



## Compliance – Resource Bulletin

# ADA Braille Signs

### Overview:

The Americans with Disabilities Act of 1990 (ADA) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. The 2010 ADA Standards for Accessible Design (ADAAG) stipulates a braille standard for ADA signs requiring braille. In 1980 California was the first state to establish its own braille standard, known as “California (Title 24) Braille,” and mandate its use for ADA signs across the state. The California standard is mandated in Title 24 of the California Building Standards Code, and is detailed in the DSA Access Compliance Manual.

The two standards differ only in braille dot spacing guidelines. ADAAG allows for a range of spacing between dots in the same cell as well as dots in adjacent cells. California braille specifies that these two spacing’s must be the maximum values allowed for in ADAAG. California believes the greater spacing enhances readability of the message on a sign. The use of California standards for braille satisfies both Federal and California regulations, allowing a single dot configuration for all braille signs nationwide.

### Resources:

|  |   |
|--|---|
| <b>2010 ADAAG Standards (ADAAG):</b> (Free)              | <a href="http://www.ada.gov/2010ADASTANDARDS_index.htm">http://www.ada.gov/2010ADASTANDARDS_index.htm</a>   |
| <b>DSA Access Compliance Manual (DSA A.C.M.):</b> (Free) | <a href="https://www.documents.dgs.ca.gov/dsa/pubs/2016CBC_Advisory_Manual.pdf">https://www.documents.dgs.ca.gov/dsa/pubs/2016CBC_Advisory_Manual.pdf</a>                     |
| <b>ComplianceSigns.com Product Data Bulletin:</b> (Free) | <a href="http://www.compliancesigns.com/media/productbulletins/ADA%20Braille%20Signs.pdf">http://www.compliancesigns.com/media/productbulletins/ADA%20Braille%20Signs.pdf</a> |
| <b>Article on Braille Standards:</b> (Free)              | <a href="http://www.brailleauthority.org/sizespacingofbraille/sizespacingofbraille.pdf">http://www.brailleauthority.org/sizespacingofbraille/sizespacingofbraille.pdf</a>     |
| <b>California Braille Tactile Standards:</b> (Free)      | <a href="http://www.dgs.ca.gov/dsa/Programs/progAccess/braille.aspx">http://www.dgs.ca.gov/dsa/Programs/progAccess/braille.aspx</a>   |

### Design of ADA Braille Signs:

- **BRILLE DOT CONFIGURATION:** Braille shall be contracted (Grade 2). Grade 2 uses a contracted system or shorthand where groups of letters may be combined into a single braille cell often creating a suffix, prefix or entire word. ADAAG requires that all braille dots shall be contracted (Grade 2), and have a rounded or domed shape. There are also specifications for cell dimensions, dot height, cell spacing, and capitalization that must be observed. (ADAAG 703.3) (CBC 11B-703.3) (**see graphic aid 1 below**)



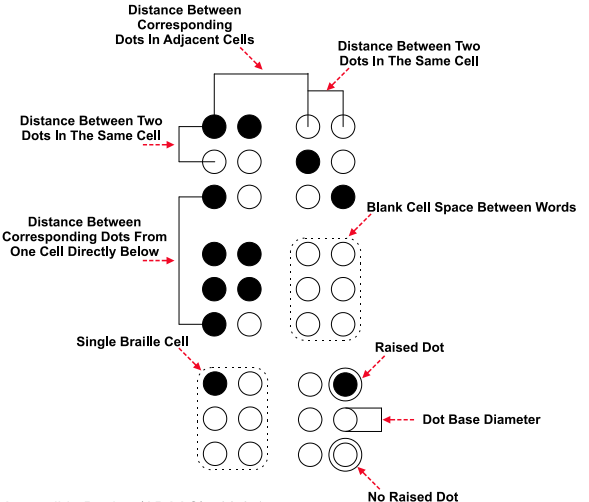
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## Graphic Aid 1:

| MEASUREMENT RANGE   | MINIMUM IN INCHES<br>MAXIMUM IN INCHES                         |
|---|--|
| Dot Base Diameter   | 0.059 (1.5m) to 0.063 (1.6mm)                                  |
| Distance Between Two Dots In The Same Cell <sup>1</sup>                       | 0.090 (2.3mm) to 0.100 (2.5mm)<br><i>0.100 for California</i>  |
| Distance Between Corresponding Dots In Adjacent Cells <sup>1</sup>            | 0.241 (6.1mm) to 0.300 (7.6 mm)<br><i>0.300 for California</i> |
| Dot Height  | 0.025 (0.6 mm) to 0.037 (0.9 mm)                               |
| Distance Between Corresponding Dots From One Cell Directly Below <sup>1</sup> | 0.395 (10mm to 0.400 (10.2 mm)                                 |

<sup>1</sup>Measured Center To Center



Reference: 2010 ADA Standards for Accessible Design (ADAAG) 703.3.1

- CAPITALIZATION:** In braille, capitalization requires the placement of extra dots in front of the translated text. Two dots indicate the entire word is capitalized while one dot indicates the first letter of the word is capitalized. Though braille may translate capitalized text on a sign, it will be coded in lower case unless it translates a special situation such as the first word of a sentence, proper nouns & names, individual letters of the alphabet, initials, and acronyms. (American Foundation for the Blind) (ADAAG 703.3.1) (see graphic aid 2 below)

## Graphic Aid 2:

Text in capital format should be translated in lower case unless it is a special situation, such as:

- First word of a sentence
- Proper noun or name
- Individual letters, initials or acronyms

# BRAILLE CAPITALIZATION

## Capital vs. Lower Case

Below are some examples of special characters used in braille translations:

| TEXT     | TEXT FOR BRAILLE | GRADE 1  | GRADE 2 | CORRECT BRAILLE |
|----------|------------------|----------|---------|-----------------|
| MEN      | men              | men      | m5      | ⠠⠠⠠             |
| RESTROOM | restroom         | restroom | re/room | ⠠⠠⠠⠠⠠⠠          |

| SPECIAL CHARACTERS | ALL CAPITAL LETTERS | INDIVIDUAL LETTERS INITIALS OR ACRONYMS | INITIALS FOLLOWED BY PERIOD | NUMBERS |
|--------------------|---------------------|---|-----------------------------|---------|
| TEXT FOR BRAILLE   | ”                   | ,                                       | ,a4                         | #       |
| BRAILLE            | ⠠⠠                  | ⠠                                       | ⠠⠠⠠                         | ⠠⠠⠠     |

For Reference Only



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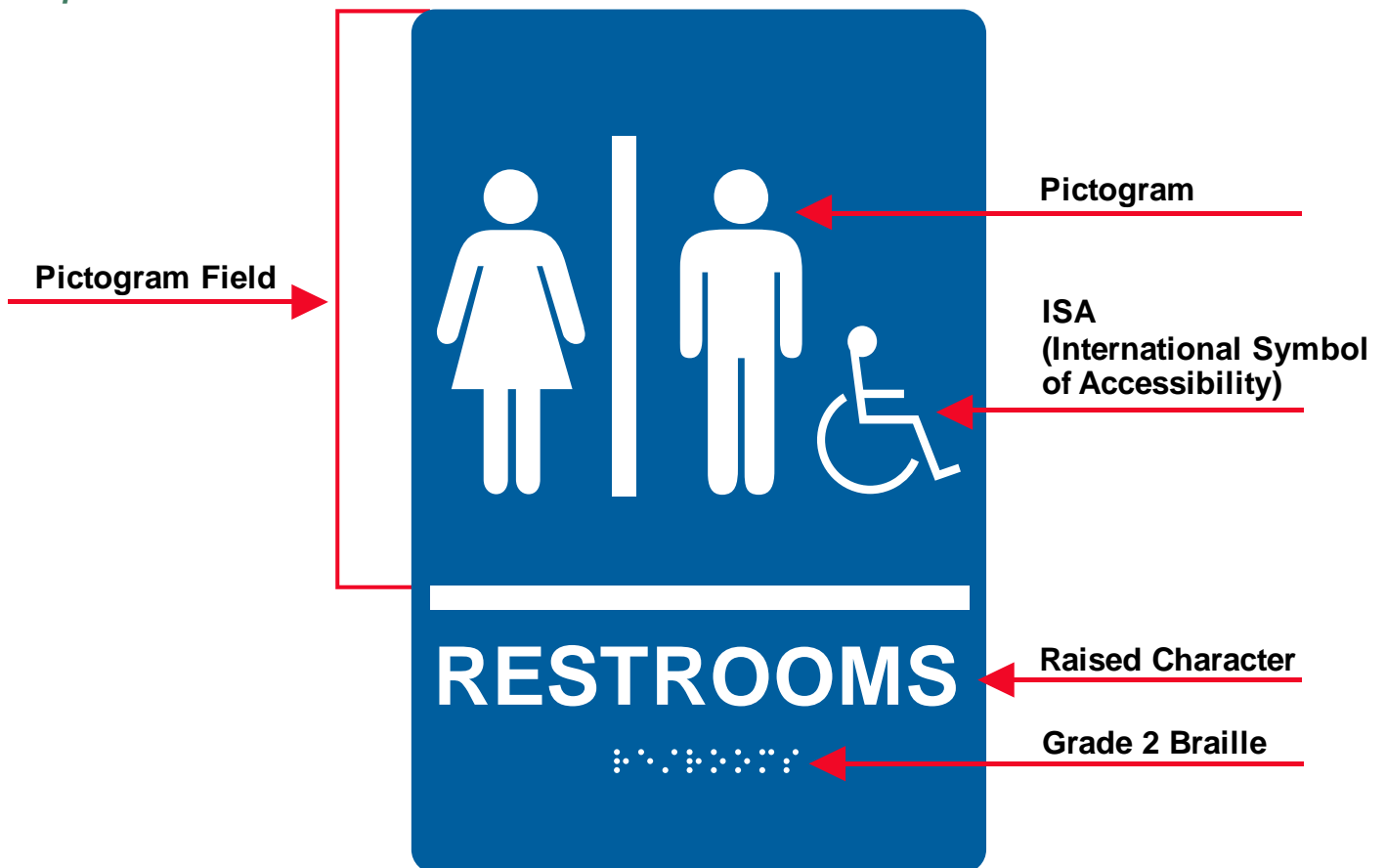
- **CHARACTERS & PICTOGRAMS:** In addition to braille dots, ADA signs also contain raised characters (tactile text) and pictograms (pictorial symbols). Though braille is the most efficient way of reading by touch, some visually impaired people, especially those whose impairment developed later in life, may never have learned braille and require other tactile features in order to read the sign. There are raised character specifications for font, size, case, character spacing, and line spacing. (ADAAG 703.2) (CBC 11B-703.2) Specifications for pictograms address field height, finish & contrast, and text descriptors that must be directly below the pictogram field. (ADAAG 703.6) (CBC 11B-703.6) Many of the pictograms used in ADA signs contain the international symbols of accessibility (ISA), TTY, volume control telephones, assistive listening systems, and access for hearing loss. (ADAAG 703.7) (CBC 11B-703.7.2)
- **VISUAL CHARACTERS & SYMBOLS:** In addition to having braille and tactile characters, ADA braille signs may also contain visual (not raised) characters and symbols such as a directional arrow. Visual characters and symbols, though not required, can provide additional information on the sign and are not translated in braille. Visual characters have their own specifications for font, style, case, character proportion, size and line spacing. (ADAAG 703.5) (CBC 11B-703.5)
- **SIGN LAYOUT:** Since ADA braille signs can be a combination of grade 2 braille, tactile pictograms and characters, as well as visual characters, pictograms and symbols, a uniform layout convention is essential to enable easy comprehension by the visually impaired. If the sign has a pictogram and/or symbol (either tactile or visual) it should be at the top of the sign with the tactile text describing the pictogram directly below but not in the pictogram field. (ADAAG 703.6.3) Note that when international symbols are also present in the pictogram field, they need not be described in the tactile text below. Braille should be directly below the tactile text at the proper spacing. If the text is multiline, the braille should be below all the text and should repeat all the tactile text. (ADAAG 703.3.2) (CBC 11B-703.3.2) If, for instance, the sign has a tactile directional arrow below tactile text, the arrow direction should be translated in braille as well. The standards do not specify a required location on the sign for visual characters and symbols, and they do not require nor logically should they have braille. To facilitate easy reading, it is important that all tactile features and their accompanying braille be grouped together and not be interspaced with visual characters. (**see graphic aid 3 below**)



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### Graphic Aid 3:

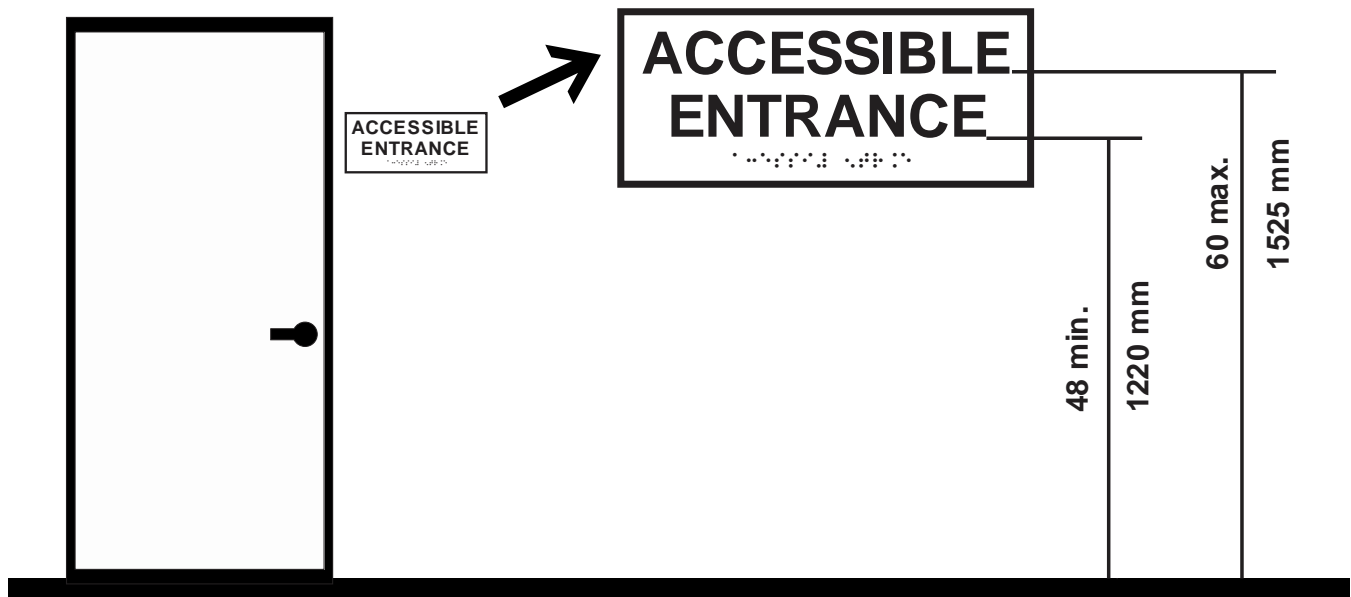


- **SIGN LOCATION & INSTALLATION:** Signs with braille and tactile features must be located within a certain height range off the floor as well as in a certain location when in proximity to the doors of the rooms and spaces they identify. (ADAAG 703.4) (CBC 11B-703.4) **(see graphic aid 4 below)**
- Please refer to Compliance – Resource Bulletin: California Title 24 – Restroom Signs for specific information about sign location and installation in California.

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### Graphic Aid 4:



- BRAILLE OR NO BRAILLE:** Though the 2010 ADAAG guideline sets standards for braille signs, it does not stipulate where in a building braille signs are required. However, the ADA Standards for Accessible Design (1994) does require that signs designating permanent rooms and spaces must have raised characters and braille. (ADASAD 4.1.3) The California standard stipulates additional situations where braille signs are required including exit signs, floor identification signs, means of egress signs, and area of refuge signs. (CBC 11B-216.2, 11B-216.4) Directional and informational signs are not required to have braille. (CBC 11B-216.3) Local building codes and their enforcement officials do have jurisdiction to require braille signs in additional situations not required by Federal or state regulations. Of course, braille signs may be, and are, included in many situations where not required by law as our society becomes more attentive to the needs of the visually impaired.
- REGULATORY UPDATE:** The 2010 ADA Standards for Accessible Design (ADAAG) was published in September of 2010. It is mandatory that the 2010 ADAAG be followed both in the new construction and alteration of facilities covered by the ADA. The updated accessibility standards include substantive changes to the requirements for accessible signage. The sign design guidelines presented in this bulletin employ the mandated 2010 ADAAG.

For ADA braille signs please visit our store: <http://www.compliancesigns.com>