



Accessibility Design Review

Integrated Acute Services Building (IASB) Addition

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Date	Issue	Pages	Issue or Description of Amendment	Checked	Approved	Date Approved
17.5.19	A	15	DDA Strategy Issue	Augustina Lie	Angela Chambers	17.5.19
6.6.19	B	15	Integrated ASB Addition	Augustina Lie	-	6.6.19
27.6.19	C	15	Client Comments	Augustina Lie	-	27.6.19
10.7.19	D	15	Client Comments	Augustina Lie	-	10.7.19
16.7.19	E	15	Client Comments	Augustina Lie	-	16.7.19
5.8.19	F	14	Client Comments	Augustina Lie	-	5.8.19
3.10.19	G	14	Responses to Randwick Council	Augustina Lie	-	3.10.19

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1. INTRODUCTION

Lendlease (LLB) have engaged the services of McKenzie Group Consulting as Accessibility and DDA consultants to conduct a review of the project documentation to ensure that functional and compliant accessibility has been applied to the design. As members of the Access Consultants Association of Australia (ACAA), McKenzie Group Consulting use expert accessibility knowledge to ensure the project complies with the spirit and intent of the Disability Discrimination Act (DDA), within the project scope.

1.1. Purpose of Report

This report forms part of the 50% Schematic Design (SD) review. The report is prepared in relation to the proposed Integrated Acute Services Building (IASB) Addition which is to provide:

- UNSW Eastern Expansion (Base Building Only)
- Associated modifications within the ASB
- Lowering of Hospital Road
- Landscaping

The project is situated in Randwick NSW 2031.

This report is an addendum to SSD 9113 covered ASB only. Access report for SSD 9113 was prepared by Access consultants. This is the report to be referenced. The contents of this report relates only to the additional scope elements of the Integrated Acute Services Building (IASB) Addition.

This report provides a compliance overview of the project with respect to achieving compliance with the Building Code of Australia 2016 (BCA) and the Disability Discrimination Act (and Disability Standards) (DDA), within the project scope.

1.2. Project Description

The proposed project comprises of the lowering of Hospital Road and UNSW Eastern Extension (base building only) over Hospital Road from Level-00 to Level-09. It is intended that the scope of the UNSW Eastern Expansion is base building only (cold shell). Internal fitout works shall be provided by others at a later stage

The core scope elements of the IASB Addition are as follows:

- UNSW Eastern Extension (base building only)
- Associated modifications with the ASB
- Lowering of Hospital Road
- Landscaping

IASB Addition is a 10 storey addition comprising:

- **Level 00:** Clinical Innovation and Research
- **Level 01:** Clinical Translational Lab Space
- **Level 02:** Clinical Translational Lab Space
- **Level 03:** Biomedical Engineering Innovation Space
- **Level 04:** Biomedical Engineering Innovation Space
- **Level 05:** Education and Research Space
- **Level 06:** Education and Research Space
- **Level 07:** Education and Research Space
- **Level 08:** Education and Research Space
- **Level 09:** Plant

2. LEGISLATIVE REQUIREMENTS

The legislative requirements for this project comprise both Federal and State legislation.

Federal

The Disability Discrimination Act (DDA - 1992) is Federal Government legislation enacted in 1993 that seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional and equitable 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, equality and dignity of people with disabilities, their companions, family and carer givers.

The DDA utilises statutory instruments known as Disability Standards to provide detailed requirements. The Disability Standards are: Disability (Access to Premises – Buildings) Standards 2010, Disability Standards for Education 2005 and the Disability Standards for Accessible Public Transport 2002. These Disability Standards draw extensively on technical provisions in the AS 1428 series details technical requirements related to design for access and mobility.

State

The Building Code of Australia has adopted key accessibility and DDA legislation into the 2011 and subsequent BCA. In particular adherence to the Access to Premises Standard (2010) (APS); AS1428.1 2009; AS1428.4.1 2009 and AS2890.6 2009 has become mandatory. This means that compliance with the relevant sections of the BCA, ensures compliance with the relevant 'Premises' component of the DDA. However, compliance with the BCA alone does not necessarily mean compliance with the Disability Discrimination Act if the elements of equality, dignity and functionality remain compromised within an environment. The building owner/occupier should therefore ensure that their policies, practices and procedures promote equality in all employment, education and services provided, within their built environment.

2.1. Referenced Legislation and Standards

The review of the project has been undertaken against the following legislation;

- Disability Discrimination Act (DDA) 1992.
- Disability (Access to Premises – Buildings) Standards 2010 (DAPS 2010).
- Building Code of Australia (BCA) and BCA referenced standards including:
 - AS1428.1 2009 Part 1: General Requirements for access – new building work.
 - AS1428.2 1992 Part 2: Enhanced and additional requirements – Buildings and facilities.
 - AS1428.4.1 2009 Part 4.1: Means to assist the orientation of people with vision impairment – TGSI.
 - AS2890.6 2009 Part 6: Off-street parking for people with disabilities.

3. DOCUMENTATION

The report has been prepared based on a review of the drawings listed in Appendix A, Preliminary Consultants Drawings prepared by BVN Architects dated 20.2.18

4. EXEMPTIONS

4.1. Exemptions

Based on the use of some areas within a building, it is reasonable to not provide access to some spaces where it is deemed inappropriate because of the required duties to be carried out in the space or if the area poses as a health or safety risk for people with a disability.

IASB Addition – UNSW Eastern Extension, exempt areas include:

- Switch rooms
- Comms rooms
- Plant room

5. PERFORMANCE SOLUTIONS

5.1. Performance Based Solutions

No Deem-to-satisfy provisions have not been identified at this stage of the development

6. ISSUES AND RECOMMENDATIONS

The following compliance assessment is set out in tabular format. The comment/issue identifies the issues followed by recommendations and whether relevant to BCA or DDA compliance. 'BCA' compliance means meeting minimum mandatory compliance of the BCA and the Premises Standard component of the DDA. Where 'DDA' compliance is shown against a recommendation, this indicates an area of residual DDA risk, ie outside BCA parameters and the Access to Premises Standards. The 'DDA' recommendations relate to best practice design for accessible environments. These recommendations, in conjunction with the owner/occupier's policies, practices and procedures will maximize DDA compliance and meet the spirit and intent of the DDA.

Lowering of Hospital Road

6.1. DDA Strategy

Item	Element	Strategy	Action
1	Service Lane Level (-01) Limited Public Access	<p>Hospital Road is anticipated to be a back-of-house (BOH) laneway servicing deliveries and contractors to the hospital campus</p> <p>It is noted that the lowering of Hospital road will allow 4m clear height to ensure clearance for truck access</p> <p>Level-01 (Hospital Road)</p> <p>Given that Hospital Road is considered to be a back-of-house laneway for use mainly servicing Maintenance and Delivery Access, the recommended strategies for the provision of public access way are as follows:</p> <ul style="list-style-type: none"> • Due to the function and use of this area being a BOH for hospital deliveries, maintenance and staff access, it is deemed to be exempt under D3.4 as it is inappropriate for use by a person in a mobility aid as using the laneway would pose a health and safety risk. • It is accepted that portions of the walkways may not be wheelchair accessible but may still be used by people with ambulant disabilities or disabilities that do not require the use of a mobility aid. <p>This include:</p> <ul style="list-style-type: none"> ○ General walkway widths of 1200mm clear width in lieu 	Design to access provision as indicated

		<p>of 1800mm</p> <ul style="list-style-type: none"> ○ Provision of kerb ramps as necessary at crossings ○ Stairways used in lieu of circulation ramps • Public pedestrian access at Hospital Road is provided for staff to ensure safety when using the laneway. However accessible pathways from the main points of a pedestrian entry at the allotment boundary is being provided at Level-00 • Clear delineation between roadway and walkways are to be provided • Walkways are to be continuous where possible • Walkways may be located on one side of the laneway to minimize pedestrian traversing loading dock entrances • Where the pedestrians are intended to be directed across the road, ensure crossings / Kerb ramps with turning spaces and appropriate safety signage are provided • Where the existing stairway are being used for staff access, it shall be upgraded to ensure compliance with Clause 11 of AS1428.1-2009: <ul style="list-style-type: none"> ○ Minimum clear width of 1000mm between handrails ○ Handrails and extensions on both sides ○ TGSIs at the top and bottom of the stair ○ Provision of nosing strips achieving a minimum luminance contrast of 30% 	
2	Public Walkway Accessible areas	<p>Level-01 (Sydney Children's Hospital) It is noted that the design maintains pedestrian access along Hospital Road to the Ainsworth Building to ensure:</p> <ul style="list-style-type: none"> • Accessible parking and drop off is maintained • Logistic access to the equipment store is maintained <p>Level-00 (Public Deck) It is proposed that limited vehicular access</p>	Design to indicate compliance

		is intended on this level This is considered to be the main pedestrian accessway from the allotment boundary and is anticipated that public areas will be located	
3	Public Stairways	Due to the nature of existing site conditions, stairways may be used to address level changes <ul style="list-style-type: none"> Ensure the design and construction of public stairways are in accordance with AS1428.1-2009 	Design to indicate compliance
4	Pedestrian Crossings	Where pedestrian crossings are located: <ul style="list-style-type: none"> Ensure Tactile Ground Surface Indicators (TGSIs) or bollards are used to indicate hazard warning Ensure appropriate traffic control devices are implemented Ensure appropriate lighting levels are provided 	Design to indicate compliance
5	Ramps	It is noted that the use of ramps will be localised to the Sydney Children's Hospital Emergency Department Where pedestrian ramps are intended to be used: <ul style="list-style-type: none"> Ensure the design and construction are in accordance with AS1428.1-2009 	Design to indicate compliance
6	Kerb Ramps	Where Kerb Ramps are intended: <ul style="list-style-type: none"> Ensure design and construction are in accordance with AS1428.1-2009 	Design to indicate compliance
7	Hazard Identification <ul style="list-style-type: none"> TGSIs Bollards 	Either bollards or TGSIs may be used for hazard identification to provide warning where roadways and pedestrian access are at grade	Design to indicate compliance
8	Way finding Signage	It is recommended that way finding signage be provided Directional signage to identify accessible entrances and paths of travel	Design to indicate compliance

IASB Addition - UNSW Eastern Extension

6.2. General Building Access Requirements

Buildings and parts of buildings must be accessible in accordance with Table 3.1 of the BCA.
 A continuous accessible path of travel is to be provided as follows:

Part Of Building	Accessibility Requirements	BCA/ DDA
Class 9a – health care (Hospital) building	<ul style="list-style-type: none"> To and within all areas normally used by the occupants 	BCA

6.3. Entrances

Access for persons with a disability is to be provided to and within all areas normally used by the occupants.
 Access must be provided via the main principal entrance and:

- Not less than 50% of all pedestrian entrances including the principal entrance, and
- In buildings with a floor area >500m², a non-accessible entrance must not be located more than 50nm from an accessible entrance.

Comment/issue	Recommendation	BCA/ DDA
Main Public Entrances	Main Public Entrances to the IASB Addition shall be via the approved ASB and it is anticipated that this entry way shall comply with the requirements of AS1428.1-2009	Note

6.4. Lifts

An accessible path of travel is required to all areas normally used by occupants.

Comment/issue	Recommendation	BCA/ DDA
Lifts	Existing lifts to service the IASB Addition is already part of the approved ASB and it is anticipated that these lifts shall comply with AS1735.12-1999	Note

6.5. Internal stairs

An accessible path of travel is required to all areas normally used by occupants. All stairs (excluding fire-isolated stairs) must be provided with handrails both sides, nosing strips and TGSIs.

Comment/issue	Recommendation	BCA/ DDA
Stairways All existing stairs used for general circulation along the “affected part” are to comply with AS1428.1-2009	Existing stairs to service the IASB Addition is already part of the approved ASB and it is anticipated that these stairs shall comply with AS1428.1-2009	Note
Fire Isolated Stair (FIS) <ul style="list-style-type: none"> Fire-isolated stairs (FISs) are exempt from full compliance. 	Fire Isolated Stairways to service the IASB Addition is already part of the approved ASB and it is anticipated that these stairs shall comply with AS1428.1-2009	Note

6.6. Internal Ramps

An accessible path of travel is required to all areas normally used by occupants. All ramps along a continuous accessible path of travel must be provided with handrails both sides, kerb rails, landings and TGSIs as required.

Comment/issue	Recommendation	BCA/ DDA
Internal General Circulation Ramp	Ramps are not part of the IASB Addition scope	Note

6.7. Internal Walkways

An accessible path of travel is required to all areas normally used by occupants. Internal walkways should be designed with the following features:

- Suitable circulation spaces to enable turning into adjacent doorways and workstation areas,
- Adequate passing spaces, and
- Turning areas at corridor or room terminators

Comment/issue	Recommendation	BCA/ DDA
Corridors	<ul style="list-style-type: none"> ▪ In general, corridors have been detailed with a width in excess of 2000mm which accommodates turning spaces, corridor terminations and passing bays as required. ▪ It is acknowledged that fitout works to be provided by others 	BCA
Corridor Handrails In accordance with Clause D2.17(b)(i) of the BCA, in a class 9a (Hospital) health care building, handrails must be provided along at least one side of every passageway or corridor used by patients and must be: <ol style="list-style-type: none"> a) Fixed not less than 50mm clear of the wall b) Where practicable, continuous for their full length 	The IASB Addition (UNSW Eastern Extension) intended to be for clinical use – Corridor handrails are not required to be provided Level 00: Clinical Innovation Research Level 01: Clinical Translation Lab Level 02: Clinical Translation Lab Level 03: Bioengineering Innovation Space Level 04: Bioengineering Innovation Space Level 05: Education and Research Space Level 06: Education and Research Space Level 07: Education and Research Space Level 08: Education and Research Space Level 09: Plant	BCA

Key internal walkway and surface criteria:

- Walkways to be provided with passing bays (1800 x 2000mm) every 20m.
- Minimum width of internal walkway 1000mm.
- Path of travel in front of doorways or those accessed from a frontal approach required to be 1450mm width (minimum).
- Path of travel in front of doorways accessed from the latch side to be 1240mm minimum width.
- Landing spaces at directional changes of: at 90° - 1500mm x 1500mm (corner can be truncated); at 180° - 1540mm x 2070mm.
- Turning space at corridor terminations to be 1540mm width x 2070mm length.

6.8. Internal Doorways

An accessible path of travel is required to all areas normally used by occupants. Future detailed design should provide compliant door circulation space to all doors where appropriate.

Comment/issue	Recommendation	BCA/ DDA
Auto Doors	<ul style="list-style-type: none"> Where Automated doorways are intended ,its installation negate the requirements for door circulation spaces in accordance with Figure 31 of AS4128.1-2009 	BCA
Clear Opening Width The unobstructed clear width of doors must achieve a minimum of 850mm (920mm leaf required).	Double Door-set <ul style="list-style-type: none"> Where double door sets have been indicated on the drawing ensure that the operable door leaf achieves a minimum clear opening of 850mm 	BCA
Door Circulation Space Doorway circulation spaces shall be used in combination to allow access through doorways in both directions	<ul style="list-style-type: none"> Where double door sets are provided as the main entrance into the room the documents indicate compliance with door circulation space 	BCA
Door Operation Force Single Swing doors <ul style="list-style-type: none"> Ensure doors have light operational forces (less than 20 N). Consider use of bearing hinges or other enhanced hardware to achieve requirement. Double Door Set <ul style="list-style-type: none"> Ensure that the operable door leaf achieves a light operational force of less than 20N 	<ul style="list-style-type: none"> It is understood that this level of information shall be provided at Detail Design 	BCA
Distance between doorways <ul style="list-style-type: none"> Airlocks require clear circulation spaces between doors Accessible path <ul style="list-style-type: none"> Provide 1450mm clear circulation in airlock Ambulant path <ul style="list-style-type: none"> Ensure 900x900mm circulation space is provided to airlocks within amenities 	<ul style="list-style-type: none"> It is noted that airlocks are not indicated It is acknowledged that fitout works to be provided by others 	Note

Comment/issue	Recommendation	BCA/ DDA
Luminance Contrast at Doorways <ul style="list-style-type: none"> 30% minimum luminance contrast is required between 2 of the door face, door architrave and wall. 	<ul style="list-style-type: none"> It is understood that this level of information shall be provided at Detail Design 	BCA
Door Hardware <ul style="list-style-type: none"> All door handles and related hardware for hinged doors and sliding doors shall be designed in accordance with clause 13.5 AS1428.1-2009. 	<ul style="list-style-type: none"> To ensure that the hand of a person who cannot grip, will not slip from the handle during the operation of the latch provide a 20mm return on door handles. It is understood that this level of information shall be provided at Detail Design 	BCA

Key internal doorway criteria:

- All doors require 850mm clearance width (920mm doors) incl. active leaf of double doors.
- Latch side clearance of 510mm to inward opening doors; 530mm to outward opening doors.
- Circulation space of 1450mm required either side of doors that are approached from the front. Circulation space of 1240mm required in front of inward opening doors approached from latch side.
- All glazed doors must be marked with contrast marking no less than 75mm wide for full width of doors at 910-1000mm height.

6.9. Sanitary Facilities

Facilities to be provided in accessible parts of the building. Accessible sanitary facilities must be provided on each level where other sanitary facilities are also provided and if the storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. The accessible facilities should be located adjacent/opposite the gender facilities.

Where one or more pans are provided, an ambulant toilet within each of the male and female facilities is to be provided.

Comment/issue	Recommendation	BCA/ DDA
Equal Distribution of Pan Handling Where two or more accessible sanitary facilities are installed there shall be an even distribution of mirror imaged layouts to provide left hand and right hand transfer.	Accessible Facilities are noted on the following levels: Level 01 – RH Level 02 – RH Level 03 – RH Level 08 – RH <ul style="list-style-type: none"> Ensure equal distribution of pan handling is provided 	BCA

Comment/issue	Recommendation	BCA/ DDA
Accessible WC	<ul style="list-style-type: none"> Where Unisex accessible WC's are provided, they shall be designed in accordance with Clause 15 of AS1428.1-2009 	BCA
Ambulant Facilities	<ul style="list-style-type: none"> Ambulant facilities shall be designed in accordance with Clause 16 of AS1428.1-2009 	BCA

Key sanitary facility criteria:

- Accessible sanitary facilities to be in same location as gender facilities and located on all levels of a multi-level building.
- Minimum room dimension with WC and basin: 1900mm x 2630mm or 2330mm x 2200mm.
- Provide AS1428 series compliant fixtures inclusive of shelf, clothes hooks, full length mirror
- A sanitary compartment suitable for a person with an ambulant disability must also be provided for use by males and females
- Baby change tables are not permitted to encroach on fixture circulation spaces and are to be installed in accordance with Clause 15.2.8.2

6.10. Signage

Mandatory Braille and tactile signage must be provided to sanitary facilities (except SOUs), spaces with hearing augmentation, for required exit signage and directional signage to alternative accessible entrances, paths of travel or alternative sanitary facilities.

Comment/issue	Recommendation	BCA/ DDA
Statutory Signage	<ul style="list-style-type: none"> Statutory signage shall be provided in accordance with Clause 3.6 of the BCA 	BCA

Key Signage design criteria:

- Accessible way finding should highlight the pathway from entrance to reception to lifts/stairs, amenities and to key components of the facility.
- Ensure accessible way finding signage is:
 - Located at appropriate viewing heights
 - Perpendicular to the path of travel or beside identifiable features (e.g. door faces)
 - Of suitable colour contrast (luminance contrast min 30%)
 - Of compliant notation inclusive of use of the international symbol of access.
- Signage to accessible sanitary facilities requires identification with the international symbol of access, raised tactile and Braille signage and letters RH or LH to indicate side of transfer to the WC pan.
- Signage required to areas with required hearing augmentation provided

6.11. Hearing Augmentation

Hearing Augmentation Listening Systems are an essential assistive device for people who use hearing aids and are mandatory at screened reception counters, lifts and areas with public announcement systems.

Comment/issue	Recommendation	BCA/ DDA
Hearing Augmentation Hearing Augmentation will be required, if in-built amplification is available within the Buildings/rooms Consider provision of hearing augmentation early in design	<ul style="list-style-type: none"> Hearing augmentation shall be required where in-built amplification is provided in accordance with Clause 3.7 of the BCA 	BCA

7. COMPLIANCE SUMMARY

The recommendations in this report have been provided to assist in the creation of a universally accessible environment within the proposed development. It is anticipated that as additional detail is provided - particularly internal room layouts, landscaping and detail room elevations- the accessibility of this development can be further assessed.

If you have any further queries in relation to the reports and recommendations contained please contact Augustina Lie on (07) 3834 9800

Report Provided by:



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8. APPENDIX A – DOCUMENT LIST

Drawing Set	Issue
Architectural Set	As submitted in the <i>“Integrated Acute Services Building Addition – Architectural Design Statement”</i>