



## Bathrooms – design guidelines

This information sheet contains guidelines to assist you when designing or modifying a bathroom in a private dwelling, to accommodate the needs of a person who is aged or has a disability. If designing for future needs, adaptability of the bathroom could allow alterations to be made as the person gets older and their needs change. Australian Standards can be used as a guide for some design principles. Although the Australian Standards cited relate to designing for access and mobility for persons aged 18 to 60 years, the principles mentioned may also be appropriate for people who are older or younger than these ages. However, as designing specifically for children often requires other considerations because their needs will change as they grow, some of the information in this ILC Tas publication may not be appropriate for them. Reference to the Australian Standard (AS 1428.3–1992), which refers specifically to requirements for children and adolescents with physical disabilities, is recommended.

It is intended that material in this publication be used in conjunction with, and not in place of, consultation with an Occupational Therapist and/or reference to the current and relevant Australian Standards, National Construction Codes, and government legislation, when you are making decisions about bathroom design. These Standards are mandatory for public buildings but not for private dwellings.

### Useful assistance is available from

**An Occupational Therapist** who can advise on different ways of doing tasks, suitable products, and what may be required in the future – *see contact details below*:

- **The Independent Living Centre (ILC Tas)** has Information Service Occupational Therapists who can provide information and advice, either at the Centre or in the community via the ILC Tas Mobile Outreach Service. Although they cannot come to your house they can show you a display of assistive equipment and technology including home modifications and design.  
This is a free service available to people in all areas of Tasmania. 1300 885 886
- **equipify** is an ILC Tas service with an Occupational Therapist who can visit you at home to assess your home modification needs, and give advice on design, construction and products to suit you and your household. A fee is charged for this service. 1300 452 827
- **Community Occupational Therapists:** Services are free for eligible people.  
Southern Tasmania: 6166 7280  
Northern Tasmania: 6777 6216  
North West Tasmania and West Coast: 6426 5127
- **Private Practice Occupational Therapists:**  
For information about registered Occupational Therapists in private practice in Tasmania
  - Contact ILC Tas 1300 885 886
  - Visit <http://www.otaus.com.au> 'Find a private practice OT'
  - Look under 'Occupational Therapists' in the Yellow Pages

## Australian Standards

### General

AS 1428.1—2009	<i>Design for access and mobility Part 1: General requirements for access— New building work</i>
AS 1428.2—1992	<i>Design for access and mobility Part 2: Enhanced and additional requirements— Buildings and facilities</i>
AS 4299—1995	<i>Adaptable housing</i>
AS/NZS 3018—2001	<i>Electrical installations- Domestic installations</i>

### Children and Adolescents

AS 1428.3—1992	<i>Design for access and mobility: Requirements for children and adolescents with physical disabilities</i>
----------------	---

- Australian Standards detail a **minimum** standard that applies to public buildings and compliance with them is **not mandatory** for private dwellings.
- Some Australian Standards provide a starting point for anyone with additional access requirements but it is always necessary to consider each person's individual need as this may be different from the requirement described in the Australian Standard.  
Consultation with an Occupational Therapist about designing for a person's individual needs is recommended.
- The Australian Standards cited are based on the dimensions of people aged 18 to 60 years.
- Australian Standards can be purchased from Standards Australia International. Online access to the Standards is no longer available at state libraries.
- Standards Australia International Ltd telephone: 131 242
- Buy Australian Standards on-line: [www.saiglobal.com/shop](http://www.saiglobal.com/shop)



**Current legislation** – requirements for complying with building industry legislation and codes in Tasmania (including the current National Construction Code of Australia)



## Consider in your planning

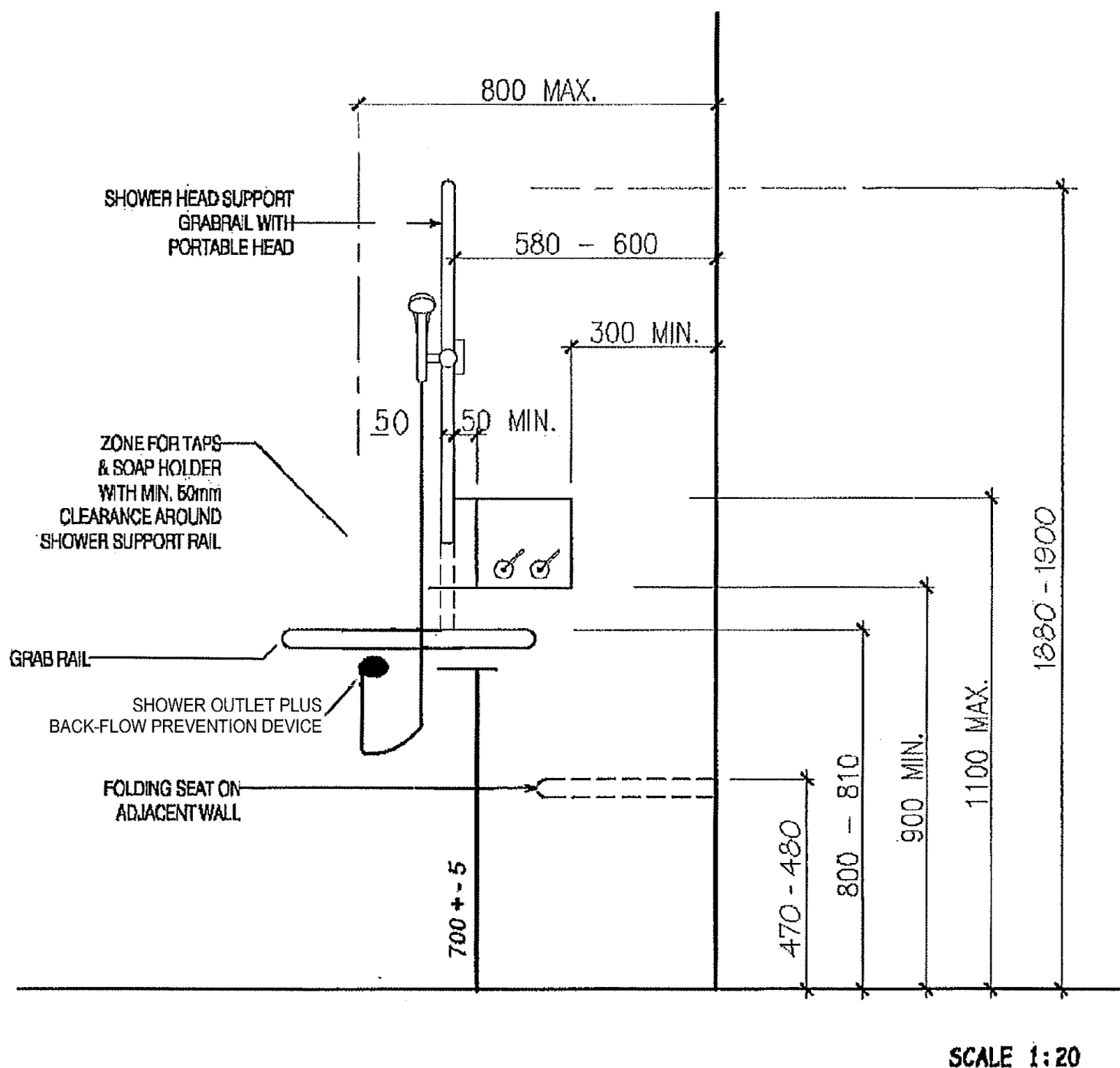
- The amount of space required will be influenced by the size and type of wheelchair/mobility aid used, e.g. reclining or sports wheelchair, manual or motorised wheelchair.
- The amount of space needed for someone who is independent will be different from the space needed for someone requiring the assistance of others.
- Abilities may change, so consider future needs if possible.
- The requirements of all other members of the household need to be taken into account.
- Portable assistive technology items which may not be required by all bathroom users may need allocated space for storage.

## Design considerations

- Choosing an adaptable design for the bathroom allows the greatest flexibility for all users, now and over time, as needs change. The following specifications based on Australian Standards, while not mandatory in a private home, provide a starting point.
- For bariatric users of bathrooms, assistive technology equipment is likely to be larger than standard, with a need for a higher load capacity. Use of this equipment is likely to require additional circulation space. An occupational therapist can advise you about the range of bariatric equipment available.

### Shower

- Area of the shower base should be a minimum of 1160 mm x 1100 mm, although 1200 x 1200 mm is preferred.
- More space may be required to allow a chair/seat to be used or for a carer to assist.
- The shower base should have no lip or hob and preferably no fixed screen walls. A level-access shower floor (one without kerbs, hobs or steps) is preferred as it enables safe and easy access for a wheelchair user or a person with limited strength, mobility or vision.
- A shower curtain with a weighted hem offers privacy and some control of splashed water.
- The floor slope, in the shower area, to the central drain should be 1:60–1:80, and in the remainder of the bathroom 1:80–1:100. Installation of a strip drain is a possible alternative to a central drain.
- It may be appropriate to use a mobile shower chair or height-adjustable stool in the shower.
- If a fixed folding shower seat is to be installed it should be 960 x 390–400 mm, self-draining, slip-resistant, have rounded edges and be attached to the wall 470–480 mm above the shower floor. It needs to withstand a force of 1100N applied in any position and in any direction without failing or fastenings being loosened. 40 mm clearance from any adjacent surfaces is necessary.
- A non-permanent seat to be used for dressing could be located outside the wet area.
- A hand-held shower with a flexible hose attached to it, and able to be slid along a vertical rail, provides the spray at various heights and angles. It should operate within the range of 1000–1900 mm and the vertical rail should be constructed and installed as if it were a grabrail.
- The shower outlet plus back-flow prevention device is to be located 700±5 mm from the finished floor.
- The shower hose should be at least 1500 mm long.
- Grabrail diameter should be 30–40 mm.
- The height for horizontal grabrail installation is 800–810 mm from the floor.
- The finish on grabrails should be slip-resistant and kept free of soap scum in bathing areas.
- Clearance of grabrails from the wall of 50–60 mm is required.
- Taps are best located in the range of 900–1100 mm above the floor and 300–800 mm from the corner of the shower, and able to be reached by a person seated in the shower.
- The soap holder should be located 900–1100 mm from the floor.



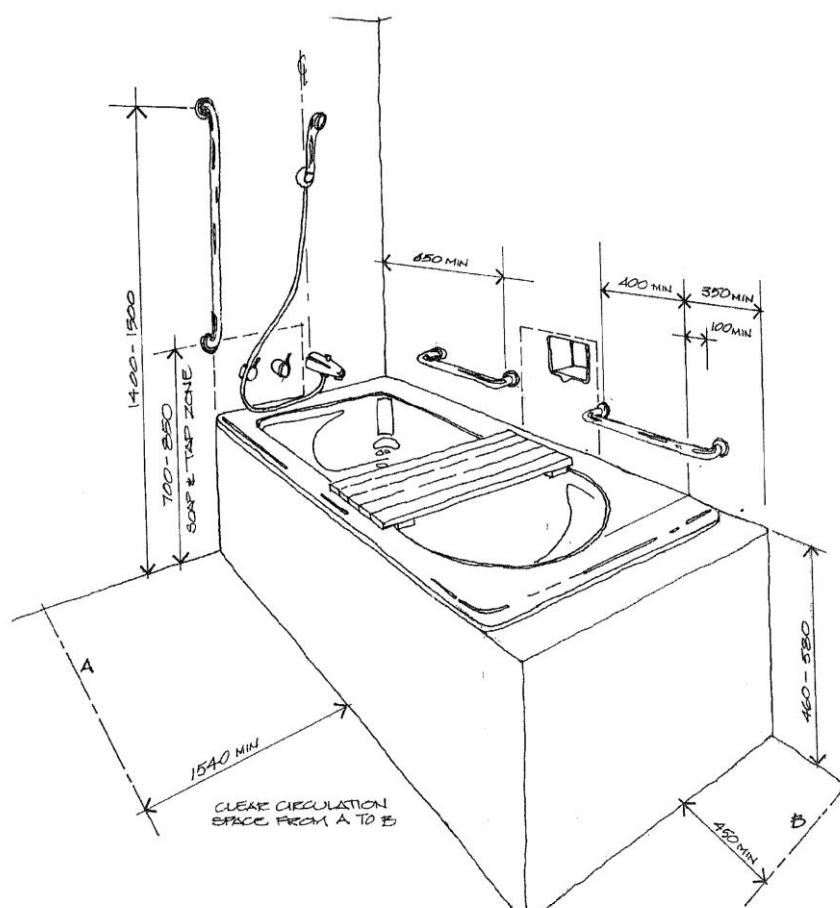
RECOMMENDED HEIGHTS FOR SHOWER FITTINGS

Diagram adapted from:

*Planning Bathrooms and Kitchens*, Independent Living Centre NSW, 2006, revised 2011

## Bath

- The Australian Standard recommends that the height of the wall of the bath should be at least 460 mm from the floor, and in the range of 460–580 mm for a person transferring from a wheelchair.
- The top of the bath should be level on all sides, to enable a bath board to be fitted and have an edge wide enough to support a bath board.
- There should be a bath-edge area of 350 mm at the head-end of the bath and a further clear space of 450 mm beyond the head-end of the bath.
- Grabrails should be positioned to suit the user but a suggested configuration is illustrated below. Note the long vertical rail to assist with stepping out of the bath located within the range of 850–1500 mm from the floor.
- Taps and soap holder positioned over the bath should be located 700–850 mm above the floor at the side or foot-end of the bath. The taps and soap holder may be located on the wall surface or installed on the bath-edge.
- Provide clear circulation space to allow a wheelchair or hoist to be manoeuvred beside the bath.
- Leave a space 1540 mm beside the long side of the bath free of fixtures.
- The bath should have a flat slip-resistant base. Self-adhesive strips are preferable to a suction mat.



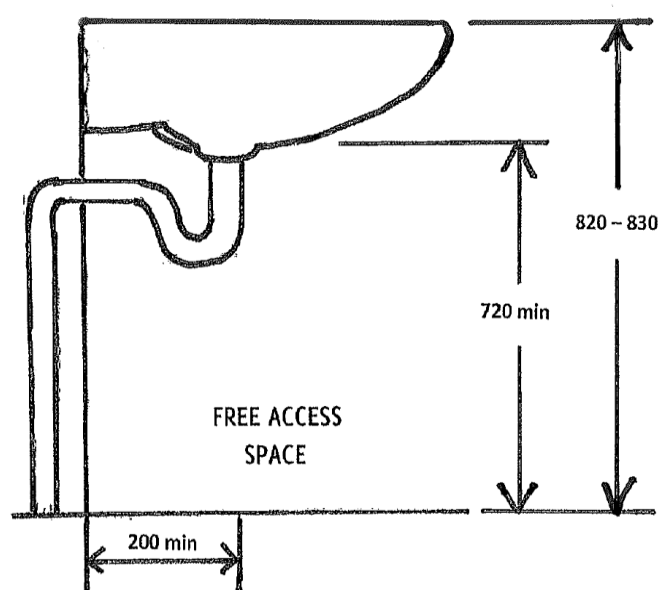
SUGGESTED DIMENSIONS FOR A TYPICAL BATH

From: *Planning Bathrooms and Kitchens*, Independent Living Centre NSW, 2006, revised 2011



## Basin or vanity unit

- Bench and washbasin heights:
  - Shared bathroom (wheelchair and non-wheelchair users):
    - Bench height: 800–830 mm (semi-recessed washbasin installation).
    - Washbasin height: 800–830 mm (semi-recessed washbasin installation).
    - Washbasin height: 800–830 mm (wall-mounted washbasin installation).
  - Solely wheelchair user:
    - Bench height: 800–830 mm.
    - Washbasin height: 820–830 mm.
- Bench depth of 550mm maximum will allow better wheelchair access under the bench without the footplates touching the rear wall.
- Washbasin-to-floor leg clearance: 720 mm.
- A vanity unit must have a toe recess 300 mm high and be 200 mm deep.
- Various lever tap styles and those with a  $\frac{1}{4}$  turn operation are available and may be useful.
- An electronic tap which is operated by a movement sensor eliminates the need to turn taps on and off.



WASTE PIPE THROUGH WALL FOR MAXIMUM LEG CLEARANCE UNDER BASIN

Diagram adapted from:

*Planning Bathrooms and Kitchens*, Independent Living Centre NSW, 2006, revised 2011

## Toilet

- Grabrail height above the floor surface beside a toilet:
  - 800–810 mm for a horizontal rail, or horizontal section of rail system incorporating diagonal or vertical sections.
  - extend to 1400 mm max at the highest point of a vertical section of a system incorporating a horizontal section.
  - in a system incorporating a diagonal section, this section should be minimum 700 mm long, and 30–45° above horizontal.



## Mirror

- A wall mounted mirror above the vanity unit should be at least 350 mm wide and extend 900–1850 mm above the floor.
- Where provided, a second vertical mirror shall extend 600–1850 mm above the floor.

## Doors

- An outward opening or sliding door is preferable.
- To minimise the effects of noise and draughts, a hinged door closing into a rebate is best.
- For a wheelchair, the minimum open doorway clearance should be 850 mm which will be provided by a 920 mm hinged door.
- A sliding door also requires a clear opening of 850 mm.
- A wider doorway will be necessary if the hallway is less than 1200 mm wide and the approaching wheelchair has to enter the doorway at an angle.
- A lever door handle mounted 900–1100 mm on the outside face of the door and a horizontal pull-bar on the closing face may suit a wheelchair user.
- Ensure that there is adequate circulation space at doorways to accommodate the angle of approach by a person using a wheelchair.

**Discuss ways of adapting your current bathroom to suit what you need now, and in the future, with an Occupational Therapist.**

For further information about building design principles, specific details and dimensions, please refer to ILC Tas publications:

**Making your home accessible**

**Kitchens – design guidelines**

**Grab rails – a guide to selection and installation**

## Notice of disclaimer

ILC Tas has made every reasonable effort to provide current and accurate information in this publication as at 11 July 2014 but cannot guarantee that all information given is correct. For a complete knowledge of building requirements you should consult the appropriate current Australian Standards, National Construction Codes and Tasmanian Government Legislation, and get professional advice when making decisions about building design. ILC Tas takes no responsibility for people choosing equipment or services which will cause (or be alleged to have caused) loss or injury.

## Contact ILC Tas for more information



Ring **1300 885 886** to speak to a health professional



Visit our website [www.ilctas.asn.au](http://www.ilctas.asn.au) or email us at [ilc@ilctas.asn.au](mailto:ilc@ilctas.asn.au)



Make an appointment to visit our centre at **275 Wellington Street, South Launceston**



Ring us to find out when we will be visiting your area

ILC Tas is a not-for-profit organisation and does not sell equipment.

Supported by the Crown through the Department of Health and Human Services and the Australian Government Department of Health. Although funding for this service has been provided by the Australian Government, the material contained herein does not necessarily represent the views or policies of the Australian Government.