

Disability Access Report

Seniors Living Development
2A Maude Street
BELMONT NSW 2280

For: Oak Tree Group
Ref: LP_21199



Executive Summary

Development application documentation for the proposed Seniors Living Development located at 2A Maude Street Belmont NSW has been reviewed against current accessibility legislation including SEPP Housing for Seniors and People with Disabilities with regard to access for persons with a disability.

The following table summarises compliance issues.

Item No.	Description	Compliance Status
SEPP Siting Requirements		
4.1	Location & Access to Facilities	Compliant
4.2	Accessibility	Compliant
SEPP Schedule 3		
5.1	Siting Standards	Compliant
5.2	Security	To be addressed in detailed design.
5.3	Letterboxes	To be addressed in detailed design.
5.4	Private Car Accommodation	Fit for Purpose (per OTG standards)
5.5	Accessible Entry	Compliant
5.6	Interior	Compliant Configuration
5.7	Main Bedroom	Compliant Configuration
5.8	Bathroom	Compliant Configuration
5.9	Toilet	Compliant Configuration
5.10	Surface Finishes	To be addressed in detailed design.
5.11	Door Hardware	To be addressed in detailed design.
5.12	Ancillary Items	To be addressed in detailed design.
5.13	Living and Dining Room	Compliant Configuration
5.14	Kitchen	Compliant Configuration
5.15	Access to kitchen, main bedroom & bathroom	Compliant
5.16	Lifts in multi-storey buildings	Compliant Configuration
5.17	Laundry	Compliant Configuration
5.18	Storage	Compliant
5.19	Garbage	Compliant Configuration
External Areas BCA Requirements		
6.1	Allotment Boundary to Entrance	Compliant
6.2	Accessible Carparking to Entrance	Compliant
6.3	Accessways Generally	Compliant Configuration
6.4	Accessible Carparking	Compliant Configuration
6.5	Accessible Entrance	Compliant Configuration
6.6	Tactile indicators at entrance	To be addressed in detailed design.



Item No.	Description	Compliance Status
Common Areas BCA Requirements		
7.1	Extent of Access Generally	Compliant
7.2	Circulation Areas	Compliant
7.3	Doorways	Compliant Configuration
7.4	Exempt Areas	Compliant
7.5	Floor Finishes	To be addressed during detailed design
7.6	Carpet	To be addressed during detailed design
7.7	Controls	To be addressed during detailed design
7.8	Visual Indication to Glazing	To be addressed during detailed design
7.9	Tactile Indicators	To be addressed during detailed design
7.10	Signage	To be addressed during detailed design
7.11	Access to Swimming Pool	No requirement (<40m perimeter)
7.12	Slip Resistance (Ramps & Stairs)	To be addressed during detailed design
7.13	Thresholds	To be addressed during detailed design
7.14	Lifts	Capable of compliance
7.15	Walkways	Compliant Configuration
7.16	Stairs	Capable of compliance
7.17	Fire Isolated Egress Stairs	Compliant Configuration
7.18	Distribution Sanitary Facilities	Compliant
7.19	Accessible Sanitary Facilities	Compliant Configuration
7.20	Accessible Shower Facilities	Capable of compliance
7.21	Ambulant Toilets	Compliant Configuration

We consider that the drawings presented for assessment, for the purposes of a development application, generally comply with current statutory requirements.

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Capable of compliance

Document Control

This report has been prepared based on the documentation available and time allocated to conduct the review. All reasonable attempts have been made to identify key compliance matters. Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

Revision Summary:

prepared by: Jillian Coram-Parker	Draft Revision 1	7 July 2021 20 August 2021
approved by: Lindsay Perry	Draft Revision 1 Revision 2	12 July 2021 22 August 2021 3 September 2021

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Clarifications:

This report is limited to items within drawings listed in this report only.

Construction is to be in accordance with the recommendations made in this access report to ensure compliance.

Any dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered during construction to account for wall linings and the like.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry Access Pty Ltd. This may differ from that of other consultants.



1 Project Description

The development provides two (2) buildings over three (3) levels each, providing seventy-five (75) Units with basement carparking. The buildings are connected at the ground floor level by communal areas comprising reception, a lounge/library area with fireplace, kitchen and dining area, an office, a salon and sanitary facilities.

Communal outdoor space is provided centrally to the two buildings providing various outdoor areas, a gymnasium/multipurpose room, a lap pool and pool amenities.

2 Reviewed Documentation

Architectural documentation prepared by CKDS Architecture has been reviewed as follows:

dwg no.	drawing name	revision
	Cover Sheet	
A-0002	DCP and LEP Planning Controls	01
A-0003	Site Analysis & Key Principals	01
A-1001	Site Location Plan	01
A-1002	Height Massing	01
A-1101	Basement Plan	01
A-1102	Ground Floor Plan	01
A-1103	First Floor Plan	01
A-1104	Second Floor Plan	01
A-1105	Roof Plan	01
A-1201	Typ. 2 Bedroom (A)	01
A-1202	Typ. 2 Bedroom (B)	01
A-1203	Typ. 2 Bedroom + Study (A)	01
A-1204	Typ. 2 Bedroom + Study (B)	01
A-1205	Typ. 2 Bedroom + Study (C)	01
A-1206	Typ. 3 Bedroom	01
A-2001	Elevations 1-3	01
A-2002	Elevations 4-6	01
A-3001	Sections	01
A-3101	Detailed Section 1	01
A-3102	Detailed Section 2	01
A-3103	Detailed Section 3	01
A-5001	Materiality & Perspective	01
A-5002	Materiality & Perspective	01
A-5003	Materiality & Perspective	01
A-7001	Yield/SEPP 65 Schedule	01
A-7002	Window Schedule – Ground Floor	01
A-7003	Window Schedule – First Floor	01
A-7004	Window Schedule – Second Floor	01



3 Legislation

Access assessment has been made against Access Legislation including:

- State Environmental Planning Policy – Housing for Seniors and Persons with a Disability 2004 (SEPP), Current Amendment – 28 February 2019
- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The Building Code of Australia 2019 (BCA) Section D3 – Access for People with Disabilities
- The Building Code of Australia 2019 (BCA) Section D2 (in part) – thresholds and slip resistant
- The Building Code of Australia 2019 (BCA) Section E3.6 – Lifts
- Australian Standards AS1428.1(2009) Amendment 1, AS1428.2(1992), AS1428.4(2009) – Design for Access and Mobility
- Australian Standard AS2890.6 (2009) – Parking Facilities – Off street carparking For People with Disabilities.
- Australian Standard AS4299 – Adaptable Housing
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability

A summary of the requirements of relevant legislation follows.

- **SEPP** Housing for Seniors and People with a Disability encourages the provision of housing for seniors and persons with a disability. It accommodates the requirements of AS1428, AS4299 and AS2890.1.
- The **DDA** requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability.
- The **Disability (Access to Premises - buildings) Standards 2010** (the Premises Standards) commenced on 1 May 2011. Any application for a building approval for a new building or upgrade of an existing building on or after that date triggers the application of the Premises Standards.

The Premises Standards include an **Access Code** written in the same style as the Building Code of Australia. It has a number of Performance Requirements that are expressed in broad terms and references a number of technical Deemed-to-Satisfy Provisions.

- **The Building Code of Australia (BCA)** is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. The BCA is a performance-based code and compliance can be met through satisfying the deemed-to-satisfy provisions or by meeting the prescribed performance requirements.



- **BCA** for Class 2 buildings, requires access from a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.

Access for people with disabilities is also required to and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.

- **AS1428 – Design for Access and Mobility**
 - Australian Standard AS1428.1 (2009) Amendment 1 & 2, – Design for Access and Mobility contains access requirements that are mandatory for the provision of access for persons with a disability and is referred by the BCA
 - Australian Standard AS1428.2(1992) – Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities provides enhanced and best practice requirements that will minimize DDA risk
 - Australian Standard AS1428.4.1 (2009) Amendment 1 – Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators
- **AS4299 – Adaptable Housing** provides housing for different community groups with different needs. It involves a move away from special accommodation for persons with a disability, avoiding social dislocation and is referenced by the SEPP.
- **AS2890.6** applies to the carparking areas generally.
- **AS1735.12** contains requirements for passenger lifts for persons with a disability.



4 SEPP – Siting Requirements

The proposed development has been designed to reflect the requirements of the SEPP and the Australian Standards nominated in this document including AS1428 and AS4299. This development contains self-contained dwellings. Therefore, the requirements of SEPP Clause 26: Location and Access to Facilities, Clause 38: Accessibility are relevant.

4.1 SEPP Clause 26 Location & Access to Facilities

A SEPP development must offer access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors. These facilities are to be located within 400m of the site via a pathway that provides a suitable access pathway.

The SEPP states that a suitable access pathway is a path of travel by means of a sealed footpath or other similar and safe means that is suitable for access by means of an electric wheelchair, motorised cart or the like.

Further, the SEPP defines wheelchair access as follows (clause 3: interpretation)
wheelchair access, in relation to any 2 points, means a continuous path of travel between those points that can be negotiated by a person using a wheelchair.

The overall aims of the SEPP are to:

- increase the supply and diversity of residences that meet the needs of seniors or people with a disability, and
- make efficient use of existing infrastructure and services, and
- be of good design.

For development outside the Sydney Statistical Division, these services can be located at a distance greater than 400m from the site if there is a transport service available. The transport service is required to take residents to a place that is located at a distance of not more than 400m from the relevant facilities or services and is to be available to and from the proposed development. It must be available both to and from the proposed development during daylight hours at least once each day from Monday to Friday (both days inclusive).

Within the SEPP, a suitable access pathway has an average gradient of 1:14. Other allowable gradients include 1:12 for a length of up to 15m, 1:10 for a length of up to 5m and 1:8 for a length of up to 1.5m.

Compliance Summary:

Compliant

The development site is located within 200m of bus stops along Glover Street (XM77+X6 Belmont, NSW) and Gibson Street (XM78+C3 Belmont, NSW). A formed pedestrian footpath is an existing condition between the site and these bus stops.

Bus Routes 41, 43 and 48 travel along Glover and Gibson Streets providing a transport service between Belmont and Charlestown. The services operate seven days a week and provide access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors.

Bus Route 41

<https://transportnsw.info/routes/details/newcastle-transport/41/73041>

Bus Route 43

<https://transportnsw.info/routes/details/newcastle-transport/41/73041>

Bus Route 48

<https://transportnsw.info/documents/timetables/89-48-Belmont-to-Warners-Bay-via-Redhead-Charlestown-20210712.pdf>



Figure 1 | Location of the Site

A formed footpath is provided along Glover and Gibson Street between the development site the bus stops. It has a concrete surface, is relatively level and in good condition. It provides a suitable accessway per SEPP requirements.



Figure 2 | Existing Footpath to Glover Street



Figure 3 | Existing Footpath to Gibson Street



Figure 4 | Bus Stop Glover Street



Figure 5 | Bus Stop Gibson Street

The bus stops provide a hard-standing surface, shelter, seating, clear signage and tactile indicators.

4.2 SEPP Clause 38 – Accessibility

A SEPP development should have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities. A development should provide attractive, yet safe, environments for pedestrian and motorists with convenient access and parking for residents and visitors.

Compliance Summary:

Compliant

The proposed development meets the intent of this Clause with links to public transport.

Carparking is provided for residents and visitors within the secure basement carpark. Lifts are available to all levels of the development from this location.



5 SEPP – Schedule 3 Standards Concerning Accessibility & Usability for Hostels and Self-Contained Dwellings

The dwellings within the proposed development have been considered against SEPP-Housing for Seniors and People with Disabilities (SEPP) and the Australian Standards nominated in this document including AS1428 and AS4299.

A “self-contained dwelling” is defined as a dwelling or part of a building (other than a hostel), whether attached to another dwelling or not, housing seniors or people with a disability, where private facilities for significant cooking, sleeping and washing are included in the dwelling or part of the building, but where clothes washing facilities or other facilities for use in connection with the dwelling or part of the building may be provided on a shared basis.

There are seventy-five (75) units provided within the development. They are provided as two-bedroom; two-bedroom + study; and three-bedroom arrangements. All are provided with a carparking space in the basement car parking area.

5.1 SEPP Schedule 3, Clause 2 – Siting Standards

This Clause contains 3 parts regarding siting standards as follows.

(1) Wheelchair Access

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road.

(2) If the whole of the site does not have a gradient of less than 1:10:

- a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and
- b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

(3) Common Areas

Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

The applicable siting standards for this development are (1) and (3). The site has an overall gradient less than 1: 10 and community facilities are provided.

Compliance Summary:

Compliant

All of the units within the development are accessible to people with disabilities. Each unit has access to the adjoining public road (Glover Street) and carparking at the basement level is accessed via lifts.



5.2 SEPP Clause 3 – Security

Pathway lighting is to be designed and located to avoid glare for pedestrians and adjacent dwellings. Lighting to be minimum 20 lux at ground level.

Compliance Summary:

To be addressed during detailed design.

5.3 SEPP Clause 4 – Letterboxes

Letterboxes are required to be lockable, in a central location, on a hard standing and be accessible to persons using a wheelchair via an accessible path of travel within the meaning of AS1428.1.

Compliance Summary:

Compliant Configuration

Letterboxes are nominated at the pedestrian entrance from Glover Street. An accessible path of travel is provided from the letterboxes to the entrance of each units.

Letterboxes should be provided within the accessible height range of 600-1100mm above ground level to assist persons using a wheelchair / scooter.

5.4 SEPP Clause 5 – Private Car Accommodation

If car parking (not being for employees) is provided,

- Carparking spaces must comply with the requirements for parking for persons with a disability set out in AS2890 and,
- 5% of the total number of car parking spaces must be designed to enable the width of the spaces to be increased to 3.8m and,
- Any garage must have a power operated door.

Compliance Summary:

Fit-for-purpose

Carparking has been provided to reflect the needs of the residents.

Of the ninety (90) total carparking spaces provided within the development, four (4) accessible spaces are provided at the basement level and two (2) accessible spaces are provided at the forecourt entry in accordance with AS2890.6.

Other carparking spaces have a width of minimum width of 2700mm in keeping with specific client requirements.



5.5 SEPP Clause 6 – Accessible Entry

Every entrance to each residence, whether it be the front entry or not, must comply with Clauses 4.3.1 and 4.3.2 of AS4299. Clauses 4.3.1 and 4.3.2 of AS4299 require the entry door to comply with AS1428.2 – the minimum clear opening width of the doorway is to be 850mm and allow for wheelchair maneuverability (provide minimum 1550mm long area in front of the doorway).

Door hardware is to comply with AS1428. In this regard, entry door hardware is to be in the accessible height range of 900-1100mm above finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Compliance Summary:

Compliant – adequate circulation areas provided.

We recommend the use of a 920mm door leaf as a minimum to achieve a clear width of 850mm.

The requirement for door hardware to be implemented during detailed design.

5.6 SEPP Clause 7 – Interior

Widths of internal corridors 1000mm and circulation at internal doorways must comply with AS1428.1.

Compliance Summary:

Compliant – adequate circulation areas provided.

We recommend the use of a 920mm door leaf as a minimum to achieve a clear width of 850mm.

All corridors within the units meet the required width of 1000mm minimum.

5.7 SEPP Clause 8 – Main Bedroom

At least one bedroom is required to have adequate space for a wardrobe and a queen size bed with minimum 1200mm wide circulation at the foot of the bed, 1000mm between the bed and wall / wardrobe or any other obstruction. There are also requirements for locations of GPOs and telephone outlets and illumination levels.

Compliance Summary:

Compliant Configuration

The main bedroom within each unit type offers adequate circulation area.

Additional requirements listed above to be implemented during detailed design.

5.8 SEPP Clause 9 – Bathroom

At least one bathroom must be located on the entry level and have an area that complies with AS1428, slip resistant floor, shower minimum 1100x1160mm with future provision for accessible features, washbasin capable of adaption to comply with AS4299 and a wall cabinet with illumination levels as described.

Compliance Summary:

Compliant Configuration

The ensuite to Bedroom 1 within each of the unit types is conducive to the requirements of an accessible bathroom, meeting the requirements of the SEPP. The SEPP allows for future adaption of bathroom areas that reflect the individual needs of the residents.



5.9 SEPP Clause 10 – Toilet

A self-contained residence is required to have a toilet on the ground (or main) floor that complies with the requirements for sanitary facilities of AS4299. That is, a visitable toilet.

Compliance Summary:

Compliant Configuration

The toilet within the ensuite of each unit type meets the requirements of AS4299 having a 1200x900mm circulation area forward of the WC pan.

5.10 SEPP Clause 11 – Surface Finishes

Balconies and external paved areas must have slip resistant surfaces

Compliance Summary:

To be addressed during detailed design.

5.11 SEPP Clause 12 – Door Hardware

Door handles and hardware for all doors must be provided in accordance with AS4299. Door hardware is to be operable with one hand and in the height range of 900-1100mm above the floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Compliance Summary:

To be addressed during detailed design.

5.12 SEPP Clause 13 – Ancillary Items

Switches such as light switches must be located within the accessible height range of 900-1100mm above the floor level as required by AS4299.

Compliance Summary:

To be addressed during detailed design.

5.13 SEPP Clause 15 – Living and Dining Room

Living areas within each residence are required to have circulation areas in accordance with AS4299, Clause 4.7. In this regard, an area with 2250mm diameter is required, clear of furniture.

A telephone outlet adjacent to a general power outlet and illumination level of 300 lux is also a requirement for living areas.

Compliance Summary:

Compliant

The open plan arrangement of living / dining areas within each of the unit types provides sufficient area to satisfy SEPP requirements for circulation spaces within living and dining rooms.

The requirement for telephone outlet, general purpose outlet and lux levels should be implemented during detailed design.



5.14 SEPP Clause 16 – Kitchen

A kitchen in a self-contained dwelling must have:

- Circulation space in accordance with AS4299, Clause 4.5.2 (1550mm between opposing benches)
- A width at door approaches complying with Clause 7 of this schedule
- Fittings and fittings in accordance with the relevant sub clauses of AS4299, Clause 4.5.

Compliance Summary:

Compliant configuration

The kitchen within each unit type has adequate width to accommodate 1550 mm clear between opposing benches.

Additional requirements for kitchens as listed above, should be implemented during detailed design.

5.15 SEPP Clause 17 – Access to kitchen, main bedroom, bathroom and toilet

In multi-storey residences, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

Compliance Summary:

Not Applicable

5.16 SEPP Clause 18 – Lifts in multi-storey developments

In a multi storey building containing self-contained dwellings, lift access must be provided to dwellings above the ground level by way of a lift complying with Clause E3.6 of the BCA.

Compliance Summary:

Capable of compliance

Lift shafts are of adequate size to accommodate a complying lift car size.

Four (4) lifts are provided for access between levels of the development.

5.17 SEPP Clause 19 – Laundry

A self-contained dwelling must have a laundry that has:

- A width at door approaches that complies with Clause 7 of this schedule.
- Provision for the installation of an automatic washing machine and a clothes dryer.
- A clear space in front of appliances of at least 1300mm
- Slip resistant floor
- An accessible path of travel to any clothesline.

Compliance Summary:

Compliant Configuration

Laundries are provided with adequate circulation and provision for installation of washing machine and clothes dryer.

Requirements such as floor finish and access to clothes lines to be implemented during detailed design.



5.18 SEPP Clause 20 – Storage

A self-contained dwelling must be provided with a linen cupboard in accordance with AS4299, Clause 4,1,1,5. It should be at least 600mm wide that have adjustable shelving.

Compliance Summary:

Compliant

The requirement for adjustable shelving is to be implemented during detailed design.

5.19 SEPP Clause 21 – Garbage

A garbage storage area must be provided in an accessible location.

Compliance Summary:

Compliant Configuration

Waste rooms are provided at the basement level in an accessible location.

6 Access and Approach | BCA Requirements

The approach to the dwellings needs to be addressed when considering access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability. An accessible path of travel is required to the building entrance from the allotment boundary at the main points of pedestrian entry, from accessible carparking areas and from any adjacent and associated accessible building.

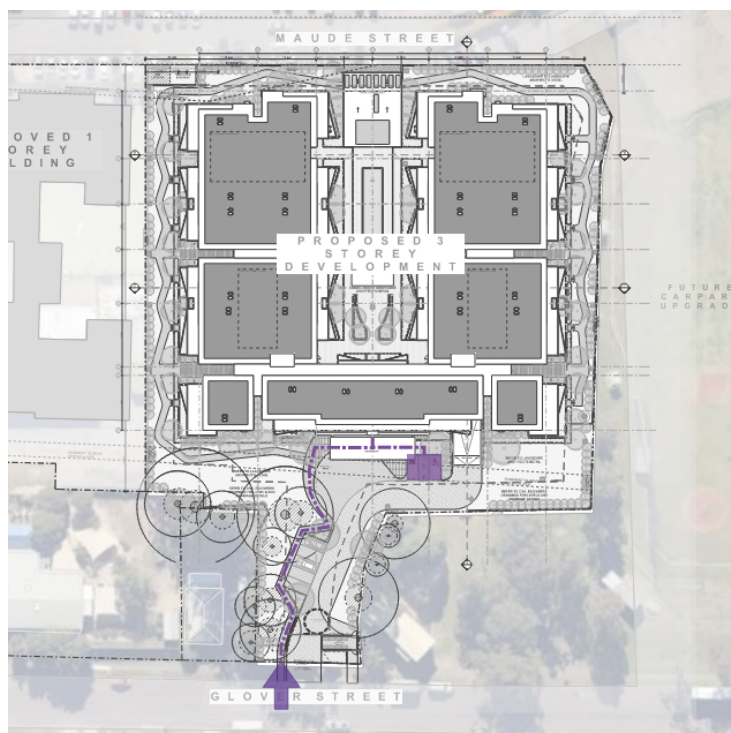


Figure 6 | Pedestrian Entry

6.1 Approach from Allotment Boundary at Pedestrian Entry

The BCA requires that a continuous accessible path of travel be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

Compliance Summary:

Compliant

An accessible path of travel is provided from Glover Street to the main entrance.

6.2 Approach from Accessible Carparking

The BCA requires that a continuous accessible path of travel be provided from the accessible carparking areas to the main entrance.

Compliance Summary:

Compliant

An accessible path of travel is provided to the forecourt entry from carparking at the front of building via shared spaces and pathways.

An accessible path of travel is provided to the lifts within the basement carparking areas.



6.3 Accessways Generally

The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

Compliance Summary:

Compliant configuration

Pathways are provided to external areas of the building and will offer an accessible path of travel to all facilities.

For compliance with AS1428.1, the following access requirements apply.

- a. The minimum unobstructed width of all pathways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. All pathways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, or 5mm for bevelling edges).
- c. The maximum allowable crossfall of pathways is to be 1:40.
- d. The ground abutting the sides of the pathways should follow the grade of the pathway and extend horizontally for 600mm. We note that this is not required where there is a kerb or handrail provided to the side of the pathway.
- e. Pathways to have passing bays complying with AS1428.1 at maximum 20m intervals where a direct line of site is not available and turning areas within 2m of the end of the pathway where it is not possible to continue travelling.

6.4 Accessible Carparking

As this is a residential development (Class 2), there are no BCA requirements for the provision of accessible carparking within the development.

Compliance Summary:

Not Applicable

See Section 5.4 of this report for SEPP Schedule 3 commentary.

6.5 Accessible Entrances

In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and not less than 50% of all pedestrian entrances including the principal pedestrian entrance. In a building with a total floor area more than 500 sqm a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

Compliance Summary:

Compliant Configuration

Double hinged doors are provided at the forecourt entry. Ensure a clear opening width of 850mm is achieved for single leaf operation to comply with AS1428.1



The following access requirements apply to the entrance.

- a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.
- b. Doors are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Where double door sets are provided, one door leaf is to be capable of being held in the closed position to provide door opening widths and circulation to comply with AS 1428.1.
- c. Entrance doorways to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.
- d. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- e. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.
- f. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)
- g. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level.

6.6 Tactile Indicators at Entrance

BCA Clause 3.8 (a) (v) states that for a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching – in the absence of a suitable barrier – an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building...if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4. If no kerb is provided between the entrance and the driveway area, tactile indicators are required.

Compliance Summary:

To be addressed during detailed design stages.

The following access requirements apply.

- a. Where no kerb is provided, install tactile indicators for compliance with BCA Clause D3.8 and AS1428.4. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.



7 Common Areas | BCA Requirements

The interior areas subject to accessibility requirements include the residential common areas being the entry foyer, dining/function areas, salon, sanitary facilities, outdoor courtyard, outdoor common areas, multipurpose room, gym, pool deck and pool all at ground floor level. Lift lobbies and corridors on all levels. The following requirements do not extend to individual apartments.

7.1 Extent of Access Generally – BCA

Access for people with disabilities is required to the door of individual sole occupancy units. An accessible path of travel is also required to the residential communal areas.

Compliance Summary:

Compliant

7.2 Circulation Areas

BCA (Clause D3.3) requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 180° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

Within corridor areas, 1500x1500mm is required to facilitate a 90° turn by a wheelchair. This must be accommodated within accessible areas.

Compliance Summary:

Compliant

7.3 Doorways Generally

AS1428 has requirements for doorways within the accessible path of travel to enable independent access for people using a wheelchair.

Compliance Summary:

Compliant Configuration

All doorways appear to have adequate circulation space.

Access requirements for doorways within the accessible path of travel are as follows.

- a. Doorways within the accessible path of travel to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2). We recommend the use of a 920 leaf door as a minimum to achieve adequate clear width. For double doors, the operable leaf must achieve this clear opening width.
- b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.



- c. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- d. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5).

Door handles and related hardware shall be able to be unlocked and opened with one hand per AS1428.1 (2009), Clause 13.5.1. The handles shall enable a person who cannot grip to operate the door without their hand slipping from the handle. We recommend the use of lever handles.

- e. Doorways to have operational forces per AS1428.1 (2009), Clause 13.5.2. A maximum allowable force of 20N is required to operate the door.

7.4 Exempt Areas

BCA Clause D3.4 does not require access for people with disabilities to areas that would be inappropriate due to the particular use of the area or would pose a health and safety risk. This includes the path of travel to these areas.

7.5 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for bevelled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details. This should be implemented during construction to ensure compliance.

Compliance Summary:

To be addressed during detailed design stages.

7.6 Carpet

AS1428.1 has access requirements for carpet. Where carpet is used as the floor surface, pile height should not exceed 4mm. Exposed edges will be fastened to the floor surface. Carpet trims shall have a vertical face not more than 3mm high.

BCA states that clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.

Compliance Summary:

To be addressed during detailed design stage.

7.7 Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14. This should be implemented during construction to ensure compliance.

Compliance Summary:

To be addressed during detailed design stage.



7.8 Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level per AS1428.1, Clause 6.6.

Compliance Summary:

To be addressed during detailed design stage.

7.9 Tactile Indicators

For a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway meeting a vehicular way if there is no kerb or kerb ramp (BCA D3.8).

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

Compliance Summary:

To be addressed during detailed design stage.

7.10 Signage

Signage to identify sanitary facilities, hearing augmentation and required exits are to be provided in accordance with BCA Clause D3.6. This includes provision of the International Symbol for Access or International Symbol for Deafness as appropriate. Signage to comply with AS1428.1 (2009), Clause 8.

Compliance Summary:

To be addressed during detailed design stage.

Access requirements for signage are as follows. Note that this does not include general wayfinding signage.

- a. Braille and tactile signage formats as outlined within BCA Specification D3.6 that incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must be provided to identify the following:
 - a sanitary facility, except a sanitary facility associated with a bedroom in a Class 1b building or a sole-occupancy unit in a Class 3 or Class 9c building
 - a space with a hearing augmentation system
 - each door required by E4.5 to be provided with an exit sign and state level
 - an accessible unisex sanitary facility and identify if the facility is suitable for left or right handed use

- an ambulant accessible sanitary facility 1 and be located on the door of the facility
 - where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access to direct a person to the location of the nearest accessible pedestrian entrance
 - where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary
- b. Braille and tactile components of the sign to be located not less than 1200mm and not higher than 1600mm affl.
- c. Signage to be located at the latch side of the doorway with the leading edge of the sign 50-300mm from the architrave. Where this is not possible, the sign can be located on the door.

Sample signs are as follows. These are examples only – ensure selected signage complies with BCA Specification D3.6 including provision of Braille locator for multiple lines of text and characters.



7.11 Access to Swimming Pool

The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible (Table D3.1).

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero-depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

Compliance Summary:

Not applicable

The lap pool has a perimeter of 38m. Therefore, by definition an accessible entrance to the pool is not required.

As this is a SEPP development, we recommend that a form of accessible entrance be provided to the pool to meet the requirements of all residents.



7.12 Slip Resistance (Stairs and Ramps)

The BCA defines the following slip resistance requirements for stairs and ramps:

Application	Surface Conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or Landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

Compliance Summary:

To be addressed during detailed design stage.

7.13 Thresholds

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless in a building required to be accessible by Part D3, the doorway opens to a road or open space; and is provided with a threshold ramp or step ramp in accordance with AS 1428.1.

Compliance Summary:

To be addressed during detailed design stages.

7.14 Lifts

Lifts provide the main means of access between levels of the building. Four (4) lifts are provided within the development. Stairs are provided to each building from the pool area for access to upper levels and to each external Ground Floor Unit from perimeter pathway. Walkways are provided either side of the pool. All other stairs within the building are fire isolated egress stairs.

Four (4) lifts are provided for access between all levels. The overall size of the lift shaft is capable of accommodating a lift car of adequate dimensions for compliance with BCA.

Compliance Summary:

Capable of compliance

The size of the lift shafts will accommodate a lift car of adequate size for compliance.

The following access requirements apply to the lifts. These requirements are for disabled access only and do not include requirements for stretchers.

- Lift is to comply with AS1735.12 and be fully automatic as required by the BCA, Clause E3.6.
- Minimum internal dimensions of the lift car to be 1100mm wide x 1400mm deep BCA, Clause E3.6 – for a lift that travels less than 12m.
- Clear opening of the lift door to be minimum 900mm.



- d. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- e. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.
- f. Auditory / voice cues are to be provided within the lift car to assist persons with a vision impairment.
- g. Series of door opening devices that will detect a 75mm diameter rod across the door opening between 50 mm and 1550mm above the floor level.
- h. Emergency hands-free communication, including a button that alerts a call centre of a problem, a light to signal that the call has been received by the call centre and a light indicating assistance is being dispatched.

7.15 Walkways

Walkways are provided within the central communal areas to facilitate access between differing floor levels. AS1428.1 defines a walkway as having a gradient of 1:20, which is provided in this instance. We note that walkways do not require the provision of handrails or tactile indicators.

Compliance Summary:

Compliant Configuration

For compliance with AS1428.1, the following access requirements apply to the walkways.

- a. The minimum unobstructed width of walkways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. Walkways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, 5mm for bevelled edges -refer to Figure 6 of AS1428.1).
- c. The maximum allowable crossfall of a walkway is to be 1:40.
- d. Surface of the walkway to be slip-resistant.
- e. The ground abutting the sides of the walkway should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided (refer to AS1428.1 Clause 10.2).
- f. Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180°, landings to be 1540mm in length.



7.16 Fire Isolated Egress Stairs

Stairs are provided throughout the development to enable egress in the event of a fire. Designated fire egress stairs are not considered public access stairs and therefore are not subject to the requirements of AS1428.1 with the exception of contrasting nosing strips and handrail requirements. These are required per AS1428.1.

Compliance Summary:

Compliant Configuration

- a. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- b. Stair nosings shall not project beyond the face of the riser.
- c. Handrails in a required exit serving an area required to be accessible, are to be designed and constructed to comply with AS 1428.1, Clause 12 (BCA D2.17).

Note: handrails within fire-isolated stars are required to one side only and do not require the provision of handrail extensions. They must have a diameter between 30-50mm; be between 865-1000mm high above the nosing; be a consistent height along the length of the stair – no vertical sections; have a clearance to the wall not less than 50mm; have no obstruction along the length of its passage; and have an end that turns through 180, turns to the ground, or returns fully to an end post. We recommend the use of the staggered stair to maintain a constant height along the length of the handrail per AS1428.1 (2009), Clause 12.

7.17 Distribution of Accessible Sanitary Facilities

The BCA / Access Code for Buildings (Clause F2.4) require the provision of sanitary facilities catering for persons with a disability. **Accessible sanitary facilities are required as follows.**

- A unisex accessible toilet at each level that provides sanitary facilities. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.
- At each bank of toilets where there is one or more toilets in addition to an unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS1428.1 must be provided for use by males and females
- A unisex accessible shower is required where showers are required by F2.3.
- A unisex accessible adult change facility must be provided in some public buildings.

Compliance Summary:

Compliant

Sanitary facilities are provided within the residential common area at the Ground Floor Level. A unisex accessible sanitary compartment and male and female ambulant cubicles are indicated.



Sanitary facilities are provided within the outdoor common area associated with the pool at the Ground Floor Level. A unisex accessible sanitary compartment, with shower, and male and female showers are indicated.

An accessible adult change facility is not required within this development.

7.18 Unisex Accessible Sanitary Compartment

Two (2) unisex accessible toilets are provided within the development. One (1) at internal common area and one (1) at outdoor common pool area.

Compliance Summary:

Compliant Configuration

Overall room dimensions and layout of fixtures of unisex accessible toilets are conducive to current requirements. Ensure fixtures and fittings are in accordance with AS1428.1. We note both a left- and right-handed facility is provided.

Access requirements for the accessible toilet facilities are as follows. For compliance with AS1428.1(2009), the minimum room dimensions of the accessible toilet are to be 1900x2300mm plus additional area for the handbasin. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.

- a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.
- b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.
- c. Where more than one unisex accessible toilet is provided within the building, they should be in a mirrored configuration to allow for both left and right handed use.

WC Pan:

- a. Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.
- b. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- c. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.
- d. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.
- e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.



Basin:

- f. For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.
- g. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.

Controls:

- h. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1(2009), Clause 14. Controls should be located not less than 500mm to a corner.

7.19 Unisex Accessible Shower Facility

A male and female shower is provided within the outdoor common pool area. They are required to be accessible.

Compliance Summary:

To be addressed during detailed design.

An accessible shower will need to be provided within the pool facilities.

Access requirements for accessible showers are as follows.

- a. Showers are to comply with AS 1428.1, Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.
- b. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.
- c. The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.
- d. Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

7.20 Cubicles for People with an Ambulant Disability

Ambulant cubicles, both male and female are provided in association with the unisex accessible sanitary facilities to the residential common areas.

Compliance Summary:

Compliant Configuration

Overall room dimensions and circulation space is conducive to current requirements. Ensure fixtures and fittings are in accordance with AS1428.1.

Requirements for the ambulant toilets are as follows.



- a. Options for the configuration of the ambulant cubicles are illustrated in AS1428.1, Figure 53.
- b. Provide an ambulant cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.
- c. Minimum width of ambulant cubicles to be 900-920mm.
- d. Minimum distance between the front of the WC pan and cubicle door / wall is 900mm.
- e. Seat height to be 460-480mm.
- f. Provide grabrails to ambulant cubicles to comply with AS1428.1, Clause 17 and Figure 53A.
- g. Provide toilet paper holder within the accessible reach zone (within 300mm of the front of the pan at a height less than 700mm).
- h. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.
- i. Provide signage to the ambulant cubicles to comply with AS1428.1, Clause 16.4.



8 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the Oak Tree Maude Development located 2A Maude Street Belmont. Spatial planning and general arrangements of facilities will offer inclusion for all building users.

Disability is often defined as any limitation, restriction or impairment which restricts everyday activities and has lasted or is likely to last for at least 6 months. Disabilities can be very varied. They can be physical, cognitive, intellectual, mental, sensory, or developmental. They can be present at birth or can occur during a person's lifetime. They can also be permanent or temporary. In Australia, almost one in five people – 4.3 million – have a disability with one in three having severe or profound core activity limitation.

Equity and dignity are important aspects in the provision of access to buildings for all users. With respect to people with a disability, equity and dignity are sometimes overlooked in the construction of new buildings or refurbishment works. The design approach needs to maintain a high level of equity for people with disabilities and meet the performance requirements of the BCA. The performance requirements adopt two main concepts in the provision of access for people with a disability being **to the degree necessary** and **safe movement**. Both of these concepts need to be achieved within the context of equitable and dignified access.

In this respect, a wide range of disabilities needs consideration and a compromise reached between requirements of different disability groups. Measures need to be implemented to ensure inclusion of all users, not a particular disability group in isolation.

This report is limited to items within drawings listed in this report only. Future alterations and additions to the building will render the recommendations in this report null and void as we cannot guarantee continued compliance where changes to the building fabric are made.

All dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered in the preparation of the construction certificate documentation to account for wall linings and the like.

Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

