

Society for Environmental Graphic Design Signs | Environments | Graphics | Design

SEGD ADA White Paper Update 2007 Guidelines, Best Practices, and Innovation for Signs for the Blind and Visually Impaired

Sponsored by ASI with Dixie Graphics, Nova Polymers, and Accent Signage Systems

- PART 1 | Executive Summary
- : PART 2 | What is the ADA?
 - National Requirements
 - State Code Enforcement
- •• PART 3 | Typography for the Blind
 - Raised Letters
 - Туре
- •: PART 4 | Typography for the Sighted
 - Minimum Heights
- PART 5 | Position of Text and Braille on Signs
 - Spacing
 - Separation of Signs for the Sighted and Blind
- **:•** PART 6 | Color Contrast
 - Between Foreground and Background
 - Color Contrast Calculator

- :: PART 7 | Braille
 - Kinds of Braille
 - Manufacture of Braille Dots
- :. PART 8 | ADA Enforcement
 - Local Control
 - PART 9 | Innovation
 - What Do the Blind Really Need for Wayfinding?
 - Reconciling the ADA with the Needs of the Blind and Visually Impaired
- •: PART 10
 - California's Title 24 and Other State Enforcement
- PART 11
 - Summary of Recommendations

PART 8 | ADA Enforcement



One of the most neglected parts of the ADA guidelines is enforcement. It is currently estimated that over 70% of sign systems are developed without any official review. With every state having its own standard and every jurisdiction having its own code enforcement standards, it is very difficult to create a coherent policy for ADA enforcement. This puts a considerable responsibility on the designer to make sure that signs meet ADA standards for a particular location.

State and Local Officials

It is important to understand that state and local officials have many responsibilities; working with signs is only a small part of what they do. Often an official does not know much about the code beyond the basics about Braille placement and raised letters. Designers should serve as educators in this setting, and be proactive with ADA information.

The Correct Code

While the proposed ADAAG guidelines will be applicable to every state over time, this is currently not the case. Some states utilize past ADAAG codes or mix current and past codes. Specific institutions may have their own guidelines, especially hospitals and universities.

SEGD ADA White Paper

The White Paper can be used to convince code officials about how language needs to be interpreted. It is important to read the information thoroughly before discussing specific information with the code official.

Document, Document, Document

If a client requires signs that clearly do not meet ADA requirements, it is important to document where the design deviates from those requirements in a significant way. Even though some states and jurisdictions do not have a clear enforcement policy, lawsuits are a possibility.

Check Every Braille Sign

Braille software often makes mistakes or adds elements. This will usually not be picked up during the enforcement phase, only to become an issue when a complaint or lawsuit is filed. It is important for the designer and fabricator to periodically check the Braille used on each sign. Since most Braille signs use numerical information, keep a vocabulary of numbers and letters on file.



PART 9 | Innovation

Wayfinding Research

Discussions of signs codes usually neglect some basic facts. While codes are clear for the visually impaired, most blind people just do not use Braille signs. The vast majority cannot read Braille or raised letters on a wall, and generally ask for directions to find their way. This has been taken as a call to arms by many designers and people in the business of developing technologies for the disabled. In addition, there is much debate about how accessible technologies can be employed. The SEGD ADA committee advises that technology for the blind be universal, accessible, integrated into the environment, and redundant. A few technologies that have received recognition follow.

The Raynes Rail[©] – Blind people feel most comfortable when there are continuous paths to follow. This tactile rail system consists of handrails with Braille information beneath as well as multilingual audio information activated by photo sensors. The Raynes rail is innovative because it allows the blind to actually navigate through a facility without becoming disconnected from their environment. Other designers use a form of the Raynes Rail as long linear signs and other continuous information systems.

Floor Markings – Because hand rails keeps users attached to wall surfaces, floor markings can be used for large facilities such as airports. Raised dots or curbs mounted on the floor delineate the circulation path. The dots can be followed by sight or feel.



Main Floo

 The Raynes Rail[®] and floor markings used at Charles De Gaulle Airport. Developed by Coco Raynes of Coco Raynes Associates.

Ergonomic Signs for the Blind – Reading a sign by touch requires a much different sign type. Roger Whitehouse of Whitehouse & Company did extensive research and designed a series of signs that are angled and thus more easily read by the blind.

Tactile Maps - Maps for use by the blind utilize raised room outlines, symbols, and other tactile elements.

An example of a tactile map.



Talking Signs – Talking signs utilize an infrared receiver that gives directional messages to users as they walk through space. More information on Talking Signs is at www.talkingsigns.com.

 The CNIB building in Toronto, Canada, utilizes advanced technologies including Talking Signs, ergonomic signs, and tactile maps.

PART 10 | California and Other State and Provincial Codes

State Codes

While the current ADAAG has not yet been adopted by the Department of Justice, states have the right to create their own codes and indeed some have adopted more recent reiterations of the ANSI and International Building Code from 1998 and 2004. Even if a state has adopted one of the ANSI/ADAAG/IBC code standards, they may rewrite aspects of the code. The current ADAAG tries to be consistent with the ANSI and IBC, so a requirement to use the most current versions of these codes should work with the ADAAG. If in doubt, utilize the most recent national code guideline or consult a code official. The current trend is for states to utilize the most current ADAAG and even go beyond it, which California, New York, West Virginia, Texas and Florida are doing.

Some states have codes that have not been changed since before the first ADAAG in 1992. In the case of these states, utilize the 1992 ADAAG, which is the minimum standard. Some states and institutions may also pick and choose between past and proposed guidelines. In that case, use Part 11 of this White Paper to guide code officials on the correct interpretation.

Institutional Codes

Most federal or public buildings, such as hospitals and universities, mandate the proposed ADAAG even if their respective state does not require all the standards be put in place.

California's Title 24

The California Office of the State Architect passed Title 24 ten years before the advent of the ADA. Most of the current California state code matches the proposed ADAAG, albeit with some text modification. Refer to title 24 at www.bsa.ca.gov to obtain the specific code requirements. This are the only code that goes substantially beyond the proposed ADAAG.

ADAAG vs. Title 24

Braille – Title 24 mandates a version of grade 2 Braille, different from the Braille commonly used in the rest of the country. This includes 1/10th inch between each dot within a cell (measured from the dot centers) and 2/10th inch between each cell within a word. Dots must be a minimum of 1/40th inch high at the apex. Rounded Braille requirements are the same for those in the National ADAAG, but make sure to consult an enforcement official on their specific interpretation of the guideline.

Clearance – The proposed ADAAG requires a 3/8" separation between Braille and any other raised element. Title 24 requires this separation from any element including rule lines.

Identification Symbols – Men's bathrooms are to be identified with a triangle and women's bathrooms with a circle, both 12 inches in diameter. Unisex bathrooms are to be identified by a circle (12 inches in diameter) with a triangle superimposed on the circle that contrasts (dark on light or light on dark) with the circle. Color contrast requirements in California are no different than the national ADAAG even though a 70% contrast listing is included for one symbol.

Enforcement – All buildings in California are required to have an Access Compliance Review that covers all aspects of accessibility, including signs. Compliance includes a drawing review and a live inspection. The filing fee for project applications is 0.2 percent of the first \$500,000 of estimated construction cost plus 0.1 percent of the estimated cost between \$500,000 to \$2,000,000 plus 0.01 percent of the estimated cost over \$2,000,000. (For example, a \$5,000,000 building would have an access compliance fee of \$2,800. The minimum cost is \$200.) Some designers feel the fee should be imposed whenever a new sign is installed, but most apply for review as part of a new project, existing renovation, or installation of a new group of signs that differ from an existing system. Even without inspection, any new individual sign should reflect Title 24 even if the original sign system does not.

Canadian Provincial Codes

Canada currently does not have a required accessibility code but individual provinces (like Ontario) are developing their own accessibility criteria with the Disabilities Act (ODA, 2001) and the Accessibility for Ontarians with Disabilities Act (AODA, 2005). This document is available at www.odacommittee.net. The ODA requires municipalities and other organizations to identify, remove, and prevent barriers faced by persons with disabilities, primarily through the development and monitoring of annual accessibility plans. The AODA was introduced to develop specific standards for the ODA. The Province of Ontario is in the process of establishing specific standards for the built environment, including signage and wayfinding criteria. Many municipalities have taken it upon themselves to develop their own guidelines that they encourage developers and institutions to enforce.

Summary of Recommendations

- Keep a specific record of the state ADA codes being used. Most states use a combination of the 1992 ADAAG and the 2004 ADAAG.
- Place ADA code information directly on design intent documents.
- Document when the client decides to deviate from the ADA standard.
- Look for opportunities to advance accessibility in a building by using an integrated architectural approach.
- In states and provinces in the process of updating existing codes, make sure to determine what codes are enforced and what guidelines are recommended.

This White Paper is being made available through the assistance of these sponsors: ASI with Dixie-Graphics, Nova Polymers and Accent Sign Systems, Inc.

The ADA Code Committee - Roger Whitehouse, RIBA, FSEGD; Ken Ethridge, AIA, RIBA; Matt Williams; Kris Key; Shane Holten

www.segd.org