

**EXTERIOR ELEVATION
RECTANGULAR WINDOW**

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

NIAL FIN MOUNT CONDITION IS SHOWN IN THIS ELEVATION. FOR OTHER MOUNTING OPTIONS (CLIP MOUNT), SEE DETAILS ON SHEET 2.

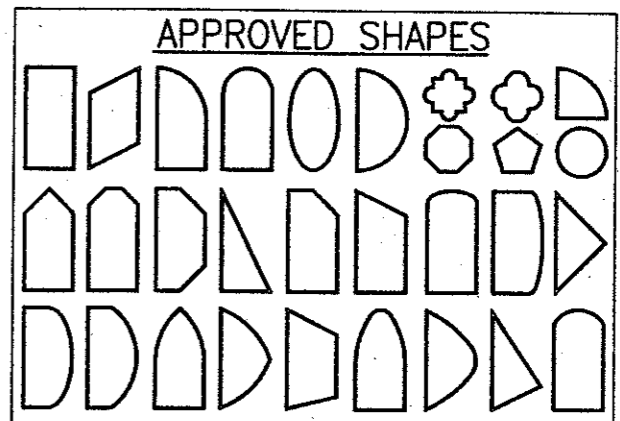
RECTANGULAR SHAPE SHOWN, SHAPED WINDOW IS SIMILAR AND HAS THE SAME REQUIREMENTS AS SHOWN WITH THE RECTANGULAR WINDOW.

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.
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 & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH & MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (F.B.C.).
5. THESE WINDOWS HAVE BEEN TESTED IN ACCORDANCE WITH AAMA, NWWDA 101 AND I.S. 2-97 "VOLUNTARY SPECIFICATIONS FOR ALUMINUM, VINYL (PVC) AND WOOD WINDOWS AND GLASS DOORS." REFERENCE TEST REPORT NO. 06-30415.01 PREPARED BY ARCHITECTURAL TESTING, INC. (ATI). TESTED SAMPLE WAS A 95.5" X 59.5" (FRAME SIZE) RECTANGULAR WINDOW TO A +/-30 PSF DESIGN LOAD.
6. TESTS COMPLETED INCLUDE AIR INFILTRATION PER ASTM E283-91, WATER RESISTANCE PER ASTM E547-96, UNIFORM LOAD STRUCTURAL PER ASTM 330-96 AND FORCED ENTRY PER ASTM F 588-97.
7. THESE WINDOW SYSTEMS ARE NON-IMPACT RATED AND MUST BE SHUTTERED WHERE REQUIRED BY CODE.
8. ALL WINDOW SIZES SPECIFIED AS ALLOWABLE IN THE "WINDOW ALLOWABLE SIZE TABLE" HAVE BEEN COMPARED TO THE TESTED UNIT AND ARE RESTRICTED BY THE OVERALL SIZE (AREA) OF THE TESTED UNIT. ALL COMPONENTS HAVE BEEN CHECKED, INCLUDING GLASS TO ASTM E-1300, TO SUPPORT THE LOADS AS SPECIFIED IN THE LOAD TABLE.
9. GLASS USED WITH THE TESTED UNIT WAS 1" I.G. WITH 3/16" ANNEALED PANES. TEMPERED OR HEAT STRENGTHENED 3/16" PANES MAY ALSO BE USED AS AN ALTERNATE.

CORNER CONSTRUCTION:

1. ALL CORNERS ARE MITERED AND FULLY WELDED



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN.
2. ALL UNITS MUST FIT INSCRIBED INTO THE RECTANGULAR DIMENSIONS SHOWN IN THE SIZE TABLE (SEE THIS SHEET) & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE UNIT SIZE IN THE TABLE.
3. CORNER CONSTRUCTION OF THE SHAPED UNITS MUST BE THE SAME AS THAT SPECIFIED ON THESE DRAWINGS.
4. SHAPED UNITS SHALL BE INSTALLED THE SAME AS SHOWN FOR THE RECTANGULAR UNIT.

FRAME ANCHOR REQUIREMENTS TABLE

FIN SCREWS			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	2" X 11GA. ROOFING NAILS	1 7/8"	1/2"
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 1/8"	1/2"
* SHEAR/CLIP SCREWS			
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 1/4"	3/4"
CMU/CONCRETE	(1) 3/16" CONCRETE SCREWS	1 1/4"	2"

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

* ANCHOR NOTE: FRAME MAY BE EITHER FIN OR CLIP MOUNTED TO THE OPENING. WHEN FIN MOUNTED, THE ATTACHMENT OF THE FIN SHALL BE TO A MIN. 2X4 NO. 3 SOUTHERN PINE WOOD MEMBER (FRAMING OR BUCK). WHEN CLIP MOUNTED, THE ATTACHMENT MAY BE TO A MIN NO. 3 SOUTHERN PINE BUCK OR FRAMING MEMBER OR DIRECTLY TO A BLOCK/CONCRETE WALL (USE NO. 8 SCREWS WHEN TO WOOD AND 3/16" CONCRETE SCREWS WHEN TO BLOCK/CONCRETE). IF THE OPENING CONDITIONS REQUIRE THAT A SPACER BE USED BETWEEN THE FRAME AND SUPPORTING SUBSTRATE, THE SPACER MUST BE A CONTINUOUS WOOD MEMBER AND THE WINDOW FRAME MUST BE CLIP MOUNTED TO THE OPENING WITH THE CLIP SCREWS RUNNING THROUGH THE SPACER AND INTO THE SUPPORTING SUBSTRATE.

**ALLOWABLE WINDOW
SIZE TABLE**

MAXIMUM SHORT DIMENSION	MAXIMUM LONG DIMENSION
60" OR LESS	96"
66"	87"
72"	80"

**ALLOWABLE DESIGN
PRESSURE**

POSITIVE	NEGATIVE
30 PSF	30 PSF

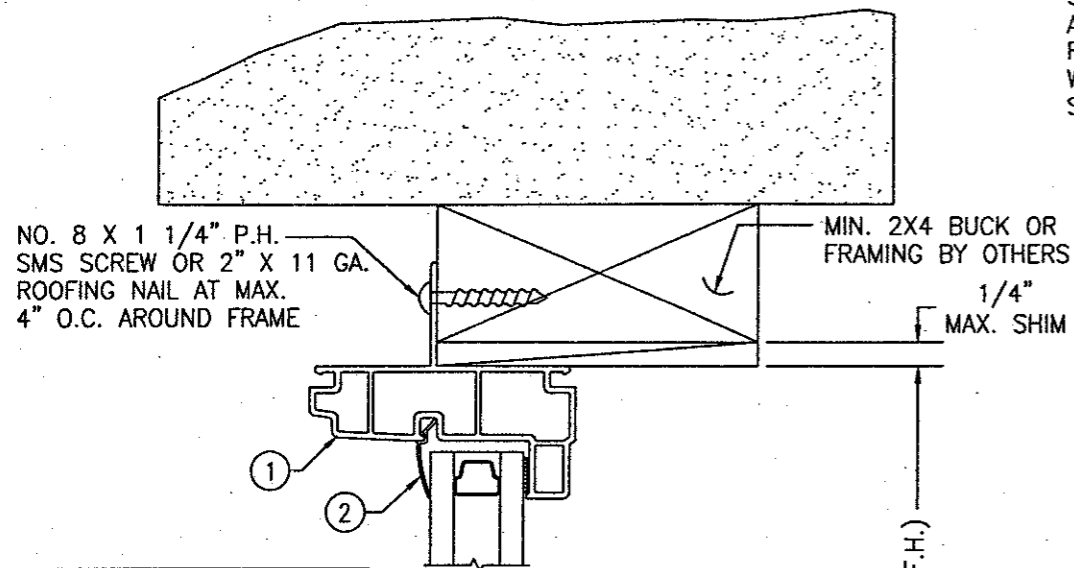
MULLION NOTE:

THESE WINDOWS MAY BE MULLED TOGETHER PROVIDING THEY ARE DONE SO PER MULLION DRAWING NO. 1110 BY W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. OR THE MULLIONS USED ARE CERTIFIED BY A REGISTERED ENGINEER.

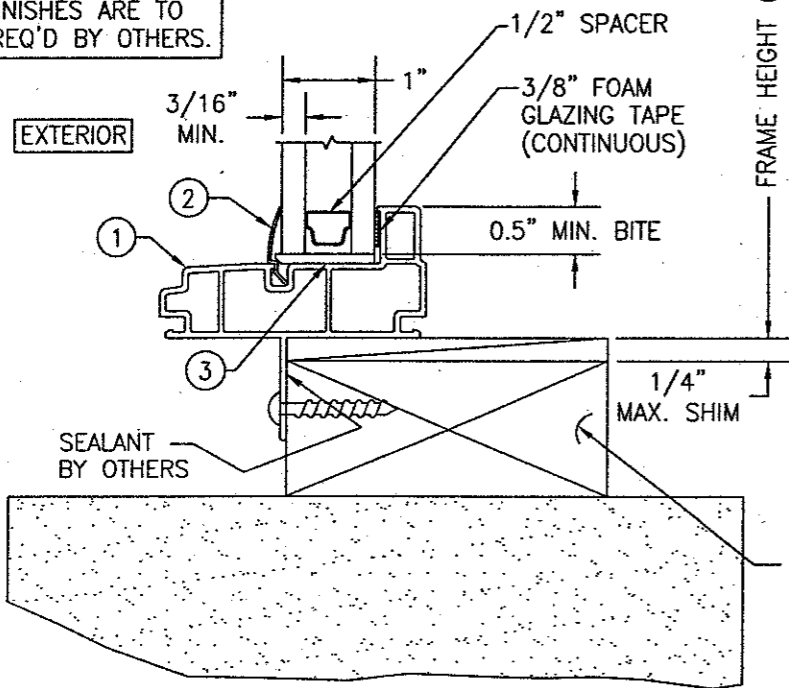
TABLE NOTES:

- (1) ALL WINDOW DIMENSION VALUES SHOWN ARE +/-1/2" & ARE FRAME (F.H. & F.W.) DIMENSIONS

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-16	DATE: 06/25/02
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE VINYL BUILDERS SERIES DIRECT SET (VBDS) NON-IMPACT WINDOW	
MANUFACTURER HURD MILLWORK CO., INC. 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4802 FAX: 561-775-4903	
CERTIFICATION	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1117	REV.
SHEET NO. 1	OF 2



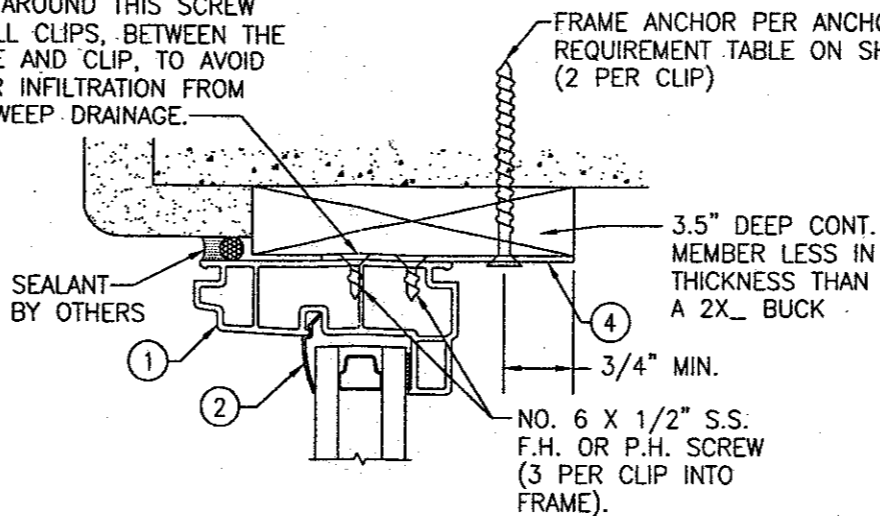
NOTE: FINISHES ARE TO BE AS REQ'D BY OTHERS.



SECTION A
SCALE: 1/2 FULL

ITEM #	PART	ITEM DESCRIPTION	MANUFACTURER/NOTES
1	7325	FRAME	PVC
2	6177	GLAZING BEAD	PVC
3	6152	GLASS SETTING BLOCK	PVC
4	-	INSTALLATION CLIP (WITHIN 6" OF CORNERS & MAX. 16" O.C.)	16 GA. GALVANIZED STEEL OR 1/16" 6061-T6 ALUMINUM

SEAL AROUND THIS SCREW AT SILL CLIPS, BETWEEN THE FRAME AND CLIP, TO AVOID WATER INFILTRATION FROM SILL WEEP DRAINAGE.



OPTIONAL DIRECT MOUNT DETAIL

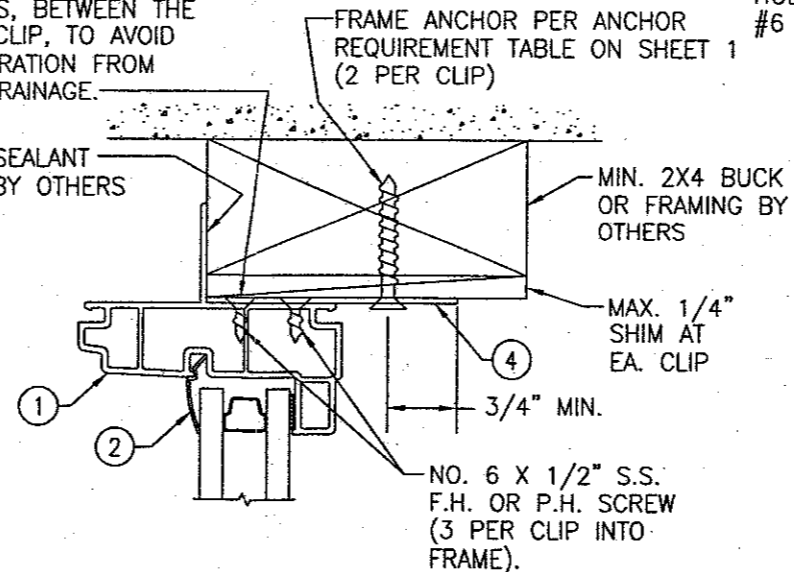
HEAD JAMB SHOWN; OTHER JAMBS SAME

SEE SECTIONS FOR DETAIL NOT SHOWN

THIS DETAIL ALSO APPLIES FOR FRAMED OR BUCKED OPENINGS WHEN A SPACER SECTION MUST BE USED TO BUILD OUT THE FRAMED/BUCKED OPENING.

NOTE: WHEN CLIP MOUNTED, THE FIN MAY BE REMOVED.

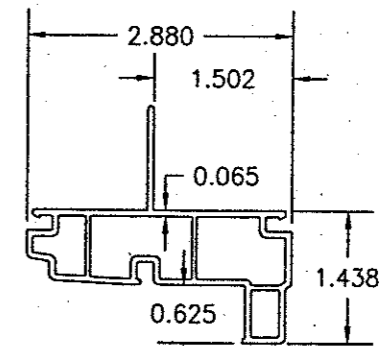
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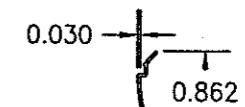
OPTIONAL CLIP MOUNT DETAIL

HEAD JAMB SHOWN; OTHER JAMBS SAME

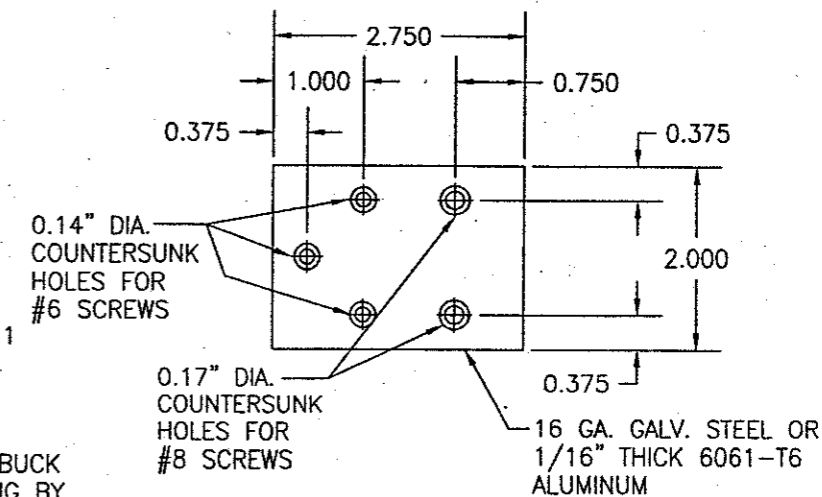
SEE SECTIONS FOR DETAIL NOT SHOWN



① FRAME

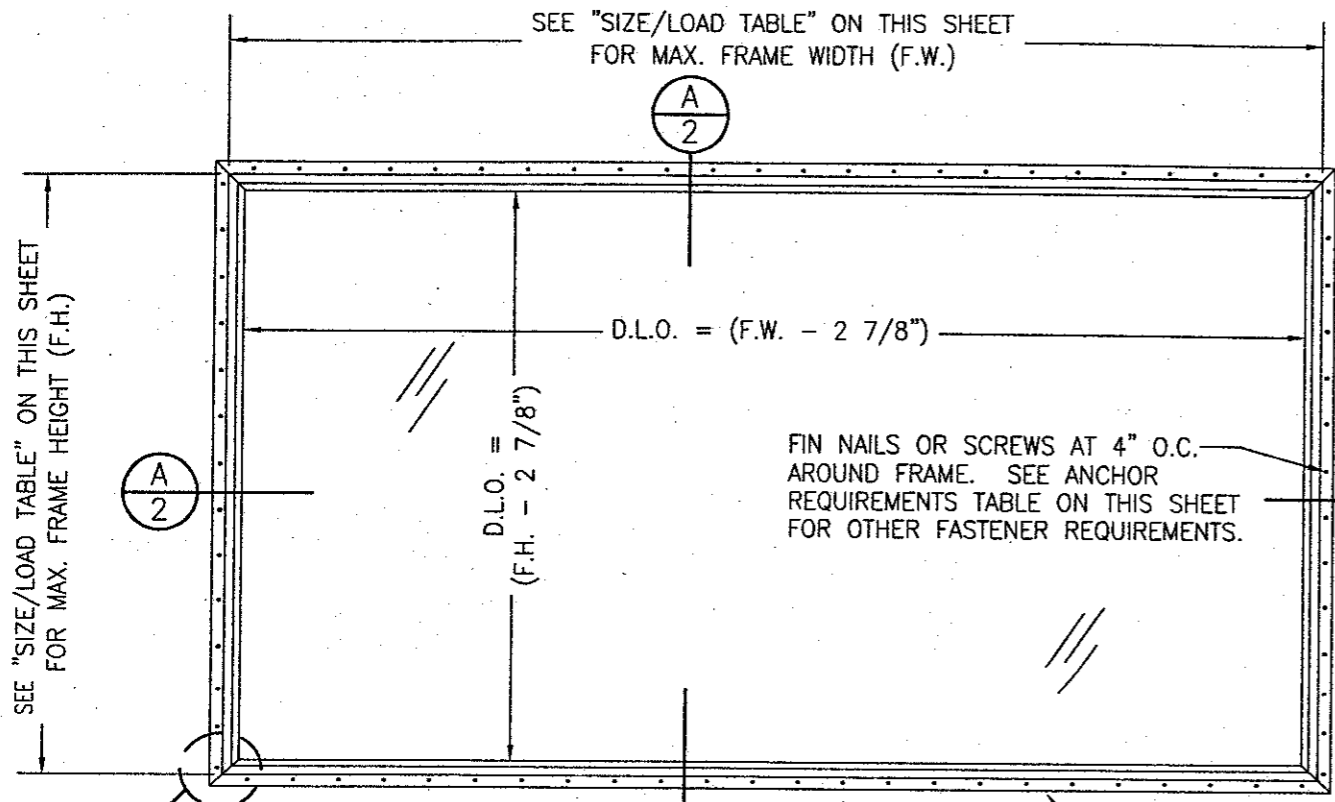


② GLAZING BEAD



④ INSTALLATION CLIP

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 06/25/02
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE VINYL BUILDERS SERIES DIRECT SET (VBDS) NON-IMPACT WINDOW	
MANUFACTURER HURD MILLWORK CO., INC.	575 S. HELEN AVE. MEDFORD, WI 54451 800-433-4873
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	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1117	REV.
SHEET NO. 2	OF 2



SEE "SIZE/LOAD TABLE" ON THIS SHEET FOR MAX. FRAME WIDTH (F.W.)

SEE "SIZE/LOAD TABLE" ON THIS SHEET FOR MAX. FRAME HEIGHT (F.H.)

FIN NAILS OR SCREWS AT 4" O.C. AROUND FRAME. SEE ANCHOR REQUIREMENTS TABLE ON THIS SHEET FOR OTHER FASTENER REQUIREMENTS.

WINDOW NAIL FIN MAY BE REMOVED WHEN CLIP MOUNTED TO THE OPENING.

SEE "CORNER CONSTRUCTION REQUIREMENTS" ON THIS SHEET.

**EXTERIOR ELEVATION
RECTANGULAR WINDOW**

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

NAIL FIN MOUNT CONDITION IS SHOWN IN THIS ELEVATION. FOR OTHER MOUNTING OPTIONS (CLIP MOUNT), SEE DETAILS ON SHEET 2.

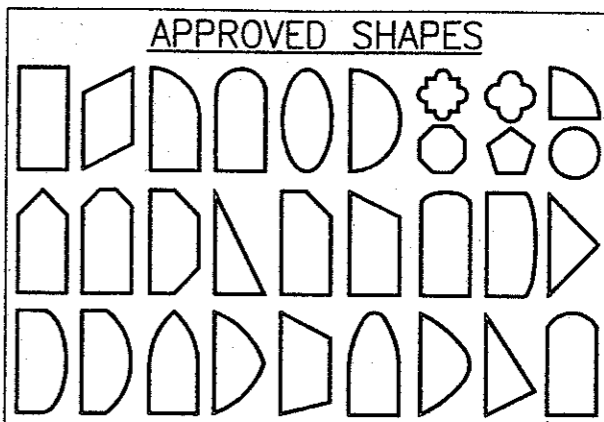
RECTANGULAR SHAPE SHOWN, SHAPED WINDOW IS SIMILAR AND HAS THE SAME REQUIREMENTS AS SHOWN WITH THE RECTANGULAR WINDOW.

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.
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 & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH & MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (F.B.C.).
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6. TESTS COMPLETED INCLUDE AIR INFILTRATION PER ASTM E283-91, WATER RESISTANCE PER ASTM E547-96 AND UNIFORM LOAD STRUCTURAL PER ASTM 330-96.
7. THESE WINDOW SYSTEMS ARE NON-IMPACT RATED AND MUST BE SHUTTERED WHERE REQUIRED BY CODE.
8. ALL WINDOW SIZES SPECIFIED AS ALLOWABLE IN THE "WINDOW SIZE/PRESSURE TABLE" HAVE BEEN COMPARED TO THE TESTED UNIT AND ARE RESTRICTED BY THE OVERALL SIZE (AREA) OF THE TESTED UNIT. ALL COMPONENTS HAVE BEEN CHECKED, INCLUDING GLASS TO ASTM E-1300, TO SUPPORT THE LOADS AS SPECIFIED IN THE LOAD TABLE.
9. GLASS USED WITH THE TESTED UNIT WAS 1" I.G. WITH 1/4" ANNEALED PANES. TEMPERED OR HEAT STRENGTHENED 1/4" PANES MAY ALSO BE USED AS AN ALTERNATE.

CORNER CONSTRUCTION:

1. ALL CORNERS ARE MITERED AND FULLY WELDED.



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN.
2. ALL UNITS MUST FIT INSCRIBED INTO THE RECTANGULAR DIMENSIONS SHOWN IN THE LOAD/SIZE TABLE (SEE THIS SHEET) & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE UNIT SIZE IN THE TABLE.
3. CORNER CONSTRUCTION OF THE SHAPED UNITS MUST BE THE SAME AS THAT SPECIFIED ON THESE DRAWINGS.
4. SHAPED UNITS SHALL BE INSTALLED THE SAME AS SHOWN FOR THE RECTANGULAR UNIT.

FRAME ANCHOR REQUIREMENTS TABLE

FIN SCREWS			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	2" X 11GA. ROOFING NAILS	1 7/8"	1/2"
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 1/8"	1/2"
* SHEAR/CLIP SCREWS			
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 1/4"	3/4"
CMU/CONCRETE	(1) 3/16" CONCRETE SCREWS	1 1/4"	2"

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

* ANCHOR NOTE: FRAME MAY BE EITHER FIN OR CLIP MOUNTED TO THE OPENING. WHEN FIN MOUNTED, THE ATTACHMENT OF THE FIN SHALL BE TO A MIN. 2X4 NO. 3 SOUTHERN PINE WOOD MEMBER (FRAMING OR BUCK). WHEN CLIP MOUNTED, THE ATTACHMENT MAY BE TO A MIN NO. 3 SOUTHERN PINE BUCK OR FRAMING MEMBER OR DIRECTLY TO A BLOCK/CONCRETE WALL (USE NO. 8 SCREWS WHEN TO WOOD AND 3/16" CONCRETE SCREWS WHEN TO BLOCK/CONCRETE). IF THE OPENING CONDITIONS REQUIRE THAT A SPACER BE USED BETWEEN THE FRAME AND SUPPORTING SUBSTRATE, THE SPACER MUST BE A CONTINUOUS WOOD MEMBER AND THE WINDOW FRAME MUST BE CLIP MOUNTED TO THE OPENING WITH THE CLIP SCREWS RUNNING THROUGH THE SPACER AND INTO THE SUPPORTING SUBSTRATE.

IF CLIP MOUNTED, THE CLIPS MUST BE PLACED WITHIN 6" OF THE FRAME CORNERS AND SPACED MAX. 16" O.C.

MULLION NOTE:
THESE WINDOWS MAY BE MULLIONED TOGETHER PROVIDING THEY ARE DONE SO PER MULLION DRAWING NO. 1110 BY W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. OR THE MULLIONS USED ARE CERTIFIED BY A REGISTERED ENGINEER.

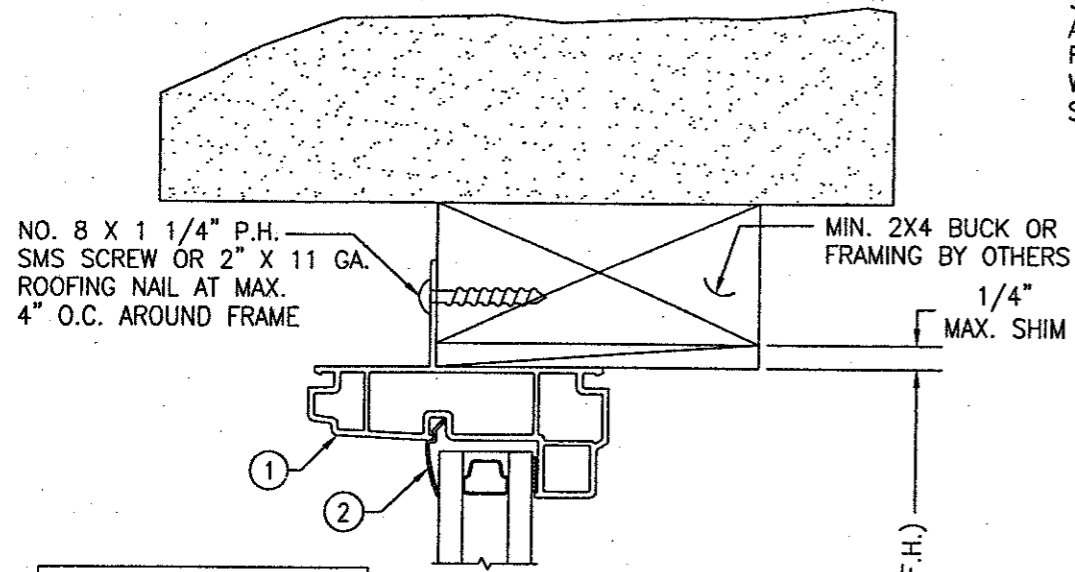
(1) ALLOWABLE WINDOW SIZE & DESIGN PRESSURE TABLE

(2) SHORT DIMENSION	(1)(3) DESIGN LOAD CAPACITY (POSITIVE & NEGATIVE PSF)								
	48"	54"	60"	66"	72"	78"	84"	90"	96"
48" OR LESS	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
54"		40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
60"			36.0	36.0	36.0	36.0	36.0		
66"				32.7	32.7	32.7			
72"					30.0				
(2) LONG DIMENSION	48"	54"	60"	66"	72"	78"	84"	90"	96"

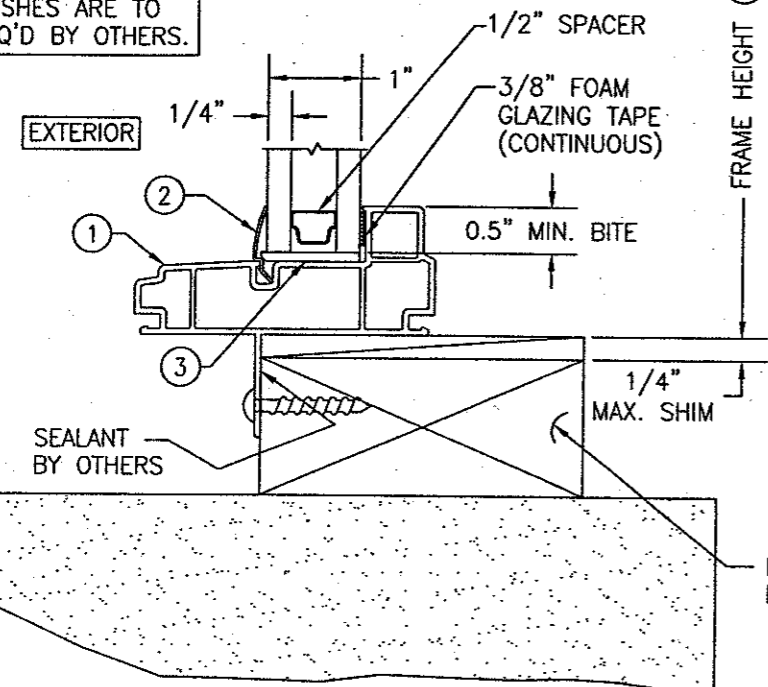
TABLE NOTES:

- (1) ALL LOADS IN THIS TABLE ARE ALLOWABLE WIND PRESSURE CONSIDERING A 3 SECOND GUST WIND SPEED SO AS TO BE CONSISTENT WITH ASCE 7-98 CALCULATED PRESSURES.
- (2) ALL WINDOW DIMENSION VALUES SHOWN ARE +/-1/2" & ARE FRAME (F.H. & F.W.) DIMENSIONS
- (3) 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.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 06/25/02
NO.	DATE
BY	
REVISION DESCRIPTION	
VINYL DIRECT SET (VDS) NON-IMPACT WINDOW	
MANUFACTURER	HURD MILLWORK CO., INC.
	575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
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	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO.	REV.
1116	
SHEET NO.	
1	2



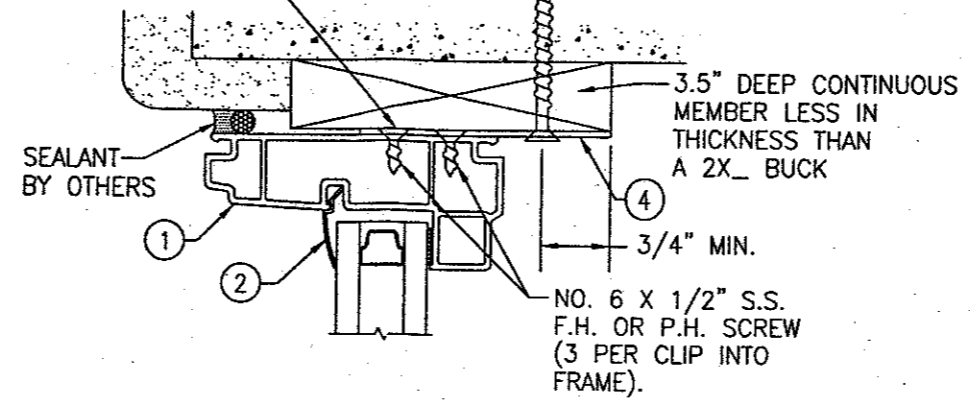
NOTE: FINISHES ARE TO BE AS REQ'D BY OTHERS.



SECTION A
SCALE: 1/2 FULL

ITEM #	PART	ITEM DESCRIPTION	MANUFACTURER/NOTES
1	7262	FRAME	PVC
2	6177	GLAZING BEAD	PVC
3	6152	GLASS SETTING BLOCK	PVC
4	-	INSTALLATION CLIP (WITHIN 6" OF CORNERS & MAX. 16" O.C.)	16 GA. GALVANIZED STEEL OR 1/16" 6061-T6 ALUMINUM

SEAL AROUND THIS SCREW AT SILL CLIPS, BETWEEN THE FRAME AND CLIP, TO AVOID WATER INFILTRATION FROM SILL WEEP DRAINAGE.

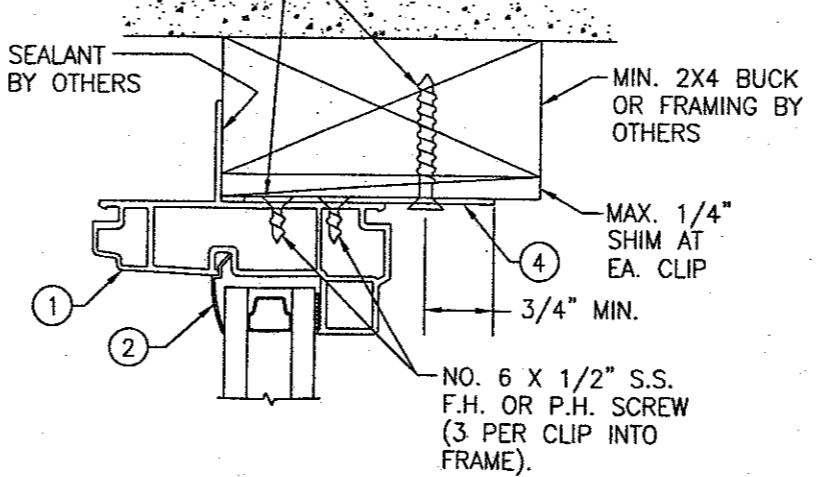


OPTIONAL DIRECT MOUNT DETAIL

HEAD JAMB SHOWN; OTHER JAMBS SAME
SEE SECTIONS FOR DETAIL NOT SHOWN
THIS DETAIL ALSO APPLIES FOR FRAMED OR BUCKED OPENINGS WHEN A SPACER SECTION MUST BE USED TO BUILD OUT THE FRAMED/BUCKED OPENING.

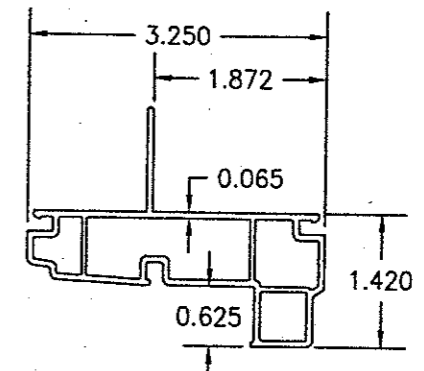
NOTE: WHEN CLIP MOUNTED, THE FIN MAY BE REMOVED.

SEAL AROUND THIS SCREW AT SILL CLIPS, BETWEEN THE FRAME AND CLIP, TO AVOID WATER INFILTRATION FROM SILL WEEP DRAINAGE.

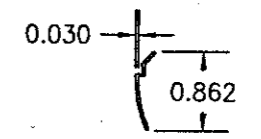


OPTIONAL CLIP MOUNT DETAIL

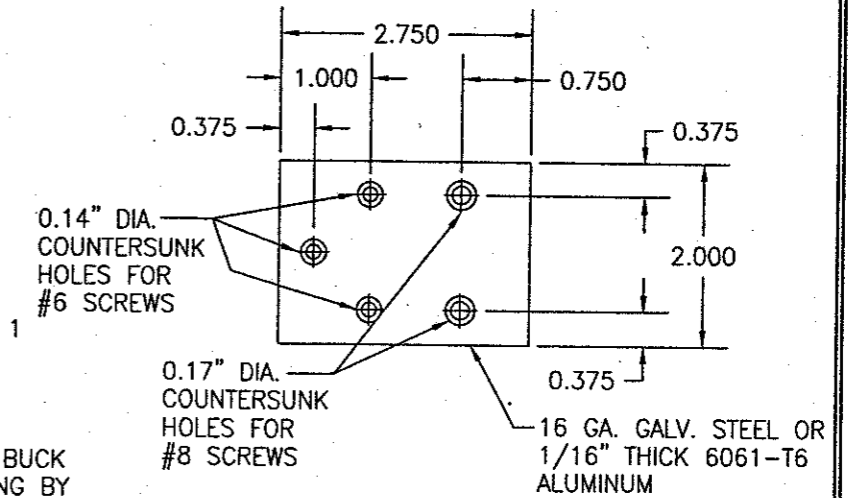
HEAD JAMB SHOWN; OTHER JAMBS SAME
SEE SECTIONS FOR DETAIL NOT SHOWN



① FRAME



② GLAZING BEAD



④ INSTALLATION CLIP

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 06/25/02
REVISION DESCRIPTION	DATE
NO.	
DRAWING TITLE VINYL DIRECT SET (VDS) NON-IMPACT WINDOW	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 800 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER HURD MILLWORK CO., INC. 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION JUL 18 2002 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1116	REV.
SHEET NO. 2	OF 2