



Casement

Casement windows allow for the most ventilation of any window. They also have the best performance rating of any operational window, and have the best site lines

They're more susceptible to damage from high winds if left open. We don't recommend installing them in high traffic areas on the exterior of your home, such as decks and patios, to avoid damage from people walking into them.



Awning

Awning windows boast the same qualities as casements because they are constructed in the same way, with the exception of the way it's hinged. The one advantage is that it allows for ventilation during rain events with out taking in water.

Awning windows are flawed in the same way as casements (described above). They also have more moving parts like casements, which increases the chance for some type of failure.



Hopper

Hopper windows are the same as Awnings, just reverse operation.

Hoppers have the same flaws as Awning and Casements, but they are even more problematic if left open during inclement weather, as they will funnel that weather in to your home.



Picture

Picture windows offer the highest efficiency of all windows. Like Sliders, they can be used in place of multiple windows to keep cost down. They also have unobstructed site lines.

Don't have any way to create ventilation.



Special Shapes

Can come in a wide variety of shapes and enhance the facade of home, dramatically. They are basically, picture windows that are made into many shapes They do allow for uniquely adding natural light to a space.

Specialty shape windows do not offer any ventilation. They can also be labor intensive to install on a remodel or new-construction projects.



Garden

Garden windows are mini green houses that you can extend from your home. Their multiple options for ventilation and allow for lots of natural light.

Any window that protrudes from a wall should consider exterior traffic flow for the same reasons as casement type windows. Garden windows are also the most likely to have a failure because of all the different sections.



Bay

Bay windows are a combination of three windows that project from the home. You can add almost any type of window to configure the functionality of a bay. They are a great way to enhance the interior and exterior look of your home.

Because they are a combination of windows the cons can vary. Bays often require structural work to support their load.

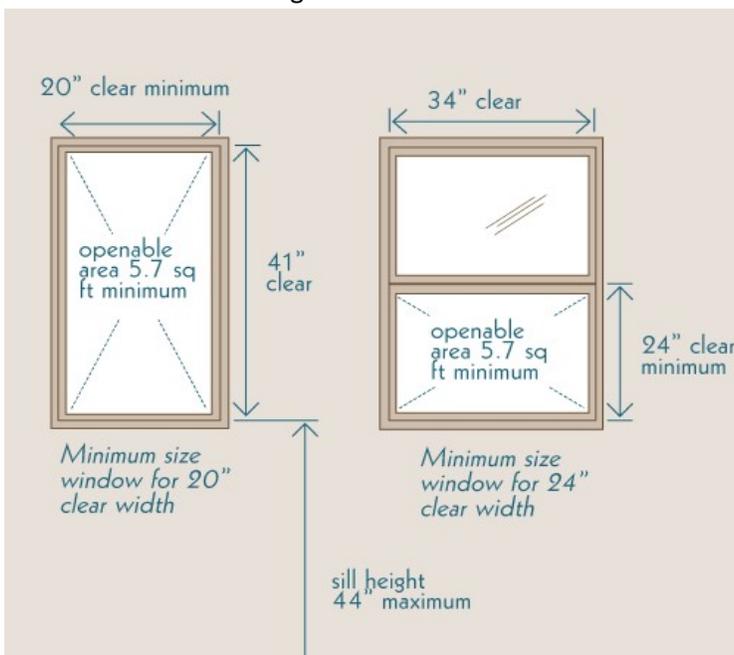


Bow

Bow windows are more than three windows that protrude from the home. Like bay windows, they can be configured with different style windows.

Bow windows have the same cons as Bay windows.

Egress Window



Egress windows allow for a person to evacuate an area in the case of an emergency. There are certain requirements that must be met before a window can be considered egress compliant.



Materials windows will be constructed from

Pros

Cons

Wood

Have sturdy rigid frames that don't have issues with deflection. Deflection is how much a window will bend or give under high wind loads. Wood has also been used longer than any other material, so you know what to expect.

Wood windows can be susceptible to wood rot and termite damage. Of all the window materials listed here, wood windows will require the most amount of maintenance and up keep. If wood is not properly maintained it will begin to swell from high humidity causing the window to stick.

Vinyl

Offer a very high-performance rating and have a proven track record. Vinyl windows are very low maintenance and have a lot of options and features that other windows don't have.

There is a lot of misinformation about vinyl windows. The bad is that not all vinyl windows are made equal. Like most products, there are good versions and bad ones. Cheaply made vinyl windows are highly susceptible to deflection, and the bigger the window the more deflection you could expect.

Fiberglass and Composite

Are incredibly strong and very thermally stable. The fact that the windows are thermally stable means that because they don't expand and contract as much as wood or vinyl, the risk of caulking failure is minimized. It's believed that the life expectancy is 33% greater than that of vinyl and wood windows, but they haven't been on the market long enough to prove it.

Fiberglass windows don't have color throughout the substrate of the window, so, if they get scratched by something the fiberglass will show through. The cost of fiberglass windows will also, typically be 30% to 50% higher than the other options.

Aluminum

Are incredibly strong and light weight. The fact that they are made of metal allows for them to be made into unique shapes. They can also be finished in a way that other materials are not able

Solid aluminum windows are not recommended for our region because of their thermal conduciveness, which can lead to heat loss and condensation on the interior of your home.

to be done giving them a superior finish.

Once you have selected the type of windows that will best meet your needs, there are a number of options and features that can be added to a window specifically or throughout your whole project. Options and features are specific to individual manufacturers. The list you see directly below will illustrate what is available.

Glass Options

| | |
|--------------------------|---|
| Low-e Argon | Standard on every window that we sell unless requested otherwise. This is highly energy efficient! |
| Tinted Glass | Lowers the amount of visible light that can pass through the glass. It can also accent the exterior if using a color such as bronze. |
| Obscure Glass | There are many options in this category to achieve obscureness. Typically, it's done in bathrooms of homes to allow for natural light with some privacy. It can also be done as just half a window, if the window has sashes. |
| Beveled or Etched | These windows are typically done on front entry doors or the center window of bays to accent a certain window. |
| Grids or Muntins | There are multiple selections that can be made to design your grids. <ol style="list-style-type: none">1. The configurations of your grids, such as a traditional pattern or prairie configuration.2. The profile and thickness of the grids themselves.3. The color options of the grids, such as a two tone option of having the interior with a stain and the exterior as a solid color.4. The placement or location of the grids, such as external removable grids or GBG (Grids Between the Glass). |

Window Features

| | |
|----------------|--|
| Blinds | Some manufacturers offer BBG. (Blinds Between the Glass) These can be a nice feature but should be understood that there's not a way to add argon with the BBG option, which is a major factor of the efficiency rating of the window. |
| Locks | Most manufacturers will only place one lock on a window, which is standard, but there is the option to add additional locks for added security. |
| Screens | Screens have several different options. A lot of double hung, single hung, and sliders will come standard with only half screens. It is now an upgrade to have a full screen covering the entire window. Screens themselves have the |

option of different constructions. Different styles could be considered.

The two sub categories of window installations have different decisions that need to be made to receive an accurate quote:

Full Frame Replacement:

Pocket Insert:

Exterior Trim Options:

Replace trim to match existing trim
Picture frame with flat lineals
Picture frame with Brick Mold
Custom trim options

Replace stops with like material
Replace stops with Restoration Mill Work
Wrap trim with PVC coated aluminum

Exterior Material Options:

Pine
Cedar
L.P. Smart Trim
James Hardie
Restoration Mill Work
Boral

Restoration Mill Work
Trim Coil

Exterior Finish Options for Trim:

Factory Applied Pre-Finish
Paint
Prime

Pre-Finished PVC Coated Aluminum
Paint

Interior trim Options:

Casing profile
Casing size
Stool and/or Apron
Custom profile

Reuse existing trim

Interior Material Options:

Oak
Poplar
Select Pine
Other

Reuse Existing Material

Interior Finish Options for Trim:

Paint
Stain
Other

Reuse Existing Finish

Other Considerations

Alarm systems: We don't attach or re-attach any alarm systems. They should be disconnected prior to our arrival on scheduled install dates.

Blinds, curtains, and window treatments: There is no guarantee that the new windows will accommodate the previous blinds or window treatments. It is expected that these will be taken down before the scheduled start date. We are willing to take them down and reinstall them upon completion of the windows for a fee, but make no guarantee that they will fit as they did before.

Wood rot: Chances are that if your original windows were installed more than ten years ago, the standards we install with today were probably not done correctly or at all back then. It's not uncommon to find some wood rot on window projects. Acumen protocol is to take pictures as soon as it's discovered and notify the home owner, then discuss the best course of action. This is not included in the original estimate and will be billed as time and material.