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The Green Design Guide

Our annual Green Home of the Year award winners show how sophisticated design concepts and energy-saving technologies combine to create residential masterpieces.



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Second Life⁰⁴

Best Life Cycle Extension

27



DESIGN TIP:

Save Ahead: In retrofits, encourage home buyers to save plants and look for salvage products in advance of the design process. In this project, the owners salvaged brick.

DESIGN TIP:

Be Creative: Consider non-traditional design ideas to solve redesign problems. In this house, the owners opted for two entryways to make the interior flow work better.

DESIGN TIP:

Think Forward: Designing for ADA compliance isn't just for the old and disabled. Making homes accessible is a smart idea for all homes because it means anyone can comfortably visit or live in the home and saves on later remodeling resource use and costs.

Careful demolition techniques extend the life of a row home.

As many green experts will point out, the greenest home is an existing home that has been “saved” and turned into a high-performance unit. That was the case with this 1890s two-story row house outside Philadelphia.

The owners loved their home where they have lived for the past 35 years, and which is within walking and biking distance of work.

They wanted to update the house to reflect their Quaker values: unpretentious, earth friendly, and functional.

The modest addition they settled on added a spare 320 square feet. Attached to the kitchen, it incorporates a bedroom/study with storage, an accessible bathroom, laundry, and an entry from the urban garden.

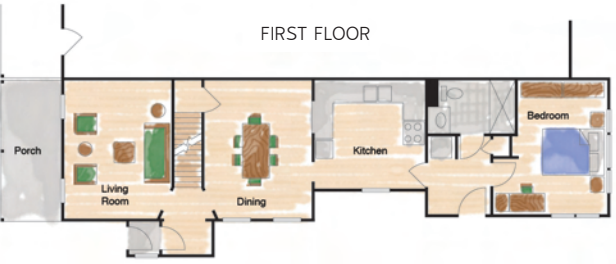
The main part of the house was air sealed and insulated with spray foam in the basement and cellulose in the above-grade walls and roof. The team also replaced the older furnace with a 95% efficient unit.

According to David Closterman, builder and owner of DCI Enterprises, the project was unique from a reuse standpoint. “We focused on demolition, seeing if there were any usable materials. For example, we used the old roof sheathing and roofing for a temporary access path,” he notes.

The owners had salvaged brick for years in anticipation of the project. “A couple of times, I had to say to them, ‘Are you sure you want to reuse that?’” Closterman jokes. The team used floor joists to make trellises for the windows, reused pine flooring, and reused lumber for braces and batter boards. This frugal sensibility is part of the reason the project stayed within its budget.

“From a design standpoint, it was great to have engaged in reuse,” says Paul Thompson, a project architect. “We had to make it as much like a ship as possible so functionally it works great—but it doesn’t have a spare square foot of fat.”

- > **Project Name:** More Green In Less Space, Doylestown, Pa.
- > **Builder:** Dave Closterman, DCI Enterprises
- > **Architect:** Blupath Design Architects
- > **Photos:** Sam Oberter Photography



HANGING OVER

The depth of the overhang over the back side door was calculated by using sun studies. The additional shade keeps cooling costs down.

SUN BLOCK

The window trellises are made from reclaimed floor joists. Plants grow up and around the window to block the sun in the summer. The leaves die back in the winter to let the sun warm the interior.

TOTALLY TIGHT

The new addition is built on an Arxx Prime ICF foundation with 4" of polystyrene under the slab. SIPs were used for the walls and roof, and Pella's Proline 450 windows were used for openings, which are strategically placed to provide cross ventilation.

SECOND LIFE

The brick used in the remodel was collected by the owners in advance of the project. They contribute to the 1890s era look of the house.

SMART ENTRY

Inside the door is a entrance vestibule with two doors to provide an air lock.



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