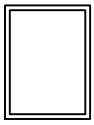
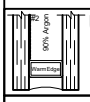
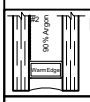
PERFORMANCEt

This application is a configuration of the 3350 Series window for use in FEMA 361 / ICC 500 Storm Shelters. The Series 3350 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

Fixed (Picture Window)  NAFS / AAMA 101 Test Size 60" x 99" Class: AW Performance Grade: 100 Air Infiltration: <0.03 CFM Water Infiltration Resistance: >12 psf		U_{COG}=0.20 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate ThermL *(The inboard lite of clear 1/2" polycarbonate is not considered for the thermal performance)*
	NFRC Size [1] 47" x 59" U_{Window}= 0.34 Btu/h-ft²-°f [2]	CI= __ (NFRC 501) [2]
	NAFS Size [3] 60" x 99" U_{Window}= 0.30 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.24 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70 *(The inboard lite of clear 1/2" polycarbonate is not considered for the thermal performance)*
	NFRC Size [1] 47" x 59" U_{Window}= 0.37 Btu/h-ft²-°f [2]	CI= __ (NFRC 501) [2]
	NAFS Size [3] 60" x 99" U_{Window}= 0.33 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.29 Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60 *(The inboard lite of clear 1/2" polycarbonate is not considered for the thermal performance)*
	NFRC Size [1] 47" x 59" U_{Window}= 0.41 Btu/h-ft²-°f [2]	CI= __ (NFRC 501) [2]
	NAFS Size [3] 60" x 99" U_{Window}= 0.37 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
Can be Configured for ADA Compliance ☒ Not-Applicable ☐ Yes		
		U_{COG}=0.34 Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer) *(The inboard lite of clear 1/2" polycarbonate is not considered for the thermal performance)*
	NFRC Size [1] 47" x 59" U_{Window}= 0.45 Btu/h-ft²-°f [2]	CI= __ (NFRC 501) [2]
	NAFS Size [3] 60" x 99" U_{Window}= 0.41 Btu/h-ft²-°f [4]	CRF= -- (AAMA 1503) [5]
Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 ☐ Not Rated ☒ Missile "D" ☐ Missile "E"		
		U_{COG}=0.47 Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated example: Clear over Clear (Air, Aluminum Box-Spacer) *(The inboard lite of clear 1/2" polycarbonate is not considered for the thermal performance)*
	NFRC Size [1] 47" x 59" U_{Window}= 0.55 Btu/h-ft²-°f [2]	CI= __ (NFRC 501) [2]
	NAFS Size [3] 60" x 99" U_{Window}= 0.52 Btu/h-ft²-°f [4]	CRF= -- (AAMA 1503) [5]
Product Type may be configured for Blast Resistant Installation ☐ No ☒ Yes [6]		

This information is based on current product design, sealed dual glazing, warm edge spacers and testing standards.

Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product

Please contact WINCO for project specific information

[1] NFRC 101 Test & Rating Size

[2] Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

[3] AAMA 101 (NAFS) Gateway Test Size

[4] Based on LBNL Window Simulations following NFRC Protocols

[5] AAMA 101 Test Size and AAMA 1503 Test Protocol

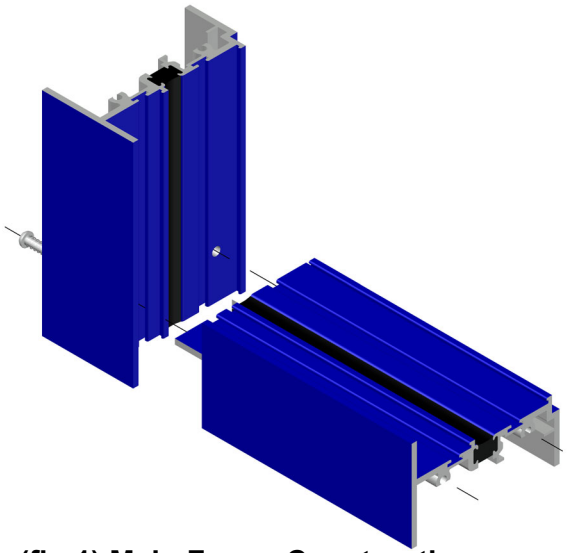
[6] Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

CONSTRUCTION

MATERIAL - The Series 3350 window is a 3-1/2" deep frame depth with a nominal wall thickness of .125 inch. All material is extruded from 6063-T6 alloy.

THERMAL BREAK - All framing members of the window system are thermally broken. Winco uses the Azon Azo Brader® process to mechanically condition the surface of the thermal cavity. The process runs the entire length of the extrusion and creates serrations that ensure proper adhesion of the structural polymer. The structural urethane is a high density 2 part formula providing optimum thermal performance for the most demanding conditions. The combination of the conditioning of the aluminum surface along with the two part urethane allows Winco to provide a full 10 year warranty against thermal break creep and shrinkage in accordance with AAMA 505-17.

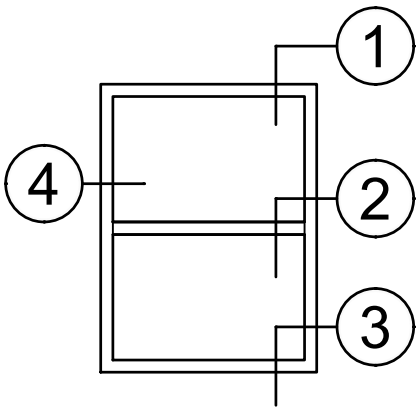
FABRICATION - The main frame corners are coped and mechanically joined using two stainless steel spline screws per corner (fig 1). All frame joints are back sealed with small joint seam sealer providing a water tight joinery.

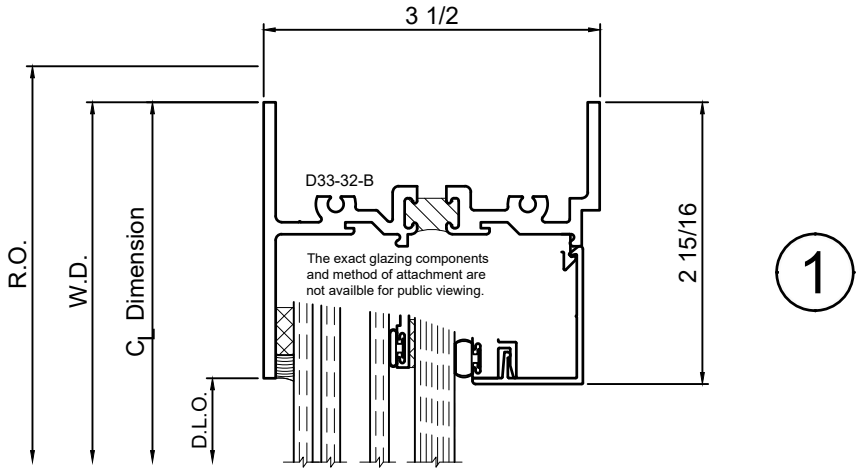


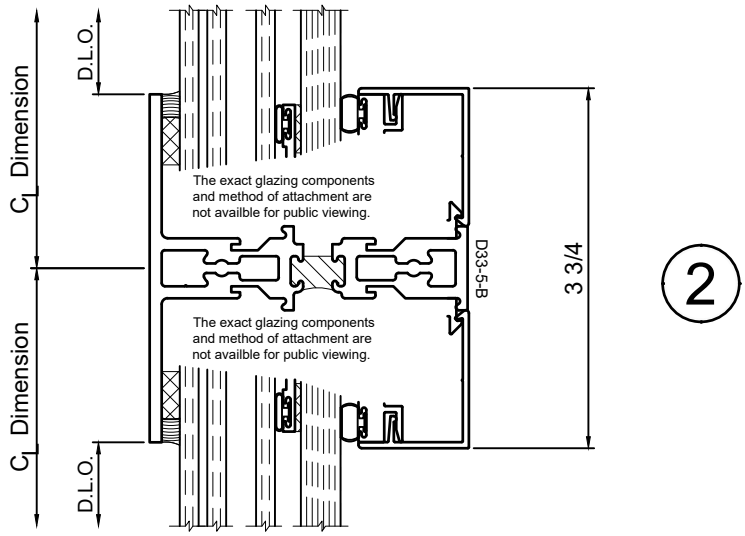
(fig 1) Main Frame Construction

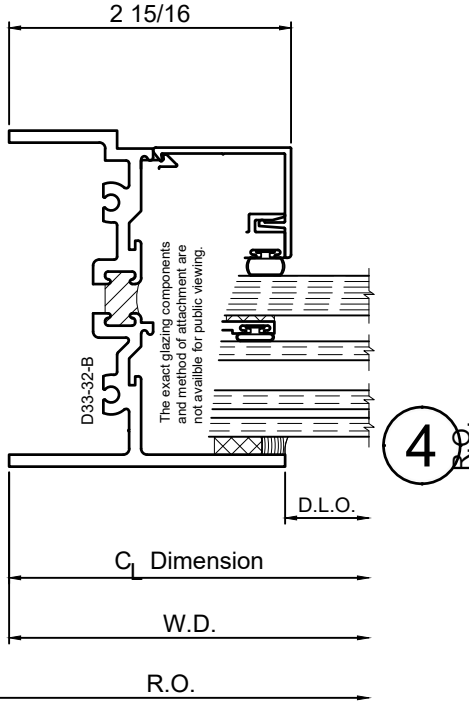
3-1/2" Thermal Fixed Windows for FEMA 361 / ICC 500 application
Product Details - Fixed - Picture Window

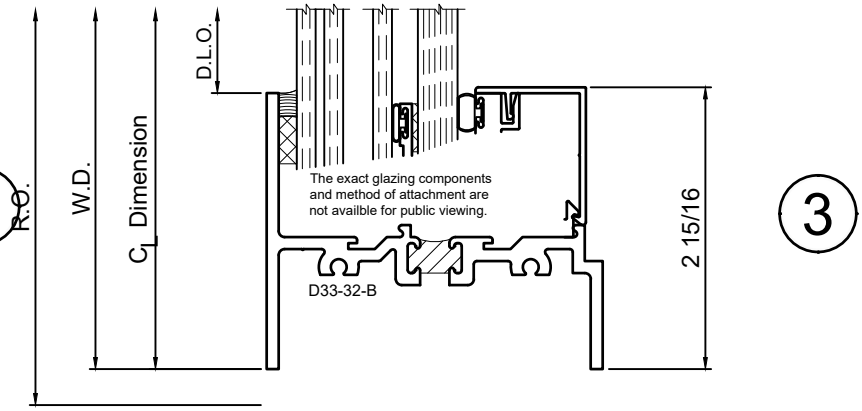
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.







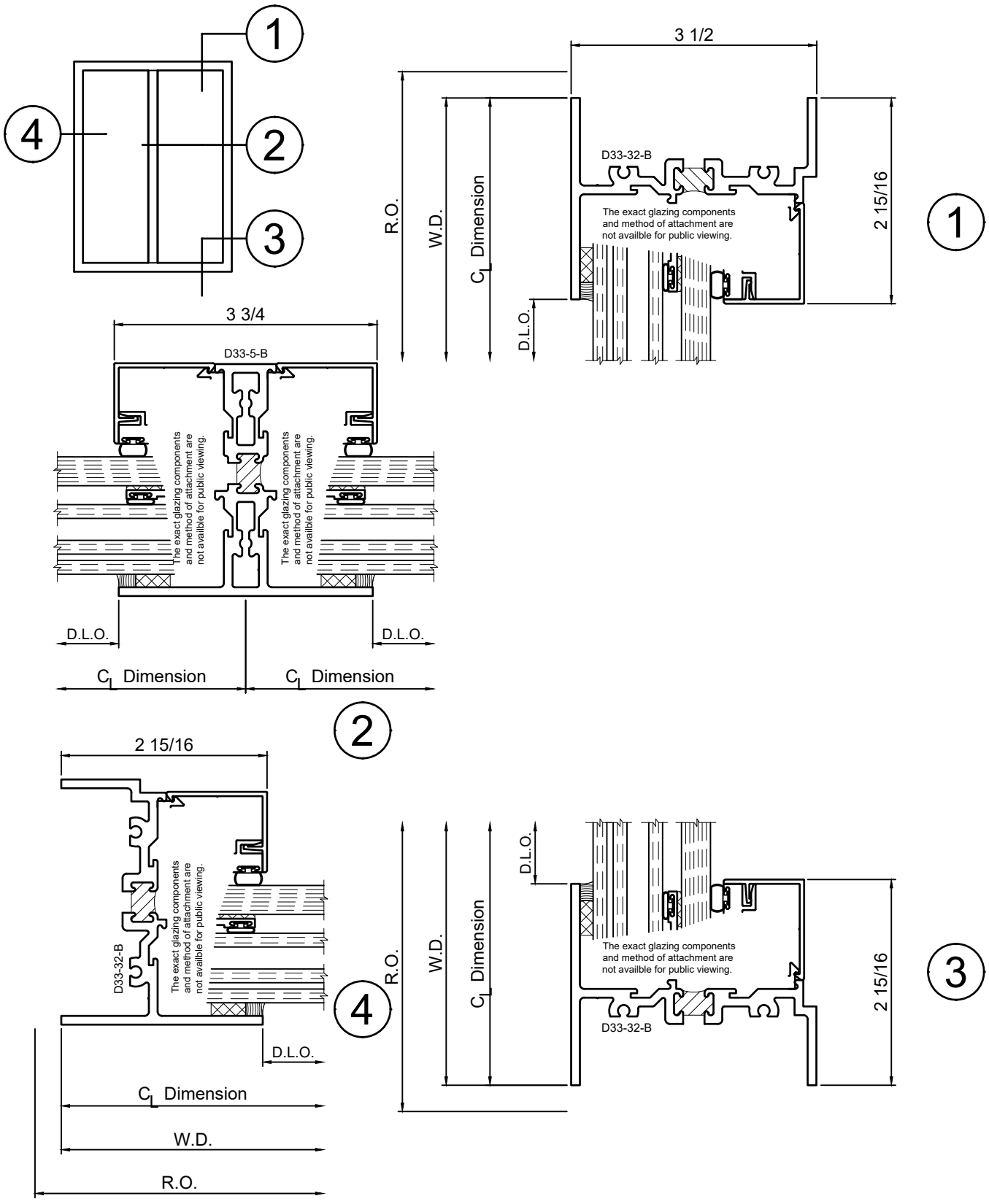




SCALE 6"=1'-0"

3-1/2" Thermal Fixed Windows for FEMA 361 / ICC 500 application
Product Details - Fixed - Picture Window

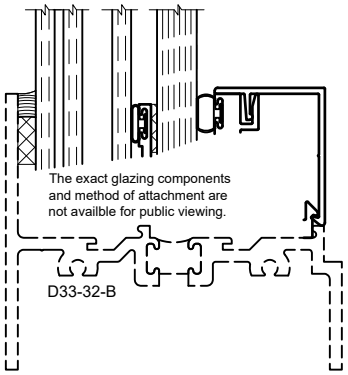
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.



SCALE 6"=1'-0"

GLAZING

The ICC 500 configuration storm shelter window is interior glazed with 0.050 thick extruded aluminum glazing bead securing the 1" nominal I.G.U. and a 0.188 thick glazing retainer for the 1/2" polycarbonate impact panel.
Exact details of the glazing method will not be disclosed to the public.
Only a limited number of Low-E coatings are available for the I.G.U. since not all coaters produce the glass thickness options required.

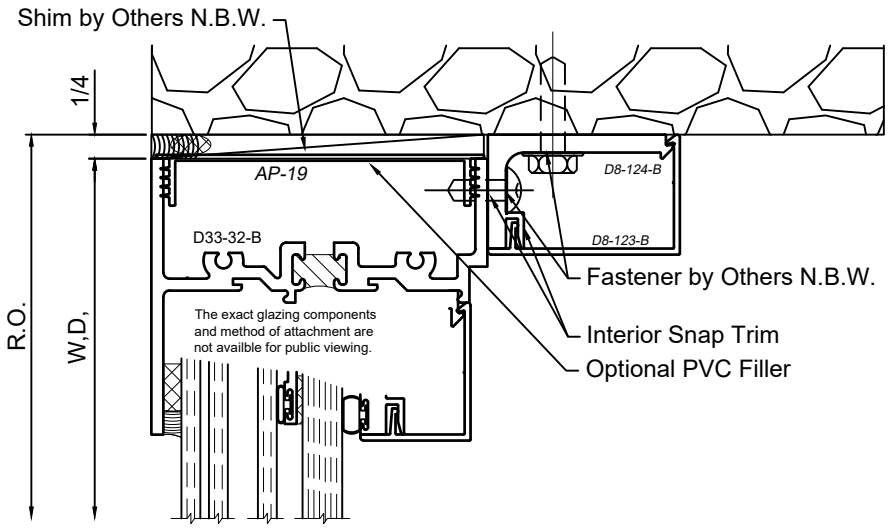


FEMA 361 / ASTM
E1886 / 1996 Missile "E"
1" Laminated I.G. with
1/2" Polycarbonate
Secondary

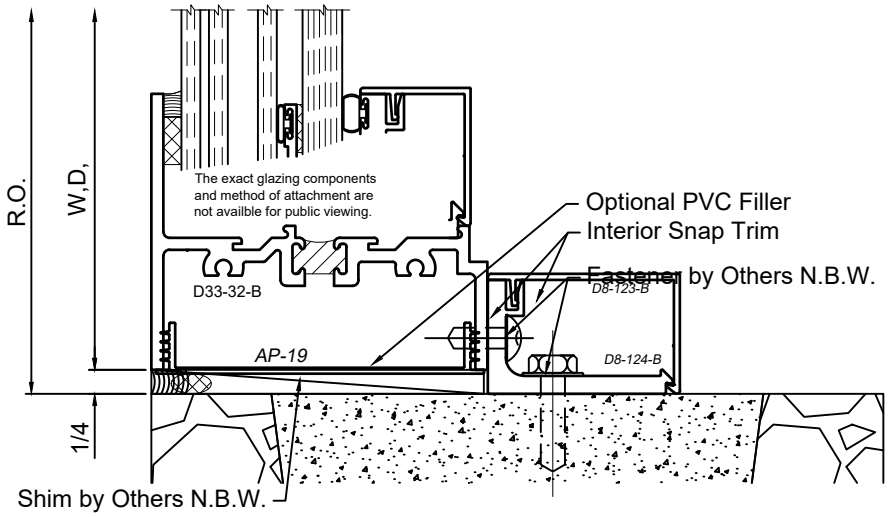
Winco has different gaskets and glazing methods that can accommodate odd thicknesses of glass. If you do not see what you are looking for within this chart please contact your local representative for information regarding your specific project needs.

3-1/2" Thermal Fixed Windows for FEMA 361 / ICC 500 application
Product Details - Snap Trim Installation

Note: See Winco Installation Instructions for a detailed description of installation notes and procedures.

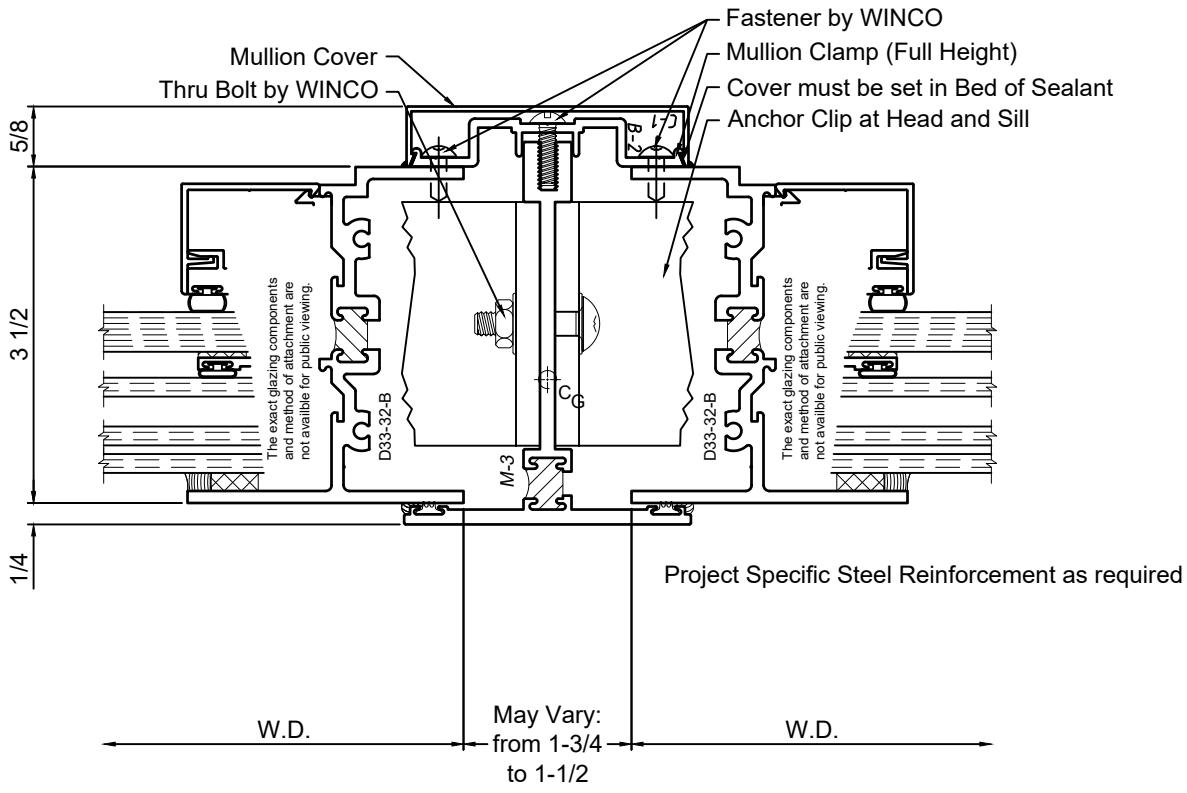


Snap Trim Installation



SCALE 6"=1'-0"

M-3 Mullion set from Building Exterior



SCALE 6"=1'-0"