

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. 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.
5. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC).
6. 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.
7. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.

CORNER CONSTRUCTION:

1600 FRAME: THE VERTICAL FRAME MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED & JOINED VIA A SHEAR BLOCK (PART #12). THE SHEAR BLOCK IS FASTENED TO THE VERTICAL FRAME MEMBER WITH TWO(2) NO. 12 X 1 7/8" PHTF TYPE B SCREWS. THE HORIZONTAL MEMBER IS FASTENED TO THE SHEAR BLOCK WITH TWO(2) NO. 12 X 7/8" FHTF TYPE AB SCREWS. EACH CORNER IS SEALED WITH DOW 795 SILICONE SEALANT.

WINDOW FRAME: THE VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED & JOINED WITH TWO(2) NO. 10 X 1" PHTF SCREWS THRU THE VERTICAL MEMBER INTO THE HORIZONTAL MEMBERS SCREW SPLINE. EACH CORNER IS SEALED WITH DOW 795 SILICONE SEALANT.

SASH: MITER CUT AND JOINED WITH A 2 7/8" X 2 7/8" X 1/2" THK. X 1/2" LONG ALUMINUM CORNER KEY. EACH CORNER IS SEALED WITH SCHNEE-MOREHEAD 5504 SEAM SEALER.

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.

FRAME ANCHOR REQUIREMENTS TABLE

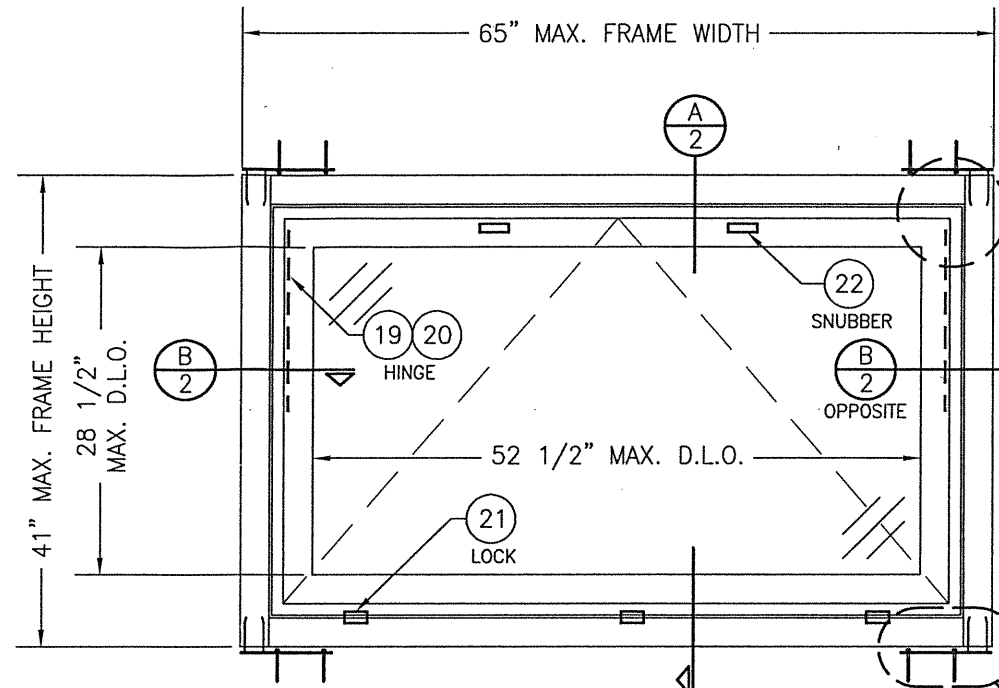
FRAME END CLIP ANCHORS

OPENING TYPE (SUBSTRATE)	CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
MIN. 2X WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	(1) (2) 1/4" CONCRETE SCREW	1 1/4"	1"
MIN. 16 GA. 50 KSI METAL STUD	(2) 1/4-14 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	(2) 1/4-14 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	(2) 1/4-14 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 2500 PSI CONCRETE	(1) (2) 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.).
- (2) SCREWS MAY BE FLAT HEAD, PAN HEAD OR HEX HEAD.

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: 03/03/21
DATE	
BY	
REVISION DESCRIPTION	
NO.	



EXTERIOR ELEVATION:

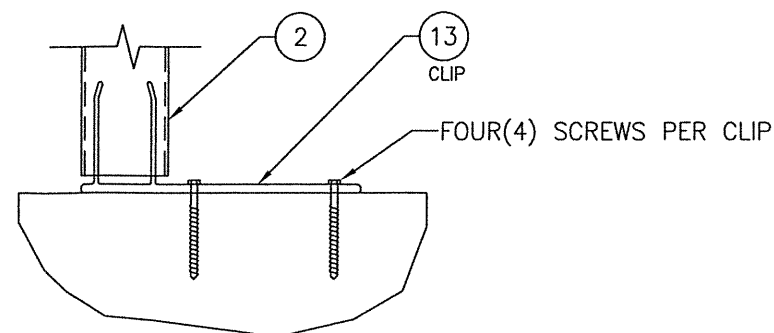
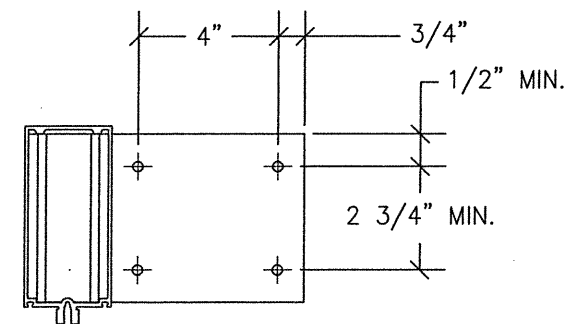
SINGLE WINDOW

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

(INSTALLATION OF WINDOW TO A PUNCHED OPENING USING KAWNEER'S 1600 FRAMING IS SHOWN. WINDOW MAY ALSO BE INSTALLED DIRECTLY INTO KAWNEER'S 1600 CURTAIN WALLS PER NOTE ON SHEET 2)

ALLOWABLE DESIGN PRESSURE

+/-65 PSF



FRAME END CLIP DETAIL

SCALE: N.T.S.

SEE "CORNER CONSTRUCTION" DESCRIPTION ON THIS SHEET

SEE "FRAME END CLIP DETAIL" ON THIS SHEET FOR CLIP ANCHOR REQUIREMENTS.



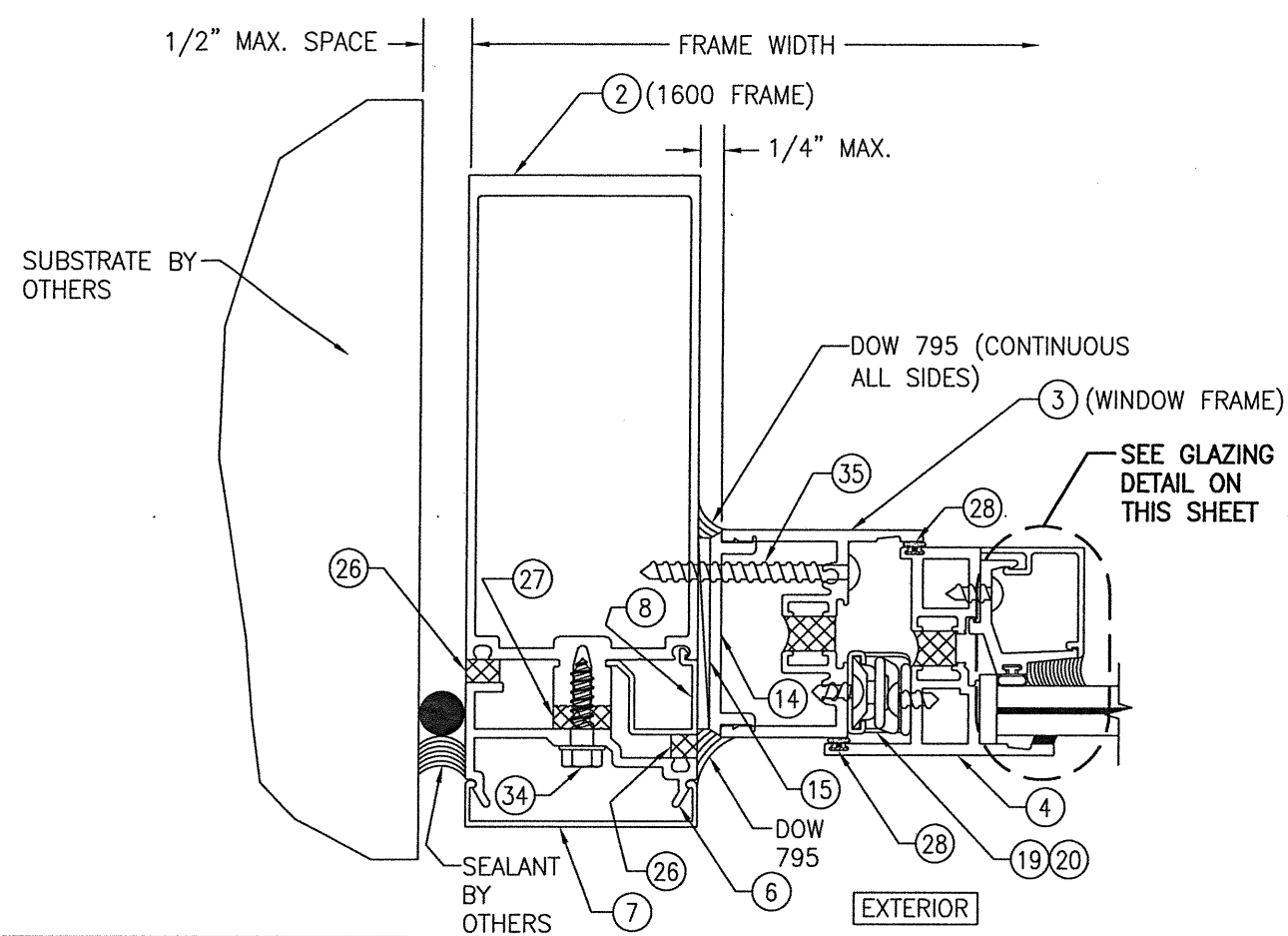
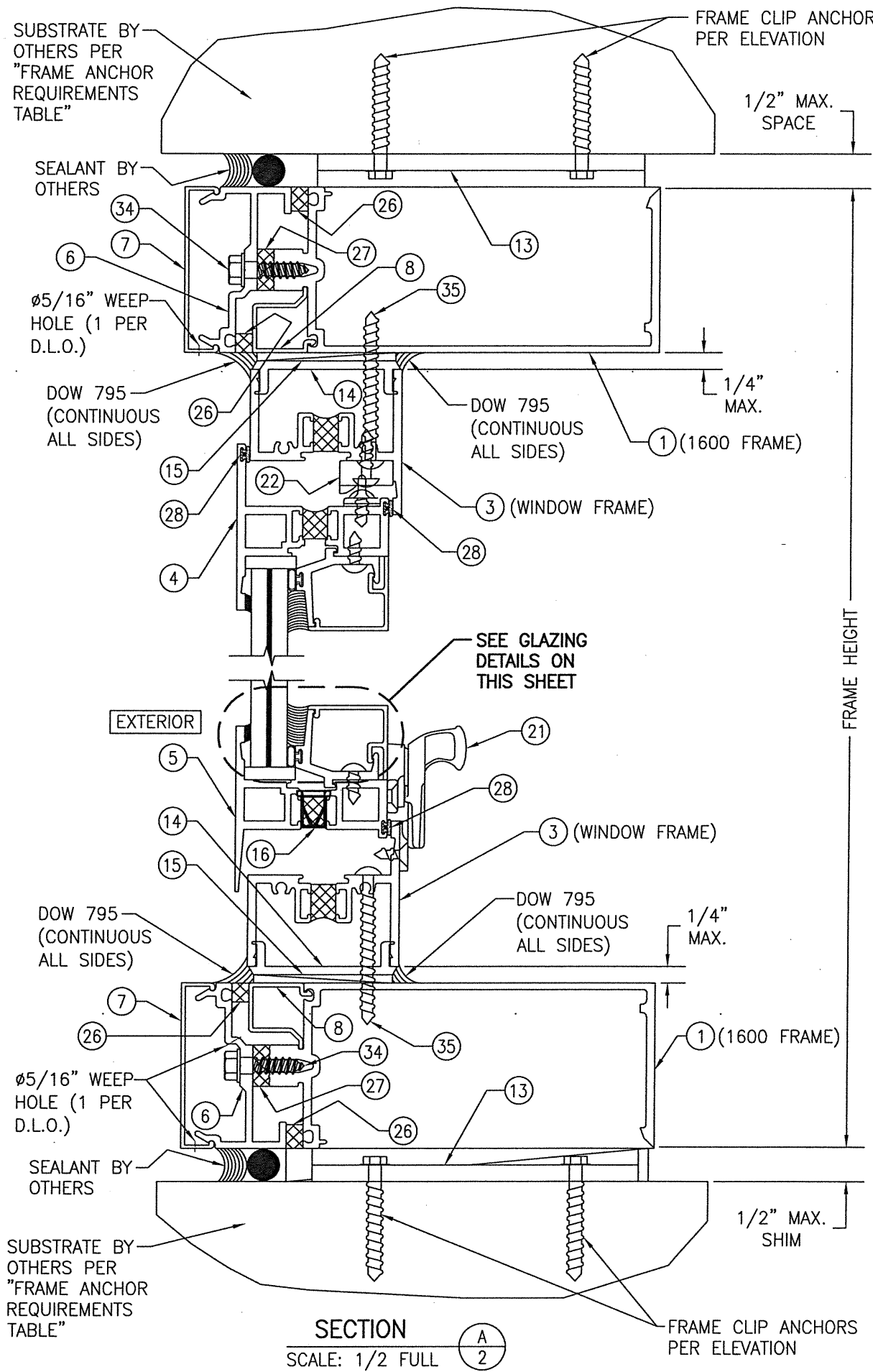
DRAWING TITLE: 8225TL LARGE & SMALL MISSILE IMPACT PROJECT-OUT WINDOW

JOB INFORMATION:
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

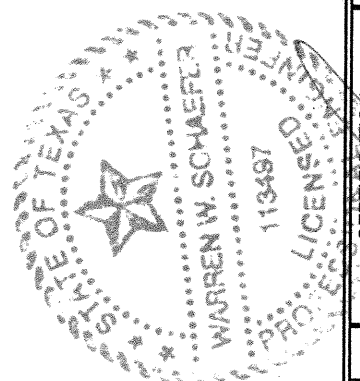
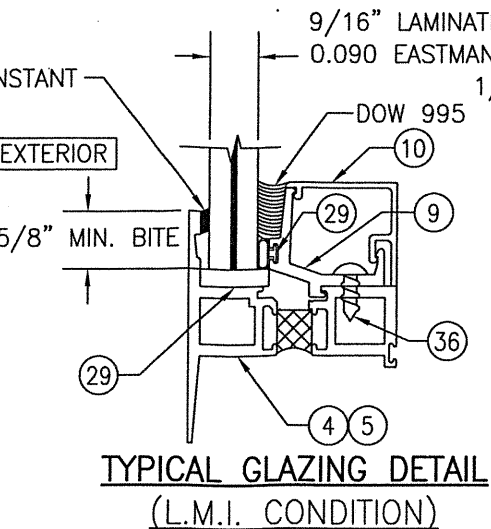
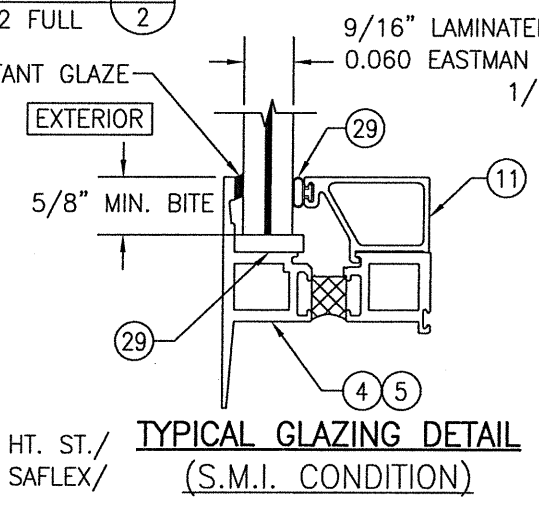
CONSULTANTS:
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION:
MAR 03 2021
WARREN W. SCHAEFER, P.E.
P.E. NO. 113497

DRAWING NO. 1615T
SHEET NO. 1 OF 3

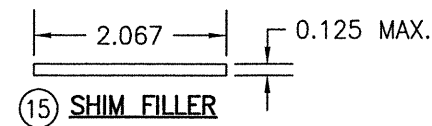
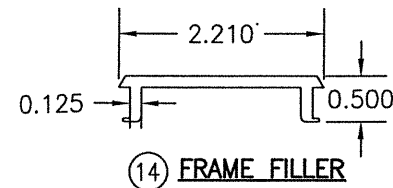
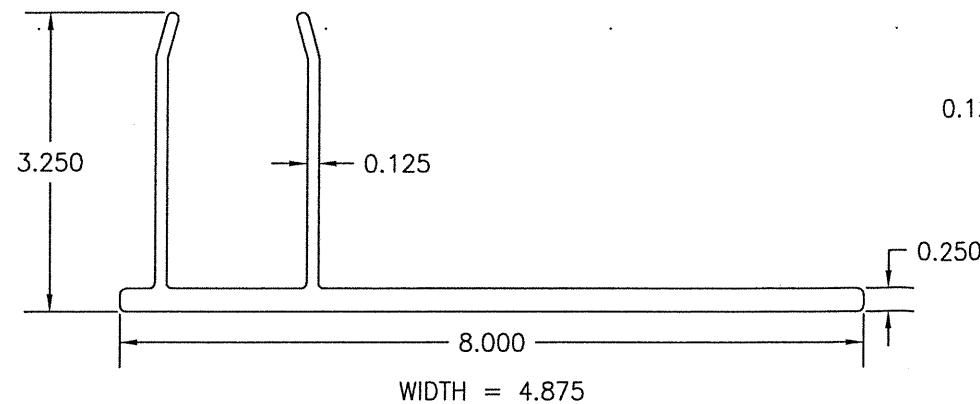
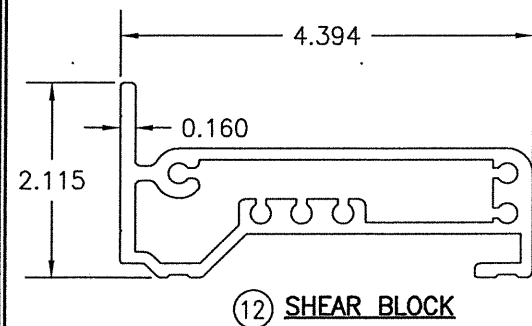
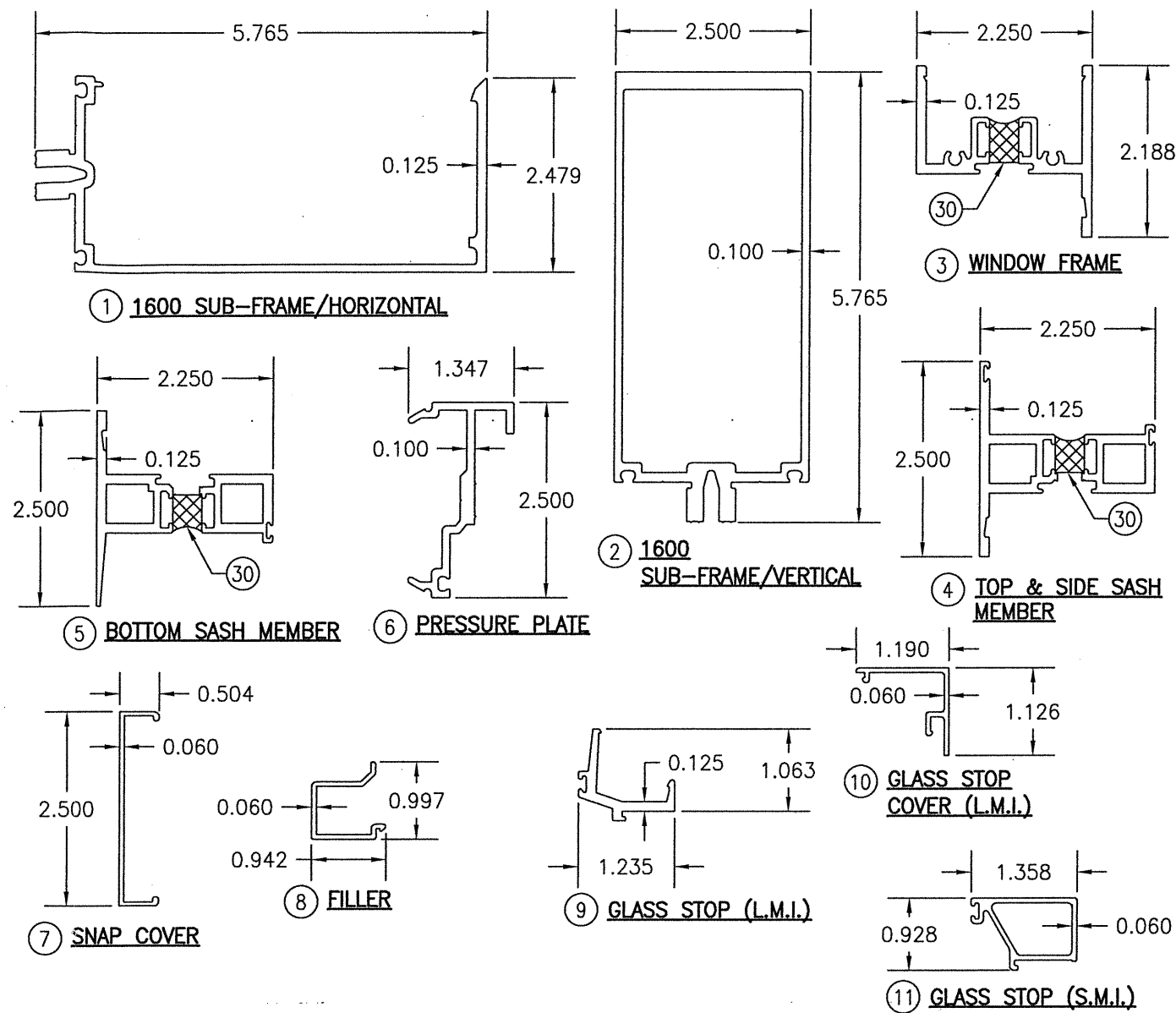


NOTE:
THIS WINDOW MAY BE INSTALLED INTO A PUNCHED WALL OPENING USING THE 1600 FRAME AS SHOWN. IT MAY ALSO BE INSTALLED DIRECTLY INTO A KAWNEER 1600 CURTAIN WALL SYSTEM PROVIDING THE WINDOW FRAME IS SECURED TO THE 1600 CURTAIN WALL FRAMING AS SHOWN IN THESE SECTIONS.



DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 03/03/21	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: 8225TL LARGE & SMALL MISSILE IMPACT PROJECT-OUT WINDOW			
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 03 2021	
WARREN W. SCHAEFER, P.E. P.E. NO. 113497		DRAWING NO. 1615T	
SHEET NO. 2 OF 3		REV.	

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	1600 SUB-FRAME/HORIZONTAL	6063-T6 ALUMINUM (1600 CURTAIN WALL FRAME)
2	1600 SUB-FRAME/VERTICAL	6063-T6 ALUMINUM (1600 CURTAIN WALL FRAME)
3	WINDOW FRAME	6063-T6 ALUMINUM
4	TOP & SIDE SASH MEMBER	6063-T6 ALUMINUM
5	BOTTOM SASH MEMBER	6063-T6 ALUMINUM
6	PRESSURE PLATE	6063-T6 ALUMINUM
7	SNAP COVER	6063-T6 ALUMINUM
8	FILLER	6063-T6 ALUMINUM
9	GLASS STOP (L.M.I.)	6063-T6 ALUMINUM
10	GLASS STOP COVER (L.M.I.)	6063-T6 ALUMINUM
11	GLASS STOP (S.M.I.)	6063-T6 ALUMINUM
12	SHEAR BLOCK	6063-T6 ALUMINUM
13	"F" ANCHOR/JAMB END CLIP	6063-T6 ALUMINUM
14	FRAME FILLER	PVC
15	SHIM FILLER	PVC
16	CHECK VALVE	1 REQ'D AT MID-POINT OF BOTTOM SASH VERNY LABORATORIES
HARDWARE		
19	4-BAR SCISSOR HINGE	S.S./ADVANTAGE MANUFACTURING
20	SCISSOR HINGE	S.S./ADVANTAGE MANUFACTURING
21	CAM LOCK	BRONZE CRAFT
22	SNUBBER	ADVANTAGE
SEALS & SEALANTS		
26	FIXED GASKET	SHORE "A" 70 DUROMETER EPDM
27	THERMAL SEPARATOR	SHORE "A" 70 DUROMETER EPDM
28	WEATHERING GASKET	SHORE "A" 60 DUROMETER EPDM
29	SETTING BLOCK	SHORE "A" 85 DUROMETER EPDM
30	OPTIONAL THERMAL BREAK	2-PART POLYURETHANE ISO-THERMAL RESIN
FASTENERS		
34	1/4" X 1" HWHTF TYPE AB SCREW	WITHIN 3" FROM ENDS & MAX. 9" O.C.
35	NO. 12 X 2 1/4" PHTF SCREW	WITHIN 3" FROM ENDS & MAX. 12" O.C.
36	NO. 10 X 7/16" PHTF SCREW	WITHIN 3" FROM ENDS & MAX. 12" O.C.



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DRAWING TITLE 8225TL LARGE & SMALL MISSILE IMPACT PROJECT-OUT WINDOW	
JOB INFORMATION: KAWNEER COMPANY, INC. 555 GUTHRIE 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 WARREN W. SCHAEFER 113497 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS	MAR 03 2021 WARREN W. SCHAEFER, P.E. P.E. NO. 113497
DRAWING NO. 1615T	REV.
SHEET NO. 3	OF 3