



Wisconsin Traffic Engineering Council

Issue Paper 7 – ADA Requirements for Signalized Intersections & Work Zones

Background / Overview

There are 43 million people in the United States with disabilities. Virtually all are pedestrians at one time or another. In fact, 85 percent of Americans living to their full life expectancy will suffer a permanent disability. When age or functional disabilities reduce a person's mobility, sight, or hearing, a good design is very important. The Americans with Disabilities Act (ADA) was enacted by Congress on July 26, 1990 to ensure that a disabled person will have full access to all public facilities throughout the United States. The law has specific requirements for pedestrian facilities on private as well as public property, such as sidewalks and pedestrian accommodations within the right of way of streets and highways.

Current National Practices

Signalized Intersections

Designing Sidewalks and Trails for Access provides extensive guidance on how to comply with the ADA in the provision of pedestrian facilities

- Sidewalk geometrics
- Curb cuts and Wheelchair ramps
- Crosswalk geometrics
- Medians and Islands
- Driveway crossings
- Conveying information to pedestrians with visual impairments
- Pedestrian Pushbuttons
- Pedestrian Signs

Some jurisdictions have their own guidelines

- Oregon Pedestrian Design Guidelines
- Florida Pedestrian Planning and Design Guidelines
- Texas Architectural Barriers Act
- New Jersey Pedestrian Compatibility Planning and Design Guidelines
- Washington Pedestrian Planning Guidebook

Work Zones

Manual on Uniform Traffic Control Devices Part 6

- Needs & control of pedestrians an essential part of work zone operations
- Temporary Facilities shall include accessibility features
- Pedestrians need to be guided in a clear and positive manner
- Guidance provided for accommodating people with visual disabilities

Additional guidance provided by AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities

Some jurisdictions have developed guidelines

- Maryland State Highway Administration Bicycle and Pedestrian Guidelines
- Colorado Work Zone Best Practices Safety Guide
- North Carolina Guide for Temporary Pedestrian Accommodations

Current Wisconsin Practices

Signalized Intersections

WisDOT Traffic Signal Design Manual (3-3-8) provides guidance on designing intersections to accommodate pedestrian traffic

- Curb Ramps that are accessible
- Provisions for placement of ADA compliant pushbuttons
- Channelizing islands to accommodate pedestrians

Refers to Designing Sidewalks and Trails for Access.

Technical Issues

- Population Factors
 - Pedestrian walking speed ranges from 2.5 ft/s to 7 ft/s
 - Endurance limits
 - Physical strength
 - Judgment abilities
- Work Zone Design Practices
- Installation and Maintenance Cost Issues
- Liability Issues

Additional Resources

- Institute of Transportation Engineers. Traffic Control Devices Handbook 2001. Publication IR-112.
- Federal Highway Administration. Designing Sidewalks and Trails for Access. Available online at <http://www.fhwa.dot.gov/environment/sidewalks/>
- Morelli, C.J., J.D. Brogan and J.W. Hall, Best Practices for Accommodating Pedestrians in Work Zones, Draft Report to Federal Highway Administration, HAAM-10, Project #03-02, July 2005.
- American Association of State Highway and Transportation Officials. Guide for the Planning, Design and Operation of Pedestrian Facilities. Washington D.C., 2004.
- WisDOT Traffic Signal Design Manual 3-3-8.
- FHWA Course on Bicycle and Pedestrian Transportation. Available online at http://safety.fhwa.dot.gov/PED_BIKE/univcourse/swtoc.htm
- ADA Accessibility Guidelines for Buildings and Facilities. Available online at <http://www.access-board.gov/adaag/html/adaag.htm#tranfac>
- Manual on Uniform Traffic Control Devices Part 6. Available online at http://mutcd.fhwa.dot.gov/pdfs/2003r1r2/ch6a_e.pdf
- Maryland SHA Bicycle and Pedestrian Design Guidelines. Available online at <http://www.sha.state.md.us/exploremd/bicyclists/oos/pdf/Chapter%208%20-%20Work%20Zones.pdf>
- Colorado Work Zone Best Practices Safety Guide. Available online at http://www.dot.state.co.us/Traffic_Manuals_Guidelines/Work_Zone_Manuals/Work_Zone_Safety_Guide_English_2007.pdf
- Washington Pedestrian Planning Guidebook.
- North Carolina Guide for Temporary Pedestrian Accommodations. Available online <http://www.ncdot.org/doh/preconstruct/wztc/PedestrianCommittee/Attachments/pe d1all.pdf>

