

Home Modifications Booklet III 2007

Bathroom and Toilet

Spina Bifida and Hydrocephalus Queensland and Montrose Access

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Acknowledgements

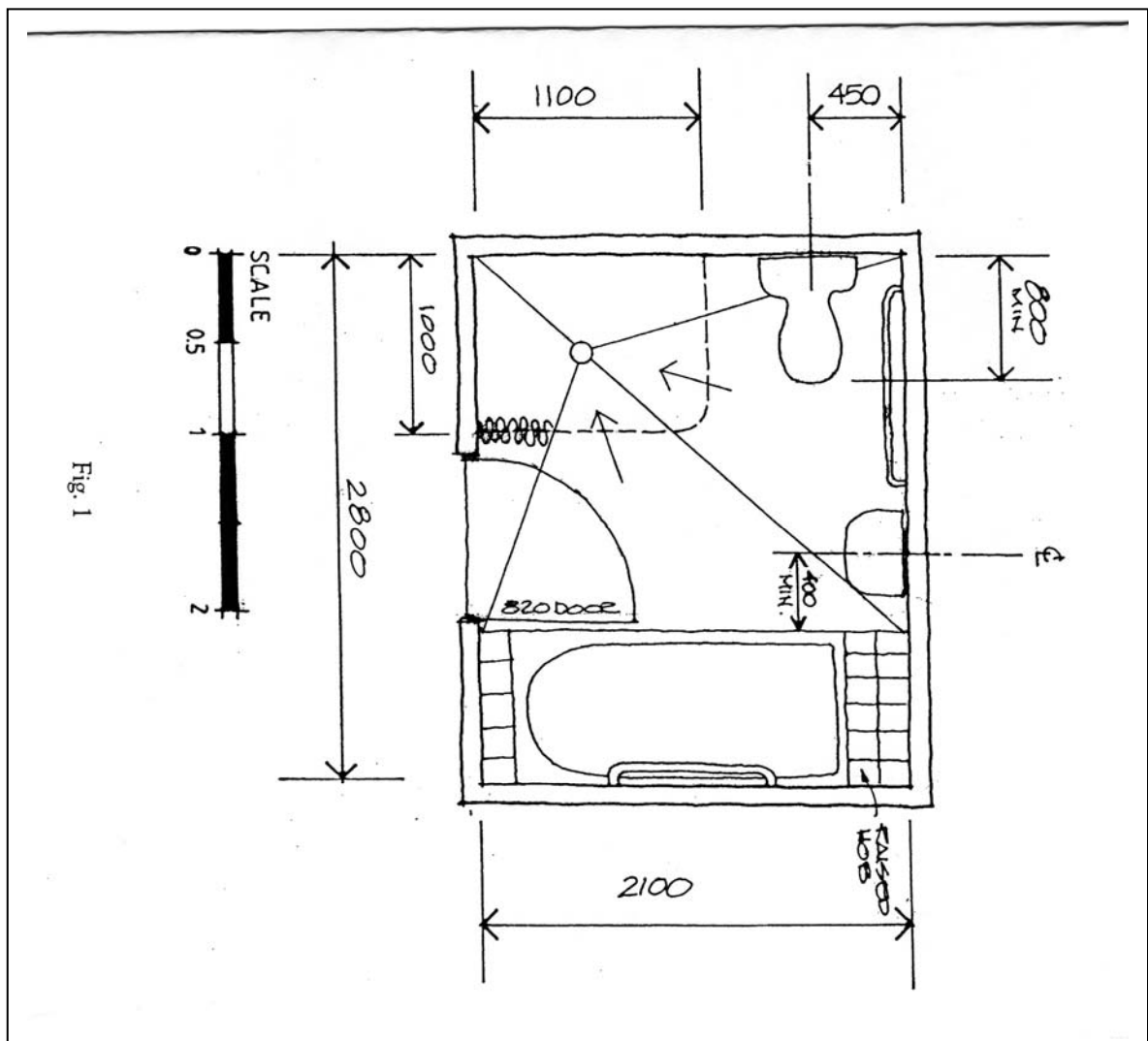
Originally devised by Mary Rydstrom

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Table of Contents

BATHROOM AND TOILET	4
BATHROOM.....	4
BATHROOM.....	5
<i>Purpose</i>	5
<i>Time</i>	5
<i>Layout</i>	5
<i>Doors</i>	7
<i>Walls and flooring</i>	7
<i>Shower recess</i>	8
<i>Shower screen</i>	9
Option 1: Fixed shower screens.....	9
Option 2: Shower curtain and track.....	10
<i>Shower floor</i>	11
Option 1: Full shower floor/shower platform.....	11
Option 2: Stepless shower base.....	11
Option 3: Hobless shower base.....	12
Option 4: Shower tray.....	12
<i>Hand-held shower hoses</i>	13
<i>Shower seats and stools</i>	15
Option 1: Wall mounted shower seats.....	15
Option 2: Shower chairs and stools.....	15
<i>Mobile shower/commode chairs</i>	16
Features of mobile shower/commode chairs:.....	17
<i>Baths</i>	18
Option 1: Non-slip flooring and grab rails.....	18
Option 2: Bath boards and seats.....	18
Option 3: Tub transfer bench.....	19
Option 4: Bath hoist.....	19
<i>Grab rails</i>	20
What to Consider.....	20
<i>Taps</i>	21
What to consider.....	21
Features to consider.....	21
<i>Thermostat and tempering valves</i>	21
<i>Thermostat and tempering valves</i>	22
<i>Ventilation and lighting</i>	22
Windows.....	22
Extractor fans and heaters.....	22
Lighting.....	22
<i>Toilet</i>	23
Grab rails and over toilet frames.....	23
Raised toilet seats.....	24
Padded toilet seats.....	24
Bidet toilets.....	24
<i>Hand basin</i>	25
Option 1: Wall mounted hand basin.....	25
Option 2: Hand basin set in vanity unit.....	26
<i>Additional bathroom fittings</i>	26
APPENDICES FOR BATHROOM SECTION.....	28
Appendix 1- Bathroom modification and equipment suppliers.....	28
Bathroom Appendix 2- Blank Drawing Templates.....	35
Bathroom Appendix 3- Example Bathroom layouts.....	39

Bathroom and Toilet



Bathroom planning for people with disabilities. (ILC NSW, 1994)

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Bathroom

Purpose

The following will outline what needs to be considered when modifying a bathroom, possible options and where to find more information.

Modifications in the bathroom and toilet are often required for people with poor mobility or people who require a wheelchair to mobilise. The extent of the modifications is dependent on the level of function of the person with the disability. Therefore when doing bathroom modifications it is important to consider their current abilities and also their future abilities.

What to consider when modifying a bathroom

Time

- Bathroom modifications can take months to complete.
- Where will the family shower for that period? Consider portable bathrooms.
See bathroom appendix 1

Layout

- What features are needed in the bathroom (ie. shower recess, bath, vanity unit, hand basin, toilet and a door)
- Size of the bathroom (ie. the space available)
- Circulation space required
- What is already in the bathroom (ie. if you are modifying your own bathroom)

How much circulation space do you need?

- Adequate circulation space (ie. turning space for a wheel chair) is required to ensure that the person in the wheelchair is able to move freely around the bathroom and toilet.
- A central circulation space of approximately 1600mm x 1400mm (AS1428.1 2001) is required in the bathroom to enable access to all areas of the bathroom.

Ideas for achieving ideal circulation space

- Combining the toilet and bathroom into one room if they are side by side by removing the wall between them. However, this may be inconvenient if there is only one toilet in the house.
- The shower recess could only have two fixed walls with no screens or hobs to create more circulation space.
- A door that swings can be changed to a sliding door to create more space.

How does what is already in my bathroom affect the modified layout?

- It is practical to keep what is already in the bathroom where it is for plumbing reasons.
- For ideas on general layouts of bathrooms for people with varying disabilities see
 - www.smarthousing.qld.gov.au for information on how to plan when building or renovating your home to ensure it meets your needs now and in the future.
 - See bathroom appendix 3 8 for example of bathroom layout

Doors

- A door that swings out from the bathroom or a sliding door may be appropriate as it may provide more space in the bathroom. See section on internal doors for more details.
- For safety it is important to have a lock which can be opened from the outside.
- Handles need to be easy to manage if the user has weak arms and hands. Lever type handles are usually better than round turning handles.

Walls and flooring

- To ensure safety it is suggested to remove mats in the bathroom.
- It is suggested to have slip resistant flooring in the bathroom. See section on slip resistant flooring for more details.
- If you are going to have a shower without screens it may be useful to have walls that are waterproof because of the greater area exposed to water.
 - A flexible waterproof, vinyl wall covering that can be used as wall protection in shower/bath areas or generally indoors is available from flooring contractors and trades people.
 - See bathroom appendix 1 for products and suppliers

Shower recess

- Generally there are two types of shower recesses
 - **Walk in shower**, where there is a hob that is stepped over to get in the shower
 - **Wheel in shower**, where there is **no** hob or a hob with a ramp, this option is more accessible to people in wheel chairs or mobile over toilet shower chairs
- The shower recess is best situated in the corner with at least two fixed walls and preferably not next to a window as there would be a need to waterproof.
- If there is a door to the shower, it should be at least 1160mm (AS 1428.1, 2001) wide to allow shower commode chair access. The floor of the shower recess should have a minimum dimension of 1160mm x 1100mm (AS 1428.1, 2001).
- If there are no shower screens the floor should slope downwards to the drain to avoid pooling of water.
 - The slope of the floor of the shower recess should have a gradient of 1 in 60 (AS1428.1, 2001).
 - The drain should be situated in the centre of the floor of the recess (AS 1428.1, 2001).

Shower screen

Option 1: Fixed shower screens

- Fixed shower screens are not usually recommended, as they usually require bottom tracks, which can be as falls hazard. However, there are shower screens available without the tracks that have a pivot or sliding door as shown below.
- If you already have shower screens and your door is at least 1160mm (AS1428.1, 2001), the hob/track can be removed and a door with rubber fittings inserted.
- The Australian standard (1428.1, 2001) suggests that doors should be operable or removable from the outside in case of an emergency. The door should also open to a clear space.
- Features of shower screen without track
 - Sit flush to the floor and are sealed with silicon to prevent leakage of water.
 - The bottom of the door has rubber fittings to prevent leakage.
 - They can be customised to fit any size.
 - See bathroom appendix 1 for products and suppliers



Shower glass screen
(Kewco products, 2007)

Option 2: Shower curtain and track

- Existing fixed shower screens can be removed and replaced with a shower curtain attached to a rail around the shower recess.
- Considerations
 - The shower curtain should go to the floor and be weighted in the bottom to prevent it from moving.
 - The installation of the right-angled ceiling tracking should be 1800mm from the floor level.
 - There are pros and cons to removing the shower screens. Removing the screens enables easier access and more circulation space. However, removing the screens may cause water damage to bathroom features, increase risk of falls and create more mopping work.
 - See bathroom appendix 1 for products and suppliers



Cardell Manufacturing Custom Made Shower Curtain. (Lifetec QLD, 2007)

Shower floor

There are several ways the shower recess can be modified to create a wheel in shower.

Option 1: Full shower floor/shower platform

- This is where a shower platform is inserted in the shower, level with the hob and a small ramp is put at the shower door to allow wheel in access.
- There needs to be enough room in the shower to accommodate a shower commode chair.
- The platform can be made out of timber or marine ply.
- This option is useful for people that are renting or require a temporary solution.
- See bathroom appendix 1 for product list and contractors

Option 2: Stepless shower base

- The shower screens and hob is removed, the floor is modified and a pre-moulded fibreglass shower base is installed flush with the surrounding floor. It is an alternative to casting a concrete self-draining floor.
- It is recommended that a slip resistant surface be used with the base
- Details
 - The base is manufactured with a slope that leads down to the drain.
 - It can be installed by the supplier, a handyman or builder.
 - It comes in eleven sizes or it can be custom made.



Disability Modifications Stepless Shower base.
(Disability Modifications, 2007)

Option 3: Hobless shower base

- This is a synthetic china prefabricated shower base that is fitted into the pre-existing shower.
- It does not require any recessing and it can be fitted into the shower so that it is level with the hob.
- There are seven sizes available and it is supplied as a kit for a plumber to install.
- See bathroom appendix 1 for products and suppliers

Option 4: Shower tray

- The pre-existing shower screens and hobs are removed and replaced with a shower tray, which is fitted on top of the floor.
- It is a pre-moulded fibreglass tray with a 60mm built in ramp.
- They have a built in slope down to the centrally located drain.
- The tray is non-slip and comes in a variety of shapes and sizes. It can be installed by a tradesperson.
- See bathroom appendix 1 for products and suppliers

Hand-held shower hoses

- A hand-held shower with a flexible hose may be installed to allow the person in the shower commode chair to shower independently.
- It is also easier for a carer to use when assisting with showering.
- It is recommended that the hand held shower hose be installed on a sliding friction mount on a grab rail. (As shown in picture).
- The shower hose needs to be well controlled to avoid spraying of water onto floors, bathroom fixtures and electrical points.
- See bathroom appendix 1 for products and suppliers



Con-Serv slide rail kit
(Con-Serv, 2007)

Features of hand held shower hoses

Height

- The hose can be set at a fixed height (ie. with a wall bracket) or an adjustable height (ie. with a sliding friction mount on a vertical grab rail).
- If the shower hose is to be set a fixed height, it needs to be set at a height that the person in the commode chair can reach. This height may not be convenient for other people in the household.
- The adjustable friction mount shower hose may be more useful as it can be moved from varying heights depending on the length of the grab rail and is therefore reachable for everybody.

Length and type of hose

- Hose can come in many lengths, therefore consider length before purchasing
- Hoses can be made out of nylon or metal
- Hand piece also can be made of nylon or metal. Nylon is generally lighter than metal, and is non-heat conducting which may be an advantage to the user.

Adjustment of water pressure:

- The water pressure can be adjusted at the shower taps or via the showerhead.
- The water pressure can be adjusted to varying levels of fine to massage strength.

Other features to consider:

- Option of fingertip control to turn of the water flow, which is useful for people that find it difficult to turn the taps.
- Options available for houses that use tank water.
- For safety it may be useful to use a thermostatic mixer tap. Refer to section on thermostat taps.
- It may also be possible to attach the shower hose directly to the spout.
 - Less expensive option, as major modifications are not required.
 - See bathroom appendix 1 for products and suppliers
- Can have handle on shower hose to assist with reach.
- When installing a hand held shower hose, it is important to consider electrical safety. There are Australian Standards (AS/NZS 3000:2000, Amendment 3) that need to be met when installing a hand held shower hose in the shower or bath.
 - A partition is recommended whether it is a screen, door or curtain for safety reasons.
 - If there is a partition in place a hand held shower hose can be installed as long as there is no general power outlet or light switch with in 600mm of the barrier.

Shower seats and stools

- Shower seats/chairs are useful for people who are mobile but who fatigue quickly, they allow people to conserve their energy by sitting.
- In combination with the seat a hand held shower hose is usually used and grab rails if needed.
- Do not use outdoor garden plastic chairs as they crack under hot temperature and not safe
- What to consider
 - Cost
 - Size
 - Physical support required
 - Ease of use for the user and family
 - Room in the shower
 - Ability to transfer.



Auscare shower chair.
(Lifetec, 2007)

Option 1: Wall mounted shower seats

- They are suitable for multi-users and take minimal space as most fold away. See bathroom appendix 1 for products and suppliers.

Option 2: Shower chairs and stools

- These are plastic freestanding chairs that are suitable for showers as they have non-slip feet.
- A chair with armrests can assist people to get on and off more easily.
- Stools come with and without armrests and can take up less room in the shower.
- Ensure the chair is the correct height for the person to get on and off (ie. the edge of the seat should be level with their knees).

- Most shower chairs come in a range of models to suit different sizes and with or without drainage holes.

Mobile shower/commode chairs

- A mobile shower/commode chair is a wheelchair, which may be used in the shower, over the toilet, or with a pan fitted under the seat as a commode chair.
- These allow the person with the disability to be wheeled directly into the shower (if the shower is wheelchair accessible) or over the toilet.
- There are mobile shower/commode chairs, which are designed for children. See bathroom appendix 1 for products and suppliers.



K-Care Push/Transit Shower/Commode Chair (ILC, South Australia, 2007)

There are two main types available:

- **Attendant-propelled chairs:** have four small castors and handles at the back of the chair to allow a parent/carer to push. The brakes are fitted to the castors.
- **Self-propelled chairs:** are fitted with two large rear wheels, which allow the people to push themselves. Brakes are fitted to the frame (as shown in picture).

Considerations

- Not all mobile shower chairs can be used over the toilet.
 - It is important to check the specific size and style.
 - According to the Australian Standards (1428.1, 2001) most toilets are a height of 460-480mm and a width of 400mm.
 - It is recommended that you trial the chair over your existing toilet to ensure good fit.
 - Toilet style or location of pan may be altered to allow the mobile shower chair to be used over toilet.
- The Queensland Government Medical Aids Subsidy Scheme (MASS) may agree to pay for all or part of these aids for eligible people.
- An Occupational Therapist can arrange trial of them in the home and apply for these aids through MASS.

- They are also available for trial from some major pharmacies, though there may be a cost

Features of mobile shower/commode chairs:

Frame:

- Stainless steel (rust resistant).
- Mild steel epoxy-coated or chromed.
- Pre-zinc dipped to retard corrosion.
- Plastic
- Folding (for easy storage) or non-folding (usually cheaper)
- Range of widths and heights
- Tilt in space function

Castors:

- Brakes on front or rear castors.
- Brakes on all four castors.
- Track locks on front or rear castors

Wheels:

- Solid or air pumped tyres
- Push rims

Seat:

- Solid (eg. made of fibreglass or plastic) or padded seat (eg. foam covered in vinyl)
- Open seat (ie. opening at the front of the seat to allow easier access for cleaning)
- Closed seat (ie. no opening at the front of the seat, which is easier for transfer)
- Full round hole (for commode use) or no hole
- Range of sizes or customised seats
- Height of clearance under seat for use of toilet

Armrests:

- Fixed for standing transfer.
- Removable or swing away for side transfers
- Padded armrests

Footrests:

- One-piece footrest that slides under frame or folds upward.
- Swing away detachable foot rests (for easier transfers)
- No foot rests
- Leg rest extensions

See bathroom appendix 1 for products and suppliers

Baths

- Baths or showers over baths are difficult to transfer into for people who have impaired mobility, strength or endurance.
- Many people remove the bath and replace it with a shower recess or a shower recess and smaller bath.
- Refer to section on showers for options.
- If the option of removing the bath is not possible or desirable, options available include.

Option 1: Non-slip flooring and grab rails

- This option is useful for people that are able to transfer into the bath however they require some support to help with balance.
- Refer to section on non-slip flooring and grab rails for details.

Option 2: Bath boards and seats

- This option is useful for people who are have difficulty transferring in and out of the bath.
- A hand held shower hose is required for the person sitting on the bath board. See section on shower hoses for more details.
- The bath board is fitted across the top of the bath and the person can sit on the board to bathe.

Considerations

- The bath needs to have level edges all round to support the bath board.
- A minimum of 20mm on the lip of the bath is required the wall side of the bath for the board to sit safely
- The height of the wall of the bath should be a minimum of 480mm to allow the person in the wheelchair to transfer safely (Bathroom planning for people with disabilities, ILC NSW, 1994).
- However, there are raised bath boards or height adjustable transfer benches available for baths that are too low for transfers.
- The board can be made out of timber or slip resistant plastic
- The bath board can be combined with a bath seat, which is placed inside the bath to enable the person to sit down in the bath.
- A swivel seat on a bath board is also available for ease of transfers and a backrest is also optional to provide more support.



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Medici bat

Option 3: Tub transfer bench

- Transfer benches have two legs outside the bath and two legs inside the bath.
- They allow a person with good upper limb strength to transfer along the bench.
- Can be height adjustable.
- They come with holders for a shower hose or a seat sliding mechanism for people with limited upper limb strength.



Invacare Tub Transfer Bench,
(Lifetec, 2007)

Option 4: Bath hoist

- Bath hoists can be used to transfer people into and out of the bath.
- The hoist can be fixed in place over the bath, on a mobile base, wall mounted or a ceiling track hoist may be used.
- A hoist with a mobile base, may require modification to the bath base to enable the legs of the hoist to fit under the bath.
- See bathroom appendix 1 for products and suppliers

Grab rails

- Grab rails assist people to transfer safely on and off the toilet, to get in and out of the bath, to sit, stand and transfer safely in the shower recess.
- There are several types of grab rails and some are quite aesthetically pleasing.
- The bathroom basin, door, taps, toilet roll holder and towel rail are not suitable items to be used in place of a rail.
- Correct installation is important to ensure the effectiveness of the rail and safety of the person using the rail.
- The positioning of rails depends on the needs of the person with limited mobility, the height of the user and the ability of the wall to support a rail.
- Occupational Therapists can assist with the positioning of grab rails to best suit the person with the limited mobility, and they use AS1428.1-2001 as a guide for the installation of grab rails.
- See bathroom appendix 1 for products and suppliers

What to Consider

Type of finish:

- Stainless steel (with a satin or mirrored finish), chrome, epoxy coated and slip resistant.
- Rails with a slip resistant finish are preferred in wet areas ie. showers and baths.

Construction:

- There must be a clear distance between the inner side of the rail's handgrip and the wall, to allow for finger clearance and forearm support. (50mm-60mm is recommended by the Australian Standards (AS 1428.1, 2001).
- There should be no obstruction to the hand gripping the rail along the top.
- Grab rails must be thoroughly anchored by a tradesperson to meet safety requirements.
- The fastenings, the materials and construction of grab rails should be able to withstand a force of 1100N applied at any position in any direction (AS1428.1, 2001).

Diameter:

- Needs to be comfortable and of a suitable size to allow an adequate grip for the user

- Rail with a diameter of 30-50mm is recommended by the Australian Standards (AS 1428.1, 2001).
- A smaller diameter 25 - 28 mm may be preferred for children and some adults.

Taps

- There are various types of taps and tap handles on the market - these include crystal, capstan or cross bar and lever tap handles
- There are a number of taps with specialist applications such as automatically sensing the presence of hands and starting the flow or foot operated taps.

What to consider

- People who need to use the taps
- Cost of installation
- Ease of operation
- Ease of installation.

Features to consider

- Indicators for 'hot' and 'cold', what size and type of indicators
- Taps with ceramic discs (ie. washer less, which reduces the amount of turn required to achieve water flow)
- Available in stainless steel, brass, gold, chrome, colour finishes.
- Seal valve system, which replaces washers and allow taps to be turned off without tightening and makes turning them on easier.
- Lever handles for wrist or elbow operation, short or long
- Handles be quarter turn or half turn
- Spring-loaded taps (automatically return to off position)
- Hands free sensor taps
- Foot operated mixing valve
- Knee-operated timed flow control



Ewings Lever Handle Set
(Lifetec, 2007)

Access
booklet

you seek professional advice prior to completing a

information is current as of October 2007.

- Generally **lever taps** are recommended as they are easy to operate, require little physical effort or grip strength and can be operated by elbow, wrist, forearm or palm if needed.
- Lever handles are available as dual (one handle for hot and one handle for cold) or single mixers (one handle controls hot and cold water).
- It is recommended that ceramic discs be installed to replace washers in both lever and regular taps. This will reduce the amount of turn required to operate the tap.
- See bathroom appendix 1 for supplier

Thermostat and tempering valves

- There are a few options to control water temperature within the home. Two are thermostats and temperature control valves.
- **Thermostats** can be designed to reduce the maximum heat of hot water going to the whole house or solely to bathroom outlets. The maximum temperature can be set from 35 – 50 °C and may be reset by the householder without requiring a plumber.
- The installation of **temperature control valves** (ie. tempering valves) to regulate water temperature, which is compulsory in new homes, is recommended where any renovation work is done.
- Thermostats and temperature control valves are particularly useful for people with reduced sensation (for example people with spina bifida) as they protect the individual from burns due to sudden bursts of hot water or unpredictable changes in temperature.
- See bathroom appendix 1 for supplier details

Ventilation and lighting

Ventilation is important to maintain body temperature, circulation and sensation.

Windows

- Should be easy to open and close for ventilation and temperature control.
- If the windows are high they may need to be operated by a remote control within the reach of a person using a wheel chair.
- A ventilating fan may be used.

Extractor fans and heaters

- Should be installed if possible, as they are effective and easy to operate by using a switch.
- They also help keep the area dry therefore reducing the risk of infection.
- Some extractor fans are combined with lights, which may be useful.

Lighting

- The safest way to handle overhead lighting is to wire it to a switch outside the door.
- The switch should be horizontally aligned to the door handle for the person in the wheelchair to access easily.
- Refer to section on lighting for more suggestions on switches

Toilet

- If there is more than one toilet in the home you need to consider which toilet is frequently used by the person with the mobility difficulty, which has more circulation space and is more accessible.
- For wheelchair access and to provide more circulation space it is recommended that the bathroom and toilet be combined into one room where possible.
- The toilet door should also be changed to open outwards and at least 950 mm (AS1428.1, 2001) of space is required beside the toilet for transfers.
- Toilet modifications depend on the available space, position of the walls and the position of the toilet. Modifications also depend on whether the person with the mobility difficulty is:
 - Able to transfer on/off the toilet independently but may require grab rails or an over toilet frame for support
 - Using a mobile shower/commode chair to access the toilet
 - Using a wheel chair to access the toilet.

Grab rails and over toilet frames

- Help people with a mobility difficulty to be independent with transferring on/off the toilet. The positioning and type of grab rails depends on several factors outlined in the grab rails section.
- For people who use a wheelchair one side of the toilet needs to be clear to allow the person to transfer. A horizontal rail may be fitted onto the wall closest to the toilet, to help the person pull their self across from the wheelchair onto the toilet. People who use a mobile shower commode may not need a grab rail.
- Removable grab rails can also be fitted to the toilet cistern if the walls are not close enough to the toilet. However, these are not as sturdy as wall mounted grab rails. If there is limited room in the toilet a fold down grab rail can be mounted to the wall behind the toilet. See bathroom appendix 1 for products and suppliers
- An over toilet frame assists people who have difficulty getting on/off the toilet. It has armrests and some have a raised toilet seat. It is an option that does not require any modifications made to the toilet. See bathroom appendix 1 for products and supplier details
- A range of over toilet frames is available from most major pharmacies.



Raised toilet seats

- Enable people to get on and off the toilet more easily. It is a seat that sits on the toilet. See bathroom appendix 1 for products and suppliers

Padded toilet seats

- Are used to help prevent pressure areas and skin breakdown if long periods of time are required on the toilet. See bathroom appendix 1 for products and suppliers
- A range of padded toilet seats are available from most major pharmacies

Bidet toilets

- Are useful for people with very limited upper limb function, as it enables them to clean themselves by operating a bidet.
- Fully plumbed bidets, which replace the toilet or less expensive removable models, are available. See bathroom appendix 1 for products and supplier detail

Hand basin

- The hand basins need to be accessible to the person in the wheelchair. Therefore the hand basin needs to be at the correct height and provide sufficient room underneath the basin to fit the person's feet and legs.
- Also consider the person with upper limb impairment needs to be able to use the taps (see section on taps for details), access storage, and use the mirror and power points.
- Hand basins may be either wall mounted or set into a vanity unit.
- To provide wheelchair access to the basin, installation should comply with AS1428.1-2001 however the dimensions may need to be adapted to fit an electric wheelchair.

Option 1: Wall mounted hand basin

- If the basin is partly set in the wall there are standards that need to be met. For a manual wheelchair, the basin should be wall mounted at 770 to 800mm above floor level and provide a minimum clearance of 640 to 650mm high underneath the basin (AS1428.1, 2001).
- A toe recess (space for the feet) of 190 to 200mm is required (AS1428.1, 2001).
- The pipes should not be in the required circulation space. Preferably the pipes should be concealed in the wall. However, if the pipes are exposed they should be insulated to avoid burns.
- Taps should be easy to reach and use, with lever taps preferred. A distance of 300mm from the end point of the lever tap to the front edge of the basin is required (AS1428.1, 2001).
- The plug should be easy to reach and use. It should be connected to or be part of the washbasin.
- Soap recesses can be a moulded part of the basin and can be on one or both sides of the basin. The use of a soap dispenser may be an alternative option.
- The need for a shelf or bench space should be considered. Some wall-mounted basins may have a wide ledge on the side for use as a small shelf, and semi-recessed basins offer the opportunity for an extended vanity shelf.

Option 2: Hand basin set in vanity unit

- A wheelchair accessible vanity unit may be built to allow wheelchair access with footplates and knee space under basin.
- If both ambulant people and people who use wheelchairs are sharing the basin, a vanity bench with a compromise height of 850mm is suggested. The open area under the vanity should have a clearance of 680-700mm by 750mm wide. There are height adjustable wash basins available.
- The vanity bench can be a minimum length of 1200mm and a minimum width of 510mm and a toe recess of 200mm by 200mm.
- Drawers at the side of the basin are preferred to cabinets as they are easier to open and retrieve things when in a wheelchair. If possible it is recommended that the drawers be on the wall side of the vanity unit.
- If possible, the corners of the unit should be rounded for safety reasons.
- If a mirror is to be used by people who are ambulant and people who use wheelchairs, it is suggested to be mounted so that the bottom is 1 tile above the bench height. It can be tilted down by a 5 degree angle for the person using the wheelchair or it can be lower for children.
- See bathroom appendix 1 for wash basin products and suppliers

Additional bathroom fittings

When designing or renovating your bathroom, accessories are the finishing touch to personalise your new bathroom. You may choose to add a soap holder, soap dispenser, toothbrush holder, toilet roll and spare toilet roll holder, toilet brush and holder, shelving, towel rails, towel ring or robe hooks.

Some helpful hints to consider:

- Soap holders should be recessed if possible to prevent injury at 1m above floor level
- Soap on a rope is handy to prevent the slippery soap dropping

- A small lip or step at the entrance to the bathroom may make wheelchair access difficult. Consider installing a wedge and if designing a new home or bathroom avoid steps to the bathroom.
- Towel rails can be replaced with grab rails where possible
- Long handled sponges and brushes to wash hard to reach places including back, feet and legs. See bathroom appendix 1 for products and suppliers
- Consider purchasing an 'indispenser shower organiser'. This device dispenses soap, shampoo and conditioner with the press of a button. See bathroom appendix 1 for suppliers.
- Shelving suitable to be attached to grab rails could be purchased for storage of shower items such as soap and scrubbing brushes.

Appendices for Bathroom Section

Appendix 1- Bathroom modification and equipment suppliers

This is by no means an exhaustive list and it is suggested you consult your occupational therapist when considering purchasing equipment and completing home modifications.

Portable Bathrooms

- Available from Freedom off road (sales and hire). 46 Brisbane rd Labrador QLD. Phone 0417 409 917. See <http://www.portablebathrooms.com.au/> for more information

Vinyl wall covering

- Armstrong Wall Flex Wall Covering: available from MJS Floor Coverings on (07) 3849 4888. Cost is from \$40-\$45 per square meter installed and it is available in a range of colours.

Shower screens and tracks

- **Shower glass screens:** available from Kewco Products on (08) 8298 2555. Cost is from \$425. Visit the web-site www.kewco.com.au to view products. <http://www.kewco.com.au/products.htm>
- **Pivotech Phoenix Sill-Less Shower Screen Doors:** available from Shower Screen Logic on (07) 3889 7400. Cost: P.O.A
- **Mini Mono Shower Curtain Track and Custom Made Shower Curtain:** Customised shower curtain track suspended from the ceiling and the curtain is weighted. Available from Cardell Manufacturing on (07) 3358 3911. Cost: P.O.A
- **Altrack Shower Rails:** available from Bunnings Hardware, Mitre 10, True Value Hardware Stores, Reece Plumbing Centers and Tradelink Plumbing Supplies (check Yellow Pages for nearest retailer).

Shower curtain

- **Shaw Extra Long Shower Curtain:** curtain is 2130mm long and 1800mm wide. Available from Wyatt Agencies (07) 3822 8858, cost is \$34- \$36

Shower floor contractors

- **Home Assist Secure:** need a referral from an Occupational Therapist. If any queries ring a HAS service and refer to numbers provided in services and organizations section.
- **Small home modifications:** refer to the section on small home modifications for a list of contractors.
- **Morris Surgical (Brisbane):** will manufacture the shower platform and the ramp. They require the dimensions to be faxed to them for a quote. Contact on (07) 3357 5944.

Shower base

- **Stepless Shower Base:** available from Disability Modifications on (07) 3297 5328. Cost is from \$516- \$1092.
- **Sirama Hobless Shower Base:** available from Sirama on (02) 9769 0800. Cost is from \$190- \$371.

Hand Held Shower hoses

- **Argent Hand Shower Set (Grohe):** includes stainless steel slider/grab rail and a 1500mm flexible hose. Cost is from \$253 and its available from Argent Australia on 1300 364 748, Tradelink Plumbing Supplies, Plumbtec (see White Pages for nearest store).
- **Parahealth Hand Shower:** is available in three models: standard, on/off (press on/off button on the head to control water) and pulse (soft spray or massage shower). It is lightweight with a hose of 2000mm and is either mounted on a stainless steel slider/grab rail or an angle adjustable wall bracket. Cost is from \$151- \$164 and its available from Flexispray on 1800 035 330.
- **Hansa Star-Safe Healthcare Shower Set:** includes slider/grab rail and a 1600mm flexible hose. Cost is from \$352 and is available from Starion Industries on (07) 3630 6800 and Tradelink Plumbing Supplies (see Yellow Pages for nearest store).
- **Con-Serv slide rail kit:** All showers are licensed under Australian Standards and the Water Efficiency Labelling and Standards scheme (WELS). Available from All Bathroom Gear Pty Ltd South Brisbane on (07) 3844-9180 and Tradelink Plumbing Supplies (See Yellow Pages for nearest store)

Shower hose directly to spout

- **A & M Henry Hand Shower with Screw tightened Adapters:** cost is \$37- \$56 and it can be purchased from A & M Henry on 1800 243 679.
- **Hand Shower with Screw Tighteners:** available from Mitre 10 (see White Pages for nearest store)

Folding shower seats

- **Dalco Fold Away Shower Seat:** wall hung, folding shower seats available in a variety of materials including aluminium, timber and clear acrylic. Come in a range of sizes and accommodate a range of weight. Cost is from \$275. Available from Tradelink Plumbing Supplies (see white pages for nearest retailer).
- **Hand Rail Industries Folding Shower Seats:** wall mounted fold up shower seats in a variety of styles and sizes. Some models have support legs, which extend to the floor.

Other models do not have legs, which enables them to be installed at any height. Cost is from \$245 - \$655 and is available from Collis Marketing Service on (07) 3805 6664

Shower chairs and stools

- **Auscare Shower Chair:** is a plastic contoured seat with drainage holes in the seat and back. It is available in one model with height adjustable legs and arm rests. Cost is from \$95 and is available from Harban Surgical on (07) 5500 5109 and Disability Solutions Australia on (07) 3808 8166.
- **K-Care Shower Chair:** moulded plastic shower chair with large drainage holes available in a variety of models. Available with height adjustable legs and arm rests. A special wide model is also available. Cost is from \$91-\$175 and is available from Evocare on (07) 3355 8000.
- **K-Care Shower Stool:** Epoxy coated stool with adjustable legs and a forward sloping seat. Available in several styles and with different options including padded seat, armrests and backrest. Available from Evocare (Previously L &M equipment). Phone Number: 07 3355 8000
- **Shower Chairs and stools:** are available from most chemists. See yellow or white pages for nearest chemist.

Mobile over toilet shower chairs

- **K-Care Mobile Self Propelled Shower/Over Toilet Chair:** stainless steel, self draining fibreglass seat, backrest, swing away removable foot plates, swing up armrests and large diameter rear wheels. Also available in a folding model and a range of sizes. Cost is from \$1103 - \$1363 and is available from Evocare equipment on (07) 3355 8000.
- **Glide Mobile Shower/Over Toilet Chair:** stainless steel frame with arm and foot rests. Available in self-propelled, attendant-propelled, non-folding and folding models. A child/junior version is available, with a customised seat on the standard adult size frame. Cost is from \$1103- \$1363 and is available Evocare equipment on (07) 3355 8000
- **Thompson Mobile Shower/Over Toilet Chair:** non-folding or folding model and self-propelled or attendant propelled model available. Swing away arm and leg rests. Padded, vinyl covered seat. Cost is from \$911 - \$1159. Available from Apollo Medical on (07) 3633 5888.

Mobile over toilet shower chairs designed for children

- **Otto Bock Child Mobile Shower Commode Chairs:** A range of attendant propelled and self propelled shower commode chairs suitable for children. Cost from \$1102 - \$1212. Available from Active Medical Supplies. Phone: (07) 3899 8887
- **R82 Flamingo Toilet/Bath Seat:** A folding, wheeled, adjustable toilet/shower chair for children available in four sizes. It has an aluminum and stainless steel frame and polyurethane seat. The seat features a tilt in space function and the backrest can be angled independently. Cost from \$2044 - \$2328. Available from Mobility Plus Wheelchairs. Phone: 0417495222

Bath board

- **Medeci Bath Board:** plastic slatted bath board with brackets that adjust under each end of the board to fit it to the inside width of most baths. Available in three widths. Slip resistant pads. Cost is approximately \$72 and is available from Disability Solutions on (07) 3808 8166.
- **Homecraft Ascot Combined Board and Seat System:** padded bath board, which fits across the top of the bath as well as a padded in-bath seat with a cut out and a built in backrest. This system can assist a person with reasonable arm function to transfer up and down into the bath water, by providing two levels. Cost approximately \$478 and is available from Morris Surgical on (07) 3357 5944.

Transfer Benches

- **Guardian Economy Transfer Bench:** slip resistant plastic or padded foam vinyl, backrest, suction feet, one rail and height adjustable. Comes in a range of sizes. Cost is from \$241- \$430 and is available from Disability Solutions on (07) 3808 8166.
- **Invacare Tub Transfer Bench:** handrail, height adjustable legs, plastic or a padded vinyl seat and backrest. Cost is from \$147 - \$482 and is available from Morris Surgical on (07) 3357 5944 or Apollo Medical on (07) 3633 5888.
- **Arjo Autolift Bath Hoists:** lifts the person into and out of a bath and allows the attendant to transport the person to the bath. Cost is from \$2630-\$5070 and is available from Arjo Hospital Equipment on (07) 3395 6311.
- **Arjo Maxi Sky 440 Portable Ceiling Lift,** A portable, ultra light ceiling hoist with a battery powered vertical movement using a hand held control, range of clings and tracking options. Available from Arjo Hospital Equipment on (07) 3395 6311.
- **Homecraft Bathmaster:** battery operated seat that sits inside the bath and has an electric lowering and raising function. This equipment is suitable for people who enjoy having a

bath but are too big to be lifted in or out of the bath. It has four suction feet, removable padded seat and backrest. Suitable for rectangular or corner baths. Cost from \$2306 - \$2992 and is available from Morris Surgical on (07) 3357 5944 and Surgical Synergies on 1300 473 422.

Grab rails

- There is a large range of grab rails available in various materials, finishes and fittings. The prices vary greatly depending on length, width, design and materials used. The prices generally start from approximately \$20. They are available from major hardware stores (see Yellow or White pages for nearest retailer), Evocare on (07) 3355 4577, Morris Surgical on (07) 33575944 and Tradelink Plumbing Suppliers (see Yellow or White pages for nearest retailer).

Lever Taps

- **Ram Lever Mixer Taps:** range of single lever mixer taps for sinks and showers, which blend hot and cold water. Comes in one lever length of 150mm and a range of finishes. These taps can be customised to suit individual needs. Cost is from \$241-\$267 and are available from Tradelink plumbing supplies and Reece Plumbing Centres (see White/Yellow pages for nearest retailer).
- **Enware Lever Action Taps:** range of lever action taps for use in wall or bench mounted positions. There are three lever lengths available and bold colour coding of the entire tap fitting is possible to emphasise the difference between hot and cold. Cost is from \$106-\$292 and are available from Enware Australia on 1800 671 864, Tradelink plumbing supplies and Reece Plumbing Centres (see White/Yellow pages for nearest retailer).
- **Ceramic Discs:** used to replace the washers are available from Mitre 10 (see White/Yellow page for nearest retailer).

Temperature controls

- **Safe-n Easy Hot Water Shut Down Valves:** range of valves, which are applied directly to a shower or bath spout to prevent water over a certain temperature from flowing. Cost is from \$31 - \$38 and is available from Tradelink Plumbing Supplies (see White/Yellow page for nearest retailer).
- **Safe-n Easy Adjustable Tempering Valves:** valve fitted onto water pipes near the hot water system. Cost is from \$113 - \$134 and is available from BBC Hardware and Tradelink Plumbing Supplies (see White/Yellow page for nearest retailer).

Removable grab rails

- **Throne support rail:** available from Throne Accessories Pty Ltd. This support rail is rigidly fixed to the toilet bowl rather than the surrounding wall(s), or floor and is made of powder-coated steel. Phone: (02) 6280 6851 or email throne@throne.com.au

- **Darts (disabled armrest toilet support):** A stainless steel toilet support that is fitted to the back of the toilet to assist with transfers. It is removable and adjustable and the two arms swing up and out of the way for access to the toilet or for side transfers. The left and right arm swing independently of each other. Cost from \$450 - \$588. From Admed Hospital Supplies – Brisbane. Phone: 07 3272 6900.

Over Toilet Frame

- **Auscare Over Toilet Frame** Two models of height adjustable over toilet frames. One model is light weight and made from aluminium. The standard model is made from steel. Both come frames have a plastic seat and are available in white only. Cost is from \$75 - \$95 and is available from Disability Solutions Australia. Phone: 07 3808 8166.

Raised toilet seats

- **Homecraft Savannah Raised Toilet Seats:** seat with large front and rear cut outs to allow for easier personal cleansing. Available in three height sizes, and with or without a lid. Cost is from \$96- \$209 and is available from Morris Surgical on (07) 3357 5944 and Surgical Synergies on 1800 659 385.
- **Cushie-Tushie Potty Seat:** soft padded child sized toilet seat with an inner lip. It fits onto most standard toilet seats to reduce the aperture size. Available from Toys ‘R’ Us (see Yellow/White pages for nearest store).

Bidet

- **Bodygenic Retrofit Bidet:** is a stainless steel bidet unit that can be installed onto any existing standard toilet seat. It sprays cold water to cleanse the perineal area. It is operated by turning a capstan tap or a long lever handle. It also complies with the Australian Standards. Cost is from \$400-\$570 and is available from Bodygenic on (02) 9150 4146.
- **Elio Micro Computer Operated Bidet:** unit with a lid, which replaces a conventional toilet seat and fits most toilets. It features a panel on the right side of the seat with push button control of the front and rear spray jets, water temperature and heated seat. available from Together With Nature on (02) 9956 7511.

Wash basins

- Recommended brands of hand basins include Caroma, Fowler, Rheem and Dorf. They are available from most major hardware stores and bathroom equipment suppliers (see Yellow/White pages for nearest retailer).
- Examples
 - **Caroma/Fowler Semi Recessed Basins:** available in a range of sizes, colours and capacities. Price varies and is available from BBC Hardware and Tradelink Plumbing Supplies (see Yellow/White pages for nearest retailer).

- **Pressalit Care Adjustable Wash Basin Brackets:** the brackets are attached to the wall, which allow vertical and/or horizontal adjustment of a basin. Adjustments can be made with a manually operated lever, with a locking lever/gas cylinder adjustment or with an electric motor. Price varies and is available from Enware on (07) 3865 1033 .

Long handled sponges

- Available from Morris Surgical on (07) 3357 5944 .
- Available from most major pharmacies

Indispenser shower organiser

- Available from Farley's Bathroom Supplies on (07) 3356 8466. Cost \$36-\$63

Bathroom Appendix 2- Blank Drawing Templates

1. Bath/shower over bath

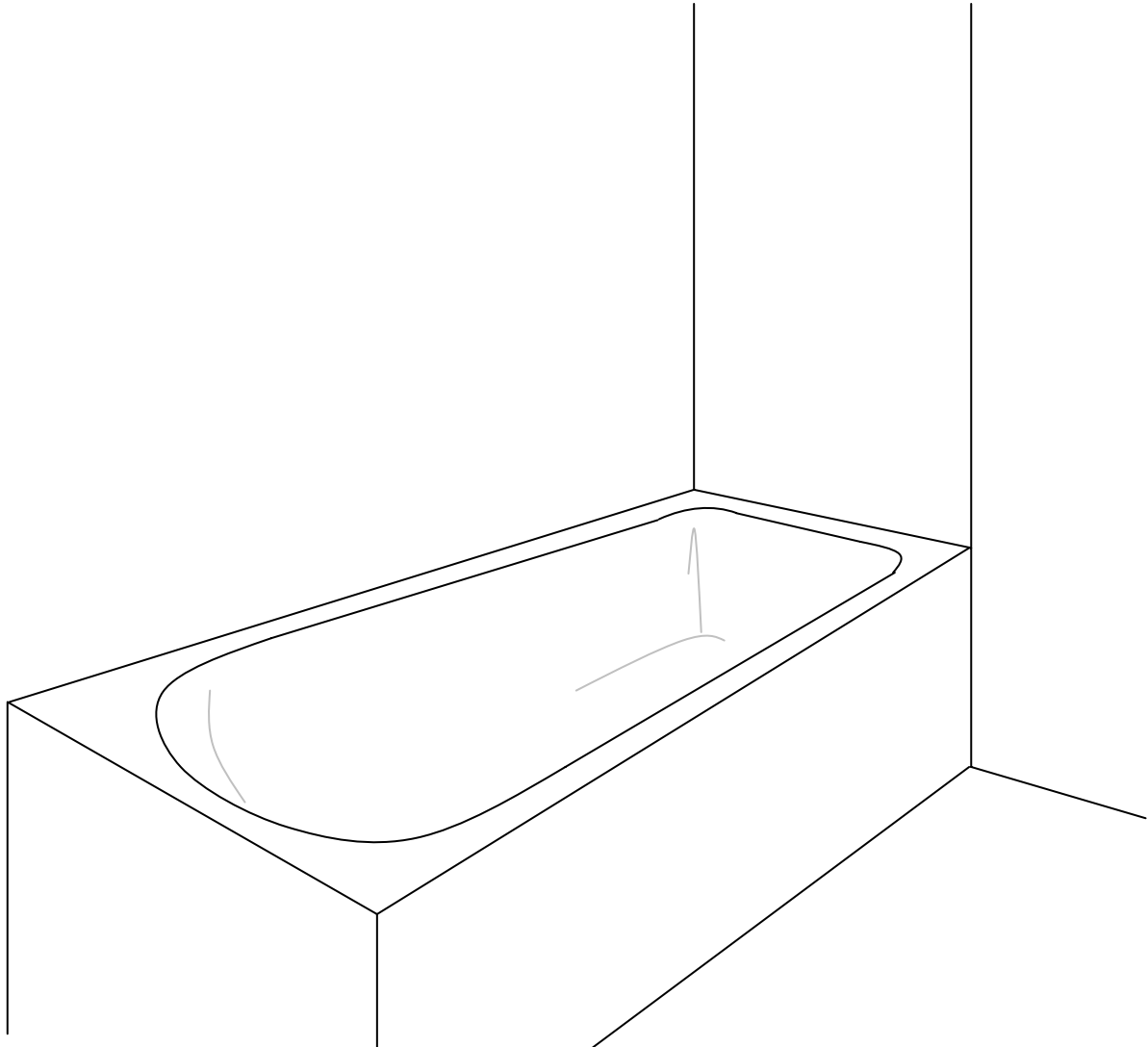


Diagram not to scale.
Wall studs not located.

(Sourced from 'Completing home modification reports: a guide for occupational therapists', 2006)

2. Shower recess with small hob

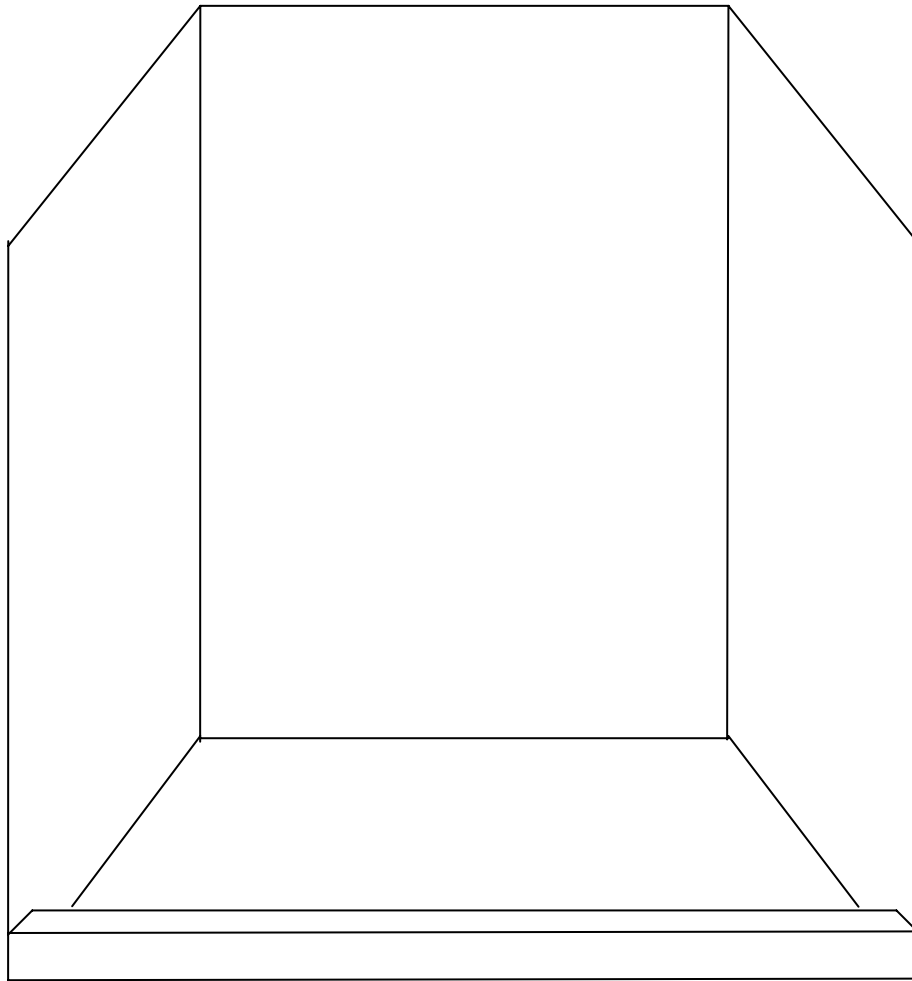


Diagram not to scale.
Wall studs not located.

(Sourced from 'Completing home modification reports: a guide for occupational therapists', 2006)

3. Shower recess – level access

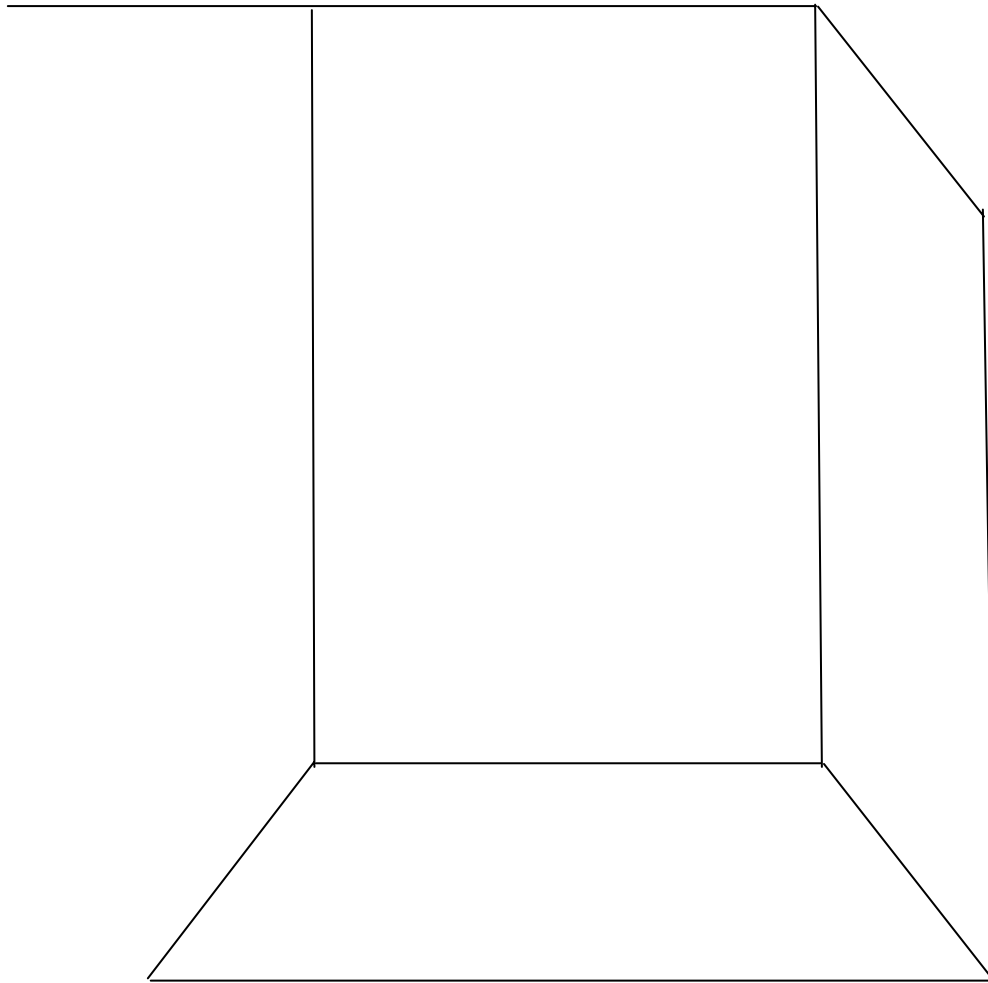


Diagram not to scale.
Wall studs not located.

(Sourced from 'Completing home modification reports: a guide for occupational therapists', 2006)

4. Toilet: side view

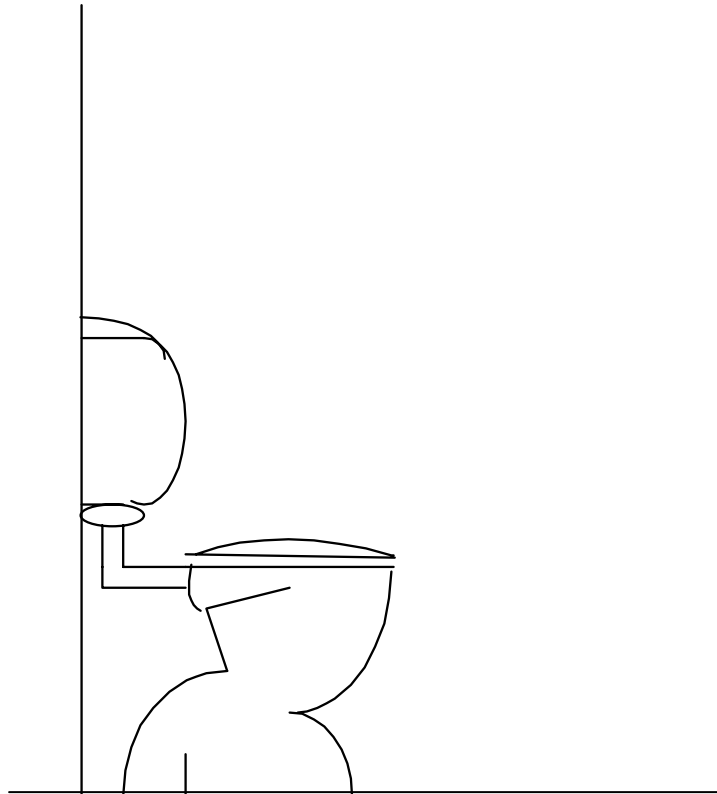
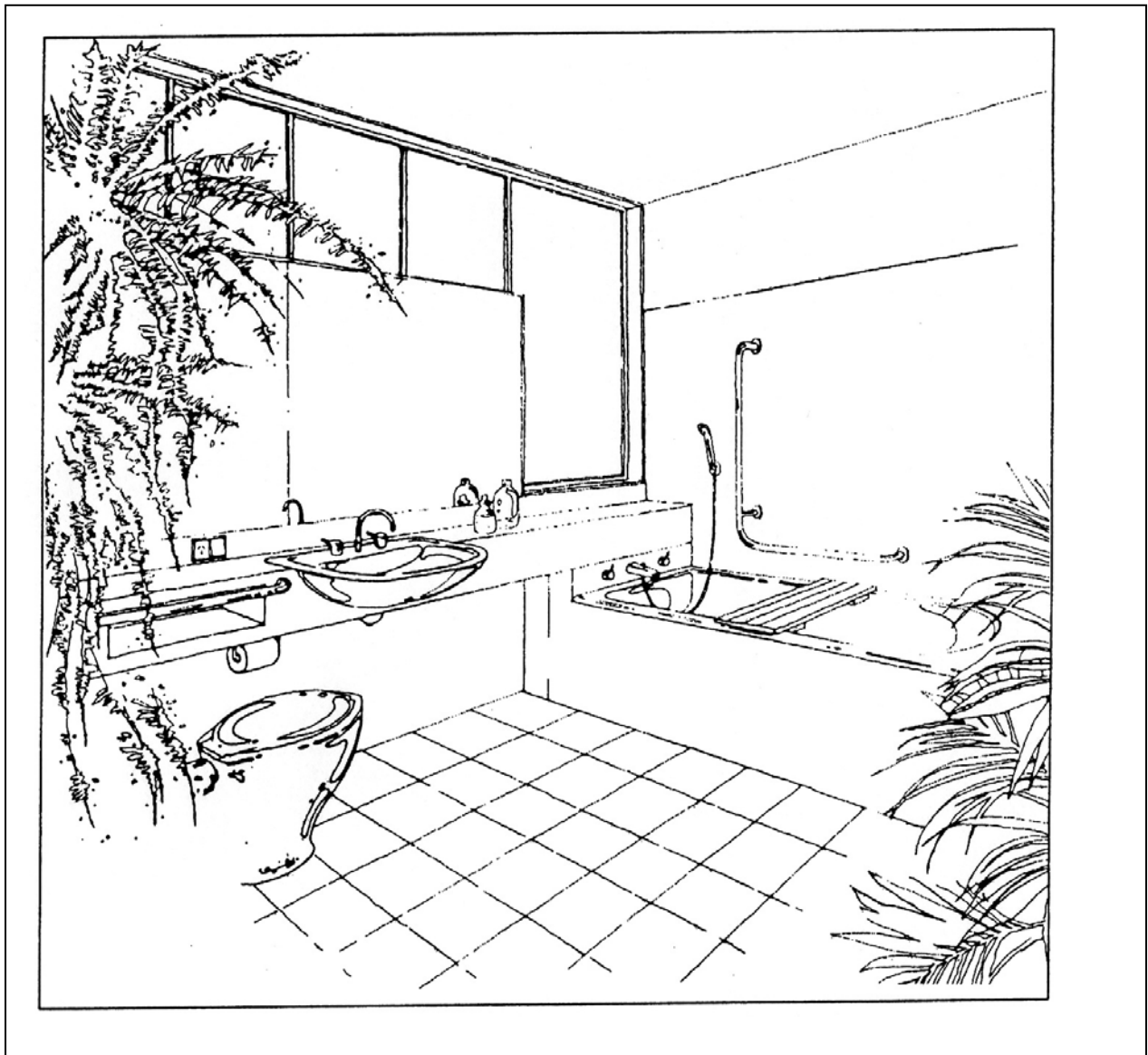


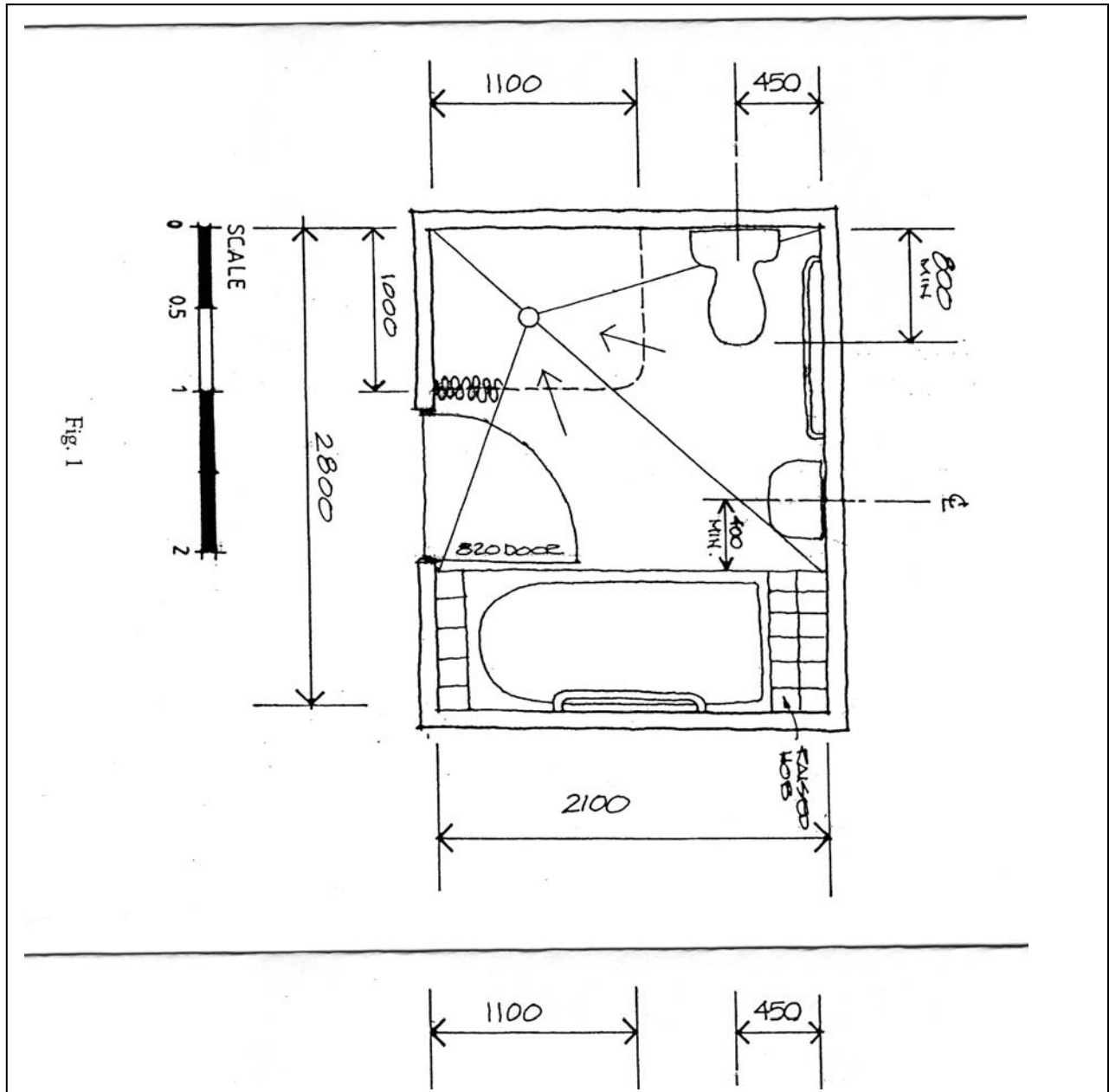
Diagram not to scale.
Wall studs not located.

(Sourced from 'Completing home modification reports: a guide for occupational therapists', 2006)

Bathroom Appendix 3- Example Bathroom layouts



(Sourced from 'Bathroom planning for people with disabilities' ILC NSW, 1994)



(Sourced from 'Bathroom planning for people with disabilities' ILC NSW, 1994)