PERFORMANCE

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.

Fix	ced		Project Out - Awning				
AAMA Rating	AW	<i>'</i> -100	AAMA Rating	AW	'-120		
Air Infiltration	0.03 C	FM/ft ²	Air Infiltration	0.08 CFM/ft ²			
Water	Over	12 psf	Water	Over	12 psf		
Structural	150	psf	Structural	180	psf		
CRF (AAMA 1503)	6	3	CRF (AAMA 1503)	61			
Center of Glass U-Value	Window U-Factor ³		Center of Glass U-Value	Window U-Factor ³			
BTU/Ft ² x F° x Hr	47" x 59" ² 60" x 99" ¹		BTU/Ft ² x F° x Hr	59" x 24" ²	60" x 36" ¹		
0.20	0.34	0.30	0.20	0.48	0.41		
0.24	0.37	0.33	0.24	0.50	0.44		
0.29	0.41 0.37		0.29	0.53	0.47		
0.34	0.45 0.41		0.34	0.56	0.51		
0.47	0.55	0.52	0.47	0.64	0.60		

Project In	- Hopper		Casement			
AAMA Rating		'-100	AAMA Rating	AW	'-120	
Air Infiltration	0.08 C	FM/ft ²	Air Infiltration	0.02 CFM/ft ²		
Water	Over	12 psf	Water	Over	12 psf	
Structural	150	psf	Structural	180 psf		
CRF (AAMA 1503)	Not T	ested	CRF (AAMA 1503)	Not Tested		
Center of Glass U-Value	Window U-Factor ³		Center of Glass U-Value	Window U-Factor ³		
BTU/Ft ² x F° x Hr	59" x 24" ² 60" x 36" ¹		BTU/Ft ² x F° x Hr	24" x 59" ²	36" x 60" ¹	
0.20	0.48	0.41	0.20	0.48	0.41	
0.24	0.50	0.44	0.24	0.50	0.44	
0.29	0.53	0.47	0.29	0.53	0.47	
0.34	0.56	0.51	0.34	0.56	0.51	
0.47	0.64	0.60	0.47	0.64	0.60	

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

Please contact WINCO for project specific information

¹AAMA 101 Test Size

² NFRC Gateway Test Size

³ Based on NFRC 100

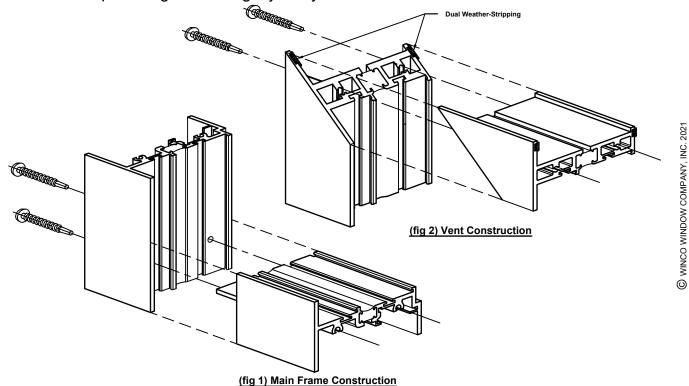
CONSTRUCTION

MATERIAL - The Series 3350 window is a 3-1/2" deep frame depth with a nominal wall thickness of 0.125 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 insure 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 505-98.

WEATHER-STRIP - All operating ventilators have a double Santoprene®, non-shrinking dual durometer, thermoplastic rubber weather-stripping around the perimeter. One interior and one exterior.

FABRICATION - The main frame corners are coped and mechanically joined using two stainless steel spline screws per corner (fig 1). The vent is a hollow tube shaped extrusion for superior strength and rigidity. Vent corners are fully mitered and mechanically joined using two stainless steel spline screws per corner, aligning the members to form a hairline joint (fig 2). All frame joints are back sealed with small joint seam sealer providing a water tight joinery.



WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT



GLAZING

The windows can be interior or exterior glazed with .050 thick extruded aluminum glazing beads accommodating thicknesses from 1/8" up to 2 1/4". Dual or triple glazing is an option utilizing an interior panel sash that can either be hinged with 4-bar stainless steel hinges or a more economical take out sash. Venetian blinds are available with the dual or triple glazed window options. See the quick reference chart below for all glazing options. For actual details refer to the glazing section in the back of the 3350 section for optional glazing and blind details.

Glazing Th	nickness	1/8"	3/16"	1/4"	7/16"	1/2"	9/16"	7/8"	1"	1-3/8"	1-3/4"	2"	2-3/8"	-	-
Monoli	ithic	Χ	Χ	Χ	-	-	-	-	Χ	-	Χ	Χ	Х	-	-
Insula	ted	-	-	-	-	-	-	Χ	Χ	Х	Χ	Χ	Х	-	-
Dual	Exterior	Χ	Χ	Χ	-	-	-	-	-	-	-	-	-	-	-
Glazed	Interior	Χ	Χ	Χ	Χ	Χ	Χ	-	-	-	-	-	-	-	-
Triple	Exterior	-	-	-	-	-	-	Χ	X	-	-	-	-	-	-
Glazed	Interior	Χ	Х	Χ	Х	Χ	Х	-	-	-	-	-	-	-	-

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.

HARDWARE

All exposed locking hardware, strikes and keepers are solid white bronze alloy with US25D brushed finish. All four bar arms, casement arms, friction arms and key release limit arms are stainless steel conforming to AAMA 904.1. Five knuckle butt hinges are fabricated of 6063-T6 aluminum with nylon bushings and a stainless steel hinge pin.

Window Type	Butt Hinge	4-Bar Arms	Casement Arms	Friction Adjustable	Roto Operator	Cam Lock	Pole Ring Cam Lock	Access Control Lock	Lift Lock	Pole Ring Lift Lock	Pull Handle	Key Release Limit Arm	Fixed Limit Stop	Under Screen Push Bar
PO - Awning	-	Х	ı	-	0	X	0	0	0	0	0	0	0	O 5
PI - Hopper	-	Х	-	-	-	Х	0	0	0	0	1	0	0	-
Casement - Outswing w/ Butt Hinges	Х	-	0	Х	0 2	0	0 3	0	Х	0	Х	0	0	O 5
Casement - Inswing w/ Butt Hinges	Х	-	0	Х	-	0	0	0	Х	0	-	0	0	-
Casement - Outswing w/ concealed Hinges	-	-	Х	-	O ^{2,4}	0	0 3	0	0	0	Х	0	0	O ^{2, 5}
Casement - Inswing w/ concealed Hinges	-	-	Х			0	0	0	Х	0		0	0	

X = Standard Hardware

O = Optional Hardware

Note:

- ¹ Not all hardware is compatible with each other, contact your local Winco representative for information
- $^{2}\,$ Size limitations exist on some hardware, contact your local Winco representative for information
- ³ A pole ring pull will be provided on a project out vent is optional pole ring cam locks are required and no screen is furnished
- ⁴ Minimum width requirement for optional roto operators on casement windows with concealed casement arm hinging
- $^{\,\,\,\,}$ Under screen push bars are not recommended by Winco if optimum water performance is a requirement

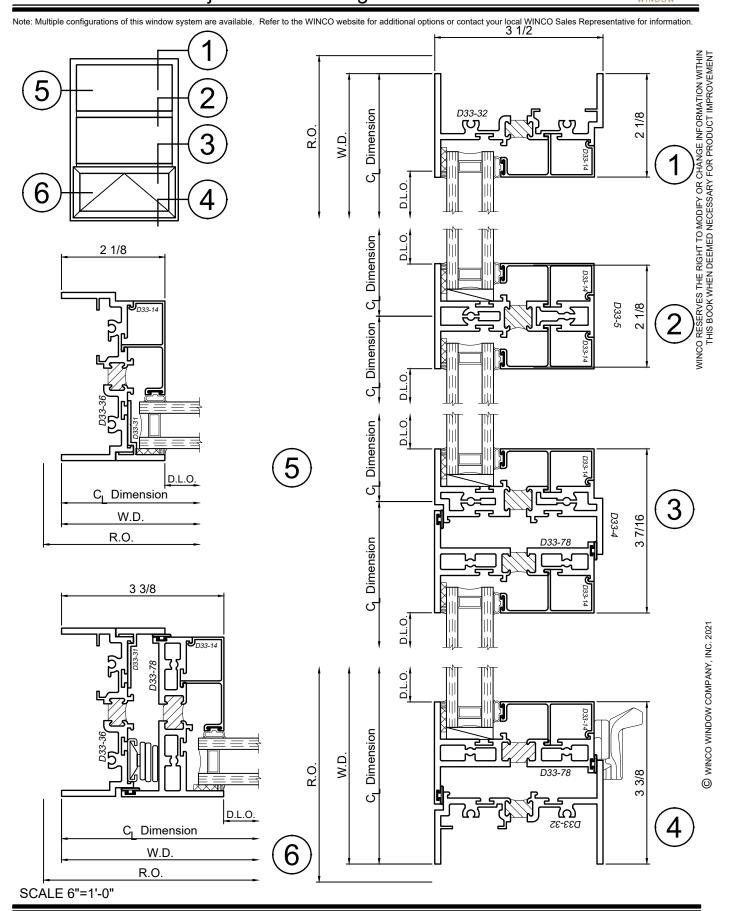
SCREENS

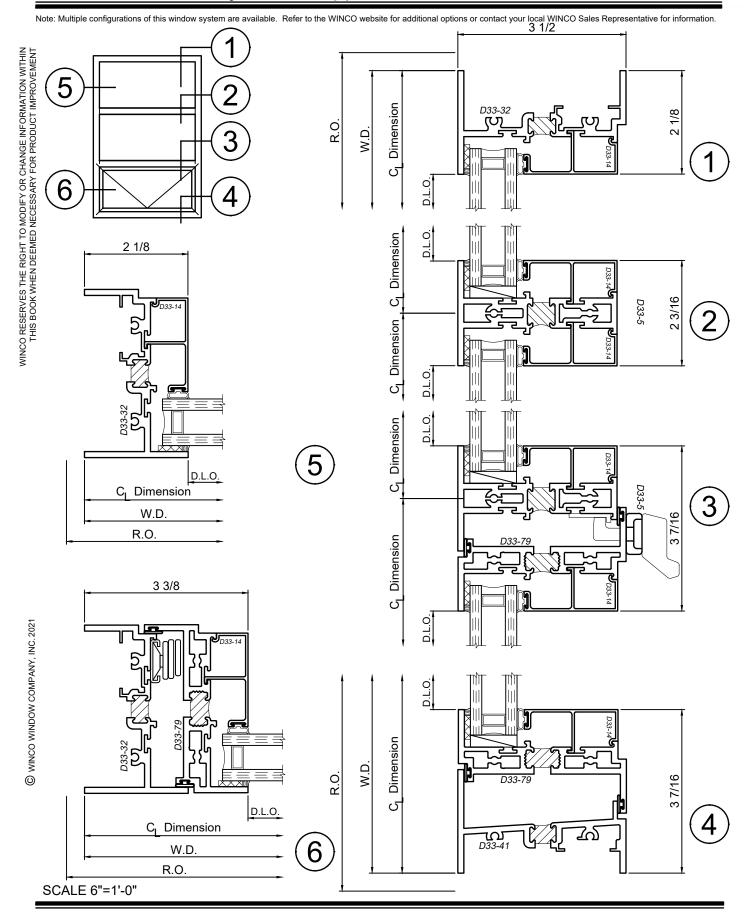
FRAME - frames are fabricated from 6063-T6 extruded aluminum alloy and temper. All screen frames are miter cut and corner keyed. The corners are mechanically crimped together for durability. The screen frame is finished to match the window frame.

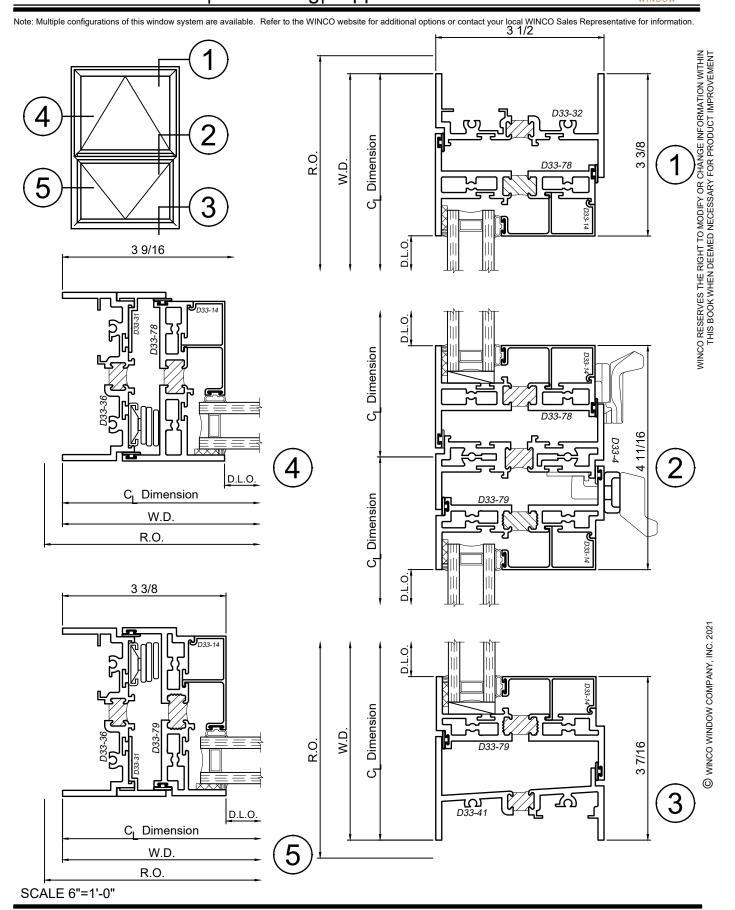
MESH - Standard .011 aluminum screen wire mesh is produced from 5154 alloy with 18x16 pattern in Charcoal or Aluminum color. All mesh is applied to the screen frame with a roller spline making for easy and quick replacements. Optional fiberglass or .009 stainless steel mesh is available as an option.

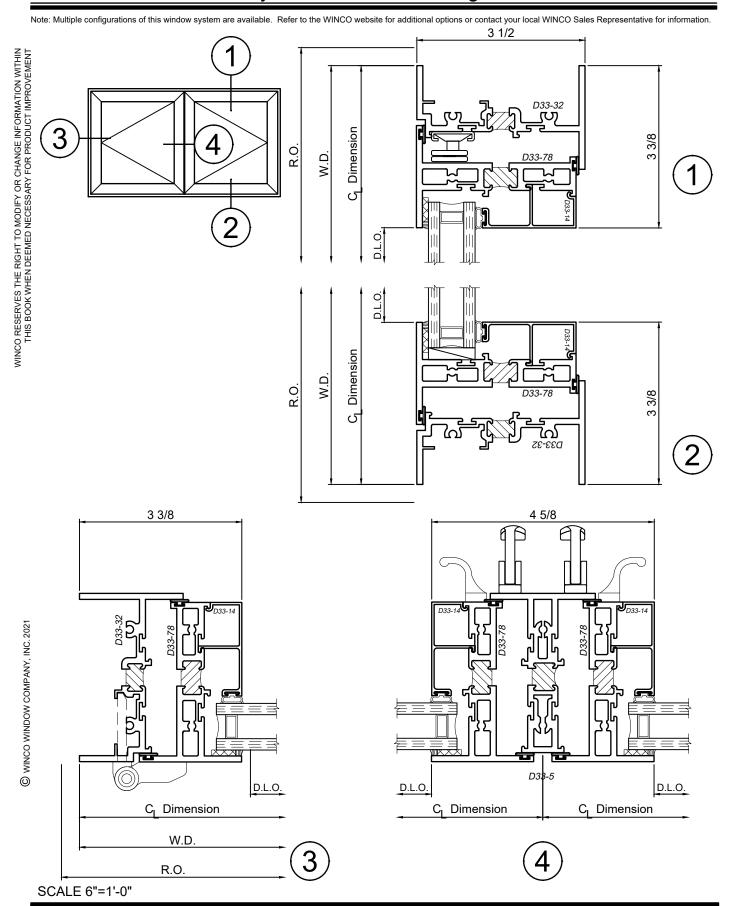
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

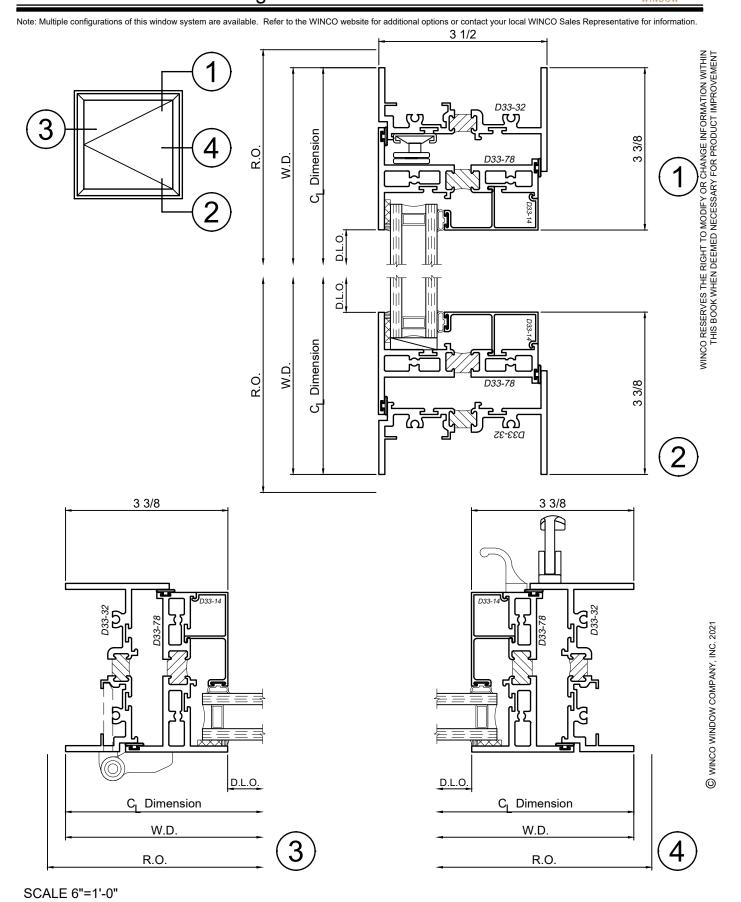
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT 3 1/2 Dimension 2 1/8 R.O. W.D. G D.L.O., D.L.O. Dimension J 2 3/16 D33-5 Dimension 2 1/8 D.L.O. © WINCO WINDOW COMPANY, INC. 2021 Dimension W.D. 2 1/8 D.L.O. C_I Dimension W.D. R.O.

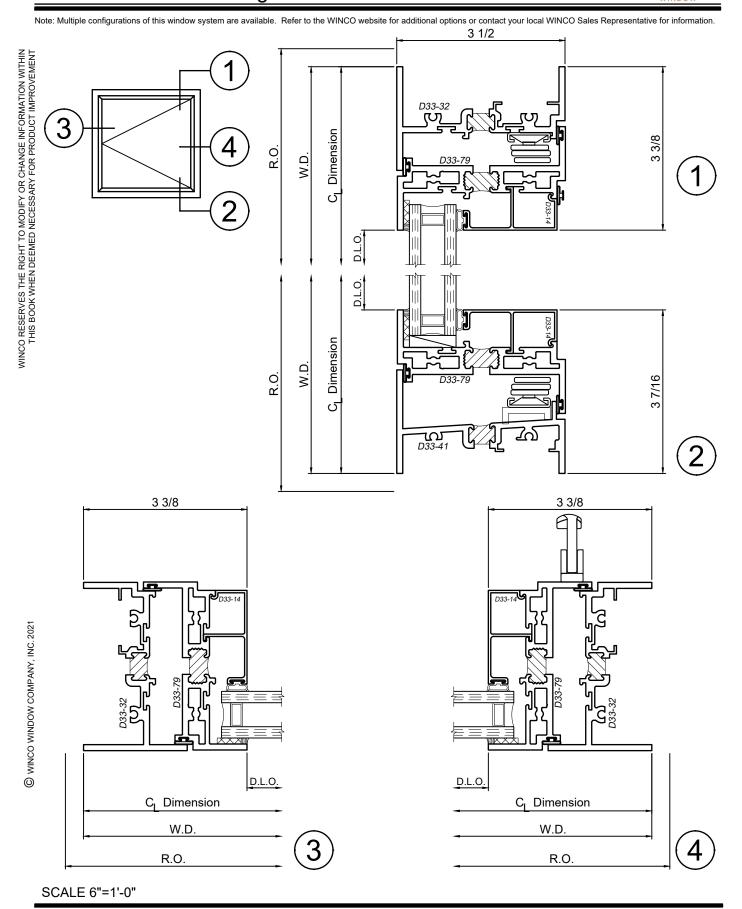


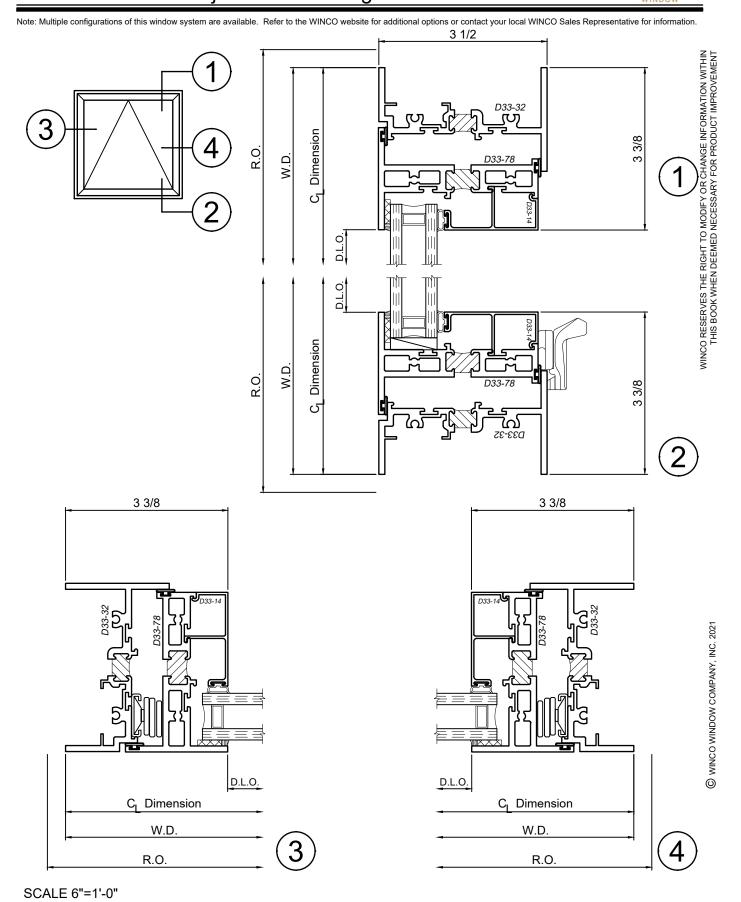


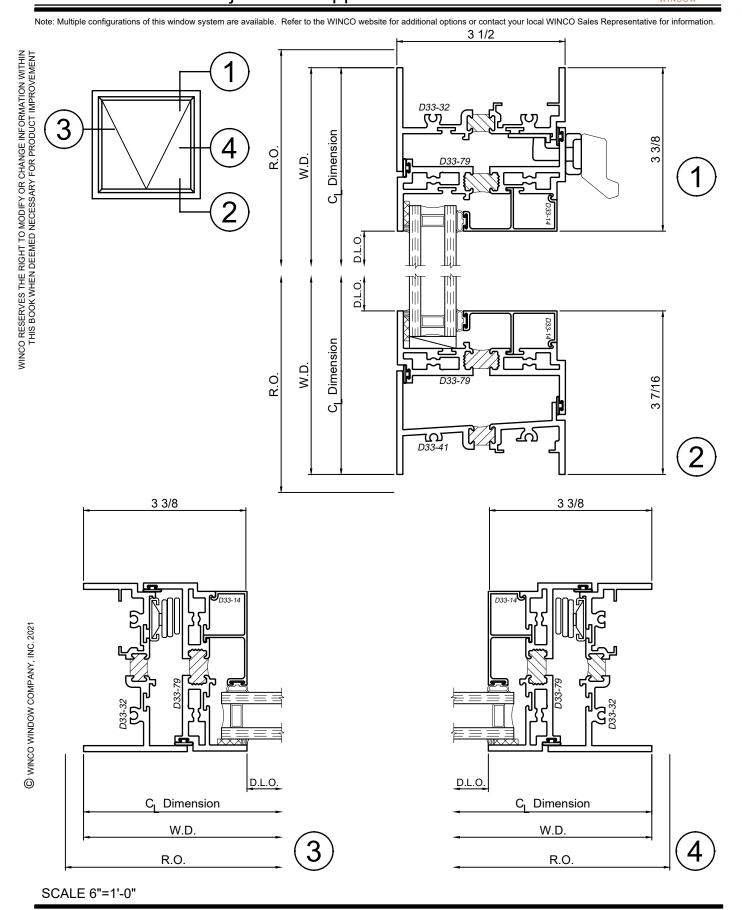












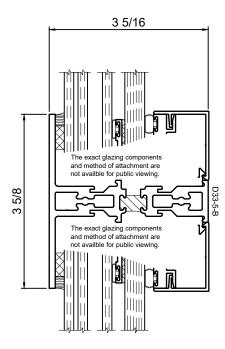
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS ROOK WHEN DEEMED NECESSARY FOR PRODICT IMPROVEMENT

This page is purposely left blank

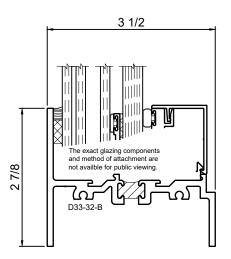
© WINCO WINDOW COMPANY, INC. 2021

3350 Series 3-1/2" Thermal Fixed, Casement & Projected Windows Product Details - Rail & Frame Options

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.



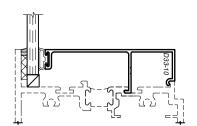
FEMA 361 / ICC 500 "Tornado" T - Rail



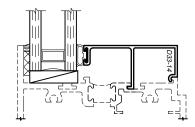
FEMA 361 / ICC 500 "Tornado" Frame (Head, Jamb & Sill)

WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

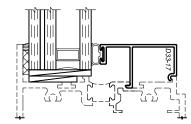
This page is purposely left blank



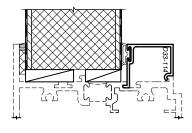
1/4" Glazing Bead D33-10



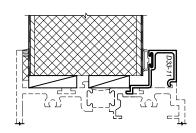
1" Glazing Bead D33-14



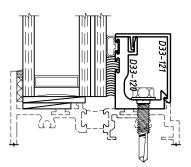
1-3/8" Glazing Bead D33-17



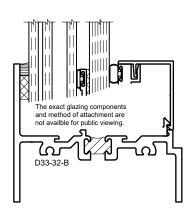
2" Glazing Bead D33-114



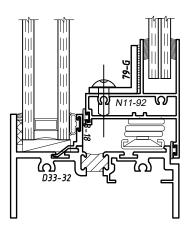
2-3/8" Glazing Bead D33-11



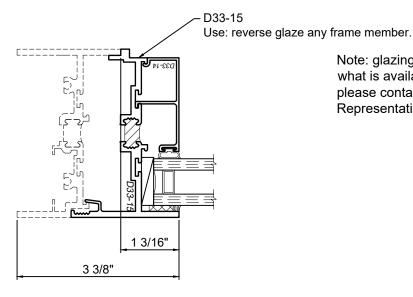
1-3/4" Glazing Bead D33-120 / D33-121 (limited use only)



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

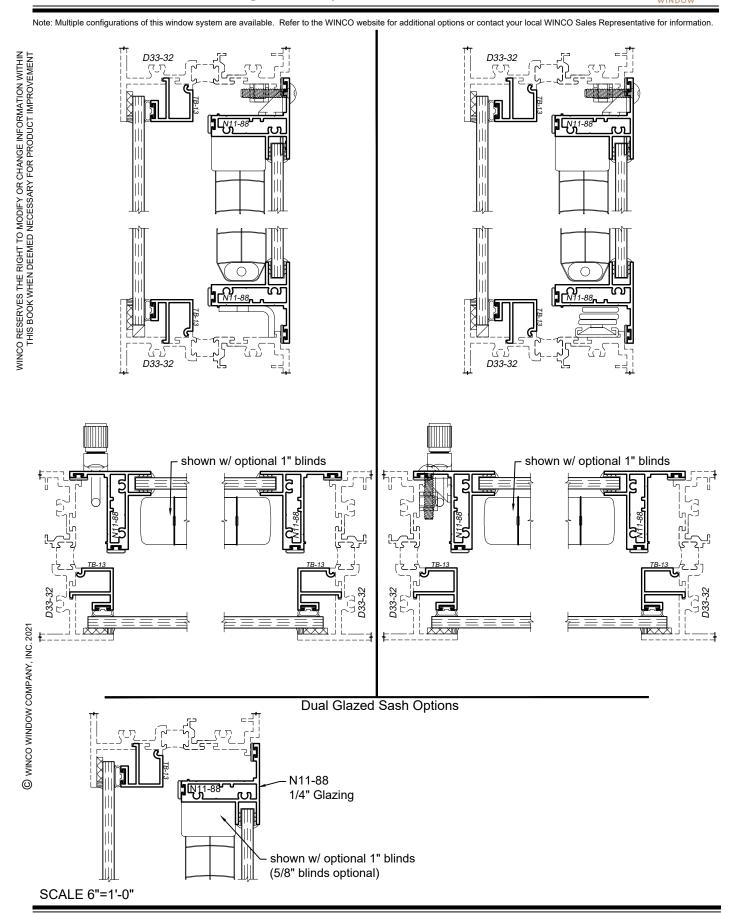


Human Impact Configuration 1" I.G. with 7/16 Laminate or 1/2" Polycarbonate Secondary



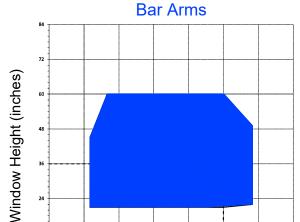
Note: glazing options shown are a sample of what is available. If desired glazing is not shown please contact your local Winco Sales Representative for additional information.

SCALE 6"=1'-0"



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. shown w/ optional 1" blinds shown w/ optional 1" blinds WINCO WINDOW COMPANY, INC. 2021 Triple Glazed w/ Hinged Sash - 85 Option Triple Glazed w/ Take Out Sash - 95 Option **Dual Glazed Sash Options** N11-88 N11-89 1/4" Glazing 9/16" Glazing shown w/ optional 5/8" blinds shown w/ optional 1" blinds (5/8" blinds optional) SCALE 6"=1'-0"

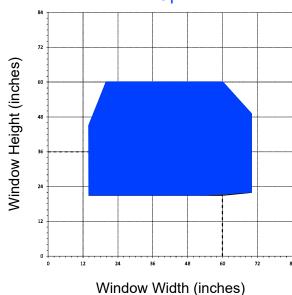
AAMA Gateway Size



Window Width (inches)

Projected In / Out with Four

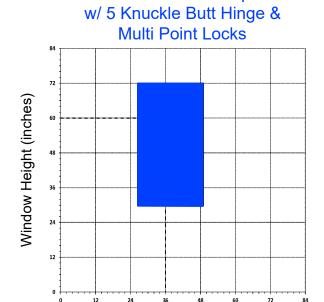
Projected Out with Pivot Shoe Roto-Operator



- Dashed line represents the gateway size window as tested by AAMA.
- All vent sizes are based upon 1" Insulated glass consisting of ¼" glass -½" air -½" glass.
- Any vent size outside of the AAMA Gateway tested size may have reduced performance.
- Chart assumes the window has been installed in a properly prepared opening by a qualified installer
- Individual job criteria such as: other glazing materials, specified wind load, and specific operating hardware; may enhance or restrict the chart.
- Minimum vent size is 10" x 21" with standard cam locks and 4-bar hinges.
- The chart is a general guideline for projected vent sizing, anything on the edge or outside of the range will need to be reviewed by Winco Engineering.

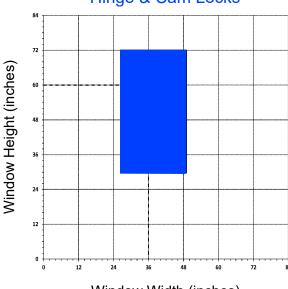


AAMA Gateway Size



Casement with Roto-Operator

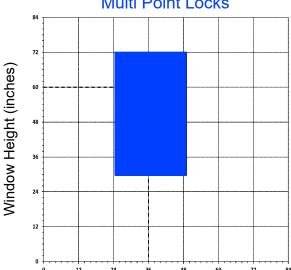




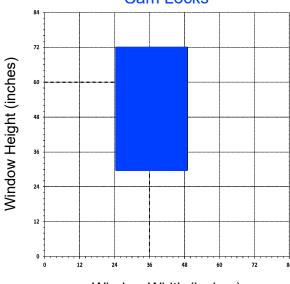
Window Width (inches)

Casement with Concealed Four Bar Casement Arm & Multi Point Locks

Window Width (inches)



Casement with Concealed Four Bar Casement Arm & Cam Locks



Window Width (inches)

Window Width (inches)

- Dashed line represents the gateway size window as tested by AAMA.
- All vent sizes are based upon 1" Insulated glass consisting of $\frac{1}{4}$ " glass - $\frac{1}{2}$ " air - $\frac{1}{4}$ " glass.
- Any vent size outside of the AAMA Gateway tested size may have reduced performance.
- Chart assumes the window has been installed in a properly prepared opening by a qualified
- Individual job criteria such as: other glazing materials, specified wind load, and specific operating hardware; may enhance or restrict the chart.
- Minimum vent size is 24-3/8" x 29-3/8" with standard cam locks and 4-bar hinges.
- The chart is a general guideline for projected vent sizing, anything on the edge or outside of the range will need to be reviewed by Winco Engineering.

© WINCO WINDOW COMPANY, INC. 2021

WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

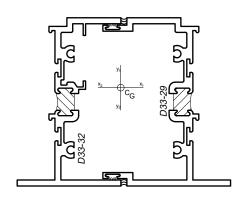
3350 Series 3-1/2" Thermal Fixed, Casement & Projected Windows Product Details - Vertical Stack - D33-32 / D33-29

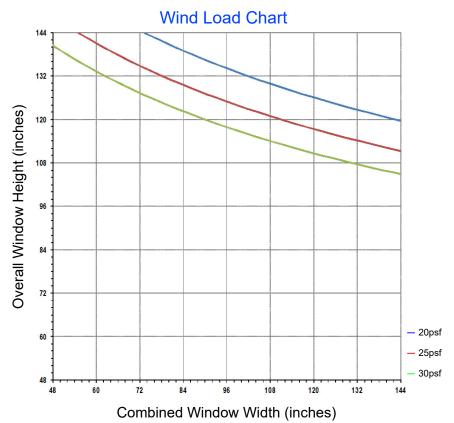
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

Combined Properties

	X-X	Y-Y
1	3.7823 in ⁴	0.5260 in ⁴
S	2.0059 in ³	0.4027 in ³

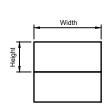
Maximum area = 40 ft² Maximum Total Unit Weight must not exceed 500 lbs.

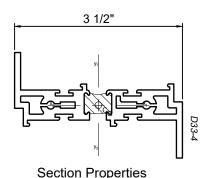




This chart can be used as a guideline for the preliminary structural evaluation of the mullion/stack shown. The chart is based on conservative engineering practices and the minimum result from either L/175 Deflection, $\frac{3}{4}$ " deflection, or 15 ksi outer fiber stress. The chart reflects the structural strength of 2 continuous window jambs running the full height of the opening. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- Any vent width exceeds 60".
- Window exceeds the maximum size shown.
- Window has multiple rails (>3).

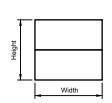




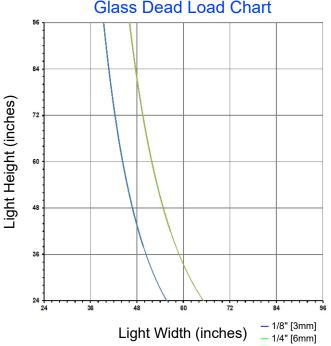
X-X Y-Y I 1.9659in⁴ 0.1633in⁴

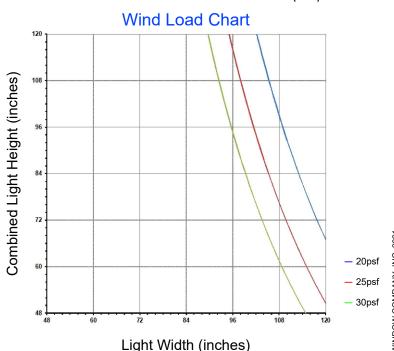
1.1222 in³

S



 $0.1486 \, \text{in}^3$



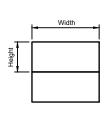


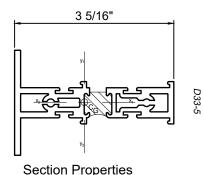
This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on $\frac{1}{4}$ " - $\frac{1}{4}$ " I.G. and 0.090" deflection at $\frac{1}{4}$ and $\frac{1}{8}$ point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, $\frac{3}{4}$ " deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

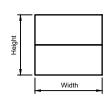
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

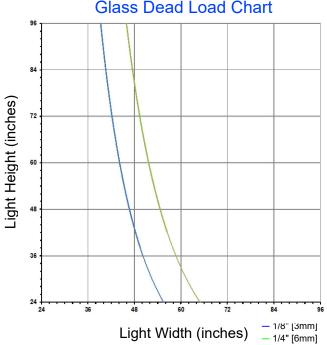


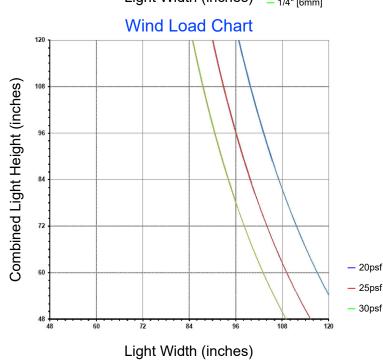




		•
	X-X	Y-Y
Ι	1.6615 in ⁴	0.1613in ⁴
S	0.8917 in ³	0.1470 in ³

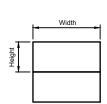


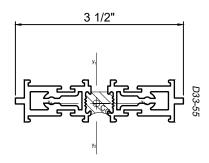




This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on $\frac{1}{4}$ " - $\frac{1}{2}$ " - $\frac{1}{4}$ " I.G. and 0.090" deflection at $\frac{1}{4}$ and $\frac{1}{6}$ point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, $\frac{3}{4}$ " deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

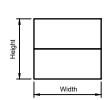
- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

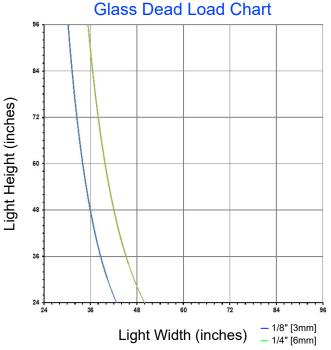


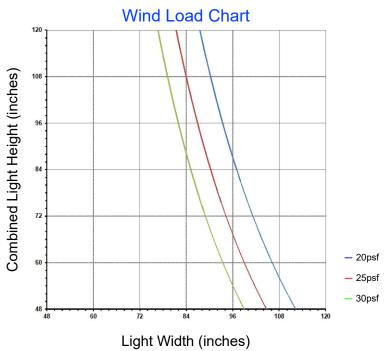


Section Properties

	X-X	Y-Y
I	1.2175in ⁴	0.0566 in ⁴
S	0.6957 in ³	0.1291 in ³







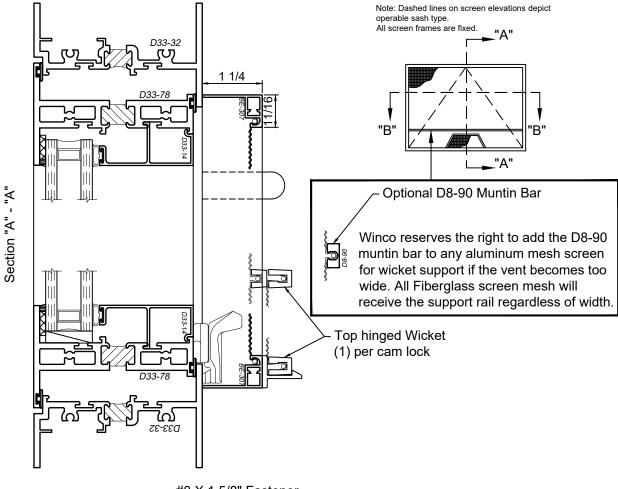
This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on $\frac{1}{4}$ " - $\frac{1}{4}$ " I.G. and 0.090" deflection at $\frac{1}{4}$ and $\frac{1}{8}$ point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, $\frac{3}{4}$ " deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

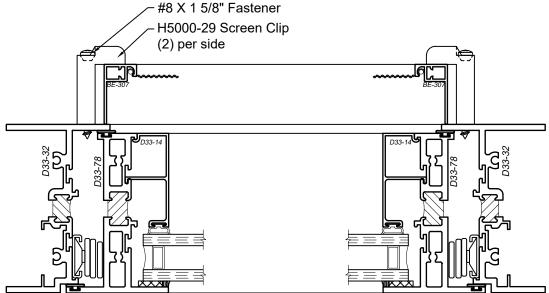
- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.

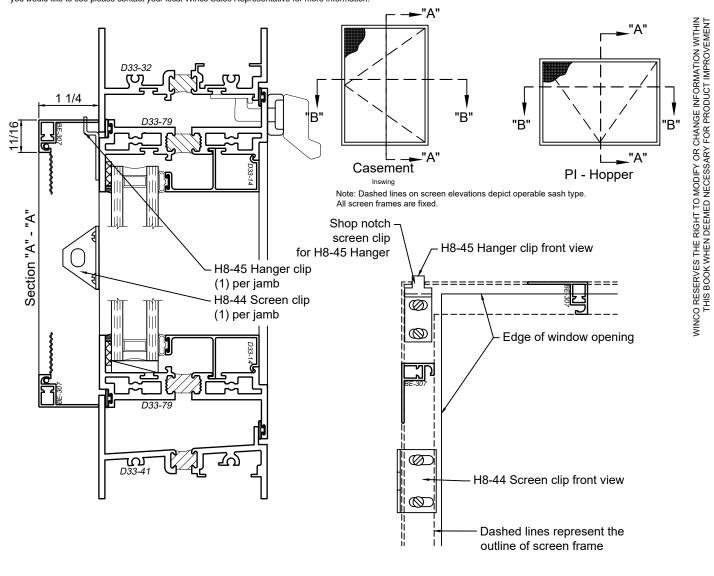


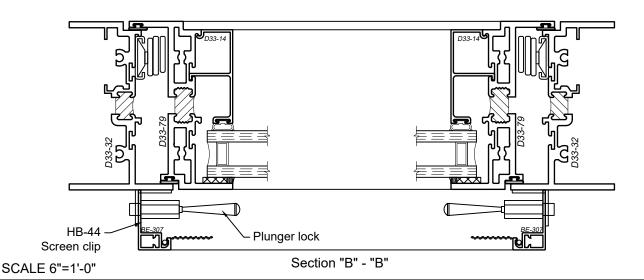




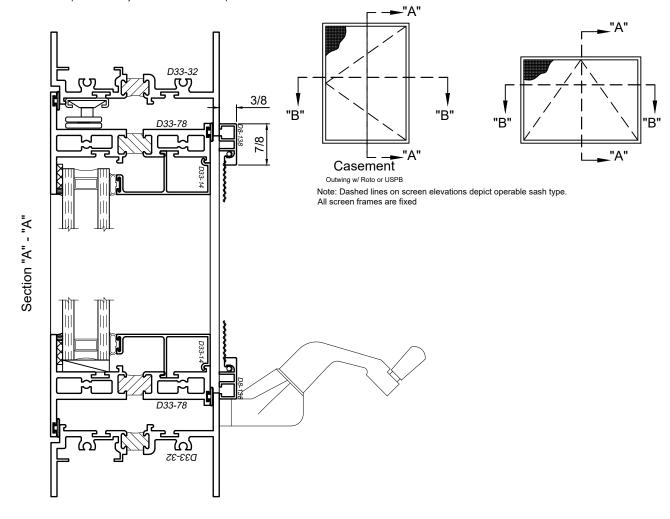
Section "B" - "B"

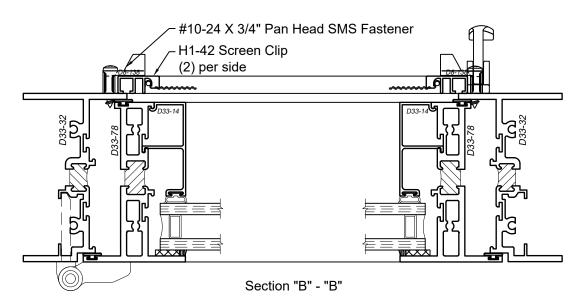
Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.





Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.



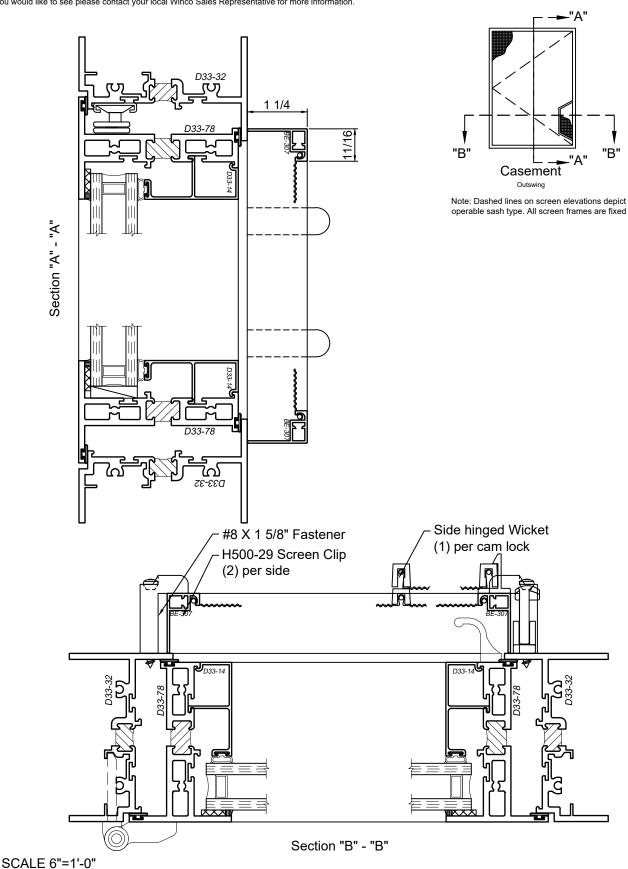


SCALE 6"=1'-0"

© WINCO WINDOW COMPANY, INC. 2021

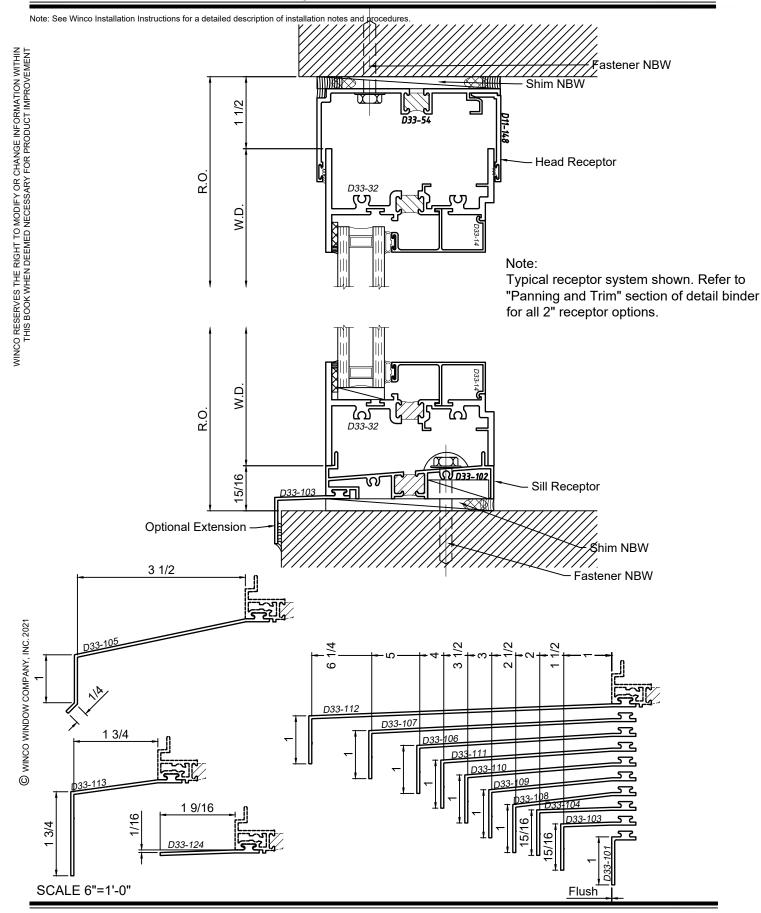
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.

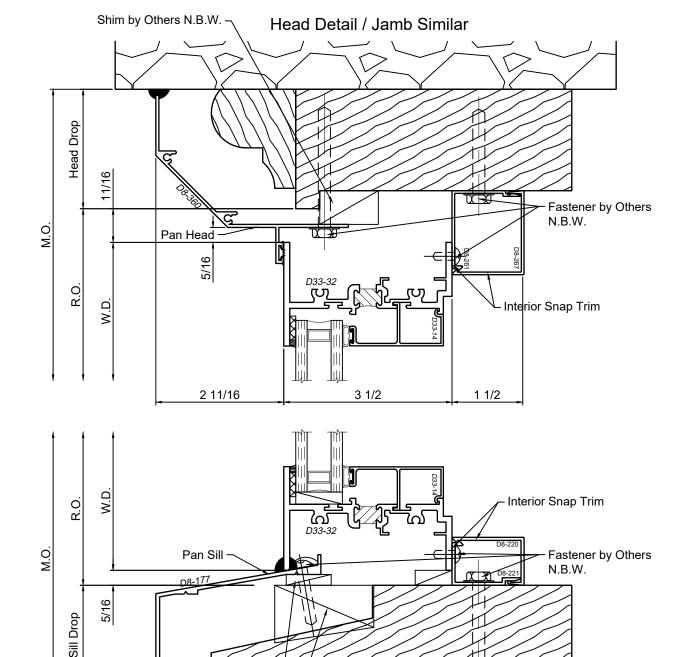


WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

3350 Series 3-1/2" Thermal Fixed, Casement & Projected Windows Product Details - Trim - Receptor Installation



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



Note: Typical panning system shown. Refer to "Panning and Trim" section of detail binder for all panning and interior snap trim options

SCALE 6"=1'-0"

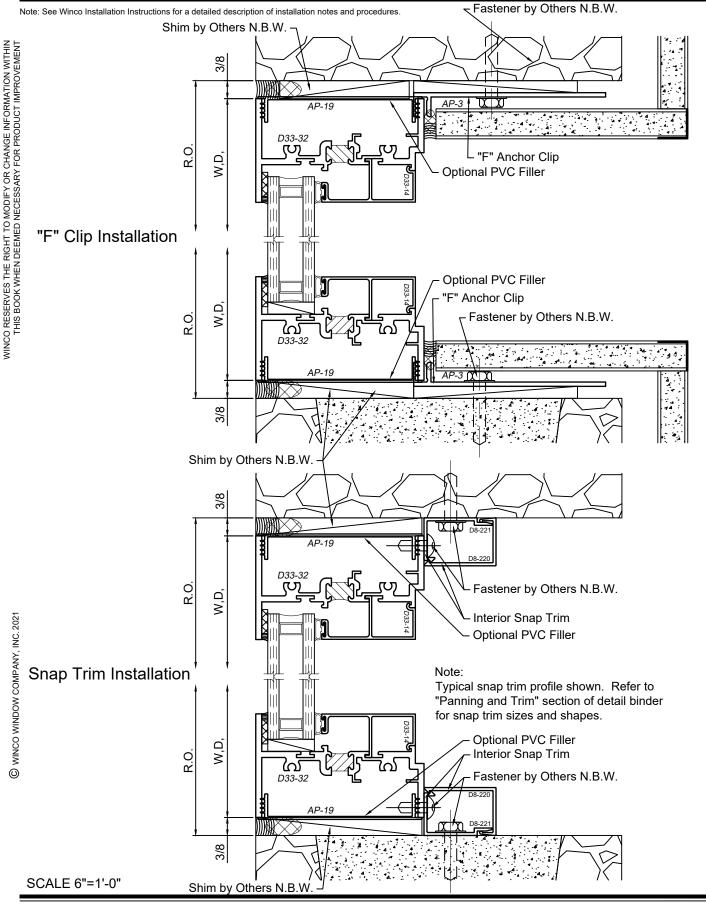
Shim by Others N.B.W.

© WINCO WINDOW COMPANY, INC. 2021

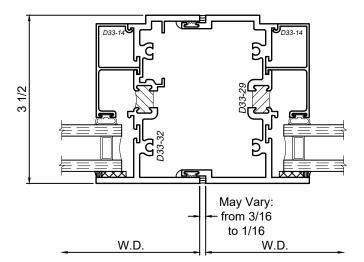
WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

Sill Detail

3350 Series 3-1/2" Thermal Fixed, Casement & Projected Windows Product Details - Trim - F-Anchor and Snap Trim Installation

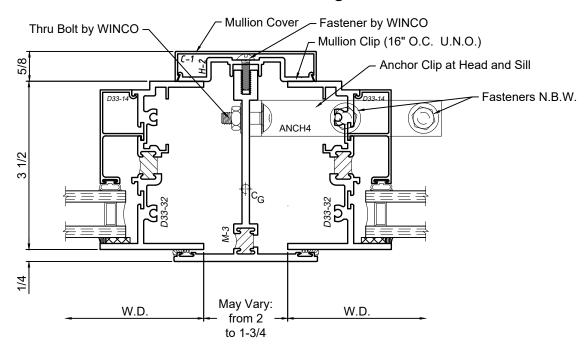


Typical Side Stack Framing

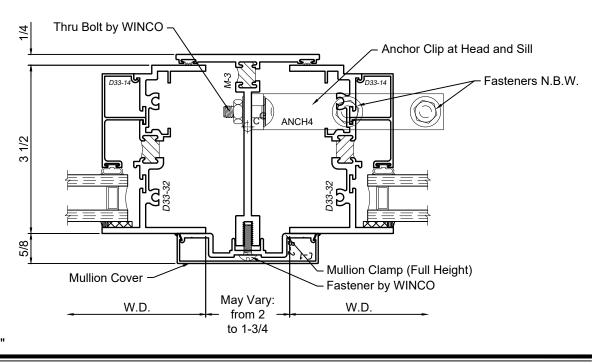


WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

M-3 Mullion set from Building Interior

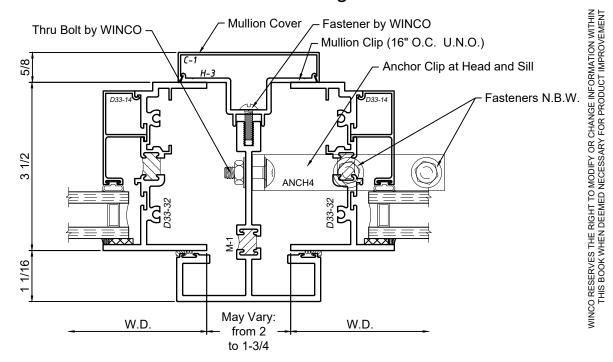


M-3 Mullion set from Building Exterior

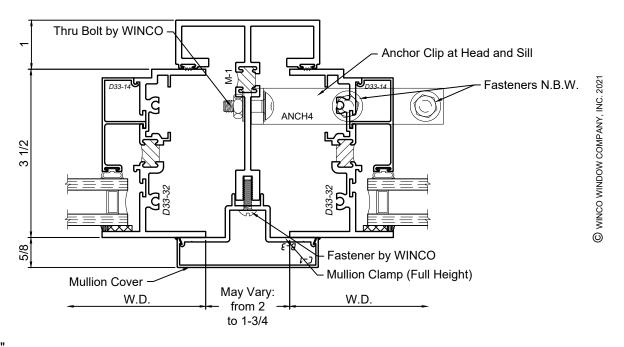




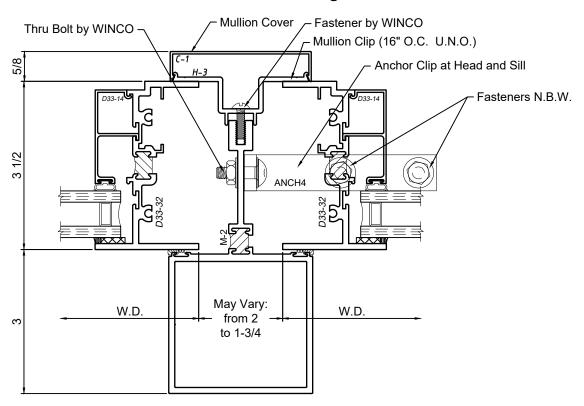
M-1 Mullion set from Building Interior



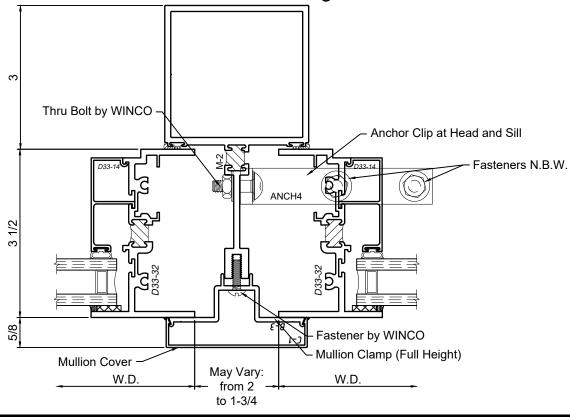
M-1 Mullion set from Building Exterior



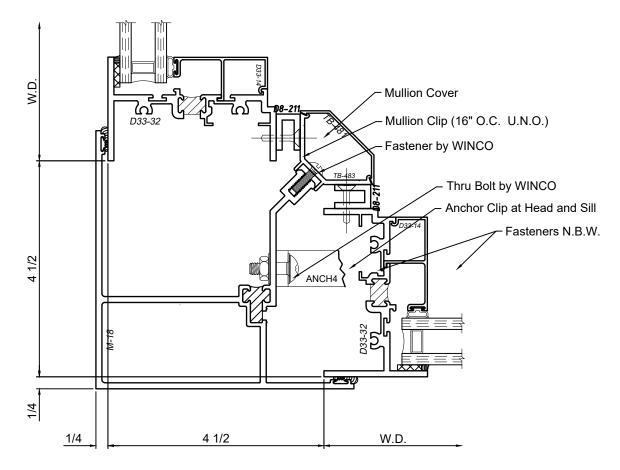
M-2 Mullion set from Building Interior



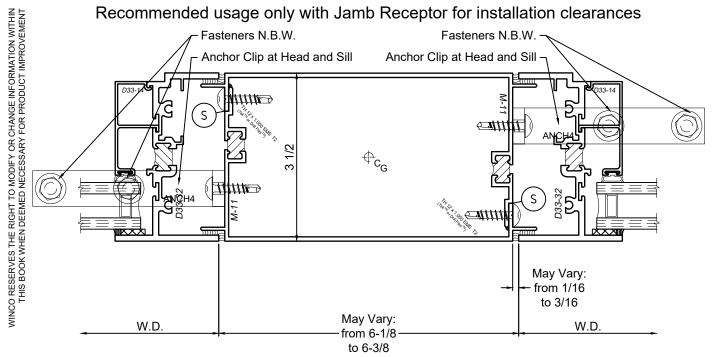
M-2 Mullion set from Building Exterior



3350 /T /7



M-11 Mullion



WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS ROOK WHEN DEEMED NECESSARY FOR PRODICT IMPROVEMENT

This page is purposely left blank

© WINCO WINDOW COMPANY, INC. 2021