GROUPDLA

ACCESS PLANNING REVIEW REPORT

PROJECT: **Lang Walker AO Medical Research Centre - Macarthur**
STAGE: SSDA
PROJECT NO: **GDL 210276**
PREPARED FOR: BVN Architects
DATE: **14.10.2021**

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REVISION HISTORY

Revision	Date	Details	Authorised	
			Name/Position	Signature
A	30.08.2021	Schematic Design – 100% Stage	**Prepared:** Elisa Moechtar Manager, Access Consultancy ACAA No. 198	--
B	07.10.2021	SSDA Stage - DRAFT	**Prepared:** Elisa Moechtar Manager, Access Consultancy ACAA No. 198	__
C	14.10.2021	SSDA Stage - FINAL	**Prepared:** Elisa Moechtar Manager, Access Consultancy ACAA No. 198	

Table 1 – Revision History

1.0 EXECUTIVE SUMMARY

This Access Report has been prepared to accompany the State Significant Development Application (SSDA) submission for the proposed development known as Lang Walker AO Medical Research Centre – Macarthur located at Parkside Crescent, Campbelltown NSW.

The Report provides an accessibility compliance assessment of design documentation against the Disability (Access to Premises – Buildings) Amendment Standards 2020 (Premises Standards), the access provisions of Volume 1 of the Building Code of Australia 2019 – Amendment One (BCA), referenced Australian Standards (AS) and consideration of the objectives of the Disability Discrimination Act 1992 (DDA) to ensure reasonable access provisions for people with disability.

In our opinion, with ongoing detailing of the access provisions, design requirements and recommendations outlined within Section 4.0 Accessibility Assessment of this Report, the proposed design is capable of compliance with the statutory accessibility legislation outlined above. This will be achieved through a combination of compliance with the deemed to satisfy (DTS) provisions and/or the Performance Requirements of the BCA, as required.

Further development and refinement of detailed design requirements, such as internal fit-out design, and details of stairs, walkways/ramps, lifts, sanitary facilities and other access facilities and features will be included within future construction documentation and assessed prior to Crown Certification/Building Approval Stage.

The following items in Table 2 below have been noted as items of interest at this stage of the review. The items that have been considered non-compliant require further review against the detailed design, or where noted may be able to be justified as an Access Performance Solution:

No.	Item	Query or DtS Non-Compliance	Suggested Resolution	Reference Clause	BCA Performance Requirement
1.	Accessible Drop-off zone on Parkside Crescent	Does not currently include a kerb-ramp for step-free access from road to footpath for people with mobility and/or access issues.	Provide a AS1428.1 kerb ramp at rear of vehicle drop off zone with at least 1500mm min. length landing space at top of kerb ramp (for 90 degree turning) on footpath. The design & spatial dimensions require design development as accessible drop-off area	D3.5, DDA	DP1
2.	Accessible Entry 1 from Parkside Crescent, LGL 02	The accessible entry and path of travel into building via internal Lift Lobby may not be readily apparent to visitors to the building from Parkside Crescent as the external entry stairs are visually dominant	Directional and identification signage to locate accessible Entry 1, LGL 02 from base of the external stairs to Entry 2 at LGL 01 is required. In addition, the LGL 02 passenger lift must be open & available at all times that LGL 01 Entry 2 (at top of stairs) is open & available for use.	D3.2	DP1
3.	Large fully glazed external entry doors	Manual doors may not be AS1428.1 compliant for lightweight door force and	Large external doors may need power operation with accessible control	D3.2, D3.12, DDA	DP1

No.	Item	Query or DtS Non-Compliance	Suggested Resolution	Reference Clause	BCA Performance Requirement
	and/or fins in glazed facades	if held open and/or fully glazed fins may be a potential DDA and safety by design issue when approached from side/transverse paths of travel due to protruding glass elements.	buttons to meet AS1428.1. Ongoing design development to ensure adequate size luminance contrasting frame/elements on all sides of door panels and contrasting elements recommended on all glazed leading edges		
4.	LGL 02 Bifold/concertina doors	2 x Seminar rooms have doors/operable walls that are not accessible to people with disability, as no entry door to meet AS1428.1 is provided for independent entry/use	Provide at least 1 x AS1428.1 hinged door for entry access in addition to concertina/bifold wall system to each Seminar Room.	D3.1	DP1
5.	L2 Small Outdoor terrace - doors	External double doors appear to have less than 850mm min. clear width active leaf doors.	Increase wall opening size for doors of equal width OR provide uneven width doors with least 1 x 850mm min. clear width door opening (generally 920 leaf) and compliant door circulation OR power operate doors	D3.1	DP1
6.	Southern Plaza, LGL 01 – new external 1:14 ramps	The 2 new external curved ramps connecting the MSU Southern Entry Plaza to the accessible entry 3 (RL79.430) exceed 9M max. length between landings	Ongoing landscape design review of ramp levels and inclusion of intermediate level landings (no steeper than 1:40) between 9M max. ramp lengths required to meet AS1428.1.	D3.3	DP1, DP2
7.	Southern Plaza, LGL 01 – external stairs adjacent bleachers	If future required handrails are not provided on both sides of both stairs adjacent to the proposed tiered seating/outdoor areas (anticipated to enable ease of side access) stairs will not comply with AS1428.1.	A potential **access performance solution** could be provided for dual central handrails subject review of future stair/bleacher/handrail design detailing for feasibility and Stakeholder concurrence/endorsement of approach (PBDB).	D3.3	DP1, DP2
8.	Southern Plaza, LGL 01 –Top of bleachers	Exposed raised walkway edges at top of bleachers/tiered seating will require walkway edge protection strategy to be developed for compliance, safety and to help direct	Provide raised kerb or fixed seating at top of bleachers/tiered seating – NOTE: We do not recommend warning TGSIs be used at top of bleachers due to potential	D3.3	DP1, DP2

No.	Item	Query or DtS Non-Compliance	Suggested Resolution	Reference Clause	BCA Performance Requirement
		people with low vision to stairs.	confusion with TGSI use at adjacent stairs.		
9.	Internal Amphitheatre	The required handrails on both sides of the stair adjacent to the Amphitheatre (between Ground and LGL 01) are not continuous throughout the flight and mid-landing area as required by AS1428.1 Cl 11.2	An **access performance solution** can be provided to support the discontinuous handrail on one side which is a DTS compliance departure that can be justified to meet BCA performance requirements – subject to Stakeholder agreement/concurrence (PBDB).	D3.3	DP1, DP2
10.	Various communication stairs -handrail detailing	Some future required handrail extensions appear to protrude into adjacent areas where transverse paths of travel will occur, creating possible obstacles/hazards if not suitably detailed to FFL.	AS1428.1 - required handrail extensions to be recessed behind side barrier OR future design detailing to return handrail through post to meet the ground/FFL.	D3.3	DP1, DP2
11.	Accessible WC – Equitable mix of transfer pans	Current imbalance of right hand (RH x 2) and left hand (LH x 5) transfer accessible WC pans within the building. On levels 1 and 2 there are 2 x LH pans on the same level and no RH pan.	Provide a more even mix/balance of transfer pans within the building, ensuring that shared public facilities alternate between LH and RH on subsequent levels and that when two accessible toilets are located on the same level, that both LH and RH transfer pans are provided	F2.4	FP2.1
12.	L1 Accessible WC (Clinical research) size	Overall room length appears less than AS1428.1 circulation requirements for WC pan	Increase room size/internal circulation during next design change to comply – this is achievable.	F2.4	FP2.1

Note:

- The above non-compliances are not a full list of all access non-compliances for the building. The Report as a whole needs to be reviewed by the design team to obtain an understanding of all accessibility issues to be addressed during the next design stage.

In order to confirm the design complies with the accessibility provisions of the BCA and DDA Premises Standards, the following items listed in Table 3 below are required to be clarified, submitted, illustrated, etc, during the next design development and detailing stage:

No.	Item	Comment	BCA Clause
A	Landscape design drawing / details	Dimensioned GA drawings with scale-bar and 1:20 or 1:50 detail plans and sections / elevations (ramps, walkway, and stair details as per. Item B below) with Landscape Legend and floor/ground finishes schedule.	D3.2, DDA
B	Ramp, Walkway & Stair Details	1:20 or 1:50 details of proposed ramps, walkways & stairs are required for further assessment – both for internal architectural and external landscape design. The details are to include compliant dimensioning of all relevant components, i.e. gradients, lengths, unobstructed widths between handrails on both sides, landings (1200mm minimum if no turning), turning bays (1540 x 2070 minimum), handrails (diameter of min 30-50 mm clearances, etc.) kerb-rails/edge protection, steps (riser and goings, etc).	D3.3
C	Sanitary Facilities Wet Area Details & Sanitary Fixtures Schedules	1:20 or 1:50 plans, elevations/details of the proposed sanitary facilities (accessible WC & ambulant toilets) will be required for further assessment. Sanitary FF & E Schedule with sample image and key dimensions to confirm AS1428.1 compliance. The details are to include compliant dimensioning of all circulation area requirements, set outs of sanitary fixtures etc to comply with AS1428.1:2009.	F2.4
D	Passenger Lift Details	Detailed lift plans, elevations, lift type & specification for the proposed passenger lifts will be required for assessment as the design progresses. The details are to include compliant dimensioning of lift car circulation area requirements, inclusion & set outs of access features, handrail, lift call/controls etc to comply with BCA E3.6 & AS1735.12.	E3.6
E	Materials & Finishes Schedule for Floor/ground surfaces	Details to be provided for all new ground/floor finishes to confirm AS1428.1 compliance for: • Traversable surface • Slip resistance – min. slip rating using Wet Pendulum Method compliant with AS4586:2013 and Standards Australia Handbooks HB197 & 198 • Level surfaces with minimal vertical transitions and openings/gaps between adjacent surfaces • Luminance contrast strategy for step nosing and TGSIs to their adjacent floor surfaces	D3.3, D3.8
F	Materials & Finishes Schedule for Door/wall surfaces	Further details to be provided of access strategy for doorways and glazing to confirm AS1428.1 compliance for: • 30% minimum luminance contrast between the door leaf or frame and the adjacent wall, for a minimum width of 50mm	D3.3, D3.12

No.	Item	Comment	BCA Clause
		• Typical detail of horizontal visual indication (decals) to glazed doors and sidelights. Note: a solid, non-transparent contrasting strip, of minimum 75mm width, extending from a height of 900-1000mm AFFL, and achieving 30% luminance contrast when viewed against the floor or wall surfaces which are within 2m of the glazing on the opposite side	
G	Door Schedule/Details & Door Hardware Schedule	To confirm AS1428.1 compliance strategy for all required internal and external doorways, including: • Door hardware and controls (including controls to automated doors, security/card readers, intercom systems) to meet Clause 13.5.3 • Level threshold transitions or threshold ramp details to meet Figure 21. • Lightweight door operation – 20 N max. Note the proposed external accessible entries - large hinged doors may need to be power operated with accessible control buttons on both sides.	D3.2, D3.3
H	Hearing Augmentation System/s – AV Specification	Further details of any meeting/training/seminar areas where inbuilt amplification is proposed (not solely for emergency warning) – within new works/building areas will be required for assessment as the design progresses, as this will trigger the provision for hearing augmentation systems	D3.7
I	Statutory Signage Strategy	Signage Schedule to be provided during design development, compliant with AS1428.1, Cl 8 & BCA E3.6 & Specification D3.6.	D3.6
J	BCA D3.4 Exempt Areas	Formal confirmation from the Client is required on areas identified within this report as warranted/supportable for BCA D3.4 exemption. Formal advice on any other areas that may be seeking Part D3.4 exemption to be provided for assessment as the design progresses (subject to Certifying Authority approval)	D3.4

Table 3 – Request for Further Information during the next Design Development stage

2.0 INTRODUCTION

2.1 Report Purpose

The purpose of this Report is to assess the compliance of the proposed development known as Lang Walker AO Medical Research Centre – Macarthur located at Parkside Crescent, Campbelltown NSW against the access requirements of the Disability (Access to Premises – Buildings) Amendment Standards 2020 (Premises Standards), the access provisions of Volume 1 of the Building Code of Australia 2019 – Amendment One (BCA), referenced Australian Standards (AS) with consideration of the objectives of the Disability Discrimination Act 1992 (DDA) to ensure reasonable access provisions for people with disability.

The Report has been prepared at SSDA Stage to document the access provisions and requirements of the proposed development with a compliance strategy to ensure that the design is capable of compliance with access regulations.

The Report is based on assessment of the documentation listed in Table 8 and the information provided by the client and is intended for their use only.

It is to be noted that the design assessment has been made of the general access planning provisions to the extent necessary for SSDA Stage. Further assessment of detailed architectural documentation will be required following design development and detailing to ensure access provisions are included within construction documentation for assessment at the Crown Building Works Certificate Stage.

2.2 Reporting Team

The information contained within this Report was prepared by Elisa Moechtar, ACAA Accredited Access Consultant (No. 198) from Group DLA Access.

2.3 Legislative Requirements

The applicable legislation governing the design of buildings is the Environmental Planning and Assessment Act 1979.

The assessment has considered the following legislation and referenced access standards:

- Disability Discrimination Act 1992 (DDA);
- Disability Access to Premises Amendment Standards 2020 (Premises Standards), including Access Code;
- Building Code of Australia 2019 – Amendment One (BCA) – Part D3, Part E3.6, F2.4; and
- Applicable Australian Standards: AS1428.1-2009, AS1428.4.1-2009, AS2890.6-2009, AS1735.12-1999

Note:
At this preliminary design stage, the assessment has considered the intent however does not include a detailed review of the requirements of the Australian Standards.

The following table summarises the key statutory issues relating to the BCA access provisions and the DDA Premises Standards in relation the assessment and certification of new buildings.

Issue	Legislative Reference	Comment
New Work	BCA (EPAR 145)	All new works must comply
Access to Premises	Disability (Access to Premises – Buildings)	Upgrade of the “Affected Part” of existing building/s to provide access for people with disabilities - triggered by

	Amendment Standards 2020 - DAPS	new work requiring Building Approval and Crown development.
Potential DDA Complaints	Disability Discrimination Act (DDA)	Regardless of any new works, the existing development is subject to the Disability Discrimination Act 1992 (DDA) which applies nationally and is a complaints-based legislation administered by the Australian Human Rights Commission (AHRC). The client has the right and responsibility to make a risk assessment on the implementation of the extent of access compliance and consider this within any future building upgrade strategy.

Table 4 – Access Regulatory Framework Summary

A summary outline of these key reference documents is included below:

- The **DDA** objectives focus on the provision of equitable, independent, and dignified access to services, facilities and premises for people with mobility, sensory and cognitive disability. The DDA makes it is unlawful to discriminate against people on the grounds of disability.

  "Premises" is broadly defined under the DDA, Section 23 to include not only buildings but many other aspects of the built environment, including streetscapes and open space areas as well as non-building elements like furniture, fixtures and fittings. The DDA covers existing buildings, including heritage buildings, those under construction and future premises. The DDA applies nationally and is a complaints-based legislation administered by the Australian Human Rights Commission (AHRC).

- The **Premises Standards** is a statutory instrument made under the DDA to outline how DDA obligations can be met for new building work. Its purpose 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 the people responsible for compliance that if the Standards are met, that they cannot be subject to a successful complaint under the DDA in relation to the matters covered by the Standards.

- The Premises Standards includes an **Access Code** for Buildings that is mirrored in the access provisions of the **Building Code of Australia (BCA)** in Parts D3, E3.6 and F2.4. Under the Premises Standards, new building work and the ''Affected Part'' of existing buildings must comply in the same manner as it is required to comply with the BCA, by meeting Deemed to Satisfy (DtS) provisions or by adopting a performance solution that achieves the relevant performance requirements. The DtS provisions reference Standards, including parts of the AS1428 suite to outline technical criteria and minimum requirements to achieve reasonable access provisions for people with disability.

- It is important to note that compliance with the Premises Standards and the Access Code will ensure that DDA non-discrimination requirements are met for all matters/areas covered by the Standards. However, for any matters/areas that are not covered by the Premises Standards, the over-arching DDA legislation will still apply, and it cannot be guaranteed that a successful complaint cannot be lodged. Any DDA/Advisory/Best practice options noted within the report may assist in minimising the risk of a complaint being made under the DDA, however we cannot confirm or certify for DDA compliance because this can only be determined by the Courts.

- An **"Affected Part"** upgrade is applicable to a building owner or a sole lessee of an existing building who is the applicant for a building approval permit. It is triggered by application for a Construction or Complying Development Certificate, or where new works are constructed for and on behalf of the Crown. For example, a new building, alterations and additions to an existing building or an application for a change in building use where building works are proposed or required to meet fire safety standards.

  When new building works are being undertaken by the building owner within an existing building of specified Classes that requires a building approval (CC, CDC or Crown), the requirement to upgrade access applies to the area of new work and the "Affected Part".

Note:

- If the lessee of a part of a building (which includes more than one lessee) submits the application for approval of the building work the upgrading of the "affected part" will not be applicable.

The "Affected Part" is defined below and shown in Figure 1:

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

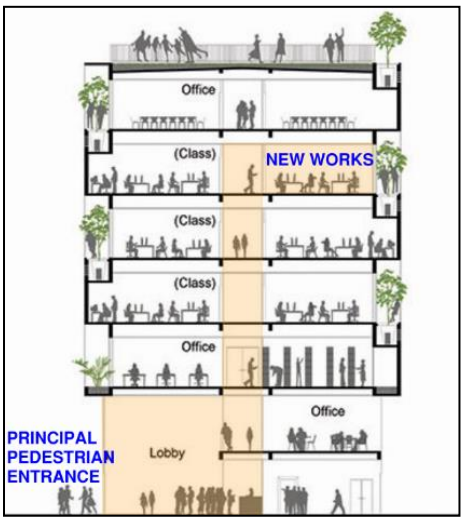


Figure 1 – Sample Schematic of "Affected Part"

- **AS1428 Suite – Design for Access and Mobility** provides technical criteria and minimum requirements related to accessible design for the independent use of people with disability. It focuses on the provision of continuous accessible paths of travel, circulation spaces, facilities and access features for people using wheelchairs, with ambulant disabilities and with sensory (vision and hearing) disabilities.

  - **Part 1: AS1428.1-2009** is referenced by the BCA and includes mandatory access requirements for the provision of access for people with disability for new developments. The 2009 revision of AS1428.1 adopted the increased circulation requirements of AS1428.2-1992 that were developed to satisfy the needs of 90% of people with disability between the ages of 18 to 60.

  - **Part 2: AS1428.2-1992** is a non-mandatory Standard (unless for a BCA H2 – Public Transport Building) that provides enhanced and best-practice design requirements for elements that are not covered in AS1428.1 such as fittings, fixtures, furniture, and the like. It is referenced by the WSU Design Standards – refer Section 2.4 Additional Design Guidelines for further comments.

    Compliance with AS1428.2 for these matters/areas is recognised as good/best practice and should be incorporated where achievable. For any internal building elements that are not covered by mandatory, referenced Standards, the DDA legislation will still apply, and it cannot be guaranteed that a complaint cannot be lodged.

  - **Part 4: AS1428.4.1- 2009** is referenced by the BCA and contains mandatory access requirements for Tactile Ground Surface Indicators (TGSI) to assist the orientation of people with vision impairment.

- **AS 2890.6-2009** is referenced by the BCA and contains mandatory access requirements for accessible car parking (off-street) for people with disability.

- **AS1735.12- 1999** is referenced by the BCA and contains mandatory access requirements for passenger lifts, escalators and moving walks to assist people with disability.

2.4 Additional Design Guidelines

The Report may also consider relevant parts of other access design guidelines and/or advisory Standards (that do not form part of a formal BCA/Access Code assessment) to promote equity and dignity in line with the primary objectives of the DDA and a Universal Design approach, including:

- Western Sydney University Architectural Design Standards v16.0 (related to access for people with disability)
- AS1428.2:1992 Enhanced and Additional Requirements – Buildings and Facilities
- Centre for Excellence in Universal Design - Universal and Inclusive Design Principles
- Government Architect of NSW "Better Placed" – An integrated design policy for the built environment of New South Wales
- Australian Human Rights Commission (AHRC) Advisory Note on Streetscape, Public Outdoor Areas, Fixtures, Fittings and Furniture – 8 February 2013
  Note:
  - This document provides information on parts of the built environment not covered by the DDA Access to Premises Standards that continue to be subject to potential DDA discrimination complaints by people with disability if they experience an access barrier

Western Sydney University (WSU) Architectural Design Standards v16.0 Accessibility Provisions

- The WSU Standards provide general and detailed planning design guidance and specification, related to base-building, fit-out, services design etc. There are multiple sections where comment on access provisions are made and the design team has advised they are considering this guidance document and integrating into the design as required by the project brief and/or where possible.

- The table below includes key excerpts from clauses relevant to access provisions for base-building development that exceed the min. requirements of the DDA Premises Standards and BCA/DDA Access Code and referenced standards. It is noted that other WSU Standard access provisions that are associated with the Fit-out and detailed design eg. Furniture and Fitments, Hearing augmentation, TGSIs etc. will be considered by the design team and assessed during the ongoing DD Stage.

Compliance	Clause/Control
WSU Std.	2.3.6 Disability Discrimination Act *Design of site layout and buildings shall provide for universal access and facilities for people with disabilities in compliance with BCA, Disability (Access to Premises – Buildings) Standards, relevant Australian Standards including AS1428.1 and* ***AS1428.2.*** *Alternative solutions to these requirements may be sought from the CW&F project Team only under extenuating circumstances.*
WSU Std.	2.5.9 Design for People with Disabilities *Design of new buildings or refurbishment and external walkways should be in accordance with AS1428.1 design for Access and Mobility* ***supplemented by AS1428.2 Enhanced and Additional Requirements – Buildings and Facilities*** *and should enhance universal access…*
WSU Std.	4.7 Staircases and Ramps ***Wherever economically possible and feasible, the provisions of AS1428.2 Enhanced and Additional Requirements – shall apply.*** *The use of ramps internally as a means of interconnecting floors is not an acceptable alternative to providing a lift.* *Tread widths and riser height shall comply with the requirements of AS1428.2 and BCA, with* ***treads a minimum of 280mm wide.***

Table 5 – WSU Design Guidelines Key Access Requirements

- The seven Universal Design Principles for consideration in the ongoing design of the development include:

    - Principle 1: Equitable Use
    - Principle 2: Flexibility in Use
    - Principle 3: Simple and Intuitive Use
    - Principle 4: Perceptible Information
    - Principle 5: Tolerance for Error
    - Principle 6: Low Physical Effort
    - Principle 7: Size and Space for Approach and Use

    Universal Design provides numerous benefits for associated businesses, individual users and society in general. An inclusive environment that can be accessed, understood and used by as many people as possible makes good business sense, is more sustainable for the environment and is socially progressive.

2.5 Access Strategy Objectives

This report is a key element in developing an Access Strategy for the development to ensure reasonable access provisions for people with disability within the built environment. The Access Strategy will consider anticipated user groups that may include Staff/personnel, Research participants and Visitors/Public.

Within these user groups, the Access Strategy will attempt to deliver equality, independence, and functionality to people with disability inclusive of:

- People with mobility impairments
- People with sensory impairment
- People with intellectual disabilities and cognitive impairment
- People with dexterity impairments

2.6 Performance Solutions - Performance Based Design Brief (PBDB)

Further development of the BCA has introduced provisions to allow performance-based buildings. This has allowed for innovation and variation from the prescriptive deemed-to-satisfy requirements of the BCA, whilst maintaining the principle levels of health, safety, and amenity of building occupants.

Performance Solutions (also known as Alternative Solutions) are generally adopted when a nominated deemed-to-satisfy provision appears inappropriate for the design, or when a proposed design varies from the prescriptive requirements of the BCA. A Performance Solution provides a tailored solution to meet the intended objective of the Performance Requirements. Subsequently, a performance solution supported by Accessibility analysis can determine whether a proposed design that varies from prescriptive requirements, will satisfactorily meet the access performance provisions of the BCA.

Utilising the performance provisions may result in more economical and/or appropriate access building solutions to suit the specific nature/function/use requirements of the building particularly when dealing with existing buildings, however, may also require additional operational overlay and/or on-going maintenance. It is for these reasons that relevant parties, such as the building owner, building end user, insurance companies, proposed tenants, etc., are aware of this decision-making process and are kept informed of any additional requirements needed to maintain the level of access and safety.

BCA 2019 - Amendment One: introduces a new requirement under Part A2.2 in the development of access performance-based solutions to satisfy BCA Performance Requirements. Namely a performance-based design brief (PBDB) is required to be prepared in consultation with relevant stakeholders.

The performance-based design brief (PBDB) – means the process and the associated report that defines the scope of work for the performance-based analysis, the technical basis for analysis, and the criteria for the acceptance of any relevant Performance Solutions as agreed by the stakeholders. The PBDB can be prepared as a separate

document and/or as part of the access performance solution report that is prepared by the Access Consultant and then assessed and approved by the Certifying Authority for the development.

2.7 Limitations

- This Report assesses the access provisions of the proposed development in general and does not include nor imply any assessment for design outside the minimum access provisions of the Disability Access to Premises Amendment Standards 2020 (Premises Standards), including the Access Code and access provisions of the BCA.

- The Report does not provide comment on detailed design issues and cannot be considered sufficient for building approval stage. Further assessment of the developing design and detailed architectural documentation is required following further design development and detailing as outline within this Report to ensure access compliance prior to the Building Approval Stage that is assumed to be under Section 6.28 Crown Certification.

- This assessment is limited to a desktop review of the documentation provided at the date of this report and as referenced within the “Documentation Assessed” section of the Report.

- The BCA referenced access standard AS1428.1:2009 includes spatial design requirements based on A80 and A90 percentile min, dimensions for occupied wheelchair footprint and it does not cater for wheelchair dimensions that exceed these dimensions; or motorised scooters or people with bariatric heath conditions.

- The Report represents the opinions of Group DLA Access based on the facts and matters known at the time of preparation of this document. Opinions, judgments, and recommendations detailed in this document, which are based on our understanding and interpretation of current statutory and regulatory obligations and standards, should not be interpreted as legal opinion.

3.0 PROJECT PARTICULARS

3.1 Building Site

The development site is located within the Campbelltown Hospital Precinct which consists of a number of buildings on the one allotment. The site is currently bound by an existing carpark to the east, Parkside Crescent to the west, Building D to the north and Macarthur Clinical School to the south.

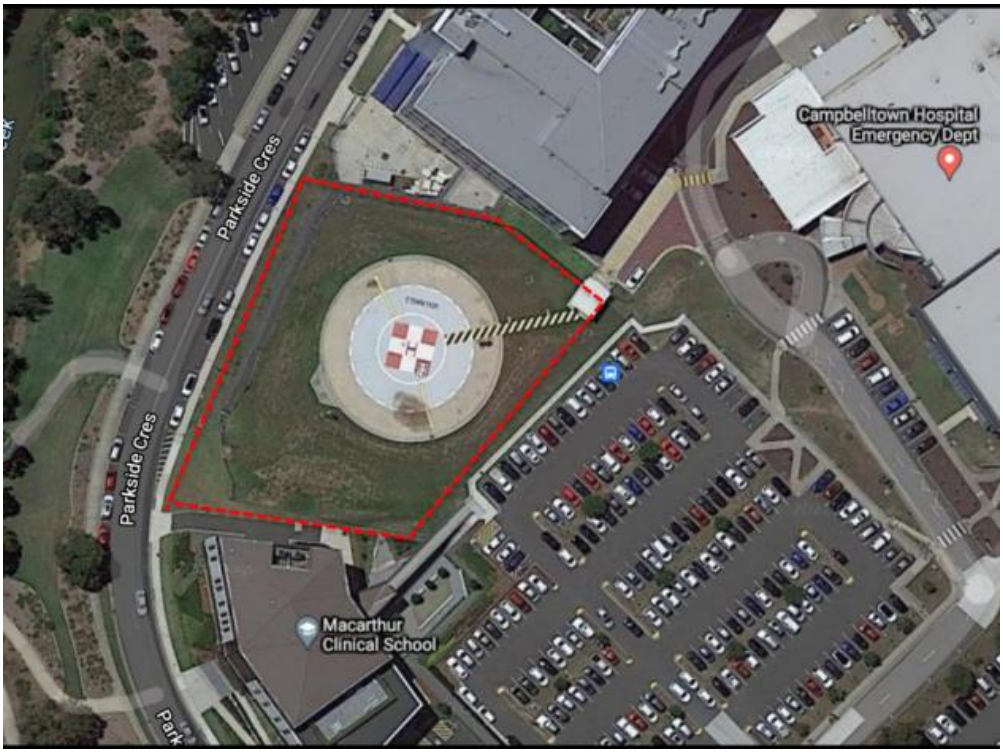


Figure 2 – Aerial View of Site

3.2 Building Project Description

- The proposed development is one (1) new building comprised of five (5) storeys on a sloping site, with three (3) levels with direct external access and two (2) separate bridge links providing access to/from existing adjacent buildings.
- The proposed Medical Research Centre will include collaboration and socialisation spaces as well as office, education, and research facilities with connections to the adjacent Hospital building D and WSU Macarthur Clinical School building.
- The Lang Walker AO Medical Research Centre – Macarthur development is being developed as a partnership between Western Sydney University (WSU), South Western Sydney Local Health District (SWSLHD), Ingham Institute for Applied Medical Research (IIAMR), University of New South Wales (UNSW) with the vision/objective for use as part of an integrated health, research and education precinct at Campbelltown.

Figure 3 – Plan View - Proposed development, ground level

- Under the BCA, the development consists of the following building classification as confirmed by the project BCA Consultant. This has been based on the proposed assumed use of medical research offices for professional / commercial use for the entire building (to be confirmed by the University) - please refer to separate Group DLA BCA Report for further details in this regard:

Building (or Part)	Building Class	Building Use (based on GA Drawing legend)
Lower Ground 02	Class 5*	Building Entry, Travel/Circulation, Logistics & Support, Plant
Lower Ground 01	Class 5*	Building Entry, Travel/Circulation, Dry Research, Shared Public, Logistics & Support, Plant
Level 00	Class 5*	Building Entry, Travel/Circulation, Dry Research, Shared Public, Clinical Research, Logistics & Support, Plant
Level 01	Class 5*	Travel/Circulation, Dry Research, Shared Public, Clinical Research, Research Assessment Zone, Logistics & Support, Plant
Level 02	Class 5*	Travel/Circulation, Dry Research, Shared Public, Clinical Research, Logistics & Support, Plant

Table 6 – Building Class (or Part)

3.3 Areas Required to be Accessible under the BCA/Access Code

In accordance with the provisions of Clause D3.1 of the BCA, the following areas of the building are required to be accessible for people with disability:

Level	BCA Classification	Description
Lower Ground 02, Lower Ground 01, Ground, Level 1, Level 2	Class 5	To and within all areas normally used by the occupants.

Table 7 – Areas Required to be Accessible under BCA/Access Code

3.4 Documentation Assessed

This Report is based on the following SSDA documentation, prepared by BVN Architects:

Description	Drawing No.	Revision	Date
Cover Sheet	AR-BVN-AR-01A A00-001	04	14/10/2021
Location Plan	AR-BVN-AR-10A A00-001	02	14/10/2021
Proposed Site Plan	AR-BVN-AR-10A A00-003	03	14/10/2021
General Arrangement Plan -Level Lower Ground 02	AR-BVN-AR-11B B01-000	04	14/10/2021
General Arrangement Plan -Level Lower Ground 01	AR-BVN-AR-11B B02-000	04	14/10/2021
General Arrangement Plan -Level 00	AR-BVN-AR-11B L00-000	04	14/10/2021
General Arrangement Plan -Level 01	AR-BVN-AR-11B L01-000	04	14/10/2021
General Arrangement Plan -Level 02	AR-BVN-AR-11B L02-000	04	14/10/2021
General Arrangement Plan - Level Roof	AR-BVN-AR-11B L03-000	04	14/10/2021
Building - Elevations	AR-BVN-AR-11C A00-001	03	14/10/2021
Building - Elevations	AR-BVN-AR-11C A00-002	03	14/10/2021
Building -Sections	AR-BVN-AR-11D A00-001	04	14/10/2021
Area Plan - GFA	AR-BVN-AR-19U A00-002	03	14/10/2021

Table 8 – Documentation Assessed

4.0 ACCESSIBILITY ASSESSMENT

4.1 Site Linkages & Public Domain Landscape Areas

Reference – BCA D3.2 & DDA

Requirements & Recommendations:

As there is no BCA classification or access legislation that provides specific requirements for public domain landscape and outdoor spaces (outside of required accessways to the building under BCA D3.2.), BCA building legislation principles combined with DDA objectives have been considered to promote equitable, dignified, and inclusive access for people with disability to and within landscape and outdoor areas with consideration of Universal Design Principles.

Under the BCA, buildings require external access to building entrances and access for people with disability to and within all areas normally used by the occupants, however when considering external open space environments with soft landscape elements, planting and turf, access may not necessarily need be provided to every area in order to enjoy and participate in the outdoor experience.

To ensure reasonable access for people with disability and/or access needs to outdoor landscape areas within the constraints of the natural environment of the site we recommend:

- An accessible path of travel to and within the development site precinct (not solely to building entrances as required by BCA D3.2) should be provided, compliant with AS1428.1 as far as is possible within site and natural constraints.
- Access be provided to and within all areas normally used by the occupants via an integrated compliant pathway system to connect key zones, elements, and spaces for people to access and enjoy a range of experiences.
- Where a non-accessible route is provided eg. stairs, ensure an alternative accessible route is provided adjacent or in reasonable proximity eg. walkway, ramp or lift for equity and flexibility of use. Note: It is preferred that users can commence and finish in the same/similar location for equity, dignity and inclusion.
- Access provisions and features (eg. weather protection, rest seating, shade provision) should be provided to assist all users including people with disability within landscape areas so that people can not only move through but also stop, rest, and stay within the landscape in accordance with AS1428.1 and AS1428.2 design guidance.

Assessment:

At this stage, review of the preliminary landscape presentation design indicates 4 x main landscape design areas:

- LGL 02, 01 - Parkside Crescent:
    - This area provides the required external access to building entries 1 and 2 with accessways via walkways and stairs that must comply with AS1428.1 under BCA D3.2 (Refer Section 4.2) and;
    - Landscape pathways, turf with seating, retaining walls, seating node, planting - where equitable access should be maximised in line with above recommendations, in particular for access to and within seating node area where AS1428.1 compliant ground surface should be provided with accessible seating design and;
    - Loading Dock and vehicular driveway – where pedestrian access and safety and possible pedestrian and vehicular conflicts will need to be considered and managed.

- LGL 01 – Driveway & Plaza:
    - This area provides the required external access to the building entry 3 with accessways via walkways, 2 x new 1:14 curved ramps and various connecting stairs/bleachers that must comply with AS1428.1 under BCA D3.2 (Refer Section 4.2) and;
    - Landscape paving, retaining walls, planting – where accessible compliant floor surfaces and suitable edge protection for any exposed walkway edges is also required.

- GL 00 – Eastern Plaza/Village Green:

- This area provides the required external access to the building entry 4 and includes accessways via 1:20 walkways, and stairs that must comply with AS1428.1 under BCA D3.2 (Refer Section 4.2) and
- Landscape pathways, retaining walls, turf, planting, seating node, yarning circle, nature play space - where equitable access should be maximised in line with above recommendations, in particular for access to and within the yarning circle, at least 1 x seating node area and at least 1 x nature place space where AS1428.1 compliant ground surface should be provided with accessible seating design; and
- Interface of new works (within site boundary) and existing pathways (outside site boundary) – particular attention needed for maintaining continuous paths of travel that meet AS1428.1.

- GL 00, L02 - Outdoor terraces on upper building level:
  - These areas include external courtyard meeting areas, relaxing spaces with seating zones where equitable access to and within all areas is required in compliance with AS1428.1 under BCA Table D3.1.

The above access requirements (that are mandatory under BCA) and recommendations (that are advisory under DDA) are applicable to the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability.

Based on the documentation provided, the landscape design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.2 Access to the Building

Reference – BCA D3.2 & AS1428.1

Requirements:

To meet the BCA/Access Code, an accessway (ie, continuous accessible path of travel, compliant with AS1428.1) is required to provide pedestrian access to the building for people with disability from:

- The main points of a pedestrian entry at the allotment boundary; and
- Another accessible building connected by a pedestrian link; and
- Any required accessible carparking space on the allotment.

In addition, any common-use stairs, ramps and walkways providing pedestrian access to the building are to be compliant with BCA D3.3 & AS1428.1.

Assessment:

The proposed development is located on a sloping site with external approaches to the new building entrances available on 4 x sides at multiple levels as follows:

- West side, LGL 02 – from Parkside Crescent public footpath and new drop-off zone to:
  - LGL 02 –Entry 1 – Entry Lobby to Building Lift (Accessible)
  - LGL 01 – Entry 2 – Top of external stairs from Parkside Crescent (Not accessible)

- South side, LGL 01 – from Macarthur Clinical School (MCS) existing stairs and forecourt to:
  - LGL 01 – Entry 3 – Top of new external stairs/bleachers from MCS building forecourt and new 1:14 ramps (accessible)

- South side, GL 00 – from Macarthur Clinical School (MCS) new external covered bridge to:
  GL 00 – Entry 5 - Bridge connection from MCS (Accessible)

- East side, GL 00 – from Village Green and external carpark (outside site boundary) via new external landscaped walkways/ramps and stairs:
    - GL 00 – Entry 4 – Village Green via external landscape paths of travel (Accessible)

- North side, GL 00 – from Building D via new internal covered bridge, GL 00 to:
    - GL 00 – Entry 6 – Bridge connection from Building D (Accessible)

The following access non-compliances / access issues have been identified:

1. The new external 1:14 ramps and stairs/bleachers to connect the LGL 01 building entries to the development and MCS via Forecourt areas require review to ensure compliance with AS1428.1:2009 - refer to Section 4.12 Ramps and 4.13 Stairs for further details.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.3 Accessible Car-Parking

Reference – BCA Table D3.5 & AS2890.6

Requirement:

To meet the BCA/Access Code, when on-site car-parking is provided, accessible carparking spaces for people with disability are required by BCA Table D3.5 in accordance with AS2890.6 as follows:

Class of building to which the carpark or carparking area is associated	Number of accessible carparking spaces required
Class 5, 7, 8 or 9c	1 space for every 100 carparking spaces or part thereof.

The accessible carparking spaces are required to be located on a firm, level surface in compliance with AS2890.6, Cl 2.3, including:

- Minimum dimensions of 2400mm W x 5400mm L plus an adjacent shared area of 2400mm W x 5400mm L, compliant with AS2890.6;
- Vertical clearance of 2500mm minimum height over accessible carparking space and shared area with 2200mm minimum height over vehicle aisle leading to accessible car space from FFL, compliant with AS2890.6; and
- Accessible carparking spaces to be located and connected via a continuous accessible path of travel, compliant with AS1428.1 to relevant lifts and/or building entry point to minimise travel distances in compliance with BCA D3.2.

Assessment:

The proposed design does not include any on-site carparking provision, therefore no accessible car-parking is required.

It is assumed that the existing carpark at the east of the building (outside site boundary) and/or the on-street street parking on Parkside Crescent would include accessible car-parking provisions, however this is unknown and outside this project scope.

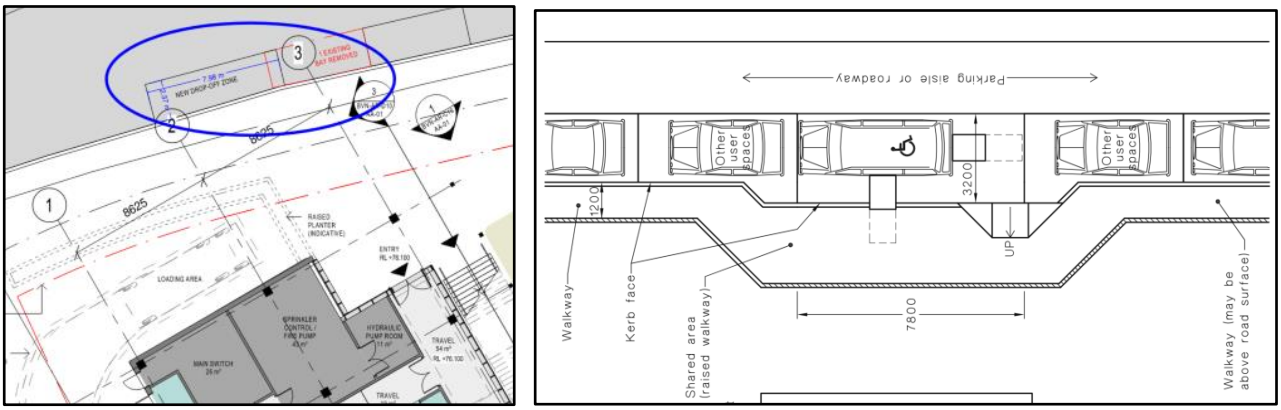
The development includes a proposed new drop-off zone on Parkside Crescent public footpath that is in close proximity to the new main entry 1.

The following access non-compliances / access issues have been identified:

1. The new drop-off zone on Parkside Crescent does not currently include a kerb-ramp for step-free access from road to footpath for people with mobility and/or access issues.

   Recommended Action: Provide a AS1428.1 kerb ramp at rear of drop off zone with at least 1500mm min. length landing space at top of kerb ramp (for 90 degree turning) on footpath. The drop off- zone to be developed to meet the intent of parallel accessible car-parking space spatial design requirements of AS2890.6:2009 Fig 2.6 (BCA referenced standard for on-site accessible parking) and AS2890.5:2020 (Advisory/non-referenced on-street parking standard) as far as possible.

   NOTE: 3.2 M min. width accessible parking/drop-off space allows for use of driver side hoist installation (for either passenger or a driver), however due to existing road/footpath design, this increased width may not be achievable – To be confirmed.



AS2890.6:2009 Fig 2.6

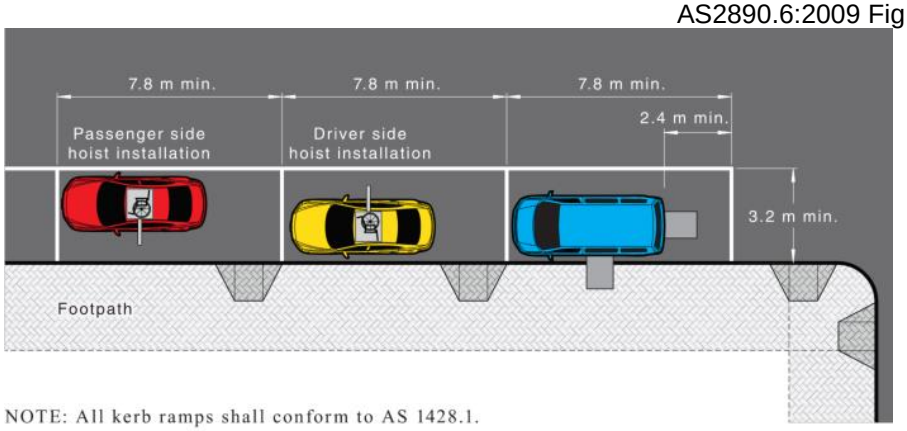


Figure 4.2 — Examples of accessible parallel parking without kerb extensions

AS2890.5:2020 Fig 4.2

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

DDA/Advisory Note:

- *Consideration to be made for landscape design elements eg. planters/raised edges, pavement banding etc. that help connect the new drop-off zone on Parkside Crescent to the building to assist people with vision impairment with orientation and location of the principal pedestrian building entrance – Entry 1.*

- *While outside of this project scope, the Client/user groups of the new building may wish to consider what existing accessible car-parking provisions are currently available in the existing eastern car-park and on Parkside Crescent to advise/inform/assist future users and visitors with disability or access needs when attending the new development - best practice approach.*

4.4 Building Entrances

Reference – BCA D3.1, 3.2 & AS1428.1

Requirement:

To meet the BCA/Access Code requirements for accessible entry into the building for people with disability, access is required through the principal pedestrian entrance to a building (or parts of a building when building has separate functions/use) and:

- Through not less than 50% of all pedestrian entrances (except those serving only areas exempted by BCA D3.4); and
- A non-accessible pedestrian entrance must not be located more than 50m from an accessible pedestrian entrance (building more than 500m^2 total floor area), except for pedestrian entrances serving only areas exempted by BCA D3.4.
- The accessible entrances are to have clear circulation spaces on both sides of doorways that are level, with an 850mm minimum clear opening width for the active leaf, compliant with AS1428.1.

Assessment:

The design includes 6 x building entrances, as identified below:

- LGL 02 – Entry 1 – Parkside Crescent to Building Lift (Accessible)
- LGL 01 – Entry 2 – Top of external stairs from Parkside Crescent (Not accessible)
- LGL 01 – Entry 3 – Top of new external stairs and entry ramps from MCS building forecourt (Accessible)
- GL 00 – Entry 5 - Bridge connection from MCS (Accessible)
- GL 00 – Entry 4 – Village Green via external landscape paths (Accessible)
- GL 00 – Entry 6 – Bridge connection from Building D (Accessible)

Based on the information provided, it is assumed that the eastern entries 1 & 2 (Parkside Crescent) and western entry 4 (Village Green) are the principal pedestrian entries to the building. Of the 6 x building entrances, access is provided to and through the principal pedestrian entries and all building entrances, except Entry 2.

The following access non-compliances / access issues have been identified:

1. LGL 02 – the accessible Entry 1 to building Lift Lobby from Parkside Crescent may not be readily apparent to visitors to the building, compared to the external stairs, that appear visually dominant leading to non-accessible Entry 2.

   Recommended Action: Ensure LGL 02 Entry 1/passenger lift is open & available at all times that LGL 01 Entry 2 (at top of stairs) is open & available with directional and identification signage to locate accessible Entry 1 from the base of the external stairs to Entry 2.

2. Large fully glazed external entry doors in glazed facades may impact accessibility:
   a) If manual opening, the door/panel may be heavy/difficult to operate by people with disability
   b) When open, it and/or adjacent fully glazed fins may create access barrier/potential obstacle/hazard to people with vision impairment – due to protruding glazed elements along transverse paths of travel
   c) Door design detailing to ensure AS1428.1 door luminance contrast and/or door hardware requirements

Recommended Action: External entry doors may need to be power operated (for lightweight operational force, 20N max.) with accessible control buttons suitably located on both sides of the door to meet AS1428.1. Ongoing design development to ensure adequate size area of luminance contrasting ie. frame on all sides of door panels and leading edges with increased luminance contrast; and door controls to meet AS1428.1

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.5 Emergency Egress

Reference – BCA D2.17, D3.3 & AS1428.1

Requirement:

To meet BCA D2.17, required fire-isolated stair/ramp exits, (serving accessible areas) are required to include access features suitable for people with disability (ie, ambulant and sensory) including:

- At least one continuous, consistent height handrail compliant with AS1428.1 Cl 12 to meet BCA D2.17.
- To achieve a consistent height handrail (ie, without vertical or raked sections), an off-set tread at the base of each stair flight or an increased mid-landing length to allow a one-tread handrail extension clear of egress route is needed.
- All fire-isolated egress stairs to include luminance contrasting step nosing that is slip-resistant in compliance with AS1428.1 to satisfy BCA D3.3.

Assessment:

At this stage, the design includes 2 x fire-isolated stairs that appear to have overall spatial dimensions to accommodate 1000mm min. clear egress path of travel with off-set treads at base landings and handrails proposed on both sides (enhanced best practice access provision for fire-stairs).

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

DDA/Advisory Notes:
There is a gap in current access legislation with regards to independent accessible egress for people with disability (particularly for people with mobility issues that are unable to use fire stairs) as there is no mandatory requirement within the BCA or Premises Standards for accessible egress for people with disability to be in accordance with AS1428.1. However, to meet DDA objectives, all users, including people with disability should be provided with a safe means of evacuation/egress from premises to a place of safety.

- *Consideration of an accessible egress strategy, with a documented group emergency evacuation plan and fire wardens (as well as Personal Emergency Evacuation Plans – PEEPs for employees) to assist people with disability is recommended.*

4.6 Access Within Buildings - Paths of Travel & Circulation Requirements

Reference – BCA D3.1, D3.3 & AS1428.1

Requirement:

To meet the BCA/Access Code and provide access for people with disability to and within all common-use areas of the building required under BCA Table D3.1, accessways are to be provided from the required accessible entrances to the building and throughout all parts of a building required to be accessible.

Accessways require the following minimum circulation areas to comply with AS1428.1:

- 1000mm minimum clear width path of travel (for linear direction), compliant with AS1428.1, with increased clear width areas required for doorway circulation, turning, etc;
- All doors to common-use areas require 850mm minimum clear opening width (generally 920mm minimum door leaf) with provision of clear door circulation space on both sides and level threshold transitions, compliant with AS1428.1;
- Turning spaces (1500mm x 1500mm) compliant with AS1428.1 where users are required to turn through 90^0;
- Passing spaces (1800mm W x 2000mm L) compliant with AS1428.1 at 20m maximum intervals where a direct line of sight is not available; and
- Turning spaces (1540mm W x 2070mm L) compliant with AS1428.1 within 2m of the end of accessways (including corridors or the like) and at 20m maximum intervals along an accessway.

Note:
- Any future fit-out design will need to ensure compliance with the above access requirements and AS1428.1.

Assessment:

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. During the next design stage, detailed review of proposed furniture and fixture layouts/location will occur to ensure door and room circulation spaces comply with AS1428.1. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.7 Paths of Travel – Accessible Floor Surface Requirements

Reference – BCA D3.1, D3.3 & AS1428.1

Requirement:

Accessways require suitable ground and floor surfaces that comply with AS1428.1 to be traversable by people with disability including:

- Level abutment between surfaces with a smooth transition (ie. 0mm with construction tolerance of 3mm vertical or 5mm with chamfered/rounded edge permitted)
- Carpet pile height to not exceed 11mm and carpet backing thickness not more than 4mm
- Grates with minimised opening size ie. circular openings 13mm maximum diameter, slotted openings 13mm maximum wide and oriented with long dimension transverse to dominant direction of travel (Heelguard grates 8mm maximum width recommended/preferred)
- All floor surfaces to be slip resistant, compliant with AS1428.1 with minimum slip ratings to BCA Table D2.14, AS4586 and Australian Standards Handbooks HB 197 & HB 198 (wet pendulum method) to suit context/location.
- The following table includes the minimum slip resistance classifications required for some common locations:

Building Element/Area	Surface Condition	
	Wet Pendulum Test - Dry	Wet Pendulum Test - Wet
Ramp steeper than 1:14	P4	P5
Ramps not steeper than 1:14	P3	P4
Wet Areas eg. Toilets	--	P3
Transitional Areas eg. Entry Lobby	P2	P3 (Preferred)
Dry Areas eg. Internal room	P1	--
Stair tread and landings	P3	P4
Stair nosing and landing edge strip	P3	P4

The above access requirements are applicable to both internal and external areas of the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.8 Paths of Travel – Accessible Door Requirements

Reference – BCA D3.1, D3.3 D3.12 & AS1428.1

Requirement:

To meet the BCA/Access Code and provide access for people with disability to and within all common-use areas of the building required under BCA Table D3.1, all doorways on accessways require the following to comply with AS1428.1:

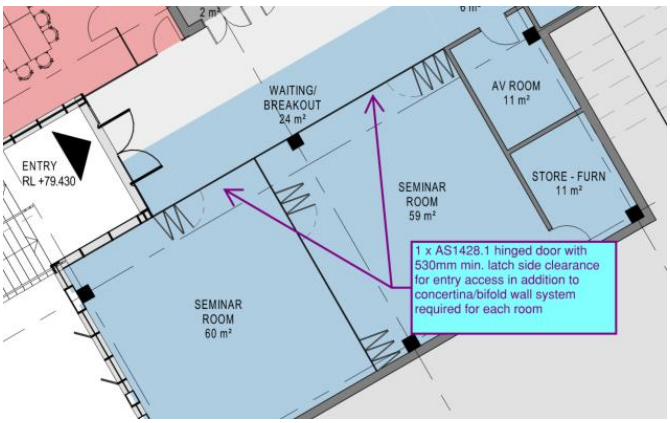
- 850mm minimum clear opening width active leaf (generally 920mm minimum door leaf) with provision of clear door circulation space on both sides and level threshold transitions, compliant with Cl.13;
- For double leaf doors, at least one active leaf door is required to achieve 850mm minimum clear opening width.
- Provide 30% minimum luminance contrast between doorway openings and adjacent surfaces, compliant with Cl. 13.3
- Door circulation space to be located on level landings no steeper than 1:40 gradient. The circulation space required will depend on the door type ie. swing or sliding and the angle of approach ie. frontal, side etc.
- All accessible entrance doors and associated door hardware and controls to comply with AS1428.1 Cl 13.5
- Doors to have lightweight operational force (20N) or may need power-operation with accessible controls.
- All fully glazed doors, sidelights and or glazing where there is no chair rail, handrail or transom, capable of being mistaken for a doorway or open doorway is to include visual indicators to comply with AS1428.1, Cl 6.6.

At this stage, most doors appear to be suitably located in order to achieve the spatial clearances and circulation outlined above.

The following access non-compliances / access issues have been identified:

1. LGL 02 Bifold/concertina doors to 2 x Seminar rooms are not accessible to people with disability, and no accessible entry door to meet AS1428.1 is currently provided for independent use.

   Recommended Action: Provide at least 1 x AS1428.1 hinged door for entry access next door/in addition to concertina/bifold wall system to each Seminar Room.



2. External double doors of equal width to small level 2 outdoor terrace appears to have less than 850mm min. clear width active leaf.

   Recommended Action: Increase wall opening size for doors of equal width OR provide uneven width doors with least 1 x 850mm min. clear width door opening (generally 920 leaf) and compliant door circulation OR

power operate doors so both open at same time with accessible door controls suitably located on both sides to meet AS1428.1.

The above access requirements are applicable to both internal and external doors of the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.9 Exemptions – Areas not Required to be Accessible

Reference – BCA D3.4

Requirement:

The BCA/Access Code makes allowance for specific areas to be exempt from access for people with disability in compliance with AS1428.1 where:

- Access is deemed inappropriate due to the purpose for which the area is used /or;
- The area may pose a health and safety risk for people with disability.
- This also applies to paths of travel leading solely to the above exempt areas.

Assessment:

At this stage, the design includes various BOH service areas where Part D3.4 exemptions are warranted and can be supported including:

- all BOH/service areas identified on GA design drawings in grey as “Plant”
- LGL 02 Storage areas (Gas, Bin, Contaminated waste, Bulk store) and the doors and path of travel leading to them, provided that the area is locked/restricted for use by BOH service personnel only
- all areas identified as Cleaners and/or Cleaner’s equipment rooms
- Extra standard Staff only WCs (Bank 3) in Clinical research areas on levels 00, 01, 02 – *it is noted that there are alternate accessible and ambulant facilities available for staff ie. AWC available nearby (Bank 2) and ambulant at shared public facilities (Bank 1) - as per. agreed access strategy outlined on GDLA/BVN email 28.06.2021*

Any other storerooms, for general day to day storage use have been assessed as required accessible areas to comply with AS1428.1 door clearances and door circulation areas.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

Clarification from the Client/Building end user is required to confirm/endorse the above assessment and document any other areas seeking BCA D3.4 exemption (subject to Certifier approval) to meet the performance requirements of the BCA, prior to Crown Certification stage.

4.10 Passenger Lifts

Reference – BCA E3.6 & D3.3

Requirement:

The BCA/Access Code has passenger lift requirements within accessible buildings to ensure access for people with disability that include:

- Every passenger lift is to comply with BCA Table E3.6a and include accessible features as per Table E3.6b and AS1735.12;
- Lift car dimensions to have 1100mm W x1400mm L minimum dimensions for less than 12m travel distance (and/or for existing buildings, based on the Premises Standards' Lift Concession).
- Lift car dimensions to have 1400mm W x1600mm L minimum dimensions for more than 12m travel distance.

Assessment:

At this stage, the design includes 2 x passenger lifts that have overall spatial allocation that can meet and exceed the min. lift car circulation requirements outlined above. The lifts are centrally located within the Travel/Shared public area on each storey to provide a continuous accessible path of travel to and within all building levels required to be accessible.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.11 Walkways

Reference – BCA D3.3

Requirement:

The BCA/Access Code has walkway requirements to ensure access for people with disability that include:

- All walkways to comply with AS 1428.1, Cl 10.
- Walkways to have a 1:20 maximum gradient, landings at maximum 15m intervals with landing dimensions in compliance with AS1428.1.
- Walkways require regular level landing areas and edge protection on any exposed sides (ie, raised kerb, kerb and handrail, low wall) in compliance with AS1428.1

Assessment:

The above access requirements are applicable to both internal and external areas of the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.12 Ramps

Reference – BCA D3.3, 3.8 & 3.11

Requirement:

The BCA/Access Code has ramp requirements to ensure access for people with disability that include:

- All ramps (excluding leading solely to BCA D3.4 exempt areas) are to be compliant with AS 1428.1, Cl 10;
- A series of connected ramps must not have a combined vertical rise of more than 3.6m; and
- A landing for a step ramp must not overlap a landing for another step ramp or ramp.

To satisfy AS1428.1, all ramps require:

- 1:14 maximum gradient, landings at 9m maximum intervals and landing dimensions in compliance with AS1428.1;

- Ramps are to be recessed from the site boundary (900mm) and from other paths of travel (400mm) to allow handrail extensions to not encroach over the traverse path of travel, compliant with AS1428.1; and
- Ramp width dimensions to allow for 1000mm minimum required access and/or egress path with suitably sized landings in addition to space for required handrails and kerb-rails on both sides, compliant with AS1428.1.
- Ramps (with gradients between 1:14-1:20) to include TGSI in compliance with AS1428.4.1 to satisfy BCA D3.8.

Assessment:

At this stage, the design includes various internal and external ramps where the above requirements are applicable.

The following access non-compliances / access issues have been identified:

1. LGL 01 - The 2 new external curved ramps connecting the MSU Southern Entry Plaza to the accessible entry 3 (RL79.430) appear to exceed 9M max. length between landings.

   Recommended Action: Ongoing landscape design review of ramp levels and inclusion of intermediate level landings (no steeper than 1:40) between 9M max. ramp lengths will be needed to meet AS1428.1.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

Please note that WSU Design Standards recommend compliance with AS1428.2:1992 where achievable and spatially for ramps this would require 1:14 ramp lengths no longer than 6000mm and 1800mm min. width between handrails on both sides, unless passing spaces are provided every 6M.

4.13 Stairs

Reference – BCA D3.3

Requirement:

The BCA/Access Code has stair requirements to ensure access for people with disability (ambulant and sensory) that include:

- All communication and non-fire-isolated stairways must comply with AS1428.1, Cl 11.
- Stairs are to be recessed from the site boundary (900mm) and from other paths of travel (400mm at top and 650 minimum at base) to allow for handrail extensions not to encroach over the traverse path of travel, compliant with AS1428.1.
- Stairs require provision of an off-set stair tread at base of stair flights to provide a continuous, consistent height handrail along the full stair flight, compliant with AS1428.1.
- Ensuring stair layout dimensions allow for minimum required access and/or egress path width requirements and suitably sized landings in addition to space for continuous handrails on both sides, compliant with AS1428.1 Cl 11 and 12.
- All steps require luminance contrasting step nosing that is slip-resistant and provision of TGSIs in compliance with AS1428.1 to satisfy BCA D3.3.

Assessment:

At this stage, the design includes various internal and external stairs where the above requirements are applicable.

The following access non-compliances / access issues have been identified:

1. Required handrails on both sides of the internal stairs adjacent to the Amphitheatre (between Ground and LGL 01) are not continuous throughout the flight and mid-landing area as required by AS1428.1 Cl 11.2.

Recommended Action: An access performance solution can be provided to support the discontinuous handrails on one side which is a DTS compliance departure that can be justified to meet BCA performance requirements – subject to Stakeholder agreement/concurrence (PBDB).

2. Various stairs appear to have future required handrail extensions that will protrude into adjacent areas where transverse paths of travel will occur, creating possible obstacles/hazards if not suitably detailed to FFL.

   Recommended Action: AS1428.1 - required handrail extensions are to be recessed behind side barrier OR future design detailing to return handrail through post to ground/FFL.

3. If future required handrails are not provided on both sides of both stairs adjacent to the proposed tiered seating/outdoor areas in LGL 01 External plaza (anticipated to enable ease of side access) stairs will not comply with AS1428.1.

   Recommended Action: A potential access performance solution could be provided for dual central handrails subject review of future stair/bleacher/handrail design detailing for feasibility and Stakeholder concurrence/endorsement of approach (PBDB).

4. Exposed raised walkway edges at top of bleachers/tiered seating LGL 01 Entry Plaza will require walkway edge protection strategy to be developed for compliance, safety and to help direct people to stairs.

   Recommended Action: Provide raised kerb or fixed seating at top of bleachers/tiered seating – NOTE: We do not recommend warning TGSIs be used at top of bleachers due to potential confusion with TGSI use at adjacent stairs.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

Please note that WSU Design Standards recommend compliance with AS1428.2:1992 where achievable and spatially for stairs this would require more generous stair geometry ie. stair treads between 275-300mm and risers between 150-165mm.

4.14 Accessible Sanitary Facilities & Showers

Reference - BCA F2.4

Requirement:

The BCA/Access Code has requirements for the provision of accessible sanitary facilities and showers to ensure access for people with disability within areas of a building required to be accessible, compliant with BCA Table D3.1 including:

BCA Table F2.4(a) Accessible Unisex Sanitary Compartments

Class of Building	Minimum Accessible Unisex Sanitary Compartments to be provided
Class 5, 6, 7, 8 or 9 – except for within a ward area of a Class 9a health care building	Where F2.3 requires closet pans – (a) 1 on every storey containing sanitary compartments; and (b) Where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks.

BCA Table F2.4(b) – Accessible Unisex Showers

Class of Building	Minimum Accessible Unisex Sanitary Compartments to be provided

Class 5, 6, 7, 8 or 9 – except for within a ward area of a Class 9a health care building	Where F2.3 requires 1 or more showers, not less than 1 for every 10 showers or part thereof.

- **For Class 5, 6, 7, 8 and 9b buildings:** At least 1 accessible unisex toilet is required at each bank of toilets (where provided) on each storey, compliant with BCA Table F2.4(a) and AS1428.1, Cl 15. If more than 1 toilet bank is provided on each level, an accessible toilet is required at a minimum of 50% of toilet banks, however when there are separate uses/functions provided, then at least 1 unisex accessible toilet is to be provided at each bank for each area.

Note:

- Minimum room dimensions for unisex accessible toilets are between finished walls and do not include allowance for construction tolerance. Minimum room size is variable and dependent upon layout and final basin selection.

Assessment:

At this stage, the design includes the following proposed accessible toilets to meet BCA F2.4 and Client brief requirements:

Level	Location	Reference	LH	RH	Comment
LGL 01	Shared public	Grid 4/B4		1	Bank 1 – BCA F2.4 required
GL 00	Shared public	Grid 1/A2		1	Bank 1 – BCA F2.4 required
GL 00	Clinical research	Grid 5/B2	1		Bank 2 – Client brief requirement with adjacent ambulant/baby change
Level 1	Shared public	Grid 2/A2	1		Bank 1 – BCA F2.4 required
Level 1	Clinical research	Grid 5/B2	1		Bank 2 – Client brief requirement with adjacent Bariatric
Level 2	Shared public	Grid 2/A2	1		Bank 1 – BCA F2.4 required
Level 2	Clinical research	Grid 5/B2	1		Bank 2 – Client brief requirement with adjacent ambulant
Total No. AWC – 7			**5**	**2**	**Unisex Accessible toilets (F2.4)**

It is noted that in addition to Client brief requirements, the proposed access strategy for the development, in particular for Bank 2 accessible and ambulant amenities provides universal design/best practice approach for people with disability attending the Client research area.

The following access non-compliances / access issues have been identified:

1. There is an imbalance of right hand (RH x 2) and left hand (LH x5) transfer accessible WC pans within the building. On levels 1 and 2 there are 2 x LH pans on the same level and no RH pan – refer above table summary.

   Recommended Action: Provide a more even mix/balance of transfer pans within the building, ensuring that shared public facilities alternate between LH and RH on subsequent levels and that when two accessible toilets are located on the same level, that both LH and RH transfer pans are provided.

2. The L1 accessible WC (Clinical research) room length dimension appears less than AS1428.1 circulation requirements for WC pan and will require increase during next design change to comply – this is achievable.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

DDA/Advisory Notes:

- *Consideration for inclusion of an additional fold-down baby change facility outside of required circulation areas within the GL 00 Clinical research Accessible toilet located at Grid 5/B2 (Bank 2) – best practice approach*

4.15 Ambulant Sanitary Facilities

Reference - BCA F2.4

Requirement:

The BCA/Access Code has requirements for the provision of ambulant sanitary facilities to ensure access for people with disability within areas of a building required to be accessible compliant with BCA F2.4, Clause (c), as detailed below:

- At each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1, Cl 16 must be provided for use by males and females.

- **Note:** Minimum room dimensions for ambulant sanitary facilities are between finished walls and do not include allowance for construction tolerance.

Assessment:

At this stage, the design includes:

Level	Location	Reference	Male	Female	Unisex	Comment
LGL 01	Shared public	Grid 4/B4	1	1		Bank 1 – BCA F2.4 required
GL 00	Shared public	Grid 1/A1	1	1		Bank 1 – BCA F2.4 required
GL 00	Clinical research	Grid 5/B3			1	Bank 2 – Client brief requirement with Baby Change
Level 1	Shared public	Grid 2/A2	1	1		Bank 1 – BCA F2.4 required
Level 2	Shared public	Grid 2/A2	1	1		Bank 1 – BCA F2.4 required
Level 2	Clinical research	Grid 5/B3			1	Bank 2 – Client brief requirement
Total No. Ambulant Male/Female/Unisex –			4	4	2	

It is noted that in addition to Client brief requirements, the proposed access strategy for the development, in particular for Bank 2 accessible and ambulant amenities provides universal design/best practice approach for people with disability attending the Client research area.

Based on the documentation provided, the design is capable of providing reasonable access provisions for people with disability to meet the above requirements. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.16 Accessible Adult Change Facility

Reference:
- BCA 2019 F2.9 & Specification F2.9 (Accessible Adult Change Facilities)

Requirement:

BCA 2019 requires at least 1 unisex Accessible Adult Change Facility within an accessible part of a building that is a:

(i) **Class 6** building that is a shopping centre having a design occupancy of not less than 3,500 people, calculated on the basis of the floor area and containing a minimum of 2 sole-occupancy units; and
(ii) **Class 9b** sports venue or the like that—
  (A) Has a design occupancy of not less than 35,000 spectators; or
  (B) Contains a swimming pool that has a perimeter of not less than 70 m and that is required by Table D3.1 to be accessible; and
(iii) Museum, art gallery or the like having a design occupancy of not less than 1,500 patrons; and
(iv) Theatre or the like having a design occupancy of not less than 1,500 patrons; and
(v) Passenger use area of an airport terminal building within an airport that accepts domestic and/or international flights that are "public transport services" as defined in the Disability Standards for Accessible Public Transport 2002.

Assessment:

The proposed BCA classification and scale of this building does not require provision for an Accessible Adult Change Facility – therefore no comments are made - Not applicable for this development
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4.17 Wheelchair Seating Spaces

Reference – BCA Table D3.1, Cl D3.9 & Table D3.9

Requirement:

In addition to providing access to and within all areas, normally used by the occupants compliant with BCA Table D3.1, the BCA/Access Code requires the provision of wheelchair seating/accessible spaces to ensure access for people with disability where fixed seating is provided in Class 9b assembly buildings compliant with Table D3.9, as follows:

Table D3.9 – Wheelchair seating spaces in Class 9b Assembly Buildings

Number of Fixed Seats in a Room or Space	Number of Wheelchair Seating Spaces	Grouping and Location
Up to 150	3 spaces	1 single space; and 1 group of 2 spaces.

- Required wheelchair seating spaces are to be provided in line with the spatial requirements of AS1428.1, Cl 18 and Figure 54

Assessment:

Based on the BCA Class 5 classification, there is no mandatory requirement for designated wheelchair seating spaces adjacent to standard seating in the row, however consideration of the intent of this Clause is recommended for the management/operation of the Amphitheatre fixed bleacher seating in Shared Public zone between ground and level 1 for equitable and dignified access and inclusion to minimise potential DDA complaints.

DDA/Advisory Notes:

- *Consider a managed/operational approach for wheelchair seating space provision at top and base areas of amphitheatre bleacher seats as needed (with a management plan) by arranging removable standard seats with adequate circulation between for wheelchair seating spaces adjacent to loos furniture/chairs within row, connected by accessible path of travel.*

4.18 Signage

Reference – BCA D3.6, Specification D3.6 & D3.5

Requirement:

The BCA/Access Code has requirements for the provision of accessible signage for specific facilities, features and services within carparks and buildings to ensure access for people with disability including:

- Braille and tactile signage complying with BCA Specification D3.6 and incorporating the International Symbol of Access, or Deafness as appropriate, to identify:
  - Sanitary facilities including Accessible Unisex Sanitary Facilities, accessible showers, ambulant toilets and Accessible Adult Change Facilities; and
  - Rooms and space with a hearing augmentation system; and
  - Door required by E4.5 to be provided with an exit sign and state “Exit” and “Level” and either:
    (aa) The floor level number; or
    (bb) A floor level descriptor; or
    (cc) A combination of (aa) and (bb).
- Accessible carparking compliant with BCA D3.5, Table D3.5 and AS2890.6.
- There are additional detailed BCA/Access Code signage requirements that outline how to identify and differentiate between specific accessible features and/or types of facilities as well as directional signage requirements to alternate entrances, sanitary facilities, lifts, etc, if/when not accessible.

Assessment:

At this early stage, details of the proposed statutory signage strategy have not yet been developed and/or provided.

The above access requirements are applicable to the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.19 Hearing Augmentation

Reference – BCA D3.7

Requirement:

The BCA/Access Code has requirements for the provision of hearing augmentation systems for specific rooms and areas within buildings (where an inbuilt amplification system, other than one used only for emergency warning) is installed to ensure access for people with disability, including:

(i) In a room in a Class 9b building; or
(ii) In an auditorium, conference room, meeting room or room for judicatory purposes; or
(iii) At any ticket office, teller’s booth, reception area or the like, where the public is screened from the service provider.

- The hearing augmentation system type and minimum coverage area is to be in compliance with BCA D3.7.
- Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address system (other than a public address system used for emergency warning purposes only).

Assessment:

At this early stage, details of the proposed hearing augmentation system have not yet been developed and/or provided. However, based on the proposed design, the locations where hearing augmentation may be required within this project are any Class (5) meeting rooms, seminar/training rooms spaces, incubator spaces.

The above access requirements are applicable to the new development and will be addressed as part of the detailed design to ensure reasonable access provisions for people with disability. Further design detail and access review will be required during design development stage to ensure that appropriate access outcomes are achieved.

4.20 Furniture & Fitments – DDA/Advisory Recommendations

Reference – DDA & AS1428.2

Recommendations:

The limited scope of the BCA/Access Code and referenced standard AS1428.1:2009 does not include design requirements for the accessible design of furniture and fitments. However, we recommend that consideration of these elements be made under the DDA and AS1428.2:1992 to promote access and inclusion for all users, including for people with disability. When designing and/or specifying fixtures and fittings, the intention should be to accommodate the needs of as many users as possible to promote functionality and an access experience is as equitable, dignified, and inclusive. The following advisory recommendations may be useful to the design team during the DD stage of project:

Welcome/Reception Counters:

- Consider providing accessible features to any proposed Welcome or reception/service counters.
- The level of access should meet the level of intended interaction, such as high level interaction, or minimal and verbal and visual interaction only.
- Assuming a basic minimal level of interaction (verbal and visual only), consider the following:
    - Lower section of counter at a height between 830-870mm AFFL, with a minimum width of 900mm;
    - Underside clearance below the accessible section of counter – Refer AS1428.2;
    - Surface of counter to have a matt or low sheen finish.
    - Consider providing a counter hearing loop to assist communication for people with hearing impairment.

Refer AS1428.2, Cl 24 and Fig 25

Seating:

- Consider providing a variety of seating types of different heights, with and without backrests and armrests.
- Recommend regular seating connected to accessible paths of travel at 60M max. intervals and in particular adjacent to waiting areas and/or where physical exertion or near vertical circulation eg. ramps/stairs.
- Recommend clear circulation inset/recessed areas adjacent to standard seating to provide adequate space for users f wheelchair, pram, ambulatory aids, etc. to sit alongside friends and carers Note: AS1428.1:2009 standard occupied wheelchair footprint is approx. 800mm W x 1300mm L min. dimensions
- Seating to be set back from paths of travel a minimum of 500mm.
- Seating should have at least 30% min. luminance contrast to background surface to be easily detectable and not create hazards/obstacles along access paths of travel

Refer AS1428.2, Cl 27.2 and Fig 31

Staff Workstations

- Consider providing height adjustable workstations that can be adjusted by the user to suit personal needs/preferences.
- Consider providing accessible features for a portion (minimum 15%) of both fixed and loose workstations, including the following:
    - Bench/desktops at 830mm – 870mm height AFFL, with a minimum width of 900mm;
    - Underside clearance below the accessible section of counter of minimum 800mm;
    - Surface of counter to have a matt or low sheen finish.

Refer AS1428.2, Cl 24 and Fig 25

Kitchen\Kitchenette Facilities

- Kitchen, sink and tea-making areas for use by occupants of the building should be designed with an accessible portion of the facilities, including:
    - Sink and at least 1M wide bench portion located at a height of 850mm – 870mm FFL
    - Allow for knee and foot clearance of minimum 720mm under the sink/bowl
    - Lever action tapware or sensor plate controls should be provided. Taps or their operating handles shall be within 300mm from the front of the sink to allow for ease of reach/operation
    - Zip/hot water units should be located on the bench within 300mm from the front of the sink to allow for ease of reach/operation

Street Furniture & Display/Signage

- Street furniture and/or display/signage stands are to be setback from paths of travel to reduce potential hazards/obstacles for people with vision impairment and promote safe area for general use and/or viewing.
- Recommend that any bollards, seating, kerbing, displays, signage panels etc. or temporary barriers that may be used to prevent or restrict access to certain areas on paths of travel, achieve a minimum 30% colour contrast to surrounding surfaces to be more detectable for people with vision impairment and assist orientation and wayfinding.

Refer AS1428.2, Cl 27 and Fig 31.

Lighting

- Recommend adequate lighting be provided to suit nature and use of the areas, in particular for areas to be used after hours dark and/or within areas where illuminating directional/information signage/displays.
- Recommend avoiding use of up lights in main/high pedestrian pathway areas with any up-lighting or spotlights be directed towards features and away from paths of travel to avoid glare.
- Lighting levels, quality, and the direction of light source is important - recommend highlight/accentuate signage and displays while minimising glare that can cause discomfort and disorient people with low vision
- Consistent lighting along the continuous accessible paths of travel and placement of lighting to not obstruct it for safe pedestrian movement and public safety.
- AS1428.2 Clause 19 includes recommended minimum maintenance levels of illumination as follows:
    - Entrances, passageways and walkways, ramps - 150 lux.
    - Toilets and locker rooms, Counter tops – 200 lux
    - General displays 200-300 lux.

Refer AS1428.2:1992 Clause 19; AS1158:3.1:2020 – Lighting: Pedestrian Areas

Comment:

The above recommendations are DDA/Advisory design considerations to promote access and inclusion for people with disability and where implemented may assist in reducing the risk of potential DDA complaints for the Client/Building End User.