

The Bacon-Brenes Home

Building with Nature in Mind

BACON-BRENES AT A GLANCE

Project Owners

Kristin & Matt Bacon-Brenes

Location

4057 NE 14th Avenue

Project Type

New Construction – Single Family House

Completion Date

Summer 2002 (ongoing detail work)

Project Size

1550 sq. ft.

Estimated Project Cost

\$275,000

Prime Contractor

Dave Heslam, Coho Construction Services, Inc.

Architect

Andre DeBar

Rainwater Harvesting Designer

Pat Lando

Vendors & Suppliers

 Eddie Murphy Cabinets
 Endura Wood Products
 Environmental Building Supplies
 The Rebuilding Center
 T.R. Strong Building Products

Green Materials and Measures Used

 Rastra Block
 Recycled Framing Materials
 Takagi Instantaneous Water Heater
 Low VOC and natural finishes – Aglaia Paints
 GFX wastewater heat recovery system
 Energy recovery ventilator
 Rainwater harvesting system for potable water
 Passive solar design
 \$1500 energy tax credit,
 Radiant floor heating
 Well-insulated building envelope = low heat needs

What makes the Bacon-Brenes house in Northeast Portland look and feel different than other houses? It might be the warm spring sunlight that heats the concrete floors under the kitchen table, or the way the light seems to dance across the hand plastered walls. It might be the simplicity of the floor plan or the beauty of the exposed beams. One thing's for sure – the house looks and feels different because it was built with the intention to conserve energy and resources and last for many years. This unique house was also designed to draw elements of nature into every corner of the home.

Matt and Kristin Bacon-Brenes began planning and researching how to build a green home about a year before they purchased their property in the Sabin neighborhood. They knew they wanted to build an environmentally sound house that fit in with the neighborhood, and found kindred spirits in architect Andre DeBar and contractor Dave Heslam. Matt and Kristin felt that new construction seemed flimsy, and wanted to create a house that had the same craftsmanship and detailing as the older houses in their neighborhood. Working as a team Matt, Kristin, Andre and Dave have created a house with “inner beauty” that arises from the integrity of the materials, logic of the plan and a design that reflects its relationship to nature.

For many of the materials used in building the Bacon-Brenes home this is their second incarnation. From the salvage framing lumber to the countertops, from the plants in the yard to the water in the taps, many materials have been allowed to live again. Matt and Kristin began looking for building materials for their house before they even began construction. They found doors from a Pendleton boarding house with a colorful history, a staircase from the old Springfield High School, marble and lumber from deconstructed buildings, light fixtures from an old church basement, and they recycled



Cabinets are certified Oregon White Oak.

PHOTOS: MIKE O'BRIEN

used sinks. They set up a rainwater harvesting system that provides drinking water as well as household water. Matt and Kristin found things that had stood the test of time and would function and add beauty to their home for years to come.

“We wanted to create a quality house with integrity, which is pretty different than the usual model for new construction.”

– Matt Bacon-Brenes

The house was designed with Andre DeBar to be a small but flexible living space, based on many of the concepts from Sarah Susanka’s book, “The Not So Big House.” With that in mind Matt and Kristin focused on creating an open passive solar floor plan downstairs, with a simple layout for the upstairs bedrooms and potential to add additional living space on the third floor without increasing the footprint of the house.

The Bacon-Brenes home is full of details that express their unique family identity. Matt is a Portland native who has traveled extensively in Japan – and the house reflects the traditional craftsmanship of both cultures. Matt and Kristin’s house is so impressive because it manages to be simple, beautiful, functional and healthy while at the same time innovative.



South sunlight provides day lighting and passive heating.

LESSONS LEARNED - An interview with Matt Bacon-Brenes

What are your successes? What helped you achieve them?

Our greatest success was our ability to communicate and work with our architect, Andre Debar and our contractor, Dave Heslam. Kristin spent quite a bit of time sketching the house design before we hired Andre as the architect. Andre was really open to Kristin's ideas and all of our planning, and Dave was great too. Collectively, we had the flexibility and understanding to build the house to be what we envisioned together – a low-impact, high quality home that fits in with the neighborhood.

What did you decide not to do? What were the reasons?

We made many revisions to our original plan. For instance, originally we planned to paint the interior plasterwork, and even took a painting class at the Environmental Building Supplies. However, after we had lived in the house for a while, we just really loved the way the plaster looked and decided not to paint. We also had talked about putting French doors off the kitchen, which would have allowed us to open the house to the outdoors. We didn't do it because it seemed too expensive at the time. Originally, I also had hoped that we could use the ceiling decking as the finish floor for the upstairs. However, Dave thought it would make the house really loud, and suggested we install a plywood subfloor upstairs with bamboo finish flooring. We love it, and it did make the house more soundproof.

What were the barriers or problems you encountered?

One of our biggest challenges was trying to build with the Rastra Block in January when it was rainy and cold. When the block gets wet, it gets really hard to work with because it gets so heavy. The weather, as well as some challenges getting code approval on the structure also slowed us down. Another hurdle was working with the City to have our rainwater harvesting system permitted to allow us to drink the rainwater. The code allows for rainwater harvesting systems for non-potable water, but to drink the water we had to go through an appeal process. Our water has to be tested annually by the City to ensure that it is safe for us to drink.

Where did you get your information?

Kristin and I started researching and planning to build a green home about a year before we started working with the architect. We got a lot of our initial information from home magazines and the Rebuilding Center. Andre, Dave, and our rainwater harvesting designer, Pat Lando, also had a lot of experience and great ideas.

What was your experience with contractors? With vendors?

Finding the right architect and contractor was one of the biggest successes of building the house. Dave and Andre were both really willing to listen to us and we worked together as a team. Even after we had negotiated the contract with Dave, we were all willing to be flexible and fair. Dave showed us where we could save money, and we were willing to pay for some of the unanticipated costs.

Working with the Rebuilding Center was great, too. Kristin and I started going there and collecting things before we even started building. Once construction was underway we went there almost every other day. Their Deconstruction team took down the Amity



PHOTO: MIKE O'BRIEN

Hand-made Japanese-style soaking tub.

Mill, from which we reused wood for framing and decking. We also found the marble for our kitchen and bathroom counter tops and our staircase, which was from the old Springfield high school.

A neighborhood cabinetmaker named Eddie Murphy designed and built our cupboards. He liked using the certified Oregon white oak, and after we convinced him to use the wheatboard for the cabinet backs, he discovered that he preferred it to ordinary particleboard.

Which green measures cost extra? Why did you think they were worth the extra cost?

The whole house is built using green technologies and really high quality materials. For example, we used the highest quality windows we could find – they have a 50-year guarantee. We also used stucco, plaster, concrete, and unfinished wood – all products that have a long life. We wanted to create a quality house with integrity, which is pretty different than the usual model for new construction.

What would you like to tell others about your experience?

Finding a contractor that you can communicate with is the most essential part about building. If you are interested in integrating green technologies into your house, finding a contractor with that kind of experience will allow you to try new things.

What would you not do again or do differently?

Re-use of salvaged toilets should be done carefully. Often they need replacement parts. If generic replacement parts are used, the toilet may not function efficiently (i.e., waste water and flush poorly).

What were your most important environmental goals?

Our goal in building the house was to create an environmentally sound house that fits in with the neighborhood.



G/Rated: A project of OSD

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