



BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/buildingcode

Marvin Windows & Doors
Highway 11
Warroad, MN 56763-0100

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 "Casemaster HP" Aluminum Clad Wood Fixed Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1098 titled "Aluminum Clad Casemaster Stationary Impact HP Shaped Window", sheets 1 through 4 of 4, dated April 10, 2002, latest revision dated July 20, 2007, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed & sealed by Warren W. Schaefer, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large & Small Missile Impact

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

REVISION 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 **renews NOA # 02-0607.04** and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P.E.**



J. Gascon
8/10/07

NOA No. 07-0524.08
Expiration Date: September 26, 2008
Approval Date: August 30, 2007

Marvin Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **1098** titled "Aluminum Clad Casemaster Stationary Impact HP Shaped Window", sheets 1 through 4 of 4, dated April 10, 2002, latest revision dated July 20, 2007, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed & sealed by Warren W. Schaefer, P.E.

B. TESTS

1. Test reports on
 - 1) Air Infiltration Test, per SFBC, PA 202-94
 - 2) Uniform Static Air Pressure Test, Loading per SFBC PA 202-94
 - 3) Water Resistance Test, per SFBC, PA 202-94
 - 4) Large Missile Impact Test per SFBC, PA 201-94
 - 5) Cyclic Wind Pressure Loading per SFBC, PA 203-94
 - 6) Forced Entry Test, per SFBC 3603.2 (b) and PA 202-94along with marked-up drawings and installation diagram of alum. clad wood fixed windows in round top single configurations, prepared by Architectural Testing, Inc., Test Report No. **ATI 02-33633.01**, dated 11/15/01, signed and sealed by Allen N. Reeves, P.E.
"Submitted under NOA# 02-0607.04"

C. CALCULATIONS

1. Anchor Calculations and structural analysis, dated June 20, 2007, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed & sealed by Warren W. Schaefer, P.E.
Complies with ASTM E1300-98/ 02

D. QUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).

E. MATERIAL CERTIFICATIONS

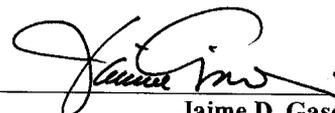
1. Notice of Acceptance No. **03-0417.01** issued to Cardinal LG for their "Laminated Glass Cardinal Sea-Storm Type B" dated May 15, 2003, expiring on December 30, 2007.

F. STATEMENTS

1. Statement letter of conformance, dated June 20, 2007, signed and sealed by Warren W. Schaefer, P.E.

G. OTHER

1. Notice of Acceptance No. **02-0607.04**, issued to Marvin Windows & Doors, approved on September 26, 2002 and expiring on September 26, 2007.



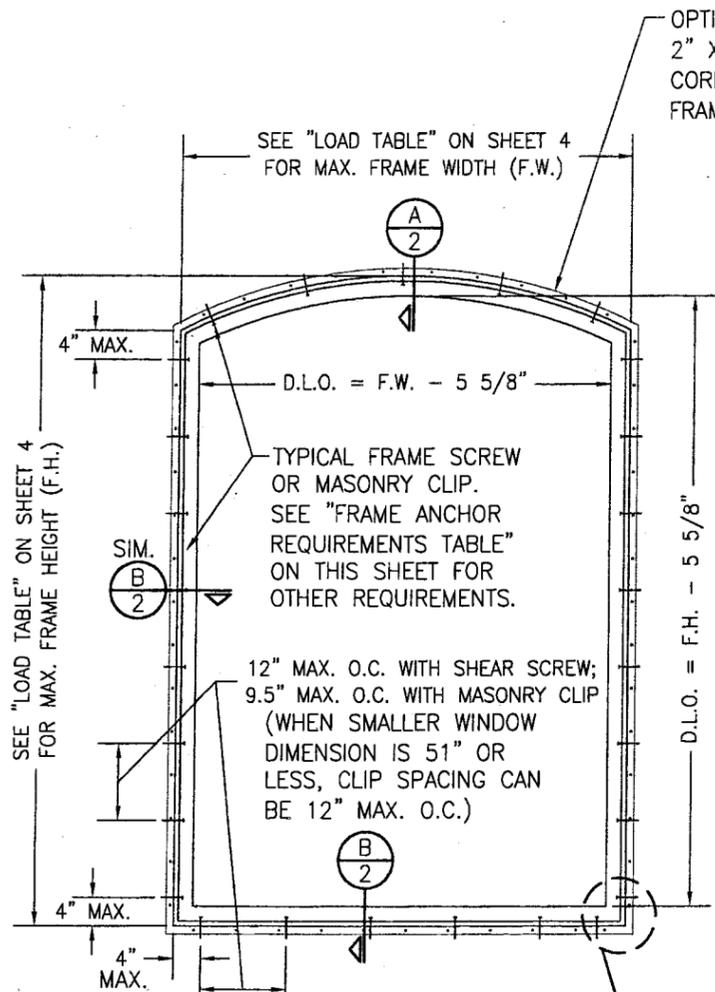
Jaime D. Gascón, P.E.

Chief, Product Control Division

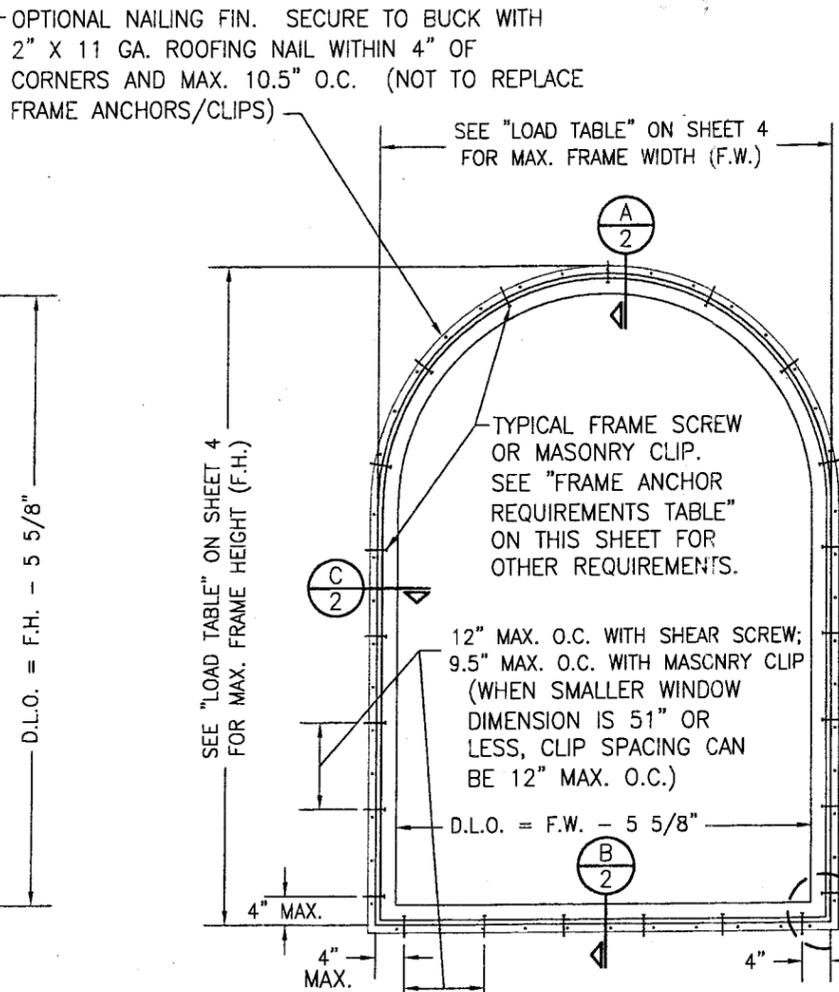
NOA No. 07-0524.08

Expiration Date: September 26, 2008

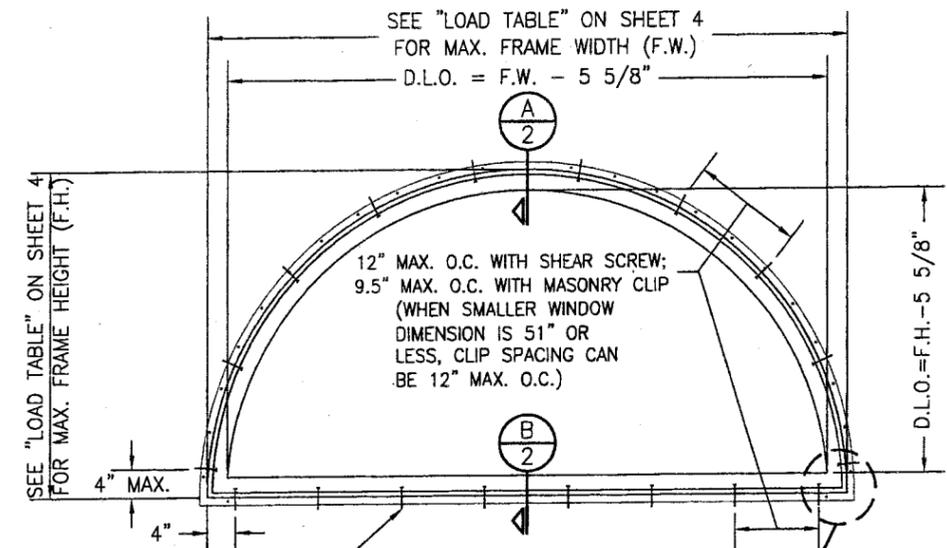
Approval Date: August 30, 2007



**EXTERIOR ELEVATION
EYE BROW TOP WINDOW**
SCALE: 1/2"=1'-0"



**EXTERIOR ELEVATION
HALF ROUND TOP WINDOW**
SCALE: 1/2"=1'-0"



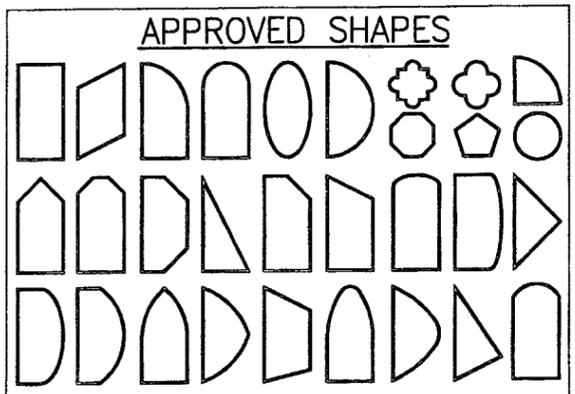
**EXTERIOR ELEVATION
HALF ROUND WINDOW**
SCALE: 1/2"=1'-0"

FOR ALLOWABLE DESIGN WIND PRESSURE, SEE LOAD TABLE ON SHEET 4.

FRAME ANCHOR REQUIREMENTS TABLE			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 10 SMS SCREW	1 3/8"	3/4"
CMU/CONCRETE	3/16" CONCR. SCREW	1 1/4"	2"

CONCRETE SCREWS SHALL BE ITW RAMSET/RED HEAD TAPCONS, HILTI KWIK-CON II OR POWERS RAWL TAPPER (HARDENED STEEL OR S.S.).

*** FRAME ANCHOR NOTE:** FRAME MAY BE EITHER DIRECT MOUNTED TO THE OPENING, MOUNTED ONTO A CONTINUOUS SPACER, OR ANCHORED TO A MIN. 2X4 NO. 3 SOUTHERN PINE WOOD BUCK. WHEN ANCHORED TO A 2X4 BUCK, NO. 10 SCREWS SHALL BE USED. WHEN DIRECT MOUNTED OR MOUNTED WITH SPACER, 3/16" CONCRETE SCREWS SHALL BE USED. SEE "FRAME ANCHOR REQUIREMENTS TABLE" FOR EMBED REQUIREMENTS. PROPER MATERIAL SHALL BE USED BETWEEN ALL DISIMILAR MATERIALS (BLOCK/CONCRETE & ALUMINUM).



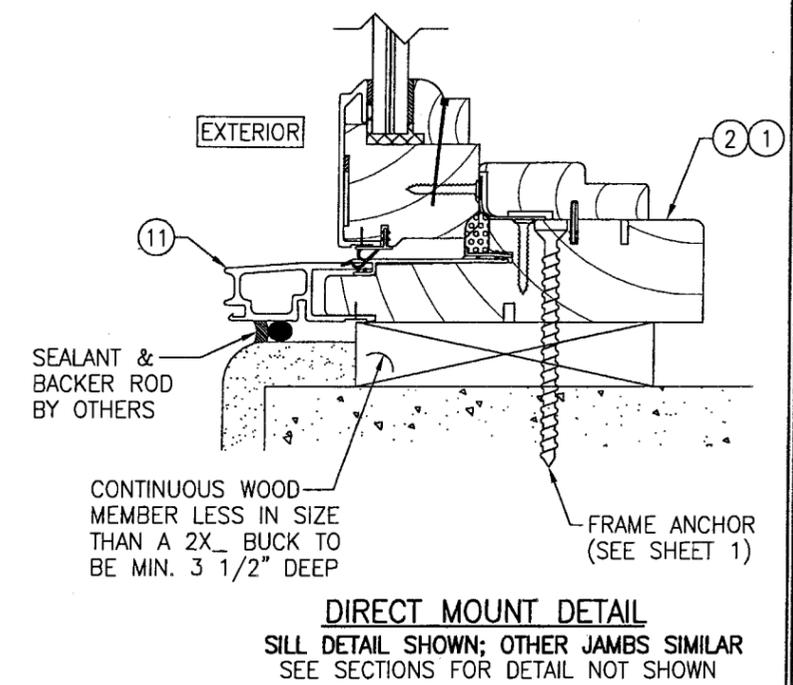
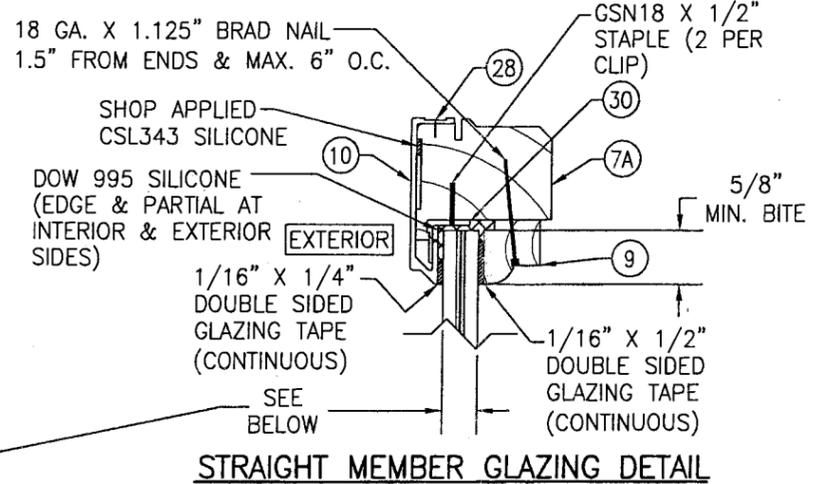
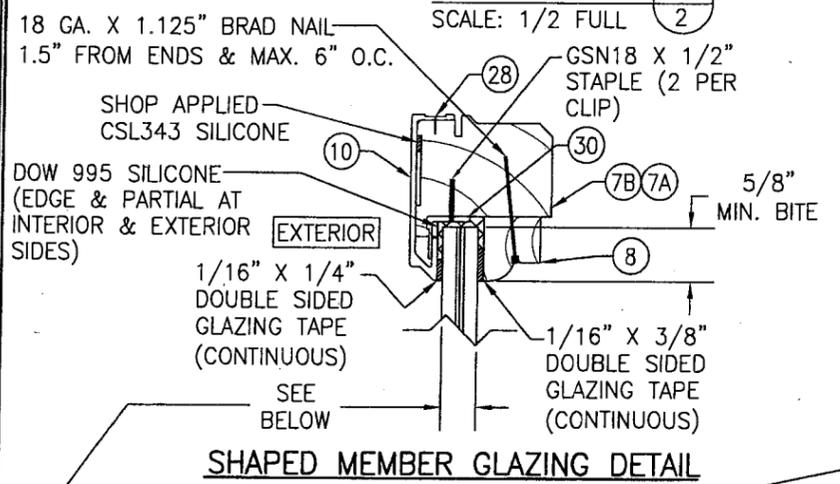
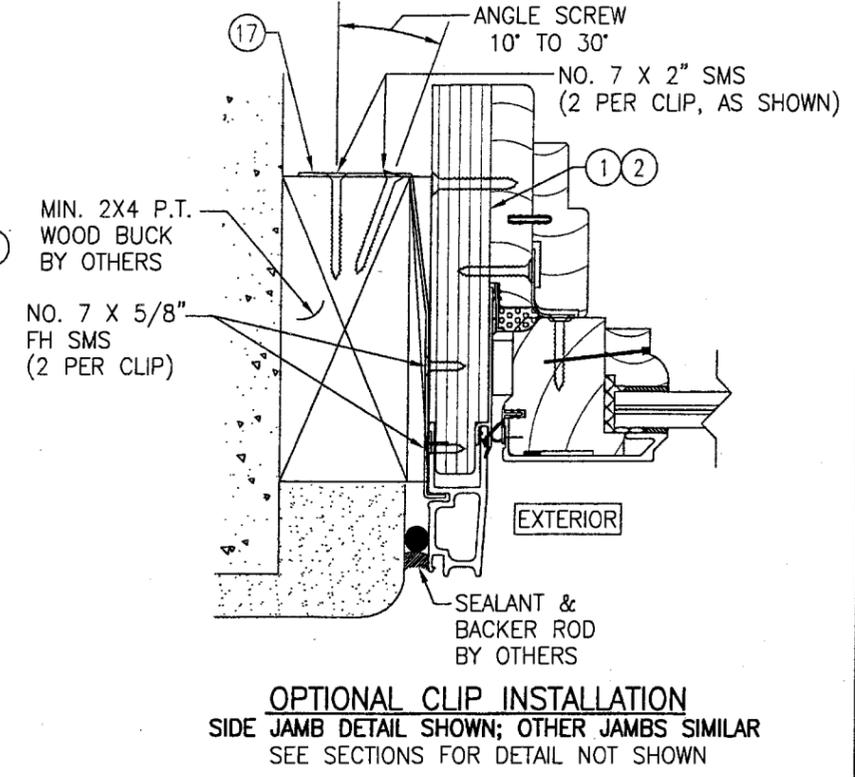
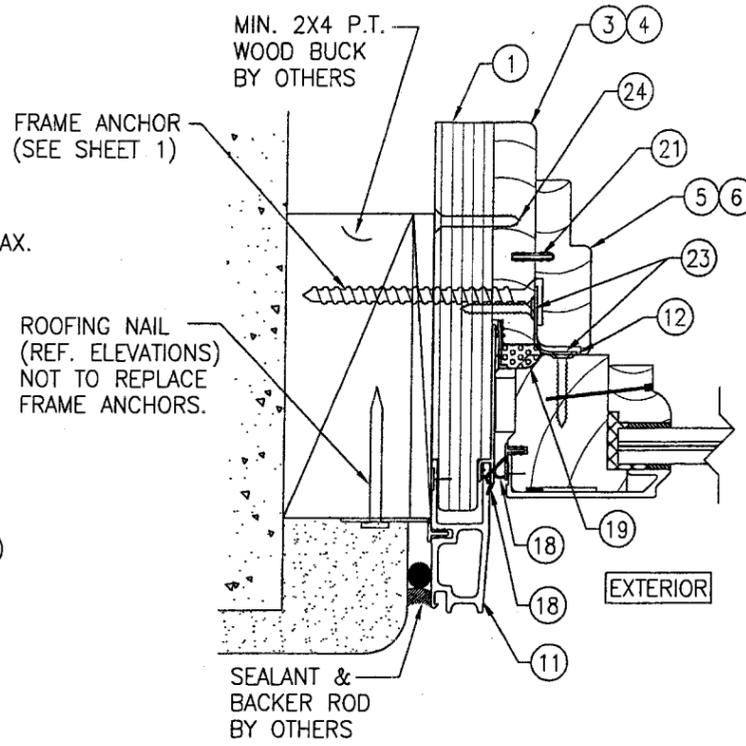
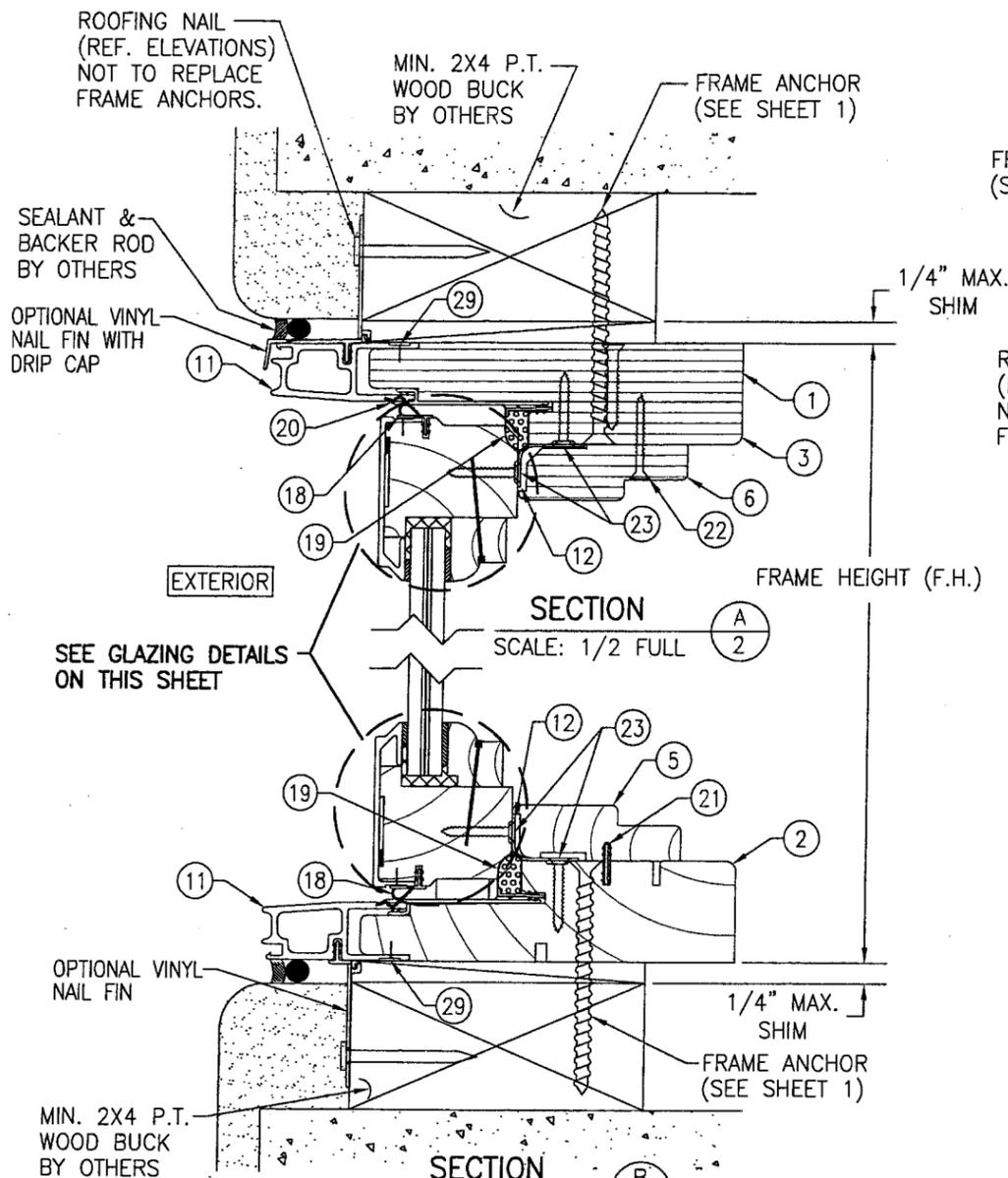
NOTES:
1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION PER CORNER DETAILS.
2. ALL UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE LOAD TABLE DIMENSIONS (SEE SHEET 4) & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE UNIT SIZE IN THE LOAD TABLE.

GENERAL NOTES

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN LOADS" TABLE(S).
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE 2004 FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SHALL BE INSTALLED AS SPECIFIED ON THESE DRAWINGS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
8. ALL FRAME ANCHORS SECURING WINDOW/DOOR FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
9. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2004 FLORIDA BUILDING CODE SECTION 2003.8.4.

PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No. 07-0524-08
Expiration Date 09/26/2008
By *[Signature]*
Miami Dade Product Control Division

DRAWN BY: J.C.F.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 04/10/02	
DATE	BY	REVISION DESCRIPTION	NO.
06/20/07	W.W.S.	UPDATED LOAD TABLE TO ASTM E1900-02 & DRAWING TO 2004 FBC	A1
DRAWING TITLE ALUMINUM CLAD CASEMASTER STATIONARY IMPACT HP SHAPED WINDOW			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.		MANUFACTURER MARVIN WINDOWS & DOORS	
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903		HIGHWAY 11 WEST WARROAD, MN 56763-0100 218-386-1430	
CERTIFICATION JUN 20 2007		DRAWING NO. 1098 REV. A SHEET NO. 1 OF 4	

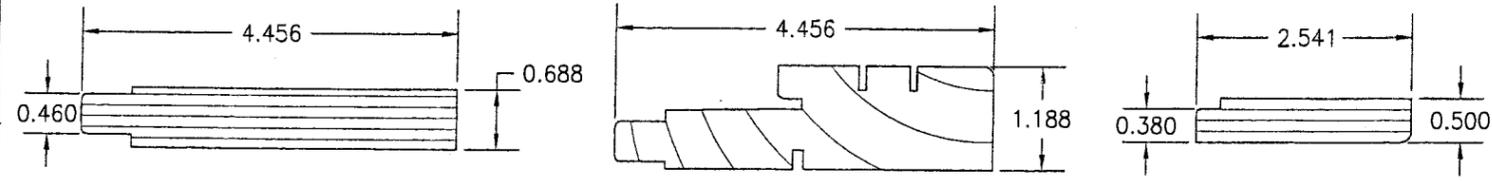


SHAPED MEMBER GLAZING DETAIL
 CARDINAL SEASTORM TYPE "B" LAMINATED GLASS
 OPTION 1) 9/16" THICK OVERALL (1/4" AN/0.045 PVB/0.007 PET/0.045 PVB/1/4" AN)
 OR 9/16" THICK OVERALL (1/4" AN/0.015 PVB/0.007 PET/0.075 PVB/1/4" AN)

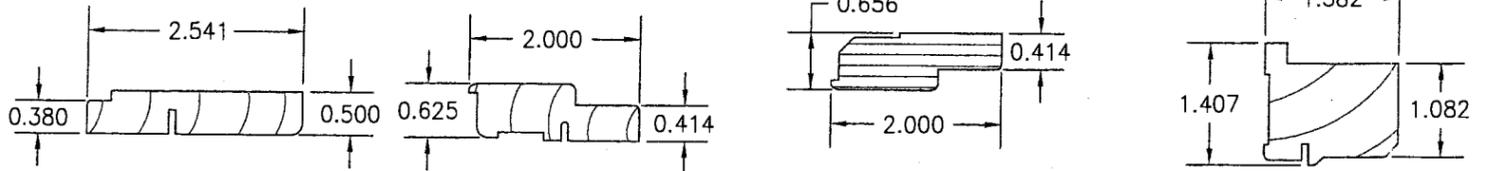
STRAIGHT MEMBER GLAZING DETAIL

DIRECT MOUNT DETAIL
 SILL DETAIL SHOWN; OTHER JAMBS SIMILAR
 SEE SECTIONS FOR DETAIL NOT SHOWN

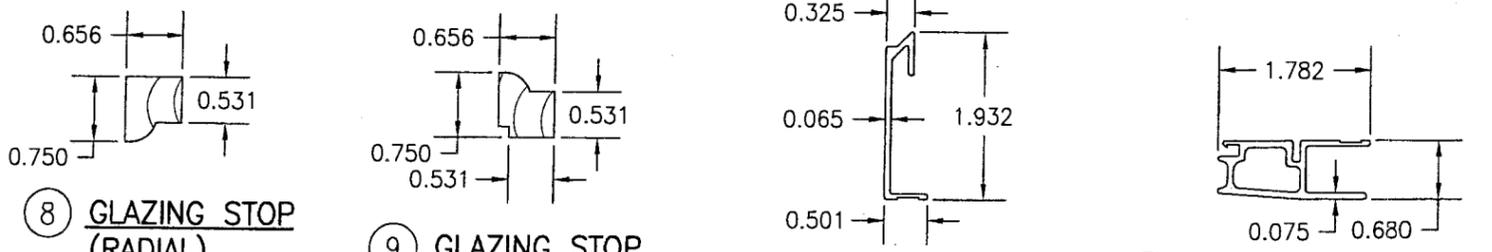
DRAWN BY: J.C.F.	CHECKED BY: W.W.S.
PLOT: 1=1	DATE: 04/10/02
NO.	REVISION DESCRIPTION
DRAWING TITLE ALUMINUM CLAD CASEMASTER STATIONARY IMPACT HP SHAPED WINDOW	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11 WEST WARROAD, MN 56763-0100 218-386-1430
CERTIFICATION JUN 20 2007	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
PRODUCT RENEWED as complying with the Florida Building Code Acceptance No. 07-0524-08 Expiration Date 09/26/2008	DRAWING NO. 1098 REV. A
By <i>Warren W. Schaefer</i> Miami Dade Product Control Division	SHEET NO. 2 OF 4



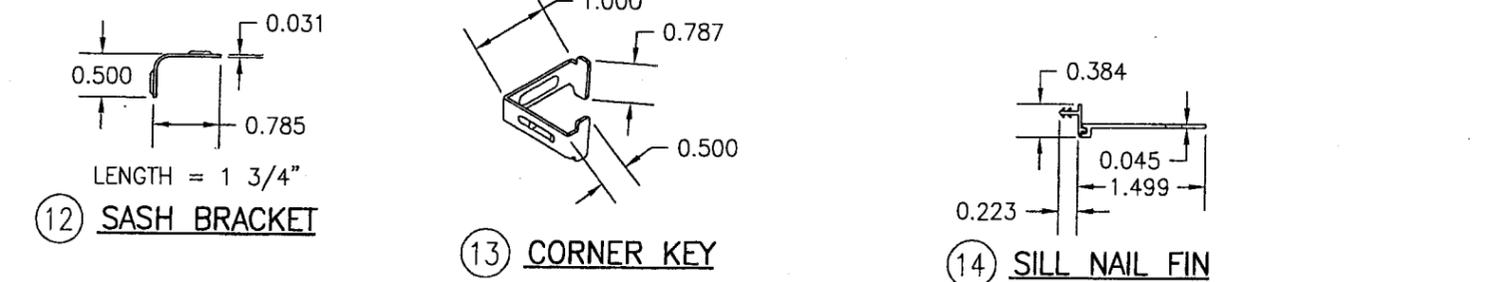
① HEAD & SIDE JAMB ② SILL JAMB ③ RADIAL JAMB FILLER



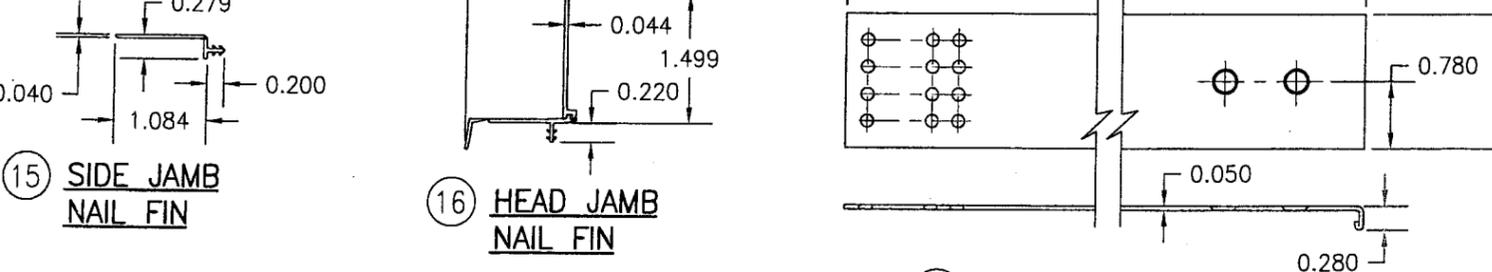
④ JAMB FILLER ⑤ SASH STOP ⑥ RADIAL JAMB STOP ⑦A ⑦B SASH STILE & RAIL



⑧ GLAZING STOP (RADIAL) ⑨ GLAZING STOP ⑩ SASH CLADDING ⑪ JAMB CLADDING



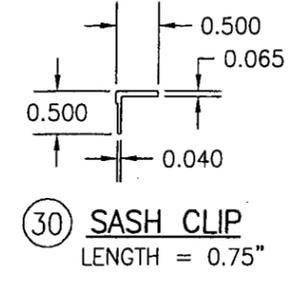
⑫ SASH BRACKET ⑬ CORNER KEY ⑭ SILL NAIL FIN



⑮ SIDE JAMB NAIL FIN ⑯ HEAD JAMB NAIL FIN ⑰ MASONRY BRACKET

ITEM #	PART	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS			
1	00012609	RADIAL HEAD & SIDE JAMB	LVL
2	00011674	LINEAL SILL & SIDE JAMB	LVL
3	00012358	RADIAL JAMB FILLER	* WOOD
4	00012800	LINEAL JAMB FILLER	* WOOD
5	00022598	LINEAL SASH STOP	* WOOD
6	00007826	RADIAL SASH STOP	LVL
7A	00013019	LINEAR SASH STILE & RAIL (@ TIGHT RADIAL ALSO)	LVL
7B	00013019	RADIAL SASH STILE & RAIL	* FINGER JOINTED WOOD
8	00016999	RADIAL GLAZING STOP	* WOOD
9	00013035	LINEAL GLAZING STOP	* WOOD
10	00012971	SASH CLADDING	6063-T1 ALUMINUM
11	00012924	JAMB CLADDING	6063-T1 ALUMINUM
12	00003799	STATIONARY SASH BRACKET	.031" GALV. STEEL 3" FROM ENDS & 16" O.C.
13	00010038	JAMB CLAD CORNER KEY	6063-T1 ALUMINUM
14	V084	SILL NAILING FIN (OPTIONAL)	VINYL
15	V104	JAMB NAILING FIN (OPTIONAL)	VINYL
16	V110	DRIP CAP NAILING FIN (OPTIONAL)	VINYL
17	00003726	MASONRY BRACKET	GALV. STEEL (Fy=50 ksi MIN.)
SEALS & SEALANTS			
18	00013385	SASH WEATHER STRIP	INTEK
19	00012769	FRAME WEATHER STRIP	AMESBURY
20	00012795	THERMAL BREAK	AMESBURY
MISCELLANEOUS FASTENERS			
21	00005685	VINYL CONNECTING BARB	PLASTIC PROFILES INC.
22	00001107	NO. 6 X 1" TRIM HEAD SCREW	3" FROM CORNER & 12" MAX. O.C.
23	00003205	NO. 7 X 7/8" SMS	2 PER CLIP LEG
24	00003222	NO. 8 X 1" SMS	2" FROM CORNERS & MAX. 6" O.C.
25	00003208	NO. 7 X 2" SMS	4 PER BOT. CORNER/3 PER TOP
26	00003277	NO. 7 X 1/2" TEK 2 SCREW	4 PER FRAME CLAD CORNER
27	00014745	NO. 7 X 2" TRIM HEAD SCREW	2 PER SASH JOINT
28	11708545	GSN 18 X 1/2" S.S. STAPLE	1.5" FROM CORNERS & MAX. 6" O.C.
29	11820052	GSN 18 X 1/2" STAPLE	3" FROM CORNERS & MAX. 6" O.C.
30	00013710	METAL SASH CLIP	3" FROM CORNERS & MAX. 24" O.C.

* WOOD USED WITH TEST UNITS WAS PONDEROSA PINE. ALTERNATE WOOD SPECIES TO BE APPLICABLE WITH THESE WINDOWS IS MIN. GRADE 2 MAHOGANY, SOUTHERN PINE, OAK, CHERRY, MAPLE, DOUGLAS FIR & CYPRUS.



⑳ SASH CLIP
LENGTH = 0.75"

PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No 07-0524.08
Expiration Date 09/26/2008
By *[Signature]*
Miami Dade Product Control Division

DRAWING TITLE: ALUMINUM CLAD CASEMASTER STATIONARY IMPACT HP SHAPED WINDOW

MANUFACTURER: MARVIN WINDOWS & DOORS
HIGHWAY 11 WEST
WARROAD, MN 56763-0100
218-386-1430

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902 FAX: 561-775-4903

CERTIFICATION: JUN 20 2007

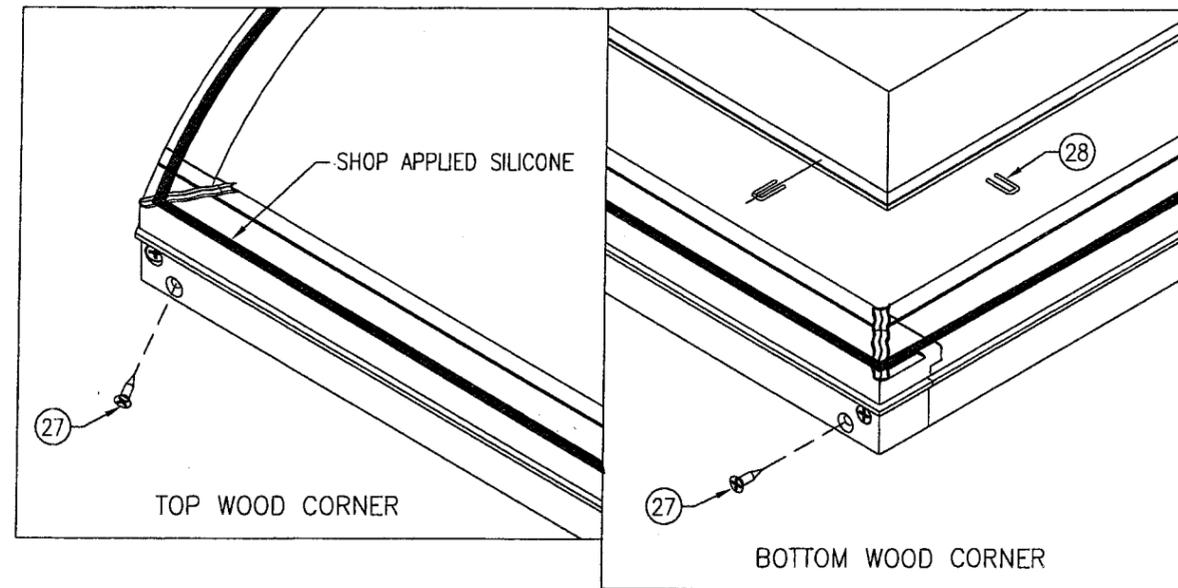
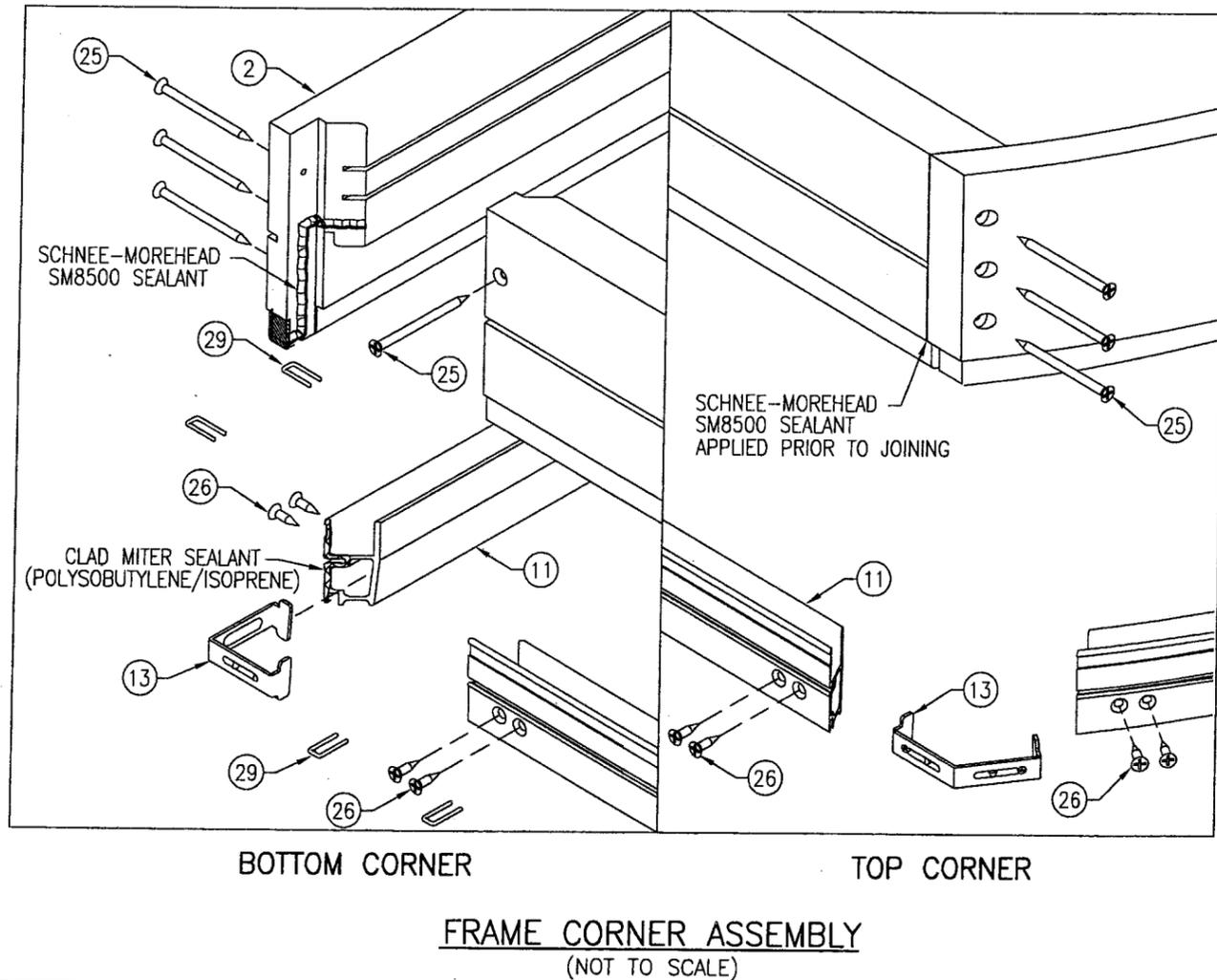
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1098
SHEET NO. 3 OF 4

ALLOWABLE WINDOW PRESSURE															
(1) SHORT DIMENSION	DESIGN LOAD CAPACITY (PSF) BOTH POSITIVE AND NEGATIVE														
36"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	65.0
42"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	65.0	65.0	65.0	
48"	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	65.0	65.0	65.0	65.0		
54"		66.7	66.7	66.7	66.7	66.7	66.7	65.0	65.0	65.0	65.0				
60"			65.0	65.0	65.0	65.0	64.1	59.4	55.9	52.4					
64"				65.0	65.0	65.0	65.0	65.0	65.0						
66"					63.0	63.0	63.0	63.0							
72"						57.8	57.8								
(1) LONG DIMENSION	48"	54"	60"	64"	66"	72"	78"	84"	90"	96"	102"	108"	120"	132"	144"

TABLE NOTES:

- (1) ALL WINDOW DIMENSION VALUES SHOWN ARE +/-1/2" & ARE FRAME (F.H. & F.W.) DIMENSIONS
- (2) THOSE SIZES WITH LOADS LISTED ARE MAXIMUM ALLOWABLE SIZES AT THAT LOAD. IF NO LOAD IS LISTED FOR A GIVEN SIZE, THAT SIZE EXCEEDS ALLOWABLE AND IS NOT ACCEPTABLE.



PRODUCT RENEWED
 as complying with the Florida
 Building Code
 Acceptance No. 07-0524.08
 Expiration Date 09/26/2008
 By: *[Signature]*
 Miami Dade Product Control
 Division

DRAWN BY: J.C.F.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 04/10/02	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: ALUMINUM CLAD CASEMASTER STATIONARY IMPACT HP SHAPED WINDOW			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903			
MANUFACTURER: MARVIN WINDOWS & DOORS HIGHWAY 11 WEST WARROAD, MN 56763-0100 218-386-1430			
CERTIFICATION: JUN 20 2007		WARRREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1098		REV. A	
SHEET NO. 4 OF 4			