature]*
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

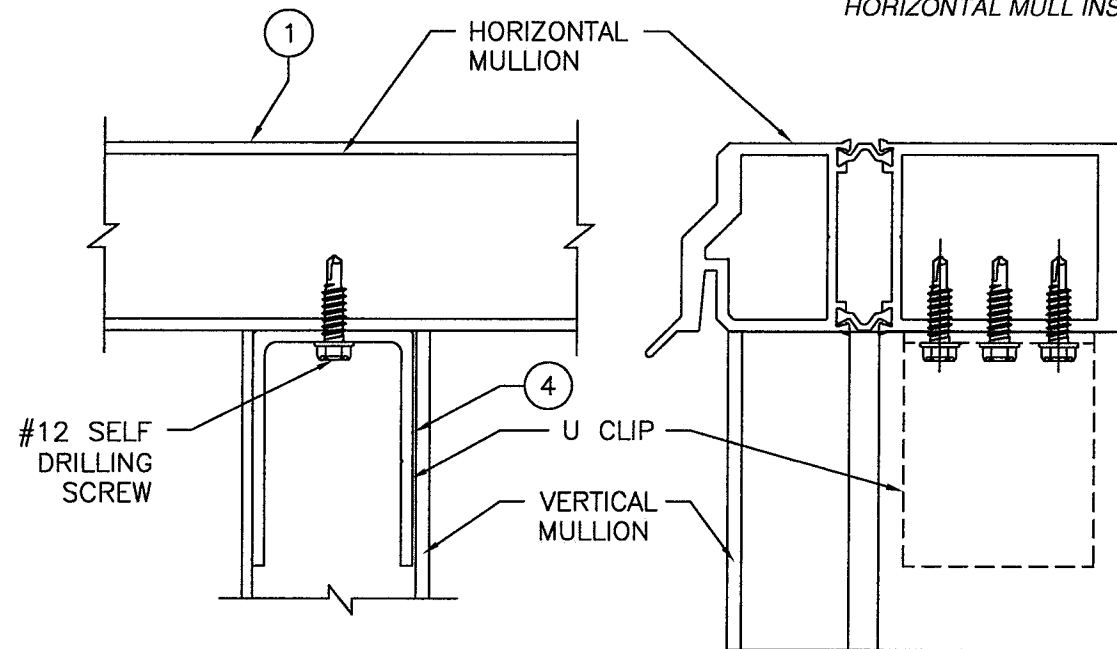
WINDOOR® INCORPORATED		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296			
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432		2"x5" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW		Date	08/17/20
APPROVED CONFIGURATIONS		By		ERIN KOSS	
MULLION		DWG No.		2x5 TB-LMI-NOA	
Sheet		8 OF 11		Rev.	



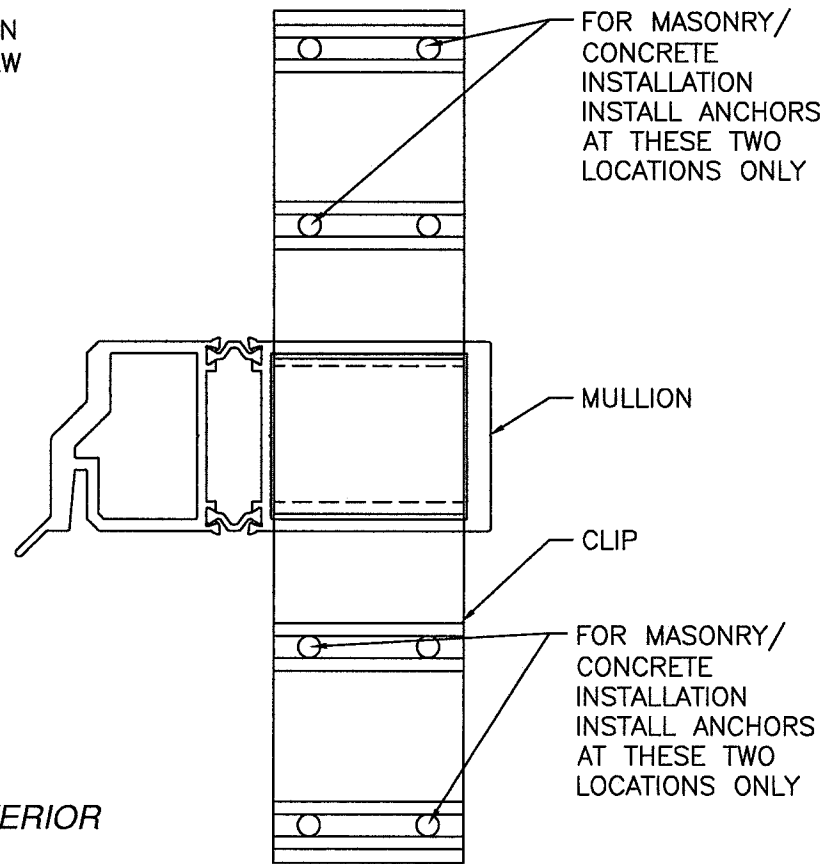


EXTERIOR

DETAIL C
HORIZONTAL MULL INSTALLATION

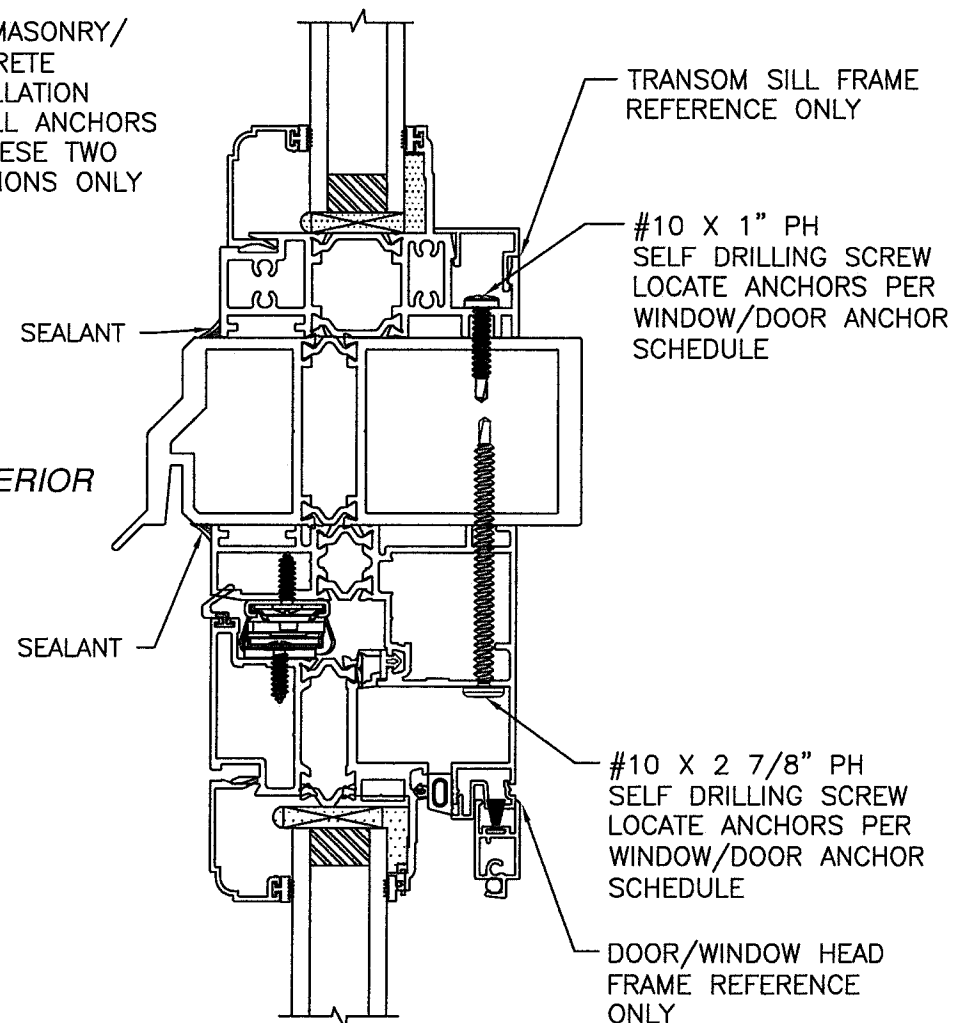


DETAIL A
VERTICAL TO HORIZONTAL MULLION WITH U CLIP
CONNECTION DETAIL



EXTERIOR

DETAIL B
HORIZONTAL MULLION
CONNECTION DETAIL

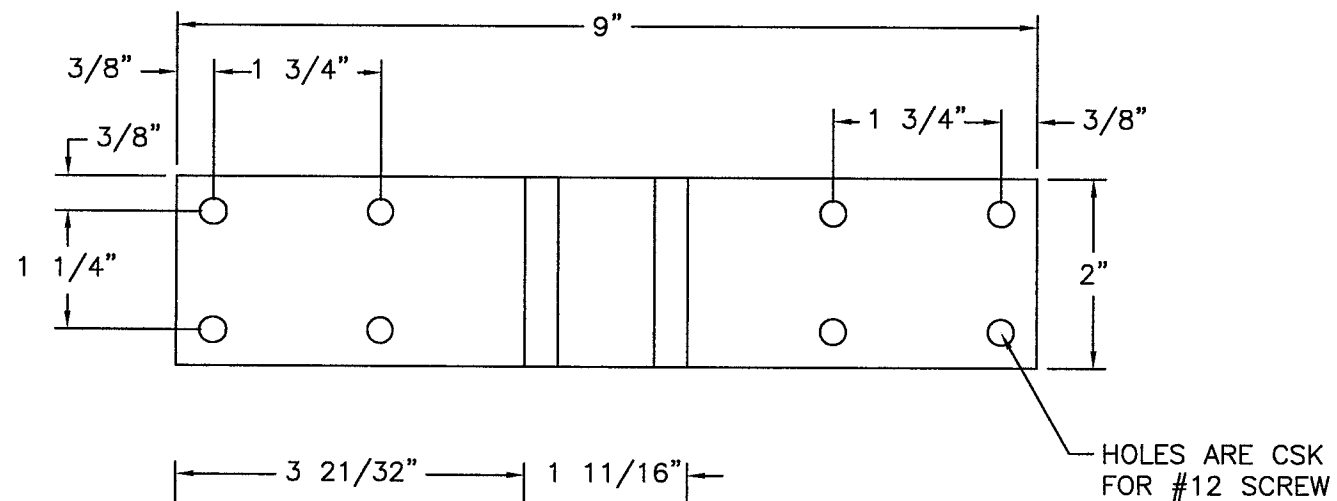


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NOA-No. 20-0826.01
Expiration Date 10/08/2025
By *CS*
Miami-Dade Product Control

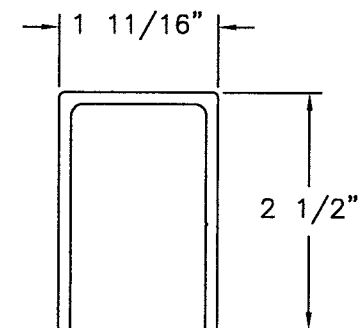
Revision: NO CHANGES THIS SHEET.

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" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW	
MULLION		INSTALLATION DETAILS	
9 OF 11		By ERIN KOSS	
Sheet		Date 08/17/20	
Series		2x5 TB-LMI-NOA	
Desc.		Rev.	

ANTHONY LYNN MILLER
LICENSE
No. 58705
8/17/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



③ **FLAT HAT CLIP**
ALUMINUM 6063-T6 .125" THICK

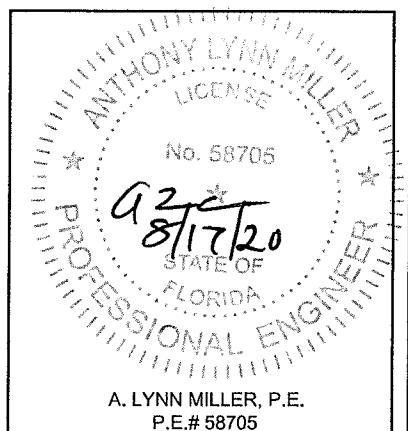


④ **U CLIP**
ALUMINUM 6063-T6 .125" THICK

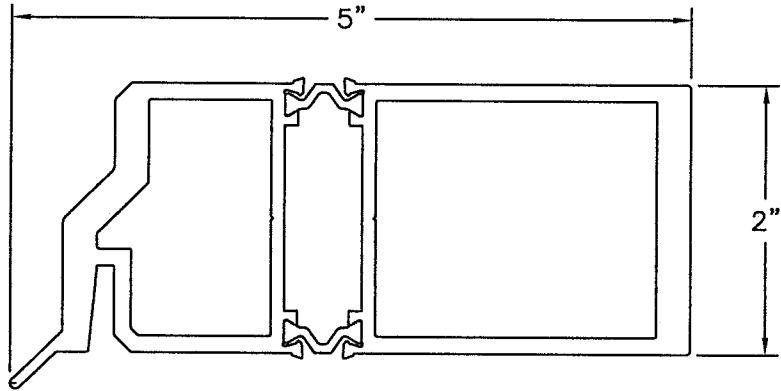
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0826.01
Expiration Date 10/08/2025
By *[Signature]*
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

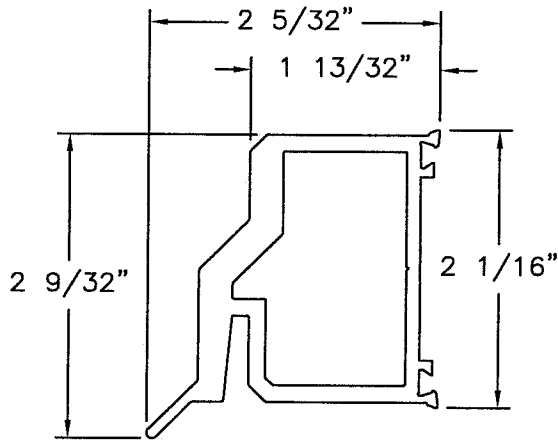
WINDOOR® INCORPORATED		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	
WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432		2"x5" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW	
COMPONENTS		ERIN KOSS	
MULLION		2x5 TB-LMI-NOA	
10 OF 11		DWG No.	
Sheet		Rev.	
Series		Date	
Desc.		08/17/20	
Title			



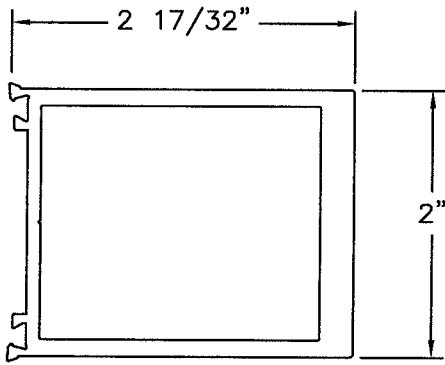
BILL OF MATERIALS				
ITEM NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	902A05-WDI	MULLION ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
3	11008611	FLAT HAT CLIP	KEYMARK	ALUMINUM 6063-T6
4	FS-08481	INTERNAL CLIP	KEYMARK	ALUMINUM 6063-T6



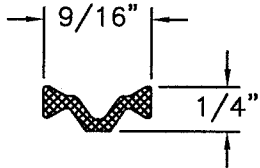
① MULLION ASSEMBLY 902A05-WDI
ALUMINUM 6063-T6 .100" THICK
MOMENT OF INERTIA: 6.375 IN⁴
SECTION MODULUS: 2.449 IN³
EFFECTIVE MOMENT OF INERTIA: 5.737 IN⁴
EFFECTIVE SECTION MODULUS: 2.204 IN³
(EFFECTIVE VALUES BASED ON PREVIOUS TESTING)




EXTERIOR MULLION (H-14226)
ALUMINUM 6063-T6 .100" THICK



INTERIOR MULLION (H-14225)
ALUMINUM 6063-T6 .100" THICK



14.6MM THERMAL STRUT
NYLON POLYAMIDE .070" THICK

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NOA-No. 20-0826.01
Expiration Date 10/08/2025
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		Date	08/17/20	Rev.	
		By	ERIN KOSS		
WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432		2"x5" THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW		DWG No.	2x5 TB-LMI-NOA
				Sheet	11 OF 11
BOM & COMPONENTS		MULLION			

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. LYNN MILLER, P.E.
P.E.# 58705