



# TIP Corp. News

## WINDOWS – REPAIR OR REPLACE?

As some of you may know, the Landmark Society recently hosted a special Window Workshop presented by Steve Jordan. Steve shared a lot of very good and very useful information. The below article is just one highlight that we thought all residents would find both interesting and useful.

### Ten Reasons to Save Your Old Windows

By Steve Jordan

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1. **Character and Significance.** Original windows are a significant character defining element of a structure. They are a product of their time—the design, size, number of panes, type of glass, muntin configuration, craftsmanship, and placement all offer clues to the age of a house or building and sometimes an indication of the interior floor plan. This is so important that their loss can prevent an otherwise intact historic property from being placed on the National Register of Historic Places.
2. **Aesthetics.** Original windows are contemporary with other materials on a house—they look right. A vinyl window with snap-in muntins on a nineteenth-century structure is jarring to the trained eye and confusing to everyone else. The proportions are wrong, the color is wrong, and the sterile appearance of the glass is disconcerting.
3. **Durability and Sustainability.** The low-tech rope-and-pulley balance system lasts indefinitely, 100-150 years is common. Numerous alternative systems have been introduced but none with the durability and longevity of the rope-and-pulley system. Saving your old windows is genuine sustainability—the “green” choice that doesn’t pollute the air, waste precious resources, or encumber swelling landfills.
4. **Quality Materials.** The wood in your historic window is tight grained, old growth, and naturally rot and insect resistant. Domestic wood of this quality is no longer available. Modern wood windows are made from juvenile growth wood that is often finger jointed and dependant on chemical preservatives for durability. Wood elements on new windows are typically warranted only ten to twenty years and failure during that brief period is common.
5. **Ease of Repair.** One current window hardware catalogue boasts 40,000 parts, most for windows manufactured after 1950. Historic windows were made to repair with materials from your local lumber company or hardware store. Repairs are not rocket science; at one time, most homeowners had the knowledge and skills to maintain or repair windows without hiring a professional. Today plenty of repair information is available for the do-it-yourselfer, carpenter, or handyperson.

6. **Broken glass.** Broken glass in your old windows can be replaced economically by most painters, carpenters, and at lumber and hardware stores. The vacuum seal on insulated glass on modern windows is never warranted more than ten to twenty years. Loss of vacuum or broken glass on most replacement windows requires replacing the sash or whole window by a professional installer.
7. **Weatherstripping.** Durable and effective weatherstripping can be retrofitted inexpensively to virtually any old window.
8. **Performance.** Historic wood sashes outperform all competitors in durability and the thermal conductivity of wood is less than all competitors.
9. **Hype.** Window salesman profit from selling new windows, not from encouraging you to repair your old ones. Beware of exaggerated claims like energy savings of 50%, etc. Also beware of contractors masked as energy efficiency experts. Remember, “maintenance free” often means “disposable.”
10. **Return on your investment.** Replacement windows are not always more energy efficient than your old windows. Many studies show the cost of a replacement window is seldom recouped in energy savings during the life cycle of the new window when compared to the efficiency of a sound historic prime window and storm sash. Investment in your older windows usually offers a better payback.

### **Are Old Windows Worth Saving?**

When energy bills are high and our homes drafty and cold, we look around for a scapegoat; unfortunately, windows frequently become the sacrificial victim. This reaction rarely solves a systemic problem that begins in the basement and ends in the attic. The average heat loss through windows is typically about 10-20% of a house’s total loss. It pays to insulate and weather-seal where heat loss is greatest; these areas include attics, ceilings, walls, and leaks around doors and windows. When the most egregious problems are resolved, it’s time to evaluate and shore-up the windows. Despite claims to the contrary, an old window in good condition can perform as efficiently as a replacement window. You wouldn’t know this by reading newspaper ads, flyers, or listening to radio or television commercials; but it’s true.

A study conducted on 150 windows on twenty nine old New England houses by the National Center for Preservation Technology and the Vermont Division of Historic Preservation found, “The difference in annual energy savings between renovating an old sash and replacing it with a new one was very small—retrofits (replacement windows) saved only a few dollars....” Renovations included tightening up the window with new weatherstripping and a tightly fit storm sash.

In a nutshell, a sound, weatherstripped window with an efficient storm sash approaches the efficiency of many replacement windows and, in some cases, surpasses them. But the most interesting conclusion of these studies concerns life-cycle cost analysis—the total cost of ownership over the life of a window—cradle-to-grave. When compared to efficiently operating original windows, most replacement windows, including the high-end choices, will never pay for themselves through energy savings—assuming a ten to fifteen year life for low quality windows and twenty to thirty years for high quality windows. This little known—seldom heard fact is opposite what most people think because, unlike the replacement window business, there’s no huge industry promoting the value of existing windows—there’s nothing to sell.



**Web sources for more window information:**

What Replacement Windows Can't Replace. Walter Sedovic and Jill Gotthelf.

[http://www.state.il.us/hpa/ps/images/replacement\\_windows.pdf](http://www.state.il.us/hpa/ps/images/replacement_windows.pdf)

What You May Not Know About Vinyl Windows. The United States Department of Energy.

<http://www.vinyl-windows.org/Vinyl-Window-Facts.htm>

Testing the Energy Performance of Wood Windows in Cold Climates

<http://ncptt.nps.gov/testing-the-energy-performance-of-wood-windoes-in-cold-climates-a-report-to-the-state-of-Vermont-division-for-historic-preservation-agency-of-commerce-and-community-development-1996-08/>

Link to an informative half-hour edition of Roy Underhill's *Woodwright's Shop* made at Alden and Steve Witham's 19<sup>th</sup> century window sash shop in Sharon Springs, New York.

[http://flash.unctv.org/woodwrightss/wws\\_2612.html](http://flash.unctv.org/woodwrightss/wws_2612.html)

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