



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

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

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 Horizontal Thermally Broken" Clipped Aluminum Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. **HO/RZ. TB-LMI-NOA**, titled "9000 Series Deep Horizontal Mullion LMI", sheets 1 through 7 of 7, dated 08/17/20, prepared, 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, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA No. 17-1219.36** 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.
 11/19/2020

NOA No. 20-0826.09
Expiration Date: April 04, 2023
Approval Date: November 19, 2020
 Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections. *(Submitted under NOA No. 12-0618.05)*
2. Drawing No. **HORZ. TB-LMI-NOA**, titled "9000 Series Deep Horizontal Mullion LMI", sheets 1 through 7 of 7, dated 08/17/20, prepared, 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 a horizontal thermally broken aluminum mullion, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3774-5**, dated 11/06/12, signed and sealed by Gerard J. Ferrara, P.E. *(Submitted under previous NOA No. 12-0618.05)*

C. CALCULATIONS:

1. Anchor verification calculations, complying with **FBC 6th Edition (2017)**, dated 11/28/17, prepared, signed and sealed by Luis R. Lomas, P.E. *(Submitted under previous NOA No. 17-1219.36)*
2. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 06/11/15 and revised on 08/30/16, prepared, signed and sealed by Luis R. Lomas, P.E. *(Submitted under previous NOA No. 15-0618.11)*

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. *(Submitted under previous NOA No. 12-0618.05)*
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. *(Submitted under previous NOA No. 12-0618.05)*



Sifang Zhao, P. E.
Product Control Examiner
NOA No. 20-0826.09
Expiration Date: April 04, 2023
Approval Date: November 19, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS (CONTINUED)

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. ***(Submitted under previous NOA No. 12-0618.05)***
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. ***(Submitted under previous NOA No. 12-0618.05)***

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, and of no financial interest, dated 11/28/17, issued, signed and sealed by Luis R. Lomas, P.E.
2. Laboratory compliance letter for Test Report No. **NCTL-210-3774-5**, issued by National Certified Testing Laboratories, Inc., dated 11/06/12, signed and sealed by Gerald J. Ferrara, P. E. ***(Submitted under previous NOA No. 12-0618.05)***
3. Statement letter of conformance, of complying with **FBC 6th Edition (2017)**, and **FBC 7th Edition (2020)**, and of no financial interest, dated July 29, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
4. 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. Notice of Acceptance No. **17-1219.36**, issued to WinDoor, Inc. for their Series “9000 Deep Horizontal” Clipped Extruded Aluminum Mullion - L.M.I., approved on 02/15/18 and expiring on 04/04/23.



Sifang Zhao, P. E.
Product Control Examiner
NOA No. 20-0826.09
Expiration Date: April 04, 2023
Approval Date: November 19, 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:

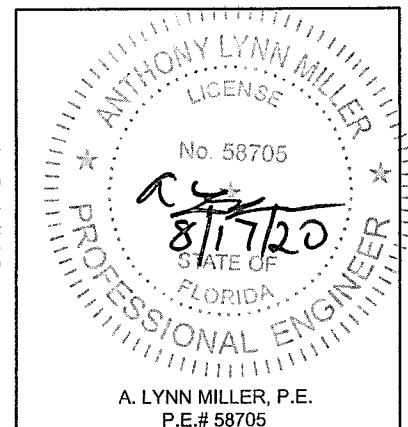
1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
2. FOR ANCHORING INTO CONCRETE USE 1/4" ELCO CRETE-FLEX TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
3. FOR ANCHORING INTO METAL STRUCTURE USE #12 ITW TEK SMS OR SELF DRILLING GRADE 5 SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. 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. METAL STRUCTURE: STEEL 18GA, 33KSI OR ALUMINUM 6063-T5 1/8" THICK MINIMUM
6. TO ATTACH MULLION TO CLIP USE (4) #10 X 1" SELF DRILLING SCREWS PER CLIP. SCREWS MUST BE FIELD INSTALLED AND NOT PRE-DRILLED.

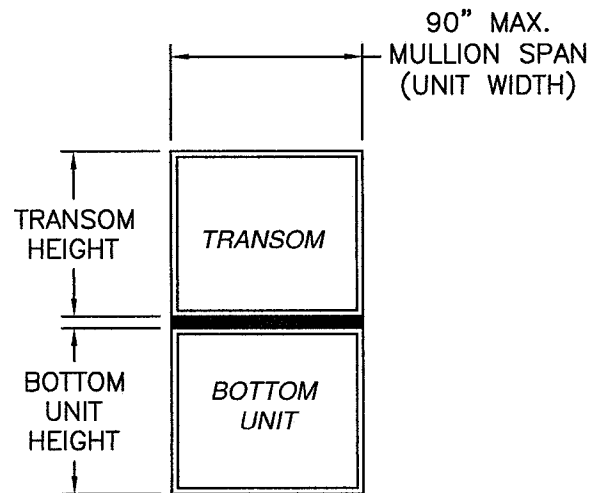
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| 7 | COMPONENTS |

PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 20-0826.09
 Expiration Date 04/04/2023
 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) 480-1600 REGISTRATION #29296 | Date | 08/14/20 |
| | By | ERIN KOSS |
| WINDOOR INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432 | DWG No. | HORZ. TB-LMI-NOA |
| | Sheet | 1 OF 7 |
| HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP SINGLE UNITS MULLED TO SINGLE UNITS & GENERAL NOTES MULLION | Series Desc. | |





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

Units with 18" transom height

Design pressures ratings, positive and negative (psf)

| 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 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 66.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 72.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 78.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 84.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 90.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 96.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 102.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 108.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 114.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 120.0 | 18.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
HVHZ

CHART #2

Units with 24" transom height

Design pressures ratings, positive and negative (psf)

| 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 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 66.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 72.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 78.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 84.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 90.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 96.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 102.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 108.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 114.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 120.0 | 24.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
HVHZ

CHART #3

Units with 30" transom height

Design pressures ratings, positive and negative (psf)

| 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 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 66.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 72.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 78.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 148.0 |
| 84.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.7 |
| 90.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |
| 96.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |
| 102.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |
| 108.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |
| 114.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |
| 120.0 | 30.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 146.3 |

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
HVHZ

CHART #4

Units with 36" transom height

Design pressures ratings, positive and negative (psf)

| 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 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 148.8 |
| 66.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 145.0 |
| 72.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 142.2 |
| 78.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 140.3 |
| 84.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 139.1 |
| 90.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |
| 96.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |
| 102.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |
| 108.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |
| 114.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |
| 120.0 | 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.8 |

IMPACT RATING: LARGE AND SMALL MISSILE IMPACT
HVHZ

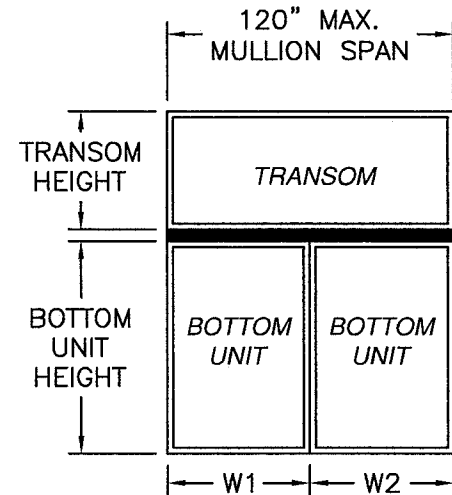
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.09
Expiration Date 04/04/2023
By
Miami-Dade Product Control

NO CHANGES THIS SHEET.

Revision:

| | | | | |
|--|--|----------|----------------------------------|------------------|
| PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296 | Date | 08/14/20 | ERIN KOSS Drawn By | HORZ. TB-LMI-NOA |
| | DWG No. | | | |
| WINDOOR INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432 | HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP | | SINGLE UNIT w/TRANSOM MULLION | 2 OF 7 Sheet |
| | Series Desc. Title | | | |

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



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 #5

Units with 18" transom height

Design pressures ratings, positive and negative (psf)

| Height (in) | | Span and Tributary width (in) | | | | | | |
|-------------|---------|-------------------------------|-------|-------|-------|-------|--------|--------|
| Window | Transom | 48.00 | 60.00 | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| 60.00 | 18.00 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 142.2 | 112.0 |
| 66.00 | 18.00 | 150.0 | 150.0 | 150.0 | 150.0 | 145.5 | 129.3 | 105.3 |
| 72.00 | 18.00 | 150.0 | 150.0 | 150.0 | 150.0 | 133.3 | 118.5 | 99.3 |
| 78.00 | 18.00 | 150.0 | 150.0 | 150.0 | 140.7 | 123.1 | 109.4 | 93.9 |
| 84.00 | 18.00 | 150.0 | 150.0 | 150.0 | 130.6 | 114.3 | 101.6 | 89.1 |
| 90.00 | 18.00 | 150.0 | 150.0 | 142.2 | 121.9 | 106.7 | 94.8 | 84.8 |
| 96.00 | 18.00 | 150.0 | 150.0 | 133.3 | 114.3 | 100.0 | 88.9 | 80.0 |
| 102.00 | 18.00 | 150.0 | 150.0 | 125.5 | 107.6 | 94.1 | 83.7 | 75.3 |
| 108.00 | 18.00 | 150.0 | 142.2 | 118.5 | 101.6 | 88.9 | 79.0 | 71.1 |
| 114.00 | 18.00 | 150.0 | 134.7 | 112.3 | 96.2 | 84.2 | 74.9 | 67.4 |
| 120.00 | 18.00 | 150.0 | 128.0 | 106.7 | 91.4 | 80.0 | 71.1 | 64.0 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #7

Units with 30" transom height

Design pressures ratings, positive and negative (psf)

| Height (in) | | Span and Tributary width (in) | | | | | | |
|-------------|---------|-------------------------------|-------|-------|-------|-------|--------|--------|
| Window | Transom | 48.00 | 60.00 | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| 60.00 | 30.00 | 150.0 | 150.0 | 150.0 | 150.0 | 142.6 | 123.1 | 97.2 |
| 66.00 | 30.00 | 150.0 | 150.0 | 150.0 | 150.0 | 136.5 | 118.0 | 92.1 |
| 72.00 | 30.00 | 150.0 | 150.0 | 150.0 | 150.0 | 130.9 | 113.3 | 87.5 |
| 78.00 | 30.00 | 150.0 | 150.0 | 150.0 | 140.7 | 123.1 | 107.1 | 83.3 |
| 84.00 | 30.00 | 150.0 | 150.0 | 150.0 | 130.6 | 114.3 | 101.4 | 79.5 |
| 90.00 | 30.00 | 150.0 | 150.0 | 142.2 | 121.9 | 106.7 | 94.8 | 76.0 |
| 96.00 | 30.00 | 150.0 | 150.0 | 133.3 | 114.3 | 100.0 | 88.9 | 72.9 |
| 102.00 | 30.00 | 150.0 | 150.0 | 125.5 | 107.6 | 94.1 | 83.7 | 69.9 |
| 108.00 | 30.00 | 150.0 | 142.2 | 118.5 | 101.6 | 88.9 | 79.0 | 67.2 |
| 114.00 | 30.00 | 150.0 | 134.7 | 112.3 | 96.2 | 84.2 | 74.9 | 64.8 |
| 120.00 | 30.00 | 150.0 | 128.0 | 106.7 | 91.4 | 80.0 | 71.1 | 62.3 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #6

Units with 24" transom height

Design pressures ratings, positive and negative (psf)

| Height (in) | | Span and Tributary width (in) | | | | | | |
|-------------|---------|-------------------------------|-------|-------|-------|-------|--------|--------|
| Window | Transom | 48.00 | 60.00 | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| 60.00 | 24.00 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 131.6 | 104.0 |
| 66.00 | 24.00 | 150.0 | 150.0 | 150.0 | 150.0 | 145.5 | 125.8 | 98.1 |
| 72.00 | 24.00 | 150.0 | 150.0 | 150.0 | 150.0 | 133.3 | 118.5 | 92.9 |
| 78.00 | 24.00 | 150.0 | 150.0 | 150.0 | 140.7 | 123.1 | 109.4 | 88.2 |
| 84.00 | 24.00 | 150.0 | 150.0 | 150.0 | 130.6 | 114.3 | 101.6 | 84.0 |
| 90.00 | 24.00 | 150.0 | 150.0 | 142.2 | 121.9 | 106.7 | 94.8 | 80.1 |
| 96.00 | 24.00 | 150.0 | 150.0 | 133.3 | 114.3 | 100.0 | 88.9 | 76.6 |
| 102.00 | 24.00 | 150.0 | 150.0 | 125.5 | 107.6 | 94.1 | 83.7 | 73.4 |
| 108.00 | 24.00 | 150.0 | 142.2 | 118.5 | 101.6 | 88.9 | 79.0 | 70.4 |
| 114.00 | 24.00 | 150.0 | 134.7 | 112.3 | 96.2 | 84.2 | 74.9 | 67.4 |
| 120.00 | 24.00 | 150.0 | 128.0 | 106.7 | 91.4 | 80.0 | 71.1 | 64.0 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #8

Units with 36" transom height

Design pressures ratings, positive and negative (psf)

| Height (in) | | Span and Tributary width (in) | | | | | | |
|-------------|---------|-------------------------------|-------|-------|-------|-------|--------|--------|
| Window | Transom | 48.00 | 60.00 | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| 60.00 | 36.00 | 150.0 | 150.0 | 150.0 | 150.0 | 134.7 | 116.1 | 91.4 |
| 66.00 | 36.00 | 150.0 | 150.0 | 150.0 | 150.0 | 129.3 | 111.5 | 86.9 |
| 72.00 | 36.00 | 150.0 | 150.0 | 150.0 | 146.7 | 124.3 | 107.3 | 82.7 |
| 78.00 | 36.00 | 150.0 | 150.0 | 150.0 | 140.7 | 119.6 | 101.9 | 79.0 |
| 84.00 | 36.00 | 150.0 | 150.0 | 150.0 | 130.6 | 114.3 | 96.8 | 75.6 |
| 90.00 | 36.00 | 150.0 | 150.0 | 142.2 | 121.9 | 106.7 | 92.1 | 72.4 |
| 96.00 | 36.00 | 150.0 | 150.0 | 133.3 | 114.3 | 100.0 | 87.9 | 69.6 |
| 102.00 | 36.00 | 150.0 | 150.0 | 125.5 | 107.6 | 94.1 | 83.7 | 66.9 |
| 108.00 | 36.00 | 150.0 | 142.2 | 118.5 | 101.6 | 88.9 | 79.0 | 64.4 |
| 114.00 | 36.00 | 150.0 | 134.7 | 112.3 | 96.2 | 84.2 | 74.9 | 62.1 |
| 120.00 | 36.00 | 150.0 | 128.0 | 106.7 | 91.4 | 80.0 | 71.1 | 60.0 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

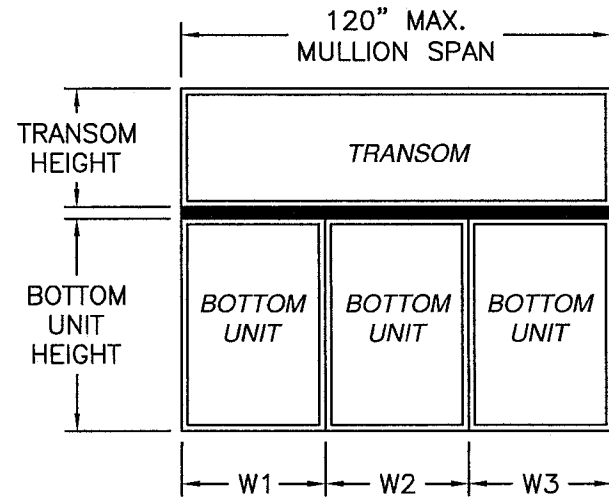
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.09
Expiration Date 04/04/2023
By
Miami-Dade Product Control

NO CHANGES THIS SHEET.

Revision:

| | | | |
|--|---|---------|------------------|
| 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 | Date | 08/14/20 |
| | | By | ERIN KOSS |
| HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP TWIN UNIT w/TRANSOM MULLION | 3 OF 7 | DWG No. | HORZ. TB-LMI-NOA |
| | | Sheet | |

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



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 #9

| Units with 18" transom height | | | | | | |
|---|---------|-------------------------------|-------|-------|--------|--------|
| Design pressures ratings, positive and negative (psf) | | | | | | |
| Height (in) | | Span and Tributary width (in) | | | | |
| Bottom unit | Transom | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| | | 24.00 | 28.00 | 32.00 | 36.00 | 40.00 |
| 60.00 | 18.00 | 150.0 | 150.0 | 150.0 | 136.5 | 111.6 |
| 66.00 | 18.00 | 150.0 | 150.0 | 146.2 | 128.3 | 104.0 |
| 72.00 | 18.00 | 150.0 | 150.0 | 137.8 | 121.0 | 97.4 |
| 78.00 | 18.00 | 150.0 | 150.0 | 130.4 | 114.5 | 91.6 |
| 84.00 | 18.00 | 150.0 | 143.0 | 123.6 | 108.7 | 86.5 |
| 90.00 | 18.00 | 150.0 | 135.9 | 117.6 | 103.4 | 81.9 |
| 96.00 | 18.00 | 150.0 | 129.5 | 112.1 | 98.7 | 77.7 |
| 102.00 | 18.00 | 145.9 | 123.6 | 107.1 | 94.3 | 74.0 |
| 108.00 | 18.00 | 139.5 | 118.3 | 102.5 | 90.3 | 70.6 |
| 114.00 | 18.00 | 133.7 | 113.4 | 98.3 | 86.6 | 67.5 |
| 120.00 | 18.00 | 128.3 | 108.9 | 94.4 | 83.3 | 64.7 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #11

| Units with 30" transom height | | | | | | |
|---|---------|-------------------------------|-------|-------|--------|--------|
| Design pressures ratings, positive and negative (psf) | | | | | | |
| Height (in) | | Span and Tributary width (in) | | | | |
| Bottom unit | Transom | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| | | 24.00 | 28.00 | 32.00 | 36.00 | 40.00 |
| 60.00 | 30.00 | 150.0 | 150.0 | 135.9 | 118.8 | 96.9 |
| 66.00 | 30.00 | 150.0 | 149.7 | 128.6 | 112.5 | 91.1 |
| 72.00 | 30.00 | 150.0 | 141.9 | 122.1 | 106.9 | 86.0 |
| 78.00 | 30.00 | 150.0 | 134.9 | 116.2 | 101.8 | 81.5 |
| 84.00 | 30.00 | 150.0 | 128.6 | 110.8 | 97.2 | 77.4 |
| 90.00 | 30.00 | 145.9 | 122.8 | 105.9 | 92.9 | 73.7 |
| 96.00 | 30.00 | 139.5 | 117.6 | 101.4 | 89.0 | 70.3 |
| 102.00 | 30.00 | 133.7 | 112.7 | 97.3 | 85.5 | 67.2 |
| 108.00 | 30.00 | 128.3 | 108.3 | 93.5 | 82.2 | 64.4 |
| 114.00 | 30.00 | 123.4 | 104.2 | 90.0 | 79.1 | 61.8 |
| 120.00 | 30.00 | 118.8 | 100.4 | 86.8 | 76.3 | 59.4 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #10


| Units with 24" transom height | | | | | | |
|---|---------|-------------------------------|-------|-------|--------|--------|
| Design pressures ratings, positive and negative (psf) | | | | | | |
| Height (in) | | Span and Tributary width (in) | | | | |
| Bottom unit | Transom | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| | | 24.00 | 28.00 | 32.00 | 36.00 | 40.00 |
| 60.00 | 24.00 | 150.0 | 150.0 | 144.7 | 126.7 | 103.6 |
| 66.00 | 24.00 | 150.0 | 150.0 | 136.5 | 119.6 | 97.1 |
| 72.00 | 24.00 | 150.0 | 149.8 | 129.1 | 113.3 | 91.3 |
| 78.00 | 24.00 | 150.0 | 142.0 | 122.6 | 107.6 | 86.2 |
| 84.00 | 24.00 | 150.0 | 135.1 | 116.6 | 102.4 | 81.6 |
| 90.00 | 24.00 | 150.0 | 128.7 | 111.2 | 97.7 | 77.5 |
| 96.00 | 24.00 | 145.5 | 122.9 | 106.3 | 93.4 | 73.8 |
| 102.00 | 24.00 | 139.1 | 117.7 | 101.8 | 89.5 | 70.4 |
| 108.00 | 24.00 | 133.3 | 112.8 | 97.6 | 85.9 | 67.3 |
| 114.00 | 24.00 | 128.0 | 108.4 | 93.8 | 82.6 | 64.5 |
| 120.00 | 24.00 | 123.1 | 104.3 | 90.3 | 79.5 | 61.9 |

IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

CHART #12

| Units with 36" transom height | | | | | | |
|---|---------|-------------------------------|-------|-------|--------|--------|
| Design pressures ratings, positive and negative (psf) | | | | | | |
| Height (in) | | Span and Tributary width (in) | | | | |
| Bottom unit | Transom | 72.00 | 84.00 | 96.00 | 108.00 | 120.00 |
| | | 24.00 | 28.00 | 32.00 | 36.00 | 40.00 |
| 60.00 | 36.00 | 150.0 | 150.0 | 128.7 | 112.3 | 91.1 |
| 66.00 | 36.00 | 150.0 | 142.6 | 122.2 | 106.7 | 86.0 |
| 72.00 | 36.00 | 150.0 | 135.5 | 116.2 | 101.6 | 81.5 |
| 78.00 | 36.00 | 150.0 | 129.1 | 110.9 | 97.0 | 77.4 |
| 84.00 | 36.00 | 147.1 | 123.3 | 106.0 | 92.8 | 73.7 |
| 90.00 | 36.00 | 140.7 | 118.0 | 101.5 | 88.9 | 70.3 |
| 96.00 | 36.00 | 134.7 | 113.2 | 97.4 | 85.3 | 67.2 |
| 102.00 | 36.00 | 129.3 | 108.7 | 93.6 | 82.1 | 64.4 |
| 108.00 | 36.00 | 124.3 | 104.5 | 90.1 | 79.0 | 61.8 |
| 114.00 | 36.00 | 119.6 | 100.7 | 86.8 | 76.2 | 59.4 |
| 120.00 | 36.00 | 115.3 | 97.1 | 83.8 | 73.6 | 57.2 |

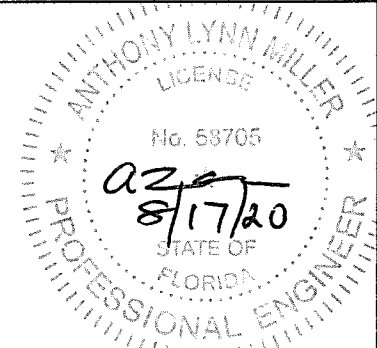
IMPACT RATING: LARGE AND SMALL MISILE IMPACT
HVHZ

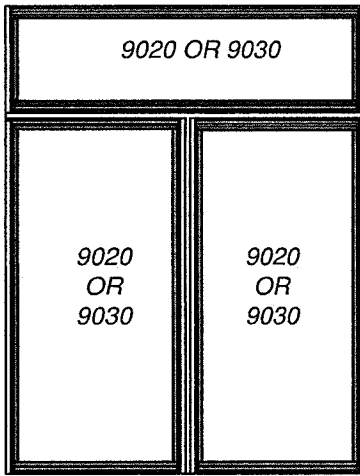
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.09
Expiration Date 04/04/2023
By 
Miami-Dade Product Control

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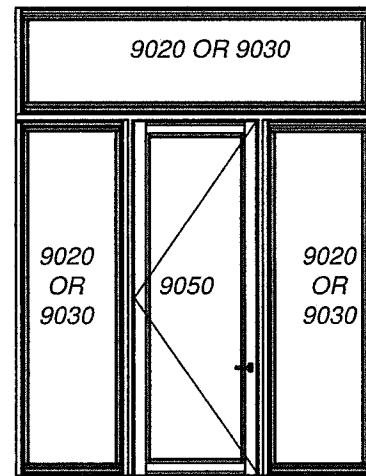
Revision:

| | | | |
|---|---|---|---|
| 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 | Date: 08/14/20 By: ERIN KOSS Drawn: ERIN KOSS | Rev. 1 Date: 08/14/20 By: ERIN KOSS |
| | HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP TRIPLE UNIT w/TRANSOM MULLION | DWG No. 4 OF 7 Sheet Series Desc. Title | HORZ. TB-LMI-NOA |

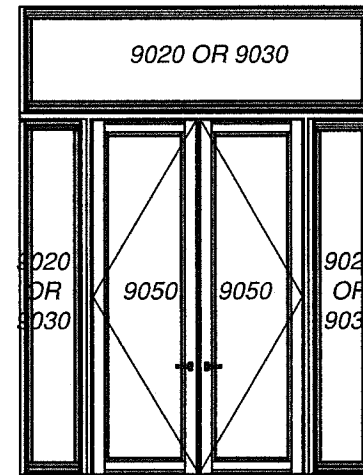

 ANTHONY LYNN MILLER
 LICENSE No. 58705
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 A. LYNN MILLER, P.E.
 P.E.# 58705



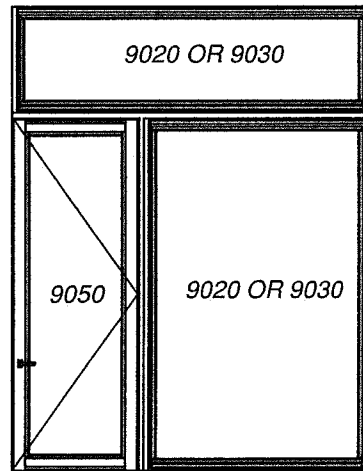
TWIN WITH TRANSOM
REFER TO SHEET 3 FOR LIMITATIONS AND RATINGS



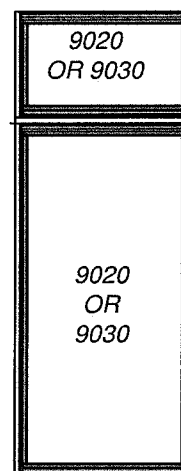
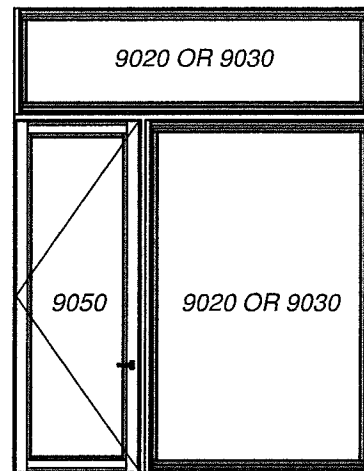
SINGLE DOOR WITH SIDELITES AND TRANSOM
REFER TO SHEET 4 FOR LIMITATIONS AND RATINGS



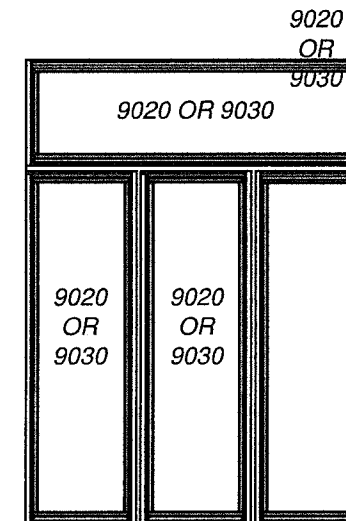
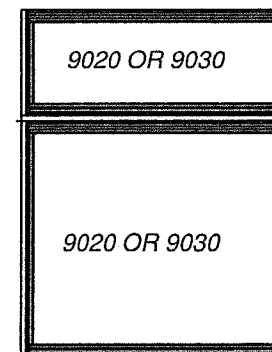
DOUBLE DOOR WITH SIDELITES AND TRANSOM
REFER TO SHEET 4 FOR LIMITATIONS AND RATINGS



SINGLE WITH SIDELITE AND TRANSOM
REFER TO SHEET 3 FOR LIMITATIONS AND RATINGS



SINGLE WITH TRANSOM
REFER TO SHEET 2 FOR LIMITATIONS AND RATINGS



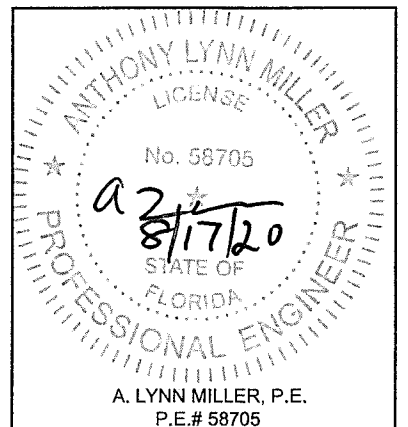
TRIPLE WITH TRANSOM
REFER TO SHEET 4 FOR LIMITATIONS AND RATINGS

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Expiration Date 04/04/2023
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Miami-Dade Product Control

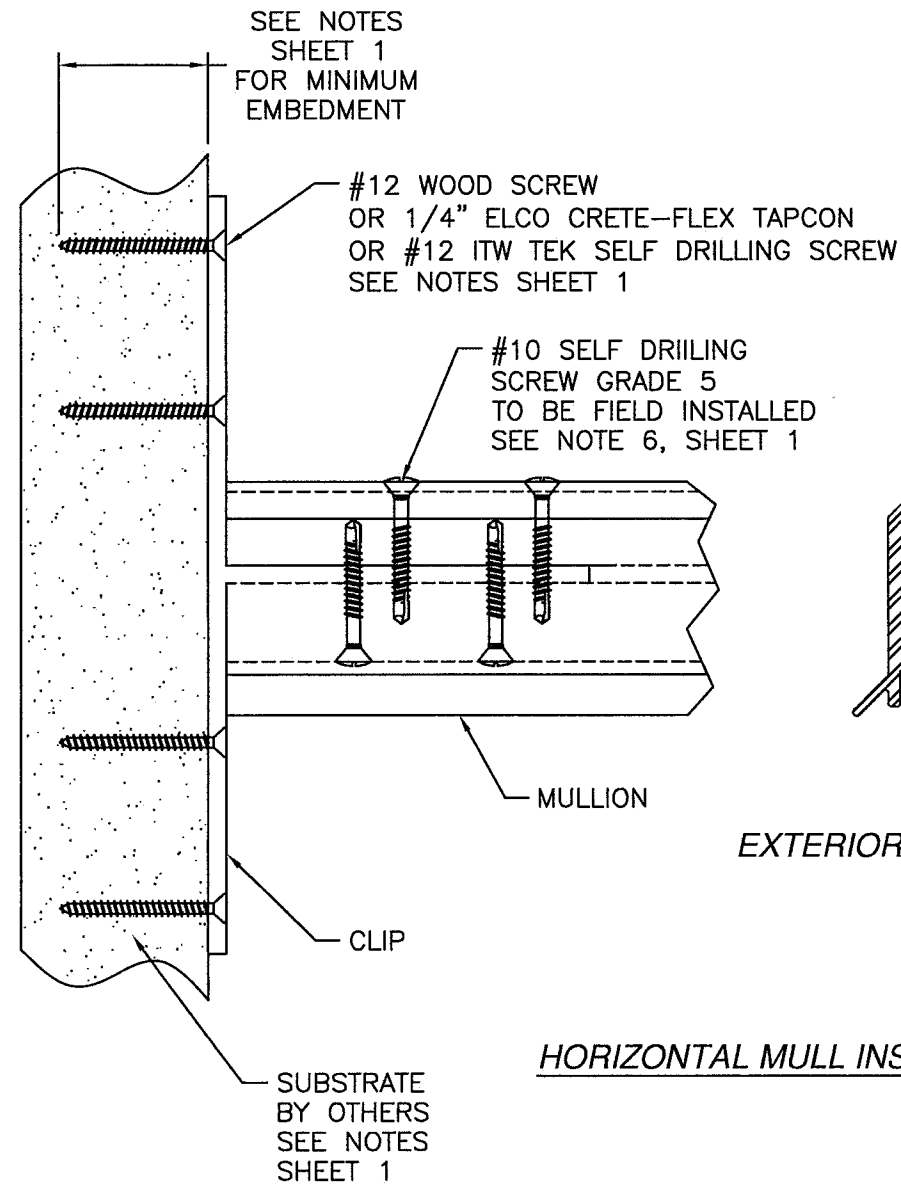
NO CHANGES THIS SHEET.

Revision:

| | | | |
|---|--|----------------------------------|---|
| PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296 | Date | 08/14/20 | Drawn By ERIN KOSS HORZ. TB-LMI-NOA |
| | DWG No. | 5 OF 7 | |
| WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432 | Series HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP | Desc. APPROVED CONFIGURATIONS | Sheet MULLION |

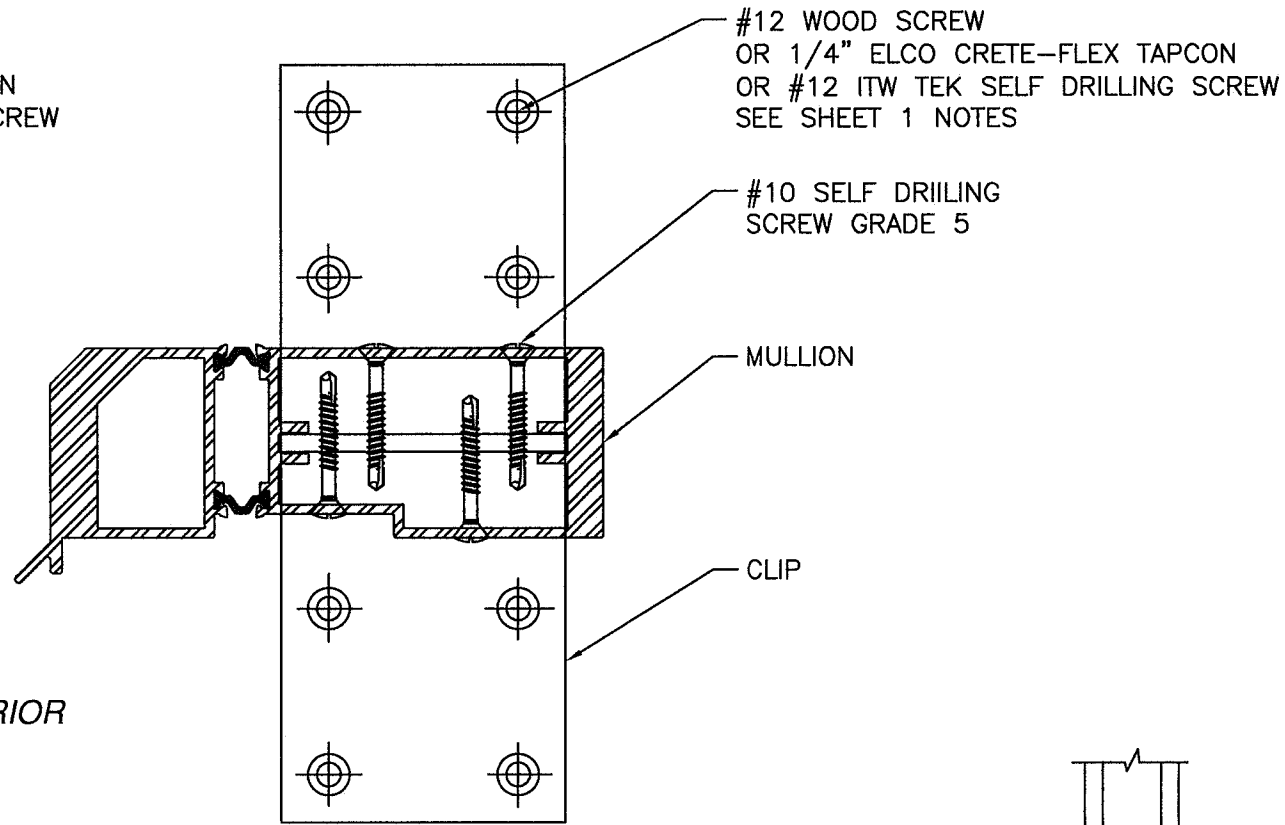


A. LYNN MILLER, P.E.
P.E.# 58705

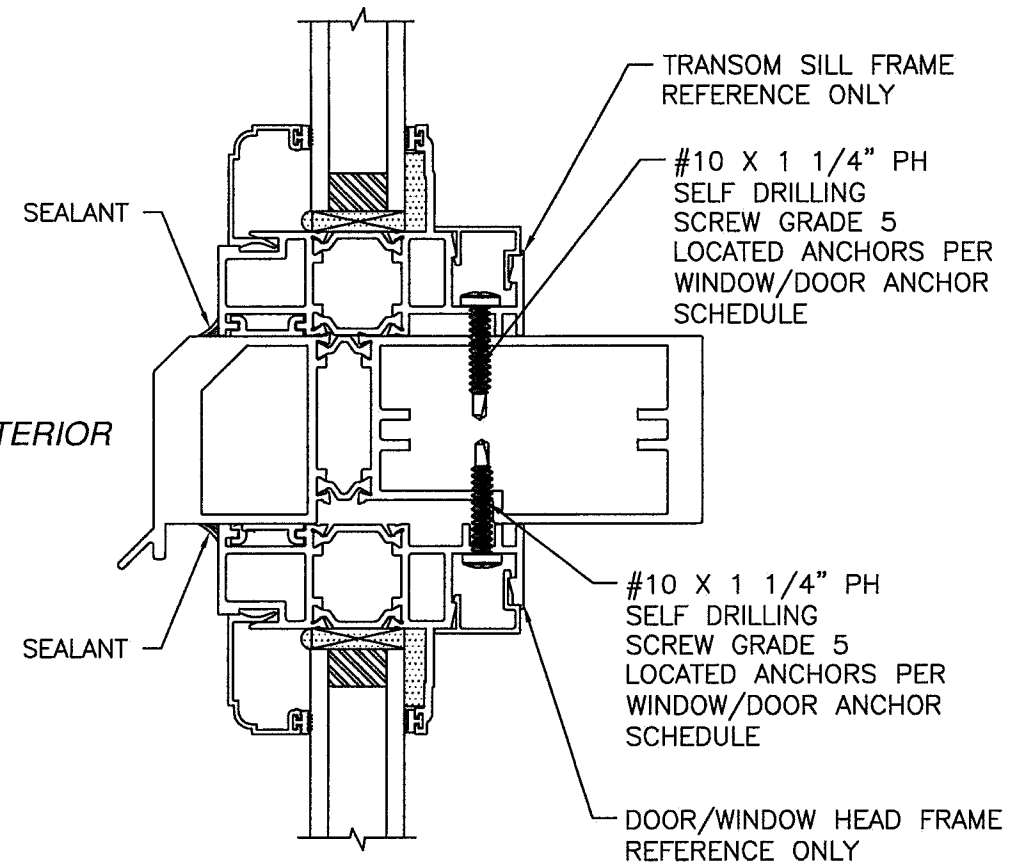


HORIZONTAL MULL INSTALLATION

EXTERIOR



EXTERIOR



HORIZONTAL MULLION CONNECTION DETAIL

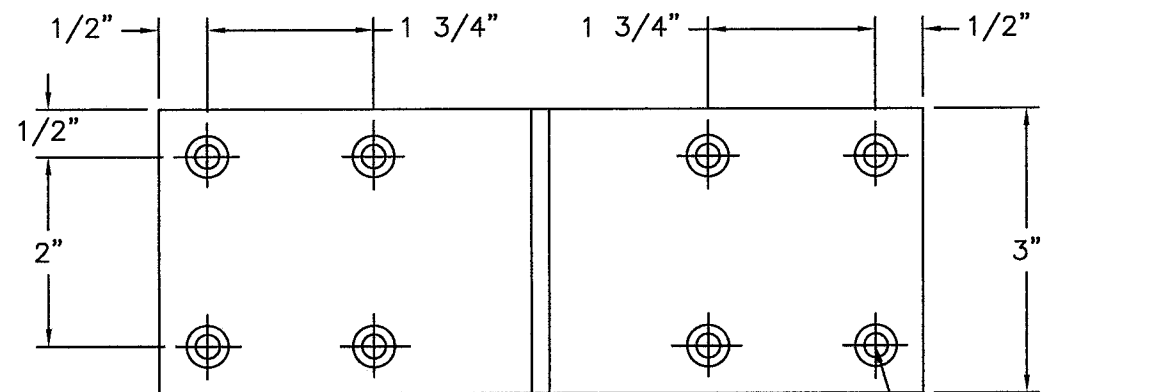
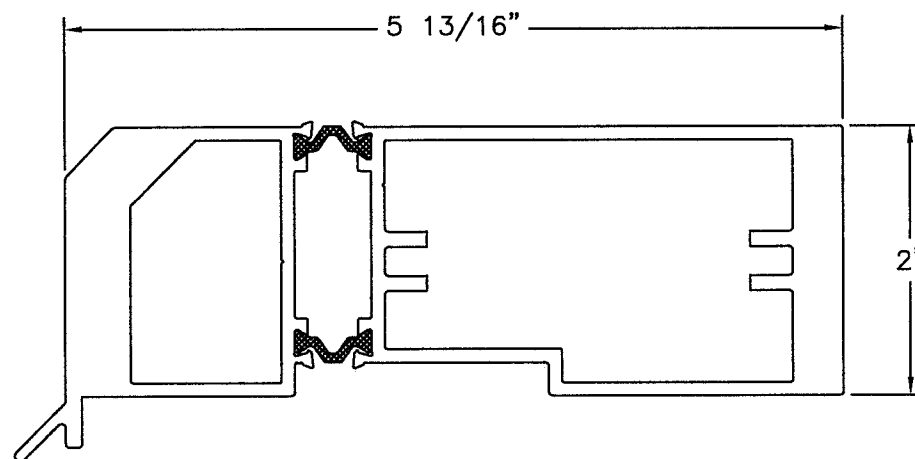
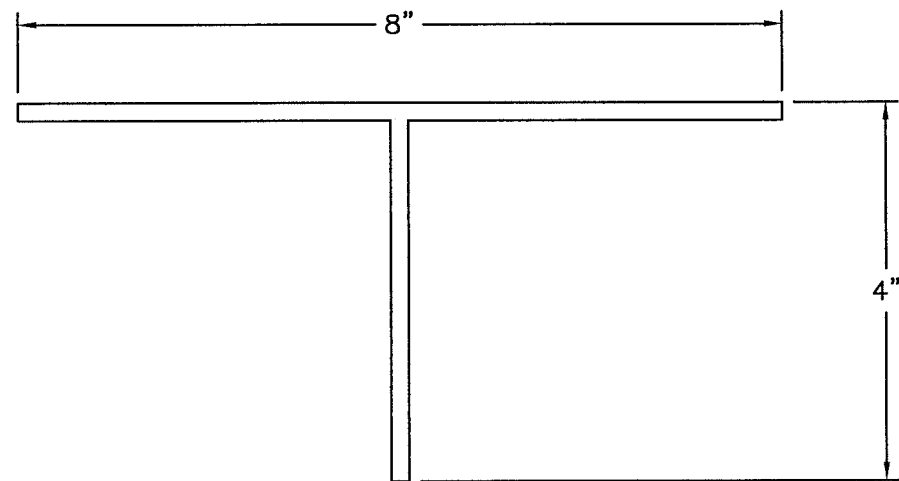
PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 20-0826.09
 Expiration Date 04/04/2023
 By *[Signature]*
 Miami-Dade Product Control

NO CHANGES THIS SHEET.

Revision:

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|--|--|----------|-----------------------|-----------------------------|
| PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29286 | Date | 08/14/20 | ERIN KOSS Drawn By | HORZ. TB-LMI-NOA DWG No. |
| | Rev. | | | |
| WINDOOR INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432 | HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP | | INSTALLATION DETAILS | 6 OF 7 Sheet |
| | HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP | | | |
| | | | MULLION | |

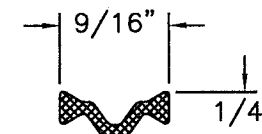
ANTHONY LYNN MILLER
 LICENSE
 No. 58705
a2
8/17/20
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 A. LYNN MILLER, P.E.
 P.E.# 58705



CLIP
ALUMINUM 6063-T6 .125" THICK

HOLES ARE CSK FOR #12 SCREW

MULLION ASSEMBLY 900A01-WDI
ALUMINUM 6063-T6 .100" THICK
EFFECTIVE MOMENT OF INERTIA: 11.6716 IN⁴
EFFECTIVE SECTION MODULUS: 3.875 IN³



14.6MM THERMAL STRUT
NYLON POLYAMIDE .070" THICK

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|---|--|----------|-----------------------|-----------------------------|-----------------|
| PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296 | Date | 08/14/20 | ERIN KOSS Drawn By | HORZ. TB-LMI-NOA DWG No. | 7 OF 7 Sheet |
| | Rev. | | | | |
| WINDOOR® INCORPORATED WINDOOR INCORPORATED 104 TRIPLE DIAMOND BLVD. NORTH VENICE, FL 34275 (833) 554-5432 | HORIZONTAL THERMALLY BROKEN MULLION (LM) 9000 SERIES DEEP | | MULLION | | |

ANTHONY LYNN MILLER
 LICENSE
 No. 58705
A2
8/17/20
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 A. LYNN MILLER, P.E.
 P.E.# 58705