# ACCESS ASSESSMENT REPORT

Project Address

Date Report No. Prepared for Prepared by 23-1042 8 Dawn Fraser Avenue, Sydney Olympic Park

XC

CONSULTING

17/11/2023 #23-1042, Rev 01 dmps Xcert Pty Ltd



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# **REPORT REGISTER**

REVISION	DATE	STATUS	WRITTEN
23-1042 – Rev 01	17/11/2023	FINAL	FC

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# **EXECUTIVE SUMMARY & INTRODUCTION**

This report provides an accessibility design assessment for the Commercial development located at 8 Dawn Fraser Avenue, Sydney Olympic Park.

The purpose of this report is to identify the compliance status of the design with the Deemed to Satisfy (DtS) requirements of the National Construction Code (NCC) 2022, as are contained within Part D4 and Clause E3D7 and E3D8; and F4D5 - F4D7 of the Code.

A review and commentary are provided, which includes all appropriate technical assessment results and commentary and concludes that, whilst some compliance departures do exist in the current design, such can be remedied in all instances to achieve compliance with the NCC.

# **BASIS & PURPOSE OF REPORT**

This assessment is based upon.

- The Building Code of Australia (BCA) 2022
- The Guide to the BCA 2019 Amendment 1
- AS1428.1-2009 Design for Access and Mobility Part 1
- AS1428.4.1-2009 Design for Access and Mobility Part 4.1.
- AS/NZS 2890.6:2009 Off-street parking for people with disabilities
- The Architectural plans:

Drawing Number	Revision	Dated	Drawing Title	Prepared By
DA 100	А	3/11/2023	Ground Floor Plan	BKA Architecture
DA 101	А	27/10/2023	Level 1 Floor Plan	BKA Architecture

The purpose of this report is to identify the compliance status of the design with the relevant accessibility related DtS requirements of the NCC 2022, Part D4 and Clause E3D7 and E3D8; and F4D5 - F4D7 of the NCC.

# **BCA SUMMARY**

The below detail is provided in respect of a desktop review of the building under the NCC 2022 in respect to the compliance assessment.

BCA Building Classifications:

Class 6



# **ASSESSMENT DATA – PREMISES STANDARDS**

The scope of this Access assessment is to identify to the client any significant prescriptive 'accessibility' compliance departures in the existing building limited to the following areas:

- Principle entrance; and
- Affected part.

The above areas were inspected in the context of the following -

- Accessibility provisions of the Building Code of Australia (BCA) 2022; and
- The Disability (Access to Premises Building) Standards 2010.

# **Disability (Access to Premises – Buildings) Standards 2010**

The Disability (Access to Premises - buildings) Standards 2010 (the Premises Standards) commence on 1 May 2011. Any application for a building approval for a new building or upgrade of an existing building on or after that date will trigger the application of the Premises Standards.

The purpose of the Premises Standards (and corresponding changes to the Building Code of Australia and state and territory building law) is:

- to ensure that dignified, equitable, cost-effective and reasonably achievable access to buildings, and facilities and services within buildings, is provided for people with disability, and
- to give certainty to building certifiers, developers and managers that if the Standards are complied with they cannot be subject to a successful complaint under the DDA in relation to those maters covered by the Premises Standards.

# Premises Standard "Affected Part"

While access requirements relating to the 'affected part' of a building are covered by the Premises Standards they are not a requirement within the BCA. State and territory building laws and regulations are being reviewed to address the issue of the 'affected part' of a building to ensure consistency with the Premises Standards and building professionals should refer to their relevant state and territory building laws and regulations for clarification.

When new building work takes place in an existing building and a building approval is required for that new work, the requirements for upgrading access are limited to the area of new work and the 'affected part'.

In general, this Access Code tells those responsible for buildings when and where access is required and then refers to technical specification documents such as Australian Standard 1428.1-2009 to describe how to design and build in an accessible way.

When new building work takes place in an existing building and a building approval is required for that new work (Clause 2.1(4) as shown below defines a new part of a building), the requirements for upgrading access are limited to the area of new work and the 'affected part'.



#### 2.1 Buildings to which Standards apply.

- (4) A part of a building is a **new part** of the building if it is an extension to the building or a modified part of the building about which:
  - (a) an application for approval for the building work is submitted, on or after 1 May 2011, to the competent authority in the State or Territory where the building is located: or
  - (b) all of the following apply:
    - (i) the building work is carried out for or on behalf of the Crown.
    - (ii) the building work commences on or after 1 May 2011.
    - (iii) no application for approval for the building work is submitted, before 1 May 2011, to the competent authority in the State or Territory where the building is located.
- (5) An affected part is:
  - (a) the principal pedestrian entrance of an existing building that contains a new part; and
  - (b) any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.

The concept of an 'affected part' of an existing building is a new concept brought about by Clause 2.1(5) of the Premises Standard as reproduced above. The introduction of this defined area reflects the desire to improve general accessibility of existing buildings over time where full upgrades of a building are not taking place.

Subsection 2.1(5) defines the term 'affected part' of a building.

Affected part means the path of travel between (and including) the principal pedestrian entrance of an existing building to the 'new part' or modified part of the building. This path of travel must provide a continuous accessible path of travel (see 'Accessway' as defined in A1.1 of the Access Code) from the principal pedestrian entrance to the new part or modified part of the building.



The requirement for upgrading of the 'affected part' of buildings recognises that there is little value in improving access in new parts of existing buildings if people with disability cannot get to those new parts.



#### **Premises Standards**

The definition of 'affected part' of a building is limited to the area between (and including) the principal pedestrian entrance and the new work but does not extend from the entrance to the allotment boundary or any required carparking spaces. It also does not extend to any toilet facilities or other rooms adjacent to the pathway between the principal pedestrian entrance and the area of the new work.

#### Lift concession

The requirement in Table E3.6 (b) of the Access Code that a lift is to have a floor dimension of not less than 1,400 mm x 1,600 mm does not apply to an <u>existing passenger lift</u> that is in a new part, or an affected part, of a building, if the lift:

- a) travels more than 12 m; and
- b) has a lift floor that is not less than 1,100 mm by 1,400 mm.

#### **Toilet concession**

• Paragraphs F2.4 (c) and (e) of the Access Code, to the extent that they require compliance with AS 1428.1—2009, Design for access and mobility, Part 1:

General requirements for access—New building work, do not apply to the following:

- a) existing accessible sanitary compartments.
- b) existing sanitary compartments suitable for use by people with a disability.
- For subsection (1) to apply, a sanitary compartment mentioned in paragraph (a) or (b) must:
  - a) comply with AS 1428.1—2001, Design for access and mobility, Part 1: General requirements for access—New building work; and
  - b) be located in a new part of a building.

# Note on 'affected part' and internal stairways

Subsection D2.1(5) refers to the need to provide a continuous accessible path of travel which by definition cannot contain any step or stairway. When the 'affected part' is triggered it does not require access upgrades to any step or stairway adjacent to a continuous accessible path of travel.

For example, if new work in a 4-storey building triggers the application of the 'affected part' and a continuous accessible path is provided via the use of a lift there is no requirement to upgrade the stairway adjacent to the lift. Note, however, that the stairway, as an existing stairway, could be subject to ongoing DDA complaint if it did not include accessible features and as a result someone experienced discrimination.

#### Note on extent of 'affected part'

The definition of 'affected part' of a building is limited to the area between (and including) the principal pedestrian entrance and the new work but does not extend from the entrance to the allotment boundary or any required carparking spaces. It also does not extend to any toilet facilities or other rooms adjacent to the pathway between the principal pedestrian entrance and the area of the new work.



# Note on extent of principal pedestrian entrance

When constructing a new building the Premises Standards in D3.2(1)(b) requires an accessway from the main points of a pedestrian entry at the allotment boundary to a building required to be accessible. Separate to this the Premises Standards also requires an accessway through the principal pedestrian entrance in D3.2(2).

However, where new work on an existing building trigger the 'affected part' upgrade a continuous accessible path of travel is only required from the principal pedestrian entrance to the area of the new work. This does not extend to the allotment boundary.

Where an access barrier, such as a step, is located at the threshold of a principal pedestrian entrance the 'affected part' upgrade would require the removal of the step (unless unjustifiable hardship would result). However, in many situations a step or flight of stairs may be located some distance from the actual entrance.

For example, a building may be set back from the allotment boundary on a podium, but the steps onto the podium may be at the allotment boundary. This raises an interpretation question about what forms the entrance to a building. This is a matter for the certifying authority to assess in the context of individual buildings. The critical question is whether or not a feature such as a step is part of the building as distinct to part of a pathway from the allotment boundary to the building.

# **Principal Pedestrian Entrance**

The following has been identified as the Principal Pedestrian Entrance: Dawn Fraser Ave





# RECOMMENDATIONS

Clause	Rec	commendation
D4D2 General	1.	Clearance - A minimum 1.0m path of travel is required to be provided as a continuous accessible path of travel.
building access		• Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
requirements	2.	Slip resistance - A continuous accessible path of travel and any circulation spaces shall have a slip-resistant
		surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an
		ambulant or sensory disability. Slip resistance test report to be obtained and provided at CC Stage.
		• Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
	3.	Dawn Fraser Ave to the lift - Walkway – The floor or ground surface abutting the sides of the walkway shall
		provide a firm and level surface of a different material to that of the walkway at the same level of the walkway,
		follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following
		is provided: Kerb in accordance with Figure 18, Kerb rail and handrail in accordance with Figure 19 or A wall
		not less than 450 mm in height. The wall of the building is acceptable.
		• Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
	4.	Walkway landings:
		• For walkway gradients of 1 in 33, landings are to be provided at intervals no greater than 25m.
		• For walkway gradients of 1 in 20, landings are to be provided at intervals no greater than 15 m.
		• For walkway gradients between 1 in 20 to 1 in 33, landings are to be provided at intervals that shall be
		obtained by linear interpolation.
		A walkway with a gradient less than 1 in 33 does not require landings but does require a crossfall of maximum 1
		in 40 (maximum crossfall 1 in 33 if the surface is bitumen)
		• Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
	5.	Luminance contrast - All doorways shall have a minimum luminance contrast of 30% provided between, door
		leat and door jamb, door leat and adjacent wall, architrave and wall, door leat and architrave, or door jamb
		and adjacent wall. The minimum width of the area of luminance contrast shall be 50mm.
DAD2 Assesses	4	Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
D4D3 Access to	1.	An accessway must be provided to a building required to be accessible from the main points of a pedestrian
buildings		entry at the allotment boundary.
		<ul> <li>Pedestrian chtry to the First Floor is provided via the side access path in field of the main points of a pedestrian entry at the alletment boundary, being Dawn Erasor Ave.</li> </ul>
		A performance Based Solution is to be obtained at certification stage to address the departure.
D4D4 Parts of	1.	In a building required to be accessible every stairway, must comply with for a stairway, except a fire-isolated
buildings to be		stairway, clause 11 of AS 1428.1:
accessible	a)	Stair Handrail is to detail compliance with Clause 11 & 12 of AS28.1 – 2009. Non-Fire Isolated Stairway &
		Handrails are to comply with Clause 11 & 12 of AS1428.1 – 2009 including:
		(i) Handrails shall be Circular or Elliptical according to Clause 11 & 12 of AS1428.1.
		Compliance achievable. Details demonstrating compliance to be provided at certification stage.
		(ii) Where a barrier is provided, a handrail shall also be provided.
		Compliance achievable. Details demonstrating compliance to be provided at certification stage.
		(iii) Landing – to be setback 900mm from boundary on Ground Floor.
		Performance Solution may be obtained at certification stage with SOPA approval.
		Compliance achievable. Details demonstrating compliance to be provided.
		(iv) Handrails either side. Currently it appears the stair is provided with a single sided handrail.
		Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
		Performance Solution may be obtained at certification stage.
		(v) Opaque risers
		Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
		(vi) stall nusings to be provided.
		(vii) TGSIs shall be installed in accordance with AS1/28 / 1. (Pefer to D3 8) top and bottom of each flight
		Compliance readily achievable. Details demonstrating compliance to be provided at certification stage
		(viji) One tread width offset + 300mm extension + termination is required at the bottom of each flight
		Performance Solution may be obtained at certification stage.
		Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
		(ix) Handrail Extension & Terminations at top and bottom.
		Compliance readily achievable. Details demonstrating compliance to be provided at certification stage.
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# **ACCESS ASSESSMENT**

- The following table details the BCA compliance of the assessed design. The following assessment will provide an overview of compliance with the BCA and identify issues that require attention.
- All Deemed-to-Satisfy clauses that are applicable to the subject building have been referred to below, including a comment adjacent to each clause of the proposal's ability to satisfy each respective clause. The abbreviations outlined below have been used in the following tables:

N/A or Informational	The Deemed-to-Satisfy clause does not apply to the subject Building or is informational.
Complies	The relevant provisions of the Deemed-to-Satisfy clause appear to have been generally
	satisfied.
DNC	Does Not Comply.
CR 'Compliance	It is considered that there was not sufficient information included in the documentation to
Required'	accurately determine strict compliance with the individual clause requirements. Further
	information is necessary to determine the compliance potential of the building design.
PS	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy
	the relevant Performance Requirements.

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COMMENTS

# PART D4 - ACCESS FOR PEOPLE WITH A DISABILITIES

# D4D2 - General building access requirements

[2019: D3.1, Table D3.1]	CR	1. Buildings and parts of buildings must be accessible as required by this
		clause, unless exempted by D4D5.
To specify when access		2. Access requirements for a Class 1b building are as follows:
for people with a		3. For a Class 2 building, common areas are to be accessible as follows:
disability must be		4. For a Class 3 building, access requirements are as follows:
and parts of buildings.		5. For Class 5, 6, 7b, 8 and 9a buildings, access must be provided to and
		within all areas normally used by the occupants.
	CR	Continuous Accessible Path of Travel/ 1.0m clearance
		• A minimum 1.0m path of travel is required to be provided as a continuous
		accessible path of travel.
		• A continuous accessible path of travel shall not include a step, stairway,
		turnstile, revolving door, escalator, moving walk or other impediment.
		• For example, all walkways and continuous accessible paths of travel
		throughout the development, including external walkways and
		Communal open space, to comply with AS 1428.4.1 – 2009, including
		Fait 15.
		Heights of a continuous accessible nath of travel
		The minimum unobstructed height of a continuous accessible path of travel
		shall be 2000 mm or 1980 mm at doorways (see Figure 2).
		, , , , ,
		Width of a continuous accessible path of travel



CLAUSE	STATUS	COMMENTS
		<ul> <li>Unless otherwise specified (such as at doors, curved ramps and similar), the minimum unobstructed width (see Figure 2) of a continuous accessible path of travel shall be 1000 mm and the following shall not intrude into the minimum unobstructed width of a continuous accessible path of travel:</li> <li>Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings, and similar objects.</li> <li>Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards.</li> <li>Door handles less than 900 mm above the finished floor level.</li> </ul>
		<u>Left &amp; Right Turns</u> <u>Cl. 6.5 Circulation space for wheelchair turn.</u>
		The space required for a wheelchair to make a 60° to 90° turn shall have a gradient no steeper than 1 in 40 and shall be not less than 1500 mm wide and 1500 mm long in the direction of travel. The space may be splayed across the internal corner as shown in Figure 4.
		1500     1500       1500     1500       1500     1500       1500     1500       Turn 90° in path of travel       Corridor less than 1500 mm wide       requires widening at turn
		Image: stan 1500 mm wide requires widening at turn         Wheelchair Turn
		The space required for a wheelchair to make a >90° to 180° turn shall be not less than 2070 mm in the direction of travel and not less than 1540 mm wide, as shown in Figure 5.











CLAUSE	STATUS	COMMENTS
		<ul> <li>b) Landings shall be provided at all changes in direction in accordance with Clause 10.8.</li> <li>c) Landing or circulation space shall be provided at every doorway, gate, or similar opening.</li> <li>d) For walkways and landings having gradients in the direction of travel shallower than 1 in 33, a camber or crossfall shall be provided for shedding of water and shall be no steeper than 1 in 40, except that bitumen surfaces shall have a camber or crossfall no steeper than 1 in 33.</li> </ul>
		NOTE: For requirements for ground surfaces, see Clause 7.
		<u>Walkways</u>
		<ul> <li>Walkways shall comply with the following: <ul> <li>a) The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following is provided: <ul> <li>(i) Kerb in accordance with Figure 18.</li> <li>(ii) Kerb rail and handrail in accordance with Figure 19.</li> <li>(iii) A wall not less than 450 mm in height.</li> </ul> </li> <li>b) Walkways shall be provided with landings, as specified in Clause 10.8, at intervals not exceeding the following: <ul> <li>(i) For walkway gradients of 1 in 33, at intervals no greater than 25 m.</li> <li>(ii) For walkway gradients between 1 in 20 to 1 in 33, at intervals that shall be obtained by linear interpolation.</li> </ul> </li> <li>For walkways shallower than 1 in 33, no landings are required. The intervals specified above may be increased by 30% where at least one side of a walkway is bounded by— <ul> <li>A) a kerb or kerb rail as specified in Clause 10.3(j) and a handrail as specified in Clause 12; or</li> <li>B) a wall and a handrail as specified in Clause 12.</li> </ul> </li> </ul></li></ul>
		Landings The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following: Where there is no change in direction, the length shall be not less than 1200 mm, as shown in Figure 25(A).
		<ul> <li>The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following:</li> <li>a) Where there is no change in direction, the length shall be not less than 1200 mm, as shown in Figure 25(A).</li> </ul>















CLAUSE	STATUS	COMMENTS
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CLAUSE	STATUS	COMMENTS
		Diagram 40B Setout of Circulation Spaces - Cavity Sliding Door         Image: Colspan="2">Image: Colspan="2" Image:
		60mm + handle thickness + 60mm + 60mm 
		<b>Cavity Sliding Door</b> - Where a sliding door is within the wall cavity, the circulation space at the doorway shall be not less than that given in the tables of Figure 32 for the appropriate clear opening width (D).
		<ul> <li>Surface-mounted doors - Where a sliding door is surface-mounted, the circulation space at the doorway shall be as follows:</li> <li>The circulation space at the door face shall be not less than that given in the tables of Figure 32.</li> <li>The circulation space opposite the door face shall be increased from that given in the tables of Figure 32, by the values given in the Table of Figure 33. When a surface-mounted sliding door is automatic, these increases do not apply.</li> </ul>



CLAUSE	STATUS	COMMENTS
		Image: State of the state
		(a) Continuous accessible path of travel







CLAUSE	STATUS	COMMENTS
		<ul> <li>(iii) Door handles of 'D' lever type provide an adequate grip for people with hand impairments.</li> <li>b) The clearance between the handle and the back plate or door face at the centre grip section of the handle shall be not less than 35 mm and not more than 45 mm.</li> <li>c) 'D' type handles shall be provided on sliding doors.</li> <li>d) Where snibs are installed, they shall have a lever handle of a minimum length of 45 mm from the centre of the spindle.</li> <li>e) For doors other than fire doors and smoke doors where a door closer is fitted, the force required at the door handle to operate the door shall not exceed the following: <ul> <li>(i) To initially open the door</li></ul></li></ul>
		door, as shown in Figure 36.
		<ul> <li>Location</li> <li>Except in early childhood centres, swimming pool barriers or similar situations where the location of the opening and locking controls is prescribed by the relevant statutory authority, the location of the controls for doors and gates shall be above a level surface and as follows:</li> <li>a) Controls that need to be grasped or turned shall be not less than 900 mm and not more than 1100 mm above the plane of the finished floor, as shown in Figure 36.</li> </ul>







CLAUSI	E	STATUS				COMMENTS		
Component	Gradient	Width	Height	Length	Landing	spacing	Maximum camber/crossfall	Clause/ Figure
Walkway	Not steeper	1000 mm	N/A	N/A	Walkway gradient	Landing spacing	For walkway gradients	10.1 and 10.2
(straight)		unobstructed			Less than 1 in 33	N/A	a camber or crossfall of	
					1 in 33	25 m maximum	not steeper than 1 in 40; or 1 in 33	
					1 in 20 Between 1 in 33 and 1 in 20	15 m maximum By interpolation	where the surface is bitumen. Camber or crossfall not required where the walkway gradient is 1 in 33 or steeper	
Walkway	Not steeper	1500 mm	N/A	N/A	Walkway gradient	Landing spacing	For walkway gradients	10.1 and 10.4
(curved)	than 1 in 20	unobstructed			Less than 1 in 33	N/A	a camber or crossfall of	
					1 in 33	25 m maximum	not steeper than	
					1 in 20	15 m maximum	where the surface is	
					Between 1 in 33 and 1 in 20	By interpolation	bitumen. Camber or crossfall not required where the walkway gradient is 1 in 33 or	
							steeper	



Continuous accessible path of travel -

All paths of travel shall achieve unobstructed heights and widths in accordance with cl. 6 of AS 1428.1 – see diagram below for detail.



# CLAUSESTATUSCOMMENTS

#### Doorways / Doors –

(ii)

- (i) All doorways shall have a minimum luminance contrast of 30% between
  - door leaf and door jamb.
  - door leaf and adjacent wall.
  - architrave and wall.
  - door leaf and architrave.
  - door jamb and adjacent wall.
- (ii) The minimum width of the area of luminance contrast shall be 50mm,
- (iii) Door hardware should be generally located between 900-1100mm from the floor and be of lever type with a clearance between the handle and the door face at the centre of the handle being not less than 35mm and not more than 45mm in accordance with AS1428.1-2009,
- (iv) Doors shall have a clear opening width of 850mm.
- (v) Door handles and related hardware shall be of the type that allows the door to be unlocked and opened with one hand. The handle shall be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch.
- (vi) 'D' type handles shall be provided on sliding doors.
- (vii) Any snibs shall have a lever handle of a minimum length of 45 mm from the centre of the spindle.
- (viii) For doors (other than fire doors and smoke doors) where a door closer is fitted, the force required at the door handle to operate the door shall not exceed the 20N,
- (ix) Where an outward opening door is not self-closing, a horizontal handrail or pull bar shall be fixed on the closing face of a side-hung door,
- (x) The location of controls for doors and gates above a level surface shall be provided as per Clause 13.5.3.
- (xi) Manual controls for power-operated doors shall be located no closer than 500 mm from an internal corner and between 1000 mm to 2000 mm from the hinged door leaf in any position or clear of a surface-mounted sliding door in the open position.
- (xii) Push-button controls shall have a minimum dimension of 25 mm diameter and be proud of the surface and shall activate the door before the button becomes level with the surrounding surface.

Floor or ground surfaces on continuous accessible paths of travel and circulation spaces -

- (i) A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with ambulant or sensory disability.
  - Abutment of surfaces shall have a smooth transition. Design transition shall be 0mm, however, construction tolerances are as follows
    - 0 ±3mm vertical change in level see Figure 1
    - 0 ±5mm change in level provided the edges have a beveled or rounded edge to reduce the likelihood of tripping see Figure 2
    - Various tolerances for raked joint pavers see Figure/s 3a level surfaces, 3b irregular surfaces & 3c domed surfaces.



#### CLAUSE **STATUS** COMMENTS 5 R55 5 Figure 2 Figure 1 1-12 1-12 1-12 0-2 R5 -0-2 0-2 Figure 3a - For continuous paving units - level surfaces Mortar joints shall be flush with the top of the paving 1-12 Profile variation shall units with a 2 maximum not exceed 2 depth Figure 3b - For continuous paving units - irregular surfaces Profile and mortar joint variation 1-12 shall not exceed 2



#### Figure 3c - For continuous paving units - domed surfaces

Where carpets or any soft flexible materials are used on the ground or floor surface -

- The pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm.
- Exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge,
- At the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3mm or a rounded beveled edge no higher than 5mm or above that height a gradient of 1:8 up to a total maximum height of 10mm.

Matting recessed within an accessible path of travel -

- Where of metal and bristle type construction or similar, its surface shall be no more than 3mm if vertical or 5mm if rounded or beveled, above or below the surrounding surface; and
- Where of a mat or carpet type material, shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3mm if vertical or 5mm if rounded or beveled.

#### Switches and Controls -

- (i) All new switches and controls, other than power points, shall be located not less than 900mm nor more than 1100mm above the finished floor and not less than 500mm from internal corners.
- (ii) Rocker action and toggle switches shall be provided an accordance with Clause 14.2 in accessible residential sole-occupancy units.

# D4D3 - Access to Buildings

[2019: D3.2]	CR	1. An accessway must be provided to a building required to be accessible—
To specify the extent of access for people with a		a) from the main points of a pedestrian entry at the allotment boundary; and



CLAUSE	STATUS	COMMENTS
disability that must be provided.		<ul> <li>b) from another accessible building connected by a pedestrian link; and</li> <li>c) from any required accessible carparking space on the allotment.</li> <li>2. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and— <ul> <li>a) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and</li> <li>b) in a building with a total floor area more than 500m2, a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance, except for pedestrian entrance serving only areas exempted by D4D5.</li> </ul> </li> <li>3. Where a pedestrian entrance required to be accessible has multiple doorways— <ul> <li>a) if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and</li> <li>b) if a pedestrian entrance consists of more than 3 doorways — not less than 50% of those doorways must be accessible.</li> </ul> </li> <li>4. For the purposes of (3)— <ul> <li>a) an accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where— <ul> <li>(i) all doorways serve the same part or parts of the building; and</li> <li>(ii) the distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D4D3); and</li> </ul> </li> <li>b) a doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D4D3).</li> <li>5. Where a doorway on an accessway has multiple leaves (except an automatic opening door), one of those leaves must have a clear opening</li> </ul> </li> </ul>
		width of not less than 850 mm in accordance with AS 1428.1. Figure D4D3: Doorways and pedestrian entrances for access purposes More than width of doorway b Doorway a Doorway a 1 entrance Doorway d 1 entrance

D3.2(a) requires accessways to be provided to accessible buildings from the main points of a pedestrian entry at the allotment boundary and from any accessible car parking space or accessible associated buildings connected by a pedestrian link.

In D3.2(b) the principal pedestrian entrance is to be accessible in all cases and not less than 50% of all pedestrian entrances, including the principal pedestrian entrance, are to be accessible. In buildings with a total floor area more than 500 m2, an inaccessible entrance cannot be more than 50 m from an accessible entrance. This ensures that situations where people have to travel an unreasonable distance between entrances are avoided. An entrance that serves only an area exempted by D3.4 need not be accessible.



	CLAUSE	STATUS	COMMENTS			
* * *	The principal pedestrian ent users. This is particularly in entrance, particularly in hot Designers should consider th at an entrance should not h Similarly, for convenience, th abuilding entrance. Where an entrance has mul- lf an entrance doorway is m leaf, so that a person with a lf the doorway is automatic	he principal pedestrian entrance is required to be accessible in all cases because it would be the most commonly used entrance by all building sers. This is particularly important in public buildings where the principal entrance is often used as a focus for events or as a ceremonial ntrance, particularly in hotels and theatres. esigners should consider the proximity of ramps or lifting devices to stairs or steps at an entrance. People who require a ramp or lifting device t an entrance should not have to travel significantly greater distances to use the entrance than people without a disability. imilarly, for convenience, the ramp or lifting device should be located as close as possible to any vehicular drop off point or taxi rank servicing building entrance. //here an entrance has multiple doorways, the BCA does not require all of them to be accessible: an entrance doorway is manually operated, the minimum dimensions required to provide access must be provided by the opening of a single eaf, so that a person with a disability only has to negotiate their entry through one door leaf. The doorway is automatically operated, the minimum dimension can be provided using two leaves.				
D4	D4 - Parts of building	ngs to be a	accessible.			
[20 To s req acc bui acc	19: D3.3] specify the uirements for essways within Idings which must be essible.	CR	<ul> <li>In a building required to be accessible—</li> <li>a) every ramp and stairway, except for ramps and stairways in areas exempted by D4D5, must comply with— <ul> <li>(i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and</li> <li>(ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and</li> <li>(iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and</li> <li>(iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and</li> <li>(i) every passenger lift must comply with E3D7 and E3D8; and</li> <li>c) accessways must have — <ul> <li>(i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and</li> <li>(ii) turning spaces complying with AS 1428.1—</li> <li>A. within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and</li> <li>B. at maximum 20 m intervals along the accessway; and</li> </ul> </li> <li>d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and</li> </ul></li></ul>			
			<ul> <li>f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building—</li> </ul>			

- (i) containing not more than 3 storeys; and
- (ii) with a floor area for each storey, excluding the entrance storey, of not more than 200m2; and



CLAUSE	STATUS	COMMENTS
		<ul> <li>g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and</li> <li>h) The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</li> </ul>
		Non-Fire Isolated StairsStair Handrail is to detail compliance with Clause 11 & 12 of AS28.1 – 2009.Non-Fire Isolated Stairway & Handrails are to comply with Clause 11 & 12 ofAS1428.1 – 2009 including:(i) Landing(ii) Handrails either side.(iii) Opaque risers(iv) Stair nosings(v) TGSIs shall be installed in accordance with AS 1428.4.1. (Refer to D3.8)(vi) One tread width offset(vii) Handrail Extension & Terminations at top and bottom.(viii) Consistent Handrail & height of 865mm-1000mm max(ix) Handrail clearances(x) Handrails and balustrades shall not encroach into required circulation spaces.
		12 HANDRAILS
		<ul> <li>The design and construction of handrails shall comply with the following:</li> <li>(a) Handrails and balustrades shall not encroach into required circulation spaces.</li> <li>(b) The cross-section of handrails shall be circular or elliptical, not less than 30 mm or greater than 50 mm in height or width for not less than 270° around the uppermost surface as shown in Figures 29(a) and 29(b). Elliptical handrails shall have the greater dimension in the horizontal axis as shown in Figure 29(b).</li> </ul>
		(c) Exposed edges at ends and corners of handrails shall have a radius of not less than 5 mm.
		(d) The top of handrails shall be not less than 865 mm nor more than 1000 mm above the nosing of stairway tread or the plane of the finished floor of the walkway, ramp or landing.
		(e) The height of the top of the handrail, measured in accordance with Item (d), shall be consistent through the ramp (or stairs) and any landings.
		(f) If a balustrade is required at a height greater than the handrail, both shall be provided.
		(g) Handrails shall be securely fixed and rigid, and their ends shall be turned through a total of 180°, or to the ground, or returned fully to end post or wall face, as shown in Figures 26(C) and 26(D).
		(h) The clearance between a handrail and an adjacent wall surface or other obstruction shall be not less than 50 mm. This clearance shall extend above the top of the handrail by not less than 600 mm.
		<ul> <li>Handrails shall have no obstruction to the passage of a hand along the rail, as shown in Figures 29(a) and 29(b).</li> </ul>
		<ul> <li>(j) The inside handrail at landings shall always be continuous, as shown in Figure 28(a).</li> </ul>











CLAUSE	STATUS	COMMENTS
		Turning spaces are required within 2 metres of the end of an accessway if it is not possible to continue to travel along the accessway, and at least every 20 metres along an accessway whether there is a direct line of sight.
		required at an intersection of accessways is enough for passing or turning to occur. In this situation a dedicated passing or turning space would not be required at those locations.
		<u>Clause 6.5.3 &gt;90° to 180°</u> The space required for a wheelchair to make a >90° to 180° turn shall be not less than 2070 mm in the direction of travel and not less than 1540 mm wide, as shown in Figure 5.
		NOTE: For landing dimensions, see Clause 10.8.
		(a) Space required in corridor Suitable passing and turning spaces are to be provided in the building to comply with this clause AS1428.1-2009.
		Corridors to levels to have a minimum 1,540mm wide by 2,070mm long space within 2m of the end of the corridor to permit wheelchairs users to do a 1800 turn.
		<b><u>Carpet</u></b> The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.

Clause 10 & 11 Requirements (Ramps & Stairs)

Clause 10.2 – Walkways

Walkways shall comply with the following:

- The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following is provided:
  - Kerb in accordance with Figure 18.
  - Kerb rail and handrail in accordance with Figure 19.
  - A wall not less than 450 mm in height.
  - Landings at top and bottom and at:
  - 25m intervals or less for 1:33,



- 15m intervals or less for 1:20,
- For walkways shallower than 1 in 33, no landings are required.

#### Clause 10.3 – Ramps

- Ramps shall comply with the following:
- Max 1:14 gradient for ramps exceeding 1.9m,
- Gradient constant throughout with max. 3% tolerance and max 1:14 gradient,
- Landings at top and bottom and at:
  - 9m intervals or less for 1:14,
    - 15m intervals or less for 1:20,
- Change in direction to have 90° angle of approach as per Figure 13,
- Handrails on each side as per Clause 12,
- Set back min. 900mm from boundary,
- Intersections at internal corridors to be set back min. 0.4m,
- Handrails to extend min. 300mm horizontally past transition point at top and bottom, except where inner handrail is continuous at intermediate landings,

COMMENTS

- Kerbs and kerb rails on both sides at min. height of 65mm, not be between 75mm and 150mm high and have no gaps or slots greater than 20mm within the range of 75mm to 150mm,
- Kerbs and kerb rails to be located so that ramp-side face is either flush or no greater than 100mm away from handrail (Figure 19), min. 150mm high if handrails have vertical posts (Figure 19 a, b, c), and be min. 200mm between 65mm-75mm kerb to support posts (Figure 19 d).

#### Clause 10.5 - Threshold ramps

- Threshold ramps at doorways to have a max. rise of 35mm, max length of 280mm, max gradient of 1:8 and be located within 20mm of the door leaf.
- Edges of the threshold ramp shall be tapered or splayed at max 45° if not abutting a wall.

#### Clause 10.6 - Step ramps

- Step ramps shall have max. rise of 190mm, max. length of 1.9m, max. gradient of 1:10.
- Edges of the step ramp to have 45° splay where there is pedestrian traffic or otherwise be protected by suitable barrier such as a min. 450mm wall or kerb / kerb rail with open balustrade.
- Step ramps to have slip-resistant surfaces.

#### Clause 10.8 - Landings

- Landings for walkways (up to 1:33) and ramps shall comply with one of the following:
- min. 1.2m if no change in direction as per Figure 25(A),
- min. 1.5m where change in direction not exceeding 90° internal corner to be truncated for min. 500mm in both directions as per Figure 25(B),
- 180° turn, landing as per Figure 25(C).
- Landings for step ramps shall be min. 1.2m in length as per Figure 22(A) and (B). Where a change in direction, the length of the step ramp landing to be min. 1.5m as per Figure 22(A). At doorways, landings as per Clause 13.3 for circulation spaces at doorways shown in Figure 25(D).
- Landings at kerb ramps shall be min. 1.2m in length, or 1.5m X 2.0m at 'T' junctions. Where a single change in direction is required, landings to be min. 1.5m X 1.5m.

#### Clause 11.1 - Stair construction

Stairs to be constructed as follows:

- Set back min. 0.9m from boundary,
- Where intersection is at an internal corridor, the stair to be set back as per Figure 26(A),
- Have opaque risers,
- Nosings shall not project beyond the face of the riser and the riser may be vertical of 25mm backwards splay,
- Nosing profiles to have a sharp intersection, be rounded up to 5mm radius or be chamfered up to 5mm x 5mm,
- 50mm 75mm strip to full length of nosing, set back a max. 15mm from the front of the nosing, with a 30% min. luminance contrast. If not set back, luminance contrast to extend down the riser by max 10mm.
- TGSIs installed as per AS1428.4.1.

#### Clause 11.2 - Stairway handrails

Handrails to be continuous throughout the stair flight and around landings and have no obstructions 0.6m above, and as follows:

- Design & construction as per Clause 12,
- Installed both sides,
- No vertical sections and shall follow angle of the stairway nosings,
- Extend at bottom of stairs one stair tread depth and min. 300mm horizontally, (300mm extension not required if handrail is continuous,
- Dimensions of heights of handrails taken vertically from the nosing or landing to the top of the handrail.

Clause 12 - Handrails

Design and construction to comply with:



	CLAUSE	STATUS	COMMENTS		
•	Handrails and balustrades shall not encroach into required circulation,				
•	Circular or elliptical cross-section, not less than 30mm or more than 50mm for more than 270°. Elliptical handrails to have greater horizontal dimensions,				
•	Exposed edges or corners have min. radius of 5mm,				

- Top of handrail to be between 865mm and 1.0m above nosing or landing,
- Height to be constant throughout,
- If balustrade is required at a height greater than the handrail, both shall be provided,
- Handrails to be securely fixed and rigid with ends turned through a total of 180°, or to the ground, or returned fully to end post or wall face (Figures 26 C and D),
- Min. 50mm clearance to adjacent wall or other obstruction, for a height of 600mm,

Handrails to have no obstructions to the passage of a hand along the rail,

Inside handrail at landings to always be continuous as per Figure 28(a).

# **D4D5** - Exemptions

[2019: D3.4] The following areas are not required to be accessible:	CR	This provision provides details on buildings or parts of buildings not required to be accessible under the BCA. This clause details exemptions to the requirements for access to certain areas within buildings where providing access would be inappropriate because of the nature of the area or the tasks undertaken.
a) An area where access would be inappropriate because of the		These areas could include rigging lofts, waste containment areas, foundry floors, loading docks, fire lookouts, Class 8 electricity network substations, plant and equipment rooms and other similar areas. Assessment of these areas is on a case-by-case basis.
particular purpose for which the area is used.		Exemptions are to be reviewed on a case-by-case basis and when detailed design is achieved. Although, we do highlight that the following parts of the building have been offered access exemption (not exhaustive):
<ul> <li>b) An area that would pose a health or safety risk for people with a disability.</li> </ul>		<ul> <li>✓ Electrical rooms.</li> <li>✓ Plant &amp; equipment room(s).</li> <li>✓ Service rooms.</li> <li>✓ Fan Room Supply/Exhaust Air rooms</li> </ul>
<ul> <li>c) Any path of travel providing access only to an area exempted by (a) or</li> </ul>		<ul> <li>✓ Main Switch Rooms</li> <li>✓ Waste Collection Rooms</li> <li>✓ Diesel Pump Room</li> <li>✓ Chamber Substation</li> </ul>
(b).		While these areas may be assessed as not required to be accessible, nothing in the BCA prevents a designer from providing greater access than the required provisions, should they desire to do so.

# **D4D6 Accessible carparking**

[2019: D3.5, Table D3.5]	NA	Not Applicable
Accessible carparking spaces—		



CLAUSE	STATUS		COMMENTS
D4D7 - Signage			
		1	
[2019: D3.6] To assist people with a disability to easily identify the facilities, services, exits and features provided in a building.	CR	1.	<ul> <li>In a building required to be accessible—</li> <li>a) braille and tactile signage complying w</li> <li>b) signage including the international symaccordance with AS 1428.1 must be procontaining a hearing augmentation system containing a hearing augmentation system contains the provided to direct a nearest accessible pedestrian entrance of where a bank of sanitary facilities is not unisex sanitary facility, directional signage to international symbol of access in according be placed at the location of the sanitary accessible, to direct a person to the location of the nearest accessible adult building must be provided at the location of a bank of sanitary facilities; and</li> <li>b) accessible unisex sanitary facility, othe an accessible adult change facility.</li> </ul>
		Sigi mir	nage shall be installed in this project as neces
		1.	braille and tactile signage incorporating the

ith Specification 15 must nbol for deafness in ovided within a room tem identifying must be provided for dentify if the facility is suitable sible sanitary facility in cated on the door of the cessible, directional signage of access, in accordance with a person to the location of the e; and t provided with an accessible age incorporating the dance with AS 1428.1 must y facilities that are not cation of the nearest required to be accessible, ation 15 to direct a person to change facility within that of each r than one that incorporates ssary, but shall include as a prporating the international symbol of access or deafness, must identify each sanitary facility and space with hearing augmentation system; and

- 2. identify each door required by Clause E4.5 to be provided with an exit sign and state "Exit" and "Level" followed by the floor number.
- 3. signage incorporating the international symbol of access or deafness, must be provided within a room containing a hearing augmentation system identifying the hearing augmentation type, area covered and location of receivers.



CLAUSE	STATUS	COMMENTS
		<ol> <li>signage in accordance with AS1428.1 must be provided for accessible unisex sanitary facilities to identify left or right-handed use.</li> <li>signage to ambulant accessible facility must be on the door of the facility.</li> <li>directional signage where a pedestrian entrance is not accessible,</li> <li>directional signage where a bank of sanitary facilities is not provided with an accessible sanitary facility.</li> </ol>
Specification 15: Braille and tact	ile signs	

# <u>S15C1 Scope [2019: Spec D3.6: 1]</u>

This Specification sets out the requirements for the design and installation of braille and tactile signage as required by D3D26, D4D7 and Specification 27.

#### S15C2 Location of braille and tactile signs [2019: Spec D3.6: 2]

Signs including symbols, numbering and lettering must be designed and installed as follows:

- a) Braille and tactile components of a sign must be located not less than 1200 mm and not higher than 1600 mm above the floor or ground surface.
- b) Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor or ground surface.
- c) Signs identifying rooms containing features or facilities listed in D4D7 must be located—
  - (i) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and
  - (ii) where (i) is not possible, the sign may be placed on the door itself.
- d) Signs identifying a door required by E4D5 to be provided with an exit sign must be located—
  - (i) on the side that faces a person seeking egress; and
  - (ii) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and
  - (iii) where (ii) is not possible, the sign may be placed on the door itself.

S15C3 Braille and tactile sign specification [2019: Spec D3.6: 3]

- 1. Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm.
- 2. Title case must be used for all tactile characters, and
  - a) upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm, except that the upper-case tactile characters on a sign identifying a door required by E4D5 to be provided with an exit sign must have a height of not less than 20 mm and not more than 55 mm; and
  - b) lower case tactile characters must have a minimum height of 50% of the related upper-case characters.
- 3. Tactile characters, symbols, and the like, must have rounded edges.
- 4. The entire sign, including any frame, must have all edges rounded.
- 5. The background, negative space or fill of signs must be of matt or low sheen finish.
- 6. The characters, symbols, logos and other features on signs must be matt or low sheen finish.
- 7. The minimum letter spacing of tactile characters on signs must be 2 mm.
- 8. The minimum word spacing of tactile characters on signs must be 10 mm.
- 9. The thickness of letter strokes must be not less than 2 mm and not more than 7 mm.



	CLAUSE	STATUS	COMMENTS	
LO.	Tactile text must be left just	ified, except th	at single words may be centre justified.	
L1.	Tactile text must be Arial typ	peface.		
5150	5C4 Luminance contrast [2019: Spec D3 6: 4]			

The following applies to luminance contrast:

- a) The background, negative space, fill of a sign or border with a minimum width of 5 mm must have a luminance contrast with the surface on which it is mounted of not less than 30%.
- b) Tactile characters, icons and symbols must have a minimum luminance contrast of 30% to the surface on which the characters are mounted.
- c) Luminance contrasts must be met under the lighting conditions in which the sign is to be located.

#### S15C5 Lighting [2019: Spec D3.6: 5]

Braille and tactile signs must be illuminated to ensure luminance contrast requirements are met at all times during which the sign is required to be read.

#### S15C6 Braille [2019: Spec D3.6: 6]

The following applies to braille:

- a) Braille must be grade 1 braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority.
- b) Braille must be raised and domed.
- c) Braille must be located 8 mm below the bottom line of text (not including descenders).
- d) Braille must be left justified.
- e) Where an arrow is used in the tactile sign, a solid arrow must be provided for braille readers.
- f) On signs with multiple lines of text and characters, a semicircular braille locator at the left margin must be horizontally aligned with the first line of braille text.

#### Clause 8 - 8.1 Form of signs

- The BCA contains requirements for Braille and tactile signage in Specification D3.6. Where signs are required, the form of signs shall be as follows:
- a) Where required, raised tactile and/or Braille signage shall be provided as follows:
  - (i) Sanitary facilities shall be identified with the following:
    - A) Raised and visual versions of the international symbol of access.
    - B) Raised and visual versions of the male and female symbols.
    - C) Raised text that shall be in title case (e.g. Male Toilet).

NOTE: Title case has the first letter of each word capitalized and the rest are lower case. Short articles, prepositions and conjunctions are not capitalized.

- D) Braille that fully describes the visual information displayed by symbols and raised text.
  - NOTES:
  - 1) For example, a sign for a male accessible toilet will include the words Male Toilet as visual, raised text and Braille as well as the raised visual male symbol.
  - 2) An example of a sign is given in Figure 9(a).
- (ii) Signs for unisex accessible facilities shall be provided with the letters LH or RH to indicate a left-hand or right-hand side transfer onto the WC pan.

The minimum font size shall be 20 mm san serif.

- NOTES:
  - 1. An example of right-hand side (RH) transfer is shown on Figure 9(a).
  - 2. Helvetica and Arial are san serif fonts.
- (iii) Entry doors to airlocks serving areas containing sanitary facilities shall be identified by the use of raised text and Braille, together with raised and visual symbols identifying each sanitary facility within.
  - NOTES:
    - 1. One symbol for each facility need only be used.
    - 2. Where the facilities for male and female are separate, a dividing line should be placed between each symbol.
- b) Elements of a sign shall be set out singularly, or in a modular form.
- NOTE: Examples of modular form are shown in Figures 9(a), 9(d), 9(e) and 9(f).
- c) Elements of a sign shall be arranged horizontally or vertically and shall include raised text and Braille, together with raised and visual symbols. Where words are used, they shall be displayed horizontally.



CLAUSE	STATUS	COMMENTS
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NOTE: Other symbols may be used in association with the text.

d) Facilities shall be identified by the use of raised text, Braille, and symbols if required. The identification shall be between 1200 mm and 1600 mm above finished floor levels.

e) A sanitary compartment for people with ambulant disabilities shall be identified in accordance with Figure 9(c).

Braille shall be Unified English Braille (UEB), Grade 1, uncontracted, and shall be in accordance with the technical specifications set out by the Australian Braille Authority (ABA). Braille numerals shall be preceded by a Braille numerical sign.

The International Symbol of Access and the International Symbol for Deafness (see Clause 8.2.2) may be used without raised explanatory text such as 'accessible' or 'hearing loop installed'.



#### NOTES:

- 1. The Braille indicator is only used where there are multiple lines of text. It indicates the location of the first line of Braille.
- 2. Visual message: The sign displays a unisex accessible toilet with right-hand (RH) transfer.
- 3. Minimum required raised tactile message: 'Unisex Toilet RH' in raised tactile print and symbols.
- 4. Minimum required Braille message: 'Unisex accessible toilet RH' for right-hand transfer.





#### NOTES:

- 1. Visual message: The signs display male toilet and female toilet.
- 2. Minimum required raised tactile message: 'Male Toilet', 'Female Toilet' in raised tactile print and symbols.
- 3. Minimum required Braille message: 'Male Toilet', 'Female Toilet'.



#### NOTES:

- 1. Visual message: The signs display ambulant accessible male and female toilets.
- 2. Minimum required raised tactile message: 'Ambulant Male Toilet', 'Ambulant Female Toilet' in raised tactile print and symbols.



	CLAUSE	STATUS	COMMENTS
3.	Minimum required Braille n	nessage: 'Male i	Ambulant Toilet', 'Female Ambulant Toilet'. FIGURE 9 (in part) MODULAR FORM OF SIGNS
		Wayf arrow	Unisex Toilet LH
	(d)	Example of way	yfinding sign to a unisex accessible toilet with left-hand (LH) transfer

NOTES:

- 1. Visual message: The sign displays the direction to a unisex accessible toilet with left hand (LH) transfer.
- 2. Minimum required tactile message: 'Unisex Toilet LH' with raised tactile wayfinding arrow, print and symbols.
- 3. Minimum required Braille message: 'Unisex accessible toilet LH' with a wayfinding arrow of Braille cell proportion.





NOTES:

- 1. Visual message: The sign displays an accessible path of travel using a lift to level 3 to a unisex accessible toilet.
- 2. Minimum required tactile message: 'Unisex Toilet Level 3' with raised tactile symbols and print.
- 3. Minimum required Braille message: 'Unisex accessible toilet on Level 3' with a wayfinding arrow of Braille cell proportion.

	$\epsilon$	$\lambda$ Thea	tre
	← :::::::::::	* **** ** ***	• * • • • • •
	Direction	Information	n _
Example of w	ayfinding sign to	identify facilities for pers	ons with mobility disabilities

FIGURE 9 (in part) MODULAR FORM OF SIGNS

NOTES:

- 1 Visual message: The sign displays the direction of an accessible path of travel to a theatre.
- 2 Minimum required tactile message: Raised tactile wayfinding arrow, print and symbols.
- 3 Minimum required Braille message: 'Access path to theatre' with a wayfinding arrow of Braille cell proportion. FIGURE 9 (in part) MODULAR FORM OF SIGNS

8.2 Symbols indicating access for people with disabilities.



CLAUSE	STATUS	COMMENTS

8.2.1 International symbol of access

The form of the international symbol of access shall be as follows:

a) The symbol of access shall consist of two elements: a stylized figure in a wheelchair pointing to the right on a plain square background.

- b) The proportional layout of the symbol of access shall be in accordance with Figure 10.
- c) The colour of the Figure shall be white on a blue background in accordance with Figure 11. The blue shall be B21, ultramarine, of AS 2700, or similar.
- d) For signs indicating the direction to a facility, an arrow shall be used in combination with the international symbol of access.

NOTE: Signs identifying a facility may be used either with or without directional arrows.



8.2.2 International symbol for deafness

The form of the international symbol for deafness shall be as follows:

- a) The symbol for deafness shall consist of two elements: a stylized ear and diagonal slash on a plain square background.
- b) The proportional layout of the symbol for deafness shall be in accordance with Figure 12.
- c) The colour of the symbol shall be white on a blue background. The blue shall be B21, ultramarine, of AS 2700, or similar.



#### **D4D8** - Hearing augmentation

[2019: D3.7]

NA Not Applicable

To assist people with a hearing impairment to



CLAUSE	STATUS	COMMENTS
be made aware of		
communications		
associated with a		
building's use.		

# D4D9 - Tactile indicators

[2019: D3.8]	CR	Prov 200	vide tactile ground surfaced indicators complying with AS/NZS 1428.4.1-9
Accessible buildings must have signage to comply with AS1428.1-2009 and as follows		1.	For a building 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) a stairway, other than a fire-isolated stairway; and
			b) an escalator; and
			c) a passenger conveyor or moving walk; and
			d) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and
			e) in the absence of a suitable barrier—
			<ul> <li>(i) an overhead obstruction less than 2 m above floor level, other than a doorway; and</li> </ul>
			<ul> <li>(ii) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point,</li> </ul>
			except for areas exempted by D4D5.
		2.	Tactile ground surface indicators required by (1) must comply with sections 1 and 2 of AS/NZS 1428.4.1.
		3.	A hostel for the aged, nursing home for the aged, a residential aged care building, Class 3 accommodation for the aged, Class 9a health-care building or a Class 9c aged care building need not comply with (1)(a) and (d) if handrails incorporating a raised dome button in accordance with AS/NZS 1428.4.1 are provided to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp. *******
		*	Where the distance of the landing is 3000 mm or more to the nearest nosing edge, the warning indicators shall be over a distance of 600mm–
			800mm.
		*	Where the distance of the landing is less than 3000 mm to the nearest nosing edge, the warning indicators shall be over a distance of 300– 400mm.



# D4D10 - Wheelchair seating spaces in Class 9b assembly buildings

[2019: D3.9]	NA	Not Applicable
D3.9 provides requirements for the provision of wheelchair seating spaces in Class 9b assembly buildings		

# D4D11 - Swimming pools

[2019: D3.10]	NA	Not Applicable
To specify the requirements for accessible swimming pools.		

# D4D12 Ramps

[2019: D3.11]	NA	Not Applicable
To specify the requirements for ramps forming part of an accessway.		

# D4D13 - Glazing on an accessway

[2019: D3.12]	CR	Any such glazing on an accessway must be clearly marked in accordance with
On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.		AS 1428.1-2009. Where there is no chair rail, handrail, or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid contrasting line. The contrasting line shall be not less than 75mm wide and shall extend across the full width the glazing panel. The lower edge of the contrasting line shall be located between 900mm and 1000mm above the plane of the finished floor level.



	Any contrasting line on the glazing shall provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side.
	This provision requires there to be a contrasting strip, chair rail, handrail, or transom across all frameless or fully glazed doorways and surrounding glazing capable of being mistaken for an opening.
	The purpose of this requirement is to assist a person who has a vision impairment to be able to identify the presence of the glazing and avoid injury caused by contact with the glazing. A contrasting strip with a series of dots, unconnected patterns or shapes that do not provide high levels of contrast would not meet the requirements of this provision.
	Diagram 4 Visual Warnings on Full Glazed Doors and Sidelights
	The scale sc

# PART E3 LIFT INSTALLATIONS

# E3D7 Passenger lift types and their limitations

[2019: E3.6, Table E3.6a, Table E3.6b] To require that lifts necessary for use by people with a disability are suitable.	CR	The lifts shall be detail designed to ensure compliance with the below and
		AS1428.1. A design compliance certificate should be obtained from the lift
		practitioner to confirm compliance with the relevant provisions of the BCA
		and Australian Standards.
		Consideration should be given to lift control buttons and the like (no less than
		500mm from an internal corner).
		The proposed personage lifts shall have the following features
		The proposed passenger lifts shall have the following features.
		(i) Handrail complying with the mandatory handrail provisions of
		AS1735.12.



CLAUSE	STATUS	COMMENTS
CLAUSE	STATUS	<ul> <li>COMMENTS</li> <li>(ii) Lift floor dimensions not less than 1,100mm x 1,400mm as the lifts vertical travel is less than 12m.</li> <li>(iii) Minimum clear door opening complying with AS1735.12.</li> <li>(iv) Passenger protection system complying with AS1735.12.</li> <li>(v) Lift landing doors at the upper landing.</li> <li>(vi) Lift car and landing control buttons complying with AS1735.12,</li> <li>(vii) Lift car and landing control buttons complying with AS1735.12,</li> <li>(viii) Lighting in accordance with AS1735.12.</li> <li>(viii) Lighting in accordance with AS1735.12.</li> <li>(viii) Lighting in accordance with AS1735.12.</li> <li>(viii) Lighting in accordance with a S1735.12.</li> <li>(viii) Lighting in accordance with a start the state and the lift car stops.</li> <li>(viii) Lighting in accordance and available indication are to be provided in a range of between 20 80dB(A) at a maximum frequency of 1500Hz.</li> <li>(ix) Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received.</li> <li>1. In an accessible building, every passenger lift must be one of the following</li> </ul>
		<ul> <li>In an accessible building, every passenger lift must be one of the following lift types, subject to the limitations (if any) of each lift type: <ul> <li>a) There are no limitations on the use of electric passenger lifts, electrohydraulic passenger lifts or inclined lifts.</li> <li>b) Stairway platform lifts must not— </li> <li>(i) be used to serve a space in a building accommodating more than 100 persons calculated according to D2D18: or</li> <li>(ii) be used in a high traffic public use area such as a theatre, cinema, auditorium, transport interchange, shopping centre or the like; or</li> <li>(iii) be used where it is possible to install another type of passenger lift; or</li> </ul> </li> </ul>
		<ul> <li>(v) where more than 1 stairway lift is installed, serve more than 2 consecutive storeys: or</li> <li>(vi) When in the folded position, encroach on the minimum width of a stairway required by D2D8 to D2D11.</li> <li>c) A low-rise platform lift must not travel more than 1000 mm.</li> </ul>
		<ul> <li>d) A low-rise, low-speed constant pressure lift must not—</li> <li>(i) for an enclosed type, travel more than 4 m; or</li> <li>(ii) for an unenclosed type, travel more than 2 m; or</li> <li>(iii) be used in high traffic public use areas in buildings such as a theatre, cinema, auditorium, transport interchange, shopping complex or the like.</li> <li>e) A small-sized, low-speed automatic lift must not travel more than</li> </ul>
		12m.



CLAUSE	STATUS	COMMENTS
		2. A passenger lift referred to in (1) must not rely on a constant pressure device for its operation if the lift car is fully enclosed.

# E3D8 Accessible features required for passenger lifts

[2019: Table E3.6a, Table E3.6b]	CR In a fea a) a) b) c) d) e) f) g) h) i)	In an accessible building, every passenger lift must have the following features where applicable:
		<ul> <li>a) A handrail complying with the provisions for a mandatory handrail in AS</li> <li>1735.12 for all lifts except—</li> </ul>
		(i) a stairway platform lift; and
		(ii) a low-rise platform lifts.
		b)—Lift floor dimensions of not less than 1400 mm wide x 1600 mm deep
		for all lifts which travel more than 12 m.
		c) Lift floor dimensions of not less than 1100 mm wide x 1400 mm deep
		for all lifts which travel not more than 12m, except a stairway platform lift.
		d) Lift floor dimensions of not less than 810 mm wide x 1200 mm deep for a stairway platform lift.
		e) Minimum clear door opening complying with AS 1735.12 for all lifts except a stairway platform lift.
		f) Passenger protection system complying with AS 1735.12 for all lifts with power-operated doors.
		<ul> <li>g) Lift landing doors at the upper landing for all lifts except a stairway platform lift.</li> </ul>
		h) Lift car and landing control buttons complying with AS 1735.12 for all
		lifts <del>except</del>
		<del>(i) a stairway platform lift; and</del>
		<del>(ii) – a low-rise platform lifts.</del>
		i) Lighting in accordance with AS 1735.12 for all enclosed lift cars.
		J) For all lifts serving more than 2 levels— (i) subscription with levels with in the lift senter identifiest has
		(I) automatic audible information within the lift car to identify the
		(ii) audible and visual indication at each lift landing to indicate the
		(ii) - autuble and visual indication at each int fanding to indicate the
		(iii) audible information and audible indication required by (i) and (ii) is
		to be provided in a range of between 20 - 80 dB(A) at a maximum
		frequency of 1500 Hz.
		k) Emergency hands-free communication, including a button that alerts a
		call centre of a problem and a light to signal that the call has been
		received, for all lifts except a stairway platform lift.



COMMENTS

# PART F4 SANITARY AND OTHER FACILITIES

# F4D5 Accessible sanitary facilities

[2019: F2.4]	NA	Not Applicable
Section D requires equitable and dignified access to buildings and the services they provide. Section D and Part F2 are also intended to apply inclusively to people with a disability (see FP2.1). Not only must people with a disability be able to access a building's sanitary facilities, but those facilities must also be usable by them.		

# F4D6 Accessible unisex sanitary compartments

[2019· Table F2 4a]	NΔ	Not Applicable
[2015: 1051012:40]	11/2	Not Applicable
F4D7 Accessible unise	ex snowers	
[2019: Table F2.4b]	NA	Not Applicable
		I
F4D12 Accessible adult change facilities		
[2019· F2 9]	ΝΔ	Not Applicable
[2013.12.3]	INA.	Not Applicable



# LIMITATIONS OF THE REPORT

This report does not assess the following:

- ✓ National Construction Code 2022, Volume 2.
- ✓ National Construction Code 2022, Volume 1 other than referenced in this report.
- ✓ Does not provide concessions, alternative solutions, or exemptions from the requirements of the BCA.
- ✓ Statutory Signage.
- Access and facilities for people with disabilities is addressed, however compliance with the Disability Discrimination Act 1992 (DDA) is outside the scope of this report. It should be noted that BCA compliance does not necessarily meet the requirements of the Disability Discrimination Act (DDA).
- ✓ Compliance with the requirements of any Performance Solution.
- ✓ Review or specification of slip-resistance classification(s) for floor surface finishes/materials. Surface finish should be sought by an independent specialist slip safety consultant.
- Readily movable furniture has been treated as indicative only unless otherwise noted within the report as it not considered to form part of the building as addressed by the BCA.
- ✓ Reporting on hazardous materials, OH&S matters, or site contamination
- ✓ Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building.
- ✓ Consideration of any fire services operations (including hydraulic, electrical, or other systems)
- ✓ Assessment of plumbing and drainage installations, including stormwater.
- ✓ Assessment of mechanical plant operations, electrical systems, or security systems
- ✓ Heritage significance.
- ✓ Consideration of energy or water authority requirements.
- ✓ Consideration of Council's local planning policies.
- ✓ Consideration of Council's conditions of any consent.
- ✓ Environmental or planning issues.
- ✓ Requirements of statutory authorities.
- ✓ Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out).
- ✓ Other Sections of the BCA are not considered.
- ✓ Provision of any construction approvals or certification under the Environmental Planning & Assessment Act 1979, Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021, Environmental Planning and Assessment Regulation 2021.
- ✓ Glazing, shading, lighting calculations and the like required by Section J of the BCA not been carried out.
- ✓ BCA 2022 does not directly specify slip-resistance classification(s) for all *accessible paths of travel*; however, we highlight the need under AS 1428.1-2009 for all *accessible paths of travel* to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

This report does not include, or imply compliance with:

- ✓ Sections B, C, D, E, F, G, H, I or J of the BCA.
- ✓ the Disability Discrimination Act.
- ✓ Work Health and Safety Act.
- Requirements of other Regulatory Authorities including, but not limited to, Telstra, NBN Co, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads, and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of Planning and the like.



# CONCLUSION

The primary purpose of this report was to identify the non-compliance matters contained in the proposed design against the current Accessible Provisions of the NCC 2022 and to provide compliance recommendations to overcome the DTS non-compliances.

The result of the report identifies that the design has some non-compliances with the DtS provisions of the NCC, however can be readily resolved by minor design changes or Performance Solution(s).

Subject to the recommendations, the current design can comply with the accessibility provisions of the NCC. Performance Solutions could be further developed and verified by an appropriately qualified Access Consultant.

Author

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