



What's Inside?

Some Universal Design features in the UDLL:

- › **Step-free** entrances with a gradual level grade and no ramps
- › **Doors wide** enough for a wheelchair (36 inches)
- › **Wider hallways** (48 inches)
- › **Lever handles** on doors and faucets
- › **Casement windows**
- › **Basement elevator**
- › **Higher electrical** outlets (25 inches up from floor)
- › **Hardwood and** nonslip tile
- › **Adjustable closet** rods and shelves
- › **Front-loading** washer and dryer
- › **Open knee-space** under sinks
- › **Multiple height** counters
- › **Full-extension** drawers and shelves in kitchen base cabinets
- › **Cooktop set** into counter with knee space below
- › **Side-hinged** microwave and oven
- › **Side-by-side** refrigerator
- › **Large bathtub** with grab bars
- › **Curbless roll-in** shower with grab bars
- › **Handheld shower** fixture
- › **17- to 19-inch** toilet seat



all access

Herman Melville once wrote, "Life's a voyage that's homeward bound." Eleven years ago, the way in which Rosemarie Rossetti would navigate life's voyage changed dramatically. The destination didn't. She continues to look homeward.

In the summer of 1998, as Rossetti was bike riding with her husband, Mark Leder, an 80-foot, 7,000-pound tree unfathomably fell and crushed her. The accident left her paralyzed from the waist down.

After more than a month in the hospital, Rossetti returned in a wheelchair to the home she and Leder had built after they married. To the couple's unhappy surprise,

There's no place like this home yet, but if Universal Design advocate Rosemarie Rossetti has a say, there will be many to come

the space that so recently had been their well-conceived dream home had become something of a prison.

"When you come home from the hospital and you see your house doesn't work, you immediately go into problem-solving mode," Rossetti remembers. "And you say all right, 'Can we make this house work short term or are we gonna have to find another house or build one?'"

It was bad enough that everything in Rossetti's home was now out of reach, literally — too high counters, tight rooms and generally awkward spaces confined her. But to make matters worse, she no longer could access 50 percent of her home, period. The

{ BY KATHERINE HARBEN | PHOTO BY JOHN KNOUFF }





upstairs and downstairs spaces she once lived and worked in were now off limits. The main floor remained reasonably manageable, but only after the couple invested \$10,000 into an electric lift and front-entry modification, and removed most of the internal doors — at the expense of what was left of Rossetti's privacy. Once a place of solace, their home now enhanced Rossetti's disability and her dependence on her husband.

An author, speaker, trainer and consultant before her injury, Rossetti's accident instantly affected the focus of her public career. She made her first speech from a wheelchair in September 1998, just three months after her accident.

"They had put me on a dance floor thinking it would be easier for me to roll around," she remembers. "But they didn't realize I had been dancing on that very floor the previous New Year's Eve with my husband. It was a very sad memory. To say, 'I will never dance again, and I'll never be able to stand up and be on this dance floor again with my husband.' But it was an interesting transition for me. To say, 'Can I speak from a seated position?' I felt like I couldn't use my hands; I felt like the dynamic and energy was missing, it was just so hard to get used to."

With the support of colleagues, Rossetti began formatting speeches about new lessons she was learning. Her interest in accessibility growing, she began researching a home-design philosophy around since the 1980s, called universal design.

"We had been collecting photographs, reading, going to different people's homes," she recalls. "Kind of collecting our thoughts, our dream. Mark even started some sketching for a new floor plan."

Jump ahead 10 years, and the couple is well into a crusade to build their own universally designed home. That soon-to-be-built home, which the couple decided to make a national demonstration home, is called the Universal Design Living Laboratory (UDLL). Focused on barrier-free living, universal design aims to

kitchen ▲
The UDLL's kitchen will include accessibility-minded features such as hard surface flooring, knee space under the sink and cooktop, multiple height counters, pull out storage and roll-out drawers in lower cabinets, and a 5-foot turning radius in work areas.



wardrobe ▲
The master closet in the UDLL incorporates adjustable closet rods and shelving, a front-loading washer and dryer, and ample space for a wheelchair to navigate, among other universally appealing features.

accommodate people of all ages, sizes, shapes and ability levels, and does so in a flexible, subtle and aesthetically pleasing way that does not segregate those who "can" from those who "can't."

Open rooms, wide doorways and halls, gently graded step-free entrances and varied counter and shelving heights are all indicative of universal design. For the UDLL, everything from landscaping to lighting plan to even feng shui design has been considered in detail.

"It's not just specialized for a person with a disability," Rossetti says. "If someone were to come into my home and say, 'Rosemarie I can see that this home is special because you're in a wheelchair,' then I've not done the right thing. People should come into the home and say, 'I see you've made some changes in this house; I would love to have one just like it.'"

Scheduled to be open to building and design industries as well as the general public, the 3,500-square-foot UDLL, to be built on one-and-a-half acres in Jefferson Township, also will incorporate a new level of sustainability. The ranch-style home truly will shelter any homeowner.

"That's what people think of with the green

movement, sustainability," Rossetti says. "They think of, 'Let's sustain the earth, let's use as few resources as possible, let's reduce energy and save costs.' But there's another element of sustainability, and that's the social element. Universal design is about creating a home that everyone can use throughout his or her lifetime. That means the home doesn't need to be extensively remodeled or adapted for other families as it transitions from one homeowner family to the next."

Rossetti and Leder also will apply for certification under programs such as the U.S. Green Building Council's Leadership in Energy

and Environmental Design (LEED) for Homes. With the help of a team of building experts, design professionals and renowned specialists, the UDLL will embrace healthy home principles, conservation and a lessened environmental impact inside and out. And now, thanks in part to Rossetti, the LEED certification program will include universal design in their points system.

Among its many traditional green aspects, the home will incorporate passive solar features; highly efficient windows, lighting and appliances; fully integrated and automated electronics; and recycled and renewable building materials.

For about a month after the UDLL is finished, but before Rossetti and Leder move in, the couple will host public tours to benefit spinal-cord injury research. After that time, tours will continue by appointment. Wheelchairs will be available for those who wish to experience the home's design from a different perspective.

"So you can understand the gradual slope of the garage, and you can see how your fingers clear the doorways," she says. "That you can reach a glass from the lower cabinet on the wall and park your chair under the sink and wash your hands."

The UDLL also will feature a permanent learning annex in the basement, accessible by elevator. The couple plans to host educational seminars and training there for organizations interested in universal design. Even during construction, the couple will allow public access to the project via Web cam. In more ways than simply the principles it's designed around, this home is for everyone. The UDLL is meant to be the pinnacle of accessible design, a banner act to follow.

With the help of Denver-based marketing consultant S. Robert August, the Rossetti's have garnered sponsorship for the project from companies such as Kohler and KraftMaid. They now have support from more than 100 contributors, some of whom donated materials, some service, and some, like Marvin Windows, which donated both.

"We picked big names and good products that represented the best of universal design and the best of green, as well as our personal taste," says Rossetti, who with Leder, field tested each item before incorporating it into the home's blueprint.

A company the couple approached at a builder's show even created a universal design product from the couple's suggestion. It is now available for purchase by anyone, after being tested and evaluated by the couple.

But the journey has not always been so smooth. The UDLL has navigated troubled waters along

What is Universal Design?

Concepts of UD:

- › Ease of living
- › Comfortable
- › Sustainable
- › Safer
- › Easier to access
- › More ergonomic
- › Adaptable
- › Inclusive
- › Flexible

UD Sustainability:

- › Environmental, Economical, Social
- › Goes beyond a "green" concept
- › Homes can be lived in throughout a lifetime
- › Visitable by all
- › If it isn't accessible, it isn't sustainable

the way, such as when the subdivision in which the couple had planned to build asked them to build elsewhere or when their original builder went out of business. But the couple has not relented.

"We weren't kidding ourselves when we started that this was going to be smooth by any stretch of the imagination," says Rossetti, smiling.

"The amazing thing is every single stumbling block has turned into a stepping stone. Every single disadvantage or adversity has let us think about the situation and turn it into an opportunity. We came to the realization that something was happening to help us build this house."

For example, by freeing the home's footprint from their original subdivision and builder requirements, the couple and their architect, Patrick Manley, were able to remove any barriers toward making their home everything it could be.

While Rossetti understands not everyone can simply move or customize their home, her hope is new homebuilders will think about universal design from the start. So the next time someone takes a summer bike ride and life takes an



master bath ▲
Some of the UDLL's master bath features include a no-threshold entry and shower; decorative grab bars; nonslip flooring; multiple height vanities, storage and towel bars; a wider tub deck; increased lighting; and electrical outlets and switches within reach of users with a variety of ability levels.

unexpected detour, his or her homeward-bound journey will not be such a long and difficult one.

Because for Rossetti, bringing universal design into the mainstream is the whole point.

"It's possible now to live independently, to make life have a higher quality, a higher dignity. Inches matter," she says.

"Our hope is to be a catalyst for change in the building and design communities."—AH

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