



Disability Access Guideline

30 September 2008

1. Introduction

Disability access to buildings is often overlooked in the planning and design phase of a project. This is often resulted in additional cost for alternation to accommodate people with disabilities. Some new buildings have incorporated disability access but are often incorrect in some form e.g. slope of ramp is too steep.

This Guideline therefore provides the details required for the provision of good access to public facilities not only for the benefit of people with disabilities but also others including parents with children in prams, people with temporary illness of injury, delivery, shoppers and older Samoans. Recognizing provision for disability access in planning and design stage of public facilities will alleviate extra costs and ensures safe and adequate access to public facilities by all.

2. Purpose and Scope

The Guideline aims to provide Government authorities, public and private developers, architects and property owners assistance with implementing disability access to buildings.

The Guideline:

- Covers the following disabilities - physical, sensory, intellectual, the elderly, and related impairments;
- Includes disabled access designs for alterations, extensions and renovations to existing building(s);
- Encompasses new buildings, public spaces, sports facilities and associated facilities;

It is important to note that the Guideline does not include provisions for residential dwellings. However, this guideline is mandatory for all public buildings including hospitals, schools, cinemas, commercial and institutional buildings.

3. Background

Samoa is a signatory to the UNESCAP¹ Proclamation on the Full Participation of People with Disabilities in the Asian and Pacific Region since 1998 (Asia-Pacific Development Center on Disability). Samoa is also a signatory to the Biwako Millennium Framework of action, 2003 which is the partner document for the Millennium Development Goals and specifically addresses disability issues for development.

The 2001 Population and Housing Census for Samoa identified 2,297 people with disability out of a total population of 176,710 (1.3%). Each of these people is a potential user of public facilities. Therefore good access for people with disability should be considered in the planning and designing stage of public facilities.

¹ United Nations Economic and Social Commission for Asia and the Pacific

The National Building Code (NBC) 1992 is the principal document that provides technical requirements for design and construction of buildings in Samoa. However, the provisions for disability access are limited to providing access to and within buildings and appropriate sanitary facilities. The NBC lacks specific detail for installation and it also provides for the needs of people with physical impairments while disregarding others, such as visual and hearing impairments, where an Adult Disability Identification Census (2002) identified physical, visual and hearing impairments had the highest incidences at 33%, 21% and 13%, respectively.

This guide therefore considers all forms of impairments in order to create an inclusive environment for people with disabilities and provide certainty for adequate access to public facilities.

4. Objectives

The following objectives have been identified for this guideline:

- To provide guidance to developers on the features of disability access to incorporate into the design stage of development, extension or alteration;
- To provide people with disabilities with safe and adequate access to buildings and public spaces;
- To create an inclusive environment for people with disabilities;
- To support quality living in Samoa for people with disabilities;
- To promote recognition and acceptance within the community that persons with disabilities have the same fundamental rights as the rest of the community;
- To assist in the assessment of development consent application.

5. Statutory Provisions

This guideline is developed under the Planning and Urban Management Act 2004 (“the Act”), which is the principal legislation governing the Agency’s operation. The guide is adopted under the Act through the development consent process in achieving objective (d) of the Act, that is “to secure a pleasant, efficient and safe working, living and recreational environment for all Samoans.” This will ensure consistency and adequacy for disability access provision in public facilities in the planning stage in order to create an inclusive environment for all Samoans to enjoy.

6. Standard Requirements

6.1 Design Principles

Design and standards provided in this guide are based on the type of disabilities and associated issues identified in the Adult Disability Identification Census in 2002.

6.2 Performance Criteria

The following performance criteria shall be taken into account when constructing a new building, making renovations, alterations, additions and extensions. It is best to consider the following criteria/requirements in the design stage of any works.

6.2.1 Access to building

	Standard
Accessible route	<ul style="list-style-type: none"> ▪ All corridors, aisles and other spaces that are part of an accessible route shall comply with the ‘<i>Accessible route</i>’ requirements of this guideline.

	<ul style="list-style-type: none"> ▪ At least one access route shall connect accessible buildings, facilities, elements and spaces that are on the same site. ▪ Shall be easy to find. ▪ Shall be identifiable from the street boundary, the car parking area as well as to and throughout the building. ▪ Shall have adequate activity space to enable a person in wheelchair to negotiate the route while allowing space for an ambulant to pass. ▪ An alternative most direct route to the entrance shall be used with appropriate signage showing directions if it is not practical to give direct access to the principal entrance. ▪ In the event of an emergency, provision must be made for people with vision impairment to locate the exit path.
Main Entrance	<ul style="list-style-type: none"> ▪ Level approach space both inside and outside of the entrance to ensure a fully accessible entrance. ▪ Shall be distinguishable from the façade of the whole building. ▪ Thresholds shall be illuminated.
Drop off point	<ul style="list-style-type: none"> ▪ Shall be sited logically in relation to approach routes. ▪ A drop off bay shall be provided immediately adjacent the building entrance. ▪ Where it is impractical to provide one at the entrance of the building a drop off point shall be provided as close as possible to the main entrance – preferably no more than 50m in distance if the pathway is uncovered.

6.2.2 Doors

	Standard
General Design	<ul style="list-style-type: none"> ▪ Doors are required to be accessible. ▪ Shall be easy to open (light weighted). ▪ Width should be at a minimum of 850mm or greater. ▪ Door handle should provide an easy to use grip handle (lever handles preferred). ▪ The door handles should be operable with one hand. ▪ The door handles should be at a height of 800mm – 1100mm. ▪ Entrance doors should provide good wheelchair circulation on both sides.

	<ul style="list-style-type: none"> ▪ The door should ideally be threshold level. If there is a threshold at the entrance or doorway, a step ramp of not more than 450mm in length, less than 56mm in height and greater than 1:8 should be installed. ▪ There needs to be adequate wheelchair circulation space on both sides of the entrances/doorway.
Turnstiles doors	<ul style="list-style-type: none"> ▪ Turnstiles shall not be the only means of passage at an accessible entrance or along an accessible route. ▪ An accessible gate or door shall be provided adjacent to the turnstile door and shall be so designed as to facilitate the same use pattern.
Double-leaf doorways	<ul style="list-style-type: none"> ▪ If doorways have two independently operated door leaves, then at least one leaf shall have a minimum clear opening of 815 mm with the door open 90 degrees, measured between the face of the door and the opposite stop. That leaf shall be an active leaf.
Two doors in series	<ul style="list-style-type: none"> ▪ The minimum space between two hinged or pivoted doors in series shall be 1220 mm plus the width of any door swinging into the space. Doors in series shall swing either in the same direction or away from the space between the doors.
Door Hardware	<ul style="list-style-type: none"> ▪ Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate. ▪ Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs. ▪ When sliding doors are fully open, operating hardware shall be exposed and usable from both sides. Hardware required for accessible door passage shall be mounted no higher than 1220 mm above finished floor.

6.2.3 Car Parking

	Standard
General	<ul style="list-style-type: none"> ▪ Adequate and minimum number of parking spaces shall be provided for people with disabilities at any building and shall comply with section 4.3 of the <i>Parking Policy, 2006</i>.
Space Dimension	<ul style="list-style-type: none"> ▪ Accessible parking spaces shall be 7.5m in length and 3.8m wide.
Location	<ul style="list-style-type: none"> ▪ Accessible parking spaces servicing a particular building shall be located as close as possible to the accessible route to that building or to the main entrance of that building. ▪ Ensure a continuous accessible path from the car parking area and street boundary to the principal entrance of a building.

	<ul style="list-style-type: none"> Ensure the spaces are provided 50m to the main entrance if the pathway to the entrance of the building is uncovered; increase to a maximum of 100m if the pathway is covered.
Signage and Parking demarcation	<ul style="list-style-type: none"> Accessible parking spaces shall be designated as reserved by a sign showing the international symbol of accessibility. Such signs shall be located so they cannot be obscured by a vehicle parked in the space. Ensure the lettering of signposts is easy to read, of acceptable font size, style and colour. All spaces shall be clearly demarcated, both on the surface of the space/bay and by means of a vertical sign indicating the space for disabled parking.
Surface	<ul style="list-style-type: none"> The car park space shall provide a smooth, stable, firm and slip resistant flat surface. Avoid unbound surfaces such as gravel, this is unacceptable.
Kerb	<ul style="list-style-type: none"> Provide kerbs to footpath from disabled parking spaces. Provide tactile indicator paving to show the vision impaired where to safely cross. If it is not possible to provide a tactile indicator, then ensure the surface colour of the kerb is contrasted from the crossing/ road and footpath.

6.2.4 Kerb ramps

	Standard
Location	<ul style="list-style-type: none"> Kerb ramps shall be located so that users can easily access an accessible route to the building from the street boundary or car park area. Kerb ramps shall be provided at pedestrian crossings. Ensure to orientate the ramp grade in the direction of travel.
Slope	<ul style="list-style-type: none"> The maximum slope for a kerb ramp shall be 1 in 8 (see Fig. 1). Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.
Width	<ul style="list-style-type: none"> The minimum width of kerb ramps shall be 1000mm, exclusive of flared sides.
Surface	<ul style="list-style-type: none"> All surfaces of kerb ramps shall be stable, smooth, firm and slip

	<p>resistant.</p> <ul style="list-style-type: none"> ▪ Avoid any lip at the bottom of the kerb ramp from the road boundary. That is, ensure the kerb is dropped and leveled with the road. ▪ Surface of kerb ramps shall have a contrasting colour and texture surface finish.
Side of kerbs	<ul style="list-style-type: none"> ▪ The sides of the kerb ramps shall not exceed a minimum width of 1200mm. ▪ If a curb ramp is located where pedestrians must walk across the ramp, or where it is not protected by handrails or guardrails, it shall have flared sides.
Obstructions	<ul style="list-style-type: none"> ▪ Kerb ramps shall be located or protected to prevent their obstruction by parked vehicles. ▪ Kerb ramps shall be cleared of any trees, grates or street furniture hindering the free movement of people.
Islands	<ul style="list-style-type: none"> ▪ Any raised islands in crossings shall be cut through level with the street or have kerb ramps at both sides and a level area at least 1220 mm long between the kerb ramps in the part of the island intersected by the crossings.

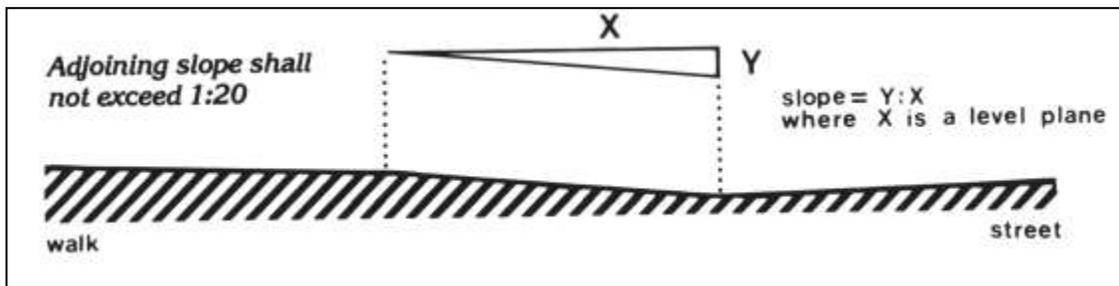


Figure 1: Measurement of Kerb ramp slopes

(Source: Retrieved from <http://www.access-board.gov/adaag/html/figures/fig11.html>)
 (NB: The ramp slope is a ratio equal to the vertical rise (y) divided by the horizontal run (x). It is equal to the tangent of the angle that the plane of the ramp surface makes with a horizontal (level) plane. For a curb ramp, the adjoining slope at walk or street shall not exceed 1:20).

6.2.5 Ramps

	Standard
General	<ul style="list-style-type: none"> ▪ Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp.
Location	<ul style="list-style-type: none"> ▪ Be close as possible to the principal entrance of the building. ▪ Ensure the access route/pathway from the ramp to the principal entrance is not at the rear of a building.

Slope and rise	<ul style="list-style-type: none"> ▪ The least possible slope shall be used for any ramp. ▪ The maximum slope of a ramp in a new construction shall be 1:12. ▪ The maximum rise for any ramp shall be 0.76m (see Fig. 2 and Table 1) ▪ Where space limitations prohibit the use of a 1:12 slope or less, ramps may have slopes and rises as follows: <ul style="list-style-type: none"> → A slope between 1:10 and 1:12 is allowed for a maximum rise of 0.15m (6inches) → A slope between 1:8 and 1:10 is allowed for a maximum rise of 0.75m (3 inches). A slope steeper than 1:8 is not allowed.
Clear width	<ul style="list-style-type: none"> ▪ The minimum clear width of a ramp shall be 915mm (0.915m).
Surface	<ul style="list-style-type: none"> ▪ Ramps must be stable, firm and slip resistant. ▪ Detectable warning surfaces and/or colour contrasts between the ramp and level surface are recommended to indicate the impending incline and decline of a ramp to persons with low vision or blindness.
Edge protection	<ul style="list-style-type: none"> ▪ Ramps and landings with drop-offs shall have kerbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Kerbs shall be a minimum of 50 mm high.
Landings	<ul style="list-style-type: none"> ▪ Ramps shall have level landings at top and bottom of each ramp and each ramp run. ▪ A ramp more than 1:12 should have a landing every 6 metres.
Handrails	<ul style="list-style-type: none"> ▪ If a ramp run has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then it shall have handrails on both sides. ▪ If handrails are not continuous, they shall extend at least 305 mm beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface. ▪ The clear space between the handrail and the wall shall be 38mm (1- ½ in). ▪ Gripping surfaces shall be continuous. ▪ Top of handrail gripping surfaces shall be mounted between 865 mm and 965 mm above ramp surfaces. ▪ Ends of handrails shall be either rounded or returned smoothly to floor, wall or post for a minimum of 100mm. ▪ Handrails shall not rotate within their fittings. ▪ Colours of handrails shall be contrasted from the background

colours and the ramp's surface.

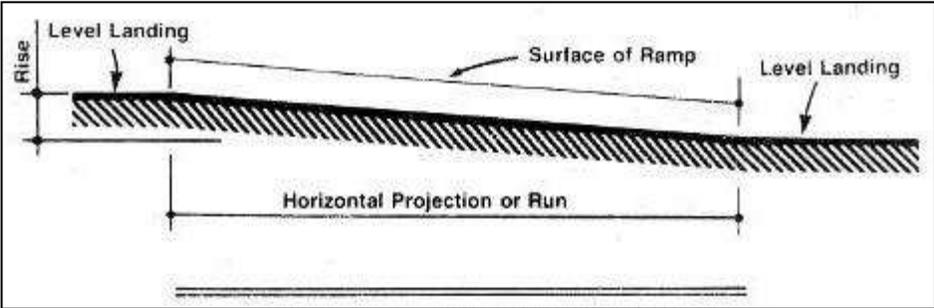


Figure 2: Single ramp run
 (Source: Adapted from <http://www.access-board.gov/adaag/html/figures/fig16.html>)

Slope	Maximum rise		Maximum horizontal projection	
	mm	m	ft	m
1:12 to < 1:16	760	0.76	30	9
1:16 < 1:20	760	0.76	40	12

Table 1: Sample ramp dimensions
 (Source: Adapted from <http://www.access-board.gov/adaag/html/figures/fig16.html>)

6.2.6 Street furniture

	Standard
General	<ul style="list-style-type: none"> ▪ Ensure the accessible path way is clear of any street furniture. ▪ This includes any objects placed on the footway (e.g. inappropriately placed waste bins, seats, barriers, utility boxes, and advertising standing boards/signs).

6.2.7 Pathways

	Standard
Accessible pathways between key buildings	<ul style="list-style-type: none"> ▪ Encourage provisions of pathways with a minimum width of 1.2 m and has well defined edges or a high contrast finish with adjoining ground surfaces and with an overhead clearance of 2 m for full length of path. ▪ Ensure that pathways between key buildings are clearly defined and designed to maximize 'way finding' for all students. ▪ Pathways should be easily located or well sign posted with a mixture of text and symbols; ensure the font size, symbol and colours are visible and can be seen from a distance of 15 – 20 metres. ▪ Consider illumination of pathways that enables night usage.

	<ul style="list-style-type: none"> ▪ Any seats, bins or signs should be located adjacent to and clear of the path of travel. ▪ Free of steps. ▪ Have slip resistant surfaces. ▪ Reasonably flat with adequate drainage. ▪ Have a smooth transition between different surfaces or slopes. ▪ Have adequate lighting.
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6.2.8 Signage

	Standard
Provision of signage	<ul style="list-style-type: none"> ▪ Signage should be clear and easy to read to assist people with cognitive, intellectual and sensory disabilities. ▪ Signage should provide access to information and direction to services and key locations (e.g. toilets, car parks etc). ▪ Ensure lettering on signs is of an appropriate size and colour to allow for ease of interpretation. ▪ Ensure that key directional information is provided in Braille for visually impaired students. ▪ As an alternative to signage, tactile indicators could be provided on ground surfaces to indicate changes in level or direction.

6.2.9 Stairs

	Standard
Surface	<ul style="list-style-type: none"> ▪ Ensure that all steps are designed with a slip resistant surface, with colour contrast or tactile indicators provided at the front edge of the step.
Design	<ul style="list-style-type: none"> ▪ Provide a strip of contrasting colour or texture on the front edge of steps (nosings) that is a minimum of 25mm wide across the full width of the step. ▪ If tactile indicators are provided on steps, ensure they are set back 300mm from the nosing or riser and extend along the full width of the step. ▪ Where possible, ensure that openings under steps (risers) are enclosed to avoid potential accident. ▪ Reflectors must be provided along the side edges of the stairs.

Rails	<ul style="list-style-type: none"> ▪ Provide handrails on both sides of stairs to assist with stability and maneuverability. ▪ The handrails should extend at least one tread wide plus 300mm from the last riser (450mm recommended). ▪ The end of the handrail should be returned away to the side wall or turned downwards for at least 100mm. ▪ The handrail height should be between 865 mm – 1000mm above the step nosing. ▪ There should be at least 600mm clearance above the handrail along its full length. ▪ The handrail should have a minimum clearance of 50mm from any obstruction. ▪ Where possible, handrails should incorporate domed buttons on the top of the rail at each end of the set of stairs, to assist the visually impaired. ▪ Ensure the handrails are contrasted from the background.
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6.2.10 Lifts

Design	<ul style="list-style-type: none"> ▪ Lift floor dimension should not be less than 400mm X 1700mm. ▪ There should be automatic audible information within the lift car to identify the level each time the car stops.
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6.2.11 Toilets

	Standard
Number of facilities to be provided	<ul style="list-style-type: none"> ▪ The number of single and unisex facilities to be provided in a building should comply with the requirements set out in the <i>National Building Code</i> under the Ministry of Works, Transport and Infrastructure.
Doors and handles	<ul style="list-style-type: none"> ▪ The door should have an 'occupied' indicator and be able to be opened from the outside in an emergency. ▪ The door should be able to be unlocked and opened with one hand. ▪ The door handles should be colour contrasting to their background. ▪ All door handles should be between 800mm – 1100mm high above the floor level (1m recommended). ▪ There should be sufficient circulation space on both sides of the door for accessing the latch mechanism. ▪ If the door opens inwards, the space needs to be large enough so

	that a person in a wheelchair is able to shut the door once inside.
Pan dimensions	<ul style="list-style-type: none"> ▪ There should be at least 1200mm space in front of the pan (1500mm recommended – this allows front transfers from a wheelchair, 100mm of the 1200mm is allowed under the basin). ▪ There should be at least 950mm at one side of the pan (this allows side transfers from a wheelchair). ▪ The front of the pan should be 800mm from the rear wall. ▪ The seat should be between 460mm – 480mm. ▪ There should be a grab rail next to the toilet at 800mm – 810mm high (this allows side transfers and sitting on toilet). ▪ The toilet paper needs to be able to be easily reached – forward of the pan and 700mm maximum height. ▪ The flushing control needs to be within easy reach and easy to operate at a maximum height of 1100mm.
Basin	<ul style="list-style-type: none"> ▪ There should ideally be a basin in the toilet cubicle. ▪ The basin should be located not closer than 1100mm to the pan. ▪ There needs to be sufficient foot plate and leg room under the basin. ▪ The basin must have knee space underneath, 640mm -650mm from the floor.
Tab controls	<ul style="list-style-type: none"> ▪ The taps controls should ideally be level, sensor type or capstan style (+). ▪ The taps should be clearly identified as hot and cold.
Other	<ul style="list-style-type: none"> ▪ Light switches, hand dryers, soap dispensers, shelves need to be provided at a height between 900 – 1100mm (1m recommended). ▪ Appropriate device including a button that alerts a call center of a problem and need assistance should be installed.

6.2.12 Showers

	Standard
Doorways	<ul style="list-style-type: none"> ▪ All shower doorways should have a minimum clear opening of 800mm (850 recommended).
Shower cubicle and recess	<ul style="list-style-type: none"> ▪ Shower cubicle should be a minimum size of 1600mm x 2350mm. ▪ Shower recess should be accessible with no hob or step. ▪ There should be grab rails available on at least two sides of the cubicle.

Seat dimensions	<ul style="list-style-type: none"> ▪ A seat should be provided in the shower recess at a height of 470 mm – 480mm. ▪ There should be a maximum of 40mm between the end wall of the shower recess and the seat. ▪ The seat should be 390mm – 400mm in width and 1100mm minimum length. ▪ A mobile shower chair should be provided, and a hand held shower should be within reach when seated.
Surface	<ul style="list-style-type: none"> ▪ The floor should be slip resistant.
Controls	<ul style="list-style-type: none"> ▪ The tap handles should be lever or capstan (+) style. ▪ All controls need to be between 900mm – 1100mm above the level of the shower floor.
Others	<ul style="list-style-type: none"> ▪ Appropriate device including a button that alerts a call center of a problem and need assistance should be installed.

7. References

Documents and policies referenced in the preparation of this policy include:

- Adaptive Access, retrieved June 11, 2007 from URL: www.adaptiveaccess.com

- APCD, **Country Profile: Current Situation of Persons with Disabilities**. Retrieved May 10, 2007 from URL: http://www.apcdproject.org/Countryprofile/samoa/samoa_current.html.

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- Ministry of Health, (2001). **The New Zealand Disability Strategy: Making a World of Difference – Whakanui Oranga**. Wellington, NZ; Available on website: www.odi.govt.nz