



Access Report

Newcastle Golf Club  
Retirement Living  
4 Vardon Road  
FERN BAY NSW 2295

For: Principle Living  
Ref: PAA\_23473



## 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:

Lee-May Whong	Draft	Issued for review	23 November 2023
Lee-May Whong	Revision 1	Issued for DA	12 December 2023
Lindsay Perry	Revision 2	Updated for Council RFI	1 July 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 stage** | details not available at DA stage

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



## Executive Summary

Development application documentation for the Newcastle Golf Club Retirement Living located at 4 Vardon Road, Fern Bay NSW 2295 has been reviewed against current and applicable accessibility legislation.

The following table summarises our findings.

Item No.	Description	Compliance Status
<b>SEPP Siting Requirements</b>		
4.1	Location & Access to Facilities	Compliant
4.2	Accessibility	Compliant
<b>SEPP Siting Requirements</b>		
4.1	Location & Access to Facilities	Compliant
4.2	Accessibility	Compliant
<b>SEPP Schedule 4   Apartments</b>		
5.1	Application of Part 1	Applicable
5.2	Siting Standards	Compliant
5.3	Letterboxes	Compliant
5.4	Car parking	Compliant
5.5	Accessible Entry	Compliant configuration
5.6	Interior	Compliant configuration
5.7	Main Bedroom	Compliant configuration
5.8	Bathroom	Compliant configuration
5.9	Toilet	Compliant configuration
5.10	Surface Finishes	To be addressed in detailed design.
5.11	Door Hardware	To be addressed in detailed design.
5.12	Switches and power points	To be addressed in detailed design.
5.13	Private passenger lifts	Not applicable
5.14	Application of Part 2	Applicable
5.15	Bedroom	Compliant
5.16	Living and Dining Room	Compliant
5.17	Main area of private open space	Compliant
5.18	Kitchen	Compliant configuration
5.19	Laundry	Compliant configuration
5.20	Linen Storage	Compliant
5.21	Lifts in multi-storey buildings	Capable of compliance.
5.12	Garbage and recycling	Compliant
<b>SEPP Schedule 4   Villas</b>		
6.1	Application of Part 1	Applicable
6.2	Siting Standards	Compliant
6.3	Letterboxes	Compliant
6.4	Car parking	Compliant
6.5	Accessible Entry	Compliant configuration
6.6	Interior	Compliant configuration
6.7	Main Bedroom	Compliant configuration
6.8	Bathroom	Compliant configuration
6.9	Toilet	Compliant configuration
6.10	Surface Finishes	To be addressed in detailed design.

Item No.	Description	Compliance Status
6.11	Door Hardware	To be addressed in detailed design.
6.12	Switches and power points	To be addressed in detailed design.
6.13	Private passenger lifts	Not applicable
6.14	Application of Part 2	Applicable
6.15	Bedroom	Compliant
6.16	Living and Dining Room	Compliant
6.17	Main area of private open space	Compliant
6.18	Kitchen	Compliant configuration
6.19	Laundry	Compliant configuration
6.20	Linen Storage	Compliant
6.21	Lifts in multi-storey buildings	Capable of compliance.
6.12	Garbage and recycling	To be addressed at detailed design

#### BCA Requirements | Site Wide

7.	Allotment Boundary to Entrance	Capable of compliance
7.	Accessible Carparking to Entrance	Capable of compliance
7.	Link between Associated Buildings	Capable of compliance
7.	Accessways Generally	Capable of compliance
7.	Accessible Carparking	To be addressed at detailed design
7.	Stairs	Capable of compliance
7.	Walkways	Capable of compliance
7.	Pedestrian Crossings	To be addressed at detailed design

#### BCA Requirements | Residential Buildings 1, 2, & 3

8.	Accessible Entrances	
8.	Extent of Access Generally	
8.	Circulation Areas	
8.	Doorways	
8.	Exempt Areas	Compliant
8.	Floor Finishes	To be addressed in detailed design.
8.	Carpet	To be addressed in detailed design.
8.	Controls	To be addressed in detailed design.
8.	Visual Indication to Glazing	To be addressed in detailed design.
8.	Tactile Indicators	To be addressed in detailed design.
8.	Signage	To be addressed in detailed design.
8.	Passenger Lifts	Capable of compliance
8.	Fire Isolated Egress Stairs	Capable of compliance
8.	Slip Resistance (Ramps & Stairs)	To be addressed in detailed design.

#### BCA Requirements | Community Centre

9.	Accessible Carparking	
9.	Approach from Carparking	
9.	Accessible Entrances	
9.	Extent of Access Generally	
9.	Circulation Areas	
9.	Doorways	
9.	Hearing Augmentation	
9.	Wheelchair Seating	
9.	Exempt Areas	Compliant
9.	Floor Finishes	To be addressed in detailed design.



9.	Carpet	To be addressed in detailed design.
9.	Controls	To be addressed in detailed design.
9.	Visual Indication to Glazing	To be addressed in detailed design.
9.	Tactile Indicators	To be addressed in detailed design.
9.	Signage	To be addressed in detailed design.
9.	Access to Swimming Pool	
9.	Distribution of Sanitary Facilities	
9.	Accessible Facilities	
9.	Ambulant Toilets	
9.	Accessible Shower	
9.	Passenger Lifts	Capable of compliance
9.	Fire Isolated Egress Stairs	Capable of compliance
9.	Slip Resistance (Ramps & Stairs)	To be addressed in detailed design.

We consider that the drawings presented for assessment, for the purposes of a development application, generally comply with current statutory requirements.

SEPP Housing requirements are included in Appendix 1 of this report and general accessibility requirements within Appendix 2, to guide the detailed design. Best Practice options are provided within Appendix 3 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.



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## 1 Project Description

The proposal is a Seniors Living Development and includes the following key components:

- Site preparation & establishment activities – clearing existing vegetation, demolition of existing golf course via earthworks, bulk earthworks.
- Establishment of vehicular access from Nelson Bay Road
- Construction and occupancy of a seniors living development comprising:
  - Three (3) apartment buildings containing 127 serviced self-care dwellings
  - Forty seven (47) single storey (villas) serviced self-care dwellings
- Carparking - 295 spaces across the site with each villa being provided with a double garage (94 spaces) and 201 basement carparking spaces within the three apartment buildings
- Provision of pedestrian and vehicular access to and from the site
- Establishment of a Community Centre & administration building
- Pickle ball courts, lawn bowls facility, open space, landscaping, picnic shelter, public art, open lawn area for passive recreational activities and formal striking planting
- Civil works including internal access roads, pedestrian linkages to Nelson Bay Road and the golf club
- Connection to Country 'Keeping Place'
- Extension and enhancement of physical infrastructure utilities as needed



Figure 1 | Proposed Development

## 2 Reviewed Documentation

Documentation prepared by EJE architects has been reviewed as follows:

dwg no.	drawing name	revision
A26	Community Centre – Ground Floor Plan	G
A27	Community Centre – Level 1	G
A34	Apartment Building 01 – Basement Floor Plan	H
A35	Apartment Building 01 – Ground Floor Plan	H
A36	Apartment Building 01 – Level 1–2 Floor Plans	H
A37	Apartment Building 01 – Level 3 Floor Plan	H
A38	Apartment Building 01 – Penthouse Level	H
A43	Apartment Building 02 – Basement Floor Plan	H
A44	Apartment Building 02 – Ground Floor Plan	H
A45	Apartment Building 02 – Level 1–3 Floor Plan	H
A46	Apartment Building 02 – Penthouse Level	H
A51	Apartment Building 03 – Basement Floor Plan	H
A52	Apartment Building 03 – Ground Floor Plan	H
A53	Apartment Building 03 – Level 1–3 Floor Plan	H
A54	Apartment Building 03 – Penthouse Level	H
A60	Villas – Site 1 – Ground Floor Plan	D
A63	Villas – Site 2 – Ground Floor Plan	D
A66	Villas – Site 3 – Ground Floor Plan	D
A69	Villas – Site 4 – Ground Floor Plan	D
A72	Villas – Site 5 – Ground Floor Plan	D
A75	Villas – Site 6 – Ground Floor Plan	D
A81	Townhouses – Site 7 – Ground Floor Plan	D
A84	Duplexes – Site 8 – Ground Floor Plan	D
A87	Duplexes – Site 9 – Ground Floor Plan	D

## 3 Legislation

Access assessment has been made against Access Legislation including:

- State Environmental Planning Policy – Housing 2021 – 1 January 2024
- 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 E3D7 / ED38 – Lifts
  - 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.
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability

A summary of the requirements of relevant legislation follows.

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#### **SEPP Housing 2021**

Housing SEPP incentivises the supply of affordable and diverse housing in the right places and for every stage of life and ensures that the home building sector is well-placed to assist the economic recovery of NSW following the COVID-19 pandemic.

It consolidates five housing-related policies being:

- State Environmental Planning Policy (Affordable Rental Housing) 2009 (ARHSEPP);
- State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004 (Seniors SEPP);
- State Environmental Planning Policy No 70 – Affordable Housing (Revised Schemes) (SEPP 70);
- State Environmental Planning Policy No 21 – Caravan Parks; and
- State Environmental Planning Policy No 36 – Manufactured Home Estates.

Chapter 3, Part 5 relates to Housing for Seniors and People with a Disability providing development standards for the design of seniors housing. Schedule 4 Standard concerning Accessibility and usability for hostels and independent living units needs to be implemented.

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#### **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.

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

Any application for a building approval for a new building or upgrade of an existing building on or after that date 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.

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#### **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.

The BCA for Class 1a buildings, being a detached house or a group of dwellings such as terrace houses, townhouses or a villa unit, BCA has no specific accessibility requirements.

The BCA for Class 2 buildings, access for people with disabilities is required:

- 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.

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.

The BCA for Class 9b buildings requires access for people with disabilities to and within all areas usually used by the occupants and to wheelchair seating spaces provided in accordance with D3.9. Access need not be provided to every tier / platform within an auditorium.

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#### **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 and is referred by the BCA
- 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

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

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

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#### **AS1735– Lifts, escalators and moving walks**

AS1735.12 (1992) contains requirements for passenger lifts for persons with a disability.



## 4 SEPP Housing – Siting Requirements

The proposed development has been designed to reflect the requirements of the SEPP Housing 2021 for seniors housing. This development contains self-contained dwellings. Therefore, the requirements of SEPP Division 4, clause 93: Location and Access to Facilities and Division 6 clause 104: Accessibility are relevant.

### 4.1 SEPP Clause 93 | Location & Access to Facilities

A SEPP development must offer access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors. These facilities are to be located within 400m of the site via a pathway that provides a suitable access pathway.

The SEPP states that a suitable access pathway is a path of travel by means of a sealed footpath or other similar and safe means that is suitable for access by means of an electric wheelchair, motorized cart or the like.

Further, the SEPP defines wheelchair access as follows (clause 3: interpretation)  
*wheelchair access, in relation to any 2 points, means a continuous path of travel between those points that can be negotiated by a person using a wheelchair.*

The overall aims of the SEPP are to:

- increase the supply and diversity of residences that meet the needs of seniors or people with a disability, and
- make efficient use of existing infrastructure and services, and
- be of good design.

For development outside the Sydney Statistical Division, these services can be located at a distance greater than 400m from the site if there is a transport service available. The transport service is required to take residents to a place that is located at a distance of not more than 400m from the relevant facilities or services and is to be available to and from the proposed development. It must be available both to and from the proposed development during daylight hours at least once each day from Monday to Friday (both days inclusive).

Within the SEPP, a suitable access pathway has an average gradient of 1:14. Other allowable gradients include 1:12 for a length of up to 15m, 1:10 for a length of up to 5m and 1:8 for a length of up to 1.5m.

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#### Compliance Summary:

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Compliant

#### Commentary:

We have been advised that a community bus for residents is proposed as part of the development. This will satisfy the requirements for location and access to facilities.



## 4.2 SEPP Clause 104– Accessibility

A SEPP development should have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities. A development should provide attractive, yet safe, environments for pedestrian and motorists with convenient access and parking for residents and visitors.

### Compliance Summary:

Compliant

### Commentary:

The proposed development meets the intent of this Clause.

Carparking is provided for residences within the secure basement carparking for the three (3) proposed residential buildings, and private garages are provided for the individual villas and duplexes and external carparking areas throughout the site.

## 5 SEPP – Schedule 4 | Residential Buildings 1, 2 & 3

All three residential apartment buildings are provided with four levels of independent living units from Ground level to Level 4. Two lifts are provided in each of the three buildings offering an accessible path of travel to each of the levels above the ground level.

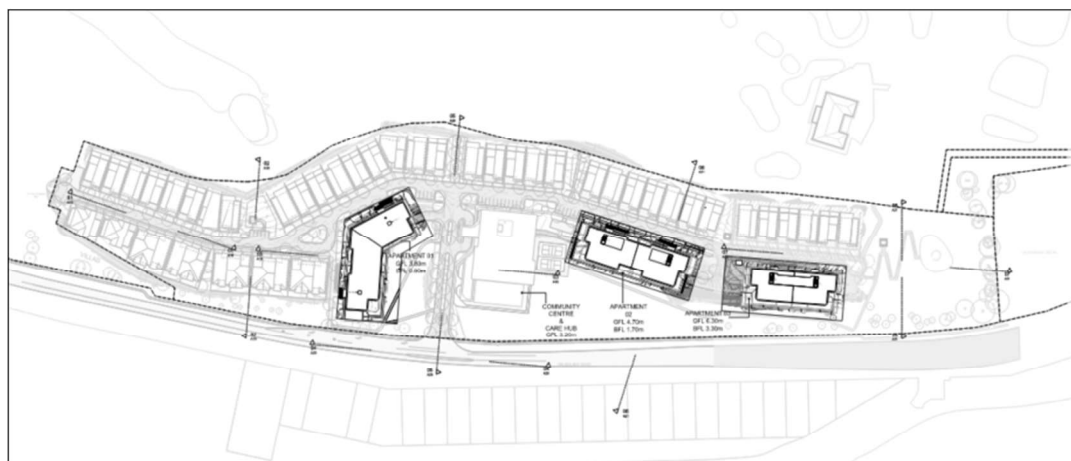


Figure 2 | Buildings 1, 2 & 3

## Part 1 Standards Concerning Accessibility & Usability for Hostels and Independent Living Units

### 5.1 Schedule 4, Clause 1 – Application

The standards set out in this Part apply to any seniors housing that consists of hostels or independent living units.

## 5.2 Schedule 4, Clause 2 – Siting Standards

### (1) Wheelchair Access

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road.

### (2) If the whole of the site does not have a gradient of less than 1:10:

- a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and
- b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

### (3) Common Areas

Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

The applicable siting standards for this development are (1) and (3). The site has an overall gradient less than 1: 10 and community facilities are provided.

#### Compliance Summary:

Compliant

#### Commentary:

An accessible path of travel is available to all apartment building entrances via the pedestrian network proposed throughout the site. Pedestrian circulation links all facilities, and each apartment building has direct access to the internal roadways.

## 5.3 Clause 3 – Letterboxes

The following requirements apply to the letterboxes:

### (1) Letterboxes—

- a. must be located on a hard standing area, and
- b. must have wheelchair access by a continuous accessible path of travel from the
- c. letterbox to the relevant dwelling, and
- d. must be lockable by a lock that faces a wheelchair accessible path.

### (2) If a structure contains multiple letterboxes, the structure must be in a prominent location.

### (3) At least 20% of the letterboxes on the site must be more than 600mm and less than 1,200mm above ground level (finished).

#### Compliance Summary:

Compliant





**Commentary:**

A centralized mail system is provided within the development and the mail room is located within the Community Centre (off the Entry Foyer). The provision of a centralized mail room promotes social interaction between residents.

The mail room is an accessible location, and a handstand surface is provided. As individual mail boxes will be wall mounted, the lock will face the wheelchair accessible path.

An accessible path of travel is provided from the letterboxes to each apartment building via the pedestrian pathway network within the site.

Height requirements for the letterboxes will need to be addressed during detailed design.

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#### 5.4 Clause 4 – Car parking

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The following aspects of the Schedule 4 car parking requirements affect spatial planning at the development application stage (it is inclusive of all requirements - numbering is as per Schedule 4):

- 1) If parking spaces associated with a **class 1, 2 or 3 building** under the Building Code of Australia are provided in a **common area** for use by occupants who are seniors or people with a disability, the following applies—
  - c. for a group of 8 or more parking spaces—
    - (i) at least 15% of the parking spaces must comply with AS/NZS 2890.6, and
    - (ii) at least 50% of the parking spaces must—
      - (A) comply with AS/NZS 2890.6, or
      - (B) be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction.
- 4) At least 5% of any visitor parking spaces must comply with AS/NZS 2890.6.

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#### Compliance Summary:

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Compliant

**Commentary:**

Communal carparking is provided at the basement levels and offers compliance with SEPP requirements as follows:

#### Building 1

- sixty-four (64) residential car parking spaces are provided.
- 15% (ten (10) spaces are provided compliant with AS2890.6 (2009).
- 50% (thirty-two (32) spaces are provided at 3.2m wide

#### Building 12

- sixty-four (64) residential car parking spaces are provided.



- 15% (eleven (11) spaces are provided compliant with AS2890.6 (2009).
- 50% (thirty-two (32) spaces are provided at 3.2m wide

#### Building

- forty-nine (49) residential car parking spaces are provided.
- 15% (eight (8) spaces are provided compliant with AS2890.6 (2009).
- 50% (twenty-five (25) spaces are provided at 3.2m wide

A motorized sectional overhead door provides entry to the carpark.

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### **5.5 Clause 5 – Accessible Entry**

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The following requirements apply to the accessible entries – common entrances and individual ILU entrances.

- 1) The main entrance to a dwelling must have—
  - a. a clear opening that complies with AS 1428.1, and
  - b. a circulation space in front of the door and behind the door that complies with AS 1428.1.
- 2) This section does not apply to an entry for employees.

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#### **Compliance Summary:**

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Compliant configuration

#### **Commentary:**

Double hinged doorways provide entry to each apartment building and are provided with the required circulation areas for compliance. A level threshold is achievable.

Circulation areas at entrance doorways to individual units achieve the required circulation areas.

Door leaf sizes of 920mm should be used as a minimum which will achieve clear width of 850mm.

The requirement for door hardware should be implemented during detailed design.

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### **5.6 Clause 6 – Interior**

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The following requirements apply to the internal layout of the ILU.

- 1) An internal doorway must have an unobstructed opening that complies with AS 1428.1.
- 2) An internal corridor must have an unobstructed width of at least 1,000mm.
- 3) The circulation spaces in front of and behind an internal doorway in the following areas must comply with AS 1428.1—
  - a. a kitchen,
  - b. a laundry,



- c. a bathroom,
- d. a toilet,
- e. a bedroom,
- f. a living area,
- g. the main area of private open space.

(4) To avoid doubt, subsection (3)(b) does not apply to laundry facilities in a cupboard.

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**Compliance Summary:**

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Compliant configuration

**Commentary:**

Adequate circulation areas are provided to doorways within each apartment (shown dashed on the floor plans)

920mm door leafs should be used as a minimum to achieve clear width of 850mm per AS1428.1.

All corridors within the apartments meet the required width of 1000mm minimum.

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**5.7 Clause 7 – Main Bedroom**

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At least one bedroom in a dwelling must have the following—

- a. a clear area, not including a circulation space, sufficient to accommodate—
  - (i) for a hostel—a wardrobe and a single-size bed, or
  - (ii) for an independent living unit—a wardrobe and a queen-size bed,
- b. a clear area around the area for the bed of at least—
  - (i) 1,200mm at the foot of the bed, and
  - (ii) 1,000mm on each side of the bed,
- c. at least 2 double general power outlets on the wall where the head of the bed is likely to be,
- d. at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be.

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**Compliance Summary:**

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Compliant configuration

**Commentary:**

The main bedroom within each apartment accommodates a queen size bed and wardrobe and achieve the required circulation areas around the bed.

Additional requirements listed above to be implemented during detailed design.

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**5.8 Clause 8 – Bathroom**

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The following requirements apply to the bathroom area within the ILU.

- 1) At least one bathroom in a dwelling must be located on—

- a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The bathroom must have the following—
- a. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - b. a washbasin with tap ware capable of complying with AS 1428.1, including by future adaptation if the washbasin and tap ware continue to use existing hydraulic lines,
  - c. a shower that—
    - (i) is accessible without a shower-hob or step, and
    - (ii) complies with the requirements of AS 1428.1 for the entry, circulation space, floor gradient to the wastewater outlet and location of the mixer tap, and
    - (iii) is in the corner of a room, and
    - (iv) has a wall capable of accommodating the installation of a grab rail, portable shower head with supporting grab rail and shower seat, in accordance with AS1428.1,
  - d. a wall cabinet with shelving illuminated by an illumination level of at least 300 lux,
  - e. a double general power outlet in an accessible location, in accordance with AS1428.1.
- 3) Subsection (2)(c) does not prevent the installation of a shower screen that can easily be removed to enable compliance with that paragraph.

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#### Compliance Summary:

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Compliant configuration

#### Commentary:

The ensuite within each of the apartments is provided with a floor area that accommodates the spatial requirements of an accessible bathroom within the meaning of AS1428.1.

Additional requirements listed above to be implemented during detailed design.

We note that the SEPP allows for future adaption of bathroom areas that reflect the individual needs of the residents.

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### 5.9 Clause 9 –Toilet

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The following requirements apply to at least one toilet within each ILU.

- 1) At least one toilet in a dwelling must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The toilet must have the following—
  - a. a water closet pan—
    - (i) in the corner of the room, and
    - (ii) with a centreline set-out in accordance with AS 1428.1,



- b. a circulation space in front of the water closet pan that is—
    - (i) at least 1,200mm long and at least 900mm wide, and
    - (ii) clear of door swings and fixtures, other than a toilet paper dispenser or grabrails,
  - c. a circulation space around the water closet pan that complies with AS 1428.1,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. a wall capable of accommodating the installation of a back rest and grab rail that
  - f. will comply with AS 1428.1.
- 3) A removable shower screen may be located in the circulation space specified in subsection (2)(c).

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**Compliance Summary:**

Compliant configuration

**Commentary:**

The main ensuite within each of the apartments is provided with a floor area that accommodates the spatial requirements of an accessible bathroom within the meaning of AS1428.1. 900x1200mm is achieved in front of the WC pan that is located in the corner of the room.

Additional requirements listed above, including set-out of WC pan, is to be implemented during detailed design.

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**5.10 Clause 10 – Surface Finishes**

Balconies and external paved areas must have surfaces that are slip resistant and comply with—

- a. the Building Code of Australia, or
- b. the Standards Australia Handbook SA HB 198:2014, Guide to the specification and testing of slip resistance of pedestrian surfaces, published on 16 June 2014.

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**Compliance Summary:**

To be addressed during detailed design.

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**5.11 Clause 11 – Door Hardware**

- 1) Door handles and hardware for all doors, including entry doors and external doors, must comply with AS 1428.1.
- 2) To avoid doubt, subsection (1) does not apply to cabinetry.

---

**Compliance Summary:**

To be addressed during detailed design.

## 5.12 Clause 12 – Switches and power points

The following requirements apply to switches and powerpoints within the ILU.

- 1) Switches and power points must—
  - a. comply with AS 1428.1, or
  - b. be capable of complying with AS 1428.1 through future adaptation.
- 2) Subsection (1) does not apply to—
  - a. remote controls, or
  - b. power points likely to serve appliances that are not regularly moved or turned off.

---

### Compliance Summary:

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To be addressed during detailed design.

## 5.13 Clause 13 – Private passenger lifts

The following requirements apply to private lifts within the ILU.

- 1) This section applies to a private passenger lift that is required by this schedule to be accessible only from inside a particular dwelling.
- 2) The private passenger lift must—
  - a. be at least 1,100mm wide and at least 1,400mm long, measured from the lift car floor, and
  - b. have a clear indoor landing on all floors serviced by the lift, other than the floor on which the main area of private open space is located, at least 1,540mm long and at least 2,070mm wide, and
  - c. have controls that comply with—
    - i. AS 1735.12:2020, Lifts, escalators and moving walks, *Part 12: Facilities for persons with disabilities*, published on 26 June 2020, or
    - ii. AS 1735.15:2021, Lifts, escalators and moving walks, *Part 15: Safety rules for the construction and installation of lifts — Special lifts for the transport of persons and goods — Vertical lifting platforms intended for use by persons with impaired mobility*, published on 23 July 2021.
- 3) The width of the door opening of the private passenger lift must be at least 900mm.
- 4) The private passenger lift must not be a stairway platform lift.

---

### Compliance Summary:

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Not applicable

### Commentary:

Individual apartments are over single level.

## Part 2 Additional Standards for independent living units

### 5.14 Schedule 4, Clause 14– Application

The standards set out in this Part apply to any seniors housing that consists of independent living units.

### 5.15 Clause 15 – Bedroom

At least one bedroom in an independent living unit that complies with this schedule, section 7 must be located on—

- a. the same floor as the entry to the unit, or
- b. a floor serviced by a private passenger lift accessible only from inside the unit.

#### Compliance Summary:

Compliant

### 5.16 Clause 16 – Living and Dining Room

The following requirements apply to living areas within the ILU.

- 1) A living room in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The living room must have—
  - a. a circulation space that—
    - (i) is clear of all fixtures, and
    - (ii) has a diameter of at least 2,250mm, and
  - b. a telecommunications or data outlet adjacent to a general power outlet.

#### Compliance Summary:

Compliant

#### Commentary:

The living areas are located at the entry level.

The open plan arrangement of living / dining areas within each of the dwellings provides sufficient area to satisfy SEPP requirements for circulation spaces within living and dining rooms.

The requirement for telephone, data and power outlets should be implemented during detailed design.

## 5.17 Clause 17 – Main area of private open space

The main area of private open space for an independent living unit must be located on—

- a. the same floor as the entry to the dwelling, or
- b. a floor serviced by a private passenger lift accessible only from inside the dwelling.

### Compliance Summary:

Compliant

## 5.18 Clause 18 – Kitchen

The following requirements apply to kitchens within the ILU.

- 1) A kitchen in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The kitchen must have a circulation space with a diameter of at least 1,200mm between each bench top, cupboard or large appliance and each other bench top, cupboard or large appliance.
- 3) Each circulation space specified in subsection (2) must be capable of being increased to a diameter of 1,550mm without—
  - a. relocating the sink, or
  - b. moving a load-bearing wall, or
  - c. breaching another circulation requirement.
- 4) The kitchen must have the following fittings—
  - a. a bench that includes at least one work surface that is—
    - (i) at least 800mm long, and
    - (ii) clear of obstructions, and
    - (iii) not in the corner of the room,
  - b. a lever tap set with the lever and water source that is within 300mm of the front of the bench,
  - c. a cooktop next to the work surface,
  - d. an isolating switch for the cooktop,
  - e. an oven that—
    - (i) has operative elements between 450mm and 1,250mm above the finished floor level, and
    - (ii) is next to the work surface,
  - f. at least one double general power outlet located within 300mm of the front of a work surface.
- 5) The cupboards must—
  - a. not be entirely located in the corner of the bench or the corner of the room, and
  - b. face where the user of the fixture is likely to be.
- 6) An overhead cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the bottom of the cupboard.



- 7) A below-bench cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the top of the cupboard.
- 8) The lever tap set, cooktop, isolating switch, oven and double general power outlet must—
  - a. not be in the corner of the bench or the corner of the room, and
  - b. face where the user of the fixture is likely to be.
- 9) Cabinetry below a work surface must be able to be easily removed to allow wheelchair access to the work surface.

---

#### Compliance Summary:

---

Compliant configuration

#### Commentary:

A 1550mm diameter circulation is shown on documentation to accommodate the required clearance between opposing benches.

Each kitchen layout achieves a bench space that is 800mm wide.

Additional requirements for kitchens as listed above, should be implemented during detailed design to ensure full compliance.

---

### 5.19 Clause 19 – Laundry

---

The following requirements apply to laundries within the ILU.

- 1) A laundry in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The laundry must have the following—
  - a. a circulation space that complies with AS 1428.1 at the approach to any external doors,
  - b. an appropriate space for an automatic washing machine and a clothes dryer,
  - c. a clear space in front of each appliance of at least 1,550mm,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. continuous accessible path of travel to the main area of private open space or any clothes line provided for the dwelling.
- 3) The space specified in subsection (2)(c) may overlap with a door swing or the circulation space for a door.
- 4) For laundry facilities in a cupboard, the cupboard must be capable of being fitted with “D” pull cupboard handles in the following locations—
  - a. for below-bench cupboards—towards the top,
  - b. for overhead cupboards—towards the bottom,



- c. for floor-to-ceiling doors—between 900mm and 1,100mm above the finished floor level.
- 5) In this section **laundry** includes laundry facilities in a cupboard.

---

**Compliance Summary:**

Compliant configuration

**Commentary:**

Laundries are provided with adequate circulation areas - 1550mm is provided in front of appliances.

Other items listed above are to be addressed during the detailed design phase documentation to ensure full compliance.

---

**5.20 Clause 20 – Linen storage**

---

An independent living unit must have a floor-to-ceiling linen storage cupboard that—

- a. is at least 600mm wide, and
- b. has adjustable shelving.

---

**Compliance Summary:**

Compliant

**Commentary:**

Each apartment is provided with a full height linen cupboard – generally located in the hall. The requirement for adjustable shelving is to be implemented during detailed design.

---

**5.21 Clause 21 – Lifts access in multi-storey developments**

---

An independent living unit on a storey above the ground storey must be accessible by a lift that complies with the Building Code of Australia, Volume 1, Part E3.

---

**Compliance Summary:**

Capable of compliance

**Commentary:**

Lifts are provided for access between levels of each apartment building and offers compliance with regard to the overall size of the lift shaft.

---

**5.22 Clause 21 – Garbage and recycling**

---

A garbage storage area and a recycling storage area provided for an independent living unit must be accessible by a continuous accessible path of travel from the dwelling entrance.

---

**Compliance Summary:**

Compliant

**Commentary:**

A central garbage storage area is provided at the basement of the building in an accessible location.

## 6 SEPP – Schedule 4 – Villas (Sites 1, 2, 3, 4, 5 & 6) Duplexes (Sites 7, 8, & 9)

The villas and duplexes are all single level dwellings. All six blocks of villa sites are situated along the eastern side of the site, and the three duplex sites are located on the north-eastern end of the site along Nelson Bay Road.

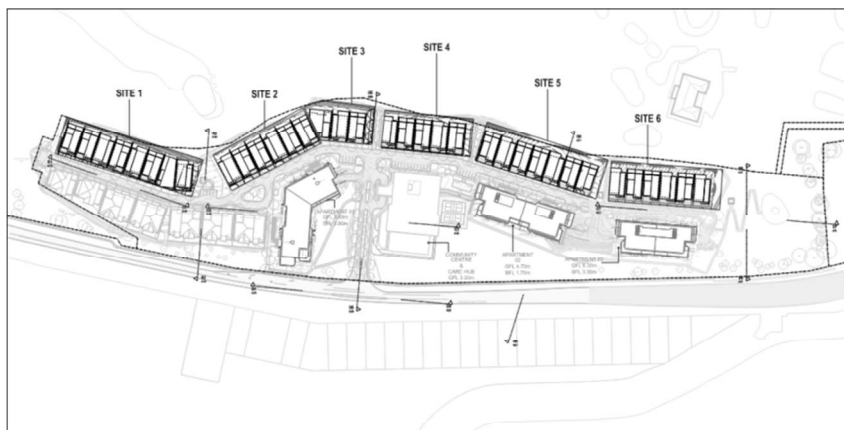


Figure 3 | Villas – Sites 1 to 6

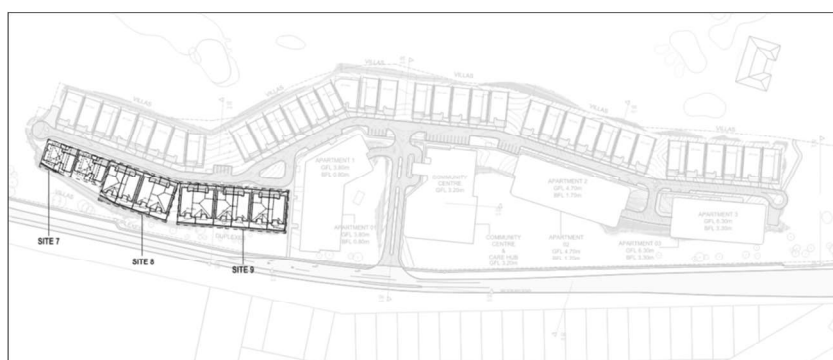


Figure 4 | Duplexes – Sites 7 to 9

### Part 1 Standards Concerning Accessibility & Usability for Hostels and Independent Living Units

#### 6.1 Schedule 4, Clause 1 – Application

The standards set out in this Part apply to any seniors housing that consists of hostels or independent living units.

#### 6.2 Schedule 4, Clause 2 – Siting Standards

##### (1) Wheelchair Access

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road.

##### (2) If the whole of the site does not have a gradient of less than 1:10:



- c) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and
- d) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

### (3) Common Areas

Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

The applicable siting standards for this development are (1) and (3). The site has an overall gradient less than 1: 10 and community facilities are provided.

Note: an independent living unit, or part of an independent living unit, that is located above the ground floor in a multi-storey building does not have to comply with the requirements of the above provisions if the development application is made by, or by a person jointly with, a social housing provider (clause 85 (2)).

---

#### Compliance Summary:

Compliant

#### Commentary:

All of the villas on the site have been designed to be accessible for persons with a disability and have direct access to the internal roadway and pedestrian network proposed throughout the site. Pedestrian circulation links all facilities within the site.

---

## 6.3 Clause 3 – Letterboxes

The following requirements apply to the letterboxes:

### (1) Letterboxes—

- e. must be located on a hard standing area, and
- f. must have wheelchair access by a continuous accessible path of travel from the
- g. letterbox to the relevant dwelling, and
- h. must be lockable by a lock that faces a wheelchair accessible path.

(2) If a structure contains multiple letterboxes, the structure must be in a prominent location.

(3) At least 20% of the letterboxes on the site must be more than 600mm and less than 1,200mm above ground level (finished).

---

#### Compliance Summary:

Compliant

#### Commentary:

A centralized mail system is provided within the development and the mail room is located within the Community Centre (off the Entry Foyer). The provision of a centralized mail room promotes social interaction between residents.



The mail room is an accessible location, and a handstand surface is provided. As individual mail boxes will be wall mounted, the lock will face the wheelchair accessible path.

An accessible path of travel is provided from the letterboxes to each apartment building via the pedestrian pathway network within the site.

Height requirements for the letterboxes will need to be addressed during detailed design.

#### 6.4 Clause 4 – Car parking

The following aspects of the Schedule 4 car parking requirements affect spatial planning at the development application stage (it is inclusive of all requirements - numbering is as per Schedule 4):

- 1) If parking spaces attached to or integrated with a **class 1 building** under the Building Code of Australia are provided for use by occupants who are seniors or people with disability, **at least 1 parking space** must—
  - a. be at least 3.2m wide, and
  - b. be at least 2.5m high, and
  - c. have a level surface with a maximum gradient of 1:40 in any direction, and
  - d. be capable of being widened to 3.8m without requiring structural modifications to a building.
- 5) At least 5% of any visitor parking spaces must comply with AS/NZS 2890.6.

---

#### Compliance Summary:

Compliant

#### Commentary:

Each villa is provided with a double garage that achieves the spatial requirements of the SEPP. The provision of two (2) carparking spaces exceeds SEPP requirements for the number of parking spaces.

#### 6.5 Clause 5 – Accessible Entry

The following requirements apply to the accessible entries.

- 1) The main entrance to a dwelling must have—
  - c. a clear opening that complies with AS 1428.1, and
  - d. a circulation space in front of the door and behind the door that complies with AS 1428.1.
- 2) This section does not apply to an entry for employees.

---

#### Compliance Summary:

Compliant configuration



**Commentary:**

Adequate circulation areas are provided at entrance doorways to each dwelling type and a level threshold is achievable.

Each dwelling type is provided with a sheltered porch that has the required wheelchair turning areas.

Door leaf sizes of 920mm should be used as a minimum which will achieve clear width of 850mm.

The requirement for door hardware should be implemented during detailed design.

---

## 6.6 Clause 6 – Interior

---

The following requirements apply to the internal layout of the ILU.

- 1) An internal doorway must have an unobstructed opening that complies with AS 1428.1.
- 2) An internal corridor must have an unobstructed width of at least 1,000mm.
- 3) The circulation spaces in front of and behind an internal doorway in the following areas must comply with AS 1428.1—
  - a. a kitchen,
  - b. a laundry,
  - c. a bathroom,
  - d. a toilet,
  - e. a bedroom,
  - f. a living area,
  - g. the main area of private open space.
- (4) To avoid doubt, subsection (3)(b) does not apply to laundry facilities in a cupboard.

---

### Compliance Summary:

---

Compliant configuration

**Commentary:**

Adequate circulation areas are generally provided to doorways within each villa. The doorways to some laundries will need further design development to ensure that the required circulation areas are achieved – this can be addressed during detailed design stages.

920mm door leaf should be used as a minimum to achieve clear width of 850mm per AS1428.1.

All corridors within the villas meet the required width of 1000mm minimum.

## 6.7 Clause 7 – Main Bedroom

At least one bedroom in a dwelling must have the following—

- a. a clear area, not including a circulation space, sufficient to accommodate—
  - (i) for a hostel—a wardrobe and a single-size bed, or
  - (ii) for an independent living unit—a wardrobe and a queen-size bed,
- b. a clear area around the area for the bed of at least—
  - (i) 1,200mm at the foot of the bed, and
  - (ii) 1,000mm on each side of the bed,
- c. at least 2 double general power outlets on the wall where the head of the bed is likely to be,
- d. at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be.

### Compliance Summary:

Compliant configuration

### Commentary:

The main bedroom within each villa accommodates a queen size bed and wardrobe and achieve the required circulation areas around the bed.

Additional requirements listed above to be implemented during detailed design.

## 6.8 Clause 8 – Bathroom

The following requirements apply to the bathroom area within the ILU.

- 1) At least one bathroom in a dwelling must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The bathroom must have the following—
  - f. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - g. a washbasin with tap ware capable of complying with AS 1428.1, including by future adaptation if the washbasin and tap ware continue to use existing hydraulic lines,
  - h. a shower that—
    - (i) is accessible without a shower-hob or step, and
    - (ii) complies with the requirements of AS 1428.1 for the entry, circulation space, floor gradient to the wastewater outlet and location of the mixer tap, and
    - (iii) is in the corner of a room, and
    - (iv) has a wall capable of accommodating the installation of a grab rail, portable shower head with supporting grab rail and shower seat, in accordance with AS1428.1,

- i. a wall cabinet with shelving illuminated by an illumination level of at least 300 lux,
  - j. a double general power outlet in an accessible location, in accordance with AS1428.1.
- 3) Subsection (2)(c) does not prevent the installation of a shower screen that can easily be removed to enable compliance with that paragraph.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

The main ensuite within each of the villas is provided with a floor area that accommodates the spatial requirements of an accessible bathroom within the meaning of AS1428.1. 900x1200mm is achieved in front of the WC pan that is located in the corner of the room.

Additional requirements listed above, including set-out of WC pan, is to be implemented during detailed design.

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**6.9 Clause 9 –Toilet**

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The following requirements apply to at least one toilet within each ILU.

- 1) At least one toilet in a dwelling must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The toilet must have the following—
  - a. a water closet pan—
    - (i) in the corner of the room, and
    - (ii) with a centreline set-out in accordance with AS 1428.1,
  - b. a circulation space in front of the water closet pan that is—
    - (i) at least 1,200mm long and at least 900mm wide, and
    - (ii) clear of door swings and fixtures, other than a toilet paper dispenser or grabrails,
  - c. a circulation space around the water closet pan that complies with AS 1428.1,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. a wall capable of accommodating the installation of a back rest and grab rail that
  - f. will comply with AS 1428.1.
- 3) A removable shower screen may be located in the circulation space specified in subsection (2)(c).

---

**Compliance Summary:**

---

Compliant configuration





**Commentary:**

The main ensuite within each villa is provided with a floor area that accommodates the spatial requirements of an accessible bathroom within the meaning of AS1428.1. 900x1200mm is achieved in front of the WC pan that is located in the corner of the room.

Additional requirements listed above, including set-out of WC pan, is to be implemented during detailed design.

---

#### **6.10 Clause 10 – Surface Finishes**

---

Balconies and external paved areas must have surfaces that are slip resistant and comply with—

- a. the Building Code of Australia, or
- b. the Standards Australia Handbook SA HB 198:2014, Guide to the specification and testing of slip resistance of pedestrian surfaces, published on 16 June 2014.

---

**Compliance Summary:**

---

To be addressed during detailed design.

---

#### **6.11 Clause 11 – Door Hardware**

---

- 1) Door handles and hardware for all doors, including entry doors and external doors, must comply with AS 1428.1.
- 2) To avoid doubt, subsection (1) does not apply to cabinetry.

---

**Compliance Summary:**

---

To be addressed during detailed design.

---

#### **6.12 Clause 12 – Switches and power points**

---

The following requirements apply to switches and powerpoints within the ILU.

- 1) Switches and power points must—
  - a. comply with AS 1428.1, or
  - b. be capable of complying with AS 1428.1 through future adaptation.
- 2) Subsection (1) does not apply to—
  - a. remote controls, or
  - b. power points likely to serve appliances that are not regularly moved or turned off.

---

**Compliance Summary:**

---

To be addressed during detailed design.

## 6.13 Clause 13 – Private passenger lifts

The following requirements apply to private lifts within the ILU.

- 1) This section applies to a private passenger lift that is required by this schedule to be accessible only from inside a particular dwelling.
- 2) The private passenger lift must—
  - a. be at least 1,100mm wide and at least 1,400mm long, measured from the lift car floor, and
  - b. have a clear indoor landing on all floors serviced by the lift, other than the floor on which the main area of private open space is located, at least 1,540mm long and at least 2,070mm wide, and
  - c. have controls that comply with—
    - i. AS 1735.12:2020, Lifts, escalators and moving walks, *Part 12: Facilities for persons with disabilities*, published on 26 June 2020, or
    - ii. AS 1735.15:2021, Lifts, escalators and moving walks, *Part 15: Safety rules for the construction and installation of lifts — Special lifts for the transport of persons and goods — Vertical lifting platforms intended for use by persons with impaired mobility*, published on 23 July 2021.
- 3) The width of the door opening of the private passenger lift must be at least 900mm.
- 4) The private passenger lift must not be a stairway platform lift.

### Compliance Summary:

Not applicable

## Part 2 Additional Standards for independent living units

### 6.14 Schedule 4, Clause 14– Application

The standards set out in this Part apply to any seniors housing that consists of independent living units.

### 6.15 Clause 15 – Bedroom

At least one bedroom in an independent living unit that complies with this schedule, section 7 must be located on—

- a. the same floor as the entry to the unit, or
- b. a floor serviced by a private passenger lift accessible only from inside the unit.

### Compliance Summary:

Compliant

### 6.16 Clause 16 – Living and Dining Room

The following requirements apply to living areas within the ILU.

- 1) A living room in an independent living unit must be located on—

- a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The living room must have—
- a. a circulation space that—
    - (i) is clear of all fixtures, and
    - (ii) has a diameter of at least 2,250mm, and
  - b. a telecommunications or data outlet adjacent to a general power outlet.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

The living areas are located at the entry level.

The open plan arrangement of living / dining areas within each of the dwellings provides sufficient area to satisfy SEPP requirements for circulation spaces within living and dining rooms.

The requirement for telephone, data and power outlets should be implemented during detailed design.

---

**6.17 Clause 17 – Main area of private open space**

---

The main area of private open space for an independent living unit must be located on—

- a. the same floor as the entry to the dwelling, or
- b. a floor serviced by a private passenger lift accessible only from inside the dwelling.

---

**Compliance Summary:**

---

Compliant

---

**6.18 Clause 18 – Kitchen**

---

The following requirements apply to kitchens within the ILU.

- 1) A kitchen in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The kitchen must have a circulation space with a diameter of at least 1,200mm between each bench top, cupboard or large appliance and each other bench top, cupboard or large appliance.
- 3) Each circulation space specified in subsection (2) must be capable of being increased to a diameter of 1,550mm without—
  - a. relocating the sink, or
  - b. moving a load-bearing wall, or
  - c. breaching another circulation requirement.
- 4) The kitchen must have the following fittings—

- a. a bench that includes at least one work surface that is—
    - (i) at least 800mm long, and
    - (ii) clear of obstructions, and
    - (iii) not in the corner of the room,
  - b. a lever tap set with the lever and water source that is within 300mm of the front of the bench,
  - c. a cooktop next to the work surface,
  - d. an isolating switch for the cooktop,
  - e. an oven that—
    - (i) has operative elements between 450mm and 1,250mm above the finished floor level, and
    - (ii) is next to the work surface,
  - f. at least one double general power outlet located within 300mm of the front of a work surface.
- 5) The cupboards must—
- a. not be entirely located in the corner of the bench or the corner of the room, and
  - b. face where the user of the fixture is likely to be.
- 6) An overhead cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the bottom of the cupboard.
- 7) A below-bench cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the top of the cupboard.
- 8) The lever tap set, cooktop, isolating switch, oven and double general power outlet must—
- a. not be in the corner of the bench or the corner of the room, and
  - b. face where the user of the fixture is likely to be.
- 9) Cabinetry below a work surface must be able to be easily removed to allow wheelchair access to the work surface.

---

#### Compliance Summary:

---

Compliant configuration

#### Commentary:

At least 1200mm clearance is provided between the opposing benches and this is capable of being increased to 1550mm through relocation of the island bench. Each kitchen layout achieves a bench space that is 800mm wide.

Additional requirements for kitchens as listed above, should be implemented during detailed design to ensure full compliance.

---

### 6.19 Clause 19 – Laundry

---

The following requirements apply to laundries within the ILU.

- 1) A laundry in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.

- 2) The laundry must have the following—
  - a. a circulation space that complies with AS 1428.1 at the approach to any external doors,
  - b. an appropriate space for an automatic washing machine and a clothes dryer,
  - c. a clear space in front of each appliance of at least 1,550mm,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. continuous accessible path of travel to the main area of private open space or any clothes line provided for the dwelling.
- 3) The space specified in subsection (2)(c) may overlap with a door swing or the circulation space for a door.
- 4) For laundry facilities in a cupboard, the cupboard must be capable of being fitted with “D” pull cupboard handles in the following locations—
  - a. for below-bench cupboards—towards the top,
  - b. for overhead cupboards—towards the bottom,
  - c. for floor-to-ceiling doors—between 900mm and 1,100mm above the finished floor level.
- 5) In this section **laundry** includes laundry facilities in a cupboard.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

Laundries are provided with adequate circulation generally. The accessible path of travel to the clothesline has not been provided in some instances due to inadequate latch side door circulation – this can be addressed through design development.

Requirements such as floor finish and access to clothes lines to be implemented during preparation of the construction certificate documentation to ensure compliance.

---

**6.20 Clause 20 – Linen storage**

---

- An independent living unit must have a floor-to-ceiling linen storage cupboard that—
- a. is at least 600mm wide, and
  - b. has adjustable shelving.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Each villa is provided with a full height linen cupboard – generally located in the hall. The requirement for adjustable shelving is to be implemented during detailed design.

## 6.21 Clause 21 – Lifts access in multi-storey developments

An independent living unit on a storey above the ground storey must be accessible by a lift that complies with the Building Code of Australia, Volume 1, Part E3.

### Compliance Summary:

Not applicable

## 6.22 Clause 21 – Garbage and recycling

A garbage storage area and a recycling storage area provided for an independent living unit must be accessible by a continuous accessible path of travel from the dwelling entrance.

### Compliance Summary:

To be addressed during detailed design

### Commentary:

We assume garbage storage will be provided at individual villas.

# 7 BCA Accessibility Requirements | Access, Approach & External Areas (Site Wide)

## Approach & External Areas

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 Nelson Bay Road to the building entrances;
- from the accessible carparking areas to the building entrances.
- Between associated accessible buildings within the site.



Figure 5 | Overall Site Plan

### 7.1 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:

Capable of compliance

#### Commentary:

An accessible path of travel is shown to all the building entrances from the allotment boundary along Nelson Bay Road via a formed footpath. Ensure path is accessible per AS 1428.1.

### 7.2 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.

#### Compliance Summary:

Capable of compliance

#### Commentary:

##### Apartment Buildings

Accessible path from the basement carparking to the building entrances is facilitated by passenger lift access.

##### Villas and Duplexes

An accessible path of travel is provided to the building entrance via a formed footpath. Levels to be addressed during detail design.

### 7.3 Approach between Associated Buildings

The BCA requires that a continuous accessible path of travel be provided between associated accessible buildings.

#### Compliance Summary:

Capable of compliance

#### Commentary:

Accessible path of travel is shown between associated buildings. Approaches and path grades between associated buildings on site to be addressed during detailed design.

### 7.4 Accessways (Pedestrian Areas Generally)

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

#### Compliance Summary:

Capable of compliance



**Commentary:**

Accessible path of travel via formed path is shown from the boundary and between associated buildings. Approaches and path grades between associated buildings on site to be addressed during detailed design.

---

## 7.5 Accessible Carparking

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There are no accessible carparking requirements for BCA Class 1a within this development.

For the residential building component of the development (Class 2), there are no BCA requirements for the provision of accessible carparking within the development.

For the community centre (Class 9b) BCA requires one (1) accessible space for every one hundred (100) carparking spaces or part thereof.

---

**Compliance Summary:**

---

To be addressed during detailed design.

**Commentary:**

There are no particular accessible car parking requirements for the overall site.

Additional accessible car parking would be over and above and of a best practice nature. We recommend accessible visitor carparking be considered throughout the site.

Specific carparking requirements for SEPP Seniors are addressed within each respective sections of the report.

---

## 7.6 Accessible Ramps

---

AS1428.1 defines a ramp y as having a gradient between 1:14 and 1:20. The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

---

**Compliance Summary:**

---

Capable of compliance

**Commentary:**

A formed graded path is provided to the southern end of the site. If this is a ramp, ensure tactile indicators are provided at the top and bottom of the ramp and that kerbrails are provided as necessary where ramp is not enclosed.



## 7.7 Stairs

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

### Compliance Summary:

Capable of compliance

### Commentary:

Stairs are provided as a part of the pedestrian access to the three residential buildings.

Ensure the overall configuration of the stairs achieves compliance with current legislation including handrails with extensions both sides and tactile indicators top and bottom. Ensure provision of contrasting non-slip nosings to treads also, details can be addressed during detailed design stage.

## 7.8 Walkways

AS1428.1 defines a walkway as having a gradient between 1:33 and 1:20. The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

### Compliance Summary:

Capable of compliance

### Commentary:

Walkways are provided in front of all three residential buildings at a grade of 1:20 and 1:22 shown and offer an accessible path of travel to the building. Walkway details can be addressed during detail design.

## 7.9 Pedestrian Crossings

If pedestrian crossings are considered at various locations across the site. Detailed design should address the requirement for kerb ramps aligned across the roadways OR the provision of tactile indicators where the pedestrian crossings are on-grade.

### Compliance Summary:

To be addressed at detailed design.

## 8 BCA Accessibility Requirements | Residential Buildings 1, 2 & 3

The three residential apartment buildings are located along the western side of the site parallel Newson Bay Road. All three buildings are provided with a basement carparking level, raised ground level and with four levels of independent living units above. Two lifts are provided in each of the buildings offering an accessible path of travel to each of the levels above.

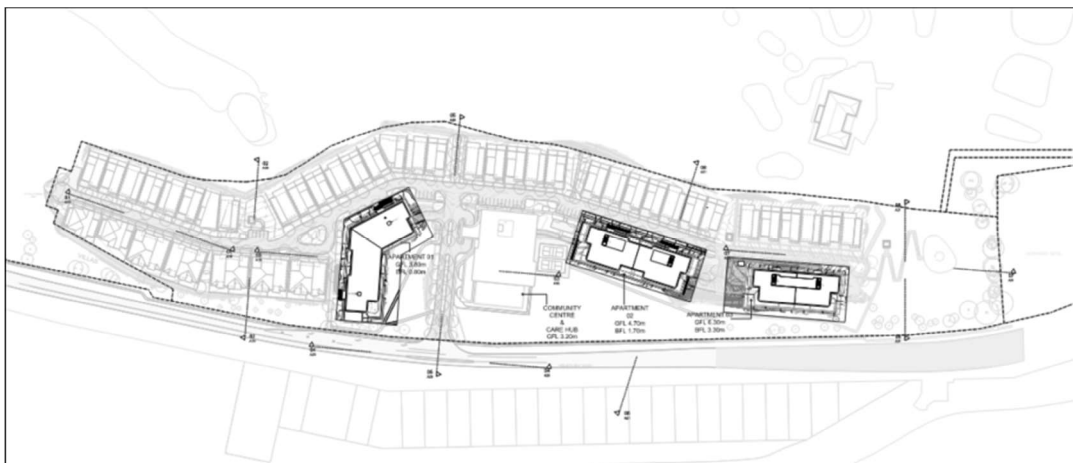


Figure 6 | Buildings 1, 2 & 3

### 8.1 Accessible Entrances

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:

Double hinged doorways provide entry to the building and offer compliant circulation areas. Ensure that the selected door enables a clear width of 850mm for single leaf operation. A level threshold hold is achievable at the doorway.

### 8.2 Extent of Access Generally – BCA

Within a residential development, access for people with disabilities is required 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.

Where a ramp or a passenger lift is installed, access is required to the entrance doorway of each sole-occupancy unit within the building.



Access is also required to and within not less than 1 of each type of room or space for use in common by the residents.

---

**Compliance Summary:**

Compliant

**Commentary:**

Access is provided to the entrance doorway of each sole-occupancy units within all three buildings and common areas.

---

**8.3 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.

---

**Compliance Summary:**

Compliant

---

**8.4 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:**

Compliant configuration

**Commentary:**

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

---

**8.5 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,



## 8.6 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

## 8.7 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.

## 8.8 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.

### Compliance Summary:

To be addressed during detailed design stage.

## 8.9 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.

## 8.10 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 hazard (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.

## 8.11 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.

---

**8.12 Passenger Lifts**

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Where passenger lifts are provided within a building to facilitate access between levels, they must meet the minimum requirements of the NCC / BCA with regard to the internal lift car size, which is dependent upon the total vertical distance that the lift travels.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

Two lifts are provided for access between levels.

The overall size of the lift shaft is capable of accommodating a lift car of adequate dimensions for compliance with BCA.

---

**8.13 Fire Isolated Egress Stairs**

---

Designated fire egress stairs are not considered public access stairs and therefore are not subject to the requirements of AS1428.1 with the exception of contrasting nosing strips and handrail requirements. These are required per AS1428.1.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

Stairs are provided throughout the development to enable egress in the event of a fire. We note the provision of offset treads to maintain a constant height along the length of the handrail per AS1428.1 (2009), Clause 12.

---

**8.14 Slip Resistance (Stairs and Ramps)**

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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.



## 9 BCA Accessibility Requirements | Community Centre

The community centre is centrally located along the main accessway from Nelson Bay Road and is situated between apartment buildings 01 and 02. A port cochere/drop off is located on the northern façade with bus parking to the main entry. External carparking is provided along the secondary entrance eastern side of the building facade.

### 9.1 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development. For an assembly 9b building, BCA requires one (1) accessible space for every one hundred (100) carparking spaces or part thereof.

---

#### Compliance Summary:

Compliant configuration

#### Commentary:

Plans note a total of twelve (12) carparking spaces, two (2) of which has been nominated as accessible carparking bays for the community centre.

### 9.2 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.

---

#### Compliance Summary:

Compliant configuration

#### Commentary:

There is an accessible path of travel provided to the building entrance via a formed footpath.

### 9.3 Accessible Entrance

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:

Double sliding doors are provided to both entrances of the building. A level threshold hold is achievable at the doorway.

#### 9.4 Extent of Access Generally – BCA

For a community centre, access for people with disabilities is required to and within all areas normally used by the occupants. Note that access is not required to every tier / platform within the auditorium.

##### Compliance Summary:

Capable of compliance

##### Commentary:

Access to and within areas within the community centre are generally appropriate.

#### 9.5 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.

##### Compliance Summary:

Capable of compliance

##### Commentary:

Turning spaces and passing areas to corridors are generally appropriate.

Some corridors have yet to be provided with the end of corridor turning space, this can be addressed during detailed design (corridor to wine display – ground, and corridor to administration at level 1).

#### 9.6 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:

Capable of compliance

##### Commentary:

Doorways within the accessible path of travel are generally provided with adequate circulation areas for compliance.

Some doorways have yet to be provided with door circulation spaces, this can be addressed during detailed design (multi-function, wine room/display, wine cellar, activity, meeting, corridor door to administration).

## 9.7 Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D4D8) requires hearing augmentation systems within auditoriums, meeting rooms and the like where an inbuilt amplification system, other than the one used for emergency warning is installed.

### Compliance Summary:

To be addressed during detailed design.

## 9.8 Wheelchair Seating

The BCA Table D4D10 requires not less than 3 wheelchair spaces for every 150 persons or part thereof (1 single space and a group of 2 spaces) and they cannot be provided in the front row of a Cinema.

### Compliance Summary:

To be addressed during detailed design

### Commentary:

2 wheelchair seating spaces have been provided and 3 are required.

### Performance Based approach

Given the size (15 seats) and nature of the Cinema, a performance solution could be prepared at CC to address the BCA departure.

## 9.9 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.



## 9.10 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

## 9.11 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.

## 9.12 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.

## 9.13 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.

## 9.14 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 hazard (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.

### 9.15 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.

### 9.16 Access to Swimming Pool

The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible (D4D2).

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero-depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

---

#### Compliance Summary:

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To be addressed during detailed design stage.

#### Commentary:

The pool within the community centre has a perimeter of 50m. Therefore, accessible entrance to the pool is required.

### 9.17 Distribution of Accessible Sanitary Facilities

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

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.
- A unisex accessible shower is required where showers are required by F4D7.

---

#### Compliance Summary:

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Compliant



**Commentary:**

The distribution of the toilets are as follows:

- Ground floor: There are 2 accessible sanitary facilities. A stand alone for the pool area with an accessible shower, and one within the bank of toilets along with male and female ambulant that is centrally located on the ground level. There is also a male and female change facility with toilets and showers close to the Gymnasium and Multi-Function Pilates.
- First floor: three (3) accessible toilets are provided and, a male and female ambulant toilet facility.

#### **9.18 Unisex Accessible Sanitary Compartment**

Unisex accessible sanitary compartments are provided within this development.

**Compliance Summary:**

Capable of compliance

**Commentary:**

Overall room dimensions and the set-out of fixtures is conducive to compliance with current accessibility legislation.  
Both left-and right-handed facilities are provided.

#### **9.19 Cubicles for People with an Ambulant Disability**

Ambulant toilets are provided within this development.

**Compliance Summary:**

Capable of compliance

**Commentary:**

Male and female ambulant toilets are provided and is centrally located on both levels.

Overall cubicle dimensions and the set-out of fixtures is conducive to compliance with current accessibility legislation.

#### **9.20 Unisex Accessible Shower Facility**

An accessible shower is required within this development.

**Compliance Summary:**

Capable of compliance

**Commentary:**

An accessible shower is provided within the accessible pool toilet. The overall dimensions and the set-out of fixtures is conducive to compliance with current accessibility legislation.

### 9.21 Passenger Lifts

Where passenger lifts are provided within a building to facilitate access between levels, they must meet the minimum requirements of the NCC / BCA with regard to the internal lift car size, which is dependent upon the total vertical distance that the lift travels.

---

**Compliance Summary:**

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Capable of compliance

**Commentary:**

Two lifts are provided for access between levels.

The overall size of the lift shaft is capable of accommodating a lift car of adequate dimensions for compliance with BCA.

### 9.22 Stairs

AS1428.1 has access requirements for all stairs other than fire isolated egress stairs and is applicable in this instance.

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**Compliance Summary:**

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Capable of compliance

**Commentary:**

Stairs are provided next to the main entry for access to the upper level to the lobby of RACF.

Overall configuration is in keeping with current legislation.

Ensure provision of handrails with extensions both sides, tactile indicators top and bottom and contrasting non-slip nosing strips to treads.

### 9.23 Fire Isolated Egress Stairs

Designated fire egress stairs are not considered public access stairs and therefore are not subject to the requirements of AS1428.1 with the exception of contrasting nosing strips and handrail requirements. These are required per AS1428.1.

---

**Compliance Summary:**

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Capable of compliance

**Commentary:**

Stairs are provided throughout the development to enable egress in the event of a fire.

We note the provision of offset treads to maintain a constant height along the length of the handrail per AS1428.1 (2009), Clause 12.

## 9.24 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.

## 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.



## Appendix 1 | SEPP Housing 2021 Requirements (Seniors Living)



## Part 1 Standards applying to hostels and independent living units

### Application of standards in this Part

The standards set out in this Part apply to any seniors housing that consists of hostels or self-contained dwellings.

### Siting standards

- 1) Wheelchair access  
If the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road.
- 2) If the whole of the site does not have a gradient of less than 1:10:
  - a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and
  - b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.  
Note. For example, if 70% of the site has a gradient of less than 1:10, then 70% of the dwellings must have wheelchair access as required by this subclause. If more than 50% of the site has a gradient greater than 1:10, development for the purposes of seniors housing is likely to be unable to meet these requirements.
- 3) Common areas  
Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

### Letterboxes

- (1) Letterboxes—
  - a. must be located on a hard standing area, and
  - b. must have wheelchair access by a continuous accessible path of travel from the
  - c. letterbox to the relevant dwelling, and
  - d. must be lockable by a lock that faces a wheelchair accessible path.
- (2) If a structure contains multiple letterboxes, the structure must be in a prominent location.
- (3) At least 20% of the letterboxes on the site must be more than 600mm and less than 1,200mm above ground level (finished).

## Car parking

- 1) If parking spaces attached to or integrated with a **class 1 building** under the Building Code of Australia are provided for use by occupants who are seniors or people with disability, **at least 1 parking space** must—
  - e. be at least 3.2m wide, and
  - f. be at least 2.5m high, and
  - g. have a level surface with a maximum gradient of 1:40 in any direction, and
  - h. be capable of being widened to 3.8m without requiring structural modifications to a building.
- 2) If parking spaces associated with a **class 1, 2 or 3 building** under the Building Code of Australia are provided in a **common area** for use by occupants who are seniors or people with a disability, the following applies—
  - d. for a parking space not in a group—the parking space must comply with AS/NZS2890.6,
  - e. for a group of 2–7 parking spaces—
    - (i) at least 1 of the parking spaces must comply with AS/NZS 2890.6, and
    - (ii) 50% of the parking spaces must—
      - (A) comply with AS/NZS 2890.6, or
      - (B) be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction,
  - f. for a group of 8 or more parking spaces—
    - (i) at least 15% of the parking spaces must comply with AS/NZS 2890.6, and
    - (ii) at least 50% of the parking spaces must—
      - (A) comply with AS/NZS 2890.6, or
      - (B) be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction.
- 3) To avoid doubt, a parking space that complies with AS/NZS 2890.6 is **only** counted toward 1 of the requirements in subsection (2)(b)(i) or (ii) or (c)(i) or (ii).
- 4) At least 5% of any visitor parking spaces must comply with AS/NZS 2890.6.
- 5) A parking space required by this section to comply with AS/NZS 2890.6, other than a visitor parking space, is not required to include the international symbol of access.
- 6) If multiple parking spaces are accessible by a common access point, the access point must be secured by a power-operated garage door, vehicle gate, vehicle barrier or similar device.





- 7) A parking space, other than a parking space under subsection (6), must be—
  - a. secured by a power-operated door, or
  - b. capable of accommodating the installation of a power-operated door, including by having—
    - (i) access to a power point, and
    - (ii) an area for motor or control rods for a power-operated door.
- 8) A requirement in this section for a parking space to comply with AS/NZS 2890.6 extends to the associated shared area within the meaning of AS/NZS 2890.6.
- 9) In this section, a parking space is in a common area if it is not attached to or integrated with a hostel or independent living unit.

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#### Accessible entry

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- 10) The main entrance to a dwelling must have—
  - a. a clear opening that complies with AS 1428.1, and
  - b. a circulation space in front of the door and behind the door that complies with AS 1428.1.
- 11) This section does not apply to an entry for employees.

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#### Interior

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- 1) An internal doorway must have an unobstructed opening that complies with AS 1428.1.
- 2) An internal corridor must have an unobstructed width of at least 1,000mm.
- 3) The circulation spaces in front of and behind an internal doorway in the following areas must comply with AS 1428.1—
  - a. a kitchen,
  - b. a laundry,
  - c. a bathroom,
  - d. a toilet,
  - e. a bedroom,
  - f. a living area,
  - g. the main area of private open space.
- (4) To avoid doubt, subsection (3)(b) does not apply to laundry facilities in a cupboard.

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#### Main Bedroom

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At least one bedroom in a dwelling must have the following—

- a. a clear area, not including a circulation space, sufficient to accommodate—



- (i) for a hostel—a wardrobe and a single-size bed, or
  - (ii) for an independent living unit—a wardrobe and a queen-size bed,
- b. a clear area around the area for the bed of at least—
  - (i) 1,200mm at the foot of the bed, and
  - (ii) 1,000mm on each side of the bed,
- c. at least 2 double general power outlets on the wall where the head of the bed is likely to be,
- d. at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be.

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## Bathroom

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- 1) At least one bathroom in a dwelling must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The bathroom must have the following—
  - k. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - l. a washbasin with tap ware capable of complying with AS 1428.1, including by future adaptation if the washbasin and tap ware continue to use existing hydraulic lines,
  - m. a shower that—
    - (i) is accessible without a shower-hob or step, and
    - (ii) complies with the requirements of AS 1428.1 for the entry, circulation space, floor gradient to the wastewater outlet and location of the mixer tap, and
    - (iii) is in the corner of a room, and
    - (iv) has a wall capable of accommodating the installation of a grab rail, portable shower head with supporting grab rail and shower seat, in accordance with AS1428.1,
  - n. a wall cabinet with shelving illuminated by an illumination level of at least 300 lux,
  - o. a double general power outlet in an accessible location, in accordance with AS1428.1.
- 3) Subsection (2)(c) does not prevent the installation of a shower screen that can easily be removed to enable compliance with that paragraph.

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## Toilet

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- 1) At least one toilet in a dwelling must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The toilet must have the following—



- a. a water closet pan—
    - (i) in the corner of the room, and
    - (ii) with a centreline set-out in accordance with AS 1428.1,
  - b. a circulation space in front of the water closet pan that is—
    - (i) at least 1,200mm long and at least 900mm wide, and
    - (ii) clear of door swings and fixtures, other than a toilet paper dispenser or grabrails,
  - c. a circulation space around the water closet pan that complies with AS 1428.1,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. a wall capable of accommodating the installation of a back rest and grab rail that will comply with AS 1428.1.
- 3) A removable shower screen may be located in the circulation space specified in subsection (2)(c).

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## Surface finishes

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Balconies and external paved areas must have surfaces that are slip resistant and comply with—

- a. the Building Code of Australia, or
- b. the Standards Australia Handbook SA HB 198:2014, Guide to the specification and testing of slip resistance of pedestrian surfaces, published on 16 June 2014.

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## Door hardware

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- 1) Door handles and hardware for all doors, including entry doors and external doors, must comply with AS 1428.1.
- 2) To avoid doubt, subsection (1) does not apply to cabinetry.

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## Switches & power points

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- 1) Switches and power points must—
  - a. comply with AS 1428.1, or
  - b. be capable of complying with AS 1428.1 through future adaptation.
- 2) Subsection (1) does not apply to—
  - c. remote controls, or
  - d. power points likely to serve appliances that are not regularly moved or turned off.

## Private passenger lifts

- 5) This section applies to a private passenger lift that is required by this schedule to be accessible only from inside a particular dwelling.
- 6) The private passenger lift must—
  - d. be at least 1,100mm wide and at least 1,400mm long, measured from the lift car floor, and
  - e. have a clear indoor landing on all floors serviced by the lift, other than the floor on which the main area of private open space is located, at least 1,540mm long and at least 2,070mm wide, and
  - f. have controls that comply with—
    - iii. AS 1735.12:2020, Lifts, escalators and moving walks, *Part 12: Facilities for persons with disabilities*, published on 26 June 2020, or
    - iv. AS 1735.15:2021, Lifts, escalators and moving walks, *Part 15: Safety rules for the construction and installation of lifts — Special lifts for the transport of persons and goods — Vertical lifting platforms intended for use by persons with impaired mobility*, published on 23 July 2021.
- 7) The width of the door opening of the private passenger lift must be at least 900mm.
- 8) The private passenger lift must not be a stairway platform lift.

## Part 2 Additional standards for self-contained dwellings

### Application of standards in this Part

The standards set out in this Part apply in addition to the standards set out in Part 1 to any seniors housing consisting of self-contained dwellings.

### Bedroom

At least one bedroom in an independent living unit that complies with this schedule, section 7 must be located on—

- a. the same floor as the entry to the unit, or
- b. a floor serviced by a private passenger lift accessible only from inside the unit.

### Living room and dining room

- 1) A living room in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or



- b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The living room must have—
  - c. a circulation space that—
    - (i) is clear of all fixtures, and
    - (ii) has a diameter of at least 2,250mm, and
  - d. a telecommunications or data outlet adjacent to a general power outlet.

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### Main area of private open space

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The main area of private open space for an independent living unit must be located on—

- a. the same floor as the entry to the dwelling, or
- b. a floor serviced by a private passenger lift accessible only from inside the dwelling.

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### Kitchen

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- 1) A kitchen in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 2) The kitchen must have a circulation space with a diameter of at least 1,200mm between each bench top, cupboard or large appliance and each other bench top, cupboard or large appliance.
- 3) Each circulation space specified in subsection (2) must be capable of being increased to a diameter of 1,550mm without—
  - a. relocating the sink, or
  - b. moving a load-bearing wall, or
  - c. breaching another circulation requirement.
- 4) The kitchen must have the following fittings—
  - a. a bench that includes at least one work surface that is—
    - (i) at least 800mm long, and
    - (ii) clear of obstructions, and
    - (iii) not in the corner of the room,
  - b. a lever tap set with the lever and water source that is within 300mm of the front of the bench,
  - c. a cooktop next to the work surface,
  - d. an isolating switch for the cooktop,
  - e. an oven that—
    - (i) has operative elements between 450mm and 1,250mm above the finished floor level, and
    - (ii) is next to the work surface,

- f. at least one double general power outlet located within 300mm of the front of a work surface.
- 5) The cupboards must—
    - a. not be entirely located in the corner of the bench or the corner of the room, and
    - b. face where the user of the fixture is likely to be.
  - 6) An overhead cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the bottom of the cupboard.
  - 7) A below-bench cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the top of the cupboard.
  - 8) The lever tap set, cooktop, isolating switch, oven and double general power outlet must—
    - c. not be in the corner of the bench or the corner of the room, and
    - d. face where the user of the fixture is likely to be.
  - 9) Cabinetry below a work surface must be able to be easily removed to allow wheelchair access to the work surface.

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## Laundry

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- 6) A laundry in an independent living unit must be located on—
  - a. the same floor as the entry to the dwelling, or
  - b. a floor serviced by a private passenger lift accessible only from inside the dwelling.
- 7) The laundry must have the following—
  - a. a circulation space that complies with AS 1428.1 at the approach to any external doors,
  - b. an appropriate space for an automatic washing machine and a clothes dryer,
  - c. a clear space in front of each appliance of at least 1,550mm,
  - d. a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586—2013,
  - e. continuous accessible path of travel to the main area of private open space or any clothes line provided for the dwelling.
- 8) The space specified in subsection (2)(c) may overlap with a door swing or the circulation space for a door.



- 9) For laundry facilities in a cupboard, the cupboard must be capable of being fitted with “D” pull cupboard handles in the following locations—
- a. for below-bench cupboards—towards the top,
  - b. for overhead cupboards—towards the bottom,
  - c. for floor-to-ceiling doors—between 900mm and 1,100mm above the finished floor level.
- 10) In this section—  
laundry includes laundry facilities in a cupboard.

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#### Linen storage

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An independent living unit must have a floor-to-ceiling linen storage cupboard that—

- a. is at least 600mm wide, and
- b. has adjustable shelving.

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#### Lifts access in multi-storey developments

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An independent living unit on a storey above the ground storey must be accessible by a lift that complies with the Building Code of Australia, Volume 1, Part E3.

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#### Clause 21 – Garbage and recycling

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A garbage storage area and a recycling storage area provided for an independent living unit must be accessible by a continuous accessible path of travel from the dwelling entrance.



## Appendix 2 | 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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### Walkways

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AS 1428.1 has access requirements for walkways as follows:

- a. The minimum unobstructed width of walkways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. Walkways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, 5mm for bevelled edges -refer to Figure 6 of AS1428.1).
- c. The maximum allowable crossfall of a walkway is to be 1:40.

- d. Surface of the walkway to be slip-resistant.
- e. The ground abutting the sides of the walkway should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided (refer to AS1428.1 Clause 10.2).
- f. Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180°, landings to be 1540mm in length – refer to AS1428.1(2009), Clause 10.8.

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#### Accessible Ramps – External

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AS 1428.1 has access requirements for accessible ramps as follows:

- a. Ramp to comply with AS1428.1, Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm (1500mm for curved ramps) and maximum length between landings to be 9m (for 1:14 gradient). Increased circulation areas are required at landings to facilitate wheelchair maneuverability.
- b. Accessible ramp is to have a maximum rise of 3.6m (BCA Clause D4D12)
- c. The ramp is required to be set back a minimum 900mm from the property boundary (AS1428.1, Clause 10.3 (f)). This allows tactile indicators and handrail extensions to occur within the boundary and not protrude into the footpath area.
- d. Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1, Clause 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 ramp to cater for left and right handed disabilities.
- e. Where ramp is not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.
- f. Provide tactile indicators at the top and bottom of the ramps 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 ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4, Figure A1).

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#### Stairs – External

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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.

Within a school or childcare centre, the stairs are required to have a secondary handrail at a height of 665-750mm per BCA D3D22 (1)(c)

- 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.

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### Stairway Platform Lift

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The BCA has limitations on the use of this type of lift. It must not:

- be used to serve a space in a building accommodating more than 100 persons, or
- be used in a high traffic public use area such as a theatre, cinema, auditorium, transport interchange, shopping centre or the like; or
- be used where it is possible to install another type of passenger lift; or
- connect more than 2 storeys; or
- where more than 1 stairway lift is installed, serve more than 2 consecutive storeys; or
- when in the folded position, encroach on the minimum width of a stairway

The floor dimensions of the lift to be 810mm wide x 1200mm deep as a minimum.

### Kerb Ramps

AS 1428.1 has access requirements for kerb ramps as follows:

- a. Kerb ramps to comply with AS1428.1 (2009) Amendment 1, Clause 10.7
- b. Maximum gradient of the kerb ramps to be 1:8 and maximum length to be 1520mm (providing a maximum height of 190mm).
- c. Kerb ramps to have a non-slip surface as required by AS1428.
- d. A tooled joint should be provided between parts of the kerb ramp to assist persons with a vision impairment with orientation.

### Step Ramps

Step ramps are to offer compliance with AS1428.1 (2009). Requirements are as follows:

- a. The configuration of the step ramp is to comply with the requirements of AS1428.1, Clause 10.6.
- b. Maximum gradient of the step ramp to be 1:10 and maximum length to be 1900mm (providing a maximum height of 190mm).
- c. Provide landings at the top and bottom of the step ramp to comply with AS1428.1, Clause 10.8.2.
- d. Step ramp to be enclosed on both sides (minimum height 450mm) or a kerb and handrail needs to be installed. Where a kerb is to be installed, the height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail

### 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.

For parallel parking arrangements, the accessible space is to be a minimum 3200mm wide x 7800mm long. A shared area 1600mm wide is required at the same level of the parking space.

- 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.

### Pedestrian Crossings

Where kerb ramps are to be provided at the roadway to provide an accessible path of travel for persons with a disability, kerb ramps are to comply with AS1428.1 and have a maximum gradient of 1:8.

Where the pedestrian crossing is at the same level as the roadway, provide tactile indicators to both sides of the roadway to alert persons with a vision impairment of the hazard. Tactile indicators to be 600-800mm deep across the width pedestrian crossing. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

### Threshold Ramp

Threshold ramps are to offer compliance with AS1428.1 (2009). Requirements are as follows.

- a. Threshold ramp to comply with AS1428.1, Clause 10.5.
- b. Threshold ramp to have a maximum rise of 35mm, maximum length of 280mm and maximum gradient of 1:8.
- c. Threshold ramp to be located within 20mm of the door leaf that it services.

### 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.

#### Non-Accessible Entrances

The following access requirements apply to the non-accessible entrance.

- a. Provide direction signage displaying the location of the accessible entrance that displays the International Symbol for Access per BCA Specification 15.

#### Tactile Indicators at Building Entrances

BCA Clause D4D9 (a) (v) states that 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 – in the absence of a suitable barrier – an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building...if there is no kerb or kerb ramp at that point, except for areas exempted by D4D5. If no kerb is provided between the entrance and the driveway area, tactile indicators are required.

The following access requirements apply.

- a. Where no kerb is provided, install tactile indicators for compliance with BCA Clause D3.8 and AS1428.4.
- b. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.
- c. Tactile indicators to be 600-800mm deep across the width of the path of travel set back 300mm from the edge of the driveway / roadway.

## 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.

## Doorways

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.
- j. For residential aged care facilities, BCA D2D9(d) requires that the unobstructed width of a door must be not less than 1070mm where it opens from a sole occupancy unit onto a public corridor; 870mm in other residential areas; and 800mm in non-residential areas.

#### Doorways within Vestibules and Airlocks

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.

#### Doorways within Vestibules and Airlocks to Ambulant Toilets

AS1428 has requirements for circulation areas between doorways within vestibules / airlocks as part of the path of travel to ambulant toilet cubicles to enable independent access for people using a mobility aid. Figure 34(b) requires a minimum dimension of 900mm between doors. Where a doorway encroaches into the space, 900mm plus the door leaf width is required.

#### Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D4D8) requires hearing augmentation systems within auditoriums, meeting rooms and the like where an inbuilt amplification system, other than the one used for emergency warning is installed. An induction loop to at least 80% of the floor area is required.

The hearing augmentation system is to be identified using the International Symbol for Deafness.

#### Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA (Clause D4D8) requires hearing augmentation systems at service counters where the user is screened from the service provider. We note that this may not be relevant to this project.

With the implementation of “sneeze screens” as a COVID-19 mitigation measure, the provision of hearing augmentation at service counters has become a critical accessibility issue for people with hearing impairments.

The hearing augmentation system is to be identified using the International Symbol for Deafness.

#### 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.

#### 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.

#### 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).

#### 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.

#### 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).

#### 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.



### Handrails to Passageways in RACF

Handrails must be provided along both sides of every passageway or corridor used by residents (BCA D2.17(b)(11). They are to be fixed not less than 50mm clear to the wall and where practical continuous for their full length.

### Access to Swimming Pool

The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible .

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic



wheelchair; or a zero depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

#### 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.

### Unisex Accessible Shower

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.

### Ambulant Toilet Cubicles

Requirements for the ambulant toilets are as follows.

- a. Options for the configuration of the ambulant cubicles are illustrated in AS1428.1, Figure 53.
- b. Provide an ambulant cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.
- c. Minimum width of ambulant cubicles to be 900-920mm.
- d. Minimum distance between the front of the WC pan and cubicle door / wall is 900mm,
- e. Seat height to be 460-480mm.

- f. Provide grabrails to ambulant cubicles to comply with AS1428.1, Clause 17 and Figure 53A.
- g. Provide toilet paper holder within the accessible reach zone (within 300mm of the front of the pan at a height less than 700mm).
- h. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.
- i. Provide signage to the ambulant cubicles to comply with AS1428.1, Clause 16.4.

### Adult Change Facilities

An adult change facility is required within the building per BCA Clause F3D12 and must be constructed in accordance with Specification 27. Note that this is in **addition to the required unisex accessible toilet facilities**. The adult change facility cannot be combined with any other sanitary compartment.

Each accessible adult change facility must—

- be constructed so that all required equipment and fixtures are contained within the same room; and
- if it is a unisex facility, be located such that it can be entered without crossing an area reserved for one sex only.

In each accessible adult change facility, the following must be provided per Specification F2.9:

- a. A hoist complying with Clause 3.
- b. A toilet pan, seat, backrest and grabrails complying with Clause 4.
- c. A washbasin and tap complying with Clause 5.
- d. Fixtures and fittings as specified in Clause 6.
- e. A change table complying with Clause 7.
- f. Changing rails complying with Clause 8.
- g. An automated entrance door complying with Clause 9.
- h. Signage complying with Clause 10.
- i. Operating instructions for the hoist and change table in accordance with Clause 11.
- j. Circulation spaces complying with Figure 2.

### Passenger Lifts

The following access requirements apply to the lifts. These requirements are for disabled access only and do not include requirements for stretchers.

- a. Lift is to comply with AS1735.12 and be fully automatic
- b. Minimum internal dimensions of the lift car to be 1400mm wide x 1600mm deep a lift that travels over 12m or,



Minimum internal dimensions of the lift car to be 1100mm wide x 1400mm deep for a lift that travels less than 12m.

- c. Clear opening of the lift door to be minimum 900mm.
- d. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- e. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.
- f. Auditory / voice cues are to be provided within the lift car to assist persons with a vision impairment.
- g. Series of door opening devices that will detect a 75mm diameter rod across the door opening between 50 mm and 1550mm above the floor level.
- h. Emergency hands-free communication, including a button that alerts a call centre of a problem, a light to signal that the call has been received by the call centre and a light indicating assistance is being dispatched.

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#### Low Rise Platform Lift

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The following access requirements apply to low-rise platform lifts. Confirmation should be sought from the manufacturers to confirm compliance with AS1735.16 prior to installation.

- a. The lift must not travel more than 12m.
- b. Car size should be a minimum of 1100x1400mm to accommodate a wheelchair.
- c. Clear opening of the lift door to be minimum 900mm.
- d. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- e. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.

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#### Stairway Platform Lift

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The BCA has limitations on the use of this type of lift. It must not:

- be used to serve a space in a building accommodating more than 100 persons,



- be used in a high traffic public use area such as a theatre, cinema, auditorium, transport interchange, shopping centre or the like; or
- be used where it is possible to install another type of passenger lift; or
- connect more than 2 storeys; or
- where more than 1 stairway lift is installed, serve more than 2 consecutive storeys; or
- when in the folded position, encroach on the minimum width of a stairway

The floor dimensions of the lift to be 810mm wide x 1200mm deep as a minimum.

### Stairs – Internal

Access requirements for public access stairs are as follows and should be addressed during construction to ensure compliance.

- a. Stair construction to comply with AS1428.1, Clause 11.1.
- 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 risers.
- c. Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS2418.1 Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.
- d. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails should be continuous around the landings where possible.

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.

Within a school or childcare centre, the stairs are required to have a secondary handrail at a height of 665-750mm per BCA D3D22 (1)(c)

- e. 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.
- f. Stair nosings shall not project beyond the face of the riser.
- g. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D4D9 and AS1428.4.1.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).



## Accessible Ramps – Internal

AS 1428.1 has access requirements for accessible ramps as follows:

- a. Ramp to comply with AS1428.1, Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient). Increased circulation areas are required at landings to facilitate wheelchair maneuverability.
- b. Accessible ramp is to have a maximum rise of 3.6m (BCA Clause D3D12).
- c. Where the intersection is at an internal corridor, the ramp shall be setback by a minimum 400mm so that the handrail complying with Clause 12 does not protrude into the transverse path of travel (AS1428.1, Clause 10.3 (g)).
- d. Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1, Clause 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 ramp to cater for left and right handed disabilities.
- e. Where ramp is not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.
- f. Provide tactile indicators at the top and bottom of the ramps 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 ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4, Figure A1).

## Fire Isolated Egress Stairs

Designated fire egress stairs are not considered public access stairs and therefore are not subject to the requirements of AS1428.1 with the exception of contrasting nosing strips and handrail requirements. These are required per AS1428.1.

- a. 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.
- b. Stair nosings shall not project beyond the face of the riser.
- c. Handrails in a required exit serving an area required to be accessible, are to be designed and constructed to comply with AS 1428.1, Clause 12

Note: handrails within fire-isolated stars are required to one side only and do not require the provision of handrail extensions. They must have a





diameter between 30-50mm; be between 865-1000mm high above the nosing; ne a consistent height along the length of the stair – no vertical sections; have a clearance to eh wall not less than 50mm; have no obstruction along the length of its passage; and have an end that turns through 180, turns to the ground, or returns fully to an end post.

We recommend the use of the staggered stair to maintain a constant height along the length of the handrail per AS1428.1 (2009), Clause 12.

### 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 Rooms

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.
- g. 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.
- h. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.
- i. 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.
- j. 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 3 | 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.

### Workstations and Desks

Consideration should be given to the provision of accessible height workstations. Adjustable height workstations and desks promote an inclusive environment for all users and enable sit-to-stand opportunities, promoting an active workplace.

### Seating

A proportion of accessible seating should be provided that offers provides back and arm rests.

A seat height of 450mm is optimal; with arms that extend a further 260mm +/- 40mm in height. · Armrests should not extend beyond the perimeter of the base or legs of the seat to ensure stability of the chair when rising with use of only one armrest.

Seats located adjacent to accessways should be set back at least 600mm to allow leg room without obstructing the adjacent path of travel.

### 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.

### Wayfinding – Landmarks and Tactile Indicators



To assist people with vision impairment navigate their environment, the use of directional tactile indicators can be implemented, noting that their use should be minimised. The design of directional tactile indicators is site / building specific.

Additionally, landmarks such as entry features, statues, sculpture, fountains, or other unique features can be used as a means of way-finding throughout a building. This especially assists people with intellectual disabilities.

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#### **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.

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#### **Accessible Adult Change Facility**

While not required within most developments, the provision of an accessible adult change facility promotes inclusion for all users. An Accessible Adult Change Facility is a toilet and change facility that caters for users with high support needs and their carers where they require additional space, assistance and specialised equipment to allow them to use toilets safely and comfortably. Accessible adult change facilities are based on ‘Changing Places’ that are based on a model developed in the UK.

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#### **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”**

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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#### **Fire Egress Doors**

We recommend that fire egress doors achieve a clear opening width of 850mm as per doorways within the accessible path of travel.

This permits the use of the landings within fire isolated egress stairs to be used as a shelter in place option for people with disabilities.

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#### **Places of Comparative Safety**

Consider providing a refuge area within fire isolated stairs by incorporating a 800mm x 1300mm area at stair landings of every accessible floor. A 1000mm unobstructed egress width to the area should be provided.



We recommend that signage displaying the International Symbol of Access (ISA) be provided to identify any places of comparative safety provided. Signage should state that the area is safe in the event of an emergency. Evacuation procedures for the building should address the provision of places of comparative safety for people with limited mobility.

We also recommend that as a part of the emergency evacuation plan for the building, egress for persons requiring assistance be addressed. The provision of places of comparative safety within fire isolated passages would be advantageous to persons with a disability. This consists of a waiting area large enough to accommodate a wheelchair where persons can wait for assistance from emergency services. The waiting area should be identified with appropriate signage that incorporates the International Symbol for Access.

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### Lighting and Glare

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.

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### Lockers

The provision of lockers at a suitable height for people using a wheelchair is recommended. The height range for accessible lockers to be 230mm-1350mm AFFL based on the reach ranges prescribed in AS1428.2 (1992).

