



LISA CAROLIN, THE LIVINGSTON COMMUNITY NEWS

Jack Griffith, owner of Infrared Energy Analysis LLC, uses an infrared camera to detect cold spots in the walls, ceiling and around the windows of a home.

# See where the money goes

## Infrared camera shows exactly where heat gets out

BY LISA ALLMENDINGER  
News Special Writer

Jack Griffith might be called the Sherlock Holmes of skyrocketing heat costs.

He goes into a home and uncovers all the clues that solve the mystery of where your home is losing heat or, during the summer, air conditioning.

The Ann Arbor resident does a visual inspection and uses an infrared heat-loss scanning system to pinpoint spots where your house is sending heat outdoors or sucking cold air inside.

Through his business, Infrared Energy Analysis LLC, Griffith combines his home appraisal experience with training in infrared technology to show homeowners where modifications are needed.

Basements, he says, are notorious entry points for cold air. The attic is a place where heat most often escapes.

Griffith says not enough is written about the stack effect. Simply put, in your home, as in nature, hot air rises when surrounded by cold air, he says.

"During the heating season, your home experiences similar pressures to a hot-air balloon. Most air loss is not caused by wind; it is caused by the stack effect," he says. The rising heated air escapes through the ceiling, creating a vacuum in the lowest levels of your home, which in turn, draws cold air inside and pushes it upward.

During his visual evaluation, Griffith says the first place he looks is at the furnace. He evaluates its age and efficiency rating,



An infrared camera's image of a room. The darker colors indicate cold spots and white indicates the hot spots.

among other things. From there, he looks at the house's duct work, crawl spaces and the attic to discover "any break in the envelope," he says. He also checks chimneys - another spot where warm air can escape.

After the visual inspection, Griffith pull out the infrared scanner. This provides homeowners with a picture of hot and cold spots.

Scanning "takes heat energy and turns it into something visible," Griffith explains.

Photos of the cold air coming inside the home show up as dark blue to magenta, while heat escaping outside is a lighter color, red orange to almost white.

One spot homeowners don't think about when considering

where heat loss is occurring is through recessed lights, he says.

"The older ones are really bad. They are like mini-chimneys," Griffith says.

Following an inspection, he gives the homeowner not only a written report, but also digital and thermal images of the trouble spots.

Included in the report are recommendations for solving the home's problems, listed in order of best economic return, he says.

For example, one homeowner was told to replace the front door and framing, exchange all high-use standard light bulbs with compact florescent bulbs and to add insulation in several areas.