

The windows are often the primary decoration on an old house, while providing light and ventilation to the building. Wood windows add a lot to a building's historic value.

Too often, property owners ignore their windows until a problem develops. Then, they get advice from contractors unaware of ways to save the existing windows, or from manufacturers promoting replacement windows. Before deciding on costly replacement of original wood windows, think about other options.

### Rethink Replacement

A common misconception about building materials is that new is better. That is not necessarily true when modern windows replace historic wood windows.

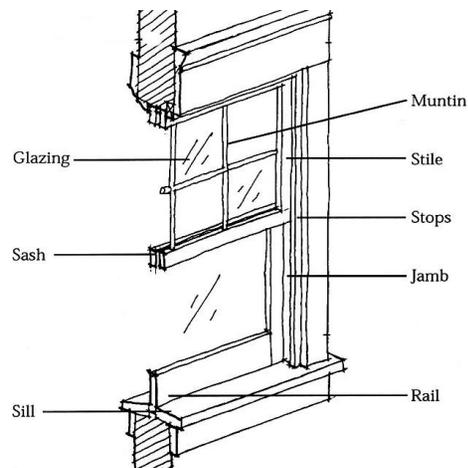
Old wood windows are more durable than modern windows; with low-cost maintenance, wood windows can last over 100 years. No modern building material on the market can make that claim.

Inspect each individual window to determine its condition. Distinguish between minor signs of deterioration and major failure of window components. A rotted sill may be beyond repair and require replacement, but an entire new window is not needed. If wooden window

parts deteriorate, they can be saved. Traditional wood windows are made so that the individual pieces can be taken apart, repaired or replaced, and put back together like puzzle pieces. By contrast, when problems arise with vinyl windows, they are difficult to repair and usually require the entire window to be thrown away and replaced. That's like sending your car to the junkyard because of a flat tire or dead battery.

### Maintenance and Repair

All windows need regular maintenance. Windows should be checked once a year for broken glass panes, signs of moisture, the operation of hardware, and the condition of the paint finish. This inspection can be done when storm windows are removed for the summer or replaced for the winter.



### Four steps to follow when considering any work on wood windows:

**Retain** the original windows and trim whenever possible.

**Protect** the windows through routine maintenance such as cleaning, caulking, weather stripping, and painting.

**Repair** deteriorated elements. Some in-kind replacement of very damaged parts may be appropriate. Individual parts can be replaced by a splicing technique (called a "Dutchman"), or repaired with epoxy. Only epoxies formulated for wood should be used (not patching materials meant for metal cars or fiber-glass boats).

**Replace** an entire window only when it is too deteriorated to repair. The replacement should ideally be the same material, size, and design as the original window. Replacement should be a last resort, since it is expensive and will detract from the building's historic character.

*Be sure that the "improvements" you make respect the original design and materials of your building.*

### Energy Efficiency

A common and exaggerated reason for installing new windows is the belief that they will significantly reduce heating costs. In fact, on most buildings only about 20% of heating loss occurs through windows. The remaining 80% is through roofs, walls, floors, chimneys and ducts. (The roof is the worst culprit, so installing attic insulation is a cheaper way to lower heating bills.)

Most heat loss through windows is a result of air leakage through gaps. Glazing compound may be missing, allowing air to move around the glass. Sash members may have shifted, leaving a gap for heat loss. The most cost-effective energy saving measures are to replace glazing compound, repair wood members and install weather-stripping.

### Storm windows

The use of exterior storm windows (in wood or metal) improves the energy efficiency of wood windows, and will reduce condensation on interior window surfaces during the winter. Storm windows also protect the interior windows and their painted surface, increasing the life span of both.

## The Myth of Vinyl Windows

Wood windows on older houses were made from durable hardwood that cannot be found today. The windows on your building may already be over 100 years old; with proper repairs and maintenance, they could last another 100 years.

The manufacture of vinyl windows is a relatively recent development, and their performance and longevity have not been measured over a long period of time. Historic wood windows have a proven track record, with a life span of 50-100 years. Vinyl replacement windows have a considerably shorter life span, about 15-25 years depending on cost and quality.

Vinyl breaks down and discolors from exposure to ultraviolet light (including sunlight). Many of the seals that hold the glass in place degrade in ultraviolet light, as does the foam insulation.

Vinyl is not as rigid as wood. It begins to soften and distort in high heat, causing twisted and crooked frames. That action can pop the seals between the frame and glass. Air and water then infiltrate the open joints, leading to drafts and damage.

One of the selling points of vinyl windows is that they are "maintenance free." People often interpret that to mean that the windows do not require any

attention. With the limited life expectancy of the materials and parts, that might be true -- the windows may have to be completely replaced since repairs are impossible. Manufacturers may have changed their product line, or gone out of business, by the time a property owner needs "spare parts" for repairs, which will require costly replacement of the entire window.

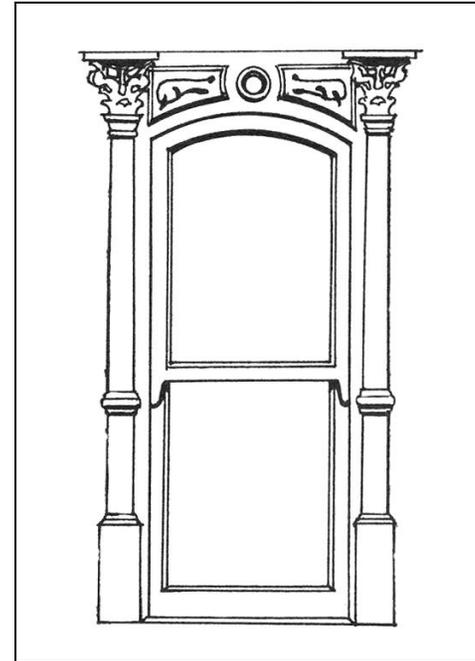
Most older houses need some improvements to make them safe and convenient. You can make your home feel new without eliminating what is old and valuable. When replacing wood windows with cheap vinyl units, decide whether the initial cost savings is worth the greater value lost in the integrity and special character of the building.

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# Caring for



# WOOD WINDOWS

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