Incorporating the Americans with Disabilities Act (ADA) in Practical Design: Synthesis

Prepared for
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Transportation Synthesis Reports (TSRs) are brief summaries of currently available information on topics of interest to WSDOT staff. Online and print sources may include newspaper and periodical articles, reports from NCHRP and other TRB programs, AASHTO, the research and practices of other state DOTs and related academic and industry research. Internet hyperlinks in the TSRs are active at the time of publication, but host server changes can make them obsolete.

Request for Synthesis
Nancy Boyd, Director, Engineering Policy and Innovation Division, requested this synthesis of information on innovative approaches, guidelines, and standards in incorporating Americans with Disabilities Act (ADA) requirements in Practical Design solutions.

Databases Searched
- TRID - A Transportation Research Database at the Transportation Research Board (TRB)
- Research in Progress (RiP) – A Database of Current Transportation Research at TRB
- Previous Synthesis Reports on WSDOT Research Website
- Google
- Wisconsin DOT Transportation Synthesis Reports
- Federal Transit Administration (FTA) website
- Federal Highway Administration (FHWA) website
- International Transportation and other Research Websites

Sources

FHWA Best Practices Design; fhwa.org; 2014

Federal legislation in Title 23 of the United States Code Section 217 provides the funding mechanisms, planning requirements, and policy tools necessary to create more walkable and bicycle-friendly communities. More importantly, it enhances the ability of communities to invest in projects that can improve the safety and practicality of bicycling and walking for everyday travel.
United States Access Board
USAB; www.access-board.com; 2014

The Access Board is an independent federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards. Created in 1973 to ensure access to federally funded facilities, the Board is now a leading source of information on accessible design. The Board develops and maintains design criteria for the built environment, transit vehicles, telecommunications equipment, medical diagnostic equipment, and information technology. It also provides technical assistance and training on these requirements and on accessible design and continues to enforce accessibility standards that cover federally funded facilities.

The Board is structured to function as a coordinating body among federal agencies and to directly represent the public, particularly people with disabilities. Twelve of its members are representatives from most of the federal departments. Thirteen others are members of the public appointed by the President, a majority of whom must have a disability.

Design Guidelines

Recreation Facilities

Access to recreation facilities, including play areas, swimming pools, sports facilities, fishing piers, boating facilities, golf courses, and amusement rides is addressed in the ADA and ABA standards. New provisions will cover access to trails, picnic and camping sites, and beach access routes.

• Recreation Facilities
• Outdoor Developed Areas

Streets and Sidewalks

New guidelines the Board is developing will cover access to public rights-of-way, including sidewalks, intersections, street crossings, and on-street parking. The Board is also addressing access to shared use paths providing off-road means of transportation and recreation.

• Public Rights-of-Way
• Shared Use Paths

Transportation

Board guidelines issued under the ADA address access to public transportation facilities and vehicles. New guidelines for passenger vessels are in development.

• Transportation Facilities
• Transportation Vehicles
• Passenger Vessels
http://www.access-board.gov/guidelines-and-standards

Accessible Design - Paralyzed Veterans of America
Paralyzed Veterans of America; pva.org; 2014

PVA advocates for a barrier-free America for all people with disabilities. PVA provides examples of accessible design guidelines.

http://www.pva.org/site/c.qjIRK9NJLcJ2E/b.6305451/k.8CF7/Accessible_Design.htm?s_src=google&gclid=CN7b27Ox6LOCFVKFgodPrMAHA
Maryland DOT - ADA Guidelines for Pedestrian Facilities - Policy
Maryland State Highway Administration; Maryland.gov; 2014

Policy on Non-Discrimination and Equal Access under the Americans with Disabilities Act (December 2005)

The Maryland State Highway Administration (MSHA) is committed to a policy of full accessibility and does not discriminate in the provision of any of its business activities. The Administration is committed to upholding the intent and spirit of the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 to the fullest extent possible. This commitment extends to all programs, services and activities of SHA, such that no qualified individual with a disability shall be discriminated against on the basis of his or her disability.

It is SHA’s responsibility and desire that no person in the State of Maryland be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity supported by SHA based on their disability, as provided by the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. It is also the responsibility of each and every SHA employee to work cooperatively to achieve the goals and objectives of this statement. . .

Policy for Accommodating Persons with Disabilities along the State Highway

The State Highway Administration (SHA) shall make the accommodation of persons with disabilities a routine and integral element of its planning, design, construction, operations and maintenance activities for all projects as outlined herein.

Design Guidelines for Accommodating Persons with Disabilities along the State

All projects, regardless of who is administering the contract, shall accommodate and provide accessibility for persons with disabilities where it is reasonable, feasible and appropriate to do so as described herein.

Design Waivers for Americans with Disabilities (ADA) Accommodations

SHA is committed to providing American’s with Disabilities Act (ADA) accommodations on all projects. If it is determined that full ADA compliance is technically infeasible or determined to be unreasonable to the desired degree as described in the SHA ADA guidelines, a design waiver must be requested and approved for each element that is not in full compliance.

http://www.roads.maryland.gov/Index.aspx?PageId=86

Designing Pedestrian Facilities: Wisconsin DOT
WisDOT; Wisconsin.gov; 2014

Chapter 5.1 presents both legal requirements and recommended standards for the design of roadways and pedestrian facilities. Throughout this chapter, the term “shall” is used to identify design requirements as mandated by the Americans with Disabilities Act Accessibility Guidelines or Wisconsin State Statute.


Transit-Supportive Guidelines: Section 3.4 Passenger Accommodation and Service, 3.4.1 Universal Design for Accessibility
Ontario Ministry of Transportation; mto.gov.on.ca; 2015
Ontario’s established policies, practices and procedures for making transit accessible to all and capable of accommodating a range of daily transportation needs.

... Making conventional transit more accessible requires a set of comprehensive measures that address the entire trip from getting to the transit stop to boarding to reaching the trip destination. Such measures include accessible vehicles, accessible bus shelters, bus stops and stations and transit information that can be understood by people of all abilities, including newcomers. Ontario’s Accessibility for Ontarians with Disabilities Act, 2005 (AODA) requires transit agencies to meet accessibility requirements under various standards, including the Accessible Transportation Standard and the World Wide Web Consortium’s (W3C) Web Content Accessibility Guidelines (WCAG) 2.0, Level AA.


Guidelines for the Application of Crossing Solutions at Roundabouts and Channelized Turn Lanes to Assist Pedestrians with Vision Disabilities
NCHRP 03-78B [Active Project]; Staff Responsibility: Stephan A. Parker; Research Agency: North Carolina State University; Principal Investigator: Dr. Bastian Schroeder; Effective Date: 6/12/2013; Completion Date: 6/11/2015

Study Background: Accessibility of modern roundabouts and channelized turn lanes to pedestrians with vision disabilities has been a focus of recent and ongoing research. Initial research results documenting the crossing challenges for pedestrians with vision disabilities at these facility types motivated the original NCHRP Project 3-78A research effort and had an influence on language in the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (draft PROWAG) published by the U.S. Access Board in 2011. That document provides technical specifications for making sidewalks and intersections in the public rights-of-way compliant with the American with Disabilities Act (ADA). Specifically, the provision of a pedestrian-actuated signal with an Accessible Pedestrian Signal (APS) fulfills accessibility requirements for multi-lane approaches at roundabouts and channelized turn lanes in the draft PROWAG. However, ADA regulations allow the use of alternative treatments, if those treatments provide facilities (crosswalks) that are “accessible to and usable by” individuals with disabilities (called equivalent facilitation in ADA regulations). The draft PROWAG does not specifically discuss crossing treatments for single-lane approaches on these facilities. With the impending publication of PROWAG and its expected adoption by the U.S. Department of Justice and U.S. Department of Transportation, municipalities and state DOTs need more specific guidance on what may constitute equivalent facilitation to pedestrians with vision disabilities at these facility types.

http://apps.trb.org/cmsfeed/trbnetprojectdisplay.asp?projectid=3389

A Guide to Complete Streets
Cascade Bicycle Club; Pierce County; 2014

This guide includes street treatments that include accessibility considerations.

https://www.tpchd.org/files/library/dd3e736c065c3b00.pdf

Centre for Accessible Environments
Center for Accessible Environments: Publications; cae.org; 2014

The Centre for Accessible Environments (CAE) is the UK’s leading authority on inclusive design. CAE’s aim is to help secure a built environment that is usable by everyone, including disabled and older people.
CAE publishes a comprehensive range of best-selling and user-friendly design guides for access professionals.
http://www.cae.org.uk/publications_list.html

**NJDOT Context Sensitive Design Chart**
New Jersey Department of Transportation; NJDOT website; 2013

A Context Sensitive Design chart is provided that provides a roadmap of an effective problem solving process where consideration of ADA needs early would occur early in the process.
http://www.state.nj.us/transportation/eng/CSD/chart.shtm

**WSDOT Roadside Design – Americans with Disabilities Act**
WSDOT Website; ADA in Design; 2013

WSDOT is committed to making all facilities accessible to all persons, regardless of abilities, and provides some useful resources.
http://www.wsdot.wa.gov/design/roadside/roadsideada.htm

**Designing Walkable Urban Thoroughfares: A Context Sensitive Approach - Chapter 10 Intersection Design Guidelines**
ITE; ite.org; 2013

Introduction: Multimodal intersections operate with pedestrians, bicycles, cars, buses and trucks, and in some cases, trains; they are required to meet a variety of user expectations, including being accessible to pedestrians with disabilities. The diverse uses of intersections involve a high level of activity and shared space. Intersections have the unique characteristic of accommodating the almost-constant occurrence of conflicts between all modes, and most collisions on thoroughfares take place at intersections. This characteristic is the basis for most intersection design standards, particularly for safety. Successful multimodal intersection design accommodates all modes with the appropriate levels of service for pedestrians, bicyclists, transit and motorists given the recommended speed, volume and expected mix of traffic.
http://www.ite.org/css/online/DWUT10.html

**Americans with Disabilities Act and Context Sensitive Solutions**
Context Sensitive Solutions.org; FHWA; January 2012

View a recording of a webinar on issues surrounding Americans with Disabilities Act (ADA) and Context Sensitive Solutions (CSS) in transportation. FHWA sponsored the webinar in partnership with the Project for Public Spaces and INDUS Corporation. The webinar was conducted on Thursday, January 5, 2012.
FHWA has placed renewed emphasis on the requirements of the Americans with Disabilities Act and this webinar is targeted towards CSS practitioners, to present basic ADA requirements and provide examples of creative applications of the requirements in the field.

The following items are on the website:
- A recording of the webinar
- A downloadable version of the webinar presentation
- A Downloadable Q & A from the webinar.

A list of publications related to the topic is also available including:
- 18 printed publications, (separately included in this document)
- 71 organizations and contacts related to this topic, and
• 132 projects and case studies.

http://contextsensitivesolutions.org/content/webinar/americans_with_disabilities_act/

**A Citizen’s Guide to Better Streets: How to Engage Your Transportation Agency**  
Gary Toth, Project for Public Spaces in partnership with AARP; 2008

This guidebook is a primer to help citizens interact collaboratively with their local or state department of transportation. With the core principles of Placemaking in mind, namely that streets should not only move vehicles but should also serve as gathering places for civic life, the book instructs citizens on the best ways to approach transportation and street-related planning in their community. The Citizen’s Guide provides guidance on how to initiate new projects and shape existing ones; explains the transportation planning process; gives tips on how to work with government bureaucracies; and explores other related topics. The Citizen’s Guide is also a great resource for transportation agencies and professionals interested in designing transportation projects that respect and enhance the surrounding community. The full publication is available, and the chapters on design flexibility, design exceptions, and tort liability are excerpted.  

**Florida Department of Transportation ADA/S04 Transition Plan 1992 – 2011**  
FDOT; www.dot.state.fl.us; 2011

This document describes the actions of the Florida Department of Transportation (Department) in response to of the Americans with Disabilities Act of 1990 (ADA).  

**Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities**  
TRB’s National Cooperative Highway Research Program (NCHRP) Report 674: Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities explores information related to establishing safe crossings at roundabouts and channelized turn lanes for pedestrians with vision disabilities.  
http://www.trb.org/Publications/Blurbs/164715.aspx

**MoDOT ADA Transition Plan and Public Survey**  
Missouri Department of Transportation; modot.org website; 2010

The Missouri Department of Transportation updated its Transition Plan and provided it for public review and comment. The plan explains the department’s commitment to Americans with Disabilities Act guidelines and explains the process and procedures MoDOT will follow to meet them.  
http://www.modot.org/adatransitionplan/

**Using Practical Design and Context Sensitive Solutions in Developing Surface Transportation Projects**  
U. S. House of Representatives; James L. Oberstar, Minnesota, Chairman; June 10, 2010

Testimony from a hearing in the U.S House of Representatives on using Practical Design and Context Sensitive Solutions in developing surface transportation projects.  
A Review of International Best Practice in Accessible Public Transportation for Persons with Disabilities
Kementerian Pembangunan Wanita, Keluarga dan Masyarakat; Ministry of Women, Family and Community Development, UN; June 2010

This report provides an international overview of the key technical issues on accessible public transportation for persons with disabilities. It begins with a brief description of the prevalence of disability and factors that influence accessibility. It also explains why safe and convenient pedestrian infrastructure is particularly essential for persons with disabilities if they wish to satisfactorily access public transport. It then provides a discussion on design requirements and best practices for vehicles, bus stops and bus and train stations as well as important arguments on the importance of signage and information. The report also illustrates best practices for training courses for transport providers and transport users as these have been among the central elements for making public transport services more accessible. The report also explains how some of the barriers faced by persons with disabilities are often an unintentional result of particular policies of government and transport operators.


International Best Practices in Universal Design: A Global Review
Canadian Human Rights Commission; Cornell University ILR School; Gladnet at DigitalCommons@ILR; 2007

Best practices in universal design is defined as building practices and procedures that comply with universal design principles and provide affordable design practices that meet the needs of the widest possible range of people who use a facility.

Not all best practices apply in the same situation and therefore all technical specifications must be carefully considered and discussed together with local authorities, architects and building owners. One best practice cannot always be applicable to people in different countries around the world. That is the reason for the development of local standards that respect and recognize local conditions, both geographic and political.

These “best practices” are only a guideline that should be used in conjunction with local expertise. These are provided to enhance public understanding of accessibility issues, and where relevant, they may be used as resources in the development of other national or local standards.

This document is not intended as an international standard but rather as a compilation of existing technical specifications.

Design guidance related to transportation includes: curb ramps, crossings and islands, pg. 46; parking, pg. 116; passenger drop-off and pickup areas, 123; ramps, 127; security, 132; and signage, pg. 143.

http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1375&context=gladnetcollect

San Francisco Transportation and Air Quality Collaborative; sacta.org; October 2005

Universal Design (also called Inclusive Design or Accessible Design) refers to facility designs that accommodate the widest range of potential users, including people with mobility and visual disabilities and other special needs. . .

Universal Design Concepts vs. Americans with Disabilities Act Guidelines

It is important to note that Universal Design Principles support and compliment the Americans with Disabilities Act (ADA) and provide planners ideas for how to implement the ADA. However, Universal
design is not a synonym or a euphemism for accessibility standards. For example, Universal Design goes beyond ADA requirements much the same as the Sacramento County Pedestrian Master Plan goes beyond the Sacramento County ADA Transition Plan. The ADA Transition Plan provides for programmatic access within a 15-20 year timeframe. The Pedestrian Master Plan goes beyond the requirements of the ADA by providing wider sidewalks, landscape buffers, enhanced lighting and other features to improve the pedestrian environment. In much the same way Universal Design could go beyond the ADA in providing additional amenities not required in the ADA such as audio and sensory information.

Universal Design can be distinguished from minimal compliance with accessibility standards in the way that the accessible features have been integrated into the overall design. This integration is important because it results in better design and avoids the stigmatizing quality of accessible features that have been added on late in the design process or as modifications after the design is complete. Another important way in which Universal Design differs from accessibility requirements is that accessibility requirements are usually prescriptive whereas Universal Design is performance-based. Universal Design does not have rigid standards or requirements but addresses usability issues more holistically and should be judged by the resulting usability of the resulting facilities to the broadest range of users.


2000 and Prior Sources

Innovative Technologies and Practices for Accessible Transportation. CTAP Publication
Prepared for the Community Transportation Assistance Project (CTAP), U.S. Department of Health and Human Services; Community Transportation Association, Washington, DC 20005; FTA, Federal Transit Administration; 1994

Abstract: Innovative accessible technologies and practices are changing the face of public transit. The need for transit systems to comply with the requirements of the Americans with Disabilities Act (ADA) of 1990, to know about the range of applied technologies currently on the market and currently being developed, and to be aware of the shift in focus toward universal accessibility helped generate this report. This publication aims to help transit system operators comply with the requirements of the ADA and cope with the large number of passengers with disabilities now using the newly accessible public transit systems. The technologies and practices profiled in this report are cost-effective and even ground-breaking. This publication consists of the following nine chapters: Vehicle Lift and Ramp Technology and Standee Strategies; Low-Floor Bus Technology; Securement Technology; Talking Bus Stops and Buses; Smart Card Technology; Signage Technology; Interactive Computer Training Technology; Information Technologies; and, Detectable Warning Devices. Each chapter is divided into functional areas that provide: a general description of the technology or practice; information on the applicable law or guideline; how the device or strategy works; principal features and status of practical applications. The concluding insight is that the desire to provide the most accessible and passenger-friendly transportation for all users, coupled with the need to comply with ADA requirements, has created an unprecedented market for innovative technologies and practices in transit today.

[Not available online -- contact the WSDOT Library for assistance in obtaining this resource: Library@wsdot.wa.gov]

The Americans with Disabilities Act: A Compliance Workbook for Small Communities
National Center for Small Communities; National Association of Towns and Townships, Washington, DC 20005; National Center for Small Communities; 1992

Abstract: President Bush signed the historic Americans with Disabilities Act (ADA) on July 26, 1990, to eliminate discrimination against the estimated 43,000,000 Americans who have disabilities. Small local
governments are primarily affected by the ADA in the areas of local government services and employment. This workbook provides guidelines for local governments in their efforts to comply with the ADA. Chapter 1, through a series of questions and answers, explains what ADA does and does not require from local governments. The remaining five chapters build upon this introductory information and offer practical tips, checklists, illustrations and alternative ADA compliance strategies. Of particular concern in the area of transportation are the provisions relating to roads, parking lots, sidewalks, and public transportation services.

[Not available online -- contact the WSDOT Library for assistance in obtaining this resource: Library@wsdot.wa.gov]