Parks & Waterways Access Policy

October 2002

CHRISTCHURCH
CITY COUNCIL · PARKS & WATERWAYS

Parks & Waterways Access Policy

Contents

Contents continued...

Introduction

The Parks and Waterways Unit aims to overcome barriers to access to ensure that everyone is able to enjoy Christchurch's parks and open spaces.

Improved access to parks and open space will increase equity as promoted by the City Council Policy on Equity and Access for People with Disabilities. Additionally, improved access has the potential to increase park use by enhancing comfort and convenience for all users and providing significant safety benefits.

The Parks and Waterways Access Policy provides for inclusive use of parks by people with disabilities and also takes into account older people and caregivers with young children. Disabilities occur at all life stages and may be mild or major. There are a wide range of physical, sensory, psychiatric, and intellectual disabilities that result in differing needs of park users and all need to be considered when designing and managing parks and waterways. Christchurch City's aging population is associated with an increased risk of disability and the Parks and Waterways Unit must plan and provide for a growing elderly population with a potentially wider range of needs. Also caregivers with young children may find access to parks restricted by designs that do not accommodate pushchairs or are not suited to children.

It is important to retain character and variety in parks and to cater for different levels of ability with a range of challenges and degrees of difficulty. It will not always be feasible to make all facilities fully accessible. Different degrees of accessibility will be achievable at different sites. For facilities to be recognised as fully accessible they need to comply with the specifications listed. There are three main reasons why parks would not be fully accessible:

- Existing facilities

  Many existing facilities are not accessible and it may not be practical to modify them. However, where possible a design change should be implemented to

improve accessibility of existing facilities.

- High cost

  The cost of constructing accessible facilities may be prohibitive and outweigh the usefulness or suitability of such a facility, e.g. constructing an accessible path on a steep hillside.

- Conservation values

  Some reserves have high conservation values that should not be compromised, e.g. wide paths may encroach on an ecologically sensitive area that needs to be conserved.

As the cost would be exorbitant to immediately alter all existing parks and facilities and make them accessible it is expected that the policy will be staged progressively over time. A strategy for implementation of this policy will be required and is expected to be produced within four months of the policy being adopted.

Policies

1. Depending on the nature of the park, all new parks and waterways facilities, and existing facilities when they are upgraded, will be designed, where feasible, to meet the national standard access design criteria (see Appendix 1).
2. An audit will be undertaken of all parks to identify accessible facilities and to prioritise opportunities for improvement. Questions will be included in park surveys, which are currently undertaken every two to three months by contractors, to monitor the maintenance of continued accessibility in parks.
3. The Parks and Waterways Unit shall ensure that staff members and contractors involved with providing park facilities are educated about the requirements of people with disabilities, allowing effective service provision.
4. The Parks and Waterways Unit shall develop and use a standardised classification system for paths and tracks that allows users to readily identify the degree of ability required.
5. The Parks and Waterways Unit shall provide public information about accessible facilities using a variety of media.
6. The Parks and Waterways Access Policy will be reviewed every two years in consultation with the KiwiAble Network, Disabled Persons Assembly, other relevant community groups and relevant Council staff.

Specifications

1. PEDESTRIAN OR SHARED USE PATHS AND TRACKS

For definition, a path shall refer to a primary means of travel between activity areas (an accessible route), and tracks are themselves used as a recreation facility. The policy covers paths and tracks that are for pedestrian or shared use but does not include mountain bike tracks.

Where possible, paths and tracks shall be accessible, convenient and safe (in accordance with the Christchurch City Council's "The Garden City, a Safe City" policy). This takes into account the principles of crime prevention through environmental design which includes safe routes through a park.

Tracks can be designed to meet a variety of needs and interests. Tracks should reflect a range of people's preferences and abilities so that the parks do not imitate each other and lose their individual characteristics.

Paths and tracks shall be designed to be obstacle free.

1.1 Width

Accessible paths and tracks shall have a minimum width of 1200mm (NZS 4121:2001).

It is recommended that tracks be at least 1500mm wide. This width allows pedestrians to walk together side by side.

Wheelchairs are usually 600-700mm wide and electric scooters about 730mm wide (see Appendix 2). Therefore, the Parks and Waterways Unit should provide passing widths of 1800mm, at an average of 5 every 100m. Where there is a clear line of sight of 50m or more, passing widths should be provided at an average of one every 40m.

The maximum width of a pedestrian path or track should be 1800mm, as a path wider than 2000mm may be

disorienting to people with impaired vision.

Where there is a designated shared use path or track, e.g. for bicycles and pedestrians, the recommended width is between 2000mm and 2500mm (Austroads).

1.2 Construction

Paths and tracks shall be constructed with slip and skid resistant materials.

The materials shall be firm and stable. A range of materials are suitable, from asphalt and concrete for paths, through to compacted crusher dust on tracks.

Soft surfaces such as sand, bark, wet soil and grass can be difficult to negotiate for people with limited mobility, balance, or vision, and for prams and wheelchairs. If the surface leaves an impression then the surface is not firm enough for easy manoeuvrability and will have a tendency to spill over or wear away requiring regular replacement.

When pavers are used, they are to be butted on a firm base with a flat upper surface.

Paths and tracks should be constructed with material that provides a colour contrast with the vegetation verges. The vegetation shall not encroach on the width of an access route.

It is recommended that painted symbols of cycles and walkers be placed on the entrances of shared paths.

1.3 Slope

New paths and tracks shall be located to produce minimum gradient.

Paths and tracks shall have cross slope of not more than 1:50 to allow for drainage, preventing surface water accumulating (NZS 4121:2001). Any changes in the camber should be smooth and gradual.

When the slope or gradient is steeper than 1:33 and up

to 1:20, level rest areas (landings), must be provided at least every 18m and must measure at least 1.2m in length (NZS 4121:2001).

1.4 Edging

Paths and tracks will be constructed to be no more than 25mm above or below the surrounding ground surface. If this is unfeasible then edging must be provided.

Edging will slow down wheelchairs when there is a risk factor involved. It is also useful for crutches and canes.

Edging should be 75mm high. If edging is over 75mm, wheelchair footplates may become trapped.

1.5 Ramps

When the slope of an accessible path or track is greater than 1:20, the path shall be termed a ramp. When paths and tracks are this steep, wheelchair users need assistance.

A handrail shall accompany each ramp. Handrails are not necessary where a section of path through a reserve has a slope steeper than 1:20 when this path is following the natural contours of the land and a handrail would be of little or no benefit. In such situations, the slope of the path should be minimised.

Ramps must have landings every 9m, and the landings must not be less than 1.2m in length (NZS 4121:2001).

Accessible paths and tracks shall not have a ramp of a gradient steeper than 1:12 (NZS 4121:2001).

1.6 Boardwalks

Boardwalks can be used over wet terrain, sand, and very uneven areas.

The surface should be even, with the boards at a 90^0 angle from the direction of travel. Gaps between boards should not exceed 10mm and should be more than 6mm (avoiding blockage from debris).

Maintenance shall keep boards algae free to stop them becoming slippery.

Boardwalks on a slope greater than 1:33 must be coated with a product that makes them slip resistant. A handrail is essential for a gradient over 1:20.

1.7 Thresholds

Thresholds are small, abrupt changes in the level of the access route. They are both a mobility obstacle and a hazard for tripping.

Thresholds, formed due to the dissimilar settling levels of materials, must be 20mm or less in height. Any more and a ramp needs to be built. The ramp must conform to the New Zealand Building Code.

It is recommended that thresholds under 20mm be levelled.

1.8 Steps

If steps are inevitable, the track is not considered to be fully accessible, although some people with disabilities find steps easier or equivalent to ramps. The riser should be no more than 180mm and the tread no less than 310mm.

Nosings of the steps shall be rounded and not project more than 25mm. Colour contrast should be provided. Steps should have a very slight slope downwards (1%) to allow water to drain off.

For stairs and steps to be fully accessible they will have handrails on both sides.

Avoid one single step as in many cases they are seldom seen and can be a hazard.

Textural cues at the approach of the stairway, and colour cues on the edge of each step (nosing) are desirable.

1.9 Handrails

Handrails can be used as an aid for balance, a means of

propulsion and a safety barrier.

Non-splintering materials that do not get too hot shall be used for handrails. There will be no obstruction to the passage of the hand along the rail. They shall be fixed at between 840mm and 900mm from the floor. Handrails should continue 300mm past the end of each side of the ramp or stairway in accordance with the N.Z. Building Code and NZS 4124: 2001.

Grips shall be rounded with an outside dimension of between 32mm and 45mm. The clear space between a hand rail and the adjacent wall surface shall be not less than 50mm. The ends of the handrails shall be turned down so as not to form a hazard (see NS 4121:2001).

When designing handrails, children shall be considered and dimensions avoided that may trap heads, arms and hands.

2. FENCES

Avoid internal fences, shrub borders or beds which may create a safety issue by obstructing views of park users or creating potential hiding places. Line of sight for adult wheelchair users is approximately 1050mm in height.

Chain and post fences shall have an access point which allows for the passage of wheelchairs of at least 1200mm in width every 50m, using entrance bollards that are visibly higher than the fence posts. This gives people the option of entering a reserve at this point although a path is not necessary at every access point.

Fences will be free from projections such as bolts, and shall be sturdy.

2.1 Gates

Gates shall replace any stiles on accessible paths or tracks.

Gates shall be at least 1200mm wide. They should have an easy to open mechanism. The latch shall require minimum strength and be simple to operate. A grab bar

would be desirable for easy closing. The grab bar and latch should be about 900-1200mm high. An extra wide approach to the gate is necessary for manoeuvring (1500mm minimum width).

3. ENTRANCES

Entrances shall be clearly visible from set down points.

The main entrances shall be part of the accessible route.

Entrances shall provide a minimum access width of 1200mm, that is obstacle free.

3.1 Entrance Bollards

Central bollards and other barriers can be dangerous for the visually impaired.

Bollards (posts at the entranceways) shall be positioned to allow for the passage of wheelchairs (See NZS 4121:2001).

To assist with detection of bollards, reflecting material or iridescent paint will be applied as a colour cue. The international access symbol should be used for fully accessible paths.

It is recommended that textural cues be laid to indicate pedestrian entranceways.

4. BEACH AND WATERWAY ACCESS

Access to the beach is essential as Christchurch has a large area of beachfront and there is high demand for wheelchair and pushchair access.

The Christchurch City Council should provide at least one accessible entry to a beach in Christchurch onto a firm and stable surface such as wet sand. Beach access at surf life saving clubs will be upgraded and maintained to provide access to a beach viewing area. Other beach access points, such as the wooden tracks laid over the

sand dunes, must be regularly maintained to ensure their safe use and avoid large drop offs.

4.1 Piers and Jettys

Accessible piers and jettys shall be at least 1800mm wide to allow wheelchair turning.

Seating should be placed at strategic points to allow rest and enjoyment of scenery. The seating shall not protrude into the accessible route.

5. OBSERVATION TOWERS AND BIRD HIDES

In most cases observation towers and bird hides are inaccessible, but where possible they should be designed with ramps sloped less than 1:12, handrails, and kick boards of over 150mm.

The Parks and Waterways Unit will ensure that views are not encroached by the handrail. Suggested height of the handrails is 900mm.

Where windows are offered, they must cater for a range of eye-level heights.

There shall be a rest area and a landing of more than 1200mm in length at the top of the ramp to observation towers and bird hides.

6. PICNIC AREAS AND SEATING

6.1 Tables

The Christchurch City Council's Parks and Waterways Unit will provide at least one accessible table in each picnic area (a small park can be considered as one picnic area).

Accessible tables shall have a clear space on the underside of the table 675mm from the ground and at least 800mm wide. The tabletop shall be 755-775mm above ground level. Seats on picnic tables must be between 280mm and 320mm below the tabletop.

Suggestions are an 'A frame' table with an extended end, or a hexagon style table, with one or two spaces for wheelchairs and prams.

The tables should be placed on firm, level surfaces with a path directly servicing them.

The surfacing material will extend out 1500mm from the edge of the table to allow manoeuvring of wheelchairs into their seating position.

6.2 Seats

Seats shall be located in many parts of the park, e.g. playgrounds, tracks and picnic areas.

Seats are to comply with the standard park bench (SD512) or with NZS 4121:2001. Seats should be 300mm-520mm high, but heights of approximately 450mm are preferable. Where possible, a range of seat heights should be provided.

It is recommended that rest areas be provided at main park entrances for people waiting for transport.

Seats shall be set back from access routes to allow barrier-free pathways. The alcoves will allow 540mm for legroom, and another 550-650mm for the width of the chair (as set out in the Christchurch City Council Standard SD513). A firm and stable surface will be provided in the alcove, joining to the path or track. There shall be a 900mm barrier free space beside the seat to accommodate wheelchairs, prams, or mobility aids.

In metropolitan and major parks, when it is not practical to have the standard park bench, a firm and secure seat can be provided. Location of the seat must conform to the same heights mentioned above, and should be slightly sloped to allow water runoff (105^{o} max slope). Seats shall be appropriate for their location. A more rudimentary rest area may be suited for a longer track. It is preferable to have a chair back as they provide additional support, comfort and assistance to people with disabilities and the elderly.

People with disabilities and the elderly require seating as they tend to tire more easily than able-bodied people. Provision of more seating will encourage increased usage of these tracks and paths.

Seating shall be placed every 100 - 200m on shorter paths and tracks (less than one kilometre), and every 200 - 250m on longer paths and tracks (greater than one kilometre).

Seats need to be placed strategically to allow a balance of shaded and sunny sites.

6.3 Drinking Fountains

Accessible drinking fountains shall be provided where appropriate, as many people with disabilities require more regular intake of water.

Metropolitan and major parks will have a minimum of one drinking fountain per park.

The fountain shall not protrude into an access route, and shall have a firm and stable surface on at least one side of the drinking fountain for access from a wheelchair. A path shall access the drinking fountain.

Hand controls will provide use with minimum strength. Drinking fountains shall provide a direct and strong water flow.

Where only one basin is provided, it should be at a height of 760mm, and provide a tap for filling drinking bottles at a height of 500mm.

6.4 Rubbish Bins

Rubbish bins shall not protrude into the accessible route.

An accessible path will access one side of the rubbish bin.

Rubbish bins shall have an opening height of between 700-1200mm.

Rubbish bins shall be easy to use with only one arm movement.

6.5 Vegetation

Vegetation is often the main attraction of parks.

A variety of shade and shelter shall be provided using vegetation.

The Christchurch City Council will maintain paths and tracks and prevent leaves and branches from becoming a tripping or slipping hazard.

Several plant and tree species cause severe breathing problems to people with asthma and hayfever at various times of the year. Trees that employ wind-borne pollination should be planted to minimise adverse effects on people. Many produce large amounts of pollen, airborne filaments or other inhalants that reduce the ability to breathe.

Overhead branches along paths, tracks and playgrounds must be pruned at 2.3m in accordance with Christchurch City Council bylaws.

7. SIGNS AND INFORMATION BOARDS

Signs and information boards orientate visitors, describe places of interest, warn of hazards and direct traffic flow. In some instances, signs will be inappropriate. It is often desirable to minimise impact on the environment, intruding only when absolutely necessary.

7.1 Content and Style

Signs and information boards should be clear and legible, containing an unambiguous message using symbols and words that are clearly recognisable to avoid the need to seek further advice. Contrasting colour will be used on signage.

The following types of information are especially applicable to large, major parks where the location of facilities are not obvious from the entrance.

1. Accessible carparks

2. Accessible entrances
3. Features available at the park and location of areas of interest
4. Accessible routes through the park
5. The degree of accessibility or difficulty of the walking tracks or paths including distance
6. Location of toilet facilities, information centres, playgrounds and drinking fountains

Signs that indicate a person's location in the park ("you are here") are also suitable in some instances.

The international symbol for access should only be used to indicate that an area, facilities or building is fully accessible in accordance with the New Zealand Building Code or NZS 4121:2001. Any feature that does not comply with the New Zealand Building Code and the Building Act 1991 will not display the symbol.

Signs will be used in context with the local environment. If signs are obtrusive to the natural landscape, other methods of communication shall be used.

7.2 Location

Tactile or colour cues may be used to help people with impaired vision locate signs.

Signs shall not protrude on to accessible routes, but shall be set back. They should still be accessible to people with impaired vision for close up viewing.

Signs shall not be located on doors but beside them, otherwise the signs may become ineffective when doors are open.

Signs shall be positioned and located in a consistent manner.

7.3 Height

Signs and information boards shall be at a uniform level in each park for consistency.

Signs and information boards shall be easy to look at for adults that are standing, sitting or for children. Information boards shall be 700mm to 1700mm from ground level. A suggestion is a sloped sign at lower levels for smaller signs.

7.4 Tactile Information

People with visual impairments are often unable to read ordinary signs and do not all have sighted assistance. Therefore, in addition to standard information boards and signs, information in tactile forms will be introduced on a trial basis in selected parks and reserves. Possibilities include tactile directional arrows, and tactile maps providing information on the size of the reserve, layout of paths, and identification of key features.

8. PUBLIC TOILETS

Provision of toilet facilities is essential for people with disabilities. The lack of these facilities will affect use of parks.

The Parks and Waterways Unit shall provide for the needs of all the community as the NZBC (G1) and NZS 4121:2001 specify.

8.1 Number of Toilets

A sufficient number of toilet facilities shall be placed in the park, meeting the needs of that locality and the numbers of expected visitors at one time. One unisex toilet for up to 300 people is recommended.

The Parks and Waterways Unit will use the safer parks policy and public consultation to plan locations of new toilet facilities.

8.2 Access

The Parks and Waterways Unit shall provide accessible routes to the toilet facilities, at least 1500mm wide (for passing wheelchairs).

Toilets shall be easily accessible from car parks.

8.3 Features

The minimum requirement for a facility is a pan and a washbasin. Fittings, where possible, shall comply with NZS 4121:2001. Tap and flush fittings shall provide use with minimum strength.

The seats of the pans shall be comfortable for individuals. The use of small seats or narrow half seats is not recommended.

8.4 Service

The Christchurch City Council shall regularly service and maintain toilet facilities for health and safety of users.

8.5 Design

The design specifications should conform to NZBC / G1 and NZS 4121:2001.

There shall be two grab rails beside the toilet, one on the wall and one on the opposite side. The grab rails must not obstruct the flushing control, or the movement of an individual onto the toilet. These two grab rails will allow people with bending or balance difficulties to lower themselves with both hands onto the toilet facility.

Toilet facilities shall provide a lockable door for privacy, and still provide a means of rescue for trapped individuals. No time release device should be employed as this does not allow people with mobility restrictions privacy, as they may require more time than able bodied people.

When swinging doors are used on the toilet compartment they shall swing out, so that wheelchairs do not have to negotiate the door when exiting.

9. VISITOR CENTRES

Visitor Centres shall be sited where they are visible, central and close to car parking and toilet facilities.

An accessible path must be provided from the information centre to the car park.

Doors should be no less than 850mm wide and open outwards. There must be no thresholds greater than 20mm.

There must be a clear path throughout the visitor centre, with no obstructions.

Counters must have one area that is at an accessible height, 675-755mm, to allow wheelchair users, children and shorter people to be visible and within reach (NZS 4121:2001). The New Zealand Building Code stipulates that this counter must be provided if there are sales, such as souvenirs.

Pamphlet racks must be within reach. The bottom of a pamphlet rack shall not be higher than 1100mm. A top level of 1200mm is suitable for people in wheelchairs.

Lighting must be used to illuminate the information centre for people with vision impairments and to allow those with hearing impairments to see both lip movement and signing.

10. PLAYGROUNDS

Children need to experience participation for social development. Both passive and interactive recreation will stimulate children. All children, whether mobility impaired or able bodied, need these opportunities.

The Parks and Waterways Unit will design playgrounds that accommodate children as well as caregivers. It is accepted that the cost of some surfacing that allows

easy access is high, and the Council may use other surfaces as specified in the playground standards.

It is recommended that installation of fully accessible playgrounds be considered for each Board area in Christchurch, providing an even coverage of the city. This could be achieved when suitable sites become available.

10.1 Access Route

An access route shall service playgrounds. There must be no protrusions onto that path, with the exception of boxing around barked areas.

The accessible path shall have a minimum width of 1500mm, but the recommended width is 1800mm to allow for passing wheelchairs, pushchairs, trikes, bicycles and other toys.

10.2 Amenities

Seating will be located where there is a clear view of the entire playground.

In larger parks rubbish bins, toilets and drinking fountains will be located nearby, and shall be easily useable by children and people with disabilities.

10.3 Safety

Playgrounds shall be positioned in accordance with the safer parks policy.

Playground standards shall be adhered to.

10.4 Equipment

The Parks and Waterways Unit will place accessible swings in large parks where they can be maintained. These swings will have hard casings and sturdy harnesses.

Short slides that are built into hillsides should be considered, so that ramps can access slides rather than

ladders.

A slide can be developed with high sides that can aid children who have difficulties with other slides.

11. CAR PARKS

Arrival at a site can be by public transport, car, wheelchair, scooter, bicycle, on foot etc. A barrier-free accessible path needs to start at the set-down point or car park.

The Parks and Waterways Unit shall consult with Environment Canterbury to encourage bus routes to access well used parks.

Accessible areas to lock up bicycles should be provided close to entrances or facilities as required.

11.1 Mobility Card Car Parks

Parking spaces for people with disabilities must comply with the minimum standards set out in the New Zealand Building Code and NZS 4121:2001. These documents prescribe the number of mobility card car parks, by looking at the overall number of car parks provided.

Mobility card car parks must be at least 3.5m wide.

Mobility card car parks shall be placed at the shortest walking distance from the entrance of the park.

Internal car parks shall provide mobility card car parks the shortest walking distance from the entrance of an accessible path or track. People with disabilities shall not have to pass behind parked cars when moving to an accessible route or when approaching an entrance.

11.2 Surfaces

Accessible car parks must have a stable, firm, slip resistant and flat surface with a slope not exceeding 1:50. The surface shall be clear of any loose gravel, as this is difficult to move over when using a mobility device.

11.3 Signposts

Where a mobility card car park is provided there shall be clearly visible international signs for accessibility. Where the mobility card car park is not visible from the road or entrance of the car park, the Parks and Waterways Unit shall provide directional signage.

11.4 Kerb Ramps

Flat access shall be provided wherever possible between the car park space and the adjoining footpath. Where the car park and the path are not at the same level, kerb ramps are to be provided at regular intervals, so that there is no need to move into or near traffic to get access to the path.

Kerb ramps will be placed by each mobility card car park, allowing access to the accessible route. Kerb ramps shall also be placed at regular intervals around the car park.

Textile or colour cues should be used to indicate kerb ramps.

11.5 Wheel-Stops

Timber or concrete wheel-stops are used to limit vehicle access; these shall be no higher than 150mm and have a gap between each wheel-stop of 900mm, to allow for wheelchair and pram access. There should also be gaps in any fencing or barriers around a car park to allow pedestrians, prams and wheelchairs to pass through without the need to step over the barrier.

Appendix One

New Zealand Legislation and Regulations

NEW ZEALAND LEGISLATION:

Building Act 1991

The Building Act defines public toilets and information centres as buildings, requiring building consents.

The Building Act gives acceptable solutions, using the New Zealand Building Code (NZBC) and NZS 4121: 2001, for minimum numbers and standards of fixtures. The NZBC also gives requirements for structural integrity of buildings and personal health in public toilets.

Section 47A requires that building be accessible for persons with disabilities, who may be expected to visit and carry out normal activities.

Health Act 1956

Section 23 of the Health Act covers the duty of the local authority to improve, promote and protect health within its district.

Under Section 25 the Minister of Health may require a local authority to provide sanitary works for the public.

Human Rights Act 1993

The Human Rights Act prohibits discrimination on the grounds of disability.

Local Government Act 1974

Section 596 of the Local Government Act allows territorial authorities to provide and maintain land and buildings to be used as restrooms and for other public amenities.

Reserves Act 1977

Public toilets are not mandatory in parks but this Act provides for their development.

Resource Management Act 1991

The Resource Management Act promotes sustainable management of natural and physical resources, including development and protection.

New Zealand Regulations:

New Zealand Building Regulations 1992

New Zealand Building Code 1992 (NZBC)

Clauses to refer to are: A2, D1, G5 and F8.

New Zealand Standards:

NZS 4121: 2001 – Design for Access and Mobility – Buildings and Associated Facilities

NZS 4241: 1999 - Public Toilets

NZS 8603: 1992 - Outdoor recreation symbols

The new standards for playgrounds are likely to be;

NZS/ASTM F 1918: 2001 Standard Safety Performance for Soft Contained Play Equipment

NZS/ASTM F 1292: 2001 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment

NZS/ASTM F 1487: 2001 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use

SNZ HB 5828: 2001 Handbook for Public Playground Safety

Joint Australian and New Zealand Standards:

AS/NZS 1730: 1996 - Washbasins

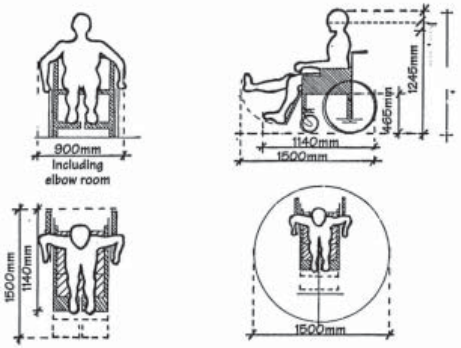
AS/NZS 3982: 1996 – Urinals

Appendix Two

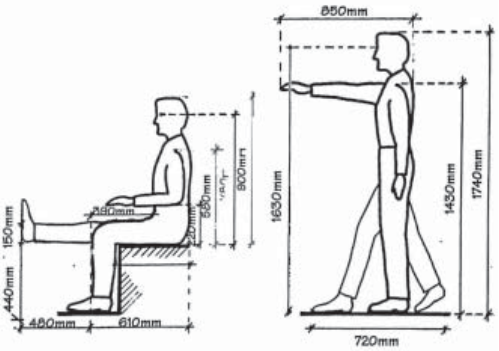
Dimensions

From Southampton City Council Access Design Guide

Critical Dimensions:	Eye level of wheelchair user : 1245mm	Turning circle - manual wheelchair : 1500mm
	Seated height of wheelchair user : 1300 - 1385mm	Turning circle - outdoor wheelchair : 2420 mm
	Reach over high table 600mm Width of wheelchair user : 900mm	Turning circle - electric pavement vehicle : 4350mm



Heights and turning circles of wheelchairs



average dimensions of adult British males

Lengths

Widths