

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.
- THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH 2018 IBC REFERENCED STANDARDS ASTM E330, E283, E331, F588, E1886 & E1996 FOR LARGE & SMALL MISSILE IMPACT PRODUCTS. ALL TESTING OF THIS PRODUCT TO STANDARDS LESS CURRENT THAN THOSE SPECIFIED IN THE 2018 IBC HAS BEEN DETERMINED EQUIVALENT TO THE MORE CURRENT VERSIONS OF THOSE STANDARDS REFERENCED IN THE 2018 IBC.
- THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC).
- WHEN GLAZED FOR SMALL MISSILE IMPACT, THIS PRODUCT MAY NOT BE INSTALLED AT ELEVATIONS BELOW 30 FT. ABOVE GRADE OR AT ANY CODE DESIGNATED LARGE MISSILE IMPACT LOCATION WITHOUT AN APPROVED SHUTTER.
- 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 INTERNATIONAL BUILDING CODE, A DIRECTIONALITY FACTOR OF $KD = 0.85$ 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 BE SEPARATED OR COATED AS REQUIRED TO AVOID CORROSION OF EITHER MATERIAL.
- TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN ARE QUALITY ASSURED BY AN APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH APPLICABLE STANDARDS. 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 THEY ARE INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF THEY ARE INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE 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, 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.

CORNER CONSTRUCTION:

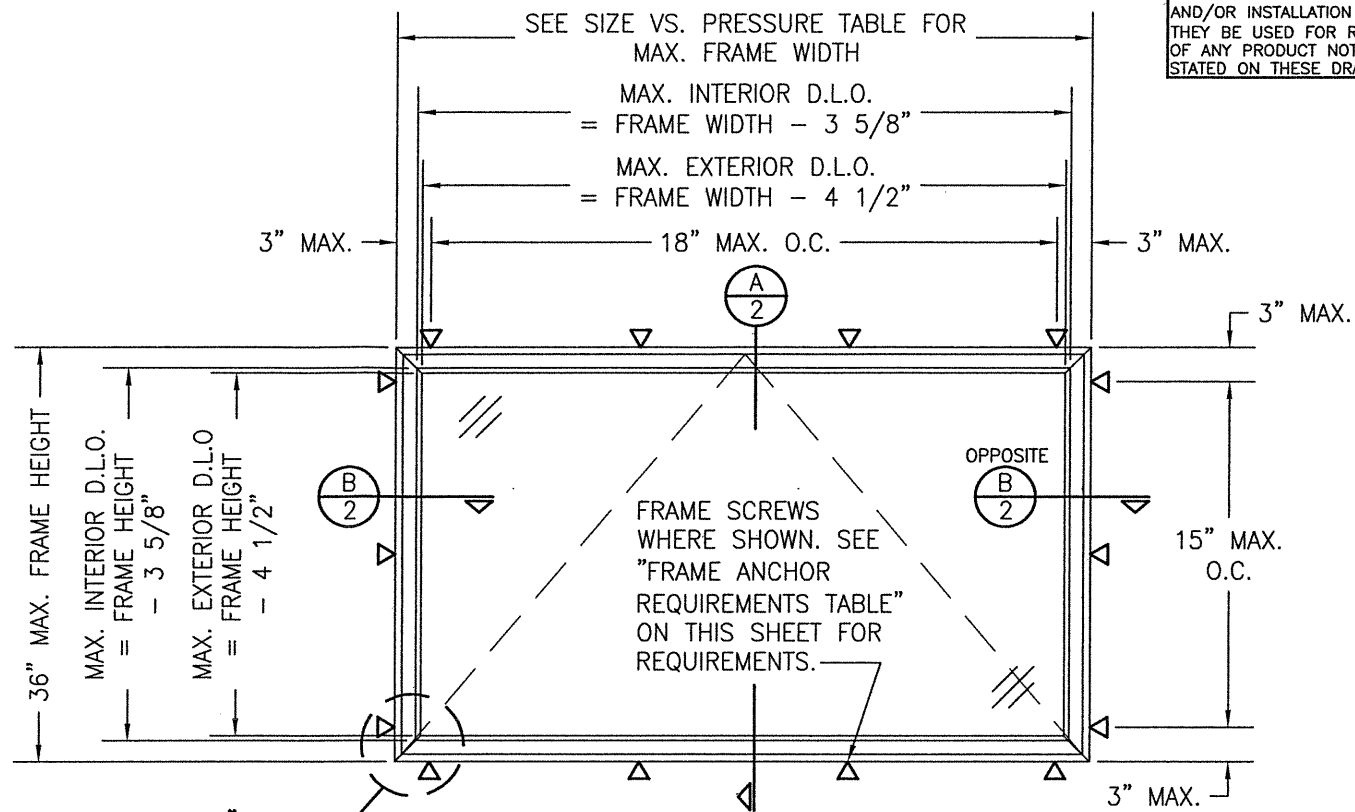
FRAME CORNERS: CORNERS ARE MITERED, KEYED WITH EACH AN ALUMINUM FRAME AND STEEL FRAME ADAPTOR CORNER KEY AND STAKED.
SASH: CORNERS ARE MITERED, KEYED WITH AN ALUMINUM VENT CORNER KEY AND STAKED.
 (SEE PART DRAWINGS FOR CORNER KEY PROFILES & DETAIL)

FRAME ANCHOR REQUIREMENTS TABLE

FRAME SCREWS

OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 18 GA. 33 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. 0.10" THK 6063-T5 ALUM.	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU (AT SIDES ONLY)	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	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.).



**EXTERIOR ELEVATION:
(SINGLE PROJECT-OUT WINDOW)**

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

ALLOWABLE WINDOW SIZE VS. PRESSURE

GLASS OPTION	MAXIMUM FRAME WIDTH (IN.)	MAXIMUM FRAME HEIGHT (IN.)	ALLOWABLE PRESSURE (+/- PSF)
LARGE MISSILE IMPACT WINDOWS (LMI)			
DG	60	36	75.0
DG	60	33	82.5
DG	60	30	90.0
TG	54	36	90.0
SMALL MISSILE IMPACT WINDOWS (SMI)			
DG	60	36	90.0
TG	54	36	90.0

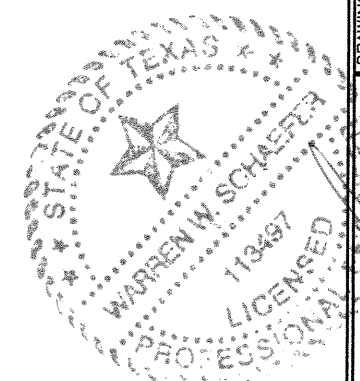
DG = DOUBLE GLAZED
 TG = TRIPLE GLAZED
 * SEE GLAZING DETAILS FOR DOUBLE & TRIPLE GLAZE GLASS REQUIREMENTS.

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.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 05/27/18
DATE: 03/04/21	
BY: W.W.S.	
REVISION DESCRIPTION	
NO. AT	

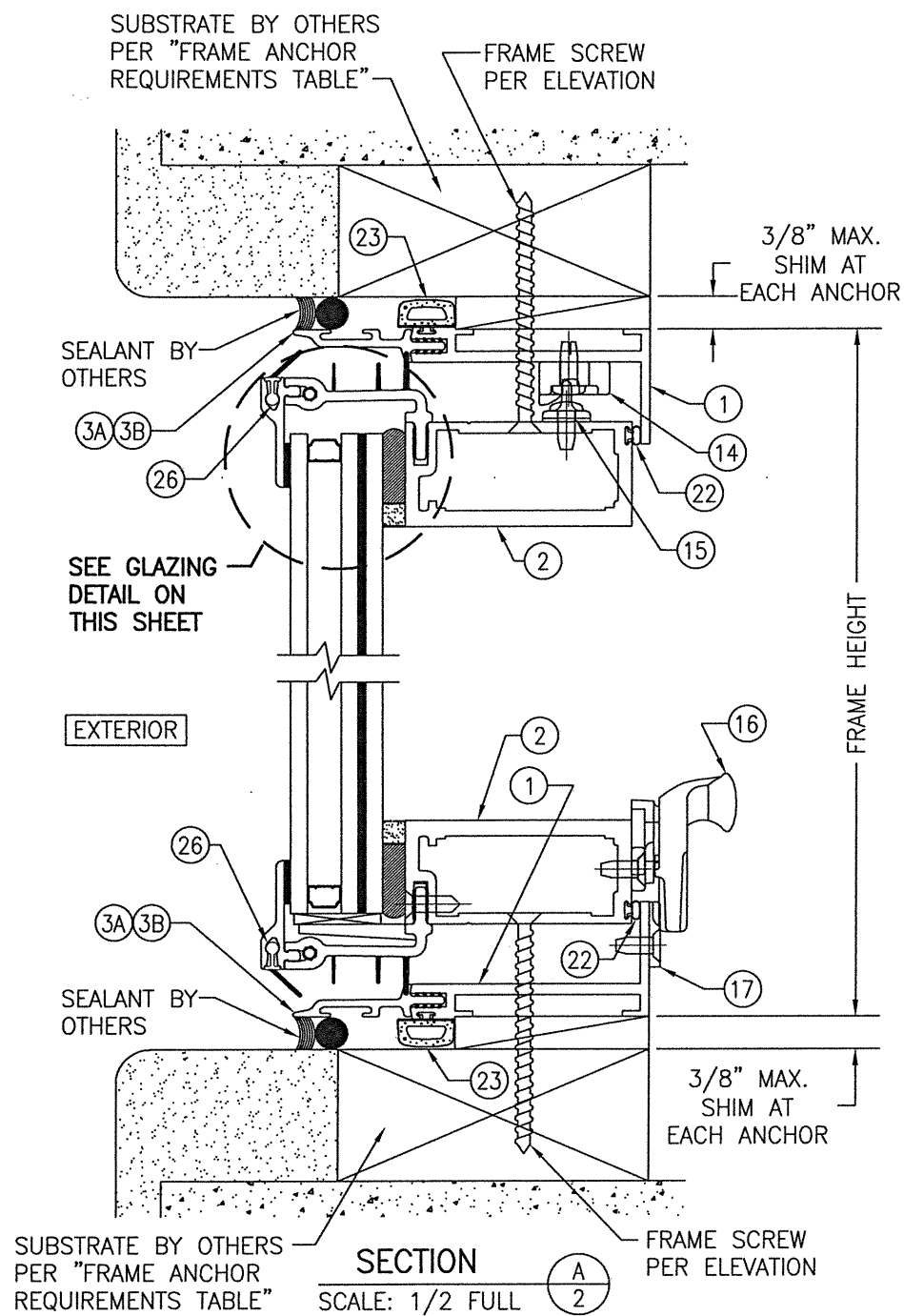
GLASSVENT UT LMI & SMI PROJECT-OUT WINDOWS
 JOB INFORMATION:
KAWNEER COMPANY, INC.
 555 GUTHRIDGE COURT
 NORCROSS, GA 30092
 770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980)
 7480 150TH COURT NORTH
 PALM BEACH GARDENS, FL 33418
 PHONE: 561-744-3424

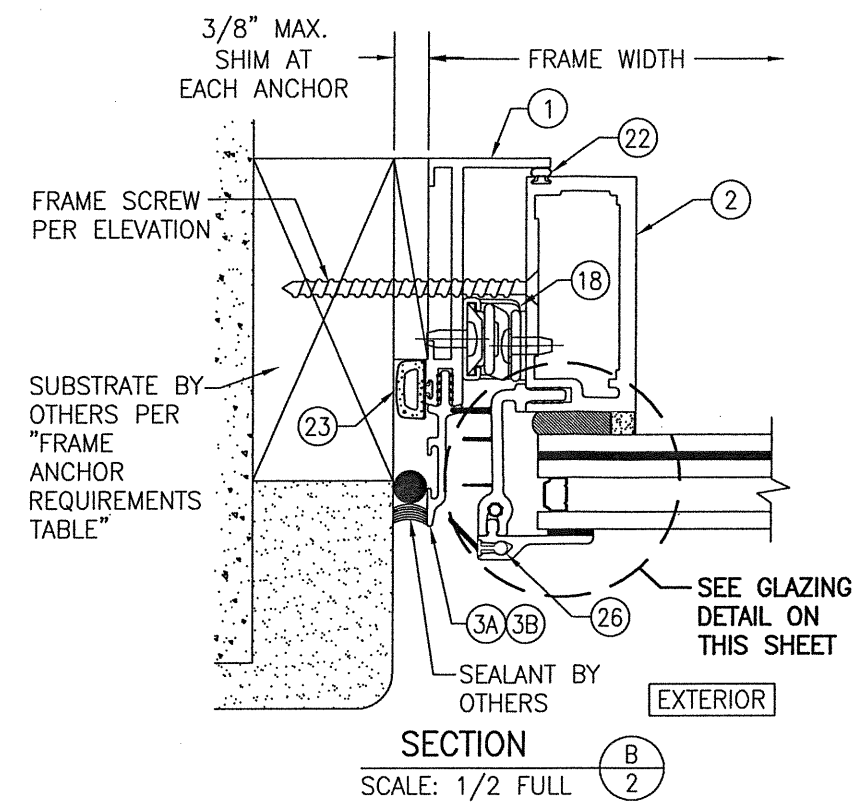


CERTIFICATION
 MAR 04 2021
 WARREN W. SCHAEFER, P.E.
 P.E. NO. 113497

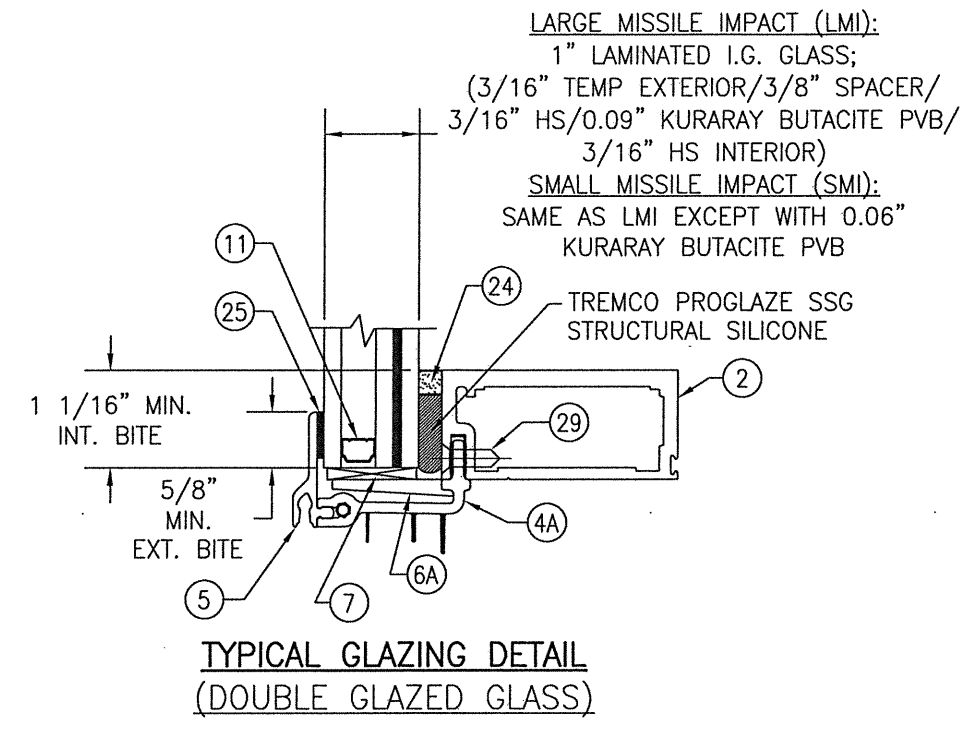
DRAWING NO. 1916T	REV. A
SHEET NO. 1 OF 3	



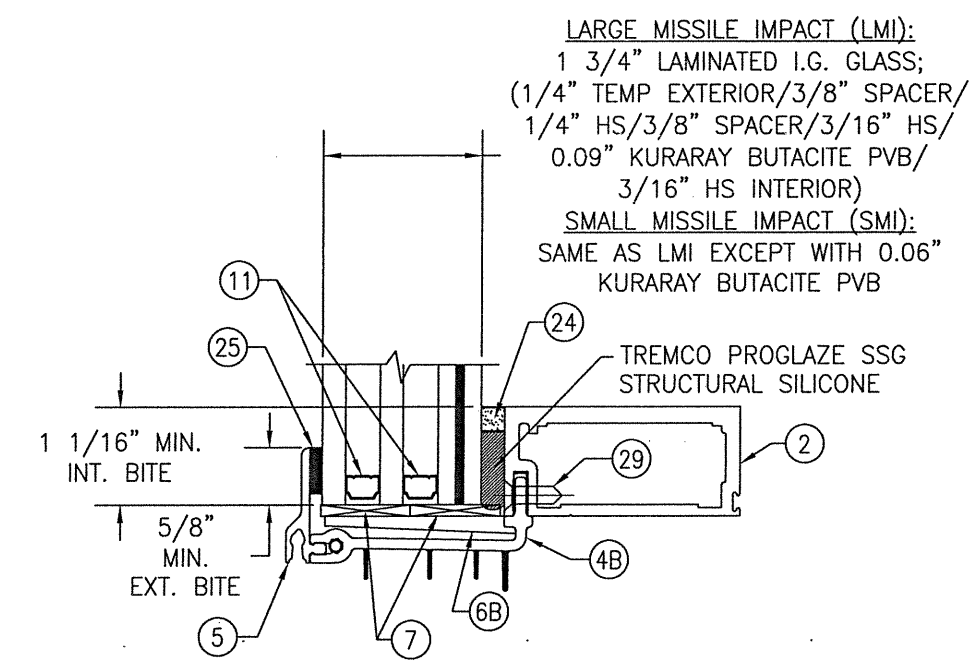
SECTION A
SCALE: 1/2 FULL



SECTION B
SCALE: 1/2 FULL



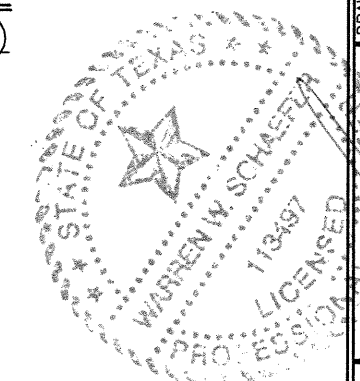
TYPICAL GLAZING DETAIL
(DOUBLE GLAZED GLASS)



TYPICAL GLAZING DETAIL
(TRIPLE GLAZED GLASS)

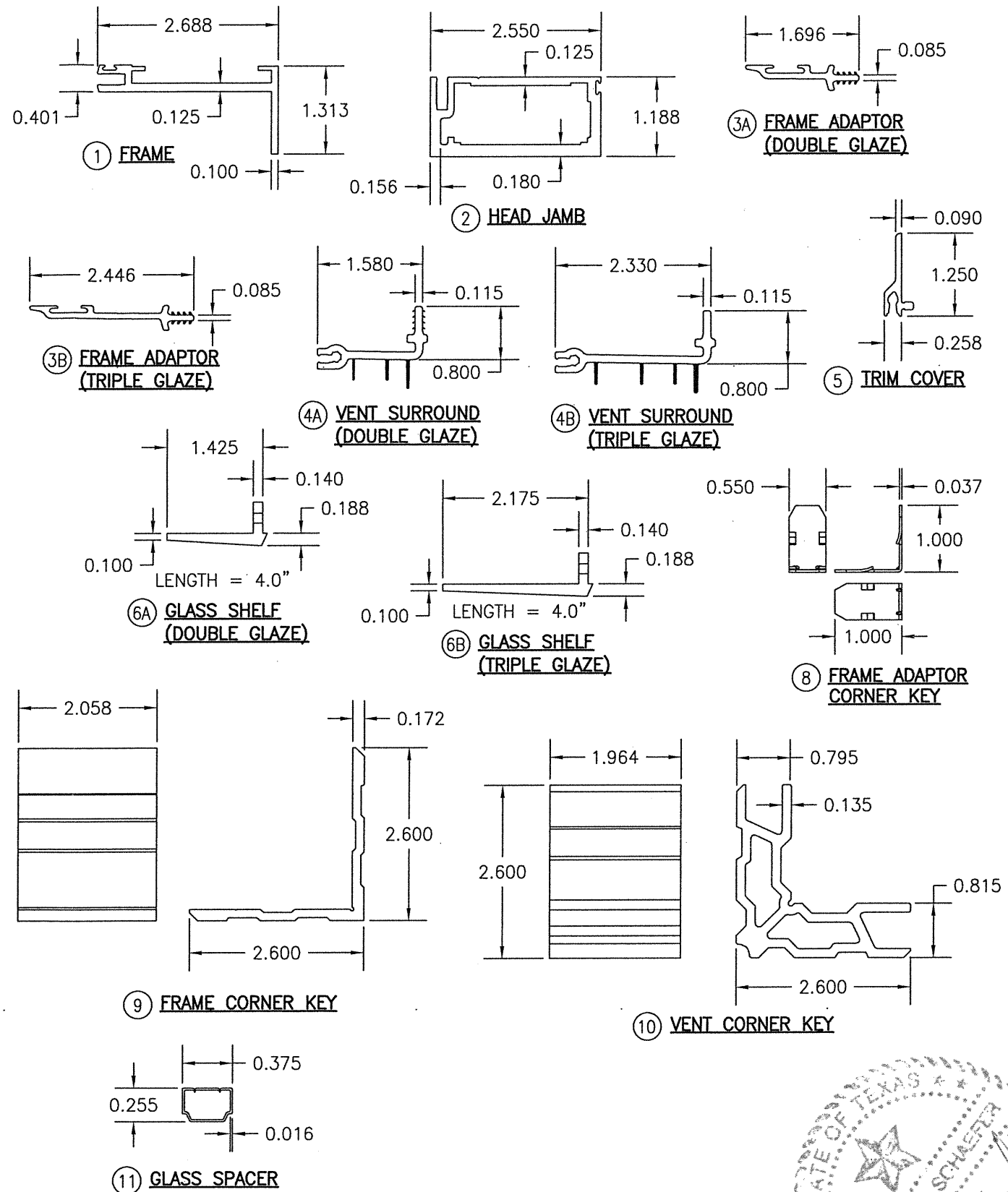
LARGE MISSILE IMPACT (LMI):
 1" LAMINATED I.G. GLASS;
 (3/16" TEMP EXTERIOR/3/8" SPACER/
 3/16" HS/0.09" KURARAY BUTACITE PVB/
 3/16" HS INTERIOR)
SMALL MISSILE IMPACT (SMI):
 SAME AS LMI EXCEPT WITH 0.06"
 KURARAY BUTACITE PVB

LARGE MISSILE IMPACT (LMI):
 1 3/4" LAMINATED I.G. GLASS;
 (1/4" TEMP EXTERIOR/3/8" SPACER/
 1/4" HS/3/8" SPACER/3/16" HS/
 0.09" KURARAY BUTACITE PVB/
 3/16" HS INTERIOR)
SMALL MISSILE IMPACT (SMI):
 SAME AS LMI EXCEPT WITH 0.06"
 KURARAY BUTACITE PVB



DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 05/27/16	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: GLASSVENT UT LMI & SMI PROJECT-OUT WINDOWS JOB INFORMATION: KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
CERTIFICATION: MAR 04 2021 WARREN W. SCHAEFER, P.E. P.E. NO. 113497		DRAWING NO. 1916T REV. A SHEET NO. 2 OF 3	

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	FRAME	6063-T6 ALUMINUM
2	VENT SASH	6063-T6 ALUMINUM
3A	FRAME ADAPTOR (DOUBLE GLAZE)	AMESBURY #PP3103 (DUROMETER 65 +/-5)
3B	FRAME ADAPTOR (TRIPLE GLAZE)	AMESBURY #PP3043 (DUROMETER 65 +/-5)
4A	VENT SURROUND (DOUBLE GLAZE)	AMESBURY #PP3102 (DUROMETER 65 +/-5)
4B	VENT SURROUND (TRIPLE GLAZE)	AMESBURY #PP3042 (DUROMETER 65 +/-5)
5	TRIM COVER	6063-T6 ALUMINUM
6A	GLASS SHELF (DOUBLE GLAZE)	6105-T5 ALUMINUM (2 PER SILL)
6B	GLASS SHELF (TRIPLE GLAZE)	6105-T5 ALUMINUM (2 PER SILL)
7	0.969" X 0.125" X 4.125" LG. SETTING BLOCK	EPDM W/PRESSURE SENSITIVE TAPE (LOCATED AT EACH GLASS SHELF)
8	FRAME ADAPTOR CORNER KEY	21 GAGE GALV. STEEL
9	FRAME CORNER KEY	6105-T5 ALUMINUM
10	VENT CORNER KEY	6105-T5 ALUMINUM
11	GLASS SPACER	ALLMETAL A93105 ALUMINUM
HARDWARE		
14	SNUBBER RECEIVER	ADVANTAGE MFG. #617-688
15	SNUBBER DRIVER	ADVANTAGE MFG. #616-2
16	HANDLE ASSEMBLY	BRONZE CRAFT CORP #162-001 OR 162-003
17	LOCK STRIKE	BRONZE CRAFT CORP. #282-004
18	SCISSOR HINGE	ADVANTAGE 4-BAR HINGE
SEALS & SEALANTS		
22	BULB WEATHERSTRIP	AMESBURY GROUP #32001
23	0.25" X 0.65" "D" FOAM SEAL	AMESBURY #32099
24	0.25" X 0.25" POLYURETHANE FOAM TAPE	NORTON V2100
25	0.09" X 0.5" DOUBLE SIDED GLAZING TAPE	NORTON V2890
26	TRIM COVER WEATHERING	AMESBURY GROUP #PP3138
FASTENERS		
29	NO. 10 X 1/2" FH THREAD FORMING SCREW	2 PER GLASS SHELF



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DRAWING NO. **1916T** REV. **A**

SHEET NO. **3** OF **3**

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