MIAMI-DADE COUNTY
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
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

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 – S.M.I.

APPROVAL DOCUMENT: Drawing No. **08-01635,** titled "9020 Picture Window – Small Missile Impact" sheets 1, 2, 2A and 3 through 11 of 11, dated 06/20/12, with revision D dated 09/05/14, prepared by manufacturer, signed and sealed by Luis R. Lomas, 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: Small Missile Impact Resistant.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA **revises NOA# 14-0107.12** 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 **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

10/30/14

WinDoor, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **08-01635,** titled "9020 Picture Window - Small Missile Impact", sheets 1, 2, 2A and 3 through 11 of 11, dated 06/20/12, with revision D dated 09/05/14, 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) Small 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 202-94

   along with installation diagram of an aluminum fixed window, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3778-1,** Specimens 1, 2, 3, 4, 5, 6, 7, 8 and 9, dated 04/17/12, revised on 07/22/13 and updated on 09/27/13, signed and sealed by Gerald J. Ferrara, P.E.
   (Submitted under NOA# 12-0627.06)
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) Small 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 202-94

   along with installation diagram of an aluminum fixed window, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3778-2,** Specimens 1, 2, 3, 4, 5, 6 and 7, dated 04/17/12, signed and sealed by Gerald J. Ferrara, P.E.
   (Submitted under NOA# 12-0627.06)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-5th Edition (2014)**, dated 06/11/12, 06/18/12, 01/02/14 and updated on 09/05/14, prepared, signed and sealed by Luis R. Lomas, P.E.
   (Submitted partly under NOA# 12-0627.06)
2. Glazing complies with ASTM **E1300-04**

Manuel Perez

Manuel Perez, P.E.
Product Control Examiner
NOA No. 14-0916.13
Expiration Date: November 29, 2017
Approval Date: November 06, 2014

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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.
2. Test report No. **ATI–60520-106.18**, prepared by Architectural Testing, Inc., dated 11/09/06, with Revision #1 dated 11/29/06, issued to ENSINGER, Inc., for their **Tecatherm® 66 GF Insulbar Thermal Barrier plastic material** per **ASTM D635–98** *"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"*, **ASTM D1929–96** (2000)e01 *"Standard Test Method for Ignition Properties of Plastics"*, also per **ASTM G 155–00ae1** *"Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials"* and **ASTM D638–03** *"Standard Test Method for Tensile Properties of Plastics"*, signed and sealed by Joseph A. Reeves, P.E.
(Submitted under previous NOA# 14-0107.12)

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC-5th Edition (2014)**, and of no financial interest, dated September 9, 2014, signed and sealed by Luis R. Lomas, P.E.
2. Laboratory compliance letter for Test Reports No. **NCTL-210-3778-1**, and **NCTL-210-3778-2**, issued by National Certified Testing Laboratories, dated 04/17/12, all signed and sealed by Gerald J. Ferrara, P.E.
(Submitted under NOA# 12-0627.06)

G. OTHERS

1. Notice of Acceptance No. **14-0107.12**, issued to WinDoor, Inc. for their Series "9020" Aluminum Fixed Window - S.M.I., approved on 04/03/14 and expiring on 11/29/17.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 14-0916.13
Expiration Date: November 29, 2017
Approval Date: November 06, 2014

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	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.
4. WHERE SHIM OR BUCK THICKNESS IS LESS THAN 1-1/2" WINDOW UNITS MUST BE ANCHORED THROUGH THE FRAME IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE SECURELY FASTENED DIRECTLY INTO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE MATERIAL.
5. WHERE WOOD BUCK THICKNESS IS 1-1/2" OR GREATER, BUCK SHALL BE SECURELY FASTENED TO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE. WINDOW UNITS MAY BE ANCHORED THROUGH FRAME TO SECURED WOOD BUCK IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
6. 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.
7. BUCKS SHALL EXTEND BEYOND WINDOW INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.
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. SHIMS SHALL BE MADE FROM MATERIALS CAPABLE OF SUSTAINING APPLICABLE LOADS, LOCATED AND APPLIED IN A THICKNESS CAPABLE OF SUSTAINING APPLICABLE LOADS.
10. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
11. FRAME MATERIAL: ALUMINUM 6063-T6.
12. UNITS MUST BE GLAZED PER ASTM E1300-04, SEE SHEET 6 FOR GLASS OPTIONS.
13. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS WHEN INSTALLED ABOVE 30FT HEIGHT.
14. 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.
15. 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.
16. 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.
17. ALL FASTENERS TO BE CORROSION RESISTANT.
18. 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
19. APPROVED GEOMETRIC SHAPES DIMENSIONS SHALL NOT EXCEED AN AREA OF 50 SQUARE FEET AS TESTED. GEOMETRIC SHAPES ARE NOT LIMITED TO SHAPES SHOWN HEREIN.

SIGNED: 10/29/2014

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6 – 7	B.O.M. AND CROSS SECTIONS
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10 – 11	COMPONENTS

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 24, 2017
By Manuel Perez
Miami Dade Product Control

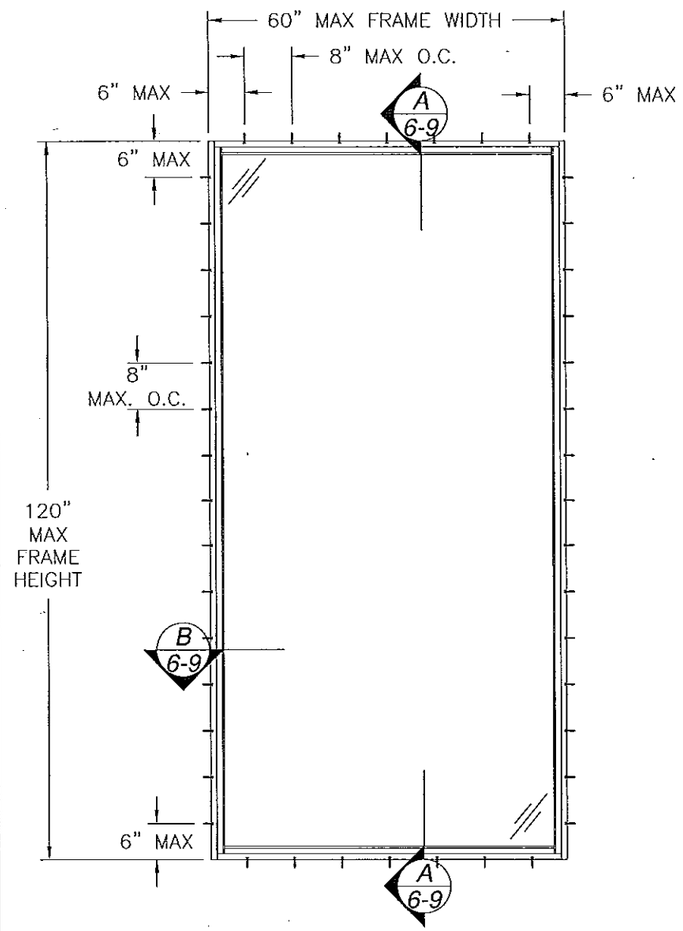
WinDoor INCORPORATED
7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
Phone: 407.481.8400
Fax: 407.481.0505
www.windoorinc.com

9020 PICTURE WINDOW
SMALL MISSILE IMPACT
NOTES

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 1 OF 11

LUIS R. LOMAS LICENSE No. 62514 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.



9020 PICTURE WINDOW

EXTERIOR VIEW

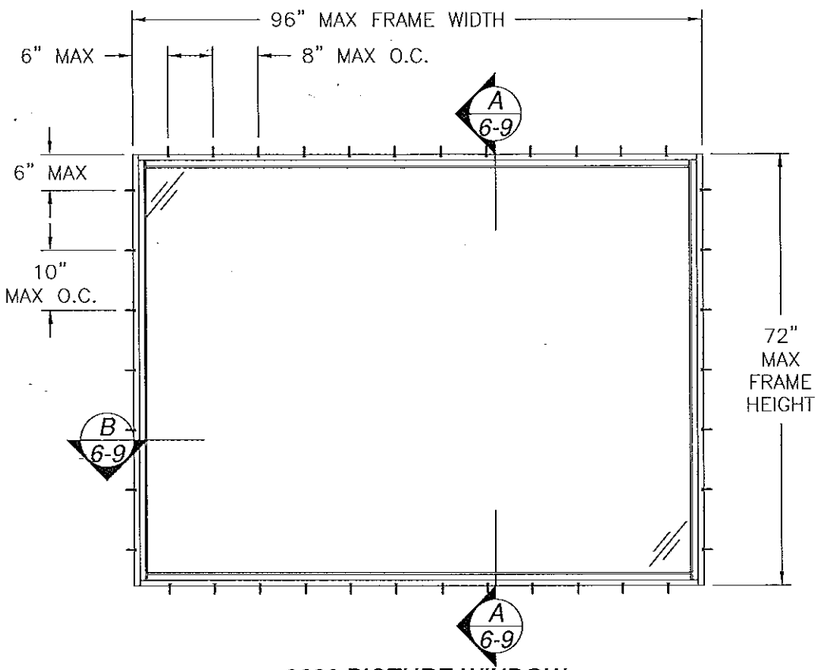
REFER TO CHARTS #1 AND #2 IN SHEET 3 FOR OTHER UNITS RATINGS

DESIGN PRESSURE RATING	IMPACT RATING
±100.0PSF	SMALL MISSILE IMPACT

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING A

DESIGN PRESSURE RATING	IMPACT RATING
±90.0PSF	SMALL MISSILE IMPACT

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



9020 PICTURE WINDOW

EXTERIOR VIEW

REFER TO CHARTS #1 AND #2 IN SHEET 3 FOR OTHER UNITS RATINGS

DESIGN PRESSURE RATING	IMPACT RATING
±110.0PSF	SMALL MISSILE IMPACT

MISSILE LEVEL A, WIND ZONE 4 WITH GLAZING A

DESIGN PRESSURE RATING	IMPACT RATING
±100.0PSF	SMALL MISSILE IMPACT

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

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SMALL MISSILE IMPACT
ELEVATIONS AND CHARTS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 2 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
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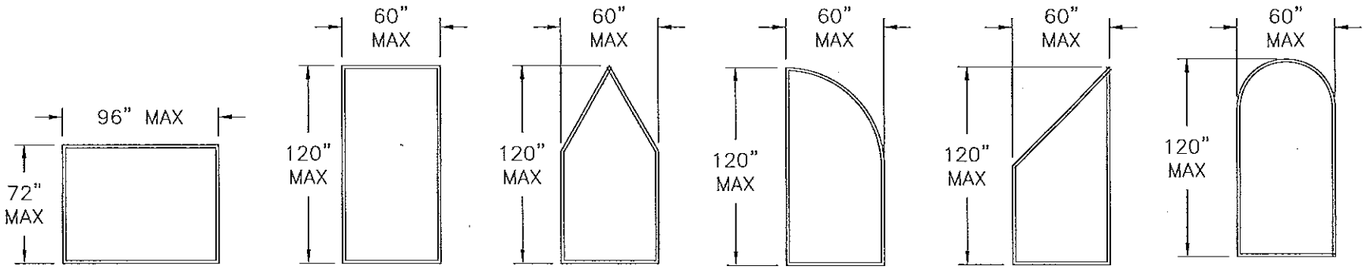

APPROVED SHAPES
SEE NOTE 19 SHEET 1

SIGNED: 10/29/2014

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SMALL MISSILE IMPACT
ELEVATIONS AND CHARTS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 2A OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

CHART #1

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	147.3	147.3	146.0	146.0	144.7	144.7	143.3	143.3	142.0	142.0	140.7	140.7	139.3	139.3	138.0	138.0	136.7	136.7	135.3	135.3	134.0	134.0	132.7	132.7	131.3	131.3
30.0	146.0	146.0	145.8	145.8	144.2	144.2	142.5	142.5	140.8	140.8	139.2	139.2	137.5	137.5	135.8	135.8	134.2	134.2	132.5	132.5	130.8	130.8	129.2	129.2	127.5	127.5
36.0	144.7	144.7	144.2	144.2	144.0	144.0	142.0	142.0	140.0	140.0	138.0	138.0	136.0	136.0	134.0	134.0	132.0	132.0	130.0	130.0	128.0	128.0	126.0	126.0	124.0	124.0
42.0	143.3	143.3	142.5	142.5	142.0	142.0	141.8	141.8	139.5	139.5	137.2	137.2	134.8	134.8	132.5	132.5	130.2	130.2	127.8	127.8	125.5	125.5	123.2	123.2	120.8	120.8
48.0	142.0	142.0	140.8	140.8	140.0	140.0	139.5	139.5	139.3	139.3	136.7	136.7	134.0	134.0	131.3	131.3	128.7	128.7	126.0	126.0	123.3	123.3	120.7	120.7	118.0	118.0
54.0	140.7	140.7	139.2	139.2	138.0	138.0	137.2	137.2	136.7	136.7	136.5	136.5	133.5	133.5	130.5	130.5	127.5	127.5	124.5	124.5	121.5	121.5	118.5	118.5	115.5	115.5
60.0	139.3	139.3	137.5	137.5	136.0	136.0	134.8	134.8	134.0	134.0	133.5	133.5	133.3	133.3	130.0	130.0	126.7	126.7	123.3	123.3	120.0	120.0	116.7	116.7	113.3	113.3
66.0	138.0	138.0	135.8	135.8	134.0	134.0	132.5	132.5	131.3	131.3	130.5	130.5	130.0	130.0	129.8	129.8	126.2	126.2	122.5	122.5	118.8	118.8	115.2	115.2	111.5	111.5
72.0	136.7	136.7	134.2	134.2	132.0	132.0	130.2	130.2	128.7	128.7	127.5	127.5	126.7	126.7	126.2	126.2	126.0	126.0	122.0	122.0	118.0	118.0	114.0	114.0	110.0	110.0
78.0	135.3	135.3	132.5	132.5	130.0	130.0	127.8	127.8	126.0	126.0	124.5	124.5	123.3	123.3	122.5	122.5	122.0	122.0	121.8	121.8	117.5	117.5	-	-	-	-
84.0	134.0	134.0	130.8	130.8	128.0	128.0	125.5	125.5	123.3	123.3	121.5	121.5	120.0	120.0	118.8	118.8	118.0	118.0	117.5	117.5	-	-	-	-	-	-
90.0	132.7	132.7	129.2	129.2	126.0	126.0	123.2	123.2	120.7	120.7	118.5	118.5	116.7	116.7	115.2	115.2	114.0	114.0	-	-	-	-	-	-	-	-
96.0	131.3	131.3	127.5	127.5	124.0	124.0	120.8	120.8	118.0	118.0	115.5	115.5	113.3	113.3	111.5	111.5	110.0	110.0	-	-	-	-	-	-	-	-
102.0	130.0	130.0	125.8	125.8	122.0	122.0	118.5	118.5	115.3	115.3	112.5	112.5	110.0	110.0	107.8	107.8	-	-	-	-	-	-	-	-	-	-
108.0	128.7	128.7	124.2	124.2	120.0	120.0	116.2	116.2	112.7	112.7	109.5	109.5	106.7	106.7	-	-	-	-	-	-	-	-	-	-	-	-
114.0	127.3	127.3	122.5	122.5	118.0	118.0	113.8	113.8	110.0	110.0	106.5	106.5	103.3	103.3	-	-	-	-	-	-	-	-	-	-	-	-
120.0	126.0	126.0	120.8	120.8	116.0	116.0	111.5	111.5	107.3	107.3	103.5	103.5	100.0	100.0	-	-	-	-	-	-	-	-	-	-	-	-
126.0	124.7	124.7	119.2	119.2	114.0	114.0	109.2	109.2	104.7	104.7	100.5	100.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132.0	123.3	123.3	117.5	117.5	112.0	112.0	106.8	106.8	102.0	102.0	97.5	97.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138.0	122.0	122.0	115.8	115.8	110.0	110.0	104.5	104.5	99.3	99.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144.0	120.7	120.7	114.2	114.2	108.0	108.0	102.2	102.2	96.7	96.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CHART #2

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	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	122.7	122.7	121.3	121.3
30.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.2	124.2	122.5	122.5	120.8	120.8	119.2	119.2	117.5	117.5
36.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	122.0	122.0	120.0	120.0	118.0	118.0	116.0	116.0	114.0	114.0
42.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.8	124.8	122.5	122.5	120.2	120.2	117.8	117.8	115.5	115.5	113.2	113.2	110.8	110.8
48.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	121.3	121.3	118.7	118.7	116.0	116.0	113.3	113.3	110.7	110.7	108.0	108.0
54.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	123.5	123.5	120.5	120.5	117.5	117.5	114.5	114.5	111.5	111.5	108.5	108.5	105.5	105.5
60.0	125.0	125.0	125.0	125.0	125.0	125.0	124.8	124.8	124.0	124.0	123.5	123.5	123.3	123.3	120.0	120.0	116.7	116.7	113.3	113.3	110.0	110.0	106.7	106.7	103.3	103.3
66.0	125.0	125.0	125.0	125.0	124.0	124.0	122.5	122.5	121.3	121.3	120.5	120.5	120.0	120.0	119.8	119.8	116.2	116.2	112.5	112.5	108.8	108.8	105.2	105.2	101.5	101.5
72.0	125.0	125.0	124.2	124.2	122.0	122.0	120.2	120.2	118.7	118.7	117.5	117.5	116.7	116.7	116.2	116.2	116.0	116.0	112.0	112.0	108.0	108.0	104.0	104.0	100.0	100.0
78.0	125.0	125.0	122.5	122.5	120.0	120.0	117.8	117.8	116.0	116.0	114.5	114.5	113.3	113.3	112.5	112.5	112.0	112.0	111.8	111.8	107.5	107.5	-	-	-	-
84.0	124.0	124.0	120.8	120.8	118.0	118.0	115.5	115.5	113.3	113.3	111.5	111.5	110.0	110.0	108.8	108.8	108.0	108.0	107.5	107.5	-	-	-	-	-	-
90.0	122.7	122.7	119.2	119.2	116.0	116.0	113.2	113.2	110.7	110.7	108.5	108.5	106.7	106.7	105.2	105.2	104.0	104.0	-	-	-	-	-	-	-	-
96.0	121.3	121.3	117.5	117.5	114.0	114.0	110.8	110.8	108.0	108.0	105.5	105.5	103.3	103.3	101.5	101.5	100.0	100.0	-	-	-	-	-	-	-	-
102.0	120.0	120.0	115.8	115.8	112.0	112.0	108.5	108.5	105.3	105.3	102.5	102.5	100.0	100.0	97.8	97.8	-	-	-	-	-	-	-	-	-	-
108.0	118.7	118.7	114.2	114.2	110.0	110.0	106.2	106.2	102.7	102.7	99.5	99.5	96.7	96.7	-	-	-	-	-	-	-	-	-	-	-	-
114.0	117.3	117.3	112.5	112.5	108.0	108.0	103.8	103.8	100.0	100.0	96.5	96.5	93.3	93.3	-	-	-	-	-	-	-	-	-	-	-	-
120.0	116.0	116.0	110.8	110.8	106.0	106.0	101.5	101.5	97.3	97.3	93.5	93.5	90.0	90.0	-	-	-	-	-	-	-	-	-	-	-	-
126.0	114.7	114.7	109.2	109.2	104.0	104.0	99.2	99.2	94.7	94.7	90.5	90.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132.0	113.3	113.3	107.5	107.5	102.0	102.0	96.8	96.8	92.0	92.0	87.5	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138.0	112.0	112.0	105.8	105.8	100.0	100.0	94.5	94.5	89.3	89.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144.0	110.7	110.7	104.2	104.2	98.0	98.0	92.2	92.2	86.7	86.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS.	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.

SIGNED: 10/29/2014

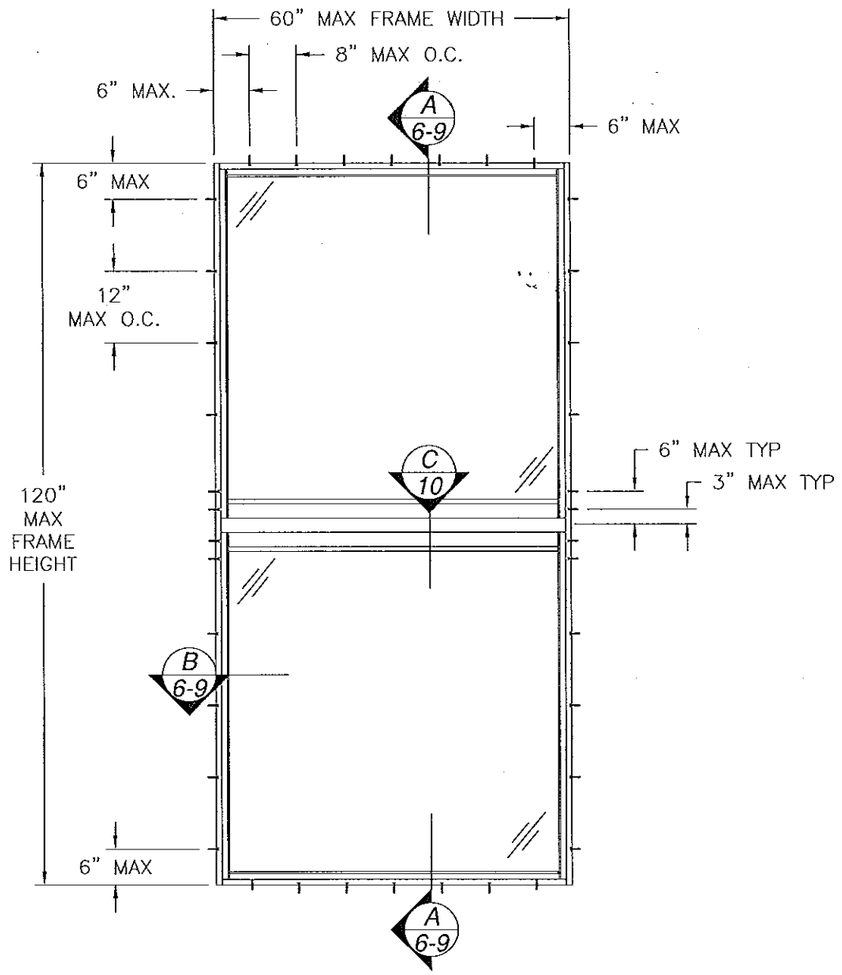
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 14-0916.13
Expiration Date Nov 29,2017
By Manuel Perez
Miami Dade Product Control

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

9020 PICTURE WINDOW
SMALL MISSILE IMPACT
ELEVATIONS AND CHARTS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 3 OF 11

LUIS R. LOMAS LICENSE No. 62514 STATE OF FLORIDA PROFESSIONAL ENGINEER



9020 PICTURE WINDOW

EXTERIOR VIEW

REFER TO CHART #3 THIS PAGE FOR OTHER UNITS RATINGS

DESIGN PRESSURE RATING	IMPACT RATING
±100.0PSF	SMALL MISSILE IMPACT

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

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.

CHART #3

Design pressure rating (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
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	125.0	100.0	125.0
66.0	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
72.0	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	119.0
78.0	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	114.0
84.0	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	109.9
90.0	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	106.7
96.0	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	104.2
102.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.8	100.0	102.3
108.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.5	100.0	101.0
114.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.5	100.0	100.3
120.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.5	100.0	100.0

SIGNED: 10/29/2014

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 27, 2017
By Manuel Perez
Miami Dade Product Control

WinDoor INCORPORATED
7500 AMSTERDAM DRIVE
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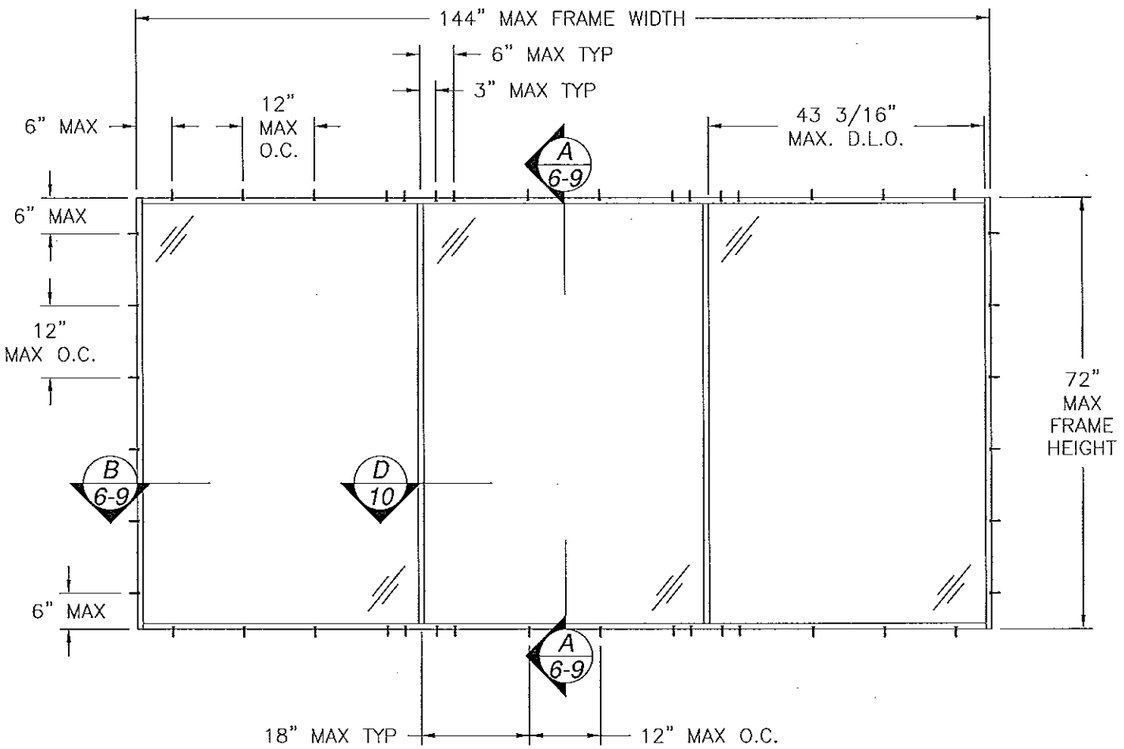
www.windoorinc.com

9020 PICTURE WINDOW
SMALL MISSILE IMPACT
ELEVATIONS AND CHARTS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 4 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.



9020 TRIPLE PICTURE WINDOW

EXTERIOR VIEW

REFER TO CHART #4 THIS PAGE FOR OTHER UNITS RATINGS.

DESIGN PRESSURE RATING	IMPACT RATING
+70.0/-75.0PSF	SMALL MISSILE IMPACT

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

CHART #4

Design pressure rating chart (psf)

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	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0
30.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0
36.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0
42.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0
48.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0
54.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	124.7	70.0	120.0
60.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	114.3	70.0	105.5	70.0	100.0
66.0	70.0	125.0	70.0	125.0	70.0	125.0	70.0	112.9	70.0	100.0	70.0	91.4	70.0	85.7
72.0	70.0	125.0	70.0	125.0	70.0	120.0	70.0	101.1	70.0	88.9	70.0	80.7	70.0	75.0

SIGNED: 10/29/2014

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 29, 2017
By Manuel Perez
Miami-Dade Product Control

WinDoor INCORPORATED
7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
Phone: 407.481.8400
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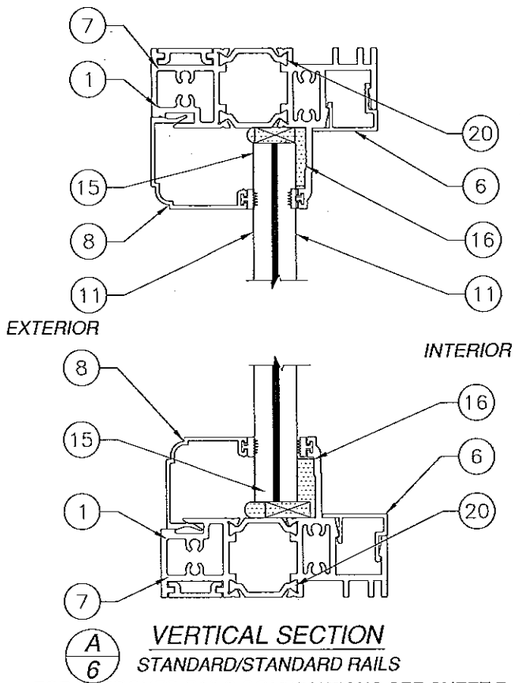
9020 PICTURE WINDOW
SMALL MISSILE IMPACT
ELEVATIONS AND CHARTS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 5 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PARTS LIST

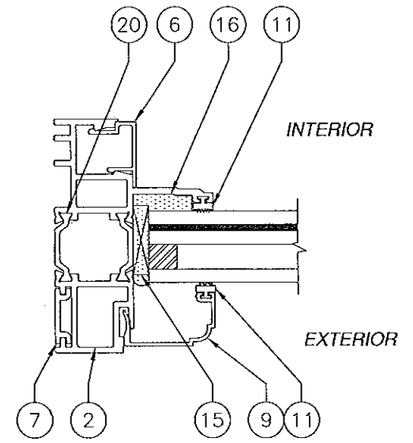
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	S-9020A1-WDI	FRAME HEAD AND SILL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
2	S-9020A2-WDI	FRAME JAMB ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
3	S-9020A3-WDI	MULL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
4	FH-06559	MULL INTERIOR REINFORCEMENT	KEYMARK	ALUMINUM 6005-T6
5	FS-06558	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	TEAM PLASTICS	80 DUROMETER
12	131014	#8x1" SCREW		STAINLESS STEEL
13		#8x1 3/4" SCREW		STAINLESS STEEL
14		#12x1" SCREW		STAINLESS STEEL
15	121000-12100E1	RUBBER SETTING BLOCK		85 DUROMETER
16	SIKA 552	URETHANE SEALANT	SIKA	
17	S-9020A8-WDI	CA RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
18	S-9020A5-WDI	MEDIUM RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
19	S-9020A6-WDI	TALL RAIL ASSEMBLY	KEYMARK	ALUMINUM 6063-T6
20	2206	INSULBAR	ENSINGER	TECATHERM 66GF



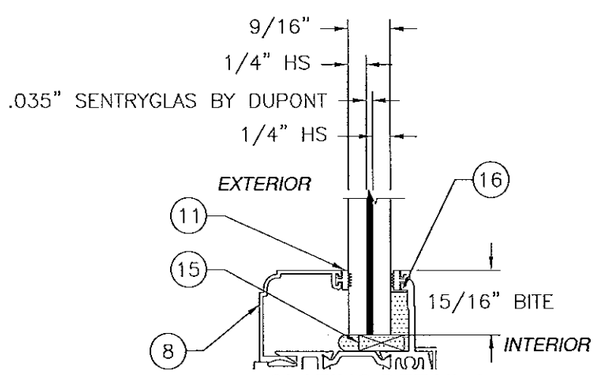
A/6 VERTICAL SECTION
STANDARD/STANDARD RAILS
FOR APPROVED RAILS COMBINATIONS SEE SHEET 7

REVISIONS

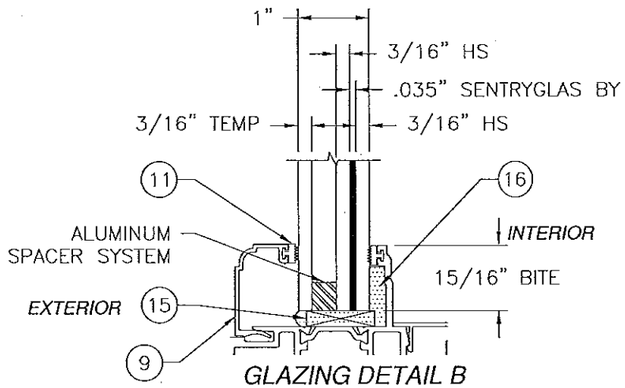
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.



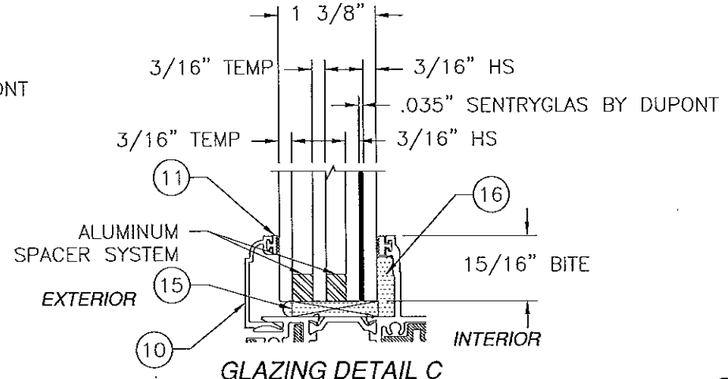
B/6 HORIZONTAL SECTION



GLAZING DETAIL A



GLAZING DETAIL B



GLAZING DETAIL C

SIGNED: 10/29/2014

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 24, 2017
By Manuel Perez
Miami-Dade Product Control

WinDoor INCORPORATED
7500 AMSTERDAM DRIVE
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www.windoorinc.com

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

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 6 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
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C	REVISED PER MD COMMENTS	03/13/14	R.L.
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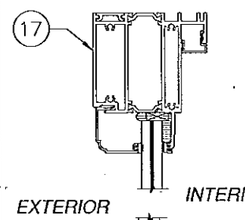
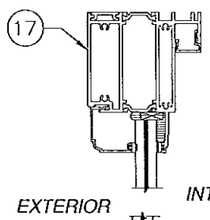
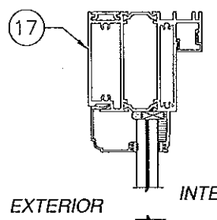


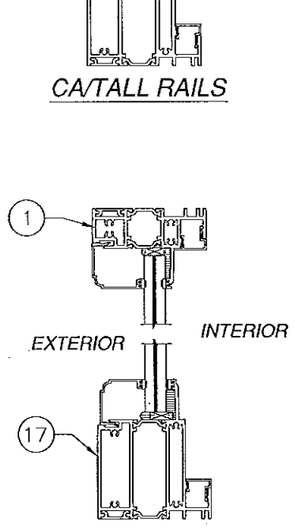
CA/TALL RAILS



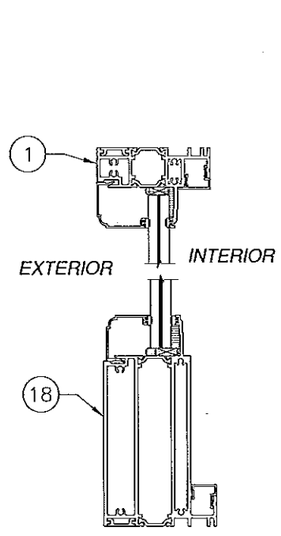
CA/MEDIUM RAILS



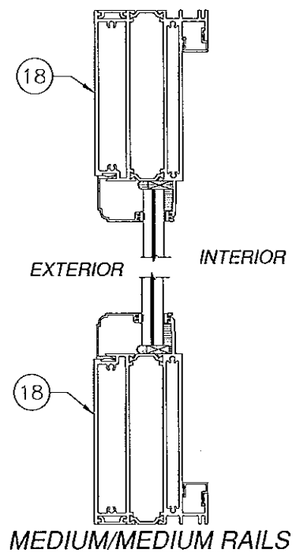
CA/CA RAILS



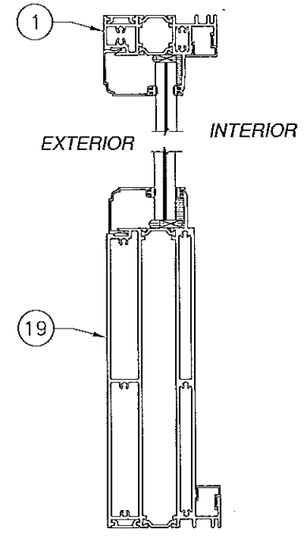
STANDARD/CA RAILS



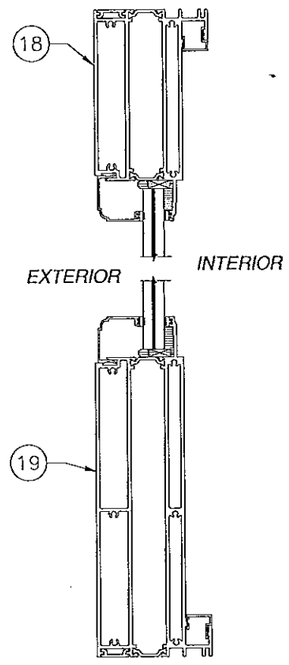
STANDARD/MEDIUM RAILS



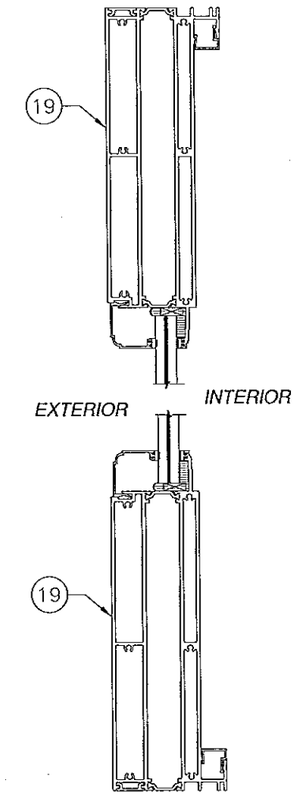
MEDIUM/MEDIUM RAILS



STANDARD/TALL RAILS



MEDIUM/TALL RAILS



TALL/TALL RAILS

SIGNED: 10/29/2014

APPROVED RAIL COMBINATIONS

FOR OTHER ITEMS SEE VERTICAL CROSS SECTION SHEET 6

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 29, 2017
By Manuel Perez
Miami Dade Product Control

WinDoor INCORPORATED
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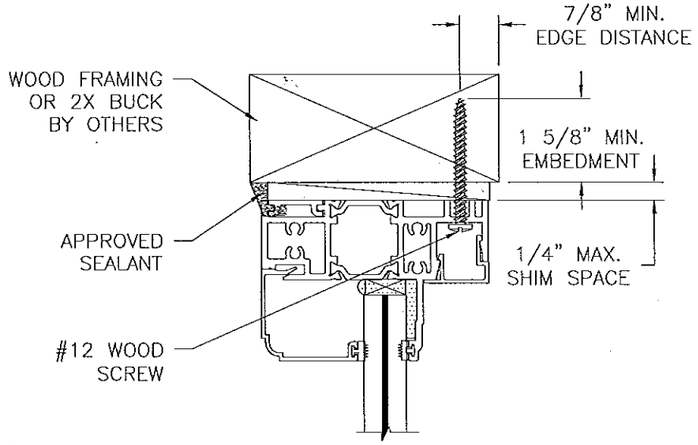
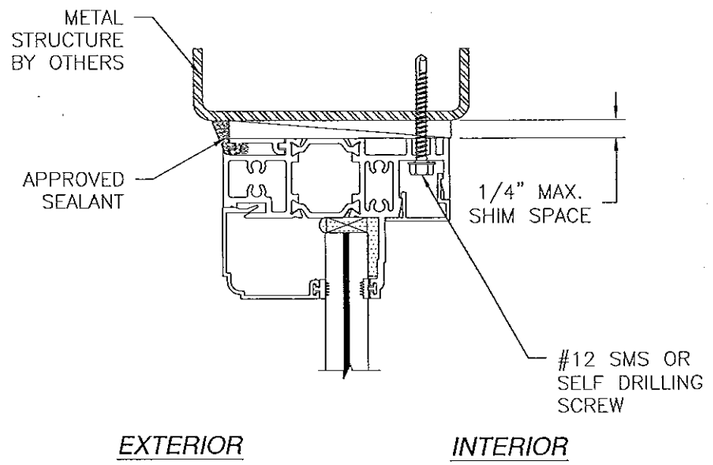
9020 PICTURE WINDOW
SMALL MISSILE IMPACT
APPROVED RAIL COMBINATIONS

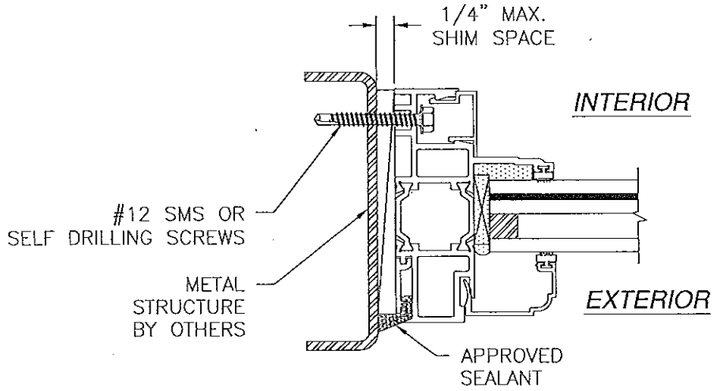
DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 7 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF FLORIDA
PROFESSIONAL ENGINEER

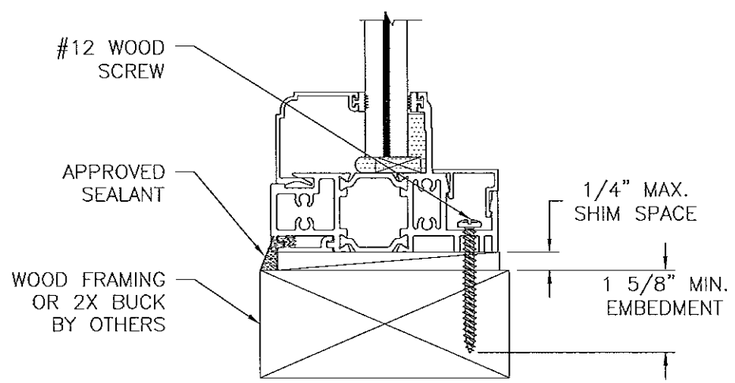
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
B	REVISED PER NEW TESTING	10/01/13	R.L.
C	REVISED PER MD COMMENTS	03/13/14	R.L.
D	ADDED GEOMETRIC SHAPES	09/05/14	R.L.



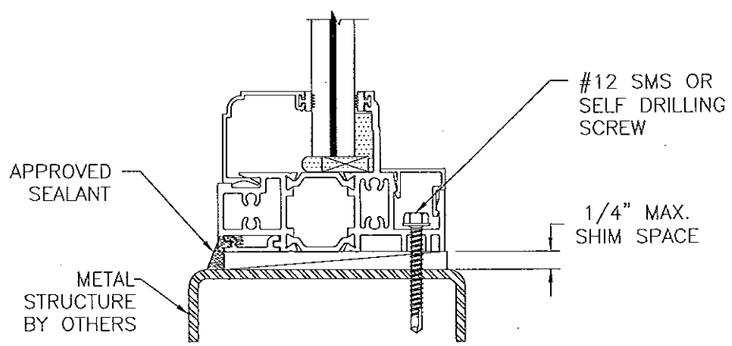




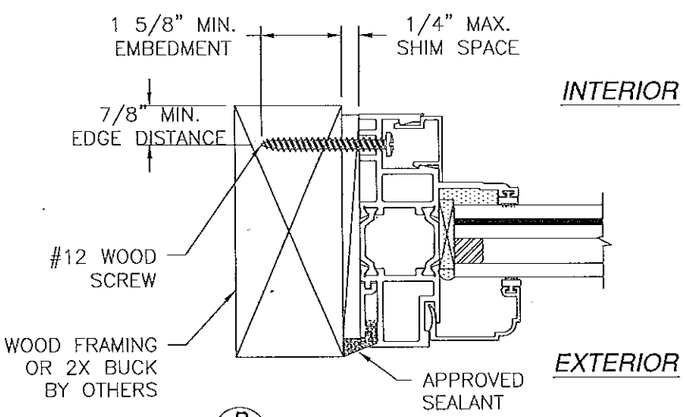
B/8 JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION



A/8 VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION



A/8 VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



B/8 JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

SIGNED: 10/29/2014

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

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 14-0916.13
Expiration Date Nov. 29, 2017
By Manuel Perez
Miami-Dade Product Control

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

9020 PICTURE WINDOW
SMALL MISSILE IMPACT
INSTALLATIONS DETAILS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 8 OF 11

LUIS R. LOMAS
LICENSE
No. 62514
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
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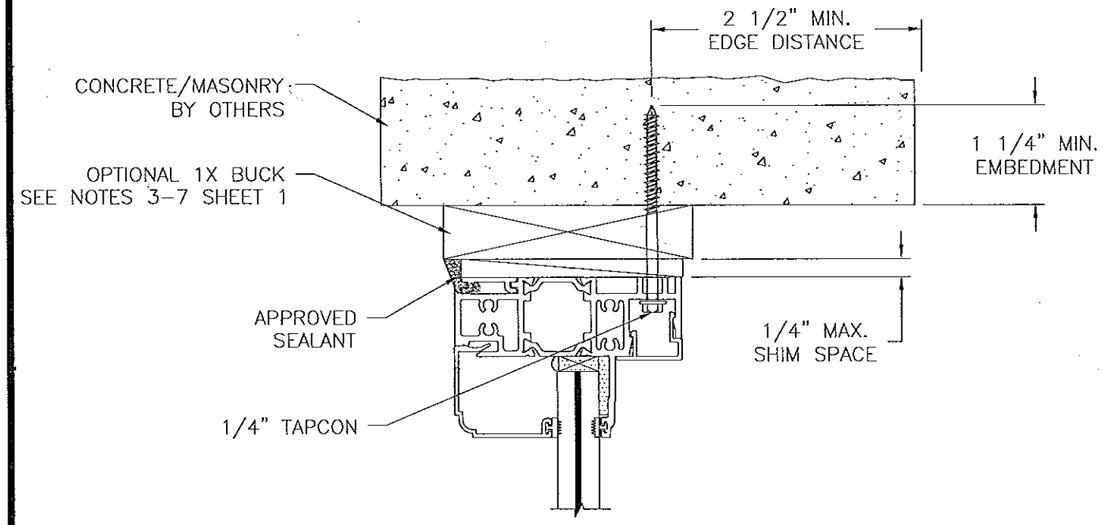
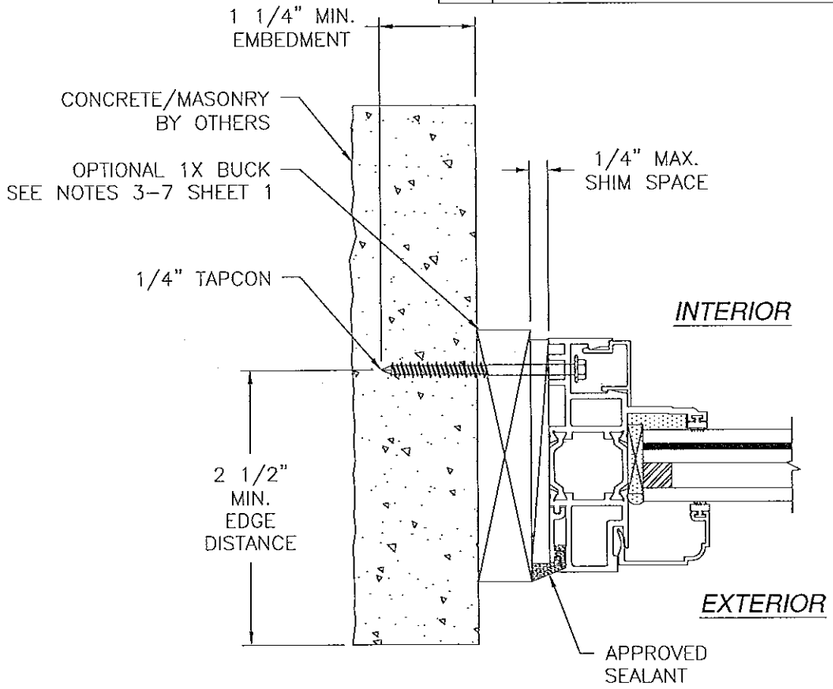
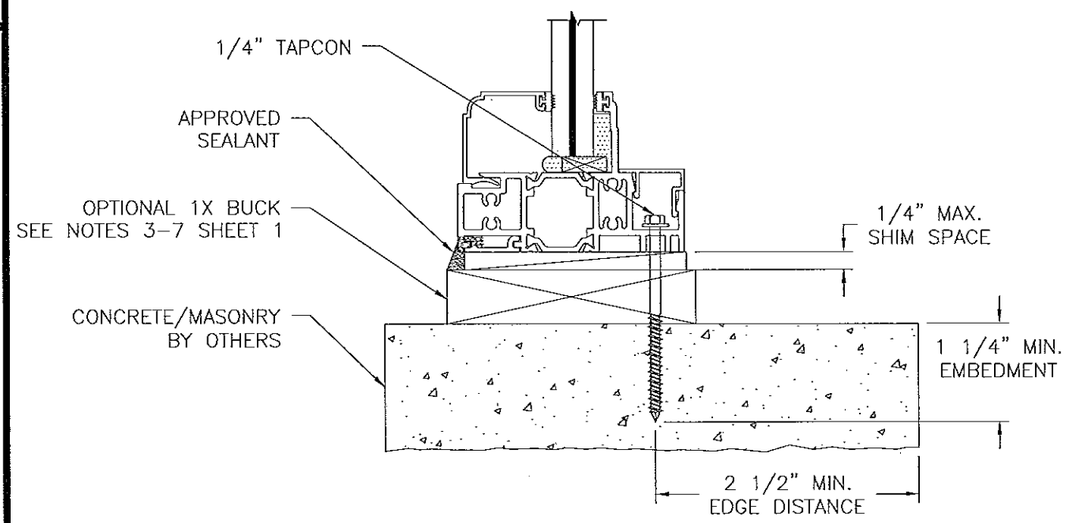




B/9 JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION



A/9 VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION

NOTE:
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SIGNED: 10/29/2014

PRODUCT REVISED
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9020 PICTURE WINDOW
SMALL MISSILE IMPACT
INSTALLATIONS DETAILS

DRAWN:	DWG NO.	REV
A.P.	08-01635	D
SCALE NTS	DATE 06/20/2012	SHEET 9 OF 11

LUIS R. LOMAS
LICENSE
No. 62511
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CALL OUTS	10/24/12	R.L.
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C	REVISED PER MD COMMENTS	03/13/14	R.L.
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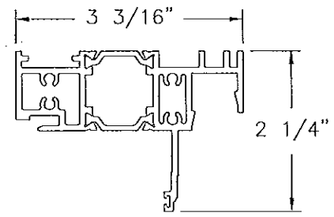
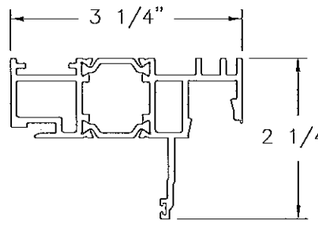
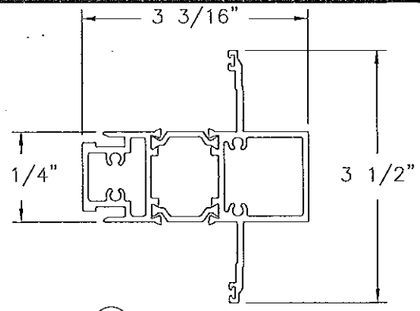


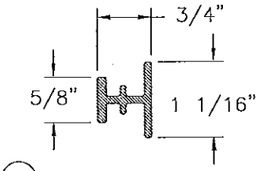
(1) FRAME
ALUMINUM 6063-T6 .080" THICK



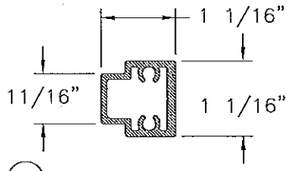
(2) FRAME
ALUMINUM 6063-T6 .080" THICK



(3) MULL ASSEMBLY
ALUMINUM 6063-T6 .080" THICK



(4) REINFORCEMENT
ALUMINUM 6063-T6 .100" THICK



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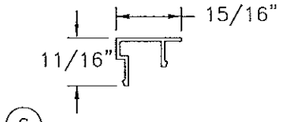
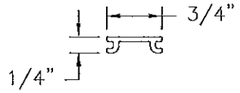
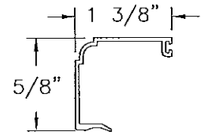
ALUMINUM 6063-T6 .080" THICK



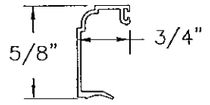
(6) SCREW COVER
ALUMINUM 6063-T6 .050" THICK



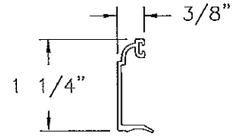
(7) FLUSH ADAPTOR
ALUMINUM 6063-T6 .065" THICK



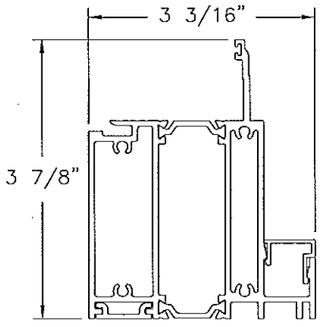
(8) 9/16" GLASS STOP
.063" THICK



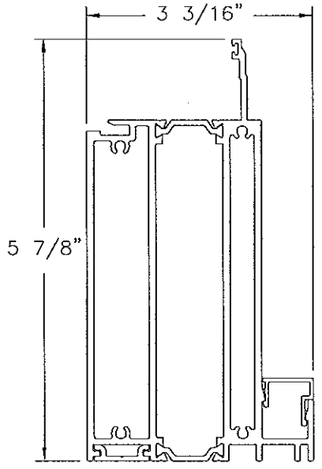
(9) 1" GLASS STOP
.063" THICK



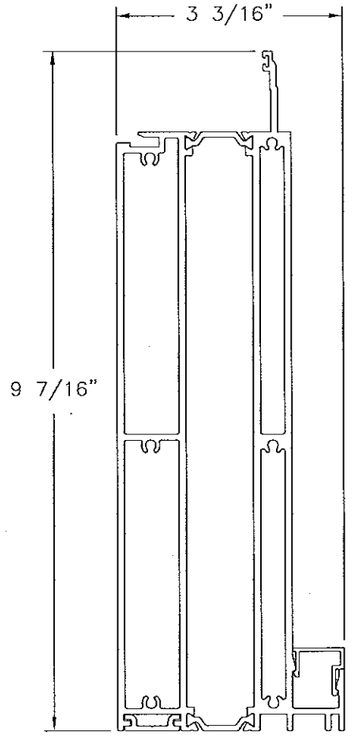
(10) 1 3/8" GLASS STOP
.063" THICK



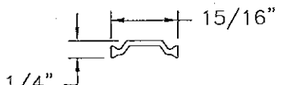
(17) CA RAIL
ALUMINUM 6063-T6 .100" THICK



(18) MIDDLE RAIL
ALUMINUM 6063-T6 .100" THICK



(19) TALL RAIL
ALUMINUM 6063-T6 .100" THICK



(20) INSULBAR
TECATHERM 66GF .075" THICK

SIGNED: 10/29/2014

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9020 PICTURE WINDOW
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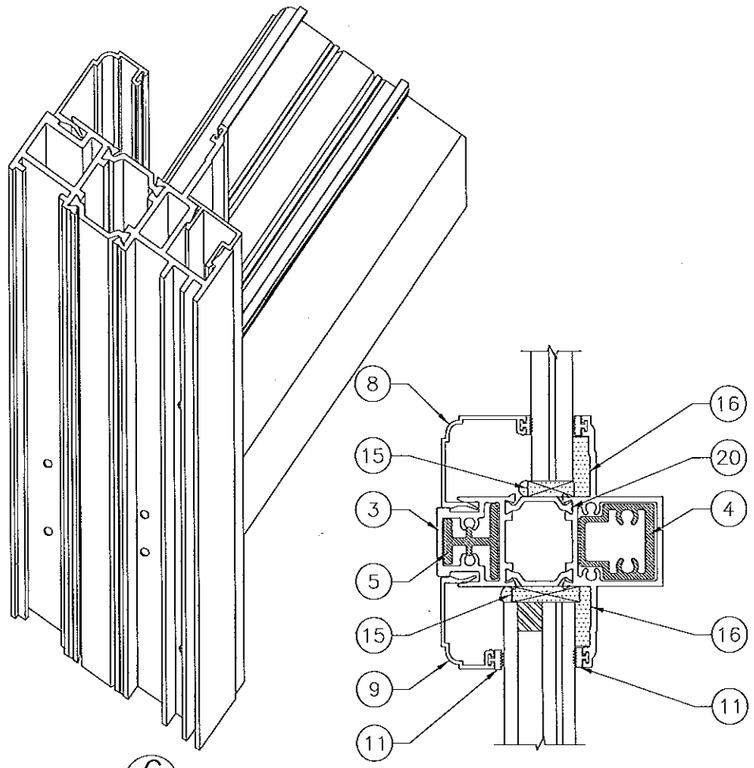
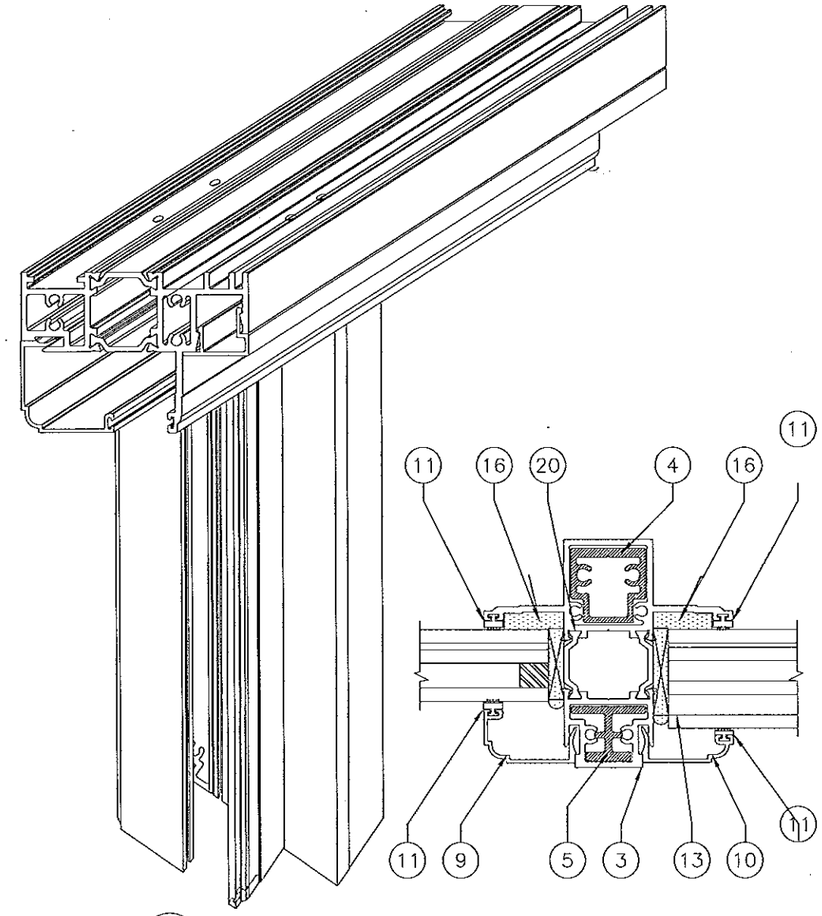
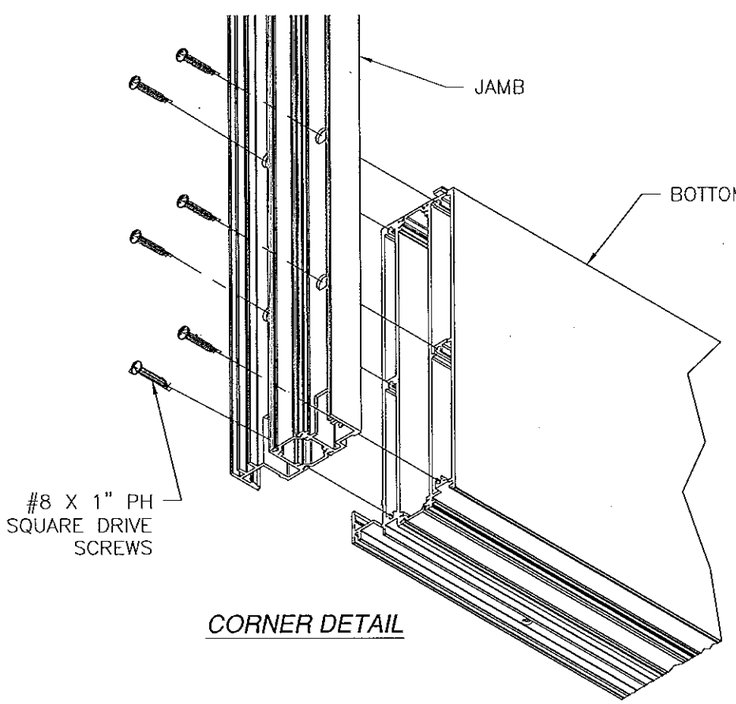


C/11 HORIZONTAL INTEGRAL MULLION



D/11 VERTICAL INTEGRAL MULLION



CORNER DETAIL

SIGNED: 10/29/2014

PRODUCT REVISED
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Acceptance No. 14-0916.13
Expiration Date Nov. 24, 2017
By Manuel Perez
Miami-Dade Product Control

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9020 PICTURE WINDOW
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