



Accessibility Design Review (for Mod 9 Planning Approval)

1 Denison Street,
North Sydney, NSW

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TABLE OF CONTENTS

1.	INTRODUCTION	4
2.	LEGISLATIVE REQUIREMENTS	4
3.	DOCUMENTATION	5
4.	EXEMPTIONS AND PERFORMANCE BASED SOLUTIONS	5
5.	COMPLIANCE ASSESSMENT	6
6.	COMPLIANCE SUMMARY	21

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EXECUTIVE SUMMARY

The following report is a review of the Mod 9 Documents for Planning Approval, as part of the S75W Modification Application.

It provides a summary of the compliance strategy of the proposed works highlighting the key principles of accessibility as well as the technical requirements of a building to ensure the public, staff and visitors, have equitable and dignified use.

The report is prepared in relation to the proposed high rise commercial office / retail development with basement carpark located at 1 Denison Street, North Sydney, NSW.

The proposed works comprise of a commercial office development, consisting of ground floor / mezzanine retail spaces, a breakout/roof terrace on level 2, commercial office tenancies and five (5) levels of basement car parking.

In summary, we are satisfied that the Mod 9 Documentation is capable of complying with the spirit and intent of Disability Discrimination Act (DDA), the principals of universal accessibility and the relevant technical requirements of the AS1428 series for access and mobility; the Access to Premises Standard (2010) and applicable associated documentation for the purposes of the development application process.

As the design progresses, the following key compliance items are to be further resolved:

BCA Compliance (Mandatory minimum compliance with BCA – State legislation)

- An accessibility strategy is to be confirmed to address the Spring St Entrance - documentation by means of a performance solution report. See 4.2 below.
- Access to and within the End of Trip Facilities areas, and the design of Sanitary facilities within, is to be confirmed at a later date. We understand that the End of Trip Layout will be provided by a specialist consultant, later in the design process, and compliance will be checked at that time.

DDA Compliance (Additional recommendations to minimise risk of non-compliance under DDA – Federal legislation)

- Consideration early in the design is required regarding the emergency evacuation strategy of residents, visitors and staff that cannot use stairs.
- Develop a wayfinding strategy early in the design process – beneficial for all users.

1. INTRODUCTION

Victoria Plaza Holdings Pty Limited C/- Touchstone Partners Pty Limited 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

The following report is a review of the Mod 9 Documents for Planning Approval, as part of the S75W Modification Application. The report is prepared in relation to the proposed high rise commercial office building with basement carpark and mixed use retail located at 1 Denison Street, North Sydney, NSW.

This report provides a compliance overview of the project with respect to achieving compliance with the Building Code of Australia (BCA) and the Disability Discrimination Act (and Disability Standards) (DDA), within the project scope. Detailed Design documentation and compliance assessment will be undertaken as the design develops.

1.2. Project Description

The proposed works comprise of a commercial office development, consisting of ground floor/mezzanine retail spaces, a breakout/roof terrace on level 2, commercial office tenancies and five (5) levels of basement car parking.

The site is located on the corner of Spring Street, Little Spring Street and Denison Street, North Sydney, NSW.

The building contains:

- Class 5 (office)
- Class 6 (retail)
- Class 7a (car parking)

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 National Construction Code (BCA) 2015
- AS 1428.1 2009 General requirements for access
- AS 1428.4.1 2009 Tactile Ground Surface Indicators
- AS 1735.12 1999 Lifts, escalators and moving walks
- AS 2890.6 2009 Parking Facilities for people with disabilities

3. DOCUMENTATION

The report has been prepared based on a review of the architectural drawings produced by Bates Smart; Project No. s12055

- Revision 4 of the DA drawings designated as MP08-0238 MOD 9, dated 6.12.17.

4. EXEMPTIONS AND PERFORMANCE BASED SOLUTIONS

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. These areas may include:

- Plant rooms, Store rooms, cleaner's rooms, and the like.
- Loading docks
- Commercial kitchen
- Garbage Store
- Level-2 Podium Plant
- Plant & Overrun, Upper Plant

4.2. Performance Based Solutions

An accessibility strategy is to be confirmed to address the existing topographical influences affecting the principle entries from Spring St, and Denison St. (Documentation by means of a performance solution report with regard to the number / location of accessible entrances has been agreed in principle - given that the distance between entrances is greater than 50 m.)

5. COMPLIANCE ASSESSMENT

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, i.e. 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.

5.1. 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 5 – Office/Administration ; Class 6 – Retail; Class 7b – storage;	<ul style="list-style-type: none"> ▪ To and within all areas normally used by the occupants 	BCA
Class 7a – Car parking	<ul style="list-style-type: none"> ▪ To and within any level containing accessible car parking spaces 	BCA

5.2. External approaches, walkways, ramps, kerbs and steps

A continuous accessible path is to be provided to the new building:

- From the main points of a pedestrian entry at the allotment boundary, and
- From another accessible building connected by a pedestrian link
- From any required accessible car parking space on the allotment

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> ▪ Level at-grade access is provided to the main entries, which are to each side of an at-grade "arcade" /throughway, accessible from both Denison St and Little Spring St. Levels shown indicate that all paths of travel will be at compliant accessible grades. 	<ul style="list-style-type: none"> ▪ Further review to be undertaken in the next phase of design. 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> An alternative secondary access point is provided from the corner of Spring Street and Denison Street, at the south west corner of the building, by way of a set of stairs. These stairs provide more direct access to the Main Lobby and Café, from this side of the building. 	<ul style="list-style-type: none"> The stairs are to be designed to comply with AS1428.1-2009. Further review is to be undertaken in the next phase of design. An accessibility strategy is to be developed to address the Spring St Entrance – which because of topographical influences, means that stairs are prescribed. Given that the distance to the nearest alternative accessible entrance is greater than 50m, this is a departure from the deemed to satisfy provisions of the BCA, which is to be developed, and documented by means of a Performance Solution. 	BCA DDA	<p>BCA Performance Solution.</p> <p>Further discussion and development to be undertaken as the design is finalised to ensure consensus of approach and resolution.</p>
<ul style="list-style-type: none"> Ensure external paths are of adequate width to accommodate passing and turning spaces 	<ul style="list-style-type: none"> Provide a minimum of 1500mm width to allow a pram and wheelchair to pass Consider a path width of 1800mm to allow two wheelchairs to pass, particularly to the public realm Minimum width must be measured clear of bollards or fixtures 	BCA	Compliance Indicated.
<ul style="list-style-type: none"> Provide warning TGSIs and kerb ramps at Pedestrian Crossings in accordance with AS1428.4.1 	<ul style="list-style-type: none"> Warning TGSIs are to be provided, located 300mm from the hazard of the roadway Where bollards are provided, ensure they are positioned either side of the dedicated walkway, maintain a clear width of 1200mm 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>
<ul style="list-style-type: none"> Pedestrian crossings and or drop-off areas should be designed inclusive of linemarking, kerb ramps and TGSIs in accordance with AS1428.1 & AS1428.4.1. 	<ul style="list-style-type: none"> Limited detail provided at this stage of the design Further review as the design progresses to assess compliance of pedestrian crossings or drop-off zones including gradient, finishes, tactile indicators, colour and textural contrast of surfaces and required kerb ramps. 	DDA	<p>Capable of Compliance</p> <p>Further detailed information to be provided as the design develops.</p>
<ul style="list-style-type: none"> Rest seating should be provided adjacent entrances, at taxi drop off points and along external pedestrian paths of travel 	<ul style="list-style-type: none"> Locate rest seating near/adjacent the taxi drop off bay Provide a range of seating to accommodate all users i.e. some with backrest, some with armrests and at various seat heights etc. Any seating to be set back 500mm 	DDA	<p>Capable of Compliance</p> <p>Detailed landscape information to be provided as the project</p>

Comment/issue	Recommendation	BCA/ DDA	Action
	from the walkway.		develops.
<ul style="list-style-type: none"> Where pedestrian walkways and vehicular routes are at grade, hazard warning required 	<ul style="list-style-type: none"> Position hazard (warning) TGSIs in accordance with AS1428.4.1 	BCA	<p>Capable of compliance</p> <p>Detailed civil drawings to be provided as the project develops.</p>
<ul style="list-style-type: none"> Recommend obstacles abutting a path are readily identifiable and do not obstruct a user on the path. 	<ul style="list-style-type: none"> It is recommended that bollards, bike racks, rest seating and bins possess a 30% luminance contrast to the surroundings Ensure fixtures and furniture is recessed a minimum of 500mm from required minimum width of path 	DDA	<p>Capable of Compliance</p> <p>Detailed landscape information to be provided as the project develops further.</p>
<ul style="list-style-type: none"> The public realm offers significant opportunities to enhance the existing scheme. There will be minimum BCA requirements in terms of access paths, gradient, stairs etc., however, many aspects of good design in external spaces, fall outside these minimum requirements. 	<ul style="list-style-type: none"> The following are some design considerations for providing equitable access to the public realm; <ul style="list-style-type: none"> Surface treatments e.g.; grass, gravel, stone, pavers – be aware of abutment detail with other surfaces; both level difference and slip resistance differences. Careful design of drainage grates, surface falls and gradients generally Provision of rest seating opportunities along walkways, stair landings etc. Lighting design that minimises glare. Luminance contrast of features such as; steps, seats, bollards, bins etc. Consistent/compliant use of TGSIs to create a predictable environment Landscape planting can offer tactile and olfactory clues to the environment to enhance different areas. 	BCA/DDA	<p>Capable of compliance</p> <p>Detailed landscape information to be provided as the project develops further.</p>

Key External walkway criteria:

- Walkways to be provided with passing bays (1800 x 2000mm) every 20m.
- Walkway gradient to be 1:20 (max) with landings every 15m.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm length.
- If gradient of walkway is less than 1:33 no landings are required.
- TGSIs required to warn of hazard along pedestrian and vehicular routes on grade

Key kerb and pedestrian crossing criteria:

- Kerb ramp to have gradient no steeper than 1:8, length no greater than 1520mm.
- Pathways from accessible parking across roadways to have designated line marking.

Stairs design criteria:

- Common use stairs require AS1428 series compliant handrails, tread features and TGSIs.

Key ramp design criteria:

- Maximum gradient of a ramp exceeding 1900mm is 1:14. Gradient to be consistent throughout ramp.
- Ramp required to have unobstructed width of 1000mm
- Ramps to be provided with landings at bottom and top of ramp.
- Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length.
- Ramps require AS1428 series compliant handrails and TGSIs.
- Ramps to be set back 900mm at property boundaries or 400mm at internal corners.
- Vertical rise not to exceed 3.6m

Kerb ramps – max rise 190mm; max 1:8 gradient

Threshold ramps – max rise 35mm; 1:8 max gradient; within 20mm of door leaf

Step ramps – max rise 190mm; 1:10 max gradient

5.3. Car Parking

Comment/issue	Recommendation	BCA/ DDA	Action
<p>In accordance with Table D3.5 of the BCA, accessible car parking is required to be provided as follows.</p> <ul style="list-style-type: none"> ▪ <u>Office</u>, Class 5 parts of the building require: <ul style="list-style-type: none"> - 1 space per 100 ▪ <u>Retail</u>, Class 6 parts of the building require: <ul style="list-style-type: none"> - 1 space per 50 ▪ <u>Public</u> (Council) Carparking, Class 7 parts of the building require: <ul style="list-style-type: none"> - 1 space per 100 	<ul style="list-style-type: none"> ▪ <u>Office</u>: Based on the total number of car parking spaces (161), provided for office (Class 5) use, a minimum of 2 accessible spaces are required. ▪ <u>Retail</u>: Based on the total number of car parking spaces (5), provided for retail (Class 6) use, 1 accessible space is required. ▪ <u>Public</u>: Based on the total number of car parking spaces (42), provided for Public (Council) Carparking (Class 7) use, 1 accessible space is required. ▪ <u>Total</u>: Five (5) accessible car parking spaces (3: office, 1: retail, 1: Public), have been shown at this stage of the design, which complies with the above requirements. <p>It is understood that the accessible retail space may be available for either Retail use or Office use, as the need arises. Based on the percentage of office carpark use, to retail carpark use, this is deemed appropriate.</p> <ul style="list-style-type: none"> ▪ Accessible spaces have been located in close proximity to lift lobbies wherever possible. ▪ Accessible paths of travel are to be provided between accessible car spaces and lifts. 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>
<ul style="list-style-type: none"> ▪ The approach from the accessible car parking bays to the main entrances is to be accessible 	<ul style="list-style-type: none"> ▪ Height of vehicular path of travel to accessible parking space is to be 2200mm. Height above accessible parking space and shared zones to be 2500mm and to be clear of overhead ducts and the like. ▪ To confirm heights detailed cross sections at the dedicated accessible car spaces and shared zones; and along vehicle paths of travel, will be required to confirm clear heights - accounting for air intake ducts, air exhaust plenum, plumbing and any other services. 	BCA	<p>Capable of Compliance</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>
<ul style="list-style-type: none"> ▪ A bollard is required in the shared area. 	<ul style="list-style-type: none"> ▪ Drawings are annotated to show bollards. 	BCA	<p>Compliance Indicated.</p>

Key Car parking and transport design criteria:

- Accessible spaces are to be designed in accordance with AS2890.6-2009.
- Dimensions of angled accessible parking bays 2400 x 5400mm with adjacent 2400mm x 5400mm shared area and bollard in shared area.
- Dimensions of parallel parking bays 3200mm x 7800mm.
- Provide direct kerb ramp access from adjacent to the accessible parking space to pathway.
- Accessible bays to be located near entrances.
- Provide a designated area for accessible drop off from private vehicles, taxis and community vehicles with kerb ramp access to the pathway.
- Height of vehicular path of travel to accessible parking space to be 2200mm and height above accessible parking space to be 2500mm

5.4. 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 50m from an accessible entrance.

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> ▪ All entry doors are to comply 	<ul style="list-style-type: none"> ▪ All entry doors must achieve a minimum clear door opening width of 850mm (920mm leaf door required) ▪ A single swing door has been provided adjacent the revolving door at the main/tenant lobbies, which complies 	BCA	<p>Indicates compliance</p> <p>Please provide door schedule as the project progresses for further assessment.</p>
<ul style="list-style-type: none"> ▪ All doors to have light operation forces 	<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. 	BCA	<p>Indicates compliance</p> <p>Please provide door schedule as the project progresses for further assessment.</p>
<ul style="list-style-type: none"> ▪ Glazing decals 	<ul style="list-style-type: none"> ▪ All glazed doors must be marked with contrasting marking not less than 75mm wide for full width of doors with lowest edge at 900-1000mm. ▪ Limited information has been provided at this stage of the design 	BCA	<p>Capable of Compliance</p> <p>Further detailed information required for assessment.</p>

Key entrance criteria:

- Main entry must be accessible.
- Entry requires single door leaf width clearance of 850mm (920mm door size).
- Circulation space of 1450mm required either side of entry.
- All glazed doors must be marked with contrasting marking not less than 75mm wide for full width of doors with lowest edge at 900-1000mm.

5.5. Lifts/Escalators

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

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> ▪ Any new lift travelling >12m requires a minimum compartment size of 1400mm wide x 2000mm depth (requires 2000mm depth where stretcher use indicated and travelling >12m). ▪ Any lift travelling <12m requires a minimum compartment size of 1100mm wide x 1400mm depth. ▪ Lift car Fitout must comply with AS1735.12-1999 	<ul style="list-style-type: none"> ▪ Any new lift is to comply ▪ Further review to be undertaken as the design progresses 	BCA	<p>Compliance is indicated.</p> <p>Further review to be undertaken as the design progresses.</p>

Key lift design criteria:

- Lift dimensions to be 1100mm x 1400mm (up to 12m) or 1400mm x 1600mm (>12m minimum).
- Lift doorway opening clearance to be 900mm
- *Fitout out of lifts to include: Handrail 600mm (min) length; at height between 850-950mm, Tactile and Braille symbols on control buttons and panels, Automatic auditory information detailing lift stops. Control buttons set back from corner.*

5.6. 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	Action
<ul style="list-style-type: none"> ▪ All general circulation stairs are to be designed to comply with AS1428.1-2009 i.e. clear width not less than 1m, handrails both sides, TGSIs and nosings. 	<ul style="list-style-type: none"> ▪ All new stairs are to comply with AS1428.1-2009. 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses.</p>

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> Fire-isolated stairs (FISs) are exempt from full compliance. 	<ul style="list-style-type: none"> Existing and new FIS shall be upgraded/created to include a single handrail compliant to Clause 12 of AS1428.1 (circular) and provision of stair handrails as a minimum If FISs are to be encouraged for general circulation use, the stairs should be upgraded to full compliance with AS1428.1-2009 features. 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>

Key stair design criteria:

- Stairs to be set back 900mm at property boundaries or sufficient space to accommodate required handrails internal corners.
- Circular or spiral stairs are generally unsafe due to their inconsistent tread width.
- Common use stairs require AS1428 series compliant handrails, tread features and TGSi.*
- Tactile ground surface indicators (TGSi) shall be installed for the full width of the path of travel*
- TGSi's shall be located at both the top and bottom of the stairs*
- Fire-isolated stairs required a single handrail compliant to Clause 12 of AS1428.1 and stair nosings as a minimum.*

5.7. 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	Action
<ul style="list-style-type: none"> All general circulation ramps are to be designed to comply with AS1428.1-2009 i.e. clear width not less than 1m, handrails both sides, TGSIs, compliant landing sizes and gradient 	<ul style="list-style-type: none"> All new ramps are to comply with AS1428.1-2009. 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses.</p>

Key ramp design criteria:

- Maximum gradient of a ramp exceeding 1900mm is 1:14. Gradient to be consistent throughout ramp.
- Ramp required to have unobstructed width of 1000mm
- Ramps to be provided with landings at bottom and top of ramp.
- Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length.
- Ramps require AS1428 series compliant handrails and TGSi.
- Ramps to be set back 900mm at property boundaries or 400mm at internal corners.

5.8. Tactile Ground Surface Indicators (TGSIs) and hazard identification

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> TGSIs are required to be installed in accordance with AS1428.4.1, to the top and bottom of every stair, ramp and escalator and to external areas such as where the pedestrian walkway is at grade with the roadway, kerb ramps. 	<ul style="list-style-type: none"> Limited information has been provided at this stage of the design 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>
<ul style="list-style-type: none"> Hazards with <2000mm head clearance will require to be identified 	<ul style="list-style-type: none"> Limited information has been provided at this stage of the design 	BCA	<p>Capable of Compliance.</p> <p>Further review as design progresses.</p>
<ul style="list-style-type: none"> All glazed doors, sidelights and glazing that could be mistaken for a door or opening must be marked with contrast marking 	<ul style="list-style-type: none"> Provide contrast marking no less than 75mm wide for full width of glazing at 910-1000mm height. 	BCA	<p>Capable of Compliance.</p> <p>Further review as design progresses.</p>

Key TGSi and hazard identification criteria:

- Standard warning TGSi size is 600-800mm for full width of path of travel
- TGSi's to be set back 300mm +/- 10mm from hazard
- TGSIs to have min 30% luminance contrast for integrated TGSi's and 45% for discrete TGSIs
- TGSIs not required in Aged Care building
- Contrast marking to achieve minimum 30% luminance contrast against floor or surfaces within 2m

5.9. 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	Action
<p>Public paths of travel and internal corridors throughout shall be designed to comply as follows:</p> <ul style="list-style-type: none"> Ensure a minimum unobstructed clear width of 1000 mm along all corridors to rooms or spaces. 	<ul style="list-style-type: none"> Ongoing review Limited information has been provided at this stage of the design 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> Provide turning spaces of 1500x1500 (corner may be truncated) where a user is required to make a directional turn. Provide turning space within 2000 mm at the ends of corridors, where it is not continuous to offer turning space: minimum width 1540 mm x 2070 mm length. Passing bays (1800mm wide x 2000mm length) are required every 20m where no direct line of sight is provided 			

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.

5.10. 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	Action
<ul style="list-style-type: none"> The unobstructed clear width of doors must achieve a minimum of 850mm (920mm leaf required). 	<ul style="list-style-type: none"> All doors along an accessible path of travel must have compliant door circulation and clear opening width of 850mm 	BCA	<p>Capable of compliance</p> <p>Detailed door schedule to be provided as the project progresses</p>
<ul style="list-style-type: none"> All doors to have light operation forces 	<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. 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses</p>

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> Ensure a level transition is provided to and within terraced/deck areas 	<ul style="list-style-type: none"> Thresholds ramps are to be installed in accordance with AS1428.1-2009 to address level difference indicated at 20 mm 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses</p>
<ul style="list-style-type: none"> Airlocks require clear circulation spaces between doors 	<ul style="list-style-type: none"> Provide 1450mm clear circulation in airlock arrangement. Provide 900mm x 900mm circulation space within ambulant toilets – as per Part 16, & Fig 53(A)+(B) of AS1428.1 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses.</p>
<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"> Provide details as design progresses. 	BCA	<p>Capable of Compliance</p> <p>Further review to be undertaken as the design progresses.</p>

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.

5.11. Sanitary Facilities

Facilities are 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	Action
<ul style="list-style-type: none"> Limited details provided at this stage of the design regarding provision of sanitary facilities 	<ul style="list-style-type: none"> Further review is to be undertaken as the design develops. Sanitary facilities within the End of Trip Facilities areas are to be confirmed at a later date and compliance will be checked at that time. A Unisex Accessible WC / Shower combined compartment has been provided at the Level 3 End of Trip Facilities. Unisex accessible sanitary facilities and ambulant cubicles have been shown to be provided as follows: <ul style="list-style-type: none"> Common banks of toilets on all office levels. Mezzanine Level. The Ground Floor Lobby Café. 	BCA	<p>Capable of compliance</p> <p>On-going review to be undertaken as the design progresses.</p>
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Detail RH and LH Transfer bathrooms distributed throughout the floor levels. 	BCA	<p>Compliance Indicated.</p> <p>Future review to be undertaken as the design is finalised to confirm compliance.</p>

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

5.12. 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	Action
<ul style="list-style-type: none"> A wayfinding strategy should be developed for the precinct 	<ul style="list-style-type: none"> Further review of a wayfinding package to be undertaken when available 	DDA	Further review of a wayfinding package to be undertaken when available
<ul style="list-style-type: none"> Mandatory Signage is required. 	<ul style="list-style-type: none"> Braille and tactile signage in accordance with specification D3.6 is required in the following locations: <ul style="list-style-type: none"> Unisex and ambulant sanitary Facilities Identify each door required by BCA Clause E4.5 to be provided with an exit sign, stating 'EXIT' and 'Level' number To identify accessible entrances Rooms with hearing augmentation system 	BCA	<p>Capable of compliance</p> <p>Further review to be undertaken as the design progresses</p>

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

5.13. 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	Action
<ul style="list-style-type: none"> Hearing Augmentation will be required, if in-built amplification is available within the Buildings/rooms 	<ul style="list-style-type: none"> As the design continues to progress confirm precise requirements for hearing augmentation. 	BCA	<p>Capable of compliance</p> <p>Further review to be undertaken as the design progresses</p>

Key Hearing augmentation criteria:

- Hearing Augmentation systems must be provided where inbuilt amplification is provided in rooms (e.g. auditoriums, conference rooms or meeting rooms)
- Hearing Augmentation systems must be provided where inbuilt amplification is provided to ticket offices, tellers booths, reception areas or the like where the public is screened from the service provider.
- Hearing augmentation systems can be permanent or portable. The nature of the built environment will dictate the desired outcome.

5.14. Emergency Evacuation

Comment/issue	Recommendation	BCA/ DDA	Action
<ul style="list-style-type: none"> Consider implementation of an emergency evacuation plan for people with disabilities. 	<ul style="list-style-type: none"> The emergency evacuation strategy for the development should address the operational solution of evacuating occupants that cannot use fire stairs. 	DDA	Further discussion required.

Key emergency evacuation criteria:

- Consideration of individuals with disabilities is required as part of emergency evacuation planning. The types of accessible emergency evacuation include “protect in place” i.e. 1 hour rated rooms on non-fire effected levels; smoke isolated lift lobbies with managed lift access; horizontal evacuation movement to other building areas; or provision of fire refuges within fire stairs or identified zones.
- If areas of refuge are provided spaces of 1300mm x 800mm are required per individual. This space needs to be set back from the main egress thoroughfare.
- Fire evacuation plans should include provision of management plans to assist individuals with disabilities or access requirements. Individuals with accessible requirements should be provided with a “fire buddy” to escort them to pre-determined areas of refuge.
- Fire engineering reports should detail accessible evacuation within a sub section of the plan.
- The current best practice is detailed in the 'AS 3745 - 2010 Planning for emergencies in facilities' and should be used as a guideline to assist in the implementation of the Emergency Plan

5.15. Additional Site Specific Components

Comment/issue	Recommendation	BCA/ DDA	Action
The public realm/ground floor offers significant opportunities to enhance the existing scheme. There will be minimum BCA requirements in terms of access paths, gradient, stairs etc., however, many aspects of good design in external spaces, fall outside these minimum requirements.	<p>The following are some design considerations for providing equitable access to the public realm;</p> <ul style="list-style-type: none"> ▪ Surface treatments e.g.; grass, gravel, stone, pavers – be aware of abutment detail with other surfaces; both level difference and slip resistance differences. ▪ Careful design of drainage grates, surface falls and gradients generally ▪ Provision of rest seating opportunities along walkways, stair landings etc. ▪ Lighting designs that minimise glare. ▪ Luminance contrast of features such as; steps, seats, bollards, bins etc. ▪ Consistent/compliant use of TGSIs to create a predictable environment ▪ Landscape planting can offer tactile and olfactory clues to the environment to enhance different areas. 	BCA/ DDA	Further discussion /review required
<p><u>Internal Seating</u></p> <ul style="list-style-type: none"> ▪ Recommend that any internal seating considers accessible needs and is provided with both backrest and armrests in accordance with AS1428.2. 	<ul style="list-style-type: none"> ▪ Provide a range of seating within waiting and kiosk areas to accommodate all users i.e. some with backrest, some with armrests and at various seat heights etc. ▪ Any seating to be set back 500mm from the walkway. 	DDA	Note for consideration
<p><u>Reception/Service Desk/counters</u></p> <ul style="list-style-type: none"> ▪ Any reception/service desk/counter or the like should be at an accessible height to cater for all users in accordance with the requirements of AS1428.2 	<ul style="list-style-type: none"> ▪ Counters should be at a universally accessible height of 900mm or if higher provide an 850mm wide section of 850mm height with underbench clearance. 	DDA	Note for consideration
<p><u>Furniture & Fixtures</u></p> <ul style="list-style-type: none"> ▪ Future design should consider accessible requirements tea point, vending machines, drinking fountains, telephones, controls etc. ▪ Items shall be a minimum of 500mm away from the path of travel. 	<ul style="list-style-type: none"> ▪ Future fitout/design of fixtures, furniture and fittings should consider accessible requirements in accordance with AS1428.2 	DDA	Note for consideration

6. COMPLIANCE SUMMARY

The recommendations in this report have been provided to assist in the creation of a universally accessible environment within the proposed development.

In summary, we are satisfied that the Mod 9 Documents for Planning Approval are capable of complying with the spirit and intent of the Disability Discrimination Act (DDA), the principals of universal accessibility and the relevant technical requirements of the AS1428 series for access and mobility; the Access to Premises Standard (2010) and applicable associated documentation for the purposes of the development application process.

As the design develops it is anticipated that as additional detail is provided - particularly detailed floor plans including additional dimensions and features - the accessibility of this development can be further detailed.

If you have any further queries in relation to the reports and recommendations contained, please contact Ray Franke on 07 3834 9852.

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