

Disability Access Audit

Broome Recreation and Aquatic Centre

Shire of Broome



March 2014

**Prepared by
O'Brien Harrop Access**

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Intent of audit

O'Brien Harrop Access was engaged by The Shire of Broome to undertake an onsite disability access audit of The Broome Recreation and Aquatic Centre (BRAC).

The intent of the disability access audit was to review all staff, public, visitor and participant areas of this Aquatic Centre to:

1. Identify the barriers to access for people with a disability to this building and associated amenities.
2. Assess compliance with the current legislative requirements including the Premises Standard 2010 and referenced Australian Standards on Access and Mobility.
3. Provide a report that includes advice and recommendations to address issues that do not meet the mandatory access requirements as well as issues that may not meet the intent of the Disability Discrimination Act 1992.
4. To provide information / advice that could be incorporated as part of the current master planning process that the facility is currently undergoing.
5. Provide a risk management approach that assesses and addresses all documented barriers to access for people with a range of disabilities.
6. Assist The Shire of Broome to meet their responsibilities under the Shire of Broome's Disability Access and Inclusion Plan (2012 - 2017) (DAIP) that will ensure that the needs of people with disabilities, in regards access to the building and services offered, are being met.
7. Provide feedback on access achievements already implemented at the BRAC.

Legislative compliance

In general the Premises Standard and referenced Australian Standards on Access and Mobility have been used as the basis for assessing this building as this would ensure any future works are contemporary and in line with current standards of practice. Where possible compliance with contemporary legislative documents will provide the Shire of Broome with greater certainty against any complaint lodged under current state and federal disability legislation. In instances where structures within the building have been constructed to meet AS1428.1-2001 (now superseded by AS1428.1-2009) it would not be reasonable to expect that major structural work be undertaken to deliver a small gain in access compliance. Examples include door widths (where there are minimal discrepancies), ramps and some latch side clearances on doorways. The report provides a practical approach to upgrading access to the latest standards without being onerous for the Shire.

The disability access audit considered all areas that are mandatory under legislation, to meet the access requirements of people with disabilities including external access, car parking, entrances, internal accessways, doorways and circulation space, ramps, statutory signage, hearing augmentation, application of tactile ground surface indicators, wheelchair seating spaces, glazing and application of luminance contrast requirements, swimming pool access and accessible sanitary facilities.

The following documents are referenced in this report:

- Disability (Access to Premises – Buildings) Standard 2010
- AS1428.1 2009 Design for Access and Mobility – General Requirements for Access – New Building Works
- AS1428.4.1 2009 Design for Access and Mobility – Means to assist the orientation of people with a vision impairment - Tactile ground surface indicators
- AS2890.6 2009 Parking Facilities – Off-street parking for people with disabilities
- AS1428.1 2001 Design for Access and Mobility – General Requirements for Access – New Building Works
- AS2890.1 1993 Parking Facilities – Off-street car parking

Disability Discrimination Act

All organisations have a responsibility, under the federally legislated Disability Discrimination Act (1992) to provide equitable access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas within a building.

The DDA provides uniform protection against unfair and unfavourable treatment for people with a disability in Australia. It also makes it unlawful to discriminate against a person who is an associate, such as a carer, friend or family member. The Act supports the principle that people with a disability have the same fundamental rights as the rest of the community and this includes the opportunity to be employed, purchase goods and services, gain access to premises used by the public and the like. Equitable and dignified access must be provided and a complaint can be made under the DDA if appropriate access is not provided.

Compliance with the Premises Standard and referenced Australian Standards addresses the mandatory requirements for the provision of access for people with a disability. Meeting the intent of the Disability Discrimination Act (1992) and therefore protecting your organisation against a complaint under the DDA may require consideration of provision of access to the following areas that fall out of the mandatory requirements of the Premises Standard, for example:

- The landscaped environment
- Play areas
- Ticketing, gateways and entrance processes
- Counters
- Staff tea preparation areas and the like
- Change areas
- Drinking fountains
- Seating
- Operation of some controls
- Way finding and associated signage

Recommendations in regards to the above are based on the following Australian Standards that are not referenced in the Premises Standard, good practice guidelines, advisory notes and the knowledge and experience of the consultants:

- AS1428.2 1992 – Design for Access and Mobility – Enhanced and Additional Requirements – Buildings and Facilities.

Report

The disability access audit report is set out in table form that identifies:

Item and Barrier

The first column indicates the area assessed and the second identifies any barrier to access or area that is considered to be non-compliant with legislated documentation.

Recommendation

The recommendation provides the reader with the scope of work to be undertaken. Technical details on how the recommendations should be achieved must be gained from the referenced document/s. References in the report generally refer to the relevant clause of the document rather than any diagram or figure. Where remedial work is required it is imperative that technical information is gained from the relevant Clause and any Figure referenced within the Clause.

Some items have been assessed to have minor discrepancies to the relevant codes and standards and where it is the considered opinion of the consultants that, in the context of an Aquatic Centre the shortfall will not restrict use by a person with a disability; these discrepancies have not been detailed. Where an item meets the Australian Standard that was current at the time of construction and the Consultants consider that major rectification for a small gain in the level of access, a comment has been made.

Where it is deemed more practical to provide an acceptable level of access without major structural alterations and this can be achieved with the dimensions required in AS1428.1-2001, the 2001 version of this document is stated in the reference column. All other references to AS1428.1 are the 2009 version.

In some areas of the building where access barriers have been identified, that are occupied by staff only, the recommendation may be to make alterations to meet the **individual needs** of a staff member if and when required. This approach provides the Shire of Broome with a practical and cost effective means of improving access for staff members if and when required. When meeting the individual needs of any staff member an **individual solution** must be developed. This must be done in consultation with the individual and any changes are required to be made in a timely, equitable and dignified manner and at a minimum will reflect the requirements of the relevant and most current version of the Australian Standard at the time the changes are made.

Risk – probability, consequence and priority rating

The risk rating has been documented based on the consultant's professional experiences. This assessment is based on the consultant's assumed knowledge and information provided by the manager of the Aquatic Centre. Further, the perceived risks should also take into consideration other factors such as the requirements and requests from spectators or officials with disabilities, using their services. This schedule has been developed given the understanding that the Shire of Broome is undertaking a master planning process for the recreation and aquatic centre and are seeking to better understand the needs of their customers with disabilities. The priority schedule has been developed to reflect the barriers to access within the existing facility, with a priority for the short to medium term.

It should be noted that the risk assessment only documents those risks relative to access barriers that were identified during the audit. As risks are dynamic, it would be expected that some unforeseen risks may eventuate and therefore require further risk mitigation / treatments applied to minimise those risks at that

Explanation of rating

Probability of risk

Rating is according to the probability of the issue being raised as a barrier to people with disabilities.

Low A low chance that a person will be denied access as there is another acceptable means of access or other way-finding cues are in place. There is a low probability that this issue will impact the person's ability to participate or gain access.

Medium There is a medium chance that the issue will be a barrier sufficient enough to impact on a person with a disability. These issues will be unlikely to be a safety hazard.

High There is a high chance that a person with a disability will be at risk of injury or unable to gain access to any part of a facility considered to have a significant impact on their participation.

Consequence of risk

The rating is according to the possible outcome for a person with a disability or the organisation.

Low May involve a minimal level of inconvenience, or minimal assistance may be required from a nearby staff member to use the facility for the primary purpose for which it was intended. Not perceived to pose a safety risk.

Medium May involve an increased level of inconvenience, or assistance may be required, for example, may need to go and look for someone to assist. Not perceived to pose a safety risk.

High A safety risk and a person with a disability could sustain an injury. Alternatively access is denied to consumers with disabilities, into primary public areas of the facility that are essential to their needs. A sufficient enough barrier that injury or harm could be sustained or access denied. It is considered that there is a high probability of a person accessing their legal rights for safety, equity or dignity.

Priority

A list documenting the order in which these issues should be addressed. This should be considered in conjunction with ongoing plans to maintain, manage and upgrade the facility.

Where an asterisk * is shown it denotes that while the recommendation maybe a low or medium priority, it is considered reasonably easy to achieve. Such items may be achieved as 'quick wins'.

Executive Summary

The Broome Recreation and Aquatic Centre was constructed in 2002 and provides a good level of access for people with disabilities in keeping with a facility of this age. Access achievements include two wide, level accessible parking bays in good condition and a drop off area suitable for modified vans and the like is located conveniently to the principal public entrance. A lowered counter is provided at the front reception and ramped access and pool chair offer a means of equitable and dignified access into the leisure and connected lap pool for people unable to negotiate a ladder or stepped entry.

The unisex accessible sanitary facility within the centre is in keeping of an amenity typical of this era. The arrangement of the shower grab rails, shower seat and tap are not reflective of that depicted in earlier versions of AS1428.1, however provide a useable amenity, particularly where a person may be assisted, for example, ease of attendant access to the taps.

The recently constructed outdoor unisex accessible toilet and shower facility does not meet the full rigors of the most current AS1428.1 (2009) and some remediation measures have been recommended. It has been noted no sanitary facilities suitable for people with an ambulant disability are provided in the male and female toilet banks.

Availability of services and programmes, specifically designed or adaptable to suit the needs of people with disabilities were not reviewed as part of this audit. The consultants are not aware of current community demand for the services at the recreation and aquatic centre and whether there is any perceived gap either with the built structure or services offered, in regards meeting the needs of community members with physical, cognitive or sensory disabilities. It is recommended that during any master planning for future centre redevelopment, the Shire's Access and Inclusion Advisory Committee is consulted to ascertain any unmet community need.

A new inclusion in community and aquatic centre redevelopment or new construction is the provision of adult change and showering facilities for people with high support needs, based on Changing Places toilets (UK) recently championed in Australia (see www.acd.org.au). Such facilities being introduced to recreation and leisure centres in WA are inclusive of a ceiling mounted hoist, fixed or height adjustable adult length change table, shower and drying facilities and a design to suit assistance by up to two personal care attendants.

Recent feedback to staff of OHA has identified that while the Premises Standard requires that:

Where a swimming pool has a perimeter of more than 70m in length, at least one accessible water entry / exit must be provided by a means specified in paragraph (2)(a),(b) or (c) (i.e. an aquatic wheelchair and a ramp, zero depth entry or platform swimming pool lift).

There are instances where this method of assessing a swimming pool does not meet the very specific needs of children and adults with high support needs, and therefore communities have requested, in addition to the provision of either ramp or beach entry to a leisure / lap / program pool, that a post mounted sling style lift is also provided. This enables people who cannot be sufficiently supported in an aquatic wheelchair can be fully assisted to enter the water. Such an inclusion may be considered beneficial by the Shire of Broome, depending on perceived community need and extent of any future aquatic redevelopment.

Report prepared by:




A handwritten signature in dark ink, appearing to read 'A Harrop'.



Anita Harrop for O'Brien Harrop Access
Occupational Therapist BAppSc (OT) (Hons)
Accredited member ACAA No. 147



A handwritten signature in dark ink, appearing to read 'Ann M O'Brien'.


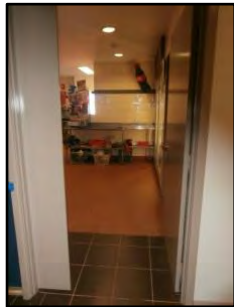
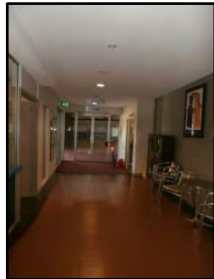
Ann O'Brien for O'Brien Harrop Access
Associateship in Occupational Therapy
Accredited member ACAA No. 119


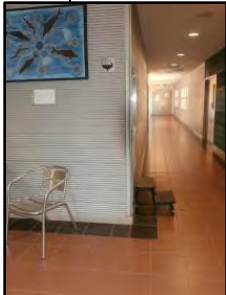


This report addresses barriers that have been specifically identified at the BRAC and within the context of the operational structure of a recreation and aquatic centre. Information contained within this report cannot be used for similar perceived barriers within this site or for any other purpose.

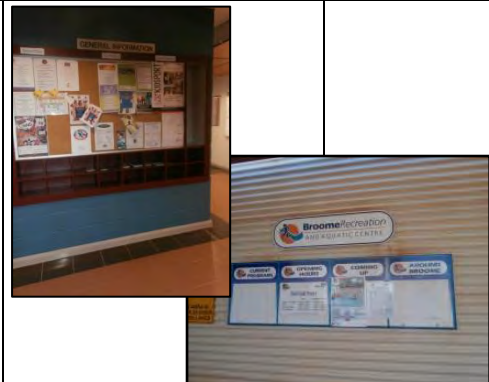

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
1 CAR PARKING				
1.1 Drop off bay	One drop off bay of suitable length to accommodate modified vehicles has been provided. A park bench style seat is provided adjacent the bay.	Nil. The drop off bay could be enhanced by the provision of a seat with armrests set on a hardstand with sufficient space for a wheelchair adjacent.		LOW*
1.1.1 Kerb ramp	Kerb ramp at the head of the drop off bay is 1600mm long with a shallow gradient of 1:18. As the kerb ramp extends across the width of the pathway, it creates cross slopes for pedestrians. There is no level landing at the top of the kerb ramp for a change in direction.	Ideally remake this area by dropping the paving to achieve level access onto the paving (i.e. landing is at road level). Landing to be 1500x1500mm, enabling the person to change direction. Install kerb ramps from this lower landing up to the paved footpath and entry forecourt level. Kerb ramps to have a gradient of 1:8 and maximum length of 1520mm. AS1428.1 2009 Clause 10.7 & Figure 24(C)		MED
1.2 Accessible car bays 1.2.1 Dimensions	Two accessible bays 3700mm wide and 5500mm, designed to the requirements of AS2890.1 1993 have been provided. The dimensions meet the requirements.	Nil. If the car park is refurbished to the extent that the accessible bays will be replaced, design and construct the accessible bays to the requirements of AS2890.6 2009 .		


ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
1.2.2 Grades and cross slopes	Bays are on level bitumen.	Nil.		
1.2.3 Markings and signage	Overhead signage is provided and the bay is marked with the international access symbol.	Nil.		
1.2.4 Access to the footpath	Access from the car bays is between the two bays, with a drop kerbed two metres wide and a centrally located dividing line between the bays. This provides 1000mm width path of travel from each bay onto the footpath.	Nil.		
1.2.5 Design of kerb ramp	The kerb ramp is 2000mm wide, 1500mm long with a gradient of 1:12, shallower than the 1:8 acceptable for a kerb ramp. The depth of the landing at the top is 1000mm. The sides on the approach to the centre have eroded and are uneven.	Redesign the kerb ramp to achieve a gradient of 1:8, maximum length of 1520mm, tapered sides at 45° and an upper level landing at least 1500mm deep. AS1428.1 2009 Clause 10.7 & Figure 24(A)		LOW
1.3 Lighting	The accessible parking bays and drop off bay are lit for night use.	Nil.		



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
2 EXTERNAL ACCESS				
2.1 Paved forecourt	Brick paved forecourt with level access, well laid pavers and the bike rack set off the accessible path of travel. A frame signage set against the building line may obstruct a potential shoreline for a person with low vision.	Avoid placement of bins, signs and the like against the building line or on an accessible path of travel. DDA		MED*
2.2 Entrance	Automated entrance door achieving 1000mm clear open width. The door is well defined by framing and open wire doors.	Nil.		


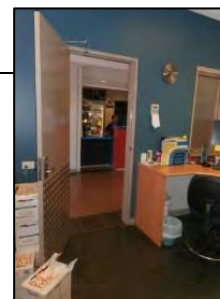
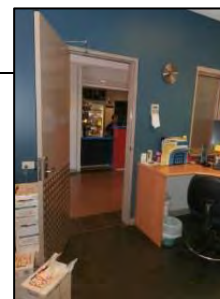
ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
3 INTERNAL				
3.1 Reception 3.1.1 Counter	A 920mm wide lowered section is provided, 860mm high with 810mm knee clearance 410mm deep to the underside. This counter section is suitable for tasks to be undertaken in an aquatic and recreation centre	Nil.		
3.1.2 Staff entry	The cat and kitten style door provides an 810mm clear open width, slightly exceeding requirements of the superseded AS1428.1 2001, with the minor leaf able to be opened should it be required. A compliant lever door handle is in situ.	Nil.		
3.2 Corridor 3.2.1 Seating	Informal café style seating with armrests are set against the internal corridor. The chairs may pose a barrier a barrier to a person with vision impairment navigating independently through the centre.	Ideally relocate the seating out of the corridor.		MED*


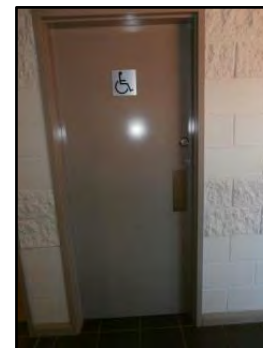
ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
3.2.2 Drinking fountain	The recessed drinking fountain has a small set of steps to assist children reach the spout. The steps may pose a hazard to a person with vision impairment navigating independently through the centre. The fountain is high and provides no knee access for a person who is a wheelchair user.	Provide one accessible style of drinking fountain inside the building. A lowered height fountain may also meet the needs of children and thus a step will not be required. DDA AS1428.2 1992 Clause 27.3	 	MED
3.2.3 Customer Feedback Box	The feedback box has the functional component (slot at top) 1660mm above floor level.	Lower the box so that the opening is located within the 'zone of common reach' 700 - 1200mm high. DDA AS1428.2 1992 Figure 23		LOW*
3.2.4 Notice Boards	There are a number of notice boards throughout the facility: <u>General Information:</u> Installed 1080-2080mm high. <u>BRAC Noticeboard in Foyer:</u> Installed 950-2040mm high. <u>External notices:</u>	The following recommendation is a guide only as it is appreciated that all of the notices could not be positioned within zones of reach and common viewing ranges. The 'zone of common reach' for people who are standing or are wheelchair users, making a side-on approach, is 700-1200mm. It is suggested noticeboards are lowered so		LOW

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
	<p>Installed at standing height.</p> <p><u>Emergency Evacuation Signage:</u></p> <p>Installed 1090 – 1520mm high (retain).</p>	<p>that the base is 700mm high to enable all people to reach and post notices.</p> <p>For viewing only, the average eye height for people seated to standing is 1220-1550mm. If the notice boards are for reading only, we suggest the base is lowered to 900mm for larger notice boards, or 1200mm for smaller signs.</p>		
3.2.5 Turning space	The corridors to the Squash Courts and Stadium are wide, sufficient to allow a 180° turn at the corridor ends, in instances where it is not possible to continue along the accessway (i.e. room occupied).	Nil.		
3.3 First Aid 3.3.1 Door	At 850mm the entry door into the first aid room meets current requirements for clear open door width. A D style pull handle is installed.	Nil.		
3.3.2 Treatment table	A fixed height treatment table is provided in the First Aid room.	<p>Consider provision of a height adjustable treatment table.</p> <p>DDA</p>		LOW*



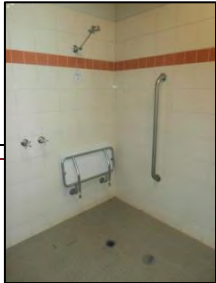
ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
3.4 Stadium 3.4.1 Entrance / Doors	Well framed, glazed double doors with each leaf providing 760mm clear open width. D style pull handles are installed at the correct height.	Ensure both doors are operable at all times.		MED*
		Ideally should any major refurbishment works be undertaken, provide a single leaf door, achieving at a minimum 850mm clear open width. AS1428.1 2009 Clause 13.2		MED
	Doors are heavy to open requiring a force of approximately 100N to push the door open.	Repair the door closers so that they are light to open and slow to close behind the user. The force required to operate and open a door should not exceed 20N. AS1428.1 2009 Clause 13.5.1(e)		HIGH*
3.4.2 Seating	Chairs without armrest are provided within the Stadium.	As the majority of chairs within the Centre do not have armrests, ideally have available in the Centre a selection of easily moveable chairs with a firm base, seat height 400 -450mm with armrests. DDA AS1428.2 1992 Clause 27.2		LOW*

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
3.5 Multi-purpose Rooms 3.5.1 Doors	Double doors are provided with each leaf providing 770mm clear open width. Lever handles are installed too high at 1170mm (900-1100mm required). This may be due to the space being utilised as a crèche, and thus considered acceptable to preserve the safety of the children. AS1428.1 2009 Clause 13.5.3(a)	Ensure both doors are operable at all times.		MED*
		Ideally should any major refurbishment works be undertaken, provide a single leaf door, achieving at a minimum 850mm clear open width. AS1428.1 2009 Clause 13.2		MED
3.5.2 Seating	Chairs without armrest are provided.	Ideally have available in the Centre a selection of chairs with a firm base, seat height 400 - 450mm with armrests. DDA		LOW*
3.5.3 Play area	Double doors provide with each leaf providing 760mm clear open width. D style handles are installed.	Ensure both doors are operable at all times.		MED*
		Ideally should any major refurbishment works be undertaken, provide a single leaf door, achieving at a minimum 850mm clear open		MED


ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		width. AS1428.1 2009 Clause 13.2		
	Within this small play area there is a flush transition between paved verandah and covered play area.	Nil.		
3.6 Squash Courts 3.6.1 Entrance	Double doors with a single leaf providing 760mm clear open width. D style pull handles are installed at the correct height.	Ensure both doors are operable at all times.		MED*
	Doors are heavy to open requiring a force of approximately 80N of force.	Repair the door closers so that they are light to open and slow to close behind the user. The force required to operate and open a door should not exceed 20N. AS1428.1 2009 Clause 13.5.1(e)		HIGH*
3.7 Staff office	The entry door to the spacious staff office is obstructed internally on the latch side by a moveable desk. Lever handles are installed to both office doors. The clear open door widths were not measured on the day of the audit.	If required, make adjustments to suit the individual needs of staff member. This may necessitate widening the doorway if 850mm clear open width is not achieved, or relocating the desk to provide required circulation space. AS1428.1 2009 Clause 13.2 & Figure 31(h)		


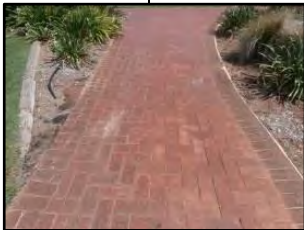

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
4 SANITARY FACILITIES (INTERNAL)				
4.1 Signage	<p>Ceiling mounted directional signage to the toilets does not display the international symbol of access.</p> <p>A small sign with an access symbol is adhered high on the door.</p> <p>Signage to the unisex accessible toilet, male and female toilets, is not provided in Braille and tactile formats.</p>	<p>Provide directional signage to the internal unisex accessible toilet, displaying the international symbol of access.</p> <p>Braille and tactile signage with the appropriate internationally recognised symbols and colour treatment is required to identify all sanitary facilities (male, female & unisex accessible),</p> <p>Signage identifying the UAT must identify whether the facility is suitable for left or right hand use.</p> <p>All signs to be installed on the latch side of the door, 1200- 1600mm high, with the leading edge of the sign located between 50 and 300mm from the architrave. The sign to be installed so that the Braille is at a height of 1250 - 1350mm.</p> <p>Access Code Clause D3.6 & Part D4 and AS1428.1 2009 Clause 8</p>	 	MED*



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
4.2 Unisex accessible toilet 4.2.1 Provision	A unisex accessible toilet is provided inside the recreation centre, in close proximity to the male and female sanitary facilities.	Nil.		
4.2.2 Door	The door achieves 820mm clear open width, exceeding requirements of the superseded AS1428.1 2001. The door is heavy to open, requiring a force of 70N to operate. The door closes slowly, however when almost closed, the speed increases significantly such that it may impact or unbalance a person leaving the sanitary facility.	Undertake maintenance to repair the door closer so that it is lighter to open, and slower to close. AS1428.1 2009 Clause 13.5.1(e)		HIGH*
	The door has a large locking snib at 1200mm, where it should be installed 900-1100mm high. D handle is correctly installed.	Lower the snib so that it is in the height range of 900-1100mm. AS1428.1 2009 Clause 13.5.3(a)		MED
4.2.3 Circulation space	Door, pan, basin and shower circulation spaces meet the requirements of the superseded AS1428.1 2001 to provide a functional space for toileting and showering.	Nil.		



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
4.2.4 Fittings and fixtures (toilet)	<p>The toilet has the following barriers:</p> <ul style="list-style-type: none"> - The pan set out from the rear wall is 830mm, this is a minimal discrepancy and no change is warranted; - The side grab rail terminates 260mm from the end of the rear wall; - The grab rail wall fixing is not an underslung style to allow to the top 270° free for the hand to move along. <p>It is noted that this unisex accessible toilet is enhanced with an emergency call bell positioned adjacent the toilet pan.</p>	<p>Upgrade the bathroom facility:</p> <ul style="list-style-type: none"> - Replace the side grab rail with one that meets requirements for length, location in relation to the pan, and use of an underslung bracket. <p>AS1428.1 2009 Clause 12(i) & Figure 42</p>		LOW*
4.2.5 Fittings and fixtures (basin)	When assessed against AS1428.1 2001, the basin meets all of the requirements.	Nil.		
4.2.6 Fittings and fixtures (shower)	The layout of the grab rails, lack of hand held shower hose and the non-compliant position of the taps render the shower recess of a non-compliant style.	To provide a shower that is compliant with AS1428.1 2001 (now superseded) it will be necessary to relocate the shower fitting, replacing the rose with a hand held shower and		LOW



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		<p>installing vertical / horizontal grab rails as stipulated in this Australian Standard.</p> <p>Further, taps will need to be relocated to this same wall and installed a distance of no more than 800mm maximum from the internal corner.</p> <p>Replace taps with lever style.*</p> <p>AS1428.1 2009 Figures 47 & 48 & Clause 15.5.8</p> <p>(The above recommendation has been made because if the shower seat was relocated to the adjacent wall to provide a functional relationship between the shower seat and the shower fittings, there would be insufficient circulation space adjacent the shower seat due to the proximity with the toilet, to make a side transfer onto the seat.)</p>		
4.2.7 Upgrade of amenity	Some features of the bathroom are not contemporary with AS1428.1 2009 and it is considered that provision of some of the following would enhance this accessible sanitary facility.	<p>Ideally undertake refurbishment works to achieve the following:</p> <ul style="list-style-type: none"> - Provide a backrest to the toilet pan. <p>AS1428.1 2009 Clause 15.2.4</p> <ul style="list-style-type: none"> - Replace the angled mirror with one that is at least 350mm wide, with the base no lower than 900mm and the top at least 		LOW





ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		<p>1850mm high.</p> <p>AS1428.1 2009 Clause 15.4.1</p> <ul style="list-style-type: none"> - Install a shelf adjacent the basin, minimum width 120mm and a length of 400mm. <p>AS1428.1 2009 Clause 15.4.2</p> <ul style="list-style-type: none"> - Install two clothes hanging devices, within reach of the shower seat, installed 1200 - 1350mm high. <p>AS1428.1 2009 Clauses 15.5.10 & 15.4.4</p>		
5 OUTDOOR COURTS				
<p>5.1 Outdoor Courts</p> <p>5.1.1 Doorway from Centre</p>	Well framed, glazed double doors with a single leaf providing 760mm clear open width. D style pull handles are installed at the correct height.	Ensure both doors are operable at all times.		MED*
		<p>Ideally should any major refurbishment works be undertaken, provide a single leaf door, achieving at a minimum 850mm clear open width.</p> <p>AS1428.1 2009 Clause 13.2</p>		MED



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
	Doors are heavy to open requiring a force of approximately 60N of force.	Repair the door closers so that they are light to open and slow to close behind the user. The force required to operate and open a door should not exceed 20N. AS1428.1 2009 Clause 13.5.1(e)		MED*
5.1.2 Paths of travel	Well laid brick paved pathway with the following barriers: <ul style="list-style-type: none"> - bricks at the end of the pathway are subsiding; - The balustrade does not extend for the full length of the bridge (noted hazard cones marking the open sides); - The path of travel near the courts (to car park) has depressed pavers. 	Repair the paving so to be level and even with smooth transitions between abutment of surfaces. AS1428.1 2009 Clause 7.1 and 7.3 Consider extending the balustrade for the length of the raised bridge. DDA and safety	  	



ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
5.1.3 Drinking fountain	An accessible drinking fountain has been provided. The plinth at the base of the fountain could restrict access for some people using wheelchairs.	For installation of future accessible drinking fountain, mount the base directly into the ground, ensuring that there is no change in level that could impede access. DDA		
5.1.4 Picnic tables	Accessible picnic tables have been provided. The height, knee access and open space on one side of the table would be ideal to accommodate a person using a wheelchair.	Nil.		

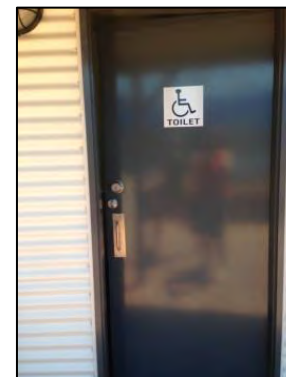
ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
6 SWIMMING POOL				
6.1 Doorway	Framed automatic doors with a 15mm lip at the base.	Eliminate the lip at the doorway. A 15mm high change in level can be remediated by the installation of a small ramped threshold with tapered sides, no more than 280mm deep, with a gradient no steeper than 1:8. AS1428.1 2009 Clause 10.5		LOW*
6.2 Kiosk	The kiosk counter is 950mm high, suitable for passing small food items such as snack foods and drinks. The plastic moveable chairs at pedestal style tables, which provide appropriate knee and footplate access, do not have armrests.	Have available in the pool area a choice of some chairs with armrests that could be used at the kiosk or in the tiered seating area. DDA		LOW*
6.3 Gate	The access gate to the swimming pool is wide at 930mm. There is a high lift up latch, acceptable to preserve the safety of small children in this aquatic environment.	Nil.		

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
6.4 Pool deck	<p>The following paving issues were noted on the pool deck:</p> <ul style="list-style-type: none"> - Depressed metal lid that had been protected with a mat to afford some measure of safety to patrons; - Some areas of erosion due to high chlorinated environment; - Pooling of water due to general poor repair of paving; - Lips and gaps between pavers. 	<p>Repair or replace the paving so to be level and even with smooth transitions between abutment of surfaces.</p> <p>AS1428.1 2009 Clause 7.1 and 7.3</p>		HIGH
6.5 Tiered seating 6.5.1 Surfaces	<p>There is a predominately flush transition between the pavers and aquatic carpet, with some lips up to 20mm.</p> <p>There are some gaps between the aquatic carpet joins.</p>	<p>Undertake general maintenance to eliminate lips and gaps.</p>		HIGH

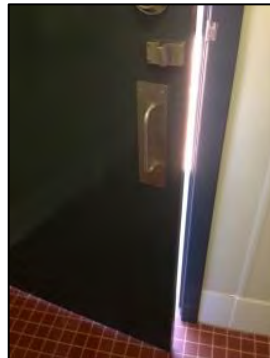

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
6.5.2 Seating	<p>The tiered seating is a standard style, predominately serving children during lessons and the like.</p> <p>Loose seating in the vicinity are chairs without armrests set at pedestal tables with appropriate knee and footplate clearance. It is the opinion of OHA that there is sufficient space in front of the tiered seating to provide alternate seating in a non-discriminatory manner.</p>	<p>Have available in the pool area a choice of some chairs with armrests that could be used at the kiosk or in the tiered seating area.</p> <p>DDA</p> 		LOW*
6.5.3 Raked columns	<p>The raked structural supports for the shelter may pose a trip hazard at the base and may pose a head height hazard should a person with vision impairment inadvertently move between the raked and vertical columns.</p> <p>The hazard is evidenced by the blue protective sleeve, which does provide a good visual cue.</p>	<p>Ideally infill between the raked and vertical components to provide a tactually detectable barrier, preventing pedestrian movement between the columns.</p> <p>Alternatively address with an alternative architectural barrier.</p> <p>AS1428.4.1 2009 Clause 2.6</p>		MED
6.5.4 Drinking fountain	<p>The drinking fountain has a small step to assist children reach the spout. The fountain is high and provides no knee access for a person who is a wheelchair user.</p>	<p>Provide one accessible style of drinking fountain, pool-side.</p> <p>Ensure the drinking fountain is located where it does not obstruct transverse pedestrian traffic and there is sufficient level circulation space to approach the operable controls located at the front of the fountain (1540 x 2070mm</p>		MED

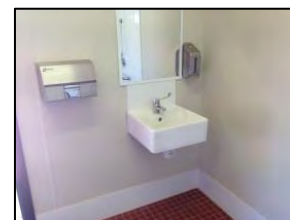

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		minimum). DDA AS1428.2 1992 Clause 27.3		
6.6 Ramp entry to pool	<p>The ramped entry to the pool has the following barriers:</p> <ul style="list-style-type: none"> - Paved slope up to the beach entry has a gradient of 1:9 with tapered sides with a 600mm deep flat landing at the top; - There is a ramp into the pool with a gradient of 1:9, meeting requirements for a step ramp as per AS1428.1 2001, slightly steeper than a step ramp as per AS1428.1 2009 and steeper than a pedestrian ramp as required under the Premises Standard 2010; - Small lip at the top of the ramp; - One handrail (on the day of the audit, extremely hot, rendering the handrail ineffective and potentially hazardous). 	<p>Remake the paved approach to the ramped beach entry into the pool, eliminating the small lip and providing:</p> <ul style="list-style-type: none"> - A level landing no less than 1500mm deep, with sides protected; and - Ideally, a very gently graded slope up to the pool edge (no greater than 1:40); - Alternatively a slope with a gradient no steeper than 1:20 and gently tapered sides; Or - A step ramp with gradient of 1:10 and 45° tapered sides . <p>AS1428.1 2009 Clauses 10 & 10.6</p> <p>Install handrails to the pool ramp, of a design in keeping with AS1428.1 2009 Figure 14 & Clauses 10.3(e) & 12. Handrails to be of a non-heat absorbing material if this is feasible, or alternatively provide additional shade over the ramp entry and handrails.</p>	 	MED


ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
6.7 Steps into pool	<p>Several sets of steps are well defined with varying contrasting colour providing excellent safety cues.</p> <p>All steps have a 150mm up stand between the pool deck and the top step.</p> <p>Narrower stairs have a handrail on one side and whilst the wider stairs with only one step do not have handrails.</p> <p>Handrails provided do not meet the requirements for a horizontal extension at the top and the base</p>	<p>Provide colour contrast edging on the upstand.</p> <p>Provide handrails on both sides of all steps, ensuring the handrails extended for at least the depth of the stair treads. It is ideal to have handrail end extensions as required by AS1428.1 2009 so long as they do not protrude into any transverse pedestrian traffic.</p> <p>AS1428.1 2009 Clauses 11.2 & 12</p>		MED
6.8 Pool chair	<p>There is a Poly Medic pool chair for use by patrons entering the pool via the ramp. This pool chair is an attendant propelled style with small locking castors.</p> <p>On the day of the audit the pool chair appeared to require air in the pneumatic tyres.</p>	<p>Ensure the pneumatic tyres are fully inflated at all times for ease of use.</p> <p>Safety</p>		MED*
6.9 Customer use	<p>It is unknown if the pool chair is well utilised by community members.</p>	<p>Ensure BRAC promotional material advises community members the pool chair is available for use.</p> <p>DDA</p>		LOW*


ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
7 SANITARY FACILITIES (EXTERNAL)				
7.1 Signage	<p>A small sign with an access symbol is adhered high on the door.</p> <p>Signage to the unisex accessible toilet and the male and female toilets is not provided in Braille and tactile formats.</p>	<p>Braille and tactile signage with the appropriate internationally recognised symbols and colour treatment is required to identify all sanitary facilities (male, female & unisex accessible).</p> <p>Signage identifying the UAT must identify whether the facility is suitable for left or right hand use.</p> <p>The signs are to be installed on the latch side of the entry door to the facilities, 1200- 1600mm high, with the leading edge of the sign located between 50 and 300mm from the architrave.</p> <p>The signs are to be installed so that the Braille is at a height of 1250 - 1350mm.</p> <p>Access Code Clause D3.6 & Part D4 and AS1428.1 2009 Clause 8</p>		MED*
7.2 Ambulant sanitary facility	<p>There are three banks of toilets at the BRAC, one internally, one at the outdoor courts and one associated with the swimming pool.</p> <p>The internal and pool toilet banks have a unisex accessible toilet provided adjacent. No</p>	<p>Ideally provide a sanitary facility for use by males and females with an ambulant disability.</p> <p>Access Code F2.4(c)</p>		MED

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
	<p>unisex accessible toilet is provided outside near the courts.</p> <p>There are no sanitary facilities designed for use by people with ambulant disabilities at this facility.</p> <p>The Access Code requires that at each bank of toilets, where there are one or more toilets in addition to a unisex accessible toilet, that a sanitary compartment suitable for a person with an ambulant disability in accordance with AS1428.1 must be provided for use by males and females.</p> <p>OHA understood from the Access & Inclusion Committee that ambulant toilets may have been installed when the external toilet block associated with the pools was constructed. No ambulant sanitary facility with a high pan, grab rails and required circulation space has been provided.</p>			
7.3 Unisex accessible sanitary facility	<p>The unisex accessible toilet and shower is provided adjacent the external male and female toilet blocks.</p> <p>The sanitary facility has been designed and constructed to the requirements of AS1428.1 2009.</p>			

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
7.3.1 Provision	Access barriers to the toilet and basin include those detailed below.			
7.3.2 Door	<p>The entrance door has the following barriers:</p> <ul style="list-style-type: none"> - A door width of 820mm wide where a clear open width of 850mm is required; - The snib is too small. 	<p>Remediate by:</p> <ul style="list-style-type: none"> - Ideally widening the door, however this does not seem reasonable given the sanitary facility is in use and it exceeds the 800mm clear open width acceptable under AS1428.1 2001; - Replace the locking snib with a larger style that has a small lever no less than 45mm long when measured from the centre of the spindle. <p>AS1428.1 2009 Clauses 13.2 & 15.2.9(b)</p>		MED
7.3.3 Circulation space	Door, pan, basin and shower circulation spaces meet the requirements of AS1428.1 2009 to provide a functional space for toileting and showering.	Nil.		
7.3.4 Fittings and fixtures (toilet)	<ul style="list-style-type: none"> - The pan set out from the rear wall is 820mm, this is a minimal discrepancy and no change is warranted; - The 300mm long rear grab rail has not been provided; - The toilet paper has been installed too high. 	<p>Install:</p> <ul style="list-style-type: none"> - The 300mm grab rail to the rear of the pan; and - Remove the jumbo toilet paper dispenser as a clearance of 600mm is required above the horizontal component of the grab rail and replace with a single or double style toilet 		MED

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		paper dispenser located in the zone as depicted in Figure 41. AS1428.1 2009 Figure 41 & 42		
7.3.5 Fittings and fixtures (basin)	<ul style="list-style-type: none"> - The mirror is set between 1030mm AFL to 1630mm AFL where it should be set between 900 – 1850mm AFL. - There is no shelf provided. 	<ul style="list-style-type: none"> - Either replace the mirror with a style that is at least 350mm wide with the base no higher than 900mm and the top no lower than 1850mm; Or - Install a second mirror adjacent the basin to the above requirements, with the base no higher than 600mm. <p>AS1428.1 2009 Clause 15.4.1</p> <ul style="list-style-type: none"> - Install a shelf adjacent the basin, with a minimum width of 120mm and a length of 400mm. <p>AS1428.1 2009 Clause 15.4.2</p>		MED*
7.3.6 Fittings and fixtures (shower)	The shower bench and shower fittings have been set onto the incorrect walls with the result that there is only 580mm between the bench and the toilet pan where a space of 1250mm is required from the end of the seat to any fixture.	Relocate the positions of the grabrail, hand held shower hose and taps onto the wall that presently houses the shower seat and relocate the shower seat onto the wall that presently houses the shower fittings. This will provide the required space for a person to undertake a side transfer onto the shower bench. AS1428.1 2009 Figure 47		MED

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
	Coat hooks have not been provided.	Install two clothes hanging devices, within reach of the shower seat, installed 1200 - 1350mm high. AS1428.1 2009 Clauses 15.5.10 & 15.4.4		MED*
7.3.7 Baby change table	<p>The baby change table is set at a height of 1020mm, where a height of 820mm is required.</p> <p>The current height results in the BCT being located out of the pan circulation space, however should it be relocated to 820mm high to meet current Australian Standards requirements for a BCT in a unisex accessible toilet, it would then be placed within the pan circulation space.</p> <p>The vertical orientation of baby change results in the pull handle being set at 1590mm AFL which is out of the reach range for a person using a wheelchair.</p>	<p>There are no alternative locations within the bathroom to relocate the BCT out of circulation space. Thus, lower the BCT so that the base is no lower than 900mm.</p> <p>AS1428.1 2009 Clause 15.2.8.2</p>		LOW

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
8 OTHER				
8.1 Signage	<p>A consistent signage style is used through the centre. Generally it is located high, uses an 'all capital' style font.</p> <p>The silver and black signs seem reflective of light and may not be easily read.</p>	<p>Wayfinding, directional or informative signage is not addressed in the Australian Standards called up in the Premises Standard or BCA, therefore to meet the following requirements is not mandatory, but important to meet the needs of all people regardless of age or ability and the intent of the DDA.</p> <p>Consider incorporating the following features in any signage upgrade, based on good signage principles:</p> <ul style="list-style-type: none"> - Any information provided on signs should be clear and unambiguous to read; - Lettering (size, type, layout) to be clear and legible; - The sign is not to reflect light; - Located between 1200mm – 1600mm from the finished floor surface, where they are visible to people both seated and standing; - Directional signage to be located at key decision making points; - The sign should be in contrast to the 		MED

ITEM	ISSUE / BARRIER	RECOMMENDATION	PHOTO	PRIORITY
		background surface; - Letters to be in 30% luminance contrast to the sign. DDA AS1428.2 1992 Clause 17		

Shire of Broome

Disability Access Audit
of the
Chinatown Precinct



Prepared: April 2014
By: O'Brien Harrop Access

Introduction

Reporting of Chinatown has been divided into two sections, the Shire of Broome responsible areas such as footpaths, kerb ramps and crossing points, median islands and pedestrian refuges, seating, public toilet provision and the like and those areas that fall under the responsibility of private business / building owners.

In each section Achievements and Practical solutions have been addressed, where feasible.

The streetscape and pedestrian infrastructure have been assessed against the following standards:

- AS2890.1 1993 – Parking facilities – Off-street car parking.
- AS2890.4 2004 – Parking facilities – Off-street car parking.
- AS2890.6 2009 – Parking Facilities – Off-street parking for people with disabilities.
- AS1428.1 2001 - Design for Access and Mobility – General Requirements for Access – New Building Works.
- AS1428.1 2009 – Design for Access and Mobility – General Requirements for Access – New Building Works.
- AS1428.2 1992 – Design for Access and Mobility – Enhanced and Additional Requirements – Buildings and Facilities.
- AS1428.4.1 2009– Design for Access and Mobility – Means to assist the orientation of people with a vision impairment - Tactile ground surface indicators.

Accessible car parking throughout the Chinatown Precinct

Summary: A variety of accessible car parking styles located in the Chinatown precinct. Due to the design, the bay was assessed against AS2890.1 1993 for width and length, falls and the like. The principles of parallel parking bays, AS2890.6 2009 were applied to these bays. The bay and connections to the surrounds were assessed against AS2890.4 2004.

Achievements

The following acknowledges achievements to date:

- During the audit, March 2014, it was apparent provision of accessible parking bays exceeded demand. Bays were conveniently located on the main vehicle and pedestrian routes through Chinatown.

Accessible Parking Bays: Parallel Parking



Figure 1 There are three parallel parking bays located on Carnarvon Street, each with a mountable kerb extending the length of the bays, with the grade of the kerb intruding into the parking bay / transfer space. The bay outside Johnny Chi Lane is 3100mm wide with a vehicle mountable kerb at the side which although shallower than a semi mountable kerb cannot form part of an accessible bay and is not a suitable kerb ramp.



Figure 2 The parking bay in front of the Post Office and BWS, on Carnarvon Street is 2640mm wide excluding the semi mountable kerb at the side of the bay. The ramped section (mountable kerb) has a gradient of 8° (1:7) for a depth of 700mm. The bay is too narrow and this semi mountable kerb cannot form part of an accessible bay and is not a suitable kerb ramp.

Figure 3 The consultants received feedback from a member of the Access and Inclusion Advisory Committee that the parallel parking bays, particularly the bay in front of the Post Office can be obstructed by parked vehicles, potentially due to shorter length of parking bays to the front and rear of the accessible, parallel parking bay and prevalence of larger vehicles such as 4WD, used in Broome.



Recommendation: In the absence of an appropriate design for an accessible parallel parking bay, designed for on-street parking, remediate the three parallel, accessible parking bays, applying principles of AS2890.6 2009 Clause 2.2.2. AS2890.6 2009 allows for a parallel parking bay, where the adjacent shared area is at a higher level than the dedicated parking space, separated by a kerb no higher than 190mm. Increase the shared space (public footpath) to accommodate kerb ramps in

accordance with AS1428.1 2009. Refer to Figure 2.6. Ensure consideration is made as to the unique requirements of people travelling to or residing in Broome, using four wheel drive vehicles. It may be necessary to further increase the lengths of bays to the front and rear, to ensure the accessible, parallel parking bay is not impinged by over length, parked vehicles.

Accessible Parking Bays: 90° angled parking where kerb ramp may be obstructed by vehicle parking in the accessible bay



Figures 4 On Napier Terrace the 3600mm wide accessible parking bay has insufficient width to ensure pedestrians utilising the parking bay can access the kerb ramp located to the side of the bay. The accessible parking bay has a slope from the front to back with a gradient of 1:23, where outdoor, bituminised bays can have an allowable slope of 1:33 for the shedding of water. There is no flat lading at the top of the kerb ramp.



Recommendation: Relocate or redesign this accessible parking bay to address the issues raised above. To improve amenity of the existing bay, install a kerb ramp to the left / head of the bay, and mark out a shared area or other 'no standing' zone, so that parked vehicles cannot obstruct access to the proposed kerb ramp. Ensure future accessible parking bays are not located on a slope (other than 1:33 allowable for water shedding). AS2890.6 2009

Accessible Parking Bays: 60° angled parking where kerb ramp may be obstructed by other vehicles



Figures 5 Angled parking bay on Short Street outside Paspaley Plaza. Access to the adjacent kerb ramp may be obstructed by parked motor cycles, at peak times.

Recommendation: Where a kerb ramp may be obstructed by a vehicle parked adjacent the accessible parking bay, mark out this space with 'no standing' or similar. Alternatively, widen the accessible parking bay to incorporate the kerb ramp 'within' the delineated parking space. Ensure in this instance that there is sufficient accessible path of travel contained in the delineated parking space, in addition to the 3200mm required for vehicle parking and transferring (for example, bay

width no less than 3200mm+1000mm, with appropriate space to approach the kerb ramp, with the width of the kerb ramp no less than 1000mm).

Accessible Parking Bays: 60° angled parking with barriers associated with pedestrian access



Figures 6 The drain at the base of the kerb ramp at the accessible parking bay on Dampier Terrace is filled with sand and blue metal. The installed warning tactile ground surface indicators (TGSIs) are lifting and may pose a trip hazard. There is no street light in the vicinity.

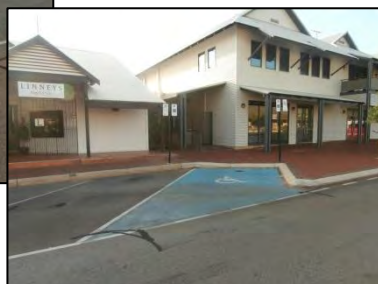
Recommendation: Ensure this parking bay and associated kerb ramp is prioritised for regular maintenance. Remove the Floorsafe TGSIs.

Note: Warning TGSIs are to be used in instances where there is a perceived hazard, e.g. a road crossing. Should it be confirmed there is no perceived hazard, do not lay replacement TGSIs.



Figure 7 The accessible parking bay on Short Street to the front of the Short Street Gallery has a kerb ramp facing onto the roadway, necessitating pedestrians to navigate a vehicle way in order to access the kerb ramp.

Accessible Parking Bays: 60° angled parking with no pedestrian access to footpath



Figures 8 Northern end of Dampier Terrace, beyond Streeter's Jetty and outside Linney's: No kerb ramp access provided immediately adjacent the accessible parking bay, necessitating the pedestrian to negotiate the vehicular roadway in order to access the footpath. The bay outside Linney's falls 100mm short of the 3200mm required.

Accessible Parking Bays: 60° angled parking with insufficient bay length

Figures 9 Opposite bays on Dampier Terrace (Linney's and Skylla Lounge Bar) have a length of 4.1m on the shorter side (7m on the longer side). This may result in the pedestrian unloading a mobility device from the rear of the vehicle being placed at risk due to on-coming traffic.

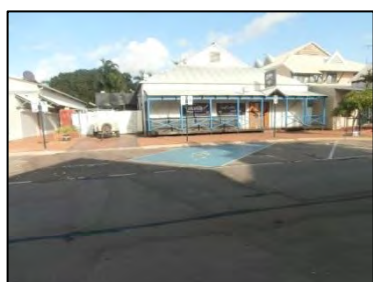


Accessible Parking Bays: 60° angled parking with pedestrian access via a low rise vehicle mountable ramp



Figures 10 These bays, outside Skylla Lounge Bar on Dampier Terrace and outside Paspaley Pearls on Short Street have access for mobility device users via a sloped vehicle cross over between Streeters and Male and Paspaley Pearls. Whilst not a traditional approach to access for people with disabilities, the shallow gradient provides a functional solution.

The 'no standing' marked adjacent the accessible parking bay (Skylla Bar Lounge) ensures this accessway remains clear for both transient vehicle use wheelchair user access.



Recommendation: At the 60° angled bays ensure an appropriate bay length is achieved (5400mm and the shortest point). This may necessitate providing alternate bays on Dampier Terrace, where all bays provide a length less than 5400mm. Provide adjacent kerb

ramps to all angled, accessible, street parking. Design to be such that parked vehicles (within or adjacent the accessible bay) do not obstruct kerb ramps. Ensure the functional width of accessible parking bays is no less than 3200mm.

Accessible Parking Bays: Signage and bay identification



Figure 11 The use of terms such as 'disabled' and 'invalid' are not considered contemporary to identify accessible parking bays.

Recommendation: When replacing signage or remarked parking bays, remove wording as described above. Identifying the bay by the International symbol of Access is considered contemporary and sufficient (in addition to required line markings). AS2890.6 2009 Clause 3.1 & 3.2

Access throughout pedestrian infrastructure and road reserve

Achievements

The following acknowledges achievements to date:

- **Bins, drinking fountains, seating and public telephones** are set off the pedestrian path of travel / building line.
- Generally **paving** that falls under the responsibility of the Shire is in good repair with no significant lips or gaps. Paver style is easily traversable, that is, not cobbles or the like.



- The **rest areas** provided within the islands along Carnarvon Street are well furnished with street furniture including park bench seating with backrests (some with armrests) set back off the path of travel so as to not obstruct passing foot traffic. The rest areas provides ample space adjacent seating to enable a wheelchair user to be seated with others.
- Header course pavers and the like have been laid to assist way finding through central road reserves, where kerb ramps do not directly align.
- One rest area includes an **accessible drinking fountain**.



- Generally throughout the Chinatown Precinct, the **kerb ramps** were well constructed with tapered sides, gradients in the direction of travel and the top and base of the kerb ramps providing a relatively sharp transition either to the paved footpath or roadway. The concrete kerb ramps with the black header course of bricks, set against the red pavers, provides a good visual cue to all pedestrians including those with limited vision. Unless discussed below in the body of this report, the kerb ramp style has a gradient in the direction of travel, providing a tactual cue* as to the direction of travel (blue line).

*While in principle the gradient of the kerb ramps is in the direction of travel, as the kerb ramps generally have a gradient in keeping with a walkway (significantly shallower than 1:8 and therefore preferred by people using wheeled mobility aids), this grade may be insufficient to provide a tactual cue as to the direction of travel across a roadway for a person with vision impairment. See discussion below in regards way finding.



- Warning TGSIs laid across the face of the kerb ramp (Hamersley Street near McDonalds) warn pedestrians of the potential hazard (roadway) and offer a means to tactually orientate a person as to the direction of travel across the road.

Infrastructure Case Studies – Accessible paths of travel

In order to demonstrate some of the regularly occurring or unique access barriers that were identified in the Chinatown precinct – pedestrian infrastructure and road reserve, that fall under the responsibility of the council (or service providers), five case studies are presented.

Walkway edge treatment



Figures 12 Pathways throughout the Chinatown / Male Oval Reserve precinct are generally wide (2 - 2.2 metres) with grass, garden or kerb edges. In some instances (Old Broome Road / Short Street roundabout) U rails have been installed to provide a safety barrier to the path edges where storm water drains and the like pass under the path. A U Rail will not provide a sufficient physical barrier at the base, at footplate level, for a wheeled mobility device (i.e. wheelchair). They may not be detectable to a person using a long cane as a navigation aid.

Recommendation: Provide barriers that can be detected by a person who is blind or has a vision impairment (using a long cane) that is also sufficient to provide a physical barrier to a wheelchair user. Consider the feasibility of installing a suitable barrier in keeping with AS1428.1 2009 Clause 10.3(j) and Figure 18.

The shoreline

A well-constructed accessible path of travel without a barrier or impediment will provide the opportunity for a person with vision impairment to use the building line or other feature (e.g. landscaping) as a shoreline. The Association for the Blind defines a shoreline as:

The border or edge of a footpath or building line to be followed to a given point or objective.

Orientation and Mobility Information Kit (Glossary)



Figures 13 A deep gap in the paving, without a suitable physical barrier, may pose a hazard to persons using a wheeled mobility device or a person who is blind or has a significant vision impairment, who uses the building line as a shoreline.



Figure 14 The high voltage cabinet, in the same colouring as the surrounding surfaces, may pose a hazard to a person with vision impairment.

Recommendation: Suitably treat the high voltage cabinet to improve visual detection, this may be by application of a warning strip with dimensions in keeping with AS1428.1 2009 Clause 6.6. Provide a suitable barrier such as a low wall or kerb edge to any changes in pavement level, against the building line. AS1428.1 2009 Clause 10.3(j) and Figure 18.

Service pit lids

There are many examples of poorly maintained service covers, or paved / concrete surrounds to the service covers. Challenges to people with poor balance, white cane users or mobility device users may include the following:



Figure 15 Where service cover edges sit proud of surrounding paving they may cause a trip hazard.



Figure 16 Where concrete infill around a service cover is poorly laid or broken, this may cause a trip hazard or a 'gap' into which the end of a white cane or walking device may be caught. Further, gaps along the edge of a service cover may create long 'runs' into which a wheelchair tyre may be caught.

Recommendation: Repair all significant lips and gaps at service pit covers as a matter of priority. Where the damage is to service lids, negotiation with the appropriate service provided to undertake this repair may be necessary.

Grates



Figure 17 At base of kerb ramp and angled parking on Short Street, the gaps in the grates (25x95mm), where a person may be unloading a mobility devices from a parked vehicle, or traversing to access the kerb ramp, may cause a trip hazard or may catch the end of a mobility device.

Recommendation: Ideally replace grates with a style that meets the requirements of AS1428.1 2009 Clause 7.5. However, narrow gauge grates to AS1428.1 2009 Clause 7.5 may not sufficiently manage rainfall inundation experienced in Broome.

Paving



Figures 18 Where pavers have subsided or moved, long 'runs' of gaps may be present into which a wheelchair tyre may be caught. Further, where pavers are laid as a threshold ramp or at a change in slope, pavers may be broken or the exposed angle may create gaps.

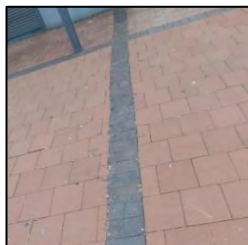


Figure 19 Where pavers or concrete lengths have eroded, gaps and lips are created.



Figure 20 Missing pavers create a gap which may be hazardous.

Recommendation: As part of the Shire of Broome's regular maintenance programme repair subsiding, eroded or missing pavers, giving priority to those that are potentially on an accessible path of travel.

Concrete pathway network in Male Oval Reserve



Figures 21 There is evidence of cracking and breakage in the corners of poured concrete pathways.

Recommendation: Repair cracked / broken concrete pathway as part of the regular maintenance program undertaken by the Shire.

Infrastructure Case Studies – Street furniture

Seating



Figure 22 Park bench seating located in the rest areas in the central road reserve, Carnarvon Street.

Recommendation: Public seating can be improved by enhancing luminance contrast to the surrounds (green planting behind the seat may achieve this) and ensuring all future seating installed in this precinct has an option with armrests.

Signage



Figure 23 Large, clear signage.

Recommendation: This signage could be improved by use of a sentence case font.



Figure 24 This picture depicts commonly used informative / interpretive signage - etched brass plates with insufficient luminance contrast between surface and sign and the lettering on the sign and the sign surface.

Recommendation: Give consideration to providing additional signage that follows good signage principles (detail previously provided).

Figure 25 Informative signage near the Visitors Centre used a clear sans serif font, with text from 800mm high, visible to people seated or standing. Information was enhanced with a map and a 'You are here' indicator.

The sign was set back off the path of travel with a minimal distance from the path edge to the face of the sign.
The sign may be reflective of light in the afternoon sun.



Recommendation: Ensure all new informative signage produced by the Shire follows good signage principles (detail previously provided).

Kerb ramps

Generally kerb ramps are not designed to all dimensional requirements of AS1428.1 2009.

Shallow gradient & way finding

The specific design of a kerb ramp as stipulated in AS1428.1 has a 1:8 gradient and length of no more than 1520mm that enables detection under foot and provides a directional cue to a person with vision impairment, to assist orientation to the intended direction of travel / kerb ramp on the opposite side the roadway.

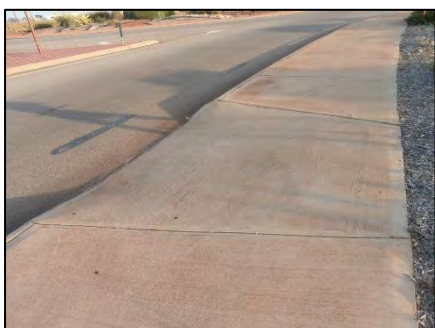
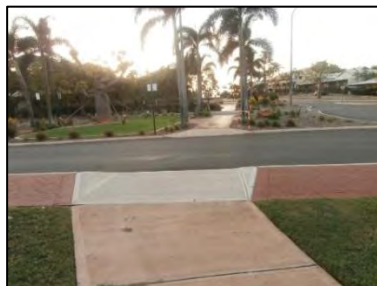


Figure 26 The shallow gradient may not pose a significant physical barrier to transverse pedestrian traffic [as depicted at this kerb ramp near the roundabout (Old Broome Road / Short Street)], it may pose a tripping hazard closer to the road edge, where the steeper edges may not be visually detected.



Figures 27 While the direction of travel of the opposite kerb ramps aligns, the gradient of the kerb ramp may not be sufficient to provide a tactile cue to a person with a vision impairment.



Figures 28 There are no tactile cues to aid a person who is blind or has significant vision loss to identify pedestrian crossing points / midblock crossings.



Figures 29 Black contrasting pavers may not be in sufficient luminance contrast against the red pavers to provide a visual way finding cue as to the location or direction of an intended path of travel. The garden bed may provide a tactile cue within the road island.

Recommendations: Install directional tactile ground surface indicators directing pedestrians with a significant vision impairment to a kerb ramp at mid-block crossings, applying the principle of AS1428.4.1 Figure C4 (given the kerb ramps have a shallow grade and function similarly to a flush crossing).

Where kerb ramps do not have a gradient between 1:8 and 8.5, install warning style TGSIs in the face of kerb ramps, in compliance with the requirements of AS1428.4.1 2009 Appendix C3.

Two directional kerb ramps



Figures 30 The kerb ramp that potentially directs pedestrians in two directions has a slope and camber causing instability to a person using a mobility device and potentially misinforming a person who is blind or has significant vision loss to the intended and safe direction of travel, should they rely on kerb ramp gradient for this purpose.

Recommendation: Remove two directional style kerb ramps from the Chinatown precinct and replace with a compliant kerb ramp style.

Checker plate ramp over drain



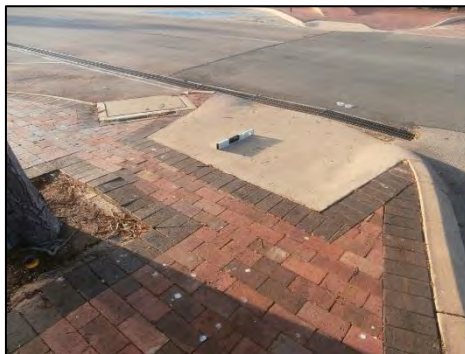
Figures 31 Checker plate ramp functions as a kerb ramp, over a drain. The kerb ramp may be difficult to visually detect and it may not be apparent there are no tapered sides to the ramp.

Recommendation: Replace the ramp with an alternate style with tapered sides, meeting requirements of AS1428.1 2009 Clause 10.7.

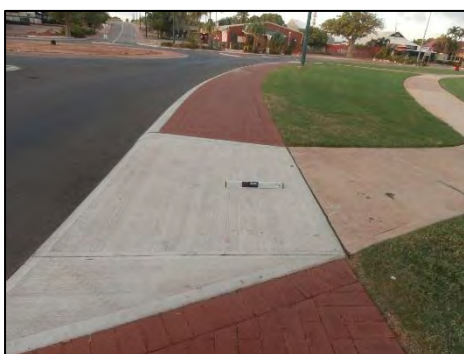
Landings



Figures 32 Kerb ramps are not furnished with an upper landing to allow a person using a wheeled mobility device to change direction on a level landing. The kerb ramp lies perpendicular to and across the full width of the accessible path of travel, creating a cross slope in the pathway.



Figures 33 The kerb ramps have landings at the top, to allow a change in direction, however they are not 1500mm deep, as a minimum, to allow a 90° change in direction.



Figures 34 A landing is provided at the top of the kerb ramp (adjoining path). However for a person to return to the paved roadside footpath, a 90° change of direction is still required on the face of the kerb ramp.

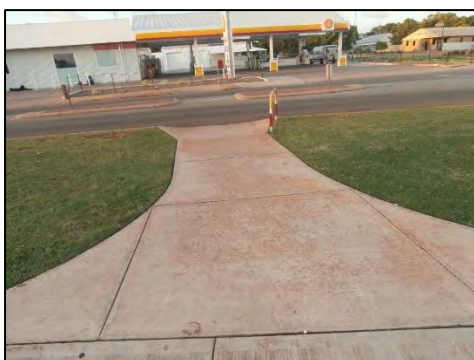


Figure 35 Generally, where provided, kerb ramp upper landings are relatively flat providing a stable base to undertake a change direction, rest or wait for traffic to pass before crossing a roadway. The kerb ramp on the Male Oval Reserve, opposite Shell petrol, has a sloped walkway leading to the top of the kerb ramp, without an upper kerb ramp landing being provided. The U Rail may offer some assistance in this instance.

Recommendation: Remediate all instances where a flat landing at the top of a kerb ramp has not been achieved. AS1428.1 2009 Clause 10.7 & 10.8

Orientation of kerb ramps towards median island



Figures 36 At the Carnarvon / Short and Napier / Carnarvon roundabouts, the kerb ramp direction of travel does not align with a median island cut through / kerb ramp opposite. Any person who relies on the kerb ramp gradient as a way finding cue will be directed to the kerb edge of the median island.

Recommendation: The positioning of kerb ramps and crossing points at roundabouts relates not just to access for pedestrians but also appropriate road design / engineering / safety. There may be factors to consider beyond the scope of this project (such as vehicle sight lines to pedestrians and the like). Ideally, position the kerb ramps so that the direction of travel, of opposite kerb ramps, aligns with each other and the median island cut through.

AS1428.1 2009 Clause 10.7 & 10.8 & Figure 23

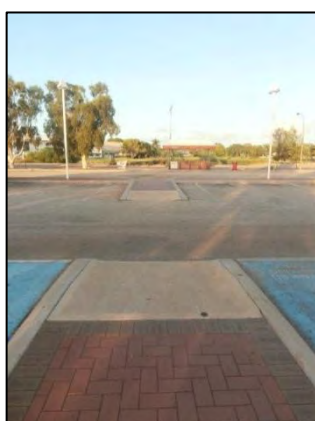
Misalignment of kerb ramp crossing Short Street



Figure 37 The opposing kerb ramps near the Paspaley Plaza and Hashimoto House do not align. For any person with a vision impairment, or who is blind, who relies on the gradient of the kerb ramp to provide a tactual cue as to the direction of travel, will be misinformed in this instance. Kerb ramp closest to Paspaley Plaza has a steep gradient and the tree obstructs clear access to the top of the kerb ramp.

Recommendation: Redesign the crossing point to provide aligned kerb ramps, designed in accordance with AS1428.1 2009 Clause 10.7 & 10.8 & Figure 23.

Bus stops



Figures 38 Accessible paths of travel, appropriate circulation spaces and required directional and warning style TGSIs (to previous PTA Bus Stop Layouts Guidelines relevant at the time of installation) are provided at bus stops. Bus stops provide shelter and seating. A choice of some seating with an armrest may assist some patrons.

Unisex accessible toilet



Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
General Features:			
Unisex	10.2.1 (a)	Y	
On continuous accessible path of travel from main entrance		Y	
Signage:			
1200 – 1600mm high	14.5.1(a)	Y	
International access symbol	10.9 (a)	Y	
M&F symbols	10.9 (a)	Y	
Raised tactile & Braille 1250 - 1350mm high	10.9 (d) & BCA D3.6 1 – 2.5	N	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Toilet door:			
Circulation space outside door	Fig 12	Y	Threshold ramp has tapered sides and provides a functional solution.
Circulation space inside door	Fig 12	Y	
Hinged or sliding	10.2.10 (a)	Hinged	
Outward opening door has hinge that holds door in closed position	10.2.10(c)	N	
In-use indicator	10.2.10(d)	Y	Broken.
Unlocked in an emergency	10.2.10(d)		N/A as broken.
800mm (850mm preferred - AS1428.2, 11.5.1)	7.4	Y	830mm
Door unlocked and opened by one hand	11.1.1 (a)	Y	
Handle – Lever, D, circular	11.1.1(a)	Y	D style / small – may be difficult to grasp.
Handle 900 - 1100mm high	11.1.2 (a)	Y	
Snib – small / large		-	Missing
Toilet seat:			
Full-round seat type	10.2.5	Y	
Secure with lateral stability	10.2.5	Y	
Toilet pan:			
Height 460 – 480 mm	Fig 18	Y	
450 – 460 mm to side wall	Fig 18	Y	
800mm set out	Fig 18	Y	
950mm at side		Y	
1200mm in front Or 1100mm to basin in front of pan?	Fig 22	N	1150mm (minor discrepancy).
Toilet controls:			
<u>Flushing control</u> - 600 - 1100mm high at side / rear	10.2.6 Fig 19	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Toilet paper - no further than 300mm from front of pan, no higher than 700mm, no lower than seat	10.2.7 Fig 20	N	Installed too high, above grab rail (potentially impeding access to the horizontal component of the grab rail).
Grab rails:			
L shaped grab rail 800 – 810 mm high	Fig 21	Y	
Angle of L 100-150mm in front of the pan, no further than 200 – 250mm	Fig 21	Y	
Rail to extend to wall or terminate 50 - 60mm from rear wall?	Fig 21	Y	
300mm length grab rail behind the toilet at 800 – 810 mm high	Fig 21	Y	
Grab rail to wall clearance of 50 – 60mm	6.2 (d)	Y	
Grab rail 30 – 40mm in diameter	6.2 (a)	Y	
Top 270 degrees free?	6.2 (e)	Y	
Basin:			
Basin in the toilet cubicle?		Y	
Basin located not closer than 1100mm to pan	Fig 22	Y	
Min 1000mm(L) x 800mm(W) circulation space in front of basin?	Fig 24	Y	
770 – 800mm high	Fig 23	Y	
Pipes do not encroach on 'free access space' under basin – returning to the rear wall or side?	10.3 (b) Fig 23	Y	
Taps set back no more than 300mm	Fig 23	Y	
Tap – sensor / lever / capstan	11.3 (a)	N	Push style. Maybe considered acceptable as a timer style tap may be necessary in this public facility.
50mm clearance around taps	11.3 (c)	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Fixtures and Fittings:			
<u>Coat hook</u> - 1200mm – 1350mm. No closer than 500mm from an internal corner	10.4.4	N	Maybe considered acceptable in this public facility, evidently prone to vandalism.

Recommendations:

- Install a new sign, with required Braille and tactile components, on the wall on the latch side of the door.
- Replace door hinges with a style that facilitates the door self-closing (e.g. rising butt).
- Repair the door latching mechanism and ensure an in-use indicator is provided. The snib style lock is to have a long lever to meet contemporary standards. AS1428.1 2009 Clause 13.5.2(d)
- Replace the small D handle with a larger grip handle ensuring clearance around the handle and locking snib are not impinged and the handle / snib height are in the range of 900-1100mm. AS1428.1 2009 Clause 13.5
- Install a standard domestic style toilet paper dispenser in the appropriate zone in accordance with Australian Standards requirements. AS1428.1 2009 Figure 41
- Ideally replace the push button tap with a lever style. AS1428.1 2009 Clause 15.2.1
- Ideally install a coat hook to requirements. AS1428.1 2009 Clause 15.4.4

To further improve the amenity of this facility:

- Consider installing a shelf in proximity to the basin. AS1428.1 2009 Clause 15.4.2

Access to the entrance of shops and businesses

Introduction

The assessment of the commercial and private infrastructure of Chinatown has been depicted below in a range of case studies that explore both the common and some unique barriers to access for people with disabilities identified by the consultants. Some resolutions to address barriers have been suggested, with discussion in some instances where resolution of an access barrier may create an additional challenge for people with disabilities. For example, installing handrails to steps at the front of a shop, may place pedestrians with vision impairment at risk, where the handrails will protrude into the pedestrian traffic. Below are a range of identified issues that may provide a starting point for discussion with the Chinatown business owners and relevant stakeholders.

Assumptions:

OHA disability access consultants are not fully conversant with optimal management solutions for high levels of rainfall over a short period of time, however we make the following assumptions:

- At buildings with flush entranceways or very low level thresholds, falls (that exceed general recommendations for a level walkway) away from the building may be required to manage rain inundation.
- Flush thresholds at doorways, with narrow gauge grates to AS1428.1 2009 may not sufficiently manage rainfall inundation.

OHA disability access consultants recognise that:

- The built infrastructure may have heritage significance or value and there may be limited options for alteration of the building fabric to achieve access compliance at ramps, stairs and the like.
- They are not conversant with those buildings that may have heritage significance or value.

Case Studies

In order to demonstrate some of the regularly occurring or unique access barriers that were identified in the Chinatown precinct, nine case studies are presented. These are presented not to make examples of the businesses, their managers or owners, but to demonstrate examples where the unique challenges of the Chinatown Precinct may be best demonstrated.

Case Study 1: Johnny Chi Lane

Johnny Chi Lane connects Dampier Terrace and Carnarvon Street, with shops, cafes and businesses located along the building lines. The following barriers were identified:

Dampier Terrace steps and pedestrian ramp



Figure 39 Change in level (top step) may pose a fall hazard as there are no warning TGSIs installed or stair nosings applied in luminance contrast. Pavers at the top of the steps are uneven and may pose a trip hazard.



Figure 40 Handrails are not installed at steps, where they are required, in addition to warning TGSIs at the top and base and nosings on the steps.
Insufficient space to install a compliant handrail without handrail ends protruding into transverse pedestrian traffic.
Steps in same colour as surrounding paving with no luminance contrast strip to define the nosing of the tread.

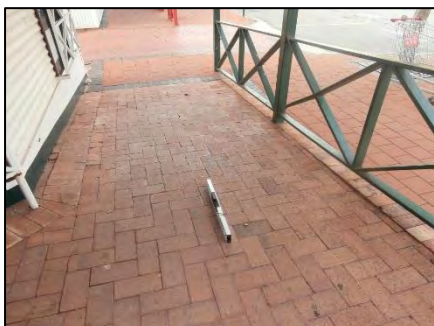


Figure 41 Ranging between 1:14 to 1:9 the ramp has variable gradients, steeper than 1:14 for a length of 5 metres.
The ramp is not furnished with warning TGSIs at the top or base and while a balustrade with kerb edge is provided, unbroken, circular handrails of a compliant style are not installed.
Against the building line the pavers are undulating & uneven with small gaps.
There is insufficient space within the building boundary to extend the ramp length to achieve a compliant gradient.

Interconnecting ramp & steps

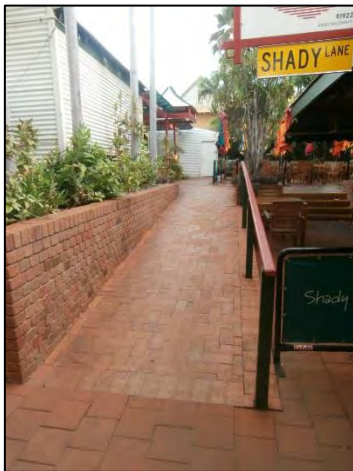


Figure 42 With a gradient of between 1:9 and 1:8 the ramp is too steep for a length of 5 metres.

A single handrail of a non-compliant style is provided. No kerb edge is provided to the open side of the ramp.

No warning style TGSIs are installed at the top and base of the ramp. The landing at the top of the ramp has a gradient of 1:15, where a flat landing is required.



Figure 43 No handrails or warning TGSIs furnish this set of steps.

The treads are identified by yellow nosings.

The Arcades – building line and cross falls



Figure 44 Building lines are interrupted by A frame signage, bins and seats.

Through the arcade the 1:20 cross fall (slope away from shop doorways) may create an impediment to a person with poor balance or a person using a walking device or wheelchair navigating the length of the arcade.

Entrance doors along the arcade are single or double, 760mm wide, potentially preventing access for wheelchair users.

It was apparent most shops had a threshold ramp to the doorway.



Figure 45 It is acknowledged seating and the like is set off the building line, thus permanent structures do not obstruct the pedestrian path of travel along the shop fronts (shoreline).

There is however no flat walkway through this section of the arcade



Figures 46 Shops along the arcade (off Carnarvon Street) have thresholds between 80 - 100mm, too steep to be treated with a compliant threshold ramp. Steep threshold ramps have been installed in some instances. A slope with gradient of 1:14 and length of 1600mm (for water shedding) slopes up to the shop doorways.

Carnarvon Street façade – steps and ramp



Figure 47 Two concrete steps to the store on Canarvon Street facade of Johnny Chi Lane are furnished with a simple balustrade, however no nosings, handrails of a compliant design or warning TGSIs at the top (shop entrance) or base are provided.



Figure 48 The ramp to the entrance door has no flat landing at the top, the ramp has a significantly steep (unsafe) gradient of 1:4, there are no handrails of a compliant style or kerb edge, or warning style TGSIs at the top or base.

The ramp is 1680mm in length installed at a rise of 320mm.

A pedestrian ramp with gradient no steeper than 1:14 will provide a compliant solution at this 320mm rise. The ramp would need to be designed in such a way so as to not protrude into transverse pedestrian traffic.

As the ramp surface and surrounding concrete and pavers are all of the same red colour, this ramp may be a potential trip hazard in low light conditions or for a person with vision impairment navigating the building line.

Case Study 2: Boardwalk shops (six shops including Thrifty Clothing & Galwey) and The Roey

Step ramp

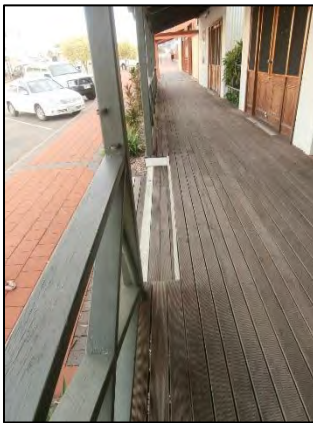


Figure 49 The wooden decking ramp has a gradient of 1:6, significantly steeper than the allowable 1:10 for a step ramp. The ramp length is 600mm.

As the rise is less than 190mm, a compliant step ramp with gradient of 1:10 and length no greater than 1900mm could be installed.

The sides are not tapered or protected with a handrail or balustrade.

Steps



Figures 50 The steps up to the boardwalk of shops have been treated with paint to provide good luminance contrast information as to the depth of the stair tread and the potential hazard at the side of the boardwalk where the step is cut into the boardwalk.

As there are garden beds to each side of the steps, there is the potential to install handrails with compliant end extensions to the base of the steps (i.e. end extensions will not protrude into transverse pedestrian traffic).

As the 'top' step is cut into the board walk, the handrail and a small balustrade could extend into the boardwalk. A small balustrade will protect the handrail extension and provide protection from the potential fall hazard the 'cut-in' style step creates.



Figures 51 A small step protrudes from The Roebuck verandah which may pose a tripping hazard in low light situations or for a person with vision impairment navigating the facade of the building. This protruding step could be removed as alternate single step access is provided in close proximity. It is noted at the Roebuck that hazard markings are provided on step edges and this may be in response to trips in this unique environment where customers may have consumed alcohol. This remedial action would also assist people with low vision or people with an ambulant disability.



Identification of an accessible entrance



Figure 52 In instances where a bank of shops are serviced by one or multiple sets of steps and a ramp, it is advised a minimum of one set of steps are treated with compliant handrails, warning TGSIs and nosings. All other steps, as a measure of safety for pedestrians, should be treated with warning TGSIs and nosings in luminance contrast. Where a bank of shops extend across a wide frontage, there are multiple entrances or entrances face onto two streets, access for all can be enhanced with directional signage at non-accessible entrances. Signage could include an arrow, the international symbol of access (in compliant form and colour) and enhanced with the text 'Entrance'.

Shop entrance (threshold ramp)

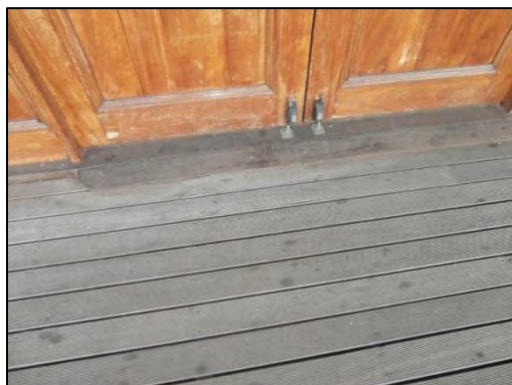


Figure 53 A steep threshold ramp has been installed to the 25mm rise up to Galwey shop. A compliant threshold ramp with a gradient of 1:8, and tapered sides can be installed to a rise of up to 35mm. The resultant ramp will protrude no further than 280mm. This would be a compliant solution at the low thresholds in this bank of shops.

Case Study 3: Shady Lane

Open riser steps

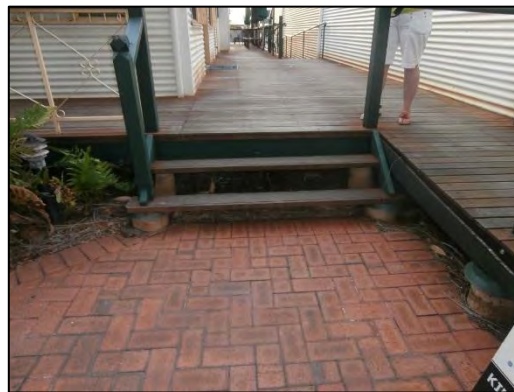


Figure 54 Two sets of steps within Shady Lane have open risers, with no handrails, step nosing in luminance contrast or warning TGSIs installed at the top and base.

Open risers pose a hazard to a pedestrian catching their toe when ascending the stairs.

Similar stair styles are evident to Short Street businesses.

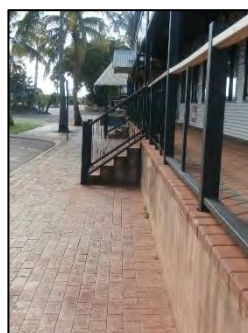
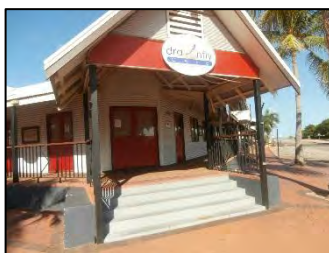
Case Study 4: Hashimoto House

Cobble style pavers

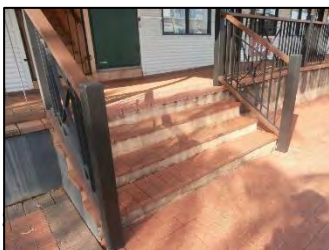


Figure 55 The paver style on the Hashimoto House verandah is a shallow cobble style that may catch the tyre of a wheeled mobility device, making manoeuvrability challenging.

Steps protruding into the pedestrian traffic



Figures 56 The stairs are not furnished with compliant handrails, warning style TGSIs or nosings in luminance contrast. While the base of the stairs are not open, they protrude into transverse pedestrian traffic. Addition of handrails with compliant end extensions will exacerbate this interruption to the building line and potential shoreline.



Ramp

There are a range of barriers associated with the ramp access to Hashimoto House.



Figures 57 The ramp protrudes into, and across the pedestrian footpath. There is minimal visual distinction between the ramp (paved surface) and the footpath paving. The tapering, open side of the ramp is a potential trip hazard, particularly for a person with poor vision or in low light situations.



Figure 58 There are no warning style TGSIs installed at the top or base of the ramp or adjacent curved steps.

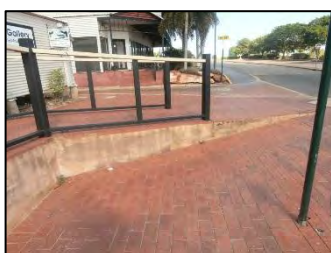


Figure 59 Ramp handrails and the kerb edge are discontinuous at the base. The ramp gradient averages 1:10 for the length, where a maximum gradient allowable for a rise of 660mm, is 1:14.

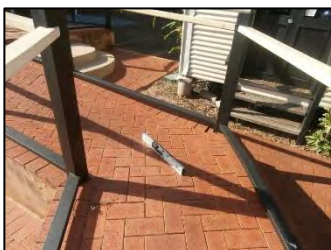
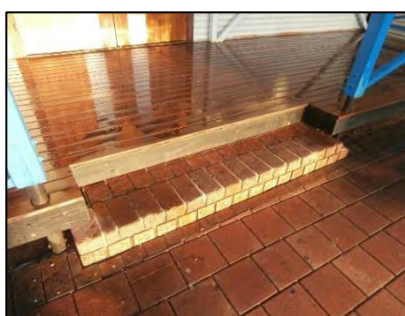


Figure 60 The ramp landing is at the same gradient as the ramp surface, with no flat landing provided at the ramp change in direction.

Case Study Five: Streeters & Male (hardware) / Skylla Bar Lounge



Figures 61 The Streeters & Male store and Skylla Bar Lounge have step only access to the concrete and wooden verandah of the building. The buildings are bordered by a driveway to one or both sides, or a building to the side, with no opportunity for ramp access to the side of the verandah. Steps are not furnished with handrails, nosings or warning style tactile ground surface indicators. Should compliant handrails be installed, the end extensions would project into transverse pedestrian traffic (footpath). Warning tactile ground surface indicators installed at the base of the steps will be required to be installed onto the paved council footpath. We understand it is challenging to install tactile ground surface indicators onto a paved surface.

The resolution to the access and compliance barriers identified may be challenging to resolve and demand a 'whole of site' approach.

Case Study Six: Paspaley Plaza

Accessible Parking



Figure 62 The two accessible parking bays, with a width of 3000mm are insufficient to meet superseded requirements of AS2890.1 1993. The kerb ramp at the head of the bays, with a path of travel of 900mm either side and a structural support 700mm from the top of the kerb ramp may inhibit pedestrian access by people who use a mobility aid.



Approach to the Arcade, off Carnarvon Street



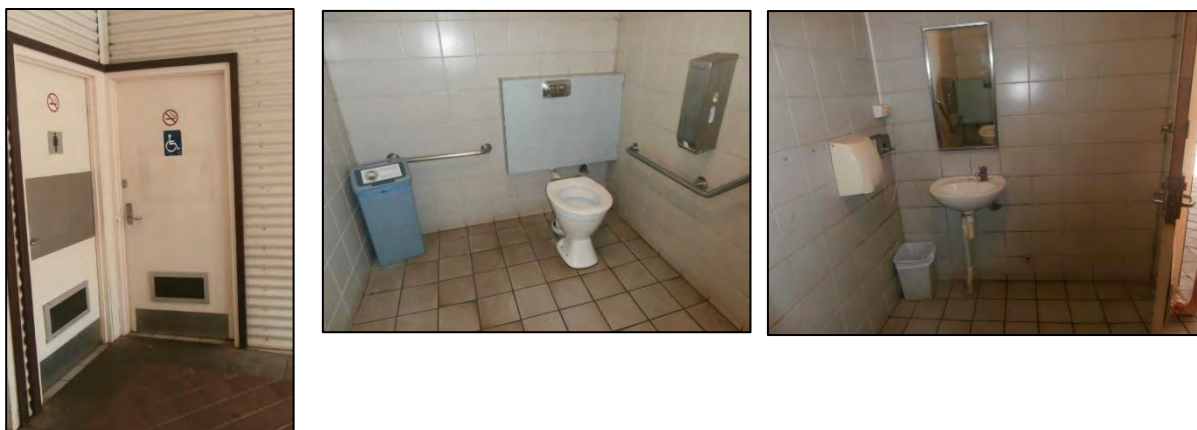
Figures 63 The approach from the Carnarvon Street footpath is gentle at the base and steeper at the top, with a gradient of 1:13, steeper than that acceptable for a pedestrian ramp. Steps leading up to the stores have a narrow yellow strip to identify the step edge, however the steps are set into a walkway creating a 'disappearing step' style that may pose a hazard to a person with vision impairment or who is blind using the building line to navigate. Steps are not furnished with compliant handrails or warning TGSIs at the top and base. Automatic sliding doors into the arcade / shopping centre provide ease of access for all.

External Arcade



Figure 64 Fixed infrastructure such as bins and seats are set off the building line / path of travel. Externally it was noted cafe tables were set against the building line where they could impede pedestrian access.

Public unisex accessible toilet



Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
General Features:			
Unisex	10.2.1 (a)	Y	
On continuous accessible path of travel from main entrance		Y	
Signage:			
1200 – 1600mm high	14.5.1(a)	Y	
International access symbol	10.9 (a)	Y	
M&F symbols	10.9 (a)	N	
Raised tactile & Braille 1250 - 1350mm high	10.9 (d) & BCA D3.6 1 – 2.5	N	
Toilet door:			
Circulation space outside door	Fig 12	N	There is no space to the latch side of the door.
Circulation space inside door	Fig 12	Y	
Hinged or sliding	10.2.10 (a)	Hinged	
Sliding or in-swing door can be removed or opened outwards	10.2.10(c)	N	
In-use indicator	10.2.10(d)	Y	
Unlocked in an emergency	10.2.10(d)	Y	
800mm (850mm preferred - AS1428.2, 11.5.1)	7.4	Y	860mm
Door unlocked and opened by one hand	11.1.1 (a)	Y	
Handle – Lever, D, circular	11.1.1(a)	Y	Lever
Handle 900 - 1100mm high	11.1.2 (a)	Y	
Clearance around handle ok?	11.1.1 (b)	Y	
Snib – small / large		Y	Large
<u>Closer</u> - 19.5N or less	11.1.1 (c)	N	
Slow to close <i>* Relates to manual control on auto door.</i>	11.1.2(e*)		
Toilet seat:			
Full-round seat type	10.2.5	Y	
Secure with lateral stability	10.2.5	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Toilet pan:			
Height 460 – 480 mm	Fig 18	Y	
450 – 460 mm to side wall	Fig 18	N	500mm (minor discrepancy).
800mm set out	Fig 18	Y	
950mm at side		Y	
1200mm in front Or 1100mm to basin in front of pan?	Fig 22	Y	
Toilet controls:			
<u>Flushing control</u> - 600 - 1100mm high at side / rear	10.2.6 Fig 19	Y	
<u>Toilet paper</u> - no further than 300mm from front of pan, no higher than 700mm, no lower than seat	10.2.7 Fig 20	N	Installed too high, above grab rail (potentially impeding access to the horizontal component of the grab rail).
Grab rails:			
L shaped grab rail 800 – 810 mm high	Fig 21	Y	
Angle of L 100-150mm in front of the pan, no further than 200 – 250mm	Fig 21	N/A	
OR Angle commences 100 – 150mm from front of pan, angle 30 – 45°, length min of 700mm	Fig 21	Y	
Rail to extend to wall or terminate 50 - 60mm from rear wall?	Fig 21	N	Terminates 210mm from boxed out cistern.
300mm length grab rail behind the toilet at 800 – 810 mm high	Fig 21	N	Horizontal components of grab rails are 620mm high. Due to the boxed out cistern the rear grab rail is 350mm from the pan.

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Grab rail to wall clearance of 50 – 60mm	6.2 (d)	Y	
Grab rail 30 – 40mm in diameter	6.2 (a)	Y	
Top 270 degrees free?	6.2 (e)	N	
Basin:			
Basin in the toilet cubicle?		Y	
Basin located not closer than 1100mm to pan	Fig 22	Y	
Min 1000mm(L) x 800mm(W) circulation space in front of basin?	Fig 24	Y	
770 – 800mm high	Fig 23	N	840mm high.
Pipes do not encroach on 'free access space' under basin – returning to the rear wall or side?	10.3 (b) Fig 23	N	
Taps set back no more than 300mm	Fig 23	Y	
Tap – sensor / lever / capstan	11.3 (a)	Y	Lever
50mm clearance around taps	11.3 (c)	Y	
Fixtures and Fittings:			
<u>Mirror</u> - min 350 wide, not more than 900mm above floor and not less than 1850.	10.4.1	N	Angled mirror, base at 1050mm.
<u>Shelf</u> – 900- 1100mm. Not closer than 500mm to internal corner	10.4.2	N	
<u>Towel dispenser, hand dryers, soap dispensers</u> - 900-1100mm Not closer than 500mm to internal corner	10.4.3	Y	
<u>Coat hook</u> - 1200mm – 1350mm. No closer than 500mm from an internal corner	10.4.4	N	

Recommendations:

- Install a new sign, with required Braille and tactile components, on the wall on the latch side of the door.
- Resolution of the external door circulation space will necessitate a redesign of the toilet layout / position of the door in relation to the approach to the door. Installation of a semi-automatic, push button, door opening device, installed 1000-2000mm from the swing of the door and at least 500mm from an internal corner, will assist customers open the door, where reaching for the door handle located within an internal corner is a challenge.
- The door should be outward opening, or removable in the case of an emergency (a person falls in the bathroom and is against the door).
- Repair to ensure door is light to open and slow to close.

- Install a standard domestic style toilet paper dispenser in the appropriate zone in accordance with Australian Standards requirements. AS1428.1 2009 Figure 41
- Ideally replace boxed out cistern with a standard cistern and replace both the side and rear grab rails with a style and at a height to meet requirements.
- Ideally replace the basin with a style that achieves the necessary height requirements and addresses underneath knee and footplate clearance.

Case Study Seven: Shaggahs, Tidal Elegance, The Shell House, Kailis Peals & Linneys

Unsafe verandah edge and two-direction kerb ramp



Figures 65 The two directional step ramp with a gradient ranging between 1:5.5 to 1:7 over a length of 1800mm is too steep and provides a potentially unstable and therefore unsafe means of access to the verandah. Further the sides of the step ramp are not splayed or tapered and pose a fall hazard. Step ramps are permissible where the rise does not exceed 190mm. The rise of the verandah, in this instance, is 280mm, therefore a step ramp is not an acceptable solution in this instance and a full pedestrian ramp would be required. The inverted U rail may not be detectable by a person with vision impairment or person using a long cane to navigate their environment and does not provide a suitable edge treatment for a ramp or step ramp.



Figures 66 The entry door to the stores are 760mm wide, less than 800mm (AS1428.1 2001) and 850mm (AS1428.1 2009). There are 70mm lips at the door and threshold ramps have been installed. A threshold ramp at a rise (at a doorway) in excess of 35mm is not a compliant solution. In these instances a steep ramp will result. If a 1:8 gradient is achieved the ramp will protrude 640mm into the verandah and obstruct the walkway.



Figures 67 The verandah end has been remade to include a step ramp with a gradient of 1:10. The handrail requires the addition of a kerb rail or kerb edge so that it forms a suitable barrier and safe edge for wheeled mobility device users. The step ramp and landing at the base of the ramp have a cross fall across the surface of 1:25, matching the slope of the vehicle driveway.

Use of a consistent colour theme does not provide sufficient visual cue, where tactual cues are also absent



Figures 68 The use of the same coloured pavers for all surfaces (ramps, steps, footpath and verandah) achieves a visually indistinct path of travel, where pedestrians have no visual (stair nosings / warning TGSIs) or tactual (handrails, warning TGSIs, kerbed ramp edge) cue as to the changes in level or hazard.



Case Study Eight: Dampier House

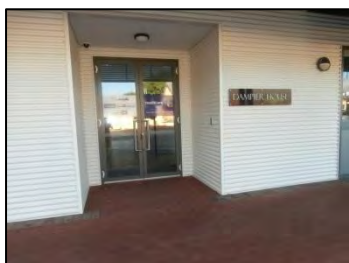


Figure 69 In order to achieve flush entries to the tenancies of Dampier House, the entire width of the pedestrian footpath has a cross fall of approximately 1:27. This creates a challenge to a person traversing the front of the building, using a wheeled mobility device, as the footpath should have a cross fall sufficient only to allow water to shed. AS1428.1 2009 describes this as no more than 1:40. It is understood that season rainfall in Broome may render this inadequate to prevent localised water ingress to tenancies.

Case Study Nine: Solutions to address hazards

In some instances business and building owners or tenants have undertaken initiatives to address potential hazards and barriers. Examples have been provided below.



Figures 70 At Paspaley Pearls and Monsoonal Blues, step edges have been identified by replacing bricks with an alternate colour or by painting the step edge.



Figure 71 At the change in level between the verandah and walkway approach to the store, a white safety edge has been painted to provide a visual cue to the resultant 'step'.

Shire of Broome

Disability Access Audit
of the
Town Beach Foreshore Precinct



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

Achievements:

The following acknowledges achievements to date:

- The two accessible parking bays exceed the minimal width requirements of AS2890.1 1993 and would enable a person using a wheeled mobility aid to undertake a side transfer out of a car.
- Clear continuous accessible path of travel from the accessible parking bays to The Town Beach Cafe, Water Park, playground and picnic facilities.
- The brick paving is generally even with no lips or gaps.
- Level access to the Water Park and playground.
- A pool wheelchair has been provided to enable inclusion for people with disabilities to the Water Park.

The table below, **major areas of non-compliance & practical solutions**, provides recommendations on the issues of non-compliance that, in the opinion of the consultants, require rectification. Where full compliance cannot be achieved, due to space or topographical constraints, a practical and functional rectification approach has been taken.

The table below that documents **practical solutions** only, provides recommendations on issues where there is no mandatory requirement for a response, however the consultants consider that modification or an action by The Shire of Broome would enhance access and inclusion for all members of the public.

The priority rating in both tables has been documented based on the consultant's professional experiences. This assessment is based on the consultant's assumed knowledge and information provided by the Shire of Broome staff; however it is important that the reader should also take into consideration other factors such as the requirements and requests from people with disabilities, using this facility. It should be noted that the priority rating only addresses those risks relative to access barriers that were identified during the site visit. As risks are dynamic, it would be expected that some unforeseen risks may eventuate and therefore the priorities could change.

To enable the reader to more fully understand the issues and solutions documented in the tables below, OHA has, within the body of the report, referenced the number (in the left hand column) that is documented in the tables. The reference in the body of the report is highlighted and appears as **(ref 1)**.

Major areas of non-compliance & practical solutions:

	Non-Compliance	Practical Solutions	Priority
1.	The green bin is permanently positioned on the edge of a major pathway, interrupting a potential shoreline for people with low vision.	Relocate the green bin to be off the path of travel.	Medium
2.	The ramp that connects the Café to the amenities has no midway landing, handrails or tactile ground surface indicators.	Remediate to provide a compliant ramp.	Medium
3.	There is a small flat landing at the top of the kerb ramp from the car park, leading to the path between the Water Park and the playground. The path down to the path between the playground and Water Park has gradients consistent with a ramp.	Relay the paving to provide a compliant flat landing of 1200mm at the top of the kerb ramp and a path with a gradient no steeper than 1:20 down to the playground and Water Park.	Low
4.	The threshold ramp at the entrance door to the unisex accessible toilet is non-compliant. A threshold ramp is installed where the change in level is too high for a compliant threshold ramp and the width of the external pathway is too narrow to install a compliant step ramp and landing and door circulation spaces.	As it is acknowledged that the external path is too narrow to install a compliant step ramp and door circulation spaces, it is recommended that the threshold ramp be reconstructed to gently slope back to the back of pathway with a feathering of the sides away from the doorway. This will enable a person using a wheelchair to functionally turn and access the door of the unisex accessible toilet.	Medium
5.	The door into the unisex accessible toilet (UAT) has a knob with a small push button lock.	Replace with a compliant door handle and large style snib, that for safety, can be opened from the outside if required.	High
6.	The toilet paper dispenser is too high.	Relocate to the required position.	High
7.	There is no rear grab rail to the toilet pan.	Install a rear grab rail as required for a concealed cistern.	High
8.	Accessible picnic tables, close to the boat ramp can be only accessed over the grass.	Provide an accessible path of travel to these picnic tables.	Low
9.	The path of travel to and along this old jetty is inaccessible.	To provide equitable access for all to view and appreciate this historic landmark, rectification for universal access would require a compliant kerb ramp and a path of travel to and along the jetty that meets the requirements for surface treatments, circulation spaces, gradients and landings.	Medium
10.	There is no accessible path of travel to and throughout the Lions Pioneer Park.	To provide equitable access into the park and to facilities such as seating within the gazebo, accessible drinking	Medium

		fountain and the large barbeque area, rectification for universal access would require a compliant walkways and ramps (as appropriate) meeting the requirements for surface treatments, circulation spaces, gradients and landings.	
11.	There is no accessible path of travel to and throughout the Pioneer Cemetery.	To provide equitable access to and through this historic landmark rectification for universal access would require a compliant walkway and ramps (as appropriate) meeting the requirements for surface treatments, circulation spaces, gradients and landings.	Medium

		Practical Solutions to maximise benefit to the Shire and people with disabilities	Priority
12.	Parents of small children commented on the wide open access from the playground / Water Park entrance that leads directly onto the car park.	Give consideration to fencing this entrance and installing a gate that is accessible to all people.	High
13.	Directional signage from the car park, to the amenities building does not include the international symbol of access indicating the provision of a unisex accessible toilet.	Included the international symbol of access in directional signage to the amenities building.	Medium
14.	Brick paving at the base of the external post mounted shower has a gradient of 1:13.	Relay the paving to provide a gradient no steeper than 1:40 (gradient allowable for a landing and will still allow for the shedding of water).	High
15.	Advertising the pool wheelchair and opportunities for beach access.	Erect a sign advising visitors of the means of accessing the pool wheelchair that can be utilised in the Water Park and the beach wheelchair for accessing the beach.	High
16.	Access to the pool wheelchair.	Consideration could be given to leaving the key with the café and allowing management of the pool wheelchair through this on site facility.	Medium
17.	On the day of the audit one drinking fountain had low water pressure.	Provide maintenance to improve water pressure.	Medium
18.	Interpretative signage can only be accessed over grass, has small font with poor luminance contrast and is positioned low to the ground.	If the style and location of this interpretive signage is significant, provide additional signage that meets good signage principles and can be viewed from an accessible path of travel.	Medium

Accessible car parking

Summary: Level access provided between the accessible car parking bays and the entrance to the playground. Gap between the bollards is in excess of 1000mm.

Due to the design, the bays were assessed against AS2890.1 1993.

The kerb ramp leading to the Water Park can be obstructed by a parked car.



Accessible car bays	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	2 bays both 3500mm wide
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	N	
Other:	AS2890.1 2004	Compliant / Non- compliant (Y/N)	Comments
A proportion of bays close to accessible building / facility main entrance	Fig 2.1 (Note)	Y	
APoT from parking to building / facility	1.3.3	Y	
No obstructions to APoT. Kerbs / wheel stops in colour contrast	2.4.5.1	Y	
Humps do not impede pedestrian traffic along the accessible path of	4.9	Y	

travel			
Bays are adequately lit for night use	4.7	N	.
Kerb ramp to Water Park	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	The kerb ramp is longer than shallower than dimensions as stipulated in AS1428.1 and considered to be safe and functional.
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	N	Landing at the top 600mm.
Kerb ramp provides unobstructed access	DDA	N	Kerb ramp from the car park to the Water Park.
Slip resistant surface	10.7.3	Y	
Warning TGSIs	Reference AS1428.4.1 2009	Compliant / Non- compliant (Y/N)	Comments
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	This is a quiet car park and in this instance TGSIs are not required.

Pathways throughout the precinct

Summary: Brick paving is generally very well laid with minimal lips and gaps.

Brick paving connects all facilities, such as the playground, Water Park, Town Beach Café and public amenities.



Accessible paths of travel & Walkway in play areas	Reference AS1428.1 2009	Compliant / Non-compliant (Y/N)	Comments
Accessible path of travel:		Y	
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	Paths of travel generally kept clear except for the green bin. (ref 1)
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	Brick paving is very even with no gaps and lips.
Appropriate openings in grates: ≤ 13mm when transverse ≤ 8mm in directional of travel	7.5	Y	
Turning 1500x1500mm for a 90° turn	6.5.1	Y	
Kerb ramps or step ramps provided at changes in level?	10.7.2	Y	
Level landings provided at change in direction?	Appendix C	Y	
Gradient no steeper than 1:20	Appendix C	Y	Some minor discrepancies, considered acceptable.
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient	Appendix C	Y	

Accessible paths of travel & Walkway in play areas	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
shallower than 1:33)			
Appropriate landing spaces (1:33 / 25m) 1:33=25m max 1:20=15m max Between 1:20 and 1:33 (interpolation)	Appendix C	Y	
Open path is level for 600mm on either side.	10.2	Y	Garden beds or lawn on either side of pathways.

Ramp to public amenities

Summary: A brick paved ramp connects the Town Beach Café to the amenities block. The ramp generally has compliant gradients; however the length exceeds the nine metres allowable without a midway landing, there are no handrails or tactile ground surface indicators installed.

There is an alternative path of travel up to the amenities block that has the features of a compliant walkway.



Ramp – Town Beach Café to toilet block	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	N	Gradient varies from 1:13 to 1:14. This is a minor discrepancy and an alternative path of travel provided. (ref 2)

Ramp – Town Beach Café to toilet block	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max 1:20=15m max (Between 1:14 and 1:20 interpolation)	Appendix C	N	Ramp length of 12m with no midway landing. (ref 2)
Appropriate landing sizes for: No change in direction 1200mm. 90° change in direction- 1500x1500mm.	Appendix C	Y	Landings at top and base meet requirements. (ref 2)
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	N	
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	N	If handrails were installed to either side of ramp, the handrail on the inner aspect at the top of the ramp would need to wrap back to avoid impinging the upper landing. (ref 2)
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	N	Limestone to side of ramp diminishes to zero and may be a hazard to a person descending the ramp should a wheelchair footplate ride up onto low wall. (ref 2)
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	N	

Entrance closest to the Water Park

Summary: There is kerb ramp from the car park with a connecting brick paved pathway to the Water Park and playground areas.



The flat landing at the top of the kerb ramp has a depth of 600mm only, then slopes down between playground and water playground with a gradient of 1:17. **(ref 3)**

It is noted that this entrance is not the closest to the accessible parking bays and therefore would not specifically be utilised by people who require a compliant flat landing between a kerb ramp and sloped walkway.

One the day of the site visit there was discussion with some users of the park regarding the safety hazard at this entrance. Two parents specifically requested that this entrance be gated off to provide additional safety for their small children. **(ref 12)**

Amenities building

Summary: A public unisex accessible toilet co-located with a café, playground, a Water Park and picnic facilities.

Given the age of the unisex accessible toilet the assessment was against AS1428.1 2001.

Toilets suitable for people with ambulant disabilities have not been provided.

Lighting is operated by the Shire (no light switch).

Sloped paths leading to the toilet block are reported on in the walkways and ramps information.

Directional signage to the toilets (from car park entry) that includes male and female symbols, does not display the international symbol of access. **(ref 13)**



Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
General Features:			
Unisex	10.2.1 (a)	Y	
Signage:			
1200 – 1600mm high	14.5.1(a)	Y	
International access symbol	10.9 (a)	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
M&F symbols	10.9 (a)	N	
Raised tactile & Braille	10.9 (d)	N	
Toilet door:			
Circulation space outside door	Fig 12	N	The veranda width is 1800mm to the post and 2060mm to the verandah edge, sufficient to achieve required door circulation space for a hinge and latch side approach, however the threshold ramp is non-compliant. Should a step ramp be installed then the circulation spaces would be non-compliant. The brick paving slopes up to the door to create a threshold style ramp, functionally impacting door circulation space. (ref 4)
Internal door circulation space	Fig 12	Y	
Hinged	10.2.10 (a)	Y	
Outward opening door has hinge that holds door in closed position	10.2.10(b)	N	No closer provided.
800mm (850mm preferred - AS1428.2, 11.5.1)	7.4	Y	830mm
Flush threshold	5.1.2	N	There is a 25mm lip at the door and an 80mm rise, in addition to the threshold ramp. (ref 4)
Compliant threshold ramp	Fig 10	N	Installed at an 80mm rise, where a 56mm rise only is allowable. The gradient is approximately 1:10 resulting in a ramp length of 920mm. A threshold ramp requires a gradient of 1:8 and a maximum length of 280mm. The ramp sides

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
			are steeply tapered. (ref 4)
Door unlocked and opened by one hand	11.1.1 (a)	Y	
Handle – Lever, D	11.1.1(a)	N	Knob style with push button lock internally. (ref 5)
Handle 900 - 1100mm high	11.1.2 (a)	Y	
Clearance around handle meets requirements	11.1.1 (b)	Y	
Snib – large style		N	Small snib. (ref 5)
In-use indicator	10.2.10(d)	N	
Unlocked in an emergency	10.2.10(d)	N	Key lock only from outside. (ref 5)
Toilet seat:			
Full-round seat type	10.2.5	Y	
Secure with lateral stability	10.2.5	Y	
Lid remains in raised position	10.2.5 (Note)	Y	
Toilet pan:			
Height 460 – 480 mm	Fig 18	Y	
450 – 460 mm to side wall	Fig 18	N	510mm (minimal discrepancy)
800mm set out	Fig 18	N	770mm (minimal discrepancy)
950mm at side		Y	
1200mm in front Or 1100mm to basin in front of pan?	Fig 22	Y	
Toilet controls:			
Flushing control - 600 - 1100mm high at side / rear	10.2.6 Fig 19	Y	
Toilet paper - no further than 300mm from front of pan, no higher than 700mm, no lower than seat	10.2.7 Fig 20	N	Set 1000mm above the floor surface. (ref 6)
Emergency call button next to pan - 700mm	DDA	N	This is not a mandatory requirement and if installed it would require a suitable managed

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
			response.
Cistern:			
Where concealed or high level – continuous grab rail	10.2.8 Fig 21	N	No rear grab rail has been provided. (ref 7)
Grab rails:			
L shaped grab rail 800 – 810 mm high	Fig 21	Y	
Angle of L 100-150mm in front of the pan, no further than 200 – 250mm	Fig 21	Y	
OR Angle commences 100 – 150mm from front of pan, angle 30 - 45°, length min of 700mm	Fig 21	Y	
Rail to extend to wall or terminate 50 - 60mm from rear wall?	Fig 21	Y	
300mm length grab rail behind the toilet at 800 – 810 mm high	Fig 21	N	Concealed cistern requires continuous grab rail. (ref 7)
Grab rail to wall clearance of 50 – 60mm	6.2 (d)	Y	
Grab rail 30 – 40mm in diameter	6.2 (a)	Y	
Top 270 degrees free?	6.2 (e)	Y	
Basin:			
Basin in the toilet cubicle?		Y	
Basin located not closer than 1100 mm to pan?	Fig 22	Y	
Min 1000mm (L) x 800mm(W) circulation space in front of basin?	Fig 24	Y	
770 – 800mm high	Fig 23	Y	
Pipes do not encroach on 'free access space' under basin – returning to the rear wall or side?	10.3 (b) Fig 23	Y	
Taps set back no more than 300mm	Fig 23	Y	
Tap – sensor / lever / capstan	11.3 (a)	Y	
Taps easily identified as hot and cold? (colour / tactile)		Y	
Fixtures and Fittings:			
Towel dispenser, hand dryers, soap dispensers - 900-1100mm	10.4.3	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non-compliant (Y/N)	Comments
Not closer than 500mm to internal corner			
Coat hook - 1200mm – 1350mm	10.4.4	N	Not provided
Shower:			
Unisex accessible shower provided where showers are provided	DDA	N	External shower post with push button controls provided. Paved shower fall has a gradient of approximately. 1:13, this is too steep to safely accommodate a pool wheelchair. (ref 14)

Water Park and playground

Water Park

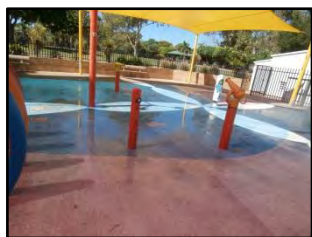
Summary: Level access from the brick paving to the Water Park provides an accessible path of travel for all people using wheeled mobility aids.

Shade is provided over play facilities in the Water Park.

All areas can be accessed by a person using the pool wheelchair. 1500mm wide gaps are provided between all sprayers and soakers encouraging active inclusive play for all children, including children using the pool chair.

The push button controls on the post are at an accessible height of 830mm and sufficient circulation space to enable a person using a wheelchair to reach the controls.

A pool wheelchair is available on site.



Pool wheelchair

Summary: There is one Platypus 'swimming pool' wheelchair available free to the public. The chair is suitable for use in the Water Park and is housed in a locked shed.

The chair has a light weight plastic frame, has armrests and footrests that lift up, for ease of transferring and a rear brake.

On the day of the site visit the chair appeared to be poorly maintained. However staff explained that the leaves and debris covering the pool were the result of the movement of leaves into the shed when the brick paving is regularly hosed.

The wheelchair is suitable only for the Water Park and is not suitable for use on the beach. Use of the chair is arranged via the Shire of Broome rangers and information on the means of accessing the wheelchair is available on the Shire of Broome website.

Install a sign to advise visitors of the pool chair that can be utilised in the Water Playground and include telephone details for accessing the wheelchair. **(ref 15)**

Consideration could be given to leaving the key with the café and allowing management of the pool wheelchair through this on site facility. **(ref 16)**



Playground

Summary: Level access is provided from the brick paving onto the soft fall.

There are no particular accessible features in this standard 'off the shelf' play equipment.

Shade cover is provided over most of the soft fall area.



Furniture

Bench seating

Summary: Provided adjacent the wall at the rear of the Water Park

Seats have a backrest and no armrests.

Seating	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Set back 500mm from path of travel		27.1(a)	Y	Against a wall that would not be considered a main path of travel.
Connected to the path with a firm accessible surface	6.1		Y	

Seating	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Located on a firm, level and even surface		DDA	Y	
Space for adjacent wheelchair seating, no less than 800mm wide	Fig 1		Y	
Seat 400-450mm high		Fig 32	Y	
Backrest provided and angle approximately 105°		Fig 32	Y	
Armrests provided approximately 250mm above the seat		27.2(b)	N	
Seat drains free of water		27.2(e)	Y	
In luminance contrast to the background		27.1(b)	N	Cream against a limestone wall

Drinking fountains

Summary: Two styles of accessible drinking fountains have been provided within the vicinity of the playground and the other close to the path leading to the amenities.

Both styles are on hard surface connected to an accessible path of travel with knee access and circulation spaces functionally appropriate for a person using a wheelchair.

On the day of the audit, the fountain closest to the playground had very low water pressure. **(ref 17)**



Picnic tables

Summary: Two styles of picnic tables, with fixed tables and chairs are provided.

Under the gazebo the picnic tables are metal with attached bench seating and between the playground and Water Park the picnic tables are constructed of wood with separate bench style seating on either side.



Picnic Tables: Gazebo	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Undercover		DDA	Y	
Connected to the path with a firm accessible surface	6.1		Y	A wide ramp connects the paving to the gazebo. Whilst the length is longer than required for step ramp, the reduced gradient would result in path of travel that would not create a barrier to person using a wheeled mobility aid.
Located on a firm, level and even surface		DDA	Y	
Path around the table min 1000mm	6.3		Y	
Circulation space of 1500x1500mm where wheelchair access is required	6.5.1		Y	
Width available at the table for wheelchair user a min of 800mm wide	Fig 1		N	650mm space, between the table supports, at either end of the table.
Table height and under table clearance to meet a wheelchair user		24.1	Y	Table height is 770mm with 710mm clearance under the table.



Picnic Tables: between Playground and Water Park	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non-compliant (Y/N)	Comments
Undercover		DDA	N	
Connected to the path with a firm accessible surface	6.1		Y	
Located on a firm, level and even surface		DDA	Y	
Path around the table min 1000mm	6.3		Y	
Circulation space of 1500x1500mm where wheelchair access is required	6.5.1		Y	
Width available at the table for wheelchair user a min of 800mm wide	Fig 1		Y	
Table height and under table clearance to meet a wheelchair user		24.1	Y	Table height is 770mm with 710mm clearance under the table.

Beach access

Summary: There is no accessible path of travel to the beach as it is located over grass and beach sand that follows the natural contours of the land and tides.

Alternatively there is a steep boat ramp with a sandy surface.

There is a stinger relief station at the entrance boat ramp with the provisions located 1400mm high, set over a kerb.

Although the path of travel is not suitable for the pool wheelchair housed on site the two beach wheelchairs housed at Cable Beach could be made available, by the Broome rangers / Beach inspector if and when required.

Information about the beach wheelchairs is available on the Shire of Broome website.



Picnic facilities

Summary: There are two accessible picnic tables and a free standing shower set up a kerb (from the car park) and over grass. **(ref 8)**

Although the picnic tables are accessible to people using wheelchairs, with the supports set back 600mm from the ends of the picnic tables, the path of travel to the tables is inaccessible.



The Old Jetty

This historic jetty is currently inaccessible to people using wheeled mobility aids.

All parking bays in close proximity are a standard dimension and are on a slope that is too steep for an accessible parking bay.

The kerb ramp to the concrete path is steep with an unacceptable camber.

Access to the jetty is across grass and the surface of the jetty is rocky. **(ref 9)**



Lions Pioneer Park

Summary: There is no current access to this park located on the opposite side of the car entry into the main car park.

Access into the park is up a steep grassed slope. **(ref 10)**

The park includes two gazebos with picnic tables, a drinking fountain and a barbeque.



Picnic tables are set over grass. The style is the same as tables within the gazebo close to the playground. The orientation of the tables is such that there is insufficient space to move around the tables.

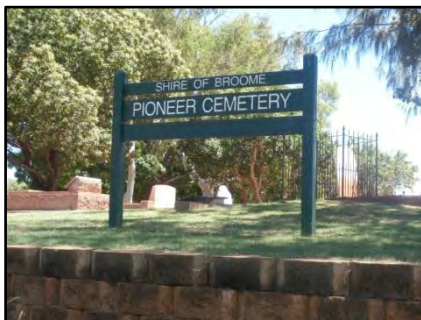
An accessible drinking fountain is provided, set up onto a small hardstand, however as access is over grass with a small step up to the hard stand the drinking fountain could not be accessed by people using wheelchairs.



There is a barbecue set onto a large level paved area that can only be accessed over the grass. The cooking height is 970mm high (with no knee access) with a push button control set at 650mm. This barbecue may not meet the needs of all wheelchair users.

The Pioneer Cemetery

Summary: The Pioneer Cemetery is located up a steep grassy rise. Access from the accessible bays to the cemetery is across the sloping car park. There is no access available for people unable to negotiate steep grassy slopes. (ref 11)



Signage

Informational signage

Summary: A variety of signage styles have been utilised, however signage generally meets the requirements of good signage principles. Newer signs have a large sans-serif font, lettering has good luminance contrast the background colour, signage has a matte finish and signs are located where they can be easily viewed by all people.



Interpretive signage

Summary: Interpretive signage has the following barriers:

- It is generally located over grass;
- Has a small font;
- Lettering has poor luminance contrast the background; and
- The signs are low to the ground and could not be viewed by all people.

(ref 18)



Shire of Broome

Disability Access Audit *of the* **Cable Beach Precinct**



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

Achievements

The following acknowledges achievements to date:

- The wide paths appear to have been initially well laid with pavers that prominently provide a traversable surface.
- Equitable opportunity for beach access as two beach wheelchairs are available from the Surf Club. It was apparent the availability of these beach wheelchairs was well supported by a non-restrictive service offered by the Shire of Broome Beach Inspector or Ranger services.
- Equitable opportunity to toilets and shower facilities for people with mobility disabilities. The toilet and shower are generally in good repair and clean.

The table below, **major areas of non-compliance & practical solutions**, provides recommendations on the issues of non-compliance that, in the opinion of the consultants, require rectification. Where full compliance cannot be achieved, due to space or topographical constraints, a practical and functional rectification approach has been taken.

The table below that documents **practical solutions** only, provides recommendations on issues where there is no mandatory requirement for a response, however the consultants consider that modification or an action by The Shire of Broome would enhance access and inclusion for all members of the public.

The priority rating in both tables has been documented based on the consultant's professional experiences. This assessment is based on the consultant's assumed knowledge and information provided by the Shire of Broome staff; however it is important that the reader should also take into consideration other factors such as the requirements and requests from people with disabilities, using this facility. It should be noted that the priority rating only addresses those risks relative to access barriers that were identified during the site visit. As risks are dynamic, it would be expected that some unforeseen risks may eventuate and therefore the priorities could change.

To enable the reader to more fully understand the issues and solutions documented in the tables below, OHA has, within the body of the report, referenced the number (in the left hand column) that is documented in the tables. The reference in the body of the report is highlighted and appears as **(ref 1)**.

Major areas of non-compliance & practical solutions:

	Non-Compliance	Practical Solutions	Priority
1.	There are some areas where pavers have eroded, moved or subsided resulting gaps between pavers.	Replace eroded pavers (where identified below). Repair path edges to realign pavers, reducing gaps between pavers, particularly where the gaps run parallel to the direction of travel (wheelchair tyres may get caught).	Medium
2.	One accessible parking bay in large, popular car park at this iconic Broome location.	Explore feasibility of providing additional accessible parking bays in the car park at Cable Beach, to meet the demand. The extent of demand may require further investigation or review of resident / visitor feedback to the Shire. Consideration should be given to achieving safe and easy access to the Amphitheatre and public sanitary facilities from any new accessible parking bays.	High
3.	The principal ramp access from the single accessible parking bay has a steep gradient. Ramp is not furnished with handrails, kerb edges or warning TGSIs.	Remake the kerb ramp and pedestrian ramp to provide compliant gradients and landings, kerb edges and handrails. The ramp should be furnished with warning TGSIs at the top and base and incorporate a landing where a change of direction is required.	High
4.	The principal foreshore walkways, frequented by visitors and Broome residents do not seem sufficiently wide to allow comfortable passing, as pedestrians stop on the pathway to take in the ocean views. The paved pathway has an open side, adjacent the dune. No rest areas or seating are provided along this well used pathway. Two park bench style seats are positioned at the northern end of the pathway down a long, steep section of paved path.	Ideally further widen the main foreshore pathway or incorporate rest areas with seating, to allow opportunity for rest and enjoyment of the ocean views.	Medium
5.	The paved path above the car park does not connect to the remainder of the pathway network at the northern end.	Extend the pathway so that it connects with the pathway network.	Low

6.	A tree root has created an uneven section of pathway in the vicinity of the wheelchair accessible tier of the Amphitheatre.	Repair to eliminate steep gradients, gaps, lips or uneven paving.	High
7.	There is a 20mm lip at the base of the step ramp connecting to the Sunset Bar & Grill.	Repair to eliminate the lips at the base of the ramp.	Medium
8.	Stairs that provide access to the Amphitheatre are not furnished with nosings, warning TGSIs at the top and base or handrails to both sides.	Remediate.	Medium
9.	No accessible parking bay is provided in proximity to the public toilets and showers. Access for any person with a disability, from the car park, would require negotiation of the kerb ramp at the curve in the internal roadway. The route from the designated accessible parking bay, to the public amenities, is a considerable distance. No combined accessible toilet and shower is provided at the Surf Club, from where the beach wheelchair is loaned. Access to post mounted freestanding outdoor shower for a person who is a mobility device user is prevented as these showers are located on the midway landings of the stairs leading down to the beach.	<p>Apply Point 2, Above.</p> <p>Consider providing the option of a post mounted, freestanding outdoor shower with a spacious, level paved base connected to an accessible path of travel, near the Surf Club.</p> <p>Or, consider installing a fully compliant unisex accessible toilet and shower, near the Surf Club. This may require further consultation with visitors and regular users of the beach wheelchairs to determine extent of perceived need.</p>	Medium
10.	The toilet paper dispenser is located a significant distance from the toilet pan, which may prevent use by a person with limited upper limb range.	Install a single, domestic style toilet paper dispenser in the correct zone and retain the jumbo toilet paper dispenser in the current location.	High
11.	The kerb ramp forms a functional path of travel off the internal car park roadway, however, its position at the road bend may be hazardous, the expectation a person would travel on the roadway at the bend from a standard or accessible or the decommissioned accessible parking bay may be considered hazardous. The location of the kerb ramp across the full width of the footpath would necessitate a person turning on the kerb ramp to access to the public telephone.	Consider a whole of site approach for provision of additional accessible parking bays and resolution of safety issues associated with the kerb ramp at the internal roadway bend, in the vicinity of the public sanitary facilities.	High

12.	The ramp located between the Playground and the Surf Club pathway is not furnished with handrails on both sides, or warning TGSIs at the top and base.	Remediate.	Medium
13.	Foreshore amenities are not connected to an accessible path of travel.	<p>Provide an accessible style of drinking fountain, connected to the accessible path of travel, set on a hard stand to allow suitable wheelchair access.</p> <p>Provide an accessible style of picnic table, such as the pedestal style table, ideally sheltered to protect sitting surfaces from direct heat, with required circulation spaces, height and knee clearances, set on a hardstand and connected to an accessible path of travel.</p> <p>Provide additional bench seats with armrests along the foreshore walkway, with equitable views over the ocean. Seating to be set off, but connected to, the accessible path of travel so as to not impede pedestrian access along the accessible path of travel. Provide a wheelchair seating space adjacent the park bench seats.</p>	High
14.	The stinger station is in an inaccessible location for a person with significant mobility impairment.	Ensure stinger treatment is available to any person using a beach wheelchair. (It is assumed stinger treatment is available from the beach inspector, when the beach is patrolled).	Low
15.	<p>The public pay telephone has the highest operable part set too high to enable access for a person of small stature or a wheelchair user.</p> <p>Access to the telephone is hindered by the kerb ramp, as a person who is a mobility device user will be required to turn on the face of the kerb ramp.</p>	<p>Provide a second telephone, at a height to suit a wheelchair user.</p> <p>Remove barriers to access on any pedestrian path of travel to the telephone.</p>	Low
16.	An accessible path of travel is not available to the play equipment in the playground.	Consider in any major refurbishment of the playground, to eliminate barriers to access to and within the playground.	
17.	At the stair access to the beach, the steps are not furnished with nosings in required luminance contrast, or	Furnish the stairs with required nosings in luminance contrast and warning TGSIs at the top (base is	Medium

	warning TGSIs at the top and base.	sand).	
18.	<p>The pathway to the Surf Club is significantly eroded and covered with debris, near the vehicle access gate and the surface near the Surf Club is sandy. The pedestrian gap adjacent the vehicle access gate is 1100mm wide and may pose a challenge for a person who is a wheelchair user to negotiate.</p> <p>For person's using the beach wheelchair this may be of low consequence if the Club is generally accessed via vehicle.</p>	Consult with regular users of the beach wheelchairs to ascertain the method for accessing the beach wheelchairs and whether the poorly maintained path near the access gate or sandy pathway to the Surf Club pose a barrier to access.	Medium

		Practical Solutions to maximise benefit to the Shire and people with disabilities	Priority
19.	Town visitors or residents may not be aware of the availability of the beach wheelchairs or the process for loan and beach access options.	<p>The Shire could consider the development of a small brochure, displayed at the Visitor Centre, Shire Administration Building and the like to inform visitors and residents of the three beach wheelchairs available in the town.</p> <p>Signage may be provided at Cable Beach and Town Beach to inform of the same.</p>	High
20.	Interpretative signage has small font with poor luminance contrast.	Consider provision of additional signage that meets good signage principles and can be viewed from an accessible path of travel.	Medium

Accessible car parking

Accessible parking bay

Summary: A single accessible bay located next to the principal pedestrian ramp connecting the precinct walkways.

Due to the design, the bay was assessed against AS2890.1 1993.

The bay and connections to the surrounds were assessed against AS2890.4 2004.



Accessible parking bay	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	A step-free path is provided, however the 'accessible path of travel' is a steep ramp, not compliant with Australian Standards. (ref 3)
Overhead clearance > 2500mm	AS1428.2 1992 Fig 10	Y	
3200mm wide	2.4.5(b)	Y	Poorly maintained, however may have no functional impact.
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Kerb ramp:			
Provided at any change in level	10.7.2	Y	See <u>Ramp</u> .

Other:	AS2890.1 2004	Compliant / Non- compliant (Y/N)	Comments
A proportion of bays close to accessible building / facility main entrance	Fig 2.1 (Note)	N	Faded bay located at rear of Zanders restaurant (closest to the public sanitary facilities) appears decommissioned as an accessible parking bay. No accessible parking bay provided in the vicinity of the Amphitheatre or restaurant (Sunset Bar & Grill) nearby. (ref 2)
No obstructions to accessible path of travel. Kerbs / wheel stops in colour contrast	2.4.5.1	N	A step-free path is provided, however the 'accessible path of travel' is a steep ramp, not compliant with Australian Standards. (ref 3)
Humps do not impede pedestrian traffic / accessible path of travel	4.9	Y	
Bays are lit for night use	4.7	Y	

Decommissioned accessible parking bay

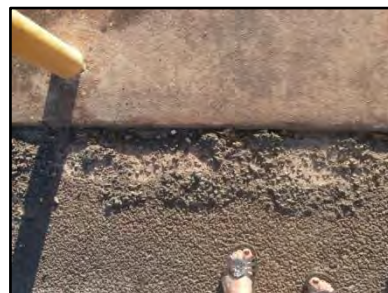
Summary: The decommissioned accessible parking bay has a number of barriers including necessitating a pedestrian to access the pathways via the car park internal roadway. The alternative is via a steep kerb ramp with insufficient space to turn or manoeuvre through to an accessible path of travel.

It would appear reasonable that decommissioning this accessible parking bay is valid, given the inherent barriers and safety issues.



Principal pedestrian access

Summary: A concrete and paved ramp connects the single accessible parking bay and the paved pathway network near the foreshore restaurant (Zanders). While the concrete base has the appearance of a kerb ramp, the kerb ramp gradient continues through to form part of the concrete / paved ramp.



Ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	N	Gradient range of 4.1° (1:14) to 5.5° (1:10) and 6.7° (1:8.5) at the base. (ref 3)
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max 1:20=15m max (Between 1:14 and 1:20 interpolation)	Appendix C	N	Ramp length is approximately 13 metres with no midway landing. (ref 3)
Appropriate landing sizes for: No change in direction 1200mm. 90° change in direction- 1500x1500mm.	Appendix C	N	The adjoining pathway intersects with the ramp gradient, this pathway leads to a memorial. The space to change direction meets requirements however the landing is not level. (ref 3)
Set back from property boundary min 900mm	10.3(d)	N	

Ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	N	(ref 3)
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	N	(ref 3)
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	N	(ref 3)

Pathways though out the precinct

Summary: There are wide paved pathways through the Cable Beach Foreshore precinct. Some pathways that terminate at stairways / steps have not been assessed in regards access for people who use wheeled mobility devices (i.e. gradient).

Paths are generally well constructed with a paver style that achieves a highly traversable path of travel, with no lips or gaps. Some sections of pathway however have been significantly eroded and general repair is required to restore a safe and traversable, accessible path of travel. **(ref 1)**

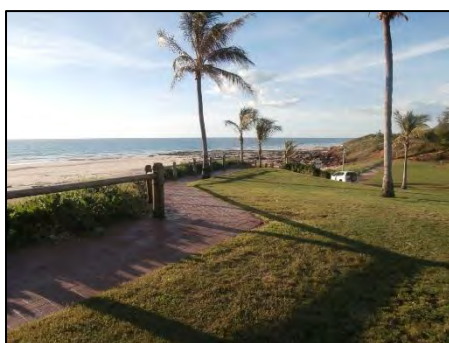
Foreshore footpath

Summary: The Foreshore footpath provides excellent vistas of Cable Beach.

As the northern segment terminated in steps (near the Amphitheatre), the Foreshore footpath is considered, for the purposes of this report, inclusive of the paved path between the ramp to the Surf Club / playground and stairs to the beach at the northern end of the Foreshore precinct.

This pathway which is frequented by visitors does not appear to be wide enough to enable people to comfortably pass people who are standing on the pathway to experience the iconic ocean views.

(ref 4)

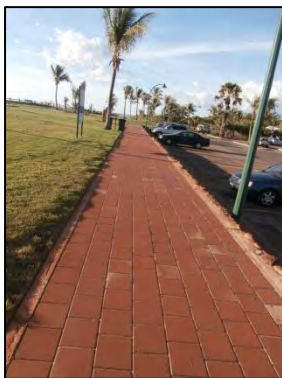


Accessible paths of travel & walkway: Foreshore pathway with views over Cable Beach	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	S1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Unit pavers: Flush profile on continuous paving units (irregular surface / domed surface). Level surface: 0-2mm vertical / rounded / bevelled tolerance	7.2	Y	
Turning & passing spaces	6.5.1/6.5.3	Y	
Level landings provided at change in direction?	Appendix C	Y	
Gradient no steeper than 1:20	Appendix C	N	The majority of the path, other than the northern section, has a level gradient. The northern 12m (in the vicinity of the northern beach stairs) has a gradient up to 1:15, with the base at 1:11. These exceed requirements for a walkway.
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	
Appropriate landing spaces (1:33 / 25m) 1:33=25m max 1:20=15m max Between 1:20 and 1:33 (interpolation)	Appendix C	N	The northern 12m (in the vicinity of the northern beach stairs) has a gradient up to 1:15, with the base at 1:11. As the base of this steep section of walkway is a shared 'landing' at the top of a flight of stairs to the beach, this may be

Accessible paths of travel & walkway: Foreshore pathway with views over Cable Beach	Reference AS1428.1 2009	Compliant / Non-compliant (Y/N)	Comments
			considered hazardous. (ref 5)
Open path is level for 600mm on either side, or Kerb / kerb rail & handrail / wall	10.2	Y	Pathway 2.2m wide.

Footpath: Above car park

Summary: A path that terminates at grass and stone steps extends the length of the car park. This path connects the principal pathway network with a Memorial.



Accessible path of travel: Footpath above car park	Reference AS1428.1 2009	Compliant / Non-compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Unit pavers: Mortar Joints 1-12mm Flush profile on continuous paving units (irregular surface / domed surface) Level surface: 0-2mm vertical /	7.2	Y	

Accessible path of travel: Footpath above car park	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
rounded / bevelled tolerance			
Turning and passing spaces	6.5.1 / 6.5.3	N	Insufficient space to allow wheelchair users to pass.
Level landings provided at change in direction?	Appendix C	Y	
Gradient no steeper than 1:20	Appendix C	Y	
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	N	Insufficient height of kerb edge to the open side of the path.
Appropriate TGSIs installed at crossing points and flush transitions	AS1428.4.1 Fig 2.5	N/A	

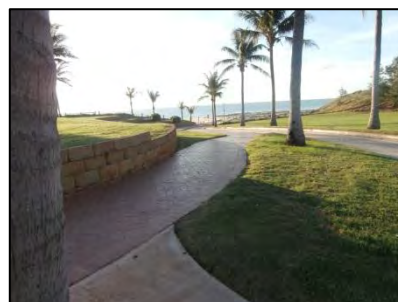
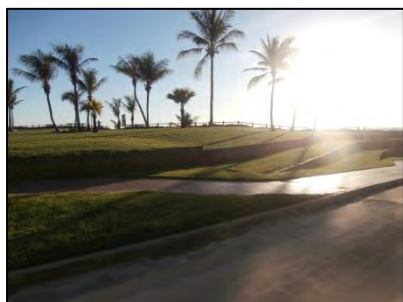
Car Park to Foreshore footpath (steps)

Summary: There are three stone steps that connect the car park to the above-mentioned path. The steps are of a rustic style without the usual furnishings of waning tactile ground surface indicators, nosings or handrails. At this beach environment this may be considered acceptable, as other step-free paths of travel are provided nearby.



Amphitheatre footpath

Summary: The pathway to the level entry of the Amphitheatre connects the car park to the upper two tiers of the terrace seating. There is space here for a wheelchair user to be adjacent tiered seats.



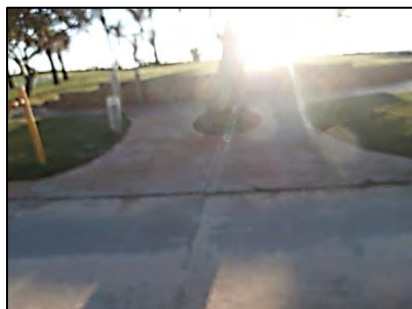
Accessible paths of travel & walkway: Amphitheatre	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	N	Tree root in one section. (ref 6)
Unit pavers: Mortar Joints 1-12mm Flush profile on continuous paving units (irregular surface / domed surface) Level surface: 0-2mm vertical / rounded / bevelled tolerance	7.2	Y	
Level landings provided at change in direction?	Appendix C	Y	
Gradient no steeper than 1:20	Appendix C	Y	
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient	Appendix C	Y	

Accessible paths of travel & walkway: Amphitheatre	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
shallower than 1:33)			
Appropriate landing spaces (1:33 / 25m) 1:33=25m max 1:20=15m max Between 1:20 and 1:33 (interpolation)	Appendix C	Y	Natural rest areas provided along the pathway length.
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	Y	

The transition onto the grass tiered seating of the Amphitheatre, where wheelchair seating may be feasible, has a grassy lip.



Step ramp to Sunset Bar & grill



Step ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Step ramp provided at change of level on accessible path of travel		Y	
Step ramp at any change in level, max height 190mm	10.6.1 (a)	Y	
Min width of 1000mm	Fig 22(A)	Y	
Max. length of 1900mm	10.6.1 (b)	Y	
Gradient no greater than 1:10 (7.1°)	10.6.1 (c)	N	Gradient between 1:7 to 1:8.
Sides splayed for cross pedestrian traffic or a wall or suitable barrier with kerb rail	10.6	Y	

Step ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
No lip at top or base	Fig 24	N	20mm lip at the base. (ref 7)
1200mm landing at the top and base where the ramp follows the direction of travel, or, 1500mm landing at top and base, where a change in direction of travel is required	10.8.2	Y	
Slip resistant surface	10.7.3	Y	Brushed concrete surface.

Northern end of Foreshore footpath, near the Amphitheatre

Summary: The northern end of the walkway, with access to the Amphitheatre, terminates in stairs.



Stairway: Northern end of Foreshore footpath, near the Amphitheatre	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Location			
At property boundary: Set back ≥900mm (HR/TGSIs do not protrude into path of travel).	11.1(a)	Y	
Design			
Slip resistant surface	7.1	Y	
Opaque risers	11.1(c)	Y	
Nosings:			
Provided: Strip 50 – 75mm / across width of path of travel, in 30% luminance contrast	11.1(f)	N	(ref 8)
Stair handrails:			
Provided on 2 sides	11.2(b)	N	Provided on one side only. (ref 8)
Continue through landings if feasible	Fig 28	Y	Installed on left hand side descending,

			continuing through the landing. Unable to continue through landing on right hand side descending, due to access to tiered seating.
1000mm width between HR	Fig 28	Y	
Top Extend in the horizontal plane for a min of 300mm past nosing of top riser	11.2(e)	Y	
Handrails do not intrude into the circulation space	12(a)	Y	
HR turned through 180° or returned to wall face or end post.	12(g)	Y	
Base: (where HR terminates) Extend for one tread depth parallel to line of nosings, plus 300mm horizontally past the last riser	11.2(d)	N	(ref 8)
Handrails do not intrude into the circulation space	12(a)	Y	
HR turned through 180° or returned to wall face or end post.	12(g)	Y	
Handrails:			
Height 865mm – 1000mm	12(d)	Y	
HR height is consistent	12(e)	Y	
30 - 50 mm diameter / circular / elliptical	12(b)	Y	
Top 270° free	12(b)	Y	
50mm clearance to wall	12(h)	Y	
600mm clearance above handrail	12(h)	Y	
Tactile Ground Surface Indicators:	AS1428.4.1 2009		
Installed top and base	2.2.3.1	N	(ref 8)
TGSIs installed on intermediate landings (where required)	2.2.3.2(d)	N	

Approach to Amenities building

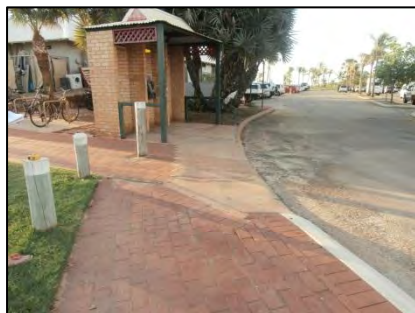
Summary: There is a wide, paved path connecting the Foreshore Pathway and car park to the Amenities Building.

A decommissioned accessible parking bay is located near the service entry to the Zanders Restaurant. Any person arriving at Cable Beach with the intention, in the first instance, of using the unisex accessible toilet/shower, may park as close as is possible to the sanitary facilities and may encounter safety issues and access barriers. **(ref 9)**



Path of travel from car park, closest to Amenities building

Summary: No accessible parking bay is provided in proximity to the public toilets and showers. Access for any person with a disability, from the car park, would require negotiation of the kerb ramp at the curve in the internal roadway. The route from the designated accessible parking bay, to the public amenities, is a considerable distance. **(ref 9 and 11)**



Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24	N	Gradient of 1:7 at the top and 1:12 at the base, with a concave surface. (ref 9 and 11)
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	N	Lips at top and base, and side (25mm lip as pavers have subsided) (ref 9 and 11) .
Angle between ramp and roadway	Fig 24	Y	

166° min			
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	

The kerb ramp forms a functional path of travel off the internal car park roadway, however, its position at the road bend may be hazardous, the expectation a person would travel on the roadway at the bend from a standard or accessible or the decommissioned accessible parking bay may be considered hazardous. The location of the bay across the full width of the footpath would necessitate a person turning on the kerb ramp to access to the public telephone. **(ref 11)**

Path between playground and car park

Summary: A paved path connects the Foreshore walkway with the car park. The path slopes gently down towards the car park.

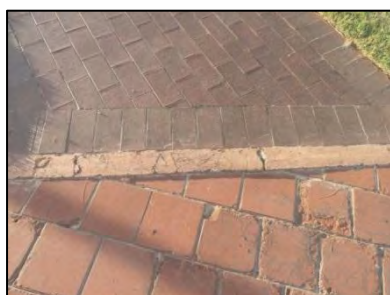


Accessible paths of travel: Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	2.2m wide path
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	

Accessible paths of travel: Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Unit pavers: Mortar Joints 1-12mm Flush profile on continuous paving units (irregular surface / domed surface) Level surface: 0-2mm vertical / rounded / bevelled tolerance	7.2	Y	
Turning 1500x1500mm for a 90° turn	6.5.1	Y	
Turning 2070x1540mm for 180° turn	6.5.3	Y	
Kerb ramps or step ramps provided at changes in level?	10.7.2	Y	
Level landings provided at change in direction?	Appendix C	N	No formalised landings provided at changes in direction, such as towards the Restaurant Kiosk or the public toilets/showers.
Gradient no steeper than 1:20	Appendix C		See Note 1 & 2 , below.
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	N	Erosion has created a central 'gully', with eroded individual pavers and gaps between pavers. (ref 1)
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	Y	

Note 1: The gradient of the slope between the playground to the car park is up to 1:28, acceptable for a walkway.

Note 2: The gradient of the slope from the main walkway, to the Kiosk at the Restaurant ranges between 1:20 (acceptable for a walkway) up to 1:14 (a ramp). There is a gentle slope between the main section of path and the Kiosk. The pavers at the base of this section of walkway are eroded and there is a lip at the concrete kerb. Fixed picnic tables obstruct the pathway in front of the Restaurant.



Path between Playground and Surf Club

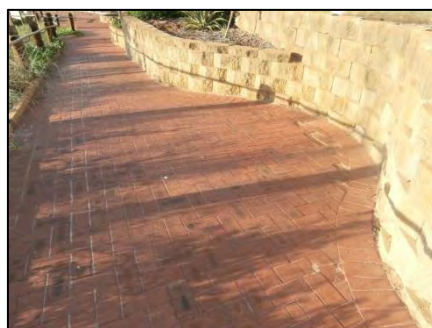
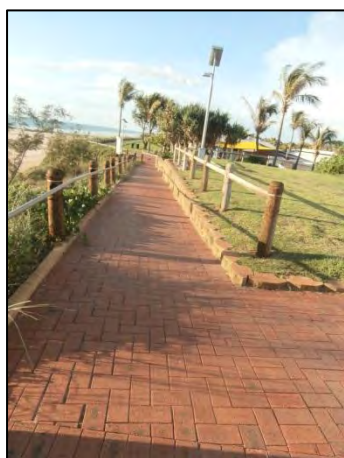
Summary: There is an inaccessible route between the storage area for the beach wheelchairs and:

- the footpath across the face of the Surf Club, overlooking the ocean
- the Surf Club; and
- the beach.

This accessway is principally a vehicle driveway for surf club 4WDs and not intended as a pedestrian route. The pathway addressed below is the route between the Playground and Surf Club which comprises a ramp and walkway.

Ramp between Playground and Surf Club

Summary: At the northern aspect of the pathway there is a ramp with four sloped sections and midway landings. The ramp has a handrail on one side only.



Ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	N	<u>Upper:</u> Gradient ranging between 1:33 to 1:16. <u>Upper middle:</u> Gradients ranging between 1:16 to 1:13. <u>Lower middle:</u> Gradient ranging between 1:12 to 1:15. <u>Lower:</u> Gradient averaging 1:11.
Level camber / cross slope	Appendix C	Y	

Ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Landings:			
Landing spaces: 1:14=9m max 1:20=15m max (Between 1:14 and 1:20 interpolation)	Appendix C	Y	
Appropriate landing sizes for: No change in direction 1200mm.	Appendix C	Y	
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	N	Handrail on left hand side descending only. (ref 12)
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	Y	
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm clearance above	12(b) (h)	Y	
Handrails compliant for 300mm horizontal extensions at the top and base	Figure 14 and 15	Y	
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	Y	
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	Y	
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	N	(ref 12)

Other: Near the base of the ramp connection between the Surf Club and Playground there has been significant subsidence of pavers, creating significant gaps and lips. **(ref 1)**

Walkway between Playground and Surf Club

Summary: A paved path with no slope or cross slope connects the ramp near the Playground with the Surf Club. This path provides views over Cable Beach, but does not form an accessible path of travel to Surf Club amenities, or the beach.



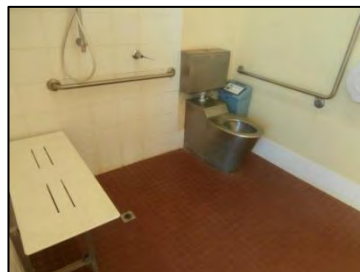
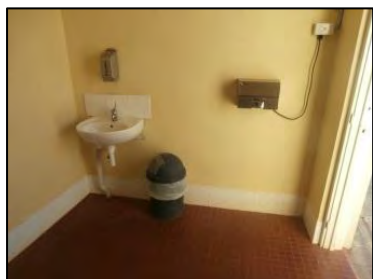
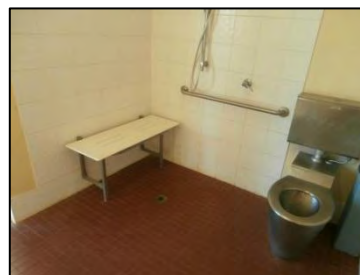
Accessible paths of travel & Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2		
No lips: <3mm (vertical) or <5mm (rounded/bevelled)			
Unit pavers: Mortar Joints 1-12mm Flush profile on continuous paving units (irregular surface / domed surface) Level surface: 0-2mm vertical / rounded / bevelled tolerance	7.2	Y	
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	N	Pine log vertical posts border the dune side of the footpath, not considered a significant risk.

Amenities Building

Summary: A unisex accessible toilet and shower is provided in the same location as male and female toilets. Generally, the facility was in good repair.

Given the age of the unisex accessible toilet the assessment was against AS1428.1 2001.

Toilets suitable for people with ambulant disabilities have not been provided.



Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
General Features:			
Unisex	10.2.1 (a)	Y	
On continuous accessible path of travel from main entrance		Y	
Signage:			
1200 – 1600mm high	14.5.1(a)	Y	
International access symbol	10.9 (a)	Y	
M&F symbols	10.9 (a)	Y	
Raised tactile & Braille	10.9 (d)	N	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
Toilet door:			
Circulation space outside door	Fig 12	N	The approach is up a ramp without handrails, for a length of 2500mm and a gradient of slightly steeper than 1:14, with a 1600mm deep landing at the door. This approach is considered to be functional as remediation would require an additional handrail which would be inappropriate in this location.
Circulation space inside door	Fig 12	Y	Slight impingement of internal door circulation space.
Hinged or sliding	10.2.10 (a)		Hinged.
Outward opening door has hinge that holds door in closed position	10.2.10(b)	N	Considered to be appropriate given the beach location and weather conditions.
In-use indicator	10.2.10(d)	Y	
Unlocked in an emergency	10.2.10(d)	Y	
800mm (850mm preferred - AS1428.2, 11.5.1)	7.4	Y	810mm.
Door unlocked and opened by one hand	11.1.1 (a)	Y	
Handle – Lever, D, circular	11.1.1(a)	Y	
Handle 900 - 1100mm high	11.1.2 (a)	Y	
Clearance around handle ok?	11.1.1 (b)	Y	
Toilet seat:			
Full-round seat type	10.2.5	Y	
Secure with lateral stability	10.2.5	Y	
Toilet pan:			
Height 460 – 480 mm	Fig 18	Y	
450 – 460 mm to side wall	Fig 18	Y	
800mm set out	Fig 18	Y	
950mm at side		Y	
1200mm in front Or 1100mm to basin in front of	Fig 22	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
pan?			
Toilet controls:			
Flushing control - 600 - 1100mm high at side / rear	10.2.6 Fig 19	Y	
Toilet paper - no further than 300mm from front of pan, no higher than 700mm, no lower than seat	10.2.7 Fig 20	N	Installed too high and forward of the vertical component of the grab rail. (ref 10)
Easy to flush?		N	Recessed, with small control.
Grab rails:			
L shaped grab rail 800 – 810 mm high	Fig 21	Y	
Angle of L 100-150mm in front of the pan, no further than 200 – 250mm	Fig 21	Y	
300mm length grab rail behind the toilet at 800 – 810 mm high	Fig 21	Y	
Grab rail to wall clearance of 50 – 60mm	6.2 (d)	Y	
Grab rail 30 – 40mm in diameter	6.2 (a)	Y	
Top 270 degrees free?	6.2 (e)	Y	
Basin:			
Basin in the toilet cubicle?		Y	
Basin located not closer than 1100 mm to pan?	Fig 22	Y	
Min 1000mm(L) x 800mm(W) circulation space in front of basin?	Fig 24	Y	
770 – 800mm high	Fig 23	Y	
Pipes do not encroach on 'free access space' under basin – returning to the rear wall or side?	10.3 (b) Fig 23	Y	
Taps set back no more than 300mm	Fig 23	Y	
Tap – sensor / lever / capstan	11.3 (a)	Y	Lever
50mm clearance around taps	11.3 (c)	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
Fixtures and Fittings:			
Coat hook - 1200mm – 1350mm	10.4.4	N	
Shower:			
Slip resistant floor surface		Y	
Self draining floor surface with central waste	10.5.2 (a)	Y	
Level access		Y	
Shower – circulation space			
Circulation space available 1600 x 2350mm (see below)		Y	
Cubicle minimum size 1160 x 1100mm		Y	
Shower – grab rails:			
Inverted T style	Fig 25 / 26 / 27	Y	
<u>Vertical component</u> located 580 – 600mm from rear wall onto which folding seat is mounted	Fig 25 / 26 / 27	Y	
Vertical component ranges from 1000 – 1100mm up to 1880 – 1900mm	Fig 27	N	The minimal discrepancy of 180mm is considered acceptable.
<u>Horizontal component</u> commences 390 – 400mm from rear wall onto which folding seat is mounted	Fig 25 / 26 / 27	Y	
Horizontal component continues to 800 – 1010mm (1010mm preferred) from rear wall onto which folding seat is mounted	Fig 25 / 26 / 27	Y	
Horizontal component 800 – 810mm high		Y	
<u>Grab rails</u> 50 – 60mm clearance to wall	6.2 (d)	Y	
30 – 40mm in diameter	6.2 (a)	Y	
Top 270° free	6.2 (e)	Y	
<u>Hand held shower</u> provided	10.5.6	Y	

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
In reach when seated	10.5.6	Y	
Height adjustable?	10.5.6	Y	
Height range – 1000 – 1900mm	10.5.6	N	Maximum height of 1600mm is considered to be acceptable and would not specifically warrant rectification in this location.
Angle adjustable	10.5.6	Y	
Shower – Seat:			
Provided: Folding / Self draining / Slip resistant	10.5.9	Y	
When folded, minimum 1000mm from seat to wall opposite or other fitting / obstruction	10.5.9	Y	
470 – 480mm high	Fig 25	Y	
Depth 390 – 400mm	Fig 25	Y	
Length 1000 - 1100mm	Fig 25	Y	
Max 40mm between seat and end wall	Fig 25	Y	
Total circulation space extending <u>next to</u> folding seat 2350mm from side wall (minimum)	Fig 25	Y	
Total circulation space extending <u>in front of</u> folding seat 1600mm from rear wall onto which seat is attached (minimum)	Fig 25	Y	
Shower – Controls:			
Taps – capstan / lever / sensor	11.3 (a)	Y	Lever
Taps 900 – 1100mm	Fig 27	Y	
Shower taps:			
900 – 1100mm height	Fig 27	Y	
Minimum clearance of 50mm around vertical rail	Fig 27	Y	
No closer than 300mm from wall	Fig 27	Y	
No further than 800mm from wall onto which folding seat is mounted	Fig 27	N	1030mm

Unisex accessible toilet	Reference AS1428.1 2001	Compliant / Non- compliant (Y/N)	Comments
Bathroom fixtures and fittings:			
Coat hook - 1200mm – 1350mm	10.4.4	N	
Two devices provided?	10.5.1 (d)	N	
One within 600mm of the folding seat in the shower?	10.5.1 (d)	N	No coat hooks provided. This may be considered appropriate in this public amenity where vandalism and public risk may be of concern.

Foreshore Amenities

Drinking Fountain

Summary: A post mounted drinking fountain with a large push button control located adjacent but off the foreshore footpath.



Drinking fountain	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Accessible drinking fountain provided		DDA	N	Post mounted with control 800mm high, no clearance under the functional component to facilitate wheelchair access. (ref 13)
Connected to the path with a firm accessible surface	6.1		N	(ref 13)
Located on a firm, level and even surface		DDA	N	(ref 13)

Seating

Park bench seating is provided to the northern end of the foreshore walkway, at the base of the steep section of walkway, near the stairs.



Seating	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Set back 500mm from path of travel		27.1(a)	Y	
Connected to the path with a firm accessible surface	6.1		Y	
Located on a firm, level and even surface		DDA	N	(ref 13)
Space for adjacent wheelchair seating, no less than 800mm wide	Fig 1		N	(ref 13)
Seat 400-450mm high		Fig 32	Y	
Backrest provided and angle approximately 105°		Fig 32	Y	
Armrests provided approximately 250mm above the seat		27.2(b)	N	(ref 13)
Seat drains free of water		27.2(e)	Y	
In luminance contrast to the background		27.1(b)	Y	

Picnic tables – Near the walkways with views over Cable Beach

There are two types of picnic table, a pedestal style and trestle style, located on the grass, with views over Cable Beach.



Picnic Tables: Central pedestal style	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Undercover		DDA	N	
Connected to the path with a firm accessible surface	6.1		N	(ref 13)
Located on a firm, level and even surface		DDA	Y	
Path around the table min 1000mm	6.3		N	800mm (ref 13)
Circulation space of 1500x1500mm where wheelchair access is required	6.5.1		N	800mm (ref 13)
Width available at the table for wheelchair user a min of 800mm wide	Fig 1		Y	
Table height and under table clearance to meet a wheelchair user		24.1	Y	

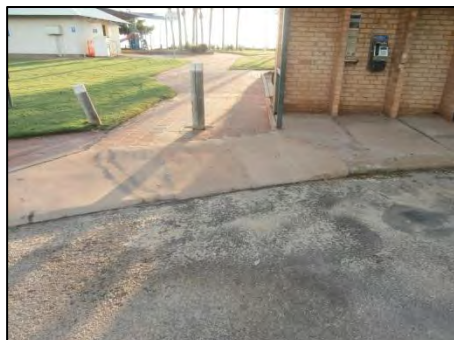
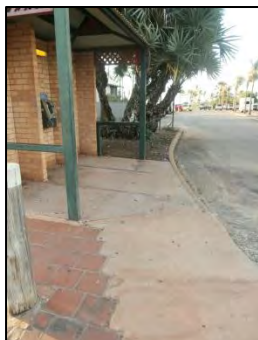
Stinger Station

Summary: The stinger station is located partway along the footpath adjacent the 4WD / vehicular descent to the beach and up short steep ramp or via a narrow gap of 660mm. **(ref 14)**



Telephone

Summary: A single pay phone, at a height to suit people standing, provided at Cable Beach.



Telephone	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
One accessible pay phone provided		30.1	N	(ref 15)
Connected to the path with a firm accessible surface	6.1		Y	Some access barriers on the approach to the telephone shelter. (ref 15)
Located on a firm, level and even surface		DDA	Y	
Sufficient circulation space to make a 180° turn in front of the phone with no barriers	6.5.3		Y	
Highest operable part to be no higher than 1100mm		Fig 35	N	1380mm. (ref 15)
Volume control available		30.1.5	Y	
Numbers easy to read, luminance contrast and size		DDA	Y	Lettering is small.

Playground

Summary: The playground has a pine log border and a sand base. No access to the playground for a person with a mobility impairment, unable to negotiate an unstable sand surface. (ref 16)

There are no particular accessible features in this standard 'off the shelf' play equipment.

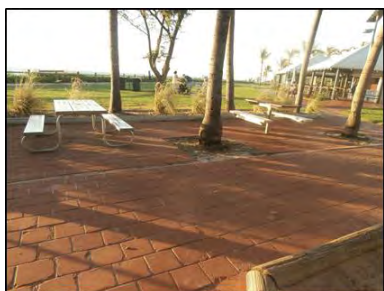


Picnic tables – Near the playground

There are two types of picnic table near the playground, a pedestal style and an integrated style.



Picnic Tables: Central pedestal style	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Undercover		DDA	N	
Connected to the path with a firm accessible surface	6.1		Y	
Located on a firm, level and even surface		DDA	Y	Eroded concrete kerb creates a significant gaps between the paved path and picnic area. (ref 1)
Path around the table min 1000mm	6.3		Y	
Circulation space of 1500x1500mm where wheelchair access is required	6.5.1		Y	
Width available at the table for wheelchair user a min of 800mm wide	Fig 1		Y	
Table height and under table clearance to meet a wheelchair user		24.1	Y	



Picnic Tables: Integrated style	Reference 1428.1 2009	Reference 1428.2 1992	Compliant / Non- compliant (Y/N)	Comments
Undercover		DDA	N	
Connected to the path with a firm accessible surface	6.1		Y	
Located on a firm, level and even surface		DDA	Y	
Path around the table min 1000mm	6.3		Y	
Circulation space of 1500x1500mm	6.5.1		Y	

where wheelchair access is required				
Width available at the table for wheelchair user a min of 800mm wide	Fig 1		N	650mm between vertical leg supports.
Table height and under table clearance to meet a wheelchair user		24.1	Y	

Beach access

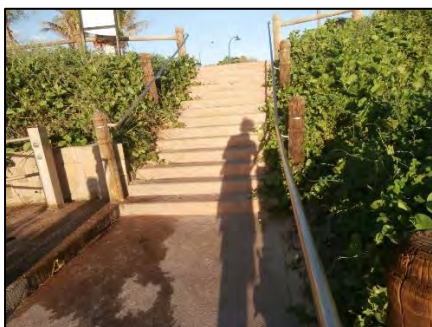
Stairs

Summary: There is a flight of steps from the foreshore walkway to the beach sand.

There is no alternative means of access to the beach for a person unable to negotiate stairs.

There is a free standing shower mid-way along the stair flight. **(ref 9)**

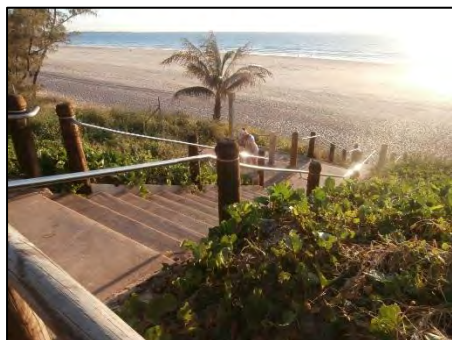
Handrails installed on to both sides.



Stairway: Northern end of foreshore walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Location			
At property boundary: Set back ≥ 900 mm (HR/TGSIs do not protrude into path of travel).	11.1(a)	Y	
Design			

Slip resistant surface	7.1	Y	
Opaque risers	11.1(c)	Y	
Nosings:			
Nosings not project beyond face of riser. Splay up to 25mm acceptable	11.1(d)	Y	
Sharp intersection / rounded / chamfered to 5mm	11.1(e)	Y	
Strip 50 – 75mm / across width of PoT	11.1(f)	N	(ref 17)
30% luminance contrast	11.1(f)		
Stair handrails:			
Provided on 2 sides	11.2(b)	Y	
Continue through landings if feasible	Fig 28	Y	
1000mm width between HR	Fig 28	Y	
Top Extend in the horizontal plane for a min of 300mm past nosing of top riser	11.2(e)	N	Handrails continue, but follow the line of the nosing.
Handrails do not intrude into the circulation space	12(a)	Y	
HR turned through 180° or returned to wall face or end post.	12(g)	Y	Returned to post.
Base: (where HR terminates) Extend for one tread depth parallel to line of nosings, plus 300mm horizontally past the last riser	11.2(d)	N	Handrails extend past the line of the nosing and diminish to 500mm measured to the height of the sand. It is reasonable to assume the sand may have moved onto the lower steps, obscuring the last steps.
Handrails do not intrude into the circulation space	12(a)	Y	Handrails protected by a wooden bollard.
HR turned through 180° or returned to wall face or end post.	12(g)	Y	To bollard.
Handrails:			
Height 865mm – 1000mm	12(d)	N	860mm (Minor discrepancy)
HR height is consistent	12(e)	Y	
30 - 50 mm diameter / circular / elliptical	12(b)	Y	
Top 270° free	12(b)	Y	
50mm clearance to wall	12(h)	Y	

Tactile Ground Surface Indicators:	AS1428.4.1 2009		
Installed top and base	2.2.3.1	N	(ref 17)
TGSIs installed on intermediate landings (where required)	2.2.3.2(d)	N	



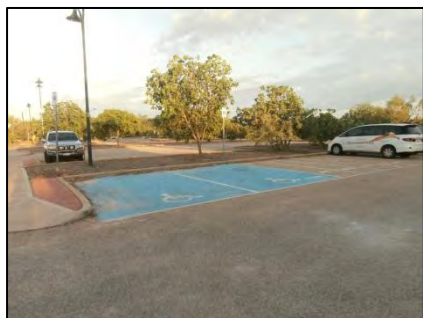
Stairway: Southern end of foreshore walkway

The non-compliant issues identified for the above stairway are similarly applied to the stairway at the southern end of the Foreshore walkway, near the playground.

Equitable opportunity for beach access

Accessible parking

Summary: Four wide, accessible parking bays are provided in the surf Club car park.



Accessible car parking	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	N	See comment below.
Overhead clearance > 2500mm	AS1428.2 1992 Fig 10	Y	
3200mm wide	2.4.5(b)	Y	3600mm.
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of	DDA	Y	

main flow of traffic			
Bays are lit for night use	DDA	Y	

Pathway to the Surf Club

Summary: The pathway to the Surf Club is significantly broken with surface debris, near the vehicle access gate and the surface near the Surf Club is sandy. The pedestrian gap adjacent the vehicle access gate is 1100mm wide and may pose a challenge for a person who is a wheelchair user to negotiate.

For person's using the beach wheelchair this may be of low consequence if the Club is generally accessed via vehicle. This may require further review. **(ref 18)**



Beach wheelchair

Summary: Two beach wheelchairs are available free to the public, from the Surf Club at Cable Beach. These are:

1. A Sandcruiser or Freewheeler Beach Wheelchair.
This beach wheelchair features an extended backrest, waist strap, footrest, brakes and removable armrests to facilitate transfers.
2. Beach Trekker Wheelchair
This attendant propelled beach wheelchair features an extended backrest, chest and waist strap, footrest, brakes and lift back armrests to facilitate transfers.



Both beach wheelchairs are available for free loan, arranged via the Shire of Broome rangers / Beach Inspector. The wheelchairs can be used at Cable Beach and also other Broome beaches within the boundaries of the town site. As the pathways from the Cable Beach Surf Club and the surrounding beach amenities are very steep (designed for vehicular access only, not pedestrian), the beach wheelchairs should be taken onto Cable Beach by 4WD. This is in keeping with a common method of beach access. The rangers indicated this can be undertaken by themselves or by private vehicle.



Information about the two beach wheelchairs is available on the Shire of Broome website. **(ref 19)**

Toilet & Shower

Summary: It was noted no unisex accessible toilet / shower was provided conveniently to the Surf Club for any person who has utilised the beach wheelchair and wishes to shower / change / toilet, prior to leaving the vicinity of the beach or participate in other beach activities. It is likely the person will be required to return to their vehicle and drive to the toilets and showers at Cable Beach.

Signage

Informational signage

Summary: Signage generally meets the requirements of good signage principles. Newer signs have a large sanserif font, lettering has good luminance contrast the background colour, signage has a matte finish and signs are located where they can be easily viewed by all people.



Interpretive signage

Summary: The Memorial can be accessed over level brick paving. The following barriers were noted:

- The raised plinth may prevent people with a vision impairment or people using wheeled mobility aids from moving sufficiently close to read the text.
- The font is relatively small for the required viewing distance; and
- Lettering has poor luminance contrast the background.



Shire of Broome

Disability Access Appraisal
of the
Shire of Broome Administration Building



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- The Broome Administration Building is co-located with Broome Public Library and Civic Centre.
- One accessible parking bay is provided at the side of the building with kerb ramp access to raised pavement.
- Wide, covered and level forecourt leading to the front entrance.
- Undercover drop off parking available.
- Automatic sliding door to the main reception area.

Achievements

- Kerb ramp from the accessible car bay is well defined with colour contrast markings.
- Covered drop off bay with a level covered path of travel to the main entrances.
- Paving is level and even.
- All paths meet the criteria for a walkway.

Recommendations

Short term:

- *Provide adequate lighting at the drop off bay.*

DDA

- *Provide an additional kerb ramp, away from the accessible bay, for people who may be unable to park within a 3300mm width bay and still maintain sufficient clear space to access the kerb ramp. Alternatively redesign the bay to meet the requirements of AS2890.6 2009. This design would result in a 2400mm wide dedicated car bay with a 2400mm wide shared zone, adjacent the existing kerb ramp. This shared zone is kept clear by ground markings and bollards to allow for car transfers and a clear path of travel to the kerb ramp.*

AS2890.6 2009 Clause 2.2

Long term:

- *Reconstruct the path of travel from the parking bay with a 1200mm long landing at the top of the kerb ramp and a 1500x1500mm landing at the point where a person using a wheeled mobility aid is required to make a 90° change in direction. Ensure that the gradient between the two landings does not exceed 1:20.*

AS1428.1 2009 Clause 10.8

- **Provide splayed sides to the threshold ramp at the public entrance door to the reception.*

AS1428.1 2009 Clause 10.5

- *Install warning style TGSIs to delineate the pedestrian forecourt area and the vehicular area under the drop off canopy.*

AS1428.4.1 2009 Figure 2.5(A)

- **Repaint the support pillars to provide a higher level of luminance contrast against the red pavers. Cream against red pavers would achieve a satisfactory level of contrast.*

DDA and safety

* The asterisk indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Car Parking

One accessible car bay designed to the specifications of AS1298.1 1993 has been provided. There is a covered drop off bay provided close to the main entrance of the building.



Accessible car bay	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	Refer to information in kerb ramp checklist.
3200mm wide	2.4.5(b)	Y	3300mm wide.
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	N	Whilst external lighting is provided there is no lighting in close proximity to the accessible parking bay.
Marked with the international symbol of access	DDA	Y	
Elevated signage	DDA	Y	



Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
1200mm flat landing provided at the top of kerb ramp	Fig 24	N	The path slopes up, from the top of the kerb ramp with a gradient of approximately 1:17.
Unobstructed width of 1000mm at the top and base	Fig 24	N	The base of the kerb ramp could be obstructed by a parked car.
TGSIs installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

External pathways

From the accessible parking bay



Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Turning 1500x1500mm for a 90° turn	6.5.1	Y	
Level landings provided at change in direction?	Appendix C	N	From the base of the covered walkway, back to the kerb edge the 3700mm long path has a slope of 1:15. This does not provide a flat landing for a person using a wheelchair, when turning between the car bay and building.
Gradient no steeper than 1:20	Appendix C	N	The covered walkway has a gradient of 1:23 however the approach to the base has a gradient of 1:15, deemed a ramp.
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	Y	

From undercover drop off area



Wide level paved access is provided between the drop off zone and the entrance doors.

There is a grey paver delineating the vehicular drop off area from the dedicated pedestrian zone and support poles are a pindan colour against red paving. Although not tested the Consultants consider that the grey pavers and the supports poles would not provide luminance contrast against the red pavers, and, given that this area would be specifically used by people with a vision impairment , who are unable to drive, the path of travel may be considered hazardous.

Entrances

There are lines of decorative paving with stone texture close to the front entrance of the Administration reception, however this paving is not considered to create a significant barrier to a person using a wheeled mobility aid.

Administration Building public entrance

Wire doors are held open during business hours and entrance is through automatic sliding doors with a metal threshold ramp. The ramp has an appropriate/compliant rise, length and gradient. The threshold ramp has open sides where tapered sides are required to prevent a trip hazard.

The Function/Reception entrance

Cat and kitten style doors provide 850mm clear open space. The threshold ramp bridges a 45mm rise and is 460mm long. This style does not meet the requirements for AS1428.1 2009, however does meet the height and length requirements as stipulated in AS148.1 2001.

This threshold ramp does not have tapered sides; however, as no cross pedestrian traffic is anticipated it is not considered to be a safety hazard.



Shire of Broome

Disability Access Appraisal
of the
Broome Public Library



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- This public library is co-located with the Administration Building and Civic Centre.
- One accessible car bay designed to the specifications of AS2890.1 1993.
- Two external ramps and one set of stairs lead to a wide verandah.
- Access into the building via automatic sliding doors.

Achievements

- Provision of automatic sliding doors.

Recommendations

Short term:

- *Repair uneven paving at the base of the ramp (around the tree root) and under the TGSIs. Ensure that the slope is consistent throughout.*

AS1428.1 2009 Clause 10.3(b)

- **Repaint nosing strips so that they can be more easily detected by all people.*

AS1428.1 2009 Clause 11.1(f)

- **Relocate bike racks to be away from the doorway.*
- **Relay the brick paving on either side of the entrance door to create a gentler slope. (tapered side). The sides should be splayed with a minimum of 45° as prescribed for a threshold ramp.*

AS1428.1 2009 Clause 10.5

Long term:

- *Extend the warning style TGSIs for the width of the pathway at the base of ramps.*

AS1428.4.1 2009 Clause 2.3.3(a)

* The asterisk indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Car Parking

Summary:

One accessible car bay designed to the specifications of AS1298.1 1993 has been provided.



Accessible car bays	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	N	3100mm wide.
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	



The assessment was made of the kerb ramp when approaching from the car park, rather than an approach from the accessible bay. When approaching from the bay it is likely, given the narrower width of the bay, that the kerb ramp could be obstructed.

Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24		
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
TGSIs installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

External pathways

Access from the footpath is via two similar walkways leading to ramps.



Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	N/A	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	N	The walkway closest to the accessible car park has poorly maintained areas of paving. There has been significant movement of paving due to tree root creating a slope 1:9.5 across the width of the path and under the tactile ground surface indicators.
Gradient no steeper than 1:20	Appendix C	Y	
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	Refer to lips and gaps above.
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	Y	



Ramps x 2	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	Y	
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max	Appendix C	Y	
Appropriate landing sizes for: 90° change in direction-	Appendix C	Y	
Set back from property boundary min 900mm	10.3(d)	Y	
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	Y	
Handrails outside of the required circulation space (landings/support	12(a)	Y	

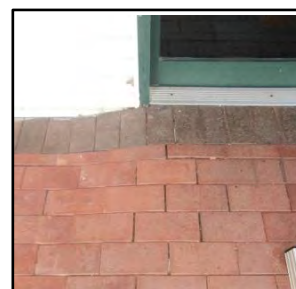
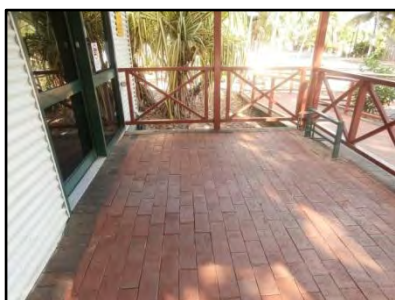
Ramps x 2	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
posts etc)			
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm clearance above	12(b) (h)	Y	
Handrails compliant for 300mm horizontal extensions at the top and base	Figure 14 and 15	Y	
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	N	Handrails turn down 90° in compliance with AS1428.1 2001.
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	N	The kerb rail is positioned from 120mm above the surface of the ramp up to 165mm above the ramp.
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	Y	
600-800mm deep	2.3.3(e)	Y	
Across width of the path	2.3.3(a)	N	TGSIs do not extend for the width of the path.
Set back 300±10mm	2.3.3(c)	Y	
In 30% luminance contrast to background pavers	2.2(b)(i)	Y	



Stairs	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Design			
Slip resistant surface	7.1	Y	
Opaque risers	11.1(c)	Y	
Nosings:			
Nosings not project beyond face of riser. Splay up to 25mm acceptable	11.1(d)	Y	
Sharp intersection / rounded / chamfered to 5mm	11.1(e)	Y	
Strip 50 – 75mm / across width of PoT	11.1(f)	Y	The white strip of paint is correctly located and in good contrast, however is wearing off.
30%LC	11.1(f)	Y	
Stair handrails:			
Provided on 1 or 2 sides	11.2(b)	Y	
1000mm width between HR	Fig 28	Y	
Top Extend in the horizontal plane for a min of 300mm past nosing of top riser	11.2(e)		
HR turned through 180° or returned to wall face or end post.	12(g)	Y	
Base: (where HR terminates) Extend for one tread depth parallel to line of nosings, plus 300mm horizontally past the last riser	11.2(d)	Y	
Handrails do not intrude into the circulation space	12(a)	Y	

HR turned through 180° or returned to wall face or end post.	12(g)	N	Handrails turn down 90° in compliance with AS1428.1 2001.
Handrails:			
Height 865mm – 1000mm	12(d)	Y	
HR height is consistent	12(e)	Y	
30 - 50 mm diameter / circular / elliptical	12(b)	Y	
Top 270° free	12(b)	Y	
50mm clearance to wall	12(h)	Y	
Tactile Ground Surface Indicators:	AS1428.4.1 2009		
Installed top and base	2.2.3.1	Y	
Set back 300±10mm from the riser	2.2.3.2(b)	Y	
Full width of the stairs	2.2.3.2(a)		
600-800 mm deep (when approached from an open area)	Fig A1	Y	
300mm deep (when approached from an enclosed area or on an intermediate landing – unless handrail continues through)	Fig A1	Y	
TGSIs in 30/45/60% LC as appropriate	2.1	Y	

Entrance



Access from the top of ramps and stairs is across a wide evenly paved verandah.

There is a bike rack located against the balustrade; however it intrudes into the 1500mm required to make a 90° turn towards the door. When bikes are parked in the racks the intrusion would be significant.

The brick paving slopes up to the door, however the tapered sides are close to the opening leaf of the door and create a cross slope of approximately 1:5.5. This design could create a hazard to a person using a wheeled mobility aid.

Shire of Broome

Disability Access Appraisal *of the* **Broome Civic Centre**



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- The Civic Centre is co-located with the Broome Administration Building and the Broome Public Library. The Centre houses The Jimmy Chi Hall, Pigram Garden Theatre and The Sammy Room.
- The Centre has one drop off bay, one accessible parking bay.
- There are three sets of stairs and two ramps leading to a wide covered verandah and Breezeway.

Achievements

- Steps and ramps provided in various locations.
- Audio loop signage displayed at the main entrance doors.

Recommendations

Short term:

- **Mark 1000 – 1200mm wide shared zone/ no parking zone, for the length of the car bay, directly in front of the flush connection between the parking bay and footpath. This would result in a bay with a compliant width, sufficient space to undertake a car transfer and a clear unobstructed path of travel to the footpath.*

Practical approach

- **Replace TGSIs set into the kerb ramps with a product that is suitable for outdoors and for Broome's climatic conditions. If considered that the roadway within the car parks do not create a hazard, cars moving slowly, TGSIs could be removed.*

Safety

- *Reconstruct the kerb ramp from the drop off bay to have compliant gradients, cross slopes and tapered sides. Ensure that the kerb ramp is graded in the direction of travel and has a 1500x1500mm landing at the top to enable a change in direction.*

AS1428.1 2009 Figure 24(A) and Clause 18.8.3

Long term:

- *Provide lighting at the accessible car bay, for night use.*

DDA

- *Remake the kerb ramp with the curved base to meet all of the requirements for a kerb ramp.*

AS1428.1 2009 Figure 24(A)

- *Remake the bottom two sections of the ramp leading to the Breezeway to ensure that gradients are consistent throughout and do not exceed 1:14.*

AS1428.1 2009 Clause 10.3(a) and (b)

- *Consider providing solid balustrades on either side of the two double sets of stair handrails that protrude onto the footpath. This will contain the handrails behind a solid structure and enable a person with a vision impairment, using a long cane, to navigate along the edge of the brick wall, and around the base of the stairs in a more dignified manner.*

AS1428.1 2009 Clause 12(a)

- *Extend the width of the TGSIs on the stairs closest to the car park to the full width of the path.*

AS1428.4.1 Clause 2.2.3.2(a)

- *Extend the depth of the TGSIs at the top of the stairs leading to the double doors to be 600 – 800mm deep.*

AS1428.4.1 Clause Fig A1

- *Remake the kerb ramp leading to the library, ensuring that there is a 1500x1500mm level landing at the top, to enable a person using a wheelchair to make a 90° turn and relocate TGSIs to be set within the face of the kerb ramp, 300mm back from the hazard.*

AS1428.1 2009 Clause 18.8.3

AS1428.4.1 2009 Clause 2.3.3(a)

* The asterix indicates where it may be possible to achieve 'quick wins. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Car Parking

Drop off bay



One accessible parallel drop off bay with a length that is suitable for buses and vans. This bay is 3100mm wide which may be insufficient width for a wheelchair to be deployed via a hoist from a bus or van, where level access is required, however given the location, minimal encroachment into the vehicular roadway would be considered acceptable.

Kerb ramp from drop off bay	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	N	The kerb ramp slope ups on an angle towards the path at the side of the bay.
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	2300mm long.
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Sides splayed for cross pedestrian traffic	Fig 24	N	Splayed sides form part of the kerb ramp (in the direction of travel to the footpath) creating a cross slope of 1:19.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Level landing 1500mm long at the top of kerb ramp where a change in direction is required	Clause 10.8.3	N	The design of the kerb ramp necessitates turning on the sloped kerb ramp and splayed sides.
Installation of TGSIs if kerb ramp leads to a hazard	2.1 (Note)	Y	TGSIs are lifting away from the surface of the kerb ramp with the potential to create a tripping hazard.
600-800mm deep	2.3.3(e)	Y	
Across width of KR (1000mm)	2.3.3(a)	Y	

Set back 300±10mm	2.3.3(c)	Y	
30% LC	2.2(b)(i)	Y	

Accessible car parking bay

The bay is designed to the requirements of AS2890.1 1992.



Accessible car bay	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	4300mm wide.
3800mm preferred	ACROD Guidelines	Y	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	N	
Access footpath		Y	There is a 1600mm wide section at the head of the bay that is flush with the footpath. Depending on where a driver parks to undertake a wheelchair transfer from the car, this level access area could be blocked by their car. The alternative curved kerb ramp at the rear/side of the bay (assessed below) has barriers for a person using a wheeled mobility aid.



Kerb ramps with a curved base	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	N	Width reduces at the base to 900mm usable width.
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Sides splayed for cross pedestrian traffic	Fig 24	N	The sides of the kerb ramp slope in towards the centre of the ramp, reducing the functional width and potentially creating an unstable base, whilst moving down a slope, for any person using a wheeled mobility aid.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Level landing 1200mm long at the top of kerb ramp	10.8.3	Y	
Installation of TGSIs		Y	TGSIs are lifting off the concrete base of the kerb ramp.
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	This path of is not considered to be a hazard for people with a vision impairment.
600-800mm deep	2.3.3(e)	Y	
Across width of KR (1000mm) and set back 300±10mm	2.3.3(a)	N	TGSIs are set into the top landing where any hazard would be considered to be the driveway.
30% Luminance contrast to background	2.2(b)(i)	Y	

External pathways

There is a wide level footpath between the building (base of stairways and ramps) and the internal roadway. The footpath has a kerb ramp to the roadway and links to the buildings on the other side of the car park.

There are two ramps and two sets of stairs leading to wide external verandah.

Ramp closest to car park – two sections



Ramp to Breezeway – three sections



Ramps	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	1050mm and 1030mm wide.
Overhead clearance 2000mm	6.2	Y	Ramps have no overhead cover.
Firm slip resistant surface	7	Y	
Gradient and camber			
Gradients steeper than 1:20 and not steeper than 1:14	Appendix C	N	<ul style="list-style-type: none"> Ramp closest to the car park generally has compliant gradients. The middle section of the ramp leading to the Breezeway has an average

Ramps	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
			gradient of 1:9.5, where a ramp gradient cannot exceed 1:14. The bottom section of the ramp has gradients within the range of a walkway.
Level camber / cross slope	Appendix C	Y	
Landings			
Landing spaces: 1:14=9m max	Appendix C	Y	
Appropriate landing sizes for: 180° change in direction 1540x2070mm.	Appendix C	Y	
Appropriate landing sizes for: 90° change in direction- 1500x1500mm.		N	The ramp to the Breezeway has a bottom midway landing 1300x1500mm.
Handrails / kerbs / kerb rails:			
Set back from property boundary min 900mm	10.3(d)	Y	It is noted that all bottom handrails protrude out into the footpath.
Handrails on both sides	10.3(e)	Y	
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	Y	
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm clearance above	12(b) (h)	Y	
Handrails compliant for 300mm horizontal extensions at the top and base	Figure 14 and 15	Y	On the Breezeway ramp, the top of the handrails terminate at a post with no 300mm horizontal extension.
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	Y	
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	Y	

Ramps	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	Y	
600-800mm deep	2.3.3(e)	Y	
Across width of APoT	2.3.3(a)	Y	On the ramp next to the car park the TGSIs do not extend across the width of the ramp.
Set back 300±10mm	2.3.3(c)	N	Ramp closest to car park has base TGSIs set up to the base of the ramp.
30% Luminance contrast	2.2(b)(i)	-	This element was not tested.

Stairs closest to the car park



Set of double stairs leading to the double entrance doors



Set of double stairs to the Breezeway



Stairways	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Location			
At property boundary: Set back ≥900mm (HR/TGSIs do not protrude into path of travel).	11.1(a)	N	Handrails and TGSIs at the base of the stairs leading to the double doors and breezeway protrude out into the footpath.
Design			
Slip resistant surface	7.1	Y	
Opaque risers	11.1(c)	Y	
Nosings:			
Nosings not project beyond face of riser. Splay up to 25mm acceptable	11.1(d)	Y	
Sharp intersection / rounded / chamfered to 5mm	11.1(e)	Y	
Strip 50 – 75mm / across width of PoT	11.1(f)	Y	
30%LC	11.1(f)	Y	
LC cannot extend down face >10mm	11.1(g)	Y	
Change in level ≤3mm (vertical) / ≤5mm (bevelled/chamfered)	7.2	Y	
Stair handrails:			
Provided on 1 or 2 sides	11.2(b)	Y	
Continue through landings if feasible	Fig 28	Y	
1000mm width between HR	Fig 28	Y	
Top Extend in the horizontal plane for a min of 300mm past nosing of top riser	11.2(e)	Y	Stairs to double doors terminate at column with no horizontal extension. This is considered acceptable.
Handrails do not intrude into the circulation space	12(a)	Y	
HR turned through 180° or returned to wall face or end post.	12(g)	Y	
Base: (where HR terminates) Extend for one tread depth parallel to line of nosings, plus 300mm horizontally past the last riser	11.2(d)	Y	

Handrails do not intrude into the circulation space	12(a)	N	Handrails and TGSIs at the base of the stairs leading to the double doors and breezeway protrude out into the footpath.
HR turned through 180° or returned to wall face or end post.	12(g)	Y	
Handrails:			
Height 865mm – 1000mm	12(d)	Y	
HR height is consistent	12(e)	Y	
30 - 50 mm diameter / circular / elliptical	12(b)	Y	
Top 270° free	12(b)	Y	
50mm clearance to wall	12(h)	Y	
Tactile Ground Surface Indicators:	AS1428.4.1 2009		
Installed top and base	2.2.3.1	Y	
Set back 300±10mm from the riser	2.2.3.2(b)	Y	
Full width of the stairs	2.2.3.2(a)	Y	Stairs close to the car park do not have a TGSi treatment for the full width of the stairs.
600-800 mm deep (when approached from an open area)	Fig A1	N	TGSIs at the top of stairs leading to the double doors are 400mm deep. As this is not an enclosed landing TGSIs should be 600 - 800mm deep.
TGSIs in 30/45/60% LC as appropriate	2.1	-	This element was not tested.

Kerb ramp in footpath



Kerb ramps with a curved base	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Kerb ramp:			
Provided at any change in level	10.7.2	Y	

Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Level cross slope	Table C1	Y	
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Level landing 1500mm long at the top of kerb ramp to enable a change in direction	10.8.3	N	The landing at the top of the kerb ramp has a cross slope of 1:14, as the slope of the bay continues for the width of the path.
Installation of TGSIs		Y	
Installed if kerb ramp leads to a hazard	2.1 (Note)	Y	
600-800mm deep	2.3.3(e)	Y	
Across width of KR (1000mm) and set back 300±10mm	2.3.3(a)	N	TGSIs are set into the top landing where any hazard would be considered to be the driveway.
30% Luminance contrast to background	2.2(b)(i)	Y	

Entrance doors

All door and entrance to the Breezeway s have a clear open width of 850mm with level threshold.



Shire of Broome

Disability Access Appraisal
of the
Glenn and Pat Medlend Pavilion (BRAC Reserve)



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- The Glenn and Pat Medlend Pavilion is co-located with the BRAC Reserve.
- There is a central breezeway with various rooms and outdoor spaces that are utilised for sporting events and, the Consultants have been advised, visiting health services such as 'skin screening'.

Achievements

- Level wide paths and covered verandahs lead to doorways and gates.
- Paving is well laid with no lips or gaps.
- Wide level Breezeway through the centre of the building.
- Furniture such as bike racks and bins are aligned and set off the path of travel.

Recommendations

Short term

- *Provide an accessible car bay on a firm level surface, opposite the breezeway with an accessible path of travel to the verandah around the Pavilion.*

DDA

AS2890.6 2009 Clause 2.2

Long term

- **Provide an alternative latch for the gate that would enable a person in a wheelchair to open and close the gate from both sides. This could be in the form of lever style handles.*

AS1428.1 2009 Clause 13.5.2(a)

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Car Parking



There are no marked car bays and no accessible parking has been provided. All parking is on compact sand with loose stones on top.

External walkways



Walkways	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	Bike racks and bins are appropriately located on one side of the wide pathway.
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Turning 1500x1500mm for a 90° turn	6.5.1	Y	
Turning 2070x1540mm for 180° turn	6.5.3	Y	

Walkways	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Gradient no steeper than 1:20	Appendix C	Y	
Camber or crossfall (shallower than 1:40)	Appendix C	Y	

Entrance doors



The entrance to the undercover area is through a wide gate. The 1100mm high latch on the inside of the gate is obstructed by a post (if opening from the outside) and may be difficult for a person using a wheelchair to reach.

Doors were not open on the day of the appraisal but appeared to provide approximately 830mm clear open space, sufficient to exceed the minimal requirements for AS1428.1 2001.

All doors have paved threshold ramps approximately 550mm long with tapered sides. Although the rise is slightly more than allowable for a threshold ramp at doorways, the outcome is considered to be functionally appropriate.

Change room doors are of a similar style with an 80mm lip at the door. This is considered acceptable as the unisex accessible sanitary facility includes a shower and could be used for the purpose of changing and showering.

Lever door handles meet the requirements at 960mm high.

Shire of Broome

Disability Access Appraisal
of the
Broome Historical Museum



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- The Historical Museum is an older heritage style building.
- One accessible parking bay with level pathway to a verandah.
- Double doors at the entrance to the building.

Achievements

- Level paved access to the verandah.

Recommendations

Short term:

- *Remake the kerb ramp, away from the corner of the path. Ensure that the kerb ramp slopes in the direction of travel up to the pathway. This may require the pathway to be widened to 1500mm at the corner to enable a person using a wheeled mobility aid to make a 90° turn.*

AS1428.1 2009 Clause 10.7 and 10.8

- **Install a threshold ramp at the entrance door.*
 - *If the change in level is no more than 35mm provide a ramp with a gradient of 1:8 that is no longer than 280mm.*
- *If the rise is between 35 and 56mm provide a ramp with a gradient of 1:8 that is no longer than 450mm.*

AS1428.1 2001 Figure 10

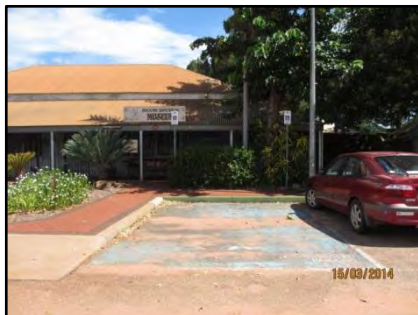
- **Provide maintenance to ensure that the bay is free of sand and debris.*

Safety

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimum outlay.

Car Parking

One accessible car parking bay designed and assessed to AS2890.1 1993



Accessible car bay	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	Depending on the approach, the position of the kerb ramp could be obstructed by a parked car.
3200mm wide	2.4.5(b)	Y	
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	On the day of the audit the surface of the bay was covered with loose sand.
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	



The kerb ramp was assessed with a front approach directly from the car park (rather than approaching from the bay), as the rear of the car could obstruct an approach directly from the car park.

Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	N	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	Y	
Gradient no greater than 1:8 (7.1°)	Fig 24	N	7.6° (slightly steeper than 1:8).
Level camber/cross slope	Table C1	N	When approaching from the car park the camber varies from 1:19 at the base and 1:10 at the top.
Sides splayed for cross pedestrian traffic	Fig 24	N	Not on the accessible bay side when approaching from the car park.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Level landing 1200mm long at the top of kerb ramp	10.8	Y	
TGSIs installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

External pathway

There is wide level access between the paving and the concrete verandah. The gate is raised during opening hours.



Entrance door

On the day of the audit the Museum was closed and was not able to be assessed. It appears from the photograph below that there is a small step leading to double doors.



Shire of Broome

Disability Access Appraisal of Lotteries House



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- A Lotteries House comprising various offices/tenancies with all entrances directly off a wide covered verandah.
- The complex houses not for profit services with a common reception office, a multi-purpose room and sanitary facilities including a unisex accessible toilet.
- Two accessible parking bays with a connecting wide pathway leading directly to the entrance doorways of all units.

Achievements

- Wide, level clear continuous path of travel from the car park to all offices/ tenancies and common facilities.
- Level and even paving throughout.
- Entrance doors are in good luminance contrast to the walls.

Recommendations

Short term:

- **Mark a shared walkway (no parking zone) between the bays a minimum of 1000mm wide, to ensure that cars do not inadvertently restrict access for any person utilising the second accessible bay. Given the width of the bays, a centrally located accessway could be created and still allow 3200mm width for each bay. Where additional space is required the central shared area can be utilised for a car transfer.*

Practical solution

- **Adopt and administer a policy to keep the building lines clear, all advertising boards and other potential barriers could be relocated against the balustrade of the verandah.*

DDA

- **Provide a small threshold ramp at the unisex accessible toilet.*

AS1428.1 2009 Clause 10.5

Long term:

- **Replace overhead signage at parking bay remove the words 'invalid parking only'.*

DDA

- **Repair the surface of the accessible car bays.*

AS2890.1 1993 Clause 2.4.5(a)

- *Relocate low door handles to be set between 900 – 1100mm above the finished floor surface.*

AS1428.1 2009 Clause 13.5.3(a)

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Car Parking

The two accessible parking bays service all tenancies located at Lotteries House. Accessible car bays have been designed and assessed against AS2890.1 1993.



Accessible car bays	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	Both bays are 3600mm wide.
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen	2.4.5(a)	N	The surface of both bays is slightly worn, maintenance may be required.
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	Lighting within car park however may not be sufficient to illuminate accessible bays.
Elevated sign with access symbol at head of the bay	DDA	Y	Signage says 'invalid parking only', not considered to be contemporary language.
No obstructions to path of entrance path.		N	Level access is provided to the footpath at the head of the bays. The central line marking between the bays provides a path of travel 850mm from one bay and 1300mm from the other bay.

External pathways



Access throughout is via a wide level paved path that extends along the verandah. Some advertising boards and pot plants create barriers along the building line that could potentially be used as a shoreline by people with low vision.

Doorways into facilities/services



Door widths and styles vary, with single doors providing 800mm clear open space. Where there are double doors a single leaf provides 800mm clear open space. This door width meets the requirements of AS1428.1 2001.

Thresholds are generally level; however on the day of the audit it was difficult to ascertain the style of some thresholds as businesses were closed and doors locked.

The door into the unisex accessible toilet has a 10mm lip at the base.

Some door handles were too low, set at 800mm high where a lever door handle is required to be positioned 900 – 1100mm above floor level.

Shire of Broome

Disability Access Appraisal
of the
Broome Visitor Centre



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- A contemporary style building that houses the Broome Visitor Centre at one end and a private business at the other.
- Three accessible car bays designed to the specifications of AS2890.1 1993.
- Two external walkways located at either end of a wide covered verandah connecting the building with the car parks.
- Access into the Visitor Centre is via an automatic sliding door.

Achievements

- A high level of access is achieved.
- Provision of automatic sliding doors.
- Gently sloped and well-designed walkways to the covered verandah.
- Paving is level and even with no gaps or lips.
- Rear access for staff is via a ramp.

Recommendations

Short term:

- **Remove the plastic stud TGSIs on the two 'ramps' at the front of the building as they are in poor repair and could create a trip hazard. As this accessway is technically a walkway TGSIs are not required.*

AS1428.4.1 2009 Clause 2.1

- **Relay the brick paving at the junction of the concrete and paving (entrance path to the Visitor Centre) to eliminate the lips and gaps.*

AS1428.1 2009 Clause 7.2

Long term:

- *Replace the TGSIs at the top of the staff ramp with a more robust product, ensuring that a minimum of 30% luminance contrast is achieved.*

AS1428.4.1 Clause 2.2(b)(i)

- *Remediate the handrails at the base of the staff ramp to ensure that they extend to the base of the ramp and then provide a 300mm horizontal extension. This horizontal extension may not be possible on the open side of the ramp as it will protrude into the path of travel where a 90° turn is to be made to enter the bottom of the ramp.*

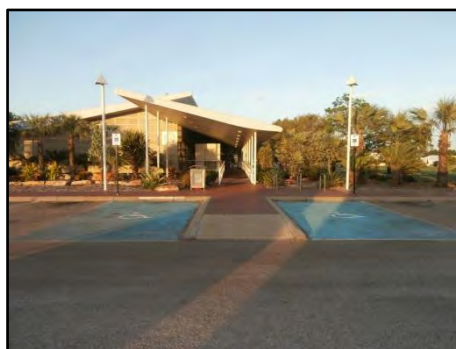
AS1428.1 Figures 14 and 15

* The asterisk indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

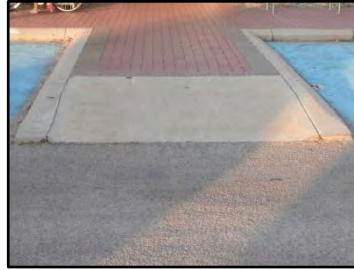
Car Parking

Summary:

Three accessible car bays designed to the specifications of AS1298.1 1993 have been provided. Two bays are located in the car park closest to the Visitor Centre entrance and one bay is located in the car park closest to the private business and the staff entry to the Visitor Centre.



Accessible car bays x 3	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5€	Y	
3200mm wide	2.4.5(b)	Y	
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Overhead signage with access symbol at the head of the bay	DDA	N	Two co-located bays display the access symbol in the overhead signage. The single bay has elevated signage without the access symbol displayed.
Bays are lit for night use	DDA	Y	Only on the Visitor Centre car park side. Lighting is located directly above the accessible bays.

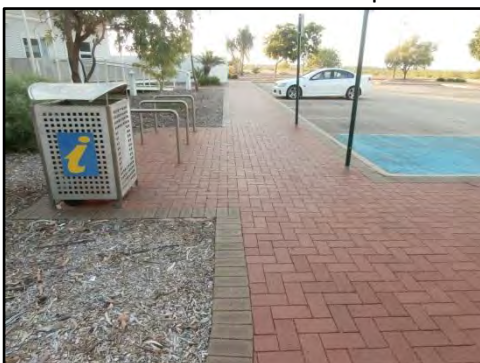


Kerb ramps	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	2100mm long, however the shallow slopes make these kerb ramps functionally accessible.
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	
Sides splayed for cross pedestrian traffic	Fig 24	Y	
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
TGSIs installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

External pathways

Wide level paved pathways from the car park to the 'ramps'.

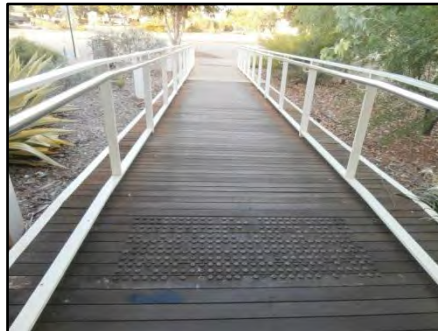
Bike racks and bins have been positioned away the path of travel.



Walkway	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design:			
Width 1000mm (1200mm preferred)	6.3	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Gradient no steeper than 1:20	Appendix C	Y	
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	
Open path is level for 600mm on either side. OR Kerb / kerb rail & handrail / wall	10.2	Y	

There are similar ramps at either end of the building. The bases are constructed with concrete whilst the remainder is timber decking.

Gradients of these 'ramps' are generally shallower than 1:20, therefore the pathways are technically walkways, however they have been furnished with the requirements for ramps, i.e handrails and warning style tactile ground surface indicators. The Consultants consider that the added features of handrails are a positive addition to these walkways. Given the provided features, the paths of travel have been assessed as ramps.

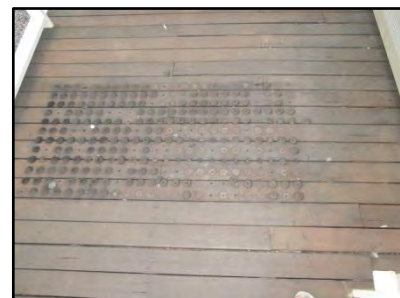




Ramps x 2	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	N	In the pathway on the Visitor Centre side of the building there are depressed brick pavers on one side, creating a 30mm lip.
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	N	The majority of the paths have gradients compliant for a walkway.
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max	Appendix C	Y	
Appropriate landing sizes for: 90° change in direction-	Appendix C	Y	
Set back from property boundary min 900mm	10.3(d)	Y	
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	Y	
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	Y	
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm	12(b) (h)	Y	

Ramps x 2	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
clearance above			
Handrails compliant for 300mm horizontal extensions at the top and base	Figure 14 and 15	Y	
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	Y	
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	Y	
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	Y	As this path has gradients of a walkway the TGSIs are not required.
600-800mm deep	2.3.3(e)	Y	
Across width of the path	2.3.3(a)	N	Gaps at each side of TGSIs and many of the plastic studs have broken away.
Set back 300±10mm	2.3.3(c)	N	Not consistently 300mm. The setbacks vary from 200mm, 1700mm and 370mm.
In 30% luminance contrast to background pavers	2.2(b)(i)	N	Dark plastic studs blend into the dark timber decking.

At the rear of the building there is a staff ramp.



Staff ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	Y	
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max	Appendix C	Y	
Appropriate landing sizes for: 90° change in direction-	Appendix C	Y	
Set back from property boundary min 900mm	10.3(d)	Y	
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	Y	
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	Y	
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm clearance above	12(b) (h)	Y	
Handrails compliant for 300mm horizontal extensions at the top and base provided and appropriately located.	Figure 14 and 15	N	The handrails do not extend to the base of the ramp and the horizontal extension is not positioned above the landing, at the base of the ramp.
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	Y	
Compliant balustrades, kerbs or kerb rails on either side of a ramp.	10.3 (i) and (j)	Y	

Staff ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Top of kerbs 65-75mm, or higher than 150mm	Figure 18 and 19		
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	Y	
600-800mm deep	2.3.3(e)	Y	
Across width of the path	2.3.3(a)	N	Many of the plastic studs have broken away (TGSIs at the top of the ramp).
Set back 300±10mm	2.3.3(c)	N	TGSIs abut the base of the concrete ramp.
In 30% luminance contrast to background pavers	2.2(b)(i)	N	Dark plastic studs blend into the dark timber decking.

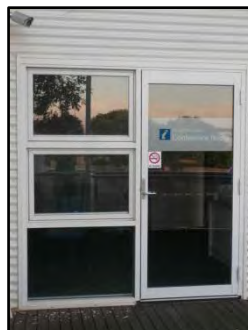
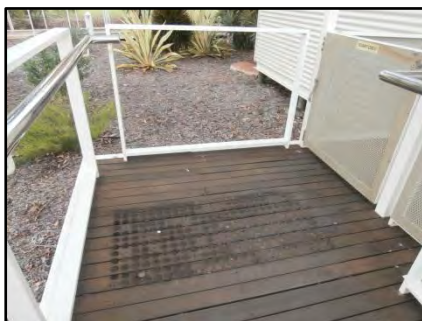
Entrances

Visitor Centre entry



Entrance is off a wide level timber decked verandah with a small kiosk.
The automatic sliding doors have good visual cues with white frames and transoms.

Staff entry



There is an 850mm wide gate opening onto a raised deck. The gate has a lever handle at an accessible height.

The door into the Conference room has level access and although the door was locked on the day of the audit it was apparent that the width meets the minimal requirements for 850mm clear open space.

Shire of Broome

Disability Access Appraisal
of the
Kimberley Regional Offices 1



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- An older style building that is co-located with The Kimberley Regional Offices 2.
- The front of the building houses the Western Australian Department of Housing offices and the rear of the building houses The Kimberley Individual & Family Support Association (KIFSA) and Kimberley Youth Justice Services (KYJS).
- Accessible car parking is located at the rear of the building, between the Kimberley Regional Offices 1 and 2.

Achievements

- KIFSA have installed a semi-automatic door control at the front entrance to assist clients and staff with mobility impairments.
- The Department of Housing have adapted the main entrance and provided an automatic sliding door.

Recommendations

Short term:

- *Provide an accessible car bay in close proximity to the main entrance of the Department of Housing.*

DDA

- *Undertake maintenance at the base of the ramp leading to The Department of Housing offices to provide a barrier free path of travel up to the entrance door. Ensure that the base of the ramp has a sharp transition with no vertical changes of level greater than 3mm (vertical edges) or 5mm (bevelled edges).*

AS1428.1 2009 Clause 7.1 and Figure 22(A)

- **Repair the entrance to the Kimberley Youth Justice Service by installing a compliant threshold ramp directly in front of the door and replacing the bitumen at the base of the concrete, ensuring a smooth transition with no vertical changes in level greater than 3mm (vertical edge) or 5mm (bevelled edges).*

AS1428.1 2009 Figures 21 (Threshold ramp) and Clause 7.1

Long term:

- *Provide elevated signage at all accessible car bays and replace the elevated signage where non contemporary wording is used.*

DDA

- *Provide night lighting, effective at bays.*

DDA

- **Provide maintenance to the surface of the bay opposite the KIFSA entrance.*

AS2890.1 1993 A2.4.5 (a)

- *Whilst the KIFSA entrance has already had significant modification to improve access for people with disabilities, additional works could be considered to achieve:*
 - *An entrance door width of 850mm clear open space*
 - *A compliant ramp to the entrance door*

- *A landing at the doorway that provides a stable base for a person using a wheeled mobility aid*

Given the space constraints, it is acknowledged that to achieve the above, significant works would need to be undertaken and a whole of site approach may be necessary.

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimum outlay.

Car Parking

There are four accessible car parking bays designed and assessed to AS2890.1 1993. These parking bays are shared with the Kimberley Regional Offices 2, however are available for use by people with disabilities requiring access to The Kimberley Regional Offices 1 and The Kimberley Youth Justice Services.

The bays are located at the rear of the building and are more directly aligned with KIFSA and KYJS , however could be utilised by people with disabilities requiring access to The Western Australian Department of Housing offices.



Accessible car bay	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	N	Bays are a significant distance from the entrance to the Department of Housing entrance.
Continuous accessible path of travel to main entrance?	2.4.5(e)	N	Access to the Department of Housing entrance is along a vehicular driveway which has been poorly maintained.
3200mm wide	2.4.5(b)	Y	Although the two bays directly opposite the KIFSA/KYJS entrance are 2900mm wide the shared area, marked as 'No Standing', could be utilised for a car transfer if required.
3800mm preferred	ACROD Guidelines	Y	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	N	<ul style="list-style-type: none"> Bays at the side of the building have a cross slope of 1:29. Bays directly opposite KIFSA/KYJS have a poorly maintained bitumen surface and the blue painted surface is wearing off.

Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Elevated signage displaying the international symbol of access	DDA	Y	Bays directly opposite KIFSA /KYJS have no elevated signage, bays at the side of the Kimberley Offices 2 have non contemporary wording 'Disabled drivers only'.
Bays are lit for night use	DDA	N	

External pathways

Department of Housing

Access from the accessible parking bays to the main entrance of the Department of Housing entrance is along a poorly maintained vehicular driveway. There is no continuous dedicated pedestrian pathway and the section of bitumen close to the building line has pot holes, lips and gaps. Where there is a dedicated pedestrian pathway, it does not connect (with a suitable ramp) to the roadway.



KIFSA entrance

Access is across a wide and level bituminised vehicular driveway between the two Kimberley Regional Offices.

Entrances

Department of Housing

Access from the bitumen driveway is up a concrete step ramp with a length of 2150mm that has a gradient of 1:11. Whilst the length is longer than allowable for a step ramp, the shallower gradient would facilitate the ramp to be functionally accessible.

The base of the ramp, at the transition to the concrete ramp, has been 'patched' with bitumen, creating a barrier to access for people using wheeled mobility aids.

The ramp terminates at the entrance door, with no landing, however as this door has a clear opening width of 850mm and is held open during office hours no access barriers remain. Internally there is a wide automatic door leading into the reception.



KIFSA

Significant works have been undertaken to adapt the entrance and assist people with mobility impairments to access the main entrance.

Modifications include:

- Installation of a concrete ramp from the driveway up to the entrance door; and
- Installation of a semi-automatic door opener with a large control set at an accessible height.



The staff report that this entrance door and the internal doorway, directly in front, still present access challenges to their staff and clients using wheeled mobility aids.

Barriers to access include:

- The concrete slope has gradients ranging from 1:9 at the base to 1:10 at the top. These gradients over a length of 2470mm deem the pathway to be a ramp that would require handrails and TGSIs;
- There is no functional landing at the top of the ramp. It may prove difficult for some people using wheeled mobility aids to access the door control on a sloped surface;
- The top of the ramp 'feathers' down on the latch side of the doorway having the potential to create an unstable base for a person using a wheeled mobility aid;
- There is a 15mm lip at the door; and
- The door has a 750mm wide clear open space where an opening of 800mm is necessary to meet the requirements of AS1428.1 2001 and a clear open width of 850mm is required to meet the contemporary requirements of AS1428.1 2009.

Kimberley Youth Justice

The entrance to this service is via a gently sloped concrete entrance. The transition from the roadway to the concrete has been filled with poorly laid bitumen with the lip height, across the width of the pathway, ranging from 30-65mm.

There is a 45mm lip at the threshold.

The operable leaf of the double entrance doors provides 850mm clear open space.



Shire of Broome

Disability Access Appraisal
of the
Kimberley Regional Offices 2



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- An older style building that is co-located with The Kimberley Regional Offices 1.
- The building has two main entrances into a wide central arcade leading into various offices and services.
- The building houses various organisations including Family Relationship Centre, Community Justice Services and Juvenile Justice Team, Anglicare and Save the Children.
- Four accessible car parking bays are located at the rear of the building, between the Kimberley Regional Offices 1 and 2 and one wide bay is located at the entrance off Napier Terrace.

Achievements

- Five accessible car bays provided, the bay off Napier Terrace is very wide and would enable a wheelchair transfer from either side of a parked car.
- The constructed ramp off Napier Terrace has compliant gradients, generous circulation spaces and handrails on both sides.
- Both entrance are covered, doors that are held open and level landings have been constructed directly in front.

Recommendations

Whilst there are a number of non-compliant issues listed in the report below, many are of a minor nature, i.e. low kerbs on the side of the ramp, and would not be considered as significant barriers, to the extent that rectification would be warranted. Further as there are accessible car bays in three locations, visitors and staff have the option to make a choice regarding the accessible car bay and path of travel to either entrance of the building, depending on any specific mobility requirements.

Long term:

- **Provide maintenance to the surface of the bay directly in front of the entrance off the car park between Kimberley Regional Offices 1 and 2.*

AS2890.1 1993 A2.4.5 (a)

- *Provide elevated signage at all accessible car bays and replace the elevated signage where non contemporary wording is used.*

DDA

- *Provide night lighting, effective at all accessible bays.*

DDA

- *Remake the kerb ramp between the accessible bays that are directly in front of the entrance off the car park between Kimberley Regional Offices 1 and 2. Ensure that the gradient does not exceed 1:8 and the length does not exceed 1520mm. Provide a 1200mm level landing between the top of the kerb ramp and sloped path that leads up to the entrance of the building.*

AS1428.1 Figure 24

- *Replace the path leading from the two accessible bays at the side of the building, ensuring that the base would not be obstructed by parked cars. This may necessitate modifying the bays to the design requirements of AS2890.6, with a shared space between the bays, providing a clear unobstructed path of travel to the building. Any new or rectified path will require a 1500x1500mm landing at any change of direction.*

AS1428.1 2009 Figure 24

AS1428.1 2009 Clause 6.5.1

AS1428.1 2009 Table C1

AS2890.6 2009 Clause 2.2

- *Provide compliant handrails, nosings and tactile ground surface indicators on both external stairways.*

AS1428.1 2009 Clause 11

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimum outlay.

Car Parking

The five accessible car parking bays have been designed and assessed to AS2890.1 1993. Four accessible parking bays are shared with The Kimberley Regional Offices 1 and one is located at the entrance off Napier Terrace.

The information on the four bays below is replicated in The Kimberley Regional Offices 1 report.



Accessible car bays shared with Kimberley Regional Offices 1	Reference AS2890.1 1993	Compliant / Non-compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	Although the two bays directly in front of the entrance are both 2900mm wide, the shared area (marked as 'No Standing') could be utilised for a car transfer if required.
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	N	<ul style="list-style-type: none"> Bays at the side of the building have a cross slope of 1:29. Bays directly in front of the building have a poorly maintained bitumen surface and the blue painted surface is wearing off.
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Elevated signage displaying the international symbol of access	DDA	Y	Bays directly in front of the building have no elevated signage; bays at the side of the Kimberley Offices 2 have non contemporary wording 'Disabled drivers only'.

Bays are lit for night use	DDA	N	
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Kerb ramp between bays directly in front of entrance	Reference AS1428.1 2009	Compliant / Non-compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	800mm with a convex surface.
Gradient no greater than 1:8 (7.1°)	Fig 24	N	Gradient of 1:5.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1200mm landing at top and base.	Fig 24	N	
Slip resistant surface	10.7.3	Y	
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.



Kerb ramp from two bays at the side of the building	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	N	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	The slope of the kerb ramp continues up to the top of the path.
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	Gradients vary across the bay from 1:14 to 1:11.
No camber or cross slope	Table C1	N	The varying gradients across the ramp create a cross slope.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Clear open space not obstructed		N	Any car parked in the bay closest to the building would block access to the base of the kerb ramp for any person parking in the other bay.
Slip resistant surface	10.7.3	Y	
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.



Accessible car bay off the Napier Street entrance	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	5000mm
3800mm preferred	ACROD Guidelines	Y	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Elevated signage displaying the international symbol of access	DDA	Y	
Bays are lit for night use	DDA	N	

External pathways

From car bays, in the shared car park, directly in front of the entrance

There is no landing between the top of the kerb ramp and the base of the sloped walkway.

The paved path slopes up towards the front door with gradients varying from 1:20 to 1:19, generally meeting the requirements for a walkway.



From car bays at the side of the building, in the shared car park

The path up to the building is 1200mm wide with an average gradient of 1:25 meeting the requirements for a walkway.

The landing at the top provides insufficient circulation space to make a 90° turn. The gap between the end of the wall and the landing is 1200mm.



Napier Street entrance

Access from the car bay is level to the vehicular crossover, that leads directly to the base of the ramp.



Ramp at the Napier Street entrance	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Ramp:			
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	Y	The gradient is slightly steeper (up to 1:13) in one section, considered to be a minimal discrepancy.
Level camber / cross slope	Appendix C	Y	
Landings:			
Landing spaces: 1:14=9m max	Appendix C	Y	
Appropriate landing sizes for:	Appendix C	Y	The midway landing is

Ramp at the Napier Street entrance	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
90° change in direction-			1600x1750mm.
Set back from property boundary min 900mm	10.3(d)	Y	
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	Y	
Handrails outside of the required circulation space (landings/support posts etc)	12(a)	Y	
Handrails compliant for diameter and fixings (30-50mm for a min of 270°), and 50mm clearance from adjacent wall and min 600mm clearance above	12(b) (h)	Y	
Handrails compliant for 300mm horizontal extensions at the top and base	Figure 14 and 15	N	Handrails terminate at the base of the ramp; however any extension would protrude into the vehicle crossover.
Handrails turned under 180° or to return to wall or ground, with a compliant design	12(g) Fig 15	Y	The handrail on the building side of the ramp was damaged.
Compliant balustrades, kerbs or kerb rails on either side of a ramp. Top of kerbs 65-75mm, or higher than 150mm	10.3 (i) and (j) Figure 18 and 19	N	The top of the kerb varied from 40mm up to 65mm.
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	N	

The landing at the base off the ramp is the crossover into the car park. The gradient of 1:23 results in cross slope for any person using a wheeled mobility aid, entering the base of the ramp. It would not appear that this could be practically rectified.



The 4 metre long paved path connecting the top of the ramp with the landing directly in front of the public entry door has slopes, varying from 1:14 to 1:16. These gradients are consistent with gradients of a ramp and therefore require handrails and tactile ground surface indicators. It is noted that the ramp handrail does continue on one side of the pathway, up to the intersecting path, leading to the side of the building.



Stairs

There are three steps from the car bay to the separate path leading to the entrance.

Two steps provide an alternative means of access from the footpath to the midway landing of the ramp.

Neither set of stairs has handrails, nosings or TGSIs provided.



Entrances

Both entrances are covered with one door held open, providing 850mm open space. The paving directly in front of both designated entrance doors has a 1500mm long flat landing.



Shire of Broome

Disability Access Appraisal of Amenities and Rotunda Gantheaume Point



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- A recreation space with a Rotunda and sanitary facilities.
- There are no marked parking bays.
- All parking is on compacted gravel with a loose stone surface.
- The facility comprises a spacious paved Rotunda with picnic facilities and interpretative signage.

Achievements

- Wide accessible path of travel around facilities in the Rotunda.
- Paving level and even.
- Two accessible toilets provided.

Recommendations

Short term:

- *Provide an accessible parking bay on a firm level surface with a clear continuous accessible path of travel to the Rotunda area.*

DDA

AS2890.6 2009 Clause 2.2

- *Remake the ramp from the Rotunda to the top landing outside of the Amenities. Ensuring that the ramp has compliant:*
 - *Gradients;*
 - *Handrails;*
 - *Landings; and*
 - *Warning style tactile ground surface indicators*

AS1428.1 2009 Clause 10.3

Alternatively provide an additional accessible toilet in an accessible location with direct access to the paved Rotunda.

- *If these amenities are to be retained as the designated accessible toilets, reconstruct the entrance. This could be best achieved by raising the paving to threshold level across the upper landing for a width of 1240mm. Further a step ramp with a gradient of 1:10 would be required up to this additional landing with an adequate landing at the base. The barricades at the edge of the raised landings should be replaced with a solid structure that extends to the brick paving.*

Safety

AS1428.1 2009 Figure 31(b)

AS1428.1 2009 Clause 10.6

Car Parking

There is no suitable accessible car parking provided. All parking is on a loose surface.



External pathways



The pathway to the Rotunda and undercover paving has even and level paving.

Paving to and within the Rotunda	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Accessible path of travel:			
Seats, bins, tables, bike racks, poles, set off path of travel.	AS1428.2 1992 Clause 27.1	Y	
Walkway design: Rotunda area			
Width 1000mm (1200mm preferred)	6.3	Y	
Overhead clearance 2000mm	6.2	Y	
Firm slip resistant surface	7	Y	
No gaps	7.2	Y	
No lips: <3mm (vertical) or <5mm (rounded/bevelled)	7.2	Y	
Turning 1500x1500mm for a 90° turn	6.5.1	Y	

Paving to and within the Rotunda	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Turning 2070x1540mm for 180° turn	6.5.3	Y	
Gradient no steeper than 1:20	Appendix C	Y	Level throughout Rotunda area.
Camber or crossfall (shallower than 1:40 / 1.3°) appropriate for the slope (allowable when gradient shallower than 1:33)	Appendix C	Y	

The path of travel to the Amenities is via a long steep ramp with no landings, handrails or warning style tactile ground surface indicators.



Ramp to amenities	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Min width 1000mm unobstructed (1200mm preferred)	6.3	Y	
Curved ramp 1500mm unobstructed	Appendix C	Y	
Firm slip resistant surface	7	N	On the day of the audit the paving had loose stones and debris on the surface.
Gradient & camber:			
Gradient steeper than 1:20 and not steeper than 1:14	Appendix C	N	Gradients steeper than 1:14, allowable for a ramp. Gradients vary from 1:20 to 1:7 (1:7 is steeper than allowable for a kerb or step ramp).
Level camber / cross slope	Appendix C	Y	
Landings:			

Ramp to amenities	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Landing spaces: 1:14=9m max 1:20=15m max (Between 1:14 and 1:20 interpolation)	Appendix C	N	No designated landings where the ramped section flattens out to become a walkway.
Doorway landing has appropriate circulation space	Fig 31	N	Refer to summary for entrance to the amenities.
Handrails / kerbs / kerb rails:			
Handrails on both sides	10.3(e)	N	
Warning TGSIs	Reference AS1428.4.1 2009		
Installed at the top and base	2.1(b)	N	

Entrance to amenities

Two accessible toilets have been provided with access off a wide raised paved area.

The entrance doors provide 800mm clear open space, meeting the minimal requirements for AS1428.1 2001.



Paving breaking away

The doorways have external narrow flat landings that are approached on a 700mm long ramped section with a gradient of 1:9. This design would necessitate a person using a wheeled mobility aid to open the door on a significant slope.

The sides of the ramped sections taper directly adjacent the door jamb (on both sides). The paving of these tapered sides is uneven and on the latch side of one doorway the paving has significantly dropped. This design could create a hazard for a person using a wheeled mobility aid.

U rail style barricades have been installed at the edge of the raised entrance landings.

The flat section of the landing where a change in direction is required to open the door (directly in front of the 700mm long ramp) is not 1500mm wide and the u rail barrier may not provide sufficient protection for a person using a wheelchair.

Shire of Broome

Disability Access Appraisal
of the
Broome Boulevard Shopping Centre



Prepared: March 2014
By: O'Brien Harrop Access

Executive Summary

- Fifteen accessible car bays all designed to the specifications of AS2890.1 1993.
- Three covered entrances all with level entrance through wide automatic doors.

Achievements

- Most bays are wider than the 3200mm minimal width as required in AS2890.1 1993, current at the time of construction.
- Wide level entrances, all undercover and with well-defined automatic sliding doors.

Recommendations

Short term:

- **Remediate all eroded areas in the accessible car bays.*

AS2890.1 Clause 2.4.5(a)

- **As the blue signage (ENTRY), directly on the glazing of entrance Number 2 cannot be seen, it is recommended that a white background is added to the sign.*

DDA and safety

- **Provide elevated signage to accessible bays at the 'Target' entrance.*

DDA and wayfinding

- *Reconstruct the kerb ramp leading from the single bay, at the 'Target' entrance, ensuring that all elements meet the requirements of AS1428.1 2009. This kerb ramp should be away from the corner and graded in the direction of travel.*

AS1428.1 2009 Clause 10.7

Long term:

- *Reconstruct the concrete kerb, connecting the bitumen to the paved area at the 'Caltex' and 'Woolworths' entrance. Any concrete kerb should follow the line of the paved 'kerb ramp' leading to the paved entrance, ensuring that the face of the ramp is consistent gradient for the length.*

AS1428.1 2009 Clause 10.3(b)

- **Consider installation of crosswalk markings at all shared areas (entrances) as provided at the 'Target' entrance.*

DDA and safety

- *Reconstruct the kerb ramp leading to the 'Target' entrance ensuring that all elements meet the requirements of AS1428.1 2009, no steeper than 1:8 and no longer than 1900mm.*

AS1428.1 2009 Clause 10.7

- *Where the path of travel from the two bays at the Target entrance may be obstructed by parked cars consider one of the two options:*

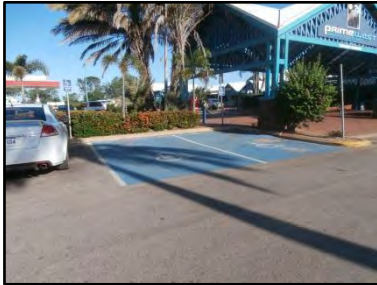
- *provide a separate, compliant kerb ramp directly opposite the bays leading to the raised footpath; or*
- *Redesign these four bays to meet the requirements of AS2890.6 2009. This design would result in four bays 2400mm wide with a shared zone between the bays. This shared zone is kept clear by ground markings and bollards to allow for car transfers and provides a clear path of travel between the bays, enabling barrier free access to the kerb ramp.*

AS1428.1 2009 Clause 10.7 or AS2890.6 2009 Clause 2.2.1

* The asterix indicates where it may be possible to achieve 'quick wins'. The Consultants consider that these recommendations may provide maximum benefit for a comparatively minimal outlay.

Caltex and Woolworths entrances

Four accessible bays at the 'Caltex' entrance located between Tenancies 2 and 21 and four accessible bays at the 'Woolworths' entrance between Tenancies 9 and 10.



Accessible parking	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	
3200mm wide	2.4.5(b)	Y	
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	<ul style="list-style-type: none"> One bay at the 'Caltex' entrance has an eroded area with a diameter of approximately 400mm. Bays at the 'Woolworths' entrance have a cross slope of 1:30.
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	
Marked with the international symbol of access	DDA	Y	
Elevated signage	DDA	Y	

Kerb ramps from 'Caltex' and 'Woolworth' entrances

Two kerb ramps are provided from the roadway up to the covered, elevated paved walkway crossing the trafficable roadway.



Kerb ramp	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	At a length of 2300mm, the paved ramp would not create a functional barrier.
Gradient no greater than 1:8 (7.1°)	Fig 24	Y	The base of the kerb ramps has a concrete 'mountable kerb' with a convex surface that does not meet the requirements for a kerb ramp.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
Lit for night use	DDA	Y	
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

External pathway



From the top of kerb ramp to the entrances, the paved path is wide, level and undercover with gaps between bollards in excess of 1000mm.

Caltex Entrance

There is level entrance through automatic sliding doors with well-defined frames and transoms.

Woolworths Entrance

The external automatic door directly in front of the air lock is locked. Patrons are required to enter and exit the airlock through side auto doors by making a 90° turn within the airlock. The sign on the locked door has directional signage to the side entrance. The sign is blue on glazing and cannot be easily seen.

Target entrance

Seven accessible bays at Target entrance located between Tenancies 36 and 37.

Four co-located bays



Accessible parking	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	Refer to comment below regarding two bays furthest from this entrance.
3200mm wide	2.4.5(b)	Y	
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	
Marked with the international symbol of access	DDA	Y	
Elevated signage	DDA	N	



Kerb ramp from crosswalk	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	Y	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	960mm long.
Gradient no greater than 1:8 (7.1°)	Fig 24	N	9.9°, steeper than 1:8.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

Note the two bays furthest from the designated kerb ramp to the paved entrance would be denied access to the above kerb ramp if this section of the car park was fully occupied. Access therefore would be via the internal vehicular roadway, with a semi mountable kerb with a very steep gradient (slope of 17.7° is approximately 1:3). Further this semi mountable kerb has a significant lip from the roadway. This is not a suitable accessible path of travel for a person using a wheeled mobility aid.



Single bay and two co-located bays



Accessible parking	Reference AS2890.1 1993	Compliant / Non- compliant (Y/N)	Comments
Close to main entrance	2.4.5(d)	Y	
Continuous accessible path of travel to main entrance?	2.4.5(e)	Y	Refer to comments below regarding kerb ramps.
3200mm wide	2.4.5(b)	Y	
3800mm preferred	ACROD Guidelines	N	
Bay surface level, firm 1:33 (1.7°) for bitumen & outdoors OR 1:40 (1.3°)	2.4.5(a)	Y	
Safe area to rear of bay, out of main flow of traffic	DDA	Y	
Bays are lit for night use	DDA	Y	
Marked with the international symbol of access	DDA	Y	
Elevated signage	DDA	N	
Lit for night use	DDA	Y	



Kerb ramp from two co-located bays at crossing	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	N	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	1000mm long.
Gradient no greater than 1:8 (7.1°)	Fig 24	N	12.7° (approximately 1:4) at base gentler at the top.

No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	
1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
Lit for night use	DDA	Y	
Warning TGSIs	Reference AS1428.4.1 2009	Compliant / Non- compliant (Y/N)	Comments
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.



Kerb ramp from single bay	Reference AS1428.1 2009	Compliant / Non- compliant (Y/N)	Comments
Kerb ramp:		Y	
Provided at any change in level	10.7.2	Y	
Max height 190mm	10.7.2	Y	
Graded in direction of travel	Fig 23	N	
Width of 1000mm	Fig 24	Y	
Max. length of 1520mm	Fig 24	N	*1000mm
Gradient no greater than 1:8 (7.1°) with level cross slope	Fig 24	N	*Gradient 1:7 with a varying cross slopes, measuring up to 1:9.
No lip at top or base (<5mm for rounded or bevelled)	Fig 24	Y	
Angle between ramp and roadway 166° min	Fig 24	Y	

1500mm landing at top and base, where a change in direction of travel is required	Fig 24	Y	
Slip resistant surface	10.7.3	Y	
Lit for night use	DDA	Y	
Warning TGSIs	Reference AS1428.4.1 2009	Compliant / Non- compliant (Y/N)	Comments
Installed if kerb ramp leads to a hazard	2.1 (Note)	N	In this instance not required.

*The kerb ramp from the single bay is non-conventional and does not meet the requirements of AS1428.1. Gradients and cambers are inconsistent and dependent on which section for the ramp a person using a wheeled mobility aid chose to use, stability of the wheelchair could be compromised. Further, due to the length of the kerb, a parked car could obstruct access to the section of the kerb ramp that is closest to the accessible bay.

Target Entrance

Level entrance through auto doors with well-defined frames and transoms.