

# Design for Everyone

**Accessibility is only the beginning. Architecture needs to embrace the full range of human abilities.**



Architect Erick Mikiten made ease of use for everyone a priority when he renovated his 1913 Craftsman in Berkeley, California (right). Of the “stramp,” a combination stair and ramp he designed (above), he says, “I can roll up and down a four-inch step, and my wife can walk naturally, even when carrying heavy things.” The stramp follows and accentuates the home’s curved walls.



**In 1988 Betsey and Sam Farber had a lightbulb moment** as Betsey struggled to peel apples with a metal vegetable peeler. Two years later, Sam helped launch the OXO line of Good Grips kitchen tools. The goal might have been to make day-to-day tasks easier for those with arthritis, but the utensils, with their soft, nonslip handles, benefited everyone.

The recognition that products, environments, and technologies can enable as well as disable users is at the heart of universal design, an approach that moves beyond “accessibility,” which tends to narrowly focus on accommodating >

specific disabilities, to consider the needs of everyone—regardless of age, size, or ability. Whereas adherence to ADA requirements can sometimes feel like an afterthought—ask any wheelchair user about ramps hidden behind buildings—embracing diversity and promoting equity is the starting point of universal design.

In recent years, baby boomers have driven the trend toward aging in place, which has made zero-step entries, lever handles, and curbless showers increasingly familiar elements in American homes. Architect Tom Kundig, principal at Olson Kundig, has seen a shift in what his clients want, along with a move away from viewing a new home as but “one in a series,” he says. “People are building homes that they plan to live in for the rest of their lives, so designers have to consider the full spectrum of human ability.”

But many in the field say the broader application of universal design still lags behind the need. One problem is the misconception that making spaces usable by people of diverse abilities without the need for adaptation or specialized design is too costly. Built environment strategist Esther Greenhouse contends that another barrier facing a greater accep-

ance of universal design is stigma. “Early proponents emphasized how people with disabilities had been designed out, so universal design was conflated with accessible design and associated with disability and frailty,” she says. “The general population doesn’t see people with disabilities and frail elders as being a part of normative society.”

But continuing to design products, housing, and public spaces for the “standard” user—think tall, male, and possessing high cognitive, sensory, and physical abilities—means that everyone else is forced to adapt. And that, Greenhouse says, costs individuals as well as society. “How many people are forced into frailty and a higher level of dependency because of the unnecessarily large gap between what the built environment demands of a person and his or her needs and abilities?” she asks.

Rachel Mix knows what it’s like to feel excluded by the environment. Mix is deaf, and because she can’t rely on auditory clues, she’s become expert at visually scanning her surroundings. But sharp angles pose a particular challenge. “I can’t hear if someone is coming, so I tend to bump into people as I turn corners.”

Open floor plans, wide corridors, well-

lit spaces, and circular seating areas all facilitate the experience of visual communicators, she notes. “Having direct visuals of faces and hands means that deaf and hard-of-hearing people can engage in conversation without limitation.”

Architect and accessibility consultant Karen L. Braitmayer is a wheelchair user and principal at Studio Pacifica in Seattle. Citing the DeafSpace design guidelines developed at Gallaudet University for deaf and hard-of-hearing people, she says she’d like to see more research on how those who are “differently embodied” engage with the built environment. “I speak from a mobility perspective, but more also needs to be done around the neurodiverse and visually impaired and blind communities,” she says. “That would enable the regulation and code bodies to draft better language. A building is not a good piece of architecture if everybody can’t use it well.”

However, she says it’s not always easy for architects and designers to know whether they’re creating spaces and products that are flexible and usable by the broadest range of people because the criteria—based on universal design’s original focus on usability—are largely subjective. >

Frustrated by the lack of universally designed home plans on the market and wanting to design homes that could be “visitable” by everyone, regardless of ability, Carol Sundstrom of Röm Architecture Studio in Washington State launched Nest Home Plans. Her single-story Vera plan (opposite) has no-step entries, an open-concept layout, and 36-inch-wide interior doors, plus options like lower countertops, knee clearance at the kitchen island and at the sinks, and curbless showers.

Architect Maggie Wylie of Point B Design Group designed a new multigenerational house for a couple in Austin, Texas (this page), that would comfortably

accommodate an older family member with late-stage Alzheimer’s in the near term and become a home they can expand for themselves and their children. Glass-enclosed volumes reinforce a sense of openness and freedom, though all the doors except the front door lead to an enclosed yard so that the elderly father can safely “wander” without leaving the property. The use of consistent and contrasting flooring minimizes disorientation, and decks are accessed via zero-step thresholds. “More and more, I’m having talks with clients about flexible homes,” Wylie says. “They want homes that will work now and for future needs.”

**“You can have an accessible entrance to a building, but it might be around the corner. That’s accessible, but it’s not inclusive.”** JORDANA L. MAISEL, IDEA CENTER

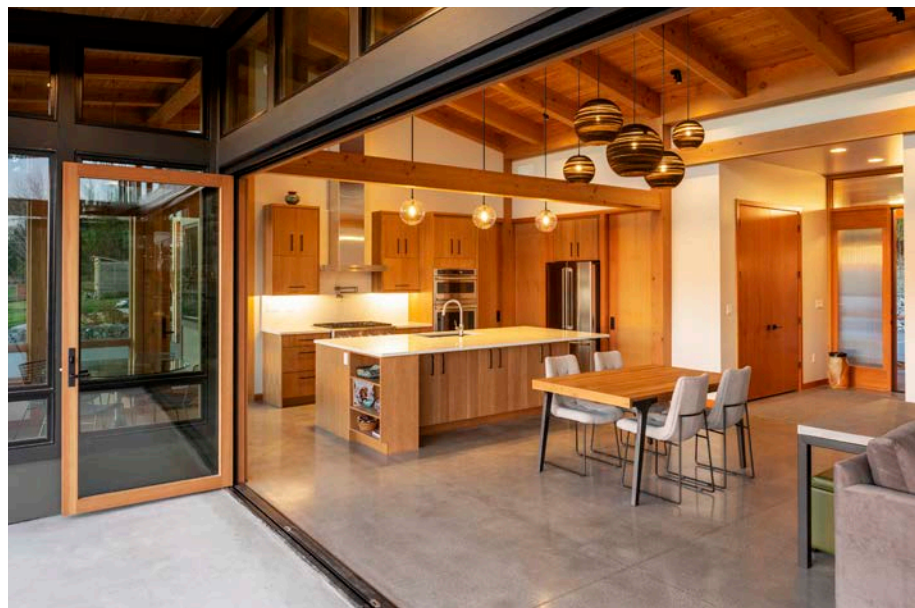


PHOTOS: RÖM ARCHITECTURE STUDIO; CHASE DANIEL (POINT B DESIGN GROUP)



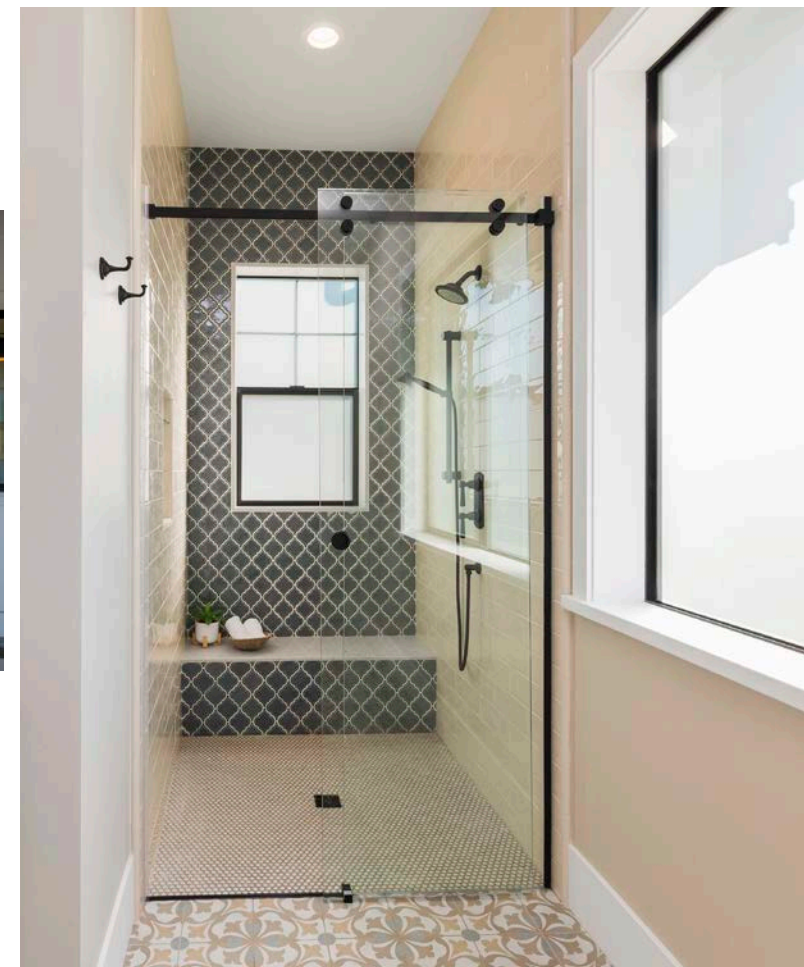


“Universal design is not about disability—it’s about better living for everyone.” ERICK MIKITEN, ARCHITECT



For many, the public sphere is where users first experience equitable access in design. Working with a multidisciplinary team that included Paralympic athletes, Diller Scofidio + Renfro helmed the design of the new U.S. Olympic & Paralympic Museum in Colorado Springs (opposite, top). The building has a customizable audio and visual experience for each visitor, an elevator, and gently graded ramps, among other developments that may make their way into home design. Universal design is built into all the homes designed by Seattle-based FabCab. “It’s just good design,” says the firm’s Nancy Ramsey. For a couple who wanted a

multigenerational home, the FabCab team designed a single-level prefab with a timber frame and structural insulated panels (opposite, bottom left and right). Elements that work for a wide range of ages and abilities include level transitions, lever-style handles, a low-set double wall oven, and a lower counter. In Arroyo Grande, California, Ariana Lovato of Honeycomb Home Design created a guesthouse for her clients’ septuagenarian parents (this page). The bright, open interior features a zero-step entry, 33-inch-wide doorways, a curbless shower, and backing in the shower and beside the toilet for future grab bars.



PHOTOS: JASON O’REAR (OLYMPIC AND PARALYMPIC MUSEUM); LUCAS HENNING/SWIFT STUDIOS (FABCAB); MARCEL ALAIN (HONEYCOMB DESIGN)

The Center for Inclusive Design and Environmental Access (IDEA Center) at the University at Buffalo aims to change that. “Designers had the principles of universal design, but there was really no handbook for how to implement them,” explains the center’s director of research, Jordana L. Maisel. To provide that guidance, the center has developed eight universal design goals that have led to the creation of a voluntary certification program called isUD, or Innovative Solutions for Universal Design. Encompassing more than 500 illustrated universal design strategies addressing issues such as thermal com-

fort, acoustics, lighting, and wayfinding, the certification currently applies only to commercial and public buildings, but there are plans to expand to housing. “We’re documenting and building evidence to show that incorporating inclusive design actually has an impact,” Maisel says. “Often the first question a developer will ask is, ‘How much does it cost?’ And it could cost more, especially if you’re not thinking about it early enough in the design process. But the real question is, ‘What value does it bring?’” Braitmayer is hopeful that the next generation of architects and designers

will put users of all kinds front and center when they think about how they shape space. “Today’s students want to save the earth and they want Black lives to matter, and they’re beginning to see disability rights and inclusive design as a piece of that,” she says. Sam Farber never failed to consider the needs and abilities of the end user. Thinking back to the not-so-radical idea of designing a better vegetable peeler, he said it came down to a simple question: “Why couldn’t there be comfortable tools that are easy to use, not just for [those with arthritis], but for everybody?” ■