## Antares, Inc.

## **Engraving Fact Sheets**

# ADA Signage ©1992, 2001 Antares, Inc.

## **Background:**

On January 26, 1992, the Americans with Disabilities Act (Public Law 101-336) became effective. This law mandates that places of public accommodation and commercial facilities be accessible to persons with disabilities. A section of the ADA specifies requirements for signage.

Title III of the Americans with Disabilities is eighty-four pages in length. The following information is a summary of the signage regulations. *It is not intended to be legally authoritative*. It is presented to be helpful and useful to engravers needing assistance with ADA signage.

The Act refers to signage in "places of public accommodation" which is defined as "a facility operated by a private entity whose operations affect commerce and fall within at least one of 12 specified categories." These categories are:

Places of lodging.

Establishments serving food or drink

Places of exhibition or entertainment.

Places of public gathering.

Sales or rental establishments.

Service establishments.

Stations used for specified public transportation.

Places for public display or collection.

Places of recreation.

Places of education.

Social service center establishments.

Places of exercise or recreation.

#### **Definitions:**

Signage is defined in the ADA regulations as "Displayed verbal, symbolic, tactile (Braille) and pictorial information."

Building Signage is divided into two categories:

- a) Signs which designate permanent rooms and spaces which are to be in compliance with sections **4.30.1**, **4.30.4**, **4.30.5**, and **4.30.6**.
- b) Other signs which provide direction to or information about functional spaces of the building and are to be in compliance with **4.30.1**, **4.30.2**, **4.30.3**, and **4.30.5**.

Building directories, menus, and all other signs which are temporary are not required to comply. The Rules are explained further below.

## **Regulations by Section:**

Note: An asterisk (\*) following a section number indicates there is expanded information pertaining to that section. That information, while included in the appendix of Title III, is not actually part of the ADA. It is included for clarification and explanation. We have included the appended sections (signified by a preceding letter A) under the main section for better continuity. In case where the description is followed by a plus sign (+), the information has been abbreviated to include only the technical specifications pertinent to signage design, layout, and fabrication. The italicized comments are not part of the ADA and are added for clarification.

#### 4.30 Signage.

The section heading under which signage specifications fall.

#### 4.30.1\* General.

Signage required to be accessible by 4.1 shall comply with the applicable provisions of 4.30. Section 4.1 specifies guidelines for accessibility for individuals with disabilities.

## 4.30.2\* Character Proportion.

Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1 and a stroke-width-to-height ratio between 1:5 and 1:10.

The width-to-height ratio basically states that the width of the character should be between 60% and 100% of its height. For example, a 5" character could be between 3" and 5" wide. The stroke-width should be between 10% and 20% of the character height. Therefore, the stroke-width of our 5" tall character should be .5" to 1" wide. (Character specifications are based on an upper case X.)

## **A4.30.2** Character Proportion.+

The legibility of printed characters is a function of the viewing distance, the character height, the ratio of the stroke width to the height of the character, the contrast of the color between character and background, and print font. The size of the character must be based upon the intended viewing distance. *Note: No character size/viewing distance parameters are specified. See 4.30.3 and Note below.* 

#### 4.30.3 Character Height.

Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an upper case X. Lower case characters are permitted.

## Height Above Finis hed Floor Minimum Character Height

Suspended or Projected Overhead in compliance with 4.4.2

3" (75 mm) minimum

Note: This applies to suspended or projected overhead signs and should not be confused with signage requirements specified in 4.30.4 and 4.30.6. Other than the 3" minimum, no size to distance specifications are presented. (4.4.2 specifies required height for this type of signage to be 80"/2032mm. While there is no requirement for these signs to have raised or Braille letters, it is assumed that character proportion and contrast requirements do apply.

## 4.30.4\* Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms).

Letters and numerals shall be raised 1/32" upper case, sans serif or simple serif type and shall be accompanied with Grade 2 Braille. Raised characters shall be at least 5/8" (16 mm) high, but no higher than 2" (50 mm). Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimens ion of the pictogram shall be 6" (152 mm) minimum in height. Pictograms are symbols indicating what is located in the space identified by the sign. Pictograms are not required to have raised images. However, the textual description accompanying the pictogram is required to have raised and Braille characters. The textual description is placed below and outside the 6" field of the pictogram.

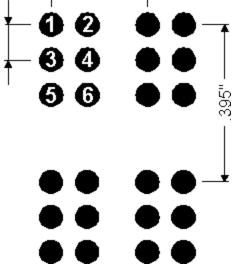
## 4.30.4 Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms).+

The standard dimensions for literary Braille are as follows:

Dot Diameter	.059"
Inter-dot spacing	.090"
Horizontal separation between cells	.241"
Vertical separation between cells	.395"
Height of raised dot (*Height of dot was not specified by ADA and was obtained from an outside source.)	. 017"022"

Raised borders around signs containing raised characters may make them confusing to read unless the boarder is set far enough away from the characters.

A separate plate containing the Braille characters may be affixed to the main sign plate or the Braille characters may be engraved directly into the sign plate by routing the background material away and leaving raised dots.



## 4.30.5\* Finish and Contrast.

The characters and background of signs shall be eggshell, matte, or other non-glare finish. Characters and symbols shall contrast with their background --either light characters on a dark background or dark characters on a light background.

#### A4.30.5 Finish and Contrast.+

An eggshell finish (11-19 degree gloss on a 60 degree glossimeter) is recommended. Research indicates that signs are more legible for persons with impaired vision when characters contrast with their background by at least 70percent.

The greatest readability is usually achieved through the use of light-colored characters on a dark background.

### 4.30.6 Mounting Location and Height.

Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, including at double leaf doors, signs shall be placed on the nearest adjacent wall. Mounting height shall

be 60" (1525 mm) above the finish floor to the centerline of the sign. Mounting location for such signage shall be so that a person may approach within 3" (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

## 4.10.5 Raised and Braille Characters on Hoistway Entrances

All elevator hoistway entrances shall have raised and Braille floor designations provided on both jambs. The centerline of the characters shall be 60" (1525mm) above the finish floor. Such characters shall be 2" (50mm) high and shall comply with 4.30.4. Permanently applied plates are acceptable if they are permanently affixed to the jambs.

While not specifically a part of the signage section, the above references and relates to signage that engravers may encounter.

## **Industry Response:**

Most computer engraving machines manufacturers responded to requirements of ADA signage by offering outline fonts for making cut-out letters as well as software for creating raised Braille characters. Material manufacturers and suppliers also addressed the issue by offering materials specifically for ADA applications.

Each manufacturer's software for producing Braille dots requires cutters with different shapes, angles, and tip sizes. Through our own testing and work with machine manufacturers, we are able to produce tools to work specifically with each software. Our customer service personnel are familiar with most of the available software systems for ADA engraving and will be happy to recommend the proper tool for the application.

#### **Further Information:**

The best source for comprehensive information regarding the Americans with Disabilities Act is the "ADA Home Page" section of the U.S. Department of Justice's web page. The internet address is: http://www.usdoj.gov/crt/ada/adahom1.htm.

Another good source for answers to general and technical questions about the ADA and to order technical assistance materials is the ADA's Toll-Free Information Line:

**800-514-0301** (voice) **800-514-0383** (TDD)