



Access Report

**Mixed Use Development**  
37 Ogilvie Street  
DENMAN NSW

For: Vanessa Green  
Ref: LP\_22420



## Document Control

This report has been prepared based on the documentation available and time allocated to conduct the review. All reasonable attempts have been made to identify key compliance matters.

## Revision Summary:

<b>prepared by:</b>			
Lindsay Perry	Draft	Issued for review	14 June 2023
	Revision 1	Issued for DA	18 July 2023
	Revision 2	Updated for DA	3 August 2023
	Revision 3	Updated for DA	19 March 2024

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## Clarifications:

This report is limited to items within drawings listed in this report only.

Construction is to be in accordance with the recommendations made in this access report to ensure compliance.

**Any dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered during construction to account for wall linings and the like.**

## Definitions:

The following terminology has been used throughout this report:

**Compliant** | compliance with current accessibility legislation has been achieved

**Compliant Configuration** | circulation and spatial planning requirements are compliant

**Capable of compliance** | compliance is achievable through detailed design

**Not Yet Compliant** | circulation and spatial planning requirements have not yet been met

**To be addressed during detailed design** | details not available or applicable at DA stage

**To be confirmed** | inadequate information is provided to determine compliance

## Executive Summary

Development application documentation for the proposed Mixed Use Development located at 37 Ogilvie Street Denman, has been reviewed against current accessibility legislation.

The following table summarises our findings.

Item No.	Description	Compliance Status
<b>The Disability (Access to Premises) Standards</b>		
5.1	Access Code	Refer BCA commentary
5.2	New Work & The Affected Part	Not applicable
<b>Access and Approach</b>		
6.1	Allotment Boundary to Entrance	Compliant
6.2	Accessible Carparking to Entrance	Compliant
6.3	Accessible Carparking	Compliant configuration
6.4	Stairs	Compliant configuration
6.5	Slip Resistance (Ramps & Stairs)	To be addressed during detailed design
6.6	Accessible Entrance	Compliant configuration
<b>Interior</b>		
7.1	Extent of Access Generally	Compliant
7.2	Circulation Areas	Compliant
7.3	Doorways	To be addressed during detailed design
7.4	Doorways to Vestibules	To be addressed during detailed design
7.5	Exempt Areas	None specified
7.6	Floor Finishes	To be addressed during detailed design
7.7	Carpet	To be addressed during detailed design
7.8	Controls	To be addressed during detailed design
7.9	Visual Indication to Glazing	To be addressed during detailed design
7.10	Tactile Indicators	To be addressed during detailed design
7.11	Signage	To be addressed during detailed design
<b>Sanitary Facilities</b>		
8.1	Distribution	Compliant
8.2	Accessible Toilets	Capable of compliance
<b>Accessible Unit</b>		
9.1	Doorways	Capable of compliance
9.2	Bathroom	Capable of compliance
9.3	Circulation Areas	Compliant
9.4	Kitchenette	Best practice recommendation
9.5	Floor Finishes	To be addressed during detailed design
9.6	Carpet	To be addressed during detailed design
9.7	Controls	To be addressed during detailed design

We consider that the drawings presented for assessment, for the purposes of a development application, are capable of compliance with current statutory requirements.



Accessibility requirements are included in Appendix 1 of this report to guide the detailed design. Best Practice options are provided within Appendix 2 and we encourage their implementation into the design.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry Access Pty Ltd. This may differ from that of other consultants.

A handwritten signature in black ink, appearing to read 'L. Perry'.

**LINDSAY PERRY**

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## 1 Project Background

The project is a Mixed Use Development that provides two retail shops and nine (9) serviced apartments units over two levels in a walk-up arrangement. The serviced apartments are intended as tourist accommodation. Associated carparking areas and external areas are provided at the ground floor level.



Figure 1 | Proposed Development

## 2 Reviewed Documentation

Documentation prepared by CAD Design & Draft has been reviewed as follows:

dwg no.	drawing name	revision
A01	Cover Sheet	C
A02	Aerial Image	C
A03	Sotie Analysis Plan	C
A04	Development Site Plan	C
A05	Ground Floor Plan	C
A06	First Floor Plan	C
A07	Roof Plan	C
A08	Elevations & Sections	C
A09	Artists Impressions	C
A10	Draft strata Plan	C
A11	Window & Door Schedule	C

## 3 Council Requirements for Accessibility

Muswellbrook Shire Development Control Plan is applicable to the is development. Section 7 relates to non-residential development and with respect to accessibility, the following applies.

### 7.4.7 Access

#### Objectives:

- To ensure the equitable provision of access for people with disabilities or the aged



## Controls

- i) Equitable access for people with disabilities is provided to new buildings in accordance with the provisions of AS1428.1 and the Disability Discrimination Act.
- ii) Where alterations or additions involve more than 50% of the building fabric, compliance with (i) above is required.
- iii) Vehicular access to, and within, the development shall be provided in accordance with Section 16 – Car Parking and Development of this DCP

The objectives and controls have been considered and are demonstrated throughout this access report.

## **4 Legislation**

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The National Construction Code Building Code of Australia Volume 1 2022 (BCA)
  - Part D3 D15 Landings (Slip Resistance)
  - Part D3 D22 Handrails
  - Part D4 – Access for People with Disabilities
  - Section F2D5 – Accessible Sanitary Facilities
- Australian Standard AS1428.1 (2009) Amendment 1 & 2, – Design for Access and Mobility
- Australian Standard AS1428.2 (1992) – Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities
- Australian Standard AS1428.4.1 (2009) Amendment 1 – Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators
- Australian Standard AS2890.6 (2009) – Parking Facilities – Off street carparking For People with Disabilities.

A summary of the requirements of relevant legislation follows.

### **The Disability Discrimination Act 1992**

The DDA requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability.

### **The Disability (Access to Premises) Standards**

Any application for a building approval for a new building or upgrade of an existing building triggers the application of the Premises Standards.

The Premises Standards include an **Access Code** written in the same style as the Building Code of Australia. It has a number of Performance Requirements that are expressed in broad terms and references a number of technical Deemed-to-Satisfy Provisions.

### **The National Construction Code / Building Code of Australia (Volume 1)**

The Building Code of Australia (BCA) is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. The BCA is a performance-based code and compliance can be met through satisfying the deemed-to-satisfy provisions or by meeting the prescribed performance requirements.

For Class 3 (serviced apartment) buildings BCA requires access for people with disabilities as follows:

- From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.
- To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
- For a total of nine (9) sole occupancy units access must be provided to and within **one (1)** sole occupancy unit.
- Where a ramp complying with AS 1428.1 or a passenger lift is installed—
  - a) to the entrance doorway of each sole-occupancy unit; and
  - b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.

For Class 6 (retail) buildings BCA requires access for people with disabilities to and within all areas normally used by the occupants.

### **AS1428 – Design for Access and Mobility**

The AS1428 Suite provides design requirements for accessibility generally, covering all types of disabilities. AS1428.1 and AS1428.4.1 are referenced by the NCC / BCA.

- Australian Standard AS1428.1 (2009) Amendment 1 & 2, – Design for Access and Mobility contains access requirements that are mandatory for the provision of access for persons with a disability
- Australian Standard AS1428.2(1992) – Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities provides enhanced and best practice requirements that will minimize DDA risk
- Australian Standard AS1428.4.1 (2009) Amendment 1 – Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators

### **AS2890.6 – Off-street Carparking for People with Disabilities**

AS2890.6 (2009) applies to the carparking areas generally.

## 5 The Disability (Access to Premises) Standards

Any application for a building approval for a new building or upgrade of an existing building triggers the application of the Premises Standards.

The Premises Standards include an Access Code written in the same style as the Building Code of Australia. Additionally, it offers a number of concessions for existing buildings as outlined below.

### 5.1 Access Code

The Premises Standards include an Access Code written in the same style as the Building Code of Australia.

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#### Compliance Summary:

Refer to BCA requirements throughout subsequent sections of this report.

While the introduction of NCC 2022 causes clause numbers to differ between documents, the intent of each code remains similar.

### 5.2 New Work and The Affected Part

The Disability (Access to Premises – Buildings) Standards apply to **...a new part, and any affected part, of a building**, to the extent that the part of the building is...a Class 3, 5, 6, 7, 8, 9 or 10 building (Clause 2.1).

**New part** is defined as follows (Clause 2.1 (4)):

- An extension to the building or a modified part of the building.

An **affected part** is defined as follows (Clause 2.1 (5)):

- The principal pedestrian entrance of an existing building that contains a new part; and
- Any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.

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#### Compliance Summary:

Not applicable

#### Commentary:

The new work and affected part provisions are not applicable to new developments.



## 6 BCA | Access and Approach + External Areas Generally

The approach to the building needs to be addressed when considering access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability.

An accessible path of travel is required to the building entrance from the allotment boundary at the main points of pedestrian entry, from accessible carparking areas and from any adjacent and associated accessible building.

In this instance, the approach to the building has been considered as follows:

- from the allotment boundary at the pedestrian entrance along Paxton Street to the building entrance;
- from the accessible carparking area to the building entrance.

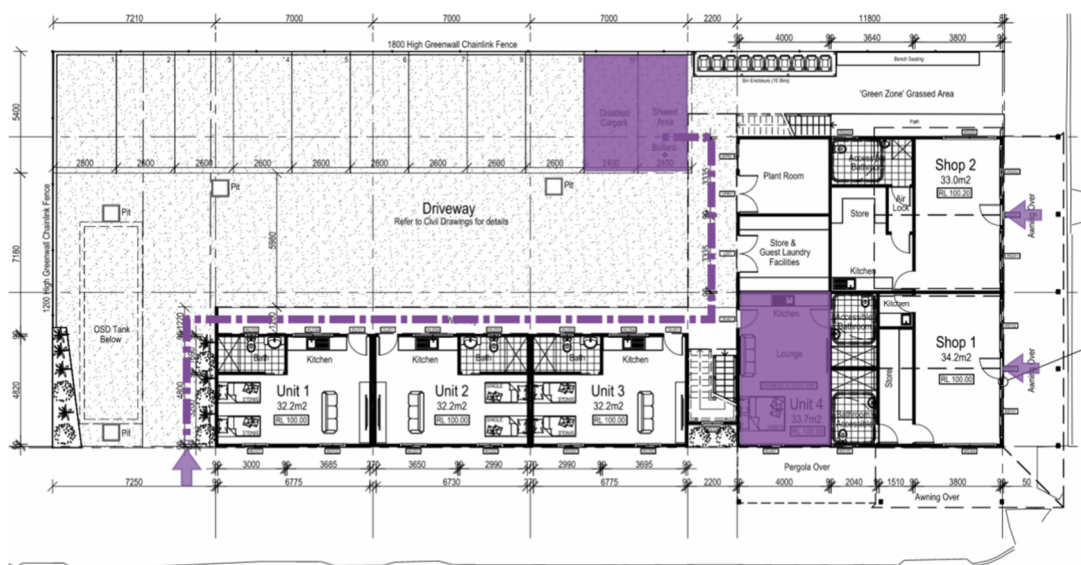


Figure 2 | Overall Site Plan

### 6.1 Approach from Allotment Boundary

The BCA requires that a continuous accessible path of travel be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

#### Compliance Summary:

Compliant

#### Commentary:

An accessible path of travel is provided to the building entrances from the allotment boundary along Paxton Street. On grade access is available via the driveway area.

## 6.2 Approach from Accessible Carparking

The BCA requires that a continuous accessible path of travel be provided from the accessible carparking areas to the main entrance.

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### Compliance Summary:

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Compliant

### Commentary:

An accessible path of travel is provided to the building entrances from the accessible carparking. On grade access is available.

## 6.3 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development.

The number of accessible spaces within a Class 3 building is to be calculated by multiplying the total number of carparking spaces by the percentage of accessible sole-occupancy units to the total number of sole-occupancy units.

For a retail (Class 6) building, BCA requires one (1) accessible space for every fifty (50) carparking spaces or part thereof.

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### Compliance Summary:

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Compliant configuration

### Commentary:

On grade parking is provided at the rear of the building. Plans show a total of ten (10) carparking spaces, one (1) of which is nominated as an accessible space. It is located in close proximity to the building entrances / accessible unit.

The overall configuration of the accessible carparking achieves compliance with current legislation including dimensions of the space and associated shared areas and provision of a bollard.

## 6.4 Stairs

AS1428.1 has access requirements for all public access stairs and is applicable in this instance.

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### Compliance Summary:

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Compliant configuration

### Commentary:

Stairs are provided as a part of the pedestrian access to the units at the upper level. They are provided in a switchback arrangement.



The overall configuration of the stairs achieves compliance with current legislation including handrails with extensions both sides and a setback from the traversing path of travel.

Ensure provision of contrasting non-slip nosings to treads.

Ensure that the detailed design includes the provision of contrasting non-slip nosings to treads and tactile indicators top and bottom.

## 6.5 Slip Resistance (Stairs and Ramps)

The BCA defines the following slip resistance requirements for stairs and ramps:

Application	Surface Conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or Landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

### Compliance Summary:

To be addressed during detailed design stage.

## 6.6 Accessible Entrances (Retail Tenancies)

In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and not less than 50% of all pedestrian entrances including the principal pedestrian entrance.

In a building with a total floor area more than 500 sqm a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

### Compliance Summary:

Compliant configuration

### Commentary:

Single hinged doorways provide entry to each retail tenancy and offer compliant circulation areas. Ensure that the selected door achieves a clear opening width of 850mm.

A level threshold hold is achievable at the doorways.

## 7 BCA | Interior

The building is designed over a two levels and provides two (2) retail tenancies and nine (9) serviced apartments.

The areas subject to accessibility requirements include the retail tenancies and common areas. The following do not apply to individual units.

### 7.1 Extent of Access Generally – BCA

Within the accommodation areas, access for people with disabilities is required to the door of individual sole occupancy units at each level. An accessible path of travel is also required to the residential communal areas.

BCA requires the provision of one (1) accessible room based on a total of nine (9) sole occupancy units.

For the retail tenancies, access for people with disabilities is required to and within all areas normally used by the occupants.

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#### Compliance Summary:

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Compliant

### 7.2 Circulation Areas

BCA (Clause D4D4) requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 90° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

Within corridor areas, 1500x1500mm is required to facilitate a 90° turn by a wheelchair. This must be accommodated within accessible areas.

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#### Compliance Summary:

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To be addressed during detailed design

#### Commentary:

Circulation areas will generally facilitate wheelchair access. Within Shop 1, the kitchen does not accommodate wheelchair access – this should be addressed during the detailed design to ensure compliance.

### 7.3 Doorways Generally

AS1428.1 has requirements for doorways within the accessible path of travel to enable independent access for people using a wheelchair.

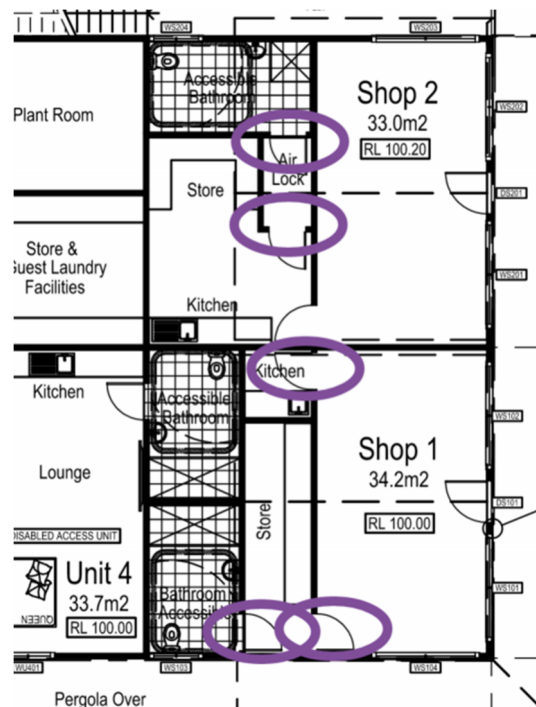
#### Compliance Summary:

To be addressed during detailed design

#### Commentary:

Doorways within the accessible path of travel generally achieve the required circulation areas.

Detailed design should ensure that doorways are provided with the required circulation areas – specifically doors to accessible sanitary facilities within Shop 1 and Shop 2, and Door to Kitchen in Shop 1.



### 7.4 Doorways within Vestibules and Air-locks

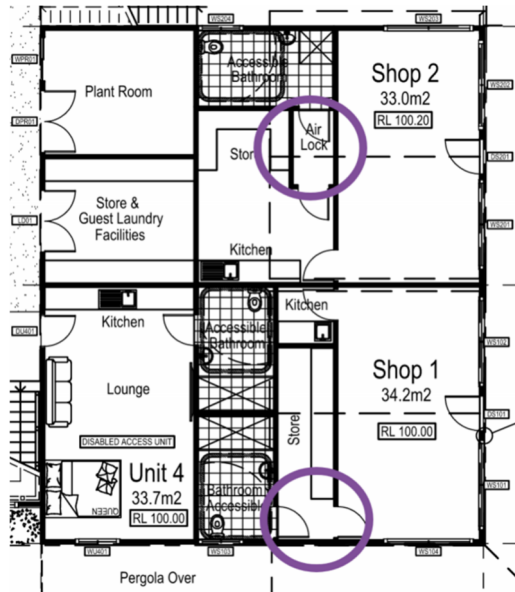
AS1428 has requirements for circulation areas between doorways within vestibules / airlocks to enable independent access for people using a wheelchair. Clause 13.4 requires a minimum dimension of 1450mm between doors. Where a doorway encroaches into the space, 1450mm plus the door leaf width is required.

#### Compliance Summary:

To be addressed during detailed design

#### Commentary:

Detailed design to ensure that the required circulation areas are provided within the air-locks to accessible sanitary facilities.



## 7.5 Exempt Areas

BCA Clause D4D5 does not require access for people with disabilities to areas that would be inappropriate due to the particular use of the area or would pose a health and safety risk. This includes the path of travel to these areas.

### Compliance Summary:

None specified

### Commentary:

Within this development, the following areas are considered to be exempt from requiring access for people with disabilities: plant and service areas, storerooms.

## 7.6 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for beveled edges) as part of the accessible path of travel.

### Compliance Summary:

To be addressed during detailed design stages

## 7.7 Carpet

BCA requires a maximum carpet pile height of 11mm and carpet backing thickness not exceeding 4 mm.

### Compliance Summary:

To be addressed during detailed design stage.

## 7.8 Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14. We recommend that video intercoms be installed at 1200mm affl - this is within the range of common view per AS1428.2 (1992).

### Compliance Summary:

To be addressed during detailed design stage.

## 7.9 Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level.

### Compliance Summary:

To be addressed during detailed design stage.

## 7.10 Tactile Indicators

For a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway, meeting a vehicular way if there is no kerb or kerb ramp (BCA D4D9).

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

### Compliance Summary:

To be addressed during detailed design stage.

## 7.11 Signage

Signage to identify sanitary facilities, hearing augmentation and required exits are to be provided in accordance with BCA Clause D4D7. This includes provision of the International Symbol for Access or International Symbol for Deafness as appropriate. Signage to comply with AS1428.1 (2009), Clause 8.

### Compliance Summary:

To be addressed during detailed design stage.

## 8 BCA | Sanitary Facilities

The BCA / Access Code for Buildings (Clause F4D5) require the provision of sanitary facilities catering for people with disabilities.

### 8.1 Distribution of Accessible Sanitary Facilities

Accessible sanitary facilities are required as follows – these are general requirements and not project specific.

- A unisex accessible toilet at each level that provides sanitary facilities. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.
- At each bank of toilets where there is one or more toilets in addition to a unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability must be provided for use by males and females (not required within this development).
- A unisex accessible shower is required where showers are required by F4D7. (not required within this development).
- A unisex accessible adult change facility must be provided in some public buildings (not required within this development).

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#### Compliance Summary:

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Compliant

#### Commentary:

A unisex accessible sanitary facility is provided within each of the retail tenancies – both are a left hand arrangement (detailed design is to ensure a right handed facility is provided).

### 8.2 Unisex Accessible Sanitary Compartment

A unisex accessible sanitary compartment required within this development.

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#### Compliance Summary:

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Capable of compliance

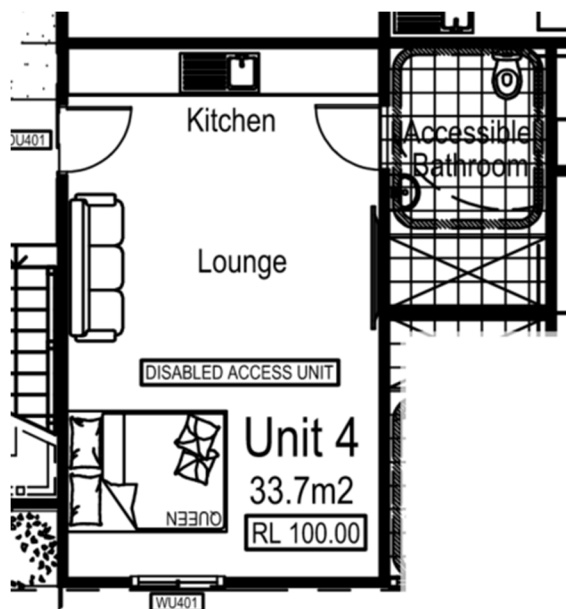
#### Commentary:

Overall room dimensions and the set-out of fixtures within the accessible sanitary facilities are capable of compliance with AS1428.1 (2009).



## 9 BCA | Accessible Sole Occupancy Unit

An accessible sole occupancy unit (Unit 4) is provided within the development. It is located at the ground floor level for easy access. The unit has been designed to facilitate wheelchair access.



The following access requirements apply to the accessible unit.

### 9.1 Doorways

Doorways within the accessible rooms (including the entrance door) should comply with the requirements of AS1428.1 as a part of the accessible path of travel.

#### Compliance Summary:

Capable of compliance

#### Commentary:

Doorways within the accessible unit (entry door and bathroom door) are capable of achieving the required circulation areas. Kitchen bench needs modification to achieve the required 530mm.

### 9.2 Bathroom

Bathroom within the accessible rooms should comply with the requirements of AS1428.1.

#### Compliance Summary:

Capable of compliance

#### Commentary:

Overall room dimensions and the set-out of fixtures within the accessible bathroom are in keeping with AS1428.1 (2009).

### 9.3 Circulation Areas

It is best practice to provide circulation areas within the accessible apartments for wheelchair access. A minimum 1540mm wide circulation at the foot of the bed (for compliance with AS1428.2, Clause 6.1) is recommended.

#### Compliance Summary:

Compliant

#### Commentary:

Required circulation areas are achievable through the open-plan layout.

### 9.4 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for beveled edges) as part of the accessible path of travel.

#### Compliance Summary:

To be addressed during details design stage

### 9.5 Carpet

BCA states that clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.

#### Compliance Summary:

To be addressed during details design stage

### 9.6 Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, etc are to be located within the accessible height range of 900-1100mm above the floor level to comply with AS1428.1(2009), Clause 14.

#### Compliance Summary:

To be addressed during details design stage

### 9.7 Kitchenette – Best Practice Recommendation

Requirements for kitchens are provided with AS1428.2, Appendix A. Recommendations for the dimensioning, layout and arrangement of kitchens are offered to maximize usability for persons with a disability. They are not mandatory / statutory requirements. Refer to Appendix 2 for details.

## 10 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the proposed development. Spatial planning and general arrangements of facilities will offer inclusion for all building users.

Disability is often defined as any limitation, restriction or impairment which restricts everyday activities and has lasted or is likely to last for at least 6 months. Disabilities can be very varied. They can be physical, cognitive, intellectual, mental, sensory, or developmental. They can be present at birth or can occur during a person's lifetime. They can also be permanent or temporary. In Australia, almost one in five people – 4.3 million – have a disability with one in three having severe or profound core activity limitation.

Equity and dignity are important aspects in the provision of access to buildings for all users. With respect to people with a disability, equity and dignity are sometimes overlooked in the construction of new buildings or refurbishment works. The design approach needs to maintain a high level of equity for people with disabilities and meet the performance requirements of the BCA. The performance requirements adopt two main concepts in the provision of access for people with a disability being to the degree necessary and safe movement. Both of these concepts need to be achieved within the context of equitable and dignified access.

In this respect, a wide range of disabilities needs consideration and a compromise reached between requirements of different disability groups. Measures need to be implemented to ensure inclusion of all users, not a particular disability group in isolation.

We consider that the drawings presented for assessment, for the purposes of a development application, demonstrate that compliance with current statutory requirements affecting accessibility is achievable subject to detailed design at the construction certificate stage (refer to Appendix 1 for requirements).



## Appendix 1 | Accessibility Requirements



The following accessibility requirements are to be incorporated into the detailed design to ensure compliance of the built form.

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### **Accessways Generally**

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The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428 as follows:

- a. The minimum unobstructed width of all pathways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. All pathways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, or 5mm for bevelling edges).
- c. The maximum allowable crossfall of pathways is to be 1:40.
- d. The ground abutting the sides of the pathways should follow the grade of the pathway and extend horizontally for 600mm. We note that this is not required where there is a kerb or handrail provided to the side of the pathway.
- e. Pathways to have passing bays complying with AS1428.1 at maximum 20m intervals where a direct line of site is not available. They are required within 2m of the end of the pathway where it is not possible to continue travelling along the pathway. A passing space shall have a minimum width of 1800 for a minimum length of 2000mm. Refer to AS1428.1, Clause 6.4.
- f. Grated drains within the accessible path of travel are to have circular openings no greater than 13mm in diameter and slotted openings not greater than 13mm wide – elongated openings must traverse the direction of travel.

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### **Stairs**

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AS 1428.1 has access requirements for all public access stairs as follows:

- a. Stairs to comply with AS1428.1(2009), Clause 11.2.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open riser.
- c. Provide handrails, with extensions, to both sides of the stair (AS1428.1 (2009), Clause 11.2 & 12). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis.

Handrails are required on both sides of the stair to cater for left and right-handed disabilities. A central handrail is also an acceptable solution where

adequate width is available. In this instance, the use of a double handrail is encouraged so that two users can travel in opposite directions and maintain their grip on the handrail.

- d. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- e. Stair nosings shall not project beyond the face of the riser.
- f. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D4D9 and AS1428.4.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

### Slip Resistance

The BCA defines the following slip resistance requirements for stairs and ramps:

Application	Surface Conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or Landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

### Accessible Carparking

Access requirements for the accessible carparking are as follows and should be addressed during preparation of the construction certificate documentation.

- a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks. For a single space, a total width of 4800mm is required.
- b. Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.
- c. The maximum allowable crossfall of accessible carparking area to be 1:40. This crossfall applies both parallel and perpendicular to the angle of parking.
- d. For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7.

- e. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) between 800 and 1000mm high placed as a pavement marking in the centre of the space between 500-600mm from its entry point. The perimeter of the space is to be identified by an unbroken yellow & slip resistant line 80-100mm wide (except where there is a kerb or wall)
- f. Shared space to be identified using yellow slip-resistant & unbroken stripes 150 to 200mm wide with spaces 200 to 300mm between stripes. Stripes to be at an angle of 45° to the side of the space.

### Accessible Entrances

Access requirements for entrances are as follows.

- a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.
- b. Doors are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel.
- c. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces – refer to Figure 6.
- d. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)
- e. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.
- f. Where double door sets are provided, one door leaf is to be capable of being held in the closed position to provide door opening widths and circulation to comply with AS 1428.1.
- g. For a best practice approach to access, and to assist people with a vision impairment locate the entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.

### Circulation Areas Generally

BCA requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 90° and passing areas 1800mm wide



by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

Within corridor areas, 1500x1500mm is required to facilitate a 90° turn by a wheelchair. This must be accommodated within accessible areas.

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## Doorways

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Access requirements for doorways within the accessible path of travel are as follows:

- a. Doorways within the accessible path of travel to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2). We recommend the use of a 920 leaf door as a minimum to achieve adequate clear width.

For double doors, the operable leaf must achieve this clear opening width to facilitate single leaf operation.

- b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.
- c. Doors between indoor and outdoor spaces to have a level threshold for seamless transition.
- d. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- e. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5). Note that within a childcare centre, this is applicable to the unisex accessible sanitary facilities only.
- f. Door handles and related hardware shall be able to be unlocked and opened with one hand per AS1428.1 (2009), Clause 13.5.1. The handles shall enable a person who cannot grip to operate the door without their hand slipping from the handle. We recommend the use of lever handles.
- g. For manual controls to automatic doorways, buttons to be located no closer than 500mm from an internal corner and between 1000mm and 2000mm from the hinged door leaf or surface mounted sliding door in the open position. Height of controls to be 900-1100mm affl.
- h. Doorways to external areas to achieve a level threshold as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.
- i. Doorways to have operational forces per AS1428.1 (2009), Clause 13.5.2. A maximum allowable force of 20N is required to operate the door.





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### Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for bevelled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details.

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### Carpet

BCA requires that the pile height or pile thickness does not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.

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### Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14.

We recommend that video intercoms be installed at 1200mm affl - this is within the range of common view per AS1428.2 (1992).

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### Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.

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### Tactile Indicators

For a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway, meeting a vehicular way if there is no kerb or kerb ramp (BCA D4D9).

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

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### Signage

Access requirements for signage are as follows. Note that this does not include general wayfinding signage.

- a. Braille and tactile signage formats as outlined within BCA Specification 15 that incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must be provided to identify the following:
  - a sanitary facility, except a sanitary facility associated with a bedroom in a Class 1b building or a sole-occupancy unit in a Class 3 or Class 9c building

- a space with a hearing augmentation system
  - each door required by E5D5 to be provided with an exit sign and state level
  - an accessible unisex sanitary facility and identify if the facility is suitable for left or right handed use
  - an ambulant accessible sanitary facility 1 and be located on the door of the facility
  - where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access to direct a person to the location of the nearest accessible pedestrian entrance
  - where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary
- b. Braille and tactile components of the sign to be located not less than 1200mm and not higher than 1600mm affl.
- c. Signage to be located at the latch side of the doorway with the leading edge of the sign 50-300mm from the architrave. Where this is not possible, the sign can be located on the door.

Sample signs are as follows. These are examples only – ensure selected signage complies with BCA Specification 15 including provision of Braille locator for multiple lines of text and characters.



### Unisex Accessible Sanitary Compartment

Access requirements for the accessible toilet facilities are as follows. For compliance with AS1428.1(2009), the minimum room dimensions of the accessible toilet are to be 1900x2300mm plus additional area for the handbasin. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.

- a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.
- b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.
- c. Where more than one unisex accessible toilet is provided within the building, they should be in a mirrored configuration to allow for both left and right handed use.



#### WC Pan:

- a. Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.
- b. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- c. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.
- d. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.
- e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

#### Basin:

- f. For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.
- g. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.

#### Door:

- h. Doorways to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.
- i. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

#### Controls:

- j. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1(2009), Clause 14. Controls should be located not less than 500mm to a corner.

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### **Unisex Accessible Shower**

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Access requirements for the accessible shower facilities are as follows. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.



- a. Accessible showers are to comply with AS 1428.1, Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.
- b. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.
- c. The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.
- d. Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

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### Accessible Unit

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The following accessibility features are required within the accessible sole occupancy units:

#### Doorways:

- a. Doorways, including the entrance doorway, and associated circulation areas are required to comply with AS1428.1 (2009). This includes door hardware and operational forces. For doorways to external areas, a level threshold is required.

#### Bathroom:

- b. Bathroom to offer compliance with AS1428.1 (2009) including set-out of fixtures and circulation areas.
- c. Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.
- d. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- e. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.
- f. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.
- g. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.



- h. For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.
- i. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.
- a. Accessible showers are to comply with AS 1428.1, Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.
- b. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.
- c. The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.
- d. Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

#### Flooring:

- j. Floor finishes to enable seamless transition throughout (no steps or lips)
- k. Carpet to achieve maximum carpet pile height of 11mm and carpet backing thickness not exceeding 4 mm.

#### Controls:

- l. Controls such as light switches, GPOs, alarm keypads, card swipes, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14.

#### Kitchen:

- m. The provision of a kitchenette and robe in accordance with AS1428.2 is highly recommended (not required for BCA compliance).



## Appendix 2 | Best Practice Options for Consideration



We recommend a best practice approach to accessibility that goes beyond minimum standards and embraces the intent of the DDA. The following measures will promote inclusion and participation for all users.

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### **Accessways**

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We recommend that the accessible path of travel be a minimum 1200mm wide to comply with AS1428.2. Wider pathways will allow easy access for more people who have a permanent disability, people with a temporary disability, people pushing prams and elderly people using walking frames and the like. This is in keeping with the principles of Universal Design.

For or a wheelchair and a pram to pass 1500mm is required and for two wheelchairs to pass requires 1800mm.

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### **Automatic Entrance Doors**

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The provision of automatic sliding doorways maximizes access for people with a disability. Further, delivery drivers, people carrying parcels and the elderly also benefit from the provision of automatic doors.

Automatic doors provide safe, convenient access for everyone, regardless of age or ability in keeping with universal design principles. They also offer COVID-19 mitigation measures, reducing the transfer of germs and bacteria.

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### **Accessible Service Counters**

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The provision of an accessible section of counter will benefit people using wheelchairs and people of short stature.

AS1428.2 contains access requirements for service counters and recommends the height of the counter be between 750mm ( $\pm 20$ ) and 850mm ( $\pm 20$ ) above the finished floor level and have foot and knee clearance under the counter. The minimum width of an accessible counter and clearance below is recommended as 900mm.

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### **Luminance Contrast**

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Luminance contrast assists people with a vision impairment to navigate the built environment. Mandatory items that require luminance contrast are tactile indicators, accessible toilet seats and doorways as outlined in other sections of this report. The following can also be provided as a best practice measure to ensure ease of use:

- Minimum 30% luminance contrast between floors and walls or between walls and skirting boards;
- Minimum 30% luminance contrast between the ground surface and obstructions such as columns, bollards and street furniture;
- To assist people with a vision impairment, locate the building entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.
- Minimum 30% luminance contrast between the floor and the entrance mat (this allows people with vision impairment to locate the entrance);
- Minimum 30% luminance contrast between walls and handrails.

### **Visual Indication to Glazing (additional measures)**

To ensure full height glazing that can be mistaken for a doorway is highlighted, we recommend the provision of a “double decal” as per international precedent. This involves the provision of two (2) decal strips that have a minimum 30% luminance contrast to each other. As such, the background colour does not need to be relied upon.

### **Kitchenette**

While not a statutory requirement, the provision of wheelchair accessible benches promotes inclusion. The following recommendations for the dimensioning, layout and arrangement of kitchens are offered to maximize usability for persons with a disability. Some key principles are as follows:

- The height of benches should be between 700-850mm affl noting that no height will suit all users. We recommend a height of 850mm.
- Clearance in front of the bench of 1540mm is encouraged to facilitate a 180° turn by a wheelchair
- Acceptable hardware for cupboards includes touch latches and D shaped pull handles.
- A shallow sink should be provided. Optimum bowl depth is 150mm with clearances under as per requirements for handbasins.

### **Furniture and Joinery Hardware**

The use of D-type pull handles to furniture and joinery that provide a minimum 35mm clearance between the rear face of the handle and the face of the drawer is generally recommended to promote accessibility and inclusion.

### **Wayfinding – Signage**

Signs and symbols should be provided to inform all users. A signage system which informs all users is encouraged. The use of pictograms and directional cues is recommended as is the use of luminance contrast to ensure the message is clear and legible.

### **Terminology (Best-practice recommendation)**

The use of positive terminology such as “accessible” should be used when referring to accessible facilities such as toilets and carparking. This term is preferable to “disabled” which is commonly used. This principle is to be adopted through the design and documentation of a project and on signage throughout the completed building.

### **Emergency Call Button in Sanitary Compartments**

If provided, emergency call button should be located at 600+/- 20mm above the finished floor level in front of the toilet roll holder to enable ease of access for someone who has fallen off the pan. People do fall off the pan, in particular those with no or limited upper trunk control.



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### **Provision of “Bed- Shakers”**

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We recommend the provision of “bed-shakers” within accommodation buildings such as hotels or boarding houses. For a person with hearing loss who is unable to hear the emergency alarm or smoke alarm, an alerting system becomes a critical aspect in terms of emergency egress. A specialized alarm, called a 'Bed Shaker,' can be installed next to the bed, and alerts those in the accommodation using a strobe light and vibrating pad that can be placed under the mattress or pillow. The alert is activated when an accompanying traditional smoke / fire alarm sounds.

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### **Lighting and Glare**

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Minimum interior lighting levels should generally consider AS1428.2 (1992) Clause 19. Consistent lighting levels should be provided throughout, without pools of light or dark areas. AS1428.2 (1992) recommends the following minimum illumination levels:

- Entrances 150lx
- Passages and walkways 150lx
- Stairs 150lx
- Toilets and Locker rooms 200lx
- Counter tops 250lx
- General displays 200-300lx

Glare and excessively reflective surfaces should be avoided. This includes glare from windows.

