

ACCESSIBLE RIGHTS-OF-WAY: THE WAY TO GO

Written by: Nancy Horton, editor of the ADA in Focus Newsletter, for the DBTAC: Mid-Atlantic ADA Center Fall Issue 2008.

Rights-of-way – the great network of roads, streets, and sidewalks that enable us to venture easily and safely beyond our own front doors – are the roots that nourish our communities. These structures of stone and steel are among the most fundamental things we build to facilitate human interaction at a personal level.

Certain architectural features, such as curb ramps and accessible crosswalk signals, are needed for people with disabilities to participate as easily and safely as everyone else. Ongoing maintenance efforts (such as clearing the ice from those curb ramps and trimming eye-gouging tree branches) are equally important.

Advances in both awareness and technology have brought rights-of-way accessibility to the attention of designers, state and local governments, and people with disabilities themselves. The original ADA standards, published in 1991, with their focus on buildings, addressed rights-of-way somewhat peripherally. The U.S. Access Board, the federal agency responsible for the development of accessibility guidelines, has been working for many years on the development of guidelines specific to rights-of-way. The process has fostered intense study and lively debate.

Detectable Warnings on Curb Ramps

People with various types of disabilities sometimes have conflicting needs, as in the case of detectable warnings on curb ramps. The 1991 ADA standards call for a specific type of detectable warning surface on curb ramps (as well as other hazardous areas). This bumpy surface is designed to alert people who are blind or have low vision of an impending hazard (vehicular traffic, in the case of curb ramps). The standards require that this surface be applied to the full width and depth of a curb ramp in new construction and alterations covered by the ADA.¹ Technical assistance material published by the Access Board illustrate the bumps (“truncated domes”) arranged in offset rows that create a “diamond” pattern.² Unfortunately, some wheelchair users find the surface jarring, at best.

Even people with similar needs have not necessarily been in agreement. Many people who are blind or have low vision, as well as organizations that represent them, disagree not only on how detectable warnings should be structured, but on more fundamental questions as well, such as where they should be used, or whether they should be used at all.

Your Comprehensive Resource for Information on the Americans with Disabilities Act

Research and debate have led the Access Board to develop draft rights-of-way guidelines that describe a revised type of detectable warning surface that is designed to be less jarring and still serve to alert pedestrians who are blind or have low vision. The bumps (“truncated domes”) on the surface are aligned in a grid pattern, rather than offset, so that wheelchair users can potentially navigate between the rows. The draft guidelines also call for the surface to be applied only at the bottom 24” of curb ramps, rather than the full depth.³

Additionally, the Board’s updated general guidelines for the ADA and the Architectural Barriers Act (ABA)⁴, describe a grid-patterned detectable warning surface, although the guidelines do not call for the detectable warning surfaces to be applied to curb ramps (since that issue is yet to be addressed in the rights-of-way rulemaking).

The U.S. Department of Transportation (DOT), when it adopted the Board’s updated guidelines as standards for newly constructed and altered transportation facilities covered by the ADA, specifically added a provision to require detectable warning surfaces on curb ramps. DOT allows the grid-patterned surface to be applied *either* to the bottom 24” of a curb ramp, *or* to its full depth.⁵

The U.S. Department of Justice (DOJ) is still in the process of adopting new standards based on the Board’s updated guidelines, so until that process is complete, the current DOJ standards continue to apply to the majority of facilities covered by the ADA. While the standards allow for “equivalent facilitation,” or alternative designs that provide “substantially equivalent or greater” accessibility, DOJ cautions that the required surface is “unique.”⁶

The Department does, however, recognize the application of DOT’s standard to curb ramps “along public streets.”⁷

Accessible Pedestrian Signals (APS)

There has been similar research and debate surrounding the issue of accessible pedestrian signals (APS), which are devices that use non-visual means (such as audible tones and messages, or vibrotactile surfaces) to communicate street crossing information to pedestrians who are blind or have low vision.

APS, combined with appropriate signage including raised and/or Braille indicators and information, can help pedestrians cross the street at the right time and in the right direction, particularly at complex intersections.

Technological development and practice in the field have combined to increase the range of features available and enhance the effectiveness of APS. Although not yet widely in use in the United States, some other countries, particularly Japan, Australia, Sweden, and Denmark, have many years of experience with APS. The Access Board’s draft rights-of-way guidelines call for the installation of APS at new or altered crosswalks where pedestrian signals are provided.

Traffic Calming

Street crossing where no signals are provided can present challenges for pedestrians with disabilities. Traditionally, most intersections that lacked any kind of signage or signalization to stop traffic were small roads in quiet areas. But certain street design features that reduce or eliminate vehicle stops have gained popularity as “traffic calming” measures, even at busy urban intersections. Traffic calming is a term that refers to a variety of methods used to reduce motorized traffic volume and/or speed. The goal is to enhance safety, especially for pedestrians. Ironically, many of the physical measures used to promote traffic calming, such as roundabouts, traffic circles, and islands, can actually make it more difficult or confusing for pedestrians with disabilities to safely cross the streets.

Roundabouts, where vehicles circulate around a raised island in the center of an intersection, are often used in lieu of stop signs or signals. One of the advantages of roundabouts is that traffic slows down, but keeps moving, thereby reducing back-ups and congestion. However, many pedestrians have difficulty determining when it is safe to cross the street. Additionally, at some intersections the flow of traffic is so steady, at least at certain times of day, that it is difficult for those who cross slowly to find a suitable gap, particularly where multiple traffic lanes enter and exit the roundabout.

Certain design elements, such as audible and tactile cues, can help pedestrians who are blind or have low vision orient themselves to crossing locations. Pedestrian-activated signals can be used to stop traffic only when needed. Attention to surrounding structures and landscape features can help minimize noise that interferes with the ability of pedestrians who rely on their hearing to make judgments about traffic conditions. Signage (e.g. “yield to pedestrians”) can encourage motorists to stop for individuals waiting to cross. More research and practice will be needed to develop successful designs and strategies.

Existing Rights-of-Way

Designers are developing some creative approaches to improving access in existing settings, which invariably present additional challenges. The majority of work in the public right-of-way consists of maintenance and improvements to existing environments,⁸ where vehicles and pedestrians compete for limited space, sandwiched between existing buildings, signal poles, street signs, bus stop shelters, and trees. Underground elements and connections to them (e.g. manholes, sewer inlets) can restrict accessibility improvements as well.

Existing rights-of-way, due to underlying terrain, often have steep slopes or cross slopes, which can be treacherous for people who use wheelchairs or other mobility devices. At the same time, good drainage is necessary to prevent build-up of standing water (or, worse yet, ice).

Creativity, compromise, and collaboration between public and private entities that share access to the right-of-way are often needed to advance accessibility in older streetscapes.

For more information on accessible rights-of-way, contact the U.S. Access Board (800-872-2253, voice; 800-993-2822, TTY), or visit their “Public Rights-of-Way” web page at www.access-board.gov/prowac/ for a great collection of resources and publications, including:

Accessible Public Rights-of-Way: Planning and Design for Alterations

Accessible Public Rights-of-Way: A Design Guide

Pedestrian Access to Modern Roundabouts

Accessible Sidewalks (DVD series)

Footnotes

1. ADA Standards for Accessible Design, U.S. Department of Justice, 1994 <http://www.ada.gov/stdspdf.htm>
2. *ADAAG Manual*, U.S. Access Board, 1998
3. Revised Draft Guidelines for Accessible Public Rights-of-Way, U.S. Access Board, 2005, <http://www.access-board.gov/prowac/draft.htm>
4. ADA and ABA Accessibility Guidelines for Buildings and Facilities, U.S. Access Board, 2004, <http://www.access-board.gov/ada-aba/final.htm>
5. Final Rule Adopting New Accessibility Standards (49 CFR Part 37), section 406.8, U.S. Department of Transportation, 2006, http://www.fta.dot.gov/civilrights/ada/civil_rights_5936.html
6. Technical Assistance Letter 269, U.S. Department of Justice, 1993, <http://www.usdoj.gov/crt/foia/tal269.txt> (“... the ADA Guidelines contains a general equivalent facilitation provision ... However, it is important to point out that the detectable warning surface required by the ADA Guidelines has unique characteristics that make it readily identifiable as a warning surface.”)
7. *ADA Best Practices Tool Kit for State and Local Governments*, Chapter 6 and Appendices, U.S. Department of Justice, 2007, <http://www.ada.gov/pcatoolkit/toolkitmain.htm>
8. *Accessible Public Rights-of-Way: Planning and Design for Alterations*, U.S. Access Board, 2007, <http://www.access-board.gov/prowac/alterations/guide.htm>

RESOURCES

Accessible Rights-of-Way: A Design Guide (1999)

U.S. Access Board

<http://www.access-board.gov/prowac/guide/prowguide.htm>

Accessible Public Rights-of-Way: Planning and Designing for Alterations

Transportation Research Board of the National Academy of Sciences

http://www.trb.org/news/blurb_detail.asp?id=8106

Electronic Toolbox for Making Intersections More Accessible for Pedestrians Who are Blind or Visually Impaired

Institute of Transportation Engineers

<http://www.ite.org/accessible/>

Policies - Public Rights-of-Way

Designing Accessible Communities

<http://www.designingaccessiblecommunities.org/policies/right-of-way.php>

Initially published

November 2008

"This article is provided by the DBTAC National Network of ADA Centers. The DBTAC's are funded by the National Institute on Disability Rehabilitation and Research (NIDRR), the US Department of Education (Grant # H133A060085), to provide technical assistance, training, and materials on the Americans with Disabilities Act (ADA)."

The information, materials, and technical assistance provided are intended solely as information guidance and are neither a determination of your legal