

WRIGHT BUILDERS

48 Bates Street, Northampton, MA 01060

413.586.8287

www.wright-builders.com

GET GREENER WITH WRIGHT...

Send us an email
requesting an
e-news subscription:
info@wright-builders.com

LEED Certification Expert
Energy Star Partner
US Green Building Council Member

© 2011, Wright Builders, Inc.
Design by NewKind Marketing

WHY SO MUCH? ICE AND WATER DAMAGE ?

First, let's look at gravity. If snow slides off the upper, steeper roof and comes to rest on a flatter cold roof, it will freeze and accumulate, eventually causing problems. The solution is to simply remove the snow build-up.

The second principle is maintaining a nearly constant temperature across the roof's surface. If melting starts, it occurs everywhere and continues to the drip line. This means that the roof edge cannot be colder than the main roof surface, which in turn brings us back to complete and consistent R-value installed insulation all the way to the outside skin of the building. The eaves are a standard culprit here, providing a warm melt band just inside the building, and causing water to travel out onto the cold eaves and freeze. This is how ice dams form and standing water often remains beneath the ice, causing moisture and damage to your structure.

Tips for Spring!



Have you had water damage from ice and snow build-up this past winter? By all means, go to great lengths to make sure that all the wet materials, whether wood, insulation or plaster, are either removed or fully dried to prevent mold or mildew from setting in.

Any exterior wood that has to be replaced should be pre-primed on BOTH sides prior to installation. If there is exterior trim that seems prone to rot, consider using one of the composites like Azek — sparingly — in the most vulnerable places.

Only oil-based primers actually “feed” dry wood with restorative oils. Fewer and fewer oil products are available. You will find oil-based “alkyd-reinforced” primers at your paint store. The wood must be dry, and drying times are longer than other primers.

Another priming option, acrylic, forms a polymer skin around the wood. These products are very durable and flexible, but they do not preserve wood the way the old-fashioned, toxic “nasty” stuff did. For most exterior priming needs the acrylics such as Benjamin Moore's Fresh Start do work well.

WRIGHT BUILDERS News

ALL THE NEWS THAT'S FIT TO BUILD

SPRING 2011

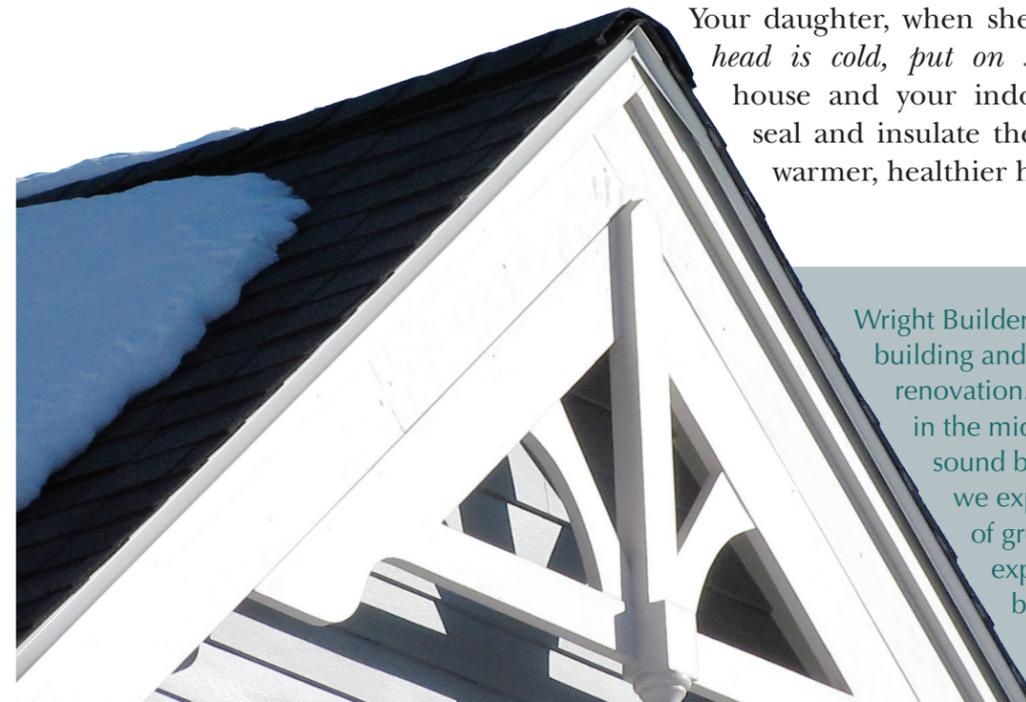
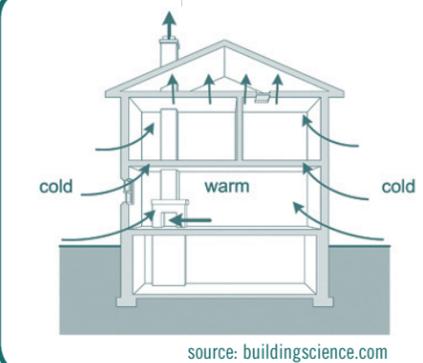
Your Mom said “IF YOUR FEET ARE COLD PUT ON A HAT”

Buildings are like that too – warm air rises and heat, carried by moving air, passes up to and through the roof, creating “stack effect,” the emulation of a chimney. Insulation and air-sealing will help a lot. But wait! You put on a hat, but you're barefoot! It's cold out! Here's the other part of your mother's building science chat:

Stack effect typically causes a 2% to 3% negative pressure in the basement of your home. Your house is sucking in cold air, sucking up mildew, moisture, dirt, and perhaps radon, and then passing it all up through your house and into the air that your family breathes.

Some studies suggest that the un-insulated air-leaky basement can be responsible for 30% or more of a home's heat loss. Air-seal the basement for sure! But you can also insulate the basement walls with one of the new fire-rated foams. If you have sufficient height in your ceiling, a new cellar slab over rigid foam insulation can be installed with great results. Wright Builders does this work with talented, resourceful trade's people and the best materials.

Your daughter, when she's a mom, may be saying “*If your head is cold, put on some socks and boots.*” Give your house and your indoor air quality a makeover— air-seal and insulate the basement and look forward to a warmer, healthier home.



Wright Builders is proud to be an area leader in green building and energy efficient construction and renovation. Beginning with our first solar building in the mid 1970's, our passion for environmentally sound building practices continues to grow as we explore, learn, and perfect our knowledge of green techniques and technology. Our experience translates to good value and buildings that last for wise consumers who choose to work with us.

WHAT WE'VE BEEN UP TO...

Beechwood at Village Hill: With the arrival of spring comes news that Wright Builders will completely build out both the Morningside single family homes, and Eastview condos this Summer and Fall, with a total of 22 families in residence!

Further, six more beautiful lots fronting the Beeches Park have just been approved by Mass. Development, so our newest neighborhood, Beechwood, will be ready for customer review through Goggins Real Estate this summer. The views are stunning, and the setting is perfectly charming.

More Efficient Endeavors: The proposed Montague Farmhouse and Artisans' Cottage models will be registered for LEED Certification, meeting the highest verified standards of residential construction today. All buildings will achieve a HERS rating of 50 or less. This means astonishingly low utility costs, along with a healthy and comfortable living environment.

Gage-Wiley Retrofit: At 120 King Street in Northampton, work is well underway on a new home for Gage-Wiley Investments. They are reusing an early 20th century wood frame building, with additions, for a new 6000 square foot facility. Of special note is the Deep Energy Retrofit aspects of this project, with R-36 walls, R-60 ceilings, and R-4.5 windows. The net effect will be a fabulous re-use of an aging building, which retains the original charm and character while producing a uniquely comfortable, energy efficient work environment.



THE CAVES'

In our last issue we focused on breaking ground on a Zero-net energy home in Hadley. That construction on the Cave home has progressed well through the long winter and in early spring. As drywall begins, the solar panels are on the verge of deployment, preparing to provide all the energy necessary to complete the construction of the home!

This house has been independently modeled with an anticipated HERS index of -27, which means that it produces 27% more energy than it consumes on an ongoing basis. Under the new DPU rules, the utility is obliged to buy that surplus power back at the retail rate, which makes the payback on these installations come down to around 10 years, depending on the exact incentive circumstances.

In terms of proof, we have “pud-ding.” Utilizing our own diagnostic tools and other resources, we have been able to thoroughly test this project's performance every step along the way. When it comes to home performance ratings, the numbers don't lie.

Despite a very snowy winter, We've been going Green in Hadley



On the Cave house, blower door pressure tests before insulation or drywall already exceeded the requirements for Energy Star tier 3, the highest domestic standard.

After insulation tests indicated 0.61 air changes per hour, which approaches the range of performance expected in the German Passiv Haus program, heralded by many but accomplished by few.

With expert and unflinching guidance and support of the folks at Coldham and Hartman architects, we at Wright builders are excited to be tackling areas of building science and building performance not even contemplated a few years ago.

Every project we do galvanizes the energy and innovation of the smart, accomplished¹³ and knowledgeable people who make up our team. We appreciate them all.

Watch for progress on this and other sites in our Fall Issue as The Caves move into their new Hadley home.



THUMBS UP **Acrylic Floor finishes** for wood floors have taken leaps and bounds in recent years, and are an excellent replacements for the VOC (volatile organic compound, affecting air quality), based varnishes of the past. These products set quickly, allowing for four coats in two days, and are fully stink-free in 48 hours. They are not as glue-like, therefore allowing the joints between the floor boards to move freely. Wright Builders uses these products exclusively for healthier buildings and a healthier planet. As a caution: these are active chemicals and should be applied with good ventilation.



THUMBS DOWN **Recyclable carpet.** Carpet manufacturers are now offering a recyclable fiber for floor coverings. This suggests a green pathway of recycling carpet and reusing the fiber. But compared to a locally harvested wood floor that, with maintenance, can last 75 years, carpet is very resource intensive. Unless the product is MADE of recycled fiber, there is no environmental benefit until the product is replaced.

We do suggest using recyclable products, over non-recyclable, but they still have a large carbon footprint compared to local hardwood or a linseed oil-based Marmoleum flooring. Once a wood floor finish is cured, there is very little “off-gassing” to compromise indoor air quality, while carpet can continue to off-gas at various levels for months, or even years. If your heart is set on carpet, finding brands made from recycled materials is a greener solution than the new recyclable type.



THUMBS OUT **Recycling building materials.** This “hitchhiking” is a great thing! EcoBuilding Bargains, formerly The ReStore (restoreonline.com) takes in and resells usable used building materials, and many demolition firms re-sort the waste products and recycle. This saves energy, helps people, supports the economy and generally puts materials hitchhiking – thumbs out – into the thumbs up column. Donate your older kitchen cabinets and other materials to EcoBuilding Bargains and possibly take a tax deduction.

GREEN BUILDING IS OUR BUSINESS