



HEALTHY HOMEOWNERS

BPC Green Builders clients share stories of owning a green home

ETTA KANTOR STILL REMEMBERS

the reaction she got from her builder when she described the type of house she wanted him to build. “He was so excited,” she recalls. “He said ‘Oh, you want to pull out all the stops!’”

For most builders, it is the size and cost of a new project that elicits this type of reaction. But for Mike Trolle, founder of BPC Green Builders, the thrill came instead from the opportunity to put all of his knowledge and years of training in building science to work on a single project. “The Kantor house is relatively modest by Fairfield County standards,” says Trolle. “But Etta had really done her homework. And she wanted to build a truly high-performing house, from the ground up. So we shared that passion.”

And so began a collaboration that in 2008 yielded a LEED Platinum Certified house in New Canaan that Kantor uses to showcase the possibilities of sustainable homes. The 5,000-square-foot Adirondack-style house was made entirely of local and recycled materials, from the stone veneer that was harvested on the property, to the white cedar shakes from a sustainably managed forest in New England. The roof is made of recycled rubber and plastic, looks exactly like slate, and comes with a 50-year warranty. And the wood flooring throughout the house comes from 100-percent reclaimed red and white oak.

But it is the performance of the house that gets both Kantor and Trolle the most excited. “Since December 2009, I estimate that we’ve generated more than 28 million watts of electricity from the solar panels,” says Kantor. “We feed it back into the grid, and most months, the electric company ends up owing us money.”

There are two sets of solar panels at the Kantor home, one photovoltaic for electricity production, and another set of thermal solar panels to provide heat to the house by transferring energy into a 1,000-gallon water tank that banks heat and distributes it throughout the house. The above-grade walls are framed with two-by-six studs at 24-inches on center, with additional two-by-three horizontal strapping to accommodate seven inches of spray foam insulation and eliminate thermal bridges. And four of the five toilets use a gray-water system that reuses drainage from the showers and washing machines. The other toilet? That uses a compost system of wood shavings, peat moss, and beneficial bacteria to convert human waste into safe, effective fertilizer.

“My husband thought I was crazy and in the beginning gave me such agita,” says Kantor. “But in the end he was very proud.”

Not everyone Trolle works with is a pioneer of sustainability, however. In fact, in the last



✚ A happy
etta Kantor,
at her home in
new Canaan



three years, BPC Green Builders has seen the demand for green homes grow dramatically, and for a variety of reasons. Take Jason and Marisa Rotenberg. When the Rotenbergs engaged BPC to build their dream house in Ridgefield, sustainability was a consideration, but not nearly the only one. "Of course we wanted to build a house that was consistent with our values and that safeguarded the environment," says Jason Rotenberg. "But most importantly we wanted a comfortable house and a healthy living environment. We didn't want mold or dust or drafts. We wanted a beautiful home. And we wanted a builder that would partner with us, and keep our best interests in mind. Building a house is a big investment, and we're going to be here for a long time. We felt very comfortable with Mike from day one, and the relationship we developed was highly productive."

When the project was over, BPC had built the Ro-

tenbergs a 5,500-square-foot home, with 40 percent of the walls made of glass. The windows are air-tight when closed, and super-insulated, and the heating and cooling is provided by a forced-air geothermal system, along with radiant floor heat. The house is so efficient, in fact, that on a frigid winter day, with snow piled high outside, a person can stand right next to a floor-to-ceiling window and not feel the slightest change in temperature.

But the Rotenbergs made thoughtful choices and did not leap at every green bell or whistle. "We chose not to do a number of things, like solar panels, because the costs outweighed the benefits in our estimation," says Rotenberg. "Green was not our top priority. Mostly we wanted a bright, private, modern home that was well built. And that's what we got."

Since its inception, BPC Builders has racked up awards, recognitions, and certifications. Of the six LEED certified



homes in Fairfield County, BPC has built two of them, the only homes certified at the highest, or Platinum, level, with four more LEED certifications expected this year. Chris Trolle, Mike's brother and partner in the business, is a professional engineer who intimately understands how to analyze the energy requirements of a home, and design mechanical systems to match. He recently completed a rigorous certification process to build cutting edge, high-performance homes called "Passive Houses." In January 2011, the company was honored as the Connecticut Green Builder of the Year by the Connecticut Green Business Awards. BPC is the only builder in Connecticut to have completed an American Lung Association Health House. And its commitment to build all of its projects to Energy Star standards dates back 12 years.

One of the Energy Star homes BPC worked on is that of Avery and John Costigan of Ridgefield. When the

Costigans moved to Ridgefield from New Jersey, they had trouble finding a lot on which they could build a house. Ultimately, they bought an older home with the intention of completely renovating it in the first year. BPC added a two-by-three exterior wall around the entire house, spaced one inch from the existing sheathing to eliminate thermal bridging, and packed it with insulation. They reconfigured the interior, opening up the space, and drilled two 200-foot geothermal wells to heat and cool the house.

Last winter, one of the coldest on record, the Costigans, a family of five, spent a mere \$800 for heat and hot water for their 4,300-square-foot house. "I'm a big believer in energy independence," says John Costigan. "And I love saving on fuel costs as well. The only thing I pay now is an electric bill."

When asked if living in a green house takes getting used to, Costigan had only this to say: "Yes, it's a little different. I don't have to touch a thermostat anymore." ❁

+ The Costigans built a modern, high-performing home with super-insulated windows and a geothermal heating system (opposite). The Costigans used BPC Builders to renovate their home inside and out, opening up the living space, and adding a two-by-three exterior wall to maximize their insulation. The family of five used to spend about \$4,000 a year on heating oil. Last winter they spent only \$800 for both heat and hot water.



Before



During



After

