



ABE
CONSULTING

Accessibility Design Review Report –SSDA

Project Title: MAAS Museum Discover Centre Expansion
172 Showground Rd, Castle Hill

Job Number: 8199

Date: 14 September 2020

Prepared For: Lahznimmo Architects

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Report Status	Revision	Date	Details
Draft	1.0	03 August 2020	For review and comment
Final	1.1	14 September 2020	For DA documentation

ACCESSIBILITY DESIGN REVIEW

PROJECT: MAAS Museum Discover Centre Expansion

LOCATION: 172 Showground Rd, Castle Hill

1.0 INTRODUCTION

This report provides an Accessibility Design Review of the proposed MAAS Museum Discovery Centre located at 172 Showground Rd, Castle Hill.

1.1 Project Information & Classification

The report supports a State Significant Development (SSD) Application for the proposed construction and use of a new building to facilitate the expansion of the Museums Discovery Centre (MDC) site at 2 Green Road, Castle Hill.

The primary objective of the SSD Application is to provide expanded facilities to accommodate the Powerhouse collection including spaces for storage, conservation, research and display and spaces to facilitate increased public access to the collection through education, public programs, workshops, talks, exhibitions and events. The expansion of the existing MDC facility within the site at 2 Green Road Castle Hill will integrate with the existing MDC site located at 172 Showground Road, Castle Hill and its operations on a permanent basis.

The proposed development consists of a 3-level mixed use (office/storage/display/conservation) building at the subject site.

It is understood the following Building Code of Australia 2019 building classification(s) apply to the subject building (to be confirmed by the BCA Consultant / PCA) –

Building/Level/Part	Building Classification	Use
Lower Ground Floor	Class 5/7b/9b	Offices/Storage/Exhibit
Ground Floor	Class 9b	Exhibit/Function area
Level 1	Class 7b/8	Storage/Museum Facilities

1.2 Purpose of the Report

Lahznimmo Architects engaged the services of ABE Consulting as Accessibility Consultants for this project to undertake an assessment of the proposed design documentation in relation to the accessibility related requirements as identified in Part 1.3 of this report for submission to the Department of Planning, Industry and Environment as part of the State Significant Development Application documentation.

1.3 Report Scope

This report provides an Accessibility Design Review of the relevant project architectural documentation in the context of the following –

- Part D3, Clause F2.4 and Clause E3.6 ‘deemed-to-satisfy’ (DtS) requirements of the Building Code of Australia 2019 (BCA)
- The Disability (Access to Premises - Buildings) Standards 2010;

This Accessibility Design Review is based on –

- Architectural design documentation prepared by Lahznimmo Architects, Project No.18-14, as follows-

Dwg#	Title	Date - Rev
A-DA-1200	SITE DEMOLITION PLAN	07/08/2020 - 01
A-DA-1102	SITE CARPARK PLAN	07/08/2020 - 01
A-DA-1400	LOWER GROUND FLOOR PLAN	07/08/2020 - 12
A-DA-1401	GROUND FLOOR PLAN	07/08/2020 - 12
A-DA -1402	LEVEL 1 FLOOR PLAN	07/08/2020 - 14

- The Building Code of Australia 2019 (BCA) prepared by the Australian Building Codes Board.
- The Guide to the BCA 2019, prepared by the Australian Building Codes Board.
- The Disability (Access to Premises – Building) Standards 2010.
- Australian Standards AS1428.1-2009 - Design for Access and Mobility - Part 1: General requirements for access - New building work.
- Australian Standards AS1428.4.1:2009 - Design for Access and Mobility - Part 4.1: Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- Australian Standards AS2890.6-2009 – Off-street parking for people with disabilities.

1.4 Limitations of the Report

The Disability Discrimination Act (DDA - 1992) is a Federal Government legislation enacted in 1993 that seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional, equitable and independent accessibility. The DDA is a complaints based legislation, which is administered by the Australian Human Rights Commission (AHRC). For any built environment the key requirement of the DDA is to ensure functionality, equity and independence of movement by people with disabilities, their companions, family and carer givers.

A key component of compliance to the DDA is the use of the Disability (Access to Premises - Buildings) Standards 2010, Part D3, Clause F2.4 and Clause E3.6 of the Building Code of Australia 2019 (BCA) and the relevant referenced standards primarily being Australian Standards Suite AS1428 and Australian Standards AS2890.6 – Off-street parking for people with disabilities. The AS 1428 series details technical requirements related to design for access and mobility.

The Building Code of Australia has adopted key accessibility and DDA legislation into the 2011 BCA. In particular adherence to the Access to Premises Standard (2010); AS1428.1 2009; AS1428.4.1 2009 and AS2890.6 2009 has become mandatory. However, compliance with these elements does not necessarily result in compliance with the Disability Discrimination Act if the elements of equality, independence and functionality remain compromised within an environment.

This report does not include or assess the following –

- The provisions of the BCA not directly referenced in Part 1.3 of this report;
- Standards not directly referenced in this report; including AS4299-1995 (Adaptable Housing) unless otherwise explicitly specified in Part 1.3 of this report;
- Disability Discrimination Act 1992 (as explored earlier);
- Federal / State / Local planning policies and/or guidelines unless otherwise explicitly specified in Part 1.3 of this report;

- Work Health & Safety considerations or Work Cover Authority requirements;
- This report does not provide any performance based assessments (Performance Solutions) of the BCA;
- This report does not provide any exemptions from the requirements of the BCA.
- This report is not a Part 4A compliance certificate under the Environmental Planning & Assessment Act 1979 or Regulation 2000;
- Review or specification of slip-resistance classification(s) for floor surface finishes / materials. We recommend surface finish advice be sought from an independent specialist slip safety consultant.

1.5 The Disability (Access to Premises – Building) Standards 2010

The Disability (Access to Premises - Buildings) Standards 2010 provides the prescriptive requirements set out regarding the upgrade of an existing building where works are being undertaken.

The Premises Standards apply to:

- a new building
- a new part of an existing building
- the *affected part* of an existing building.

The new parts of a building and any subsequent affected part are outlined as per the below extracts of The Disability (Access to Premises - Buildings) Standards 2010 –

New Part:

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:

- *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*
- *All of the following apply:*
 - The building work is carried out for or on behalf of the Crown;*
 - The building work commences on or after 1 May 2011;*
 - 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.*

Affected Part:

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

Furthermore, Part 4 of The Disability (Access to Premises - Buildings) Standards 2010 sets out applicable exceptions and concessions. In this instance the following lessee concession is provided –

Lessees:

If the lessee of a *new part* of a building submits an application for approval for the building work, the following people do not have to ensure that the *affected part* of the building complies with these Standards:

- The building Certifier.

- The building developer.
- The building manager.

It is understood that the proposed works are being undertaken by the building owner. New works and the subsequent ‘affected part’ are required to comply with the current accessibility provisions of the BCA.

2.0 ACCESSIBILITY DESIGN REVIEW

The following tables provide an assessment of the architectural design documentation in relation to the DtS provisions of the BCA / Premises Standards in the context as outlined in Part 1 of this report.

The tables identify each of the relevant assessment outcomes into Six (6) main categories, as follows –

Capable of Complying (CoC) – Spatial allowance has been made to accommodate compliance where the specification provided has been satisfied.

Compliance Departure (CD) – A compliance departure with the DtS provisions of the BCA.

Design Detail (DD) – A detail commentary/specification is offered within the report.

Performance Solution (PSR) – A Performance Solution Report is being pursued to justify the compliance departures

Not Applicable (N/A) – Not applicable or not relevant to the project. Commentary provided.

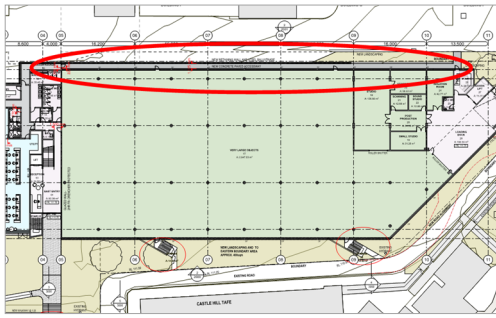
Informational (Info) – Provided for informational purposes

Interpretation Note(s) –

- Readily moveable furniture has been treated as indicative only unless otherwise noted within the report as it is not considered to form part of the building as addressed by the BCA.

BCA Part D3 – ACCESS FOR PEOPLE WITH DISABILITIES

Cl. D3.1: General building access requirements

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>Buildings and parts of the building must be accessible as required by Table D3.1, unless exempted by D3.4. Table D3.1 requires that access is provided –</p> <p><u>Class 5/7b/8</u></p> <ul style="list-style-type: none"> To and within all areas normally used by the occupants. <p><u>Class 9b –</u></p> <p><i>An assembly building not being a school or an early childhood centre</i></p> <ul style="list-style-type: none"> To wheelchair seating spaces provided in accordance with D3.9. To and within all other areas normally used by the occupants, except that access need not be provided to tiers or platforms of seating areas that do not contain wheelchair seating spaces 	<p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage</p> <p><u>Design Detail:</u></p> <p>If the following accessway (access passage) is to be used by occupants for anything other than emergency egress, accessible design and features will be required.</p> 	CoC

Cl. D3.2: Access to Buildings

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>An accessway must be provided to a building required to be accessible –</p> <ul style="list-style-type: none"> from the main points of pedestrian entry at the allotment boundary; and from another accessible building connected by a pedestrian link; and from any required accessible carparking space on the allotment. <p>In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and –</p> <ul style="list-style-type: none"> through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and in a building with a floor area more than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance. 	<p>Access is required from the main points of pedestrian entry at the allotment boundary, from associated accessible carparking spaces and from another accessible building connected by a pedestrian link, to the proposed building(s).</p> <p><u>Design Detail:</u></p> <p>Please confirm if any pedestrian entries will be provided/linked to existing pedestrian entries at the allotment boundary.</p> <p><u>Design Detail:</u></p> <p>Ensure the pathway between Building E and the proposed building has a gradient and crossfall no steeper than 1:40. Steeper gradients will require varying levels of accessible design/features.</p>	CoC

except for pedestrian entrances serving only areas exempted by D3.4.	Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.	
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Cl. D3.3: Parts of buildings to be accessible

DtS Provision	Comment(s)/Recommendation(s)	Status
In a building required to be accessible every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with –		
<ul style="list-style-type: none"> for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and 	<p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.</p> <p><u>Design Detail:</u></p> <p>Ensure ramp/walkway transitions are perpendicular to associated landings.</p>	CoC
<ul style="list-style-type: none"> for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and 	<p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.</p> <p><u>Design Detail:</u></p> <p>Please confirm if stairway 01, 02 or 03 will be used for common circulation in lieu of just fire egress. Accessible features such as 2x handrails and TGSIs are required if they are.</p> <p><u>Design Detail:</u></p> <p>Please confirm with BCA Consultant/PCA if stairway 04 & 05 require accessible features as they are not fire-isolated but appear to be egress only.</p>	CoC
<ul style="list-style-type: none"> for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and 	<p><i>N.B. – Cl. D2.17(a)(vi) of the BCA is generally assessed by the PCA / BCA Consultant. Where assessment of this Clause is required by this office please confirm and provide detail.</i></p>	CoC
<p>Accessways must have—</p> <ul style="list-style-type: none"> passing spaces complying with AS 1428.1 at maximum 20 m intervals where a direct line of sight is not available 	<p><u>Design Detail:</u></p> <p>If the access passage is determined to be required for common access, turning/passing spaces will be required at max. 20m intervals and terminations.</p>	CoC

<ul style="list-style-type: none"> turning spaces complying with AS 1428.1 at 20m intervals or within 2m of the termination of an accessway. 	<p><u>Design Detail:</u></p> <p>Ensure a passing space of 2000mm x 1800mm is provided at the mid landing of the 1:20 walkways.</p> <p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.</p>	
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Cl. D3.4: Exemptions

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>The following areas are not required to be accessible –</p> <ul style="list-style-type: none"> An area where access would be inappropriate because of the particular purpose for which the area is used. An area that would pose a health or safety risk for people with a disability. Any path of travel providing access only to an area exempted by (a) or (b). 	<p>Exemptions are to be reviewed on a case by case basis. We highlight that the following parts of the building have been offered an access exemption (not exhaustive) –</p> <ul style="list-style-type: none"> Storage rooms Plant rooms Caretaker only areas Loading docks 	Info

Cl. D3.5: Accessible carparking

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>Accessible carparking spaces are to be provided in accordance with Table D3.5 of the BCA in a Class 7a building and a carparking area on the same allotment as a building required to be accessible.</p> <p>Accessible carparking spaces –</p> <ul style="list-style-type: none"> are to comply with AS2890.6-2009. need not be provided in a Class 7a building or a carparking area where a parking service is provided and direct access to any of the carparking spaces is not available to the public need not be designated where there is a total of not more than 5 carparking spaces, so as to restrict the use of the carparking space only for people with a disability 	<p>1x accessible parking spaces with associated shared zone have been indicated on plan.</p> <p>The size, location, and number of accessible carparking spaces is readily capable of complying.</p> <p><u>Design Detail:</u></p> <p>It is recommended to also provide an accessible parking space with associated shared zone in the proposed parking area adjacent the TAFE building.</p> <p><u>Class 5/7b/8</u></p> <p>1x space for every 100 carparking spaces or part thereof is required based on office/admin space and storage/museum areas.</p> <p><u>Class 9b</u></p>	CoC

	1x space for every 50 carparking spaces or part thereof is required based on exhibit/visitor associated areas.	
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Cl. D3.6: Signage

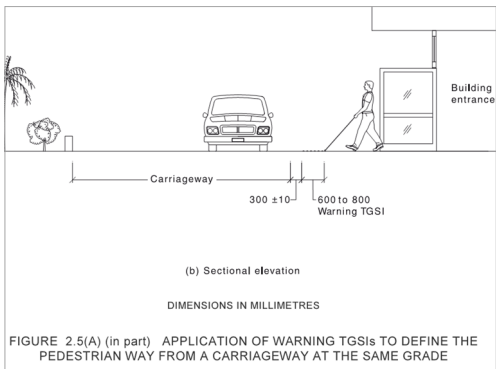
DtS Provision	Status
<p>In a building required to be accessible signage complying with Spec. D3.6, AS1428.1-2009 and incorporating the appropriate recognised symbol (as appropriate) for persons with disability must be provided as follows –</p> <ul style="list-style-type: none"> • braille and tactile signage must identify each sanitary facility and space with hearing augmentation; • braille and tactile signage must identify each door required by E4.5 to be provided with an exit sign and state “Exit” and “Level” followed by the floor level number; • signage must be provided within a room containing a hearing augmentation system identifying; the type of system, the area covered within the room and if receivers are being used and where the receivers can be obtained; • signage must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use; • signage to identify an ambulant accessible sanitary facility must be located on the door of the facility; • directional signage where a pedestrian entrance is not accessible. • directional signage where a bank of sanitary facilities are not provided with an accessible sanitary facility. <p>A design compliance certificate should be obtained from the signage designer/contractor to confirm compliance with the relevant provisions of the BCA and Australian Standards.</p>	DD

Cl. D3.7: Hearing augmentation

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed –</p> <ul style="list-style-type: none"> • in a room in a Class 9b building; • in an auditorium, conference room, meeting room or room for judicatory purposes; • at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. <p>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,</p>	<p>If an inbuilt amplification systems (other than one used solely for emergency warning) is provided within the building (conference room/ meeting room/ticket office), suitable hearing augmentation systems are to be provided in these areas and a design and installation certificate are to be obtained from the relevant consultant to Cl. D3.7.</p> <p>Confirm where an in-built amplification is provided (if any).</p>	DD

other than a public address system used for emergency warning purposes only.		
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Cl. D3.8: Tactile indicators

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>Tactile ground surface indicators complying with sections 1 and 2 of AS1428.4.1.-2009 must be provided to warn people who are blind or have a vision impairment that they are approaching –</p> <ul style="list-style-type: none"> • a stairway, other than a fire-isolated stairway; • an escalator/moving walk; • a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; • in the absence of a suitable barrier an overhead obstruction less than 2 m and where an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building. 	<p>Design Detail</p> <p>Ensure TGSIs are provided where the west entry meets the carriage way in accordance with AS1428.4.1-2009.</p>  <p>FIGURE 2.5(A) (in part) APPLICATION OF WARNING TGSIs TO DEFINE THE PEDESTRIAN WAY FROM A CARRIAGEWAY AT THE SAME GRADE</p> <p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.</p>	CoC

Cl. D3.9: Wheelchair seating spaces in Class 9b assembly buildings

N/A – No fixed seating is proposed

Cl. D3.10: Swimming pools

N/A - No swimming pools proposed.

Cl. D3.11: Ramps

DtS Provision	Comment(s)/Recommendation(s)	Status
On an accessway, a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and a landing for a step ramp must not overlap a landing for another step ramp or ramp.	Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.	CoC

Cl. D3.12: Glazing on an accessway

DtS Provision	Comment(s)/Recommendation(s)	Status
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.		DD

BCA Part E3 – LIFT INSTALLATIONS

Cl. E3.6: Passenger lifts

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>Every passenger lift must –</p> <ul style="list-style-type: none"> • be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and • have accessible features in accordance with Table E3.6b; and • not rely on a constant pressure device for its operation if the lift car is fully enclosed. 	<p>The proposed passenger lift shall have the following features –</p> <ul style="list-style-type: none"> • Handrail complying with the mandatory handrail provisions of AS1735.12, • Lift floor dimensions not less than 1,100mm x 1,400mm where the lift vertical travel is less than 12m, • Lift floor dimensions not less than 1,400mm x 1,600mm where the lift vertical travel is more than 12m, • Minimum clear door opening complying with AS1735.12 (900mm), • Passenger protection system complying with AS1735.12, • Lift landing doors at the upper landing, • Lift car and landing control buttons complying with AS1735.12, • Lighting in accordance with AS1735.12, • Automatic audible/visual information within the lift car and at the landings as prescribed, • 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. <p>A design compliance certificate should be obtained from the lift designer to confirm compliance with the relevant provisions of the BCA and Australian Standards.</p>	DD

BCA Part F2 – SANITARY AND OTHER FACILITIES

Cl. F2.4: Accessible sanitary facilities

DtS Provision	Comment(s)/Recommendation(s)	Status
<p>In a building required to be accessible:</p> <ul style="list-style-type: none"> • Accessible unisex sanitary compartments must be provided as in accordance with Table F2.4(a), • Accessible unisex showers must be provided in accordance with Table F2.4(b), • 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 must be provided for use by males and females. • An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate disposal of sanitary towels. • Circulation spaces, fixtures and fittings of all accessible sanitary facilities must comply with AS1428.1. • An accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and • Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible. 	<p>Compliance is readily achievable with minor design development and/or specification to AS1428.1-2009 at the Detailed Design Stage.</p> <p><u>Design Detail:</u></p> <p>Ambulant cubicles are not indicated in conjunction with the accessible staff change room / unisex sanitary facility. Ensure appropriate facilities are provided.</p> <p><u>Design Detail:</u></p> <p>Ensure all ambulant cubicle widths are between 900mm - 920mm.</p> <p><u>Design Detail:</u></p> <p>Ensure all ambulant cubicle doorway opening widths are 700mm or more.</p>	<p>CoC</p>

3.0 ACCESSIBILITY COMPLIANCE STATEMENT

This report has provided a review of the relevant project design documentation to determine the compliance status of the proposed development against Part D3, Clause F2.4 and Clause E3.6 'deemed-to-satisfy' (DtS) requirements of the Building Code of Australia 2019 (BCA), The Disability (Access to Premises - Buildings) Standards 2010 and related pertinent Australian Standards.

Following this review and with the adoption of the recommendations/Performance Solutions proposed, ABE Consulting are able to confirm that at the Development Application stage of design, the development can readily achieve compliance with the aforementioned provisions.

4.0 REVIEW PROVIDED BY

Prepared by:



Sam Freeman

Accessibility Consultant

Reviewed by:



Abe Strbik

Director

Member - Association of Consultants
in Access Australia # 405

DISCLAIMER

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