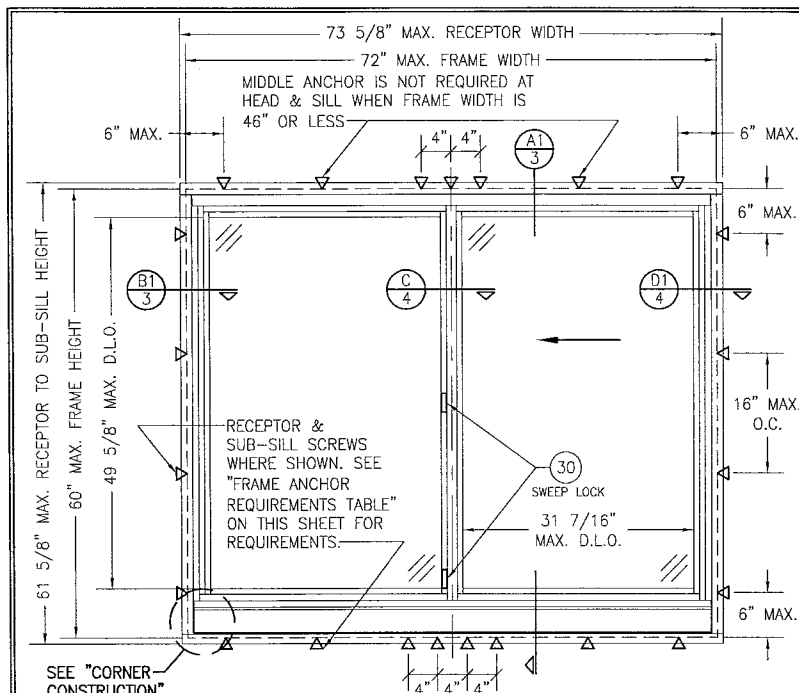
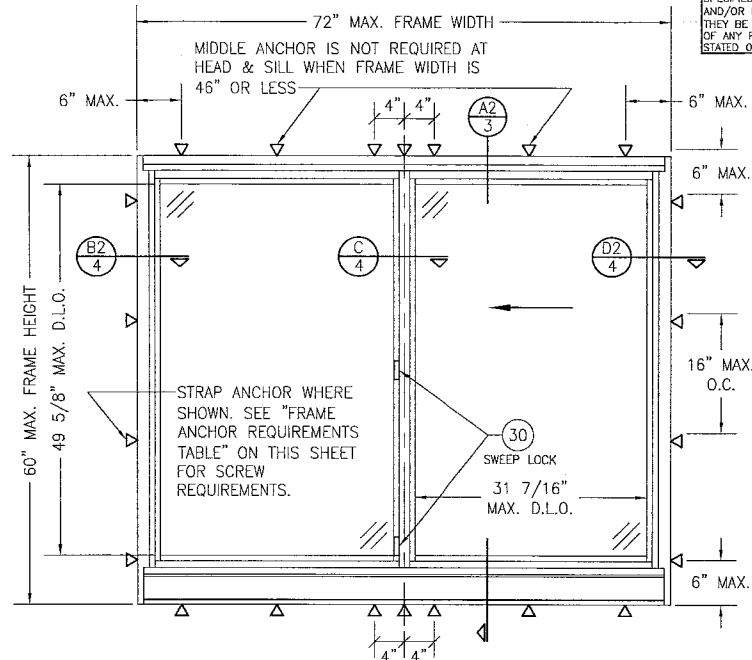




EXTERIOR ELEVATION: INDIVIDUAL WINDOW
(RECEPTOR MOUNT CONDITION)

SCALE: 3/4" = 1'-0"
(OX SHOWN, XO ALSO APPLIES)



EXTERIOR ELEVATION: INDIVIDUAL WINDOW
(STRAP ANCHOR MOUNT CONDITION)

SCALE: 3/4" = 1'-0"
(OX SHOWN, XO ALSO APPLIES)

CORNER CONSTRUCTION:

FRAME HEAD: VERTICAL MEMBERS ARE COPED, BUTTED AND JOINED TO THE HEAD MEMBER WITH 2 NO. 8 X 1 1/4" PH TORX FASTENERS AND SEALED WITH TREMCO-TREMSIL 600 SEALANT.
FRAME SILL: VERTICAL MEMBERS ARE COPED, BUTTED AND JOINED TO THE SILL MEMBER WITH 4 NO. 8 X 1 1/4" PH TORX FASTENERS AND SEALED WITH TREMCO-TREMSIL 600 SEALANT.
SASH: VERTICAL MEMBERS ARE NOTCHED WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, JOINED TO THE VERTICAL MEMBERS WITH A SASH CAM & 2 NO. 8 X 1 1/4" PH TORX FASTENERS AND SEALED WITH TREMCO-TREMSIL 600 SEALANT.

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.
- 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 BOTH SMALL & LARGE MISSILE IMPACT RATED.
- 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.
- WHEN LARGE MISSILE IMPACT GLAZED, 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/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.
- 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.

ALLOWABLE DESIGN PRESSURE
(SINGLE & MULLED WINDOWS)
+/-90 PSF

ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
RECEPTOR, SUB-SILL, STRAP ANCHOR & MULLION CLIP 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" 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. 0.100" THK 6063-T6 ALUM.	1/4" GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
(2) MIN. C-90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
MIN. 3000 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	2"

- CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).
- CMU IS NOT APPLICABLE AT HEAD & SILL.

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.

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.

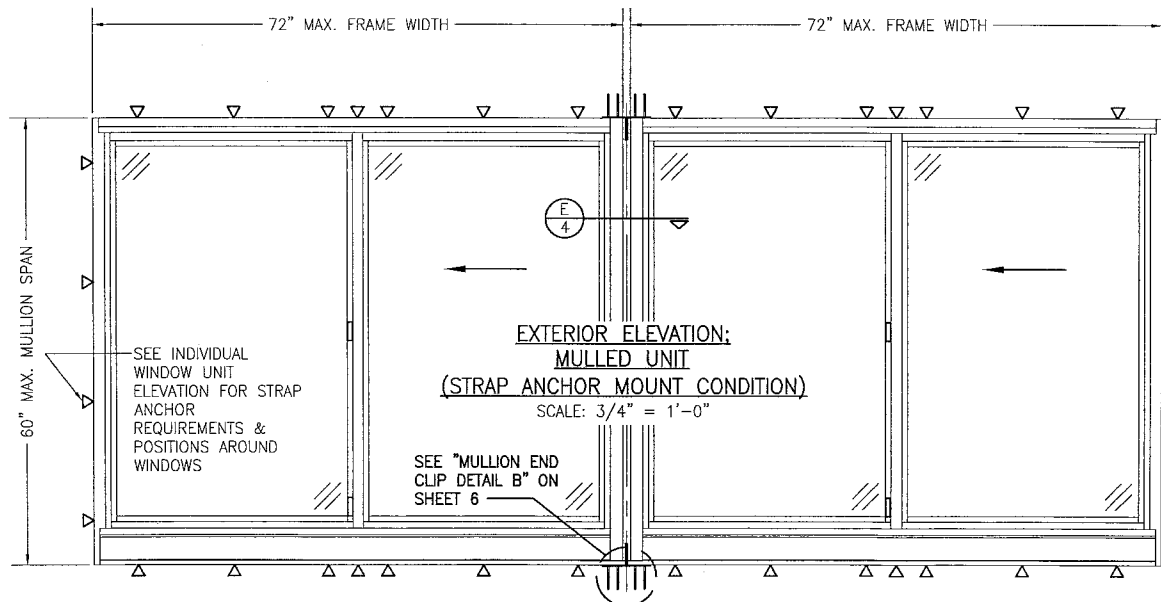
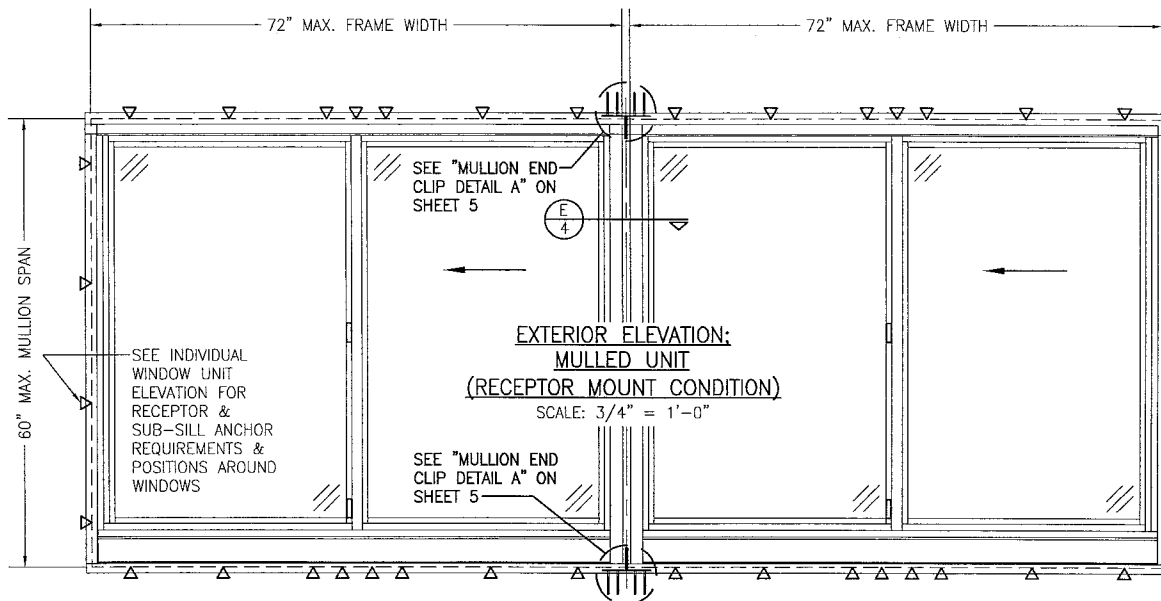
DRAWN BY: W.M.S.
CHECKED BY: W.M.S.
DATE: 01/06/18

NO.	REVISION DESCRIPTION	DATE
1	1-18	

WINDOW (SMALL & LARGE MISSILE IMPACT)
MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
1400 SOUTH COURT NORTH
PALM BEACH, FL 33418
PHONE: 561-744-3424

DRAWING TITLE: 8400TLL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)
CERTIFICATION: JAN 06 2016
W. W. SCHAEFER, P.E.
P.E. NO. 44115
DRAWING NO. 1910
REV. 1
SHEET NO. 1 OF 7

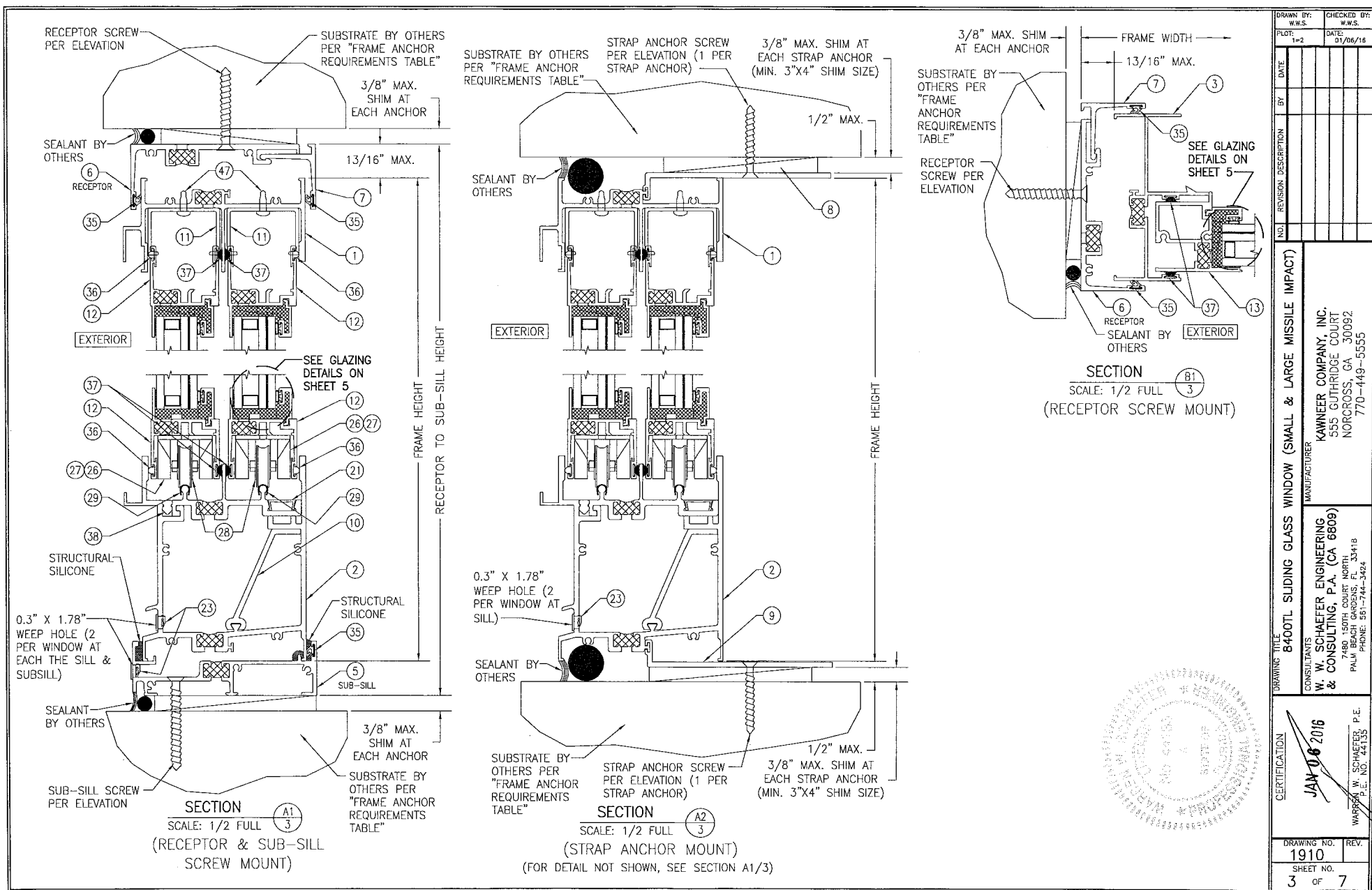


MULLED UNIT NOTES:

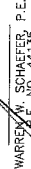
1. FOR ALL DETAIL NOT SHOWN, SEE INDIVIDUAL WINDOW ELEVATIONS.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. SUB-SILL & HEAD RECEPTOR RUN CONTINUOUS ACROSS MULLION JOINTS.

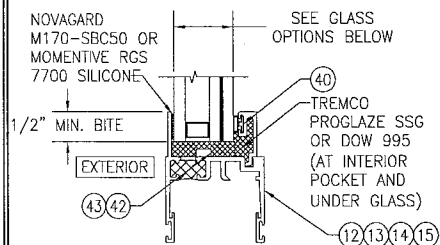
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-15		DATE: 01/05/15	
NO.	REVISION DESCRIPTION	DATE	BY
DRAWING TITLE: 8400TL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)		MANUFACTURER: KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, CA 95092 770-449-5555	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 8809) 7480 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		CERTIFICATION: JAN 06 2016 W. W. SCHAEFER, P.E. P.E. NO. 14155	
DRAWING NO. 1910		REV.	
SHEET NO. 2		OF 7	





DRAWING TITLE	8400TL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)	
	CONSULTANTS	
DRAWN BY:	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
	1480 150TH COURT NORTH, PALM BEACH, FL 33418	
CHECKED BY:	W. W. SCHAEFER, P.E.	
	P.E. NO. 44133	
PLOT:	1-2	
	DATE: 01/06/16	
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	REVISION DESCRIPTION	
DATE		
BY		
MANUFACTURER	KAWNEER COMPANY, INC.	
	535 GUTHRIE COURT, NORCROSS, GA 30092	
PHONE	770-449-5555	
CERTIFICATION	JAN 06 2016	
DRAWING NO.	1910	
	REV.	
SHEET NO.	3	
	OF 7	





**TYPICAL GLAZING DETAIL
(LARGE MISSILE IMPACT GLASS)**

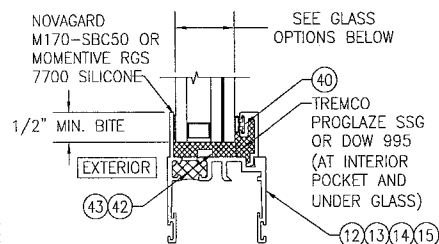
L.M.I. GLASS OPTIONS:

OPTION 1: 1" THICK I.G. GLASS (3/16 HT. ST. EXTERIOR; 3/8" SPACER; 3/16" HT. ST./0.075 EASTMAN CHEM. CO. SAFLEX CP/3/16" HT. ST. INTERIOR)

OPTION 2: 1" THICK I.G. GLASS (3/16 HT. ST. EXTERIOR; 3/8" SPACER; 3/16" HT. ST./0.09 KURARAY (PREVIOUSLY DUPONT) SG/3/16" HT. ST. INTERIOR)

OPTION 3: 1" THICK I.G. GLASS (3/16 HT. ST. EXTERIOR; 3/8" SPACER; 3/16" HT. ST./0.100 EASTMAN CHEM. CO. SAFLEX HP/3/16" HT. ST. INTERIOR)

NOTE: DUE TO THE EXTERIOR PANE OF GLASS BEING NON-TEMPERED, LARGE MISSILE IMPACT WINDOWS MAY NOT BE INSTALLED IN A LOCATION WHERE THE SILL HEIGHT OF WINDOW EXCEEDS 30 FT. ABOVE GRADE UNLESS WINDOW IS COVERED BY AN APPROVED IMPACT SHUTTER.

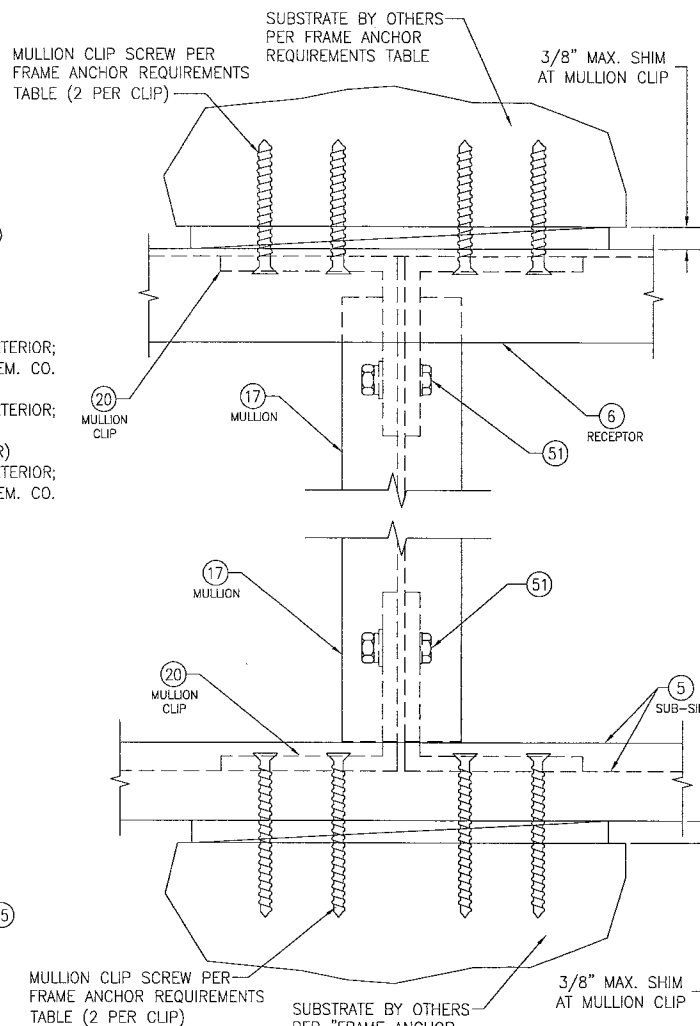


**TYPICAL GLAZING DETAIL
(SMALL MISSILE IMPACT GLASS)**

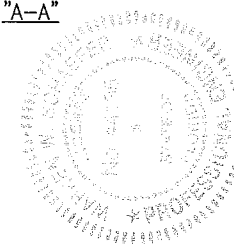
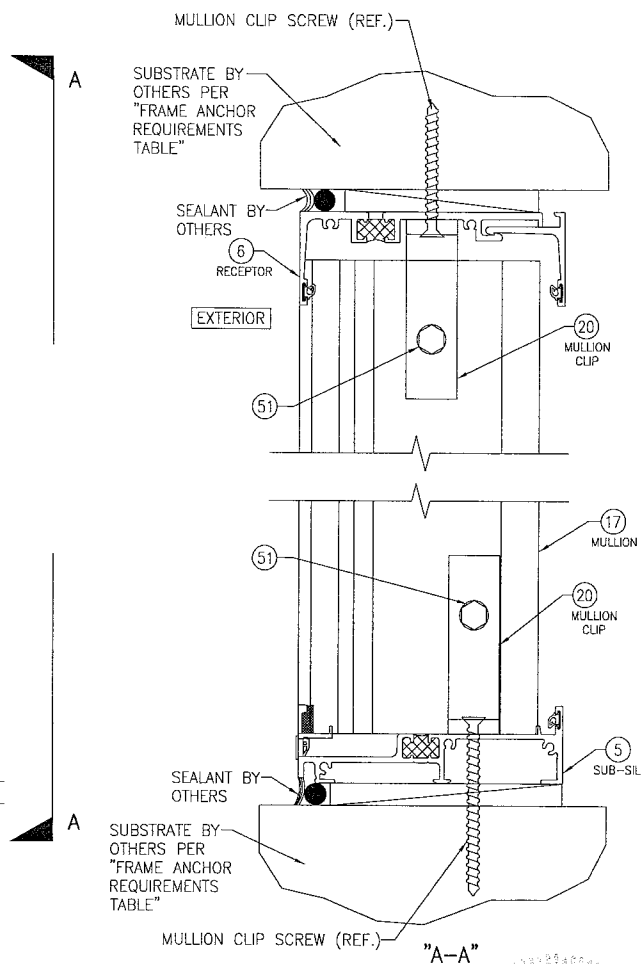
S.M.I. GLASS OPTIONS:

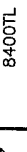
OPTION 1: 1" THICK I.G. GLASS (3/16 TEMP. EXTERIOR; 3/8" SPACER; 3/16" HT. ST./0.06 EASTMAN CHEM. CO. SAFLEX/3/16" HT. ST. INTERIOR)

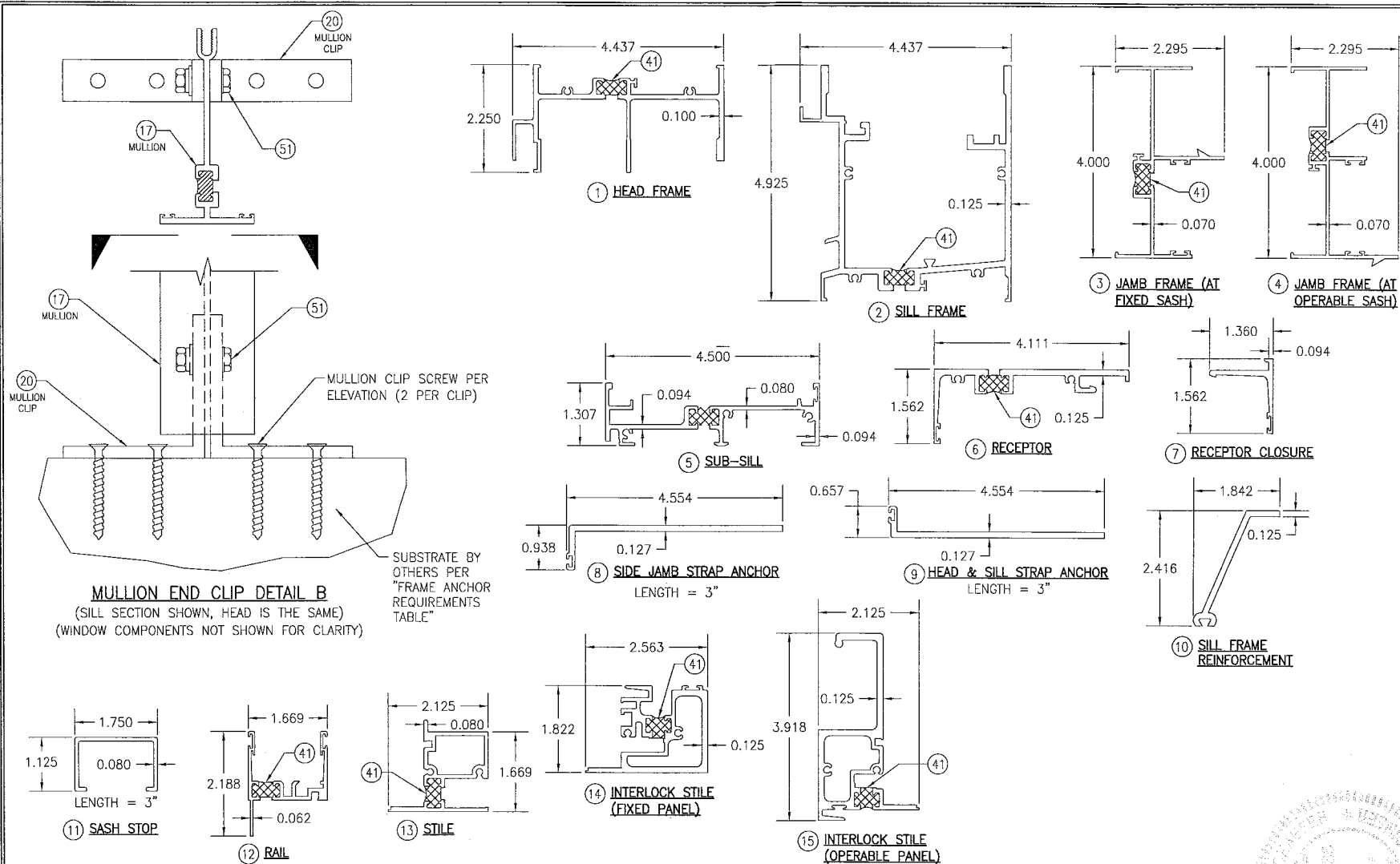
OPTION 2: 1" THICK I.G. GLASS (3/16 TEMP. EXTERIOR; 3/8" SPACER; 3/16" HT. ST./0.06 KURARY (PREVIOUSLY DUPONT) BUTICITE PVB/3/16" HT. ST. INTERIOR)



MULLION END CLIP DETAIL A
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(WINDOW COMPONENTS NOT SHOWN FOR CLARITY)



DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 01/05/16	
DATE		BY	
REVISION		DESCRIPTION	
NO.			
DRAWING TITLE 8400TL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 8809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER KAWNEER COMPANY, INC. 555 GUTHRIE COURT NORCROSS, GA 30092 770-449-5555	
CERTIFICATION  JAN 06 2016 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1910		REV.	
SHEET NO. 5		OF 7	



NO.	REVISION DESCRIPTION	DATE	BY	DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
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DRAWING TITLE: 8400TL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)

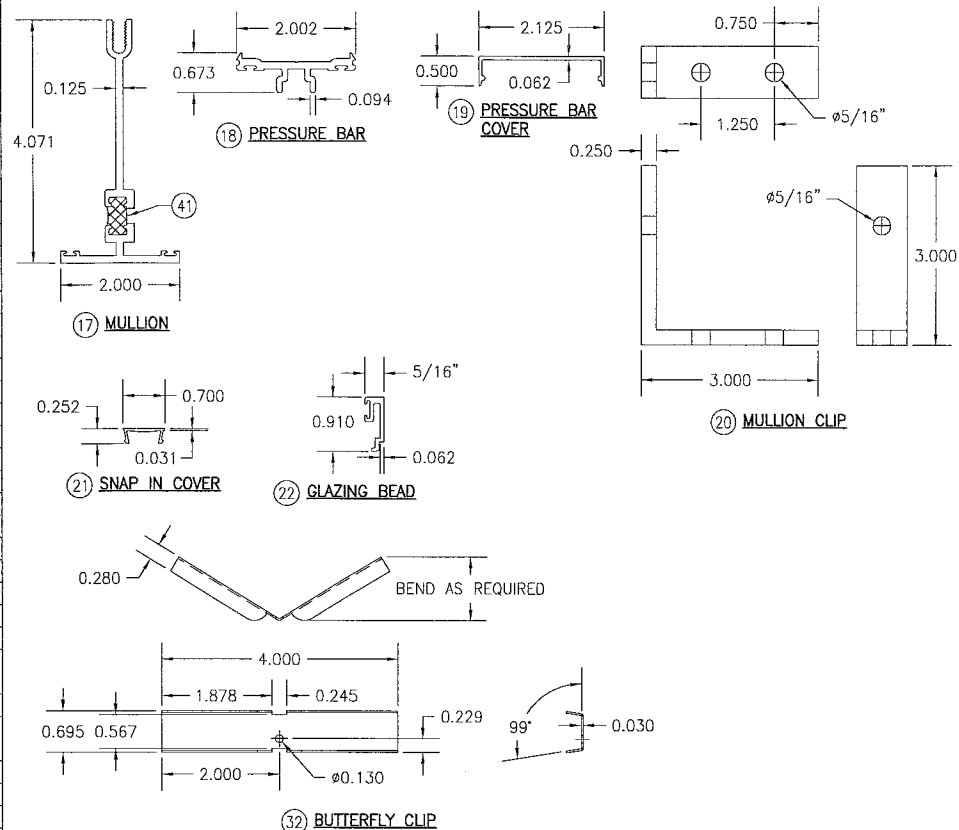
MANUFACTURER: KAWNEER COMPANY, INC.
555 GUTHRIE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS: W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION: *JAY 06 2016*

DRAWING NO. 1910
SHEET NO. 6 OF 7

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	HEAD FRAME	6063-T6 ALUMINUM
2	SILL FRAME	6063-T6 ALUMINUM
3	JAMB FRAME (AT FIXED SASH)	6063-T6 ALUMINUM
4	JAMB FRAME (AT OPERABLE SASH)	6063-T6 ALUMINUM
5	SUB-SILL	6063-T6 ALUMINUM
6	RECEPTOR	6063-T6 ALUMINUM
7	RECEPTOR CLOSURE	6063-T6 ALUMINUM
8	SIDE JAMB STRAP ANCHOR	6063-T6 ALUMINUM
9	HEAD & SILL STRAP ANCHOR	6063-T6 ALUMINUM
10	SILL FRAME REINFORCEMENT	6063-T6 ALUMINUM
11	SASH STOP	6063-T6 ALUMINUM
12	RAIL	6063-T6 ALUMINUM
13	STILE	6063-T6 ALUMINUM
14	INTERLOCK STILE (FIXED PANEL)	6063-T6 ALUMINUM
15	INTERLOCK STILE (OPERABLE PANEL)	6063-T6 ALUMINUM
17	MULLION	6063-T6 ALUMINUM
18	PRESSURE BAR	6063-T6 ALUMINUM
19	PRESSURE BAR COVER	6063-T6 ALUMINUM
20	MULLION CLIP	6063-T6 ALUMINUM
21	SNAP IN COVER	6063-T6 ALUMINUM
22	GLAZING BEAD	6063-T6 ALUMINUM
23	WEEP COVER	PLASTIC
HARDWARE		
26	SASH CAM 400 SERIES	NYLON
27	HS, H.D. MFG. RAIL SASH CAM	NYLON
28	ROLLER	ZINC PLATED STEEL
29	ROLLER TRACK	S.S.
30	SWEEP LOCK	BRONZE (1 AT 8 3/4" FROM BOTTOM OF SASH & 1 AT CENTERLINE OF SASH)
31	LOCK KEEPER	BRONZE
32	BUTTERFLY CLIP	1018 GALVANIZED STEEL (1 AT MID-HEIGHT OF JAMB)
SEALS & SEALANTS		
35	GASKET	SANTROP/POLYPROPYLENE
36	WEATHERSTRIP/SASH SEPARATOR	PVC
37	TRI-FIN WEATHERING	POLYPROPYLENE
38	1/4" BACK UP WEDGE	SCR-900
39	BULB WEATHERING	TPE/POLYPROPYLENE
40	BULB WEATHERING	TPE/POLYPROPYLENE
41	DEBRIDGING	2-PART POLYURETHANE
42	SETTING BLOCK	DENSE EPDM
43	WEDGE BLOCK	EPDM
FASTENERS		
47	NO. 8 X 1/2" TORX PHTFSD	2 PER SASH STOP
48	NO. 10 X 1/2" FHTF "B"	2 PER SWEEP LOCK
49	NO. 6 X 3/8" FHTF "AB"	2 PER LOCK KEEPER
50	1/4 -20 X 3/4" PHMS	WITHIN 3" FROM ENDS & 3" O.C.
51	1/4-20 X 1" HWHMS 1/4-20 HEX NUT 1/4" FLAT WASHER 1/4" RING LOCK WASHER	1 PER MULLION END
52	NO. 8 X 5/8" PHTF "AB"	1 PER BUTTERFLY CLIP



DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 01/06/16	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: 8400TL SLIDING GLASS WINDOW (SMALL & LARGE MISSILE IMPACT)			
CONSULTANTS:		MANUFACTURER:	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 8809)		KAWNEER COMPANY, INC.	
7480 150TH COURT NORTH, 33418 PALM BEACH GARDENS, FL		555 GUTHRIE COURT NORCROSS, GA 30092	
PHONE: 561-744-3624		770-449-5555	
CERTIFICATION: JAN 06 2016			
W. W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1910		REV.	
SHEET NO. 7		OF 7	