



ACT
Government

PUBLIC TOILETS

MUNICIPAL
INFRASTRUCTURE
STANDARDS 23

Transport Canberra and
City Services

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1 PUBLIC TOILETS

1.1 General

General: This document covers municipal public toilets on public land in the ACT. Public access toilets on leased blocks are not covered by this document, they are subject to the *National Code of Construction and Planning and Development Act and codes*.

1.1.1 Responsibilities

1.1.1.1 Objectives

General: This Standard provides design and documentation guidelines for public toilets in the ACT, including:

- > Appropriate site selection, amenity and integration with surroundings;
- > Appropriate response to the existing built fabric, heritage and cultural context of the area;
- > Convenient and safe access for all users;
- > Consideration of environmental constraints;
- > Provision of service connections including relevant authority approvals;
- > Conformance to relevant standards and legislation, in particular the Disability Discrimination Act and Discrimination Act;
- > Investigation of foundation conditions and engineering input;
- > Appropriate signage;
- > Provision of lighting;
- > Consistency with CPTED principals;
- > Stormwater and sewer infrastructure including site and internal drainage;
- > Requirements for ease of cleaning and maintenance;
- > Design approvals;
- > Consideration for safety in design, operation and demolition; and
- > Consideration for convenient parking.

Scope: Design for municipal public toilets shall be in accordance with this Standard unless directed in writing by TCCS.

1.1.1.2 Designer's qualifications

Requirement: Where a toilet block is to be designed and constructed, (i.e. it is not a prefabricated building unit/s) the following shall apply:

- > Design of the toilet block is to be undertaken by a qualified architect who can demonstrate their current registration with the Australian Institute of Architects or a qualified engineer who can demonstrate their current registration on the National Professional Engineers Register;
- > Electrical and hydraulic design is to be undertaken by an engineer who can demonstrate their current registration on the National Professional Engineers Register; and
- > The design is to be certified by a qualified access consultant and following construction the completed work is to be inspected by the access consultant and a letter of compliance provided to TCCS.

Submission: Evidence of the designer's qualifications and experience are to be submitted to TCCS during the tender process.

Requirement: Where a prefabricated building unit toilet is to be installed:

- > Electrical, hydraulic, structural and access certification/compliance from the supplier is to be provided;
- > Sitting and access to the building unit is to be certified by a qualified access consultant and following construction the completed work is to be inspected by the access consultant and a letter of compliance provided to TCCS; and
- > Full details including supplier, contact information, product number and installation specification are to be provided.

1.1.1.3 Precedence

Where any document issued, except legislation or the *Territory Plan*, referenced in this Municipal Infrastructure Standard (MIS) includes technical requirements that conflict with this MIS, consult with the service authority and TCCS for clarification.

1.1.2 Cross references

1.1.2.1 Commonwealth legislation

The following Commonwealth Legislation is relevant to this Standard:

Aboriginal and Torres Strait Islander Heritage Protection Act

Australian Capital Territory (Planning and Land Management) Act

Disability Discrimination Act

Environment Protection and Biodiversity Conservation Act

1.1.2.2 ACT legislation

The following ACT Legislation is relevant to this Standard:

Clinical Waste Act

Emergencies Act

Environment Protection Act

Discrimination Act

Heritage Act

Human Rights Commission Act

Planning and Development Act

Access and Mobility General Code

Crime Prevention through Environmental Design (CPTED) General Code

Planning and Development Regulations

Public Unleased Land Act

Tree Protection Act

Utility Networks (Public Safety) Regulation

Water Resources Act

Water Resources Regulation

Waste Minimisation Act

Work Health and Safety Act

1.1.2.3 ACT Government Strategic Documents

The ACT Planning Strategy – Planning for a sustainable city

Canberra Plan; Towards Our Second Century

1.1.2.4 Design Standards

This Design Standard references the following component Standards:

MIS 14 Public lighting

MIS 16 Urban open space

MIS 17 Shopping centres and commercial areas

MIS 19 Sportsground design

MIS 22 Signage for urban parks and open space

1.1.2.5 Specifications

The following Specifications are related to this Standard:

MITS 09 Landscape

1.1.2.6 TCCS Reference Documents

The following TCCS Reference Documents are related to this Standard:

Reference document 6 Design Acceptance submissions

Reference Document 7 Operational Acceptance submissions

Reference Document 8 WAE quality records

Reference Document 9 Final Acceptance submissions

1.1.2.7 Design Guidelines

The following design guides are related to this standard:

Underground Services in a Shared Trench Agreement, (Telstra, TransACT, ActewAGL)

Water Supply and Sewerage Standards (Icon Water)

Environment Protection Guidelines for Construction and Land Development in the ACT (EPA)

TCCS codes and design guides for designing and constructing assets

1.1.2.8 Further reading

Advisory Notes on Access to Premises, Human Rights and Equal Opportunity

Sharps Policy, ACT Government

ACT Crime Prevention and Urban Design Resource Manual, ACT Department of Urban Services, Planning and Land Management

Parks and Recreation Zone Development Code

1.1.3 Referenced documents

The following documents are incorporated into this Design Standard by reference:

1.1.3.1 Standards

AS/NZS 1158	Lighting for roads and public spaces
AS/NZS1428	Design for access and mobility
AS/NZS1428.1	General Requirements for Access – New Building Work
AS/NZS1428.2	Enhanced additional requirements – Buildings and facilities
AS 1668.4	The use of ventilation and airconditioning in buildings – Natural ventilation of buildings
AS/NZS 1680	Interior lighting
AS/NZS 1680.1	General principles and recommendations
AS/NZS 2312	Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
AS 4031	Non-reusable containers for the collection of sharp medical items used in health care areas
AS/NZS 4455	Masonry units, pavers, flags and segmental retaining wall units
AS/NZS 4455.2	Pavers and flags
AS 4586	Slip resistance classification of new pedestrian surface materials
AS 4663	Slip resistance measurement of existing pedestrian surfaces
ISO 7001	Graphical symbols – Public information symbols
ISO 17049	Accessible design - Application of braille on signage, equipment and appliances

1.1.3.2 Other publications

ACTMAPi (for the location of Registered Trees and significant plants and animals)

National Construction Code (Australian Building Codes Board)

ACT Heritage Register

ACT Crime Prevention through Environmental Design General Code (CPTED)

Proprietary products: To *TCCS Products previously considered for use list*

1.1.4 Interpretations

1.1.4.1 Abbreviations

General: For the purposes of this Municipal Infrastructure Standard the following abbreviations apply:

CMTEDD: Chief Minister, Treasury and Economic Development Directorate, ACT Government and its successors

CPTED: Crime Prevention through Environmental Design

CRP: Community Recreation Park

DDA: Disability Discrimination Act

EPA: Environment and Protection Authority, ACT Government and its successors

IPCC: Intergovernmental Panel on Climate Change

NCC: National Construction Code

TCCS: Transport Canberra and City Services Directorate, ACT Government and its successors

1.1.4.2 Definitions

General: For the purposes of this Municipal Infrastructure Standard, the definitions given below apply.

Biodiversity: The variety of life on earth, comprising countless species living in different but inter-dependent ecosystems. Variability among living organisms in terrestrial, marine and other aquatic environments (and the ecological systems of which they are part) includes:

- > Diversity within species and between species; and
- > Diversity of ecosystems.

Climate change: *The Intergovernmental Panel on Climate Change* defines climate change as “a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.”

Crime Prevention through Environmental Design (CPTED): Aims to prevent crime by designing spaces and buildings that foster human activity and interaction using four key principles: natural surveillance to limit the opportunity for crime; natural access to encourage the movement of people into spaces that are open and inviting; territorial reinforcement to maintain a sense of ownership by the local community; and target hardening to make it difficult to steal or vandalise property.

Overflow relief gully: A drain fitted outside a building structure that releases sewage overflow if there is a sewer blockage.

Path : A paved off-road facility of varying width and surfacing for shared use by pedestrians and cyclists. All paths, including paths adjacent to streets, are shared by pedestrians and cyclists in the ACT, differing from NSW and Victoria where cyclists over 12 years of age are not permitted to ride on paths unless appropriately designated.

Urban Open Space: Unleased Territory Land within the urban area set aside for public use. (Defined in the *Territory Plan*, zoned as PRZ1)

1.2 General design considerations

New facilities: New public toilet facilities will only be provided in District parks and nature parks. Refer to *MIS 16 Urban open space* for a summary of open space typologies.

Existing facilities: Existing public toilets in areas other than District parks, such as neighbourhood shopping centres, will be maintained and upgraded as required unless they are deemed redundant.

Active Canberra CMTEDD is responsible for the planning, development, management and maintenance of toilets provided in all ACT Government sport and recreation facilities such as sportsgrounds, aquatic/leisure facilities and CRPs. Toilets in CRPs and sportsgrounds should be designed and installed in consultation with the Active Canberra Facilities team.

Standards: *MIS 16 Urban open space; MIS 17 Shopping centres and commercial areas; MIS 19 Sportsground design*

1.2.1 Consultation

1.2.1.1 General

Requirement: Liaise with TCCS and other relevant authorities during the preparation of design.

Public consultation: Conform to the requirements of *the Planning and Development Act* as part of the Development Application process.

1.2.1.2 Utilities service plans

Existing services: Obtain service plans from all relevant utilities (e.g. water, sewerage, electricity) and other organisations whose services exist within the area of the proposed development. Plot these services on the relevant drawings including the plan and cross-sectional views. As a minimum, designs should refer to 'Dial-before-you-dig' information that is readily available in most areas.

Responsibility: Confirm accuracy of service plans with onsite inspection and also potholing if deemed necessary.

1.2.1.3 Safety in Design

Requirement: Implement safety in design processes in accordance with the *Work Health and Safety Act*.

1.3 Design

1.3.1 Design criteria

1.3.1.1 General

General: Public toilets should be located in places that are easily accessible by the general public and should be near car parks. In instances where multiple toilet units (two or more cubicles) are required to improve ease of access in large public parks, TCCS approval must be sought.

Requirement: The toilets shall provide for the needs of people with disabilities and other special needs. The toilets shall be designed to allow caregivers, including those providing assistance to members of the opposite sex, to provide assistance and supervision.

Consider: Aesthetics and future land use, the location and appearance of the toilets should be sympathetic to the surroundings. Toilets can be purpose-built or prefabricated units. Provide maximum visibility of the toilet building and entries, while maintaining privacy for the users. Consider the following:

- > The location of the building to consider CPTED principals, although toilets should not be a dominant feature; and
- > Avoid locating toilets where future siting opportunities for other structures or landscape elements are compromised.

Design references: *Access and Mobility General Code; Crime Prevention through Environmental Design (CPTED)*.

1.3.1.2 Ecologically sustainable development

Requirement: Energy efficient fittings and fixtures shall be incorporated, such as dual flush toilets, long life florescent or LED lighting and waterwise fittings and fixtures.

Consider: Design for natural light access including skylights where practicable to reduce the reliance and use of powered lighting during daylight hours.

1.3.1.3 Accessibility

Requirement: All new public toilets must adhere to the Australian Standard for access and mobility (*AS/NZS 1428*) and meet the following minimum requirements:

- > Designed to be accessible to people with disabilities;
- > Provide signage using the international symbols for access; and
- > Be accessible via DDA compliant pathways within the project site.

Consider: Where appropriate to the site and project brief, provide consideration for the following:

- > Locate public toilets on a continuous accessible path of travel from other accessible facilities in the area such as car parks, picnic areas and shops; and
- > Provide baby change tables within cubicles.

Standards: *AS/NZS 1428* (including *1428.1* and *1428.2*); *ISO 7001* and *ISO 17094*.

Design references: *Access and Mobility General Code*.

Legislation: *Disability Discrimination Act and Discrimination Act*.

1.3.1.4 Crime minimisation

General: The design of public toilets shall comply with CPTED principals and incorporate design features and elements to create a safe environment within and around the toilet facility.

Requirement: All new public toilets must meet the following minimum requirements:

- > Clear sightlines to toilet entry;
- > Toilets visible from public space; and
- > Adequate lighting in and around the toilet cubicles (*AS/NZS 1680* provides general principles and recommendations for interior lighting).

Consider: Where appropriate to the site and project brief, provide consideration for the following:

- > Self-contained cubicles which include hand washing facilities;
- > Additional hand washing basins outside the cubicles;
- > Cubicles accessible directly from public space with no common foyer or enclosed hand washing area;
- > Cubicles on single frontage if there is more than one cubicle;
- > Inserts for sharps installed in the wall (refer to **Sharps**);
- > Fix security bars to skylights to prevent undesirable access or theft; and
- > Light coloured surfaces on internal wall finishes.

Standards: *MIS 14 Public lighting*; *AS/NZS 1680* and *AS/NZS 1680.1*.

Design references: *Access and Mobility General Code*; comply with *CPTED General Code* and refer to the *ACT Crime Prevention and Urban Design Resource Manual*; comply with *ACT Sharps Policy*.

1.3.1.5 Design life

Requirement: All new public toilets must be designed to meet the following minimum design life requirements:

- > Toilet building structure - 40 years
- > Retaining walls - 100 years
- > Light Poles and Sign Structures - 50 years
- > Fittings and fixings (internal facilities) – 20 years

1.3.1.6 Drainage

Requirement: All new public toilets must meet the following minimum requirements:

- > Public toilets to meet the NCC requirements for positive drainage of surface stormwater away from the building;
- > Ground levels to fall away from building for 1 meter at a minimum grade of 1:50 on all sides;
- > Stormwater overland flow to travel around the building or into stormwater sumps and drainage pipes;
- > Ensure floor levels are above overflow relief gully (ORG) level (see **Definitions**)
- > Where there are no gutters to the roof, stormwater run-off from roofs can either:
 - fall onto concrete and feed to a dish drain that runs to a sump and pipes the water into a stormwater main, underground tank or infiltration system; or
 - Fall into rock and reed beds with drainage into underground sumps.

- > Eaves are to overhang sufficiently, such that run off from the roof does not drip on a person accessing the toilets; and
- > If floor waste/s are installed, they should be adequately sized and the floor shall fall to the floor waste/s, with removable vandal-proof debris basket/s under the grate.

1.3.1.7 Utility connections

Requirement: Obtain relevant approvals for any new service connections or relocations prior to works commencing.

Consider: Where appropriate to the site and project brief, provide consideration for the following:

- > Provide a camera inspection assessment report on the integrity of any existing sewer and stormwater pipes to be connected to the new toilets. Rectify any issues identified as part of the project.

Sewer Network: For economic reasons, toilets in areas isolated from existing sewer services should be designed to avoid the need for a rising sewer connection. Use of non-sewered toilet systems may be explored where appropriate.

1.3.1.8 Signage

Requirements: To facilitate accessibility of public toilets, ensure provision of directional signage that is visible, legible and compliant with relevant Standards (listed below).

Consider: Non-mandatory signage is to be agreed with the client on a site specific basis.

Standards: *MIS 22 Signage* for urban parks and open space; *AS/NZS 1428.1*; *ISO 7001* and *ISO 17049*.

Design references: *Access and Mobility General Code*.

1.3.1.9 Sharps

Requirement: Sharps disposal containers are to be provided in all public toilets in urban open space. Containers must conform to *AS 4031*. Provide for the following:

- > Provide a chute within the cubicles that extends through the wall and deposits the sharps into sharps container located in a separate service room;
- > Accessibility of the chute for users at 1.1m above ground level next to the toilet;
- > Design chute to avoid skin contact with needles, other sharps or blood fluids, with a metal plate installed around the sharps insert point on the wall;
- > Design disposal chute to prevent children accessing the contents;
- > The chute pipe should be stainless steel and 90mm in diameter to avoid clogging up of the chute: and
- > Sharps container to be 19-20 litres.

Standards: *AS 4031*.

Design reference: Comply with *ACT Sharps Policy*.

Legislation: *Clinical Waste Act*.

1.3.1.10 Sanitary Napkin and Tampon Disposal Units

Requirement: Sanitary napkin and tampon disposal units are to be provided in cubicles of all female and unisex toilets. This is usually managed through a contract with an external supplier.

Legislation: *Disability Discrimination Act* and *Discrimination Act*.

1.3.1.11 Maintenance and serviceability considerations

Requirement: Provide for the following:

- > Design to minimise maintenance and for ease of cleaning;
- > Easy access for maintenance vehicles, equipment and staff;
- > A service room designed to include a retractable hose, sharps containers and storage cupboard to store items such as patch-up paint;
- > Adjustable direct flush systems shall be designed and located in a separate service room at the rear of the toilet cubicles. Retrofit direct flush for upgrades where appropriate; and
- > A magnetic door counter to provide figures on use.

Consider: Where appropriate to the site and project brief, provide consideration for the following:

- > Where urinals are to be included, design as a trough in floor with a heavy duty stainless steel grate along the front half for users to stand on. The floor in front must fall toward the trough at a 2% slope.

1.3.2 Materials and construction

1.3.2.1 General

Requirement: All new public toilets must meet the following minimum requirements:

- > Selection of materials shall be made in conjunction with TCCS at the preliminary sketch plan stage of the design;
- > All surfaces shall be easy to clean;
- > All fixtures, fittings and locking devices are to be replaceable, affordable and easily available;
- > Steel elements shall be either hot-dip galvanized or stainless steel. Stainless steel shall have a non-streak finish; and
- > Where steel structure element size precludes galvanizing or stainless steel, the corrosion protection system shall be to *AS/NZS 2312* and as shown on the structural drawings.

Consider: Where appropriate to the site and project brief, consider the following:

- > Materials shall be selected on a basis of maximising durability and minimising maintenance requirements but may be modified, with the approval of TCCS, to satisfy functional or aesthetic criteria.

Exclusions:

- > Glass bricks will not be accepted in any new toilet structure;
- > Timber will not be accepted as a structural member in any new toilet structure;
- > Timber is generally to be avoided. If TCCS approves the use of timber as an ornamental treatment, the timber shall be seasoned hardwood. It should only be included where the timber can be replaced with minimal cost. In recommending the timber species, the designer should consider

durability and maintenance as well as availability of the species in the ACT and size of timber members specified;

- > Tiles are not preferred due to grout failure and discolouration. If tiles are used, they are to be durable large format tiles and must comply with AS 4586 slip resistance requirements where used on the floor; and
- > Crib block walling is not an acceptable material for retaining walls.

Standards: *AS/NZS 2312; AS 4586.*

1.3.2.2 Finished features

Requirement: All new public toilets must meet the following minimum requirements unless otherwise approved by TCCS:

- > Floor surfaces:
 - To AS4586 slip resistance class P4;
 - Floors are to be non-porous materials; and
 - Non-slip sealant is to be applied to all concrete floor surfaces.
- Doors:
 - All doors are to be steel sheeted both sides;
 - All external doors are to be lockable; and
 - Cubicle door is held or remains open when the toilet is unoccupied.
- > Light fittings:
 - White light luminaries; and
 - Metal cages are to cover all light fittings, and must be able to be removed for maintenance.
- > Toilet roll holders:
 - Heavy duty stainless steel lockable jumbo roll type; and
 - Lockable steel multi-roll toilet roll holders with capacity to take 50mm padlock.
- > Hand dryers: if required, hand dryers should be the blade dryer type and must be securely fixed to the wall;
- > Disabled railings: Heavy duty stainless steel and securely fixed in place;
- > Ventilation: To AS 1668.4, and all openings are to be bird proofed;
- > Skylights: Heavy duty polycarbonate UV stable corrugated sheeting, and secure skylight sheeting to roof with 12mm steel bars (painted to match ceiling colour);
- > Retaining walls associated with the toilets: reinforced concrete, stone or brick in accordance with Standard Drawings and designed and certified by a chartered professional engineer.
- > Stone pitching: Stone pitching of embankment slopes shall be grouted, and the extent of stone pitching shall be minimised; and
- > Downpipes: if fitted, downpipes must be metal (not PVC) with no climb points.

Standards: *MIS 14 Public lighting; AS/NZS 1680 and AS/NZS 1680.1; AS 1668.4; AS 4586.*

Design references: *Access and Mobility General Code; Municipal Design Standard Drawings.*

1.3.3 Vandalism

General: Vandalism of public toilets is more likely to occur when the toilets are located in remote sites, located in places hidden from public view or have lower than average usage. The siting of toilets in places of maximum visibility is of primary importance to minimise vandalism. Toilets should not be placed in sites shielded from view by landscaping and must have adequate lighting. Toilets should be sited to face passing traffic.

Requirement: All fittings and finishes should be constructed of robust materials and designed to be resistant to vandalism.

Consider: Where appropriate to the site and project brief, provide consideration for the following:

- > Direct flush system and cisterns to be recessed and not visible to the public (in a separate compartment);
- > Light touch sensor flush systems where possible;
- > Strong walls and doors that are graffiti, fire and scratch resistant;
- > Robust hinges to doors;
- > Graffiti-proofed walls;
- > Walls to be corrugated to provide strength and reduce graffiti;
- > Installation of external pad-bolts to be agreed with the client, either supplied by the client or fabricated as per agreed design, compatible with 50mm padlocks and with a vandal resistant shroud cover;
- > Fittings such as soap dispensers and baby change tables are to be recessed where possible to reduce unauthorized removal and breakage;
- > Non-flammable fittings particularly toilet paper dispensers, soap dispensers and coat hooks;
- > Toilet paper dispensers designed to reduce fire spreading into the container if the exposed toilet paper is ignited;
- > Durable external signage and instruction panels;
- > Stainless steel hand basins;
- > Stainless steel toilet bowls with integral seat top designed to provide a comfortable fully contoured seat;
- > If toilet seats are installed, toilet seats to be of durable material and difficult for vandals to remove, however they are to be easily and feasibly replaceable by maintenance staff;
- > Stainless steel for mirrors;
- > Skylights to be polycarbonate and have bars fitted;
- > Automated doors and automated toilet paper dispensers are not to be included;
- > Automated recessed soap dispensers are preferred and must be above the sinks to stop spillage onto the floor; and
- > Sensor operated water taps are acceptable, though taps are preferred due to ease of servicing.

Design references: Comply with *CPTED General Code* and refer to the *ACT Crime Prevention and Urban Design Resource Manual*.

1.4 Documentation

Requirements: Comply with *Reference document 6 Design Acceptance submissions*.



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