



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

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Marvin Windows & Doors
Highway 11 West (P.O. Box 100)
Warroad, MN 56763-0100

Your application for Notice of Acceptance (NOA) of:

"Clad Direct Glazed" Aluminum Clad Wood Fixed Window - Impact HP

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez
Chief Product Control Division

ACCEPTANCE NO.: 00-0327.11
EXPIRES: 11/30/2002

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL
CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 10/26/2000

Marvin Windows and Doors.

ACCEPTANCE No.: 00-0327.11

APPROVED : OCT 26 2000

EXPIRES : November 30, 2002

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

- 1.1 This revises the Notice of Acceptance No. 99-0514.10 which was issued on November 30, 1999. It approves a wood fixed window as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, (SFBC), 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

- 2.1 The "Clad Direct Glazed" Aluminum Clad Wood Fixed Window - Impact Resistant and its components shall be constructed in strict compliance with the following document: Drawing No. 00012646, titled "Clad Direct-Glaze Impact HP", Sheets 1 thru 9 of 9, dated March 31, 1999, with revision B1 dated 03/03/2000, prepared by W.W. Schaefer Engineering & Consulting, P.A, signed and sealed by Warren W. Schaefer, 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 Division. These documents shall hereinafter be referred to as the approved drawings.

3. LIMITATIONS

- 3.1 This approval applies to single unit applications, as shown approved drawings.
3.2 Various geometric configurations shown in approved drawings are allowed as long as the area does not exceed 36 sq. ft.

4. INSTALLATION

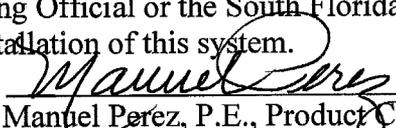
- 4.1 The wood fixed window and its components shall be installed in strict compliance with the approved drawings.
4.2 Hurricane protection system (shutters): the installation of this unit **will not require** a hurricane protection system.

5. LABELING

- 5.1 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".

6. BUILDING PERMIT REQUIREMENTS

- 6.1 Application for building permit shall be accompanied by two copies of the following:
6.1.1 This Notice of Acceptance.
6.1.2 Duplicate copies of the approved drawings, as identified in section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.
6.1.3 Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.


Manuel Perez, P.E., Product Control Examiner
Product Control Division

Marvin Windows and Doors.

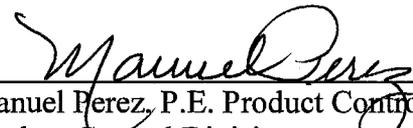
ACCEPTANCE No.: 00-0327.11

APPROVED : OCT 26 2000

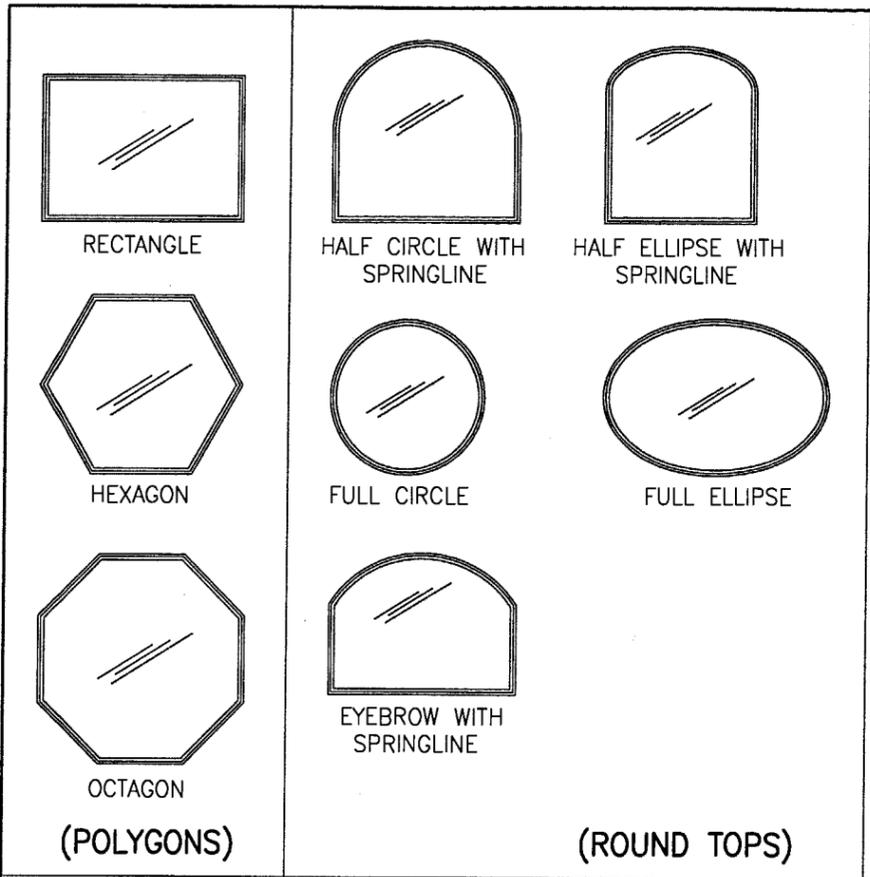
EXPIRES : November 30, 2002

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
 - b) The product is no longer the same product (identical) as the one originally approved.
 - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
 - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a) Unsatisfactory performance of this product or process;
 - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purpose.
6. The Notice of Acceptance number preceded by the words Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The engineer does not need to reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Acceptance contains pages 1, 2, this last page 3.


Manuel Perez, P.E. Product Control Examiner
Product Control Division

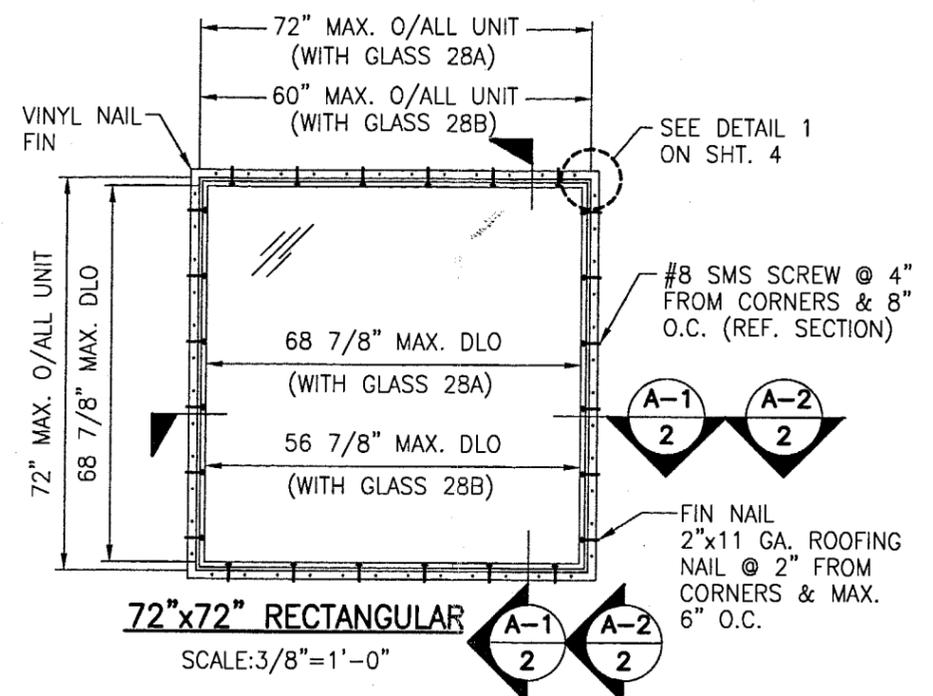
END OF THIS ACCEPTANCE



SHAPES CONSIDERED AS PART OF THIS APPROVAL

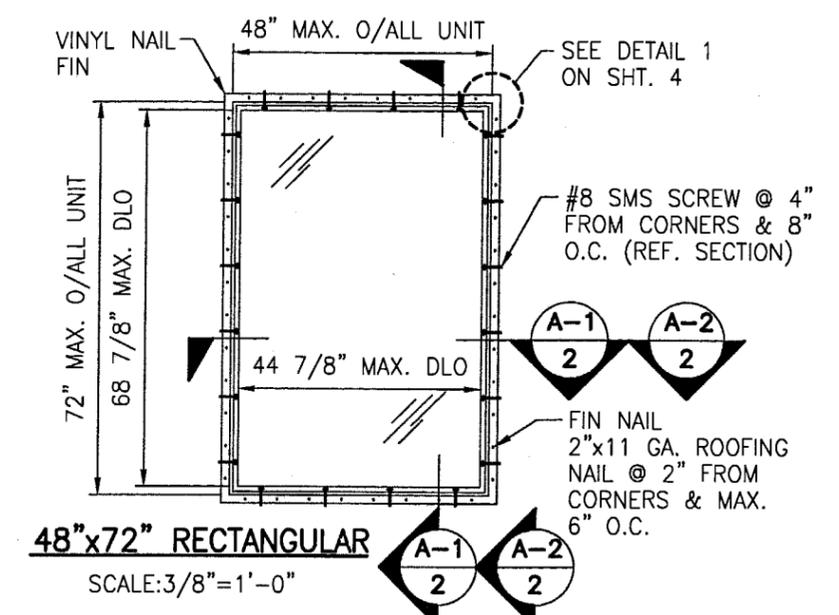
GENERAL NOTES

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES ON SHEET 5.
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND WIND LOADS AS DETERMINED FOR EA. APPLICATION
3. BUCKING FASTENERS MAY NOT EXCEED 16" O.C. SPACING AROUND OPENINGS REGARDLESS OF CIRCUMSTANCE.
4. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
5. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCOLS PA 201, 202 & 203.
6. ALL JAMB TO BUCKING FASTENERS MUST PENETRATE BUCK A MINIMUM OF 1 1/4", IF PENETRATION IS LESS THAN 1 1/4" THEN SCREW LENGTH SHALL INCREASE AS REQUIRED.
7. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE, 1994 EDITION.
8. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS PA-201, PA-202 & PA-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.



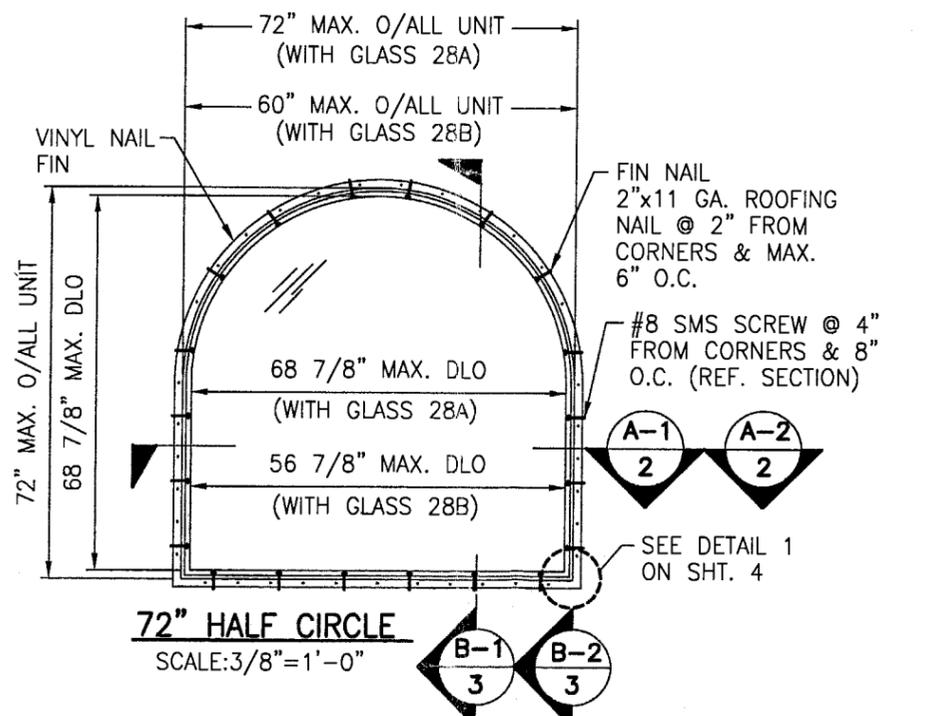
72"x72" RECTANGULAR

SCALE: 3/8" = 1'-0"



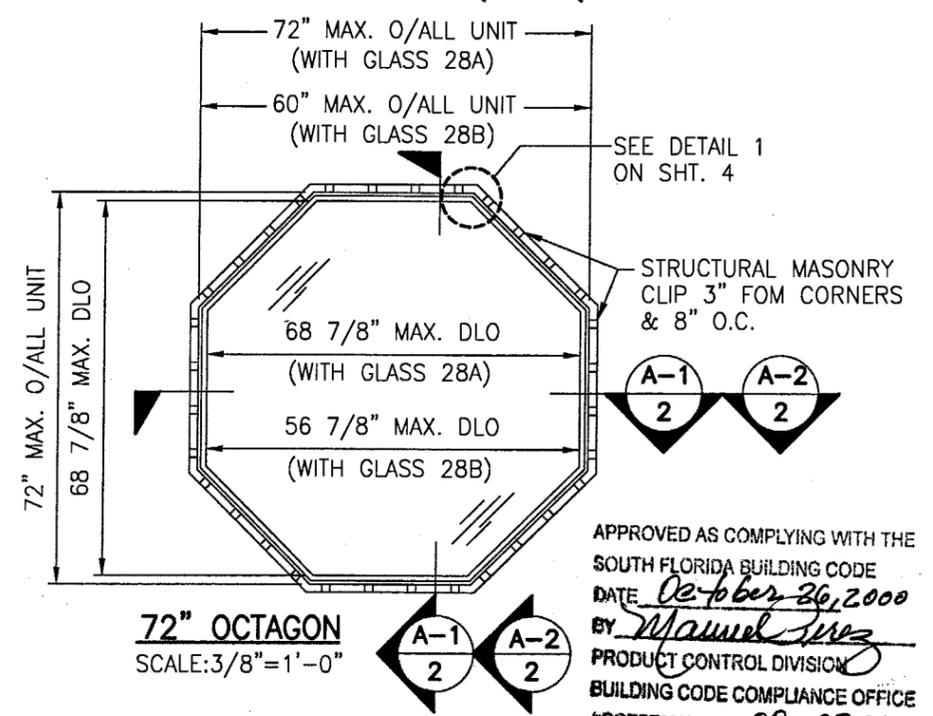
48"x72" RECTANGULAR

SCALE: 3/8" = 1'-0"



72" HALF CIRCLE

SCALE: 3/8" = 1'-0"



72" OCTAGON

SCALE: 3/8" = 1'-0"

ALL UNITS SHOWN FROM EXTERIOR

ALLOWABLE DESIGN LOADS
SEE LOAD TABLES ON SHEET 5

SEP 14 2000
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

WOOD PART DIP SPEC
 DIP AT MLDR. NO DIP IN PROD.
MARVIN RESEARCH AND DEVELOPMENT
BOX 100, WARROAD, MN 56763
WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

PRODUCT LINE: CLAD DIRECT-GLAZE
PRODUCT: IMPACT HP

ASSEMBLY:
ELEVATIONS OF DADE-COUNTY QUALIFIED SHAPES
MATERIAL: N/A
SIZE: B
DRAWING NO: 00012646
SCALE: NOTED
DATE: 03/31/99
DRAWN BY: T.M.H.
SHEET: 1 OF 9

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE: October 26, 2000
BY: Manuel Suez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 00-0327-11

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
A1	CHANGED FASTENER SPACING FROM 12" TO 8"		08/31/99	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

2"x11 GA. ROOFING
NAIL @ 2" FROM
CORNERS & MAX. 6" O.C.

MIN. 2X4
P.T. WOOD
BUCK BY
OTHERS

#8 x 2" SMS SCREW
OR 3/16" TAPCON (REF.)

1/4" MAX.
SHIM SPACE (TYP.)

SILICON
SEALANT &
BACKER ROD
BY OTHERS

1 1/2"
MIN.

28A 28B

OUTSIDE

INSIDE

FRAME O.S.M.

SEE "GLAZING
DETAILS" ON
SHT. 4

NAIL FIN AND SCREW
INSTALLATION

2

3

AT SILL

26 25

AT SIDES

#8 x 2" SMS SCREW
@ 4" MAX. FROM
CORNERS & MAX. 8" O.C.
(MIN. EMBED= 1 1/4")
OPTION: USE 3/16" TAPCONS
IN PLACE OF #8 SCREWS @
SAME SPACING THROUGH JAMB
& INTO BLOCK OR CONCRETE
WHEN A SMALLER OR NO BUCK
IS SPECIFIED. (MIN. TAPCON
EMBED=1 1/4" & MIN. TAPCON
EDGE DISTANCE TO BLOCK
EDGE=2")

SECTION **A-1**
SCALE: HALF FULL SIZE
(NOTE: HORIZONTAL SECTION SAME)

SEE GLAZING DETAILS ON SHEET 4
FOR GLAZING & GLAZING STOPS.

MIN 2X4 P.T. WOOD BUCK
BY OTHERS (TYP.)

#8x5/8" F.H. SMS
SCREW, 1 PER
BRACKET (TYP.)

1/4" MAX.
SHIM SPACE
(TYP.)

SILICON
SEALANT &
BACKER ROD
BY OTHERS

28A 28B

OUTSIDE

INSIDE

FRAME O.S.M.

SEE "GLAZING
DETAILS" ON
SHT. 4

STRUCTURAL CLIP
INSTALLATION

2

3

#8 SMS (REF.)

10

#8x1 1/2" F.H.
SMS SCREW; 2
PER BRACKET (TYP.)

#8 SMS (REF.)

10

SECTION **A-2**
SCALE: HALF FULL SIZE
(NOTE: HORIZONTAL SECTION SAME)

SEE GLAZING DETAILS ON SHEET 4
FOR GLAZING & GLAZING STOPS.

SEE "GLAZING
DETAILS" ON
SHT. 4

#8 x 2 1/2" SMS
SMS SCREW @
1.094" JAMB

28A 28B

1

5

26 25

REF. SECTION A-1

OPTIONAL JAMB DETAIL
SCALE: HALF FULL SIZE

NOTE:
JAMB ⑤ WITH CLADDING ① MAY BE
USED WITH EITHER SECTION A-1
OR A-2.

SEE GLAZING DETAILS ON SHEET 4
FOR GLAZING & GLAZING STOPS.

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE October 26, 2000
BY Manuel Jerez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 00-0327-11

SEP 14 2000

WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

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

WOOD PART DIP SPEC
 DIP AT MLDR. **MARVIN** RESEARCH AND DEVELOPMENT
 NO DIP IN PROD. BOX 100, WARROAD, MN 56763
WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

PRODUCT LINE: CLAD DIRECT-GLAZE
PRODUCT: IMPACT HP

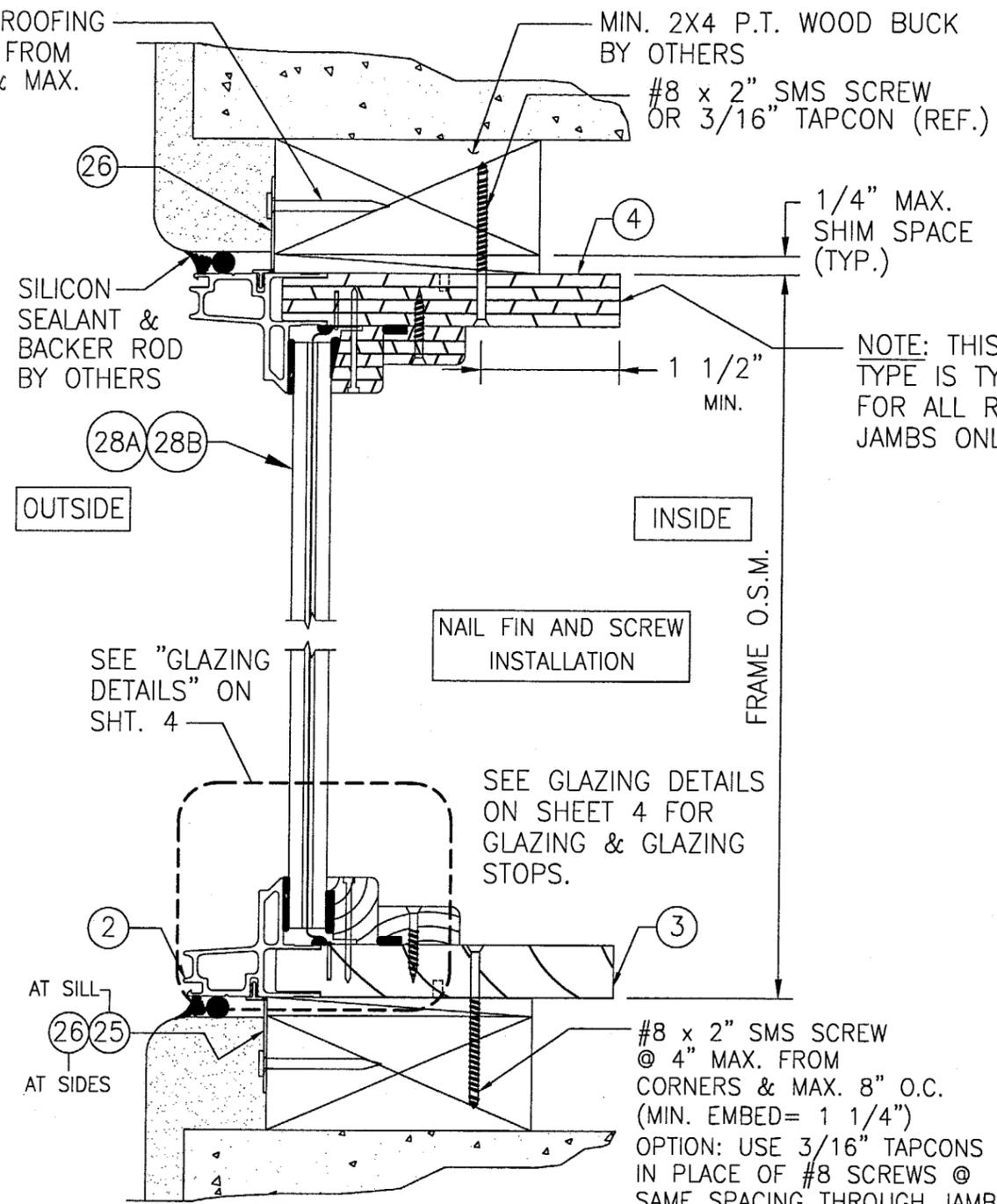
ASSEMBLY:
CROSS SECTIONS

MATERIAL: N/A SIZE: B DRAWING NO: 00012646

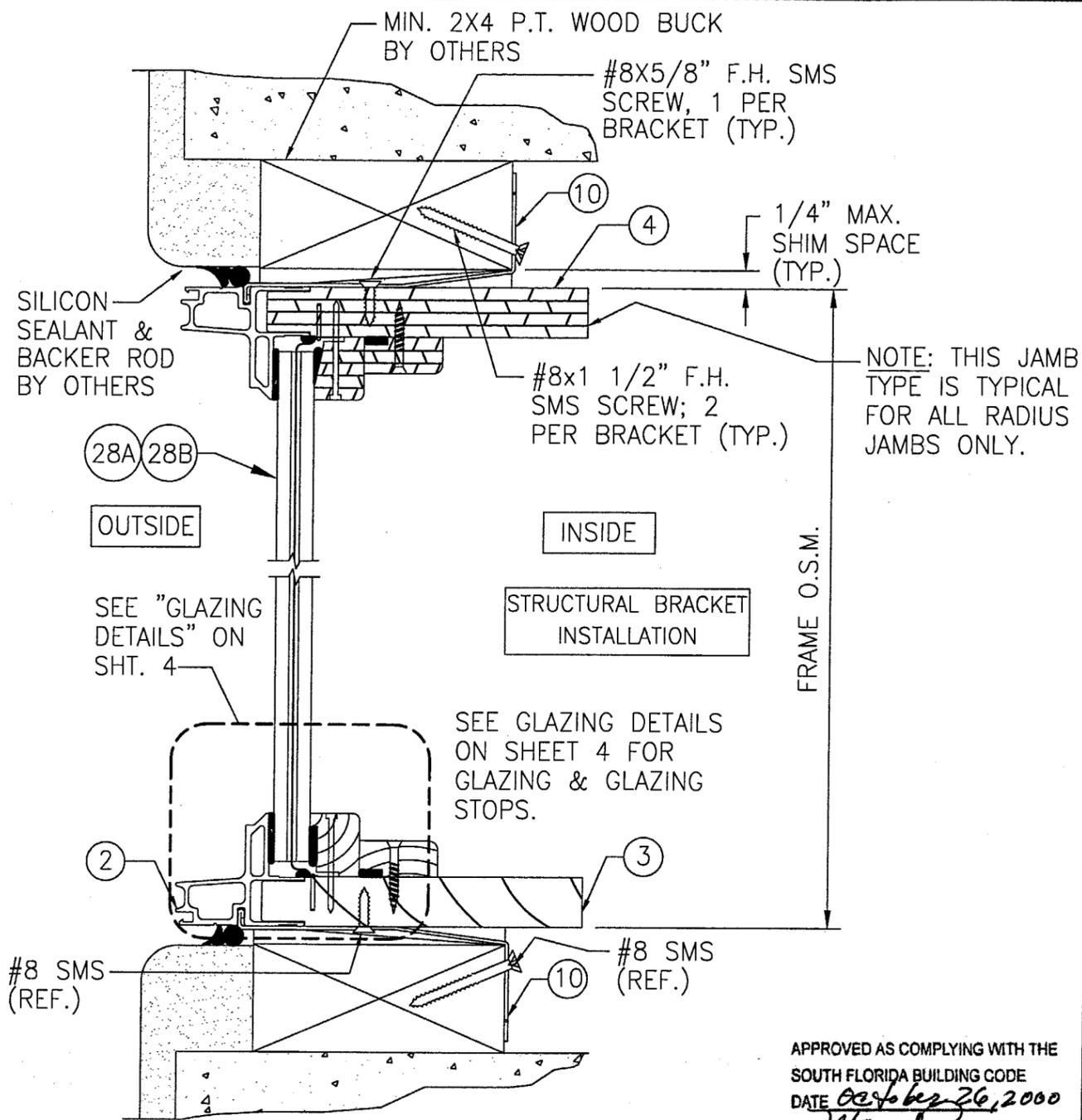
SCALE: DATE: DRAWN BY: SHEET:
NOTED 03/31/99 T.M.H. 2 OF 9

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
A1	CHANGED FASTENER SPACING FROM 12" TO 8"		08/31/99	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

2"x11 GA. ROOFING
NAIL @ 2" FROM
CORNERS & MAX.
6" O.C.



SECTION B-1
SCALE: HALF FULL SIZE

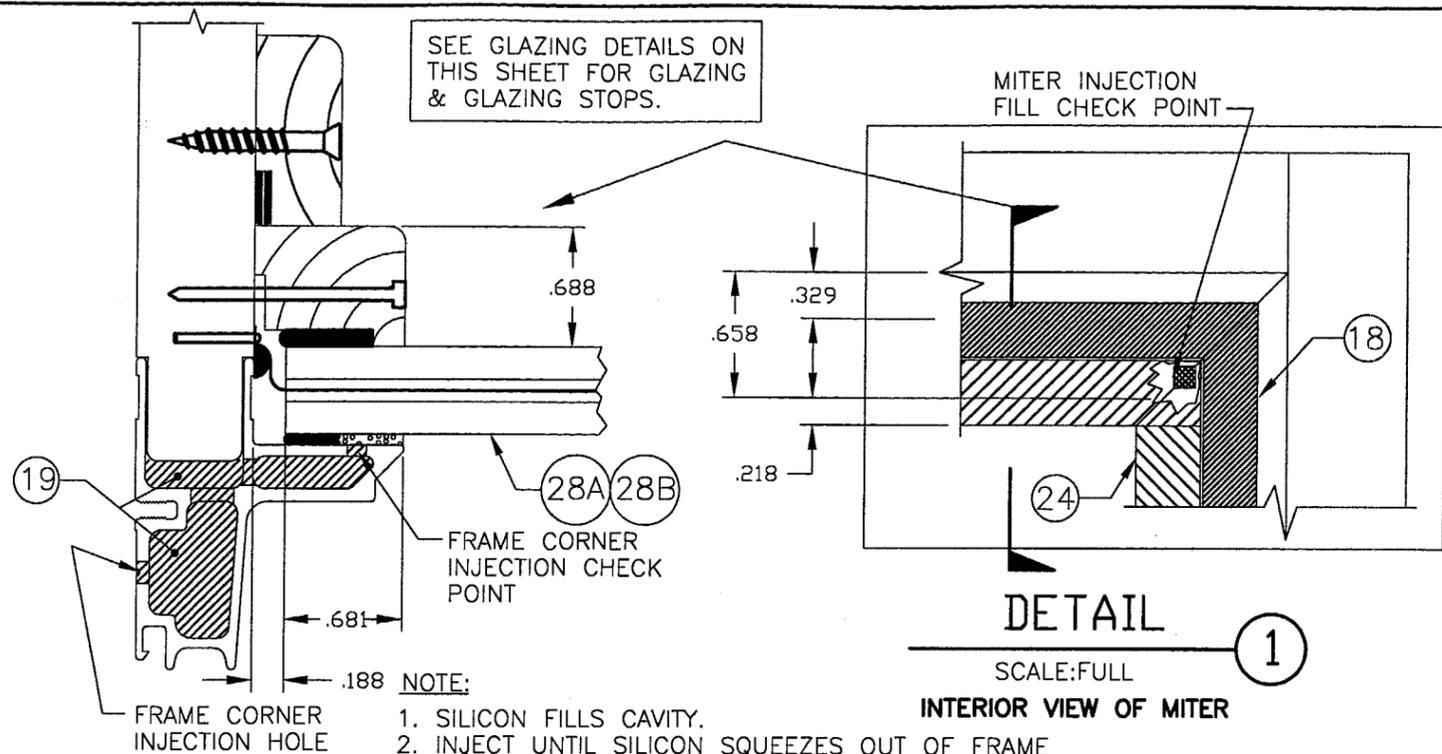


SECTION B-2
SCALE: HALF FULL SIZE

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE October 26, 2000
BY Manuel Ruiz
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 00-0327-1

SEP 14 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44136	WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913
	PRODUCT LINE: CLAD DIRECT-GLAZE PRODUCT: IMPACT HP	
ASSEMBLY: CROSS SECTIONS		
MATERIAL: N/A	SIZE: B	DRAWING NO: 00012646
SCALE: NOTED	DATE: 03/31/99	DRAWN BY: T.M.H.
		SHEET: 3 OF 9

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
A1	CHANGED FASTENER SPACING FROM 12" TO 8"		08/31/99	WWS



SEE GLAZING DETAILS ON THIS SHEET FOR GLAZING & GLAZING STOPS.

MITER INJECTION FILL CHECK POINT

.688

.329

.658

.218

FRAME CORNER INJECTION CHECK POINT

.681

.188

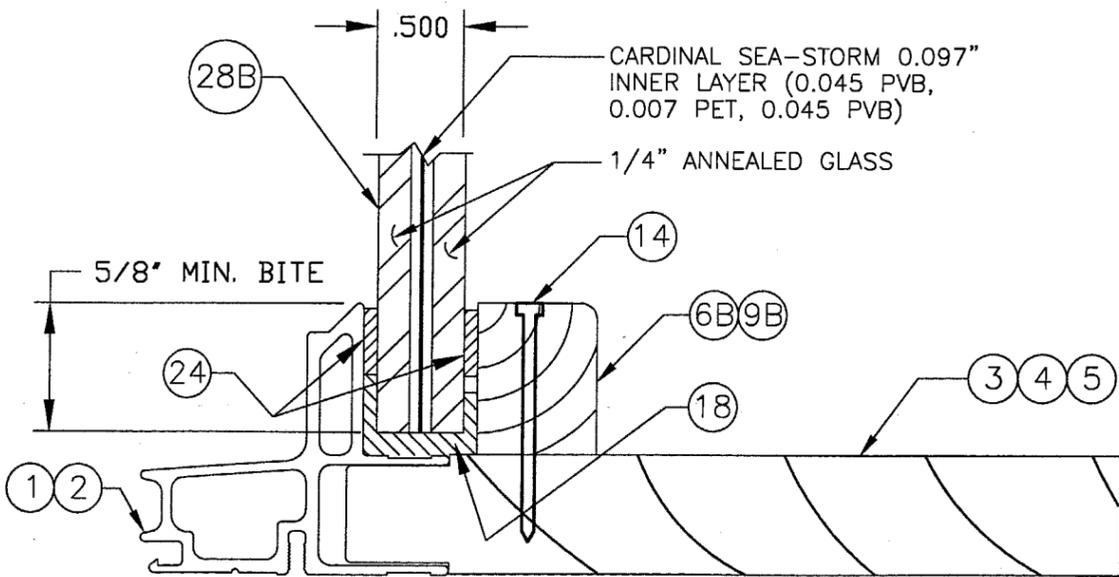
NOTE:

1. SILICON FILLS CAVITY.
2. INJECT UNTIL SILICON SQUEEZES OUT OF FRAME CORNER CHECKPOINT.
3. SILICONE MUST MAKE CONTACT WITH GLAZING TAPE WHEN GLASS IS PRESSED INTO PLACE.
4. MUST COMPRESS TAPE 20%.

DETAIL

SCALE:FULL

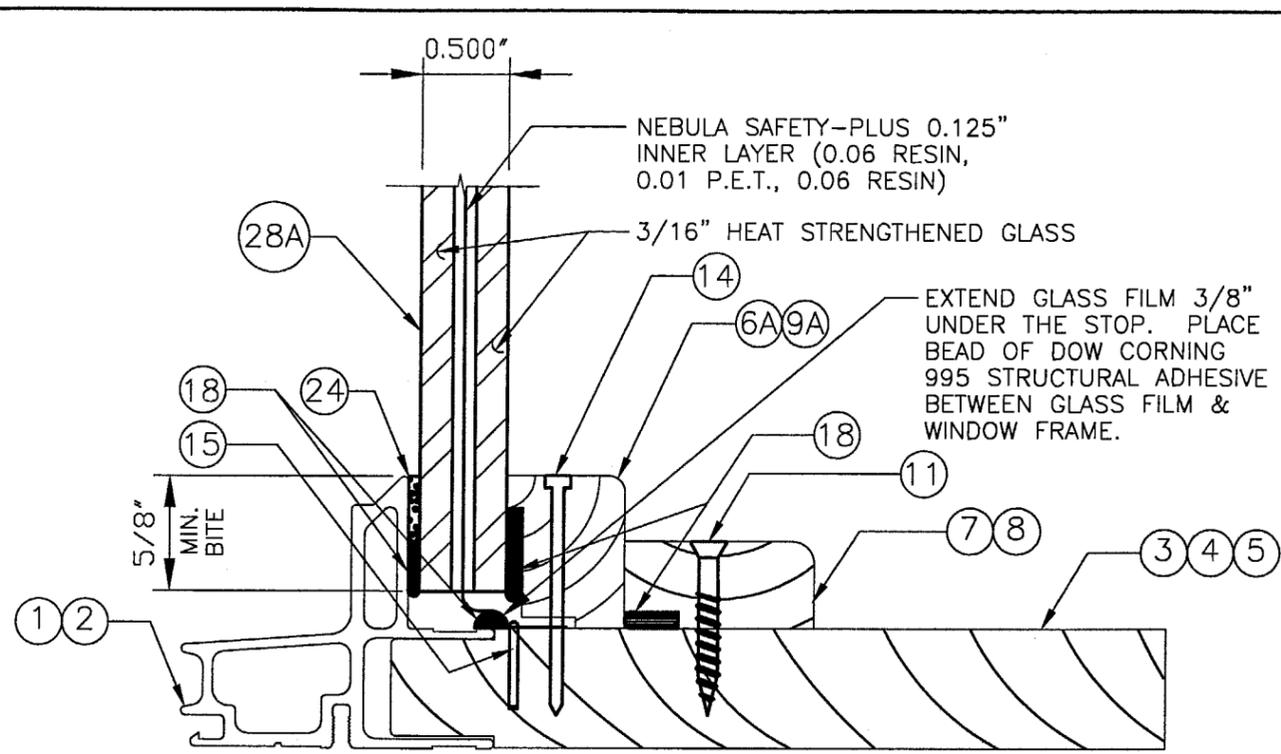
INTERIOR VIEW OF MITER



TYPICAL GLAZING DETAIL (GLASS "28B")

SCALE:FULL

CARDINAL SEA-STORM LAMINATED GLASS
1/4" AN./0.045 PVB/0.007 P.E.T./
0.045 PVB/1/4" AN.



TYPICAL GLAZING DETAIL (GLASS "28A")

SCALE:FULL

NEBULA SAFETY-PLUS LAMINATED GLASS
3/16 HEAT STR./0.06 POLYESTER RESIN/0.01 P.E.T./
0.06 POLYESTER RESIN/3/16 HEAT STR.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE October 26, 2000
BY Manuel Ruiz
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 00-0327.11

SEP 14 2000

WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

V. V. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

WOOD PART DIP SPEC

- DIP AT MLDR.
 NO DIP IN PROD.

MARVIN RESEARCH AND DEVELOPMENT
BOX 100, WARROAD, MN 56763
WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

PRODUCT LINE: CLAD DIRECT-GLAZE
PRODUCT: IMPACT HP

ASSEMBLY:
MITER INJECTION & GLAZING DETAILS

MATERIAL: N/A

SIZE: B
DRAWING NO: 00012646

SCALE: DATE:
NOTED 03/31/99

DRAWN BY:
T.M.H.

SHEET:
4 of 9

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
A2	CHANGED GLASS BITE FROM 1/2" TO 5/8"		08/31/99	WWS

DESIGN LOAD CAPACITY-PSF

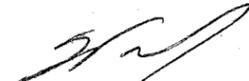
WINDOW DIMENSIONS		GLASS "28A"		GLASS "28B"	
WIDTH	HEIGHT	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
16"	24"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		95	95	95	95
64"		95	95	95	95
72"		95	95	95	95
16"	30"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		95	95	95	95
64"		95	95	95	95
72"		95	95	95	95
16"	36"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		95	95	95	95
64"		95	95	95	95
72"		95	95	95	95
16"	42"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		95	95	95	95
64"		95	95	95	95
72"		95	95	95	95
16"	48"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		95	95	95	95
64"		95	95	95	95
72"		95	95	90	90

DESIGN LOAD CAPACITY-PSF

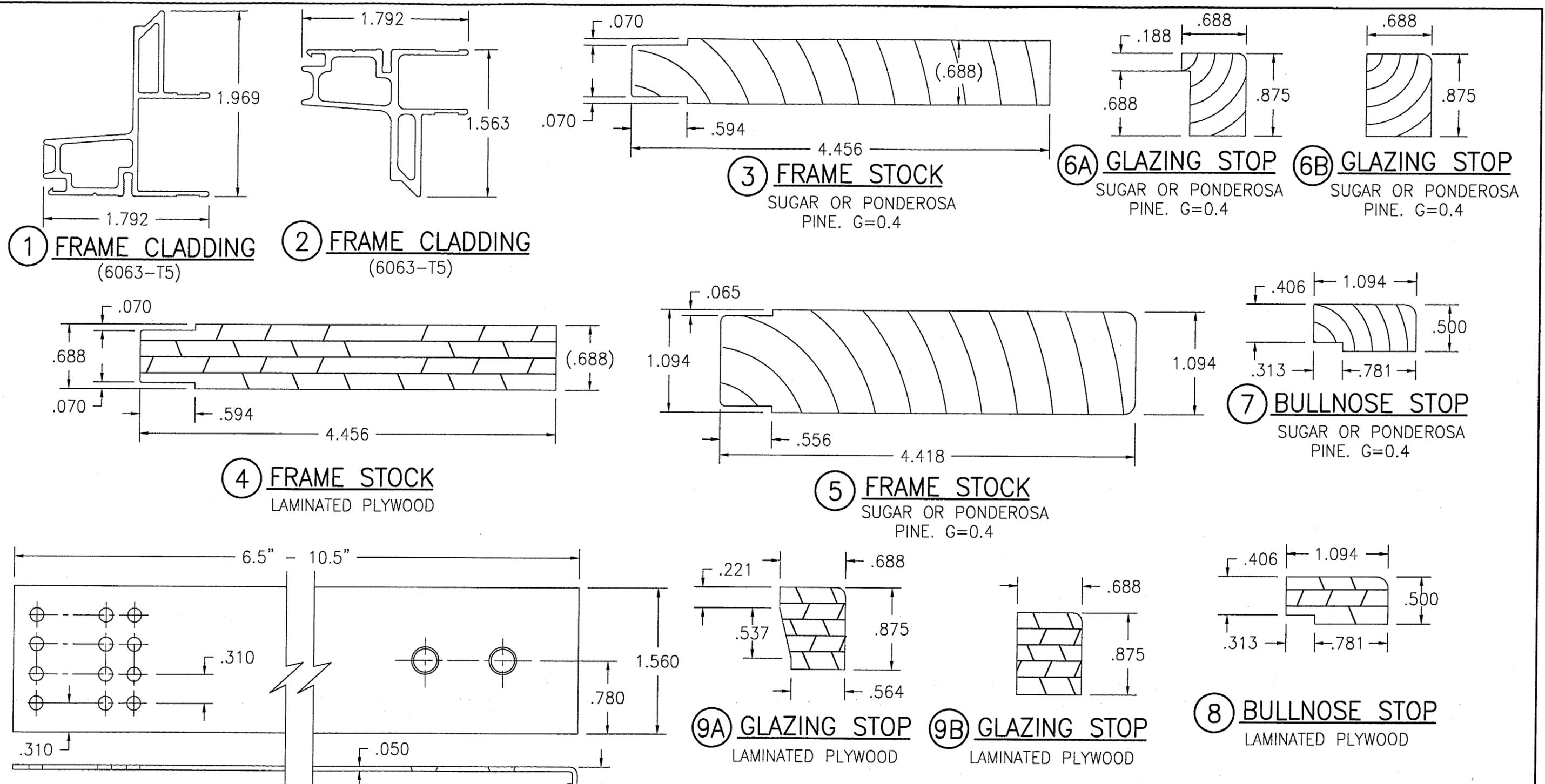
WINDOW DIMENSIONS		GLASS "28A"		GLASS "28B"	
WIDTH	HEIGHT	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
16"	52"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		70	70	65	65
64"		70	70	65	65
72"		70	70	65	65
16"	60"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		70	70	65	65
64"		70	70	65	65
72"		70	70	65	65
16"	66"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	95	95
56"		70	70	65	65
60"		70	70	65	65
64"		70	70	-	-
72"	70	70	-	-	
16"	72"	95	95	95	95
24"		95	95	95	95
32"		95	95	95	95
40"		95	95	95	95
48"		95	95	90	90
56"		70	70	65	65
60"		70	70	65	65
64"		70	70	-	-
72"	70	70	-	-	

GLASS "28A" = NEBULA SAFETY PLUS 1/2" LAMINATED HEAT STRENGTHENED GLASS
 GLASS "28B" = CARDINAL SEA-STORM 1/2" LAMINATED ANNEALED GLASS

APPROVED AS COMPLYING WITH THE
 SOUTH FLORIDA BUILDING CODE
 DATE October 29, 2000
 BY Maund-Jones
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 00-0327-11

SEP 14 2000  WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS (218) 386-1430 FAX 386-1913
	PRODUCT LINE: CLAD DIRECT-GLAZE PRODUCT: MPACT HP	
ASSEMBLY: LOAD CAPACITY CHARTS		
MATERIAL: N/A	SIZE: B	DRAWING NO: 00012646
SCALE: FULL	DATE: 03/31/99	DRAWN BY: T.M.H.
		SHEET: 5 OF 9

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

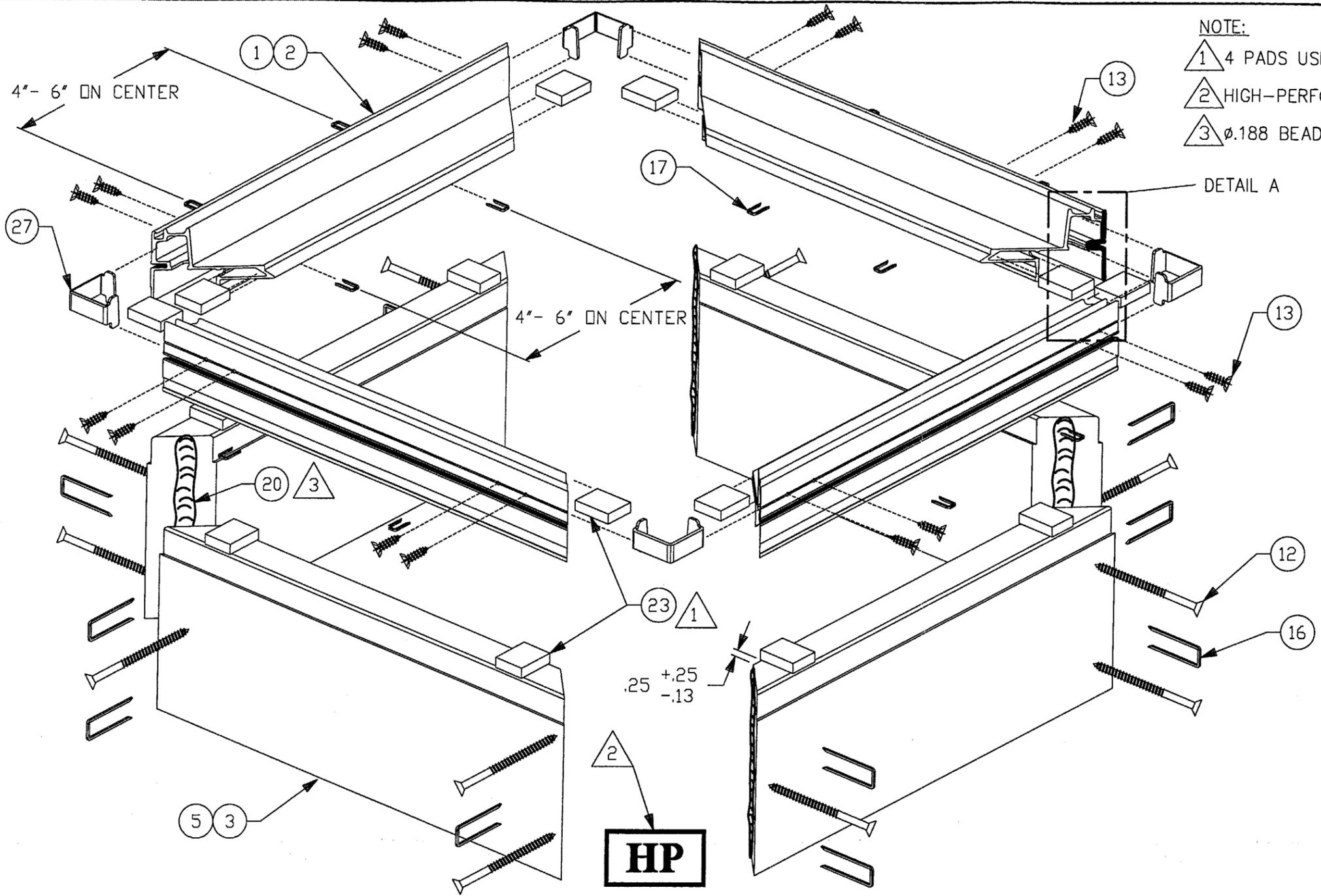


APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE *October 26, 2000*
BY *Manuel...*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. *00-0327-11*

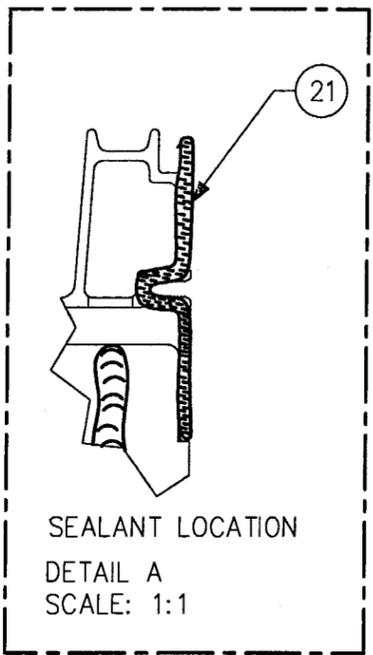
SEP 14 2000
Warren W. Schaefer
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

WOOD PART DIP SPEC		MARVIN RESEARCH AND DEVELOPMENT	
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	BOX 100, WARROD, MN 56763	
<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE:		CLAD DIRECT-GLAZE	
PRODUCT:		IMPACT HP	
ASSEMBLY: PARTS & EXTRUSIONS			
MATERIAL:	SIZE:	DRAWING NO:	00012646
N/A	B	SCALE:	DATE:
		1:1	03/31/99
		DRAWN BY:	SHEET:
		T.M.H.	6 OF 9

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



NOTE:
 1 4 PADS USED PER MITER.
 2 HIGH-PERFORMANCE STAMP LOCATED ADJACENT TO HEADER LABEL.
 3 ϕ .188 BEAD OF SM-8500 AT EACH MITER.



RECTANGULAR JAMB FABRICATION DETAIL

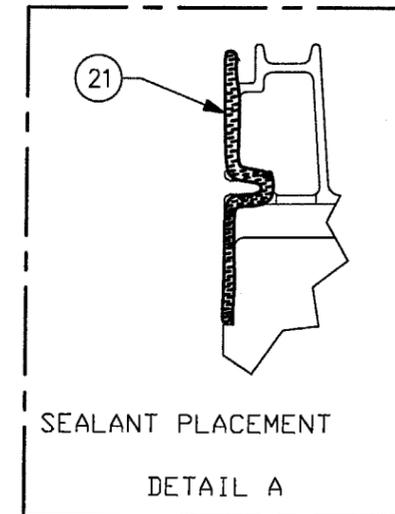
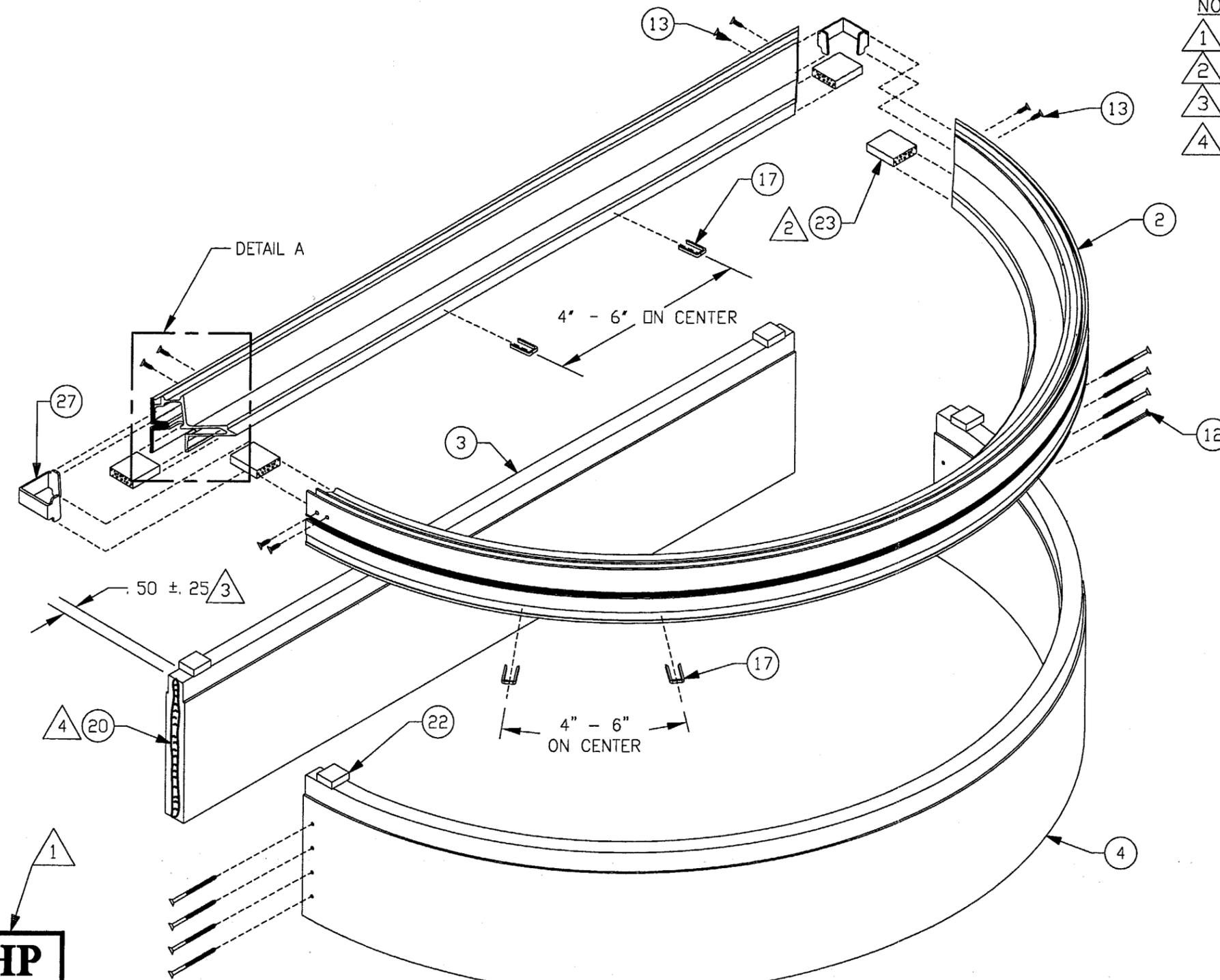
APPROVED AS COMPLYING WITH THE
 SOUTH FLORIDA BUILDING CODE
 DATE October 20, 2000
 BY Maund
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 00-0327.11

SEP 14 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913
	PRODUCT LINE: CLAD DIRECT-GLAZE PRODUCT: IMPACT HP	
ASSEMBLY: EXPLODED FRAME AND CLADDING ASSEMBLY		
MATERIAL: N/A	SIZE: B SCALE: N/A	DRAWING NO: 00012646 DATE: 03/31/99 DRAWN BY: T.M.H.
SHEET: 7 of 9		

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

NOTE:

- 1 HIGH-PERFORMANCE STAMP LOCATED ADJACENT TO HEADER LABEL.
- 2 2 PLUGS USED PER MITER.
- 3 2 PADS USED PER MITER.
- 4 ϕ .125 BEAD OF SM-8500 AT EACH FRAME JOINT.



APPROVED AS COMPLYING WITH THE
 SOUTH FLORIDA BUILDING CODE
 DATE October 26, 2000
 BY Mauro Perez
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 00-0327-11

HP

RADIUS JAMB FABRICATION DETAIL

SEP 14 2000

WARREN W. SCHAEFER, P.E.
 STRUCTURAL ENGINEER
 P.E. No. 44135

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 & CONSULTING, P.A.
 STRUCTURAL CONSULTING ENGINEERS
 600 SANDTREE DRIVE, SUITE 203B
 PALM BEACH GARDENS, FL 33403
 PHONE: 561-775-4902

WOOD PART DIP SPEC
 DIP AT MLDR. NO DIP IN PROD.
MARVIN RESEARCH AND DEVELOPMENT
 BOX 100, WARROAD, MN 56763
 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

PRODUCT LINE: CLAD DIRECT-GLAZE
 PRODUCT: MPACT HP

ASSEMBLY:
 EXPLODED FRAME AND CLADDING ASSEMBLY

MATERIAL: N/A SIZE: B DRAWING NO: 00012646
 SCALE: N/A DATE: 03/31/99 DRAWN BY: T.M.H. SHEET: 8 OF 9

B1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
PARTS & EXTRUSIONS			
1	00001210	A329 FRAME ALUMINUM CLADDING	ALUMINUM (6063-T5)
2	00011209	A328 FRAME ALUMINUM CLADDING	ALUMINUM (6063-T5)
3	00011225	.688"x4.456" PINE FRAME STOCK	SEE NOTE 1 THIS SHEET.
4	-	.688"x4.456" FRAME STOCK	LAMINATED PLYWOOD
5	00011050	1.094"x4.418 PINE FRAME STOCK	SEE NOTE 1 THIS SHEET.
6A	00007080	.688"x.875" PINE GLAZING STOP	USED WITH GLASS "28A"
6B	00007080	.688"x.875" PINE GLAZING STOP	USED WITH GLASS "28B"
7	00007760	1.094"x.500 PINE BULLNOSE STOP	USED WITH GLASS "28A"
8	-	1.094"x.500" BULLNOSE STOP	USED WITH GLASS "28A"
9A	-	.688"x.875 GLAZING STOP	USED WITH GLASS "28A"
9B	-	.688"x.875 GLAZING STOP	USED WITH GLASS "28B"
10	11860012-3	6"-10" STRUCTURAL MASONRY CLIP	690 LOCFORM GALV. STEEL BY WABINICA, INC. 3" FROM CORNERS & 8" O.C.
FASTENERS			
11	00001107	#6 x 1" SMS SCREW	SPACED @ 4" FROM CORNERS & 8" O.C.
12	00003208	#8 x 2" F.H. SMS SCREW	3 PER SQUARE JAMB CORNER & 4 PER RADIUS JAMB CORNER
13	00003277	#7 x 1/2" F.H. TEK SCREW	4 PER CLAD CORNER
14	PN11892207	F-14 x 1.375 BRAD NAIL	3" FROM CORNERS & MAX. 8" O.C.
15	PN11820350	PW-50 x .500" STAPLE	SPACED @ 6" O.C.
16	PN11820112	GSN-16 x 1.5" STAPLE	3 PER SQUARE JAMB CORNER
17	PN11820052	GSN-.500" STAPLE	SPACED 4"-6" O.C.

NOTE:



ALL WOOD USED WITH TESTED UNITS IS PONDEROSA OR SUGAR PINE.
 ALTERNATIVE WOOD SPECIES TO PINE:

1. MAHOGONY
2. OAK
3. CHERRY
4. CYPRUS
5. DOUGLAS FIR

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
SEALANTS			
18	-	DOW 995 BLACK SILICON SEALANT	SEE GLAZING DETAILS ON SHEET 4
19	00012299	344 BEIGE MITER SEALANT	CORNER INJECTION SEALANT, BY CSL
20	00012297	SM 8500 SEALANT	MITER SEAL ADHESIVE, BY SCHNEE-MOREHEAD
21	0011495	SM 5601 SEALANT	POLISOBUTYLENE & ISOPRENE POLYMERS BY SCHNEE-MOREHEAD
22	00011227	FOAM SEALANT PAD	POLYETHYLENE
23	00011224	FOAM SEALANT PLUG	POLYETHYLENE
24	00003787	.0625"x.375" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
OTHER			
25	00005281	V084 VINYL NAIL FIN	LOCATED @ SILL JAMB
26	00005291	V104 VINYL NAIL FIN	LOCATED @ SIDE & HEAD JAMBS
27	00010038	CORNER KEY	ALUMINUM (5052-H34)
28A	-	1/2" HEAT STRENGTHENED LAMINATED GLASS	NEBULA SAFETY-PLUS LAMINATED GLASS (3/16" HEAT STRENGTHENED/0.06" RESIN/0.01 P.E.T./0.06" RESIN/3/16" HEAT STRENGTHENED)
28B	-	1/2" ANNEALED LAMINATED GLASS	CARDINAL SEA-STORM LAMINATED GLASS (1/4" ANNEALED/0.045" PVB/0.007" PET/0.045" PVB/1/4" ANNEALED)

APPROVED AS COMPLYING WITH THE
 SOUTH FLORIDA BUILDING CODE
 DATE October 26, 2000
 BY Manuel J...
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 00-0327-11

<p>SEP 14 2000</p> <p>WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">WOOD PART DIP SPEC</td> <td style="width: 10%;"><input type="checkbox"/> DIP</td> <td style="width: 10%;"><input type="checkbox"/> AT MLDR.</td> <td style="width: 60%;">MARVIN RESEARCH AND DEVELOPMENT</td> </tr> <tr> <td></td> <td><input type="checkbox"/> NO DIP</td> <td><input type="checkbox"/> IN PROD.</td> <td>BOX 100, WARROAD, MN 56763</td> </tr> <tr> <td colspan="3"></td> <td>WINDOWS&DOORS. (218) 386-1430 FAX 386-1913</td> </tr> <tr> <td colspan="2">PRODUCT LINE:</td> <td colspan="2">CLAD DIRECT-GLAZE</td> </tr> <tr> <td colspan="2">PRODUCT:</td> <td colspan="2">MPACT HP</td> </tr> <tr> <td colspan="4" style="text-align: center;">ASSEMBLY: MATERIAL LIST</td> </tr> <tr> <td>MATERIAL:</td> <td>N/A</td> <td>SIZE:</td> <td>B</td> </tr> <tr> <td colspan="2">DRAWING NO:</td> <td colspan="2">00012646</td> </tr> <tr> <td>SCALE:</td> <td>1:1</td> <td>DATE:</td> <td>03/31/99</td> </tr> <tr> <td colspan="2">DRAWN BY:</td> <td colspan="2">T.M.H.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">SHEET: 9 OF 9</td> </tr> </table>	WOOD PART DIP SPEC	<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	MARVIN RESEARCH AND DEVELOPMENT		<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	BOX 100, WARROAD, MN 56763				WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	PRODUCT LINE:		CLAD DIRECT-GLAZE		PRODUCT:		MPACT HP		ASSEMBLY: MATERIAL LIST				MATERIAL:	N/A	SIZE:	B	DRAWING NO:		00012646		SCALE:	1:1	DATE:	03/31/99	DRAWN BY:		T.M.H.				SHEET: 9 OF 9	
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