Spencer Walcott Mathews is regarded as the founding "brother" of Mathews Brothers. In 1854, as part owner of a sash and blinds factory in Belfast, Maine, Spencer was joined by his brother, Noah. The two formed the N.M. and S.W. Mathews Co. Six years later, younger brother Sanford came aboard and they changed the name to Mathews & Co. In 1875, The Great Fire of Belfast destroyed the factory, but the brothers rebuilt and reopened 70 days later under the name Mathews Brothers Company. Spencer Walcott Mathews was known for his attention to detail and for his love for his company and community. Today, we apply those same principles to the product line that proudly bears his name.

**WHATEVER YOUR BUDGET, WHATEVER YOUR STYLE**

Our products were created to stand strong against the elements, and against the test of time. The Spencer Walcott Family of vinyl windows and doors, for new construction, remodeling or replacement, are specifically designed to meet the discerning needs of architects, builders and homeowners, as well as the changing needs of the residential building industry. The result is and energy-efficient family fenestration products that feature aesthetically integrated window styles, strength and durability.

From new construction to remodeling to replacement, the Spencer Walcott windows and doors are designed to fit your project plans perfectly. You can count on each one to be durable, energy-efficient and secure.
**Peace of Mind**

For a lifetime of trouble-free performance, we have chosen a framing material composed of the highest quality PVC. It is formulated to withstand the harsh effects of weather and ultraviolet radiation, a material that resists chipping, peeling, cracking and fading. This environmentally safe compound exceeds all required materials standards for strength and color retention established by the American Architectural Manufacturers Association (AAMA).

Our unsurpassed Limited Lifetime Manufacturer’s Warranty* includes labor for the first five years providing you with total Peace of Mind.

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* Please refer to Spencer Walcott Vinyl Windows Limited Lifetime Manufacturer’s Warranty for complete details.
VERTICAL SLIDE - SINGLE/DOUBLE HUNG

**Double-Hung Features**

- Patented built-in ¾” J-channel is recessed into frame
- Deep pocketed head with compression seal weatherstrip
- Top & bottom sash interlock at meeting rails for added security & to minimize air infiltration
- ¾” insulating glass with Duralite® warm-edge technology
- Sloped sill drains water away from house

**Single-Hung Features**

- Patented built-in ¾” J-channel is recessed into frame, eliminating the cost of an add-on J-channel
- ¾” insulating glass with Duralite® warm-edge technology
- Integral finger lift on the operating sash for ease of movement

**Standard features**

- ¾” insulating glass with Duralite® warm-edge technology/Low-E glass(Argon gas fill).
- Integral nailing fin [new construction only] provides air and water seal around frame. (Frames come with integral nailing fin that can be easily removed for insert application.)
- Integral ¾” J-channel speeds installation.
- Fusion-welded frame and sash for added strength.
- Constant force balance system ensures easy sash operation.
- White interior and exterior frame and sash with color-matched hardware.
- Pre-sloped sills for water runoff.
- BetterVue® insect screen.

**Additional features**

- Non-corrosive hardware includes a lifetime of trouble-free performance, no matter what the environment.
- Cam-action lock action draws sashes closer for a tighter positive lock.
- Integral interlocking meeting rail provides additional security.

**Optional features**

- Desert Sand interior and exterior color with colored matched hardware.
- Equal glass size on sash emulate traditional wood appearance.
- Jamb covers for a neater interior appearance.
- Grilles available as Grilles Between Glass or Simulated Divided Lites
- J-channel cover
- ¾” Drywall return
- Extension Jambs
- Window Opening Control Device
- Exterior trim/casing
- Pediment Head (Rectangles only; not available for radius or polygon)
- Custom exterior color finishes

---

1 One pane Low-E glass and one pane clear glass.
2 See pages 14-15 for additional options.
3 Not available on Double Horizontal Slide or Awning.
Double-Hung Windows
Traditional, classic, durable — double-hungs give you all of that plus energy efficiency and peace of mind. Top and bottom sash operate smoothly allowing you to control air flow, and they both tilt-in for easy cleaning and care. Grilles can be added to further enhance the traditional look of your home.

Used singly, or factory mull ed with transoms or other fixed or hung units to add a dramatic accent to your home’s appearance, while providing a brighter, more open interior.

Single-Hung Windows
Our single-hung windows are built with a fixed top sash, while the lower sash moves up and down to allow ventilation.

In addition, the bottom sash conveniently tilts-in for easy cleaning.

Structural interlock at meeting rails provides an additional layer of protection and weather resistance.

Resource Center
- Installation Instructions
- Standard House Wrap
- Integrated Moisture Barrier
- Double Hung Operation
- Screen Removal/Replacement
- Double Hung WOC (Window Opening Control Device)

Single Hung/Double Hung
www.mathewsbrothers.com
Standard features
- ¾" insulating glass with Duralite® warm-edge technology Low-E glass[1] and argon gas fill
- Integral nailing fin [new construction only] (Frames come with integral nailing fin that can be easily removed for replacement purposes)
- Available with or without ¾" J-channel
- Fusion-welded frame for added strength and durability
- White interior and exterior color with color matched hardware
- Pre-sloped sills for water runoff
- BetterVue® insect screen (on operating units)

Additional features
- Casement sash opens completely[2], so windows can be cleaned easily from inside your home
- All components are corrosion resistant, providing years of trouble-free performance
- Multi-Point Locking System for the utmost security
- Three layers of weather-stripping ensure effective barrier to air and water penetration
- Top rated hardware system allows even the largest casements to be effortlessly and smoothly operated

Optional features[3]
- Desert Sand interior and exterior color
- Add-on J-channel
- Grilles available as Grilles Between Glass or Simulated Divided Lites
- Exterior trim/casing
- Pediment Head
- Custom exterior color finishes
- ¾" Drywall return
- Extension Jambs
- Window Opening Control Device[2]

1 One pane Low-E glass and one pane clear glass.
2 Unless egress hinge is used.
3 See pages 14-16 for additional options.
2 Not available on Double Horizontal Slide or Awning.
Casement Windows

With clean, contemporary architectural lines, casement windows offer 100% opening for maximum ventilation. By extending beyond the plane of the wall, casements catch passing breezes and channel them into the home.

Casement & Awnings are our most energy-efficient operating product unit, featuring ¾" insulating glass and a single lever multi-point locking system that keeps the sash tightly sealed in multiple locations. You'll be able to open and close your windows with ease, thanks to our smooth low gear operator. And, our sashes open completely (non-egress), so windows can be cleaned easily from inside your home. Our top rated hardware system allows even the largest casement to be effortlessly and smoothly operated.

A unique feature of our Casement units is the 1-⅜" False Meeting Rail, that emulates the lines of a Double Hung, while giving you the opening and egress of a Casement.

Awning Windows

An awning window is hinged at the top and opens out from the bottom allowing in fresh air, while keeping out the rain. Use alone or in combination with casement, picture, or other awnings.
You’ll find the horizontal sliders are the best value in our impressive line of new construction or replacement products. Because they don’t open into outdoor activities, our easy-glide sliders are especially recommended for high traffic areas, such as over a deck or walkway.

Horizontal slider windows are available in two lite (left, right, or dual venting) and three lite configurations (¼ - ½ - ¼ and ⅓ - ⅓ - ⅓).

**Standard features**
- ⅜” insulating glass with Duralite® warm-edge technology Low-E glass and argon gas fill
- Integral nailing fin [new construction only] (Frames come with integral nailing fin that can be easily removed for replacement purposes)
- Integral ¾” J-channel
- Fusion-welded frame and sash for added strength
- White interior and exterior color with color matched hardware
- BetterVue® insect screen

**Additional features**
- Two sets of Nylon glides evenly disperse the weight of the sash
- Glides travel on integral track system allowing for effortless fingertip operation
- Independent weep chambers on frame ensure effective water runoff
- Dual Sliders, both sashes lift out for easy cleaning

**Optional features**
- Desert Sand interior and exterior color with color matched hardware
- Grilles available as Grilles Between Glass
- J-channel cover
- Exterior trim/casing
- Pediment Head
- Custom exterior color finishes
- ⅜” Drywall return
- Extension Jambs
- Window Opening Control Device

1 One pane Low-E glass and one pane clear glass.
2 See pages 14-16 for additional options.
3 Not available on Double Horizontal Slide or Awning.
Available for new construction and replacement applications

PICTURE • TRANSOM • RADIUS • GEOMETRIC

Whether used alone or in combination with other window styles, picture windows add dramatic styling while bringing light into your home.

Transom units can be used alone, over another straight window or door, or under a shape.

Architectural Shapes
Shapes are available in two styles — straight and radius.

• Trapezoid
• Triangle
• Half-Round
• Quarter-Round
• Eyebrow

• Elliptical
• Extended Arch
• Oval
• Circle
• Octagon

Standard features
• ¾” insulating glass with Duralite warm-edge technology
• Low-E glass[1] and argon gas fill
• Integral nailing fin (new construction only) (Frames come with integral nailing fin that can be easily removed for replacement purposes)
• Integral ¾” J-channel
• White interior and exterior color

Additional features
• Independent weep chambers on frame ensure effective water runoff

Optional features[2]
• Desert Sand interior and exterior
• Grilles available as Grilles Between Glass or Simulated Divided Lites
• J-channel cover
• Exterior trim/casing[3]
• 2-½” Interior Colonial casing (arch/radius units only)
• Pediment Head
• Custom exterior color finishes
• ¾” Drywall return
• Extension Jambs

---

1 One pane Low-E glass and one pane clear glass.
2 See pages 14-16 for additional options.
3 Exterior casing not available for all radius units.
In order to provide you with a worry-free system, the framing around your Spencer Walcott windows has to be as good as the windows themselves.

That’s why you’ll appreciate the structural strength that is designed into every one of our beautiful projected bows and bays.
Think Outside the Box

Windows don’t have to be two dimensional. Projected units dramatically impact the look and feel of a home. Whether it’s a classic bay or a subtle bow, projected units add depth and dimension to the inside, and a distinctive accent to the outside.

Like all our products, our bay and bow windows are made by skilled craftsmen, from the highest quality materials.

We start with the foundation: the framework, which has been cut to exact specifications using precision CNC technology.

In order to provide strength and structural integrity to the critical mull points, we use a combination of structural engineered lumber with 1-½” furniture grade head and seat boards, anchored together by solid steel rods.

The rugged and sturdy framing is tastefully finished on the inside with the rich beauty of a 1-½” furniture grade, hardwood veneer plywood. Choose from stain-grade Red Oak or paint-grade Birch.

Angle bays are available in a 30° or 45° version, while Bows are available in three-, four-, and five-lite versions. Combine fixed, casement or double-hung windows to match your existing decor.

The seat board boasts an additional 1” thick insulating panel. This additional layer reduces energy bills by protecting against conductive heat transfer, and also reduces condensation.

No matter what you choose, every detail in the design has been considered; nothing has been overlooked, ensuring years of trouble-free performance... and beauty.
The insulated glazing\(^1\) in our vinyl sliding patio door is constructed using warm-edge technology, as well as Low- E tempered safety glass with argon gas fill, so it holds up to the weather while allowing you to experience the beauty of the great outdoors.

Constructed from low-maintenance vinyl, the frame and panels are welded at the corners during assembly to provide a product superior in strength, performance, and appearance. Reinforcement is used at the meeting stiles, and at the lock points of the frame and panel for added rigidity and strength. The sliding door operates smoothly on heavy duty steel tandem rollers.

Our sliding patio doors come with Truth’s Signature™ Series premier handle set, with its contoured shape it is both elegant and easy to grasp, available as keyed or non-keyed. Handle sets come in eight finishes, which helps you customize the look of your door.

The glide screen is made from heavy extruded aluminum framing, fiberglass mesh screening and operates easily on steel rollers.

Spencer Walcott vinyl sliding patio doors are available as two-, three-, or four-panel, in standard and custom sizes; with either left or right operating panel. Available with or without grilles.

\(^1\) Qualifies for the ENERGY STAR® label
### Standard Door features
- 7/8” Tempered Low-E/Clear insulating glass with argon gas fill
- White interior and exterior color, with matching handle sets
- Integral nailing flange and integral J-channel
- 4 9/16” jamb
- Fusion-welded joints
- Heavy-duty extruded insect screen

### Optional features
- Grilles: Colonial or Prairie Style, available in matching White or Desert Sand
- Transoms and sidelites
- Stainless steel rollers for door panel
- Desert Sand color with matching handle sets (as keyed or non-keyed)
- Handle sets in eight colors; keyed or non-keyed handle
- Custom exterior color finishes
- Monarch exterior casing
- Pediment Head

1 See pages 14-16 for additional options.

---

### Sliding Patio Door Standard Sizes

**Custom sizes available**

<table>
<thead>
<tr>
<th>TWO PANEL DOORS</th>
<th>THREE PANEL DOORS</th>
<th>FOUR PANEL DOORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDS068</td>
<td>60 x 80.0</td>
<td>59.5 x 79.5</td>
</tr>
<tr>
<td>PD6068</td>
<td>72 x 80.0</td>
<td>71.5 x 79.5</td>
</tr>
<tr>
<td>PD8068</td>
<td>96 x 80.0</td>
<td>95.5 x 79.5</td>
</tr>
<tr>
<td>PD60611</td>
<td>72 x 82.5</td>
<td>71.5 x 82.0</td>
</tr>
<tr>
<td>PD80611</td>
<td>96 x 82.5</td>
<td>95.5 x 82.0</td>
</tr>
</tbody>
</table>

R.O. = Rough Opening; U.S. = Unit Size
Available for new construction and replacement applications

WINDOW CUSTOMIZATION

Distinctive Window Design
Further that design with a custom or standard grille pattern, either with Grilles Between Glass (GBG) or Simulated Divided Lites (SDL). By placing a variety of design patterns within the glass, GBGs offer an attractive and low maintenance artistic option. Traditional window grilles can be replicated by means of SDL muntin bars, which are permanently attached to both the interior and exterior glass.

Continue the traditional look with horizontal Pediment Heads (also known as Crossheads) added to the outer casings of windows. Pediments are often used to provide outstanding visual improvement without breaking the bank.

With the many optional exterior paint colors available, you can truly make a unique statement to your home or office.

Common Grille Configurations

<table>
<thead>
<tr>
<th>Colonial</th>
<th>Prairie</th>
<th>Queen Anne</th>
<th>6/1</th>
<th>Ladder</th>
<th>False Meeting Rail (Casement)</th>
</tr>
</thead>
</table>

Extterior Trim Options

<table>
<thead>
<tr>
<th>4½” Banded Casing</th>
<th>Brickmould (908) Casing</th>
<th>5/4 x 3½” Flat Casing</th>
<th>Northern Casing (showing install channel)</th>
</tr>
</thead>
</table>

Exterior Paint Options

Our in-house palette consists of 17 prefinished exterior colors, with many other colors available.

- Pearl White
- Cream White
- Desert Sand
- Adobe
- Fog
- Gray
- Slate Blue
- Edgewood Blue
- Spruce Green
- Dark Forest
- Black
- Bronze
- Dark Brown
- Earth Brown
- Barn Red
- Boysenberry
- Burgundy

Please note that the material colors are not necessarily precise representations due to variance in the printing process.
Duralite® warm-edge spacers = Improved Efficiency

Spencer Walcott windows use this superior warm-edge insulating glass sealant system for improved energy efficiency and resistance to condensation, greater comfort, and lower heating and cooling costs.

The Duralite spacer inside your window’s insulating glass unit can reduce heat transfer and improve the temperature of your inside window glass. The warmer the glass edge, the less energy lost and the more comfortable you feel near your window. That leads to saving energy, which reduces how much you spend to heat and cool your home. Duralite can also reduce condensation on the glass, keeping off moisture for a clearer view to the outside. Less condensation and reduced energy costs mean a healthy, more comfortable home.

The Duralite spacer is a component laminate design that optimizes the use of a number of spacer components. All spacers need adhesives, sealants, structural elements and desiccant to perform. They also need to last a long time under adverse conditions inside your window frame. Duralite is designed to seal your window better and longer, while increasing energy savings compared to other types of spacers.

When Duralite® non-metallic insulating glass spacers are used, glass edge is better insulated against energy loss, creating a higher performance thermal barrier.
WHEN THE SOLUTION

BACKGROUND - Since its introduction in 1992, Energy Star® certification has been the ‘Holy Grail’ for manufacturers of electronics, lighting, appliances, and building materials, especially windows. The certification is the consumer’s assurance that the product bearing the Energy Star® label is among the most energy efficient in its class. And because the designation is given only to the top performers within their class, achieving Energy Star® certification has prompted window designers and manufacturers to continually produce better and more energy-efficient products.

When first adopted, Energy Star® certification was fairly easy to achieve. Usually, a thermally improved frame with an Insulating Glass Unit would qualify. However, over the subsequent decades, the Environmental Protection Agency has required gradually improved performance in order to qualify.

THE QUANDARY - Keeping pace with these demands for improved performance has taken the combined efforts of the entire industry, including manufacturers and their suppliers of framing, glass, sealants, hardware and other components. Ultimately, every incremental performance improvement comes with an exponentially higher price tag.

Under Energy Star® 6.0, the stringent U-Factor required in the Northern zone (U=0.27 or better) has proven to be an extremely difficult performance level for many manufacturers to achieve. As frequently happens, government regulations and mandates require solutions that are beyond the performance limits of a product’s design. When this occurs, manufacturers either replace the old product, or they explore alternate methods of meeting performance criteria, some of which may have unintended consequences.

CHASING THE NUMBERS - In thermal testing, administered by the National Fenestration Rating Council (NFRC), windows are measured for various performance attributes – average Air Infiltration (AI), overall Thermal Conductivity (U-Factor), potential for Solar Heat Gain (SHGC), the percentage of Visible Light Transmittance (VT), and its overall Condensation Resistance (CRF). Each one of these attributes are measured and reported, as they all influence energy consumption and are excellent indicators of how the window will perform when compared to other windows.

U-Factor is the measurement of the rate of Heat Loss through the window, so the lower the number, the better. U-Factor takes into consideration framing, glazing and spacer conductivity, therefore it is a rating of the entire window unit.

In order to qualify for Energy Star® 6.0, some window manufacturers have had to resort to providing so-called 'S4' Glazing, wherein the interior surface of the window contains an exposed Low-e (low emissivity) surface.

While this option will result in a lower U-Factor, it also increases interior levels of condensation to potentially damaging and unhealthy levels, particularly in the Northern climate zone.

Because of the risk of sheetrock damage, the potential for dangerous mold growth, and other reasons, Mathews Brothers will not offer S4 Glazing on any of our window or door units.

Know Your Values

SHGC is the Solar Heat Gain Coefficient of the glass unit. Since the SHGC typically drops with the U-Factor, any potential passive solar heating will also be reduced. This can be an important consideration in the Northern climate zone, where in the winter the days are shorter, and the sun has a lower azimuth.

Introducing additional layers of Low-e glass will also reduce the potential for solar heat gain.

Mathews Brothers offers Low-e coatings that provide very low U-Factor values, while still permitting solar heat gain.

Air Infiltration is a measurement of the cubic volume of air that passes between a window frame and the sash, and is expressed as cubic feet per minute, per square foot of window.

This number is typically posted as ‘less than or equal to 0.3’, since air infiltration is a pass/fail at that number.

Of all the information appearing on the NFRC label, this is perhaps the least important, from a performance standpoint.

VT is the Visible Light Transmittance of the glass unit. This is an important rating to consider when specifying glazing packages that include Low-e glass. Low-E glass reduces radiated heat loss, but also reduces visible light.

Since 'S4' Glazing typically involves the introduction of at least one additional layer of Low-e, VT is reduced dramatically, resulting in a condition many consumers find unsatisfactory.
QUESTIONABLE SOLUTION - When looking at the NFRC label, it’s important to remember that a window’s overall thermal performance is the result of all its contributing factors, and that frequently an adjustment to one area can have undesirable effects in another. For example, it’s easy to reduce the unit’s U-Factor by applying additional layers of Low-e glass. However, this would also have the undesirable effect of reducing both VT and SHGC, so it’s important to maintain a balance in all areas.

One particular measurement of importance to people in the cold Northern climate zones is the unit’s Condensation Resistance Factor (CRF), since the accumulation of excessive condensation can be particularly detrimental not only to the building’s structure, but to the indoor air quality as well. Since this number (which ranges from 1 - 100) is not required to be reported, most architects, building professionals and homeowners are unaware of its existence, much less its importance.

Unfortunately, in order to meet Energy Star® 6.0, some manufacturers have chosen to resort to so-called “Surface 4” or “roomside” Low-e glazing. Under this technique, an additional layer of low-E coating is placed on Surface 4 (S4) of the glass of a traditional improved IG (generally, low-E and argon fill).

According to industry experts, the science behind S4 results in a higher risk of condensation in cold weather because the Low-e coating reduces radiant heat transfer from the room to the glass surface. While this does improve the window U-factor by about 0.03, ultimately the room-side glass is cooler, which increases the chance of an excess of water vapor condensing on the glass surface, which can result in sheetrock damage, peeling paint or mold growth.

This is the unintended, yet potentially dangerous consequence of S4 glazing: a dramatic reduction in the CRF, with a resulting increase in condensation on interior glass surfaces, and the subsequent damage that results.

PROTECT YOUR HOME, PROTECT YOUR FAMILY - How can you be sure the window you are specifying or installing has the recommended CRF for your climate zone? What is the recommended CRF for your climate zone?

According to both the American Architectural Manufacturers Association (AAMA) and NFRC, for the cold Northern climate zone, windows should have a CRF of at least 50. This will provide a sufficiently warm roomside glass surface to resist moisture. Even with a CRF above 50, windows in highly humid areas of the home (kitchens and bathrooms) may show some occasional condensation, as may other windows in the home during the seasonal transition from Summer to Autumn. This type of condensation should not be a cause for alarm. What should be a cause for alarm would be continuous, daily, uncontrollable condensation.

But how can you find the CRF it’s not on the NRFC label? First: ask the manufacturer, as they are able to provide this information to you. Or you can find out for yourself by visiting www.NFRC.org, hover over “Consumers” in the top menu bar, then click on “Search for a Fenestration Product”. This will pull up a search tool, with which you can search by manufacturer, window type, as well as by minimum U-Factors, SCGC and VT. Included in all reports is the unit’s CRF.

Better yet: ask them if they use S4 glazing in order to meet Energy Star® 6.0. If they are, then chances are the CRF for that unit may not be the best choice to protect your home, and protect your family.

We’ve all seen it: interior window condensation forming on cold days. Under Energy Star® 6.0 performance standards, many window manufacturers are making choices that will actually increase interior condensation to levels that may prove to be costly to homeowners.

For this reason, Mathews Brothers advocates the display of the CRF on the NFRC Window Label.
American Architectural Manufacturing Association

Since 1936, the American Architectural Manufacturers Association (AAMA) has stood as a strong advocate for manufacturers and professionals in the fenestration industry. Today AAMA, stands as a representative of both the residential and commercial sectors.

National Fenestration Rating Council

The National Fenestration Rating Council (NFRC) is a nonprofit, public/private organization created by the window, door, and skylight industry. It is composed of manufacturers, suppliers, builders, architects and designers, specifiers, code officials, utilities, and government agencies. The NFRC has developed a window energy rating system based on whole product performance.

The NFRC label provides the only reliable way to determine the window energy properties and to compare products. The NFRC label appears on all products certified to the NFRC standards and on all window, door, and skylight products which are part of the ENERGY STAR® program. At this time, NFRC labels on window units give ratings for U-Factor, Solar Heat Gain Coefficient (SHGC), and Visible Light Transmittance (VT).

ENERGY STAR®

Mathews Brothers is proud to offer our customers products that have earned the government’s ENERGY STAR® label.

ENERGY STAR® is a government-backed program that helps consumers identify the most energy-efficient products. Learn more at www.energystar.gov.

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**ENERGY STAR® Qualification Criteria for Residential Windows**

<table>
<thead>
<tr>
<th>Climate Zone</th>
<th>U-Factor</th>
<th>SHGC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>≤0.27</td>
<td>Any</td>
</tr>
<tr>
<td></td>
<td>=0.28</td>
<td>≥0.32</td>
</tr>
<tr>
<td></td>
<td>=0.29</td>
<td>≥0.37</td>
</tr>
<tr>
<td></td>
<td>=0.30</td>
<td>≥0.42</td>
</tr>
<tr>
<td>North-Central</td>
<td>≤0.30</td>
<td>≤0.40</td>
</tr>
<tr>
<td>South-Central</td>
<td>≤0.30</td>
<td>≤0.25</td>
</tr>
<tr>
<td>Southern</td>
<td>≤0.40</td>
<td>≤0.25</td>
</tr>
</tbody>
</table>

1. Btu/h·F·F

**ENERGY STAR® Qualification Criteria for Residential Doors**

<table>
<thead>
<tr>
<th>Glazing Level</th>
<th>U-Factor</th>
<th>SHGC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opaque</td>
<td>≤0.17</td>
<td>No Rating</td>
</tr>
<tr>
<td>≥ Hi-Lite</td>
<td>≤0.30</td>
<td>≤0.40</td>
</tr>
<tr>
<td>&gt; Hi-Lite</td>
<td>≤0.25</td>
<td>≤0.25</td>
</tr>
</tbody>
</table>

1. Btu/h·F·F

---

Residential Windows, Doors, and Skylights: Version 6.0 (April 7, 2009)

Note: ½" - ⅝" Drywall Return adds ¼" to rough opening

*Does not apply to sliding patio doors
SINGLE-HUNG WINDOW STANDARD SIZES & ARCHITECTURAL DETAILS

Single-Hung Window Standard Sizes / Custom sizes available

### Notes:
- New construction series standard sizes shown. Custom sizes are available.
- Call out sizes are calculated in inches.
- Check with fabricator for rough opening sizes when mulling.
- Grilles are optional and shown in colonial pattern as viewed from outside.
- Banded and Northern casings, add ¼” to width and height of rough opening.

### Replacement Windows
Each window is custom built to your specifications.

#### Technical Information

<table>
<thead>
<tr>
<th>Unit Size</th>
<th>19 ⅞&quot;</th>
<th>21 ½&quot;</th>
<th>23 ⅞&quot;</th>
<th>25 ½&quot;</th>
<th>27 ⅞&quot;</th>
<th>29 ½&quot;</th>
<th>31 ⅞&quot;</th>
<th>33 ½&quot;</th>
<th>35 ⅞&quot;</th>
<th>37 ½&quot;</th>
<th>39 ⅞&quot;</th>
<th>41 ½&quot;</th>
<th>43 ⅞&quot;</th>
<th>45 ⅞&quot;</th>
<th>47 ½&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp. Glass Flood Light</td>
<td>14 ⅞&quot;</td>
<td>16 ⅞&quot;</td>
<td>18 ½&quot;</td>
<td>20 ⅞&quot;</td>
<td>22 ½&quot;</td>
<td>24 ⅞&quot;</td>
<td>26 ½&quot;</td>
<td>28 ⅞&quot;</td>
<td>30 ½&quot;</td>
<td>32 ⅞&quot;</td>
<td>34 ½&quot;</td>
<td>36 ⅞&quot;</td>
<td>38 ½&quot;</td>
<td>40 ⅞&quot;</td>
<td>42 ½&quot;</td>
</tr>
</tbody>
</table>

### Single-Hung Window Standard Sizes

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>20&quot;</th>
<th>22&quot;</th>
<th>24&quot;</th>
<th>26&quot;</th>
<th>28&quot;</th>
<th>30&quot;</th>
<th>32&quot;</th>
<th>34&quot;</th>
<th>36&quot;</th>
<th>38&quot;</th>
<th>40&quot;</th>
<th>42&quot;</th>
<th>44&quot;</th>
<th>46&quot;</th>
<th>48&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>19 ⅞&quot;</td>
<td>21 ½&quot;</td>
<td>23 ⅞&quot;</td>
<td>25 ½&quot;</td>
<td>27 ⅞&quot;</td>
<td>29 ½&quot;</td>
<td>31 ⅞&quot;</td>
<td>33 ½&quot;</td>
<td>35 ⅞&quot;</td>
<td>37 ½&quot;</td>
<td>39 ⅞&quot;</td>
<td>41 ½&quot;</td>
<td>43 ⅞&quot;</td>
<td>45 ⅞&quot;</td>
<td>47 ½&quot;</td>
</tr>
</tbody>
</table>

### Egress Specifications
- Never meets egress
- Always meets egress
- Meets egress with specific modifications
- Meets egress, BAW defaults to required modifications

---

**Notes:**
- New construction series standard sizes shown. Custom sizes are available.
- Call out sizes are calculated in inches.
- Check with fabricator for rough opening sizes when mulling.
- Grilles are optional and shown in colonial pattern as viewed from outside.
- Banded and Northern casings, add ¼” to width and height of rough opening.

---

**Technical Information:**
- Egress specifications for different rough opening sizes.
- Standard sizes for single-hung windows with custom options available.
- Diagrams showing different sizes and their configurations.
- Egress compliance details with specific modifications noted.

---

**Appendix:**
- Reference pages for further technical details.
- Additional resources for window specifications and installation guidelines.

---

**Revision History:**
- Last updated: [Date]
- Future updates to be included.
## DOUBLE-HUNG WINDOW STANDARD SIZES & ARCHITECTURAL DETAILS

### Double-Hung Window Standard Sizes / Custom sizes available

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>20&quot;</th>
<th>22&quot;</th>
<th>24&quot;</th>
<th>26&quot;</th>
<th>28&quot;</th>
<th>30&quot;</th>
<th>32&quot;</th>
<th>34&quot;</th>
<th>36&quot;</th>
<th>38&quot;</th>
<th>40&quot;</th>
<th>42&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Sash Exposed Glass</td>
<td>14 ½&quot;</td>
<td>16 ½&quot;</td>
<td>18 ½&quot;</td>
<td>20 ½&quot;</td>
<td>22 ½&quot;</td>
<td>24 ½&quot;</td>
<td>26 ½&quot;</td>
<td>28 ½&quot;</td>
<td>30 ½&quot;</td>
<td>32 ½&quot;</td>
<td>34 ½&quot;</td>
<td>36 ½&quot;</td>
</tr>
<tr>
<td>Bottom Sash Exposed Glass</td>
<td>12 ½&quot;</td>
<td>14 ½&quot;</td>
<td>16 ½&quot;</td>
<td>18 ½&quot;</td>
<td>20 ½&quot;</td>
<td>22 ½&quot;</td>
<td>24 ½&quot;</td>
<td>26 ½&quot;</td>
<td>28 ½&quot;</td>
<td>30 ½&quot;</td>
<td>32 ½&quot;</td>
<td>34 ½&quot;</td>
</tr>
</tbody>
</table>

Notes:
- New construction series standard sizes shown. Custom sizes are available.
- Call out sizes are calculated in inches.
- Check with fabricator for rough opening sizes when mulling.
- Grilles are optional and shown in colonial pattern as viewed from outside.
- Banded and Northern casings, add ¼" to width and height of rough opening.

### Replacement Windows

- Each window is custom built to your specifications.

---

**TECHNICAL INFORMATION**

- Never meets egress
- Always meets egress
- Meets egress with specific modifications
- Meets egress. BAW defaults to required modifications
### Casement Window Standard Sizes

**Custom sizes available**

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>16&quot;*</th>
<th>20&quot;*</th>
<th>24&quot;*</th>
<th>28&quot;*</th>
<th>30&quot;*</th>
<th>35&quot;*</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT Size</td>
<td>18 1/2&quot;</td>
<td>22 1/2&quot;</td>
<td>26 1/2&quot;</td>
<td>30 1/2&quot;</td>
<td>34 1/2&quot;</td>
<td>38 1/2&quot;</td>
</tr>
<tr>
<td>Exposed Glass</td>
<td>12 1/2&quot;</td>
<td>16 1/2&quot;</td>
<td>20 1/2&quot;</td>
<td>24 1/2&quot;</td>
<td>28 1/2&quot;</td>
<td>32 1/2&quot;</td>
</tr>
</tbody>
</table>

††† Requires egress hardware.

#### Notes:
- New construction series standard sizes shown. Custom sizes are available.
- Call out sizes are calculated in inches.
- 1Meets egress of (CA/Fixed/CA):
- clear openable area ≥ 5.7 sq. ft.;
- clear openable width ≥ 20 inches;
- clear openable height ≥ 24 inches

| Twin Casement Window Standard Sizes

**Custom sizes available**

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>35 1/2&quot;*</th>
<th>39 1/2&quot;*</th>
<th>47 1/2&quot;*</th>
<th>55 1/2&quot;*</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT Size</td>
<td>35⅛&quot;</td>
<td>39⅛&quot;</td>
<td>47⅛&quot;</td>
<td>55⅛&quot;</td>
</tr>
<tr>
<td>Exposed Glass</td>
<td>17 1/2&quot;</td>
<td>19 1/2&quot;</td>
<td>23 1/2&quot;</td>
<td>27 1/2&quot;</td>
</tr>
</tbody>
</table>

††† Requires egress hardware.

#### Notes:
- New construction series standard sizes shown. Custom sizes are available.
- Call out sizes are calculated in inches.
- 1Meets egress of (CA/Fixed/CA):
- clear openable area ≥ 5.7 sq. ft.;
- clear openable width ≥ 20 inches;
- clear openable height ≥ 24 inches

---

**Grilles** are optional and shown in colonial pattern as viewed from outside.

Banded and Northern casings, add ¼" to width and height of rough opening.
### Awning Window Standard Sizes
**Custom sizes available**

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>24&quot;</th>
<th>36&quot;</th>
<th>42&quot;</th>
<th>48&quot;</th>
<th>54&quot;</th>
<th>60&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>23 1/2&quot;</td>
<td>35 1/2&quot;</td>
<td>41 1/2&quot;</td>
<td>47 1/2&quot;</td>
<td>53 1/2&quot;</td>
<td>59 1/2&quot;</td>
</tr>
<tr>
<td>Exposed Glass</td>
<td>18 1/2&quot;</td>
<td>30 1/2&quot;</td>
<td>36 1/2&quot;</td>
<td>42 1/2&quot;</td>
<td>48 1/2&quot;</td>
<td>54 1/2&quot;</td>
</tr>
</tbody>
</table>

### Vent Layout
Specify left-hinge or right-hinge casement as viewed from outside.

### Awning for New Construction

**Replacement Windows**
Each window is custom built to your specifications.
HORIZONTAL SLIDER STANDARD SIZES & ARCHITECTURAL DETAILS

Horizontal Slider Standard Sizes (Single Shown and Double Available)

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>Unit Size</th>
<th>Exp. Glass Fixed</th>
<th>Exposed Glass Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot;</td>
<td>23 ½&quot;</td>
<td>8 ¼&quot;</td>
<td>8 ½&quot;</td>
</tr>
<tr>
<td>36&quot;</td>
<td>35 ½&quot;</td>
<td>14 ½&quot;</td>
<td>14 ½&quot;</td>
</tr>
<tr>
<td>48&quot;</td>
<td>47 ½&quot;</td>
<td>20 ⅞&quot;</td>
<td>20 ⅞&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>59 ½&quot;</td>
<td>25 ⅞&quot;</td>
<td>25 ⅞&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>71 ½&quot;</td>
<td>32 ⅚&quot;</td>
<td>32 ⅚&quot;</td>
</tr>
<tr>
<td>84&quot;</td>
<td>83 ½&quot;</td>
<td>38 ⅞&quot;</td>
<td>38 ⅞&quot;</td>
</tr>
</tbody>
</table>

Custom sizes available

Sliders with rough opening of 84" are available as single only.

3-Lite End-Vent Horizontal Slider Standard Sizes (Other Configurations Available)

<table>
<thead>
<tr>
<th>Rough Opening</th>
<th>Unit Size</th>
<th>Exp. Glass Fixed</th>
<th>Exposed Glass Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>72&quot;</td>
<td>71 ⅝&quot;</td>
<td>15 ⅛&quot;</td>
<td>15 ⅛&quot;</td>
</tr>
<tr>
<td>84&quot;</td>
<td>83 ⅜&quot;</td>
<td>17 ⅜&quot;</td>
<td>17 ⅜&quot;</td>
</tr>
<tr>
<td>96&quot;</td>
<td>95 ⅞&quot;</td>
<td>20 ⅞&quot;</td>
<td>20 ⅞&quot;</td>
</tr>
<tr>
<td>108&quot;</td>
<td>107 ⅝&quot;</td>
<td>23 ⅛&quot;</td>
<td>23 ⅛&quot;</td>
</tr>
<tr>
<td>120&quot;</td>
<td>119 ¼&quot;</td>
<td>26 ¾&quot;</td>
<td>26 ¾&quot;</td>
</tr>
</tbody>
</table>

Custom sizes available

3-Lite equal slider

Notes:
New construction series standard sizes shown. Custom sizes are available.
Call out sizes are calculated in inches.
Sizes shown applicable for single operating slider.
Shown with fixed center window which constitutes 50% of the unit with operable sashes at 25% each.

³Check with fabricator for rough opening when mulling
¶Meets single egress:
clear openable area 5.7 sq. ft.; clear openable width 20 inches;
clear openable height 24 inches.
See manufacturer for double slider egress measurements.
Grilles are optional and shown in colonial pattern as viewed from outside.
FIXED UNIT STANDARD SIZES & ARCHITECTURAL DETAILS

Picture (Fixed) Windows Standard Sizes

*Check with fabricator for rough opening when mulling.

Grille patterns for 60-inch and 66-inch picture windows will vary:

- Casement picture windows are 5 lites high.
- Single-hung and double-hung picture windows are 4 lites high.
- Grille patterns in picture units will match single-hung or double-hung when ordered in that combination.

Transom Window Standard Sizes

Custom sizes available

Notes:

Both Picture Windows and Transom call out sizes are calculated in inches.

Grilles are optional and shown in colonial pattern as viewed from outside.
Replacement Windows
Each window is custom built to your specifications.

Picture Window/Transom for New Construction

Fixed Unit Details
### SHAPE UNITS STANDARD SIZES & ARCHITECTURAL DETAILS

**Extended Arch (Fixed) & Eyebrow Standard Sizes**

*Custom sizes available*

<table>
<thead>
<tr>
<th>Shoulder Height</th>
<th>Shoulder RO</th>
<th>Unit Width</th>
<th>Unit Height</th>
<th>Unit RO</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 ½&quot;</td>
<td>22 ½&quot;</td>
<td>28&quot;</td>
<td>12 ⅞&quot;</td>
<td>12 ⅞&quot;</td>
</tr>
<tr>
<td>27 ½&quot;</td>
<td>26 ½&quot;</td>
<td>30&quot;</td>
<td>13 ⅜&quot;</td>
<td>13 ⅜&quot;</td>
</tr>
<tr>
<td>31 ½&quot;</td>
<td>30 ½&quot;</td>
<td>32&quot;</td>
<td>13 ⅞&quot;</td>
<td>13 ⅞&quot;</td>
</tr>
<tr>
<td>35 ½&quot;</td>
<td>34 ½&quot;</td>
<td>36&quot;</td>
<td>14 ⅛&quot;</td>
<td>14 ⅛&quot;</td>
</tr>
<tr>
<td>39 ½&quot;</td>
<td>38 ½&quot;</td>
<td>40&quot;</td>
<td>14 ⅝&quot;</td>
<td>14 ⅝&quot;</td>
</tr>
<tr>
<td>43 ½&quot;</td>
<td>42 ½&quot;</td>
<td>44&quot;</td>
<td>14 ¹⁵⁄₁₆&quot;</td>
<td>14 ¹⁵⁄₁₆&quot;</td>
</tr>
<tr>
<td>47 ½&quot;</td>
<td>46 ½&quot;</td>
<td>48&quot;</td>
<td>15 ⁷⁄₁₆&quot;</td>
<td>15 ⁷⁄₁₆&quot;</td>
</tr>
<tr>
<td>51 ½&quot;</td>
<td>50 ½&quot;</td>
<td>52&quot;</td>
<td>16 -</td>
<td>16 -</td>
</tr>
<tr>
<td>55 ½&quot;</td>
<td>54 ½&quot;</td>
<td>56&quot;</td>
<td>16 ½&quot;</td>
<td>16 ½&quot;</td>
</tr>
</tbody>
</table>

Call out indicates width expressed in inches and shoulder height (series code).
Custom sizes available.
Grilles are optional.
<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI3030</td>
<td>29 ½&quot; x 29 ½&quot;</td>
</tr>
<tr>
<td>CI3636</td>
<td>35 ½&quot; x 35 ½&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRD3819</td>
<td>37 ½&quot; x 18 ¼&quot;</td>
</tr>
<tr>
<td>HRD4020</td>
<td>39 ¼&quot; x 19 ½&quot;</td>
</tr>
<tr>
<td>HRD6834</td>
<td>67 ½&quot; x 33 ¼&quot;</td>
</tr>
<tr>
<td>HRD7236</td>
<td>71 ⅝&quot; x 35 ½&quot;</td>
</tr>
</tbody>
</table>

*This pattern is available in widths larger than 56 inches.

Choose left-hand or right-hand size as viewed from the outside looking in.

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTG2424</td>
<td>23 ½&quot; x 23 ½&quot;</td>
</tr>
<tr>
<td>OTG3232</td>
<td>31 ¼&quot; x 31 ½&quot;</td>
</tr>
<tr>
<td>OTG3636</td>
<td>35 ⅞&quot; x 35 ⅞&quot;</td>
</tr>
<tr>
<td>OTG4848</td>
<td>47 ½&quot; x 47 ½&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>OV3046</td>
<td>29 ½&quot; x 45 ⅜&quot;</td>
</tr>
<tr>
<td>OV3656</td>
<td>35 ⅝&quot; x 55 ⅜&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>OV3046</td>
<td>29 ½&quot; x 45 ⅜&quot;</td>
</tr>
<tr>
<td>OV3656</td>
<td>35 ⅝&quot; x 55 ⅜&quot;</td>
</tr>
</tbody>
</table>
WOW! Customer Service™ permeates every aspect of Mathews Brothers. It is our corporate commitment to maintaining the absolute highest levels of customer satisfaction with our windows and door products, our people and our processes. Every employee of Mathews Brothers Company proudly stands behind the products we make, and we are keenly aware of our individual “points of impact” to our final customer.

WOW! Customer Service is the shorthand reminder of our Vision and Mission Statements: WOW! stands for Windows On Wellness, and grew from questions about what is important to us: family, faith, friends, community, our nation, and so on. As the list grew, it became apparent that these “circles of importance” could be grouped into personal, corporate, community, and planet. These became our “Windows”, and the health or “Wellness” of these circles could be assessed from a physical, moral and financial standpoint. Hence, the term “Windows on Wellness”.

Our Mission Statement is simple: Consistently Superior Customer Service, and this serves as our guide for our approach to all customer interactions. We’ve been making windows and doors for a long time now, and we know that the work we’ll do tomorrow rests on the foundation we built yesterday.

And that’s the attitude that is shared by all of us here at Mathews Brothers Company.

A Warranty Is Only As Strong As The Company Providing It
Ask yourself: would you rather have a “Lifetime” Warranty from a company that’s been in business 20 years or so, or a 20-Year Warranty from a company that’s been in business for several lifetimes? With Mathews Brothers “Spencer Walcott” family of windows, you get both. Lifetime coverage* against defects in materials or workmanship, backed by a company that’s been making windows since 1854.

Peace Of Mind
Anyone who’s taken their car in for service knows that it’s not the cost of the part, it’s the labor to put it in! Well, that’s true with just about everything, including windows. That’s why every Spencer Walcott window also includes “Rest Assured Labor” Coverage.

Experience shows that the vast majority of warranty claims are made within the first three years. So, Mathews Brothers Company will cover up to 100% of the direct cost of the components and labor required to repair or replace the defective component or product. *

*Please refer to full written warranty for complete warranty details.

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