MONTGOMERY HISTORIC PRESERVATION COMMISSION

WINDOW MAINTENANCE, REPAIR, AND REPLACEMENT GUIDANCE

Updated August 2, 2022

The most common reasons people ask about replacing windows are:

- Windows are painted shut
- Condition issues: rot, failing paint and glazing, sag
- Energy efficiency

One of the purposes of historic preservation is to preserve historic materials. The Secretary of Interior's Standards help inform that approach: maintenance as the first course of action; repair as the second; and replacement when maintenance or repair is no longer feasible. Our goal is to *preserve* historic windows, just because something *looks* like a historic material does not make it historic, and we lose a little bit more of what makes our historic properties unique and special. Window replacement is an expensive prospect, one that will rarely pay for itself, so we'll be discussing replacement as the last resort option.

Windows are painted shut

Most things that are done can be undone, and windows that have been painted shut are no exception. Having the right tools for the job are important, and there are a couple of options that will help cut through paint:

Old school elbow grease method—
Hyde Window opener

Oscillating saw = instant
gratification

You may need to break the paint seal on the interior and exterior to free the sash. If a window has been caulked shut, there are products that you can apply that will soften the caulk and make the removal easier.

Windows have dropped (and probably painted shut)

Your sashes are counterbalanced by sash weights located in wall cavities on each side of your window opening. Sash weights were attached to windows via a cotton sash rope or chain. If the sash rope breaks or is cut, the sash loses the benefit of that weight, and the sash, especially the upper sash, will not stay firmly in place and leave you with a gap. And one that is "glued" in place by the application of paint over the years. If you do not care if your upper sash is operable, you should be able to free the upper sash, and working from the outside, wedge something in the track to hold it in place (wood broom handle or 1x cut to length, nails, etc.) to keep it in its original closed position.

Condition issues

If you think your window is failing, there are several questions to ask that may help you determine whether or not a repair may be your better option:

- Is part of the window rotting? Or is it the entire frame? You may consider replacing that piece or applying a wood stabilizer and rebuilding the rotten section with an epoxy wood replacement material (available at paint stores and big box hardware stores).

Rot in muntin and stile due to water

Applying wood stabilizer

Filling with wood epoxy

Epoxy tooled to window shape before sanding

- The failure of glazing and paint is more cosmetic than indicative of a failure of the window. It is a condition that is reparable by scraping the flaking paint (if necessary) and removing the old glazing to apply new glazing.

Glazing is missing, paint failing

Window stripped, oiled, relgazed and repainted

- Has the bottom rail of the upper sash sagged so it appears to be falling apart? Often this is the failure of wood around the pin that holds the sash together. Those pieces will usually go back together, and glue or additional pins/nails can stabilize the window.

Energy Efficiency

Your most cost effective way to improve the energy efficiency of your windows (once you have them in good repair) is to utilize storm windows, caulk and weatherstrip. Storms come in a variety of materials (wood, metal, vinyl), can be installed on the interior or exterior, and can be fixed or operable. Storm windows work because they create an airspace between the storm and the historic windows, and exterior storms also provide some protection of your historic windows. They have the same R-value as a double paned window, but do not rely on a gas barrier between panes of glass to function.

In addition to storm windows, caulking around window trim and installing weatherstripping can provide additional barriers to air infiltration. And don't underestimate the value of curtains and window coverings to help mitigate thermal loss. Drapes can help prevent thermal loss through the glass as well as stop drafts, solar shades can help reduce the amount of summer heat coming in through the glass.

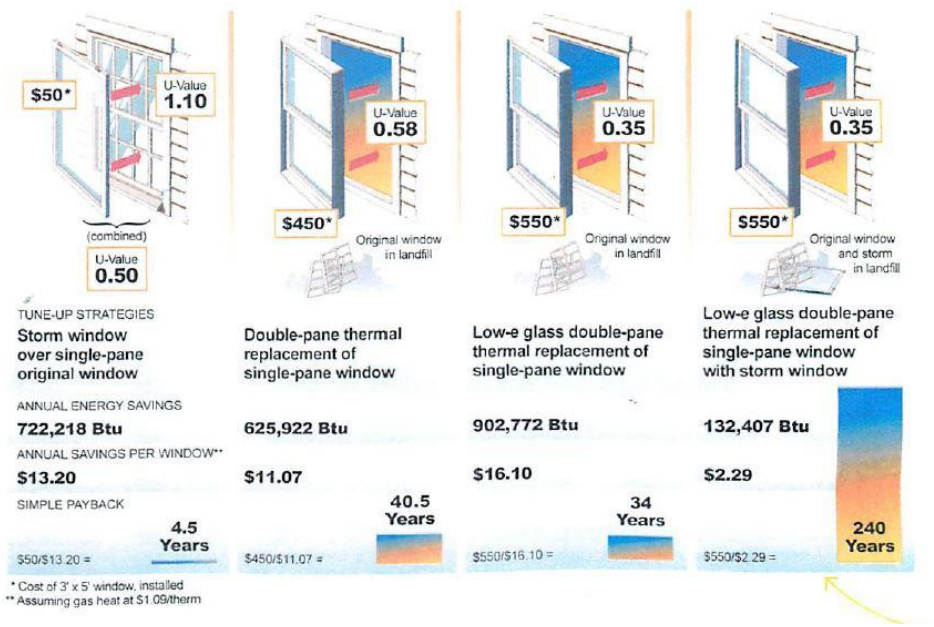
Replacement Windows

Windows are considered character defining features of our historic buildings. Changing the materials and appearance can alter the overall appearance of a house. Replacement windows should match an original, historic window in style and material and dimensions. Details matter. Replacement windows should fit in existing window openings without enlarging or reducing window size. For windows with a lite configuration, a replacement window needs to have either a true divided lite (TDL) or simulated divided lite (permanently affixed grid on the glass), no grid between the glass. Changes in window style are discouraged, except in cases where the historic windows have already been replaced and a more stylistically appropriate window is desired. Glass should be clear and not tinted (low E ok). True divided lite windows that match historic windows may be administratively approved.

The Board has consistently approved wood and aluminum clad double paned wood windows in matching configurations. While there may be other acceptable replacements, to date the Board has reviewed and approved Weathershield, Pella Architect Series, Marvin, Jeld Wen (also available as a sash replacement), Kolbe, Sierra Pacific, Andersen, and Sequel. PVC composite has been approved in some circumstances (particularly in areas that retain moisture), but are not preferred. The Board has reviewed Enviroguard and Tucker PVC composite windows. Vinyl windows are not permitted, metal may be considered if steel windows are an original historic window material. For window lines that have not been previously reviewed, a sample will be required at the ARB meeting.

Keep in mind that window salesmen have a product to sell, and that's new windows. "Maintenance free" often means you cannot maintain it, when it fails, you have to replace it. Old House Journal recently published a cost/benefit analysis of window replacement in older houses. Many new windows have a 20 year guarantee, this analysis demonstrates that new windows will rarely give you a good return on investment when it comes to energy savings over the guaranteed life span of the window.

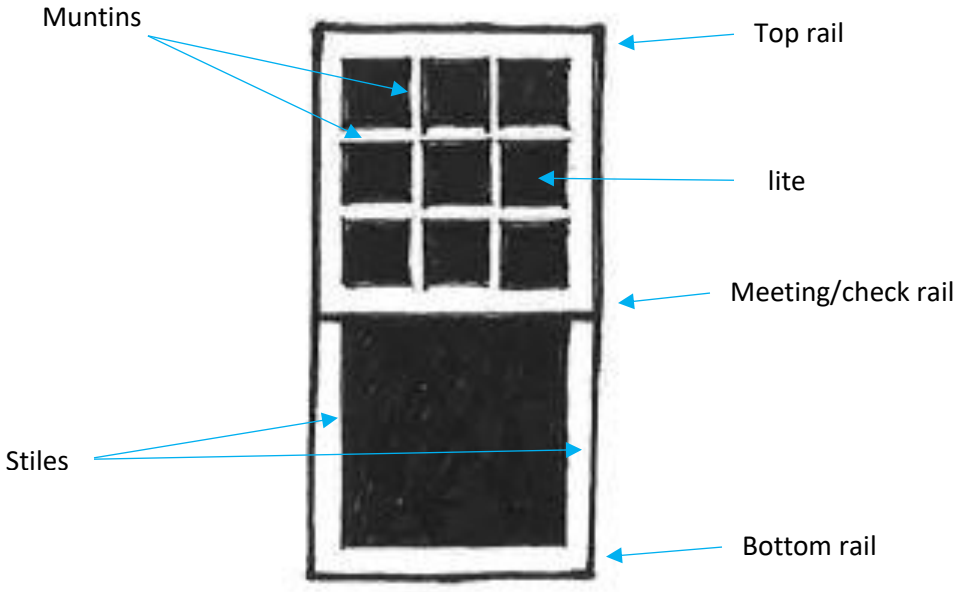
Let the numbers convince you: This chart compares the upfront cost, annual savings, and simple payback for four tune-up strategies, from a storm window to a super-efficient replacement.



Source: Old House Journal, July 2020

Window replacement checklist:

- Is the replacement window double pane or single pane? (all double paned windows are subject to review)
- Is the window available in a size that fits my opening without alterations?
- Material (wood, aluminum clad wood, if PVC, what is the special need?). (all clad and non-wood windows are subject to review)
- Dimensions of original window rails and stiles in inches. Rails are horizontal frame elements; stiles are vertical frame elements, muntins make up the pattern in the window:



  - Top sash top rail: _____ Top sash bottom/meeting rail:_____
    Top sash stile:_____
  - Bottom sash bottom rail:_____ Bottom sash top/meeting rail:_____
    Bottom sash stile:_____

- Dimensions of replacement window rails and stiles:
  - Top sash top rail: _____ Top sash bottom/meeting rail: _____
    Top sash stile:_____
  - Bottom sash bottom rail: _____ Bottom sash top/meeting rail: _____
    Bottom sash stile: _____

- Muntin bar dimensions (if applicable):
  - Old window _____ new window _____

- Available as a true divided lite (TDL)? Y/N
- Available as a simulated divided lite (SDL)? Y/N

Do your homework, understand what your window issues are and determine how you might be able to address your issues without wholesale replacement.