

## 52. ECO-INFO

# DISABILITY ACCESS REQUIREMENTS FOR NEW BUILDINGS

### INTRODUCTION

It is estimated that one in five people in Australia have a long-term disability (Australian Bureau of Statistics – 1998). This includes physical disability, intellectual disability, and sensory impairments such as vision and hearing. It does not include those persons with a short-term (temporary) disability or the continuing aging population.

### ACCESS LEGISLATION

Access Legislation relevant to the design and construction industry includes:

- The Disability Discrimination Act 1992 (DDA)
- The Building Code of Australia (BCA) Section D3 – Access for People with Disabilities
- Australian Standards AS1428.1, AS1428.2, AS1428.4 – Design for Access and Mobility
- Australian Standard AS1735.12 – Lifts, escalators and walkways: Facilities for Persons with disabilities
- Australian Standard AS2890.1 – Parking Facilities – Off street carparking. The current amendment of AS2890.1 released this year – 2004 – does not include parking for persons with a disability. AS2890.6 is pending publication and will include specific requirements for accessible carparking. The release of Part 6 is subject to the proposed Access to Premises Prior to the release of Part 6, AS2890.1 – 1993 is to be observed for accessible carparking facilities.

Since the implementation of the Disability Discrimination Act in 1992 (DDA), public awareness of disability issues has risen and many changes to building regulations have occurred, the most recent being the release of the draft Access to Premises Standard in February 2004 for public comment. The draft Premises Standard aims to overcome inconsistencies between BCA and DDA.

The BCA states minimum technical requirements for the design and construction of buildings with regard to access for persons with a disability. The DDA is a complaint based law that is administered by the Human Rights

and Equal Opportunities Commission (HREOC). Advisory notes on Access to Premises were released by HREOC in 1997 to assist building owners, developers and architects understand their responsibilities under the DDA. These guidelines encourage the use of enhanced standards. Compliance with the BCA alone will not offer protection from a complaint made under the DDA.

The draft Premises Standard sets out details of how building owners and developers can meet their responsibilities under the DDA by ensuring their building is as accessible as possible to persons with a disability. The Premises Standard will apply to all new buildings and existing buildings undergoing new building work. For further information, visit [www.abcb.com.au](http://www.abcb.com.au)

### ACCESSIBLE DESIGN

The following is a list of essential elements required for an accessible building – it is not exhaustive but provides a basic set of design criteria.

- Provide designated accessible carparking with identifying signage.
- Provide a path of travel to the main building entry (**main building entry is to be accessible**).
- Provide a unisex accessible toilet facility.
- Provide a complying lift for access to various levels of the building.
- Provide access to all facilities within the building – equitable access to facilities is what the DDA is all about.

### TERMINOLOGY

The use of positive terminology such as “accessible” should be used when referring to accessible facilities such as toilets and carparking. This term is preferable to “disabled” which is commonly used.

The use of the International Symbol for Access (ISA) is encouraged to identify facilities for persons with a disability.

### INTERNATIONAL SYMBOL FOR ACCESS

The ISA is defined in AS1428.1, Clause 14 and should be used to identify facilities for persons with a disability such as unisex accessible toilets, lifts, carparking and accessible entry.

Generally, the ISA will face the right to indicate facilities for persons with a disability. Where the ISA is used in directional signage, it faces the direction to the facility.



### **SIGNAGE**

In general, all signage is to comply with AS1428.1 (Clause 14). Directional signage should be implemented at points where a decision is to be made.

The use of pictograms is encouraged as they are easily understood and recognised. Pictograms and lettering are to have a minimum 30% luminance contrast to the background colour to assist persons with a vision impairment. All signage should be unambiguous.

### **CARPARKING**

All designated accessible carparking needs to comply with AS2890.1, Clause 2.4.5. The minimum dimension of accessible spaces is 3200mm wide by 5500mm deep. A clear height of 2500mm is required as shown in AS2890.1, Figure 5.4 to allow for operation of wheelchair hoists on top of cars.

Designated accessible carparking is to be identified by ground and vertical signage that displays the ISA. Where accessible carparking spaces are not easily identifiable at the carpark entry, directional signage is to be implemented to indicate the location of accessible carparks.

The BCA requires 1% of all carparking within a development to be designated accessible. Accessible carparking is to be equitably distributed throughout the facility. An accessible path of travel from the accessible carparking to the lift / entry is to be provided.

### **ACCESSIBLE PATH OF TRAVEL**

A continuous accessible path of travel is required to and within all facilities of a building / development. This includes access from external areas such as carparking and the street as applicable to the development.

The accessible path of travel is to have a level surface with a maximum 5mm vertical disjoint tolerance between materials. Generally, the accessible path of travel should be minimum 1200mm wide to comply with AS1428.2 – best practice approach. Where unavoidable, the width may be reduced to 1000mm to comply

with AS1428.1. The clear height of the accessible path of travel is to be minimum 2000mm.

The maximum gradient of the accessible path of travel, without the requirement for a handrail is 1:20. The accessible path of travel is to have a maximum crossfall of 1:40.

Items such as bollards and street furniture are to have a minimum 30% luminance contrast to the background colour to assist persons with a vision impairment.

Where the accessible path of travel between facilities is of some distance, seating and rest areas with shade should be provided at 60m intervals to comply with AS1428.2, Clause 7. Rest areas should allow adequate space for a wheelchair and be located adjacent to the seating areas, orientated in the same direction.

### **BUILDING ENTRY**

The primary entry to all public buildings is required to be accessible. If a building has more than one use, the primary entrance to each use needs to be accessible.

A level, continuous accessible path of travel is to be provided from the carparking areas to the primary entries. Thresholds at the entry door are to be level with a maximum vertical disjoint tolerance of 5mm.

### **SANITARY FACILITIES**

A unisex accessible toilet facility should be provided adjacent to gender specific toilets. If toilets are provided in multiple locations, a unisex accessible toilet should be provided in each location. This provides equitable access to sanitary facilities for persons with a disability and minimises the risk of a complaint made under the DDA.

Gender specific accessible toilet facilities are not recommended and do not comply with the requirements of AS1428.1. A unisex facility allows for assistance from a spouse or carer if required.

All unisex accessible toilet facilities are to comply with AS1428.1, Clause 10, including room dimensions, door circulation, grabrails and the set-out of fittings / fixtures.

At least one PAD cubicle – to assist Persons with an Ambulant Disability – should be provided in each gender specific toilet. PAD cubicles are to comply with AS1428.1, Clause 10.8. PAD cubicles are generally 900mm wide (clear between grabrails), have a distance of 900mm between the pan and the door and

have grabrails on both sides. They are easily implemented within conventional toilets by allocating the end toilet as a PAD cubicle so that the door is opened out against the wall.

While the BCA does not require PAD cubicles in all Classes of building, the HREOC guidelines on Access to Premises recommend the integration of PAD cubicles within gender specific conventional toilets. This is a best practice approach to access and it is likely that PAD cubicles will be required for all toilets by the new Access to Premises Standard.

## **LIFTS**

All lifts with the accessible path of travel are to comply with AS1735.12. This includes all lifts used by members of the public. It does not include lifts used exclusively as goods lifts. The internal dimensions of the lift car is to be a minimum of 1100mm wide by 1400mm deep.

All lift control buttons – both within the lift car and at each level – are to be located within the accessible height range of 900-1100mm above the floor level and have a minimum 30% luminance contrast to the background colour to assist persons with a vision impairment. All buttons should have raised tactile characters and provide information in Braille format.

Auditory cues should be provided within the lift car to assist persons with a vision impairment.

The use of platform lifts, stair lifts, wheelchair lifts, or similar is discouraged. These lifts generally require keyed access and the use of constant pressure buttons for operation. Keyed access requires assistance and is not considered equitable access under the DDA. Similarly, the use of constant pressure buttons requires assistance for many persons with a mobility impairment. Therefore, this type of lift is considered discriminatory.

If a platform lift or stair lift is to be used, it is to be operable without keyed access or constant pressure buttons.

## **RAMPS**

Accessible ramps are to comply with AS1428.1, Clause 5.3. The maximum gradient of a complying ramp is 1:14. A landing must be provided every 9 metres. The clear width of a ramp is to be minimum 1000mm to comply with AS1428.1

All ramps are to have kerbrails and handrails on both sides. Handrails are to have a diameter of 30-50mm (AS1428.1, Clause 6.1) to assist persons with a manual disability such as arthritis. All handrails are to have extensions as required by AS1428.1.

Circulation space at the top and bottom of the ramp, and at landings, is to comply with AS1428.1 as applicable.

Step ramps and kerb ramps are to have a maximum gradient of 1:8 and comply with AS1428.1. Maximum rise of step and kerb ramps is 190mm.

Ramps require tactile indicators at the top and bottom to comply with AS1428.4 and the BCA.

## **STAIRS**

All public stairs need to comply with AS1428.1, Clause 9.

Provide handrails on both sides of the stair with a diameter of 30-50mm (AS1428.1, Clause 6.1) to assist persons with a manual disability such as arthritis. All handrails are to have extensions as required by AS1428.1.

Nosing strips 50-75mm wide are to be provided on stair treads and have a minimum 30% luminance contrast to the tread colour to assist persons with a vision impairment, AS1428.1, Clause 9.1c.

All stairs are to have closed or opaque risers as required by AS1428.1, Clause 9.1b.

Tactile indicators are required at the top and bottom of stairs to comply with AS1428.4 and the BCA.

## **TACTILE INDICATORS**

Tactile indicators are to comply with the performance based requirements of AS1428.4 (2002).

Tactile indicators are to be:

- Detectable
- Non-slip
- Durable
- Have a minimum 30% luminance contrast to the background colour.

Tactile indicators are generally required to identify potential hazards for persons with a vision impairment. The BCA requires the use of tactile indicators at the top and bottom of stair and ramps.

## **PUBLIC SERVICE COUNTERS**

Public service areas such as reception counters, bars, ticket boxes, etc should have an area accessible to wheelchair users to comply with AS1428.2, Clause 24.1 to minimise the risk of a complaint made under the DDA.

The accessible area is to be a minimum 900mm wide. It is preferable for the entire length of the counter to be accessible to provide equity.

The height of the accessible area is to be 850mm ( $\pm 20$ ) with 820mm ( $\pm 20$ ) clear height under and a minimum 200mm deep. Refer to AS1428.2, Clause 24.1.4.

#### **HEARING AUGMENTATION SYSTEMS**

Hearing Augmentation Systems should be provided in auditoriums, conference rooms, box offices, etc to assist persons with a hearing impairment. The use of the International Symbol for Deafness needs to be displayed to indicate the facility.



#### **CONCLUSION**

The provision of accessible buildings and facilities is required by law. The benefits to the community are endless. Persons with a disability benefit from equitable access and building owners benefit from wider patronage.

Accessible building features do not necessarily cause higher construction costs if they are implemented into the design and construction process as an integral part of the design.

A seamless link needs to be provided for persons with a disability to enter and use a building. Three key words that need to be remembered are:

*Equity                  Dignity                  Independence*

Further enquiries can be directed to Council's Customer Service Centre on 4350 5555

## Building Code of Australia Requirements for Access and Sanitary Facilities for People with Disabilities

Class	Classification of Buildings and Structures (BCA Part A3)	Areas to be Accessible (BCA Table D3.2)	Minimum Sanitary Facilities Required for use by People with Disabilities (BCA Table F2.4)
<b>Class 1</b>	A single dwelling or a boarding house, guest house, hostel or the like with a total floor area not exceeding 300m <sup>2</sup> and in which no more than 12 persons would ordinarily be resident.	Nil	Nil
<b>Class 2</b>	A building containing 2 or more sole-occupancy units each being a separate dwelling.	Nil	Nil
<b>Class 3</b>	A residential building, other than a building of Class 1 or 2, which is a common place for long term or transient living for a number of unrelated persons, including: (a) A boarding house, guest house, hostel, lodging house or backpackers accommodation; or (b) A residential part of a hotel or motel; or (c) A residential part of a school; or (d) Accommodation for the aged, children or people with disabilities; or (e) A residential part of a health care building which accommodates members of staff.		
	Common areas that are required to be accessible.	To and within: i) The common areas on the storey incorporating the principal public entrance; and ii) Any facility required to be accessible; and iii) Not less than 1 of each room or area in which a unique service is provided or which has a unique feature	
	If the building or group of buildings contains sole -occupancy units for: <ul style="list-style-type: none"> <li>• 1 to 20 units</li> <li>• &gt; 20 to 45 units</li> <li>• each additional 30 units or part thereof</li> </ul>	To an within: <ul style="list-style-type: none"> <li>• 1 sole occupancy unit</li> <li>• 2 sole occupancy units</li> <li>• 1 additional sole occupancy unit</li> </ul>	In every sole occupancy unit for which access for people with disabilities is required one closet pan and washbasin, and one shower. A sanitary facility must have a shelf.
	If accommodation is provided for more than 10 persons other than in sole occupancy units: <ul style="list-style-type: none"> <li>• Up to 49 beds</li> <li>• 49 to 99 beds</li> <li>• More than 99 beds</li> </ul>	<ul style="list-style-type: none"> <li>• 2 beds</li> <li>• 4 beds</li> <li>• 6 beds</li> </ul>	<ul style="list-style-type: none"> <li>• 1 to 100 closet pans plus urinals: One wheelchair accessible unisex facility;</li> <li>• 101 to 200 closet pans plus urinals: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex;</li> <li>• More than 200: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex; and</li> <li>• One additional wheelchair accessible unisex facility or one wheelchair accessible closet pan and washbasin for each sex for each additional 100 facilities normally required.</li> </ul>

Class	Classification of Buildings and Structures (BCA Part A3)	Areas to be Accessible (BCA Table D3.2)	Minimum Sanitary Facilities Required for use by People with Disabilities (BCA Table F2.4)
<b>Class 3</b>			<p>Baths or showers – one accessible shower or shower/bath for each 10 showers or part thereof, but not less than one for use by both sexes.</p> <p>Adequate facilities for the disposal of sanitary towels must be provided. A unisex sanitary facility must have a shelf.</p>
<b>Class 4</b>	A dwelling in a building that is Class 5, 6, 7, 8 or 9 if it is the only dwelling in the building.	Nil.	Nil.
<b>Class 5</b>	An office building used for professional or commercial purposes, excluding buildings of Class 6, 7, 8 or 9.	To an within: i) The entrance floor; and	Class 5, 6, 7, 8 and 9 buildings to which access for people with disabilities is required:
<b>Class 6</b>	<p>A shop or other building for the sale of goods by retail or the supply of services direct to the public, including:</p> <p>(a) An eating room, café restaurant, milk or soft-drink bar; or</p> <p>(b) A dining room, bar, shop or kiosk part of a hotel or motel; or</p> <p>(c) A hairdresser's or barber's shop, public laundry, or undertaker's establishment; or</p> <p>(d) Market or sale room, showroom, or service station.</p>	ii) Any other floor to which vertical access by way or a ramp or kerb ramp complying with AS 1428.1 or a passenger lift is provided.	<ul style="list-style-type: none"> <li>• 1 to 100 closet pans plus urinals: One wheelchair accessible unisex facility;</li> <li>• 101 to 200 closet pans plus urinals: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex;</li> <li>• More than 200: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex; and</li> <li>• One additional wheelchair accessible unisex facility or one wheelchair accessible closet pan and washbasin for each sex for each additional 100 facilities normally required.</li> </ul>
<b>Class 7</b>	<p>A building which is:</p> <p>(a) Class 7a – a carpark; or</p> <p>(b) Class 7b – for storage, or display of goods or produce for sale by wholesale.</p>		
<b>Class 8</b>	A laboratory, or a building in which handicraft or process for the production, assembling, altering, repairing, packing, finishing, or cleaning or goods or produce is carried on for trade, sale or gain.		
<b>Class 9</b>	<b>9a:</b> A health care building: including those parts of the building set aside for a laboratory.	To and within areas normally accessible to the public patients or staff.	Baths or showers – one accessible shower or shower/bath for each 10 showers or part thereof, but not less than one for use by both sexes.
	<b>9b:</b> An assembly building not being a school or early childhood centre.	<p>To an within:</p> <p>i) Every auditorium but not to every tier or platform; and</p> <p>ii) The main entrance to the auditorium; and</p> <p>iii) If fixed seating is provided, not less than 1 wheelchair space for each 100 persons or there part of, with a minimum of 2 spaces, up to 200 persons, and an additional space for each additional 200 persons or part thereof by which the number of persons exceeds 200; and</p> <p>iv) All other areas normally used by occupants.</p>	<p>Adequate facilities for the disposal of sanitary towels must be provided.</p> <p>A unisex sanitary facility must have a shelf.</p>
	<b>9b:</b> A school.	To an within: i) All areas normally used by occupants, including staff, students and visitors, if no alternative similar facilities to those provided in that area are accessible elsewhere in the school; and	

Class	Classification of Buildings and Structures (BCA Part A3)	Areas to be Accessible (BCA Table D3.2)	Minimum Sanitary Facilities Required for use by People with Disabilities (BCA Table F2.4)
<b>Class 9</b>		ii) Any other floor to which vertical access by way of a ramp, step ramp or kerb ramp complying with AS 1428.1, or a passenger lift is provided.	
	<b>9b:</b> An early childhood centre.	To and within all areas normally used by the occupants including staff, children and visitors.	
	<b>9c:</b> An Aged Care Building.		
	Common areas that are required to be accessible.	To and within: i) The common areas on the storey incorporating the principal public entrance, excluding resident use sanitary facilities, utility rooms and the like; and  ii) Any facility required to be accessible; and  iii) Not less than 1 of each room or area in which a unique service is provided or which has a unique feature.	
	If the building or group of buildings contains sole-occupancy units for: • 1 to 20 units • > 20 to 45 units • each additional 30 units or part thereof	To an within: • 1 sole occupancy unit • 2 sole occupancy units • 1 additional sole occupancy unit	In every sole occupancy unit for which access for people with disabilities is required one closet pan and washbasin, and one shower. A sanitary facility must have a shelf.
If accommodation is provided for more than 10 persons other than in sole occupancy units: • Up to 49 beds • 49 to 99 beds • More than 99 beds	• 2 beds • 4 beds • 6 beds	<ul style="list-style-type: none"> <li>• 1 to 100 closet pans plus urinals: One wheelchair accessible unisex facility;</li> <li>• 101 to 200 closet pans plus urinals: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex;</li> <li>• More than 200: Two wheelchair accessible unisex facilities or one wheelchair accessible unisex facility and one wheelchair accessible closet pan and washbasin for each sex; and</li> <li>• One additional wheelchair accessible unisex facility or one wheelchair accessible closet pan and washbasin for each sex for each additional 100 facilities normally required.</li> </ul> <p>Baths or showers – one accessible shower or shower/bath for each 10 showers or part thereof, but not less than one for use by both sexes.</p> <p>Adequate facilities for the disposal of sanitary towels must be provided.</p> <p>A unisex sanitary facility must have a shelf.</p>	
<b>Class 10</b>	<b>10a:</b> A non-habitable building being a private garage, carport, shed or the like.	To and within a building containing any of the following:  i) Sanitary facilities, showers, hand basins, change room facilities or the like;	Where shower facilities are provided, not less than 1 accessible shower for each 10 showers or part thereof, with not less than 1 accessible shower suitably located for use by both sexes.

Class	Classification of Buildings and Structures (BCA Part A3)	Areas to be Accessible (BCA Table D3.2)	Minimum Sanitary Facilities Required for use by People with Disabilities (BCA Table F2.4)
Class 10		<p>ii) A unique service or feature, such as a public shelter or the like, which is located in an accessible area.</p> <p>Where sanitary facilities are provided – not less than 1 wheelchair accessible unisex facility.</p> <p>Where sanitary facilities containing more than one sanitary compartment are provided for the general public in addition to the wheelchair accessible unisex facility – not less than 1 sanitary compartment for each sex, suitable for an ambulant person with a disability.</p>	<p>Adequate facilities for the disposal of sanitary towels must be provided.</p> <p>A unisex sanitary facility must have a shelf.</p>
	<b>10b:</b> A structure being a fence, mast antenna, retaining or free-standing wall, swimming pool or the like.	Nil	Nil
		<p><i>Notes:</i></p> <ol style="list-style-type: none"> <li>1. A unique service or feature, unless otherwise indicated, includes a TV room, dining room, lounge room, common laundry, recreation area, individual shop, eating area, public viewing area, ticket purchasing, lunchroom and the like;</li> <li>2. A double bed counts as 1 bed;</li> <li>3. A common area does not include an internal space such as a corridor or a lobby that is not an accessway.</li> </ol>	<p><i>Notes:</i></p> <ol style="list-style-type: none"> <li>1. A sanitary compartment suitable for an ambulant person with a disability need not be wheelchair accessible.</li> <li>2. Where sanitary facilities required are located in an appurtenant Class 10a building, the number of accessible sanitary facilities must be determined as if the Class 10a building was of the same classification as that to which it is appurtenant.</li> </ol>