



ANDREA RUGG

Clean LIVING

A HEALTHY HOUSE IS A HAVEN FOR A COUPLE WITH CHEMICAL SENSITIVITIES AND ACCESSIBILITY NEEDS *By Camille LeFevre*



Design team (left to right): Rosemary McMonigal, AIA; Ashley Mitlyng; Jennifer Schlag; Curtis Martinson; Melissa Steinberg.

Hans and Barb Gasterland tried to renovate their older home in south Minneapolis to accommodate a wheelchair and be free of off-gassing and other noxious odors. Barb uses a wheelchair on occasion while coping with a degenerative-joint disease and may use it more in the future. She also suffers from chemical sensitivities. The couple soon recognized the need to start from scratch to get the house they needed.

The Gasterlands purchased land in the Bryn Mawr neighborhood of Minneapolis, hired Rosemary McMonigal, AIA, McMonigal Architects, LLC, Minneapolis, and started anew. “They really wanted a place that would cheer and shelter them, and give strength to body and soul,” McMonigal says.

The gable-roofed 880-square-foot house, completed in 2002, adopts a farmhouse vernacular (with galvanized-metal details) that fits into the

neighborhood and harkens back to Barb’s Wisconsin roots. The house is separated from the garage, which is detached to isolate exhaust and oil fumes from the house. A covered sloped walkway to the house’s wheelchair-accessible main entrance connects the two structures. A screened porch on the garage overlooks the backyard.

The three-level house includes a second floor with two bedrooms and a bath; a first floor with kitchen, dining and living areas, a half bath and Barb’s office; and a basement with laundry, Hans’s office, a bath and a family/guest space—all complete with grab bars, accessible by elevator and spacious enough for a wheelchair. Spaces and built-ins were also designed to allow future modifications as the couple’s needs change.

Moreover, Barb spent two years testing products used in the house—from paint and adhesives to wood. Hans would put two samples in



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mason jars, seal one jar and leave the other sample to dry in the open air. Barb would later smell them and undergo muscle testing with her doctor to determine her sensitivity.

Later Barb and Hans tried to closely monitor the products' installation and application. Once, however, a well-meaning painter thought a primer too smelly and substituted a different one. Barb, however, had selected the smelly primer because of its neutrality once it dried. Consequently, the primer had to be stripped off and the original one applied.

The construction schedule incorporated a period of time after work was completed in which the house sat empty and was ventilated, so any off-gassing was finished before the Gasterlands moved in. "Building this house was quite a research project," Barb says.

In addition, the Gasterlands needed custom bathroom and kitchen counters, because Hans is about 17 inches taller than Barb. Rooms have windows on two sides for cross ventilation and daylighting. The furnace and appliances are electric. Because Barb is a master gardener, low-

maintenance native-plant gardens were installed in the front yard and wheelchair-accessible raised-bed gardens were created in the backyard. The landscaping also includes catchment gardens that collect and store roof water.

About the house, McMonigal says, "We wanted a clean simple design for balancing the Gasterlands' health concerns while carefully shaping the site." Hans adds, "We firmly believe our house has pizzazz." For her part, Barb admits to encountering many challenges in creating a healthy house, but the effort is reaping rewards.

"My health has gotten better since moving into the house," Barb says. "My immune system isn't getting hit with so many things. And the design of the house, with all of the natural light and views to the woods, is uplifting. It's a beautiful place."

Gasterland House
Minneapolis, Minnesota
McMonigal Architects, LLC
Minneapolis, Minnesota



House and garage are connected by a covered walkway (opposite). Inside, abundant natural light and simple materials create the clean aesthetic (above left) that accommodates the Gasterlands, as do countertops of varying heights (above and top).