

GENERAL NOTES:

- THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
- OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
- 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.
- THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & ARE LARGE MISSILE IMPACT RATED AT A MISSILE LEVEL "D" OR "E". SEE GLAZING DETAILS FOR MISSILE LEVEL RATING.
- IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
- 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.
- 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.
- MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
- TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/OA 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.
- 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.
- THESE WINDOWS HAVE PASSED TESTING IN ACCORDANCE WITH ASTM E1886 & E1996 FOR ESSENTIAL FACILITIES LEVEL "E" 80 FT/S LARGE MISSILE IMPACT SPEED WHEN GLASS OPTIONS 1 & 2 ARE USED. THEREFORE, THESE WINDOWS ARE APPROVED FOR USE WITH ESSENTIAL FACILITIES WHEN THOSE GLASS OPTIONS APPLY.

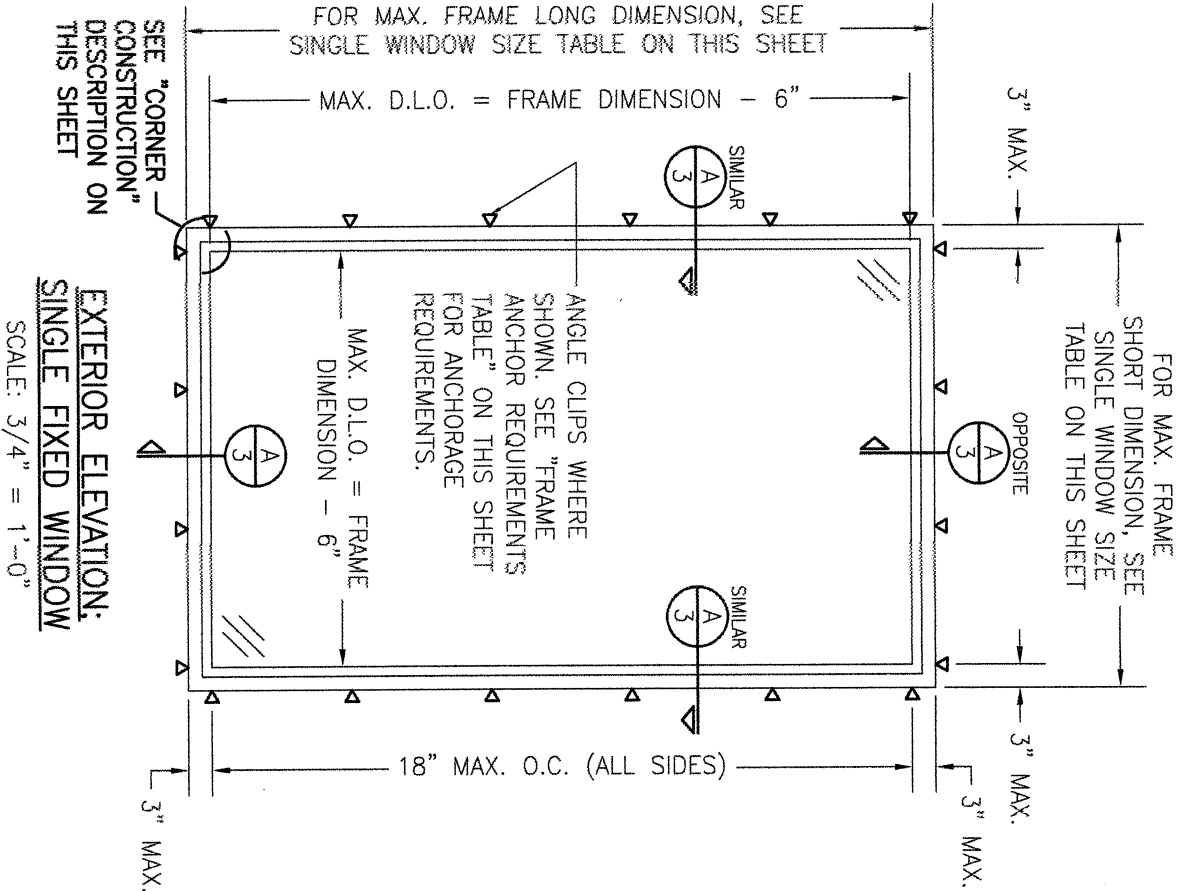
EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW 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

ANGLE CLIP SCREWS

OPENING TYPE (SUBSTRATE)	ANGLE CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 16 GA. 50 KSI METAL STUD	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4" 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.) OR CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S. OR S.S.).



ALLOWABLE DESIGN PRESSURE
(ALL WINDOW CONDITIONS)

+/-80 PSF

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.

ALLOWABLE SIZE TABLE (SINGLE WINDOW)	
MAXIMUM FRAME LONG DIMENSION (IN.)	MAXIMUM FRAME SHORT DIMENSION (IN.)
144	40
138	42
132	44
126	46
120	48
114	51
108	53
102	57
96	60

1. ALL SIZES IN TABLE ARE BASED ON TESTED SIZES & DO NOT EXCEED THE WINDOW AREA TESTED.

2. LONG DIMENSION MAY BE HORIZONTAL OR VERTICAL.

DRAWING TITLE
SS30 FIXED IMPACT DETENTION WINDOW

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

NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE TO CURRENT STANDARDS	W.W.S.	12/10/14
B1	ADDED GLASS OPTIONS	W.W.S.	04/24/24

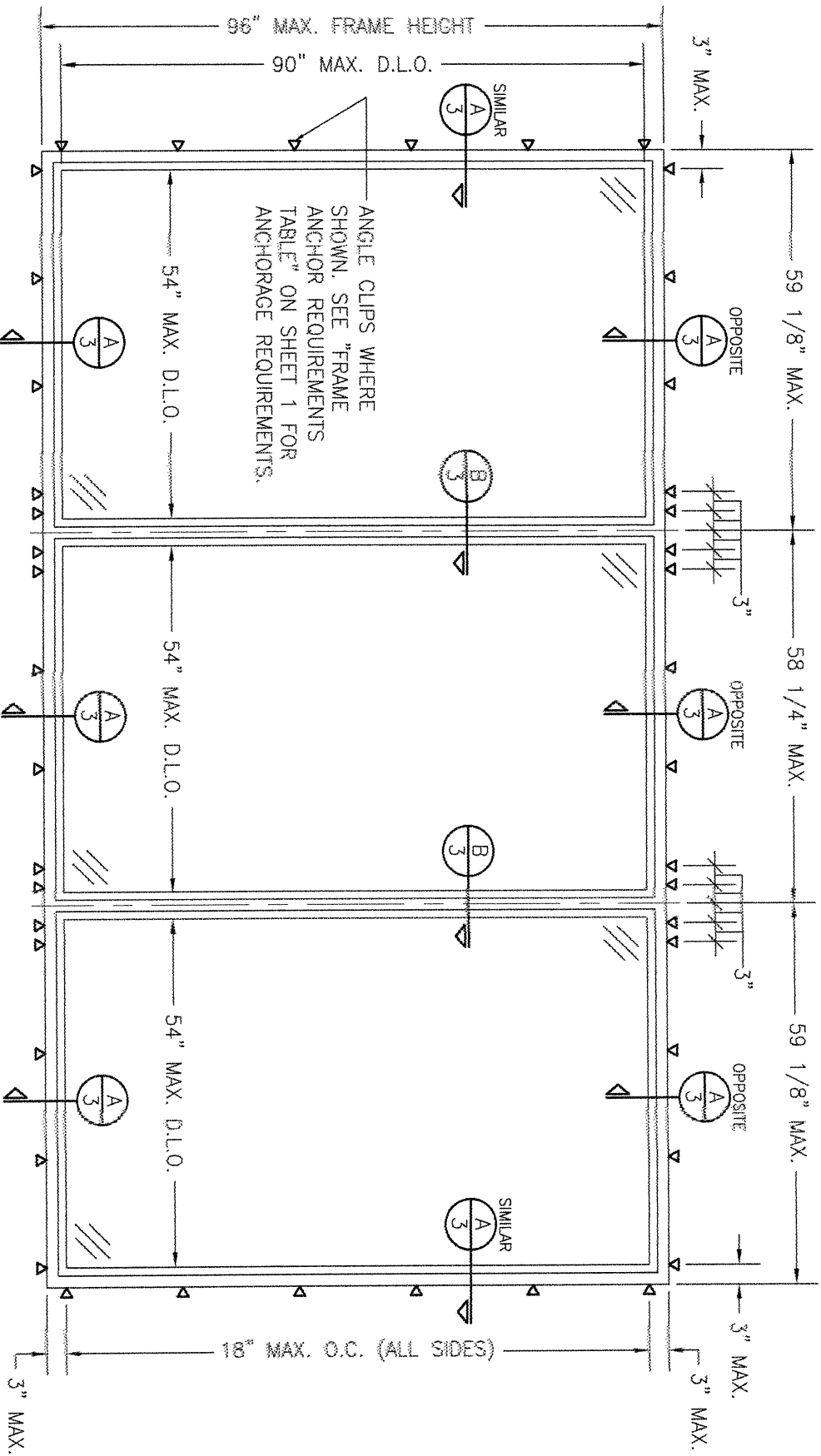
CERTIFICATION

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

Digitally signed
by Warren W
Schaefer
Date:
2024.04.26
10:39:07 -04'00'



DRAWING NO.	1880	REV.	B
SHEET NO.	1	OF	4



EXTERIOR ELEVATION:
MULTIPLE FIXED WINDOWS IN ONE FRAME

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

MULTIPLE UNIT NOTES:

1. MULLION MAY BE HORIZONTAL OR VERTICAL PROVIDING UNIT SIZES ARE RESTRICTED AS SHOWN IN THIS ELEVATION.
2. IF VERTICALLY STACKED, THE MANUFACTURER &/OR INSTALLER SHALL INSURE THAT THE DEAD LOAD WEIGHT OF THE ABOVE WINDOWS CAN NOT CAUSE UNDO FAILURE TO THE BELOW WINDOWS.
3. THREE(3) WINDOW COMBINATION IS SHOWN. MORE THAN 3 WINDOWS MAY EXIST IN ONE WINDOW FRAME PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS & THE OVERALL UNIT SIZE IS WITHIN WHAT HOPE'S CAN PROVIDE.
4. MULLION CONDITIONS OTHER THAN THAT SHOWN ARE NOT PART OF THIS APPROVAL & ARE SUBJECT TO JOB SPECIFIC REVIEW AND/OR CERTIFICATION BY A FLORIDA LICENSED ENGINEER EXPERIENCED IN MULLION DESIGN.

DRAWN BY:	W.W.S.	CHECKED BY:	W.W.S.
DATE:	06/26/14		
NO.	REVISION DESCRIPTION	BY	DATE

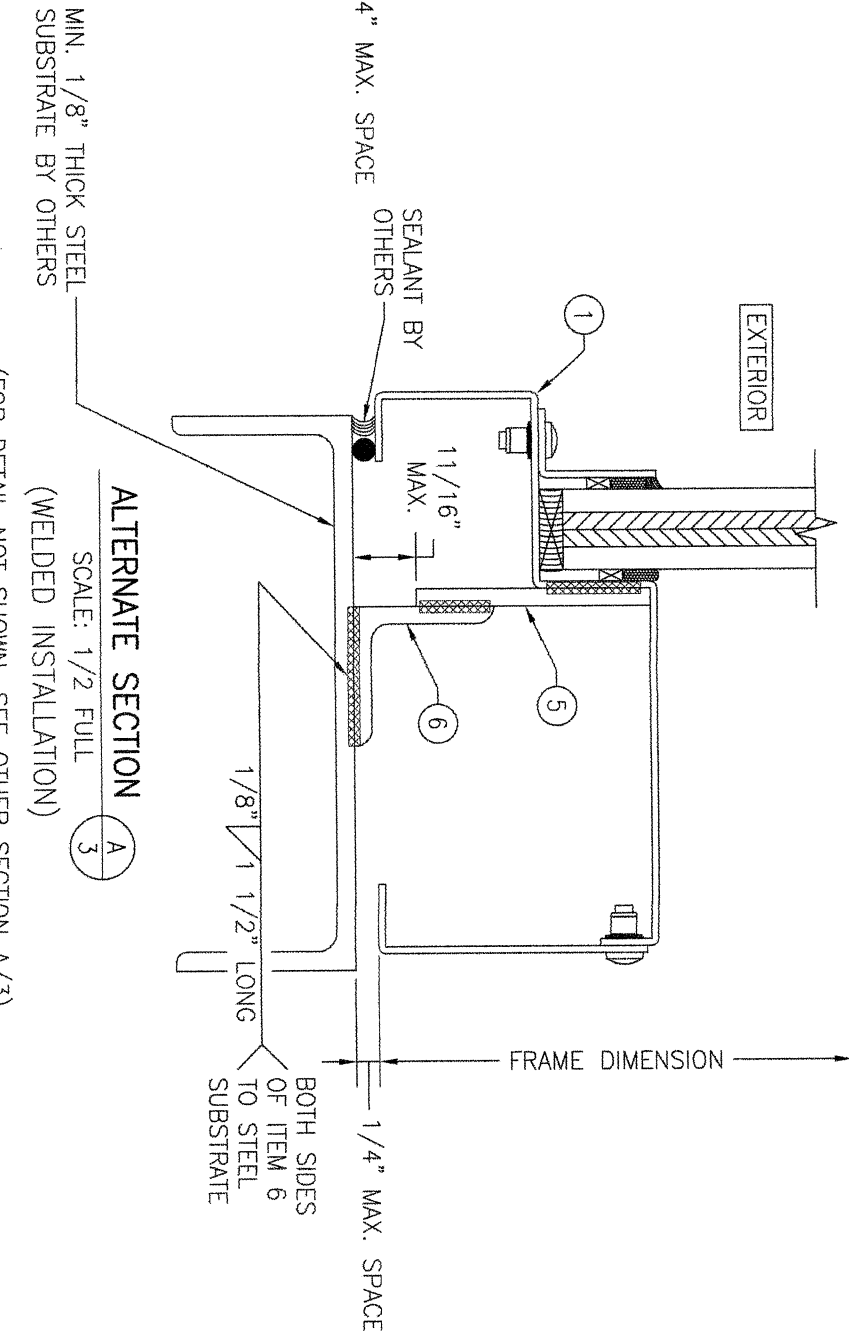
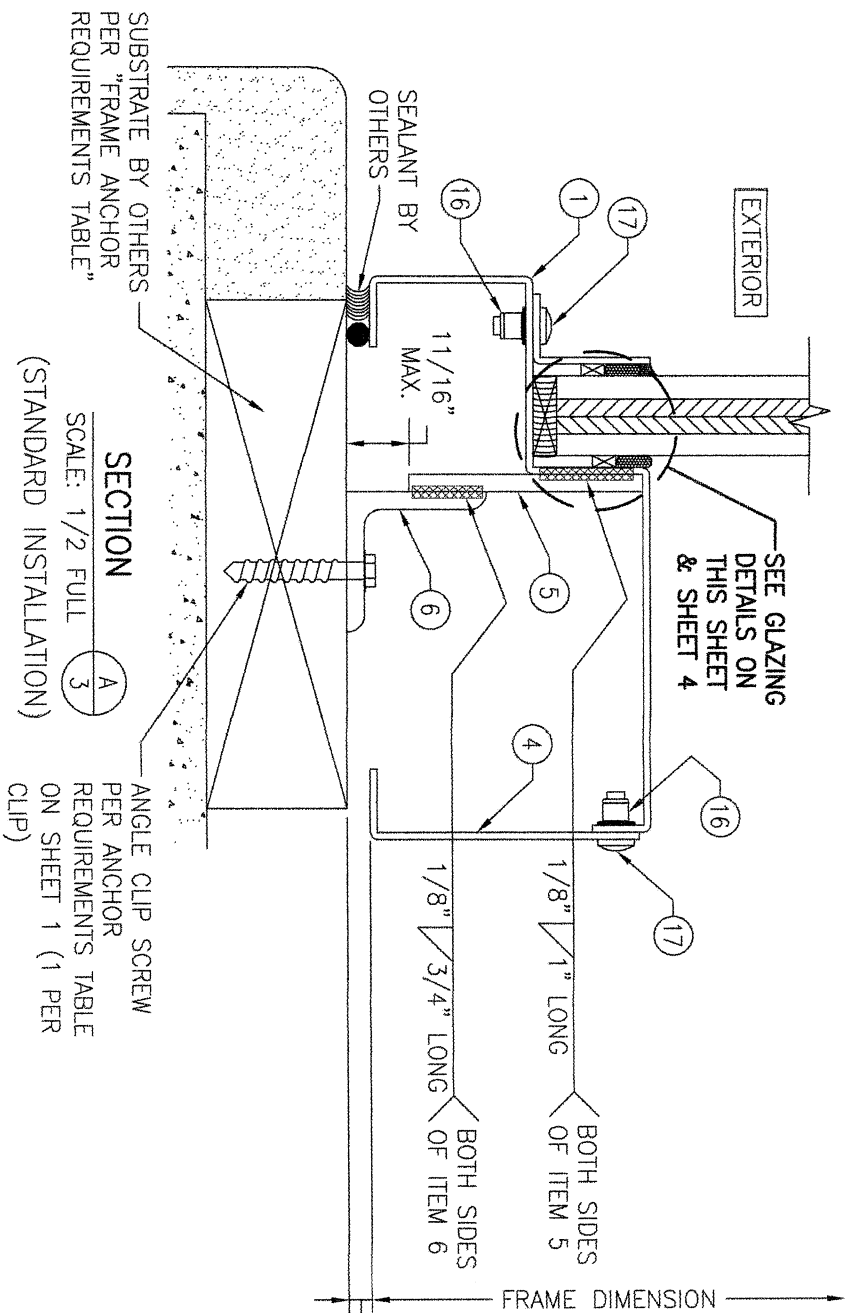
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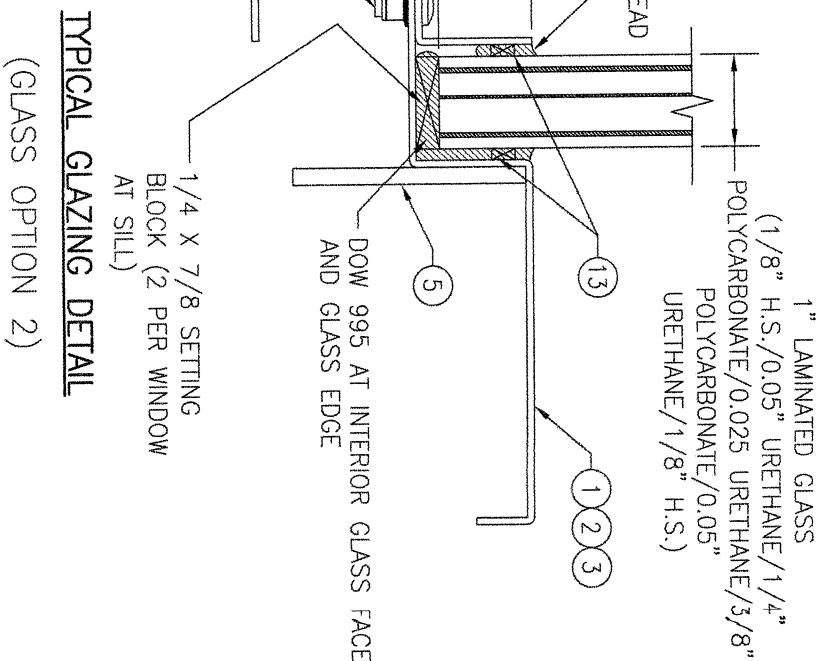
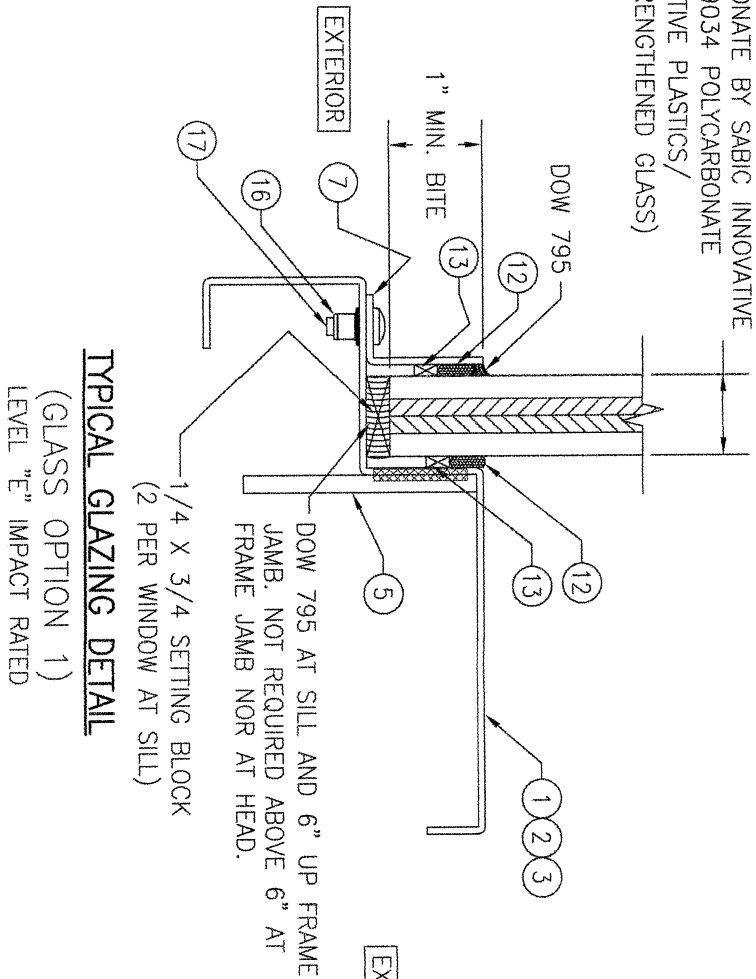
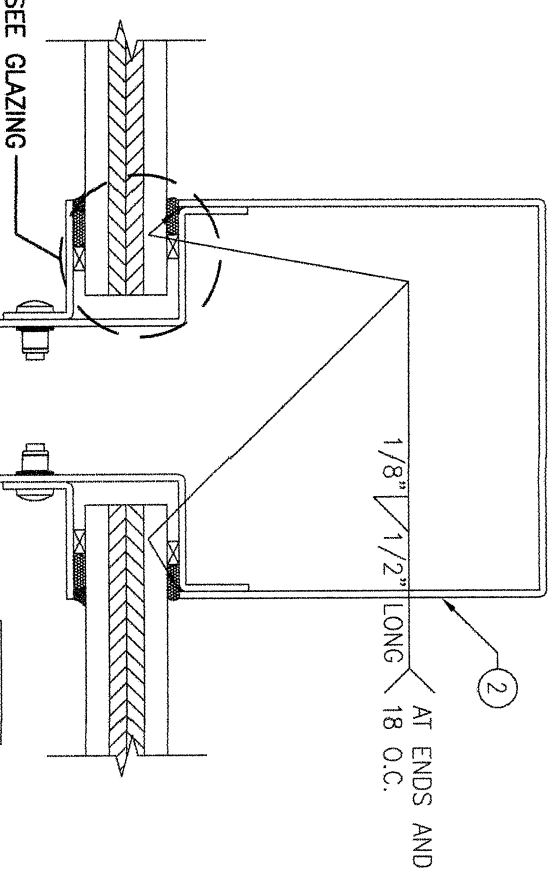
DRAWING NO. 1880
REV. B
SHEET NO. 2 OF 4



ALTERNATE SECTION
SCALE: 1/2 FULL
(WELDED INSTALLATION)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTION A/3)
(EXTERIOR FINISHES & SEALANTS AS REQUIRED)

SECTION
SCALE: 1/2 FULL
(STANDARD INSTALLATION)

7/8" LAMINATED GLASS BY GLOBAL SECURITY GLAZING
(1/4" CHEMICALLY STRENGTHENED GLASS/
5MM LEXAN 9034 POLYCARBONATE BY SABIC INNOVATIVE
PLASTICS/5MM LEXAN 9034 POLYCARBONATE
BY SABIC INNOVATIVE PLASTICS/
1/4" CHEMICALLY STRENGTHENED GLASS)



NO.	REVISION	DESCRIPTION	BY	DATE
1	2			
2				
3				
4				

DRAWING TITLE
SS30 FIXED IMPACT DETENTION WINDOW

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MANUFACTURER

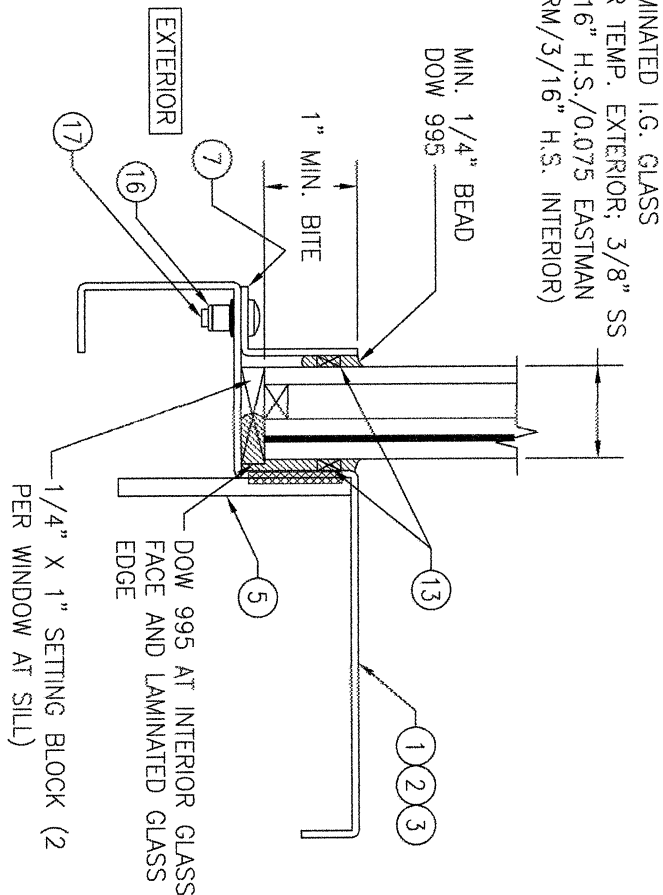
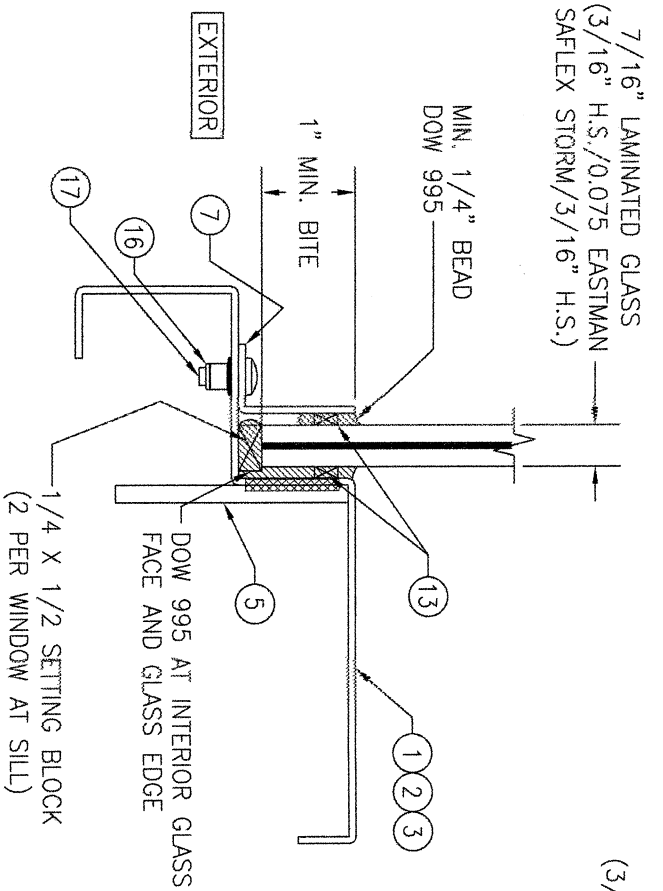
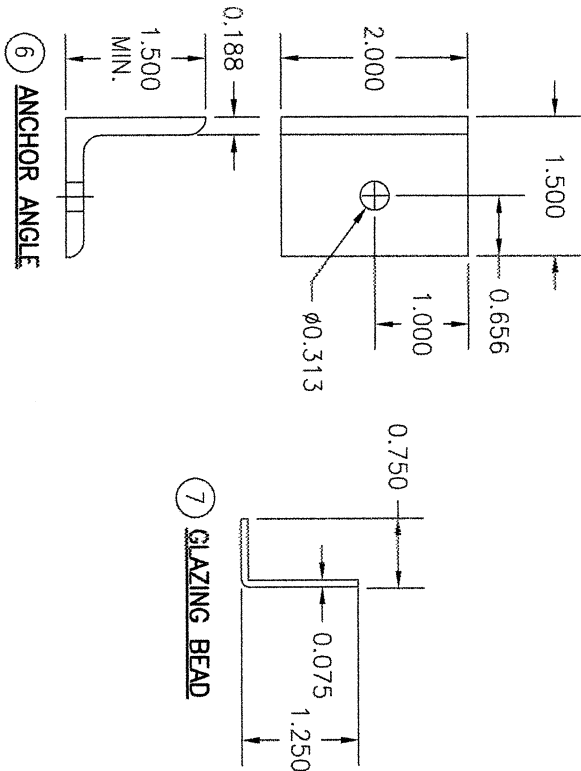
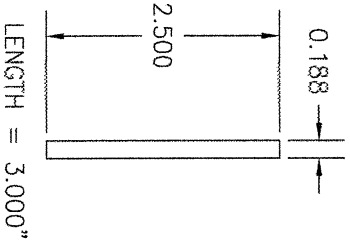
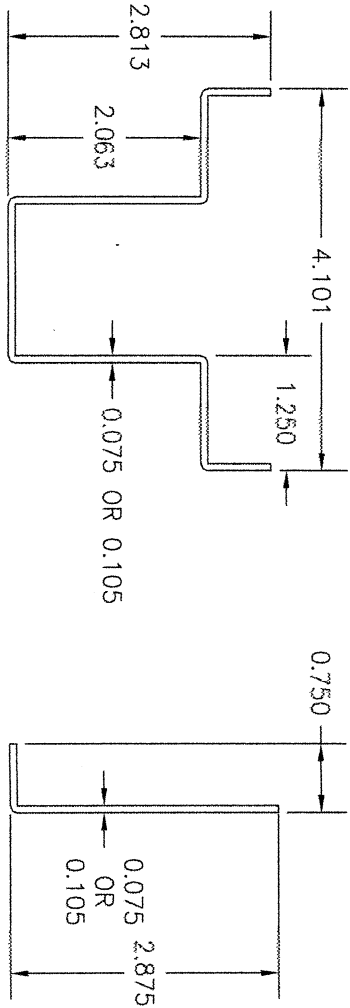
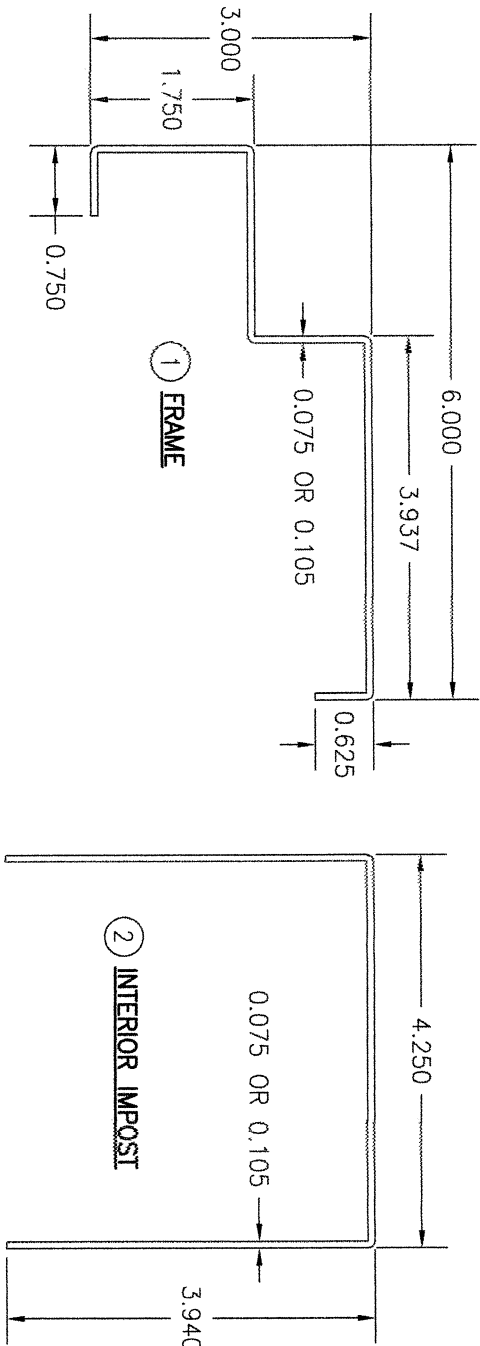
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DRAWING NO.
1880
SHEET NO.
3 OF 4

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	FRAME	304 S.S. OR A60 GALVANIZED MIN. 36 KSI STEEL
2	INTERIOR IMPOST	304 S.S. OR A60 GALVANIZED MIN. 36 KSI STEEL
3	EXTERIOR IMPOST	304 S.S. OR A60 GALVANIZED MIN. 36 KSI STEEL
4	ACCESS COVER	304 S.S. OR A60 GALVANIZED MIN. 36 KSI STEEL
5	ANCHOR PLATE	A60 GALVANIZED MIN. 36 KSI STEEL
6	ANCHOR ANGLE	A60 GALVANIZED MIN. 36 KSI STEEL
7	GLAZING BEAD	304 S.S. OR A60 GALVANIZED MIN. 36 KSI STEEL
SEALS & SEALANTS		
12	GLAZING TAPE	TREMCO 440
13	GLAZING SHIM	TREMCO TR1488W 2" LONG MAX. 24" O.C.
FASTENERS		
16	10-24 S.S. AVK OPEN NUT	WITHIN 1 1/2" FROM ENDS & 9" MAX. O.C.
17	10-24 X 1/2" S.S. MACHINE SCREW	WITHIN 1 1/2" FROM ENDS & 9" MAX. O.C.



TYPICAL GLAZING DETAIL

(GLASS OPTION 3)
LEVEL "D" IMPACT RATED

TYPICAL GLAZING DETAIL

(I.G. GLASS OPTION 4)
LEVEL "D" IMPACT RATED

DRAWN BY:		CHECKED BY:		
W.W.S.		W.W.S.		
DATE:		DATE:		
1=2		06/26/14		
NO.	REVISION	DESCRIPTION	BY	DATE

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DRAWING NO. **1880** REV. **B**
SHEET NO. **4** OF **4**