



To: Bazem Pty Ltd  
C/- E & P Comelli Constructions

Project: Warriewood Apartments, 31 Warriewood Rd, Warriewood

Report: Access Assessment Report

Reference No. 106968-ACCESS-r1

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## 1 BASIS OF ASSESSMENT

### 1.1 Location

The building development, the subject of this report, is located at 31 Warriewood Rd, Warriewood, where it is proposed to construct a new residential unit development (29 units) and basement level car parking. The building will comprise of 1 basement levels of car parking and further car parking on the ground floor with four residential levels commencing on the lower ground level.



Courtesy of NearMap

### 1.2 Purpose

The purpose of this report is to assess the proposed / existing building against the following Deemed-to-Satisfy provisions of the Building Code of Australia 2016 (BCA2016) to clearly outline those areas where compliance is not achieved and provide recommendations to upgrade such areas to achieve relevant compliance:

- Disability Discrimination Act 1992 (DDA);
- Disability Access to Premises Standards 2010 (Premises Standards);
- Design Quality of Residential Apartment Development 2016 (SEPP65)
- Building Code of Australia 2016 (BCA2016) – Part D3 and Clauses E3.6 and F2.4;
- Northern Beaches – Pittwater 21 Development Control Plan (DCP);
- Liveable Housing Design Guidelines – As required by DCP; and
- Applicable Australian Standards AS1428.1:2009, AS1428.4.1:2009 and AS2890.6:2009.

### 1.3 Limitations

This report is limited to an assessment of the access and amenity provisions for people with a disability against the provisions of the BCA2016 as outlined in 1.2 above. It is not an assessment of the proposal against all provisions of the BCA2016 and if this is required, a separate report will be necessary.

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- The structural adequacy or design of the building;
- The inherent derived fire-resistance ratings of any existing or proposed structural elements of the building (unless specifically referred to); and

- The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- The Disability Discrimination Act (it cannot be guaranteed that that a complaint under the DDA will not be made, however should the building comply with BCA2016 and the Premises Standard then those responsible for the building cannot be subject to a successful complaint);
- BCA2016 Sections B, C, E, F, G, H, I, J, Parts D1 and D2;
- Demolition Standards not referred to by the BCA2016;
- Work Health and Safety Act;
- Construction Safety Act;
- Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of Planning and the like;
- Conditions of Development Consent issued by the Local Consent Authority; and
- This report does not assess the safety of the particular aspects of the building but merely the minimum standards called up by the Access provisions of BCA2016.

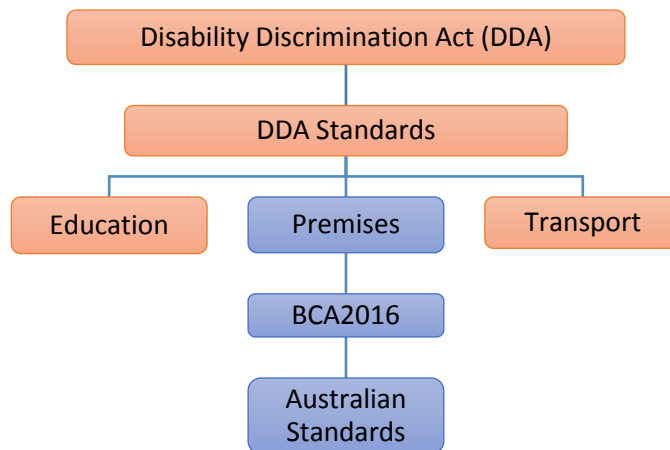
#### 1.4 Federal Disability Discrimination Act (DDA)

Disability is broadly defined and includes disabilities which are physical, intellectual, psychiatric, neurological, cognitive or sensory (a hearing or vision impairment), learning difficulties, physical disfigurement and the presence in the body of disease causing organisms.

All organisations have a responsibility, under the DDA, to provide equitable, dignified access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas included within the subject development.

The DDA applies nationally and is complaint based. While the BCA2016 is recognised as a design standard to satisfy certain aspects of the DDA, compliance with the BCA2016 and the referenced standards does not guarantee that a complaint will not be lodged.

The graph below indicates the current relationship of the BCA2016 to the DDA.



#### 1.5 Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

## 2 BUILDING DESCRIPTION

For the purposes of the BCA2016 and Access Code for Buildings (Premises Standards – Schedule 1) the development may be described as follows.

### 2.1 Classification

Under the provisions of Clause A3.2 of BCA2016, the building has been classified as follows:

Class	Level	Description
7a	Basement level and Part Ground	Car parking
2	Ground to Level 3	Residential Sole-occupancy units

### 2.2 Areas Required to be Accessible

Given that the building is to be used for permanent long term residential occupation the Access Code for Buildings (Premises Standards – Schedule 1) will not be applicable and is not discussed further in this report.

Under the provisions of Clause D3.1 of BCA2016, the following areas of the building are required to be accessible:

- To the entrance doorway of each of the residential units. (Access within the units themselves is governed by the requirements for Liveable or Adaptable Housing requirements)
- To and within rooms or spaces for use in common by the residents (This will include garbage rooms).
- To and within all areas normally used by the occupants within the retail parts of the building.
- To and within any level of the carpark containing the accessible car spaces.

Note: The limitations and exemptions of Clauses D3.2, D3.3 and D3.4 of the BCA2105 have been considered where applicable in the process of developing the above table.

### 3 ACCESS REQUIREMENTS FOR PEOPLE WITH DISABILITIES

#### 3.1 Introduction

The table below is a summary of all the individual elements that relate directly to the ability of a person with a disability to access all the portions of the building required to be accessible as outlined in Part 1.2 of this report.

Accessibility has been assessed against the relevant portions of the BCA2016, Access Code for Buildings, SEPP65 and the related Australian Standards for each item listed below.

Compliance has been indicated by using the following symbols:

Symbol	Description
✓	Compliance is achieved, and no further information is required.
✓	Specific details are not provided, but compliance can be readily achieved.
✗	From the documentation provided, compliance is not achieved.

#### 3.2 Council's Development Control Plan Requirements (DCP)

The Northern Beaches Pittwater 21 DCP provides Council's planning controls on the provision of Accessibility under Part C1.9 of that Plan. The development control outlines that Residential Flat buildings must have a minimum 20% of the units (rounded up to the nearest %) that meet the Silver Level criteria of the Liveable Housing Guideline.

Development	Percentage (%) of adaptable units (rounded up)	Minimum class under AS 4299:1995
Multi Dwelling Housing, Boarding Houses, Group Homes and Hostels, excluding those in Warriewood Valley	50	Class B
Residential Flat Buildings, Shop Top housing and Mixed Use developments comprising residential accommodation.	20	Silver level of the <i>Liveable Housing Guideline</i> .
Residential development in Warriewood Valley not elsewhere identified in this table.	25	Class B
Seniors Living	100	Per the requirements of the <i>State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004</i>

The development's ability to meet the requirement of the Liveable Housing Guideline is discussed with Part 3.4 of this report.

The Control further specifies general criteria as outlined in the table below;

Control	Comment
Development shall include the design and construction of works in the public domain to ensure accessibility for the full frontage of the site to any public road and to ensure access to the site from the public domain.	The main entry frontage of the building is proposed to be connected with the public road.
Development within areas subject to flooding must provide for access on land within private	It is assumed the site is not subject to flooding.

ownership. In this regard ramps must not encroach into the public domain.	
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The DCP also requires that parking for persons with a disability be provided under control B6.3. The design of required accessible car spaces must comply with the requirements of AS/NZS 2890.6-2009. Table 1 of this controls requires that accessible spaces be provided at a rate of 3% of the required parking. It is noted that 3 accessible car spaces are suitably proposed.

### 3.3 Apartment Design Guide Requirements (ADG / SEPP65)

The SEPP 65 Apartment Design Code requires the following in relation to adaptability / accessibility within a residential flat building:

1. Access, entries and pathways are accessible and easy to identify. Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces (page 67).
  - a) Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces.
  - b) Minimise level changes along pathways and entries on ground floor and underground car parks.
  - c) Steps and ramps should be integrated into the overall building and landscape design.
  - d) For large developments “way finding” maps should be provided to assist visitors and residents.
  - e) For large developments electronic access and audio/video intercom should be provided to manage access.
2. Street frontage activity is maximised where ground floor apartments are located. Direct street access should be provided to ground floor apartments (page 109).
3. Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline’s silver level universal design features. Note: Universal design is different to adaptable housing which is governed by AS4299 (page 119).
4. A variety of apartments with adaptable designs in accordance with the relevant council policy are provided including the following design solutions (page 119):
  - a) Convenient access to communal and public areas
  - b) Minimal structural change and residential amenity loss when adapted.
  - c) Larger carparking spaces for accessibility.

Outlined below is a detailed assessment of the proposal against the relevant provisions of the ADG / SEPP65, with reference to the requirements as numbered above:

Item	Design Element	Comment	Compliance
1	Access, entries and pathways are accessible and easy to identify.	It is considered that the entry and pathways design can readily accommodate features that will ensure ease of identification.	✓
2	Street frontage activity is maximised where ground floor apartments are located	It is considered that both the ground floor frontages	N/A
3	20% of Livable Housing Design Guidelines (LHDG) silver level universal design benchmark to be included in the development.	LHDG universal design features are required for this development and applicable to the parts of the building class not covered by the Disability Standards and BCA. See Section 3.4 below.	✓



4	A variety of apartments with adaptable designs are provided	Adaptable Housing to be provided according Council's policies. A minimum of 20% of the apartments will incorporate the features of the Livable Housing Design Guidelines	✓
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### 3.4 Livable Housing Design Guidelines Requirements (LHDG / SEPP65).

LHDG universal design features are required for Class 2 buildings and applicable to the parts of the building class not covered by the Disability Standards and BCA2016 (Vol. 1 and 2).

The new ADG / SEPP65 is applicable for development applications lodged from 17<sup>th</sup> of July 2016 which requires a benchmark of 20% of units to be designed under the LHDG “**silver level**” universal design requirements.

A minimum 6 Livable units will need to be provided within the building, it is considered that this can be readily achieved.

The Liveable units are to be designed accordingly in accordance with the criteria outlined below;

Item	Design Element	Comment	Compliance
1	<b>DWELLING (SOU) ACCESS</b>		
	Safe and continuous pathway from the boundary or carpark (1000mm clear width, even, firm and slip resistance surface, 1:14 max. cross fall).	Safe and continuous pathways can be provided from both the street boundary and the accessible car spaces.	✓
	Maximum pathway slope of 1:14. Ramps (1:14) to have landings at 9mm max. and walkways (1:20) with landings at 15mm max.	Accessways to accommodate the features of Part D3 of the BCA2016 which will ensure compliance with this item.	✓
	Step-free path of travel	Units show a “step free” entrance.	✓
	Step ramps allowed for 190mm rise max. (1:10 gradient, 1000mm clear width, and 1900mm length max., 1200mm landing length)	Level flooring provided throughout ground floor. No step ramps required. Transition areas will be designed to Part D3 of the BCA2016.	✓
2	<b>DWELLING (SOU) ENTRANCE</b>		
	Provide 820mm min. clear door width opening	It is considered that the minimum clear entrance door width can be provided.	✓
	Ensure a level (step-free) transition.	It is expected that step free access would be provided from the common corridor area.	✓
	Ensure 5mm max. vertical tolerance between bevelled abutting surfaces.	SOU's show level entrance. Flooring to comply with this requirement, achieved at construction stage.	✓
	Reasonable shelter from the weather.	Enclosed lobby entrances and corridor areas will be provided.	✓
	Provide 1200x1200mm level landings at entry doors.	Units to provide 1200x1200mm landing at entry door. It is noted that provision has been made for this to occur. .	✓

	“Ramped threshold” (Fig 1b) allowed between 5-56mm height change.	Units show a “step free” entrance.	✓
	Level & “step-free” entrance connected to the “safe and continuous pathway”.	Units show “step free” entrance connected directly to a level common internal corridors.	✓
3	<b>CAR PARKING</b>		
	Garages forming part of the dwelling access to be 3200x 5400mm min.	Car parking spaces are separated from the dwelling accessways. Accessible car spaces are proposed which meet the current accessible car parking design standards in accordance with Council DCP.	✓
	Provide even, firm and slip resistant surface.	It is considered that the concrete car parking surface will provide the required slip resistance.	✓
	Provide 1:40 max. level surface (1:33 max. asphalt).	Car parking spaces to comply with this requirement.	✓
4	<b>INTERNAL DOOR AND CORRIDORS</b>		
	820mm clear door opening at entry level rooms (living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment).	Internal doors to be 820mm min. clear width. It is expected that this could be achieved.	✓
	5mm max. vertical tolerance between bevelled abutting surfaces.	Units show a level entrance. To be achieved at construction stage.	✓
	1000mm internal corridors at entry level rooms (living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment).	It will need to be ensured that final dimensions to the small internal corridor areas will be 1000mm clear.	✓
5	<b>TOILET</b>		
	Toilet to be on entry level (ground floor).	Units are single level only and will contain a toilet.	N/A
	If WC is located in a separate room. WC pan circulation space to be 900x1200mm front if WC (door not to encroach) (Fig 3a).	Minimum clear space of 1200mm is suitably allowed for in front of at least one WC pan.	✓
	If WC is located within a bathroom. WC pan circulation space to be in the corner of the room to enable installation of grabrails (door not to encroach) (Fig 3b).	Toilet provides 1200mm clearance in front of the WC pan that is 900mm in width and it is located in the corner of the room.	✓
6	<b>SHOWER</b>		
	Bathroom to have slip resistant and hobless shower recess (portable shower screens allowed)	Units to be provided with a hob less shower recess. Shower screen can be provided that they can be relatively easily removed at a later date.	✓
	Shower recess located in a room corner to enable the installation of grabrails.	It is noted that shower recesses are generally allowed for in the room corners. Final details to be provided at construction stage.	✓

7	<b>REINFORCEMENT ON WALLS</b>		
	Walls to be constructed of solid masonry or concrete, otherwise to be reinforced.	Details to be provided at construction stage.	✓
	1100N min. withstand in all directions.	Details to be provided at construction stage.	✓
	For WC, the reinforcement to be 25mm thick noggings (Fig 6a), or 12mm thick sheeting (Fig 6b)	Details to be provided at construction stage.	✓
	For baths, reinforcement to be 25mm thick noggings (Fig 7a), or 12mm thick sheeting (Fig 7b)	Details to be provided at construction stage.	✓
	For showers, reinforcement to be 25mm thick noggings (Fig 8a), or 12mm thick sheeting (Fig 8b)	Details to be provided at construction stage.	✓
8	<b>INTERNAL STAIRS</b>		
	A continuous stairway handrail where there is a rise of more than 1m.	-	N/A

Note: The design elements describes in these guidelines should only be applied to the parts of the building classes not covered by the Disability Standards and NCC (BCA2016 Vol 1).

### 3.5 Building Code of Australia 2016 Assessment Summary (BCA2016) and Premises Standards Access Code

Clause	Comment	Status	
<b>SECTION D: ACCESS AND EGRESS</b>			
<b>PART D3 - ACCESS FOR PEOPLE WITH A DISABILITY</b>			
D3.0	Deemed To Satisfy Provisions	-	Noted
D3.1	General Building Access Requirements	<p>The following parts of the building are required to be accessible. Accessible meaning having the features to enable use by persons with a disability.</p> <ul style="list-style-type: none"> <li>To the entrance doorway of each of the residential units. (Access within the units themselves is governed by the requirements for Liveable or Adaptable Housing requirements)</li> <li>To and within rooms or spaces for use in common by the residents (This will include storage, garbage rooms and communal open space).</li> <li>To and within any level of the carpark containing the accessible car spaces.</li> </ul>	✓
D3.2	Access to Buildings	<p>An access way must be provided from the main points of pedestrian entry at the allotment boundary and from any of the accessible car spaces.</p> <p>An access way means a continuous path of travel to, into or within the building. The path must be uninterrupted and provide access to all accessible features.</p>	✓

SECTION D: ACCESS AND EGRESS		
		The entrance doors must maintain an unobstructed clearance of 850mm. It is expected that minimum requirements can be achieved.
D3.3	Parts of Buildings to be Accessible	<p>Accessible features need to be provided within the building designed and installed in accordance with AS 1428.1-2009. Continued consideration will be necessary as design develops including AS 1428.2 which will provide guidance on location of intercoms, letterboxes etc.</p> <p>Any ramps within the building must comply with Clause 10 of AS 1428.1. A ramp occurs where the gradient of the surface is steeper than 1:20.</p> <p>Every stairway, except the fire isolated stairways, must comply with the requirements of Clause 11 of AS 1428.1.</p> <p>Accessible features in a fire isolated stairway are limited to Clauses 11.1(f) &amp; (g) and handrails compliant with Clause 12. The stair shafts should be sized so that stair flights are offset by at least one riser.</p> <p>The passenger lifts must comply with Clause E3.6 which is discussed further below.</p> <p>Access ways must have passing spaces complying with AS 1428.1 at maximum 20m intervals and on areas where a direct line of sight is not available.</p> <p>Turning spaces complying with AS 1428.1 must be provided within 2m of an end where it is not possible to continue travelling or at maximum 20m intervals along an access way. It is considered that these can be achieved with further design development. Note that minimum clearance dimensions are to be measured clear of all obstructions including skirting. It is recommended that a clear wall to wall dimension of 1600mm be allowed for.</p> <p>The bin storage area is considered to be a common user facility, it is noted that suitable provision has been made for access.</p> <p>Note: The Access to Premises Standards to not provide the concessions provided in sub-cluses (g) and (h) in this clause, hence compliance with the Access to Premises Standards will require the floor covering in the accessible areas to strictly comply with Clause 7.4.1(a) of AS1428.1-2009.</p>
D3.4	Exemptions	<p>Certain areas can be exempted under this clause if pose a health and safety risk for people with disability and /or access would be inappropriate because the particular purpose for which this area is used (e.g. plant rooms, service areas, heavy / toxic item storage, etc.)</p> <p>The following areas within this development have been identified as potential excepted areas, subject to certifier's approval:</p> <ul style="list-style-type: none"> <li>• Plant rooms, services rooms or the like.</li> <li>• Cleaner's stores etc.</li> </ul>



Noted

SECTION D: ACCESS AND EGRESS				
D3.5	Accessible Parking	Car	<p>Accessible car parking spaces to be in compliance with this Clause, AS2890.6 in the proportion required by BCA2016 and Council's DCP.</p> <p>Generally, accessible car parking spaces compliant with AS2890.6 will require 2400x5400mm plus an adjacent shared zone of 2400x5400mm and 2400mmx2400mm in the aisleway. Bollard, demarcation and accessible signage to comply with AS2890.6. Vertical clearance to be 2500mm min over the car parking and 2200mm over the access way, compliant with AS2890.6.</p> <p>An accessible car space designed in accordance with the above criteria will need to be allocated to each adaptable unit.</p> <p>It is noted that suitable provision has been made for compliant spaces to be provided.</p>	✓
D3.6	Signage		Braille and tactile signage complying with Specification D3.6 and incorporating the international symbols as appropriate must identify each accessible sanitary facility and all accessible entrances where an entrance is not accessible. Signage must also be provided to identify Exits and their location.	✓
D3.7	Hearing Augmentation		-	N/A
D3.8	Tactile Indicators		TGSI's to be provided in compliance with this Clause, AS1428.1, AS1428.4.1 and AS4856/HB197 at bottom and top of public stairs / ramps (except fire-isolated), at the base of any ramps where provided (other than step or kerb ramps), where overhead obstructions occur less than 2m above floor level.	✓
D3.9	Wheelchair seating spaces in Class 9b Assembly Buildings		-	N/A
D3.10	Swimming Pools		-	N/A
D3.11	Ramps		No ramps currently proposed.	N/A
D3.12	Glazing on an Accessway		On an access way, 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.	✓
SPECIFICATION D3.6 – BRAILLE AND TACTILE SIGNS				
1.	Scope		-	Noted
2.	Location of Braille and Tactile Signs		The location of braille and tactile signs shall be in accordance with AS1428.1 and Specification D3.6.	✓
3.	Braille and Tactile Sign Specification		All accessible signage to comply with this clause and AS1428.1. Tactile characters to be raised in sentence case with matt finish.	✓
4.	Luminance-contrast		All accessible signage to comply with this clause and As1428.1. The sign background to have at least 30% luminance contrast with the 5mm width border, tactile characters and braille. Luminance contrast to be measured on the location once installed.	✓

<b>SECTION D: ACCESS AND EGRESS</b>			
5.	Lighting	Braille and tactile signs to be appropriate illuminated, in compliance with this Clause and AS1428.1. The access pathway must have a minimum luminance contrast of 30%, in accordance with AS1428.1.	✓
6.	Braille	Braille must be in accordance with the criteria set out by the Australian Braille Authority.	✓
<b>SECTION E: SERVICES AND EQUIPMENT</b>			
<b>PART E3 – LIFT INSTALLATIONS</b>			
E3.0	Deemed-to-Satisfy Provisions	-	Noted
E3.6	Passenger Lifts	<p>Passenger lift to comply with this Clause, Table 3.6a Limitation of Use, Table 3.6b Application of Features and AS1735.12.</p> <p>As the passenger lift travels more than 12m it is required to maintain a minimum floor dimension of 1100mm wide x 1400mm deep.</p>	✓

<b>SECTION F: HEALTH AND AMENITY</b>			
<b>PART F2 – SANITARY AND OTHER FACILITIES</b>			
F2.0	Deemed-to-Satisfy Provisions	-	Noted
F2.4	Accessible Sanitary Facilities (including Table F2.4)	<p>Given the number of units Clause F2.1 of the BCA requires that a facility be provided to serve employees. The BCA2016 has extended this to include owners, managers, workers and contractors. Given the range of potential users this facility will need to be located and designed as an accessible unisex facility (a shower is not required). The facility will need to be located at the ground or level 1 areas in a common accessible area. It is noted that suitable provision has been made.</p>	✓

## 4 STATEMENT OF COMPLIANCE

The design documentation as referred to in this report has been assessed against the applicable provisions of the BCA2016 and the Premises Standards as outlined in Part 1.2 of this report and it is considered that such documentation complies or is capable of complying with those documents for the purposes of a Development Application.

Further due to the level of detail provided at this stage the following items are to form part of a design statement or specification during the Construction Certificate Stage:

### General

- 1 Tactile ground surface indicators will be installed at the top and bottom of stairways / ramps (other than fire isolated stairways / ramps); and where an overhead obstruction is less than 2 metres above the floor level. Tactile ground surface indicators will comply with Sections 1 and 2 of AS1428.4.1.
- 2 On an accessway where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights or glazing capable of being mistaken for a doorway or opening will be clearly marked and comply with Clause 6.6 of AS1428.1-2009. A solid non-transparent contrasting line not less than 75mm wide is to extend across the full width of the glazing panel. The lower edge of the contrasting line is to be located between 900-1000mm above the plane of the finished floor level. The contrasting line is to provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2 metres of the glazing on the opposite side.
- 3 All common area doorways will have a minimum luminance contrast of 30% in accordance with Clause 13.1 of AS1428.1-2009.
- 4 Fixtures and fittings in accessible sanitary facilities will be provided and installed in accordance Clause 15 of AS1428.1-2009.
- 5 Fixtures and fittings in ambulant facilities will be provided and installed in accordance Clause 16 of AS1428.1-2009.
- 6 Walkways will comply with Clause 10 of AS1428.1-2009.
- 7 For the walkways, the floor or ground surface abutting the sides of the walkway will be firm and level of a different material to that of the walkway at the same level and follow the grade of the walkway and extend horizontally for a minimum of 600mm, or be provided with a kerb or kerb rail in accordance with Clause 10.2 of AS1428.1-2009.
- 8 The fire isolated stairs will comply with Clause 11.1(f) and (g) of AS1428.1-2009.
- 9 Handrails will comply with Clause 12 of AS1428.1-2009.
- 10 Grabrails will comply with Clause 17 of AS1428.1-2009.
- 11 Accessible car spaces will achieve compliant headroom clearances in accordance with Clause 2.4 of AS2890.6-2009.
- 12 Demarcation will be provided in the accessible car space and adjacent shared zone in accordance with Clause 3.1 and 3.2 of AS2890.6. Refer to Annexure B1 for a diagrammatic explanation.
- 13 Bollards will be provided in the shared disabled car space area in accordance with Clause 2.2.1(e) of AS2890.6-2009. Refer to Annexure B1 for a diagrammatic explanation.
- 14 Switches and power points will comply with Clause 14 of AS1428.1-2009.
- 15 Floor and ground floor surfaces on accessible paths and circulation spaces including the external areas will comply with Clause 7 of AS1428.1-2009. Any level difference over 3mm must be ramped according AS1428.1 Clause 10.5.
- 16 Braille and tactile signage will comply with BCA2015 Clause D3.6.
- 17 Signage will to comply with Clause 8 of AS1428.1-2009.
- 18 The passenger lifts will comply with BCA2015 Table E3.6b and AS1735.12.
- 19 The unobstructed height of a continuous accessible path of travel will be a minimum of 2000mm and 1980mm at doorways.
- 20 Door handles and the like, will be in accordance with Clause 13.5 of AS1428.1-2009.

**SEPP 65 – Livable Housing Design Guidelines (LHDG)**

1. Entrance door to have 820mm min. clear door width opening, level transition (5mm max. vertical tolerance) and reasonable shelter from the weather.
2. Entrance door to have 1200x1200mm level landings.
3. “Ramped threshold” (Fig 1b) allowed between 5-56mm height change.
4. Level & “step-free” entrance connected to the “safe and continuous pathway”.
5. Waterproofing and termite management at entry door (as per NCC).
6. Garages to have minimum 3200x 5400mm, an even, firm and slip resistant surface with 1:40 max. level surface (1:33 max. asphalt).
7. All internal doors to have 820mm min. clear door opening at entry level rooms, 5mm max. vertical tolerance surface, and 1000mm min. internal corridors at entry level rooms.
8. Toilet to be on entry level (ground floor).
9. If WC is located in a separate room. WC pan circulation space to be 900x1200mm front if WC (door not to encroach) (Fig 3a).
10. If WC is located within a bathroom. WC pan circulation space to be in the corner of the room to enable installation of grabrails (door not to encroach) (Fig 3b).
11. Bathroom to have slip resistant and hobless shower recess (portable shower screens allowed)
12. Shower recess located in a room corner to enable the installation of grabrails.
13. Walls to be constructed of solid masonry or concrete, otherwise to be reinforced (1100N min. withstand in all directions).
14. For WC, the reinforcement to be 25mm thick noggings (Fig 6a), or 12mm thick sheeting (Fig 6b)
15. For baths, reinforcement to be 25mm thick noggings (Fig 7a), or 12mm thick sheeting (Fig 7b)
16. For showers, reinforcement to be 25mm thick noggings (Fig 8a), or 12mm thick sheeting (Fig 8b)
17. A continuous stairway handrail where there is a rise of more than 1m.



## Annexure A Design Documentation

This report has been based on the following design documentation.

Architectural Plans Prepared by DKO Architecture		
Drawing Number	Revision	Title
DA001	-	Title Page
DA101	-	Site Analysis
DA103	-	Site Analysis
DA104	-	Site Analysis
DA105	-	Site Analysis
DA106	-	Site Analysis
DA201	-	Basement Plan
DA202	-	Ground Floor
DA203	-	Level 1
DA204	-	Level 2
DA205	-	Level 3
DA206	-	Roof Plan
DA301	-	Elevations
DA302	-	Elevations
DA303	-	Sections