



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Marvin Windows & Doors
Highway 11
Warroad

MN 56763-0100

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

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

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

Your application for Product Approval of:

Series "CUDH HP Clad Ultimate" Alum. Clad Wood Double Hung Window

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 approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime 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 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.

Acceptance No.: 99-0823.05

Expires: 03/10/2003

Raul Rodriguez
Chief Product Control Division

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 Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director

Miami-Dade County
Building Code Compliance Office

Approved: 03/10/2000

1 of 3



Marvin Windows & Doors

ACCEPTANCE No.: 99-0823.05

APPROVED : MAR 10 2000

EXPIRES : MAR 10 2003

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

1. SCOPE

1.1 This approves a wood double hung 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 Series "CUDH HP Clad Ultimate" Wood Double Hung Window and its components shall be constructed in strict compliance with the following documents: Drawing No **00013061**, titled "Clad Ultimate Double Hung CUDH HP" Sheets 1 through 11 of 11, dated: Sheets 1 through 3, 6/8/99; Sheets 4 thru 7, 6/11/99, Sheets 8 thru 10, 6/15/99 and Sheet 11, 11/20/98, all 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 only, as shown in approved drawings.

4. INSTALLATION

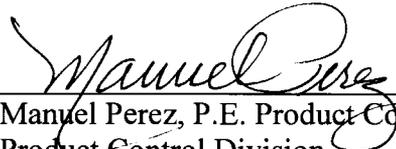
4.1 The wood double hung window and its components shall be installed in strict compliance with the approved drawings.
4.2 Hurricane protection system (shutters): the installation of this unit **will require** a hurricane protection system.

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 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 & Doors

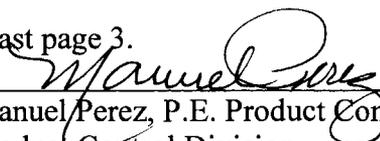
ACCEPTANCE No.: 99-0823.05

APPROVED : MAR 10 2000

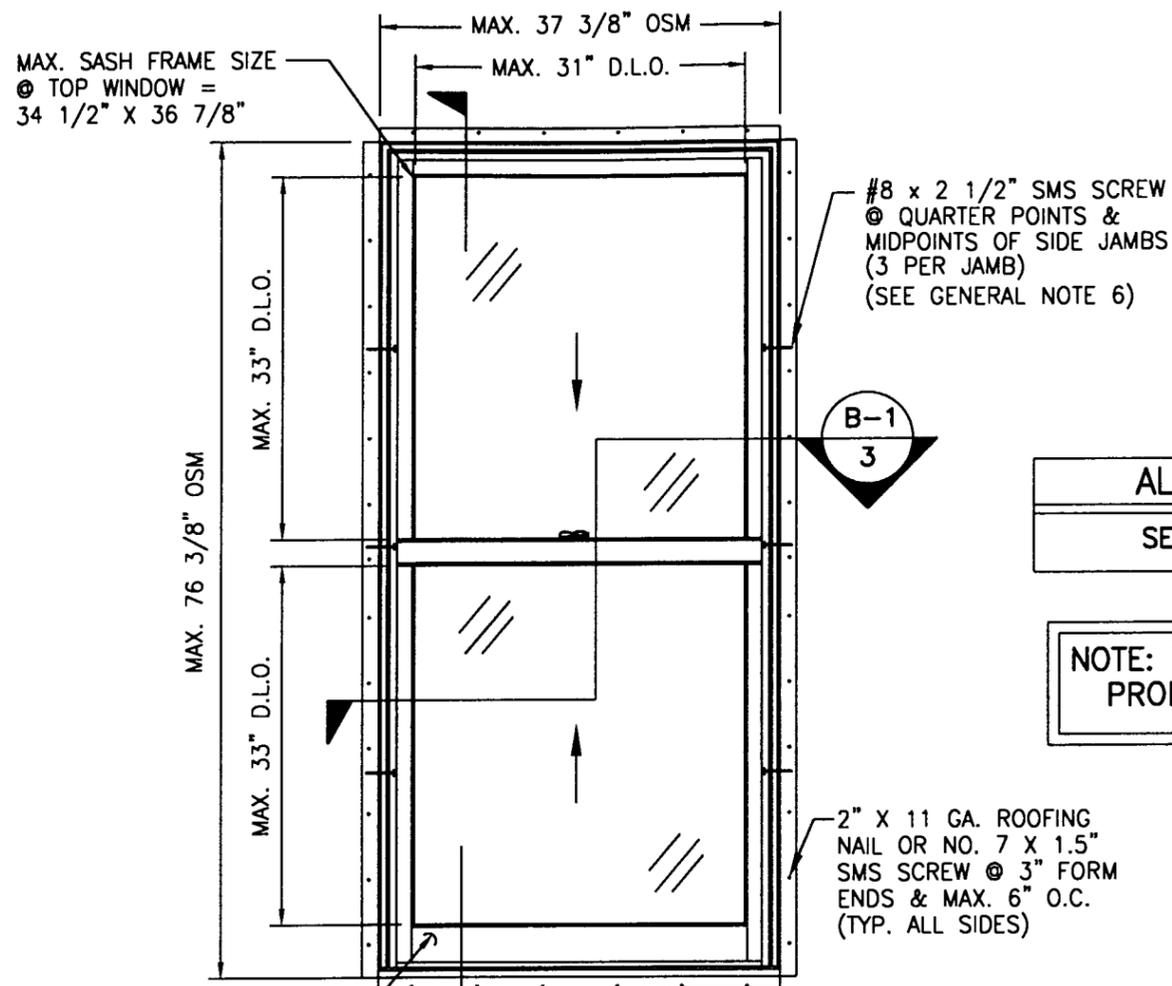
EXPIRES : MAR 10 2003

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 Miami-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 time. The engineer need not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

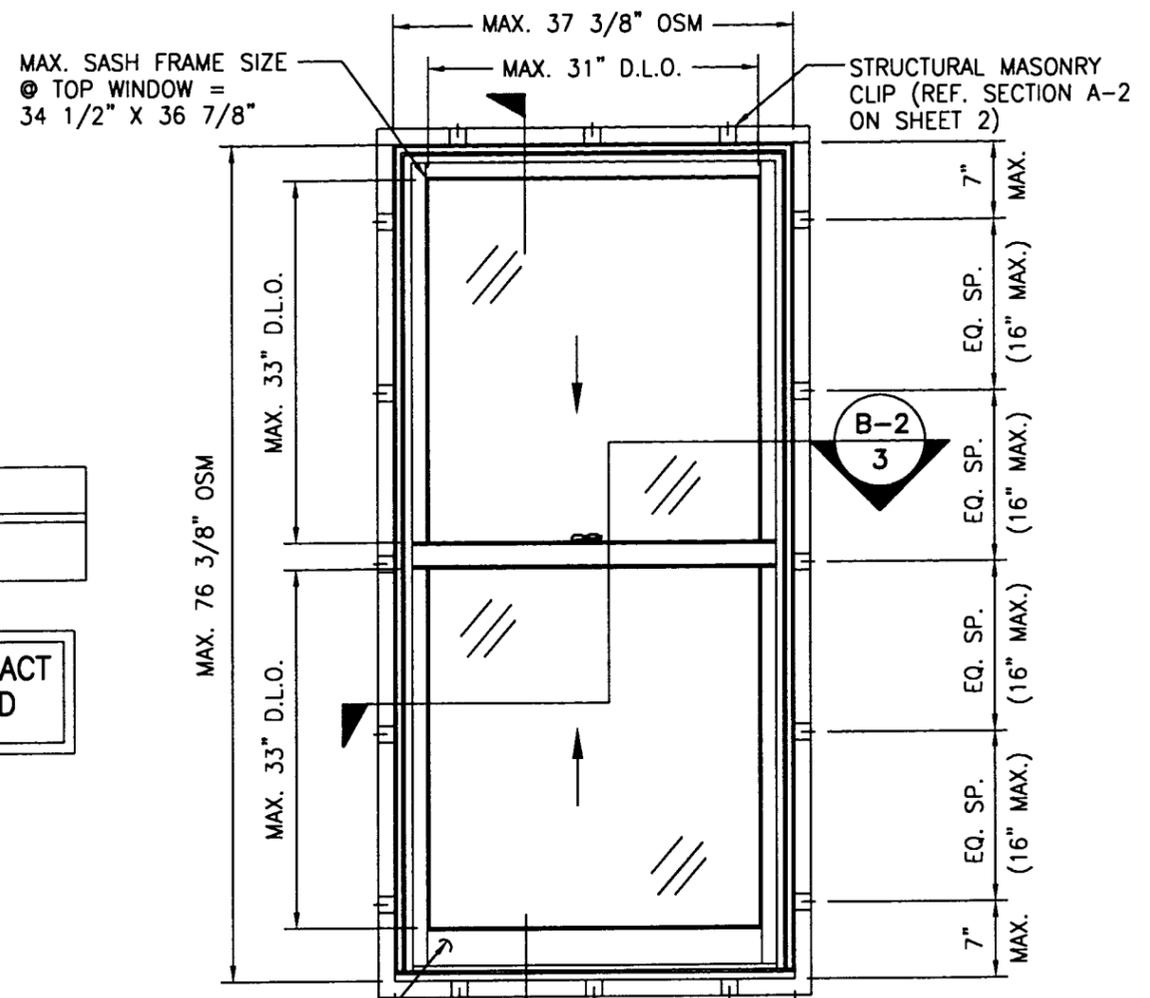

Manuel Perez, P.E. Product Control Examiner
Product Control Division

END OF THIS ACCEPTANCE



**EXTERIOR ELEVATION
FIN MOUNT**

SCALE: 3/4"=1'-0"



**EXTERIOR ELEVATION
STRUCTURAL CLIP MOUNT**

SCALE: 3/4"=1'-0"

ALLOWABLE DESIGN LOADS
SEE LOAD TABLE ON SHEET 10

**NOTE: THIS WINDOW IS A NON-IMPACT
PRODUCT & MUST BE SHUTTERED**

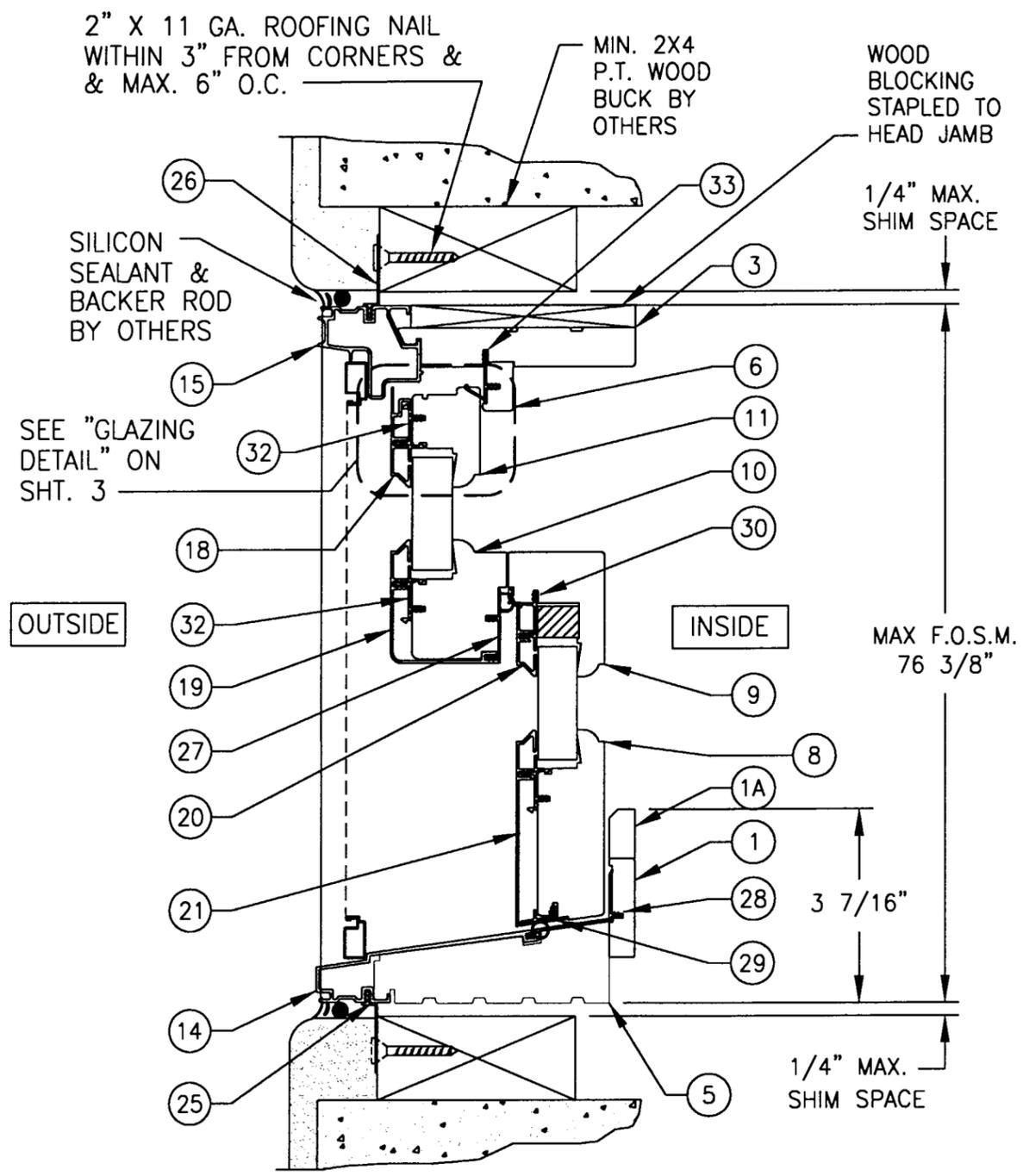
GENERAL NOTES

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES ON SHEET 10.
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND WIND LOADS AS DETERMINED FOR EACH 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, FORCED ENTRY & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCAOL PA 202.
6. ALL JAMB TO BUCKING SHEAR 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 PROTOCOL PA-202 FOR AIR, WATER, UNIFORM STATIC AIR PRESSURE & FORCED ENTRY.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

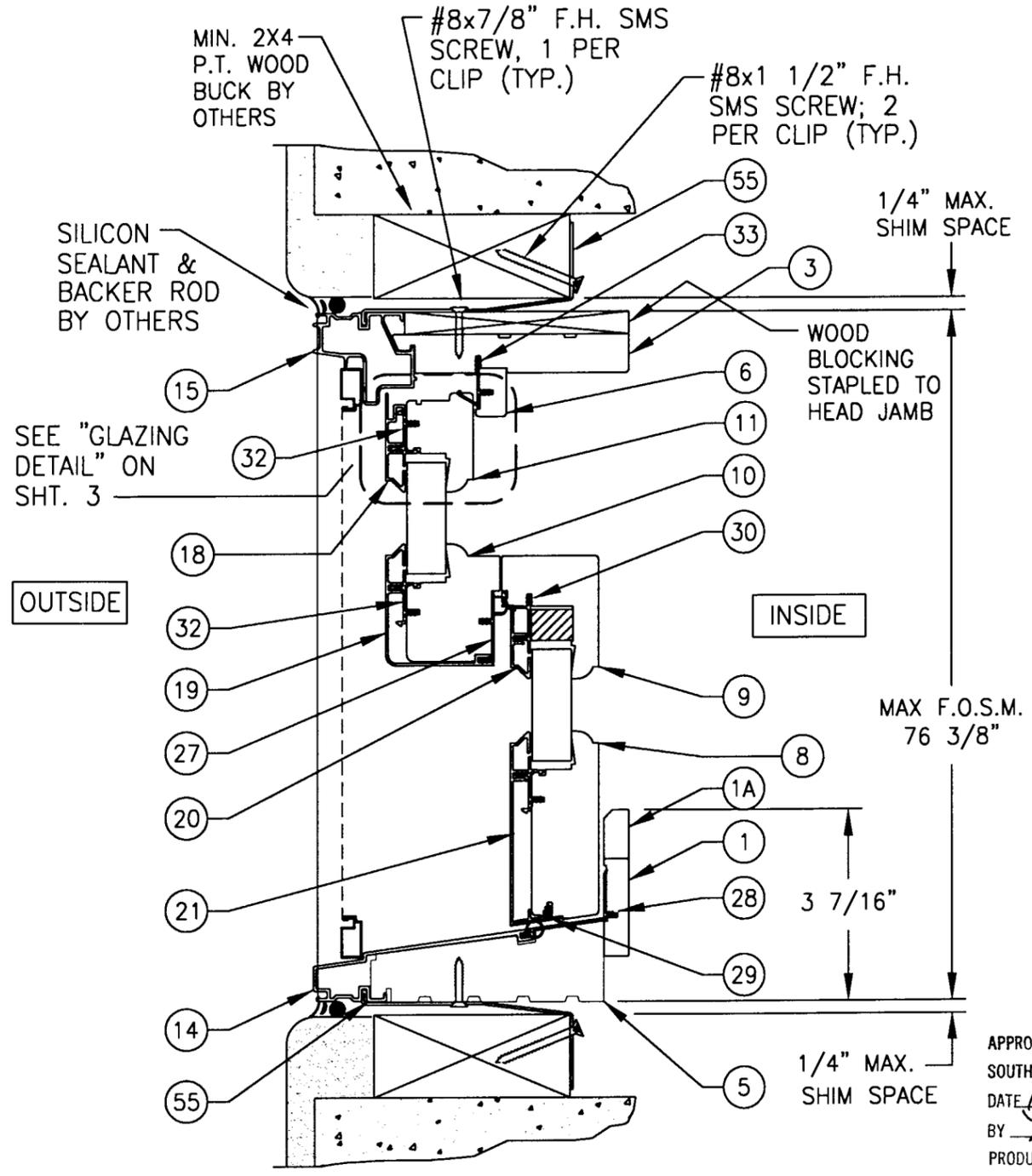
FEB 15 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS & DOORS. (218) 386-1430 FAX 386-1913	
	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP		
ASSEMBLY EXTERIOR ELEVATIONS			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013061	
SCALE: NOTED 6/8/99		DATE: 6/8/99	DRAWN BY: BRAD BOE
			SHEET: 1 OF 11

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



SECTION A-1
SCALE: 3/8 FULL SIZE

NAIL FIN AND SCREW INSTALLATION



SECTION A-2
SCALE: 3/8 FULL SIZE

STRUCTURAL CLIP INSTALLATION

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

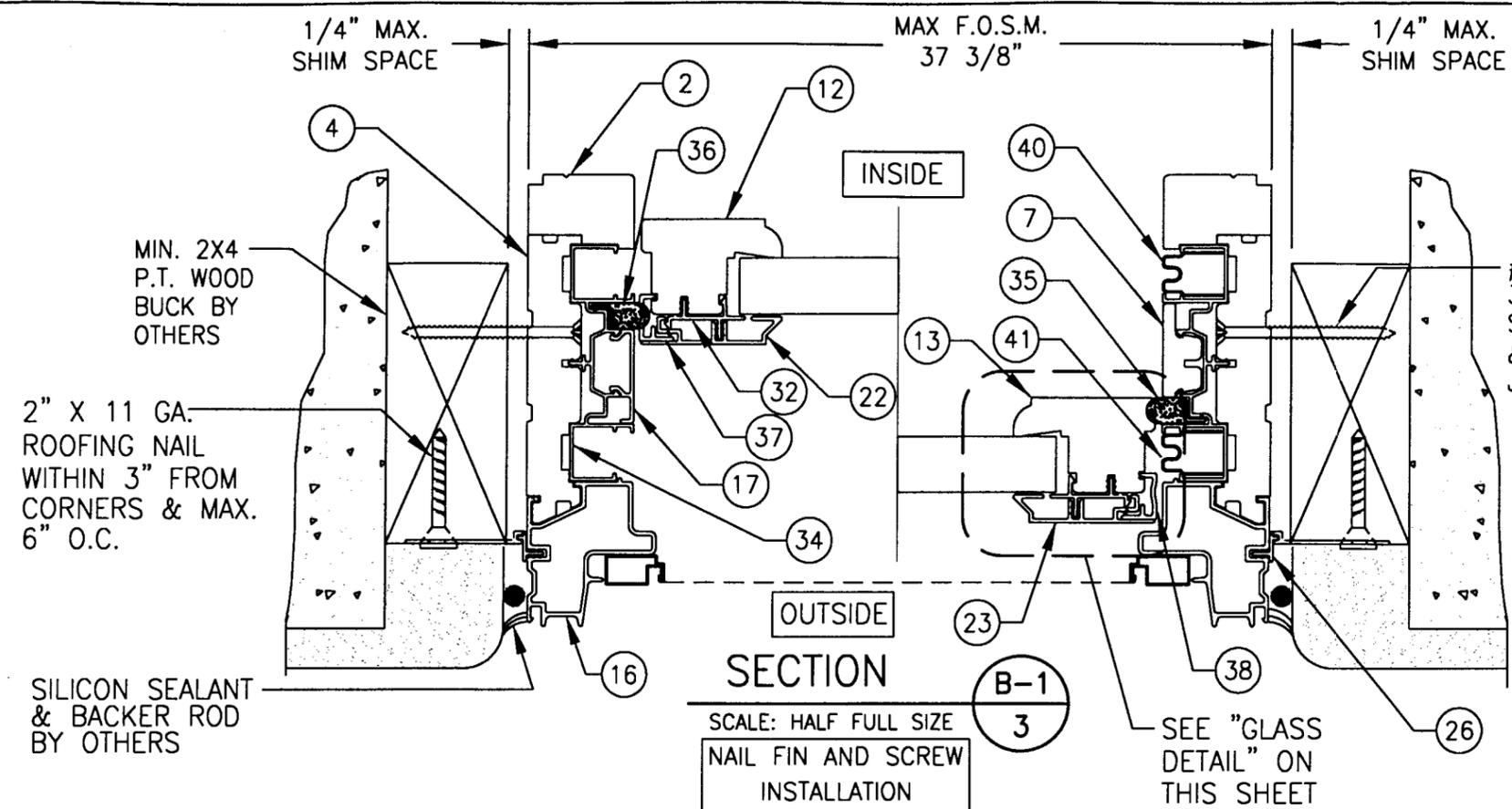
FEB 15 2000

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

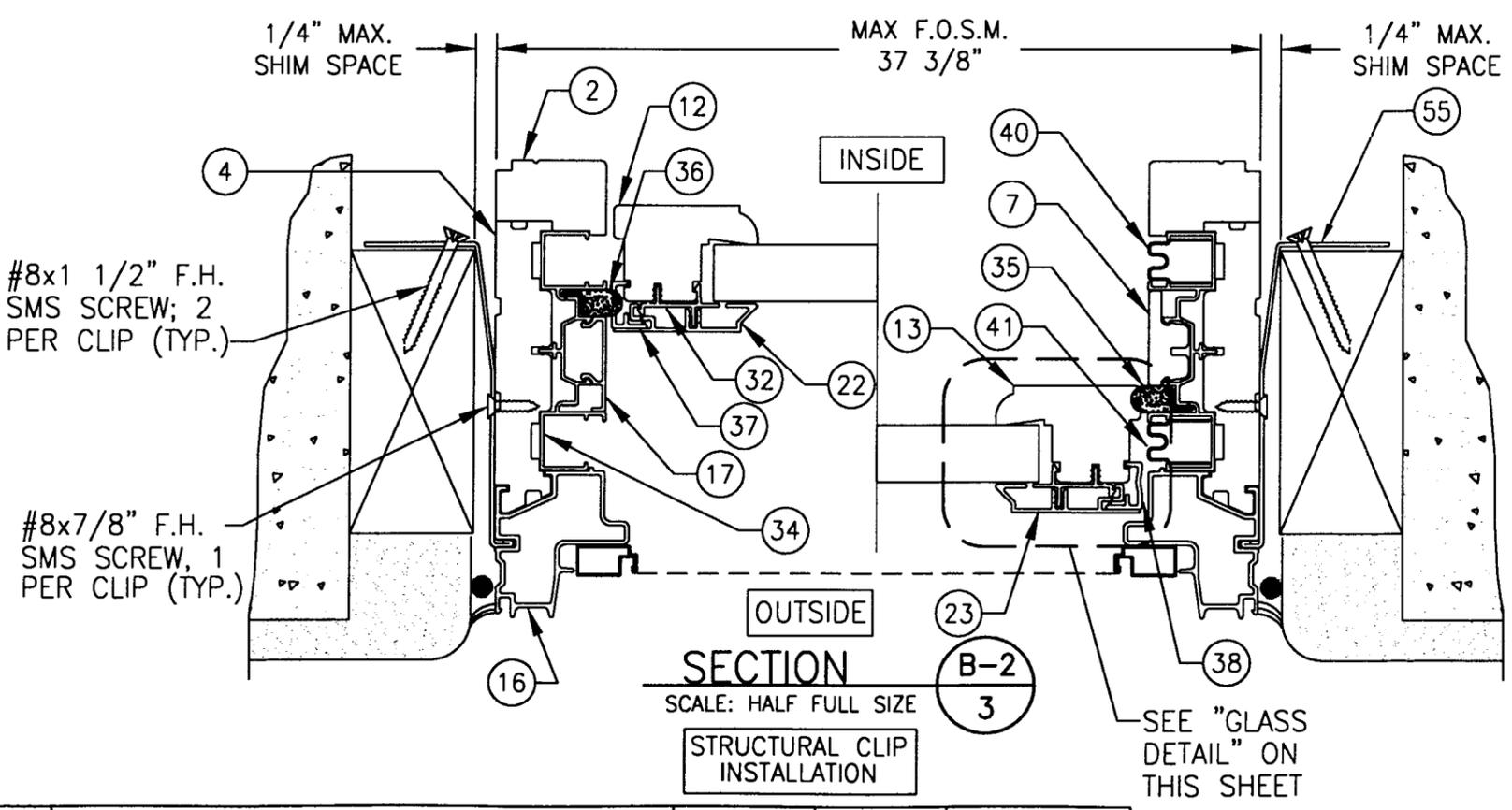
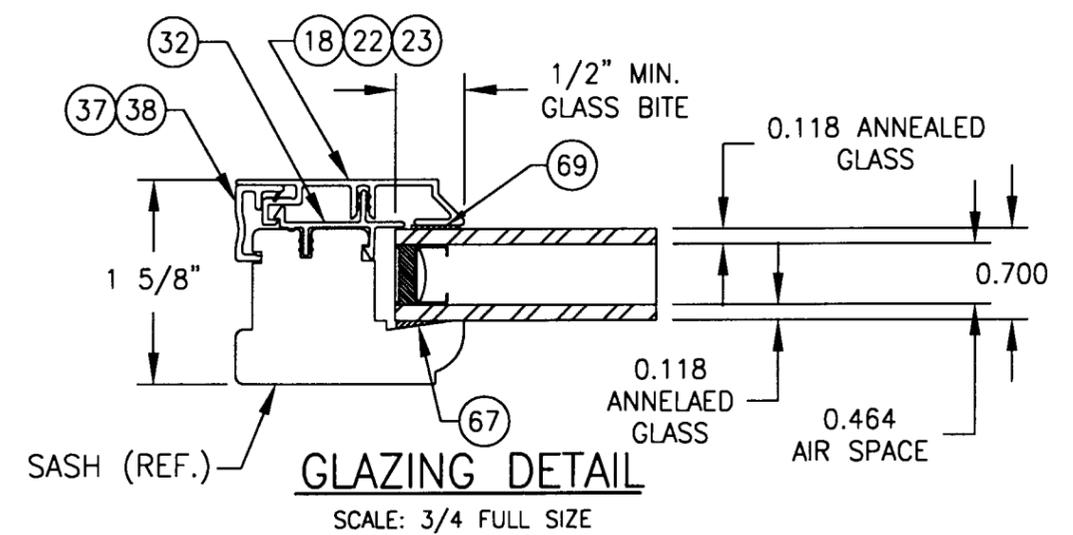
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

WOOD PART DIP SPEC		MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	
<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP
ASSEMBLY VERTICAL CROSS SECTION		
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013061
SCALE: NOTED	DATE: 6/8/99	DRAWN BY: BRAD BOE
		SHEET: 2 OF 11

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



#8 x 2 1/2" SMS SCREW
3 PER JAMB EVENLY
SPACED AT MIDPOINTS
& QUARTER POINTS OF
JAMBS (REF. ELEVATION)



APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel Perez
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BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

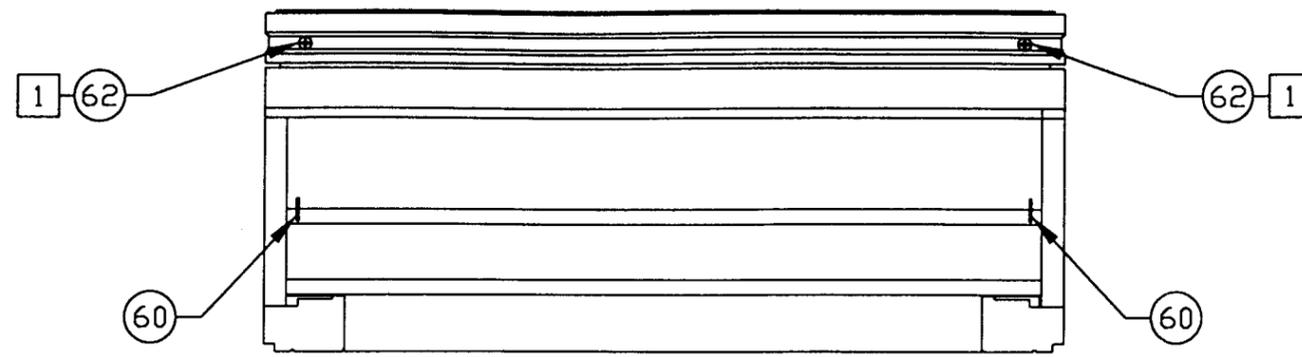
FEB 15 2000
Warren W. Schaefer
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

WOOD PART DIP SPEC <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 ULTIMATE DOUBLE-HUNG PRODUCT: CUDH HP	
ASSEMBLY HORIZONTAL CROSS SECTION	
MATERIAL: N/A	SIZE: B
DRAWING NO: 00013061	SCALE: DATE: 6/8/99
DRAWN BY: BRAD BOE	SHEET: 3 OF 11

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

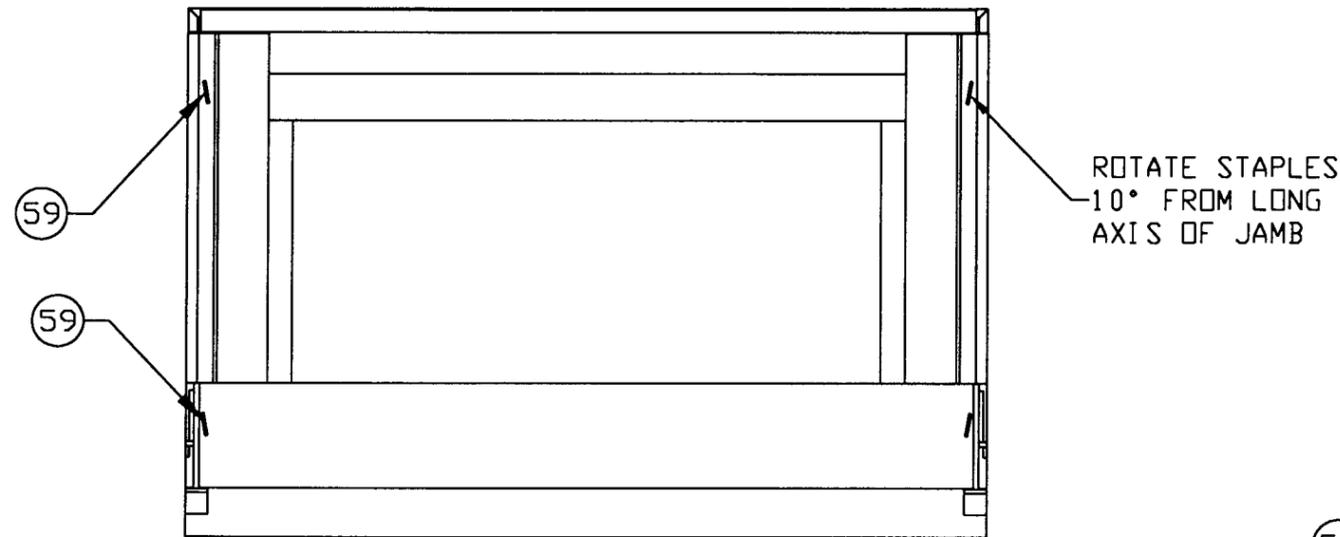
SEALANT INJECTION SCHEDULE

SYMBOL	QUAN. /TYPE SEALANT
1	8.0 GM. ±1 /7100
2	8.0 GM. ±1 /7100
3	8.0 GM. ±1 /7100



TOP VIEW

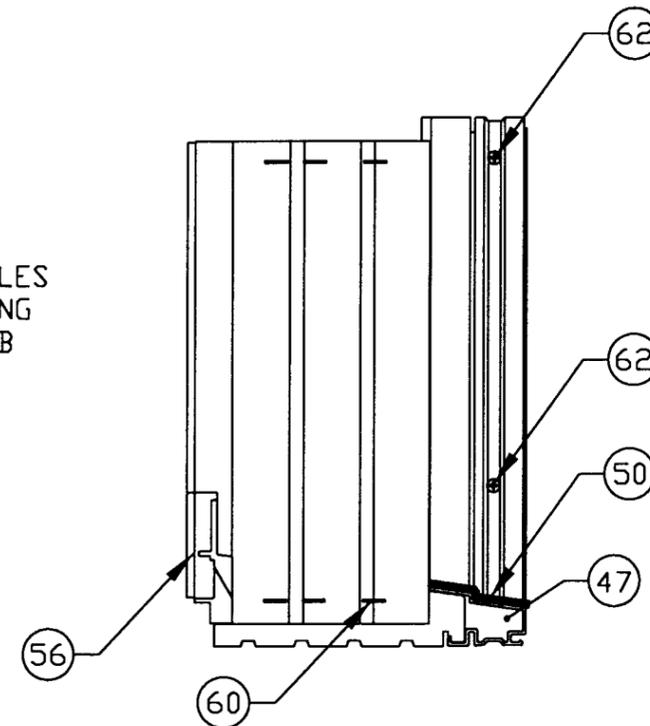
SCALE: 3/8 FULL SIZE



INTERIOR VIEW

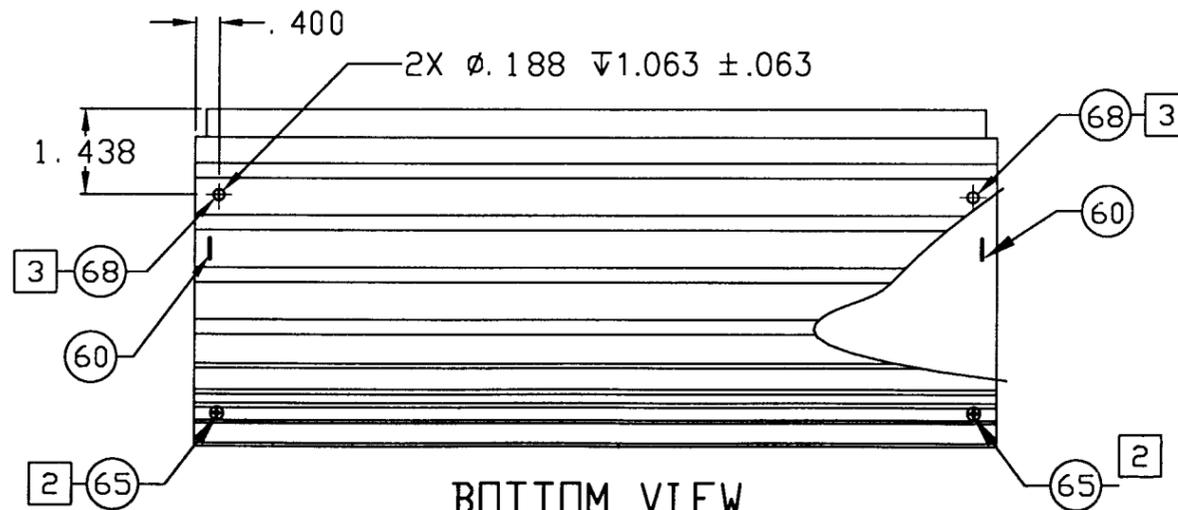
(FRAME ASSEMBLY)

SCALE: 3/8 FULL SIZE



RIGHT SIDE

SCALE: 3/8 FULL SIZE



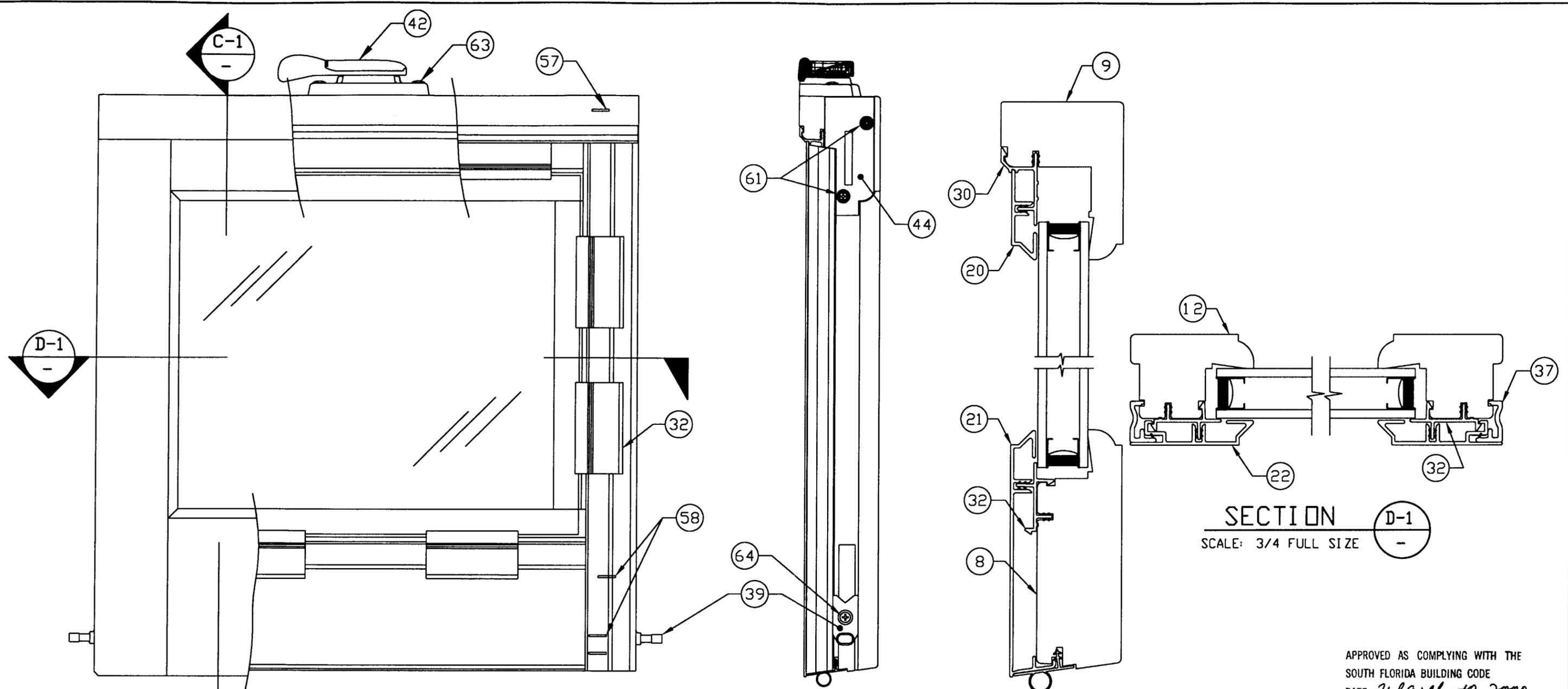
BOTTOM VIEW

SCALE: 3/8 FULL SIZE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE March 10, 2000
 BY Manuel Diaz
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 99-0823.05

FEB 15 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 ULTIMATE DOUBLE-HUNG PRODUCT: CUDH HP	
ASSEMBLY FRAME ASSEMBLY		
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. STRUCTURAL CONSULTING ENGINEERS 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902	MATERIAL: NA	SIZE: B
	DRAWING NO: 00013061	SCALE: DATE: 6/11/99
		SHEET: 4 OF 11

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



**EXTERIOR VIEW
(BOTTOM SASH ASSEMBLY)**

SCALE: HALF FULL SIZE

RIGHT SIDE VIEW

SCALE: HALF FULL SIZE

SECTION C-1

SCALE: 3/4 FULL SIZE

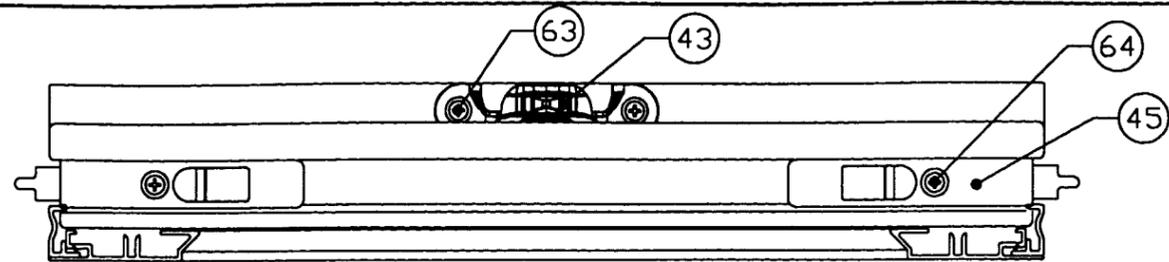
SECTION D-1

SCALE: 3/4 FULL SIZE

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel Serriz
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

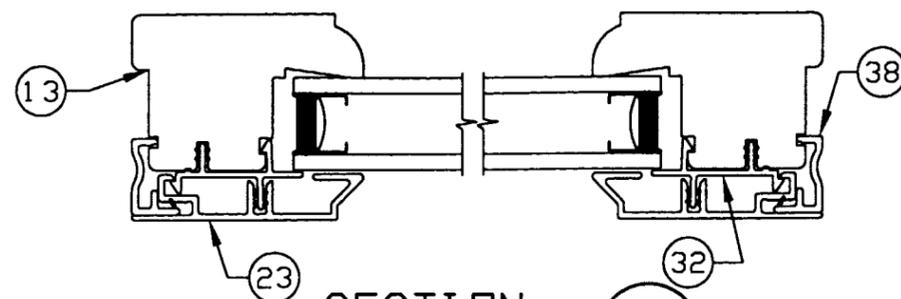
FER 15 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> NO DIP		MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS (218) 386-1430 FAX 386-1913		
	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP				
ASSEMBLY BOTTOM SASH ASSEMBLY					
MATERIAL: NA		SIZE: B		DRAWING NO: 00013061	
SCALE: NOTED		DATE: 6/11/99		DRAWN BY: BRAD BOE	
				SHEET: 5 OF 11	

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



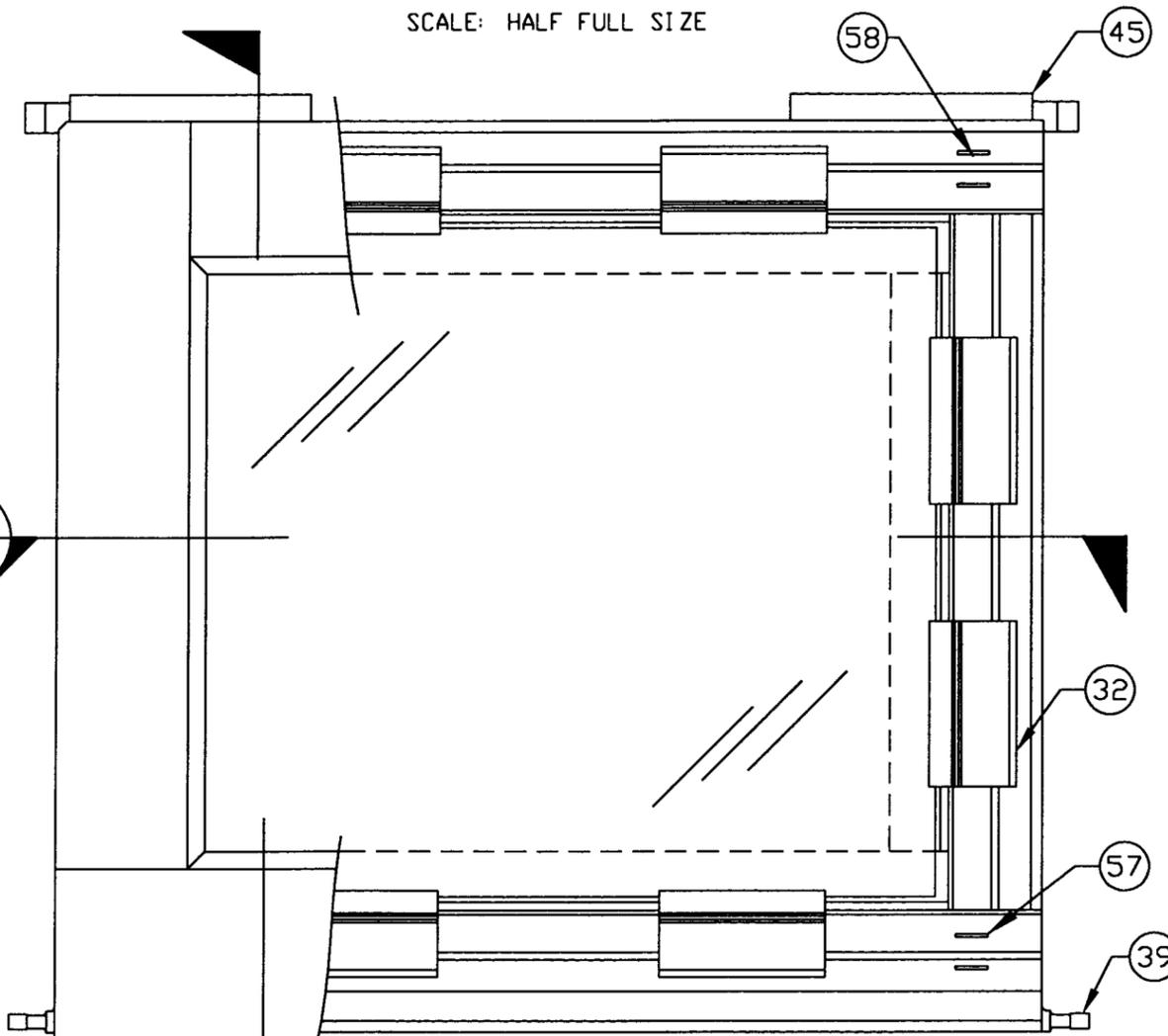
TOP VIEW

SCALE: HALF FULL SIZE



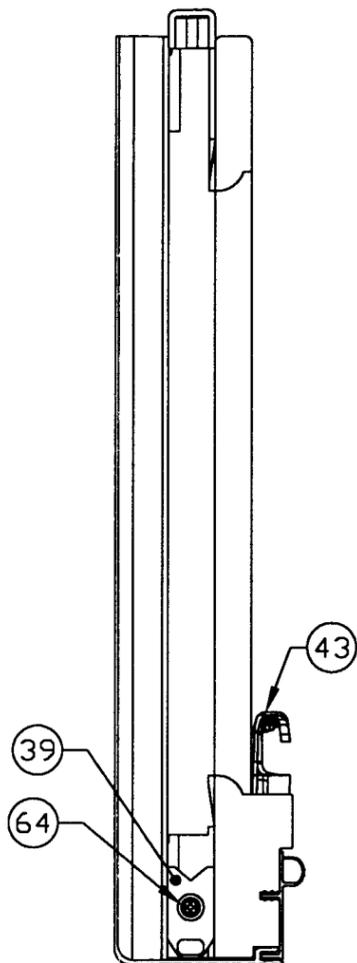
SECTION D-1

SCALE: 3/4 FULL SIZE



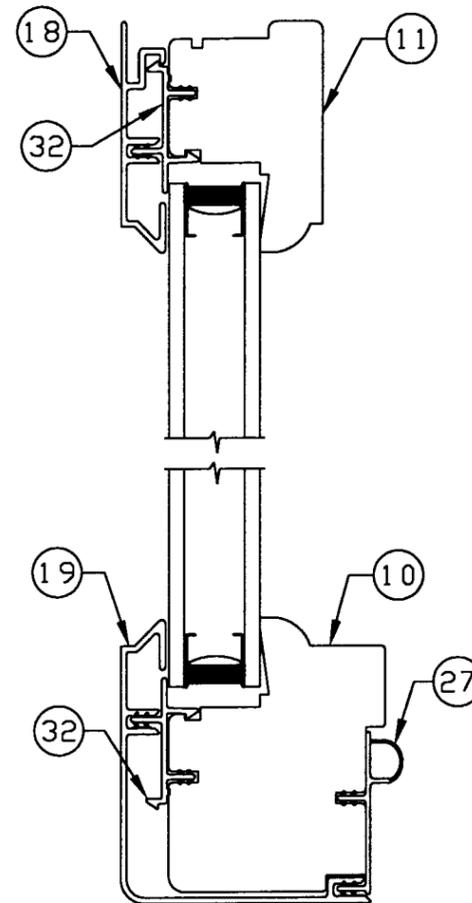
EXTERIOR VIEW
TOP SASH ASSEMBLY

SCALE: HALF FULL SIZE



RIGHT SIDE VIEW

SCALE: HALF FULL SIZE



SECTION E-1

SCALE: 3/4 FULL SIZE

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Warren W. Schaefer
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

FEB 15 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
 NO DIP

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

PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG
PRODUCT: CUDH HP

ASSEMBLY
TOP SASH ASSEMBLY

MATERIAL:
NA

SIZE:
B

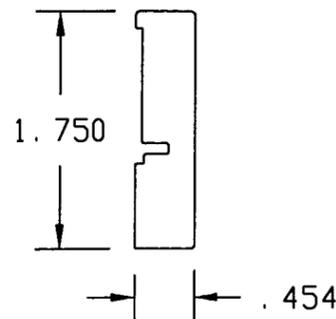
DRAWING NO: 00013061

SCALE: DATE:
NOTED 6/11/99

DRAWN BY:
BRAD BOE

SHEET:
6 OF 11

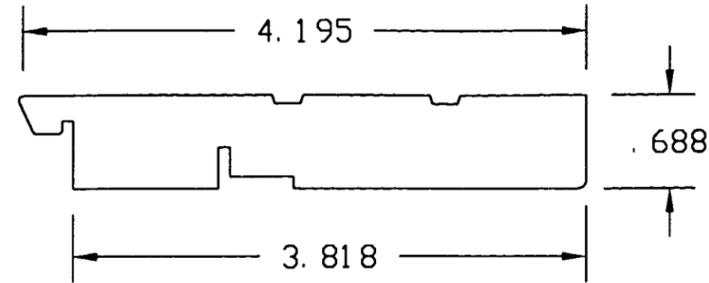
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



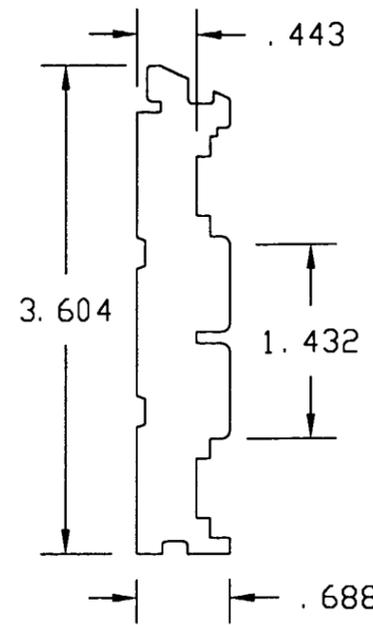
① **SILL LINER**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



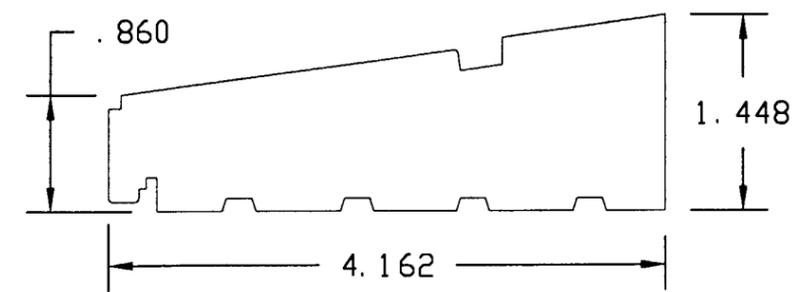
② **JAMB LINER**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



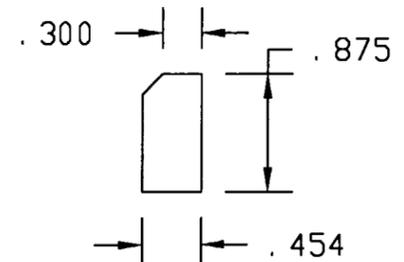
③ **HEADJAMB**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



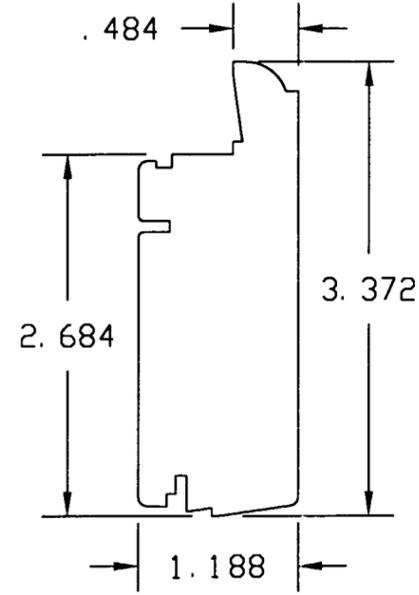
④ **SIDE JAMB**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



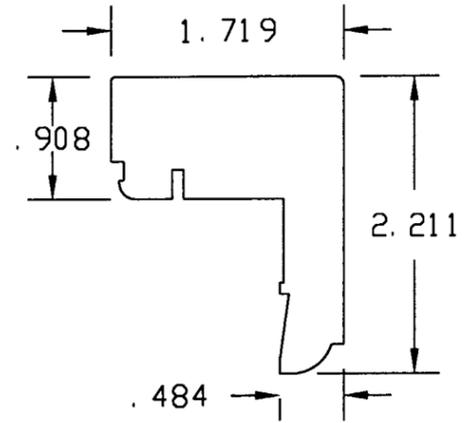
⑤ **SILL**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



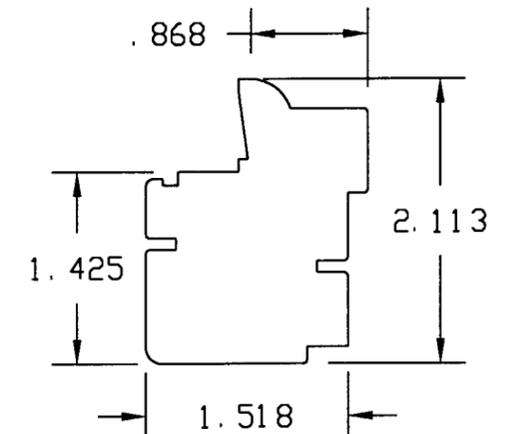
①A **SILL LINER EXTENSION**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



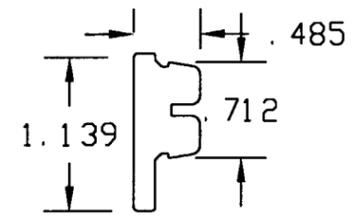
⑧ **BOTTOM RAIL**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



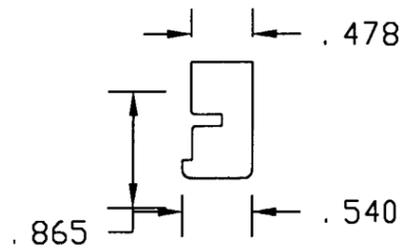
⑨ **CHECKRAIL SECTION**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



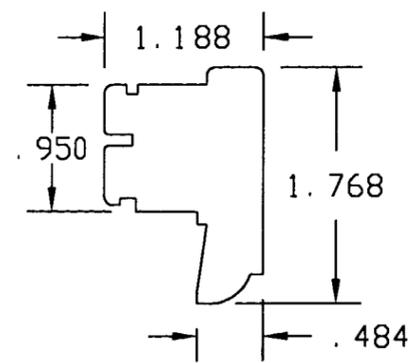
⑩ **CHECKRAIL SECTION**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



⑦ **JAMB FILLER**
SUGAR OR PONDEROSA PINE
PINE. G=0.4



⑥ **PARTING STOP**
SUGAR OR PONDEROSA PINE
PINE. G=0.4

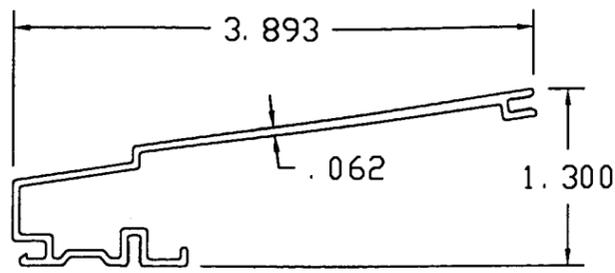


⑪⑫⑬ **TOP RAIL & STILES**
SUGAR OR PONDEROSA PINE
PINE. G=0.4

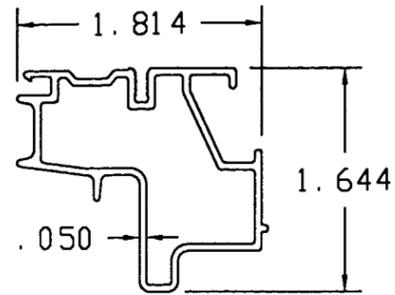
APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Mauro
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

FEB 15 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 ULTIMATE DOUBLE-HUNG PRODUCT: CUDH HP			
COMPONENT PROFILE WOOD PROFILES				
MATERIAL: N/A		DRAWING NO: 00013061		
SCALE: 3/4		DATE: 6/11/99	DRAWN BY: BRAD BOE	SHEET: 7 OF 11

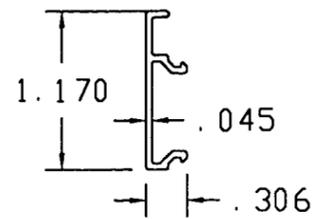
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



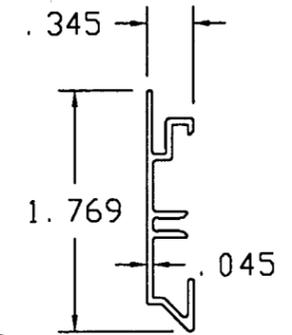
⑭ SILL CLADDING
ALUMINUM (6063-T5)



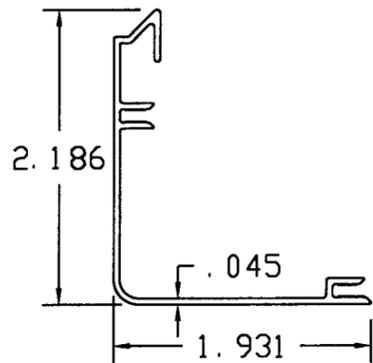
⑮ ⑯ HEAD & SIDE JAMB CLADDING
ALUMINUM (6063-T5)



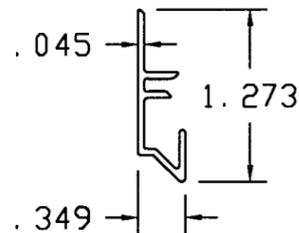
⑰ CLAD JAMB FILLER
ALUMINUM (6063-T5)



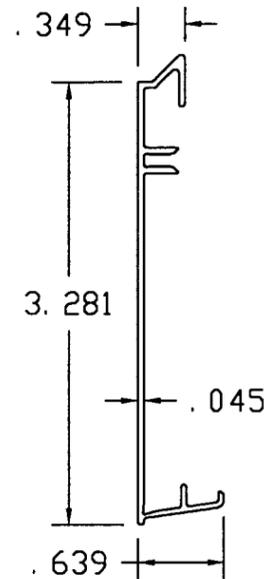
⑱ ⑳㉑ TOP RAIL & STILE CLADDING
ALUMINUM (6063-T5)



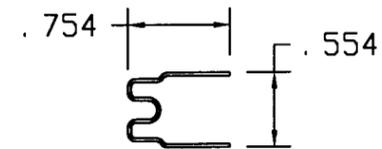
⑲ CHECK RAIL CLADDING
ALUMINUM (6063-T5)



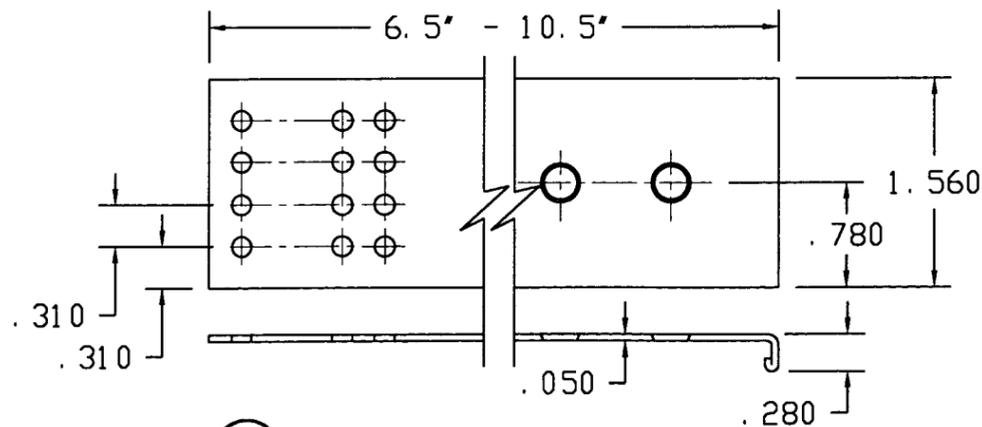
⑳ CHECK RAIL CLADDING
ALUMINUM (6063-T5)



㉑ BOTTOM RAIL CLADDING
ALUMINUM (6063-T5)



④① BALANCE TUBE
GALV STEEL OR ALUM (6063-T5)

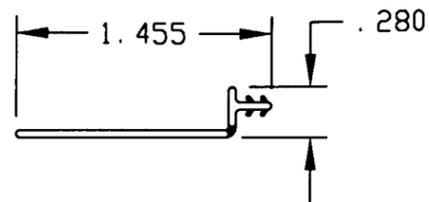


⑤⑤ MASONRY CLIP
GALVANIZED CARBON STEEL

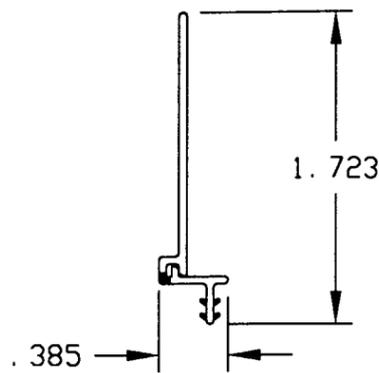
APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel Perez
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

 FEB 15 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135		WOOD PART DIP SPEC	 RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
		<input type="checkbox"/> DIP <input type="checkbox"/> NO DIP	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP	
V. V. SCHAEFER ENGINEERING & CONSULTING, P.A. STRUCTURAL CONSULTING ENGINEERS 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902		COMPONENT PROFILE ALUMINUM & STEEL PROFILES		
		MATERIAL: NOTED	SIZE: B	DRAWING NO: 00013061
		SCALE: 3/4	DATE: 6/15/99	DRAWN BY: BRAD BOE

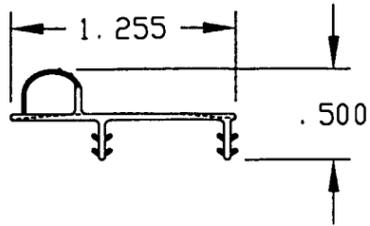
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



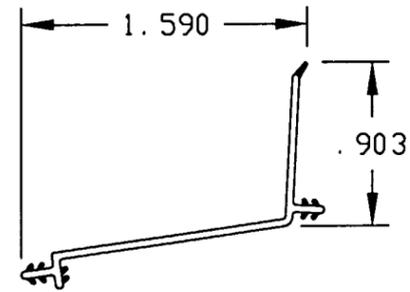
25 SILL NAILING FIN
VINYL (PVC)



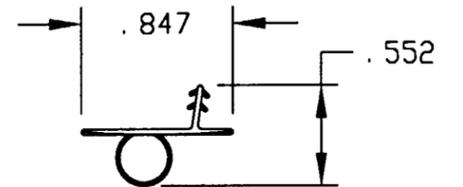
26 HINGED JAMB NAILING FIN
VINYL (PVC)



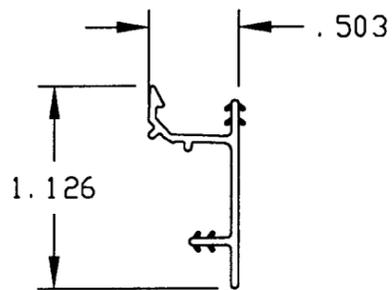
27 CHECK RAIL W. S.
VINYL (PVC)



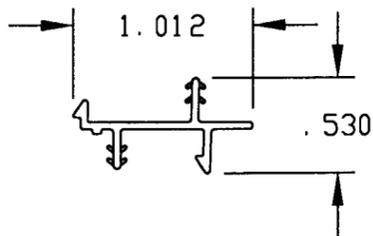
28 SILL COVER
VINYL (PVC)



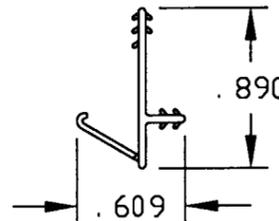
29 BOTTOM RAIL W. S.
VINYL (PVC)



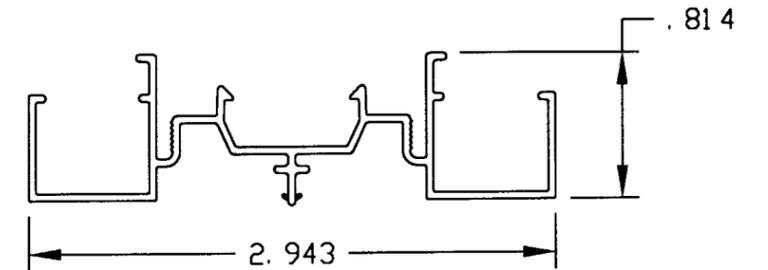
30 RAIL CLAD CONNECTOR
VINYL (PVC)



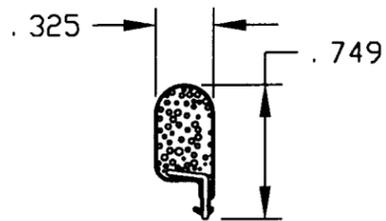
32 SASH CLADDING CLIP
VINYL (PVC)



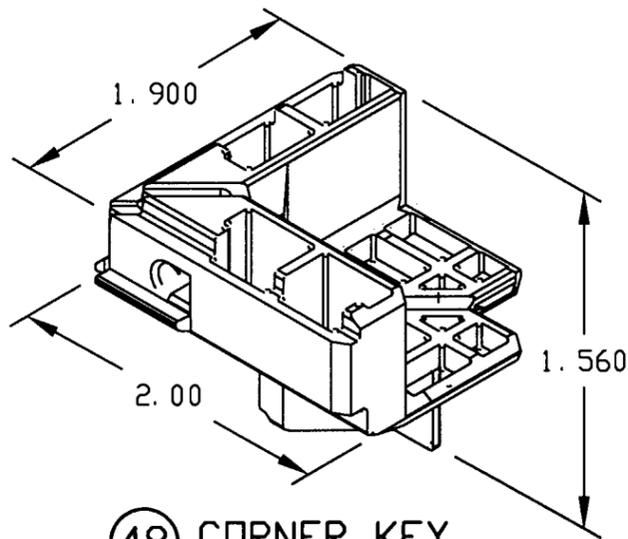
33 HEAD JAMB PARTING STOP W. S.
VINYL (PVC)



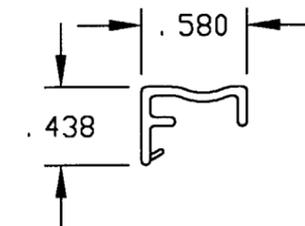
34 JAMB LINER
VINYL (PVC)



35 36 FRAME W. S.
VINYL (POLYPROPYLENE & URETHANE)



48 CORNER KEY
33% GLASS FILL NYLON



37 38 SASH W. S. CONTACT STRIP
VINYL (PVC)

W. S. = WEATHER STRIP

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE *March 10, 2000*
BY *Manuel Torres*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. *99-0823.05*

 FEB 15 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913		
	<input type="checkbox"/> DIP <input type="checkbox"/> NO DIP	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP		
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. STRUCTURAL CONSULTING ENGINEERS 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902	COMPONENT PROFILE MISCELLANEOUS PROFILES		DRAWING NO: 00013061	
	MATERIAL:	SIZE: B	SCALE: 1:1	DATE: 6/15/99
			SHEET: 9	OF 11

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

DESIGN LOAD CAPACITY-PSF				
WINDOW DIMENSIONS		INSULATED GLASS PER DRAWINGS		
HEIGHT	WIDTH	POSITIVE "A"	POSITIVE "B"	NEGATIVE
32.38"	21.38"	66.7	102	102
36.38"		66.7	92	92
40.38"		66.7	83	83
44.38"		66.7	79	79
48.38"		66.7	79	79
52.38"		66.7	79	79
56.38"		66.7	79	79
60.38"		66.7	79	79
64.38"		66.7	79	79
68.38"		66.7	79	79
72.38"		66.7	73	73
76.38"		63.0	63	63
32.38"	25.38"	66.7	102	102
36.38"		66.7	92	92
40.38"		66.7	83	83
44.38"		66.7	76	76
48.38"		66.7	70	70
52.38"		66.0	66	66
56.38"		66.0	66	66
60.38"		66.0	66	66
64.38"		66.0	66	66
68.38"		66.0	66	66
72.38"		63.0	63	63
76.38"		54.0	54	54
32.38"	29.38"	66.7	94	94
36.38"		66.7	88	88
40.38"		66.7	83	83
44.38"		66.7	76	76
48.38"		66.7	70	70
52.38"		64.0	64	64
56.38"		60.0	60	60
60.38"		57.0	57	57
64.38"		57.0	57	57
68.38"		57.0	57	57
72.38"		57.0	57	57
76.38"		49.0	49	49
32.38"	31.38"	66.7	86	86
36.38"		66.7	79	79
40.38"		66.7	74	74
44.38"		66.7	71	71
48.38"		66.7	69	69
52.38"		66.7	64	64
56.38"		66.0	60	60
60.38"		66.0	56	56
64.38"		64.0	54	54
68.38"		60.0	54	54
72.38"		57.0	54	54
76.38"		54.0	48	48

DESIGN LOAD CAPACITY-PSF				
WINDOW DIMENSIONS		INSULATED GLASS PER DRAWINGS		
HEIGHT	WIDTH	POSITIVE "A"	POSITIVE "B"	NEGATIVE
32.38"	33.38"	66.7	78	78
36.38"		66.7	72	72
40.38"		66.7	67	67
44.38"		64.0	64	64
48.38"		61.0	61	61
52.38"		60.0	60	60
56.38"		58.0	58	58
60.38"		58.0	56	56
64.38"		57.0	52	52
68.38"		56.0	50	50
72.38"		53.0	50	50
76.38"		50.0	46	46
32.38"	35.38"	66.7	72	72
36.38"		66.0	66	66
40.38"		62.0	62	62
44.38"		58.0	58	58
48.38"		56.0	56	56
52.38"		54.0	54	54
56.38"		5.0	52	52
60.38"		51.0	51	51
64.38"		51.0	51	51
68.38"		51.0	49	49
72.38"		50.0	48	48
76.38"		48.0	46	46
32.38"	37.38"	66.7	67	67
36.38"		61.0	61	61
40.38"		57.0	57	57
44.38"		53.0	53	53
48.38"		51.0	51	51
52.38"		49.0	49	49
56.38"		47.0	47	47
60.38"		46.0	46	46
64.38"		46.0	46	46
68.38"		45.0	45	45
72.38"		45.0	45	45
76.38"		45.0	45	45

WIDTH = OUTSIDE MEASUREMENT OF FRAME (OSM)
HEIGHT = OUTSIDE MEASUREMENT OF FRAME (OSM)
POSITIVE "A" = ALLOWABLE POSITIVE PRESSURE
AS CONTROLLED BY WATER INFILTRATION OR WIND PRESSURE
POSITIVE "B" = ALLOWABLE POSITIVE PRESSURE AS
CONTROLLED BY WIND PRESSURE ONLY
NEGATIVE = ALLOWABLE NEGATIVE PRESSURE.

NOTE: ALL RESULTING PRESSURES ARE
AS CONTROLLED BY WORSE CASE
CONSIDERING, FRAME STRESS &
DEFLECTIONS, GLASS LOAD CAPACITY,
CHECK RAIL END REACTION & FASTENER
CAPACITIES.

TESTED WINDOW				
SIZE		TESTED DESIGN PRESSURE	TESTED WATER PRESSURE	TEST REPORT NUMBER
WIDTH	HEIGHT			
37.38"	76.38"	+/- 45 PSF	+66.7 PSF	2364

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE March 10, 2000
BY Manuel
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823.05

← TESTED UNIT

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

FEB 15 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	<input type="checkbox"/> WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> NO DIP	MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913		
	PRODUCT LINE: CLAD ULTIMATE DOUBLE HUNG PRODUCT: CUDH HP			
COMPONENT PROFILE DESIGN LOAD CAPACITY TABLE				
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. STRUCTURAL CONSULTING ENGINEERS 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902	MATERIAL:	SIZE: B	DRAWING NO: 00013061	
	SCALE: N/A	DATE: 6/15/99	DRAWN BY: BRAD BOE	SHEET: 10 OF 11

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
PARTS & EXTRUSIONS			
1	00011803	WOOD SILL LINER	
1A	00013856	WOOD SILL LINER EXTENSION	
2	00011796	WOOD JAMB LINER	
3	00012269	WOOD HEAD JAMB	
4	00012262	WOOD SIDE JAMB	
5	00011801	WOOD SILL	
6	00011805	WOOD HEAD JAMB PARTING STOP	
7	00012343	WOOD JAMB FILLER	
8	00011754	WOOD BOTTOM RAIL	FOR BOTTOM WINDOW
9	00011752	WOOD CHECK RAIL SECTION	FOR BOTTOM WINDOW
10	00011751	WOOD CHECK RAIL SECTION	FOR TOP WINDOW
11	00011742	WOOD TOP RAIL	FOR TOP WINDOW
12	00011755	WOOD STILE	FOR BOTTOM WINDOW
13	00011758	WOOD STILE	FOR TOP WINDOW
14	00011810	SILL CLADDING	
15	00012378	HEAD JAMB CLADDING	
16	00012349	SIDE JAMB CLADDING	
17	00012530	CLAD JAMB FILLER	
18	00012163	TOP RAIL CLADDING	FOR TOP WINDOW
19	00012167	CHECK RAIL CLADDING	FOR TOP WINDOW
20	00011830	CHECK RAIL CLADDING	FOR BOTTOM WINDOW
21	0002166	BOTTOM RAIL CLADDING	FOR BOTTOM WINDOW
22	00012164	STILE CLADDING	FOR BOTTOM WINDOW
23	00012165	STILE CLADDING	FOR TOP WINDOW
24	00005346	NAILING FIN DRIP CAP	NOT SHOWN ON DRAWINGS
25	00005284	SILL NAILING FIN	
26	00005301	JAMB NAILING FIN	
27	00011849	CHECK RAIL W/S	
28	00011813	SILL COVER	
29	00011848	BOTTOM RAIL W/S	FOR BOTTOM WINDOW
30	00011811	TOP RAIL CLAD CONNECTOR	FOR BOTTOM WINDOW
31	00012323	VINYL SASH STOP	NOT SHOWN ON DRAWINGS
32	00012117	SASH CLADDING CLIP	
33	00012531	HEAD JAMB PARTING STOP W/S	
34	00012310	JAMB LINER	
35	00011879	FRAME W/S	FOR TOP WINDOW
36	00011879	FRAME W/S	FOR BOTTOM WINDOW
37	00011918	SASH W/S CONTACT STRIP	FOR BOTTOM WINDOW
38	00011918	SASH W/S CONTACT STRIP	FOR TOP WINDOW

ALTERNATE WOOD SPECIES FOR ALL WOOD MEMBERS

1. MAHOGANY
2. OAK
3. CHERRY
4. CYPRESS
5. DOUGLAS FIR

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PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 99-0823-05

FEB 15 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 ULTIMATE DOUBLE-HUNG
PRODUCT: CUDH HP

CHART
BILL OF MATERIALS

MATERIAL:
N/A

SIZE:
B

DRAWING NO: 00013061

SCALE:
N/A

DATE:
11/20/98

DRAWN BY:
J HAPKA

SHEET:
11 OF 11

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
PURCHASED PARTS			
39	00011844	CLUTCH PIVOT PIN	ZINC DIECAST BY MIDWEST MOULDING
40	00012309	BALANCE TUBE	ALUMINUM OR STEEL BY AMESBURY
41	00012309	BALANCE TUBE	ALUMINUM OR STEEL BY AMESBURY
42	00012532	LOCK ASSEMBLY	ZINC DIECAST BY TRUTH HARDWARE
43	00012533	KEEPER ASSEMBLY	ZINC DIECAST BY TRUTH HARDWARE
44	00012534	ENDPLATE ASSEMBLY	33% GLASS FILLED NYLON BY MIDWEST MOULDING
45	00012535	TILT LATCH ASSEMBLY	33% GLASS FILLED NYLON BY MIDWEST MOULDING
46	00012421	OPERATION CHORD	POLYESTER BY CORDMASTER
47	00012069	SILL END PLUG	33% GLASS FILLED NYLON BY MIDWEST MOULDING
48	00012434	CORNER KEY	33% GLASS FILLED NYLON BY MIDWEST MOULDING
49	00012433	JAMB END PLUG	33% GLASS FILLED NYLON BY MIDWEST MOULDING
50	00012407	SILL TO JAMB GASKET	PVC FOAM BY CLIMATECH
51	00003521	GLASS SETTING BLOCK	SANTOPRENE BY GENERAL WINDOW PRODUCTS
52	00012513	FOAM HARDWARE GASKET	PVC FOAM BY CLIMATECH
53	-	.375 FOAM BAKER ROD @ HEAD JAMB	CLOSED CELL FOAM BY NAMETECH
54	00012655	SHIPPING CLIP	
55	11860012	MASONRY CLIP	GALVANIZED STEEL BY WABANICA
56	00012834	SILL LINER PLUG	
FASTENERS			
57	11820078	GSN18x7/8" STAPLE	AS SHOWN ON DRAWING
58	11820100	GSN18x1" STAPLE	AS SHOWN ON DRAWING
59	11820086	GSN18x1 1/2" STAPLE	FRAME JAMB & SILL LINER; 3" FROM ENDS & 5" O.C.
60	11820120	GSN18x2" STAPLE	FRAME CORNERS; 3 @ SIDES 1 @ HEAD & SILL
61	11800510	#6-20x5/8" F.H. SMS SCREW	2 PER END PLATE ASSEMBLY @ BOTTOM WINDOW
62	FAST-530	#7-19x5/8" F.H. S.S. SMS SCREW	1 EACH END OF FRAME CLADDING TYP. @ ALL SIDES
63	00003205	#7-19x7/8" F.H. S.T. SMS SCREW	2 PER LOCK & KEEPER ASSEMBLY
64	00013166	#7-19x1 1/4" P.H. SMS SCREW	2 PER CLUTCH PIVOT PIN @ TOP & BOTTOM WINDOWS
65	FAST-0545	#8-15x1 1/2" F.H. S.S. SMS SCREW	1 EA. END OF SILL CLADDING
SEALANTS			
67	-	DOW 345 SILICONE	BY DOW CORNING
68	-	SM 7100 URETHANE	BY SCHNEE MOREHEAD, INC.; INJECTED INTO FRAME CORNERS
69	-	.040 x 3/8 GLAZING TAPE	BY ARLON MFG.