

A Reprint from *Tierra Grande*

Me, You and Grandpa, Too

Designing Homes for Life



By Jennifer S. Evans-Cowley

Universal design may sound like something astronomers talk about while hanging around their telescopes, but the concept actually hits much closer to home.

Universal design refers to the design and production of buildings and products that are convenient for people of all ages, from children to seniors, with and without disabilities.

“People think universal design is for older people and handicapped accessibility, but slowly we are educating them that it involves every single member of the family, every age, every physical ability, every size,” says Bryce Jacob of Dave Fox Remodeling in Columbus, Ohio.

According to the Center for Universal Design at North Carolina State University, seven principles define universal design:

- equitable use,
- flexibility in use,
- simple and intuitive use,
- perceptible information,
- tolerance for error,
- low physical effort, and
- size and space for approach and use.

Visitability Keys

Visitability, a term associated with universal design, refers to

housing construction standards that enable people with mobility impairments to live in or visit a home without encountering obstacles and inconveniences.

The key features of visitability include wide doorways, at least a half-bath on the main floor, accessible placement of electrical controls, and at least one zero-step entrance into the house. While visitability does not



UNIVERSAL DESIGN CONCEPTS aren't just for the elderly. They make homes more convenient for healthy adults and children, too. A “zero-step” entryway (left and above) accommodates wheelchairs and also comes in handy when moving furniture in or out of the house.

guarantee complete access within a home, it ensures that public spaces, such as the entrance, hallways, and bathrooms, are accessible to someone in a wheelchair. This allows a nondisabled person to continue residing in a home should he or she develop a disability.

Examples of visitability principles applied to homebuilding include:

- providing smooth ground surfaces at entryways,
- providing wide interior doors and hallways,
- installing bright lighting,
- installing handles with levers rather than knobs, and
- using light controls operated with large panels rather than toggle switches.

Incorporating these features allows a person with a sprained ankle to recover in the downstairs of a home without having to climb stairs to use the restroom or sleep. A grandmother's visit is made easier by an entrance with no steps and wide doorways that accommodate a walker or wheelchair.

People without disabilities benefit as well. A wide, level entrance to a home makes it easier to move furniture into and out of a building. And doors with lever handles make it much easier to enter a house with an armful of groceries or while carrying a child.

Impetus for Change

The growth of the universal design movement has been driven, in large part, by the aging population. The U.S. Census Bureau reports that in 2000, 34 million people were age 65 or older and another 25 million were between the ages of 55 and 64. Twenty-eight percent of those over the age of 65 had a physical disability. Twenty percent of the U.S. population as a whole reported some type of disability.

The housing industry is looking for ways to serve this large demographic by creating housing that accommodates the needs of seniors.

While some homebuyers are attracted to specialized adult communities, such as Sun City Texas, in Georgetown, others are looking for transgenerational housing they can continue to

live in as they age. Homebuilders are responding by building housing that includes features to make it easier to age in place.

A growing number of cities across the country are mandating that homes be constructed to allow for aging in place using universal design standards. These requirements have been enacted in part because it is easier to build these features into homes than it is to retrofit homes later.

Governments Pave the Way

The Americans with Disabilities Act requires that buildings be accessible to those with disabilities. However, these requirements do not extend to single-family homes. Across the nation, citizen groups advocating for the disabled have proven effective in passing state and local legislation that mandates visitability and universal design principles in homebuilding.

According to a 2004 study by the University of Buffalo, 14 states have passed legislation supporting the use of these principles. In 1992, Georgia passed the first legislation, creating the EasyLiving Home certification program for private homes. This voluntary certification program requires that new homes have a zero-step entry and wide interior passage doors, a full bathroom with maneuvering space on the first floor, and a bedroom on the main floor.



A PULL-OUT PANTRY (top) makes all items easy to see and reach for the wheelchair-bound, kids and ambulatory adults alike. (center) Kids might volunteer to set the table when dishes are stored at lower levels. (bottom) Lever-style door handles make it easier for arthritis sufferers to get around the house.

EasyLiving Home is now a national voluntary certification program. Texas has its own chapter of the program (<http://www.easylivinghometexas.org>).

In 1998, the City of Austin passed the first ordinance in Texas requiring the use of universal design in new housing built with public financial assistance. The same principles were incorporated into its S.M.A.R.T.Housing (Safe, Mixed Income, Accessible, Reasonably Priced, and Transit Oriented) Initiative, which has helped create affordable, usable homes in Austin.

At least 10 percent of participating builders' homes must meet the city's green builder standards, which mandate that homes are visitable. Developers receive development fee waivers for meeting these standards. Large builders, such as Centex and KB Homes, and smaller builders alike are participating.

According to the city, more than 6,000 homes have been constructed under this program.

The State of Texas followed Austin's lead and passed legislation requiring that visitability standards be met for homes receiving state or federal funding. Fort Worth, Houston and San Antonio have since passed ordinances requiring the use of universal design principles in new housing projects that receive public funding.

Other locales have done the same. Pima County, Arizona, requires that all new housing be constructed to incorporate visitability standards, as does the City of Bolingbrook, Illinois. In the first year the ordinance was in place in Bolingbrook, more than 3,000 homes were built to visitability standards.

The City of Arvada, Colorado, requires that 15 percent of all new housing developments with seven or more units be constructed with universal design standards or the developer must pay a fee in lieu of this requirement.

Since 1992, the City of Atlanta, Georgia, has required that all new single-family, duplex and triplex homes that receive any financial benefit from the city, such as a waiver of impact fees and community block grant funds, must meet visitability requirements. During the first ten years of the program, more than 600 homes were built with visitability features incorporated.

The City of Escanaba, Michigan, created a voluntary incentive program to encourage visitability features in new single-family homes. Builders there receive a \$150 cash rebate from the city after a compliance inspection.

Builders Climb on Board

Homebuilders in Texas have recognized the benefits of building for the lifespan. Sendero Hills in northeast Austin has 950 housing units, 380 of which are classified as "affordable." Priced between \$90,000 and \$120,000, the homes have a three-

star rating from the city's green builder program. As participants in the city's S.M.A.R.T.Housing Initiative, homebuyers can qualify for down-payment assistance. For more information about the S.M.A.R.T. program, visit <http://www.ci.austin.tx.us/ahfc/smart.htm>.

Tapestry Custom Homes in Dallas has been recognized by EasyLiving Home Texas as the first builder to construct an EasyLiving home in Texas. The company began building universal design homes during the 1990s in Dallas and Collin Counties.

"If the media buzz is any indication," says Bill Sleese, Tapestry owner, "the concept of universal design in new homes will impact the housing market significantly in the near term."

Donny Mack, president and CEO of Beaver Builders in Sanger, Texas, says the company has built homes for disabled

veterans, the physically challenged, families who choose to have their parents move in with them, and young couples looking ahead to their future needs. Mack points out that if universal design principles are incorporated in the preliminary house planning stage, there is no real increase in cost to build the home.

"It is pretty much just a forward way of thinking," says Mack. "Our homes and additions don't look 'accessible' but functionally are visitable by all."

Concrete Change, an international associa-

tion that promotes visitability for the disabled, is actively mobilizing support for basic accessibility to dwelling units. The group's website, <http://www.concretechange.org>, provides information on universal design and examples from across the United States. AARP hosts a website that includes examples of universal design in housing (http://www.aarp.org/families/home_design/).

Whether it's an entire home or just a kitchen or bathroom, incorporating universal design and visitability improves living spaces for all people throughout their lifespans. ♣

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THIS BATHROOM with a walk-in, no-step shower and wheelchair-accessible sink was designed to allow residents to continue living in their home as they age and their physical abilities change.

THE TAKEAWAY

Universal design refers to the design and production of buildings and products that are convenient for people of all ages, from children to seniors, with and without disabilities. Incorporating these features into homes as they are built makes the homes livable at every stage of life.



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