



Projection Windows



Feature Window Selection Guide



Simple or elegant, the focal point of your home



Picture window with mulled double-hung units, with & without colonial grids



Three-section horizontal sliding window



Three-section casement window



Four-section casement window with optional colonial grids



Five-section casement window



Expand any room in your home with custom bay windows



Double-hung bay with fascia extension to soffit & with shingled hip style roof





*Double-hung bay with Real Copper
Hip Style Roof*



*Double-hung bay with Real Copper
Concave Style Roof*

For a clean, unobstructed view...consider the casement bay style



Casement bays with & without colonial grids





*Casement bay with Real Copper Hip
Style Roof*



*Casement bay with Real Copper
Concave Style Roof*

Classic four section bay with real copper hip style roof



Three-section bow styles are a perfect solution for narrow window openings



Three-section casement bow, with & without colonial grids



Enhance your home with the graceful curves of a custom bow window



Four section birch bow & five section oak bow with colonial red aluminum hip style roof



Classic 90 Degree Box & Bump-Out Bay Windows~ Ideal for Plants & Flowers

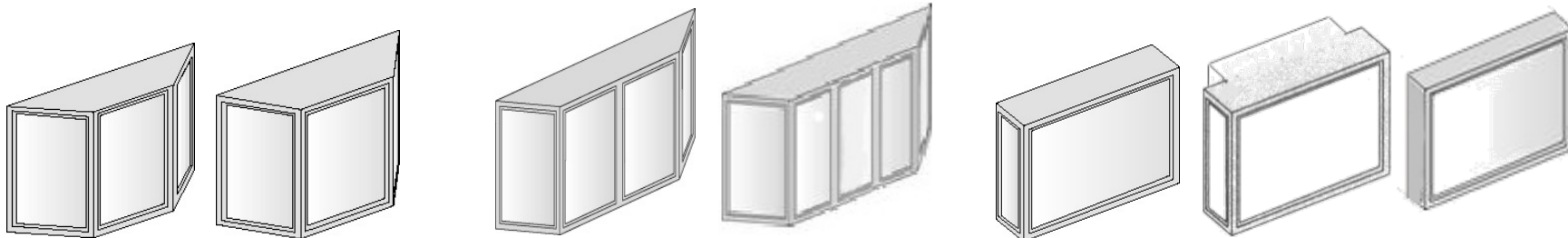


New Bay Style! Two-Lite 45°, 60° & 90° Two-Lite V Bay



Standard Frame Styles

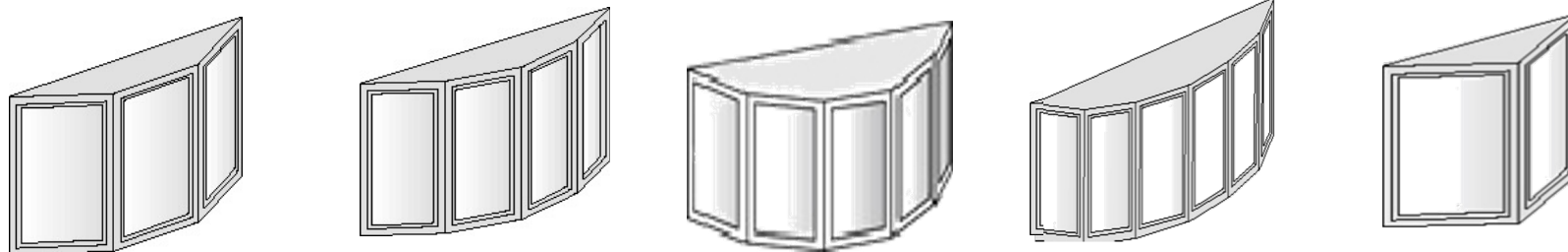
- ✓ **Custom Sized** to every 1/16" increment –
- ✓ **Custom Designed** in a variety of Styles to meet the customers needs, desires and most the most difficult job-site requirements.



15°, 30° & 45° Three-Lite Bay

15°, 30° & 45° Four & Five-Lite Bay

90° Standard Box, Hat Style Box & Bump-Out Bay



15°, 30° & 45° Three-Lite Bow

10° & 15° Four-Lite Bow

10° & 15° Five-Lite Bow

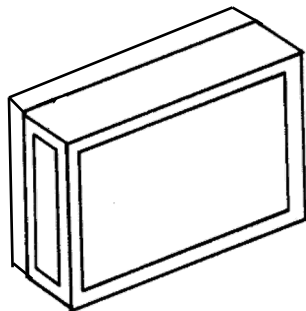
10° & 15° Six-Lite Bow

45°, 60° & 90° V Bay



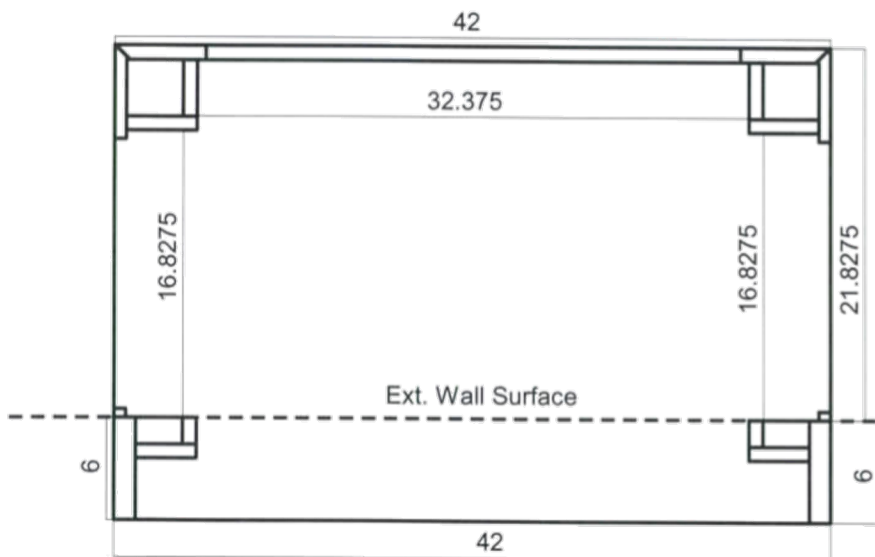
90° Box Bay Styles

Standard Box Bay

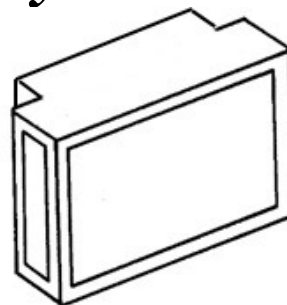


Center Window Opening Size Deductions

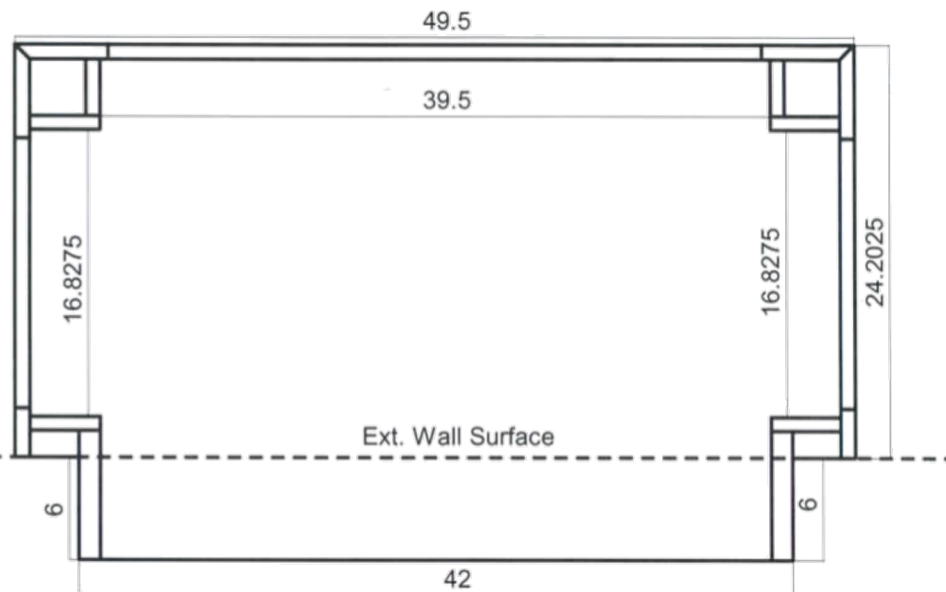
Deduct 9 $\frac{3}{4}$ " from Frame Width



Hat Style Box Bay



Deduct 2 $\frac{1}{2}$ " from Frame Width



The Flanker Window Openings are “Outside” of the window opening on Hat Styles.

***Hat Style Box Bays provide 7 $\frac{1}{2}$ ” of additional
Picture Window Glass Viewing Area!***

Typical Competition's Head, Seat & Side Jamb Construction -

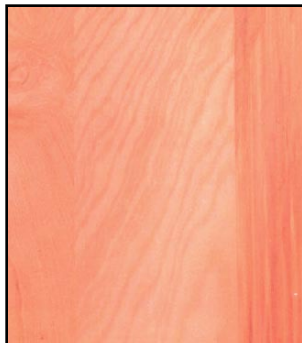
- ✓ $\frac{3}{4}$ " Hardwood Plywood with an insulating value of less than R-1!
- ✓ Very Cold if not insulated properly during installation
- ✓ Usually Shop or B Grade Hardwood Veneer
 - Sheets commonly include several seams, typically not Book Matched
 - Sheets may contain up to six $\frac{1}{4}$ " to $\frac{1}{2}$ " knots and a variety of other flaws
 - Glue-Lines could be visible between seams



Vine Marks



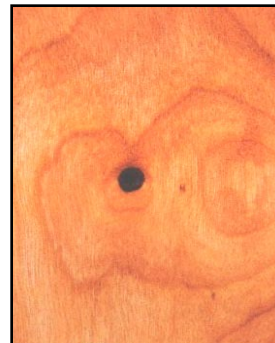
Non-Book Matched



Mineral Streaks



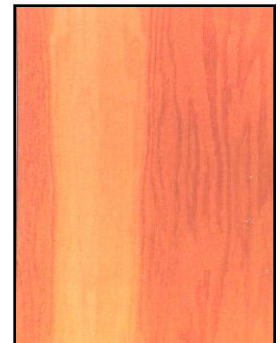
$\frac{1}{4}$ " – $\frac{1}{2}$ " Knots



Rough Grain



Sap Wood





1-1/4" Hardwood Veneer

- ✓ 67% Thicker & Stronger than the Competition's $\frac{3}{4}$ " design
- ✓ Hand-Selected, A-Grade Oak & Birch/Maple Hardwood Veneers
- ✓ If Seamed, seams are Book-Matched for Graining and Color match.
- ✓ Normally contains No Knots, knots would be Pin Knot less than $\frac{3}{32}$ "
- ✓ No Glue Lines.

Select White Birch



Red Oak





Pre-Insulated Super Seats

When Efficiency Matters!

Standard R-9 Insulated Seat



- ✓ Unique Layered Design - Bottom surface utilizes $\frac{3}{4}$ " exterior grade plywood, the core features 1" *high-density Polyisocyanurate* insulator board and both are attached to the 1-1/4" hardwood veneer.
- ✓ Standard Insulated Seats are 3" thick and provide an **R 9.0 Insulating Value!**

Deluxe R-21 Insulated Seat



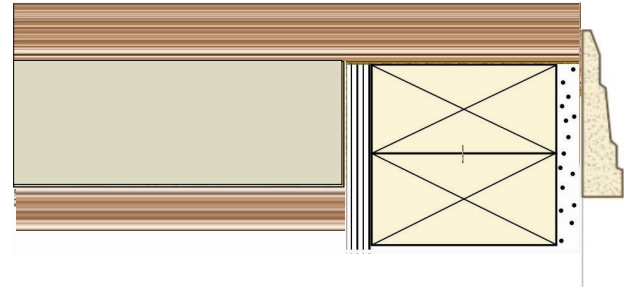
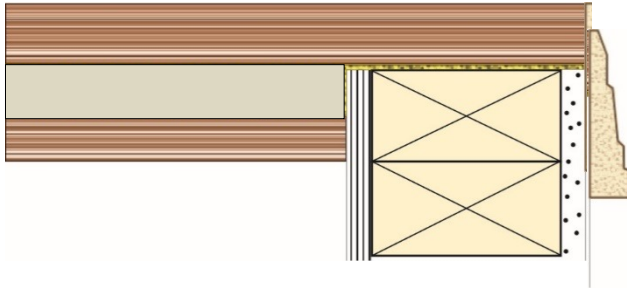
- ✓ Deluxe Insulated Seats feature a 3" *high-density Polyisocyanurate* insulator core and a 5" total seat thickness.
- ✓ Deluxe Insulated Seats boast an R 21 Insulating Value! **The highest factory-supplied R-Value in the industry!**



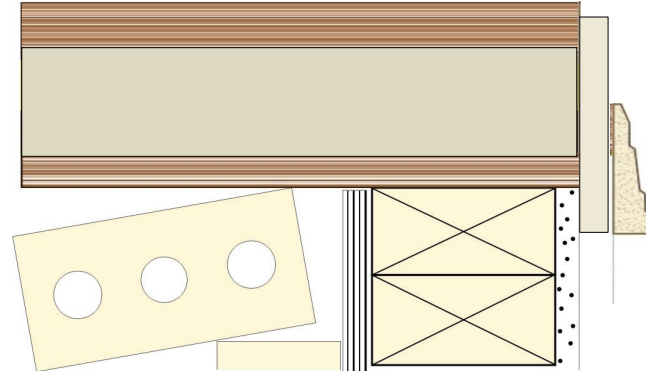
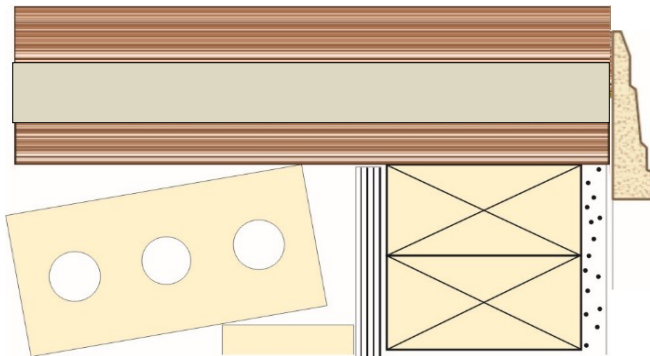
R-9 & R-21 Insulated Super Seat Styles

Available in Three Styles to best meet the installation requirements

“Stop at the Jamb” – Most common style, the insulation stops at the outside wall or predetermined distance from interior. Thus providing insulation where needed without reducing the overall interior height.



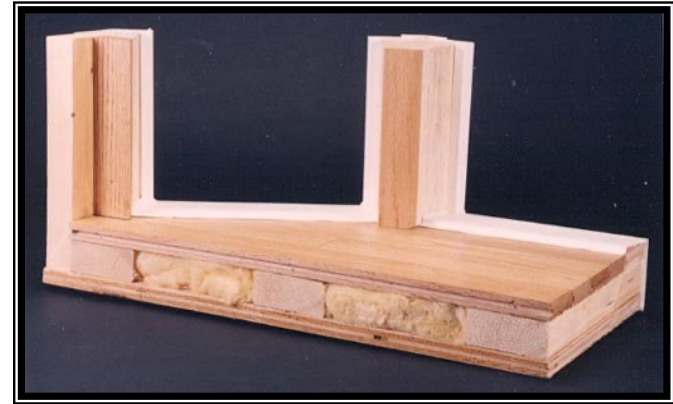
“Entire Seat” – the insulation is completed on the entire seat, used when there is an obstruction at the sill or when shortening the window height is desired.



Series 1000 Elite Bay & Bow Windows

Extended Sizes – Frame Widths in excess of 144”

Frame Construction – Solid Hardwood Design, featuring Oak or Maple Interior
Head & Seat construction simulates an *Insulated Studded House Wall*.



- ✓ Interior surfaces are completed with *Tongue & Groove Hardwood Flooring*.
- ✓ 1-1/2” x 3-1/2” Timberstrand Reinforcement Ribs
- ✓ 3/4” Exterior Grade Plywood outer surfaces
- ✓ 1-1/2” Center Cavity is filled with High-Density Fiberglass Insulation, providing an R-9 Insulating Value in both the Head and Seat components!

*Note: Floor Planking can contract & expand with varying humidity changes.
The expansion & contraction can cause separation between the flooring.*

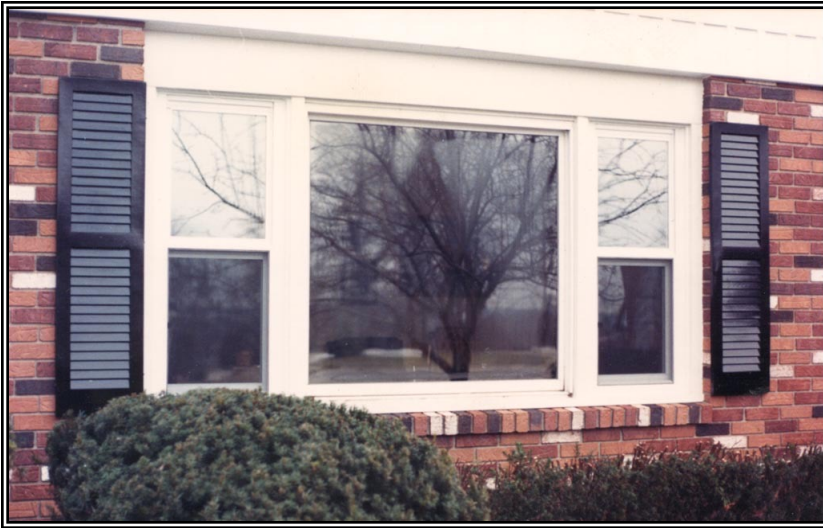
This model not designed for a painted interior!



Series 1000

Vertical Mullions –

Standard Window Setting



Simply attaches windows together

Bay or Bow Window



Expected to add Strength & Support

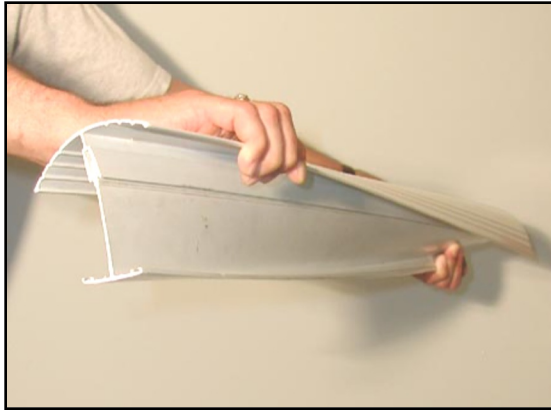
Typical Vinyl System Snap-Together Vinyl Mullion

Vinyl Mullion Benefits –

- Good Insulator –
- Maintenance Free – Solid color, no painting
- Inexpensive – One shape can be used for all styles

Vinyl Mullion Detriments –

- Provides minimal strength, Bay or Bow can Sag or Drop if not supported properly.



- Extreme Expansion and Contraction cause sealants to separate.
- Placement creates a Flat Horizontal Surface - **Water Leaks!**



Unique Solid Wood Mullion - *Slim Line Design!*

Timberstrand® Laminated Structural Lumber

- ✓ Timberstrand does not release or absorb moisture and will not warp, twist or bow.
- ✓ **25% Stronger than Ordinary Lumber!**
Custom Capabilities, available on every even degree!
- ✓ **Overlap Design** - Mullion Caps Overlap Seat, water runs down and off, not back and in.
- ✓ **Lag Bolt Construction** – Mullions are attached to Head & Seat with 6” Lag Bolts. **Superior Strength and Support, Components are Replaceable**
- ✓ Coordinating **Hardwood Interior Trim Cap** – enhances beauty as compared to an all white vinyl bay window.



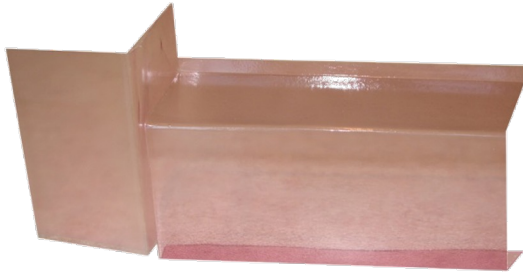
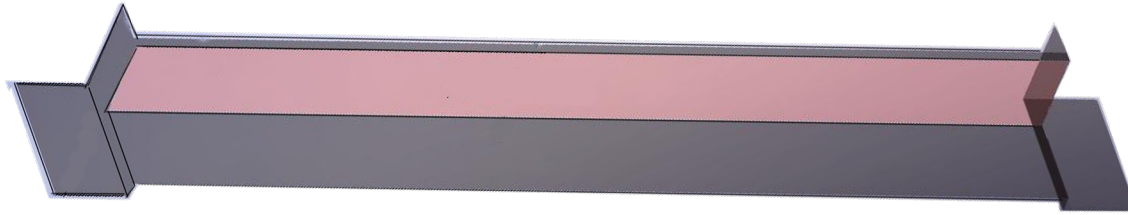
Timberstrand® Mullion Lag Bolt Construction Competition's All White Interior Hardwood Mull Caps, added Beauty

Internal Panning System

The Ultimate Protection against Water Infiltration!

PVC Panning System acts as an Interior Weatherization Barrier.

Prevents water from infiltrating either around or through replacement windows in each opening of bay or bow frame



Profiles include a variety of Extension Legs & Tabs that cover all of the wood components, creating an interior gutter system



Left & right profiles are seamed together & installed in each opening. Weatherization Tape is added to Up Legs sealing panning to mullions.



Windows can be installed in Plant or on job site after installation of frame into the house wall.

Hardwood Interior Casing

Variety of Elegant Hardwood Casing is available in Oak or Maple
to coordinate with the Bay or Bow Window frame type

Interior Casing & Decorative Trim Packages will Dramatically Enhance the
Interior of Every Feature Window!



2-1/4" Colonial Style



3-1/2" Colonial Style



6" Stacked Colonial Style



Interior Casing & Decorative Trim

Enhancing the Beauty of Every Feature Window



Package A - 2 ¼" Colonial Style Casing Perimeter



Package B - 2 ¼" Colonial Style Casing with Sill & Apron



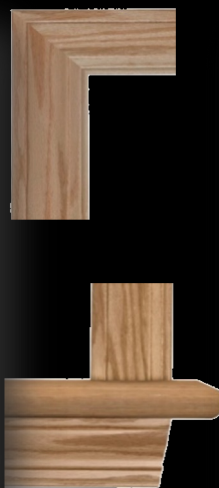
Package C - 2 ¼" Colonial Style Casing, Rosettes, Sill & Apron



Package D - 3 ½" Colonial Style Casing Perimeter



Package E - 3 1/2" Colonial Casing with Sill & Apron



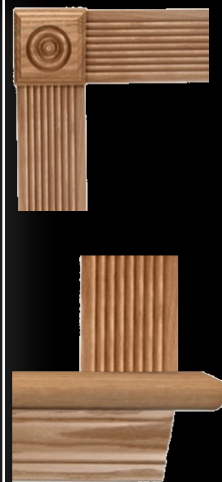
Package F - 3 1/2" Colonial Casing, Rosettes, Sill & Apron



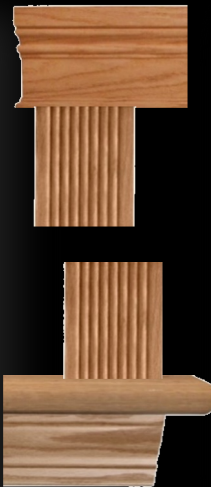
Package G - 3 1/2" Colonial Casing, Crown Header, Sill & Apron



Package H - 3 1/2" Beaded Casing, Rosettes, Sill & Apron



Package I - 3 1/2" Beaded Casing, Crown Header, Sill & Apron



Package J - 3 1/2" Fluted Style Casing, Rosettes, Sill & Apron



Package K - 3 1/2" Fluted Style Casing, Crown Header, Sill & Apron



Package L - 6" Colonial Stacked Casing
Package M - Bottom Face-Boards in widths from 3-1/2" to 8"



Edge Banding

Finishes the Front Edge of the veneered plywood,
Enables the Interior Casing to be installed with a Reveal
Available in Oak and Birch



Veneer not Edge Banded



Veneer with Edge Banding



Hot Glue Edge Banding Machine

Reveal



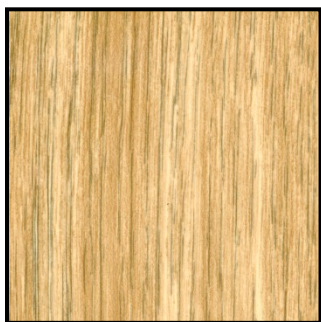
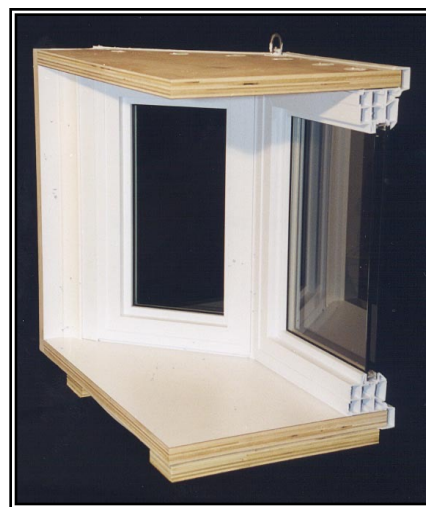
Factory Finished Interiors!

- ✓ Enjoy the benefit of not having to Stain, Paint or Seal your new window!
- ✓ Pre-Finishing includes staining all interior wood and sealing with *furniture-grade* Pre-Catalyzed Lacquer & Poly-Crylic topcoats with solid-color stains.
- ✓ Stain options include all interior wood grain and solid colors. Custom stains are available to coordinate with your existing casing & trim.
- ✓ Factory Finish package includes Touch-Up Stain & Sealer, as well as a color-coordinated pencil stick used for filling nail holes.



Plastic Laminate Interiors – The Perfect Solution for Displaying Plants!

- ✓ Totally Maintenance Free, Scratch Resistant & Impervious to Water
- ✓ Standard Colors – Natural Oak, Dark Oak, Cherry, White & Beige
- ✓ Plastic Laminate Interior is available in Two Designs –
 - Laminated Seat Only – Recommended Style
 - Laminated Seat, Head & Side Jambs (consider ordering Misc. Stained Components)



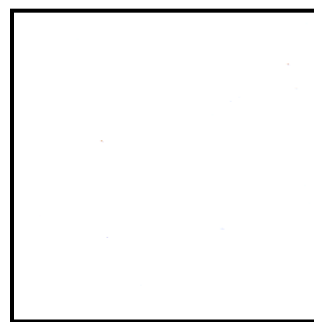
Natural Oak



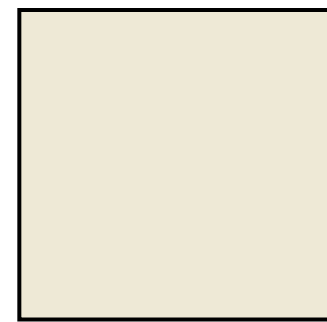
Dark Oak



Cherry



White



Beige

Avonite Solid-Surface Seats – Add Beauty & Durability!

- ✓ ¼" Solid-Surface Seat is scratch resistant & impervious to water
- ✓ Ideal for displaying plants and flowers
- ✓ Casing installation provides an ***Inlaid*** or ***Insert*** appearance.
- ✓ Cameo White & Three Decorator Colors



Inlaid Style



Insert Style



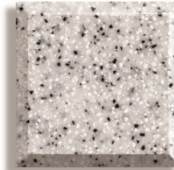
Cameo White



Beach



Sandstone



Dusk

Custom Seat Cushions – Enhanced Beauty & Creative Seating Area!

- ✓ Custom cushions designed to the shape of your bay or bow window seat.
- ✓ Variety of fabrics, patterns and colors. Seat cushions are also available with customer supplying their own fabric, COM pricing category.
- ✓ Standard cushions include 3” high-density foam and are also available in either 2” or 4” thickness.
- ✓ Bay or bow frame can also be ordered with a 2”, 3” or 4” ***Build-Up*** under the area where windows are installed, raising the windows up above the seat cushion.



Low Voltage Recessed Lighting!



- ✓ Enhance the beauty through direct lighting.
- ✓ Low Profile lights are easy to install, holes are pre-cut in bay/bow head.
- ✓ Components include Lighting Fixtures, Halogen Bulbs, Wiring Harnesses with "Plug-In Interlocking Connectors and Transformer.
- ✓ Available in 3 finishes – Brushed Nickel, Polished Brass and White



Brushed Nickel



Polished Brass



White

Vinyl Clad Exterior –

- ✓ Provides Years of Maintenance Free Performance
- ✓ Solid vinyl colors include White & Beige
- ✓ Custom Color availability with Painted Vinyl Exteriors



Coated Vinyl Exteriors -



Painted Vinyl Exterior to coordinate with all Energy King Decorator Window Colors!

Maintenance Free Exterior with Superior Protection against Scratching & Fading



Support Systems

Adjustable, Turnbuckle Cable Hanging System



- ✓ Superior Support without unsightly External Knee Braces
- ✓ Adjustable Turnbuckle attaches to 1/8" Steel Aviator Cable, connects to window header or rafters with 3" Lag Bolts.
- ✓ Working Load Limit of 600 lbs. per Hanging Support!
- ✓ Designed to work in conjunction with Roof Systems

Pre-finished External Knee Braces

Standard or Deluxe Styles



Standard Style



Deluxe Style

- ✓ Support when hanging system is not applicable
- ✓ Bay/Bow or Garden Window Installations!
- ✓ Eliminates job-site construction of knee braces
- ✓ Factory Painted- available in all exterior colors
- ✓ Pre-sized for each bay or bow window
- ✓ Sizes in 2" increments, ranging from 6" to 24"
- ✓ Includes all installation screws & snap on vinyl caps in white or beige or brown.



Hip & Concave Style Wood Roofs

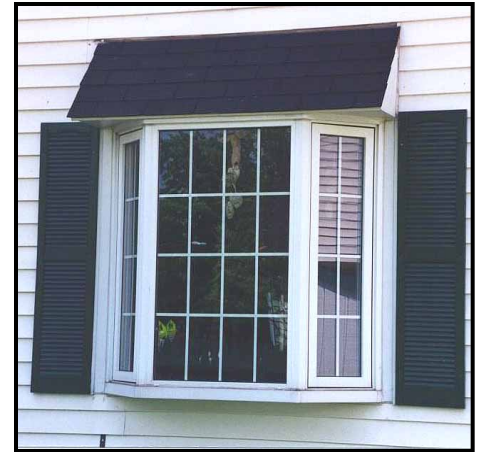
- Typically used with installations that have more than 12" between Frame and Overhang. Roof is also needed when Projection exceeds the Overhang Depth.
- Facetted Hip Style Roof *adds beauty* to the windows exterior appearance. Roofs built on jobsite typically are a "Shed" style and may take away from the windows beauty.



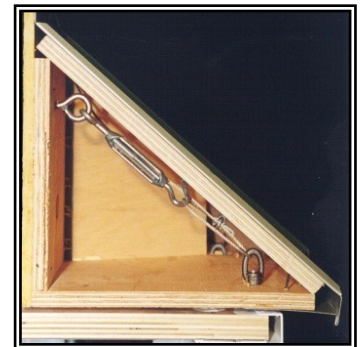
Hip Style Roof



Typical "Box or Shed Style Roof, built on jobsite



- Reduces Roof construction and installation time from 2 to 3 hours to typically less than 1 hour!
- Standard 2" Overhang with Hip styles, 3 ½" Overhang Concave Styles
- Custom Roof Back Heights at no additional cost!
- Roof is notched to accommodate hanging support system.



Roof Clad Kits – The Perfect Partner for the Hip & Concave Style Wood Roof!



Hip Style



Concave Style

- Clad kits are available in Real Copper & 28 Painted Aluminum Decorator Colors.
 - ✓ **16 ounce Real Copper** – Natural Copper turns Patina during its natural aging process. **Incralac** (Protective Clear Top-Coat) retards the Patina process, keeping the “New Penny” look longer than standard copper. The copper can be polished and the Incralac can be reapplied as desired to keep shiny appearance.
 - ✓ **Painted Aluminum** – 32 gauge commercial weight aluminum features a premium Kynar 500 finish, providing years of maintenance free service.
 - ✓ **Classic Copper** color features a simulated copper appearance without the upkeep needed to keep real copper shiny.
 - ✓ **Counter Flashing** is available for masonry installations

Presenting metal roof systems helps sell more standard roofs by price conditioning.

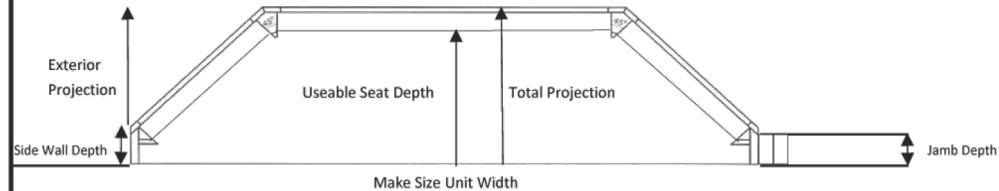
Bay Window Styles

Projection Diagram & Specifications

Exterior Projection - Seat Depth projecting out past the Exterior house wall or side wall of frame.

Total Projection - Total Seat Depth from the interior edge to the deepest exterior edge
Exterior Projection plus Jamb Depth = Total Projection

Useable Seat Depth - Approximate depth from the interior edge of seat to the interior window stops.
Total Projection less 5" = Approximate Useable Seat Depth



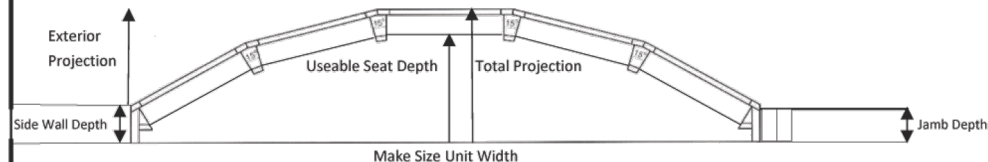
Bow Window Styles

Projection Diagram & Specifications

Exterior Projection - Seat Depth projecting out past the Exterior house wall or side wall of frame.

Total Projection - Total Seat Depth from the interior edge to the deepest exterior edge
Exterior Projection plus Jamb Depth = Total Projection

Useable Seat Depth - Approximate depth from the interior edge of seat to the interior window stops.
Total Projection less 5" = Approximate Useable Seat Depth



Minimum Possible Jamb Depth by Style & Degree - Series 5000

Mullion Degree	Bay/3-Lite Bow	4-Lite Bow	5-Lite Bow	6-Lite Bow	7-Lite Bow
5	4 9/16	4 1/2	4 3/8	4 5/16	4 3/16
6	4 9/16	4 7/16	4 5/16	4 3/16	4 1/16
7	4 1/2	4 3/8	4 1/4	4 1/8	3 15/16
8	4 1/2	4 5/16	4 3/16	4	3 3/4
9	4 7/16	4 1/4	4 1/16	3 7/8	3 5/8
10	4 3/8	4 3/16	4	3 11/16	3 7/16
11	4 3/8	4 1/8	3 7/8	3 9/16	3 3/16
12	4 5/16	4 1/16	3 3/4	3 7/16	3
13	4 5/16	4	3 11/16	3 1/4	2 3/4
14	4 1/4	3 15/16	3 9/16	3 1/16	2 1/2
15	4 3/16	3 7/8	3 7/16	2 7/8	2 1/4
16	4 3/16	3 3/4	3 1/4	2 11/16	
17	4 1/8	3 11/16	3 1/8	2 7/16	
18	4 1/16	3 5/8	3	2 1/4	
19	4 1/16	3 1/2	2 13/16		
20	4	3 7/16	2 11/16		
21	3 15/16	3 5/16	2 1/2		
22	3 7/8	3 3/16	2 5/16		
23	3 13/16	3 1/8			
24	3 3/4	3			
25	3 11/16	2 7/8			
26	3 11/16	2 3/4			
27	3 5/8	2 5/8			
28	3 9/16	2 1/2			
29	3 1/2	2 3/8			
30	3 7/16	2 1/4			
31	3 3/8				
32	3 1/4				
33	3 3/16				
34	3 1/8				
35	3 1/16				
36	3				
37	2 15/16				
38	2 13/16				
39	2 3/4				
40	2 11/16				
41	2 9/16				
42	2 1/2				
43	2 7/16				
44	2 5/16				
45	2 1/4				