UNIVERSAL DESIGN: WAYFINDING

INTRODUCTION

Wayfinding refers to the way people get from one location to another, including their information gathering and decision-making processes for orientation and movement through space.

While wayfinding is often addressed by signage within the built environment, successful wayfinding design involves viewing the design holistically, with spatial configuration and information wayfinding considered in parallel. It should allow people to determine their location and destination, plan their route, and execute the plan and negotiate any required changes.

STANDARDS

The NCC (2022) does not prescribe any performance requirements for wayfinding and only outlines the Deemed-to-Satisfy provisions for signage in a building required to be accessible under BCA D4D7. Specification 15 sets out the requirements for braille and tactile signage including the height and location of signs, dimensional requirements for braille and tactile characters, luminance contrast, and illumination.

AS 1428.1 defers to the BCA for locations where braille and tactile signage are required. It includes visual examples of conforming identification and directional signs for accessible and ambulant sanitary facilities. The International Symbol of Access and the International Symbol for Deafness are used, and the standard colours (white on a blue background) are identified. Braille is required to be Unified English Braille (UEB), Grade 1 and uncontracted. AS 1428.2 expands on the requirements for signs under AS 1428.1, setting out heights of letters for varying viewing distances, illumination and locations of signs.

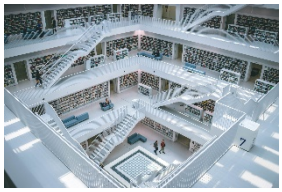
AS 1428.4.1 outlines the requirements for warning and directional tactile ground surface indicators. It mentions the use of directional tactile indicators to give directional orientation in open spaces and to designate a route to be taken. AS 1428.4.1 Appendix A1 also includes information on wayfinding for people who are blind or have vision impairment.

AS 1428.4.2 sets out the requirements for static wayfinding sign information, including the design, location and installation of tactile identification signs for site entrances, building entrances, rooms and facilities. It also expands on the requirements for braille content under AS 1428.1. The appendices include guidance on wayfinding generally, with examples of fonts and commonly understood pictograms, and raised tactile and braille maps.

APPLICATION OF UNIVERSAL DESIGN

How can universal design be applied to wayfinding?

- Maintain a clear line of sight and uniform illumination where possible. Strong contrast between lighting in adjacent areas may be appropriate in certain cases to facilitate wayfinding.
- Provide an intuitive access path that reduces the need for users to consult a map and makes clear where emergency evacuation paths are located. Where maps and emergency evacuation diagrams are installed, make sure they are easy to understand and follow.
- Consider the use of directional cues, reference points and landmarks to delineate different spaces and aid users in orientation and wayfinding.
- Use a consistent signage system with consistent graphic style and layout. Visual information should be of appropriate size, contrast, form, luminance, lighting and viewing distance in relation to context of use. Use sans serif fonts with appropriate letter spacing and established international symbols which can be easily recognised by sight and touch. Information provided should be clear and concise.
- Consider the location of any identification, orientation and directional signage, the mounting method (suspended, wall-mounted, floor-mounted), and the height of signage for visibility and/or tactile use.
- Consider using multiple modes of presenting information, e.g. auditory and/or tactile to supplement visual information.



Universal design

Universal design is the design of buildings, products or environments to make them accessible and usable to all people of different ages and abilities over time, without the need for adaptation or specialised design.

Relevant standards

NCC (2022) Volume One

- BCA D4D7 *Signage.*
- BCA Specification 15 *Braille and tactile signs.*

AS 1428 series *Design for access and mobility.*

Part 1: *General requirements for access - New building work.*

Part 2: *Enhanced and additional requirements - Buildings and facilities.*

Part 4.1: *Means to assist the orientation of people with vision impairment - Tactile ground surface indicators.*

Part 4.2: *Means to assist the orientation of people with vision impairment - Wayfinding signs.*

AS 2700 *Colour standards for general purposes.*

ISO 7001 *Graphical symbols – Registered public information symbols.*

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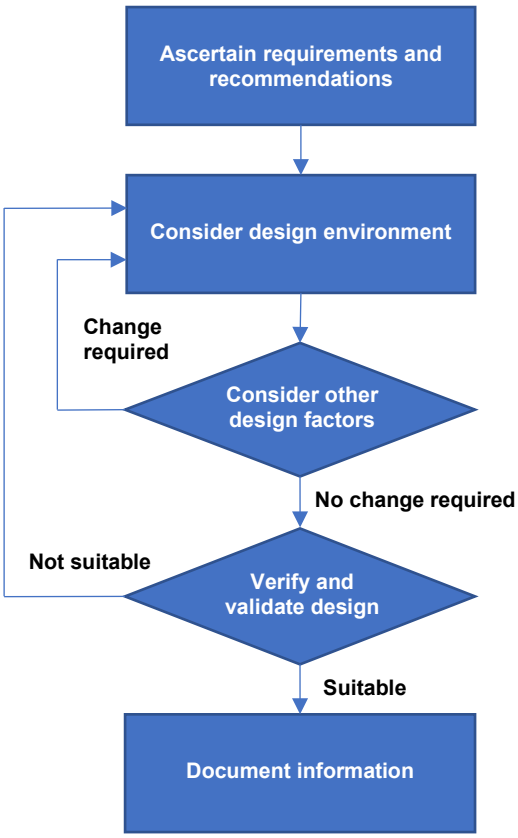
DESIGN PROCESS

What actions should a designer take?



Requirements/Recommendations:
- BCA D4D7 and BCA Specification 15.
- AS 1428 series.

Considerations may include:
- Building class.
- Spatial requirements.
- User type and activity.

Considerations may include:
- Circulation space.
- Illumination.
- Signage.

Confirm suitability in relation to:
- Statutory requirements.
- Design brief/client requirements.

Actions following review:
- Document design process and compliance information.
- Consult independent specialist if appropriate.

OTHER CONSIDERATIONS

The designer should also consider the following:

- Wayfinding experiences will depend on the mode of travel (pedestrian, vehicular) and time of visit (day, night). Consider how the routes users take may differ.
- Lighting operating on time dependent switching should be programmed to allow sufficient time for safe travel.
- Signage is often an after-thought and ancillary to the design. It can be useful as a wayfinding tool however it cannot resolve fundamental planning issues.
- Placement of signs should be made at major decision points. Information which is received in the wrong location is as helpful as no information and there is no benefit to installing signs where they will not be used.
- Signs can be an obstruction. Adequate circulation area should be provided around areas where signs are installed.
- Overabundance of signage is likely to cause visual clutter and confusion for users.
- The materials or assembly of a sign can also hinder communication of information. Reflective materials may cause difficulty in reading. Display screens may flicker, not display the correct information or be turned off.

Relevant documents

NATSPEC TECHnotes
- *DES 037 Accessible housing*
- *DES 038 Universal design: Introduction*
- *DES 039 Universal design: Slip resistance*
- *DES 040 Universal design: Trip avoidance*
- *DES 042 Universal design: Lighting*
- *DES 046 Universal design: Acoustics*

Relevant worksections

0581 Signage