






5. Accessible Bathroom/Ensuite

Spatial Planning

5.1 Footprint

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.1.1	7-10sqm	Two door entries (particularly with internally hinged doors) are likely to result in the larger room envelope	
<input type="checkbox"/>	5.1.2	Square shape	Centralises and condenses circulation area (maximises usable area and reduces necessary footprint)	  

KEY



Social Inclusion



Affordability



Physical Independence



Amenity

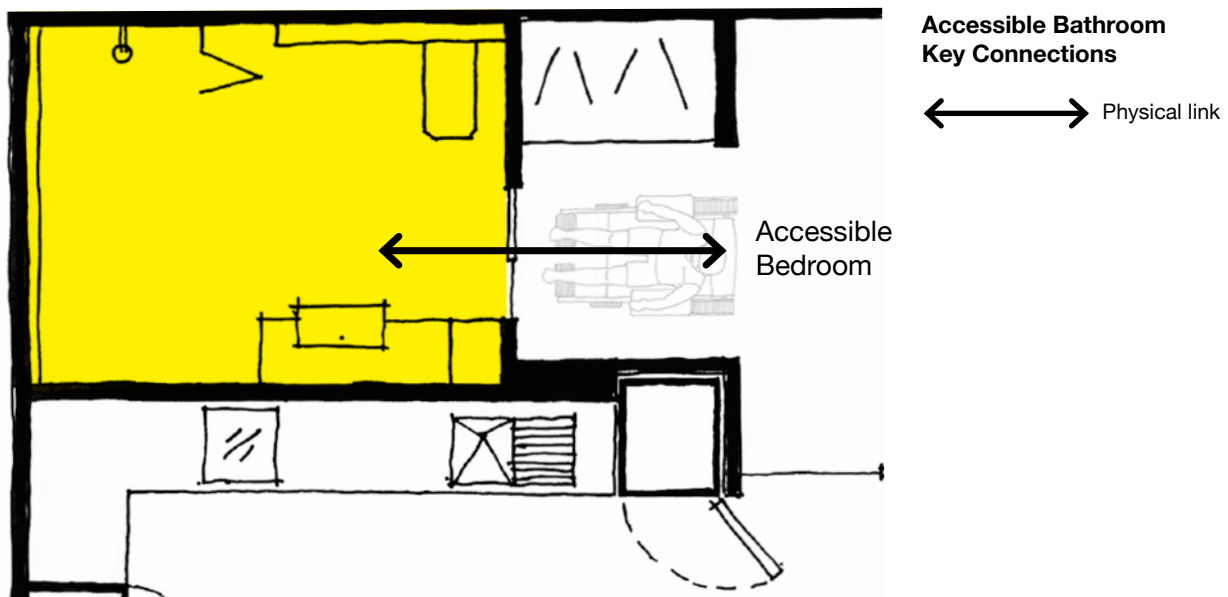


Homelike

Value Colour Code: **Highly Desirable** | Desirable

5.2 Positioning Within Dwelling

☑	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.2.1	Direct link to accessible bedroom	Allows private transfer, particularly if a person requires hoisting transfer	🏠 ⚙️ ♿
<input type="checkbox"/>	5.2.2	Link to living areas (where no secondary bathroom is provided)	Allows bathroom to be used by multiple occupants, and for use by visitors, without passing through a private bedroom	🏠 👤 ⚙️
<input type="checkbox"/>	5.2.3	No direct views from living areas, to toilet or shower space	Supports privacy if any door to a living space is opened	🏠
<input type="checkbox"/>	5.2.4	External window/skylight	Maximises access to fresh air, natural light, external views and connection with the natural environment. [Extended routines]	🏠 ⚙️

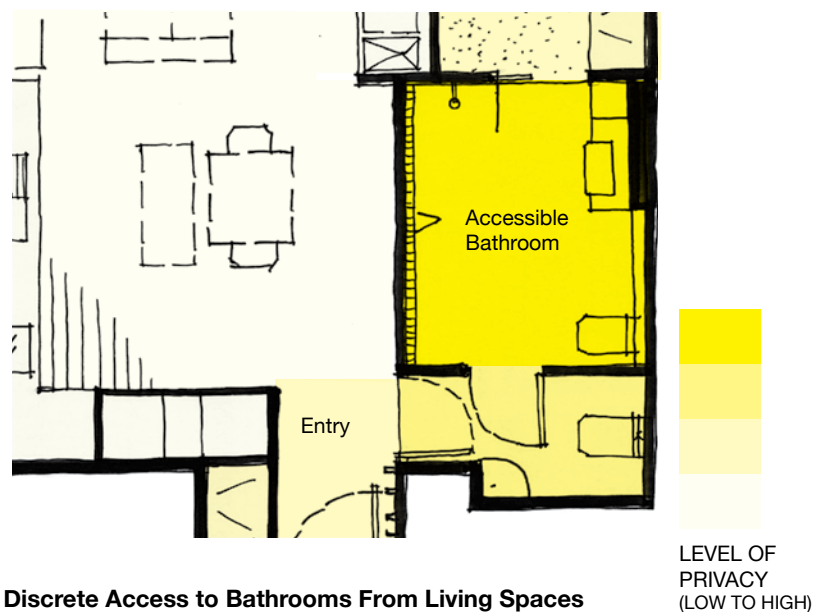


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Link Between Bathroom and Living

Any direct link from the accessible bathroom to shared spaces will ideally be located discretely, providing acoustic and visual privacy to the bathroom (e.g. if the door is accidentally opened).

A non-accessible powder room (if a powder room is provided) may be used as an airlock to the accessible bathroom, to enhance acoustic and visual privacy to the accessible bathroom from shared living spaces.



Discrete Access to Bathrooms From Living Spaces

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Daylight for wellness

Where an external window or skylight is not possible to achieve, similar effects are possible using solar-powered internal light panels. These mimic natural circadian patterns – transmitting light during the day and becoming dark at night.

[Outdoor connection]



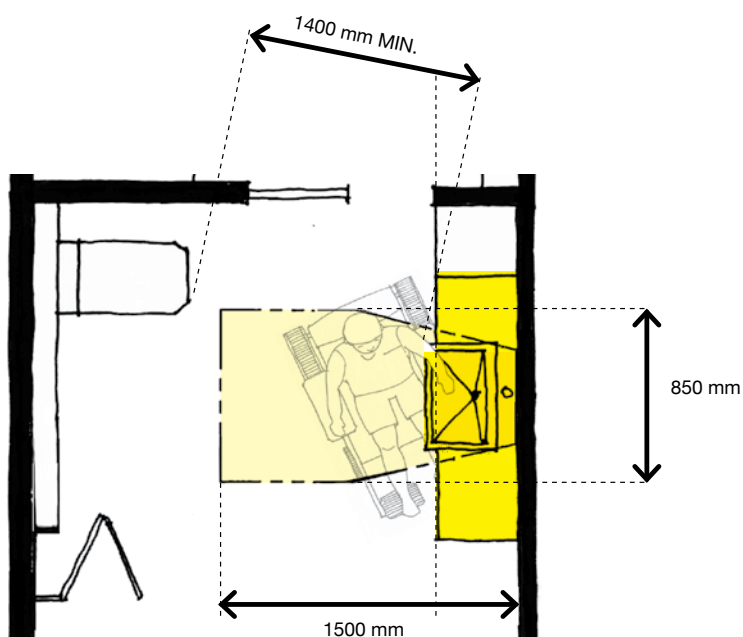
Components

5.3 Basin and Vanity – Spatial Planning


☑	Ref.	Provision	Reason	Value
☐	5.3.1	Min. 800mm wide vanity, including basin	Provides some accessible bench space for storage of essential daily items	♿
☐	5.3.2	Max. 500mm deep basin and vanity	Limits depth/reach required to access contents	♿
☐	5.3.3	Next to wall units (e.g. vertical storage) – basin and vanity depth to match wall units	Flush perimeter edge avoids projecting surfaces that could cause injury/obstruct access	♿
☐	5.3.4	Vanity and basin offset min. 600mm from internal corners	Allows sufficient space for a seated user to side-approach the vanity, from either the left or right side, as needed. [Multi-sided approach]	♿ \$
☐	5.3.5	Capacity for clearance in front of basin and vanity as per AS 1428.1 (2009), Figure 44 (A) – Plan	Generally, allows space for 95% of people using wheelchairs to access the basin and vanity	♿
☐	5.3.6	Capacity for min. 1400mm clearance between toilet and basin, as per AS 1428.1 (2009), Figure 43		♿

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Basin and Vanity - Key Spatial Provisions

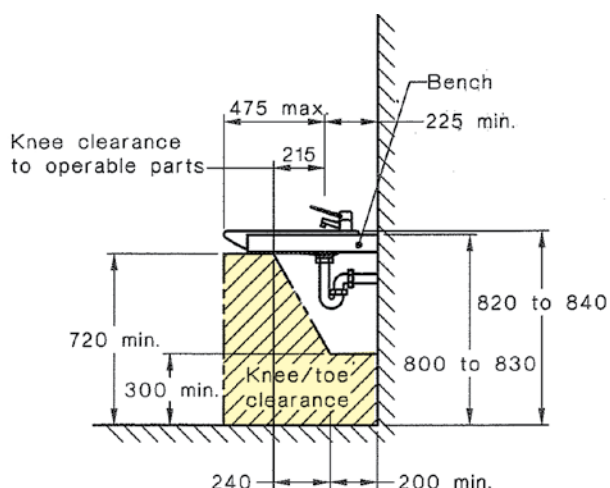


5.4 Basin and Vanity – Construction and Detailing

☑	Ref.	Provision	Reason	Value
☐	5.4.1	Bathroom vanity/handbasin to be accessible in seated or standing position Note: NDIS Minimum Requirements do not specifically define how to achieve this requirement. The first suggestion below will support access to a range of people; seated or standing, using a range of mobility devices, of smaller or larger stature, and may be incorporated to meet this requirement. Some people may need to adjust between using the basin in a seated or standing position on a daily or infrequent basis. [Physical experience] Hence to support the intent of the requirement, the second suggestion is provided.		SDA High Support
☐	5.4.2	Capacity for knee and foot clearance below basin, as per AS 1428.1 (2009), free of any waste pipes	Allows for majority of wheelchair users to access and use the basin	■ Supports SDA
☐	5.4.3	Capacity for frequent or infrequent height adjustments, between 700-1000mm AFFL	Better allows for people of larger or smaller stature, using either small manual or large motorised mobility devices, to access and use the basin	■ Supports SDA
☐	5.4.4	Insulate any exposed metal waste traps	Prevents possible injury through scalding. [Supporting safety]	



Height adjustable basin and vanity, Hunter Housing Project.



Below bench clearance, as outlined within AS 1428.1 (2009). Figure 45, pg 79.

Brief Development

Basin and Vanity Height Adjustment

- Manual adjustment – suits contexts where infrequent adjustments are needed. Achievable via the use of wall brackets and PVC waste pipes (relatively cost-effectively replaced by a plumber, to suit the new adjusted height).
- Electronic adjustment – suits contexts where frequent adjustments are needed. A safety stopping mechanism is necessary to avoid trapping or crushing of hands or legs. A flexible waste system can allow for adjustments, without needing to engage a plumber.





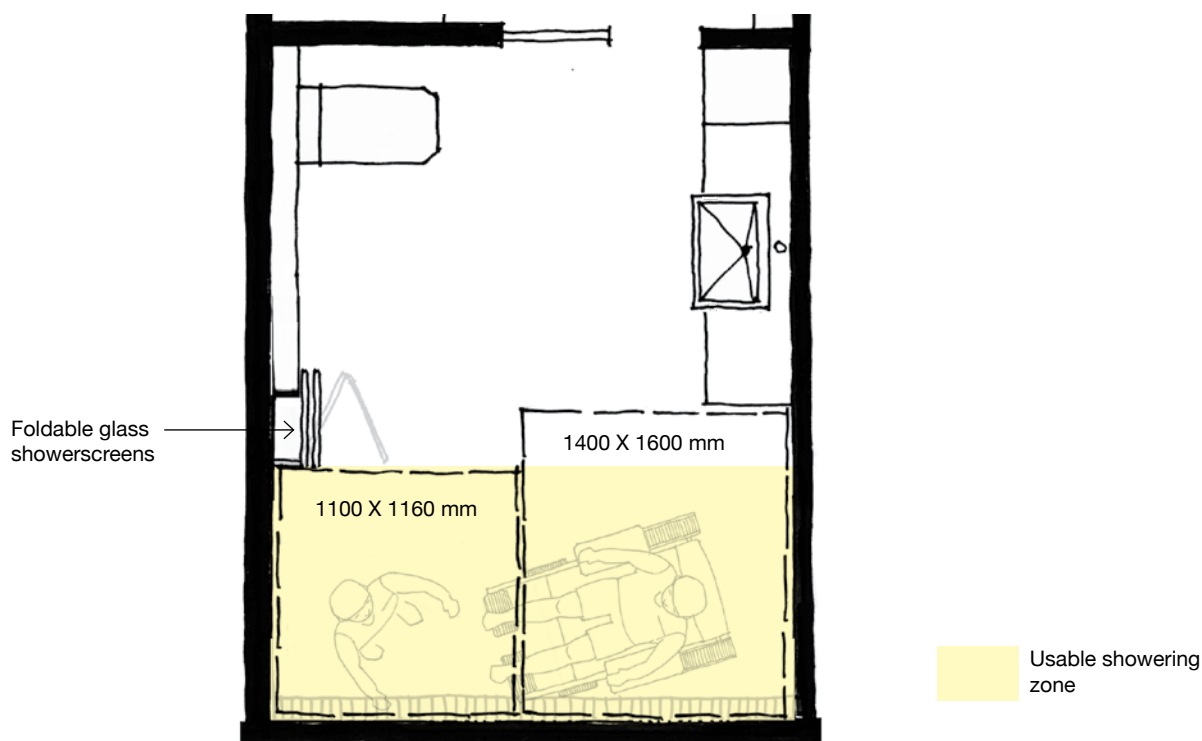
Manual height-adjustable brackets, e.g. Enware EP-RK1100



Flexi waste pipes e.g. 3m long Hepvo hose CD-FW40

5.5 Shower Space – Spatial Planning

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.5.1	One bathroom should feature a hobless shower recess (any showerscreens must be easily removable in future). A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled)		LHA Platinum
<input type="checkbox"/>	5.5.2	Shower recess located in a corner to enable installation of grabrails at a future date		LHA Platinum
<input type="checkbox"/>	5.5.3	Located on the entry floor level		LHA Platinum
<input type="checkbox"/>	5.5.4	Min. dimensions 1160mm x 1100mm		LHA Platinum
<input type="checkbox"/>	5.5.5	Min. clear space 1.6m x 1.4m in front of the shower entry		LHA Platinum
<input type="checkbox"/>	5.5.6	Larger shower area of 1200mm x 1800mm	Allows adequate space for a person seated in a reclined position, for manoeuvring, and for a support person to assist. [Assistive products]	
<input type="checkbox"/>	5.5.7	Locate to avoid direct sightlines between the shower and living spaces	Supports privacy, where a second door to a living space may be left open	



Shower Key Spatial Provisions

5.6 Shower Space – Location of Components

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.6.1	Offset shower ensemble (showerhead and mixer) min. 600mm from an internal corner, as per AS 1428.1 (2009)	Allows space for the addition of a seat adjacent to the shower ensemble, which may allow a person to shower independently	♿
<input type="checkbox"/>	5.6.2	Where support may also be provided, locate the shower mixer lever to the outside of the shower ensemble – rather than to the inside, as per AS 1428.1 (2009)	Allows a support person to stay dry while accessing the mixer lever, while not inhibiting independent use of mixer lever	♿
<input type="checkbox"/>	5.6.3	Top fixing point of shower ensemble at 1900mm AFFL		♿
<input type="checkbox"/>	5.6.4	Locate fixtures within showerspace to enable any screens to fold back flat against wall	Maximises circulation space and prevents damage to fixtures/screens	\$ ♿
<input type="checkbox"/>	5.6.5	Hose outlet located at 1050mm AFFL	Prevents the hose and head hanging in any standing water, preventing rust or accumulation of grime	\$ 🏠 ⚙️
<input type="checkbox"/>	5.6.6	Two shower ensembles within shower space	Additional heat source, particularly for a person showering in a reclined position, who is receiving support by others. [Increased sensitivity]	♿

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Shower Privacy

A full height nib wall (creating a 'nook') or frosted screen can enhance privacy around the shower.

Floor length shower curtains with weighted bottoms can improve circulation around the shower, but may look and feel less residential than glass shower screens.

Use of shower screens may help deter property damage, as they cannot be grabbed in the event of a slip/fall, as curtains can be. Grabrails and mobile supports should be provided within the shower as customisations for individuals who are at risk of slipping or falling when showering.

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Removable Shower Screens

To allow ready removal without causing damage to surfaces or waterproofing integrity, install shower screens separately, once floor surfaces are in place.







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Fold-down seat provision

Making provision for a fold-down seat will support an individual with reduced strength in showering more independently. Not everyone will require a seat for support – a person who showers using a shower commode will not use a shower seat at all. Allowing space only for a seat if needed can spare the cost and visual bulk of non-essential equipment. Any seats that are provided will ideally be self-draining, robust and made of warm-touch natural materials for a homelike look and feel.

5.7 Toilet Suite – Spatial Planning

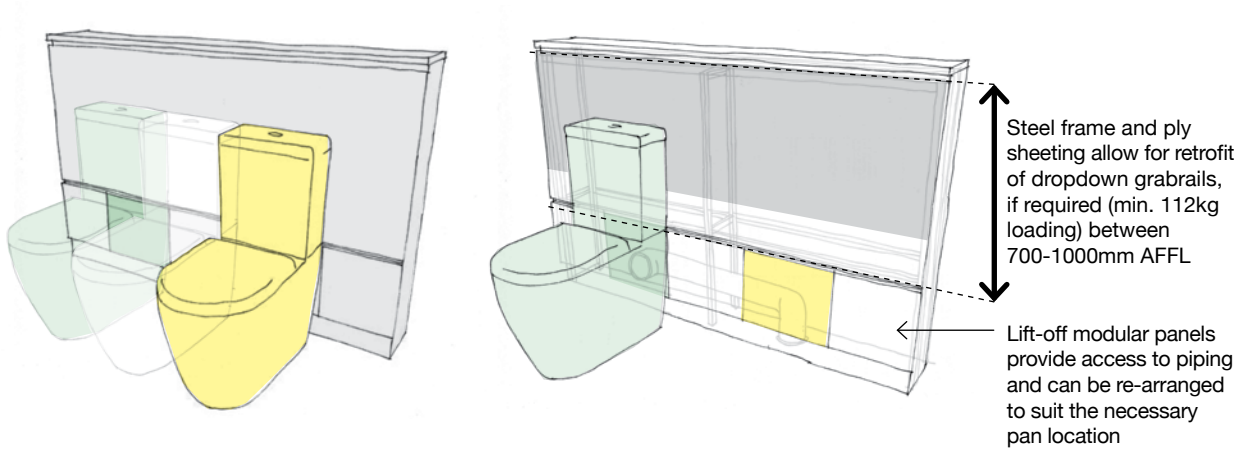
<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.7.1	Min. one toilet on the entry floor level. Note: This requirement does not specifically allow for a situation where residential lifts are provided, that would allow for wheelchair access between floor levels. However – providing a toilet on the same floor level as key habitable spaces will allow maximum ease access/speed to the toilet (without navigating a lift). The below provision is suggested to allow for this possible situation. The requirement does not specify the accessible toilet be located within the accessible bathroom. To allow space for a support person to assist with toileting, for use of a variety of larger mobility aids and easy transfer to the accessible shower, the below provision is suggested.		LHA Platinum
<input type="checkbox"/>	5.7.2	Min. one toilet on the same floor level as key accessible habitable spaces (accessible kitchen, living, bedroom)		■ Supports LHA
<input type="checkbox"/>	5.7.3	The toilet is located within the accessible bathroom		■ Supports LHA
<input type="checkbox"/>	5.7.4	Min. 1.2m between walls or other fixed amenities		LHA Platinum
<input type="checkbox"/>	5.7.5	Min. 1.2m clear space in front of the toilet pan, exclusive of the door swing		LHA Platinum
<input type="checkbox"/>	5.7.6	Pan positioned 450-460mm from the nearest wall, measured from the centreline of the toilet to the finished wall surface Note: Installing the pan in a corner allows capacity to install a side grabrail with vertical support (on at least one side) if needed. Locating a toilet in a corner however, will stop some people being able to side-transfer independently, if the transfer direction available does not match their preferred (stronger) side. Where an occupant's needs are not known, or may change over time, ideally, the installation will allow for relocation of the pan, to facilitate either a corner, or central position, within a 1.5m wide flexible space. The below suggestion is provided to allow for contexts where such an installation is provided.		LHA Platinum
<input type="checkbox"/>	5.7.7	Any door adjacent to the corner pan position sufficiently offset, to allow space for installation of a side grabrail if required		■ Supports LHA
<input type="checkbox"/>	5.7.8	Capacity for the pan to be positioned 450-460mm from the nearest wall, as measured from the centreline of the toilet		■ Supports LHA
<input type="checkbox"/>	5.7.9	1500mm x 1500mm clearance in front of the toilet plan, exclusive of the door swing	Enhances ease of transfer, in contexts of mobile hoists and support persons	
<input type="checkbox"/>	5.7.10	Locate to avoid direct sightlines between the toilet and any living space	Provides privacy, where a second door to a living space may be left open	
<input type="checkbox"/>	5.7.11	Easy access between shower and toilet (i.e. minimal number of manoeuvres required)	Assists a person who uses a shower commode to use both utilities	
<input type="checkbox"/>	5.7.12	Where possible, locate toilet against any concrete walls	Allows for drop-down/corner grabrails of greater strength, to cater for people of larger size (e.g. above 112kg)	







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Flexible Toilet Position

Flexible toilet design considerations:

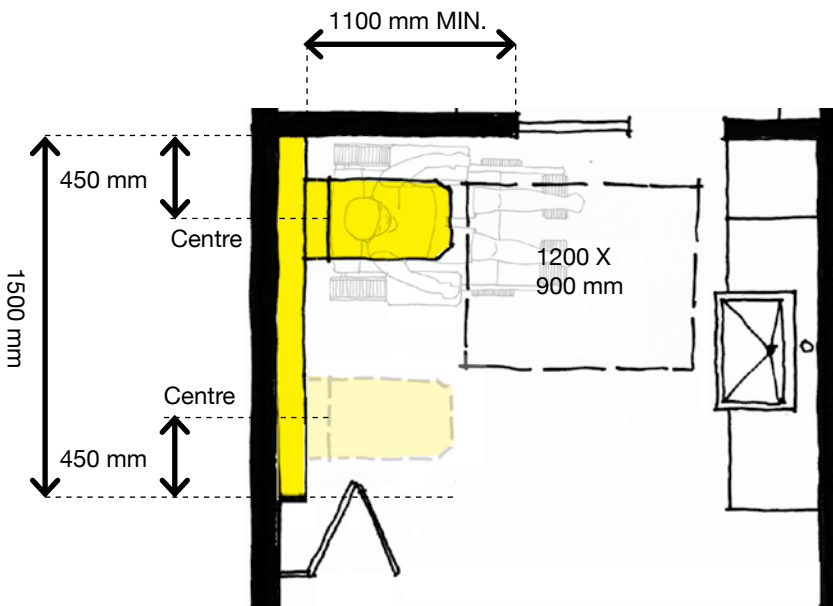
- capacity to access and make adjustments to plumbing within a concealed space
- adequate structure for mounting of grabrails (wall-mounted or drop-down types)
- continuous finished floor surface within flexible zone
- minimum room clearances maintained, if pan relocated



- | | | | |
|---|--|---|--|
|  | Standard installation – likely left-sided transfer |  | Standard installation position |
|  | Central installation – possibly personal support either side |  | Example readjusted position |
|  | Installation opposite – likely right-sided transfer |  | Ply reinforced zone for flexible mounting of drop-down grabrails |

Flexible Toilet Wall – Toilet Installation Options

Flexible Toilet Wall – Structural Provisions



A false wall behind the toilet allows for concealment of pipes to the toilet, including additional piping, should the toilet need to be relocated in future, Hunter Housing Project.

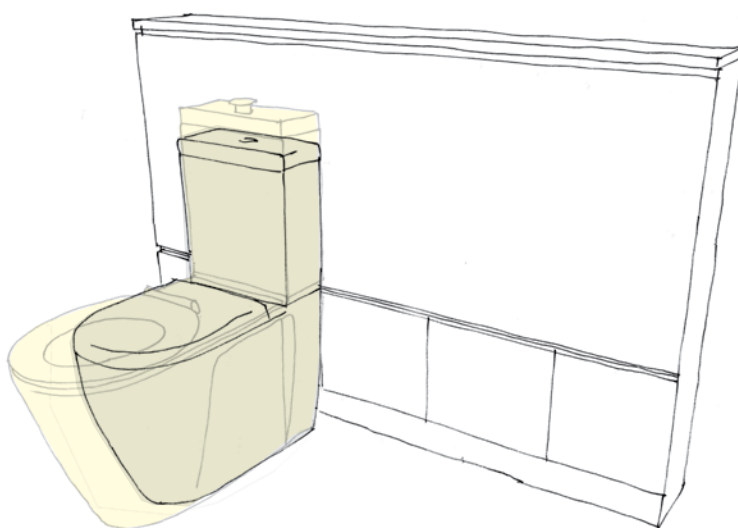
Flexible Toilet Key Spatial Provisions

5.8 Toilet Suite – Construction and Detailing

<input checked="" type="checkbox"/>	Ref.	Provision	Value
<input type="checkbox"/>	5.8.1	600mm clearance in front of the cistern to the front of the toilet pan. 800mm (+/- 10mm) if cistern is recessed Note: This requirement allows for a commode to be rolled over the top of a pan. Some people's physical impairments will not require a commode or may mean that they do not use the toilet at all. In these instances, the cost of installing the more cost-prohibitive DDA-compliant toilet pan can be saved. Where an occupant's needs are not known, or may change over time, ideally, the installation will allow for replacement of the pan type (i.e. from non-compliant pan to compliant pan) – to achieve additional dimensions only if needed by the occupant. To allow for contexts where this flexibility is inbuilt, the below suggestion is provided.	LHA Platinum
<input type="checkbox"/>	5.8.2	Capacity for alteration of pan type, to achieve 600mm clearance in front of the cistern to the front of the toilet pan. 800mm (+/-10mm) if cistern is recessed	Supports LHA
<input type="checkbox"/>	5.8.3	Pan height between 460-480mm AFFL Note: This pan height may not suit all people with a range of various physical impairments, postures, statures, and using a variety of mobility aids. Where an occupant's needs are not known, or may change over time, ideally, the installation will allow for replacement of the pan type – to achieve dimensions that suit an individual. To allow for contexts where this flexibility is inbuilt, the below suggestion is provided.	LHA Platinum
<input type="checkbox"/>	5.8.4	Capacity for alteration of toilet type, to achieve pan height between 460-480mm AFFL	Supports LHA

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Flexible Toilet Type



Flexible toilet design considerations:

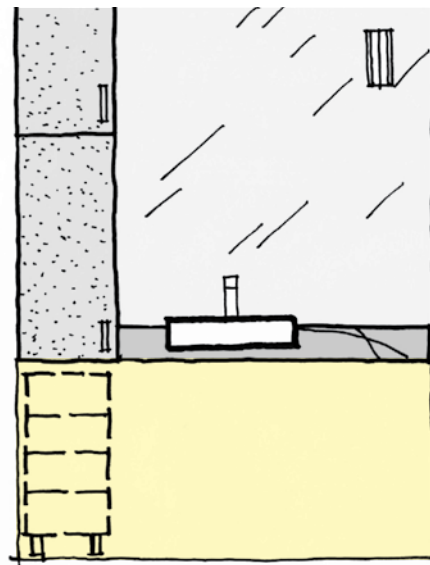
- Models with a 'P-trap' (rear waste point rather than base waste) will better allow for interchangeability between standard and DDA-compliant toilet pans.

5.9 Storage – Spatial Planning, Relationships and Positioning

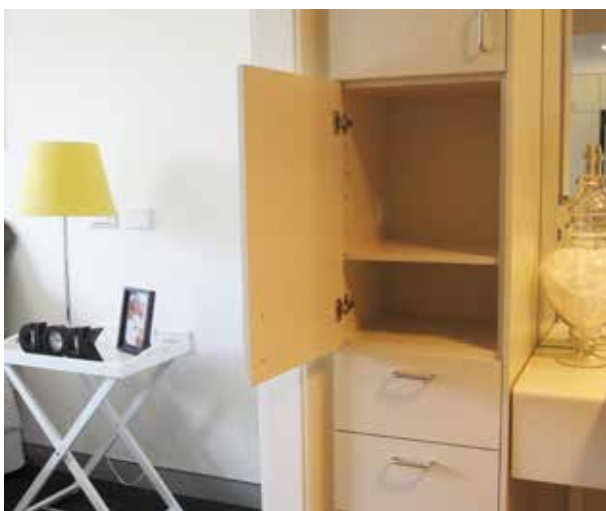
☑	Ref.	Provision	Reason	Value
☐	5.9.1	Full-height vertical storage next to the basin and vanity, with maximum depth of 450mm	Allows easy access to essential items, at a range of heights, to suit various user postures. [Reach]	♿ 🏠
☐	5.9.2	1m3 overhead storage	Allows for storage of infrequently used bulk items (towels, hygiene or continence equipment), which may be accessible by ambulant family members or support persons	🏠 ⚙️ 👥
☐	5.9.3	Offset storage min. 600mm from internal corners	Allows sufficient space for a seated user to side-approach the vanity, from either the left or right side, as needed. [Multi-sided approach]	♿

✎ Brief Development Bathroom Storage

- Maximise storage within the vicinity of the basin
- A maximum depth of 300-450 mm will support access for all users, including those with limited reach. **[Reach]**
- Omitting joinery below vanity height may better support a (more functional) diagonal front approach for people seated in a semi-reclined position
- Mobile storage units can be easily added or removed to provide additional storage, if needed







Basin and Vanity - Elevation



Vertical and high-level Bathroom storage, Hunter Housing Project.



5.10 Shelving – Spatial Planning, Relationships and Positioning

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.10.1	Provide a recessed shelf (wall rebate), centrally located so as to enable a flexible side approach	Allows easy access to soaps and shampoos, while not reducing circulation space or providing an obstruction. Also reduces visual clutter	
<input type="checkbox"/>	5.10.2	Provide accessible shelving next to the toilet	Allows easy access to toileting or personal hygiene equipment	
<input type="checkbox"/>	5.10.3	Offset shelving min. 600mm from internal corners	To support independent access to stored items. [Multi-sided approach]	
<input type="checkbox"/>	5.10.4	Provide additional accessible shelving outside the showerspace	Allows for storage in a dry zone	

See Part C, Section 11: Fixtures, Fittings and Equipment for non-fixed shower shelving suggestions in addition to above.



LEFT: Recessed shower shelf located in a corner, for convenient access from a fold-down seat.
RIGHT: Recessed shower shelf with steel rod, to prevent items falling on the floor.

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Shower Shelving

A person with reduced upper body mobility may not be able to reach items that have fallen on the floor. Installing a stainless steel retaining rod to a rebated shelf will help to secure pump-style bottles

Allow additional depth to the rebate to allow sufficient space for the rod plus storage space



5.11 Fixtures, Fittings and Accessories – Spatial Planning, Relationships and Positioning

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.11.1	Where occupant needs are unknown, locate fixed (plumbed) items as per AS 1428.1 (2009)	Likely to suit a wide number of users (minimises alteration to standard construction program)	\$ ♿
<input type="checkbox"/>	5.11.2	Where occupant needs are unknown, hold-off installing non-plumbed fixtures, or select products with suction-cap fittings, which allow re-positioning as needed	Allows for flexible positioning to suit an individual (without alteration to standard construction program)	\$ ♿
<input type="checkbox"/>	5.11.3	Provide clothing hooks at an accessible height, just outside the shower splash zone	Allows convenient access to clothing/dry items	\$

5.12 Towel Rails – Spatial Planning, Relationships and Positioning

<input checked="" type="checkbox"/>	Ref.	Provision	Reason	Value
<input type="checkbox"/>	5.12.1	Min. 600-900 mm towel rail space	Provides adequate space for drying wet towels	♿
<input type="checkbox"/>	5.12.2	Set back towel rails from circulation paths	Prevents bumping/injury	♿
<input type="checkbox"/>	5.12.3	Locate within close proximity to shower	Minimises splashing and potential for slips on a wet floor	♿
<input type="checkbox"/>	5.12.4	Avoid installing towel rails until preferred height of installation for an individual is known	Allows for most accessible positioning, saving cost of making adjustments	♿ \$
<input type="checkbox"/>	5.12.5	Provide heated towel rails in bathrooms without natural ventilation or an additional heat source	Assists with drying out towels. [Physical experience]	♿ 🏠

🕒 Detailed Design

Relocating Grabrails

- Provision of additional wall tiles will allow for any future rail relocation to be made good (if re-tiling is needed)
- Locating towel rails on plasterboard walls will eliminate the need for future re-tiling, if rails need to be relocated
- Where rails are located on tiled walls, to avoid the need for future re-tiling (and possibly damaging waterproof membranes), consider the addition of a 'blank-end flange', to neatly cap previous grabrail fixing points



Con-serv hygienic seal blank end flange: may be used to cover wall mounting plates once grabrails have been removed, to ensure waterproofing is not compromised.