

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 $K_d = 0.85$ 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 & SASH: 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.

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
-----------------------------	--	------------------	-----------------------

FRAME SCREWS

MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

INSTALLATION CLIP SCREWS

MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4-20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).

LOCK REQUIREMENTS
(MULTI-POINT SIDE LOCK)

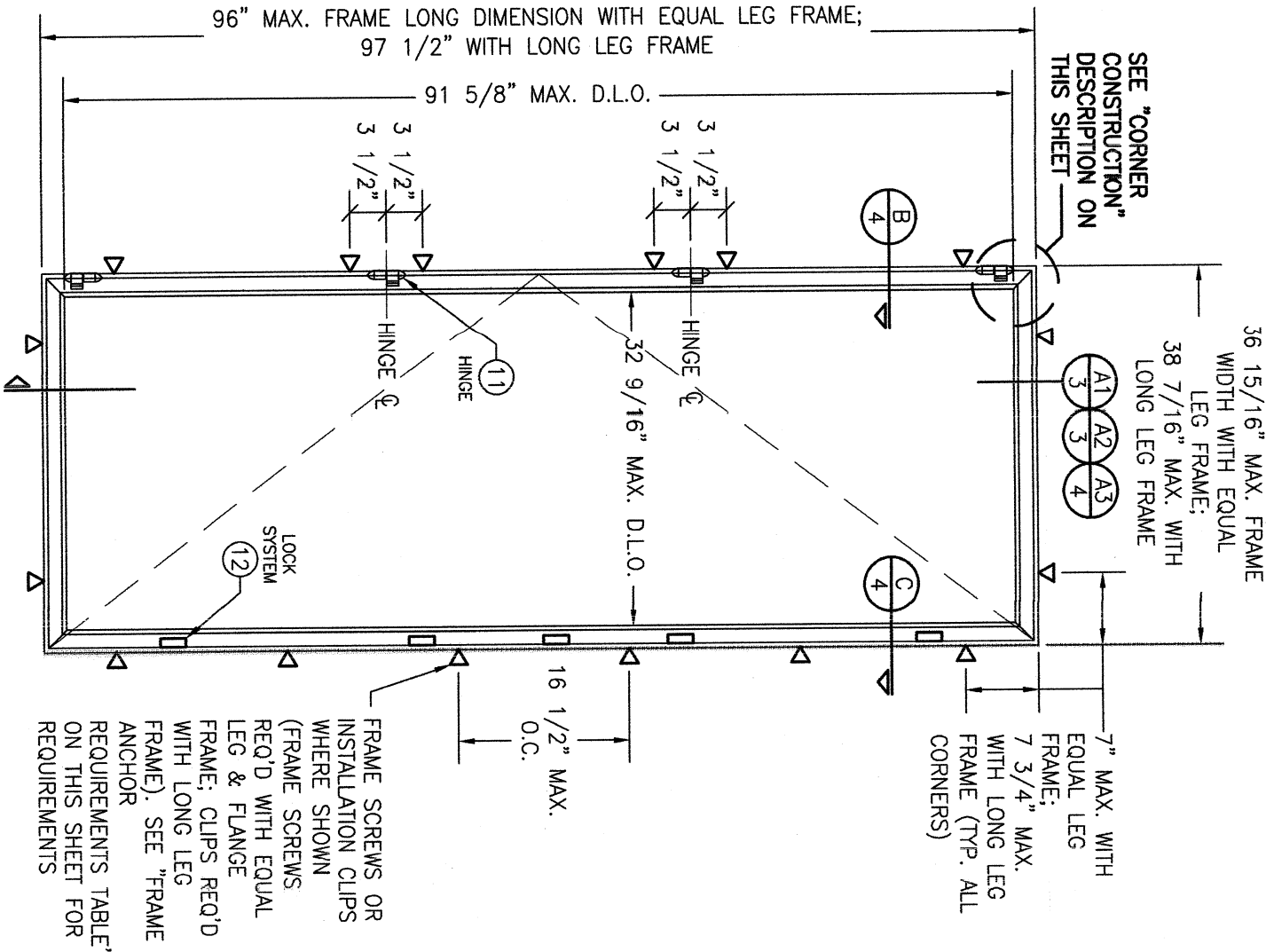
MAXIMUM FRAME HEIGHT	QUANTITY PER PANEL
EQUAL LEG FRAME	
96"	5
85"	4
66"	3
47"	2
LONG LEG FRAME	
97 1/2"	5
86 1/2"	4
67 1/2"	3
48 1/2"	2

NOTES:
1) SPACING BETWEEN LOCK POINTS MAY NOT EXCEED 24".

(1)HINGE REQUIREMENTS

HINGE CENTERS SHALL BE LOCATED APPROXIMATELY 4" FROM TOP & BOTTOM OF FRAME AND SPACED 30 1/2" MAX. O.C. BETWEEN.

(1) WHEN LONG LEG FRAME IS USED, HINGE CENTER DISTANCE FROM TOP & BOTTOM OF FRAME INCREASES TO APPROXIMATELY 4 3/4"



EXTERIOR ELEVATION:
SINGLE CASEMENT WINDOW

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

ALLOWABLE DESIGN PRESSURE (SINGLE WINDOWS)
+/-70 PSF

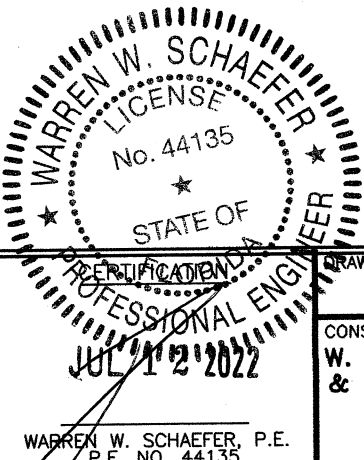
OLD WORLD SUITE IMPACT OUT-SWING CASEMENT WINDOWS

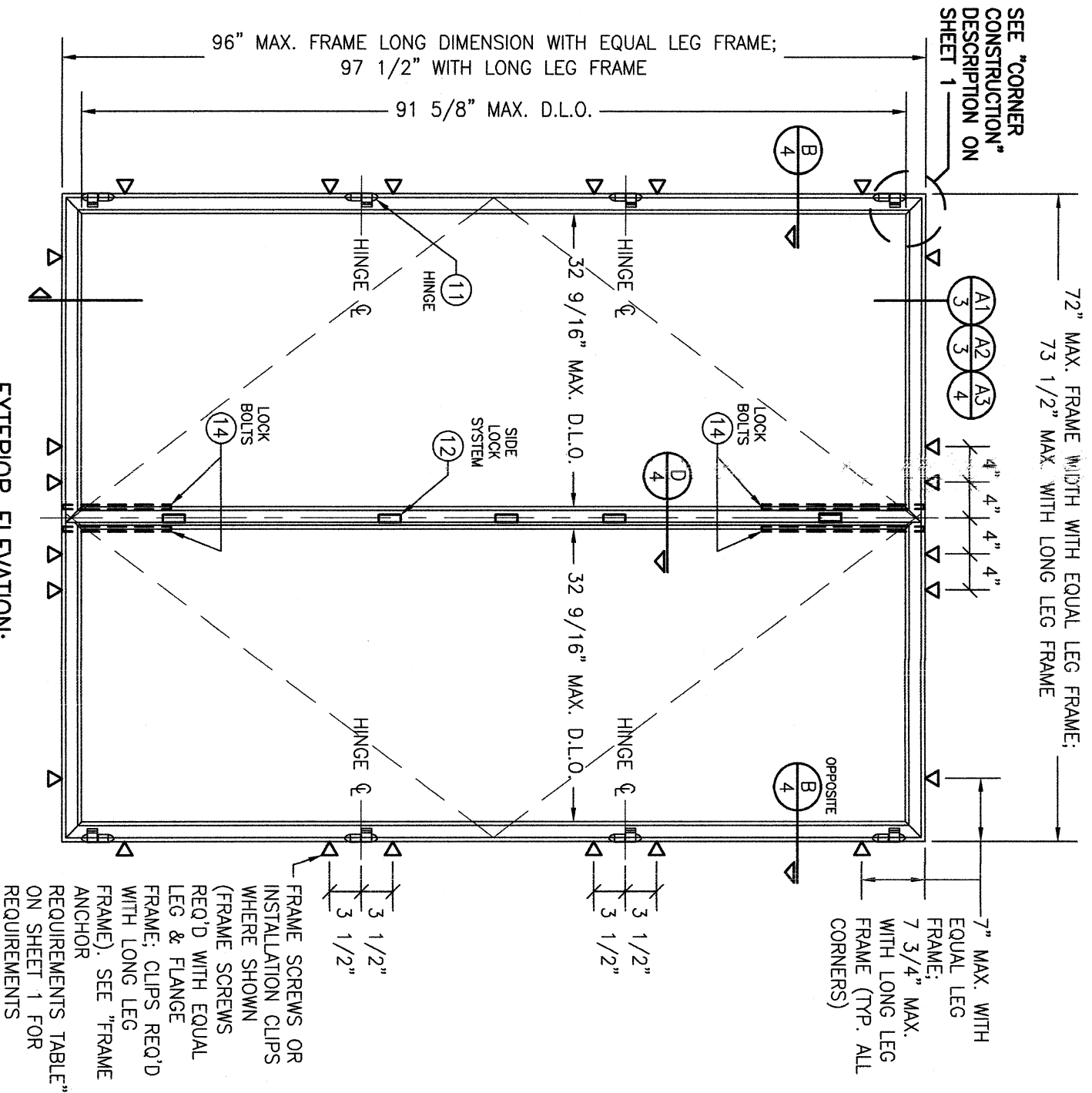
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD; UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-346-5638

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

NO.	REVISION DESCRIPTION	BY	DATE	PLOT: 1=16	DRAWN BY: W.M.S.
A1	UPDATE FOR NEW TESTING	WWS	07/12/22		DATE: 03/15/22

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.

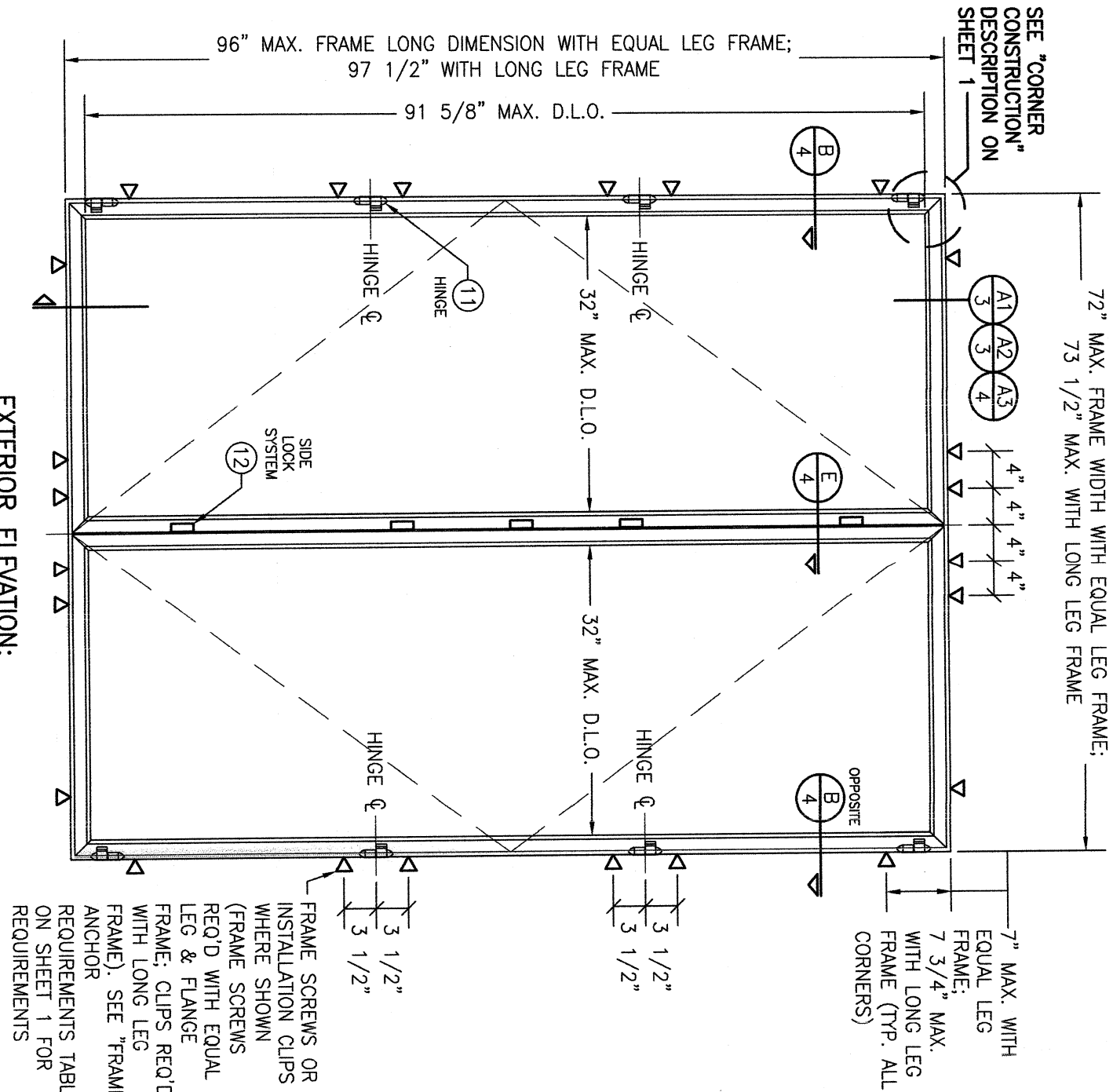




EXTERIOR ELEVATION:
STANDARD DOUBLE FOLD CASEMENT WINDOW

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

ALLOWABLE DESIGN PRESSURE (DOUBLE FOLD WINDOWS)
+/-60 PSF



EXTERIOR ELEVATION:
DOUBLE CASEMENT WINDOW WITH T-ASTRIGAL

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

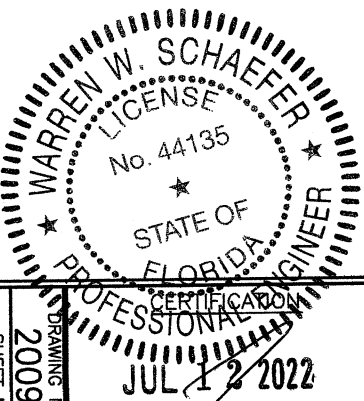
ALLOWABLE DESIGN PRESSURE (DOUBLE T-ASTRIGAL WINDOWS)
+/-70 PSF

DRAWN BY:		CHECKED BY:		
W.M.S.		W.M.S.		
PLOT:		DATE:		
1=16		03/15/22		
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE
OLD WORLD SUITE IMPACT OUT-SWING CASEMENT WINDOWS

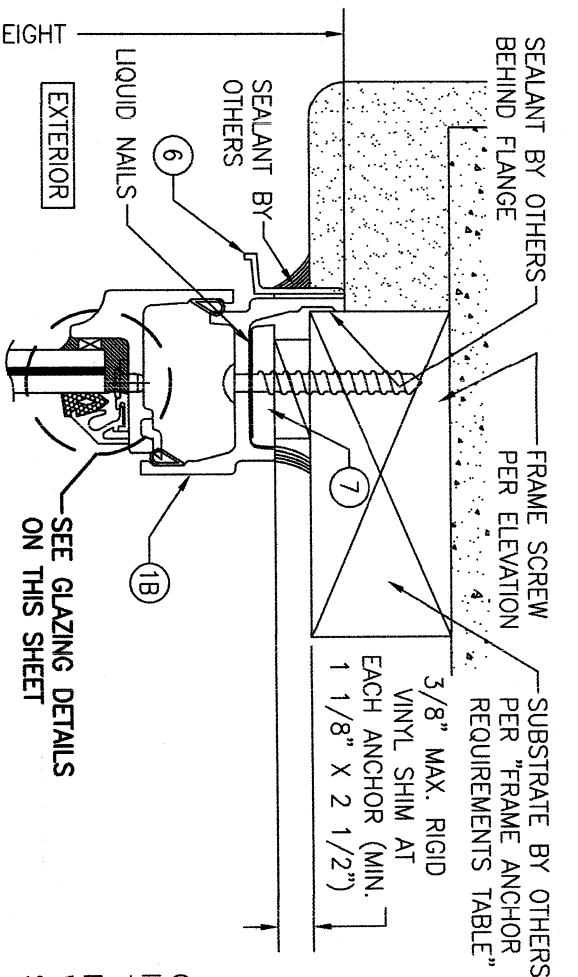
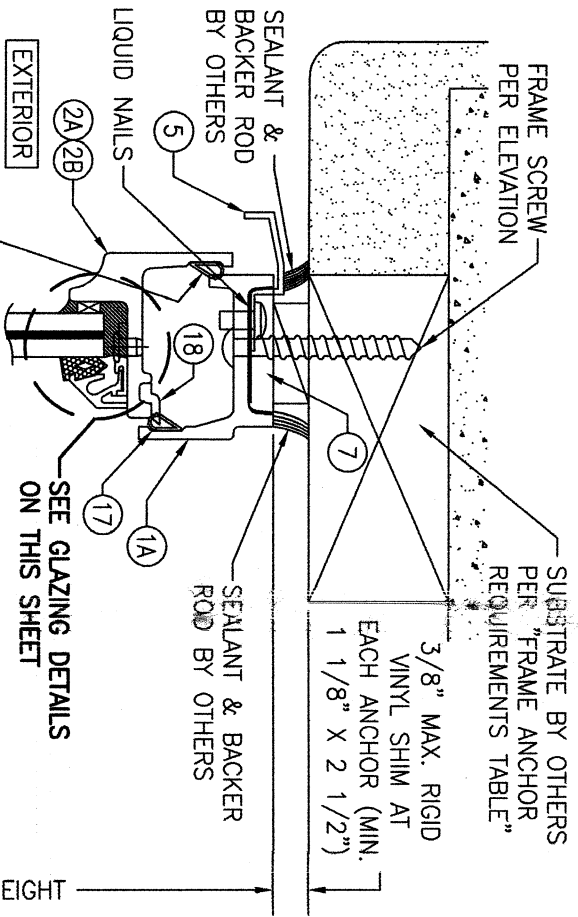
CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD, UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-346-5638

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

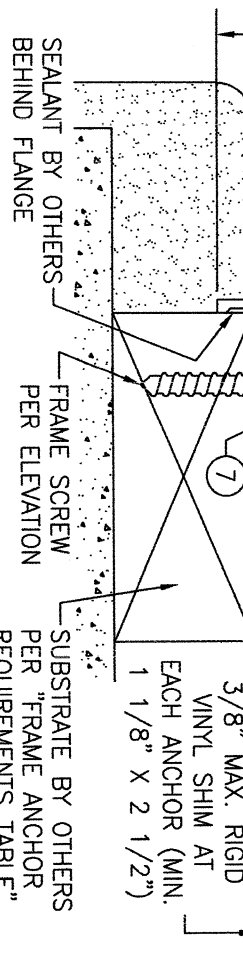
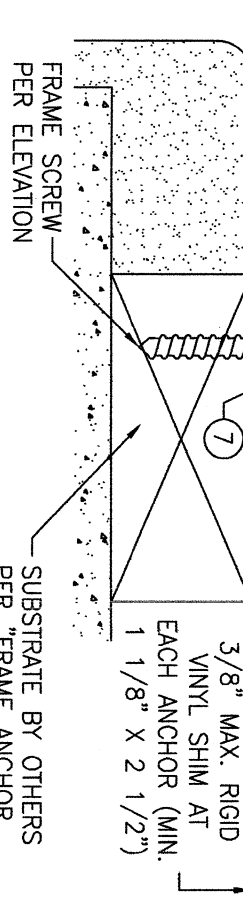
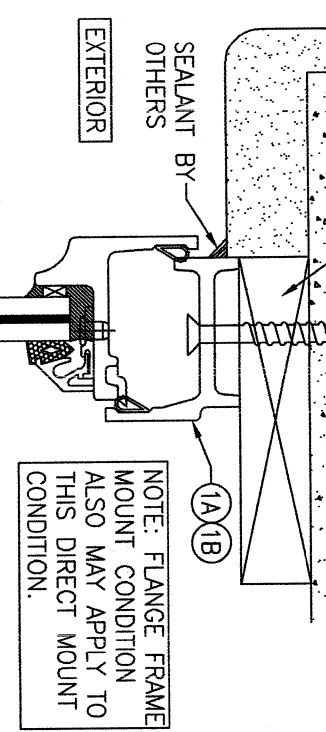
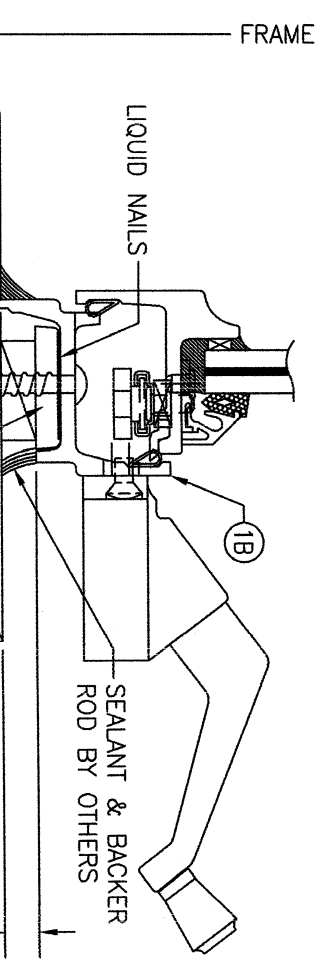
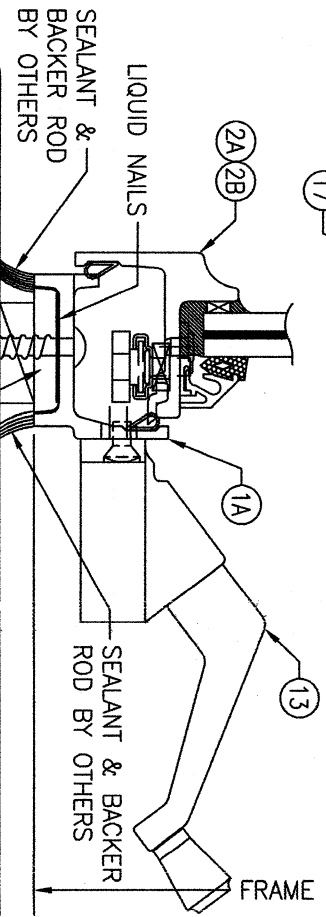


WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

SHEET NO.
2009
A
2 OF 5

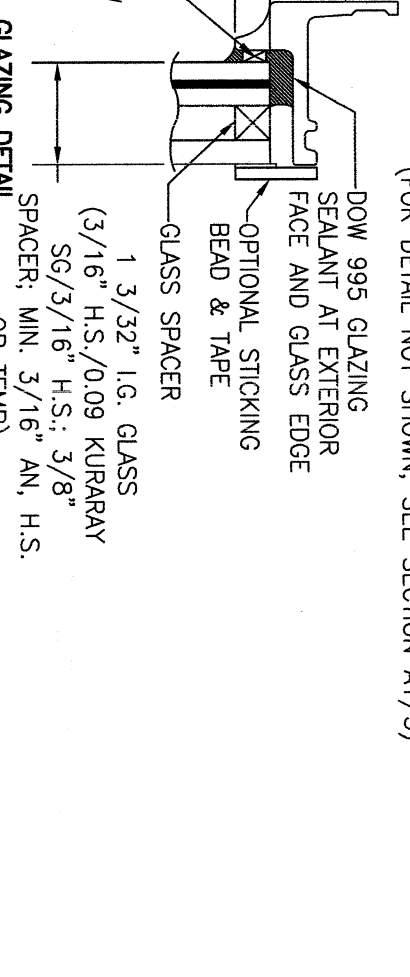
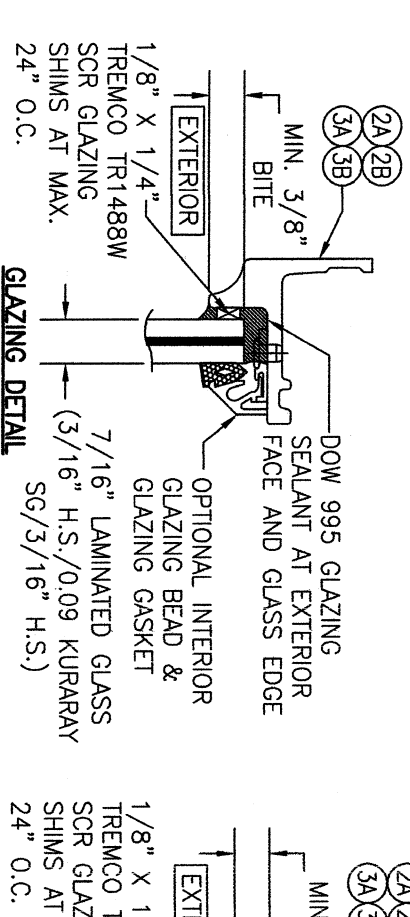


CONTINUOUS WOOD MEMBER LESS IN THICKNESS THAN A 2X BUCK TO BE MIN. 3 1/2" DEEP (NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS).



SECTION A1
SCALE: 1/2 FULL
(EQUAL LEG FRAME SCREW MOUNTED)

SECTION A2
SCALE: 1/2 FULL
(LONG LEG FRAME FLANGE MOUNTED)



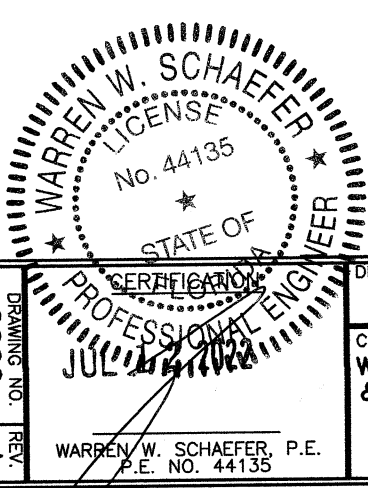
GLAZING DETAIL (MONOLITHIC GLASS)

GLAZING DETAIL (I.G. GLASS)

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

OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

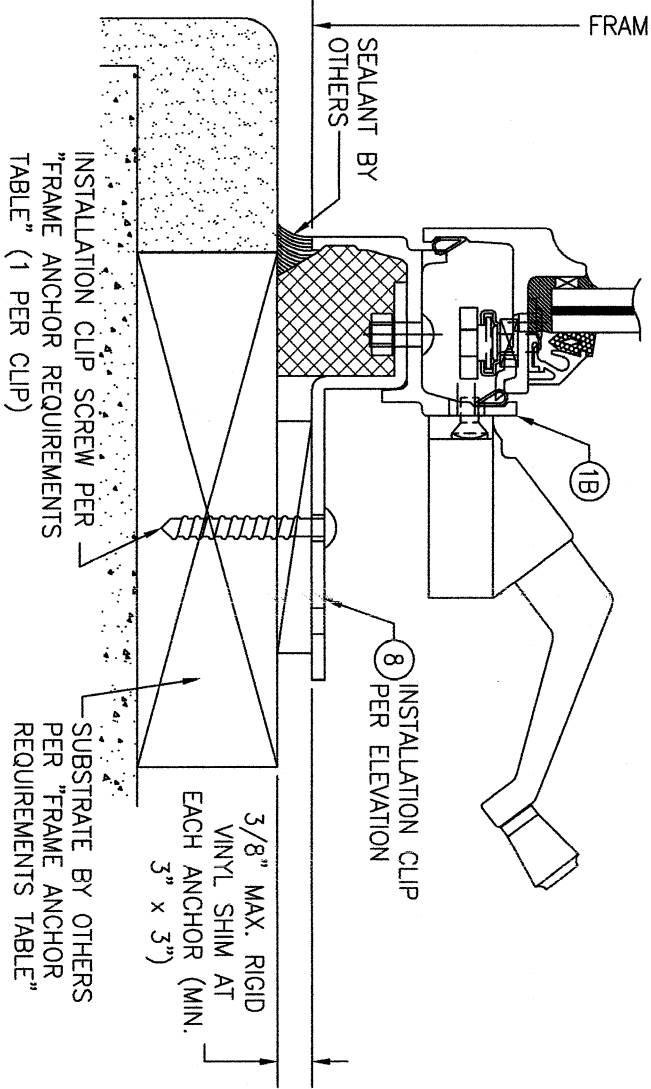
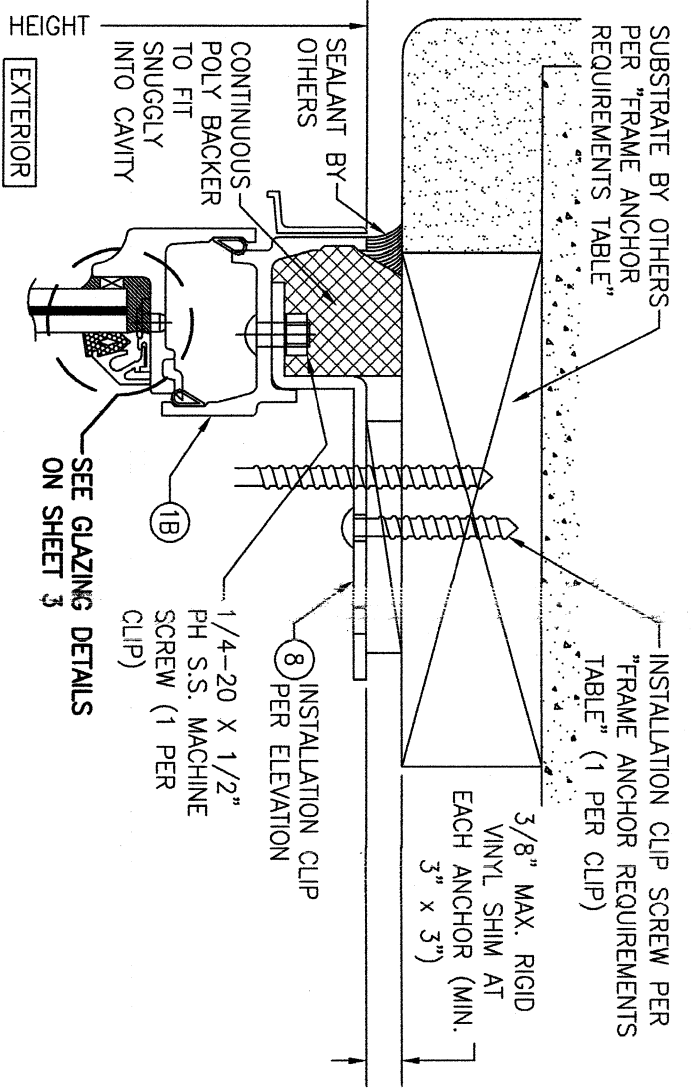
(HEAD SECTION SHOWN; SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



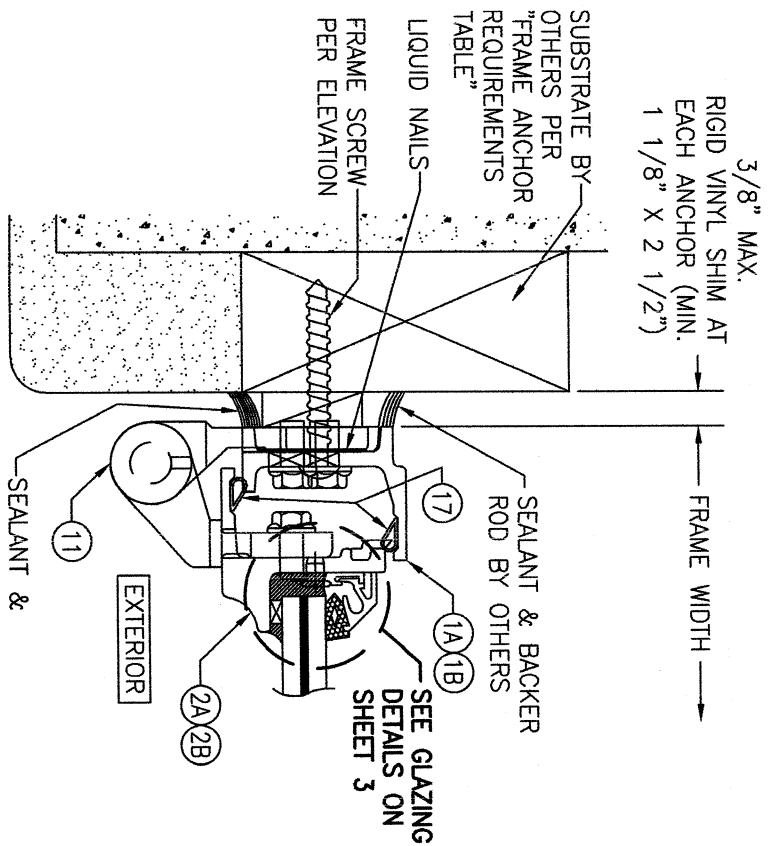
NO.	REVISION	DESCRIPTION	BY	DATE
1-2				

DRAWING NO.	2009	REV.	A
SHEET NO.	3	OF	5

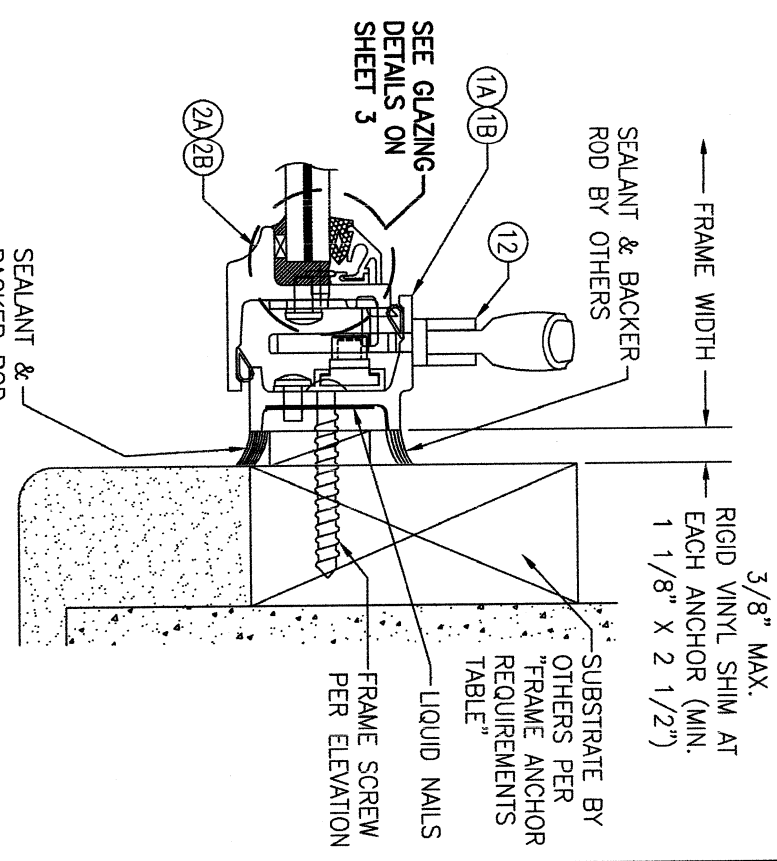
CONSULTANTS	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	
MANUFACTURER	HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124



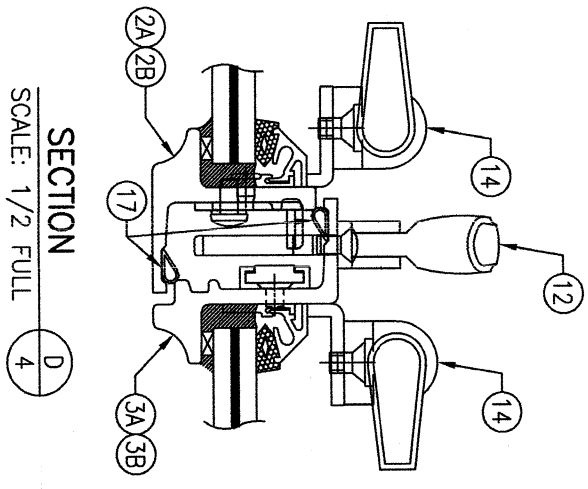
SECTION A3
SCALE: 1/2 FULL
(LONG LEG FRAME CLIP MOUNTED)
(FOR DETAIL NOT SHOWN, SEE SECTION A1/3)



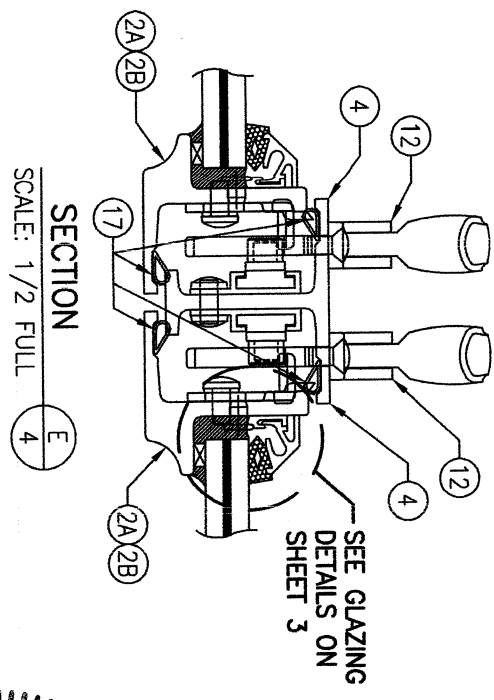
SECTION B
SCALE: 1/2 FULL
(EQUAL LEG FRAME SCREW MOUNTED CONDITION SHOWN. FOR LONG LEG FRAME FLANGE MOUNTED AND LONG LEG FRAME CLIP MOUNTED CONDITIONS, SEE SECTIONS A2/3 & A3/4)



SECTION C
SCALE: 1/2 FULL
(EQUAL LEG FRAME SCREW MOUNTED CONDITION SHOWN. FOR LONG LEG FRAME FLANGE MOUNTED AND LONG LEG FRAME CLIP MOUNTED CONDITIONS, SEE SECTIONS A2/3 & A3/4)



SECTION D
SCALE: 1/2 FULL



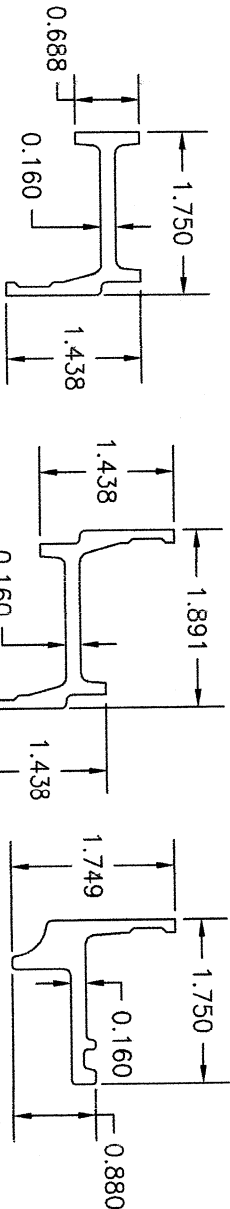
SECTION E
SCALE: 1/2 FULL

DATE	BY	DESCRIPTION	REVISION	NO.
03/15/22			1-2	

MANUFACTURER	CONSULTANTS
HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638

WARREN W. SCHAEFER
LICENSE
No. 44135
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2022
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135
DRAWING NO. 2009
REV. A
SHEET NO. 4 OF 5

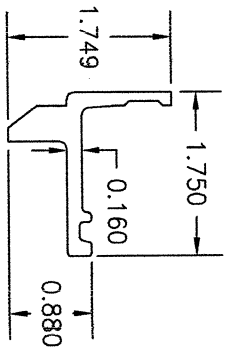
ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1A	EQUAL LEG FRAME	A36 STEEL
1B	LONG LEG FRAME	A36 STEEL
2A	STILE & RAIL	A36 STEEL
2B	ALTERNATE STILE & RAIL	A36 STEEL
3A	MEETING STILE AT INACTIVE SASH	A36 STEEL
3B	ALTERNATE MEETING STILE AT INACTIVE SASH	A36 STEEL
4	T-ASTRIGAL	A36 STEEL
5	WEATHER BAR (USED WITH EQUAL LEG FRAME)	6063-T5 ALUMINUM
6	WEATHER BAR (USED WITH LONG LEG FRAME)	6063-T5 ALUMINUM
7	FIXING HOLE FILLER SHIM	RIGID VINYL
8	INSTALLATION CLIP	10 GAGE GALVANIZED STEEL
HARDWARE		
11	PIVOT HINGE	HOPES NO. 237S
12	MULTI-POINT LOCK CAM SYSTEM	HOPES NO. 101A
13	SINGLE ARM ROTO OPERATOR	HOPES NO. 141
14	TOP & BOTTOM LOCK BOLTS & STRIKES	HOPES NO. 20-50M3
SEALS & SEALANTS		
17	TBP-H638 D-BULB WEATHERSTRIP	TBP SILICONE
18	CLOSED CELL FOAM EPDM WEATHERSTRIP #59150	HOPES NO. 335379



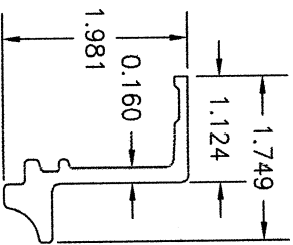
1A EQUAL LEG FRAME

1B LONG LEG FRAME

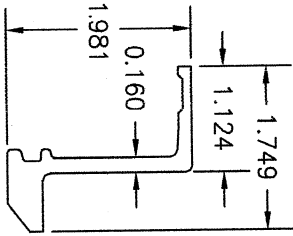
2A STILE & RAIL



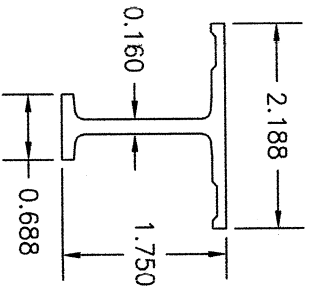
2B ALTERNATE STILE & RAIL



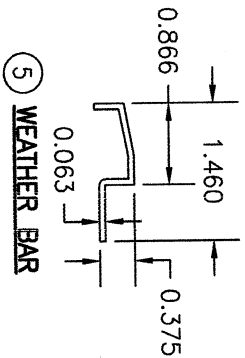
3A MEETING STILE AT INACTIVE SASH



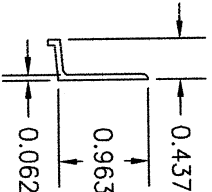
3B ALTERNATE MEETING STILE AT INACTIVE SASH



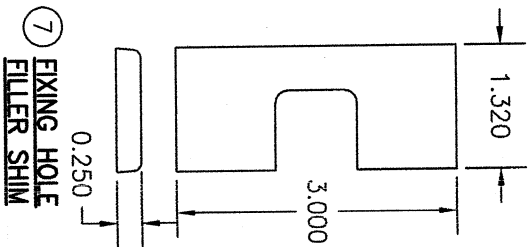
4 T-ASTRIGAL



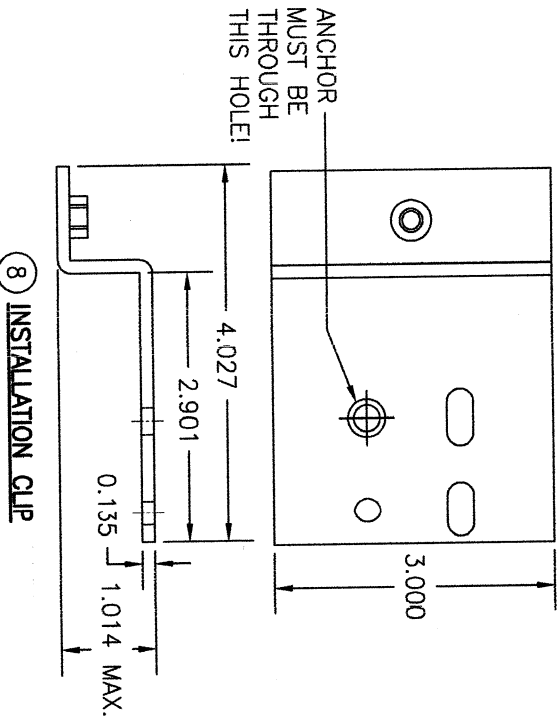
5 WEATHER BAR



6 WEATHER BAR



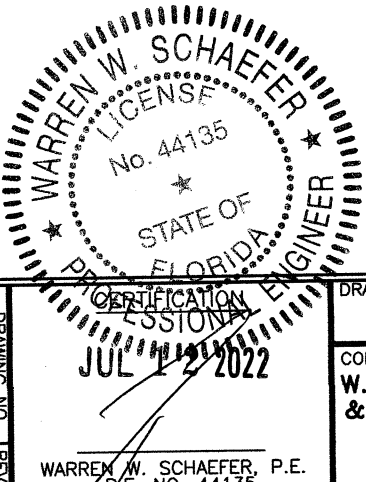
7 FIXING HOLE FILLER SHIM



8 INSTALLATION CLIP

NO.	REVISION	DESCRIPTION	BY	DATE
1	2			

DRAWING TITLE OLD WORLD SUITE IMPACT OUT-SWING CASEMENT WINDOWS	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-346-5638	MANUFACTURER HOPE'S WINDOWS, INC. 84 HOPKINS AVENUE JAMESTOWN, NY 14702 (716) 665-5124



DRAWING NO.	2009
SHEET NO.	5 OF 5