accessibility guidelines

Shoalhaven City Council
Environment - Growth - Community

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Shoalhaven City Council aims to provide an inclusive and equitable environment that is accessible to everyone, acknowledges diversity and is free from all forms of discrimination. [DDA Action Plan]

This Guide provides the basic design information on factors to consider in removing barriers and creating accessible environments for people with disabilities with a broad range of access needs in the City of Shoalhaven.

NOTE:

Development Applications must comply with the statutory requirements of the most up-to-date legislations, the Building Code of Australia (BCA) and relevant Australian Standards (AS) on Access.

If you have any queries on this matter, please consult with Council's Development & Environmental Services Group prior to the preparation of a Development Application (DA).

Objectives

- **To encourage developers, designers and other persons involved in the building process or public domain design to incorporate access principles from the initial stage of the design and planning process.**

- **To increase community awareness of mobility disabilities affecting certain sections of the community and of the need for barrier-free design in the built environment.**

Legislations

The Commonwealth Disability Discrimination Act (DDA) has been in effect since March 1993. The Act creates a legal obligation on service providers to remove physical barriers to access where reasonable to do so.

Legal requirements, mandatory building regulations of the Building Code of Australia (BCA), and additional Australian Standards (AS) apply to many aspects of the design and construction of accessible environment for people with disabilities.

The DDA Action Plan (DAP) provided the Council with a comprehensive corporate program to implement a pro-active response to the Disability Discrimination Act 1992 (DDA).

In response to the Council's DAP, this document will provide guidance on how practitioners will deliver an accessible environment for the City of Shoalhaven.

The provisions outlined in this Guide may be varied if compliance with the guidelines will cause major difficulties or 'unjustifiable hardship' to a person or organisation. Any variations will be considered on a case by case basis taking into account the following:

- whether there is a benefit or a detriment to any person concerned;
- how it affects the disability of the person concerned; and
- the financial cost.

and considering the following circumstances:

- technical limits;
- topographical restricts; and
- safety, design and construction issues.

Relevant Australian Standards

Australian Standards are constantly under review and it is important to have regard to the relevant and most current provisions of the Standards in respect to any development.

AS/NZS 1158.3.1
Lighting for roads and public spaces- Part 3.1: Pedestrian area (Category P) lighting- performance and design requirements.

AS 1428.1
Design for access and mobility- Part 1: General requirements for access- New building work

AS 1428.2
Design for access and mobility- Part 2: Enhanced and additional Requirements- Buildings & Facilities

AS 1428.3
Design for access and mobility- Part 3: Requirements for children and adolescents with physical disabilities

AS 1428.4
Design for access and mobility- Part 4: Tactile indicators

AS 1680.0
Interior lighting- Part 0: Safe movement

AS 1680.2
Interior lighting- Part 2: Recommendations for specific tasks and interiors

AS 1735.12
Lifts, escalators and moving walks- Part 12: Facilities for people with disabilities

AS 2220.1
Emergency warning and intercommunication systems in buildings

AS 2890.1
Parking Facilities- Part 1: Off-Street Car parking

AS 4586
Slip Resistance classification of new pedestrian surface materials

AS 4663
Slip Resistance measurement of existing pedestrian surfaces

A hard copy of any of Australian Standards can be purchased from:

Standards Australia
1 The Crescent
Homebush NSW 2140
Ph: 02) 9746 4700

Electronic copy can be purchased via Internet: **www.standards.com.au**

PRINCIPLES

- **The planning and development process should recognise the benefits of, and endeavour to bring about accessible environment for the City of Shoalhaven.**

- **Members of the public regardless of ages or disabilities should be able to access and use any public building, facility or service in an equitable manner.**

- **Public pedestrian routes to the main entrance and/or other accessible entrances should provide a safe, direct, level and obstacle free path of travel for people with disabilities.**

- **Public plazas, parks, picnic areas, playgrounds, public sports fields, and recreation facilities should be designed to be used by people with varying abilities/ disabilities.**

- **Landscape materials, trees, shrubs and plants should be selected and located with a wide variety of disabled users in mind.**

PRINCIPLES (CONTINUED)

- **In selecting street furniture or equipment for public areas, care should be taken to ensure that selected items and their layout will not constitute a hazard for persons with visual limitations and that they are useable by persons with varying disabilities.**

- **For persons who are dependent on visual and tactile cues (e.g. colour and texture), such information should be included in the design of the built environment for safe navigation.**

- **The acoustical environment of public buildings and spaces should accommodate the unique needs of persons with visual or auditory impairments.**

- **Access solution for the historic environment including heritage buildings must be site specific and part of a comprehensive long-term strategy for its use and conservation.**

- **All developments required to be accessible must comply with the most current legislations, the BCA requirements, and relevant Australian Standards on access.**

GUIDELINES

Shoalhaven City Council recognises the importance of ensuring that new development, particularly public buildings or buildings to which large numbers of the public have regular access, and public spaces, are designed in a manner which provides a high standard of access to all, including people with disabilities.

Accessible Car Parking

- Should be located close to an accessible entrance and preferably under cover.
- In multi-storey and basement car parks, accessible car parking space(s) should be located adjacent to the lift(s). Ramped access should also be provided as an alternative to lifts.
- Should be denoted by painting the internationally recognised symbol on the ground and on a signpost or wall at eye level, and by clear sign-posting at the entrance to the car park.
- Pedestrian routes from accessible car parking space(s) to the main accessible entrance of a building or lift should be clearly defined, well lit, level and/or with dropped kerbs to facilitate access to adjacent footpaths where necessary.
- All safe pedestrian walkways should be clearly marked (e.g., by the use of painted yellow lines and/or distinctive paving surfaces)

Pathways/Ramps/Kerb Ramps

- Path edges, kerbs, railings, flower beds, trees and other potential hazards should be clearly defined with a textured surface, colour contrast or, where appropriate, an upstand kerb or guard rail for detection by people using canes.
- The gradient of walkway/ramps between landings must be constant.
- All ramps, kerb ramps and step ramps should be firm and slip-resistant surfaces.
- Short and shallow ramps minimise difficulties for wheelchair users for both ascent and descent, and reduce the likelihood of slipping for people with walking difficulties.
- Kerb ramps should be located so that they are free of accumulated rainwater and contain no manhole covers, storm gratings, or other obstacles that limit free movement.
- Where ramps are provided, adjacent stairs should also be provided for those who have difficulty walking up or down ramps.
- Continuous handrails should be provided on both sides of all ramps or stairs.

Kerb Ramp for pedestrian crossing

Building access ramp with adjacent stairs

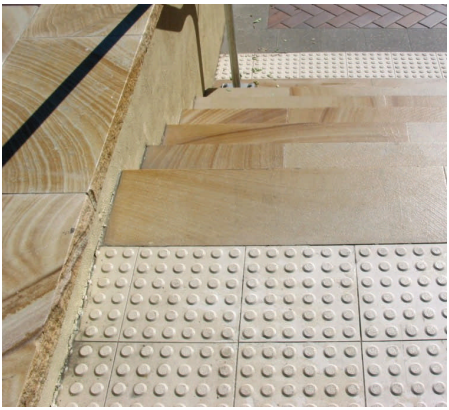
Access Ramp to wharf

Tactile Ground Surface Indicators (TGSI)

Tactile Ground Surface Indicators (TGSIs) should be installed to alert people who are blind or vision impaired to pending obstacles or hazards on, or changes in direction and location points of, the continuous accessible path of travel, where those hazards or changes could not reasonably be expected or anticipated using existing tactile and environmental cues. For example:

- A stairway, an escalator, a travelator or moving walk
- A ramp other than a step ramp, kerb ramp or swimming pool ramp
- Pedestrian crossings at roadways and in high-use vehicular areas, e.g. car parks
- Vehicle pick-up and drop-off areas
- Railway platforms
- Passenger wharves
- An overhead obstruction less than 2m above floor level, other than a doorway
- Where there is a hazard within a circulation space or adjacent to a path of travel
- Where indication of a change of direction is required

[Where TGSI are used, they must comply with AS 1428.4.]

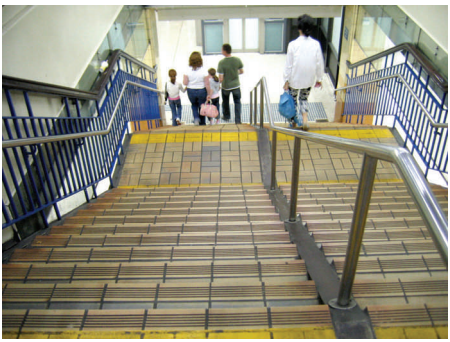


Stairways and Steps

- Some people with disabilities need to use ramps to overcome changes in level, but many who walk and find longer ramps or slopes too difficult will require steps.
- There should be handrails each side of steps or a central handrail, and handrails must be continuous around landings.
- Single steps, spiral steps and open risers are a hazard to people with a disability and should be avoided.
- All steps should have non-slip surfaces.
- Tactile Ground Surface Indicators (TGSIs) should be incorporated at the top and bottom of each flight of stairs to warn blind and partially sighted people of the change in level.

Handrails and Grabrails

- Handrails are essential for access and mobility, as they provide guidance for people with visual impairments, as well as lateral body support and hand support slides for older people and people with ambulatory disabilities.
- Handrails should not encroach the minimum width of pathways, ramps, step ramps and stairways.
- Accessible handrails should give a continuous grip on either side of a ramp or flight of steps.
- Handrails ends should terminate either by turning down, or by going into the wall as an aid to persons who have visual limitations.
- Grabrails should be securely fixed to the walls or the floor, or both.
- Handrails should be smooth, continuous and easy to grasp.



Surfacing

- Surface materials should be firm, slip-resistant in all weather, well laid and maintained. Surfaces such as loose gravel should be avoided.
- Gratings must be avoided in pedestrian circulation areas, as they can be a hazard to users of walking sticks and wheelchairs.
- Floor and wall surfaces with a low reflectivity should be used since high reflective surfaces can provide disorientating images for people with vision impairment.
- Where reflective surfaces are used, such as glass walls and doors, all efforts should be made to reduce the potential for disorientation.
- Particular consideration should be given to lighting uniformity to ensure that unevenness and glare do not accentuate problems for people with vision impairment.
- Changes in surface texture, raised kerbs and the use of contrasting colours should be used to warn people with visual impairments of possible dangers in level and crossing places.
- Surfaces materials can offer different sound qualities and textures as well as colour as an aid to locating the route within the environment.

Lighting

- Everyone benefits from a good level of lighting, but for visually impaired people the level and type of lighting is critical.
- Lights should be positioned where they do not cause glare, reflection, confusing shadows or pools of light and dark.
- Fluorescent lights create a magnetic field which causes a hum in hearing aids.
- Lights should not flicker.
- A uniform level of light should be provided along the main accessible pathways, ramps, entrances, lobbies, lifts, stairs, corridors and toilets.
- All access routes, signs, facilities such as car parking spaces and seats, and hazards such as steps, ramps, street furniture and door entrance should be lit at least to Australian Standards (**AS/NZS 1158.3.1 Pedestrian area Category P lighting**).

Entrances, Doorways, Doors, & Lifts

- Pedestrian routes to the main entrance and/or other accessible entrances should provide a safe, direct, level and obstacle free path of travel for persons with mobility or visual impairments.
- Revolving doors are not accessible to all people with disabilities, so there should be an adjoining door fulfilling the access criteria (e.g. hinged or sliding door) **[Photo A]**.
- Automatic sliding doors are the most convenient form of access for people with disabilities. They should remain open long enough for people who move slowly to go through the door safely **[Photo B]**.
- Routes from the entrance door to lifts, stairs, enquiry desks and toilets should be clearly defined and unobstructed.
- Facilities located in the lobby (such as the reception desk, call buttons, public phones, drinking fountain, rubbish bins) must be suitable for use by all people including those in wheelchairs and those with sight impairment.
- A lower part of any reception desk should be included for use by wheelchair users

[Photo A]

[Photo B]

- Any doormat and matwell should not impede the movement of wheelchairs.
- Lever handles are preferred to knobs and should be used in public areas.
- The door handle and related hardware must be of a type that allows the door to be unlocked and opened with one hand using a closed fist.
- Doors should be located away from hazards, and should avoid opening directly onto pathways.
- Entrance doors should have vision panels towards the leading edge of the door.
- There should be a continuous path of travel to and within any building to provide access to all required facilities.
- Platform lifts **[Photo C]** and wheelchair stairlifts **[Photo D]** can be used to overcome changes in level where passenger lifts or ramps are not possible. However wheelchair stair lifts are not recommended for new buildings. They can rarely be used independently and can obstruct passage width of the stair while in use.
- Requirements for facilities in passenger lifts **[Photo E]** that are specifically designed to assist persons with disabilities must comply with BCA and AS 1735.12.

[Photo C]

[Photo D]

[Photo E]

Symbols and Signage

- Signs and information should be in forms that can be used by people with disabilities.
- Wherever access and facilities are provided for people with disabilities they should be clearly and consistently sign-posted e.g. ramps, car parking spaces, toilets, lifts, accessible routes and entrances.
- Standard symbols and pictorial signs should be used where appropriate to indicate facilities.
- All signs should be clear, legible and distinguishable from the background by use of strong contrast, and be readily visible.
- All signs should be located in a logical position and care must be taken that they do not project, becoming an obstruction or a hazard, particularly to visually impaired people.
- Tactile signs, numbers, letters and floor plans should be used, supplemented by the use of Braille, and located within reach.
- Braille and Tactile signage should comply with specification of the BCA.

Sanitary Facilities

- Where accessible toilets are provided, they must be located in places that are readily accessible by time and distance.
- The internal layout of a toilet and the provision of support rails and other fittings should allow convenient use by people in wheelchairs.
- Facilities for washing and drying hands should be within easy reach of the WC.
- Ensure that paper towel and soap dispensers are located within easy reach of the WC while not obstructing the use of any handrail or projecting into the manoeuvring space.
- Fixtures and fittings should be colour contrasted with the floor and walls to make them easily visible.
- Support rails should be very firmly fixed to the wall, as they are used to support body weight.
- Uniformity of layout is a great benefit to people with visual disabilities.
- The floor surface should be non-slip and laid to fall to a drain; raised shower trays should not be installed.
- Where there is only one toilet facility provided it should be an accessible unisex toilet facility suitable for use by people with disabilities.

- Flushing controls of water closets must be hand operated, within easy reach and easy to operate. A lever action is preferred. If push buttons are used, the button should protrude and be able to be fully activated by the palm of the hand **[Photo A]**.
- Faucets on basins may be automatic (preferred) or of the lever handled type **[Photo B]**.
- The shower floor must be impervious, non slip and self draining without a kerb and on the same plane.
- A portable shower head attached to a flexible hose must be provided to enable the user to shower while sitting or standing.
- The changing rooms and showers associated with recreational facilities, sports and health clubs should be designed to be fully accessible. Suitably designed grabrails and fold down seats should be fitted in showers and changing rooms.
- Door should be easy to grasp and use (e.g. of the lever handled type) **[Photo C]**
- Technical design specifications for accessible toilet facilities, the installation of washbasins, sanitary facility fixtures and fittings must comply with BCA requirements and relevant Australian Standards.

[Photo A]

[Photo B]

[Photo C]

Intersection /Pedestrian Crossing Design

- An accessible kerb crossing is one that is safe for pedestrians who use wheelchairs.
- Pedestrian crossing located between intersections should include appropriate kerb ramps at each end.
- At road junctions, pedestrian kerb crossings should be located so that the footpath and the crossing are at right angles to one another. All such pedestrian routes should be free of obstacles, such as light standards, traffic signal supports, posts or catch basins as well as temporary objects such as pots, boxes and garbage bins.
- All pedestrian crossings are markings of a highly contrasting colour to the road.
- All drainage grates are away from the pedestrian walkway.
- Pedestrian crossings with a traffic island should be level with the main crossing or have kerb ramps for persons using mobility aids.

Public realm, public parks

- Street furniture should be positioned taking into account the needs of people with disabilities, such as accessible path and pathway widths, accessible seating, the detailing of ramps, steps, stairs and their associated handrailing.
- Street furniture including bus stops, benches, mail boxes, lamp posts, signboards, telephone booths, public toilets, newspaper kiosks, garbage bins, etc. should be located so as to allow for the free passage of all people without creating hazards.
- Poles, bollards and litter bins to be detailed so as to be detectable by blind people using dogs or long canes, and by those people who have impaired sight.
- Furniture should be grouped together or aligned, not randomly placed, as the consistent arrangement of obstacles is more easily identified.
- Overhanging furniture fixed onto the ground should have skirting, or be designed to present a detectable surface to long canes.
- Seats should be positioned in a safe, clearly visible and well-lit area, with adjacent space for wheelchairs and pushchairs.

TGSI to alert people who are blind or vision impaired to pending obstacles.

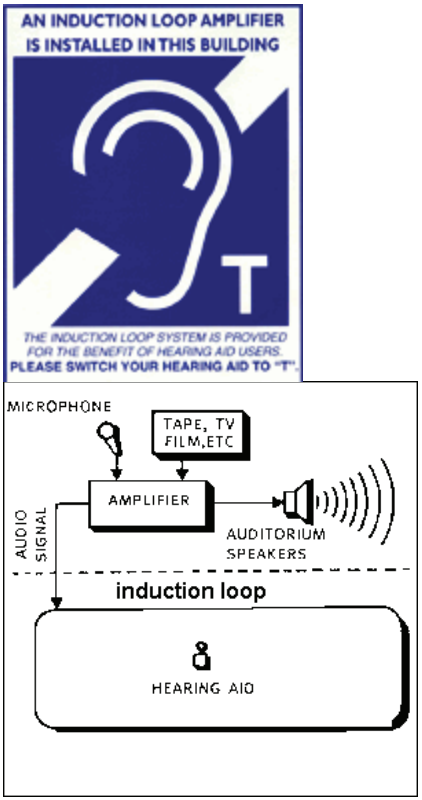
Furniture should be aligned to allow for the free passage of all people without creating hazards.

- An accessible telephone should be located adjacent to the accessible path of travel. Ambient noise should be minimised.
- Waterfront areas in public parks, public swimming pools, public picnic areas, boating, and other recreation facilities should be accessible to persons with varying disabilities.
- Exterior amphitheatres or performance areas should include seating areas that are accessible to persons using mobility aids.
- Accessible picnic tables or benches should be available, and play areas and recreational equipment, or other amenities should generally be designed to be accessible to and useable by children with varying abilities/ disabilities.
- Where special viewing locations are provided, these areas should be accessible to persons using mobility aids.
- Gratings and timber decking should be laid at right angles to the direction of the path.
- All amenities available to the public should be readily accessible and useable by everyone, regardless of age or disability.

Access ramp to a performance deck

Auditoriums and Assembly Areas

- In theatres, cinemas, concert halls, sports stadia etc. fixed seating spaces for wheelchair users should be provided on a level which is accessible from main entrance and provides a clear view.
- A continuous accessible path of travel should be provided to the seating spaces and seats identified for use by people with disabilities and from those seating points of egress and amenities such as toilets.
- A hearing augmentation system should be provided in auditoriums, assembly buildings, and in all places where sound amplification is provided or public announcements are made.
- Areas where augmentation is provided should be identified by use of the international symbol of deafness.
- Induction loops should be fitted wherever information is given verbally: box offices, ticket counters, banks, post offices, churches, meeting places, cinemas and theatres, etc.



Induction loops convert sound via a microphone into a varying magnetic field which is converted back to amplified sound by an individual's hearing aid. Loops help to cut out extraneous background noise.

Have you considered..?

This Section is not intended to be used as a Development Application (DA) checklist for access requirements from various legislations. The current provisions for access for people with disabilities in BCA do not meet the requirements of DDA. It is the responsibility of the applicant to ensure that the development meets the requirements of the relevant legislation, in addition to the latest amendments to the relevant Australian Standards and the Building Code of Australia (BCA).

Accessible Car Parking

- *Are there the appropriate number of parking spaces designed for people with disabilities in accordance with the Building Code of Australia (BCA)?*
- *Does design dimension for disabled parking spaces comply with Council's Parking Code and the most current Australian Standards on access?*
- *Is there a continuous accessible path of travel from disabled parking space and the set-down area/ transport stop to the main entrance or lift?*
- *Are all areas of the car parking well lit and is the lighting even?*

Pathways/Ramps/Kerb Ramps

- *Does design dimension for ramps, kerb ramps and pathways comply with the most current Australian Standards on access?*
- *Does the pathway/ramp have a firm, smooth and slip-resistant surface?*
- *Do the ramps have handrails on both sides?*
- *Do the tactile ground surface indicators extend across the full width of the pathway at kerb ramps and step ramps?*
- *Does the continuous accessible path of travel cross any vehicle traffic areas?*
- *If there is a change in level, is a kerb ramp provided?*

External Stairs/Steps

- *Are there any steps on the direct access route to the facility?*
- *Do the steps have a slip-resistant surface?*
- *Are all of the stair risers enclosed?*
- *Are handrails provided on both sides?*
- *Are there any tactile ground surface indicators at the top and bottom of each flight of stairs?*

Signage/Symbols

- *Does the signage give directional information about buildings, facilities (including toilets, lifts, entrances and hearing augmentation) and services?*
- *Is there sufficient signage to allow a person to move independently around the buildings and facilities?*
- *Where the symbol for access is used, does it comply with the international standard in style, colour and layout?*

Entrances/Doors

- *Is access provided through the principal public entrance?*
- *Is there wheelchair circulation space on both sides of the entrances/ doorway?*
- *Does design dimension for entrance/doors comply with the most current Australian Standards?*

Accessible Toilets

- *Is a toilet designed as wheelchair accessible available in the building/facility?*
- *Is the toilet signposted with the international access symbol?*
- *Is the accessible toilet unisex?*
- *If the door opens inwards, is the space large enough for a person in a wheelchair to shut the door once inside?*
- *Does design dimension for disabled toilets comply with the most current Australian Standards?*

Public Realm/Public Parks

- *Is all street furniture located so as not to obstruct the main pedestrian route?*
- *Are there accessible paths, seating and eating areas?*
- *Are seats positioned in a safe, clearly visible and well-lit area, with adjacent space for wheelchairs?*
- *Are any facilities such as barbeques, tables and seating linked by an accessible path to main pathways?*
- *Are tables and seats located on firm, level ground?*
- *Are shelters provided to protect against sun, rain and wind?*

Lecture Theatres/Auditoriums

- *Is there wheelchair access?*
- *Do wheelchair seating spaces provide clear sightlines to the performance areas?*
- *Do wheelchair seating spaces allow people to site with their friends/ companions?*
- *Is there a continuously accessible path of travel to the podium or stage?*
- *If an audio loop is available, is a sign indicating its location and area serviced clearly visible at the main entrance to the assembly area?*

Glossary

(Refer to BCA and AS 1428.1)

Accessible: having features to enable use by people with disabilities.

AS: Australian Standards

Braille- A system of touch reading for the blind, which employs raised dots, evenly arranged in quadrangular letter spaces or cells.

BCA: the Building Code of Australia

DDA: the Disability Discrimination Act 1992

Disability: the loss or reduction of functional ability and activity that is consequent upon impairment. See details defined by the Disability Discrimination Act 1992 (DDA).

Continuous accessible path of travel: an uninterrupted path of travel to, into or within a building providing access to all required accessible facilities.

Grabrail: A rail used to give a steadying or stabilising assistance to a person engaged in a particular function.

Handrail: A rail used in circulation areas such as corridors, passageways, ramps and stairways to assist in continuous movement.

Kerb: A side barrier to a trafficable surface, including walkways and ramps.

Kerb ramp: An inclined accessway with a length not greater than 1520 mm and a gradient not steeper than 1 in 8, located within a kerb.

Landing: a flat or crowned surface with a gradient not steeper than 1 in 40 (e.g. a rest area on a ramp, stairway or walkway).

Step ramp: an inclined accessway with a length not greater than 1520mm and a gradient not steeper than 1 in 8, located in, or instead of, a step other than a kerb.

Ramp: An inclined accessway with a gradient steeper than 1 in 20 but not steeper than 1 in 14.

Tactile Ground Surface Indicators (TGSIs) - Areas of raised ground surface texture treatment, designed to provide vision-impaired pedestrians with warning and/or directional orientation information.

Tactile signs: Signage incorporating raised text and/or symbols to enable touch reading by the blind and touch enhancement of visual perception for vision impaired readers.

Walkway: Any accessway with a gradient not steeper than 1 in 20.

Further Information

There are many groups who can provide further advice and practical experience which will help to ensure that designs are relevant, practical and appropriate. A list of some useful contacts is provided.

ACROD NSW
(The Australian Council for Rehabilitation of the Disabled)
National Industry Association for Disability Services and Associations
(www.acrodnsw.net)
02) 9503-1666

Department of Ageing, Disability and Home Care
(www.dadhc.nsw.gov.au)
02) 8270 2000

Disability Council of NSW
(www.discoun.nsw.gov.au)
02) 9211 2866

Guide Dogs NSW & ACT
(www.guidedogs.com.au)
02) 9412 9300

IDEAS (Information on Disability-Equipment Access Services Inc)
(www.ideas.org.au)
02) 6947 3723

Independent Living Centre, NSW
(www.ngo.net.au)
1300 885 886

PWD (People with Disability), NSW
(www.pwd.org.au)
02) 9319 6622

Royal Blind Society of NSW
(www.rbs.org.au)
1300 134 560

SHHH (Self Help for Hard of Hearing People)
(www.shhh.org)
301-657-2248 Voice
301-657-2249 TTY

The Human Rights and Equal Opportunity Commission (HREOC)
(www.hreoc.gov.au)
02) 9284 9600

The Physical Disability Council of NSW (www.pdcnsw.org.au)
02) 9552 1606

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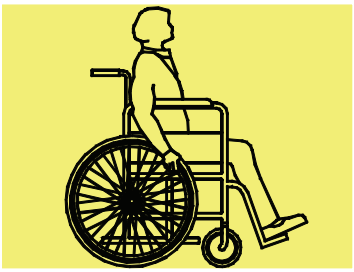

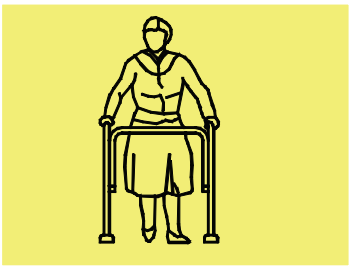

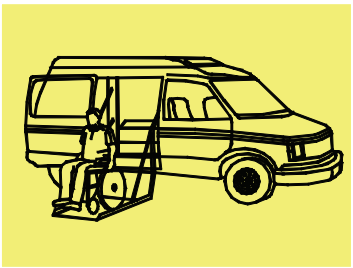

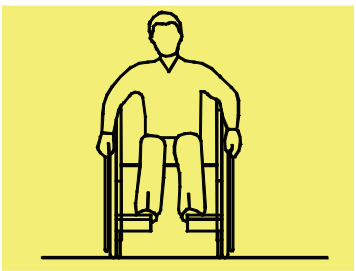

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