



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

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/economy

WinDoor, Inc.
7500 Amsterdam Drive
Orlando, FL 32832

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 "9020" Aluminum Fixed Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. 08-01634, titled "9020 Picture Window – Large Missile Impact" sheets 1 through 9 of 9, dated 06/20/12, with revision A dated 10/24/12, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval 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 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 **Manuel Perez, P.E.**



Handwritten signature and date: 10/8/13

NOA No. 12-0627.05
Expiration Date: January 17, 2018
Approval Date: January 17, 2013
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **08-01634**, titled "9020 Picture Window - Large Missile Impact", sheets 1 through 9 of 9, dated 06/20/12, with revision A dated 10/24/12, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E.

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94along with installation diagram of an aluminum fixed window, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3774-1**, Specimens 1, 2, 3, 4, 5, 6, 7, 8 and 9, dated 04/17/12, signed and sealed by Gerald J. Ferrara, P.E.
2. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94along with installation diagram of an aluminum fixed window, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3774-2**, Specimens 1, 2, 3, 4, 5, 6 and 7, dated 04/17/12, signed and sealed by Gerald J. Ferrara, P.E.
3. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94along with installation diagram of an aluminum fixed window, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3774-3**, Specimens 1, 2, 3, 4, 5, 6 and 7, dated 04/17/12, signed and sealed by Gerald J. Ferrara, P.E.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 12-0627.05

Expiration Date: January 17, 2018
Approval Date: January 17, 2013

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2010, dated 06/11/12 and 06/18/12, prepared, signed and sealed by Luis R. Lomas, P.E.
2. Glazing complies with ASTM E1300-04

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11-0624.02** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont SentryGlas® Interlayer**" dated 08/25/11, expiring on 01/14/17.

F. STATEMENTS

1. Statement letter of conformance, complying with FBC-2010, and of no financial interest, dated June 20, 2012, signed and sealed by Luis R. Lomas, P.E.
2. Laboratory compliance letter for Test Reports No. **NCTL-210-3774-1**, **NCTL-210-3774-2**, and **NCTL-210-3774-3**, issued by National Certified Testing Laboratories, dated 04/17/12, all signed and sealed by Gerald J. Ferrara, P.E.
3. Proposal No. **11-0495** issued by Product Control Section, dated May 23, 2011, revised on July 06, 2011, signed by Manuel Perez, P.E.

G. OTHER

1. None.



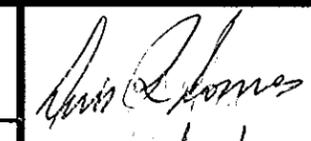
Manuel Perez, P.E.
Product Control Examiner
NOA No. 12-0627.05
Expiration Date: January 17, 2018
Approval Date: January 17, 2013

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |

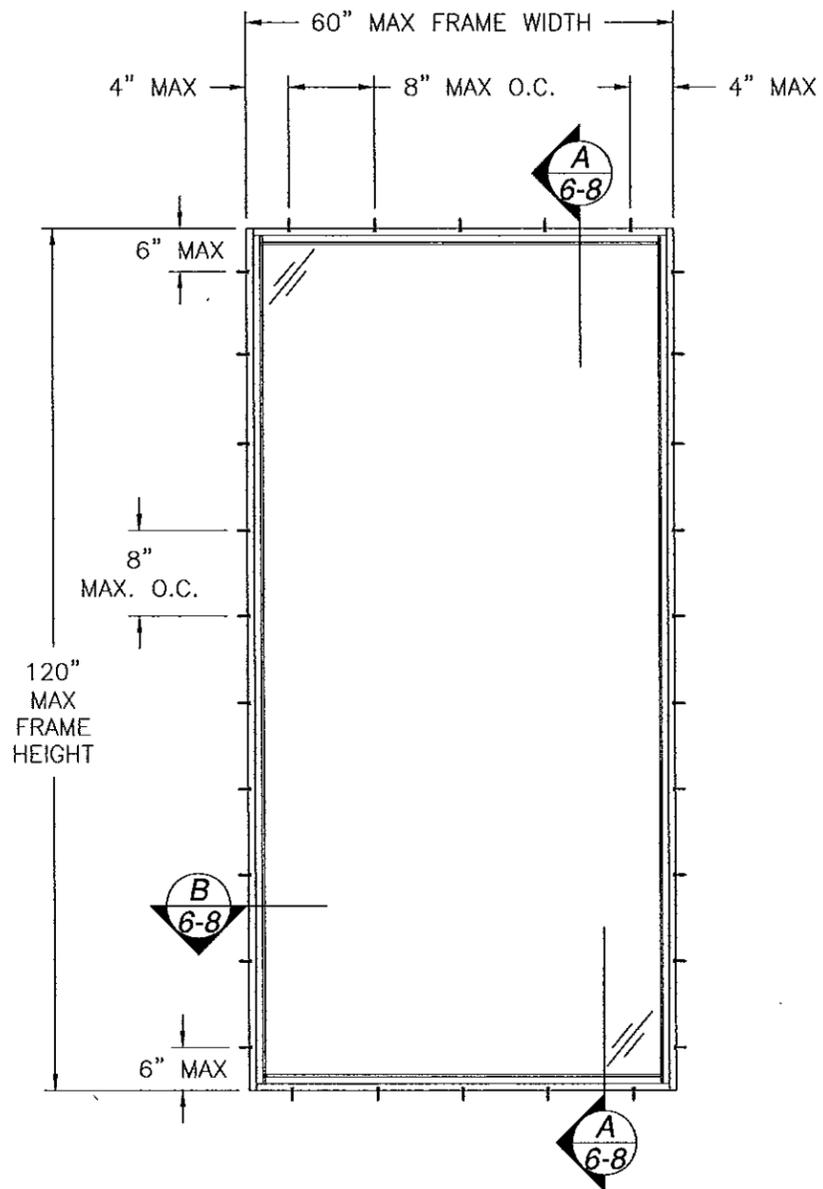
NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR $C_d=1.6$ WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. FRAME MATERIAL: ALUMINUM 6063-T6.
6. UNITS MUST BE GLAZED PER ASTM E1300-04, SEE SHEET 4 FOR GLASS OPTIONS.
7. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
8. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
9. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 5/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
10. FOR ANCHORING INTO MASONRY/CONCRETE USE 1/4" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
11. FOR ANCHORING INTO METAL STRUCTURE USE #12 SMS 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.
12. ALL FASTENERS TO BE CORROSION RESISTANT.
13. 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 3,192 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 |
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| 6 | CROSS SECTIONS AND B.O.M. |
| 7 - 8 | INSTALLATION DETAILS |
| 9 | COMPONENTS |

| | | |
|---|--|--|
| Approved as complying with the Florida Building Code Date: <u>Jan. 11, 2013</u> NOAH <u>12-0621-03</u> Miami Date Product Control By: <u>Manuel Enz</u> | WinDoor INCORPORATED 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windowinc.com |  10/30/12 Luis R. Lomas P.E. Florida No. 62514 |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT NOTES | |
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 1 OF 9 |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



9020 PICTURE WINDOW
EXTERIOR VIEW

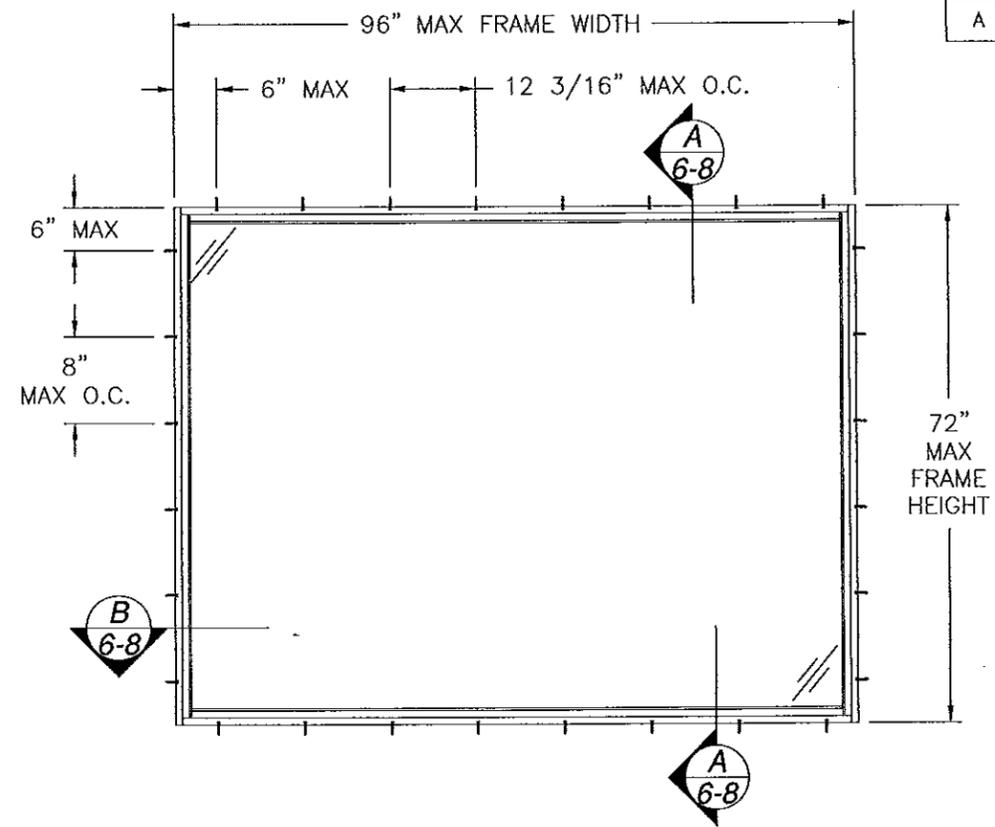
REFER TO CHARTS IN SHEET 3 FOR SMALLER UNITS RATINGS

| DESIGN PRESSURE RATING | IMPACT RATING |
|------------------------|----------------------|
| ±100.0PSF | LARGE MISSILE IMPACT |

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ WITH GLAZING A

| DESIGN PRESSURE RATING | IMPACT RATING |
|------------------------|----------------------|
| ±90.0PSF | LARGE MISSILE IMPACT |

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ WITH GLAZING B AND C



9020 PICTURE WINDOW
EXTERIOR VIEW

REFER TO CHARTS IN SHEET 3 FOR SMALLER UNITS RATINGS

| DESIGN PRESSURE RATING | IMPACT RATING |
|------------------------|----------------------|
| ±110.0PSF | LARGE MISSILE IMPACT |

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ WITH GLAZING A, B AND C

| | | |
|--|---|---|
| Approved as complying with the Florida Building Code Date <u>Jan 11, 2013</u> NOAH <u>12-06-27-05</u> Miami Dade Product Control By <u>Manuel Ruiz</u> | WinDoor INCORPORATED 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windoorinc.com | 10/30/12 Luis R. Lamas P.E. Florida No. 62514 |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT ELEVATIONS AND CHARTS | |
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 2 OF 9 |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |

Design pressure rating for units with glazing A (psf)

| Frame Height (in) | Frame width (in) | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 24.0 | | 30.0 | | 36.0 | | 42.0 | | 48.0 | | 54.0 | | 60.0 | | 66.0 | | 72.0 | | 78.0 | | 84.0 | | 90.0 | | 96.0 | |
| | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg |
| 24.0 | 110.0 | 147.3 | 110.0 | 146.0 | 110.0 | 144.7 | 110.0 | 143.3 | 110.0 | 142.0 | 110.0 | 140.7 | 110.0 | 139.3 | 110.0 | 138.0 | 110.0 | 136.7 | 110.0 | 135.3 | 110.0 | 134.0 | 110.0 | 132.7 | 110.0 | 131.3 |
| 30.0 | 110.0 | 146.0 | 110.0 | 145.8 | 110.0 | 144.2 | 110.0 | 142.5 | 110.0 | 140.8 | 110.0 | 139.2 | 110.0 | 137.5 | 110.0 | 135.8 | 110.0 | 134.2 | 110.0 | 132.5 | 110.0 | 130.8 | 110.0 | 129.2 | 110.0 | 127.5 |
| 36.0 | 110.0 | 144.7 | 110.0 | 144.2 | 110.0 | 144.0 | 110.0 | 142.0 | 110.0 | 140.0 | 110.0 | 138.0 | 110.0 | 136.0 | 110.0 | 134.0 | 110.0 | 132.0 | 110.0 | 130.0 | 110.0 | 128.0 | 110.0 | 126.0 | 110.0 | 124.0 |
| 42.0 | 110.0 | 143.3 | 110.0 | 142.5 | 110.0 | 142.0 | 110.0 | 141.8 | 110.0 | 139.5 | 110.0 | 137.2 | 110.0 | 134.8 | 110.0 | 132.5 | 110.0 | 130.2 | 110.0 | 127.8 | 110.0 | 125.5 | 110.0 | 123.2 | 110.0 | 120.8 |
| 48.0 | 110.0 | 142.0 | 110.0 | 140.8 | 110.0 | 140.0 | 110.0 | 139.5 | 110.0 | 139.3 | 110.0 | 136.7 | 110.0 | 134.0 | 110.0 | 131.3 | 110.0 | 128.7 | 110.0 | 126.0 | 110.0 | 123.3 | 110.0 | 120.7 | 110.0 | 118.0 |
| 54.0 | 110.0 | 140.7 | 110.0 | 139.2 | 110.0 | 138.0 | 110.0 | 137.2 | 110.0 | 136.7 | 110.0 | 136.5 | 110.0 | 133.5 | 110.0 | 130.5 | 110.0 | 127.5 | 110.0 | 124.5 | 110.0 | 121.5 | 110.0 | 118.5 | 110.0 | 115.5 |
| 60.0 | 110.0 | 139.3 | 110.0 | 137.5 | 110.0 | 136.0 | 110.0 | 134.8 | 110.0 | 134.0 | 110.0 | 133.5 | 110.0 | 133.3 | 110.0 | 130.0 | 110.0 | 126.7 | 110.0 | 123.3 | 110.0 | 120.0 | 110.0 | 116.7 | 110.0 | 113.3 |
| 66.0 | 110.0 | 138.0 | 110.0 | 135.8 | 110.0 | 134.0 | 110.0 | 132.5 | 110.0 | 131.3 | 110.0 | 130.5 | 110.0 | 130.0 | 110.0 | 129.8 | 110.0 | 126.2 | 110.0 | 122.5 | 110.0 | 118.8 | 110.0 | 115.2 | 110.0 | 111.5 |
| 72.0 | 110.0 | 136.7 | 110.0 | 134.2 | 110.0 | 132.0 | 110.0 | 130.2 | 110.0 | 128.7 | 110.0 | 127.5 | 110.0 | 126.7 | 110.0 | 126.2 | 110.0 | 126.0 | 110.0 | 122.0 | 110.0 | 118.0 | 110.0 | 114.0 | 110.0 | 110.0 |
| 78.0 | 110.0 | 135.3 | 110.0 | 132.5 | 110.0 | 130.0 | 110.0 | 127.8 | 110.0 | 126.0 | 110.0 | 124.5 | 110.0 | 123.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 84.0 | 110.0 | 134.0 | 110.0 | 130.8 | 110.0 | 128.0 | 110.0 | 125.5 | 110.0 | 123.3 | 110.0 | 121.5 | 110.0 | 120.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 90.0 | 110.0 | 132.7 | 110.0 | 129.2 | 110.0 | 126.0 | 110.0 | 123.2 | 110.0 | 120.7 | 110.0 | 118.5 | 110.0 | 116.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| 96.0 | 110.0 | 131.3 | 110.0 | 127.5 | 110.0 | 124.0 | 110.0 | 120.8 | 110.0 | 118.0 | 110.0 | 115.5 | 110.0 | 113.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 102.0 | 110.0 | 130.0 | 110.0 | 125.8 | 110.0 | 122.0 | 110.0 | 118.5 | 110.0 | 115.3 | 110.0 | 112.5 | 110.0 | 110.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 108.0 | 110.0 | 128.7 | 110.0 | 124.2 | 110.0 | 120.0 | 110.0 | 116.2 | 110.0 | 112.7 | 109.5 | 109.5 | 106.7 | 106.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| 114.0 | 110.0 | 127.3 | 110.0 | 122.5 | 110.0 | 118.0 | 110.0 | 113.8 | 110.0 | 110.0 | 106.5 | 106.5 | 103.3 | 103.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 120.0 | 110.0 | 126.0 | 110.0 | 120.8 | 110.0 | 116.0 | 110.0 | 111.5 | 107.3 | 107.3 | 103.5 | 103.5 | 100.0 | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |

Callouts added to units to 1100 PSF
(see callouts on drawing)

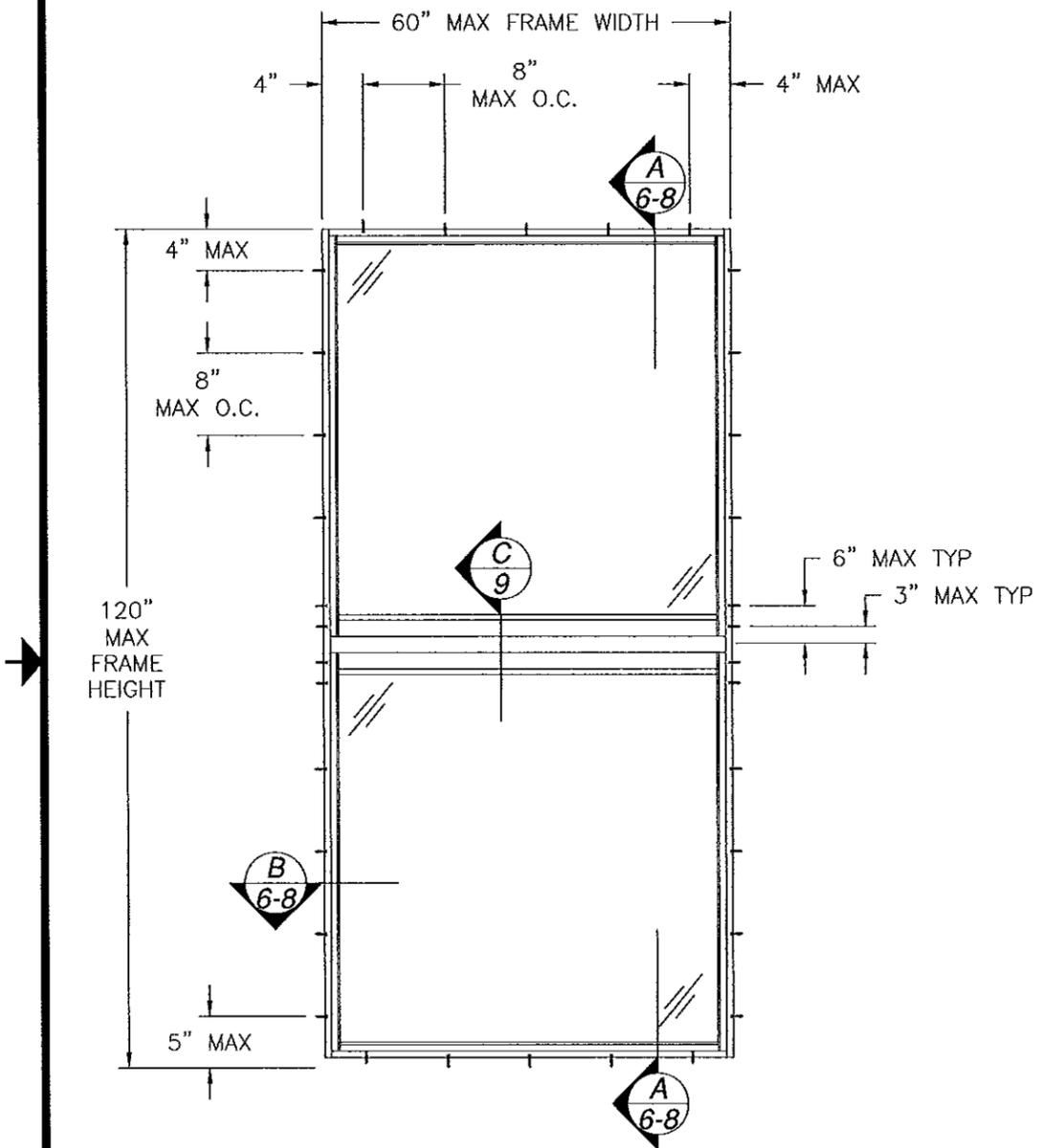
Design pressure rating for units with glazing B and C (psf)

| Frame Height (in) | Frame width (in) | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 24.0 | | 30.0 | | 36.0 | | 42.0 | | 48.0 | | 54.0 | | 60.0 | | 66.0 | | 72.0 | | 78.0 | | 84.0 | | 90.0 | | 96.0 | |
| | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg |
| 24.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 |
| 30.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 |
| 36.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 |
| 42.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 131.7 |
| 48.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 131.3 | 110.0 | 126.0 |
| 54.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 133.0 | 110.0 | 127.0 | 110.0 | 121.0 |
| 60.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 130.0 | 110.0 | 123.3 | 110.0 | 116.7 |
| 66.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 127.7 | 110.0 | 120.3 | 110.0 | 113.0 |
| 72.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 134.0 | 110.0 | 126.0 | 110.0 | 118.0 | 110.0 | 110.0 |
| 78.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 84.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 133.0 | 110.0 | 130.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 90.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 131.3 | 110.0 | 127.0 | 110.0 | 123.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 96.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 131.7 | 110.0 | 126.0 | 110.0 | 121.0 | 110.0 | 116.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| 102.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 134.0 | 110.0 | 127.0 | 110.0 | 120.7 | 110.0 | 115.0 | 110.0 | 110.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 108.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 130.0 | 110.0 | 122.3 | 110.0 | 115.3 | 109.0 | 109.0 | 103.3 | 103.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 114.0 | 110.0 | 135.0 | 110.0 | 135.0 | 110.0 | 126.0 | 110.0 | 117.7 | 110.0 | 110.0 | 103.0 | 103.0 | 96.7 | 96.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| 120.0 | 110.0 | 135.0 | 110.0 | 131.7 | 110.0 | 122.0 | 110.0 | 113.0 | 104.7 | 104.7 | 97.0 | 97.0 | 90.0 | 90.0 | - | - | - | - | - | - | - | - | - | - | - | - |

Callouts added to units to 1100 PSF
(see callouts on drawing)

| | | | | |
|---|--|---|---|--------------|
| Approved as complying with the Florida Building Code Date <u>Jan 11, 2013</u> NOAH# <u>12-0627-03</u> Miami Dade Product Control By <u>Yannick P...</u> | WinDoor INCORPORATED | 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windoorinc.com | 10/30/12 Luis R. Lomas P.E. Florida No. 62514 | |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT ELEVATIONS AND CHARTS | | | |
| | DRAWN: A.P. | DWG NO. 08-01634 | | REV A |
| | SCALE NTS | DATE 06/20/2012 | | SHEET 3 OF 9 |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



Maximum design pressure capacity chart (psf)

| Frame Height (in) | Frame width (in) | | | | | | | | | | | | | |
|-------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 24.00 | | 30.00 | | 36.00 | | 42.00 | | 48.00 | | 54.00 | | 60.00 | |
| | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg |
| 36.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 42.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 48.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 54.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 143.4 | 150.0 |
| 60.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 133.3 | 150.0 |
| 66.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 145.5 | 150.0 | 125.4 | 150.0 |
| 72.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 138.9 | 150.0 | 119.0 | 142.9 |
| 78.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 133.8 | 150.0 | 114.0 | 136.8 |
| 84.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 129.9 | 150.0 | 109.9 | 131.9 |
| 90.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 127.0 | 150.0 | 106.7 | 128.0 |
| 96.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 125.0 | 150.0 | 104.2 | 125.0 |
| 102.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 123.8 | 148.6 | 102.3 | 122.8 |
| 108.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 123.5 | 148.1 | 101.0 | 121.2 |
| 114.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 123.5 | 148.1 | 100.3 | 120.3 |
| 120.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 123.5 | 148.1 | 100.0 | 120.0 |

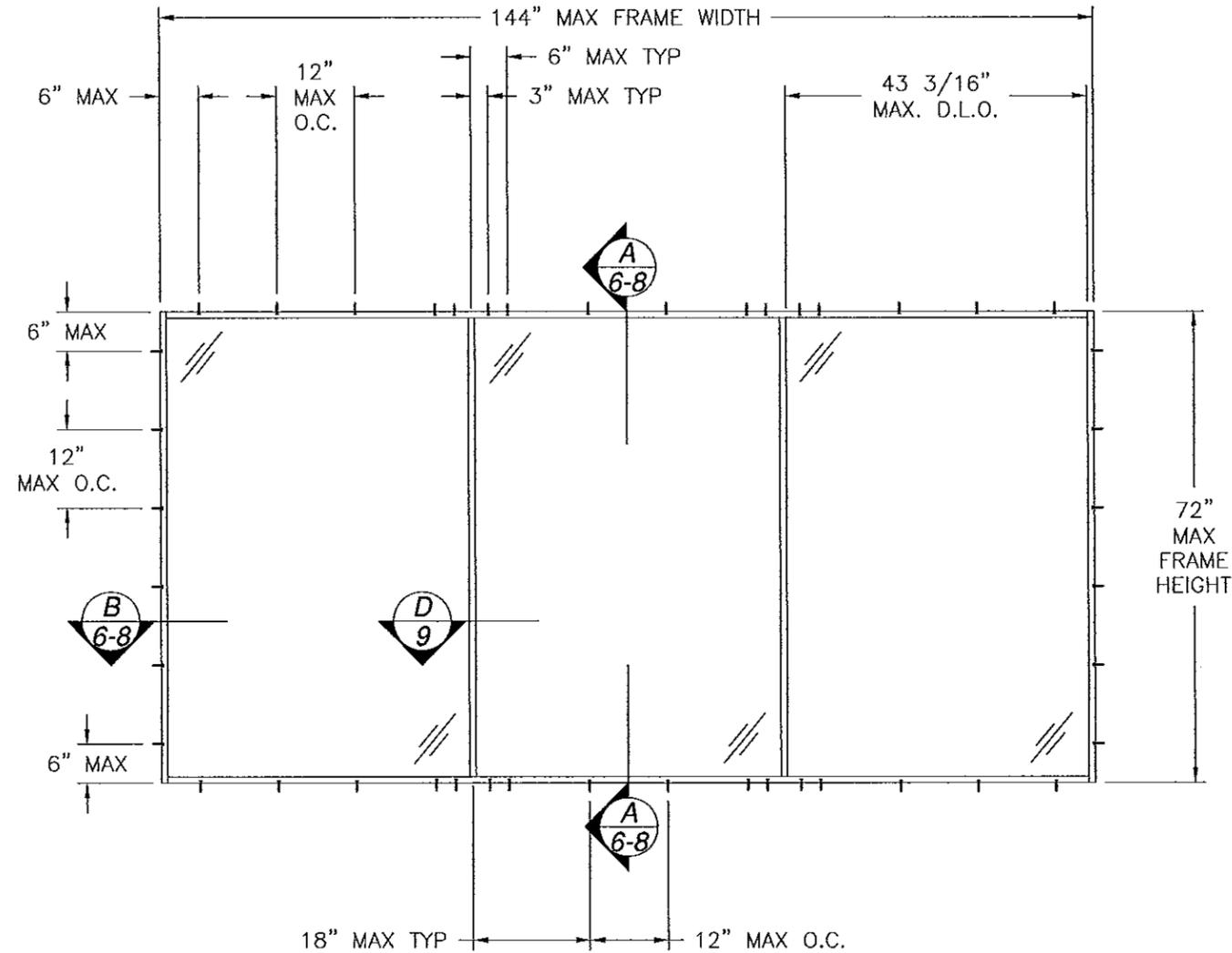
9020 PICTURE WINDOW
EXTERIOR VIEW

| DESIGN PRESSURE RATING | IMPACT RATING |
|------------------------|----------------------|
| +100.0/-120.0PSF | LARGE MISSILE IMPACT |

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ WITH GLAZING A AND B

| | | | |
|---|---|---|---------------------|
| Approved as complying with the Florida Building Code Date: <u>Jan. 17, 2013</u> NOAH <u>12-0627-03</u> Miami Dade Product Control By: <u>Manuel Perez</u> | WinDoor INCORPORATED 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windoorinc.com | 10/20/12 Luis R. Lomas P.E. Florida No. 62514 | |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT ELEVATIONS AND CHARTS | | |
| | DRAWN: A.P. | | DWG NO. 08-01634 |
| SCALE NTS | DATE 06/20/2012 | SHEET 4 OF 9 | |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



| Frame Height (in) | Total Frame Width (in) | | | | | | | | | | | | | |
|-------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| | 36.00 | | 54.00 | | 72.00 | | 90.00 | | 108.00 | | 126.00 | | 144.00 | |
| | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg | Pos | Neg |
| 24.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 30.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 36.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 42.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 48.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 54.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 |
| 60.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 119.6 | 100.0 | 113.3 |
| 66.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 113.3 | 100.0 | 103.6 | 97.1 | 97.1 |
| 72.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 125.0 | 100.0 | 114.5 | 100.0 | 100.7 | 91.4 | 91.4 | 85.0 | 85.0 |

9020 TRIPLE PICTURE WINDOW
EXTERIOR VIEW

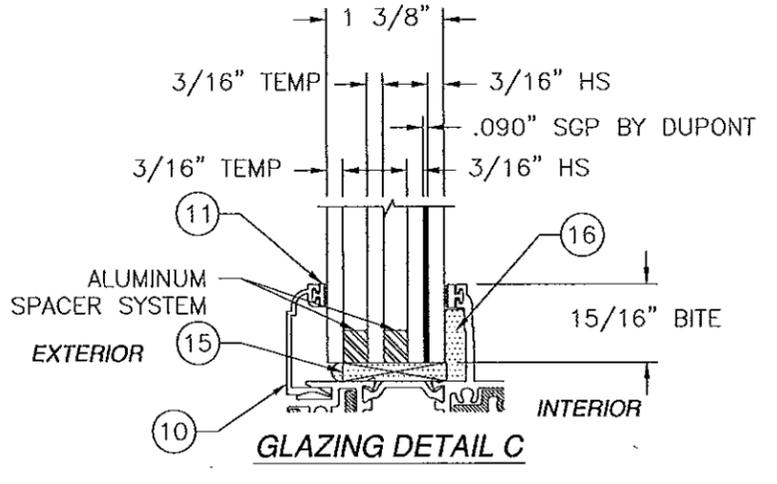
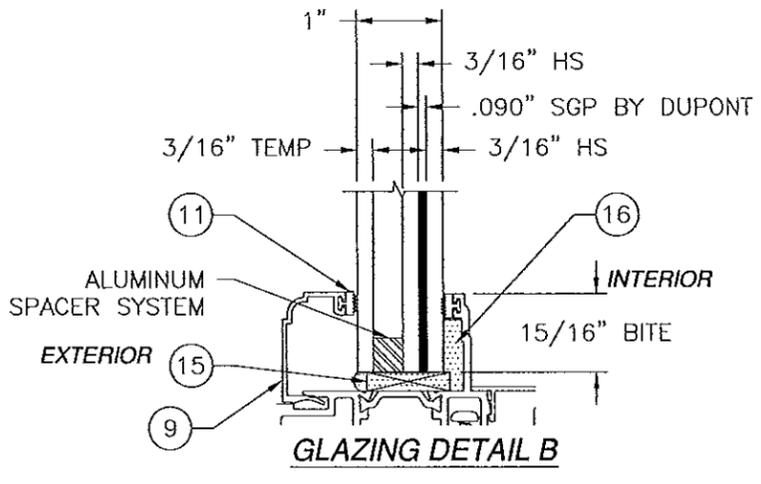
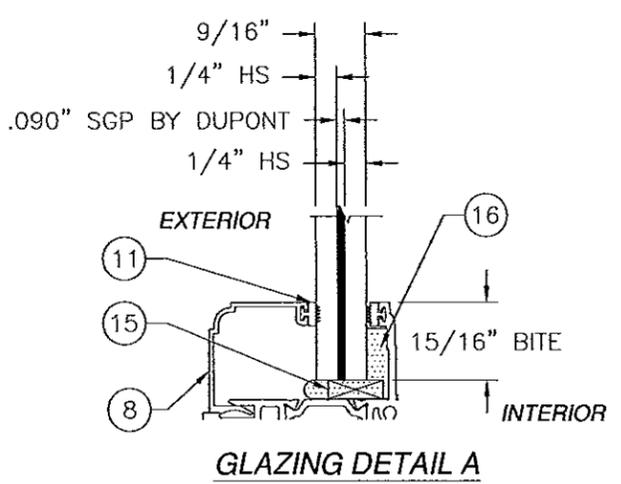
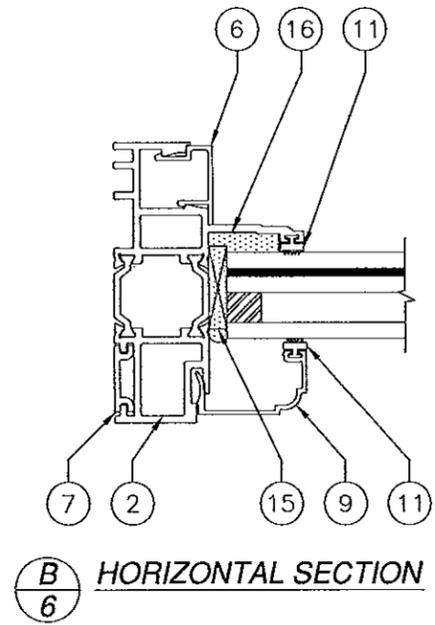
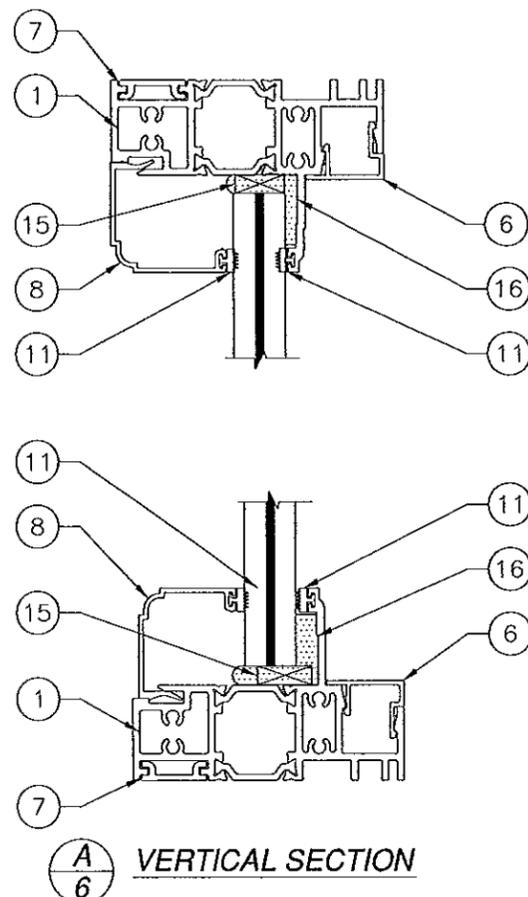
| DESIGN PRESSURE RATING | IMPACT RATING |
|------------------------|----------------------|
| ±85.0PSF | LARGE MISSILE IMPACT |

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ WITH GLAZING A, B AND C

| | | | |
|---|---|---|---------------------|
| Approved as complying with the Florida Building Code Date: <u>Jan 17, 2013</u> NOAH# <u>12-0827.05</u> Miami Dade Product Control By: <u>Manuel Perez</u> | WinDoor INCORPORATED 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windoorinc.com | 10/30/12 Luis R. Lomas P.E. Florida No. 62514 | |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT ELEVATIONS AND CHARTS | | |
| | DRAWN: A.P. | | DWG NO. 08-01634 |
| SCALE NTS | DATE 06/20/2012 | SHEET 5 OF 9 | |

| PARTS LIST | | | | |
|------------|----------------|------------------------------|--------------|------------------|
| NO. | PART NUMBER | DESCRIPTION | MANUFACTURER | MATERIAL |
| 1 | S-9020A1-WDI | FRAME HEAD AND SILL ASSEMBLY | KEYMARK | ALUMINUM 6063-T6 |
| 2 | S-9020A2-WDI | FRAME JAMB ASSEMBLY | KEYMARK | ALUMINUM 6063-T6 |
| 3 | S-9020A3-WDI | MULL ASSEMBLY | KEYMARK | ALUMINUM 6063-T6 |
| 4 | FH-06559 | MULL INTERIOR REINFORCEMENT | KEYMARK | ALUMINUM 6005-T6 |
| 5 | FS-06558 | MULL EXTERIOR REINFORCEMENT | KEYMARK | ALUMINUM 6005-T6 |
| 6 | S-49328 | SCREW COVER | KEYMARK | ALUMINUM 6063-T6 |
| 7 | S-49330 | FLUSH ADAPTOR | KEYMARK | ALUMINUM 6063-T6 |
| 8 | S-49329 | 9/16" GLASS STOP | KEYMARK | ALUMINUM 6063-T6 |
| 9 | S-46084 | 1" GLASS STOP | KEYMARK | ALUMINUM 6063-T6 |
| 10 | S-46083 | 1 3/8" GLASS STOP | KEYMARK | ALUMINUM 6063-T6 |
| 11 | GSVN-07A | GLAZING VINYL | | |
| 12 | 131014 | #8x1" SCREW | | STAINLESS STEEL |
| 13 | | #8x1 3/4" SCREW | | STAINLESS STEEL |
| 14 | | #12x1" SCREW | | STAINLESS STEEL |
| 15 | 121000-12100E1 | SETTING BLOCK | | RUBBER |
| 16 | SIKA 552 | URETHANE SEALANT | | |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



Approved as complying with the Florida Building Code
 Date: Jan. 17, 2013
 NOAH 12-0627-03
 Miami Dade Product Control
 By: *Manuel Perez*

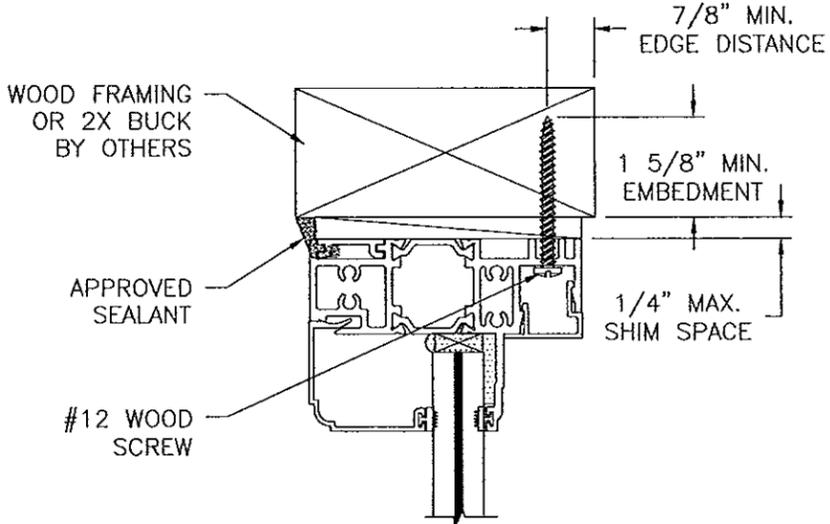
WinDoor
 INCORPORATED
 7500 AMSTERDAM DRIVE
 ORLANDO, FL 32832
 Phone: 407.481.8400
 Fax: 407.481.0505
 www.windoorinc.com

9020 PICTURE WINDOW
 LARGE MISSILE IMPACT
 CROSS SECTIONS AND B.O.M.

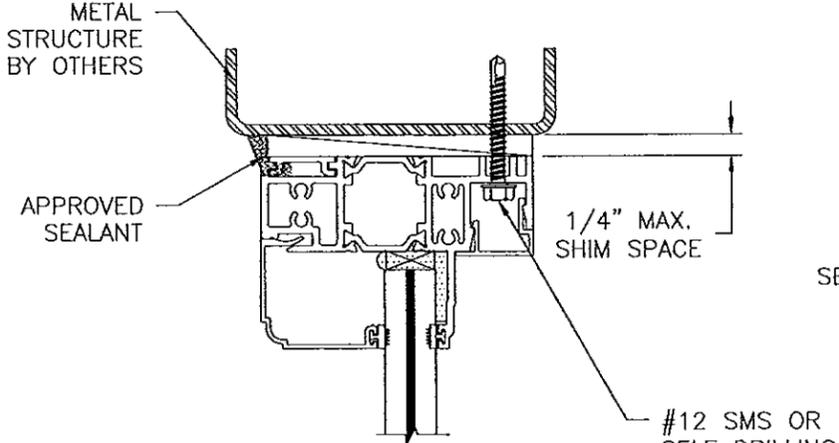
| | | |
|----------------|---------------------|--------------|
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 6 OF 9 |

Luis R. Lomas
 10/30/12
 Luis R. Lomas P.E.
 Florida No. 62514

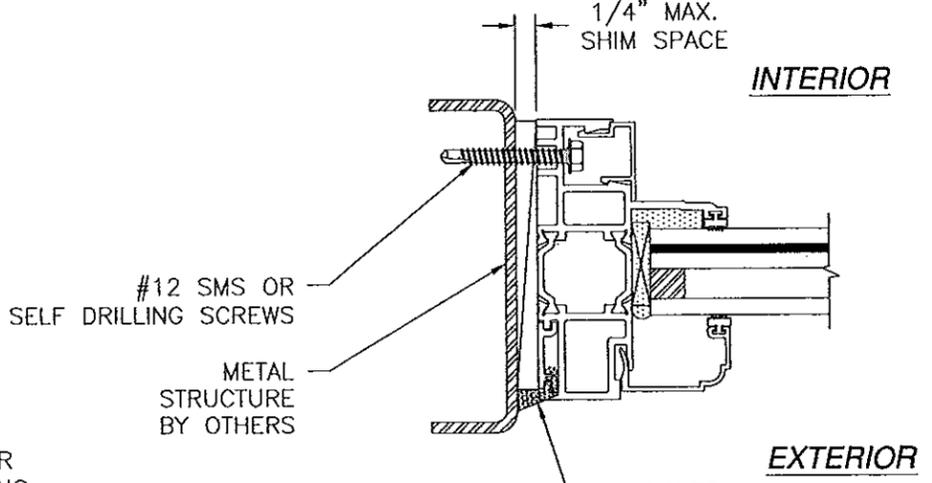
| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



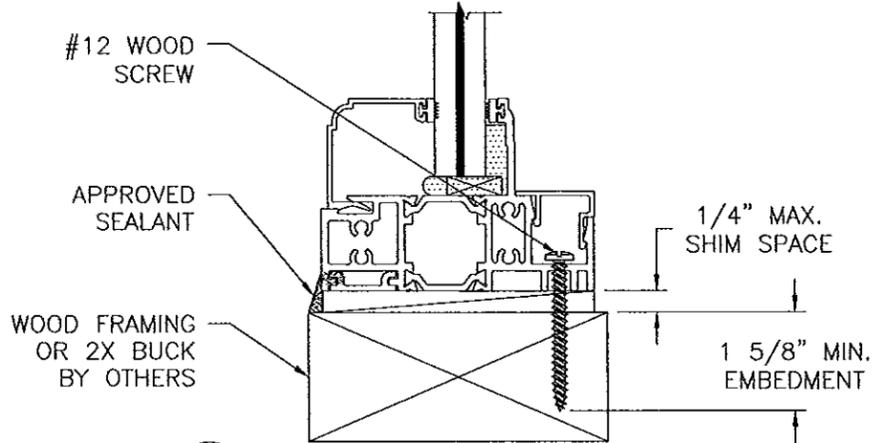
EXTERIOR **INTERIOR**



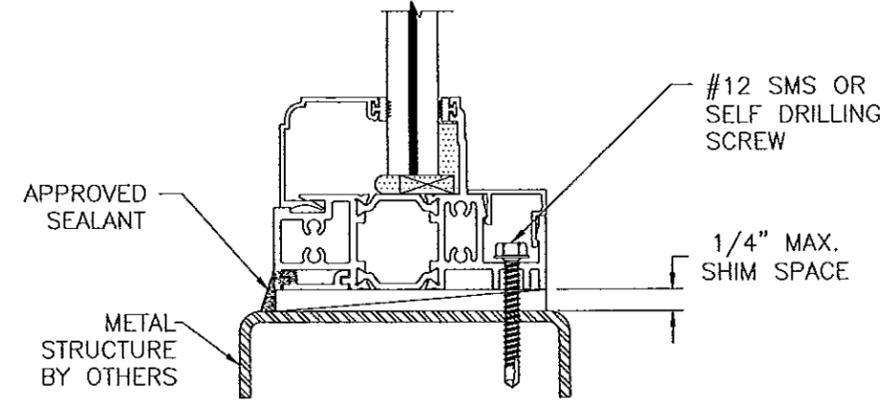
EXTERIOR **INTERIOR**



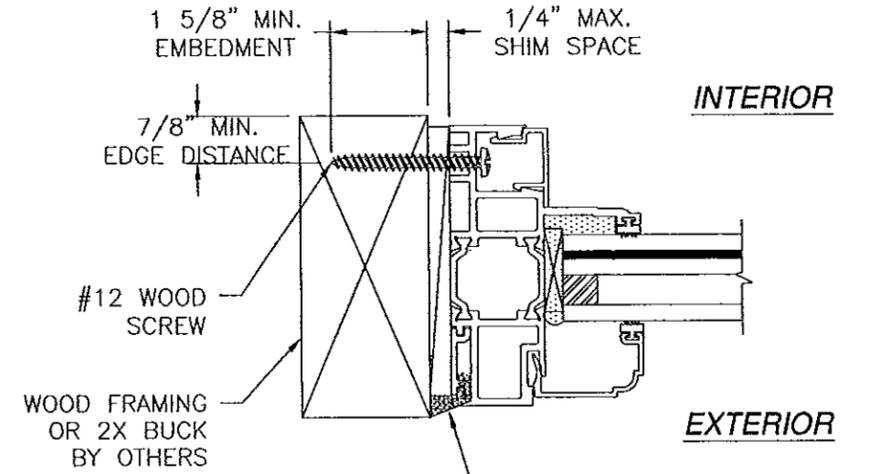
B
7 **JAMB INSTALLATION DETAIL**
METAL STRUCTURE INSTALLATION



A
7 **VERTICAL CROSS SECTION**
WOOD FRAMING OR 2X BUCK INSTALLATION



A
7 **VERTICAL CROSS SECTION**
METAL STRUCTURE INSTALLATION

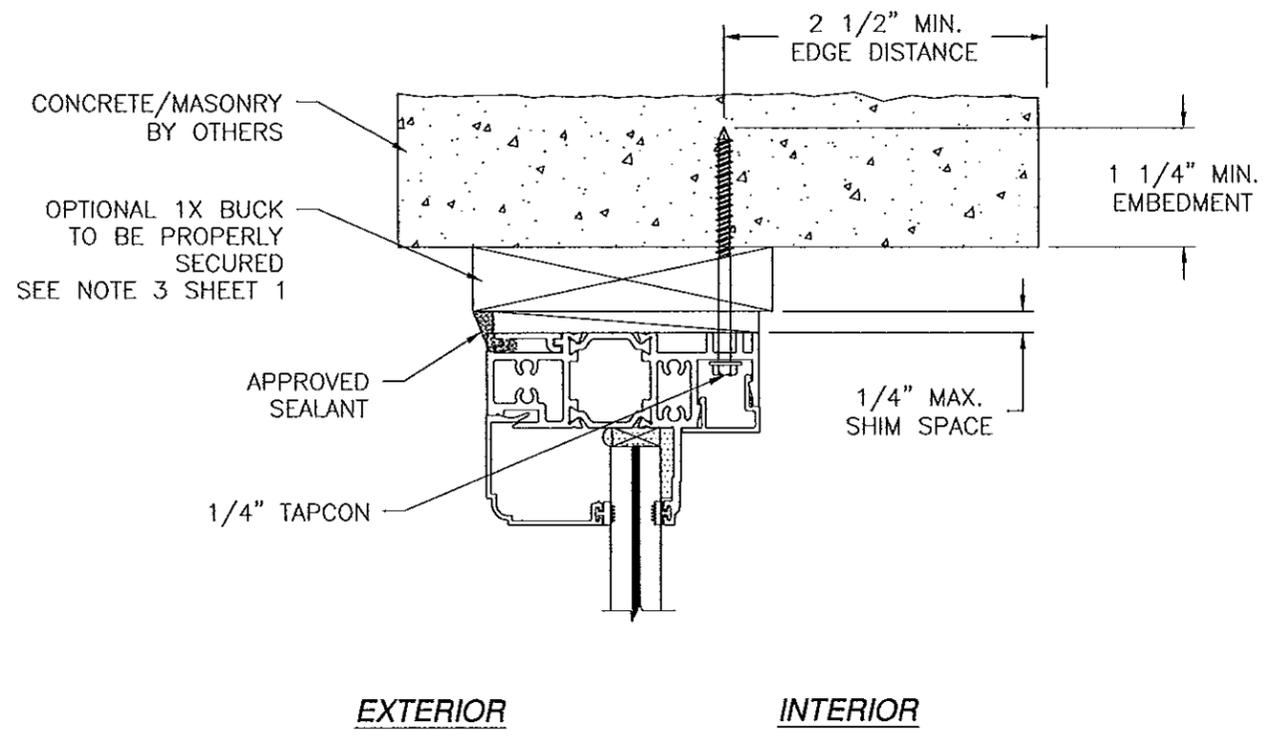


B
7 **JAMB INSTALLATION DETAIL**
WOOD FRAMING OR 2X BUCK INSTALLATION

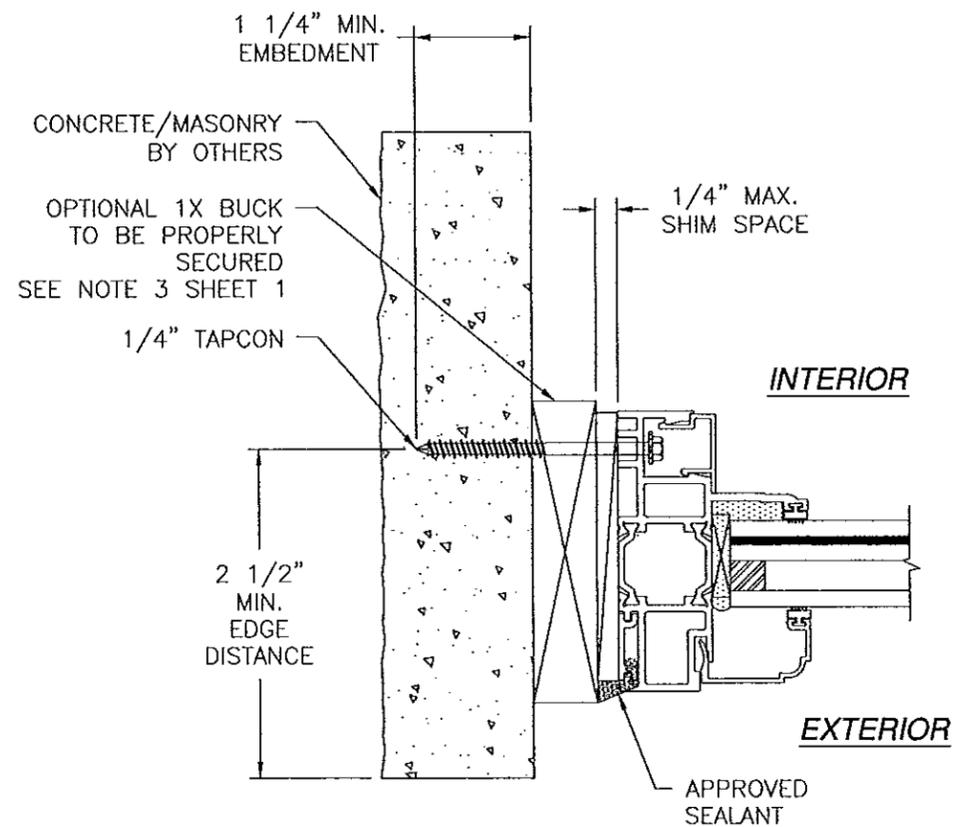
NOTE:
INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.

| | | |
|--|--|---|
| Approved as complying with the Florida Building Code Date <u>Jan. 17, 2013</u> NDA# <u>17-0621.03</u> Minral Dade Product Control By <u>Manuel Perez</u> | WinDoor INCORPORATED 7500 AMSTERDAM DRIVE ORLANDO, FL 32832 Phone: 407.481.8400 Fax: 407.481.0505 www.windoorinc.com | 09/23/13 Luis R. Lomas P.E. Florida No. 62514 |
| | 9020 PICTURE WINDOW LARGE MISSILE IMPACT INSTALLATION DETAILS | |
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 7 OF 9 |

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



(A) VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



(B) JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

NOTE:
INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.

Approved as complying with
Florida Building Code
Date Jan 17, 2013
NOAH 12-0627-05
Miami Dade Product Control
By Manuel Perez

WinDoor
INCORPORATED
7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
Phone: 407.481.8400
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www.windoorinc.com

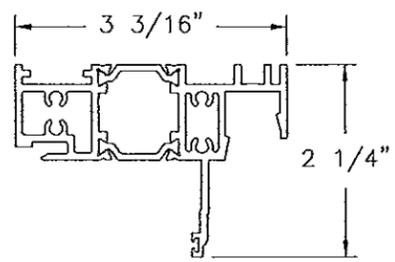
9020 PICTURE WINDOW
LARGE MISSILE IMPACT
INSTALLATION DETAILS

| | | |
|----------------|---------------------|--------------|
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 8 OF 9 |

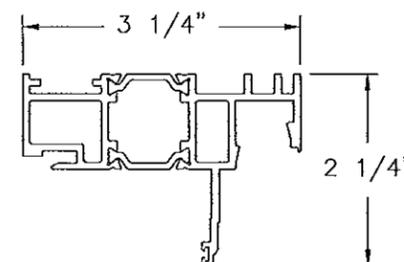
Luis R. Lomas
09/23/13

Luis R. Lomas P.E.
Florida No. 62514

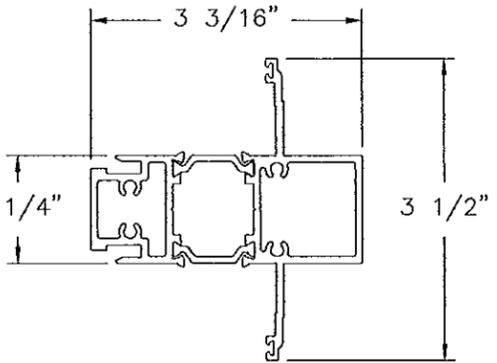
| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | ADDED CALL OUTS | 10/24/12 | R.L. |



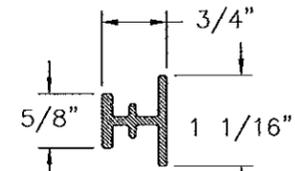
① **FRAME**
ALUMINUM 6063-T6 .080" THICK



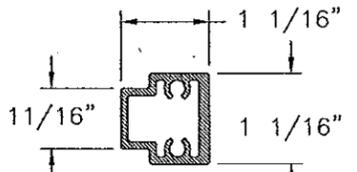
② **FRAME**
ALUMINUM 6063-T6 .080" THICK



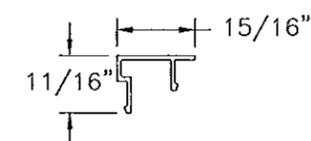
③ **MULL ASSEMBLY**
ALUMINUM 6063-T6 .080" THICK



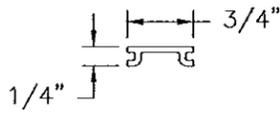
④ **REINFORCEMENT**
ALUMINUM 6005-T61 .100" THICK



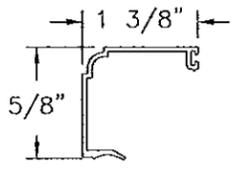
⑤ **REINFORCEMENT**
ALUMINUM 6005-T61 .080" THICK



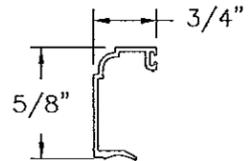
⑥ **SCREW COVER**
ALUMINUM 6063-T6 .050" THICK



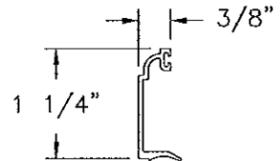
⑦ **FLUSH ADAPTOR**
ALUMINUM 6063-T6 .065" THICK



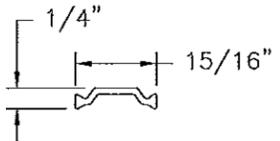
⑧ **9/16" GLASS STOP**
.063" THICK



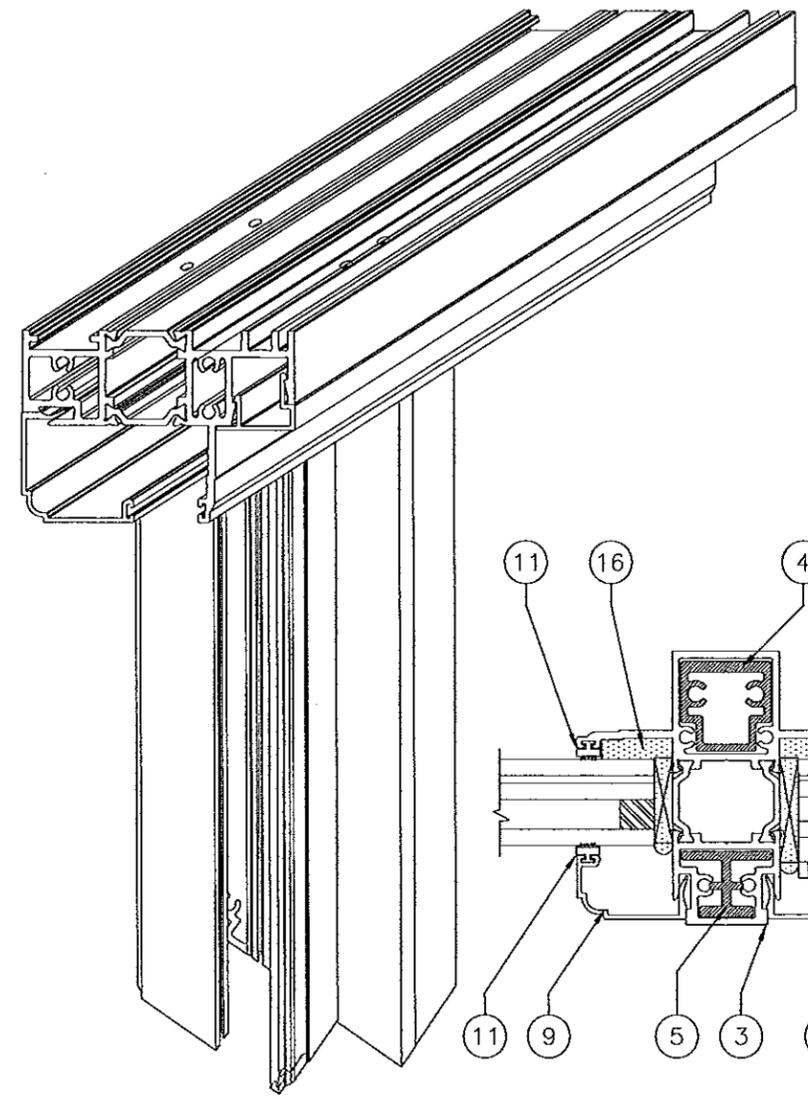
⑨ **1" GLASS STOP**
.063" THICK



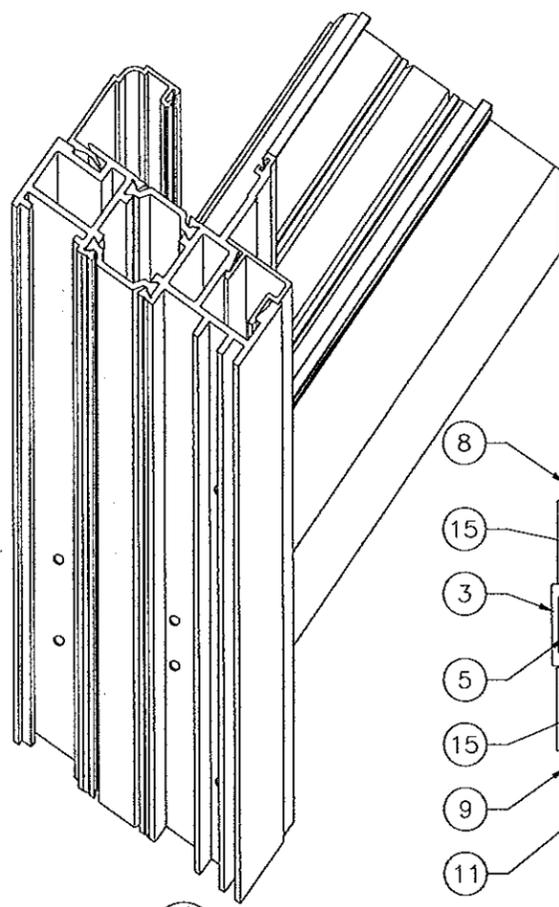
⑩ **1 3/8" GLASS STOP**
.063" THICK



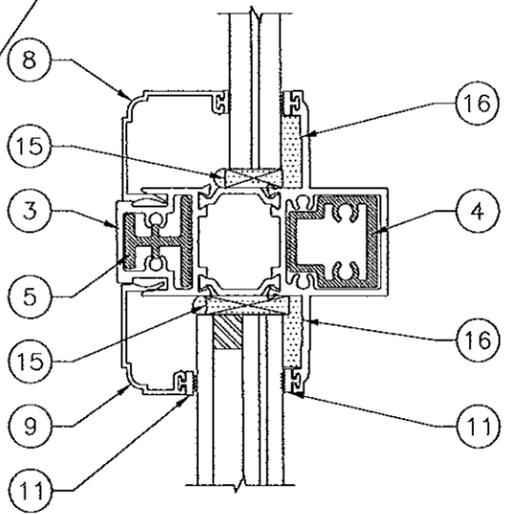
THERMAL STRUT
NYLON POLYAMIDE .070" THICK



⑨ **VERTICAL MULLION**



⑨ **HORIZONTAL MULLION**



Approved as complying with the
Florida Building Code
Date Jan 11, 2013
NOAH 12-0627-02
Miami Dade Product Control
By Juan Carlos

WinDoor
INCORPORATED
7500 AMSTERDAM DRIVE
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9020 PICTURE WINDOW
LARGE MISSILE IMPACT
COMPONENTS

| | | |
|----------------|---------------------|--------------|
| DRAWN: A.P. | DWG NO. 08-01634 | REV A |
| SCALE NTS | DATE 06/20/2012 | SHEET 9 OF 9 |

Luis R. Lomas
10/30/12
Luis R. Lomas P.E.
Florida No. 62514