

THE ULTIMATE LIVABLE HOME

Even before construction began, Rosemarie Rossetti, Ph.D., and Mark Leder's new house was breaking new ground. Designed to accommodate the petite, 4-foot 2-inch (1.27 m)-tall Rossetti, a wheelchair user since a bicycling accident, and her 6-foot 4-inch (1.9 m)-tall husband, it reflects a wide spectrum of considerations, from the practical aspects of day-to-day living to the importance of aesthetics. But the project is not only for Rossetti and Leder; it was planned for the public as well. The product of a team effort by the homeowners, Patrick Manley of the Manley Architecture Group, plus other design specialists, building professionals, and sponsoring suppliers and manufacturers, the house is being called the Universal Design Living Laboratory. It is a home that now and over time will demonstrate some of the most effective ideas in residential universal design.

For Rossetti and Leder, the one-story 3,500-square-foot (1,067.5 sq m) house is a residence and headquarters for two home-based businesses. At the heart of the plan is a spacious living area with smooth, open circulation flow from great room to kitchen to dining area. In the kitchen, a space-efficient lineup of cooking and cleanup centers incorporates legroom for a seated user. The kitchen island has counters at two heights for standing or sitting, food preparation or eating. For easy access, the dishwasher is raised, some wall cabinets are set low, higher cabinets have pull-down shelves, and drawers and pullout shelves run on full-extension glides.

A large pantry is well positioned between the kitchen and two garages, where it doubles as a mudroom and a grocery drop-off point. Lined with low shelves and higher pull-down shelves,

the room also houses two easy-to-reach freezer drawers to supplement the side-by-side refrigerator in the kitchen, and shortens the trip from grocery bag to freezer. It made sense to locate the message center here, too. On their way to or from the car, Rossetti and Leder can stop by the telephone desk to check for voice mail.

Another garage door leads to the elevator area. Larger than a standard residential elevator, this cab has room for a wheelchair and carts, allowing Rossetti to transport business inventory to and from the basement.

Separate Offices

For privacy and quiet, the two home offices are on opposite sides of the living space. Rossetti's is next to the laundry area so that she can "multitask" during the workday. A soundproof wall keeps the machine noise from penetrating her workspace. Leder's office is by the guest room. Both offices have large closets and are near bathrooms, so they would work equally well as bedrooms.

To consolidate circulation and make the most productive use of space, Manley eliminated almost all hallways. The area between the master suite and the center of the house provides a way to get from here to there, but it's no ordinary hall. A full 4 feet (1.2 m) wide and lined with bookshelves, it functions as a library. Cookbooks go on the shelves near the kitchen, and work-related books are convenient to Rossetti's office at the other end of the space. Thanks to the two-sided fireplace between the great room and library, Rossetti and Leder can sit by the fire and read.

The master suite flows from a tranquil corner bedroom to a large bathroom and dressing

room. Wide doorways and generous floor areas facilitate use of the space, while unobtrusive sliding and pocket doors between rooms and within the bathroom can be closed for privacy. A wall of glass block fills the bathing areas—indeed, the whole bathroom—with natural light and also ensures privacy. Another glass block wall carries the light through to an adjacent room that has a lower sink for a seated user, and a chair-height commode. This is Rossetti's bathroom compartment, but when company comes it can be closed off from the master bath and used as a powder room.

Maximum Light

Skylights, sun tunnels, large windows, and a hatband of clerestories bring natural light into every area of the house. Perimeter lights reflect off the barrel-vaulted great room ceiling to lend atmosphere and clarity; recessed can lights illuminate circulation areas, and task lights enhance workstations in the kitchen, bathrooms, and offices.

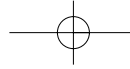
This universal design house saves energy in more ways than one. Durable features such as the tile and hardwood flooring, and the quartz countertops and shower stalls don't require much elbow grease to maintain. There are no gutters or downspouts, so they never have to be cleaned; rainwater is piped away from the house. With deep eaves and broad north and south sides, the house is shaded to reduce air-conditioning demand in the summer months, and enjoys passive solar gain in the winter.

GREAT IDEA

The Clothing Room

The tiresome job of carting clothing back and forth from laundry room to closet has been eliminated in this house. How? The laundry area and closet have been merged into one large room. One end of the laundry section is arranged in a practical sequence, from utility sink (1) to washer and dryer (2), to pull-down drying rack. A wall-mounted ironing board (3) folds down and can be set at two heights for use standing or seated. Cabinets (4), low closet rods (5), and higher pull-down rods line the rest of the room. A large central island (6) packs in more dresser drawers; the top can be used for folding clothes, packing luggage, or laying out the outfit for the day.





36-inch (91.44 cm)-wide doorways

Flat thresholds

Garage floor sloped for drainage away from at-grade entry

Balanced light

Casement windows

Lever handles and C-shaped drawer pulls

Adjustable shelves and closet rods

Raised outlets, lowered light switches

Kitchen counters at multiple heights—30, 34, 36, and 42 inches (76.2, 86.4, 91.4, and 106.6 cm)

Knee room under sinks, cooktop, some counters

Pot filler at cooktop

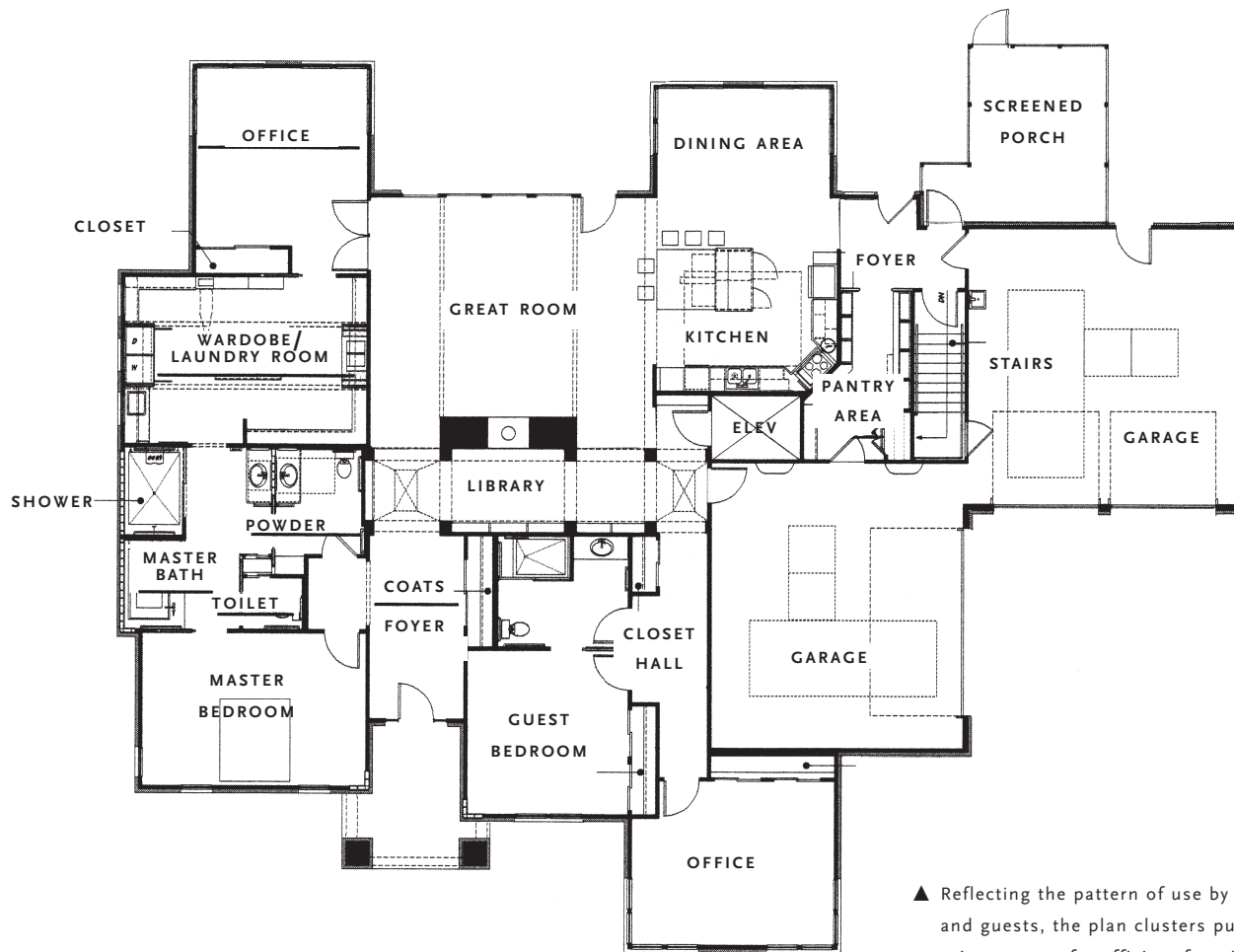
In-counter steamer with water drain at cooktop

Side-mounted faucets

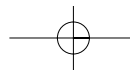
Side-by-side refrigerator/freezer

Oven with side-hinged door

Accessible-height appliances with front-mounted controls



▲ Reflecting the pattern of use by homeowners and guests, the plan clusters public and private zones for efficient function and easy circulation. Splitting the garage makes a less bulky element while providing generous space to maneuver around all vehicles.



UNIVERSAL SPECS

Accessible height cabinets,
with 9-inch (22.9 cm)
toekick space

Freezer drawers

Curbless shower

Adjustable handheld shower
spray

Shower bench

Chair-height toilets

Grab bars

Front-loaded washer and dryer

Adjustable pull-down
ironing board

Elevator



North Elevation

▲ Spread across a level site, the one-story, Prairie Style house has a horizontal rhythm punctuated by high clerestory windows that admit natural light from all sides. The house has no gutters or downspouts to maintain; deep eaves help shade the house and channel rainwater away from the at-grade flat-threshold entries to a fishpond and drainage creek. The front portico extends over the driveway to shield visitors from the elements.