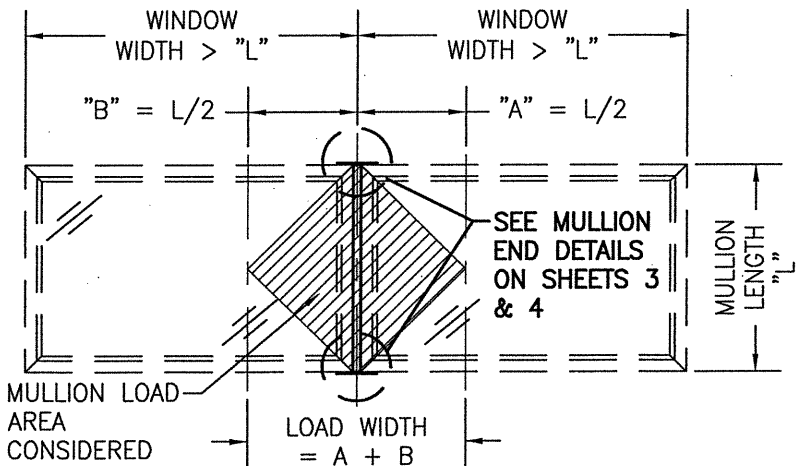


GENERAL NOTES:

1. THIS MULLION SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE & IS 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 FROM THE MULLIONS AND WINDOWS 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 MULLION SYSTEM IS IMPACT RATED FOR USE IN HVHZ & NON-HVHZ AREAS.
5. THIS MULLION SYSTEM HAS BEEN TESTED IN ACCORDANCE WITH TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.
6. ALL ANCHORS SECURING MULLION CLIPS 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. CERTIFICATION OF THIS MULLION SYSTEM SHALL BE CONSIDERED VOID IF INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH WINDOW & DOOR INSTALLATIONS.
10. ALL WINDOWS JOINED BY THIS MULLION ARE UNDER SEPARATE APPROVAL AND SHALL BE MANUFACTURED AND INSTALLED TO THE OPENING AS SPECIFIED IN THEIR APPLICABLE APPROVAL.
11. ALL KOLBE IMPACT & NON-IMPACT FORGENT VENT CASEMENT, AWNING, CASEMENT PICTURE, CASEMENT DIRECT SET, SLIDING, DOUBLE HUNG, DOUBLE HUNG STUDIO & DOUBLE HUNG DIRECT SET WINDOWS MAY BE SUPPORTED BY THIS MULLION SYSTEM PROVIDING THEY ARE PROPERLY ANCHORED TO THE MULLION AS REQUIRED HERE-IN.
12. ALLOWABLE PRESSURE ON THE MULLED UNITS SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE STATED HERE-IN FOR THE MULLION & ITS END CONNECTIONS OR THAT STATED IN THE WINDOWS APPLICABLE APPROVAL.
13. WINDOW SIZES SHALL BE RESTRICTED BY THEIR OWN INDIVIDUAL APPROVAL.
14. CONDITIONS NOT SHOWN OR COVERED IN THIS DRAWING SHALL BE SUBJECT TO SEPARATE REVIEW AND JOB SPECIFIC CERTIFICATION BY A FLORIDA LICENSED ENGINEER.
16. THE ALLOWABLE PRESSURES STATED IN THE LOAD TABLES CONSIDER THE WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
17. MULLION MEMBER SHALL BE CONTINUOUS FROM END TO END.
18. WHEN VERTICALLY STACKED, THE MANUFACTURER/INSTALLER SHALL INSURE THAT THE DEAD WEIGHT OF THE ABOVE WINDOW(S) WILL NOT CAUSE UNDO STRESS ON THE BELOW WINDOWS. THIS MULLION SYSTEM IS DESIGNED FOR WIND LOAD RESISTANCE ONLY & IS NOT CONSIDERED TO SUPPORT THE WEIGHT OF THE WINDOWS.

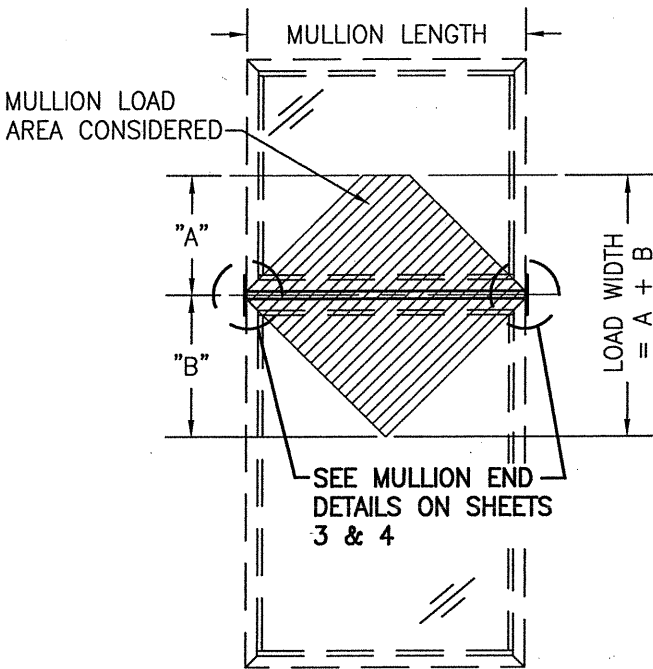
EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW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



**FIXED WINDOW TO FIXED WINDOW
WHEN WINDOW WIDTHS ARE GREATER
THAN THE MULLION LENGTH**

(SEE LOAD TABLE 1.0)

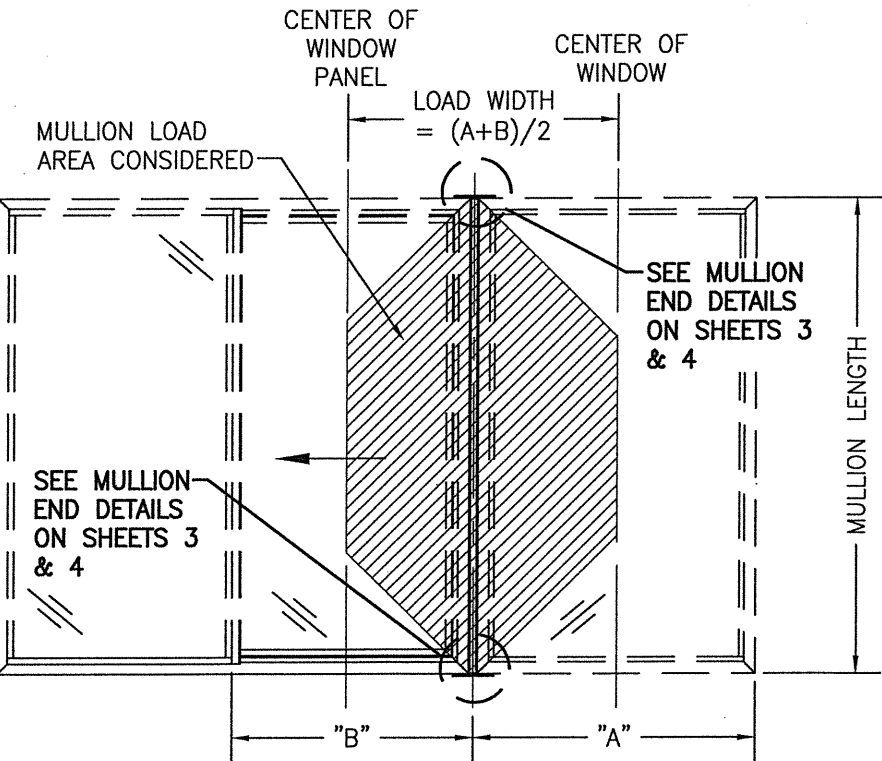
NOTE: WINDOWS MAY BE STACKED HORIZONTAL OR VERTICAL.



"A" = LESSER OF (MULLION LENGTH/2) OR (TRANSOM WINDOW HEIGHT/2)
"B" = LESSER OF (MULLION LENGTH/2) OR (MAIN WINDOW HEIGHT/2)

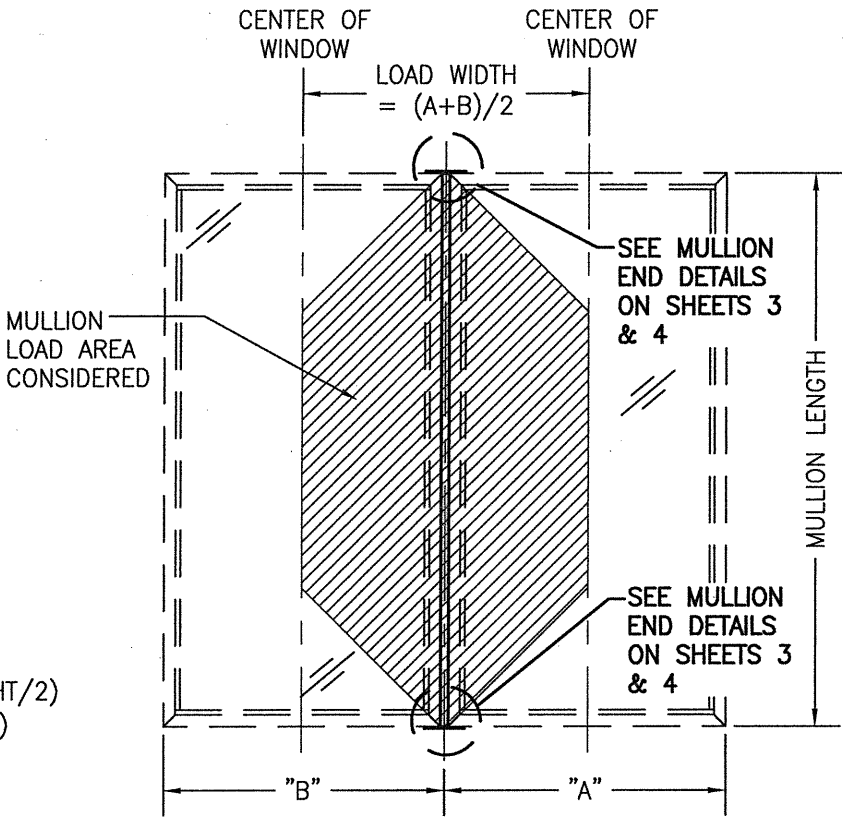
SINGLE WINDOW WITH TRANSOM
(SEE LOAD TABLE 1.0)

- NOTES:
- * TRANSOM WINDOW MAY BE ANY FIXED OR AWNING WINDOW.
 - * MAIN WINDOW MAY BE A FIXED, VENT CASEMENT, AWNING OR DOUBLE HUNG WINDOW.
 - * TRANSOM MAY BE ABOVE OR BELOW MAIN WINDOW.



**SLIDING WINDOW NEXT TO A SINGLE
FIXED WINDOW**

(SEE LOAD TABLE 1.0)



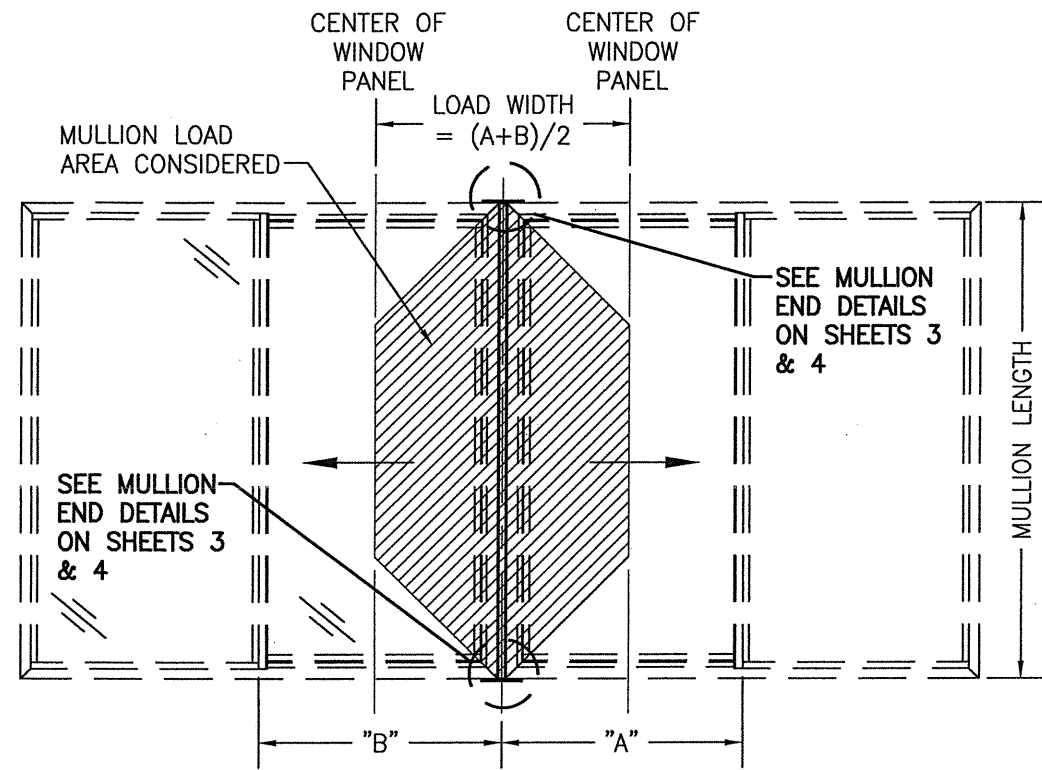
**FIXED WINDOW TO FIXED WINDOW WHEN WINDOW
WIDTHS ARE LESS THAN OR EQUAL TO THE
MULLION LENGTH**

(SEE LOAD TABLE 1.0)

- NOTES:
- * WINDOWS MAY BE STACKED HORIZONTAL OR VERTICAL.

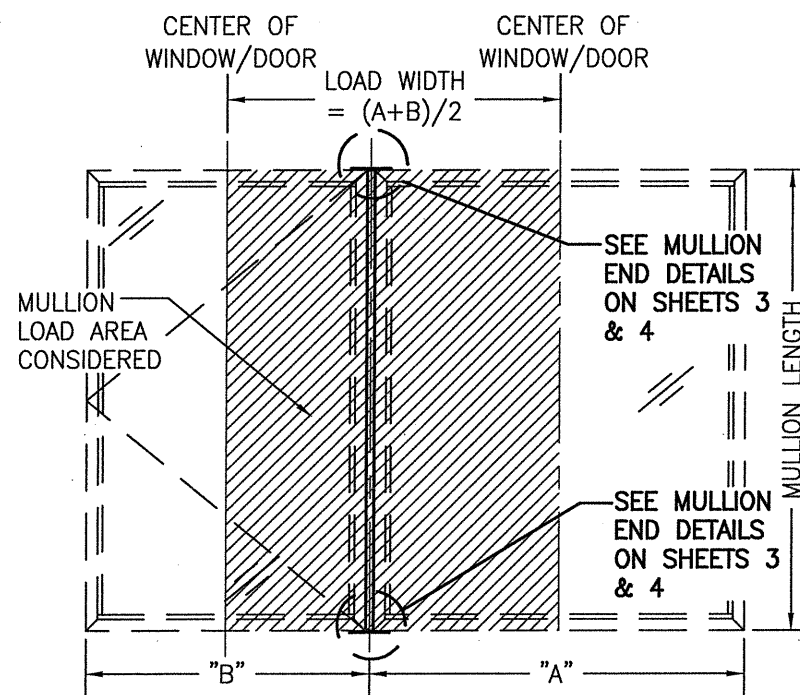
THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=3	DATE: 03/31/20
DATE	BY
REVISION DESCRIPTION	NO.
FORGENT 1/2" REINFORCED IMPACT & NON-IMPACT MULLION	
JOB INFORMATION: KOLBE WINDOWS & DOORS 1211 DEPOT STREET MANAWA, WI 54949 (920) 596-2501	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION APR 01 2020 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1973	REV.
SHEET NO. 1 OF 5	



SLIDING WINDOW NEXT TO A SLIDING WINDOW

(SEE LOAD TABLE 1.0)

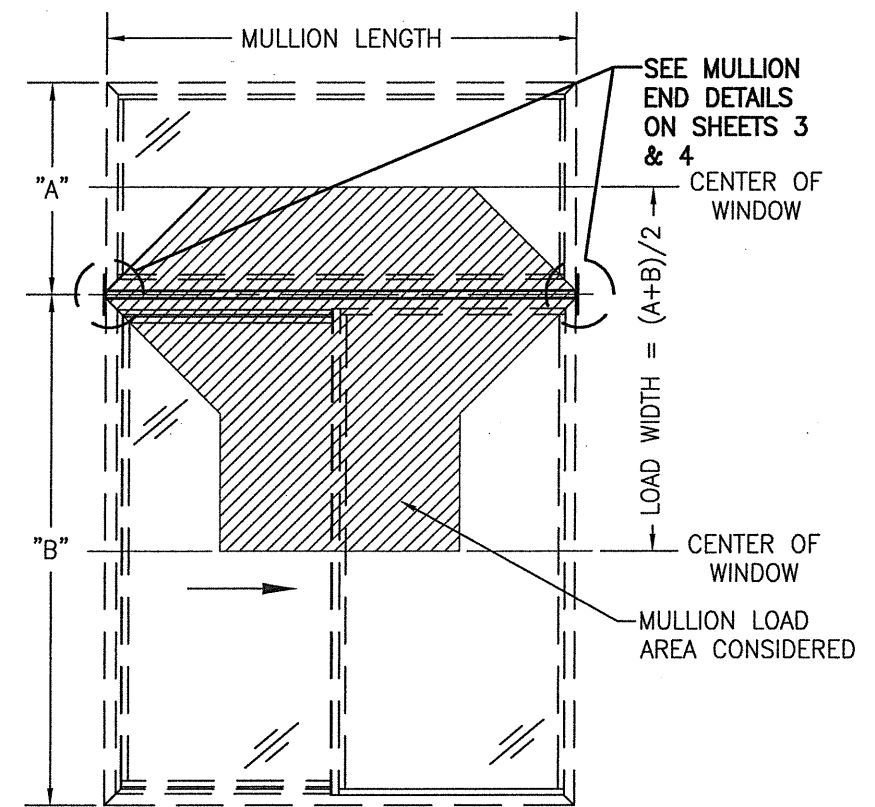


SINGLE OPERABLE WINDOW TO A SINGLE OPERABLE OR FIXED WINDOW

(SEE LOAD TABLE 2.0)

NOTES:

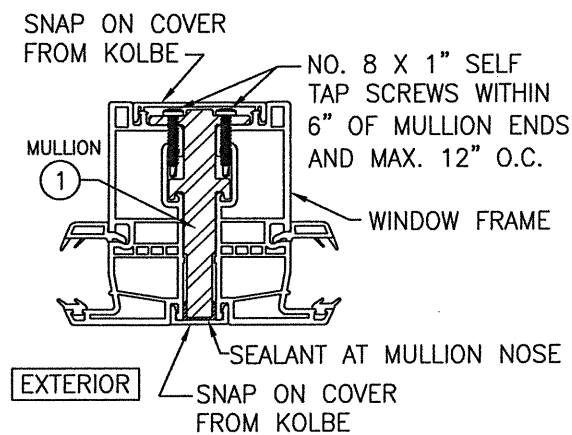
- * WINDOWS MAY BE STACKED HORIZONTAL OR VERTICAL.
- * OPERABLE WINDOW(S) MAY BE CASEMENT, AWNING, OR DOUBLE HUNG WINDOWS.



TWO(2) PANEL SLIDING WINDOW WITH A SINGLE FIXED WINDOW TRANSOM

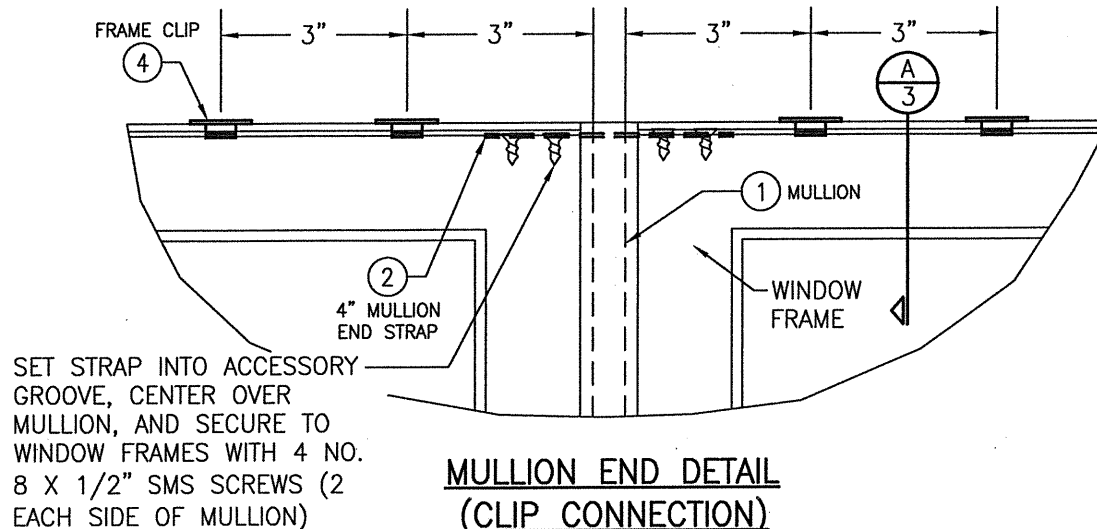
(SEE LOAD TABLE 3.0)

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 03/31/20	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: FORGENT 1/2" REINFORCED IMPACT & NON-IMPACT MULLION			
CONSULTANTS		JOB INFORMATION:	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		KOLBE WINDOWS & DOORS 1211 DEPOT STREET MANAWA, WI 54949 (920) 596-2501	
CERTIFICATION APR 01 2020 WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1973 SHEET NO. 2 OF 5	



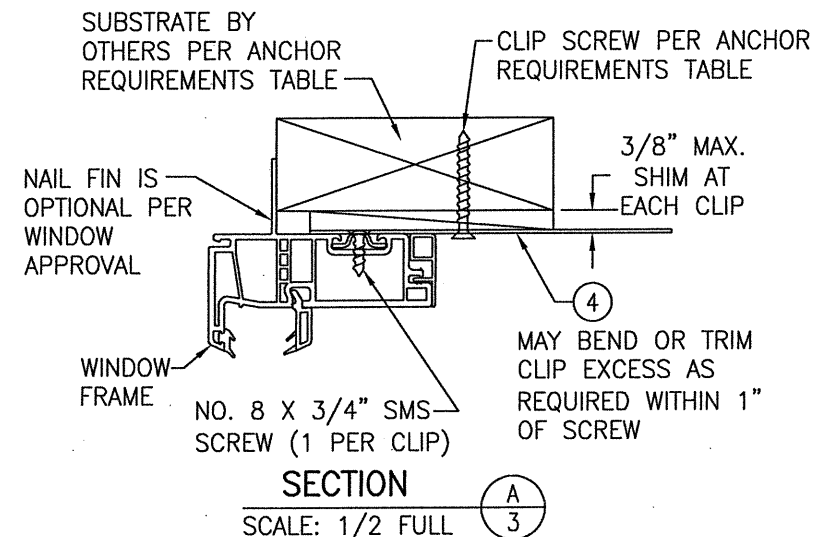
TYPICAL MULLION DETAIL

(FIXED CASEMENT DIRECT SET FRAMES SHOWN. FRAMES OF ALL OTHER WINDOW TYPES REFERENCED IN THESE DRAWINGS ALSO APPLY & SHALL BE SECURED TO THE MULLION IN THE SAME MANNER)



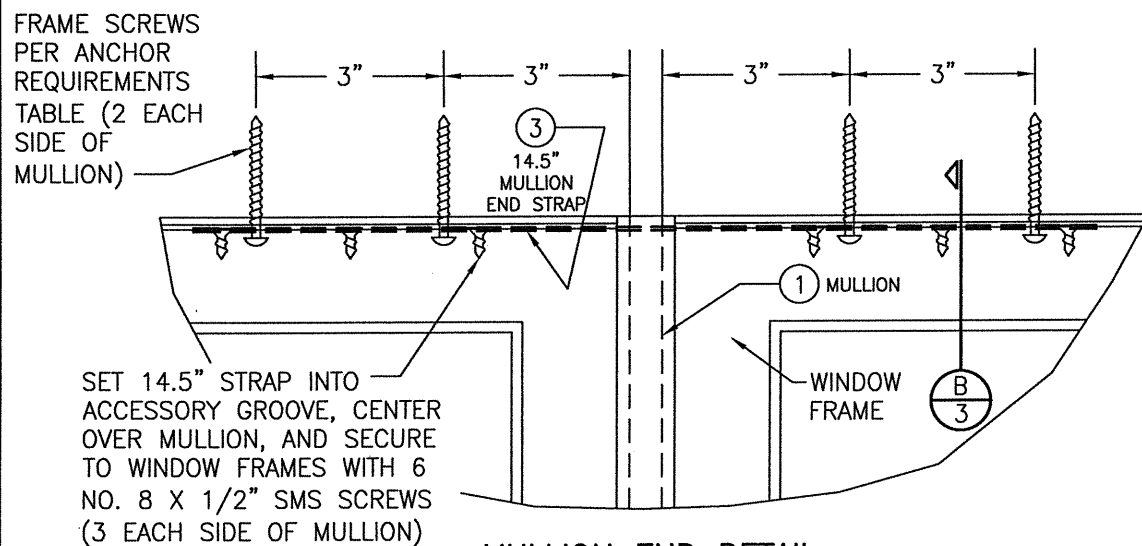
MULLION END DETAIL (CLIP CONNECTION)

VIEW SHOWN IS WITH FIXED CASEMENT DIRECT SET WINDOWS. MULLION END CLIP ATTACHMENT TO THE OPENING IS THE SAME WITH ALL OTHER APPLICABLE WINDOW PRODUCTS REFERENCED IN THESE DRAWINGS.



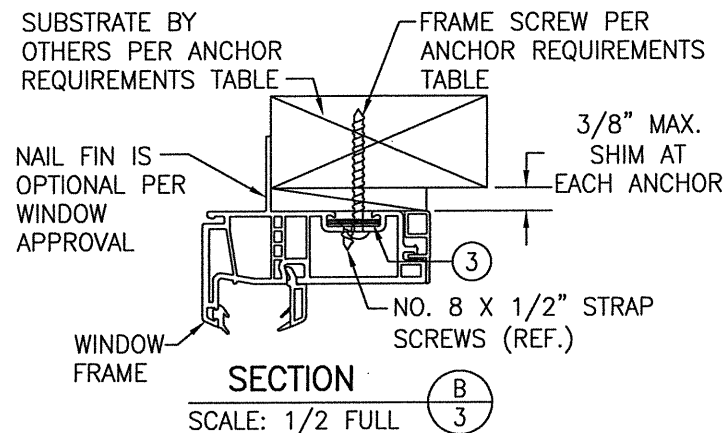
SECTION A

SCALE: 1/2 FULL



MULLION END DETAIL (FRAME SCREW CONNECTION)

(APPLICABLE WITH FIXED CASEMENT DIRECT SET & FIXED DOUBLE HUNG DIRECT SET WINDOWS)



SECTION B

SCALE: 1/2 FULL

(FIXED CASEMENT DIRECT SET WINDOW IS SHOWN. INSTALLATION OF FIXED DOUBLE HUNG DIRECT SET WINDOWS ALSO APPLY AND ARE INSTALLED THE SAME)

NOTE: ALL FINISHES AND WATER PROOFING ARE BY OTHERS AND ARE NOT COVERED BY THIS APPROVAL.

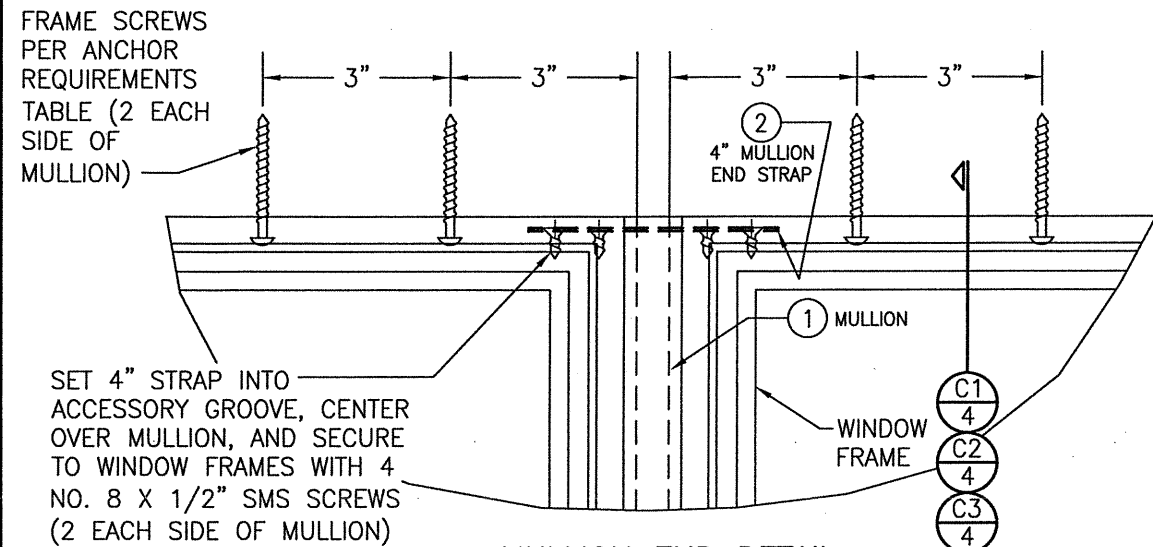
ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
CLIP & FRAME SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 10 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 0.100" THK 6063-T5 ALUM.	NO. 10 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	2"

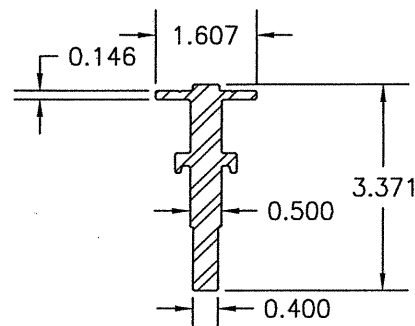
WIDEN BUCKS FOR CLIP MOUNT AS REQUIRED TO MEET EDGE DISTANCE REQUIREMENTS.

NOTE: HOLES IN STRAPS AND CLIPS MAY NEED TO BE WIDENED TO ACCOMMODATE 1/4" CONCRETE SCREWS.

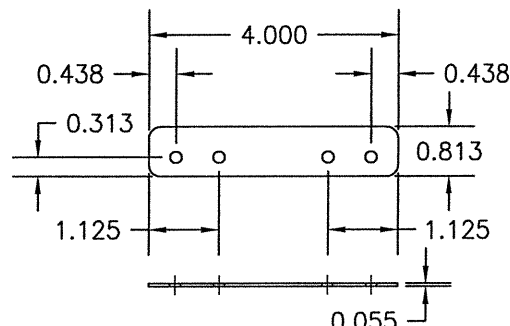
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 03/31/20	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE FORGENT 1/2" REINFORCED IMPACT & NON-IMPACT MULLION			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER KOLBE WINDOWS & DOORS 1211 DEPOT STREET MANAWA, WI 54949 (920) 596-2501	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
CERTIFICATION APR 01 2020		P.E. NO. 44135	
DRAWING NO. 1973		REV.	
SHEET NO. 3 OF 5			



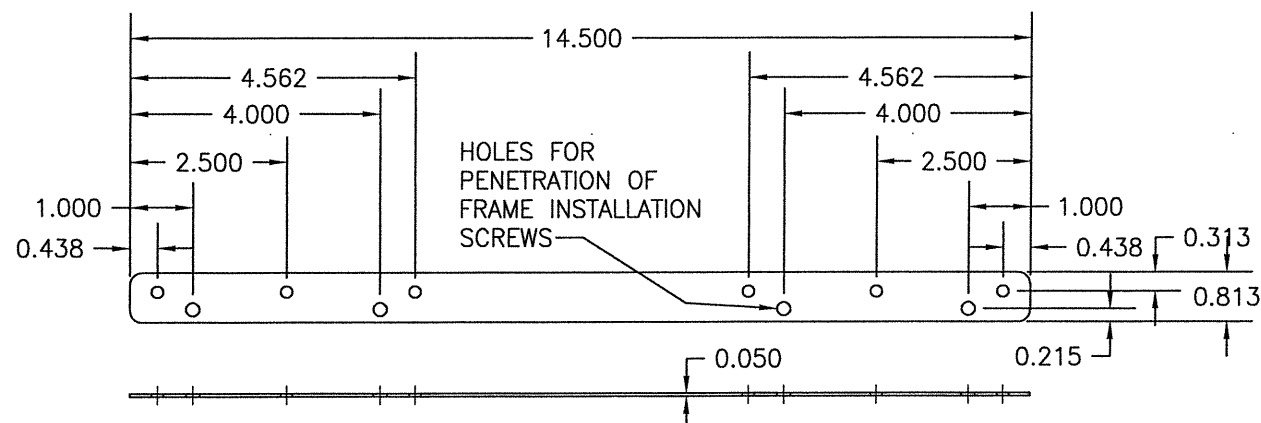
MULLION END DETAIL
(FRAME SCREW CONNECTION)
(APPLICABLE WITH VENT CASEMENT, AWNING, FIXED CASEMENT PICTURE, DOUBLE HUNG, FIXED DOUBLE HUNG & SLIDING WINDOWS)



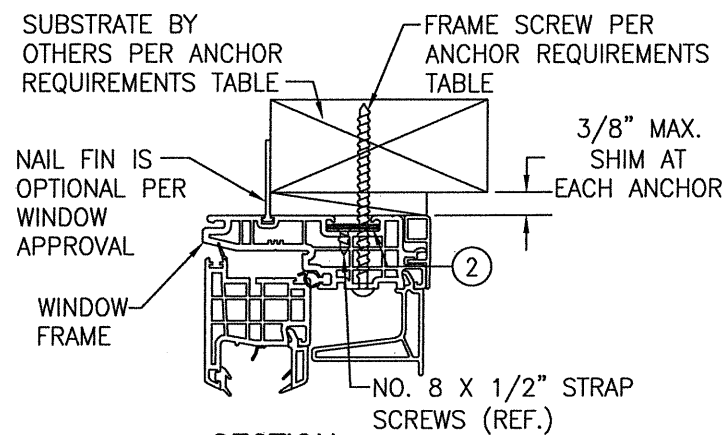
① **MULLION**
6063-T6 ALUMINUM



② **4" MULL STRAP**
MIN. 33 KSI GALV. STEEL

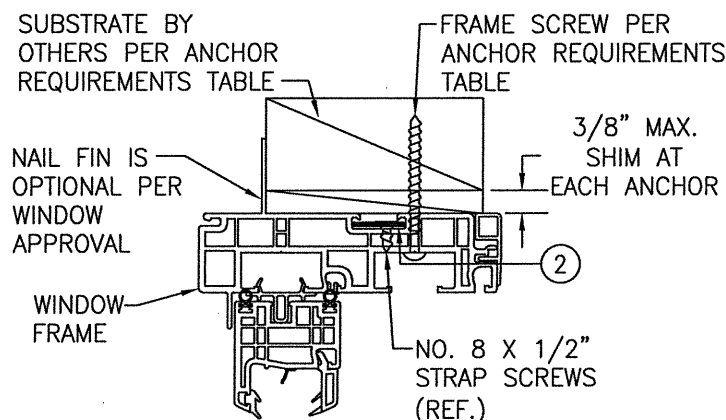


③ **14.5" MULL STRAP**
MIN. 33 KSI GALV. STEEL



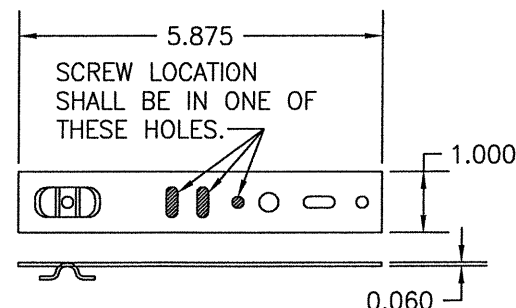
SECTION
SCALE: 1/2 FULL C1 4

(APPLICABLE TO VENT CASEMENT, AWNING & FIXED CASEMENT PICTURE WINDOWS)

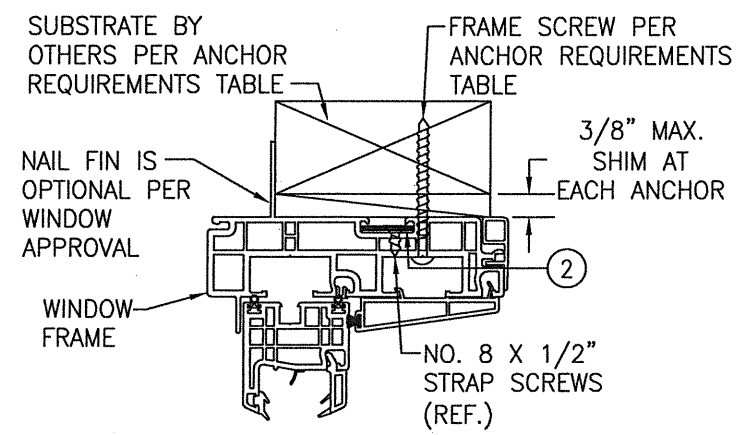


SECTION
SCALE: 1/2 FULL C2 4

(APPLICABLE TO SLIDING WINDOWS.)



④ **4" MULL STRAP**
MIN. 50 KSI GALV. STEEL



SECTION
SCALE: 1/2 FULL C3 4

(APPLICABLE TO DOUBLE HUNG & FIXED DOUBLE HUNG WINDOWS.)

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 03/31/20	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: FORGENT 1/2" REINFORCED IMPACT & NON-IMPACT MULLION			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: KOLBE WINDOWS & DOORS	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		1211 DEPOT STREET MANAWA, WI 54949 (920) 596-2501	
CERTIFICATION	APR 01 2020		
WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1973	
SHEET NO. 4 OF 5		REV.	

