



Livable for a Lifetime  
Applying Universal Design  
in homes & communities

# Applying Universal Design In Homes

## What is Universal Design?

Universal design is the design of products and environments to be usable by all people regardless of their ability or age, to the greatest extent possible, without the need for adaptation or specialized design.

The intent of universal design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities.

**UNIVERSAL DESIGN:**  
The design of products and environments to be useable by all people, to the greatest extent possible, without adaptation or specialized design.

## The Need for Universal Design

Over the next 25 years, our region will experience a dramatic increase in its senior population. For the period 2000 to 2010, the total population is expected to increase by 16%, compared to 24% for those 65 and older and 40% for those 85 and over. By 2020 those ages 65 to 84 and those 85 and older will grow by 77% compared to 32% for the total population. By 2025, the population in the region is expected to grow by 41% but those 65 to 84 will grow by 109% and those 85 and older by 99%. Thus, from 2000 to 2025 the population of residents 65+ will double.

As our population ages, the number of seniors with disabilities also increases. For example, for the population over 65 with a disability, 69% have a physical disability. However, for the population ages 16 to 64 with a disability, only 34% have a physical disability. Regardless of age, those with a disability constitute more than 15% of the population.

The growing senior population, those with disabilities, and all of us can benefit from Universal Design.

## Housing for the Future

Most people, seniors in particular, want to grow old in their own home: the concept of "Aging in Place." Universal Design helps to achieve this goal. Building new homes and retrofitting older homes with Universal Design construction techniques help benefit persons of all ages and abilities. Some of the key Universal Design construction techniques include:



- No step entrances and door openings wide enough to accommodate a wheel chair.
- At least one bedroom and an accessible bathroom on the first floor
- An open floor plan for good interior circulation
- Bathrooms with adequate maneuvering space and an accessible toilet and sink
- Kitchens with clear knee space under the sink, countertops and cook tops, thereby making them accessible for persons in wheelchairs
- Hardware such as lever door handles, push plates, and loop handles (instead of knobs) on drawers and cabinet doors.

### A First Step: Visitability



Visitability, a more relaxed standard of accessibility, uses three key Universal Design techniques to allow friends and family with permanent or temporary disabilities to visit. Visitability also makes the home more livable and usable for everyone. The three Universal Design elements of visitability are:

- No step entrances
- Adequate doorways
- A usable bathroom

### Achieving Universal Design in our Community

The first step is education for consumers on the benefits and basic techniques of Universal Design. This education will naturally result in the consumer asking for Universal Design features. This market demand can influence builders, architects, engineers, and local elected officials. In addition to consumer education, builders and developers need to understand the specifics of Universal Design. Policy makers – local elected officials – also need to understand the benefits of Universal Design and promote it through voluntary standards, plan review, and possibly by adopting a visitability ordinance. A solid understanding of Universal Design by practitioners, including planners and building inspectors, will lead to cost-effective implementation by reducing the need for modifications as the abilities of the homeowner change. Universal Design lends itself to design innovation. Architects, architecture students, and designers can help by incorporating Universal Design features into creative, aesthetically pleasing homes, apartments, and public spaces.



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**An essential website: North Carolina State University, Center for Universal Design: [www.design.ncsu.edu/cud/](http://www.design.ncsu.edu/cud/)**