

Cruise Lines in Limbo Despite Ruling Guidelines Still Years Away

The future of “accessible cruising” remains unclear. Despite a recent court ruling that cruise ships are subject to the Americans with Disabilities Act (ADA) regulations, no specific design guidelines for passenger vessels actually exist.

The U.S. Court of Appeals for the 11th Circuit ruled that foreign-owned cruise ships are subject to ADA guidelines when they are in U.S. ports or internal waters. Only one cruise line is registered under the U.S.

flag, all others are of foreign registry. The court ruled in the case *Stevens v. Premier Cruise Lines*, in which a woman using a wheelchair filed a lawsuit alleging discrimination because a cruise ship registered in the Bahamas gave her an inaccessible cabin, charged her more for her accommodations and failed to remove architectural and communications barriers on the ship.

The Court of Appeals agreed with the Department of Justice’s *amicus* brief which argued that cruise ships are subject to ADA regulations when in US ports or waters, even if the cruise ships are of foreign registry. According to both the Department of Transportation (DOT) and the Department of Justice (DOJ), the ADA regulations apply to foreign-owned cruise ships, although there currently are no applicable design standards for new construction and alterations.

See *Cruise Lines in Limbo*, page 4



The Access Board’s Passenger Vessel Access Advisory Committee has submitted its recommendations.

Section 508: An Instrument for UD

by Lawrence Scadden

Section 508 of the Rehabilitation Act is not new. It was first passed by Congress and signed into law in 1986 to ensure that office equipment purchased by the federal government would be usable by people with disabilities. From the outset, Section 508 was considered by its authors to be a method of promoting use of the principles of universal design.

Product usability remained the chief concern during the revision of Section 508 in 1998 and during the preparation of regulations over the subsequent two years.

The 1998 changes to Section 508 were designed to strengthen the existing law through the development of standards and by the addition of enforcement procedures. The 1998 amendments state, “When Federal departments or agencies develop, procure, maintain, or use electronic and information technology, they shall ensure that the electronic and information technology allows Federal employees with disabilities to have access to and use of information and data that is comparable to the access to and use of information and data by Federal employees who

See Section 508, page 12

CONTENTS

- 1 Cruise Lines in Limbo Despite Ruling
- 1 Section 508: An Instrument for UD
- 2 Homegrown Solutions are Best
- 6 Introducing Universal Design to a New Generation
- 7 Court Clarifies Hotel’s “Readily Achievable” Obligations

RERC on UD at Buffalo

- 8 Listservs Offer Design Ideas, Discussion and Resources
- 9 News from the Center

- 10 Making Public Streets and Sidewalks More Accessible

- FedWatch.....3
- World Update.....5
- New Media.....11
- New Products.....13
- Design Tips.....15
- Calendar.....16



Homegrown Solutions Are Best

On a recent trip to Mombassa, Kenya, I visited Bombolulu Village, where Kenyans with disabilities are learning marketable skills and gaining unprecedented control over their environment. Besides the production of craftwork, textiles and jewelry that is marketed to tourists, the community produces hand-powered wheelchairs from used bicycle parts.

The tricycle design wheelchairs are inherently stable over the largely unimproved (and usually unpaved) ground surfaces found in Kenya. All three wheels remain on the ground at all times, ensuring traction from the hand cranked front steering/pulling wheel. The recycled units are obviously well suited to the culture, environment and needs of its users.

The functionality of these devices in the context of the African environment made me realize how much my perspective on accessibility is based upon my own environment. Day-long discussions of curb ramp measurement techniques that occur around Americans with Disabilities Act (ADA) litigation seem laughable when viewing people with disabilities adapting to life in places that don't have sidewalks or curbs. While those of us lucky enough to live in industrialized countries worry about refining accessibility to a precise science, most of the world's people with disabilities are struggling to survive. We sometimes think we have all the answers, but reality is far from that.

I believe that there is a leadership

role for industrialized countries to test and refine concepts like those of universal design. But those ideas cannot always be easily transported to other countries, or translated into other cultures. We are learning that without the medical infrastructure to administer and monitor toxic drug regimens, the availability of cheap HIV drugs for developing economies could be more damaging than helpful. Likewise, universally designed curb ramps are of little use in countries without paved roads or sidewalks. Homegrown solutions are best, and may be improved by shared information. But transplanted solutions must be heavily supported, if they are to survive, and they must be evaluated from the standpoint of the new users to determine if they really work.

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Bombolulu wheelchairs are a great example of how we can incrementally improve accessibility around the world, and stand as a lesson to universal designers.

Letter to the Editor

To whom it may concern:

I may be mistaken, but as an architect I have always understood that I need to meet the design guidelines of the [Americans with Disabilities Act (ADA)] as well as review all designs for areas that may be considered discriminatory to people with disabilities. In your article "Good Show" in January 2001 issue, it is stated that [in some stadium-style theaters] "although ADA compliant, give people with disabilities accessible viewing positions that are right down in front, just a few feet from the screen." I would not consider this ADA compliant in my office, because, technically we may have provided the number and size spaces needed (including access to), but we did not give them an equal opportunity at viewing the movie. This is the approach we take to all of our designs, and felt it was the requirement of the ADA. Can you verify for me if we are correct in our thinking? And are we required to think this way by ADA?

Christopher J. Henderson, Architect
Dileonardo International Inc.

Dear Mr. Anderson:

Your message and practice indicate that you have embraced the spirit of the law, - evaluating

See Letter to the Editor, page 3



Supreme Court Rules on ADA Discrimination Case

Lawsuits for damages against states under Title I of the Americans with Disabilities Act are unconstitutional, according to the US Supreme Court.

Reversing a Court of Appeals decision, the Supreme Court held that two Alabama state employees with disabilities did not have the right to sue the state in federal court under the Americans with Disabilities Act (ADA). The high court said Congress exceeded its authority in opening states to private employment discrimination lawsuits. The ruling is limited to state employees.

Although the *Board of Trustees of the University of Alabama v. Garrett* case originally involved issues related to both Title I and Title II, the court only dealt with Title I, stating, "We are not disposed to decide the constitutional issue whether Title II, which has somewhat different remedial provisions from Title I, is appropriate legislation under §5 of the Fourteenth Amendment when parties have not favored us with briefing on the statutory question."

According to Fred Fay, a disability rights advocate, "It is true that some courts may hold that the logic of today's decision applies to Title II as well, although there are very good reasons why the Supreme Court might analyze Title II differently and

come to the conclusion that damages suits are available under that title. But even if Title II is treated as Title I was in *Garrett* – that is, if damages suits are held to be unconstitutional – suits for injunctive relief against states and all lawsuits against local governments are still very much alive."

Theater Chain Reaches Settlement Agreement with DOJ

United Artists Theatre Circuit Inc. (UATC) has reached an agreement with the Department of Justice (DOJ) to ensure that the stadium-style seating experience is made available to people who use wheelchairs. According to DOJ, the proposed settlement is the first voluntary agreement to address accessibility to stadium-style seating in a nationwide movie chain.

The agreement, which addresses new construction as well as barrier removal, requires UATC to complete barrier removal in existing theaters, at a cost of at least \$250,000 per year for five years. Under the agreement UATC will:

- Locate wheelchair seating so that viewing angles are in the same range as the best 60 percent of the seats in the house (for converted theaters that are larger than 300 seats or have all stadium seats);
- Locate wheelchair seating areas so that the vertical viewing angle is in the same range as the best 50 percent of the seats in the house (for new theaters only); and
- Locate all wheelchair seating no closer to the screen than the back of the aisle separating traditional seats from stadium seats, and raising those seats or otherwise providing an unobstructed view (for small theaters with 300 seats or fewer that are converted to stadium seating with some traditional seats).

This agreement must be approved by the court in San Francisco and the U.S. District Court in Delaware, where UATC has filed for reorganization in bankruptcy. 

But even if Title II is treated as Title I was in Garrett – that is, if damages suits are held to be unconstitutional – suits for injunctive relief against states and all lawsuits against local governments are still very much alive."

Fred Fay, Disability Rights Advocate

Letter to the Editor, from page 2

design in civil rights and universal design terms and not limiting yourself to ADAAG.

It is my opinion that you are better serving society by taking this position. However, it is also my opinion that the letter of the law (particularly the <300 seat clustering exemption) allows designs that may provide poorer viewing angles for seats for people with disabilities in new construction. The problem I see is the conflict between the requirements for two means of accessible egress and comparable sightlines. The present lack of clear technical criteria, requires designers to make guesses about what is the "best" design, based on interpretations and recent settlements, neither of which should be the substitute for consensus based standards setting.

Thanks for reading Universal Design Newsletter and for sharing your opinions and perspectives with our readers.

John P.S. Salmen, AIA
 President, Universal Designers & Consultants Inc.
 Publisher, Universal Design Newsletter 



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Cruise Lines in Limbo, *from page 1*

“Without specific guidelines, it is not appropriate to apply building standards to vessels,” said Jan Tuck, manager of access compliance for Princess Cruises. “All cruise lines have been striving to make their vessels more accessible, however, it is harder to make a ship more accessible than a building.”

When ADA guidelines for transportation vehicles were initially released, DOT determined additional study was necessary to develop guidelines for passenger vessels. Under ADA, the US Architectural & Transportation Compliance Board (Access Board) is charged with developing and maintaining accessibility guidelines for transportation vehicles. The Access Board created the Passenger Vessel Access Advisory Committee (PVAAC) to recommend accessibility guidelines for the board to use in developing its proposed rule for newly constructed and altered passenger vessels. PVAAC’s mission included identifying which types of passenger vessels should be covered in the rulemaking. The advisory committee consisted of 21 members, representing various interests including owners and operators of passenger vessels, designers of passenger vessels, organizations representing individuals with disabilities, the US Coast Guard, and others. After a two-year development process, the committee forwarded its recommendations to the Access Board last November.

David Chapman, a consulting naval architect and disability advocate who participated on the advisory committee, called the resulting report “a very positive outcome.” He said, “The cruise industry was an active participant in the process. There was give and take on the committee, a lot of learning, a lot of understanding.”

Paul Beatty, an accessibility specialist at the Access Board, described the committee’s process as “consensus-building.” “The committee would try to reach a consensus on the recommendations. Not everybody would love it, but everyone could live with it,” he said.

The next step in the process, according to Beatty, is for the Access Board to review PVAAC’s report and determine what needs to be changed and what additional items should be addressed. The board also must determine the scope of the proposed rule.

“It’s important to note that the Access Board doesn’t say which vessels are covered by the ADA,” said Beatty. “Rather the board’s proposed rule will describe the minimum guidelines for a newly constructed or altered accessible vessel. The enforcing agencies determine who has to meet these guidelines.”

With the Access Board just starting the internal

process for rulemaking, Princess Cruises’ Tuck pointed out, “PVAAC provided recommendations. It will probably be a couple more years before we have final rules.” Tuck, who has paraplegia, served on the advisory committee. “The difficulty faced by both the operators and advocates is the challenge of maximizing access while controlling costs and always with the preeminent mandate of safety of life at sea,” she said.

Tuck, who has worked with United Airlines and American Airlines, cited the airline industry as another transportation group dealing with these issues. “The airlines have guidelines, but planes are still not accessible. You can’t take a wheelchair down the aisle. People with disabilities can’t get on and off the plane without assistance,” said Tuck.

“It is also important to realize that the generation of ships built today may have been on the drawing board 10 years ago,” explained Tuck. “Changes to design are often cost prohibitive.”

“A cruise line would be ill advised to design a multi-million dollar vessel to building standards knowing full well it will not meet vessel safety standards,” she said. “Furthermore, even the experts cannot predict what the standards will be.”

The committee’s recommendations include the following:

- An accessible route would not be required to levels located above or below the accessible level in passenger vessels that are less than three decks or that have less than 3,000 square feet per deck.
- An accessible route would not be required between decks on a high speed ferry with only two passenger decks where all types of passenger facilities are available on the accessible deck.
- An accessible route would not be required to a deck which is less than 300 square feet in size.
- All doors to and within standard non-accessible passenger staterooms on a particular deck would not be required to have a 32 inch clear opening. The exception would apply where: 1) accessible hospitality rooms are provided, and 2) all passenger staterooms required to be accessible have one 32 inch door which provides direct access into an adjacent passenger stateroom.
- The number of required accessible passenger staterooms would be limited to 5 percent.
- All passenger staterooms would be required to have permanently installed visual alarms where such staterooms are served by audible alarms. For notification devices (which were permitted to be portable), the committee stayed with the table currently in the ADAAG Review Report.

“A cruise line would be ill advised to design a multimillion dollar vessel to building standards knowing full well it will not meet vessel safety standards.”

Jan Tuck,
Manager of Access
Compliance,
Princess Cruises

MEXICO: President Establishes New Office on Disability

Mexico's new president, Vicente Fox, has established a high-level office for people with disabilities. This is the first time that there has been a comprehensive office that crosscuts all agencies and programs. Taide Buenfil, director of Citizens Projects, Office of Representation for the Social Promotion and Inclusion of Disabled Persons, Presidency of the Mexican Republic, reports on the three branches of the new office and the growing emphasis on accessibility and universal design in Mexico. The focus of each branch is:

Legal aspects. Laws, regulations and norms will be modified in every aspect to include people with disabilities.

Institutional programs. Federal, state, and local government institutions will work to meet the needs of people with disabilities. Non-government organizations (NGOs) will be involved, but the government will initiate the changes in policies and programs.

Citizens projects. The NGOs will initiate and carry out a variety of projects.

Buenfil explains, "The citizens projects involve accessibility; this is where we can start working in universal design. We have to explain accessibility to everyone, and how that is the basis for universal design." Buenfil is a registered architect who has been teaching graduate courses in accessibility and universal design at the



Taide Buenfil, architect, directs the Citizens Projects of new national office in Mexico.

N a c i o n a l
Autónoma de México. Also the author of survey tools and accessibility guidelines, Buenfil notes that the 1985 earthquake in Mexico City led to major changes in design and construction that incorporated the needs of older people and people with disabilities. For more information, contact her at obrasyd@prodigy.net.mex.

"World Update" is written by Elaine Ostroff, founding director of Adaptive Environments Center. If you have information about international universal design efforts that you would like to see published in *Universal Design Newsletter*, send it to: 6 Grant Ave., Takoma Park, MD 20912; or via e-mail at: publisher@UniversalDesign.com

JAPAN: Universal Design in Kumamoto Prefecture

Governor Yoshiko Shiotani of the Kumamoto Prefecture is leading the effort to create a universal design movement that will penetrate into every corner of the prefecture. She hosted the Kumamoto International Symposium on Universal Design to introduce universal design concepts to the residents of the prefecture located in the south of Japan. More than 600 people participated in the event that was held on Jan. 23-24 and organized by the Universal Design Forum of Tokyo.

Presenters from the United States and Japan introduced universal design through plenary sessions and participatory workshops. Molly Story, Center for Universal Design, North Carolina State University; Patricia Moore, Arizona State University; Valerie Fletcher, Adaptive Environments Center; and Roberta Null, Common Place Design, were the US presenters. Satoshi Nakagawa, Universal Design Forum and Tripod Design; Chika Sekine, Universal Design Information Technology; Satoshi Kose, Building Research Institute; and Yoshi Kawauchi, the Access Project, were the Japanese universal design leaders who led work sessions at the symposium.

Molly Story also conducted a hands-on session with consumers and high school students to evaluate products using the new Performance Measures for Universal Design Products. Kumamoto has also developed a website to promote universal design, using the new national government sponsored website "Expo 21, an Internet Fair." The English version address is: <http://ud-kumamoto.rkk.ne.jp/index-e.html>. For more information on the symposium, contact Ken Adachi of Universal Design Forum at knadachi@nks.co.jp.

EUROPE: New Resolution on Universal Design Education

The Committee of Ministers of the Council of Europe adopted a Resolution on Universal Design at their February meeting in Strasburg.

This pro-active approach recommends the incorporation of universal design principles into the curricula of architects, engineers and town planners, and, by and large, into the training of all vocations working on the built environment.



Kumamoto Governor, Yoshiko Shiotani, explaining her priorities to US presenters, with interpreters.

Introducing Universal Design to a New Generation

World Congress on Environmental Design Debuted in Seoul Last Fall

Introducing universal design to a new generation of designers was one of the highlights of the first World Congress on Environmental Design for the New Millennium. Held in Seoul, Korea last November, the conference attracted students and professionals in the areas of universal, environmental and cultural design.

The 13-day event was planned by Korea's Presidential Commission for the New Millennium and organized by Yonsei University. It began with the World Conference on Universal Design – five days of discussions, presentations, workshops and symposiums, highlighted by a student design competition.

Created to focus on the relationship between human beings and the built environment – including urban planning, landscape architecture, interior, exterior, and product design and a wide range of structures, from homes and schools to hospitals, restaurants, theme parks and offices – the conference helped to introduce students in every field to universal design principles.

“This conference demonstrated to a whole new audience – the next generation of designers – the importance of designing products and environments universally,” says John Salmen, president of Universal Designers & Consultants in Takoma Park, MD and a keynote speaker at the conference. “I had the sense that quite a few people were learning about universal design for the first time.”

Not only were countless students learning about the principles of universal design for the first time, they were visibly passionate about what they were hearing, according to Jim Mueller, president of J.L.

Mueller, Inc., a disability management business based in Chantilly, VA. Mueller taught a full-day design workshop called “Using the Principles of Universal Design to Reach the Largest Population.” Students were challenged to take a close look at their environment – a large conference center atop a public shopping mall – and make suggestions on improving accessibility for everyone using universal design principles. The broad mix of students came back with interesting ideas and insights. More importantly, however, was the true enthusiasm they showed for the project, he says.

“I gave them just a little start,” says Mueller, “and they did some really gutsy things throughout the day. Some were challenged by

the mall's administrators as they measured and plotted and conversed, and they responded with comments like, ‘We shouldn't have to be doing this to begin with. It's unacceptable that someone in a wheelchair can't have access to certain areas or floors of this mall.’ Shoppers, too, were curious about the students' work, so we ended up introducing universal design to more people than we had anticipated.”

According to several conference presenters, the concept of combining the worlds of universal, environmental and cultural design in one World Congress was well-founded. The Green Design and Cultural Design conferences were also five days each, following the World Conference on Universal Design. However, the distinct division of the three areas as well as the nearly two-weeks required to attend all the conferences drew some criticism.

“It was amazing to provide so many students with information that might someday affect the choices they make and the products, interiors and environments they design,” says conference presenter Jane Langmuir, an adjunct associate professor in the Interior Architecture Department of the Rhode Island School of Design. “The logic of bringing together environmental, cultural and universal design professionals was brilliant. The attendees were given an incredible opportunity to explore so many aspects of design. But there was never any common discussion among all three areas, perhaps because each conference was held back to back, rather than concurrently. If they were overlapped, we might have been able to explore how they interrelate in a broader sense and how we can better integrate the ideas coming from each.”

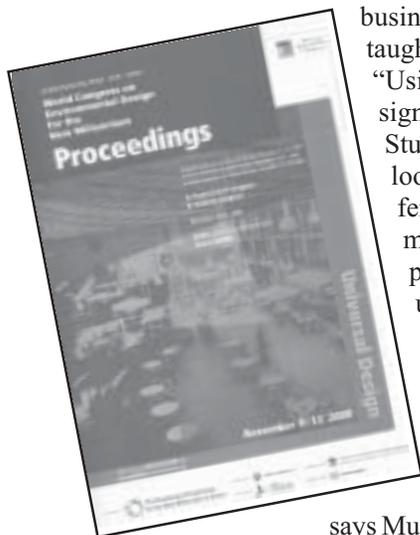
“I was impressed with the interest level and excitement of the participants – mostly students – who attended my workshop and symposium,” adds Mueller. “But I don't think the World Congress was as effective as it could have been. A cross-over of conferences might have allowed us to see how the issues generated by all three areas can work together.”

Despite the minor criticisms, Salmen, Langmuir and Mueller are quick to point out that they're looking forward to seeing what changes will be made for a second World Congress.

“Universal design is still a fledgling idea that's going to take time to build into institutional curricula and influence the sensitivities of tomorrow's designers,” adds Langmuir. “In that respect, the World Conference on Universal Design hit the mark by introducing students to critical principles and ideas. And that's not a bad start.”

“It was amazing to provide so many students with information that might someday affect the choices they make and the products, interiors and environments they design.”

Jane Langmuir,
Adjunct Associate
Professor,
Rhode Island School
of Design



Court Clarifies Hotel's "Readily Achievable" Obligations

Ruling Says There Is No Requirement for a Roll In Shower

Last year a federal district court ruling in Southern California set some limits on an innkeeper's obligation to upgrade an existing property to make it more accessible under Title II of the Americans with Disabilities Act (ADA).

In the case of *D'Lil v. Anaheim Hotel Partnership*, U.S. District Court, Central District of California, Hollynn D'Lil, who uses a wheelchair, stayed at the Hilton Anaheim and Towers in May 1998. The hotel was built in 1984 (at which time there was no requirement for roll-in showers), and, since construction, the guest rooms and facilities at the hotel have not been altered so as to affect accessibility. There are no shower compartments in any of the accessible guest rooms. D'Lil claimed that the hotel contains an architectural barrier due to the fact that it does not have any guest rooms with roll-in showers.

D'Lil and the hotel submitted the matter to the judge on the question of whether the hotel in fact contains an architectural barrier under the ADA due to the lack of roll-in showers. If the lack of such showers equates to an architectural barrier, then the hotel arguably had an obligation to remove it to the extent that it could do so in a readily achievable manner. Set forth below is the judge's analysis of this issue:

"An architectural barrier is a condition that 'does not meet or exceed'" the ADA standards.

"While [the ADA standards list] the number of rooms required to be equipped with roll-in showers, the [standards only apply] to newly constructed buildings or buildings undergoing alteration. The

[standards] are not mandatory on existing buildings. See *Coalition of Montanans Concerned with Disabilities, Inc. v. Gallatin Airport Auth.*, 957 F. Supp. 1166, 1168 (D. Mon. 1997) ("The overall policy of the ADA is to require relatively few changes to existing buildings, but to impose extensive design requirements when buildings are modified or replaced."). Thus, while roll-in showers must be phased in as the hotel undergoes alteration, there is no requirement that existing hotels install roll-in showers. See *Gallatin Airport Auth.*, 957 F. SUPP. At 1168 (guidelines are geared toward the future so that, over time, access "will be the rule, rather than the exception").

"In addition, the evidence shows that the bathrooms in the handicapped accessible rooms do not contain architectural barriers insofar as they have enlarged floor space to provide wheelchair access, grab bars at the toilets and tubs, lowered vanities, clearance beneath all counters, lowered mirrors and available lifting device for the tubs.

"Because there is no evidence that the guest bathrooms contain architectural barriers, [the case is decided in the hotel's favor]." (Certain citations omitted.)

While the case was decided favorably as far as the hotel is concerned, it is not altogether clear exactly what the court's reasoning was.

Moreover it is possible the ruling will be appealed. 

This article was excerpted from The California Advantage, the newsletter of the California Hotel & Motel Association

"Thus, while roll-in showers must be phased in as the hotel undergoes alteration, there is no requirement that existing hotels install roll-in showers."

Hon. Gary Allen Feess
US District Court,
Central District of
California

World Update, from page 5

The resolution notes that, "Architectural obstacles and barriers in the built environment still exclude many people with disabilities from full participation in the life of the community – a form of social exclusion that is undoubtedly a denial of basic human rights. The man-made environment is constructed on the assumption of there being an 'average person.' However, there is no standardized person. Since every individual deviates from 'the norm' in one way or another (age, height, width, weight, strength, speed, sight, hearing, stamina, mental capacities, etc.), facilities built for the 'average person' are not necessarily equally accessible for everybody.

"In the past, the problem of accessibility was

considered a direct result of the individual's deviation from 'the norm.' The person was the 'exception,' hence the 'problem.' The new integrated approach includes universal design and aims to respond equally to the needs of everyone. The criteria defining 'normality' should be enlarged to ensure that the construction of the built environment is based on universal design. A new awareness of design and construction is needed."

The Council of Europe is a pan-European cooperation-organization on culture and human rights. It does not have the lawful powers of the European Commission but has significant influence on European matters. The full resolution can be seen at:

<http://cm.coe.int/ta/res/resAP/2001/2001xp1.htm> 

Listservs Offer Design Ideas, Discussion and Resources

One of the services the Rehabilitation Engineering Research Center (RERC) on Universal Design at Buffalo Technical Assistance Project offers to the community of consumers, designers and professionals is the administration of two listservs (group email delivery lists, usually centered on a specific topic or discipline). The two public lists administered by the center deal with home modifications and Visitability.

Obviously, one of the specific advantages of being a member of these lists is that it affords the opportunity to participate in targeted discussion and debate. One of the negatives, however, is that it can generate huge numbers of messages. The following discussions represent a sampling from the listservs reviewed earlier this year.

Topic: Organization

While I appreciate the need to pare down the amount of mail, separating home mods, UD and visitability seems to me to be like splitting up a family because there are too many kids in the house. While I understand RERCUDs foci on UD and visitability, and perhaps the need to create a separate identity, I still would like you to consider splitting listservs between design and policy/code issues. This would be a much more natural split based on people's interests and would still link visitability/UD/home mods. It's just a thought.

Jon Sanford

Research Architect Rehab R&D Center, Atlanta, GA

Does anyone know of any bars that are designed for children and small hands?

Karen Barker, OTR,
ATP NH-ATEC

I am not in favour of separating the HomeMods and Visitability listservs, either. However, I am also a bit hesitant to separate design and policy/code issues. It is rather difficult for me to separate the two (or the three, i.e., design, policy and codes). True that we can give more emphasis on one side, but ...At least what I have done could never have been accomplished if I was forced to separate the roles that I have played (from research to policy implementation).

Dr. Satoshi Kose, Director

Housing & Building Economy Department, Building Research Institute, Tatehara, Tsukuba Japan

A point of clarification. The UD listserv was not created by us nor is it managed by us. It was created by Elaine Ostroff and is managed by the Trace Center at U. Wisconsin. We created the Visitability listserv as a separate list (we manage it also) because we are working with a group of about 20 housing advocates around the country on issues of Visitability and they did not want to get email about home mods. There is also an extended group of advocates in touch with Concrete Change interested in Visitability who are not part of the home mods scene. Many of them are on the Visitability list as well. Thus, like it or not, there are already three listservs. In response to Jon's suggestion, I think it is better to keep everything on home mods in one place, since many of us are interested in all aspects of home mods.

Professor Edward Steinfeld, Arch. D.

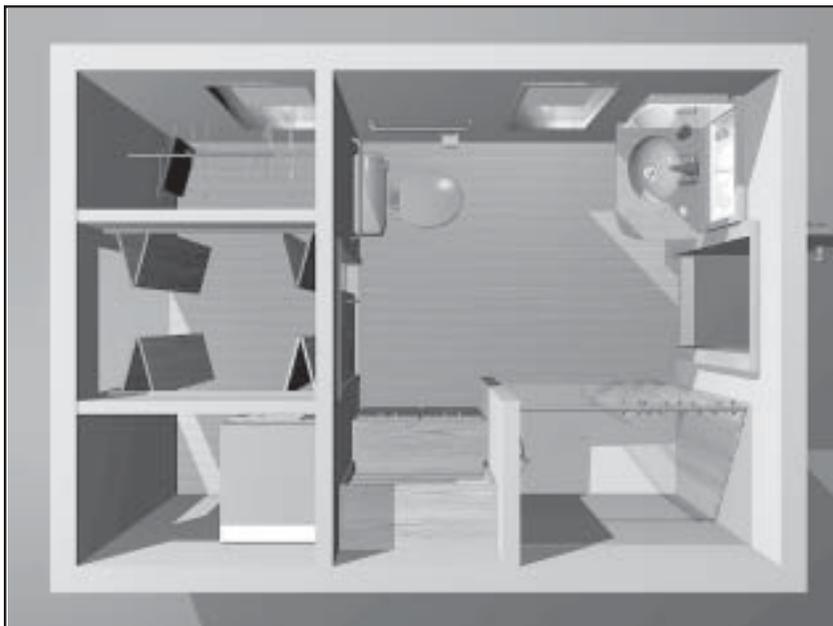
Director, IDEA Center and RERC on Universal Design

Topic: Equipment

I got a call the other day from a PT who is working with a little girl who has a rare form of dwarfism. One of her difficulties is her limited grasp, as she has extremely short digits. They are looking for swing-up grab bars that are small diameter, to mount near the toilet in the school rest room. They also need to have rails of some sort as she will need a step to get up to the toilet. Does anyone know of any bars that are designed for children and small hands? Thanks, Karen

Karen Barker, OTR, ATP NH-ATEC

Karen, You might want to try the German manufacturer HEWI--they have a lot of products designed



Floor plan of Home Modification in New York, City.

Listsers Offer Ideas, *from page 8*

specially for children. They also make them in really neat shapes and colors. Their web site is www.hewi.com.

Traci Swartz, OTR/L Atlanta, GA

Jon (Sanford) mentioned: Linido bars were designed for older adults with limited grasp and are 1.25" > in diameter, rather than the standard 1.5". Just as important, if not more important, what is the offset distance from the wall? This space needs to be proportional or at least in recognition that a thinner diameter bar often means a greater offset which will allow thin arms to slip through -- possibly breaking bones and damaging shoulder joints. In my opinion, this space needs to remain 1-1/2", regardless of the diameter of the bar. No more and no less for seniors, but for little people this dimension might be worthy of thought and research. It's great to come up with ideas outside of the box, as long as we can still see the box!

*Mark Warner
Agelessdesign.com*

Topic: New Ideas

A most important question to ask BuildNet and other companies selling home plans designated as specially designed to age in place, receive disabled visitors, etc., is this: What is the bathroom door width on the home plans you are marketing for the general buyer? If the bathroom door widths on the general plans are less than 32 inches clear, then dialog needs to begin and education offered. If education does not lead to wide doors on regular home plans, then pressure needs to be applied. On the other hand, if wide bathroom doors and other interior passage doors are offered on all, or the great majority, of the regular house plans, then congratulations and positive publicity are due to the company.

Eleanor Smith
Director, Concrete Change

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 of 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.

Eleanor-Our viewpoints aren't different. Most homes CAN easily accept a wider bath door. Your perception and experiences match mine! But we do need to understand that changing one little line on a home plan is more involved simply because of the number of plan sheets you need to change... (edited) ...At just 10 minutes per page, that's 5 hours of time. To change 10,000 plans, it would take two full-time drafts people working 40 hours a week just on door changes 12 YEARS to make all the changes. In today's dollars, the salary/benefits costs for those two positions would exceed 3/4 million dollars.

(Is that a grant fundable project?) I'm not trying to discourage this. I support it. To be effective, though, we have to understand the mountain of work

See Listsers Offer Ideas, page 12



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[www.ap.buffalo.edu/
~rercud](http://www.ap.buffalo.edu/~rercud)**

News from the Center

Professor Abir Mullick's design of the Universal Bathroom has received the Bronze Award from the American Society on Aging (ASA), during that organization's 13th Annual Universal Design Competition: Product Design for an Aging Society. Mullick received recognition for his innovative design at the ASA's recent conference in New Orleans, LA.

The Universal Bathroom – which was developed under a separate three-year grant from NIDRR – consists of two design concepts. Under each design, the usable components of the bathroom can easily be customized to the needs of its intended users.

“Unlike existing bathrooms, which are designed primarily for independent use, these bathrooms consider lifespan issues (and) are designed for those who can operate on their own, as well as dependent users who need bathroom assistance, and those caring for them,” says Mullick.



Professor Mullick's universal bathroom.

Making Public Streets and Sidewalks More Accessible

Access Board Advisory Committee Report Released

Detectable warnings are coming to a curb ramp near you. In a US Architectural & Transportation Barriers Compliance Board (Access Board) advisory committee report submitted in January, detectable warnings and a host of new guidelines are being recommended to make public streets and sidewalks more accessible.

The Public Rights-of-Way Access Advisory Committee Final Report is a far cry from the proposed Section 14 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) which was criticized when unveiled in the early 1990s for requiring wholesale rebuilding of existing developed rights-of-way.

“The requirements in the report are recommended for ‘new construction,’” says Mark Derry, an Americans with Disabilities Act (ADA) consultant and a member of the Access Board’s advisory committee. “If you were building a public right-of-way in a cornfield in Iowa, you would have to build to these specifications. But if you are a Title II entity trying to make your town more accessible, the recommendations give you guidance where there was none before. You just need to come as close as you can” to meeting the requirements.

“But if you are a Title II entity trying to make your town more accessible, the recommendations give you guidance where there was none before.”

Mark Derry,
Eastlake, Derry &
Associates

Detectable Warnings

Among the report’s recommendations are new technical requirements for sometimes controversial detectable warnings. Detectable warnings provide a tactile indication for persons with vision impairments where pedestrian routes blend with vehicular ways. In the past, they often consisted of a curb ramp with the center surface covered with bumps.

While helpful in indicating an intersection to people with low vision using canes, the uneven surfaces may cause vibrations in rolling wheelchairs. Such vibrations can prove painful to some individuals.

The recommendations, which take into account new research, call for a row of raised bumps in a strip toward the bottom of the curb ramp. “Theoretically a person could roll between the rows and not experience the vibrations,” says Derry.

More on Curb Ramps

“The report offers a lot more guidance for people trying to figure out how to engineer curb ramps,” says Derry. Included in the recommendations is a requirement that a curb ramp or flush landing be provided wherever the pedestrian access route crosses

See Public Rights-of-Way, page 14

Cruise Lines in Limbo, *from page 4*

• The ADAAG definition of “Technically Infeasible” was changed to: With respect to an alteration of a passenger vessel, something that has little likelihood of being accomplished because existing structural conditions would require removing or altering a structural member; or because other existing physical or vessel constraints prohibit modification or addition of elements, spaces, or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

Even though no standards are currently in place, industry leaders assert that cruise lines are doing a good job of making their ships accessible.

The International Council of Cruise Lines (ICCL), which consists of the 16 largest passenger cruise lines that call on major ports in the US and abroad, participated in PVAAC. ICCL President Michael Crye said, “The cruise industry values each

and every passenger and makes every attempt to meet or exceed passenger requests as well as special needs. The industry is actively working with the federal government to develop rational, reasonable regulations as it applies to passenger accessibility issues.”

Another issue, according to Tuck, is that while cruise ships may be accessible, the foreign ports where the ships stop pose accessibility problems.

“The rest of the world, with the possible exception of Australia, is way behind us in terms of accessibility. A cruise ship may do all it can to create an accessible environment, but there’s a problem if you can’t get off the ship to enjoy the foreign ports and cities,” said Tuck.

Tuck believes that “accessible cruising” will not be brought about through litigation. “Access is good business and it must be pursued with a passion for not only the business, but more so, because it is the ‘right’ thing to do,” she said. 



Website Spotlight: Proceedings from International Design Conference

In June 2000, Adaptive Environments Center Inc. (AEC) hosted its second biennial conference on universal design, *Designing for the 21st Century II*, bringing together people from 28 nations. Detailed information about the conference – including collaborators, exhibitors, corporate partners and juried papers – can be found on its website at www.adaptenv.org/21century/.

The site features a concise overview of the event, a full conference program, which can be downloaded or viewed by session topic, and a proceedings section that contains 40 papers from 12 countries representing the depth and range of universal design education, practice and research worldwide. Visitors can link to resources, global news, design professions and AEC projects as well as access a complete report of the conference. In addition, the AEC homepage provides information on the center's education and training programs, consulting and technical assistance services, publications and design advocacy.

Best Practices for Universal Design

Following an extensive research study to compare practical data and technical specifications from the world's leading design ideas, Betty Dion Enterprises Ltd., in partnership with The Canadian Institute on Barrier-Free Design (now the Universal Design Institute), has published *Universal Design-An International Best Practices Guide*. This 297-page guide -- complete with figures, photographs, technical data and comment pages -- highlights building codes in Australia, England, the Nordic countries, China, Fiji, Japan, the United States, and Canada.

Each section begins with a synopsis of the best universal design practices for a wide range of applications, including doors, ramps, stairs, elevators, lighting, fire safety, washrooms, communications systems, restaurants, parking, and walkways. The technical data and comment pages compare specific characteristics across various building codes and give the best practice along with its applicable code. Ideal for architects, interior designers, product designers, and accessibility consultants, the guide is an essential resource for achieving higher standards in building and product function.

The cost of the guide-\$35 (USA), \$50 (Canada) and \$70 (International)-includes shipping and handling. To order, send check or money order to Betty Dion Enterprises Ltd., 104-119 Ross Avenue, Ottawa, ON, Canada K1Y 0N6.

New RSA Publication Tracks Winners from 1986 Project

The United Kingdom's Royal Society of Arts (RSA) recently published *Moving Forward*, a pocket-size booklet that examines how the early winners of the New Design for Old project are faring in their professional careers. RSA's New Design for Old project, which began in 1986, challenges

students to design products and services specifically geared toward older consumers. In addition to showcasing some of the winning or highly commended entries that have been submitted since 1986, *Moving Forward* presents case studies of past winners, exploring how the philosophies garnered from the original project have influenced them in their professional careers.

The full-color booklet includes a foreword from Helen Hamlyn, creator of New Design for Old; a commentary on society and age by RSA's Head of Design Susan Hewer; and brief biographies of each designer along with personal statements about his or her original entries.

To request a free copy of *Moving Forward*, e-mail Noni McOmish at hutchind@rsa-uk.demon.co.uk or call 44 (0) 20 7451 6853.

Access to the Sciences

Access to the laboratory makes science a viable choice for a student – but not all university laboratories are accessible.

A California architect has developed a presentation on making academic science settings physically accessible. Available on the Blake-Drucker Architects website, www.bdarch.com, the presentation includes an overview of the need for accessible laboratories, emphasizing that universally designed facilities are safer and more accessible to everyone. There is an outline of what has been done in the past to make the sciences physically accessible and descriptions of four features that make up a prototypical accessible chemistry workstation.

The site also suggests accessible designs for emergency shower and eye wash stations, sinks, instrumentation, and hardware. For more information, contact Bonnie Blake-Drucker, AIA at Bonnie@bdarch.com. 

The technical data and comment pages compare specific characteristics across various building codes and give the best practice along with its applicable code.

Best Practices for Universal Design

Section 508, from page 1

are not individuals with disabilities, unless an undue burden would be imposed on the department or agency.”

Section 508 also requires that “individuals with disabilities, who are members of the public seeking information or services from a federal department or agency, have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities.” This latter item is the basis for discussions relating to accessibility of government web sites. Recent press coverage of the 1998 revisions to Section 508 commonly restrict their discussion to the need for making federal agency World Wide Web sites accessible to people with disabilities. These articles rarely address the requirements for agency procurement of office equipment that will enhance its usability by employees with disabilities. Web accessibility obviously was not a concern in 1986 or when Section 508 was revised in the early 1990s. The web only became widely used in late 1994 after Netscape released its first web browser.

From the outset in 1986, Section 508 and its associated regulations have been, and continue to be, an attempt to ensure that products that can be used by government employees with disabilities will be available in the general marketplace. Rather than having the government telling industry how to design its products, the legislation indicates that products to be purchased or used by the federal government must meet the performance needs of people with disabilities. The design of the products to achieve these performance standards is left to industry where the design expertise resides. Products that are produced

and sold to the US Government, the largest buyer of information technology in the world, then should become available in the marketplace for everyone else.

Section 508 is an example of a market-pull approach to promoting product supply rather than a market-push approach. A market-push approach might have government mandating specific design features. For example, if the government required that a microcomputer be fitted with a screen reading software program or a keyboard emulator, that would be market-push. Instead the law mandates that a computer be usable by people with sensory and motor disabilities. It is up to industry to design the features and technology that make the product usable by these populations. It is market-pull when an accessible product is made available to the general public after it is designed to meet government procurement requirements.

A recent article in *Technology Daily* said that the new Section 508 regulations might hinder competitiveness and creativity in the development of new products that was said to have flourished in the absence of government intervention. “The government for the first time is mandating the feature set of software through its purchasing power.” The article continued by saying that “Companies are not going to produce separate versions for government and non-governmental purchasers, ...” So even though the new rules technically only apply to software used in federal contracts, the rule effectively mandates software changes in both the public and private sectors for any companies that do business with the government.”

Proponents of universal design hope that this prediction comes true for both software and hardware because the implementation of the principles of universal design will have been extended by adoption of Section 508. People who believe that creativity in development will be hindered should realize that products that are usable by people with disabilities are often better products. Features that provide usability for this population can make usability easier for everyone. In a market-centered economy, better products are successful; the ones that are desired by the general consumer population lead to market demand; and that demand, in turn, results in supply by responsive manufacturers. 

Larry Scadden is a program officer at the National Science Foundation and has published extensively on the topic of product design for all.

“So even though the new rules technically only apply to software used in federal contracts, the rule effectively mandates software changes in both the public and private sectors for any companies that do business with the government.”
[Technology Daily](#)

Listserves Offer Ideas, from page 9

a home plan firm is faced with. The best solution is developing a portfolio of new plans with correct door sizes and then actively promoting their use, while simultaneously modifying other plans as requested. That is what UDHomes is trying to do.

Phil Dommer

PSCUDesign@aol.com

Join a RERC listserv

Another advantage to listserv membership is access and exposure to experts in the area you choose.

To join a RERC listserv, visit the Q&A section of the RERC on Universal Design website: www.ap.buffalo.edu/~rercud 

PRODUCTS

Thin-Bed Waterproofing/Crack Isolation

The NobleSeal™ TS thin-bed waterproofing sheet, manufactured from chlorinated polyethylene, provides waterproofing and crack isolation in thin-bed installations of ceramic, stone, agglomerated, and terrazzo tiles.

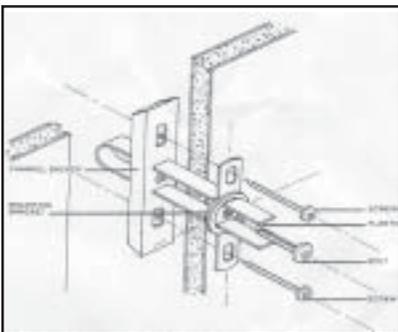
On both horizontal and vertical surfaces and over common substrates, including radiant heat and light-weight underlayments, NobleSeal provides the lowest permeability for effective waterproofing and has been rated "Extra Heavy Service" by the Robinson Test.



Installed between the bonding agent and the flooring, the sheeting isolates the tile to prevent cracking and ensures uniform thickness and quality. The 55-year-old Michigan-based Noble Company offers a lifetime guarantee on its NobleSeal TS.

Flush Mount Hollow-Wall Fasteners for Towel and Grab Bars

The C.D. Sparling Company has introduced Channel Backer (TM), a fastener designed for use in hollow-wall installation applications. Manufactured with 18-gauge (.049) type 304 stainless steel channel and mounting bracket and high-density polyethylene backing inserts and strap, the flush mount fasteners



meet ASTM F446-85 requirements for grab bars and accessories.

Each of the four models, specifically engineered for use on 1/2" and 5/8" dry-wall, require

only an 1/8" drill bit (carbide tip, if cutting tile), 1" hole saw and screwdriver and are designed to accept #10 and #12 screws.

Micro-Etching Process for Slip Resistant Tile Floors

Slip Tech has developed a floor treatment that microscopically roughens the surface of ceramic tile, stone surfaces, and agglomerates without altering its appearance.

Unlike topical coatings, which can break down over time, the Slip Tech process uses the same chemicals used to make computer microchips to gently etch the surface of the tile. When a shoe makes contact with wet tile treated with Slip Tech, the water is evacuated, forming a suction that greatly decreases slipping. Guaranteed to meet 0.6 C.O.F., the process works on any surface with a silica molecular base, including concrete, and comes with a five-year warranty. The company recently used its Slip Tech process on 60,000 square feet of pool deck at the 2000 Olympic Games in Sydney, Australia.



Accessible Keypads for In-Room Safes

Hospitality Safe Corporation's electronic safes – currently found in Hilton, Westin, Sheraton, Marriott, and Holiday Inn hotels around the country – come with an accessible keypad that features gold contacts and heavy duty springs to ensure accurate input with every touch.

The spring-loaded action and audible, distinctive pitch of each button lets users actually feel and hear when a button is depressed. In addition, each safe includes operation instructions from the Braille Institute, placed near the keypad, and the company provides a wide range of pedestal heights—from 12" to 36"—to make their safes accessible to all users. The keypads are available with or without a magnetic card swipe.



The Noble Company
(NobleSeal™ TS)
PO Box 350
Grand Haven, MI
49417-0350
Phone: 800.878.5788
www.noblecompany.com

C.D. Sparling Co.
(Channel Backer)
498 Farmer Street
Plymouth, MI 48170
Phone: 734.455.3121
www.cdsparling.com

Slip Tech
(Slip Tech Floor Treatment)
1111 La Mesa Ave.
Spring Valley, CA
91977
Phone: 800.667.5470
www.sliptech.com

Hospitality Safe Corp.
(Safe Keypads)
10214 NW 47th St.
Sunrise, FL 33351
Phone: 954.749.5331
E-mail:
safes@mindspring.com

Public Rights-of-Way, *from page 10*

a sidewalk/street transition and that a landing is required at the top of each curb ramp, except at unsignaled driveways. The report calls for such access at all corners of an intersection where at least one corner has a public sidewalk to ensure a continuous pedestrian access route. A number of design solutions for meeting these criteria are suggested.

Public Sidewalks and Protruding Objects

The report lays out specifications for a “pedestrian access route” within public sidewalks which address the clear width, cross slope, grade, surface, changes in level, and other characteristics. While largely consistent with existing specifications for accessible routes, these criteria also cover constraints and conditions unique to public rights-of-way. For example, the report addresses sloped terrain by permitting pedestrian access routes to have a running slope that is consistent with the adjacent roadway, whereas current board guidelines require that routes

with running slopes greater than 5% be treated as ramps. Design solutions are provided for various conditions, such as access routes at driveway aprons. There is also a section covering objects that may project into circulation paths in a manner hazardous to people with vision impairments. This section, which derives from existing board guidelines, addresses objects mounted on walls or posts and limits their projection depending on the mounting height.

Street Fixtures and Furniture

The report provides detailed

criteria for street furniture, such as fixed benches and tables, drinking fountains, public telephones, toilet facilities, bus stop shelters, vending machines, trash receptacles, and signage. The specifications ensure that these elements are accessible to persons with physical or sensory impairments. For example, requirements for telephones address access for people who may use wheelchairs and access for people who are deaf or hard of hearing.

Vehicular Ways and Facilities

The report addresses on-street parallel parking – a first for accessibility guidelines. Scoping and technical provisions are provided for on-street parking, including parallel and angled spaces.

The report illustrates designs that meet the specified criteria, including the required access aisle at parallel and angled on-street spaces. The minimum number of accessible spaces derives from existing board guidelines that cover vehicles and van accessible parking. The report also covers parking meters, including the height and operating characteristics of controls, passenger loading zones, and emergency call boxes.

Pedestrian Street Crossings

Also new are the specifications for street crossings. The recommendations cover a variety of elements, including signal push buttons, pedestrian signals, crossing times, traffic islands, pedestrian overpasses and underpasses, roundabouts, and intersection turn lanes.

Where Do We Go From Here?

Under the rulemaking process, the Access Board will consider these recommendations and write a proposed rule, which will be published in a Notice of Proposed Rulemaking (NPRM). There will be a chance for public comment on the NPRM before the Department of Justice and/or the Department of Transportation considers whether to issue a final rule.

As to the question of “What do we do in the meantime?,” the Access Board notes, “Some agencies may begin to use the recommendations in [the] report as guidance even before a final rule is adopted. ...However it should be noted that inevitably, there are some recommendations in [the] report, as well as some issues for which recommendations were reserved, where the outcome might have been different had there been more time for the committee to discuss and test what is proposed. The period for public comment will allow these recommended standards to be further refined into a final rule....”

The report is available on the board’s website at www.access-board.gov or can be ordered by calling 800.872.2253 (v) or 800.993.2822 (tty). □

The report addresses on street parallel parking – a first for accessibility guidelines.

Remaining Challenges

While the committee tackled many of the tough issues related to accessibility in the public rights-of-way, according to Public Rights-of-Way Access Advisory Committee Member Mark Derry, it could not come up with recommendations for every challenge. Among the items left for further review were gaps in railroad crossing and audible signs.

Railway Crossing Gaps

The committee found that no technology currently exists to remedy the flangeway gap where light and heavy rail lines cross pedestrian ways. The committee voted to recommend a “sunset” provision on rail crossing provisions for four years after the final rule is adopted as an incentive to industry to find a “gap” solution. The Association of American Railroads has proposed a joint industry project for 2001.

Audible signs

There are currently several unsolved problems with audible signs, according to the committee. A uniform protocol must be developed so that:

- Users will not need to carry more than one receiver (one for each wayfinding application) to acquire basic wayfinding information;
- Users will be able to use the same receiver in any location (within or between cities) so that the wayfinding environment is seamless;
- Manufacturers will be able to design basic functionality around a single communication protocol. □



Printed on recycled paper with vegetable inks.

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

Universal Design Newsletter
6 Grant Avenue
Takoma Park, MD 20912

April 17, 2001: *To Complain or Not to Complain? Mediate? or File Suit?: Unraveling ADA Resolution Options* will be offered as part of the DBTACs ADA Distance Learning Series. The one-hour program, presented by Peter Maida of the Keybridge Foundation and Barry Taylor of Equip for Equality, will discuss the ADA complaint process. For more information, see www.adagreatlakes.org.

June 1, 2001: *Launch of McGraw-Hill's Universal Design Handbook at Inclusion by Design*, Montreal, Quebec, Canada. Reception with the authors. Join editors Wolf Preiser and Elaine Ostroff and dozens of the authors of the first comprehensive reference book on universal design. For more information see www.ccrw.org.

June 1-5, 2001: *Inclusion by Design: Planning the Barrier-Free World*, Montreal, Quebec, Canada. The event is hosted by the Canadian Council on Rehabilitation and Work. Participants will look at inclusive policies which can be developed and implemented through government, corporate and community infrastructures. For more information, see www.ccrw.org or call 514.287.1070 (v).

June 22-26, 2001: *Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) 2001 Annual Conference and Educational Program*, Reno, NV. Designed for providers and consumers of technology devices and services, this conference will feature more than 25 concurrent sessions and 150 scientific papers and interactive postersessions. RERC for Universal Design at Buffalo's Edward Steinfeld and Danise

R. Levine will be teaching a course on Home Modifications. For more information, visit the RESNA website at www.resna.org.

June 24-25, 2001: *Home Modifications: Skills, Approaches and Teamwork*, Winnipeg, Manitoba, Canada. This two-day intensive post-course after the Society for Disabilities Studies Conference will be led by the Center for Universal Design at North Carolina State and hosted by Universal Design Institute.

For more information, contact, ccds@escape.ca, 204.287.8411(v) or universal_design@umanitoba.ca, 204.474.8588 (v).

August 3-5, 2001: *2001: A Technology Odyssey Conference*, Pittsburgh, PA. Jointly sponsored by the Association for Education and Rehabilitation of the Blind and Visually Impaired and the American Foundation for the Blind, this conference will offer hands-on, in-depth training using the newest access software and devices, applications, and internet presentations to explore the future of access technology. For more information, contact 212.502.7638(v) or muslan@afb.net.

Sept. 24-28, 2001: *Retrofitting for Accessibility*, Gatlinburg, TN. Sponsored by the National Center on Accessibility, this training course is designed for maintenance professionals, facility managers, site accessibility coordinators and planners. It will show how to identify accessibility barriers in indoor and outdoor recreational environments. For more information contact, NCA at www.ncaonline.org, 812.856.4422 (v), or 812.856.4421 (tty).



Address Correction Requested