

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & 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. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS LARGE MISSILE IMPACT RATED.
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF Kd = 0.85 MAY BE APPLIED PER THE ASCE-7 STANDARD.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
10. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.

CORNER CONSTRUCTION:

FRAME: MITER CUT, BUTTED AND FULLY WELDED

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.

INSTALLATION NOTE:

WHEN NECESSARY, INSTALLATION METHODS MAY BE MIXED WITH ANY ONE WINDOW SUCH THAT INDIVIDUAL SIDES OF THE WINDOW MAY USE ONE OR THE OTHER ANCHOR METHOD (EXAMPLE: SILL MAY USE FRAME SCREWS METHOD WHILE OTHER SIDES USE CLIP)

ANCHOR/SUBSTRATE EVALUATION NOTE:

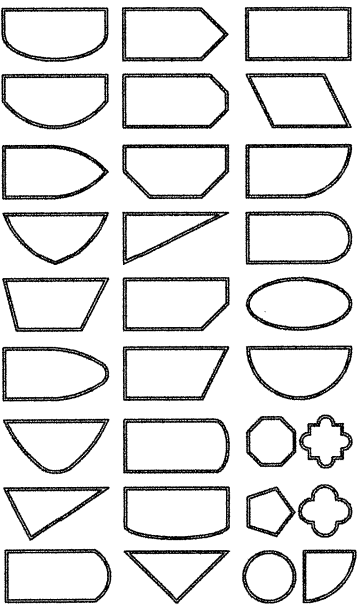
ALL ANCHORS IN THEIR SPECIFIED SUBSTRATES HAVE BEEN ANALYZED IN ACCORDANCE WITH THEIR APPLICABLE STANDARD(S) AND ARE FOUND TO BE CAPABLE OF SUPPORTING ALL LOADS IMPOSED ON THEM UNDER THE GUIDELINES OF THIS DOCUMENT. ANY SUBSTRATES OR CONDITIONS OUTSIDE OF WHAT IS SHOWN HERE-IN SHALL BE SUBJECT TO JOB SPECIFIC ENGINEER'S REVIEW & CERTIFICATION.

ALLOWABLE PRESSURE TABLE
(SINGLE WINDOWS)

MAXIMUM FRAME LONG DIMENSION (IN.)	MAXIMUM FRAME SHORT DIMENSION (IN.)	ALLOWABLE PRESSURE (+/-PSF)	MAXIMUM FRAME LONG DIMENSION (IN.)	MAXIMUM FRAME SHORT DIMENSION (IN.)	ALLOWABLE PRESSURE (+/-PSF)
WITH EQUAL LEG FRAME			WITH LONG LEG FRAME		
60			61 1/2	70.0	
132			133 1/2	54 1/2	77.8
				48 1/2	87.5
				41	100.0
				55	70.0
				48	80.2
				42	91.7
144			145 1/2	43 1/2	91.7
				39 1/2	100.0

1. WINDOW SIZES SHOWN ARE MAXIMUM SIZES. SMALLER SIZES SHALL APPLY TO LOADS EQUAL TO THE NEAREST LARGER SIZE SHOWN IN TABLE.
2. LONG DIMENSION MAY BE HORIZONTAL OR VERTICAL.
3. ALLOWABLE PRESSURE ON WINDOWS WITH LONG DIMENSION LESS THAN 132" WITH EQUAL LEG FRAME & 133 1/2" WITH LONG LEG FRAME SHALL BE GOVERNED BY PRESSURES SHOWN WITH THE 132" LONG DIMENSION.

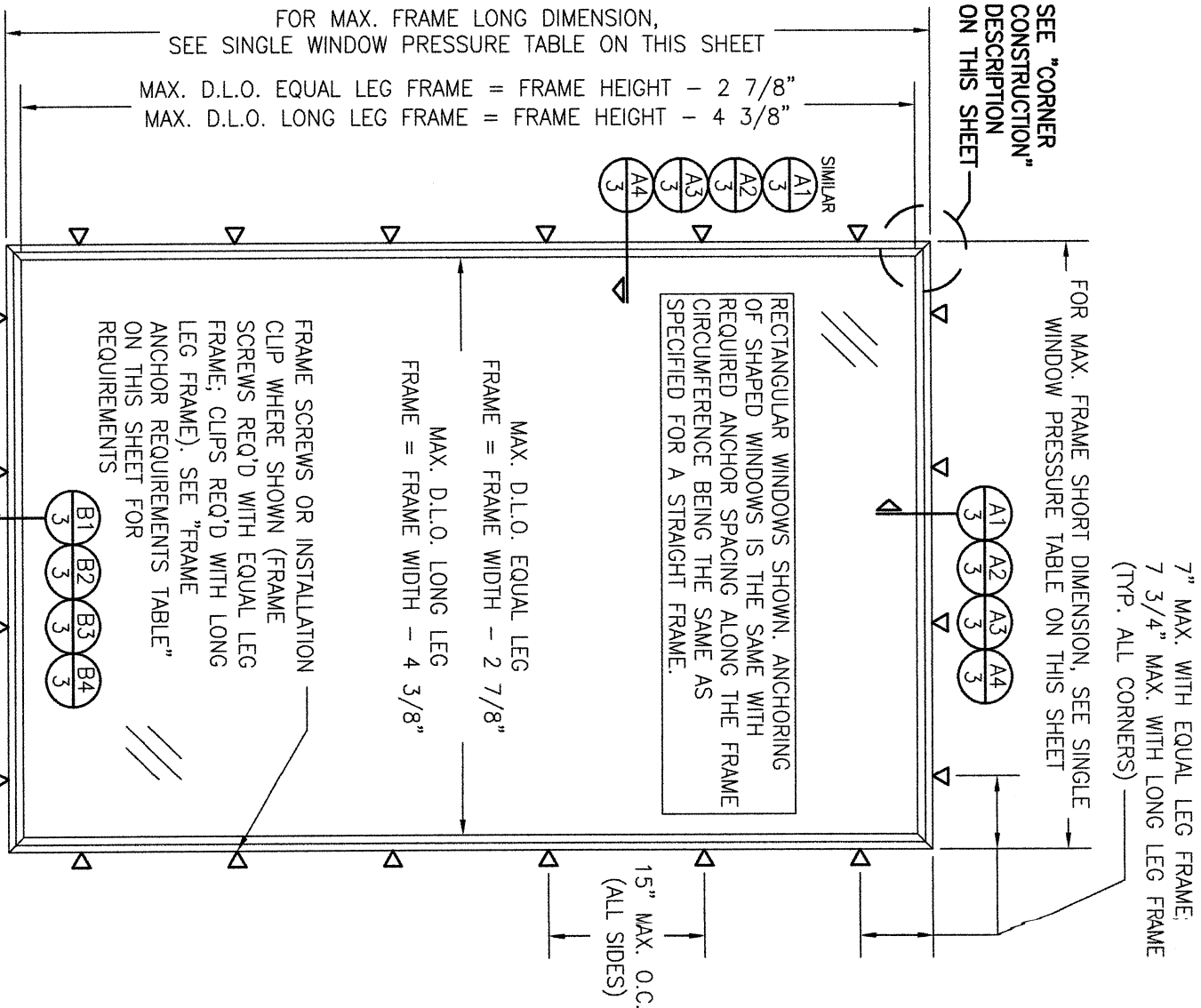
APPROVED SHAPES



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED IN THIS DRAWING.
2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

SEE "CORNER CONSTRUCTION" DESCRIPTION ON THIS SHEET



EXTERIOR ELEVATION:
SINGLE FIXED WINDOW

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



Digitally signed
by Warren W
Schaefer

Date:

2024.09.05

07:57:48 -04'00'

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE TO CURENT STANDARDS	W.R.M.	08/17/11
B1	UPDATE PER NEW TESTING	W.R.M.	08/17/11
C1	ADD ALTERNATE GLAZING BEAD	W.R.M.	09/25/13
D1	UPDATE TO CURENT STANDARDS	W.W.S.	12/10/14
E1	UPDATE FRAME PROFILES	W.W.S.	01/31/23
F1	INCREASE SHIM SPACE	W.W.S.	09/04/24

DRAWING TITLE	MANUFACTURER
JAMESTOWN 175 STEEL SERIES DIRECT GLAZED IMPACT WINDOWS	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124
CONSULTANTS	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 25601 AYSEN DRIVE PUNTA GORDA, FL 33983 PHONE: 561-744-3424	

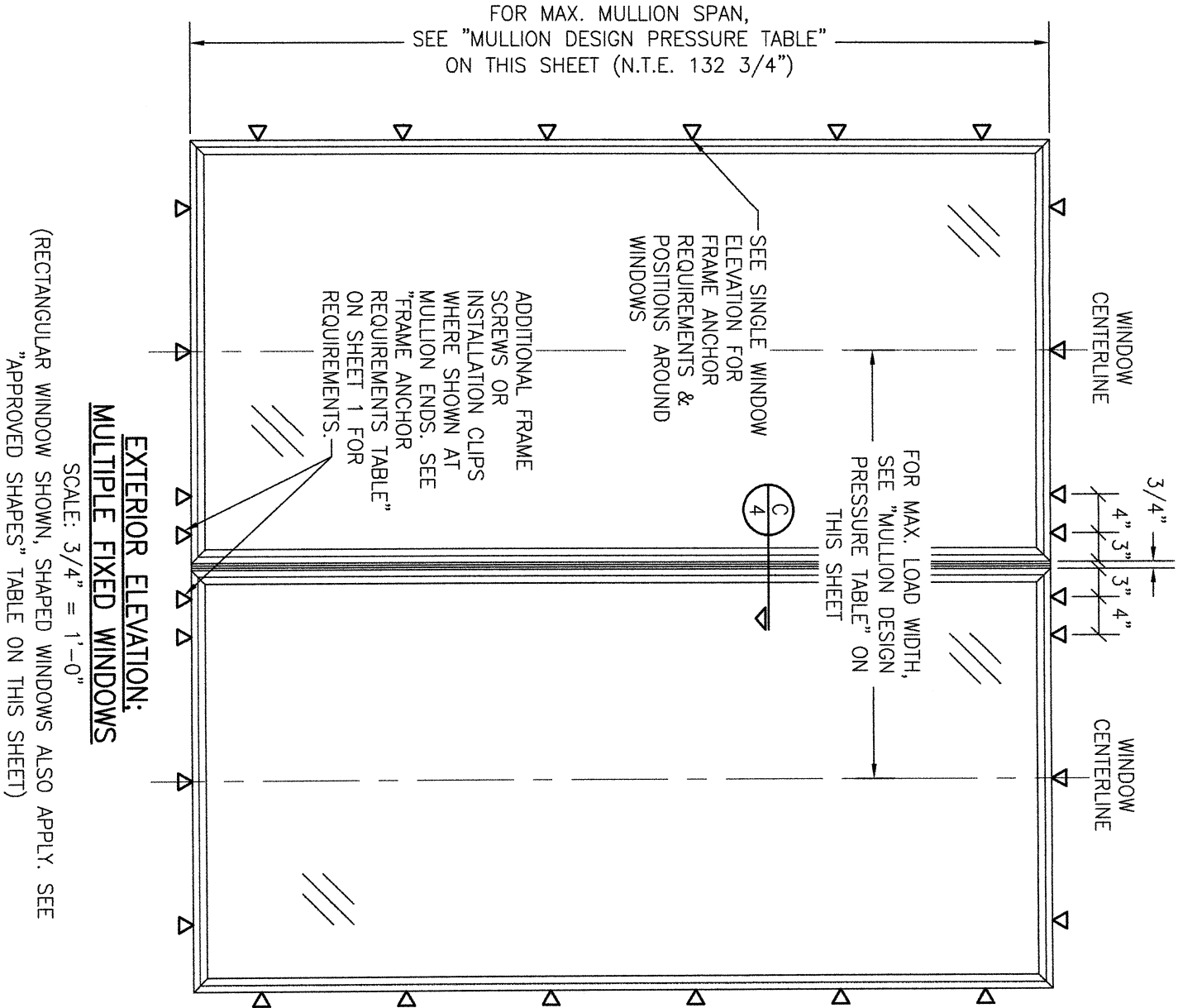
CERTIFICATION

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

DRAWING NO. 1699
REV. F

SHEET NO. 1 OF 5

MULLION DESIGN PRESSURE TABLE				
MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/-PSF)	MAXIMUM MULLION SPAN (IN.)	ALLOWABLE PRESSURE (+/-PSF)
132 3/4	62	30.6	91 1/2	55.1
	56	33.4		58.1
	50	36.9		62.1
	44	41.5		67.5
	38	47.6		75.0
	36	50.0		85.5
	32	55.3	85 1/2	100.0
	26	66.3		61.1
	20	84.1		64.1
	16	100.0		68.3
	62	36.8		73.9
	56	39.4		81.7
121 1/2	50	42.8	79 1/2	92.9
	44	47.2		100.0
	38	53.0		62
	32	61.2		56
	26	73.2		50
	20	92.6		44
109 1/2	18	100.0	73 1/2	89.8
	62	42.4		32
	56	45.3		62
	50	48.9		56
	44	53.6		50
	38	60.1		44
97 1/2	32	69.0	67 1/2	91.2
	26	82.3		38
	20	100.0		62
	62	50.1		56
	56	53.1		46
	50	57.0		62 OR MORE
	44	62.2		100.0
	38	69.2		
	32	79.2		
	26	94.0		
	24	100.0		



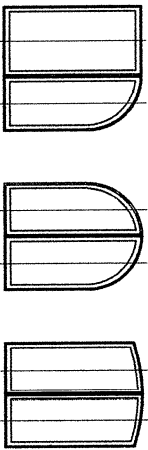
EXTERIOR ELEVATION:
MULTIPLE FIXED WINDOWS

SCALE: 3/4" = 1'-0"
(RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE "APPROVED SHAPES" TABLE ON THIS SHEET)

MULTIPLE FIXED UNIT NOTES:

- FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATIONS.
- MULLION MAY BE HORIZONTAL OR VERTICAL PROVIDING UNIT SIZES ARE RESTRICTED AS SHOWN IN THIS ELEVATION.
- THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
- INDIVIDUAL WINDOW SIZES SHALL BE RESTRICTED AS SPECIFIED IN THE SINGLE WINDOW ELEVATION.
- THESE WINDOWS ARE NOT DESIGNED, NOR SHOULD BE INSTALLED AS, A CURTAIN WALL SYSTEM.

EXAMPLES OF SIDE-BY-SIDE
SHAPED MULLIED CONDITIONS



NOTES:

- WINDOW SHAPES OTHER THAN THOSE SHOWN MAY APPLY PROVIDING THEY ARE APPLICABLE TO THOSE SHOWN ON SHEET 1.
- SHAPED FIXED WINDOWS MAY ALSO BE MULLIED TO RECTANGULAR WINDOWS AS TRANSOMS UNDER THE SAME RESTRICTIONS AS THE SIDE BY SIDE CONDITION SHOWN ON THIS SHEET.

DRAWING TITLE
JAMESTOWN 175 STEEL SERIES DIRECT GLAZED IMPACT WINDOWS

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A.

25601 AYSEN DRIVE
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

MANUFACTURER

HOPE'S WINDOWS, INC.
84 HOPKINS AVENUE
JAMESTOWN, NY 14702
(716) 665-5124

CERTIFICATION

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

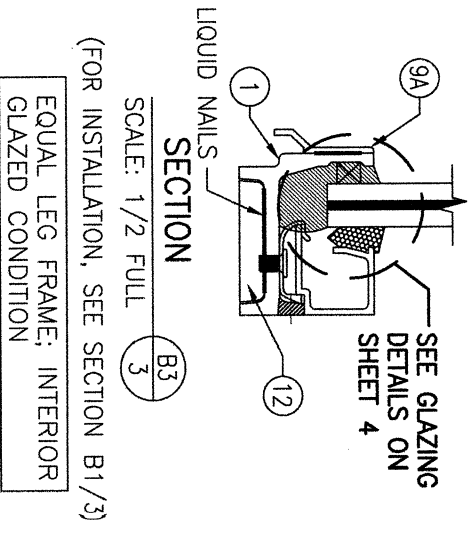
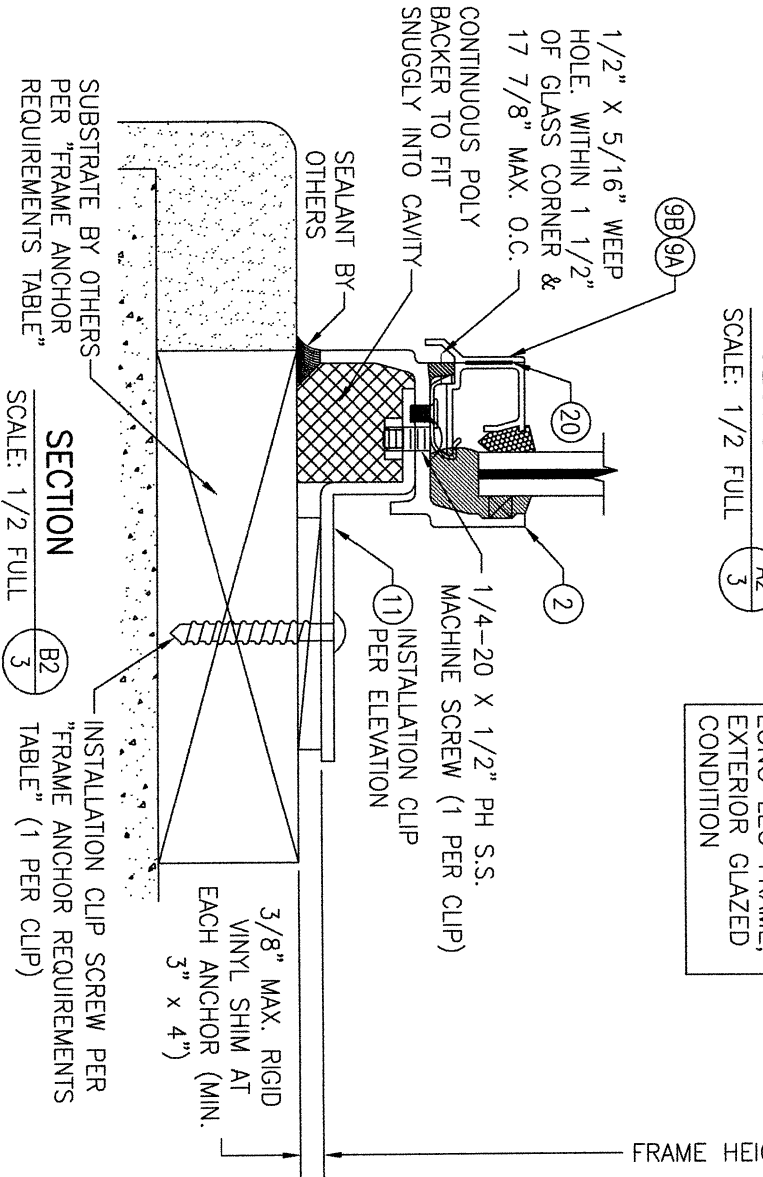
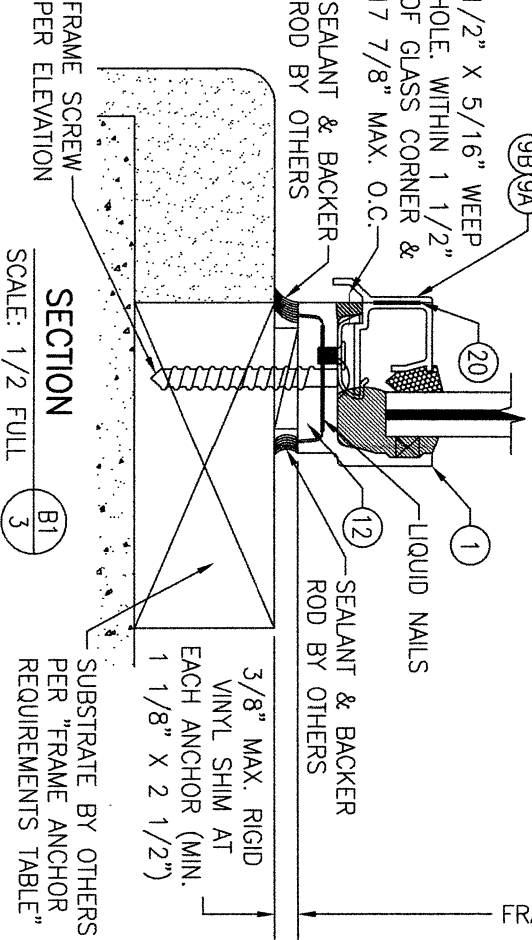
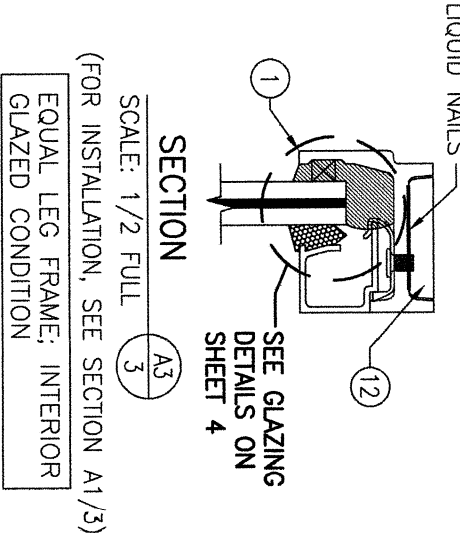
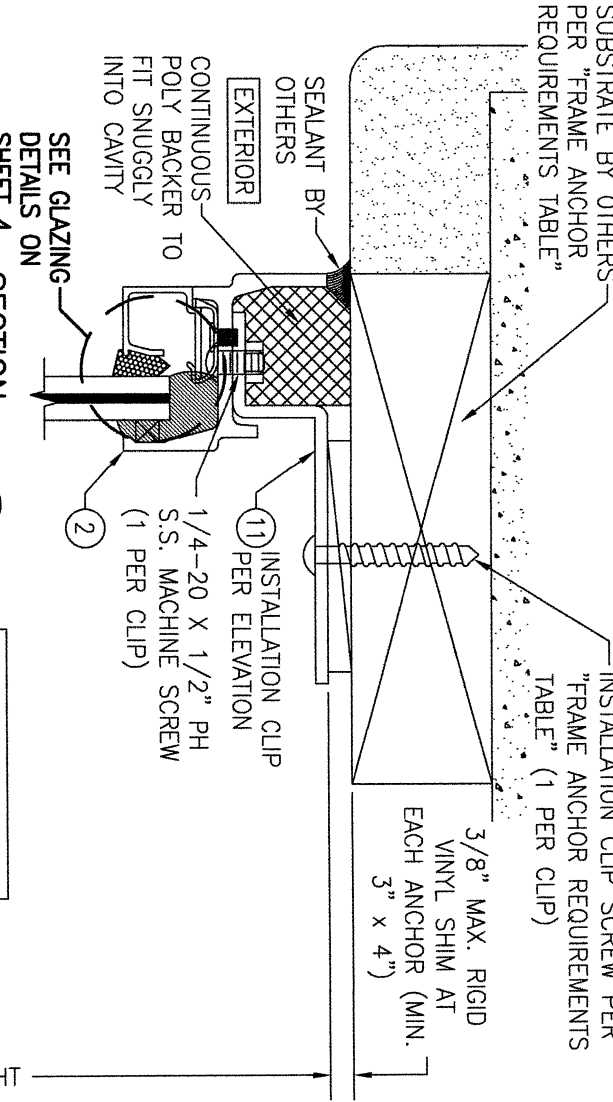
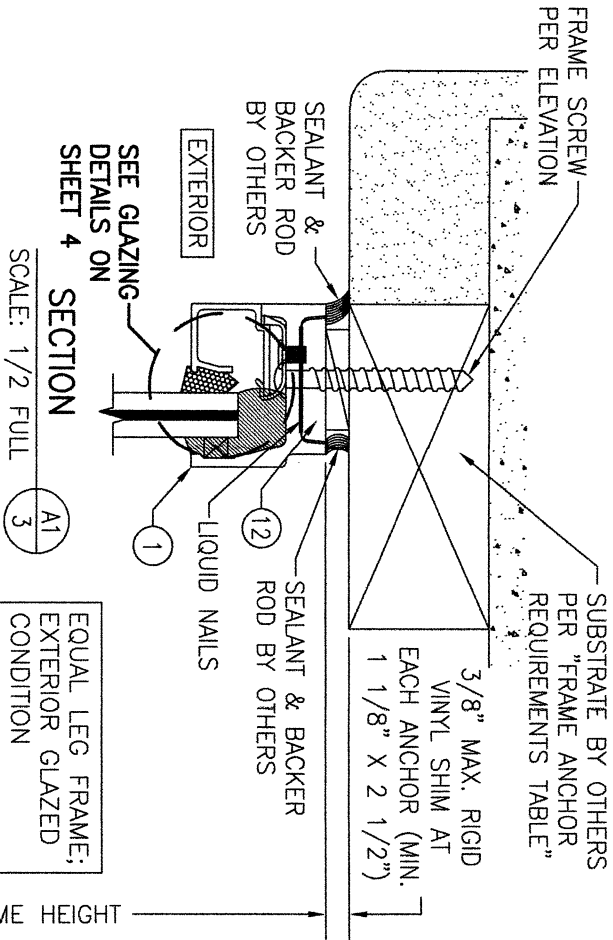
DRAWING NO. 1699

REV. F

SHEET NO. 2 OF 5

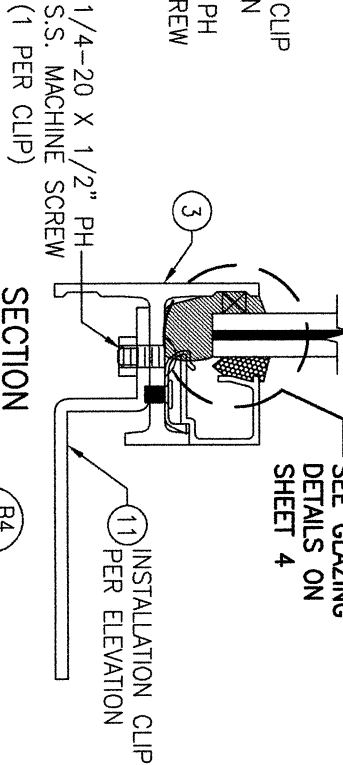
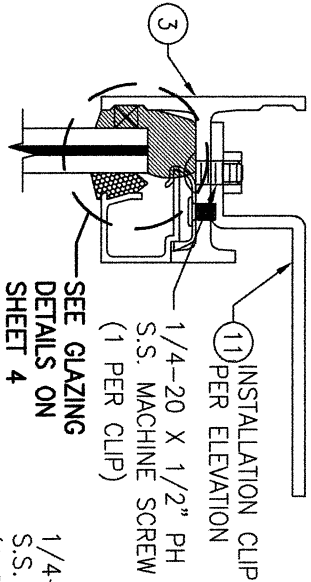
DRAWN BY: W.W.S.
CHECKED BY: W.W.S.
DATE: 06/30/10

NO.	REVISION	DESCRIPTION	BY	DATE



INSTALLATION SEALANT NOTE

FRAME TO OPENING & MULLION SEALANTS ARE NOT PART OF THIS CERTIFICATION & ARE THE RESPONSIBILITY OF THE WINDOW INSTALLER.



SECTION A4
SCALE: 1/2 FULL
(FOR INSTALLATION, SEE SECTION A2/3)
LONG LEG FRAME; INTERIOR GLAZED CONDITION

SECTION B4
SCALE: 1/2 FULL
(FOR INSTALLATION, SEE SECTION B2/3)
LONG LEG FRAME; INTERIOR GLAZED CONDITION

DRAWN BY:		W.W.S.		CHECKED BY:		W.W.S.	
PLOT:		1-2		DATE:		06/30/10	
NO.	REVISION DESCRIPTION			BY	DATE		

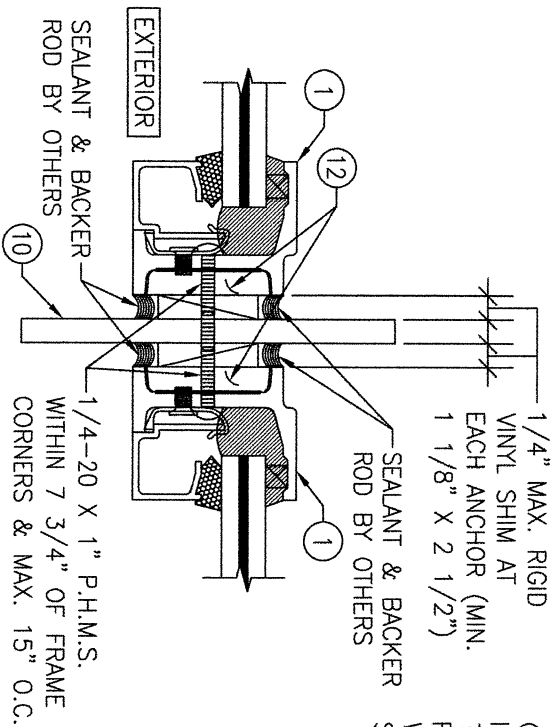
DRAWING TITLE
JAMESTOWN 175 STEEL SERIES DIRECT GLAZED IMPACT WINDOWS

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
25601 AYSEN DRIVE
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

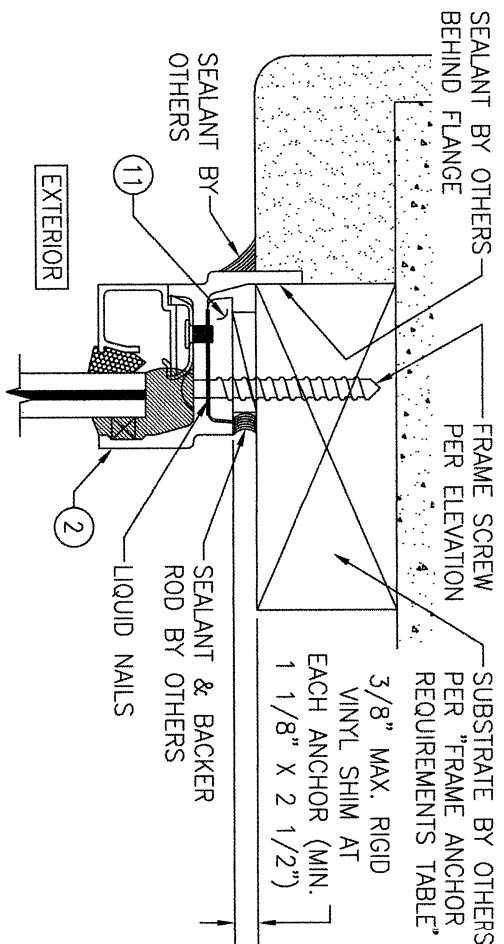
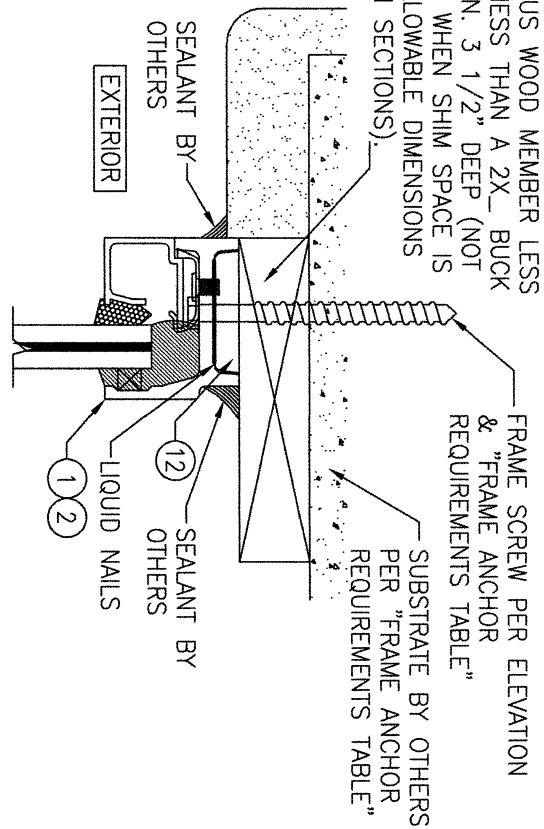
MANUFACTURER
HOPE'S WINDOWS, INC.
84 HOPKINS AVENUE
JAMESTOWN, NY 14702
(716) 665-5124

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

DRAWING NO.
1699
REV.
F
SHEET NO.
3 OF **5**



CONTINUOUS WOOD MEMBER LESS IN THICKNESS THAN A 2X BUCK TO BE MIN. 3 1/2" DEEP (NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS).



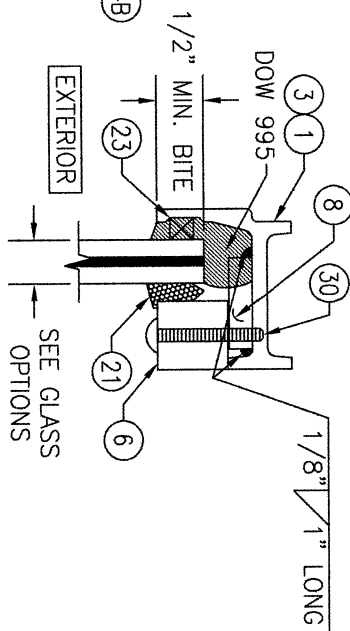
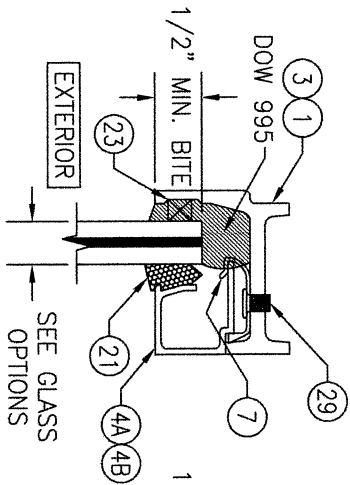
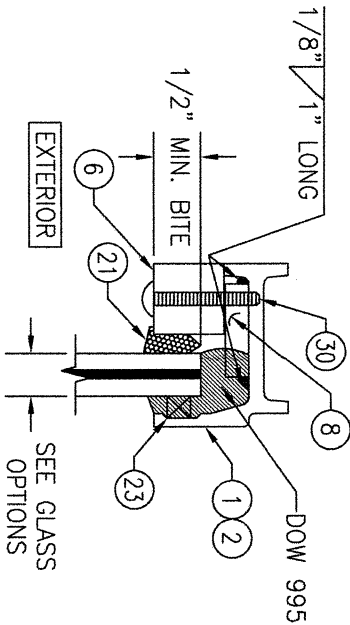
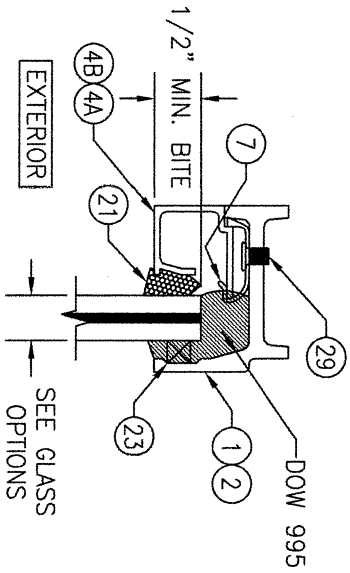
SECTION

SCALE: 1/2 FULL C
4

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(EXTERIOR GLAZED SHOWN. INTERIOR GLAZED IS MULLED THE SAME)

OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

(HEAD SECTION SHOWN; SILL & SIDES ARE INSTALLED THE SAME)
(EXTERIOR GLAZED CONDITION SHOWN. INTERIOR GLAZED CONDITION ALSO APPLIES.)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



GLAZING DETAIL 1

(RECTANGULAR WINDOW,
EXTERIOR GLAZED WITH
NON-I.G. GLASS)

GLAZING DETAIL 2

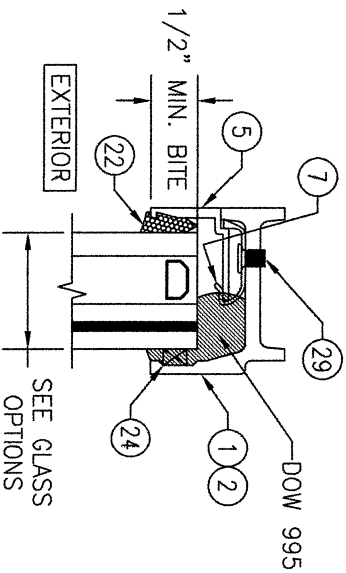
(RADIUS WINDOW, EXTERIOR
GLAZED WITH NON-I.G. GLASS)

GLAZING DETAIL 3

(RECTANGULAR WINDOW,
INTERIOR GLAZED WITH
NON-I.G. GLASS)

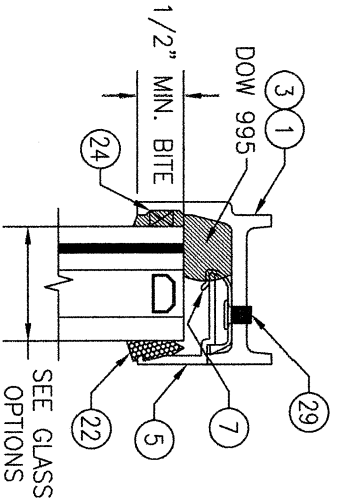
GLAZING DETAIL 4

(RADIUS WINDOW, INTERIOR
GLAZED WITH NON-I.G. GLASS)



GLAZING DETAIL 5

(RECTANGULAR & RADIUS WINDOW,
EXTERIOR GLAZED I.G. GLASS)



GLAZING DETAIL 6

(RECTANGULAR & RADIUS WINDOW,
INTERIOR GLAZED I.G. GLASS)

GLASS OPTIONS

- OPTION 1 (NON-I.G. GLASS INTERIOR OR EXTERIOR GLAZED):
7/16" LAMINATED GLASS (3/16" H.S./0.09" KURARAY SG/3/16" H.S.)
OPTION 2 (I.G. GLASS EXTERIOR GLAZED):
1 1/4" I.G. LAMINATED GLASS (1/4" TEMP. EXTERIOR, 1/2" ALUMINUM SPACER & 3/16" H.S./0.09" KURARAY SG/3/16" H.S. INTERIOR)
OPTION 3 (I.G. GLASS INTERIOR GLAZED):
1 1/4" I.G. LAMINATED GLASS (3/16" H.S./0.09" KURARAY SG/3/16" H.S. EXTERIOR, 1/2" ALUMINUM SPACER & 1/4" TEMP. INTERIOR)

GLAZING NOTE: AT BASE OF GLASS, 4" LONG SILICONE SETTING BLOCKS SHALL BE PLACED AT MAX. 24" O.C. (QTY. OF 2 MIN.). WIDTH & THICKNESS OF BLOCKS SHALL BE AS REQUIRED TO MATCH THE GLASS SECTION THICKNESS AND DEPTH OF SPACE AT GLASS EDGE.

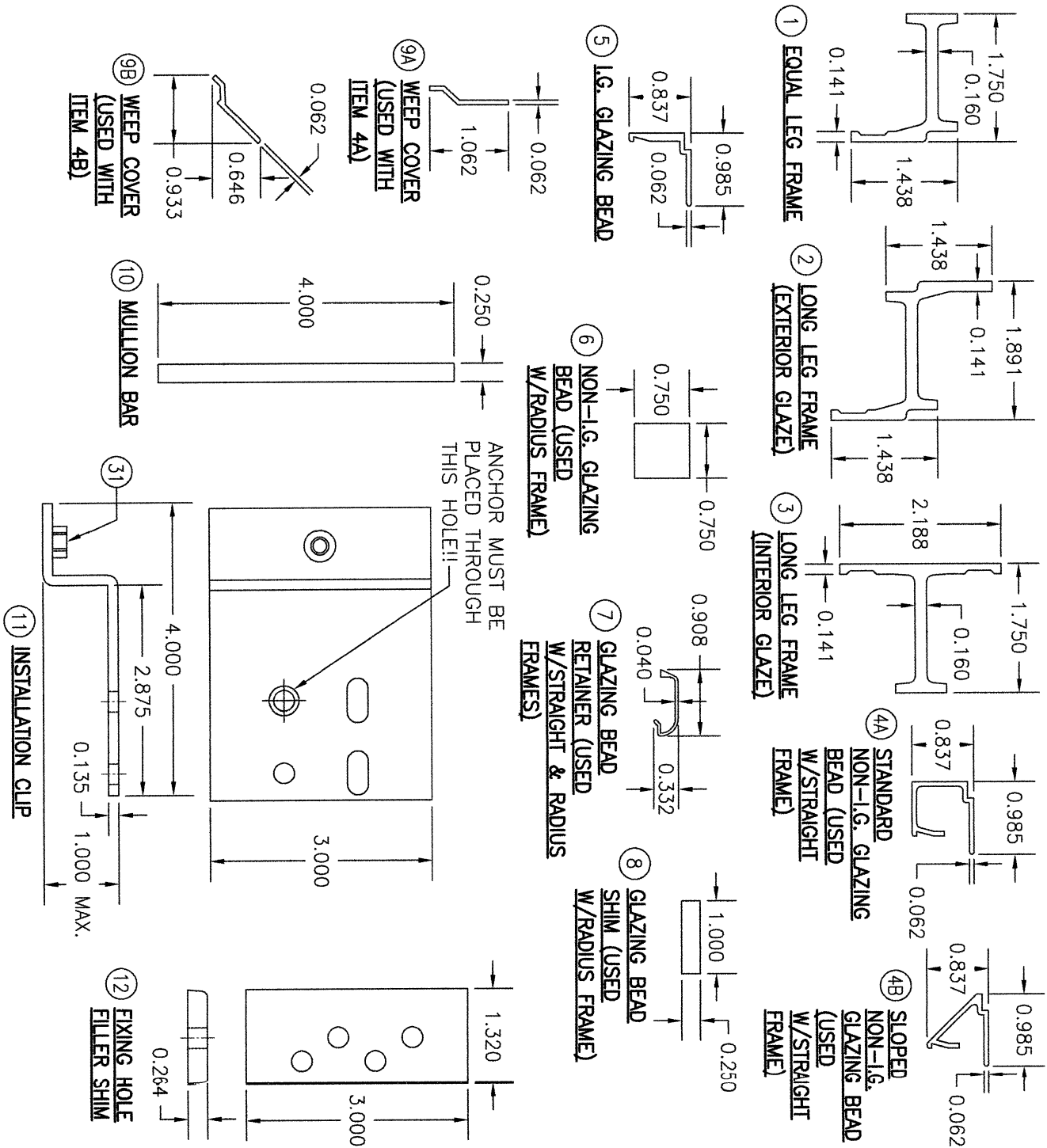
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.		
NO.	REVISION	DESCRIPTION	BY	DATE
	1-2			06/30/10

DRAWING TITLE	
JAMESTOWN 175 STEEL SERIES DIRECT GLAZED IMPACT WINDOWS	
CONSULTANTS	MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 25601 AYSEN DRIVE PUNTA GORDA, FL 33983 PHONE: 561-744-3424	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

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

DRAWING NO.	REV.
1699	F
SHEET NO.	
4	OF 5

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	EQUAL LEG FRAME	A36 STEEL
2	LONG LEG FRAME (EXTERIOR GLAZE)	A36 STEEL
3	LONG LEG FRAME (INTERIOR GLAZE)	A36 STEEL
4A	STANDARD NON-I.G. GLAZING BEAD (STRAIGHT FRAME)	6063-T5 ALUMINUM
4B	SLOPED NON-I.G. GLAZING BEAD (STRAIGHT FRAME)	6063-T5 ALUMINUM
5	I.G. GLAZING BEAD	6063-T5 ALUMINUM
6	NON-I.G. GLAZING BEAD (RADIUS FRAME)	6063-T5 ALUMINUM
7	GLAZING BEAD RETAINER (STRAIGHT & RADIUS FRAME)	6063-T5 ALUMINUM
8	GLAZING BEAD SHIM (RADIUS FRAME)	A36 STEEL
9A	WEEP COVER (USED WITH ITEM 4A)	6063-T5 ALUMINUM
9B	WEEP COVER (USED WITH ITEM 4B)	6063-T5 ALUMINUM
10	MULLION BAR	A36 STEEL
11	INSTALLATION CLIP	GALV. A36 STEEL
12	FIXING HOLE FILLER SHIM	RIGID VINYL
SEALS & SEALANTS		
20	DOUBLE SIDED TAPE	3M VBH 4941 FOAM/ACRYLIC
21	GLAZING WEDGE (USED WITH NON-I.G. & RADIUS CONDITIONS)	TREMCO 496E EPDM
22	GLAZING WEDGE (USED WITH I.G. CONDITIONS)	TREMCO PS1125E EPDM
23	NON-I.G. GLAZING SHIM	TREMCO TR6087W EPDM
24	I.G. GLAZING SHIM	TREMCO TR2178W EPDM
FASTENERS		
29	10-24 X 1/4" S.S. SELF SEALING MACHINE SCREW	2 1/2" FROM D.L.O. EDGE & 16" MAX. O.C.
30	10-24 X 1 1/8" S.S. MACHINE SCREW	2 1/2" FROM D.L.O. EDGE & 16" MAX. O.C.
31	1/4-20 SELF CLINCHING NUT INSERT	1 PER CLIP



NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE	
JAMESTOWN 175 STEEL SERIES DIRECT GLAZED IMPACT WINDOWS	
CONSULTANTS	MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 25601 AYSEN DRIVE PUNTA GORDA, FL 33983 PHONE: 561-744-3424	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124

CERTIFICATION WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1699	REV. F
SHEET NO. 5		OF 5	