S.N.R. DESIGN AND BUILD, LLC
GREEN DIVISION

Home Energy Audits




The Problem

The homes in Heritage Hunt were built to code. The problem is that "code" does not mean "comfortable." Built to code means the home was built to the safety standards set forth by the local municipality.

Unfortunately, the local municipality can currently only set safety standards, not comfort standards, resulting in inefficient homes that are drafty, uncomfortable, and the responsibility of the homeowner to correct.

The Cumulative Effect #1

Gable vents in Heritage Hunt are ornamental only, they have no purpose. In effect, the gable vents in your home are nothing more than a 2-foot hole in either side of your home that was beat through the wall with a hammer. In some cases, they have not been open to the interior spaces, other cases have.

The Cumulative Effect #2

Insulation baffles placed by the building contractor in the eaves of your home are made of cardboard. These are designed to keep the blown-in insulation out of the soffit vents, promoting air flow to the ridge vent on your roof.

Unfortunately, these can fail, causing the soffit vent to clog with insulation. Furthermore, once the soffit vent is clogged, its purpose has failed, moisture can set in, and that brings mold and mildew.

The Cumulative Effect #3

The combination of the winds that whip through Heritage Hunt, the uninsulated garage attic space, and the areas over the entrance foyers and covered patios force air into your attic space—pressurizing it.

Blown-in insulation in the attic space over living areas is exposed to too much wind, suffers wind damage and is redistributed. This can leave some living areas ***uninsulated***.

Wind-damaged insulation can also clog the proper ventilation required for your house to breathe.

QUICK DEFINITIONS

Gable Vent – the round, louvered vent installed on the sides of your home, under the tallest peak of your roof structure.

Ridge Vent – the long vent installed on top of your roof, the tallest feature of your house.

Soffit Vent – the vent that is installed in the horizontal eaves, and runs the perimeter of your home.

Blown-in Fiberglass Insulation – the insulation installed in the attic spaces in Heritage Hunt.

Insulation Baffles – the material used to keep the blown-in insulation from clogging the soffit vents.

The Cumulative Effect #4

This pressurized, attic-temperature air, is looking for somewhere to go, and it seeps through every penetration in the drywall and every place where the wall touches the floor, including:

- Lights
- Ceiling fans
- Doors
- Windows
- Smoke/CO2 detectors
- Plumbing under sinks, tubs, and behind shower fixtures
- Outlets (electrical, cable, telephone, data)
- Light switches
- Registers
- Cold air returns
- Fireplaces
- Speaker boxes
- Thermostat
- Doorbell

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The Solution

The solution has multiple benefits and happens in connected stages:

- Seals the home from drafts from the inside out.
- Corrects any anomalies involving the attic insulation and baffle materials.
- Corrects any air flow issues in the attic space while still allowing the proper air flow required for your house to breathe.

HOWEVER…

Only taking care of one, or just some, of these issues ***will not*** solve the entire problem.

Consider your house like a hose with multiple holes in it, if you block one hole the pressure increases at the other holes. Only once you have ***all*** the holes sealed will the problem go away.

Materials

Blown-in insulation used should be cellulose based, treated in Borax to set fireproofing. It should have a higher "R" value (the insulating value of the material) requiring less material to be used.

Insulation baffles should be larger, with locations securing the baffle to the roof sheathing itself, and should be made of a material that will not degrade when exposed to moisture, preferably with its own "R" factor.

Economic Stimulus Package

Tax Credit Changes

The tax credits that were previously effective for only 2009 have been extended to 2010 as well. ***The tax credit has been raised to 30%!*** If you buy $300 worth of materials it will only cost you $210 after you take the $90 (30%) tax credit. This is money straight off your taxes.

The Maximum Credit

- Raised from $500 to $1500 for the two years (2009–2010).
- Important information about the tax credit:
  - Must be for taxpayer's principal residence.
  - Service must take place between Jan. 1, 2009 and Dec. 31, 2010.
  - For any service to qualify, its primary purpose must be to insulate (reduce heat gain or loss).
  - Installation costs are NOT included. If installed by a professional installer, you will need an invoice with the cost of materials and labor separated.
  - Improvement must be expected to last for more than 5 years.

How To Take Your Tax Credit:

- Must have a Manufacturer Certification Statement.
- Save a copy of the Certification Statement with your tax records. You do not need to send a copy with your IRS Tax Return.
- Improvements made in 2009 will be claimed on your 2009 taxes (filed by April 15, 2010) — use IRS Tax Form 5695.

CLIENT COMMENTS

"All work and clean up after work men finished their job was superior! Work men were courteous and polite."

—E. & L. M.

"After the project... (My wife) was moving things around in the attic, and had to call down for a flashlight because since we had the work done, the attic was dark, proving the sealing of the major air flow.

Our house is quieter now... Our neighbors agree. Their house was too after their project was done.

Our floor is warmer.

I was constantly impressed with the quality of the workmanship, the friendliness and respect I received from the staff, and the attention to detail used in my home."

—B. & P. S.

"We are very impressed with the professionalism and workmanship of the management and crew. Our house was left in perfect order each evening. Our household items were handled with great care and returned to their exact location."

—K. & L. S.

Not So Common Knowledge

According to Yahoo! Green

The #1 item on the list of things a homeowner can do to their home to save energy:

"Seal air leaks. The cumulative gaps around the windows and doors in an average American house are the equivalent of a three-by-three foot hole in the wall, according to the Natural Resources Defense Council."

According to www.energysavers.gov

U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy:

"Find and seal leaks. Seal the air leaks around utility cut through for pipes (plumbing penetrations), gaps around chimneys and recessed lights in insulated ceilings, and unfinished spaces behind cupboards and closets. Add caulk or weather stripping to seal air leaks around leaky doors and windows."

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