lindsay perry access

Access Report

Boarding Homes

1 Station Lane
PENRITH

For: Station Lane Pty Ltd
Ref: LP_21060

Executive Summary

Development application documentation for the proposed Boarding Homes project located at 1 Station Lane, Penrith, has been reviewed against current accessibility legislation.

We consider that the drawings presented for assessment, for the purposes of a development application, do not reflect current accessibility requirements.
The following table summarises compliance status.

Item No.	Description	Compliance Status
Access and Approach		
5.1	Allotment Boundary to Entrance	Compliant
5.2	Accessible Carparking to Entrance	Compliant
5.3	Accessible Carparking	Compliant Configuration
5.4	Entrance	Compliant Configuration t
5.5	Non-accessible entrances	To be addressed during detailed design
Interior		
6.1	Extent of Access Generally	Compliant
6.2	Circulation Areas	Compliant
6.3	Doorways	Compliant configuration
6.4	Exempt Areas	Noted
6.5	Floor Finishes	To be addressed during detailed design
6.6	Carpet	To be addressed during detailed design
6.7	Controls	To be addressed during detailed design
6.8	Visual Indication to Glazing	To be addressed during detailed design
6.9	Tactile Indicators	To be addressed during detailed design
6.10	Signage	To be addressed during detailed design
6.11	Slip Resistance(Ramps & Stairs)	To be addressed during detailed design
6.12	Thresholds	To be addressed during detailed design
Sanitary Facilities		
7.1	Accessible Toilets	Compliant configuration
Vertical Circulation		
8.1	Lifts	Capable of compliance
8.2	Accessible Ramp	Compliant configuration
8.3	Stairs	Compliant configuration
8.4	Fire Isolated Egress Stairs	To be addressed during detailed design
Accessible Rooms		
9.1	Doorways	Compliant configuration
9.2	Bathrooms	Compliant configuration
9.3	Circulation Areas	Compliant configuration
9.4	Kitchenette	To be addressed during detailed design
9.5	Robes	To be addressed during detailed design
9.6	Floor Finishes	To be addressed during detailed design
9.7	Carpet	To be addressed during detailed design
9.8	Controls	To be addressed during detailed design

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. We provide practical, performance-based advice based on project specifics that will maximize access for persons with a disability to the built environment.

LINDSAY PERRY
Access Consultant (ACAA Accreditation No. 136)

Revision Summary:

Date	Description	Revision
4 March 2021	DA Access Report	draft
21 May 2021	DA Access Report	1

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Qualifications:

Lindsay Perry, principle of Lindsay Perry Access Pty Ltd, is a qualified Access Consultant, holding the Certificate IV in Access Consulting. Her other qualifications are as follows:

- Internationally Certified Access Consultant GAATES ICAC BE-02-106-18
- ACAA Accredited Member No. 136
- Registered Architect NSW 7021
- Livable Housing Assessor 20047
- NDIS SDA Assessor SDA00049

Insurances:

Lindsay Perry Access Pty Ltd carries public liability insurance, professional indemnity insurance and workers compensation insurance.

1 Project Background

The proposed boarding house development provides twenty-four (24) rooms over four (4) levels with twelve (12) parking spaces located at the front of the development.

One (1) communal area is provided on Level 1, being the internal common space and external communal space. One (1) lift and one (1) stair provide access through all levels of the building. Three (3) accessible rooms are provided on Levels 1, 2, and 3.

Figure 1 | Proposed Development

2 Reviewed Documentation

Documentation prepared by Prodoc Architects has been reviewed as follows:

dwg no.	drawing name	revision
AR 00	Cover Page	2
AR 01	Site Analysis	1
AR 02	Ground Floor GA	3
AR 03	Level 1 & 2 GA	2
AR 04	Level 3 & 4 GA	2
AR 05	Roof Plan	1
AR 06	Sections	1
AR 07	North & East Elevations	1
AR 08	South & West Elevations	1
AR 09	GFA Plans	1
AR 10	Deep Soil	1
AR 11	Shadow Diagram	1
AR 12	Solar	1
AR 13	Finishes Plan	1
AR 14	Local Charter Analysis	1
AR 15	Local Charter Analysis	1
AR 16	SEPP Separation of Communal Space	1

3 Council Requirements

The development site lies within Penrith City Council Local government area. Penrith City Council Development Control Plan 2014 is applicable to this development.

Section D5.11 contains a section on Boarding Houses, its objectives being to:

- Ensure that boarding houses fit the local character or desired future local character of the area.
- Minimise negative impacts on neighbourhood amenity.
- Ensure boarding house premises are designed to be safe and accessible.
- Respond to increasing neighbourhood densities resulting from boarding house development.
- Ensure that boarding houses operate in a manner which maintains a high level of amenity, health and safety for residents.

Specific controls pertaining to accessibility outlined in "Tenant amenity, Safety, and Privacy" of Section D5.11.C.4 are as follows:

- Boarding houses are to maintain a high level of resident amenity, safety and privacy by ensuring:
    i. communal spaces including laundry, bathroom, waste facilities, private open space, kitchen and living areas are accessible to all lodgers;
    ii. if over 10 boarding rooms are supplied, 10% of the total number of dwellings (rounded up) must be accessible

4 Legislation

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The National Construction Code Building Code of Australia Volume 1 2019 (BCA)
    - Section D2.14 / D2.15 / D2.17 – landings, thresholds and slip resistance
    - Section D3 – Access for People with Disabilities
    - Section E3.6 – Passenger Lifts
    - Section F2.4 – Accessible Sanitary Facilities
- Australian Standard AS1428.1 (2009) Amendment 1 & 2, – Design for Access and Mobility
- Australian Standard AS1428.2(1992) – Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities
- 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
- 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.

- 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 3 buildings requires access for people with disabilities as follows:

  - 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.
  - 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, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
  - Where a ramp complying with AS 1428.1 or a passenger lift is installed—
    a) to the entrance doorway of each sole-occupancy unit; and
    b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.

  For a total of 24 boarding rooms, access must be provided to and within a minimum of two (2) sole occupancy units. Three (3) accessible sole occupancy units have been provided.

  Not more than 2 required accessible sole-occupancy units may be located adjacent to each other. Where more than 2 accessible sole-occupancy units are required, they must be representative of the range of rooms available.

- 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

- AS2890.6 applies to the carparking areas generally.

- AS1735.12 contains requirements for passenger lifts for persons with a disability.

5 Access and Approach

The approach to the building needs to be considered 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.

In this instance, the approach to the building has been considered as follows:

- from the allotment boundary at the pedestrian entrance along Station Lane to the accessible building entrance.
- from the accessible carparking area to the building entrances.

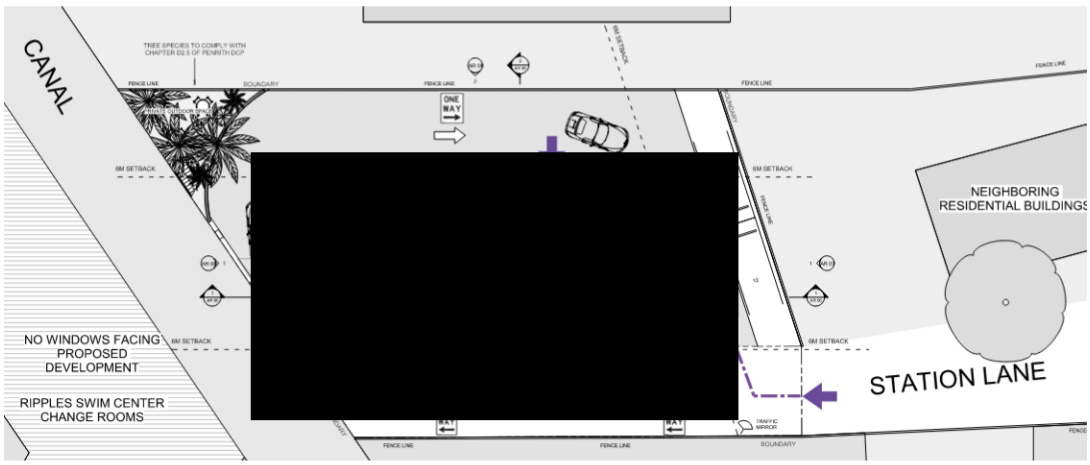

Figure 2 | Overall Site Plan

5.1 Approach from Allotment Boundary

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

Pedestrian access from Station Lane to the accessible entrance is via the shared vehicular areas that appear to provide a level area.

5.2 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

Level access is provide to eh accessible entrance form the accessible carparking spaces.

5.3 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development.

The number of accessible spaces within a Class 3 building is to be calculated by multiplying the total number of carparking spaces by the percentage of accessible sole-occupancy units to the total number of sole-occupancy units.

16.67% of the units are accessible (4 in 24), which requires two (2) of the twelve (12) parking bays to be accessible. In this instance, three (3) accessible parking bays have been indicated on the provided plans.

Compliance Summary:

Compliant configuration

Carparking is provided at the ground floor of the development.

Two (2) accessible parking bays are provided within close proximity to the accessible entrance and overall configuration is in keeping with current accessibility requirements. The number of accessible spaces provides BCA compliance.

Access requirements for the accessible carparking are as follows.

a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks.

b. Accessible carparking to be a minimum of 3200mm wide and 7800mm in length with a circulation area 1600mm beside the carparking space.

c. Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.

d. The maximum allowable crossfall of accessible carparking area to be, 1:40 (1:33 for bituminous surfaces). This crossfall applies both parallel and perpendicular to the angle of parking.

e. For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7.

f. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) between 800 and 1000mm high placed as a pavement marking in the centre of the space between 500-600mm from its entry point. The perimeter of the space is to be identified by an unbroken yellow & slip resistant line 80-100mm wide (except where there is a kerb or wall)

   Shared space to be identified using yellow slip-resistant & unbroken stipes 150 to 200mm wide with spaces 200 to 300mm between stripes. Stipes to be at an angle of 45° to the side of the space.

5.4 Accessible Entrance

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
The accessible entrance is located on the western side of the building.
A single swinging door is provided and circulation areas are in keeping with current accessibility requirements.

The following access requirements apply to the accessible 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.

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. Decals are to be solid per AS1428.1, Clause 6.6.

5.5 Non-accessible Entrance

The entrance on the eastern side of the building is not an accessible entrance having stairs. As it is located within 50m of an accessible entrance this is compliant with BCA requirements.

Compliance Summary:

To be addressed during detailed design stages.

The following access requirements apply to the non-accessible entrance.

a. Provide direction signage displaying the location of the accessible entrance that displays the International Symbol for Access per BCA Specification D3.6.

6 Interior

The interior areas subject to accessibility requirements include the residential common areas being the entry foyer, lift lobby, corridors, and the internal common / external communal spaces on the first floor. The following requirements do not extend to individual rooms. For accessible room requirements, refer to subsequent sections of this report.

6.1 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. Three (3) accessible apartments have been provided.

Compliance Summary:

Compliant

6.2 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 90° 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

6.3 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
Doorways within the accessible path of travel generally achieve the required circulation areas.

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.

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 external areas to achieve a level threshold 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. 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.

6.4 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.

6.5 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.

6.6 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.

6.7 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.

6.8 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.

6.9 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 are generally required to be 600-800mm deep across the width of the hazard and set back 300mm from the edge of the hazard (refer AS1428.4.1, Figure A1). 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.

6.10 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.

6.11 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.

6.12 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 Sanitary Facilities

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

7.1 Unisex Accessible Sanitary Compartment

One unisex accessible sanitary compartment is provided within the internal common space at Level 1 of the development.

Compliance Summary:

Capable of compliance

Overall room dimensions are conducive to compliance with current accessibility legislation.

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.

Door:

h. Doorways 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. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.

i. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Controls:

j. 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.

8 Vertical Circulation

A lift provides the main means of access between levels of the building. One (1) lift is provided within the development. Stairs also provide access to all levels of the building including an external stair that connectsthe external communal space on Level 1 to the private outdoor space on the ground floor.

8.1 Lift

A lift is provided for access between levels of the building. 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 following access requirements apply to the lifts. These requirements are for disabled access only and do not include requirements for stretchers.

a. Lift is to comply with AS1735.12 and be fully automatic as required by the BCA, Clause E3.6.

b. 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.

c. 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.

8.2 Accessible Ramp

An accessible ramp forms a link between levels of the ground floor level. AS1428.1 defines a ramp as having a gradient between 1:19 and 1:14. A gradient of 1:14 is provided in this instance.

Compliance Summary:

Compliant configuration

The overall configuration of the ramp provides a compliant gradient and width. We note the provision of handrails to both sides and tactile indicators at the top and bottom.

Access requirements for the ramps are as follows e.

a. Ramp to comply with AS1428.1, Clause 10.3.

b. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient).

c. Where the ramp intersects with an internal corridor, the ramp shall be set back in accordance with AS1428.1 Figure 16 to allow adequate space for handrail extensions and tactile indicators.

c. Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1, Clause 12. Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the ramp to cater for left and right handed disabilities.

d. Where ramp is not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.

e. Provide tactile indicators at the top and bottom of the ramps to comply with BCA Clause D3.8 and AS1428.4.1. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

8.3 Stairs

A stair is provided at the ground floor level within the lobby area. A stair is also provided external to the building to provide access between the common areas. AS1428.1 has access requirements for all stairs other than fire isolated egress stairs and is applicable in this instance.

Compliance Summary:

Compliant configuration.

Access requirements for public access stairs are as follows.

a. Stair construction to comply with AS1428.1, Clause 11.1.

b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open risers.

c. Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS2418.1 Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.

d. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails should be continuous around the landings where possible.

   Handrails are required on both sides of the stair to cater for left and right-handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

e. 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.

f. Stair nosings shall not project beyond the face of the riser.

g. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.1.

   Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).

   Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

8.4 Fire Isolated Egress Stairs

A stair is provided within the building to facilitate access between all levels. It is assumed this is a fire isolated egress stair – refer to following section of this report.

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:
To be addressed during detailed design. No layout of the stair is provided.

Access requirements for fire isolated egress stairs are as follows.

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 noising; 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.

9 Accessible Rooms

There are three (3) accessible sole occupancy apartments provided within the building, located on Levels 1, 2, and 3. They have been designed to facilitate wheelchair access.

The following access requirements apply to the accessible rooms.

9.1 Doorways

Doorways within the accessible rooms (including the entrance door) should comply with the requirements of AS1428.1 as a part of the accessible path of travel.

Compliance Summary:

Compliant configuration

Access requirements for doorways within the accessible rooms are as follows.

a. Doorways within the accessible rooms to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2).

b. Doorways within the accessible rooms 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)

9.2 Bathroom

Bathroom within the accessible rooms should comply with the requirements of AS1428.1.

Compliance Summary:

Compliant configuration
Required circulation areas are shown dashed on the floor plans.

a. Accessible bathrooms to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.

WC Pan:

b. 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.

c. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see AS1428.1 figure 43).

d. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

e. 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.

f. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

Basin:

g. 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.

h. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.

Shower:

i. Accessible 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.

j. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.

k. 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.

l. Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

Door:

m. Doorways 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. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.
n. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Controls:

o. 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.

9.3 Circulation Areas – Best Practice Recommendation

It is best practice to provide circulation areas within the accessible apartments for wheelchair access. A minimum 1540mm wide circulation at the foot of the bed (for compliance with AS1428.2, Clause 6.1) is recommended.

9.4 Kitchenette – Best Practice Recommendation

Requirements for kitchens are provided with AS1428.2, Appendix A. Some key principles are as follows:

- The height of benches should be between 700-850mm affl. We note that no height will suit all users. We recommend a height of 850mm as per AS1428.2, Clause 24.1.1..
- Clearance in front of the bench of 1540mm is encouraged to facilitate a 180° turn by a wheelchair
- Shelves and cupboards should be installed in accordance with AS1428.2, Clause 24.2.
- Acceptable hardware for cupboards includes touch latches and D shaped pull handles.
- A shallow sink should be provided.

9.5 Robes – Best Practice Recommendation

Robes within the accessible apartment to have hanging rods provided at 1350mm affl.

9.6 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.

9.7 Carpet

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.

9.8 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 to comply with AS1428.1(2009), Clause 14. This should be implemented during construction to ensure compliance.

10 Best Practice Measures for Consideration

The following best practice commentary provides best-practice accessibility measured for consideration in the proposed development.

The federal Disability Discrimination Act, 1992 is the only act dealing exclusively with disability legislation. The act is a complaint-based law administered by the Human Rights Commission (HRC) under the Disability Discrimination Commissioner. It provides a detailed definition of discrimination, covering both direct and indirect forms of discrimination.

The DDA encompasses all new building works (including alterations and additions) and existing conditions. The Access to Premises Advisory Notes were produced by the Disability Discrimination Commissioner and issued by HRC in 1997 to assist those people responsible for new building work including architects, developers and building owners. They encourage the enhanced and best practice requirements of AS1428.2 be implemented in the construction of new building works.

Although not required by the BCA, as AS1428.2 is referenced by the Access to Premises Advisory Notes, the adoption of the enhanced accessibility requirements of this standard minimises the risk of a complaint made under the DDA.

10.1 Luminance Contrast

Luminance contrast assists people with a vision impairment to navigate the built environment. Mandatory items that require luminance contrast are tactile indicators, accessible toilet seats and doorways as outlined in other sections of this report. The following can also be provided as a best practice measure to ensure ease of use:

- Minimum 30% luminance contrast between floors and walls or between walls and skirting boards;
- Minimum 30% luminance contrast between the ground surface and obstructions such as columns, bollards and street furniture;
- To assist people with vision impairment locate the building entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.
- Minimum 30% luminance contrast between the floor and the entrance mat (this allows people with vision impairment to locate the entrance;
- Minimum 30% luminance contrast between walls and handrails.

10.2 Visual Indication to Glazing (additional measures)

To ensure full height glazing that can be mistaken for a doorway is highlighted, we recommend the provision of a “double decal” as per international precedent. This involves the provision of two (2) decal strips that have a minimum 30% luminance contrast to each other. As such, the background colour does not need to be relied upon.

10.3 Communal Kitchen

While not a statutory requirement, the provision of wheelchair accessible benches with appropriate circulation areas will minimise the risk of a compliant made under the DDA.

Recommendations:

Requirements for kitchens are provided with AS1428.2, Appendix A. Recommendations for the dimensioning, layout and arrangement of kitchens are offered to maximize usability for persons with a disability. Some key principles are as follows:

- The height of benches should be between 700-850mm affl noting that no height will suit all users. We recommend a height of 850mm as per AS1428.2, Clause 24.1.1. At least one work surface should provide a clear width opening beneath the surface of not less than 820mm to allow for the frontal approach of a person using a wheelchair.
- Clearance in front of the bench of 1540mm is encouraged to facilitate a 180° turn by a wheelchair
- Acceptable hardware for cupboards includes touch latches and D shaped pull handles.
- A shallow sink should be provided. Optimum bowl depth is 150mm with clearances under as per requirements for handbasins. The design of the sink should allow knee and foot clearance to the underside of the bowl for a clear width of no less than 900mm.

10.4 Furniture and Joinery Hardware

The use of D-type pull handles to furniture which provide a minimum 35mm clearance between the rear face of the handle and the face of the drawer is generally recommended to promote accessibility and inclusion.

10.5 Terminology (Best-practice recommendation)

The use of positive terminology such as “accessible” should be used when referring to accessible facilities such as toilets and carparking. This term is preferable to “disabled” which is commonly used. This principle is to be adopted through the design and documentation of a project and on signage throughout the completed building.

11 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the proposed Boarding Homes project located at 1 Station Lane, Penrith. 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.