

A VERY GREEN REMODEL

Energy-wise features and eco-friendly materials transform a modest Kensington home



Tom Beach and Barbara Peterson loved their home in Kensington, but wanted a bit more space. Built in the mid-1940s, the house was small relative to the lot size, so the couple could have opted for a large addition. Instead they chose to keep the house compact, preserving outdoor space and respecting the context of the neighborhood.

Kathryn Rogers of Sogno Design Group worked with the couple to come up with a plan for reconfiguring the kitchen, living room and dining room to improve the flow of the rooms and provide a better connection with the backyard. They also lowered the floor level in the unfinished basement by a foot and built an internal staircase to link the main floor to this space, where they created a family room, accessible storage space, an office and a full bathroom. All told, they increased the home's usable space by 1,000 square feet while only increasing the footprint by 400 square feet.

Every step of the way, the couple looked for opportunities to save energy and natural resources. They were delighted to discover that going green doesn't have to mean spending more money, sacrificing style or giving up any of the comforts of home.

“Green materials are not always immediately associated with beauty. I wanted to bridge that gap.”

—Kathryn Rogers, architect

ENERGY

Energy efficiency. Walls and the ceiling were newly insulated, with blown-in recycled cellulose used in some areas and recycled cotton batt insulation in others. With better insulation, new dual-glazed windows and an on-demand water heater, the couple reduced their natural gas use by 50%.

Appliance upgrades. The couple selected a very energy-efficient Sun Frost RF-16 refrigerator, a Caroma dual-flush toilet, and a high-efficiency forced-air furnace. A massive brick fireplace presented an earthquake hazard; it was replaced with an EPA-certified high-efficiency woodstove.

Solar electric system. A 2.4-kW rooftop photovoltaic array meets 100% of the household's electricity needs, reducing their electricity bill to zero.

GREEN at a GLANCE

ENERGY & SYSTEMS

- 2.4-kW photovoltaic system (Kyocera Solar Panel)
- On-demand hot water heater (Takagi TK-2)
- Blown-in cellulose insulation (Synergy Companies)
- Cotton batt insulation (UltraTouch)
- Ductwork installed within conditioned space
- Double-pane windows (Marvin)
- Exposed concrete floor downstairs
- 92% efficient natural gas forced-air furnace (Lennox)
- High efficiency refrigerator (Sun Frost RF-16)
- Energy Star® front-load clothes washer (Maytag)
- Compact fluorescent lamps widely used

MATERIALS & PRODUCTS

- Salvaged Douglas fir for main entry and kitchen doors (Community Woodworks), trusses, posts and beams (C&K Salvage), counter (The Reuse People), and trellises (Trestlewood)
- Engineered lumber
- Low VOC, water-based wood finishes (Safecoat Polyureseal)
- Recycled glass tiles (Bedrock Industries' Blazestone Tiles)
- Fiber-cement siding (James Hardie)
- Recycled plastic decking (Trex)
- Kitchen counter and shower surround with FSC-certified wood fiber (Richlite)

OTHER GREEN FEATURES

- Landscaping design includes native plants
- Dual-flush toilet (Caroma)
- Remodeling project didn't encroach on mature coast live oaks
- Original fireplaces replaced with EPA-certified woodstove (Woodstock Soapstone "Keystone")

SALVAGED WOOD

Reclaimed wood. The “new” trusses and beams in the remodeled living room, dining room and kitchen are salvaged Douglas fir, as are the main entry door and Dutch door in the kitchen. The eating counter is Douglas fir salvaged from a bowling alley. The trellises in the front and back pergolas are milled from century-old Douglas fir salvaged from a railroad trestle that once crossed Utah’s Great Salt Lake.

GREEN MATERIALS

Recycled glass tiles. In the living room, the old wood-burning fireplace was taken out of commission; in its place is a decorative fireplace with a surround made of beautiful recycled glass tiles.

Durable exterior materials. The decking on the walkways is recycled plastic lumber and the roof deck is covered with slate tiles. Both materials were chosen for their durability and low maintenance requirements. The exterior siding is durable fiber cement siding.

Richlite kitchen counter and shower surround. Richlite is a countertop material made from wood fibers harvested from FSC-certified, sustainably managed forests.

ORIGINALLY BUILT: Mid-1940s
REMODEL & ADDITION COMPLETED: 2004
ORIGINAL SIZE: 2,100 SF
SIZE AFTER REMODEL: 2,493 SF
ARCHITECT: SOGNO DESIGN GROUP
GENERAL CONTRACTOR: CERAMI BUILDERS

*“Green building today is not about
spending more money,
but is all about intelligent design
and informed choices.”*

—Tom Beach

