

Australian Standard™

**Design for access and mobility**

**Part 1: General requirements for  
access—New building work**



Standards Australia

This Australian Standard was prepared by Committee ME-064, Access for People with Disabilities. It was approved on behalf of the Council of Standards Australia on 11 May 2001 and published on 5 June 2001.

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The following interests are represented on Committee ME-064:

ACROD

Australian Association of Occupational Therapists

Australian Building Codes Board

Australian Industry Group

Australian Institute of Building

Australian Institute of Building Surveyors

Blind Citizens Australia

Commonwealth Department of Veterans' Affairs

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Physical Disability Council of Australia

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The Royal Australian Institute of Architects

Additional interests:

The International Commission on Technology and Accessibility (ICTA)

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*This Standard was issued in draft form for comment as DR 00098.*

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## **Design for access and mobility**

### **Part 1: General requirements for access—New building work**

Originated as part of AS CA52.1—1968.  
Previous edition AS 1428.1—1998.  
Fourth edition 2001.

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Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 3927 X

## PREFACE

This Standard was prepared by the Standards Australia Committee ME-64, Access for People with Disabilities, to supersede AS 1428.1—1998.

This Standard is part of a series which is comprised of the following:

AS

1428 Design for access and mobility

1428.1 Part 1: General requirements for access — New building work

1428.2 Part 2: Enhanced and additional requirements — Buildings and facilities

1428.3 Part 3: Requirements for children and adolescents with physical disabilities

1428.4 Part 4: Tactile ground surface indicators for orientation of people with vision impairment.

The objective of this Standard is to provide building designers and users (architects, property owners, regulators, and the like) with the minimum design requirements for new building work, to enable access for people with disabilities.

The BCA is being revised in the area of access in order to address the requirements of the Disability Discrimination Act (DDA) as applied to access to and within new buildings and new building work. As part of the revision, relevant Australian Standards must also be revised. However, the time required for a complete revision of the AS 1428 suite would unnecessarily delay the needed changes.

Because of the variety of situations that may need to be addressed when designing buildings and facilities, it was seen as necessary for the Standards to provide a range of data so that the requirements for access can be met and to also allow for flexibility in design where limitations are imposed by other building conditions. The intention was to make the Standard a practical reference document for designers, particularly with regard to problem areas such as doorways and sanitary facilities. To assist in the designing of combined sanitary facilities, a set of transparent overlays for each sanitary facility, i.e. WC, washbasin, two-walled shower recess and three-walled shower recess, together with the required circulation space, has been provided with the Standard. **(Available with hardcopy purchases only)**

Part 1 of the series (this Standard) deals with those aspects of access to and within a building which are regulated by the BCA, including references to sanitary facilities for children in accordance with AS 1428.3. AS 1428.2 covers those items not covered by building regulations such as furniture and fittings.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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## FOREWORD

This revision has been prepared having regard to the Commonwealth Disability Discrimination Act (DDA) which has been in effect since March 1993. This legislation makes it unlawful to discriminate against people with disabilities in various areas, including access to premises, education, employment, and services. The way in which buildings are constructed can result in discrimination in places of employment, tourist or other accommodation, offices, or places of entertainment. The intention of the DDA, in part, is that people with disabilities should be able to enter and use any public building, facility or service in an equitable manner.

The 1998 Australian Bureau of Statistics Survey Disability, Ageing and Carers revealed that 3.6 million people in Australia had a disability of some kind (19% of the population). The rate of disability increased with age, from 4% for children 0–4 years old, to 84% for those over 85 years of age. It follows then that requirements for children with disabilities in schools will be less than the overall 19%; likewise, requirements in facilities used by a large number of senior citizens will be higher than the average. In terms of numbers in various age groups, the 45–54 year age group produced the greatest number of people with disabilities (551 300), largely for demographic reasons.

Physical conditions, chiefly musculoskeletal disorders such as arthritis, were the most common cause of disability, frequently leading to mobility problems. 723 000 people reported needing assistance with mobility, and 805 500 with transport.

A total of 455 100 reported using some type of mobility aid—

- (a) 208 900 people use a walking stick;
- (b) 21 400 use crutches;
- (c) 103 200 use a walking frame;
- (d) 123 500 people use manual wheelchairs;
- (e) 19 100 electric wheelchairs; and
- (f) 13 500 (a growing number) use motorised scooters.

NOTE: The total number of users may be less than the sum, as some people may use more than one type of equipment.

Different types of disabilities will lead to different implications for building design. For example:

- (i) People with little or no sight feel vulnerable about tripping on uneven ground or colliding with obstacles in their path, and have difficulty orienting themselves and finding their way in unfamiliar environments. For people with low vision, colour contrast and good signage will be helpful, while tactile information may assist those with no vision.
- (ii) People with hearing loss may need visual rather than audio warnings and announcements, and will require assistive listening systems, without sound amplification.
- (iii) People with poor balance or coordination find it difficult to walk, and are at risk of falling. Handrails and larger controls will often assist.
- (iv) People with respiratory problems or poor stamina will not be able to walk long distances or up steep slopes or steps, and may need to rest more often.
- (v) Some people have difficulty using their hands or fingers; therefore, they will need controls, taps and knobs that are easy to operate.

- (vi) Other people have trouble reaching, turning around, or bending, and may need things within easy reach, for example:
  - (A) Those who use mobility aids will require extra circulation space, even ground surfaces, and ramps or lifts rather than steps.
  - (B) Those with cognitive impairment will be assisted by clear signage and buildings that are not confusing.

STANDARDS AUSTRALIA

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Part 1: General requirements for access—New building work

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## 1 SCOPE

This Standard specifies the design requirements applicable to new building work, excluding work to private residences, to provide access for people with disabilities. Particular attention is given to accessways and circulation spaces and consistent linkages suitable for use by people who use wheelchairs, and access and facilities for people with ambulatory disabilities and for people with sensory disabilities.

### NOTES:

- 1 This Standard does not include requirements for furniture and fitments used in the fitouts of such buildings (see Preface).
- 2 Buildings that are purpose-built for people with disabilities should be designed with regard for the special need of the occupants of these buildings over and above the requirements of the BCA and this Part of the Standard.
- 3 This Standard may also be applied for the provision of access to existing buildings.

## 2 APPLICATION

### 2.1 Building Code of Australia

This Standard will be referenced in the Building Code of Australia by way of BCA Amendment 9 to be published by 1 July 2001, thereby superseding the previous edition, AS 1428.1—1998, which will be withdrawn 12 months from the date of the publication of this edition.

Compliance with this Standard will, in general, satisfy the requirements of the BCA in terms of the provision of access to buildings for people with disabilities; however this does not in any way preclude the use of any alternative method that can be shown to satisfy these requirements.

### 2.2 General

This Standard is intended to be used in the design of buildings and related facilities as required by the regulatory authorities or by other Standards, in contract documents and the like.

The requirements specified in this Standard are intended to permit general use of buildings and facilities by people with disabilities acting independently or, where a person's usual method of operation is with an assistant, in the company of that assistant.

The Standard is based on data resulting from empirical testing of persons aged between 18 and 60 years and may not be appropriate when applied to persons outside this age range.

Facilities that are specifically intended for use by children and adolescents may be excluded from the requirements for the height of—

- (a) handrails (see Clause 6.1(c));
- (b) WC pans (see Figure 18); and
- (c) washbasins (see Figure 23).



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