Acknowledgements

Brisbane City Council gratefully acknowledges the assistance of the Queensland Police Service in developing these guidelines.
1.0 Introduction

The provision of safe and accessible public toilets is an important function of local government. As one of the largest municipalities in Australia, Brisbane City Council owns, designs, constructs and manages a large portfolio of public amenities. These are located in parks, libraries, community halls and other facilities.

To participate in the life of the city, everyone needs access to public toilets they can use with ease and dignity. Over the years, the design of Council-owned toilets has evolved to reflect changing attitudes to safety, privacy and maintenance, and to address areas of need that had not previously been prioritised. These include the needs of senior citizens, and people with a disability and their carers.

Council’s first design guidelines were developed in 2000 and updated in 2011. This publication identifies current best practice for siting and designing new toilets and for refurbishing existing facilities. The guidelines relate most directly to purpose-built, stand-alone toilets in parks or urban streetscapes. However, some are relevant to the design of toilets serving other facilities and to the selection of ‘off-the-shelf’ amenities blocks.

The 2013 review addresses recent legislative changes and policy initiatives, such as changes to the Building Code of Australia (BCA), the introduction of the Disability (Access to Premises - Buildings) Standards 2010, applicable from May 2011 and the adoption of Council’s Brisbane Access and Inclusion Plan 2012-17 in 2012.

The updated guidelines also reflect a new demand for ‘Changing Places’ facilities, that allow carers to tend to high-needs, primarily adult users. Although there is currently no explicit legislative requirement for such facilities, Council has developed a number of ‘Changing Places’ sites throughout the city.

These guidelines can be used in the design of safer, more accessible and more durable public toilets. These guidelines are not intended to be prescriptive and should be considered within the location’s context and the particular needs of users.

Amenities block at Moora Park, Shorncliffe
1.1 Basis and scope of guidelines

This document is intended as a guide to the site selection, positioning, orientation and design of public toilets. It is primarily aimed at the design of free-standing, naturally-ventilated outdoor facilities that are unsupervised, available to the public and therefore likely to pose security, safety and maintenance challenges. Some of the design principles will also apply to facilities within buildings and/or where access is fully or partially monitored.

These guidelines are intended to assist with the resolution of the following core aims:

- equity of access
- safety of the public and Council maintenance staff
- ease and economy of maintenance
- environmental sustainability and conservation of resources.

In meeting these core aims the design is required to comply with legislation such as the National Construction Code of Australia and relevant Australian standards. (Note: In certain locations the design of the structure may also be subject to aesthetic controls mandated by local area plans and planning scheme policies).

The scope of this document excludes specialist amenities such as sports changing rooms and showers, although the guidelines on the selection of finishes and materials may still be relevant.

Note: this document is a guide only, not a technical manual. The merits, limitations and circumstances of each site and project will need to be assessed and relevant expertise sought. It is beyond the scope of this publication to prescribe solutions.

1.1.1 Equity of access

Section 23 of the Disability Discrimination Act makes it unlawful to discriminate on the grounds of disability in providing access to or use of premises that the public can enter or use. From 1 May 2011, any new building open to the public, or existing building undergoing significant renovation, is required to comply with the Disability (Access to Premises – Buildings) Standards 2010.

The standards clarify how to ensure buildings are accessible to people with disability and meet the requirements of anti-discrimination law.

Council has sought to provide leadership in the provision of accessible amenities, for example, by exceeding minimum legislated spatial requirements where possible and by providing facilities that are not yet required by law or access standards. Council recognises that better access and inclusion will benefit all Brisbane residents and visitors and, in particular, people with a disability, people with chronic illness, people experiencing temporary impairment, seniors, parents with young children and associated family, friends and carers. Subsequently, Council has approved the Brisbane Access and Inclusion Plan 2012-2017.

In response to community feedback, the Brisbane Access and Inclusion Plan 2012-2017 highlights particular issues in relation to public toilets, including:

- difficulties Brisbane residents and visitors have finding and using accessible public toilets
- the need for more accessible toilets with adult-sized change tables, especially at destination parks and those with ‘all abilities’ playgrounds
- toilets that are unexpectedly locked, or difficult for people with limited hand dexterity and grip.

These design guidelines have been updated to assist in meeting these particular areas of need and in meeting the plan’s broader aims.

A national public toilet map shows the location of more than 16,000 public and private toilets across Australia. Details can be found at www.toiletmap.gov.au, on any mobile phone internet browser through m.toiletmap.gov.au or, for Apple iPhone, download the National Public Toilet Map App.

1.1.2 Safety of the public and maintenance staff

This aspect of the guidelines addresses mitigation against a range of actual and perceived safety risks to person and property that may be encountered at public toilets. These include:

- anti-social behaviours such as vandalism, loitering, and drug abuse
- physical safety risks from poor lighting, wet surfaces and the like.

The guidelines are based on the principles of Crime Prevention through Environmental Design (CPTED). CPTED is accepted in the design and criminology fields as a useful tool to reduce the likelihood of crime in set locations. While it is impossible to
‘design out’ crime, careful planning and detailing in accordance with CPTED principles have been shown to reduce actual crime and unintended behaviours, and to improve public perception of personal safety.

Environmental issues that can have a significant influence on the safety and security of a public toilet include:
- visibility of the structure and its approaches
- accessibility
- optimisation of natural lighting
- proximity to other facilities
- orientation of the building
- landscaping
- building materials and finishes
- building design and cubicle configuration
- management, maintenance and security.

A very important consideration, in the case of proposed toilet refurbishments, is whether the site and/or structure is viable. If an existing toilet is extremely isolated and screened from view then a refurbishment is not likely to reduce vandalism or other unintended behaviours.

Options include:
- refurbishing the existing structure
- demolishing the existing structure and building new amenities on the same site
- demolishing the existing structure and building new amenities on a new site
- demolishing and not replacing the existing structure.

Many of the factors that contribute to behavioural safety also contribute to physical wellbeing of occupants and maintenance staff. Public toilets should be well lit and have non-slip floors in wet and dry conditions. The buildings must be safe to maintain and clean.

1.1.3 Ease and economy of maintenance
Public toilets are service and maintenance-intensive structures that represent significant capital investment and recurring expenses.

Building materials must be robust, appropriate to the locality and easy to clean. Initial cost savings in specifying cheaper, less durable materials will inevitably be outweighed by future maintenance costs.

1.1.4 Environmental sustainability and conservation of resources
Council is committed to a sustainable future for Brisbane and to the provision of facilities that minimise pollutants and carbon emissions. These guidelines do not specifically address environmental sustainability. However in providing durable, low-maintenance structures, Council will minimise the environmental impacts of building maintenance and replacement.

1.2 Design and management issues
The successful operation of public toilets rests on considered and cooperative design and management approaches. The following are examples of problems resulting from inappropriate design and poor management.
- Poor casual surveillance of facility due to isolation from roads, pedestrian paths and activity generators.
- Views to the building obscured by topography and vegetation.
- Dark, maze-like entrances creating uncertainty for patrons and the potential for entrapment.
- Poor public image and perception of lack of personal safety due to failure to remove physical evidence of anti-social behaviour – graffiti, drug use and vandalism.
- Inappropriate use of camera devices under and over cubicle partitions.
- Dark and unpleasant interiors due to lack of natural lighting and ventilation.

The images on the following page highlight typical problems resulting from historically poorly-considered design and management approaches.

The chart on page eight outlines the parallel cooperative approaches to public toilet design and management.
This toilet block presents poorly, with hidden entrances and overgrown paths.

The maze-like configuration and heavy structure of this toilet block create dark spaces within.

The entrance to this facility is heavily screened by overgrown vegetation.

Graffiti, vandalism and poorly maintained surfaces create a poor impression and perceptions of lack of safety.

Evidence of vandalism creates a poor impression and can also be perceived as a lack of ownership and pride in the facility which may lead to the facility to be further targeted by vandals.

Dark colours and surfaces create dark interiors. Exposed pipework and cisterns are vulnerable to vandalism.
### Toilet design process

**Requirement for facility confirmed**

**Site selection**
- Consultation and demographic analysis
- Context and adjacency analysis
- Site analysis
- Identification of required approvals
  - Town planning and heritage
  - Environmental
  - Building and plumbing
- Proximity issues
  - Building services
  - Roads and paths
  - Activity generators (playgrounds, picnic areas)
  - Loitering cues (seats, carparks, notice boards)
- Accessibility
- Grade and width of access

**Site layout and planning**
- Orientation of building and entrance/s
- Pedestrian and wheelchair access
- Vegetation
- Lighting
- Way-finding signage

**Building layout and planning**
- Size (number of cubicles)
- Gender and access designation
- PWD circulation requirements
- Natural ventilation
- Natural lighting
- Storage and duct areas
- Water collection and storage

**Materials, fixtures and fittings**
- WC pans, handbasins and cisterns
- Tapware
- Wall and floor finishes
- Doors and hardware
- Accessories
- Lighting and power
- Signage

### Toilet management process

- Risk assessment
- Access management
- Security measures
- Cleaning
- Building and landscape maintenance
- Auditing and reporting
2.0 Guidelines

2.1 Project brief and site assessment
This section helps clarify the respective roles of client and designer in identifying suitable sites for construction and refurbishment. Prior to undertaking a construction or refurbishment project it is valuable to identify visitor needs and numbers. Before examining the physical attributes of a site and its surrounds it is important to review any history of safety and behavioural problems and to identify planning, environmental and other approval requirements.

2.1.1 Project brief and assessment tasks
Develop project brief based on site information including:
- number of existing and projected site visitors
- targeted age, abilities and needs of site visitors (e.g. user groups with specific needs such as parents with young children, people with high support needs and their carers)
- expected frequency of use, including identification of peak and quiet times
- activities and facilities to be served by proposed amenities (e.g. play equipment, sporting fields and barbeque facilities)
- expected security and maintenance regimes.

Identify existing and potential incidents and problems including:
- safety audits
- Queensland Policy Service data
- Council’s formal incident and anecdotal reports
- Council’s community liaison officers
- Council’s Inclusive Communities officers
- Council asset owners and managers
- Council’s asset maintenance services.

Obtain input and advice from other stakeholders such as:
- community and residents groups
- local councillor and ward office
- neighbouring residents and businesses
- Queensland Police Service.

2.1.2 Site assessment tasks
Identify the site’s regulatory and environmental constraints, urban context and physical attributes.

Assess the regulatory framework applicable to a particular site as this may limit or even prohibit the development or refurbishment of the facility. Once approval constraints are understood, the physical attributes and urban context of the site and surrounds should be assessed. All physical and functional aspects within and around a site must be considered to identify the most suitable location and orientation for the required structure/building.

Parks and other open spaces are subject to planning, environmental and other controls. In many cases the construction of a toilet block in parkland is permitted, subject to building certification. However there are many contextual, site and project attributes that trigger town planning and other environmental approvals. Examples include:
- site subject to a local plan or planning scheme policy in City Plan 2000 or subsequently approved plans
- park classification; local, district, regional or metropolitan
- a heritage-listed site or park (state or local heritage listing) or site adjoining a heritage place
- a contaminated, landfill or acid-sulphate soils site
- the size of the toilet block
- a site within or near a waterway
- a site containing protected vegetation
- Council tenure of the site, especially if it is not held in freehold, for example:
  - a road or waterway reserve; typically on a footpath, traffic island, riverbank, foreshore or unformed road
  - a park held by Council in trust for the Queensland Government.

Some approvals have lengthy timeframes and approval fees and may also affect budget and program delivery.

Refurbishments that involve changes to the structure and to plumbing and drainage will trigger building approval.
Road and park reserves are owned by the state and in many cases managed by Council. Development on road reserves may require state approval for resource entitlement. Application for resource entitlement generally precedes other approvals and may involve preparing a survey and registered plan of the affected area. Early consultation with Council’s town planners is highly recommended.

Undertake an assessment of the site, including the following:

- Location and capacity of existing utilities such as:
  - water supply
  - sewerage
  - electricity
  - telecommunications.
- Compatibility of existing and proposed surrounding land uses.
- Existing vegetation features including:
  - species
  - size (height, canopy, extent of root system).
- Prevailing breezes.
- Proximity to carparking, pedestrian paths, roads and public transport.
- Gradient of paths and roads with respect to accessible paths of travel from street to facility.

2.2 Siting guidelines
Locate and orientate the proposed facility within the site to optimise ease of access, sight lines, casual surveillance opportunities and natural light and ventilation.

2.2.1 Maximise visibility of the facility
- Locate near pedestrian paths, car parking, roads and facilities, with entrances facing onto the most active space.
- Locate in an area highly visible from most directions.
- Locate in an area where there are ‘activity generators’ such as playgrounds and picnic facilities or near retail or commercial activity within an urban streetscape.
- Ensure vegetation around the building is an appropriate type and size (refer to 2.4.1).

2.2.2 Optimise equitable access to the facility
- Provide a continuous path of travel to the toilet facility from source of demand in accordance with AS1428.1, Disability (Access to Premises-Buildings) Standard and National Construction Code of Australia (NCC).
- Provide a continuous path of travel to the toilet facility from designated car park in accordance with AS1428.1, Disability (Access to Premises-Buildings) Standard and BCA.
• Path widths to be 1800mm wide if achievable. This allows two wheelchairs to pass each other or for a carer/friend to be alongside the person.

• Maximum gradient/crossfall for an accessible path, excluding ramps, is 1:40 (or 1:33 for bitumen).

• Provide clear directional signage with consideration for people with vision impairments. Signage to be in accordance with Disability (Access to Premises – Building) Standards, Part D4, which includes the use of braille characters on all signs.

• The designation (gender use/mix) to be clearly signed in text, braille and graphic symbols.

• Provide clear signage displaying times of opening and Council contact details.

2.3 Building guidelines
Provide a safe, secure and accessible facility with high levels of visibility, durability, security, light and ventilation.

These guidelines may be applicable to new public toilet facilities and to the refurbishment of existing buildings.

2.3.1 Size and configuration of building
Number and type of cubicles and fixtures required

• The number and gender designation of fixtures in a building are generally determined by applying Section F2.3 of the BCA and depends on the building size and classification. In particular circumstances, designers can work with a building certifier to vary the BCA requirements.

• The BCA does not provide meaningful guidance on the number of cubicles required in parkland or standalone amenities. In these circumstances the number of water closet (WC) pans, urinals and hand basins should be determined through experience and prediction.

Gender allocation of toilet facilities

• The allocation of unisex or designated-gender toilet facilities needs to be assessed on a site-by-site basis. Unisex facilities that open directly to public space afford the best protection from vandalism and undesirable behaviour. Gender-specific toilet facilities may be considered for areas of high demand, and where the separation of facilities assists in efficient turnover of cubicles.

Urinals

• Generally the provision of urinals in new or refurbished stand-alone facilities should be avoided. Urinals require a screened lobby space, in contravention of CPTED principles. The lobby screening provides cover for loitering and the urinals themselves have maintenance and vandalism issues.

• Select locations may warrant the provision of urinals such as where peak demand is high or within a gender-designation facility such as a sports changing room. An example of this may be near an entertainment or sporting facility and some high-use parks. In locations where demand fluctuates, other options should be investigated (such as portable toilet facilities) before a decision to include a urinal is made.
Accessible or PWD cubicles (cubicles for persons with a disability)

- A minimum of one unisex toilet must be provided in cases where there is only one cubicle, and at least one accessible cubicle in all other cases.
- The unisex-accessible cubicle must be provided in accordance with AS1428.1, Disability (Access to Premises - Buildings) Standard, and relevant sections of AS1428.2 where possible.
- All PWD cubicles are required to contain a hand basin.

Future-proofing PWD facilities

Note: Cubicle size should anticipate future provisions in access and equity legislation such as:

- further enhancement of standards
- accommodation of mobility scooters.

On this last point, some would say developed countries with ageing populations have already legislated for the accommodation of mobility scooters, although cubicle sizes have not yet been specifically addressed. The recommended approaches to ‘future-proofing’ cubicles are to incorporate the provision of over-sized cubicles.

- Cubicles should be designed to allow entry and manoeuvrability for mobility scooters. (Scooters should not be left unattended as they may be used to carry shopping, medical equipment and valuables).
- Configure cubicle entry door to provide minimum 1000mm clear opening.
- Provide conduits and wiring to allow future motorised operation of doors and locks. For example push-button-operated sliding doors.
- Provide minimum cubicle size of 3000 x 3000mm. This will allow enough free space (2800 x 2200mm) for a large mobility scooter to perform a 180° turn (refer to BS3800).
- In-built structural flexibility for future expansion.
- Provide PWD to existing minimum standard (approx. 2800 x 2200mm) but allow for future expansion of cubicles.
- Use post-and-beam or portal construction to maximise future flexibility.
- Avoid using walls for load bearing and bracing. Non-structural infill walls can be easily removed or openings widened.

Baby change facility

These are to be provided in accordance with AS1428.1, Disability (Access to Premises - Buildings) Standard and relevant sections of AS1428.2 if possible and reasonable.

- Fold down stainless steel tables are preferable to plastic tables.
- Change tables can be installed in PWD cubicles for general use but only if there is an alternative PWD cubicle for use by PWD when the baby change table is being used. Preferably, a dedicated, accessible baby changing room should be provided.
Examples of layouts and list of equipment for ‘Changing Places’ facilities

1. Paper towel dispenser
2. Full length mirror
3. Large sanitary disposal bin, if possible recessed into the wall
4. Alarm reset button
5. Full room cover tracked hoist system
6. Vertical grab rail
7. Drop-down support rails, one with a toilet roll holder
8. Flat-topped close-coupled cistern providing a bedrest and a collection changing surface
9. Peninsular WC
10. Washbasin
11. Waste disposal bin
12. Manually-operated hand dryer
13. Retractable privacy curtain/screen
14. Alarm pull cord
15. Height-adjustable showering/changing bench, min. 1800 mm long
16. Floor drain
17. Shower seat
18. Wide paper roll dispenser for use on the changing bench
19. Sanitary towel dispenser
20. Two Robe hooks, one at 1.950 mm and the other at 1.800 mm above the floor

‘Changing Places’ facility

These facilities are for people with high-need disability and their carers, allowing them to take extended excursions or participate in activities away from home or place of care. Examples of suitable locations for ‘Changing Places’ are swimming pools, town halls, all-abilities playgrounds and destination parks. A ‘Changing Places’ facility typically accommodates a WC pan, a motorised hoist and an adjustable motorised change table. As these facilities are typically unstaffed and contain special equipment, they are accessible only via an MLAK key (refer to glossary). Carers may require training to operate the equipment to avoid injury and damage.

- Preferred room size is 3000 x 4000mm and minimum 2400mm high.
- A ‘Changing Places’ room does not function as an accessible WC and should be provided as a separate facility. A sign should be provided at the entrance to the ‘Changing Places’ facility indicating the location of the nearest unisex accessible WC and baby changing facilities.
- ‘Changing Places’ facilities are not covered by the NCC. Designers should refer to the British Standard BS8300 and Changingplaces.org design guidelines for layouts, sizes and equipment specifications.
- Change tables in unstaffed ‘Changing Places’ facilities should be a wall-fixed model, not mobile.
- If ‘Changing Places’ are provided, consideration needs to be given to waste disposal within the cubicle. A bin also should be provided at a convenient distance outside the toilet.
- ‘Changing Places’ facilities can be retrofitted into existing spaces, although standard PWD cubicles will require expansion.

View of ‘Changing Places’ facility retrofitted into existing PWD at Wynnum Wading Pool.
Additional features of public facilities

- Consideration should be given to the provision of shared parent/children’s cubicles with side-by-side adult and child pedestals in spaces that have children-friendly facilities. This should be assessed on a site-by-site basis.
- Sharp containers should be installed where the need is identified and in consultation with community safety officers.

Cubicle configuration

Council’s preferred design approach is to avoid and remove screened lobbies or any type of enclosed communal lobby. This design approach provides benefits such as increased visibility of the structure and accountability of users. Variations on this approach include:

- Cubicles opening directly onto public space.
- Provide generous roofed area outside cubicle doors that provides cover for required circulation space.
- Self-contained cubicles with hand basin provided inside each cubical. Cubicle doors open directly onto public space.
- Cubicles containing WC pan only with shared hand basins in public space. This applies to standard and ambulant disability cubicles only.
- Where discreet approach to cubicles is appropriate a translucent, mesh or battened screen can be used. Benches for shared hand basins can be integrated with full or half-height screening. Screens should be lightweight with continuous gaps to ground level ensuring maximum visibility.
- Metal screens and gates should be dark in colour to maximise transparency.
- Provide gaps from the finished floor level to the underside of screens of 150-300mm.
- Ensure that screens do not provide footholds for climbing.

2.3.2 Building envelope: openings, walls doors and roofs

- The vertical design plane needs to be assessed in terms of whether ‘steps’ or ‘ladders’ exist that could aid access and provide the opportunity for people to climb – an aspect to be eliminated wherever possible.
Semi-transparent and half-height screens can be used to create more discreet entrances to cubicles.

Secure screening above cubicle walls allow light and ventilation into the structure.

Aluminium grille above cubicle doors and walls. Note generous roof overhang to cubicle entrances.

- Where possible, provide a continuous gap to the bottom of all external and internal cubicle walls (for example 75-100mm high). This will need to be assessed on a site-by-site basis. Designers should ensure that such gaps do not create sightlines into cubicle from adjoining lower terrain.
- Provide a ‘permeable’ screen to the area between the top of all internal and external cubical walls and doors, and the underside of the roof to assist with ventilation. All remaining walls need to be solid and durable.
- Use solid core doors of minimum 40mm thickness with steel door frames.
- Provide lift-off hinges where required by BCA.
- Do not provide sprung door closers incorporated into hinges or pivots.
- Closers only to be used on ‘Changing Places’ facilities.
- Provide a gap (75-300mm) to the underside of standard and ambulant cubicle doors. This will need to be assessed on a site-by-site basis. Designers should ensure that such gaps do not create sightlines into cubicle from lower terrain.
- Note: Gaps greater than 75mm are not suitable for PWD and ‘Changing Places’ facilities as they can interfere with the operation of wheelchairs. Grilles can be provided in lieu of gap.
- Where a cubical opens directly onto a public space, a generous overhang or veranda is required.
- Roof insulation should be used over cubicles and enclosed areas to reduce heat gain. Overhangs and covered external areas do not require insulation.
- Roof planes should be angled and orientated to maximise penetration of natural light and ventilation through high-level screened openings.
- Proprietary skylights or small panels of translucent roof sheeting can be used to enhance natural lighting in cubicles but should be regularly checked for damage and replaced if necessary.
### 2.3.3 Finishes, fixtures, fittings

All building finishes should be robust, impact-resistant, weather-resistant, easily cleaned, graffiti-resistant and comply with relevant current Australian standards.

#### Floors
- Surface should be mid-to-dark colour to hide dirt and grime.
- Surfaces should be non-slip fully vitrified tile, epoxy grouted, or broom finished concrete.
- Tiles that provide slip resistance via raised surface pattern are easier to clean than grit-surfaced tiles and maintain better slip resistance when dirty.
- Council’s preferred measure of slip resistance is the British Pendulum Number or BPN. This BPN test is easily verified by the floor finish supplier.
- Minimum slip resistances required are BPN 60 and accelerated wear test BPN 50.
- Floors must be provided with falls to floor wastes to prevent ponding of water and facilitate regular hosing out.

#### Walls
- Light, bright surfaces will improve light levels and create a safer environment.
- Surfaces must be impact resistant and easy to clean.
- If appropriate for location, use gloss ceramic tiles with epoxy grout to all walls to minimum height of 2100mm.
- Other low-maintenance surfaces include:
  - corrugated zinc-coated steel with oven-baked paint finish
  - two-pack paint finished sheet steel (minimum 3mm thickness).
  - factory-painted compressed fibre cement sheets.
- All finished wall linings and or tiling substrates should be compressed fibre cement or equivalent.

#### Plumbing fixtures
- All plumbing fixtures and fittings should be selected, installed and managed with whole-of-life costs and water conservation as a priority.
- WC pans should be fabricated from heavy gauge 304 stainless steel with integrated toilet seat and shroud to conceal drainage and water supply pipework.
- Basins should be wall-mounted or free standing, fabricated from heavy gauge 304 stainless steel wall-mounted with integrated shroud to conceal drainage and water supply pipework.
- Vanity basins and surfaces are not to be used except where part of an integrated stainless steel multi-basin unit with integrated shroud.
- Provide substantial noggings and internal framing to support wall-mounted basins, grabrails and accessories.
- All fixings and access panels should be vandal-proof.
- Porcelain fixtures should only be used in low-risk, or staffed facilities such as libraries.
- All water supply and drainage pipework to be concealed in secure but accessible ducts and ceiling spaces where possible.
Stainless steel wall-mounted basins should have integrated shrouds to conceal drainage pipework.

**Cisterns**
- Exposed cisterns should be avoided as they can be easily vandalised. The ideal option is for the cisterns to be housed in a separate room or duct accessible only to maintenance staff.
- Where duct is unavailable a cisternless or flush valve toilet may be used and is a low-maintenance alternative.
- Where there is insufficient space for a duct, or in the case of refurbishments, the cistern can be housed in a false wall (floor to ceiling) behind the WC pan. Access panels must be secured with vandal-proof fixings.
- Where cisterns cannot be housed in a secure room or duct use an integrated stainless steel pan and cistern close-coupled suite.
- Adequate clearance within the service duct or room is essential to allow for servicing.

**Tapware**
- Tapware is to be robust and vandal-proof, with replacements readily available from major manufacturers.
- Tapware is to be fitted with timed flow valve to regulate water consumption.
- Tapware is to be designed for ease-of-use by people with poor hand control and strength. Tapware in accessible cubicles must comply with AS1428.1.
- Knee-operated hand basins allow hands free activation usually via hinged panel that forms the front of the basin. Lack of hand contact with tapware helps reduce transmission of infection or disease.

**Water supply**
- Where possible toilet cisterns should be supplied by roof water. Taps should be supplied with potable water where available.
- Water storage tanks should be integrated into the toilet design.
- External water tanks should not provide hiding places or climbing access to the roof or other areas of the toilet block.
- Ideally, water tanks should be housed in a secure enclosure. This enclosure can also house cisterns, maintenance consumables and equipment.
Water tanks should be secured to limit vandalism and climbing

Secure ducts can be used to house toilet cisterns

Stainless steel wall-faced pans with integral shrouds are easier to clean than those with exposed pipework

Provide robust stainless steel taps with timed flow valves to avoid water wastage

Door hardware

- Access to ‘Changing Places’ facilities to be via MLAK key only (refer to Glossary at end of this document for details).
- For all other door key locks in Council public toilets a TP1 key is to be used.
- PWD cubicles to remain accessible to all.
- Door hardware is to be robust and vandal-proof with all hardware replacements readily available from major manufacturers.
- Door hardware must denote when a toilet cubicle is in use (refer to preferred hardware table on page 19).
- All cubicle door levers, handles and privacy latches should be operable by persons with reduced grip, strength and dexterity.
- Door hardware to accessible cubicles, including cubicles accessible to persons with an ambulant disability must comply with AS1428.1.
- Preferred hardware configuration for all cubicles in parkland or outdoor facility (excluding ‘Changing Places’ facilities):
  - cubicles secured after hours via Council deadbolt.
  - cubicle door opened and closed via push and pull plate only.
  - cubicle secured by user via privacy latch only.
- Provide door closers to ‘Changing Places’ facilities only (refer to preferred hardware table on page 19).
- Provide signage that complies with AS1428.1 to all cubicle doors.
- Provide stainless steel or brushed aluminium kick plates to all doors that meet the floor.

Preferred hardware

The following table is subject to availability and changing legislative requirements. All hardware should be suitable for site conditions. The table below does not include ancillary items such as signage, door stops, cabin hooks and the like.
### Preferred hardware table

<table>
<thead>
<tr>
<th>Location/item/door function</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>All doors</td>
<td></td>
</tr>
<tr>
<td>Kickplate – Interior and exterior</td>
<td>Stainless steel 200mm high x door width. Countersunk screw-fixed.</td>
</tr>
<tr>
<td>‘Changing places’ facility</td>
<td></td>
</tr>
<tr>
<td>Accessible at all times via MLAK key. Always locked from outside and only operable by MLAK and BCC master key. Privacy indicator integral with lever. Handle in-side always free.</td>
<td></td>
</tr>
<tr>
<td>Mortice lock</td>
<td>Ingersoll Rand Legge 990MF series mortice lock Requires MLAK Lock Cylinder</td>
</tr>
<tr>
<td>Lever – Exterior</td>
<td>700 Series 705IND + Alpha 29 lever 700 Series Square plate with oval cylinder hole and indicator fitted with Alpha 29 handle satin chrome plate finish</td>
</tr>
<tr>
<td>Lever – Interior</td>
<td>700 Series 754IND + Alpha 29 lever 700 Series Square plate with turn bar oval cylinder hole and indicator fitted with Alpha 29 handle satin chrome plate finish</td>
</tr>
<tr>
<td>Closer</td>
<td>Lockwood 2516 Cam action closer size 1-6 maximum opening force 20N</td>
</tr>
<tr>
<td>All cubicles – PWD, ambulant, regular</td>
<td>Door operated by push and pull plates only and secured when in use by privacy indicator bolt. Locked by Council deadbolt outside opening hours.</td>
</tr>
<tr>
<td>Deadbolt</td>
<td>Lockwood 3571DE deadbolt key operable from outside and antilockout turnsnib on inside</td>
</tr>
<tr>
<td>Privacy indicator bolt</td>
<td>Doric DN300 privacy indicator bolt</td>
</tr>
<tr>
<td>Push plate – Exterior</td>
<td>Lockwood 21807 218 series plate engraved push</td>
</tr>
<tr>
<td>Pull plate – Interior</td>
<td>Lockwood 21824 218 series plate engraved pull with P2 handle</td>
</tr>
<tr>
<td>Doors to service ducts and store rooms</td>
<td>Access via Council key. Handle inside always free.</td>
</tr>
<tr>
<td>Vestibule mortice lock</td>
<td>Lockwood 3572 single action escape latch</td>
</tr>
<tr>
<td>Plate/lever – Exterior</td>
<td>1801 1800 series square end plate with lever and oval cylinder. Type 70 lever</td>
</tr>
<tr>
<td>Plate/lever – Interior</td>
<td>1905 1800 series square end plate lever. Type 70 lever</td>
</tr>
</tbody>
</table>

### Grabrails and accessories

- The provision of clothing hooks in regular and ambulant cubicles is generally not encouraged.
- If providing clothing hooks these must be in accordance with AS1428.1 current Australian standard.
- Mirrors, if provided, should be stainless steel unless specifically requested otherwise.
- Toilet roll holders should be robust and secure.
- Grab rails where required are to be in accordance with AS1428.1 current Australian standard. Grab rails must be secured to the structural frame or solid blockwork.
- Shelves in accessible facilities must be provided in accordance with AS1428.1 current Australian standard.
- Paper towel dispensers should not be provided. The provision of a sensor-activated hand dryer could be considered in areas where the risk of damage is minimal. This should be assessed on a site-by-site basis.
- Hand dryers and soap dispensers, if provided, need to be constructed of, or concealed within stainless steel enclosures with vandal-proof fixings.
- Baby change fold-down stations/tables can be used, otherwise incorporate changing surface into stainless steel vanity bench where required. This should be assessed on a site-by-site basis.
- Sharps containers must be mounted inside cubicles and on external walls to enable 24-hour access. Position out of reach of children (1.6m above floor level) or in the case of accessible facilities, in accordance with AS1428.1 current Australian standard.
Anti-graffiti exterior/interior finishes and treatments.

- Face brick and concrete block surfaces should be rendered and painted or treated with a clear anti-graffiti coating.
- Consider the use of dark base colour to exterior walls. This should be reviewed on a site-by-site basis.
- Consider measures to disrupt smooth, blank continuous surfaces on exterior walls. Strategies could include: the use of multi-coloured murals that relate to the surroundings or the use of multiple materials, colours and textures.
- Internal door face should have a protective anti-graffiti coating or stainless steel finish.

2.4 External works and lighting guidelines

Provide landscaping and lighting to enhance the safety of the area for the public and maintenance staff.

2.4.1 Vegetation and landscaping

- Select and/or maintain shrubs and garden bed species near amenities buildings to maximum 700mm high.
- Select and/or maintain tree species to eliminate branching and foliage below 2000mm high to maintain sight lines to the building.
- Select vegetation that minimises future garden and building maintenance.
- Select tree species that minimise root damage to footings, footpaths and drainage pipes.

2.4.2 Park and street furniture

Park and street furniture includes fixed items such as notice boards, rubbish bins, drinking fountains and seating. These can provide cues to loiter and their proximity to public toilets should be carefully assessed for each situation. In high-use parks, benches may be provided to allow parents and carers to sit and wait for others using the toilet.

Selections of public realm furniture may be subject to town planning codes and planning scheme policies (PSP) such as the Infrastructure Design PSP.

2.4.3 Lighting

The requirements for external and internal lighting will vary from site to site. For example, lighting needs will differ between a toilet that is closed in the evening and a toilet that is open all hours.

- All light fittings must be energy efficient, high-mounted and vandal-resistant.
- All lamps should be easily sourced and replaced.
- Compact fluorescent and LED lamps should be used.

Exterior lighting

Provide external lighting to the building to meet the requirements of Category P3 of current Australian Standard AS.NZS 1158.3.1, with additional requirement to meet the Disability (Access to Premises - Building) Standard to all access paths, PWD cubicles and ‘Changing Places’ facilities.

- Lighting levels must be consistent along the main path of travel and around the building so that a person does not move in and out of different levels of light.
- Assess the impact of external lighting on adjacent sites and activities, Select and position light fittings accordingly. Use baffles to reduce glare and spillage.
Interior lighting
Use roof design, skylights, high-level screening and bright, reflective wall surfaces to enhance natural light levels for daytime use. Provide internal lighting for night time use only. However, conduits and/or wiring should be provided to all cubicles to allow for future installation of light fittings.

- Provide internal lighting to the building to meet the requirements of current AS1680 with additional requirement to meet the Disability (Access to Premises – Building) Standard to all access paths, PWD cubicles and ‘Changing Places’ facilities.

Signage
Provide robust way-finding and other signage in accordance with Council’s Visual Style Guide and, if applicable, Parks Signage Manual 2013 (draft).

Provide signage indicating hours of opening and contact details for reporting damage and incidents.

2.5 Management, maintenance and security issues
Consultation on the proposed management of a facility is essential during the initial design stages. Design and specification decisions need to be made with lifetime management in mind. The following issues should be addressed at this stage:

- opening and closing hours
- access management: arrangements and mechanisms for locking of the facility
- security measures: security and/or police surveillance
- information and communication (public and staff); such as signage showing opening hours, emergency numbers, gender designation, the use of surveillance and mechanisms to report critical incidents
- cleaning and building maintenance: arrangements for cleaning and maintenance routine
- graffiti management e.g. having paint stock ready for rapid re-painting
- risk management; such as risk management plan developed for toilet management and control measures put in place.

Many of the above elements are interrelated and interdependent. A number of solutions are available and will depend on requirements and specific management, maintenance and security issues. The combined benefits should be a safe and well-maintained facility.

2.5.1 Response to injecting drug use

Sharps bins
Public toilet facilities are sometimes used by people to inject drugs. Council does not condone illicit drug use, but recognises that it does take place. For health and safety reasons Council has installed sharps disposal bins in public toilets where intravenous drug use is already occurring.

This is a responsible measure to minimise the risk of harm to all members of the community. Research demonstrates that injecting drug use does not increase after bin installation.

Blue lights
Council’s policy is to not install blue lights in public toilets. In theory, blue light deters injecting drug users by making it difficult to see veins and injection sites on the body. Council’s position is based on two main objections and a number of principles. Blue monochromatic light creates an eerie, and to some people, threatening environment. It presents further difficulties to people with impaired vision.

In addition, research demonstrates that blue lighting is not particularly successful in preventing injecting drug use, as drug users often inject in dark conditions. In cases where blue light may be successful, the problem is displaced to another location.
3.0 Case studies

The following project examples demonstrate principles that may be used in the design of safer and more durable toilets.

3.1 Whites Hill Reserve – Proposed amenities at all-abilities playground
This project involved a new toilet block with adult ‘Changing Places’ facility that includes a hoist and changing table for use by people with a disability and high support needs and their carers.

- Located close to accessible carpark.
- Most cubicles directly face the playground, optimising casual surveillance.
- Partial screening provided by fretwork screens.
- Mesh screens above door height maximises natural ventilation.
- ‘Changing Places’ facility accessed via MLAK key and designed to BS8300.
- Accessible baby change table located in one of two PWDs only.
- All cisterns concealed in storage room or secure duct.
- Water tanks housed in secure storage area.
3.2 Woolloongabba SCIP toilet
A stand-alone, purpose-built toilet facility built on a road reserve. Because only one toilet is provided, an accessible module has been designed to comply with AS1428.1. A handbasin is provided inside and outside the cubicle.

- The building is located adjacent to a pedestrian footpath with the entrance facing onto the most active space.
- Cubicle entry is not obstructed and clearly visible from most directions.
- Permeable metal mesh at the top edge of all walls is provided to assist with ventilation.
- Energy-efficient, vandal-resistant light fittings have been located in a high position.
- Fully-insulated roof and wall cavities for improved interior thermal comfort.
- Factory-painted steel wall cladding provides a tough, easily cleaned finish inside and out.
- The building is located adjacent to a pedestrian footpath with the entrance facing onto the most active space.
3.3 Decker Park, Brighton
A stand-alone ‘off-the-shelf’ toilet facility.
- Contains two PWD cubicles and four regular ambulant cubicles in back-to-back configuration.
- The building is located adjacent to a pedestrian footpath with the cubicle entrances facing onto the most active spaces – the carpark and the playground.
- Cubicle entries are not obstructed in any way and clearly visible from most directions.
- Continuous accessible path of travel to and around toilet in accordance with AS1428.1 current Australian standard.
- Surrounding trees are an appropriate distance away to avoid debris gathering in gutters and on the roof.
- Designated gender allocation is clearly visible in language and symbol, including characters in braille in accordance with Disability (Access to Premises – Buildings) Standards, Part D4.
- Four hand basins provided – one inside each of the accessible cubicles in accordance with AS1428.1 current Australian standard and two hand basins outside to serve the other four cubicles.

View of amenities block from carpark. Note vegetation is kept clear of the building

View of amenities block from playground. Note gaps under doors and clear signage

Light bright interiors of the Decker Park toilet block enhanced by natural light via translucent roof sheeting
3.4 Glindemann Park amenities
Example of refurbishment of 1970s ‘maze entry’ toilet block.

As noted in section 1.1, a very important consideration for proposed toilet refurbishments is whether the site and/or structure is viable. If a decision is made to refurbish a toilet facility, the various design principles cited in this document are still relevant and should be applied.

- Large sections of existing brick external walls are removed, increasing visibility and allowing the size of accessible cubicles to be increased to meet new standards.
- Lightweight walls are used to expand old accessible cubicles to meet current size requirements and accommodate hand basin.
- Low-level openings are formed in remaining brickwork for ventilation and cleaning purposes.
- New walls and doors to cubicles are constructed of durable, lightweight materials with gaps at floor and ceiling levels.
- A new skylight is built over the roof ridge to increase natural lighting levels inside.
- Low planting is introduced along walls to act as a buffer and to provide screening from graffiti and vandalism.
- Interior and exterior surfaces are painted in bright colours with graffiti-resistant coatings.
- A transparent metal mesh screen is added to the front entry area for greater visibility and provides two possible entry and exit points.

View of amenities block prior and after refurbishment

Floor plans of the Glindemann Park refurbishment
Glossary

NCC – National Construction Code of Australia

‘Changing Places’ facility
Cubicle, ideally 3x4m, that is designed especially for changing adults and children with high support needs. These people with a disability are generally attended by carers. Named for the British advocacy group ‘Changing Places’, the cubicle is generally equipped with a ‘peninsula’ PWD WC pan, motorised overhead sling/hoist and motorised height-adjustable change table. The design and configuration is not covered by an Australian standard.

Council-managed ‘Changing Places’ facilities can be found at the following venues:
• City Hall, Ann Street, Brisbane.
• Roy Harvey House, 157 Ann Street, Brisbane.
• Calamvale District Park, Formby Street, Calamvale.
• Colmslie Pool, 400 Lytton Road, Morningside.
• Ken Fletcher Park, King Arthur Terrace, Tennyson.
• Wynnum Wading Pool, Esplanade, Wynnum.

MLAK key
The Master Locksmiths Access Key (MLAK) system enables people with disabilities to gain 24/7 access to a network of accessible public facilities. The MLAK system has been fitted to elevators at railway stations, accessible toilets in Council municipalities and national parks and in adaptive playground equipment across Australia. People with a disability are able to purchase an MLAK master key which will open all toilets, playgrounds and other facilities which are fitted with this specially designed lock. MLAK keys are only available for purchase from Business Members of the Master Locksmiths Association of Australia. Refer to the Master Locksmiths Association of Australia website: http://www.masterlocksmiths.com.au/MLAK
MLAK keys can also be borrowed from some Council ward offices.

References

Brisbane City Council, Standard Colour Chart

Brisbane City Council, The Brisbane Access and Inclusion Plan 2012-2017

Brisbane City Council, City Plan 2000 and draft new City Plan.

Brisbane City Council, Parks Signage Manual 2013 (Draft)


Commonwealth of Australia, Disability (Access to Premises) Standards 2010

Standards Australia:
• AS/NZS 1428.4.1 (2009) Design for access and mobility: Part 4.1 Means to assist the orientation of people with vision impairment – Tactile ground surface indicators.
• AS/NZS 4360:2004 Risk Management.
List of Council contacts

For all Council contacts phone (07) 3403 8888

**Brisbane Lifestyle**
Community Lifestyle, Inclusive communities
Policy development, community liaison and advocacy in support of social cohesion and equity of access and participation

**Brisbane Infrastructure**
City Projects Office
Architecture, landscape architecture, heritage, town planning, project and construction management

**Brisbane Infrastructure**
Field Services Group, Asset Services
Project and construction management, asset operations and maintenance

**City Planning and Sustainability**
Natural Environment, Water and Sustainability, Parks and Environment Planning
Policy, budget and strategic planning for Council parks, natural areas, private green spaces and urban tree cover
Public toilet checklist

Client: Information gathering

Feasibility studies and demographic information
☐ Assess existing and future demand
☐ Gather demographic information on local area and proposed catchment
☐ Assess condition and adaptability of existing facilities
☐ Identify budget and program constraints

Site safety data
☐ Safety audits
☐ Queensland Police Service crime data
☐ Council formal incident and anecdotal reports

Council and community consultation
☐ Council’s community liaison officers
☐ Local residents and businesses
☐ Police and security services
☐ Local councillor and ward office staff
☐ Council asset owners and managers
☐ Council maintenance and cleaning staff
☐ Council planning, design and engineering consultants

Site assessment

Visibility
☐ Site is highly visible
☐ Appropriate surrounding vegetation

Approvals
☐ Planning and heritage approvals
☐ Environmental approvals
☐ Building and plumbing

Access and proximity
☐ Proximity to existing utilities
☐ Capacity of existing utilities
☐ Gradients appropriate for disability or mobility-impaired access from:
  • adjacent road
  • accessible carpark
  • areas of demand.
☐ Building located near to existing facilities
☐ Consider appropriateness of providing or removing seating, notice boards and the like
Cistern
- Cistern located in lockable access duct or service room
- Cistern enclosed in vandal-proof false wall
- Use flush valve or cistern-less toilet

Building exterior
- Screens used where appropriate to replace pre-existing solid envelope
- Use of battens, other screens and gaps
- Interior lighting provided in facilities used at night
- Roofing and overhang appropriate for area
- Finishes, fixtures and fittings
- Anti-graffiti materials and selected treatments
- Fixtures chosen for durability and robustness
- Requirement for baby change facilities
- Requirement for sharps containers

Management, maintenance and security issues
- Hours of operation considered
- Signage provided
- Facility to be locked at night
- Cleaning program arranged
- Security measures
- Graffiti management program developed
- Risk management

Additional notes
Orientation

- Building entrances face the most active space
- Prevailing breezes
- Natural lighting

External works issues

Paths

- Path widths and gradients meet codes and standards

Vegetation

- Vegetation selected to maintain sightlines to building and surrounds
- Existing vegetation removed/cut back from building where required

Lighting

- External lighting requirement assessed
- Internal lighting requirement assessed

Building issues

Cubicle configuration

- Screened lobby (appropriate only in staffed facilities)
- Self-contained cubicles, each with hand basin
- Standard and/or ambulant cubicles with shared hand basins outside

Number, type and gender designation of facilities/fixtures

<table>
<thead>
<tr>
<th>Facility/cubicle type</th>
<th>Unisex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Changing Places’ facility</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Accessible parenting room with handbasin</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Accessible parenting room with handbasin and side-by-side parent and child WC pans</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Accessible WC with internal handbasin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulant WC with internal handbasin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard WC with internal handbasin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulant WC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard WC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinal</td>
<td>N/A</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>External/shared handbasin</td>
<td>N/A</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Use only in limited circumstances