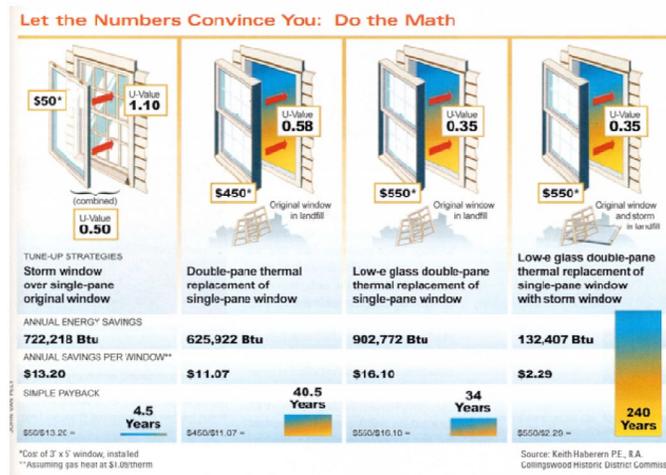


### Why Should Original Historic Windows be Preserved?

- Rebuilding historic wood windows and adding storm windows makes them as efficient as new vinyl windows and more than offsets the cost of installation.
- A comprehensive window study in Vermont in 1997 found that a weatherstripped wood window with an added storm window was as energy efficient as most new vinyl thermo-pane windows. Several other studies since this time have supported these findings. (Sources: Home Energy Magazine Online, September/October 1997 "Creating Windows of Energy-Saving Opportunity" and APT Bulletin 36:4, 2005 "What Replacement Windows Can't Replace: The Real Cost of Removing Historic Windows.")
  - In most cases, windows account for only about one-fourth of a home's heat loss.
  - Insulating the attic, walls, and basement is a much more economical approach to reducing energy costs.
- The old-growth lumber used in historic window frames can last indefinitely, unlike new-growth wood or vinyl. Old-growth windows have a tighter grain and better quality than most new-growth wood windows.
- All windows expand and contract with temperature changes. However, vinyl expands more than twice as much as wood and seven times more than glass. This often results in failed seals between the frame and glass and a significant performance reduction. Vinyl windows have a high failure rate – more than one-third of all windows being replaced today are less than ten years old.
- Any energy savings from replacing wood windows with aluminum or vinyl seldom justifies the costs of installation. For most houses, it would take decades to recover the initial cost of installation, and with a life expectancy of 25 years or less, installing new vinyl or aluminum windows does not make good economic sense.
- Most vinyl windows don't look like historic wood windows; their texture and thinness are inappropriate for Brownsville's historic buildings. A more acceptable alternative, if the original windows are beyond reasonable repair, are aluminum clad wood windows with baked enamel finishes.
- Historic wood and metal windows are sustainable. They represent embodied energy, are made of materials natural to the environment, and are renewable.



- Adding storm windows over historic wood windows is a cost-effective approach that preserves the original window and provides energy savings equal to new replacement windows.
- The payback to the owner is much better as well (Old House Journal). Homeowners may also want to consider the installation of interior, insulating storm windows. These custom-fit designs have proven effective in drastically reducing energy consumption and in solar heat gain. They reduce noise infiltration by 67% and air leakage by 75%. Installation requires no disruption to existing windows.
- When replacing windows, it is important to understand U-value specifications of available products. The U-value is a measurement of heat transfer through a material, such as window glass. The lower the U-value, the better the insulation. A U-value of .40 or lower is recommended for a North/Central and South/Central climate. Manufacturers are required to label their windows' U-values.