Uniclass G44
CI/SfB74

Design guidance and considerations for a domestic accessible toilet/wetroom

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Using functional rooms, including the bathroom/going to the toilet, is the second biggest problem faced by families with a severely disabled child.

Some 1/4million people either cannot move around their home, or rely on being carried (English House Condition Survey).

Home adaptations

Statistics show 25% of households with a disabled person need a home adaptation. Bathrooms are the most common form of home adaptation, with 20% of disabled people in private households using them. Some 500,000 households with no adaptations say they needed either a special toilet seat or other aid to use the toilet; a further 200,000+ that already had some adaptations specified provision of an additional toilet, relocation of an existing WC or aids to use a toilet as a requirement they now deemed necessary (English Housing Survey 2012).

Yet only 12% of properties meet the four key features of accessibility- level access, flush threshold, wide doors and circulations areas and use of a toilet on the ground or entry floor (English Housing Survey Homes Report 2011).

New build- Lifetime Homes

Under the Lifetime Homes criteria, bathrooms should be accessible, and, in dwellings of more than one storey, there should at least be an accessible WC on the entry level, with the flush on the cistern side furthest away from the wall. Walls should be strong enough to support adaptations such as grab rails.

Lifetime homes should also deliver potential to future-fit a hoist to provide a transfer route from bedroom to bathroom. It is additional, good practice, that the main bedroom and bathroom are adjacent, with a connecting, full height panel that may be knocked out to form a direct doorway or link of at least 900mm width.

Design principles

Imrie and Hall (2001) identify that when design professionals such as architects or interior designers incorporate disabled people's needs into projects there can be a tendency to reduce disability to a singular form of mobility impairment, that of a wheelchair user. We can often become fixated with the physical environment and forget about other aspects that contribute to making a bathroom inclusive.

Research shows that most adaptations 'pay' for themselves within a year. Domestic bathrooms are often small, making them difficult to adapt to the ideal. Before any adaptation is undertaken due consideration should be given to disruption and practicality, now – and in the future, for the primary user and any other members of the household. For example, a first floor or above flat having a bath replaced by a shower will need the shower tray to be raised to provide adequate drainage. If the user later needs a frame or wheelchair, that tray will become inaccessible, as it is not level access.

Further, although there is no minimum requirement for turning circles in domestic bathrooms, sufficient space should be provided so that a wheelchair user can *conveniently* use the bathroom and gain side access to the WC.

Individual considerations: toilet

- The long-term suitability of the person's property in regards to access and/or other adaptations that may be required at a later date.
- The types of controls required for the individual/carer to use independently.
- Should the WC be conventional, have a bolt-on wash unit or an automatic shower (wash and dry) toilet.
- The user's ability to independently get on and off the toilet.

Individual considerations: wetroom

Note: the considerations relevant to a separate toilet also apply to a wetroom with WC within.

- Replacement of a bath with a shower delivers more useable space within the bathroom, facilitating maneouvrability if the primary user is in a wheelchair.
- Whether the individual has tried a shower before and can tolerate the spray.
- Is the shower to be used independently or with support from a carer?
- What other equipment may be required ie a changing or shower stretcher?
- Users with limited mobility and/or sensitive skin may benefit from a body dryer.
- In the shower, what type of seating is required and whether this it should be wall-mounted, static or height-adjustable, or a wheeled shower chair.
- Consider the overall size and design of the shower area to facilitate independent use and to accommodate any further equipment or carers. In some instances, where an existing bathroom is being altered, additional space may be acquired by the reconfiguration of door openings etc.

Environment design considerations

- Consider the layout primarily in relation to:
  – Ease of access to existing plumbing services
  – Location of window to ensure privacy
  – Away from doors to avoid any overspill of water
  – Location of wash hand basin and toilet facilities.
- Check the height requirement of the seat/shower chair. Shower chairs vary dramatically from being freestanding to wall mounted, padded or not padded.
- Consider the compatability of the shower chair with the toilet: it needs to fit over the WC, and, if a bolt-on unit or automatic shower toilet, care needs to be taken to ensure the douche is still in the correct position to effectively clean.
- Consider the location of the shower controls and showerhead. In most cases people often find having these located to the side of them easiest to access from a seated position.
- Think about other features such as a shower curtain or shower screen, particularly if a carer needs to assist.

- Consider the location of the toilet to enable easy access, especially if transferring from a wheelchair. If an automatic shower (wash and dry) toilet is included, it is recommended that it be fitted with an appropriate RCD but can be located within zone 1 of the bathroom (i.e. adjacent to the shower or bath), with the provision of a suitable curtain or shower screen to prevent direct line of spray. It is NOT recommended that the user showers whilst sat on the automatic shower toilet.

Sensory design considerations

Sensory features can often be overlooked or misinterpreted further down the line at the installation stage. It is important to specify these features and give some justification rather than simply 'it looks nice'.

Colour and texture play an important role in design. Not only does it make things more aesthetic, it also can offer visual and tactile guidance for those with impaired vision.

Ergonomics eases use

- Grab rails that are ergonomically designed enable the individual to grasp comfortably, assisting with transfers.

Avoid Glare

- Shiny/glossy tiles can reflect light and often cause glare; it is worth considering whether matt effect tiles are more appropriate.

Contrasting Colour

- The use of contrasting colour on the floor and walls can help to distinguish the shower area and promote independence. With some types of flooring, different colours can be bonded together to define different areas.

Touch and Feel

- Products with tactile features such as raised bumps, dimples or touch sensitive controls are also available to assist with the use of equipment such as shower controls, wash hand basins and/or toilets.
- There are more products on the market now that are also offering auditory guidance.

Every detail counts – additional features that require thought!

Wash Hand Basins

- Should the washbasin be fixed, swing or laterally- or height-adjustable, depending on whether other members of the household will be using the room, and whether the disabled user is in a wheelchair.
- Consider the person's abilities when selecting a wash hand basin. Do they use a wheelchair? How far they can reach?
- Wall mounted wash hand basins offer more flexibility in regard to height and keep the floor space clear. These can be set at the appropriate height for a person or fitted onto adjustable wall brackets to be raised in height, swung to the side or slid along to optimise access to other fixtures. If this is the case then ensure that there is a flexible supply and waste system.
- Make sure that there is enough space around the basin; it may be that additional arm support is required which can be achieved through a worktop or specialist basin with extended sides.
- Ensure the wall is strong enough to support the basin and someone weight-bearing on it: many users will use the basin in place of a support rail.
- Careful consideration should be given to taps. Lever taps tend to be the most user friendly however there are other wash hand-basins on the market that offer infra-red operations for those individuals with limited dexterity.

Toileting

- Toilet height affects a person's ability to easily get on and off, alone or aided. Height varies, although the standard is accepted as 410mm from floor to top of seat. People with limited knee bend require a higher seat, and may require plinths to be added.
- Existing drainage may restrict the options of re-siting the position of a toilet. If it is essential to relocate the toilet it is worth getting a surveyor to check whether this is feasible.
- Consider the amount of space required to undertake transfers and whether these are carried out in front or beside of the toilet.
- Consider the proximity of fixtures that may assist or inhibit transfer to/from the toilet.
- Consider the potential to add fixtures (grab rails etc.) to facilitate transfer
- Close coupled suites may inhibit the use of an over pan chair.
- Levers for flushing should be large and on the appropriate side of the WC. Some individuals find the use of a push button easier than levers. Alternatively remote-flushing operation may be an option.

- Consider the compatibility of the toilet with other accessible accessories, such as shower seats.
- A toilet lift raises and lowers the user over the toilet whilst ensuring they are suitably supported.
- Can the user easily reach toilet tissue if required?
- Conventional WC, bolt-on unit or automatic shower toilet? The choice depends on the user's physical ability to wipe clean after toileting. Bear in mind a bolt-on unit is just that, so significant strain will be put on fixings, especially if the user is side-transferring onto the unit from a wheelchair. The white paper Guide to Specification of an Automatic Shower Toilet (**www.clos-o-mat.com/downloads**) covers toilet specification and considerations in greater detail.

Showers

- Specification of a long flex is always useful, enabling the user to easily reach all parts of their body.
- Shower screens can be considered safer and more hygienic than shower curtains.
- If a wetroom environment, the tray needs to be properly recessed/ flush to achieve the level access, and drainage needs to be adequate.

Hoists

- Bathroom ceilings should be capable of supporting a ceiling track hoist. Ideally, at build stage, joists should be positioned to accommodate subsequent installation of a track hoist. In an adaptation, if the ceiling is not strong enough, floor supports may be required.

Clos-o-Mat

The UK's first, and still biggest-selling, supplier of automatic wash and dry toilets, Clos-o-Mat has sold over 40,000 units since it was founded some 50 years ago, many of which are still in daily use 30+ years after being first installed.

Today the Clos-o-Mat Palma Vita floor-standing automatic toilet is the industry benchmark, being the only one of its kind developed specifically for disabled people.

The Palma Vita is the only unit of its kind to achieve Medical Device Class 1 certification.

Clos-o-Mat has extended its expertise to now offer a range of accessible bathroom and wetroom equipment, including shower chairs, ApresShower body driers, and the Aerolet range of toilet lifters, which replicate the human action of standing and sitting, positioning the user exactly over the toilet if the person has mobility, balance and/or flexibility issues.

Its range of ceiling track hoists enable precise movement round the bathroom, and/or transfer from one room/ piece of furniture to another.

As a result, the company is unique in delivering *in house* design advice, supply, installation, commissioning and aftercare service & maintenance through its own dedicated team of engineers.

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