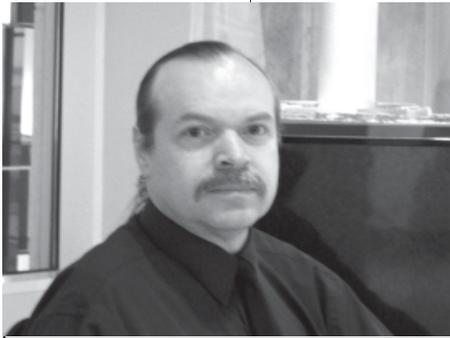


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'Where There is Exclusion, There is Discrimination' One Architect's Message to the Profession

A life long advocate for accessibility and promoter of universal design for more than 25 years, Harold Kiewel, AIA, CSI, CCA, has made it his mission to educate architects about the greater implications of designing spaces that are not accessible to all users.

Speaking in a way that is neither preachy nor judgmental, Kiewel has been quietly saying for years that until every member of a community is able to access every facility within that community, there is segregation. Accessibility is simply a matter of social justice. Architects must design for diverse populations.



Harold Kiewel

Kiewel, currently a senior architectural specifier with Ellerbe Becket Inc., in Minneapolis, MN, has nearly 30 years of experience in the field of accessible design. He holds an undergraduate degree in psychology and a masters degree in architecture. He has a variety of related experience including: working in the field of home modification; training disability advocates on the requirements of the then newly introduced Minnesota accessibility code; working for the Minnesota code agency; and working in the state's Department of Labor and Industry on workers compensation awards for people injured on the job.

"I knew Harold's work well before I knew him," says Elaine Ostroff, founding director of The Adaptive Environments Center. "He helped create the extremely useful home modification fact sheets that I used in the early 80s when we were beginning our work to support home modifications in Massachusetts. He was working with the Minnesota Housing & Finance Agency then. The agency was among the first - if not the first - to make home

See Kiewel, page 15

High Court Upholds Right to Sue State

In May, the US Supreme Court upheld the right of people with disabilities to sue state governments that fail to provide access to courthouses. The 5-4 decision affirmed a lower court's decision to allow two people with disabilities to sue the State of Tennessee, under Title II of the Americans with Disabilities Act (ADA), for allegedly denying them physical access to courthouses within the state.

Title II of the ADA prohibits government entities from denying public "services, programs and activities" to individuals and allows people who have been harmed by discrimination to seek damages. The decision marked a shift for the high court, which in other recent ADA-related decisions has favored states rights.

"Unfortunately, the thin margin and limited scope of the decision that *Tennessee v. Lane* underscores is the fact that disability

See High Court, page 3

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Another Weapon in Our Arsenal

Editor's Note: Below is an excerpt from a memo *Universal Design Newsletter* Publisher John P. S. Salmen wrote to the Montgomery County, MD Commission on People with Disabilities, of which he is an appointed commissioner.

At first it “feels” like opposing the ADA Notification Act, H.R. 728, is the right thing to do. However, my experiences with Americans with Disabilities Act (ADA) complaints and lawsuits surrounding the technicalities of accessibility and ADA compliance have led me to believe that passage of the ADA Notification Act would be beneficial to society.

Most people with whom I've come into contact that have been sued say they thought they were “in compliance” and wanted people with disabilities to use their facilities. They often say they only hear good things about their places of business from their customers. Some have even won disability awards. They are almost always confused about what they really need to do (to comply with the ADA), but only rarely raise cost as a reason for non-compliance.

The ADA Notification Act would give businesses an opportunity to learn what accessibility issues affect their facilities and demonstrate good

faith in correcting those conditions promptly rather than being forced into a defensive legal posture by an ADA lawsuit. My experience has been that it's not that businesses don't *want* to, it's that sometimes they just don't know *what* to do. The popular press has played up “drive-by-lawsuits.” Business owners, when talking among themselves, say that they feel preyed upon by attorneys who see them as easy targets. They feel that a lawsuit should be the last resort, not the first. The ADA Notification Act would help educate business owners first while still keeping the “big-stick” of an ADA lawsuit available if the business fails to comply.

I know there are some potential negatives

about waiting an extra 90 days for enforcement or opening the ADA up to review/criticism, but when you look at the big picture, 90 days is not much time and this change does nothing to weaken the ADA. We are the generation that must deal with the frustration of a gradual transition from a pre-ADA inaccessible world to a post-ADA accessible world.

In reality, architectural barriers are only a symptom of attitudinal barriers. And unfortunately, ADA through litigation contributes to increasing attitudinal barriers.

In my opinion, passage of the ADA Notification Act would give us a significant educational weapon that could be used to help eliminate both architectural and attitudinal barriers.

jsalmen@UniversalDesign.com

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See page 14 for details.



Nevada Owner, Developer and Architect Settle Fair Housing Lawsuit

The Justice Department recently reached an agreement with the owner, developer, and architect of an apartment complex in Nevada to settle a lawsuit alleging violations of the Fair Housing Act.

The defendants, Wilmark Development Co., Mark Schmidt Construction, and WLW of Nevada Inc., designed and constructed the Green Valley Country Club Apartments in Henderson, NV. They have agreed to pay a total of \$718,000 to make the complex accessible to persons with disabilities.

The government alleged that the apartment complex fails to comply with federal law because, among other things, it has no accessible route into the apartments, doors in the units are too narrow to allow access by persons using wheelchairs, bathroom walls lack reinforcements needed for the safe installation of grab bars, and the common and public use areas are not accessible.

“When designers and developers of new con-

High Court, *from page 1*

rights in this country hang by a thread,” said the Paralyzed Veterans of America (PVA) in a recent statement. “Court rulings in recent years have seriously threatened the ADA. While the ultimate impact of the court’s decision in Lane won’t be known for years, the ruling is an essential acknowledgement of the federal government’s important role in enforcing civil rights.”

In the *Tennessee v. Lane, et al*, chief plaintiff George Lane, who uses a wheelchair, had to crawl up two flights of stairs in a courthouse to defend himself against traffic charges because the courthouse had no elevator. The other plaintiff, Beverly Jones, a court reporter who uses a wheelchair, claimed that she was unable to get to courtrooms to do her job because the state failed to provide reasonable accommodations.

PVA, an advocate for passage of the ADA, believes that Tennessee’s position that a person using a wheelchair has no right to refuse to be carried up even a single flight of stairs is contrary to the law and demonstrates exactly why the ADA was needed. 

struction fail to meet accessibility standards, they effectively deny housing to persons with disabilities,” said R. Alexander Acosta, Assistant Attorney General for Civil Rights. “Today’s settlement is a reminder that we will not accept such violations of the law.”

New ICC/ANSI A117.1 Completed

In May, the International Code Council/American National Standards Institute (ICC/ANSI) A117.1-2003, Standard on Accessible and Usable Buildings and Facilities was adopted as the referenced standard for the latest International Building Code (IBC) 2004 Supplement. Several jurisdictions are already considering adopting the 2003 A117.1 as the referenced technical standard for their 2003 IBC adoptions, says Kimberly Paarlberg, Senior Staff Architect, ICC.

According to Paarlberg, a significant amount of time was spent coordinating the 2003 A117.1 with the proposed new Americans with Disabilities Act/Architectural Barriers Act Accessibility Guideline requirements and in being consistent with the Fair Housing Act Accessibility Guidelines. For example, technical provisions for child sizes, new assembly seating criteria and requirements for judicial facilities were incorporated.

National Center for Accessible Public Transportation Established

A new research center on accessible public transportation has been established at Oregon State University through funding from the National Institute for Disability and Rehabilitation Research (NIDRR). The National Center for Accessible Public Transportation will explore improving access to inter-city modes of travel (air, rail, and bus) for people with mobility, agility, and hearing disabilities. Research to be conducted by the center will focus on wheelchair transfer in confined spaces such as aircraft aisles, and a survey-based study on existing and potential access solutions. For more information, visit <http://ncat.oregonstate.edu/> or call 800.916.0099. The new Center is one of 21 Rehabilitation Engineering Research Centers (RERCs) funded by NIDRR, www.ed.gov/rschstat/research/pubs/res-program.html. 

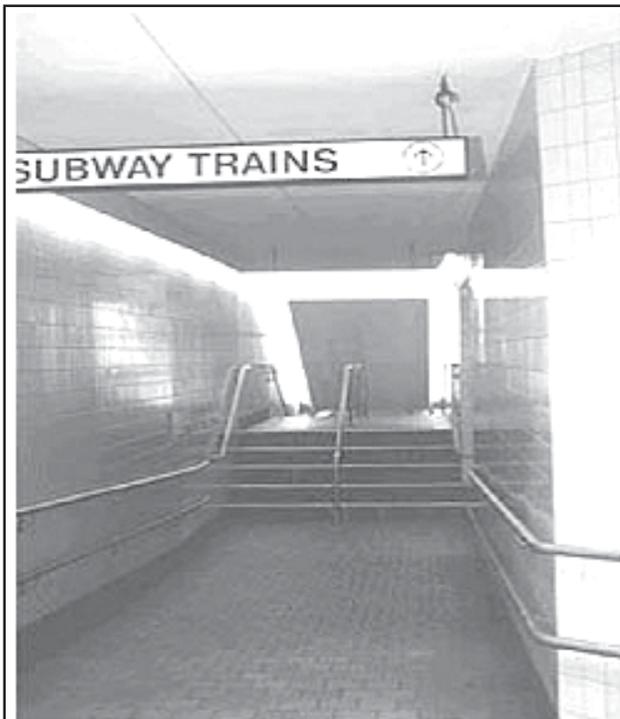
Several jurisdictions are already considering adopting the 2003 A117.1 as the referenced technical standard for their 2003 IBC adoptions....

Breaking Down Barriers

There are many different definitions of universal design. My favorite is: *design of products, environments and systems to be as usable by as many people as possible regardless of age, ability or situation.*

Universal design is not limited to basic access for people with disabilities. It is concerned with design that will improve usability and quality of life for all users, even those who do not have a disability. To achieve this goal, universal design includes a strong emphasis on aesthetics in order to insure that products, environments and systems are attractive and desirable to a mass market and do not stigmatize any user. Business practices play an important role in universal design as well. For example, marketing approaches, financing methods and product information may be as important to the success of a product as the actual physical design itself. But, ultimately, universal design is concerned with removing all barriers to integration into community life – creation of an accessible society for all.

But, ultimately, universal design is concerned with removing all barriers to integration into community life – creation of an accessible society for all.



Stairs are selective barriers. To many they offer some resistance. To some they offer no resistance.

What is a barrier? Any obstacle we encounter to action or thought can be viewed as a barrier. When encountered, we try harder to overcome the resistance or we adapt to it in some way. For example, removing the obstacle, finding a way around it, or changing our perspective. Barriers may not be complete obstacles

but simply resistance of some sort. They may block us out, slow us down, divert us from our goals, cause fatigue, limit our opportunities, restrict our ability to express ourselves or channel us in a predetermined course, a course usually determined by others. Although the term calls to mind blockades or walls, these are only the most obvious examples.

Less obvious examples include:

- **Gates** that provide selective access based on the status of the individual.
- Lack of physical connections that cause **discontinuities** in flow of people or information.
- **Distances** that increase the time required to accomplish one's goal.
- **Spatial Limitations** or congestion that requires taking turns (e.g., at queues).
- **Cultural markers** with little physical substance but high prohibitions on entry (e.g., crime scene tape).
- **Indirect** paths of travel that are annoying and stressful.
- **Restrictions in perception and cognition** that create disorientation.

The accessible society movement has, up until the last few years, focused on the more obvious types of barriers. Barriers have been conceived as things that make it impossible to proceed with an activity. This includes passages that are too narrow, controls that are out of reach or text that is too small to read. Many other types of barriers are not addressed by the typical accessibility codes and guidelines, specifically those that do not necessarily prevent action but certainly make it more difficult.

See Barriers, page 5

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Essay by
Edward Steinfeld, Director
RERC on Universal Design at Buffalo



New Journal Explores Diversity in Design

By Zach Miller

D*iversity in Design*, an internationally reviewed academic journal, was recently launched by the Rehabilitation Engineering Research Center (RERC) on Universal Design at Buffalo. The journal is co-edited by Alex Bitterman, a Research Assistant Professor and Beth Tauke, an Associate Professor, both of the University at Buffalo School of Architecture and Planning, which houses the RERC on Universal Design.

“The term ‘diversity’ seems to be everywhere these days,” says Bitterman. “It is peppered throughout mission statements, popular news, university websites, and design magazines. So it is no surprise that diversity, in all its forms, is clearly emerging from the design pipeline.”

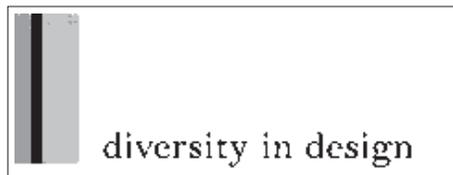
According to Tauke, the on line journal, with its peer-reviewed articles, will be a forum for in-depth and timely analysis of scholarly issues re-

lated to diversity, and, particularly, issues related to inclusive design. “In the journal we hope to explore the underlying concepts of diversity that relate to our places of business, homes, and cities,” she says. “We look at the complexities of these diverse relationships and the effect of incorporating the diversity agenda, particularly in business and education.”



Beth Tauke

Alex Bitterman



Diversity in Design logo

“In keeping with its mission, *Diversity in Design* is dedicated to the task of promoting and sustaining critical investigation in all fields influenced by design,” says Tauke.

The journal is available in electronic format, free of charge. To subscribe, visit the journal website at www.diversityindesign.org.

“...So it is no surprise that diversity, in all its forms, is clearly emerging from the design pipeline.”

Alex Bitterman, Co-editor
Diversity in Design

Barriers, from page 4

Civil rights activists, reformers and liberation fighters recognize that there is a relationship between dominance and space. Reconfiguration of space and buildings and how space is used are therefore objects of their civil and political actions. The goal is to eliminate oppression and discrimination. It is no accident that “breaking down barriers” is a metaphor for achieving civil rights and freedom at the broadest level. The destruction of the Berlin Wall is perhaps the most dramatic contemporary example of how this metaphor captures the imagination of people. Elimination of barriers symbolically marks progress toward the ultimate goal of full freedom, even if not yet fully attained.

After basic access is achieved, the less obvious barriers become more visible. For example, when a building has an accessible entrance but it requires people who use it to take an indirect route, attention will be directed to the additional effort required to use that entrance, rather than simply getting into the building, or, finding one’s way around inside the building. Our perception of problems changes as the level of accessibil-

ity improves. This is not to say that basic access features are no longer seen as important or that all buildings have to be fully accessible before the newly perceived barriers are addressed. But, as a society increases its level of accessibility and usability, there will always be another level to reach. Universal design is like peeling an onion. As we uncover one set of barriers to social participation, we find another to address.

Universal design is a philosophy supporting continual improvement in accessibility and usability. We use the term universal *designing*, a verb rather than a noun to emphasize this idea. Universal designing has an evolutionary aspect because there is no end state, just more challenges. While conventional building regulations have brought us part of the way toward an accessible society, they can only bring us so far. Universal design, on the other hand, offers us a way to bring the movement for an accessible society to a new level. The challenge for the future is how we can encourage the adoption of universal designing as a business practice throughout all industries and institutions.

Visitability Defined

Increasingly, people have been searching for a definition of Visitability, noting that the list of required features has not been identical in legislation, handouts, other materials and in some voluntary programs.

While the concept of Visitability is simple, the definition has several complex, vital layers including: spirit, features, and scope.

Spirit

First, the spirit of Visitability is as important as the list of features. That spirit indicates, it is not merely unwise, but outrageous, that new houses continue to be built with basic barriers. It is outrageous, given the ease of building basic access in the great majority of new homes and given the harsh consequences lack of access inflicts on many people's lives — such as daily drudgery; unsafe conditions; social isolation; and undesired institutionalization.

In my opinion, the appropriate means of furthering basic access in virtually all new homes includes any action short of violence — handing out information, legislation, incentives (so long as they are moderate and don't undermine a tax base, impede general affordable housing, or damage other Visitability efforts), voluntary

efforts (so long as they are not programs that produce few houses and exist mainly to forestall legislation), street theater, civil disobedience... and others.

Features

Second, the features list must be both rigid and flexible. Wide passage doors and a zero step entrance are absolutely required for a home to be called VISIBLE. No arguments are accepted that "We'll build the house so a ramp could be

easily added later." At least a half-bath on the visitable floor is also a non-negotiable feature — but was not included in the first Visitability legislation

passed in Atlanta in 1992. Back then, passing a bill (in the absence of precedents, and balanced with the law of averages that the large majority of new dwellings already have at least a half bath on the main floor) was just barely possible even without the bathroom requirement. Several other elements are sometimes included in the features lists, such as reinforcement in bathroom walls for future grab bar installation and accessible placement of electrical controls. If such additional features involve low or no cost, they are typically appropriate.

If the circumstance involves enforceable legislation (the means through which the vast majority of VISIBLE homes have been created to date), the list of prioritized features must be short. Otherwise, passing a Visitability law is usually impossible. In voluntary efforts, more features can be included. For instance, the voluntary certification program for private, open market homes in the Georgia EasyLiving Home program requires, besides the zero-step entry and the wide interior passage doors, a full bathroom with maneuvering space and a bedroom on the visitable floor.

At the other end of the spectrum, if people add advanced features to their definition, such as a 5-foot turning radius in bathrooms, parking space requirements, a roll-in shower and so on, they are going beyond the scope of what is currently possible

See Visitability, page 7

Wide passage doors and a zero step entrance are absolutely required for a home to be called Visitability.

Eleanor Smith, Founder
Concrete Change

Guest Commentary
Eleanor Smith, Founder
Concrete Change

The Benefits of Visitability

The following is a list of Visitability benefits as found on the Concrete Change website, www.concretechange.org:

- Homes in the community can welcome guests who use wheelchairs or walkers, or have some other form of mobility impairment.
- Residents are more likely to be able to remain in their existing homes, rather than having to move out or do extensive, expensive renovation, if a family member develops a disability.
- Residents find it easier to bring in baby strollers, grocery carts, heavy furniture, etc.
- Sale and re-sale of the homes is enhanced in an era when the senior demographic is growing rapidly and baby boomers are attracted to homes that welcome their aging parents and provide easy-use homes for themselves.
- Visitability features cost little up front—unlike the higher after-the-fact cost of renovation for widening doors and adding ramps.
- Visitability features are easy to construct on most terrain, visually unnoticeable, and allow increased flexibility in selling or renting homes. On new construction, a zero-step entrance can usually be incorporated by grading so that a sidewalk meets the porch.

Editor's Note: For a design solution to create a "zero step" entrance, see the Design Tip in the April 2004 issue of *Universal Design Newsletter*, Vol. 7, No. 2.

Children’s Museum Exhibit Focuses on Accessibility

An exhibit intended to raise awareness of people with disabilities while reinforcing the idea that differences in ability are an intrinsic part of the human experience, opened in June at the Boston Children’s Museum. The exhibit, access/ABILITY, will be open throughout the summer of 2004.

“Each person in our society is considered unique, and differences in ability are an intrinsic part of the human experience,” says Anastacia Pathiakis, exhibition project manager for the museum. “This exhibit will promote understanding and acceptance of differences, while at the same time encouraging positive communication and behavior.”

The access/ABILITY exhibit will feature a wide variety of universally designed products and adaptive technologies. The products will be presented in fun, but educational environments, such as a wheelchair obstacle course, adaptive video bike course and a solution/invention station.

The Boston Children’s Museum is credited with pioneering the concept of interactive exhibitions used widely in museums today. De-

signed and built in-house, exhibits from the museum have been replicated at institutions throughout the world. Exhibits focus on early childhood development and have three themes: arts, culture and science.

The Rehabilitation Engineering Research Center (RERC) on Universal Design at Buffalo worked closely with the museum to integrate universally designed features and products into the exhibition design. Several of the products to be exhibited are on loan from the extensive product library at the RERC on Universal Design. Other products and technologies to be exhibited have been requested from other National Institute on Disability Rehabilitation and Research-funded RERCs, under the leadership of the RERC on Universal Design at Buffalo.

For more information, contact The Children’s Museum, Boston at 617.426.6500 or www.bostonkids.org.



Image credit: The Boston Children’s Museum.

Visitability, *from page 6*

for rapid, broad application of Visitability. While we hope the term Visitability will not be applied to these initiatives, we are not averse to pushing for them by other means. Rather, we oppose using the term Visitability for them because it creates confusion for those we need to persuade to adopt Visitability. One of the chief reasons for our success has been the simplicity of content, rigorous prioritization, and insistence on application, not just cogitation.

Scope

Third, the scope of dwellings covered and the time in history of a Visitability initiative, whether voluntary or legislated, is relevant to achieving Visitability. For instance, a legislative effort that required some access in even a small percentage of private single-family houses pushed the envelope far in an ordinance passed in Austin, TX in 1998. Whereas the 2000 Pima County, AZ and the 2003 Bolingbrook, IL ordinances pushed the envelope in a new way by covering all new houses, not just those with public funding. The Pima County ordinance re-

quires only 2-foot 8-inch doors, 30 inches of clear passage space, which was a righteous compromise. In my view, since 30 inches is quite helpful (although not nearly as helpful as 32 inches) but the law covers all houses!

The above history touches on the flexible part of scope as it affects features. One of the fixed parts of acceptable (legislative) scope is that a legitimate Visitability law must contain an enforcement mechanism.

On a smaller scale, any action as small as one person giving a Visitability handout to a builder, or advocating Visitability to a friend buying a new house, is a valuable part of the movement. The actions, large and small, of hundreds of participants are gradually reshaping how homes are built.

The contents of this insert are provided by the Rehabilitation Engineering Research Center (RERC) on Universal Design at Buffalo, which is sponsored by a grant from the National Institute on Disability and Rehabilitation Research (NIDRR) U.S. Department of Education (DOE). These contents, however, do not necessarily represent the policy of DOE. Readers should not assume an endorsement by the federal government.

Tourism and Universal Design

With the population of the world aging, it just makes good business sense for tourism-reliant countries to turn to universal design to address the needs of older travelers and travelers with disabilities, according to Laurie Ringaert, Executive Director of the Center for Universal Design.

In a presentation to the Disabled Persons International Caribbean-North American Meeting held in St. John's, Antigua, Ringaert shared

"... On average 2.9 other travelers accompany each traveler with a disability. This means that the customer base will actually triple the loss to an inaccessible location."

Laurie Ringaert
Director, Center for
Universal Design

Conference Breaks New Ground

For the first time in the history of Antigua and Barbuda, a capacity building conference accommodating representatives from the 14 national assembly members of the Disabled Peoples' International North America/Caribbean Region was convened in Antigua. Hosted by the Antigua and Barbuda Association of Persons with Disabilities (ABAPD), *Networking & Communications: Increasing the Knowledge Base of the North America/Caribbean Region* was held from Jan. 12-16. "The Association has forged important connections and gained valuable information to assist us in formulating programs which will further the cause of disabled persons in Antigua and Barbuda," according to a ABAPD statement.

As a result of the meetings, the disability organizations from the Caribbean countries are expected to promote the idea of tourism and universal design as an economic necessity with govern-



Ringaert with two conference attendees

ment officials in their home countries. The intent is that the outcome of this process will result in making the countries more universally designed for all citizens.

some tourism statistics to highlight marketing opportunities.

Ringaert noted:

- Seniors have higher levels of discretionary income and spend a greater percentage of their income on travel than any other market segment.
- The current dollar value of travel spending by persons with disabilities in the U.S. alone is estimated at \$3 billion (Aldo Papone).
- 3% of all conventioners use wheelchairs. The same group determines the site selection for the other 97% (Gerald Parker, Beyond Ability International).

"We must also remember the 'multiplier effect,'" said Ringaert. "We are not just talking about the individual with the disability. On average 2.9 other travelers accompany each traveler with a disability. This means that the customer base will actually triple the loss to an inaccessible location."

Addressing representatives from countries in the Caribbean region, Ringaert encouraged participants to look at the "bigger picture." Rather than focus on specific severe accessibility issues, she suggested the group explore universal design as benefiting residents and tourists of all abilities.

"If a destination ignores this issue, the cruise ships will go to an island that is more accessible and ready for the business," she said.

Resources

- Disabled Persons International, www.dpi.org
- Antigua and Barbuda Association of Persons with Disabilities, www.abapd.org/

The contents of this insert are provided by The Center for Universal Design at North Carolina State University, which is sponsored by a grant from the National Institute on Disability and Rehabilitation Research (NIDRR) U.S. Department of Education (DOE). These contents, however, do not necessarily represent the policy of DOE. Readers should not assume an endorsement by the federal government.



Community Embraces Universal Design in Housing

by Richard Duncan

Local communities are increasingly embracing programs to improve their housing situation. In Howard County, MD, residents and government officials have long worked to promote and produce better housing for county residents.

The Homes for Life Coalition, a non-profit community organization, was founded there in 1999. Its purpose is to educate consumers about housing concepts and options, advocate for supportive public policy and increase the building industry's knowledge of barrier-free design.

With a membership made up of contractors, remodelers, interior designers, occupational and physical therapists and other health care professionals, advocates for older adults and people with disabilities, real estate professionals, and representatives from the county Department of Citizen Services, and the community college, the group has developed model guidelines, known as Universal Design Guidelines For Age-Restricted Adult Housing In Howard County.

The guidelines currently apply to newly constructed age-restricted housing. Among the guidelines, mandated features are:

- For multi-family apartment or condo developments, an accessible path that meets Americans with Disabilities Act (ADA) standards between parking, dwelling units and common areas.
- For single family detached and attached developments, a no-step access to the front entrance to the community building and all dwellings. (A no-step entrance is desirable, but

not required at other entrances.)

- 36" wide front door with exterior lighting of the entrance.
- All interior doorways at least 32" wide (36" is preferable).
- Hallways at least 36" wide (40" to 42" is preferable).
- Complete living area including master bedroom and bath on first floor (or elevator access if multi-story rental/condo apartments).
- Lever handles on interior and exterior doors.
- Blocking for grab bars in bathroom walls near toilet and shower.

"Any renovation of the home should include universal design," said Phyllis Madachy, Director of Howard County's Office on Aging in *The Business Monthly*. Universal design includes things like easy-to-reach electrical outlets and switches, grab bars in the bathrooms, and levers that can be moved with an arm or an elbow as well as the hand. "They work for anybody. These are things that are not age-related. They just make it easy," she said. "Through education and advocacy, universal design is one mission being undertaken by the Homes for Life Coalition, part of the county's Aging in Place Initiative." 

In Howard County, MD residents and government officials have long worked to promote and produce better housing for county residents.

Resources

- Howard County Department of Planning and Zoning, www.co.ho.md.us/DPZ/DPZ_Homepage.htm.
- Homes for Life Coalition: www.hflc.org/

Workshop Offered on Building Accessible Communities

In April, the Howard County Office on Aging, the Howard County Department of Planning and Zoning, Homes for Life Coalition, the Howard County Commission on Aging, the Howard County Commission on Disabilities, and Dale Thompson Builders, and Land Design and Development, sponsored a one-day Universal Design Housing training session in Columbia, MD. Participants included agency staffers, remodelers, architects, builders, allied health professionals, realtors, and disability and aging advocates, from Howard County, the Washington, DC/

Baltimore region and the Northeast.

Richard Duncan and Rex Pace of the Center for Universal Design conducted the workshop, which covered universal design in all areas of a home ranging from entrance to circulation, and including kitchens, bathrooms and storage. Also covered was the *Universal Design Guidelines For Age-Restricted Adult Housing In Howard County*.

For information on hosting a similar program, contact: Richard Duncan, Coordinator of Training, CUD, 919.515.8557 (phone), rc_duncan@ncsu.edu (email). 

What is a Barrier-Free Home?

by Mike Carter & Nancy Hitchcock

Enlightening visitors to The Center for Universal Design website is an ongoing effort. The technical assistance staff has drafted responses to frequently asked questions. Here are some of the most common questions and their answers.

What is a barrier-free home?

At the Center for Universal Design, we call this type of home “universal design” because in addition to being barrier-free, it is full of features that work for everyone.

Universal design homes range from new single-family houses to older inner-city apartments. They can be large expensive mansions or small efficient lofts. A universal design home has features that allow a person to live an independent lifestyle.

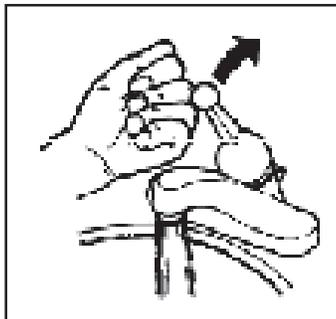
Even if a resident does not currently have any challenges in the home environment, he or she may wish to explore making life easier and safer, and planning for the future. A change in mobility, sight, or hearing may require a person to move to another home, or require assistance in daily activities. The following are some features you would find in a universal design home and ideas for incorporating them into an existing home.

Stairs

Stairs within the home or steps up to the entry are probably the most obvious mobility barriers. But, there are other barriers to living comfortably and independently. For example,

faucet handles and doorknobs that are small and round may be hard to grip. It doesn't require an expensive remodel to install lever faucets, or to change cabinet hardware to loop handles. Both of

these changes will be easier on hands with arthritis. The addition of grab bars next to or in the shower and raising the toilet seat a few inches can change a difficult to use bathroom into one that is both safe and barrier-free. Adding raised planting beds to a garden can bring back the pleasure to outdoor work.



Lever faucet

There may be other elements in an existing home that prevent its full use, from kitchen counters that do not allow a person to sit and work, to closets that have hard to reach shelves and hanger rods. A good resource for learning to identify and remove these barriers is *Residential Remodeling and Universal Design – Making Homes More Comfortable and Accessible*, prepared by Barrier Free Environments, Inc. 1996, and published by the US Department of Housing and Urban Development, visit www.huduser.org/publications/destech/resid.html.

Sight

As we age, we need more light to see clearly. Adding lighting fixtures or moving them closer to task areas can help. High contrast borders can be used to help give definition to specific features. For example, kitchen counter tops that

have a contrasting color edge are easier to see and safer to use. Stair treads that are clearly marked on the edge make it easy to tell if you are at the last step.

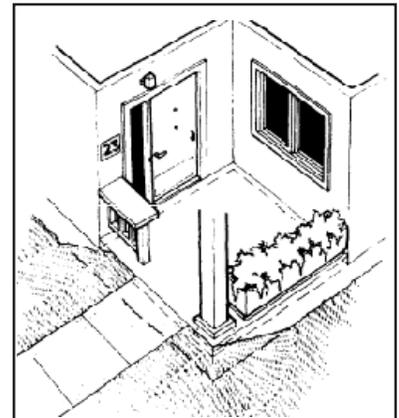
Changing the thermostat to one with easy to see markings and an easy to grip control eliminates two barriers with one modification.

Hearing

A change in hearing can present a barrier to independence and affect personal or family safety. Doorbells, telephone ringers, smoke alarms, and security devices can all be modified to provide visual cues (such as flashing lights) in addition to audible signals.

Conclusion

Universal features can be incorporated into any new or remodeled home. For more information, visit www.design.ncsu.edu/cud.



This illustration shows ways to make a house more accessible: a light shines on the door to make it easier to use; a package shelf near the door allows both hands to be used to unlock the door and a bermed earth pathway eliminates the need for steps.

It doesn't require an expensive remodel to install lever faucets, or to change cabinet hardware to loop handles.

Moving Toward Universal Modular Homes

by Rex Pace

The “Universal Design Home,” built and designed by R-Anell Homes in partnership with The Center for Universal Design (CUD), was recently recognized with a national award.

The 2004 National Congress and Expo for Manufactured and Modular Housing presented the Concept Modular Home Award to R-Anell Homes for its innovative design.

“We feel very strongly that now is a crucial time to provide a universal design plan that allows the home to fit all aspects, and all stages, of a homebuyer’s life,” said Dennis Jones, R-Anell President. “With an aging population that continues to grow dramatically, this home concept anticipates what the future will bring with a home design that literally works for everyone.”

Among the home’s features are:

- Sloping walk incorporated into porch design for stepless entry.
- 36” wide doors throughout.
- Reinforced walls for future grab bar installation in all bathrooms.
- Adaptable cabinets for knee space under bathroom vanities and kitchen sink.
- Optional double-door water closet design that maintains both privacy and access.
- Options for adjustable height sink and work surfaces.
- Utility/craft room option with accessible work space and raised, front-loading washer and dryer.

Origin of the Design

R-Anell, which operates in the southeastern United States, had initially modified one of its standard designs to be “accessible” in response to the specific needs of a particular customer. However, company leaders realized the need for standard plan options to serve broader markets with an eye toward retirement community developments and to meet evolving needs of municipalities and county governments. The

company approached CUD to assist in developing a design. CUD staff, working with input from R-Anell personnel, eventually produced two concept designs, one for the company’s traditional market and another aimed at municipalities and county governments. It was the latter concept that won the award.

The winning concept was actually a series of



R-Anell sample plans

designs that could be generated by simple additions to a basic rectangular plan. The designs range from a simple affordable base plan to a mid-range plan with some options. This progression could allow a city or county development agency to:

- Use the series for a number of in-fill or whole neighborhood projects,
- Employ a relatively small number of plans,
- Have architectural variety, and
- Address a broad range of user needs and accessibility compliance issues.

Resources

- For more information on universal design and housing: www.design.ncsu.edu/cud/built_env/builtenv.htm
- R-Anell Homes www.r-anell.com
- MHI Awards information www.manufacturedhousing.org/lib/showtemp_detail.asp?id=360&cat=whats_hot
- For more information on the design of accessible homes, www.UniversalDesign.com

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Accessible Environments

Accessible environments provide equitable opportunities for participation by everyone – including access to education, employment and recreation.

Accessible environments are becoming more main stream in developed countries – however, significant problems and issues arise in the implementation of access and equity programs in less developed countries.

One of the main goals of the International

Commission on Technology and Accessibility (ICTA) is to assist in the exchange of information, assistance and technology between more and less developed countries.

For several years ICTA Europe meetings and activities have alternated between Eastern and Western Europe. More recently, ICTA Latin America and ICTA North America have initiated programs between the two regions, including the involvement of Mexico. 

Australian Access

Standards have been included in national building legislation since 1981 and access legislation has progressively enhanced the quality of access implementation in Australia.

Harmonizing of Access Standards and Legislation

A key issue in more developed countries, such as Canada, the United Kingdom, United States and Australia is the need to successfully harmonize access codes and standards with relevant human rights-based legislation.

Australia

In Australia this is currently underway through a coordinated national program linking consumers, advocates, Standards Australia and the building regulator, Australian Building Codes Board (ABCB).

Australian Access Standards have been included in national building legislation since 1981 and access legislation has progressively enhanced the quality of access in Australia.

In February 2004, the ABCB issued a first draft Disability Discrimination Act (DDA) Access to Premises Standard with an aim to progressively harmonize the access provisions of the Building Code of Australia (BCA) with the intent of the DDA.

The draft Access to Premises Standard com-

prises four important documents:

• DDA Standard for Access to Premises

The standard addresses new buildings, new parts of buildings, existing public transport buildings - and unjustifiable hardship procedures in relation to compliance.

• Access Code for Buildings

The Access Code provides extensive additional access criteria and BCA upgrades - including elevators to low rise buildings, access to common areas of residential apartment buildings, access into swimming pools, and increased requirements for entrances, accessible facilities and hearing augmentation.

• RIS - Regulatory Impact Statement

The RIS is a detailed socio-economic assessment of the major changes envisaged by the Premises Standard - and most importantly includes consideration of the socio-economic community benefits of more accessible environments.

• Protocol - to Administer Building Access

The Protocol aims to ensure that the application of the new BCA provisions result in accessible environments consistent with the objectives of the DDA. The Protocol will assist in the assessment of performance based alternative solutions and in addressing questions about unjustifiable hardship.

The DDA Access to Premises Standard will have a significant beneficial impact on all Australians. Regulators, local government, designers, building developers and interested individuals have the opportunity to participate in its development. Comments received on the February draft will be reviewed by ABCB in 2004 and the results will contribute to progressively harmonizing the DDA with the BCA. For more information, or download the draft, visit www.abcb.gov.au. 

About ICTA

The International Commission on Technology and Accessibility (ICTA) is a global organization promoting more equitable and accessible environments and technology. Current ICTA programs include development of an International Accessibility Standard, as reported in *Universal Design Newsletter (UDN)*, April 2004, Vol. 7, No. 2. This program is in conjunction with International Standards Organization (ISO).

Michael Fox, from Sydney, was elected ICTA Global Chair in Auckland, New Zealand in 1996, and was re-elected in Rio de Janeiro August 2000, as ICTA Global Chair 2000 to 2004.

UDN readers are invited to contact ICTA regional commissions and participate in ICTA activities and programs worldwide. Visit: www.ictaglobal.org.

NEW
PRODUCTS

Hotel Accessibility Kit

An accessibility kit developed by Accessibility Solutions offers a cost effective and practical solution to common hotel accessibility needs and safety concerns encountered by people of short stature. Each kit includes: a closet rod adaptor, a security latch adaptor, a two-step stool; a reaching tool for high shelves or deep counter tops, a bathrobe tailored for guests of short stature, a carrying case; and an Access Kit Provider Guide. The guide provides some of the do's and don'ts for making guests feel comfortable. It demonstrates how to set up the kit in a guest room and use the tools in the kit. It also provides information on the needs of people of short stature.



A two-step stool

Key Holder

The Key Holder from Dynamic Living can hold up to two metal keys. However, it can not be used with keys with plastic head covers. The curved handle of the Key Holder can be held several ways to accommodate specific user needs. A user can either place fingers within the center or grasp the Key Holder around the outside.



Key holder

Because the longer grip gives the user extra leverage, the key is easier to turn. The keys fold in toward the curve for easy storage in a pocket or purse.

Accessibility Solutions
(Accessibility Kit)
22115 NW Inbrie Drive, #317
Hillsboro, OR 97124
Phone: 503.860.4121
Fax: 503.647.0653
www.directaccesssolutions.biz

Dynamic Living Inc.
(Key Holder)
800.940.0605
www.dynamic-living.com

NEW
MEDIA



Website Spotlight: Finding All That is Universal

If there is something you've always wanted to know about universal design but never had the right opportunity to ask -- the "right opportunity" has arrived. You can now visit www.universaldesign.com and get answers to questions about universal design in homes, businesses, buildings, parks, recre-

ation facilities and a variety of other facilities. The website, features a Forum that is visited by people with indepth knowledge of universal design. To ask questions, make a statement, start a dialogue or voice a complaint, visit the Forum/Message Board on www.universaldesign.com.

The Vistability Source Book

Visitability in Pennsylvania has published *The Visitability Source Book*. The book provides guidance for including basic access features in homes. With descriptions and images, the book outlines three elements needed to make a home visitable, including: one zero-step entrance; wide doors; and basic accessibility in a first-floor bathroom. Also included in the book are bathroom layout ideas and recommended slopes for graded walks or ramps. For more information, contact Visitability Pennsylvania, c/o LIFT, 503 Arch St., St. Marys, PA 15857-1779; 800.341.5438 (v/tty); www.liftcil.org or www.visitabilitypa.com.

Access Guide for Washington, DC

Access Information Inc. has published the 2004 edition of *The Washington, D.C. Access Guide*. The guide includes accessibility features of hotels, restaurants, nightspots, museums, tourist attractions, theaters, shopping malls and government buildings in and around Washington, DC.

The guide details the accessibility features of the Washington Metropolitan Area Transit Authority and includes accessibility ratings for 26 hotels, 25 nightspots and 30 restaurants. For more information, visit www.disabilityguide.org.

Universally Designed House Featured in National Magazine

The "Home for the Next 50 Years," a universal design showcase home was featured in the 2004 Annual Houses issue of *Fine Homebuilding Magazine*.

The residence of *Universal Design Newsletter* Publisher John P.S. Salmen and his wife,



Home for the Next 50 Years

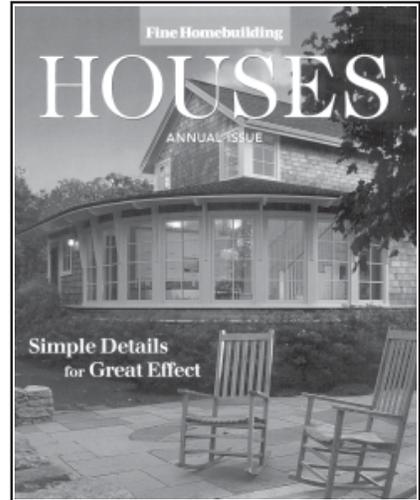
represent quality design and craftsmanship.

"We wanted to show how a universally designed home can be built in an existing neighborhood and within the constraints of historic preservation," said Salmen.

Over the last two years, readers of *Universal Design Newsletter (UDN)* have been introduced

to the universal design features of the Home for the Next 50 Years in a column written by Salmen.

Built with Arts and Crafts details, the home was designed to accommodate the accessibility needs of Salmen's family and friends for years to come.



Annual Houses edition, *Fine Homebuilding Magazine*

To see previous *UDN* articles about the house, visit www.UniversalDesign.com.

To order free reprints of the *Fine Homebuilding Magazine* article, contact UD&C at UDandC@UniversalDesign.com.

The residence of Universal Design Newsletter Publisher John P.S. Salmen and his wife, Ann Scher, "Home for the Next 50 Years" was one of 10 "great houses" selected for the issue.

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Accessibility and the Americans with Disabilities Act

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Kiewel, *from page 1*

mods part of its work.”

According to Ostroff, Kiewel is a “straight ahead guy” who has been quietly working on making the playing field level for more than two decades. “He’s not a self-promoter; he pushes himself harder than he pushes other people. His work has contributed to the bedrock of accessibility experience and knowledge that underlie the regulations and their implementation,” she says. “In the mid 80s, his master’s thesis debunked the myth of the average user. He was ahead of the curve in articulating the need for a more universal approach to design.”

Social Justice

She notes that he has strong beliefs about social justice and the rights of each person to fully participate as a member of the community.

Kiewel’s message is simple: “Where there is an exclusion, there is discrimination.” To illustrate his point, he tells the story of accompanying his daughter, years ago, in a quest to sell Girl Scout cookies. Kiewel, who uses a wheelchair, recalls the unease of watching his 10-year-old daughter climb a flight of stairs to knock on a stranger’s door as he waited on the sidewalk below.

“It is my contention that accessible or universal design is not an altruistic principle, but an obligation; a charge and a challenge to the profession that we must rise to meet,” said Kiewel, in a “Designing for Diversity” presentation at the 2003 American Institute of Architects (AIA) National Convention. “We can not sacrifice commodity for delight’s sake. Architecture-for-architecture’s sake has gone far enough – far enough to challenge the very viability of the profession. We must return to the fundamentals, and remember that good architecture has firmness, commodity and delight.”

His AIA presentation marked a victory for Kiewel, who had worked for more than a decade to persuade AIA to reframe its code-centered discussions of accessibility and the Americans with Disabilities Act (ADA) to focus on the broader issue of disability as a form of diversity.

Enlightening the Profession

In his efforts to promote accessibility to architects and design professionals, Kiewel served on the AIA-Minnesota committee that developed the Access Maze, a full-scale model of the ADA Standards for Accessible Design. The maze, which was built of wood, was constructed to the minimum standards and set up at several AIA conferences. Individuals could personally experience the restrictive minimum dimensions

by using a wheelchair to navigate the maze’s ramp slopes, bathroom transfers and fixture reach ranges.

Form Ahead of Function

The desire to remedy a common “disconnect” in the profession continues to drive Kiewel to share his knowledge and experience with other architecture professionals.

“There is a dilemma in the profession about how people use space,” he says. “The focus is on form and design and there is not a clear understanding of people in the environment.”

Architectural magazines with pictures of people-free interiors support his idea that the profession puts form ahead of function.

He recalls an architect once complained of having trouble understanding accessibility regulations because there were “no pictures.”

“There are lots and lots of pictures in the [Americans with Disabilities Act Accessibility Guidelines] – but they are of people, not space. Professionals are not embracing human performance issues,” says Kiewel.

He applauds the ADA for at least waking architects up to accessibility issues. “But the profession still sees it as a code issue, not a design opportunity,” he says.

There is a limited understanding of basic accessibility among architects. He says it would be better if architects understood the fundamentals of why and what makes a space useable. According to Kiewel, “A 36”x 36” shower only works when it is 36” x 36”. If architects understood the human element then they would not be designing 40” x 60” showers — where you can’t reach the shower controls from the bench.”

But as much as he has spoken to groups of professionals, Kiewel finds teachable moments in his own office. One of his self-appointed tasks at Ellerbe Becket is to keep designers grounded in “physical realities.”

While preparing construction documents for a women’s and children’s health center, Kiewel suggested reducing the diameter of the railing in the elevator cars from 3 inches to 1 ½ inches. The designers protested that the thicker railing would “look better.”

“I asked, ‘Is this a handrail or a design element?’,” he says. “If you anticipate that people, especially women and children, may use this rail for balance and support then it had better be a comfortable size for people’s hands....” Kiewel prevailed and to his satisfaction the firm won a design award for the project — even with the skinny handrails. 

**An expanded
version of this**

**article can be read
on [www.](http://www.UniversalDesign.com)**

[UniversalDesign.com](http://www.UniversalDesign.com)

July 12-14: US Architectural & Transportation Barriers Compliance Board, Washington, DC.

This is the bi-monthly meeting of the Access Board. Contact: 202.272.5434 (v), 800.872.2253 (v), 202.272.5449 (tty) or www.access-board.gov.

Sept. -8, 2004: 7th International Federation on Ageing, 'Global Ageing: Sustaining Development,' Singapore. Sponsored by IFA and the Singapore Action Group of Elders. Contact: www.7ifaconference.com.

Sept. 8-10, 2004: Disabled Persons International (DPI) World Summit, Winnipeg, Manitoba, Canada. This summit is for national assemblies, disability organizations, NGOs, international development agencies, as well as local and national goods and services providers in the disability field to discuss and share information. Contact: www.dpi.org/en/events/world_summit/06-23-03_summit2004.htm

Sept. 20-22: 5th National NCAN Conference, "Out of the Blue - Valuing the Disability Market in Tourism," Perth, Australia. Sponsored by the Na Contact: www.nican.com.au/education.

Oct. 4-7, 2004: Retrofitting for Accessibility, Yellowstone National Park. Sponsored by National Center for Accessibility, this training

course is designed for maintenance professionals, facility managers, architects, access coordinators and planners. Contact: www.ncaonline.org.

Oct. 20-22: Child in the City Conference, London. Organized by The Child in the City Foundation in association with the National Children's Bureau. The conference will bring together social scientists, policy makers, planners and practitioners to share ideas on integrating the play and recreational needs of children within the planning, design and governance of the modern city. Contact: www.europoint-by.com/events.

Oct. 27-29, 2004: Open Space: People Space, An International Conference on Inclusive Environments, Edinburgh, Scotland. Hosted by OPENspace, the conference will provide a forum to review recent research and debate current issues surrounding good design for open space and social inclusion. Contact: openspace@eca.ac.uk or visit www.openspace.eca.ac.uk.

Dec. 7-12: Designing for the 21st Century III: An International Conference on Universal Design, Rio de Janeiro, Brazil. Sponsored by Adaptive Environments and a number of international groups including Metropolis Magazine. The conference includes a student design competition, charettes within Rio de Janeiro and an educators' forum. Contact: www.designfor21st.org

Events to be placed in the UDN Calendar must be submitted to the editor two months before the publication date.

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