JRV Home Inspection Services, LLC

Volume 3, Issue 1

Winter-Spring, 2008

THE HOMEOWNERS JOURNAL

IN THIS ISSUE:

The Homeowners Journal, is a quarterly newsletter published by JRV Home Inspection Services. Any questions or article suggestions please contact our editor, **Jim Quarello** by e-mail at: *jquarello@jrvhomeinspections.com* or by phone: **203-697-1147**

JRV HOME INSPECTION SERVICES, LLC

28 Edgewood Drive
Wallingford CT 06492

www.jrvhomeinspections.com

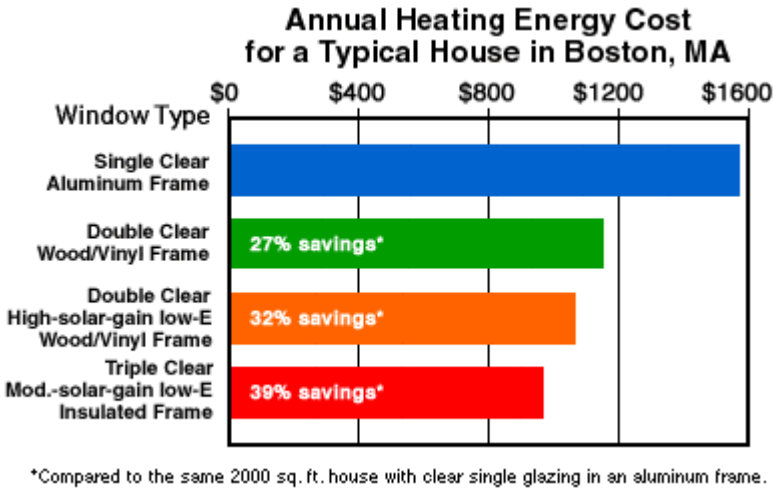
WINDOWS, A CLEARER VIEW ON ENERGY SAVINGS

By JAMES QUARELLO

Windows are one of the most noticeable parts of our homes. They let us see the world outside and let light inside. They are also a gapping hole in the thermal envelope of our homes. A significant amount of heat is lost through the windows. This is because glass is an extremely poor insulator. Due to this characteristic windows have evolved to the thermal multi-paned types today. But is replacing your "old" windows with a modern thermally superior variety going to make a huge difference in your utility costs? The short answer, very likely no.

In my experience clients have related claims by window installation companies of energy savings of as high as 40 percent by installing new replacement windows. This number was very likely derived from the chart to the right from the Efficient Window Collaborative. The problem with the chart is the base line window is not a realistic example. An aluminum framed, single paned window is not common. In fact I can never recall ever seeing one in the seven years I have been in-

Please see **Windows**/ page 3



EARTH-FRIENDLY FLOORING

By: C.J. HUGHES

When it came time for Simon Lewis and Wendy Smith to replace the floors in their Edwardian-era home in the Potrero Hill section of San Francisco, they struggled with the options. "It had to be beautiful," Lewis says, "but we also wanted to make sure we were conserving nature."

In the end, they chose EcoTimber's White Tigerwood, an amber-striped hardwood from Bolivia. The 3-inch tongue- and-groove planks came from trees that had been grown without chemical pesticides or fertilizers and were selectively cut down one at a time, rather than clear-cut in one fell swoop. "The decision to buy eco-friendly wood was the socially responsible thing t do,"Lewis says.

Lewis and Smith are part of a growing group of consumers who, when it comes to flooring, actually can see the forest for the trees. They're driving the market for "sustainable" products—those made from trees that have been raised and harvested with minimal damage to the environment.

Unlike homeowners of a few decades ago, who had fewer options when it came to saving trees, today's environmentally conscious remodelers don't have to sacrifice the look, feel, and durability of wood underfoot. In fact, sustainable flooring comes in all the popular species: white and red oak, cherry, maple, red birch, hickory, even exotics like teak, rosewood, and cumaru. And it doesn't cost a fortune. Four-inch wide, medium-grade American cherry that has been certified by the Forest Stewardship Council (FSC)—an international nonprofit organization promoting responsible forest management — costs $5 a

Please see **Flooring** / page 2

GRILL MAINTENANCE

By: SAL VAGLICA

Nothing announces the arrival of summer like firing up the grill. Unfortunately, nothing sours a summer party faster than a grill that won't light, smokes too much, or cooks unevenly. Grease, marinades, and sauces wreak havoc on gas burners, while charcoal grills suffer the corrosive properties of charcoal.

Grills of all kinds, from simple kettles to stainless steel restaurant-grade infrared grills, require maintenance to ensure that they perform and last. "At least twice a year you need to pull the grill apart to get inside and take a closer look at it," says Derrick Riches, barbecue and grilling guide for About.com. A thorough cleaning ensures that the burners fire properly, heat distributes evenly, and the grill is safe. Regular maintenance also allows you to catch problems like rust early on. Here is a primer on keeping your grill in shape.

Inspect the Chassis: Grills with welded joints or connections with pop rivets can rust. Scrub rust off with a stiff wire brush or coarse steel wool, apply a rust-inhibiting primer, and paint the grill's exterior with rust-resistant metal paint. Keep fasteners tight to ensure the base is stable and safe. Replace damaged grill appendages, like wheels, handles, or any other part of your grill, by contacting the manufacturer. You can also refer to the CLA Grills and Service website, or the Appliance Factory Parts website. Use dish soap or a mild detergent to clean cast aluminum grills, and Simple Green all-purpose, biodegradable cleaner for stainless steel ones.

Clean the Burners: Riches stresses that cleaning burners keeps the unit working at its best. Burner ports can fill with grease and close up, leading to hot and cold spots on the grill. While the unit is cold, use a stainless steel

Please see **Grill**/ page 4

FLOORING

From page 1

square foot, the same as standard cherry.

To get the FSC's stamp of approval, forest operations must meet 57 criteria, including protection of local wildlife, minimal use of chemical pesticides, even the guarantee that loggers can unionize. If a forest makes the grade, its wood products get branded with the FSC logo and a "chain of custody" number, which allows them to be traced them back to their source.

By 2005, there were 556 U.S. companies turning out FSC-certified lumber, up from 20 when the program was founded a decade ago, and 4,000 internationally. While the flooring they produce still makes up a small share of the U.S. market, it's growing fast. EcoTimber, a supplier in San Rafael, California, whose clients include Pottery Barn and Nike, has seen its sales of FSC-certified wood double in the last three years. "Environmental concerns are starting to have a very real effect on the wood marketplace, and it's about time," says Dan Harrington, EcoTimber's director of architectural sales and marketing.

More important, they're having an effect on the nation's forests. By 2005, FSC-certified woodlands blanketed 15.5 million acres, up from a mere 1.4 million in 1995. Internationally, the numbers are even more compelling, with 135 million acres of FSC-approved forests covering the globe.

While the FSC stamp is the gold standard, it's not the only way to get an earth-friendly wood floor. Another option is reclaimed wood, such as palm harvested from fallen trees on coconut plantations, timbers salvaged from abandoned buildings, and logs pulled from the bottoms of rivers, where they sank on their way to the mill (though some environmentalists decry underwater salvage, on the grounds that it disrupts aquatic ecosystems that have been in place for decades).

Then there's "wood" that isn't wood at all, like bamboo, a grass whose lightning-quick seven-year growth cycle makes it a favorite of many eco-conscious homeowners, and the bark of the cork oak, which when properly harvested doesn't harm the tree. Even engineered flooring—wood layers joined with low-toxicity glue and topped with a hardwood veneer — makes more use of the entire tree, thus lessening the toll on the forest.

How do you know your flooring dollar is really going back to companies with sound environmental practices? Look for a label from the FSC or the Sustainable Forestry Initiative (SFI), a group founded by timber and paper companies that has advanced its own set of standards. Though less stringent than the FSC—it doesn't require a chain of custody, for example—the SFI promotes reforestation and wildlife protection.

Only about 10 percent of the typical retailer's stock is likely to be "green," so you may have to do some hunting. For a list of certified companies in your area, visit The Forest Stewardship Council website. But you shouldn't have to look too far. "The availability of products is increasing along with consumer awareness," says Tom Dietsche, program manager for the U.S. Green Building Council, which has made FSC certification a benchmark in the new Leadership in Energy and Environmental Design (LEED) guidelines for homebuilders. "We've made a lot of progress."

FSC-Certified Hardwoods: Meticulously followed from the forest to

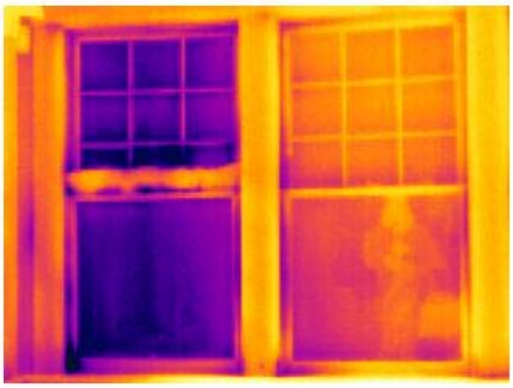
Please see **Flooring**/ page 4

WINDOWS
From page 1

specting homes, although I have seen numerous thermal double paned aluminum windows. The baseline example in the chart would be the absolute worst thermally performing window possible. A more realistic and accurate example would have been a wood framed single paned window.

But let's say you already have thermal double paned windows. They are old, worn and drafty. If you replace the old thermal windows with new double low-E windows the expected savings is about 5 percent according to the above chart. That is the difference between double clear (green bar) and double clear with low-E (orange bar).

Let's take another scenario; a single paned window outfitted with storm windows. This configuration is a double paned window but not thermally sealed. In the infrared image below the window on the left is not equipped with a storm while the right window has a storm in place. As is very apparent the difference in temperature is great. In fact it is approximately 15 º F. What you may also notice is the storm window decreases the drafts. The left window has a cloth draft preventer along the center seam. That is also the coldest part of the window.

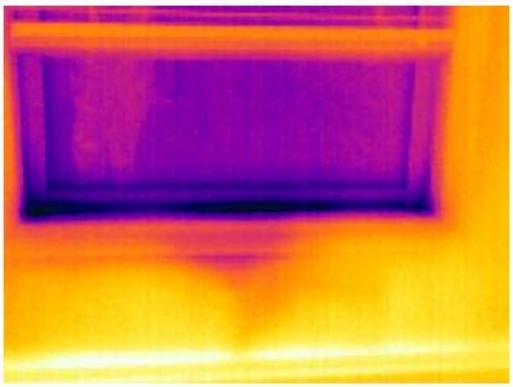


These windows are original to this 1914 built home. So you would believe that replacing the windows in this home would be very beneficial. The truth is through the assistance of a complete energy audit the windows were found to be a poor improvement. There were 27 windows of this general size in the home. Replacement cost was estimated at $9500. The estimated yearly savings was $320. The time to payoff the windows through realized energy savings was *30 years*.

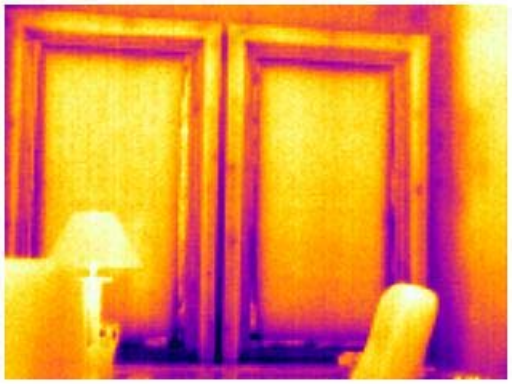
One parameter that can not be estimated is the draftiness of the windows. The air infiltration through leaky old windows can be a significant factor in comfort and energy costs. Therefore it could be reasonably inferred that the figures just given may be considered conservative. That due to the elimination of drafts the energy savings and certainly the comfort level of the home would be greater than estimated.

Here's another example. The window in the next IR image top right is 12 years old. It is a thermal double paned window. This window is a low quality, "spec" window and is substantially leaking air causing further heat loss and discomfort. Notice at the bottom of the image is the baseboard heater. The quality of this window is so poor that the heat has almost no effect on the glass.

The next IR image is of a good quality replacement thermal double paned window. Notice the glass is about the same temperature as the walls around the window. What is worthy of mentioning here is the heat is forced air with the duct located well above and to right of these windows.



The cold area at the base of windows is actually from aluminum foil the home owner placed there due to a perceived draft. The foil is reflective to IR and as such appears colder.

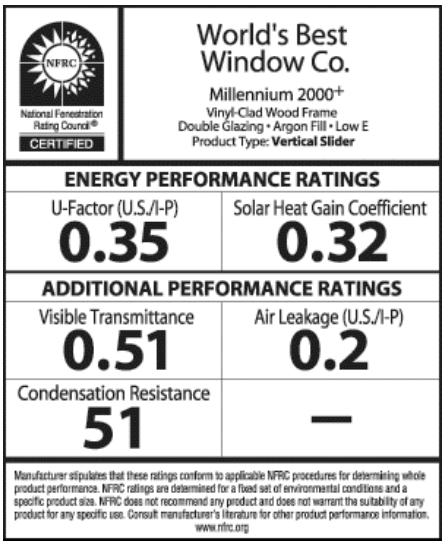


As is evident replacing windows to gain energy savings is a complex process. Changing windows can be in some instances a bad energy saving choice.

The tag below from the National Fenestration Rating Council should be on any window you are considering purchasing. Manufacturers *voluntarily* submit their products to NFRC for certification. However in order to meet the ENERGY STAR® criteria a product must be NFRC certified.

A detailed explanation of each criteria found on the NFRC Label can be found on their web site @ www.nfrc.org/label.aspx

Before considering replacing windows in your home an energy audit would be highly recommended. Through this process from an independent auditing service the cost effectiveness of a planned window replacement can be sensibly evaluated. If it is determined that a window replacement makes economic sense for your home, following the quality parameters from the NFRC will aid in finding the highest performing window for your energy improvement budget.



FLOORING

From page 3

your floor, these are logged and milled according to the highest environmental standards.

1. Long-leaf pine: $3-$6 /sq. ft.

2. Country Oak: $6-$10 /sq. ft.

3. American cherry: $5 /sq. ft.

4. Central American teak: $5-$7 /sq. ft.

5. Brazilian cumaru: $5-$6 / sq. ft.

These products are available through;

EcoTimber

Green River Lumber

Environmental Home Center

Sustainable Alternatives: Reclaimed and salvaged timber, plantation-grown wood, and renewable resources like bamboo, palm, and cork preserve old-growth forests.

6. Coco palm (DuraPalm): $9 /sq. ft.

7. Bamboo: $5 /sq. ft.

8. Reclaimed chestnut: $8 / sq. ft.

9. Hybrid eucalyptus (Lyptus): $5 /sq. ft

10. Cork: $5 /sq. ft.

These products are available through;

Smith & Fong

EcoFriendly Flooring

Vintage Log & Lumber

Weyerhaeuser

GRILL

From page 2

wire brush or flexible pipe cleaner remove the gunk from a traditional gas burner. The flames

should be distributed evenly throughout the burner after a good cleaning. Brush off any ash that accumulates on infrared grills, and be sure to keep the glass clean. Infrared grill manufacturers suggest using Bar Keepers Friend, a non-abrasive cleaner, to remove any deposits. Running the grill for 10 minutes on high after cooking also helps keep the ports free of build up.

Flame Color: There are a couple of reasons gas flames turn from their normal blue with yellow tips to completely yellow. The most common is inadequate gas pressure from the tank. Since propane expands at freezing temperatures, the pressure bladder in the regulator (a round disk attached to the gas line) can freeze into place and limit the flow of gas to the burner. If you have a yellow flame, try this remedy: First, turn the tank off and turn off the grill's control valves. Next, disconnect the tank, then open and close the control valves. Finally, reconnect the tank and slowly turn the gas back on to check the flame's color. Another cause of yellow flame is pressurized propane that, over time, can force the burner ports to widen. As a result, too much gas escapes. Riches recommends inspecting the burners and replacing them if they are misshapen or cracked. Once the burners are cleaned, light the grill to ensure that all flames are blue and similar in height.

Grease traps: Grill grease traps are typically trays or disposable aluminum cups beneath the firebox that collect fat. Keep these traps clean and drained because large pools of grease can ignite. Burners combined with a grease fire will exceed the maximum amount of heat the grill can handle.

Hoses: Replacing a worn or damaged fuel line is an easy task once you locate the problem. Manufacturers suggest coating everything—from the tank, to the venturi tubes, which connect the control valve to the burner—with soapy water. For a neat job, Riches uses a basting brush to apply the soap solution. Then, turn the grill on. Any bubbles that appear on coated areas indicate escaping gas, which can be fixed by replacing the hose or O-ring. The gap in the venturi tubes mixes gas with air enroute to the burner and can easily clog with debris or insects. Riches recommends wrapping the tubes with aluminum screen to let air in and keep bugs out.

Between the Burner and Grate: Sometimes called the radiant or flavorizer bar, this part of the grill evenly distributes heat to the grate above and produces smoke when food drippings seep down. "Most of the wear is in the flavorizer bars, because they see the most heat and grease," says Brooke Jones of Weber Grills. Brush off grease and debris from the metal plates because they can trap moisture and cause rusting. Replace lava rocks or ceramic briquettes if they give off a rancid flavor.

Grill Covers: Keeping a grill protected from the elements is the easiest way to preserve it. Covers should have a cloth inner lining to draw moisture away from the metal. A simple plastic sheet holds moisture in, creating a humid environment around the grill, which can lead to rusting. Use a canvas, cloth, or vinyl cover that fits the grill appropriately. Keep in mind that UV rays beak down cheaper, generic covers.