

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.
11. ALL WOOD MEMBERS OF THIS PRODUCT THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC REQUIREMENTS.

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.

ALTERNATE ANCHOR/SUBSTRATE EVALUATION NOTE:

ALL ALTERNATE ANCHORS IN THEIR SPECIFIED SUBSTRATES HAVE BEEN ANALYZED IN ACCORDANCE WITH THEIR APPLICABLE STANDARD(S) AND ARE FOUND TO BE EQUIVALENT TO OR STRONGER THAN THE ANCHOR(S) USED IN TESTING WITH THIS PRODUCT.

HINGE REQUIREMENTS
(TRI-EURO & CONCEALED HINGES)

MAX. FRAME WIDTH	QUANTITY PER PANEL
OVER 29 3/4"	3
29 3/4" & LESS	2

CENTERLINE OF HINGES SHALL BE LOCATED APPROXIMATELY 4 3/4" FROM SIDES OF PANEL AND EQUALLY SPACED BETWEEN.

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. 12 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 12 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"

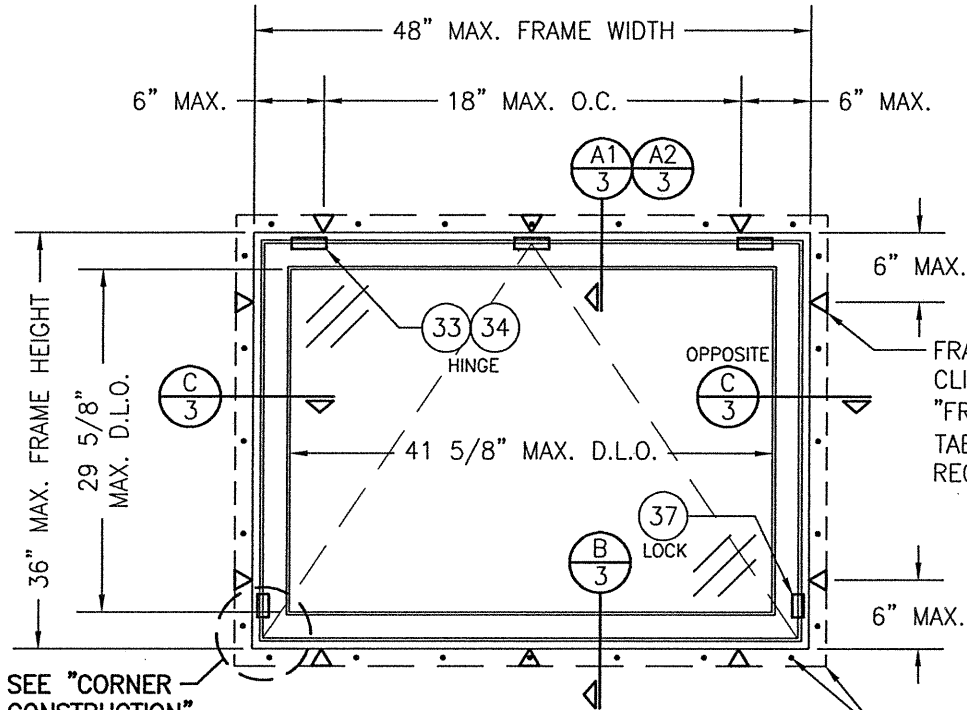
INSTALLATION CLIP SCREWS

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

(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.).

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.R.M.	CHECKED BY:	W.W.S.
PLOT:	1=16	DATE:	10/27/11
NO.	REVISION	DESCRIPTION	DATE
A1	UPDATE TO CURRENT STANDARDS	W.W.S.	01/06/15
B1	ADD NON-IC GLASS OPTION	W.W.S.	02/18/16
C1	ADDED NEW GLAZING COMPOUND	W.W.S.	01/30/18
D1	UPDATE GLASS REQUIREMENTS	W.W.S.	03/11/21
E1	UPDATE GLAZING DETAILS	W.W.S.	11/15/21



EXTERIOR ELEVATION:
SINGLE AWNING WINDOW

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

ALLOWABLE DESIGN PRESSURE
(ALL WINDOW CONDITIONS)

+/-80 PSF

FRAME SCREWS OR INSTALLATION CLIPS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR REQUIREMENTS.

NAIL FIN AND ANCHORING OF NAIL FIN IS OPTIONAL & SHALL NOT ACT AS A SUBSTITUTE FOR THE FRAME ANCHORS SPECIFIED. FIN MAY BE REMOVED WHEN REQUIRED BY OPENING CONDITIONS

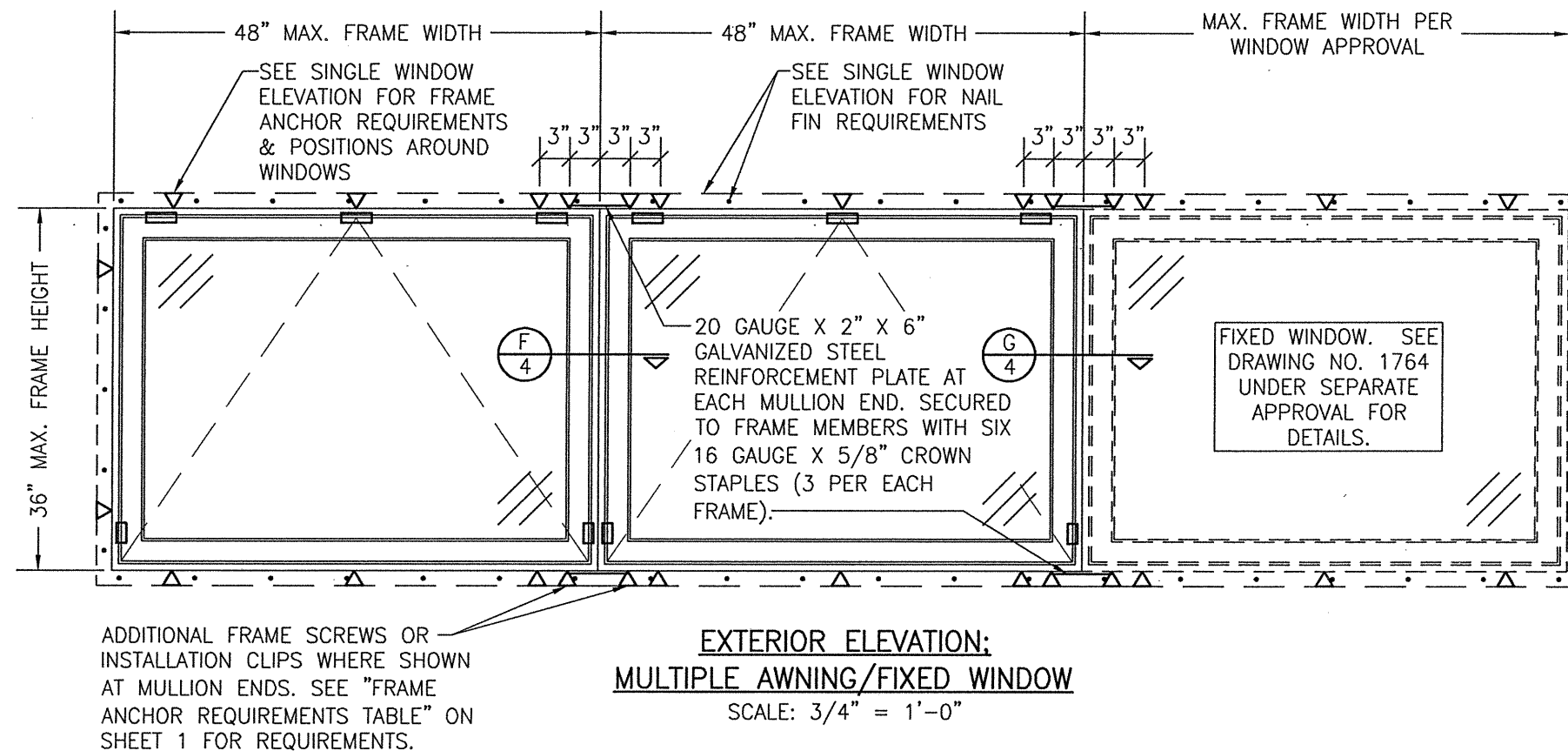
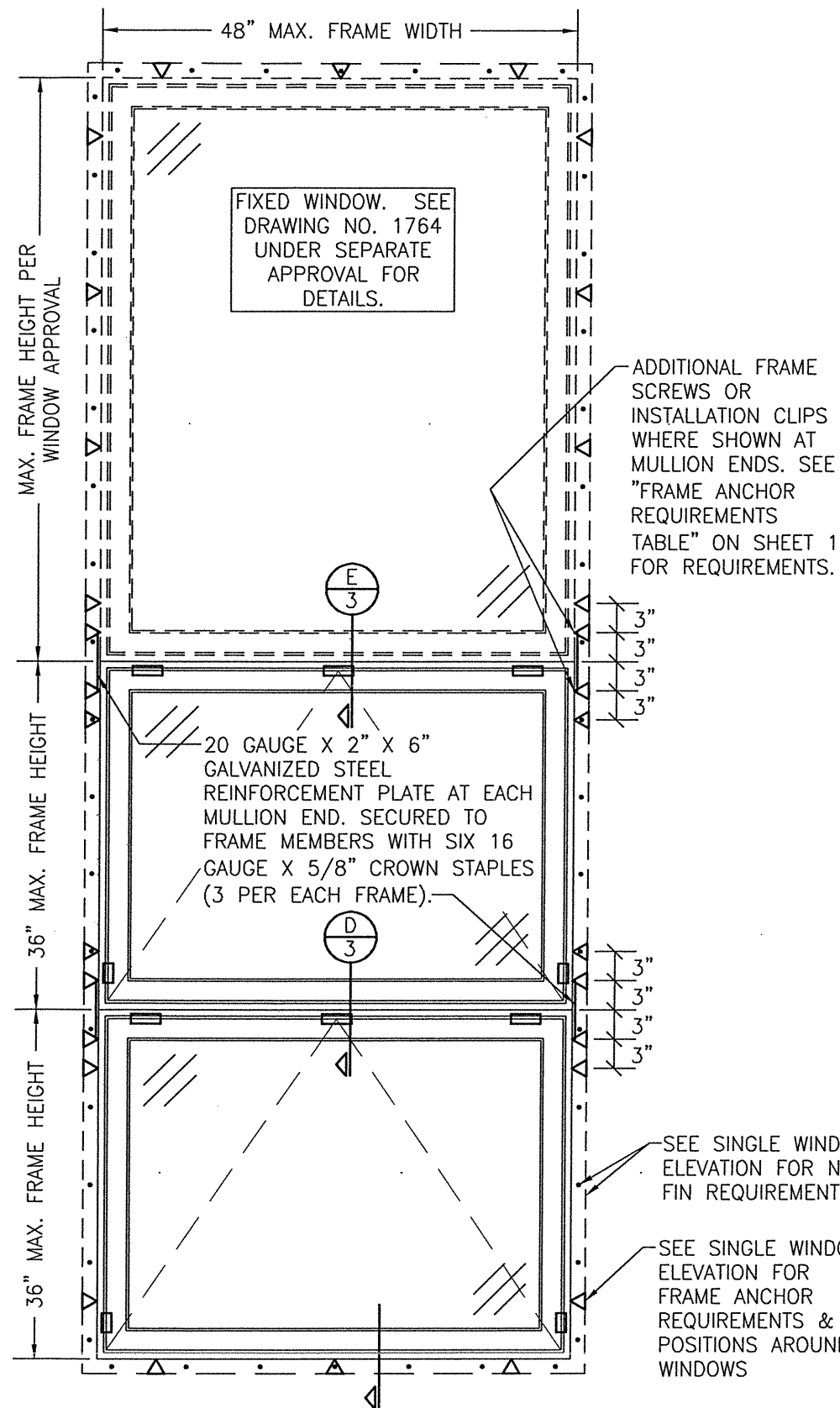
CORNER CONSTRUCTION:

FRAME: FRAME MEMBERS WERE RABBETED, BUTTED AND SECURED WITH TWO 16 GAUGE X 1/2" CROWN X 2" LONG STAPLES PER CORNER. CORNERS ARE SEALED WITH SILICONE SEALANT.
SASH: SASH CORNERS UTILIZED OPEN MORTISE AND TENON CONSTRUCTION AND WERE SECURED WITH TWO 15 GA. X 1 1/4" BRAD NAILS PER CORNER. CORNERS ARE SEALED WITH SILICONE SEALANT.
FRAME CLAD CORNERS: CLADDING MEMBERS WERE MITERED AND JOINED WITH A CORNER KEY (PART #32) AND 2 NO. 7 X 5/8" FH SMS PER CORNER. CORNERS ARE SEALED WITH SILICONE SEALANT.
SASH CLAD CORNERS: CLADDING MEMBERS WERE SQUARE CUT OR PROFILE CUT, BUTTED TOGETHER & SEALED WITH SILICONE SEALANT.

DRAWING TITLE	ULTRA IMPACT AWNING WINDOW	
	MANUFACTURER	
	KOLBE & KOLBE MILLWORK CO., INC. 1323 SOUTH 11TH AVE. WAUSAU, WI 54401 715-842-5666	
CONSULTANTS	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
	7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
	NOV 15 2021	

CERTIFICATION	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
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DRAWING NO.	REV.
1763	E
SHEET NO.	
1 OF 5	

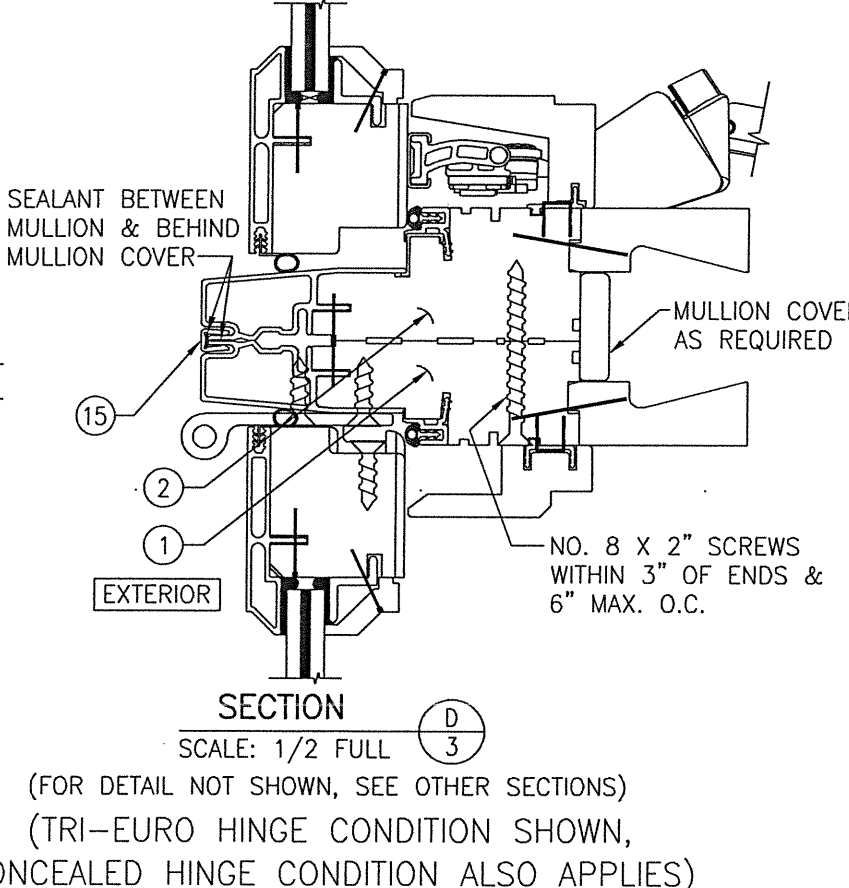
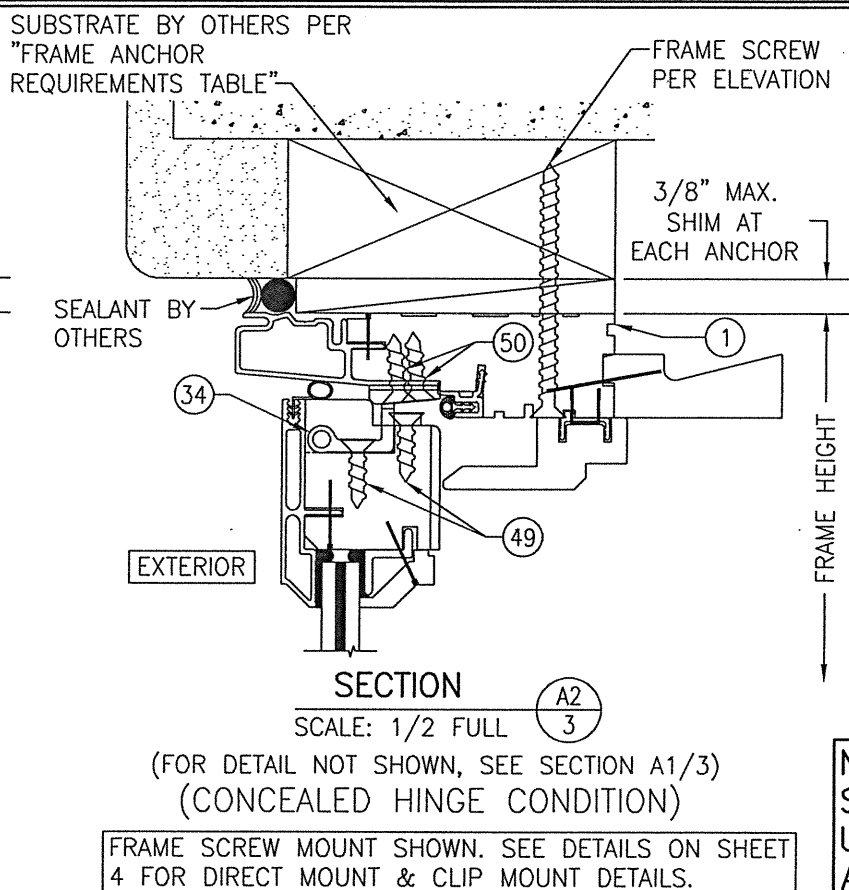
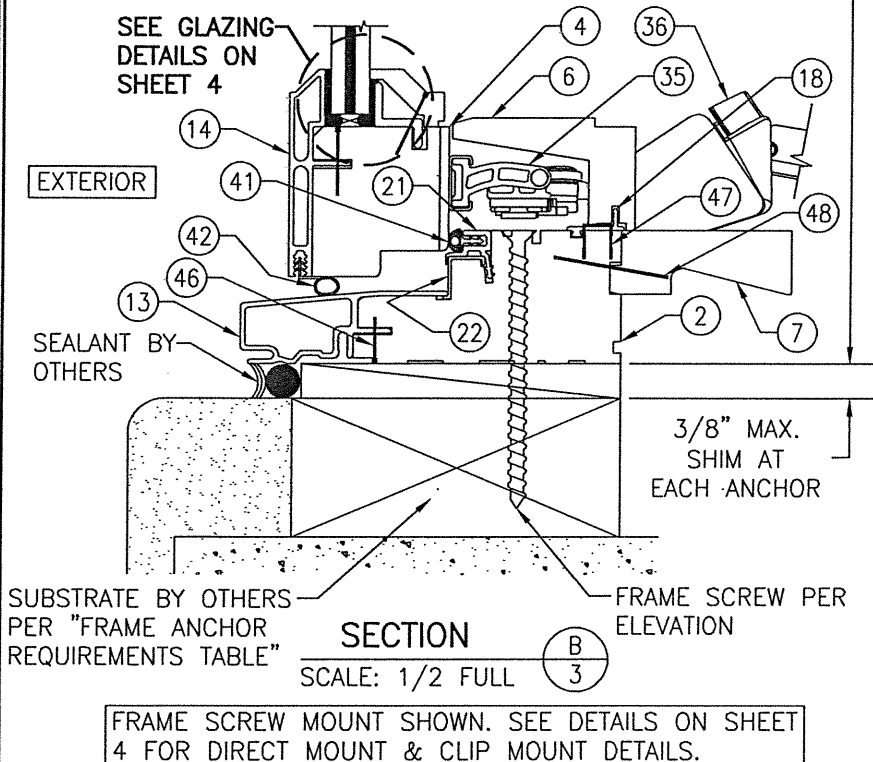
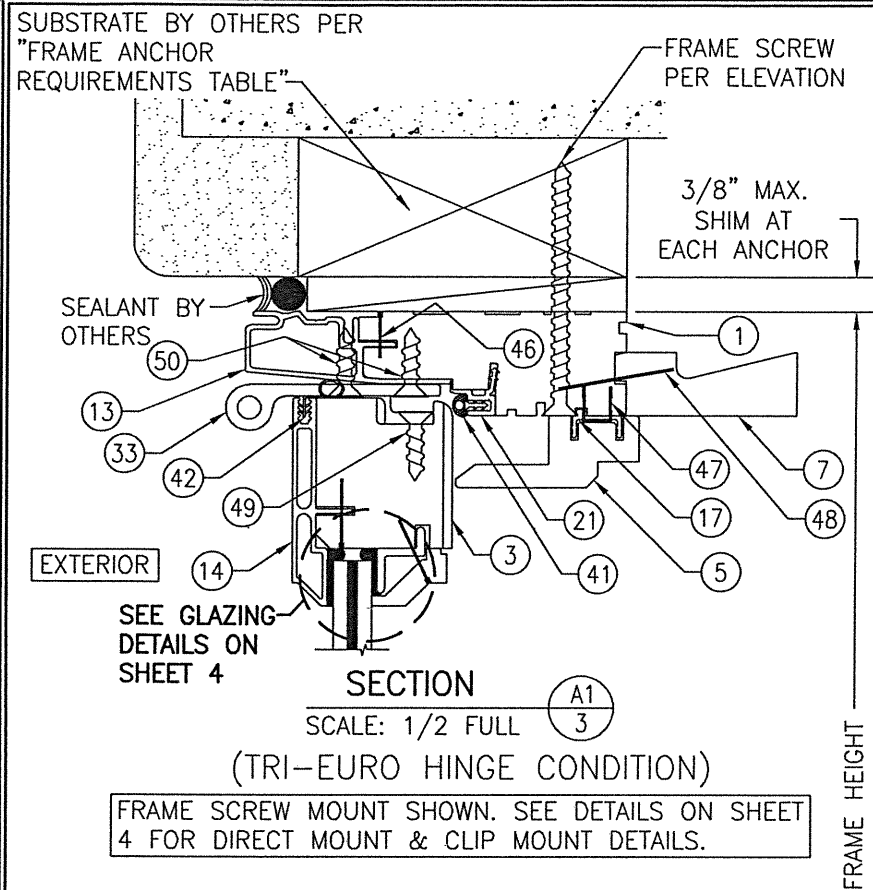


MULTIPLE UNIT NOTES:

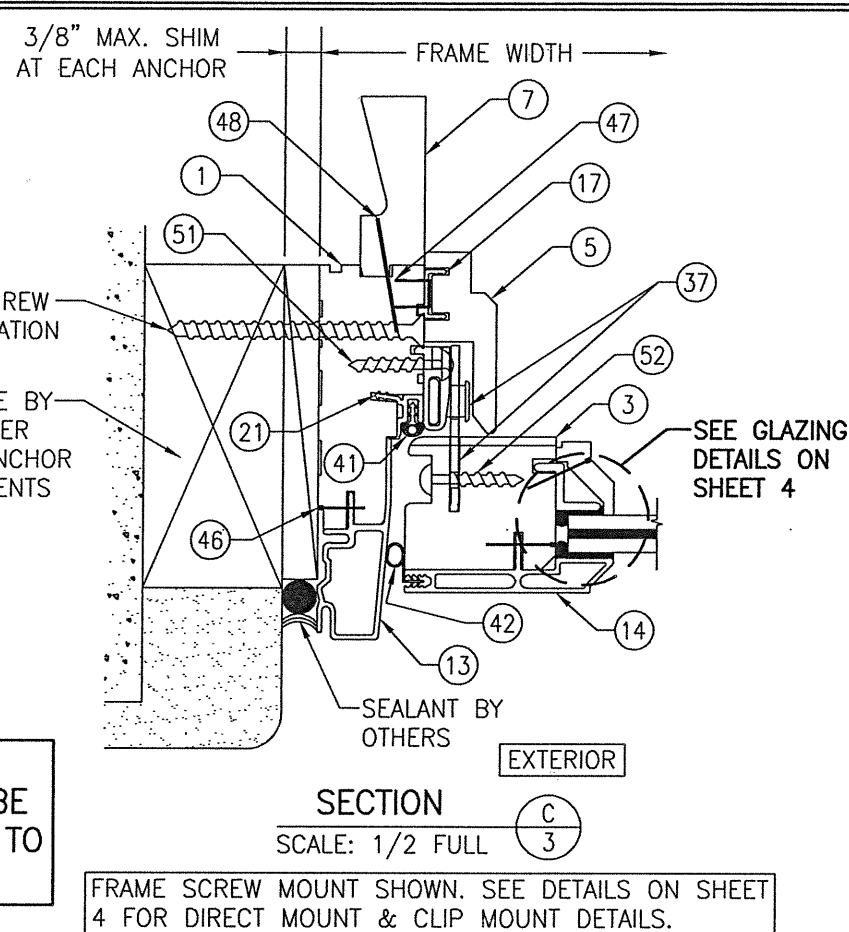
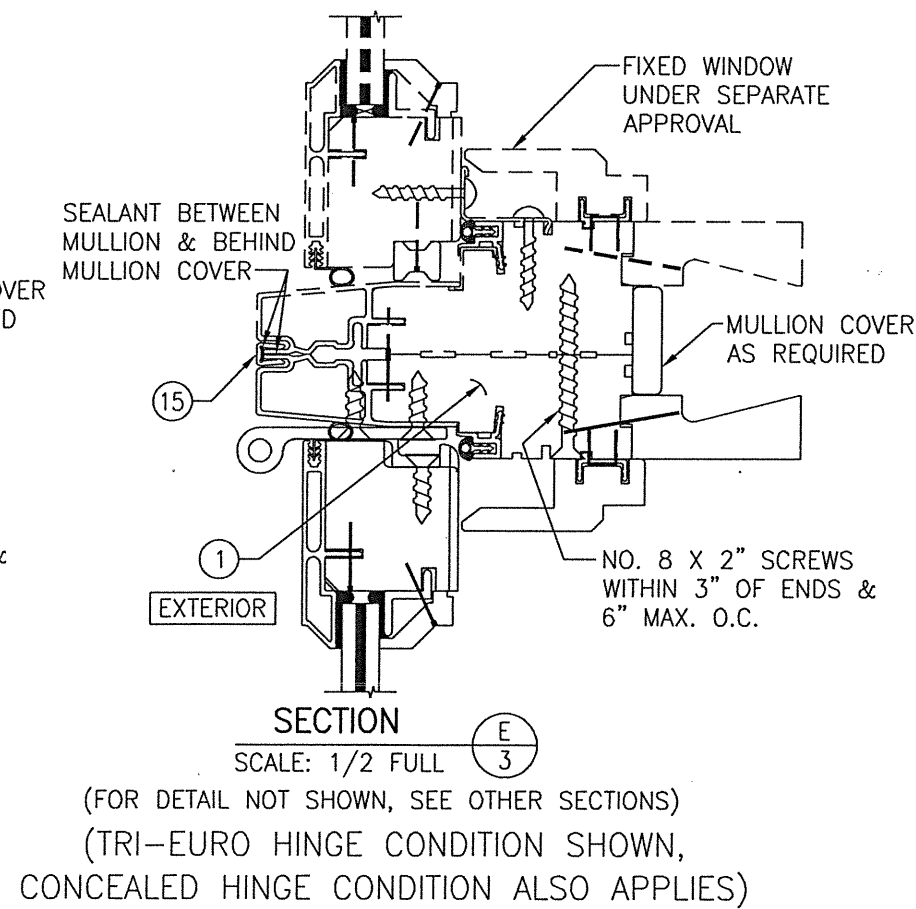
1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE PLACED IN A SINGLE HORIZONTAL OR VERTICAL ROW WITHIN A SINGLE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. ANY COMBINATION OF FIXED/OPERABLE WINDOWS IN ONE OPENING SHALL APPLY.
4. MULTIPLE WINDOWS OVER MULTIPLE WINDOWS ARE NOT CONSIDERED IN THIS APPROVAL.

CONDITIONS OTHER THAN THOSE SHOWN SHALL BE SUBJECT TO JOB SPECIFIC REVIEW & IF ACCEPTABLE TO ALL APPLICABLE CODES & STANDARDS, SHALL BE SEPARATELY CERTIFIED BY A FLORIDA LICENSED ENGINEER.

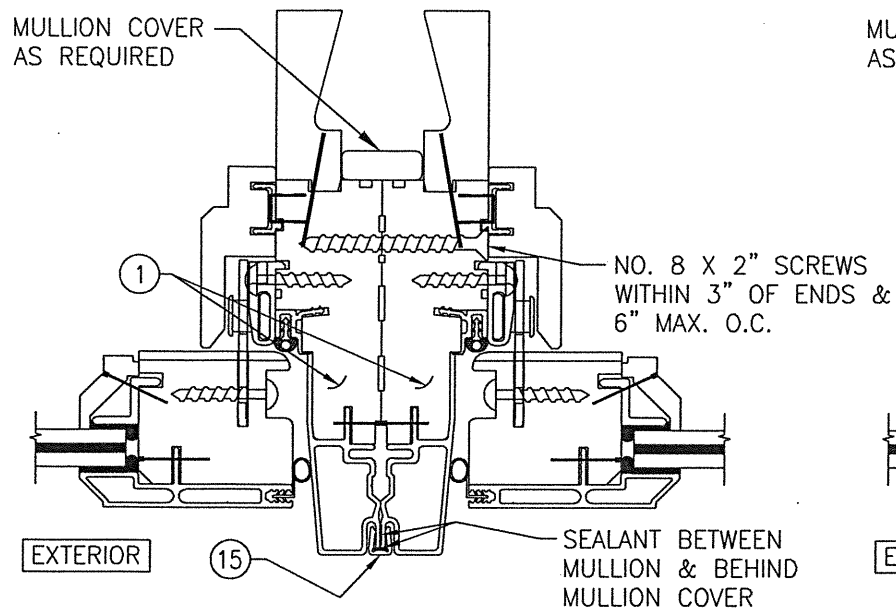
DRAWING NO. 1763	REV. F	SHEET NO. 2 OF 5	CERTIFICATION NOV 15 2021 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING TITLE ULTRA IMPACT AWNING WINDOW		CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER KOLBE & KOLBE MILLWORK CO., INC. 1323 SOUTH 11TH AVE. WAUSAU, WI 54401 715-842-5666			
				7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424							
				NO.	REVISION DESCRIPTION	BY	DATE	PLOT: 1=16	DATE: 10/27/11	DRAWN BY: W.R.M.	CHECKED BY: W.W.S.



NAIL FIN IS NOT SHOWN BUT MAY BE USED IN ADDITION TO ANCHORS SHOWN.

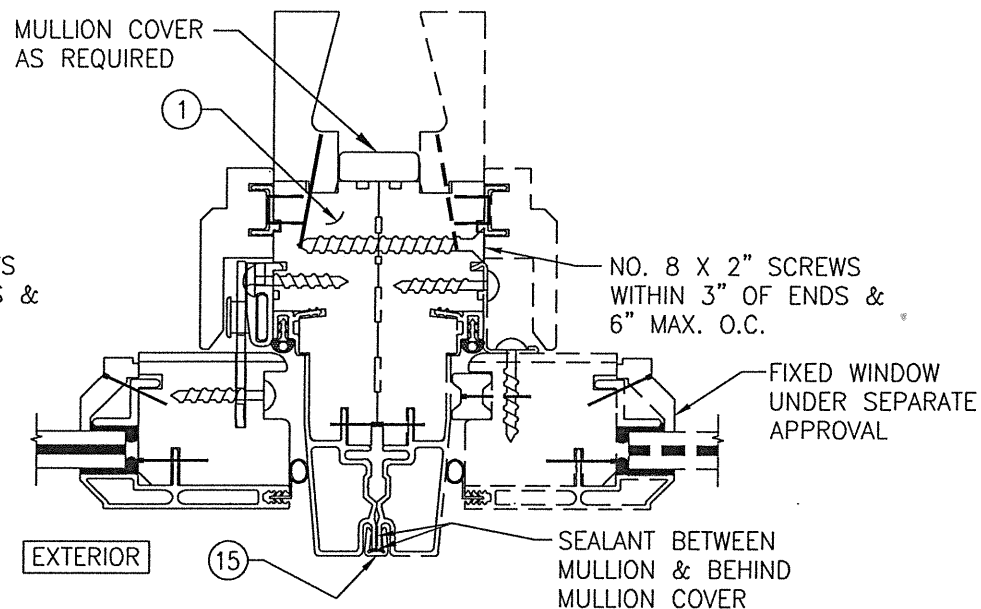


DRAWING TITLE	ULTRA IMPACT AWNING WINDOW	
	MANUFACTURER	
CONSULTANTS	KOLBE & KOLBE MILLWORK CO., INC.	
	1323 SOUTH 11TH AVE. WAUSAU, WI 54401 715-842-5666	
CERTIFICATION	NOV 15 2021	
	WARREN M. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO.		REV.
1763		F
SHEET NO.		3 OF 5



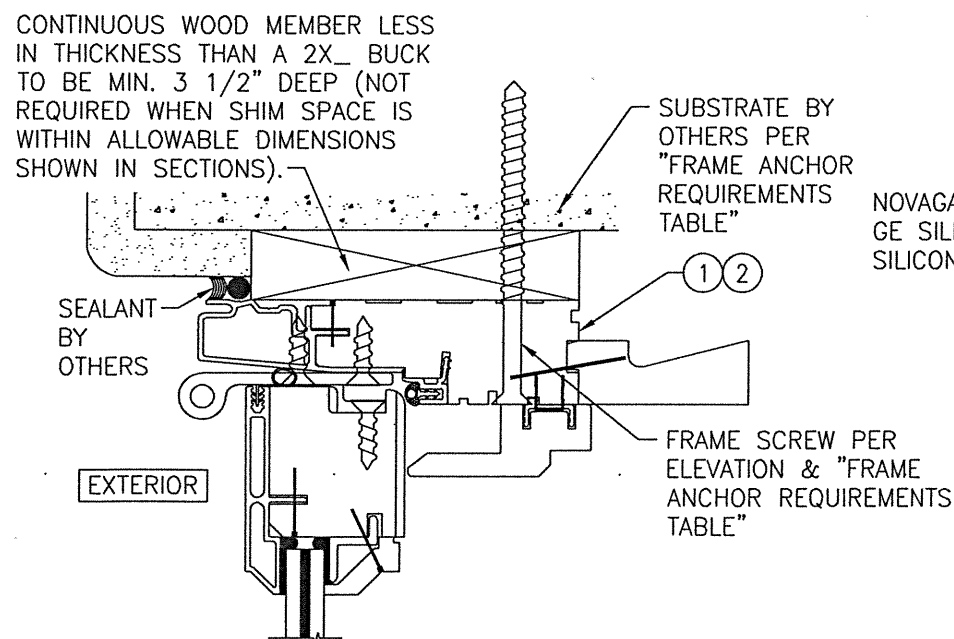
SECTION F
SCALE: 1/2 FULL

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



SECTION G
SCALE: 1/2 FULL

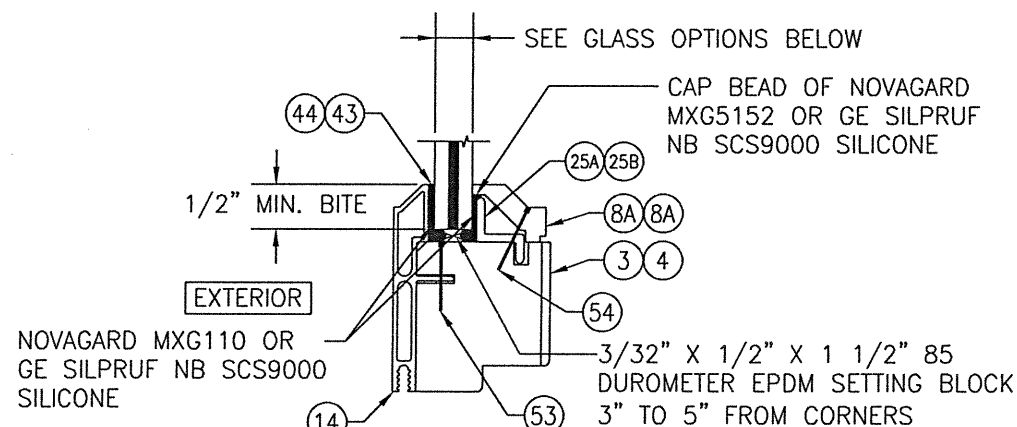
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

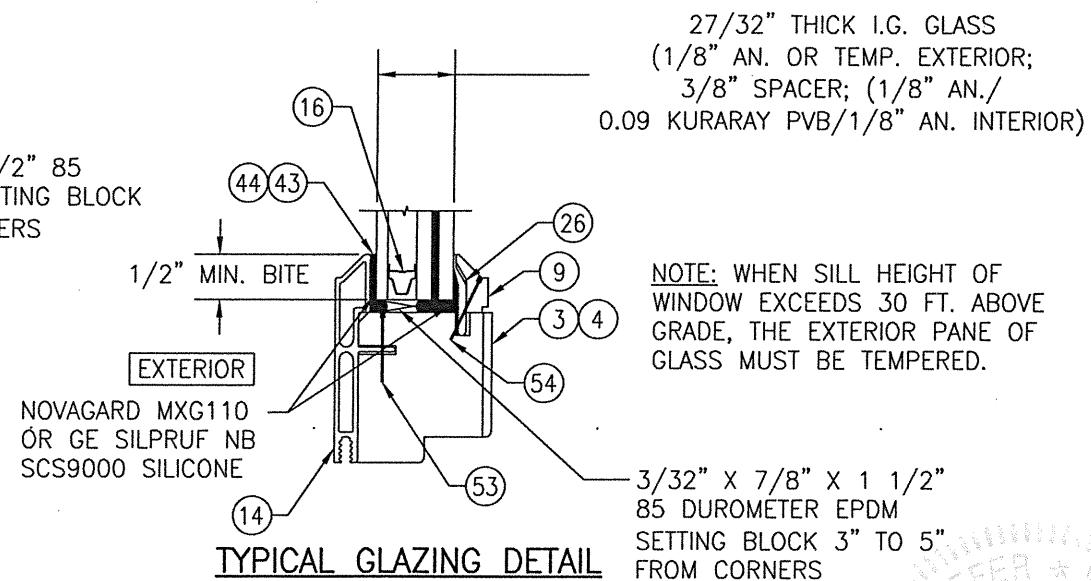
(HEAD SECTION SHOWN; SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

(TRI-EURO HINGE CONDITION SHOWN, CONCEALED HINGE CONDITION ALSO APPLIES)



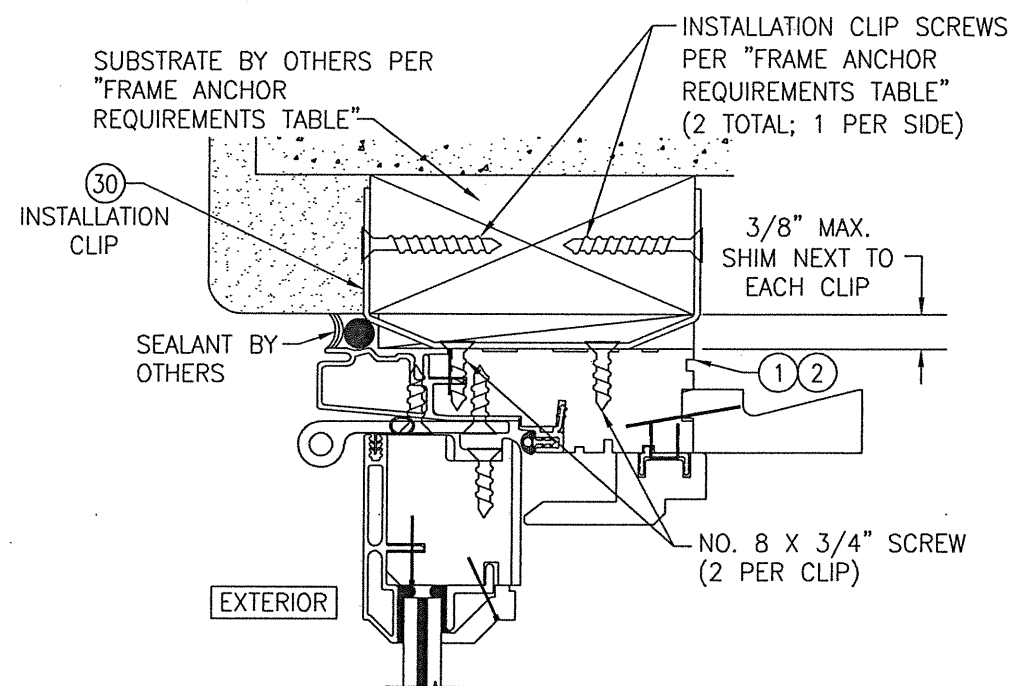
TYPICAL GLAZING DETAIL (NON-I.G. CONDITION)

NON-I.G. GLASS OPTIONS:
OPTION 1: 11/32" LAMINATED GLASS (1/8" AN/0.09 KURARAY PVB/1/8"AN)



TYPICAL GLAZING DETAIL (I.G. CONDITION)

NOTE: WHEN SILL HEIGHT OF WINDOW EXCEEDS 30 FT. ABOVE GRADE, THE EXTERIOR PANE OF GLASS MUST BE TEMPERED.



OPTIONAL INSTALLATION CLIP DETAIL

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

(TRI-EURO HINGE CONDITION SHOWN, CONCEALED HINGE CONDITION ALSO APPLIES)

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 10/27/11
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE: ULTRA IMPACT AWNING WINDOW MANUFACTURER: KOLBE & KOLBE MILLWORK CO., INC. 1323 SOUTH 11TH AVE. WAUSAU, WI 54401 715-842-5666 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION	NOV 15 2021 WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1763	REV. F
SHEET NO. 4	OF 5

