Appendix XIII)

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Issue	Date	Issued To	Reviewed	Approved
DA 01	17/12/15	IDG Architects	Robyn Thompson	Jen Barling

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1. Introduction

1.1 Purpose + Objectives

The purpose of this access review is to assess the proposed design of the building at 344 High Street Penrith against the requirements of the BCA 2015, the Disability (Access to Premises - Buildings) Standards (2010), the Penrith Council DCP and Disability Discrimination Act. The designs have been assessed to ensure that safe, equitable and dignified access for people with disabilities is provided.

The review aims to assist to deliver a design that provides equality, dignity, independence and functionality to people with a range of abilities inclusive of:

- People with sensory impairments
- People with mobility impairments
- People with dexterity impairments
- People with cognitive impairments

Accessible environments optimise people's independence by removing boundaries, refining choice, unlocking potential and broadening participation. Accessible environments are designed in a way that takes into account the needs of a wide range of people, improving the way people connect with their environment.

1.2 Scope

The following areas have been reviewed to ensure requirements for accessibility have been considered.

- accessible car parking and continuous accessible path of travel to entrances
- to and through the principal entrances
- to and throughout common areas
- continuous accessible paths of travel and circulation spaces for internal paths of travel to unit entries on accessible levels of the development
- to and within adaptable apartments

1.3 Documentation Reviewed

This report is based on review of the following documentation for 344 High Street Penrith, prepared by Integrated Design Group, issued to funktion on 24/11/15:

DA 0001 - issue D (site analysis)

DA 0002 - issue A (development control summary)

DA 0003 - issue A (site envelope analysis)

DA 0004 - issue A (design principles)

DA 0100 - issue E (site plan)

DA 1000 - issue G (basement)

DA 1100 - issue I (ground level)

DA 1101 - issue F (level 1)

DA 1102 - issue F (level 2)

DA 1103 - issue F (level 3)

DA 1104 - issue F (level 4)

DA 1105 - issue F (level 5)

DA 1106 - issue F (level 6)

DA 1107 - issue F (roof level)

DA 2000 – issue C (north and south elevations)

DA 2001 – issue D (east and west elevations)

DA 3000 – issue B (section a & driveway section)

DA 3001 – issue B (section b & c)

DA 9001 - issue D (adaptable units and universal housing)

DA 9002 - issue A (waste management plan)

DA 9003 - issue B (glazed walkway details)

DA 9004 - issue B (SEPP 65 compliance)

DA 9100 - issue B (shadow diagrams)

DA 9600 - issue A (external finishes schedule)

2. Legislation + Standards

2.1 Overview

The level of accessibility throughout this development is subject to the Disability (Access to Premises - Buildings) Standards 2010 and the Deemed–to–Satisfy Provisions of the BCA (2015), in particular Parts D3, E3.6 and F2.4, which reference AS1428.1 (2009), AS1428.4 (2009) and AS1735.12 (1999). Therefore compliance with these standards is required to satisfy the BCA with respect to physical access provisions within the new building. Compliance with the Deemed-to-Satisfy Provisions in BCA 2015 will ensure compliance with the Access Code of the Premises Standards.

Access requirements in this review have been benchmarked against the following legislation and standards.

The Building Code of Australia 2015 - Parts D3, E3.6 & F2.4

AS1428.1 (2009) Design for access and mobility Part 1 (including Amendment No. 1): General requirements for access-New building work

AS1428.4.1 (2009) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment

AS1428.2 (1992) Design for access and mobility Part 2: Enhanced and additional requirements – buildings and facilities.

AS1735.12 (1999) Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities

AS2890.6 (2009) Parking Facilities Part 6 Off Street Parking for people with disabilities

AS4299 1995 Adaptable Housing

The Disability Discrimination Act 1992 (DDA)

Disability (Access to Premises – Buildings) Standards 2010

Australian Human Rights Commission Guideline on the Application of the Premises Standards

Penrith Council DCP Part C1 – Site Planning and Design Principles

State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development under the Environmental Planning and Assessment Act 1979; July 2015

2.2 The Disability Discrimination Act

The Disability Discrimination Act (DDA) (1992) recognises the importance of access to premises, by making it unlawful to discriminate against people with a disability in the provision of access to premises. The Building Code of Australia (BCA) in conjunction with the DDA applies to new buildings and existing buildings that undergo refurbishment.

2.3 The Disability (Access to Premises - Buildings) Standards

The Disability (Access to Premises – Buildings) Standards 2010 applies to new buildings as well as any new part and any affected part of an existing building.

For this project, the new building will be required to comply with the Disability (Access to Premises – Buildings) Standards 2010.

The Premises Standards are a set of minimum requirements for the provision of access. While compliance with the Deemed-to-Satisfy Provisions of the Access Code fulfills legal responsibilities in relation to the Disability Discrimination Act, designing beyond the minimum is encouraged, to provide a greater degree of access than required by the Deemed-to-Satisfy Provisions.

2.4 Adaptable Housing

Adaptable dwellings incorporate design and construction elements that can be readily modified to cater for an occupant with access and mobility restrictions, such as a person with a disability or an older person.

Adaptable housing enables accessibility to be easily accommodated not only for people who use a wheelchair, but for people with reduced mobility as a result of age or temporary illness. Adaptable housing also provides more space for residents to be assisted by carers. AS4299 Adaptable Housing provides design requirements for adaptable dwellings.

2.5 SEPP 65 & Livable Housing

SEPP 65 - Design Quality of Residential Apartment Development states that: (2) Development consent must not be granted if, in the opinion of the consent authority, the development or modification does not demonstrate that adequate regard has been given to:

(a) the design quality principles, and

(b) the objectives specified in the Apartment Design Guide for the relevant design criteria.

Objective 4Q-1 of the Apartment Design Guide states that:

Universal design features are included in apartment design to promote flexible housing for all community members.

Design guidance: Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features for dwelling access, dwelling entrance, internal doors and corridors, toilet, shower and reinforcement of bathroom and toilet walls.

3. General Building Access Requirements

The proposed development consists of a mixed use building across two buildings with a shared basement level. Building A, facing High street, consists of 2 commercial levels and 5 residential levels containing 15 dwellings. Building B, accessed from John Cram place, consists of 1 ground floor car parking and 6 residential levels containing 24 dwellings. The development includes Classes 2, 5 and 7a under the BCA 2015 classification of buildings.

To meet the BCA part D3.1 for a new Class 2 development access is required to common areas:

- From an accessible pedestrian entrance via the proposed lift to all floors containing sole occupancy units and to the entrance doorway of each unit.
- To and within one of each type of common area including garbage bins, letterboxes, intercom, and landscaped areas.

To meet the Penrith DCP Part C1, the development is proposed to provide four adaptable units. Parking requirements include one accessible parking space for every adaptable dwelling designed in accordance with Australian Standards.

To meet the BCA part D3.1 for a new Class 5 development access is required: –

- To and within all areas normally used by the occupants

To meet the BCA part D3.1 for a new Class 7a development access is required: –

- To and within any level containing accessible carparking spaces

4. Design Review and Access Requirements

4.1 Car Parking

4.1.1 Proposed Design

Parking is proposed to be provided as follows:

+ 30 spaces are proposed to be allocated to residential units, including 4 accessible spaces
+ 8 spaces are proposed to be allocated for commercial use, including 1 designated accessible parking space.

To meet BCA D3.5 and requirements for adaptable units, an accessible carparking space is proposed to be allocated to each adaptable unit and one accessible visitor's parking space for the commercial tenancies.

The designated accessible parking is proposed to have a layout to meet AS2890.6 2009.

4.1.2 Recommendations

In ongoing design, include the following for accessible parking spaces to comply with AS2890.6 2009 and AS1428.1 2009:

+ A dedicated (non-shared) space with dimensions 2.4m wide x 5.4m long
+ A shared area on one side of the dedicated space 2.4m wide x 5.4m long
+ A shared area at the end of each space 2.4m x 2.4m
+ A 1200mm high bollard located in the center and 800mm from the front edge of the shared space.
+ Parking space related walking and wheelchair unloading areas comprise a slip-resistant, firm plane surface with a fall not exceeding 1:40 in any direction or 1:33 if the surface is a bituminous seal.

+ The headroom above each dedicated space and adjacent shared area, measured from the level of the dedicated space to be a minimum of 2500 mm (AS2890.6 figure 2.3)
+ Space identification for commercial / visitor accessible spaces including parking space pavement marking with the white symbol of access (height 800mm to 1000mm) placed in a blue rectangle, which is to include no side more than 1200mm in length. The signage is to be located in the centre of the dedicated space between 500 to 600mm from its entry point. The shared area is to be marked with unbroken longitudinal lines (AS2890.6 clause 3.1 and figure 3.1)
+ A continuous accessible path of travel which includes surfaces constructed and maintained with no lip at joints between abutting surfaces exceeding 3mm or 5mm at beveled edges is provided to link the accessible parking space and the lift (AS1428.1 clause 7)

4.2 Continuous Accessible Paths of Travel

4.2.1 Proposed Design

To meet BCA D3.2, accessible links meeting the requirements of AS1428.1 are proposed:

+ from High Street to the principal commercial entrances via a level pathway link
+ from High Street and John Cram place to the ground floor residential entrance via a level pathway link
+ from basement parking to ground floor commercial and residential apartments via lifts to each building

4.2.2 Recommendations

In ongoing design, include the following for walkways to comply with the BCA and AS1428.1 2009 clause 7.1 and 10.2:

+ A minimum 1000mm unobstructed path width and 2m vertical clearance (AS1428.1 clauses 6.2 and 6.3, with turning spaces 1800mm x 2000mm
+ A slip resistant surface that is traversable by people who use a wheelchair and those with an ambulant or sensory disability
+ The ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway; follow the grade of the walkway and extend horizontally for a minimum of 600mm unless one of the following is provided:
    - a kerb
    - a kerb rail and handrail
    - a wall not less than 450mm high

4.3 External Paths of Travel and Landscaped Area

4.3.1 Proposed Design

To meet BCA D3.2, accessible links are proposed throughout the external landscaped areas on the ground floor.

4.3.2 Recommendations

In ongoing design, include the following for external paths of travel and landscaped areas to comply with AS1428.1 2009:

+ A minimum 1200mm unobstructed path width and 2m vertical clearance (clauses 6.2 and 6.3); AS1428.2 clause 6.4
+ Surfaces to be constructed and maintained with no lip at joints between abutting surfaces exceeding 3mm or 5mm at bevelled edges to comply with (clause 7).

+ Drainage or tree grates on the path of travel are to have spaces not more than 13mm wide and not longer than 150mm with the elongated opening placed transverse to the dominant path of travel (clause 7.5).
+ The selection of any proposed outdoor furniture is to be linked to an accessible path of travel and include tables that are stable and seats that include a back and armrest and seat height to comply with AS1428.2 clause 27.2 and figure 32.
+ Landscaping and plant selection that considers maintenance free of vegetation debris and ease of circulation including slip-resistance.
+ Kerb ramps with a maximum rise of 190mm, length no greater than 1520mm and gradient not steeper than 1:8, with a 1500mm landing at the top where there is a change of direction required (clause 10.7).
+ Step ramps to have a maximum rise of 190mm, a length not greater than 1900mm, a gradient not steeper than 1:10 and edges protected by a suitable barrier in accordance with AS1428.1 clause 10.6.1.

4.4 Commercial Tenancies

4.4.1 Proposed Design

Commercial tenancies are proposed in Building A on the ground floor and Level 1. To meet the requirements of BCA part D3.1 continuous accessible paths of travel meeting the requirements of AS1428.1 (2009) are indicated generally throughout the commercial areas through the provision of circulation space at doorways, corridors and within rooms.

4.4.2 Recommendations

In ongoing design, include the following for internal links to comply with AS1428.1 2009:

+ All doors to include clear door openings of 850mm including a single leaf clear door opening at double doors (clause 13.2).
+ Sufficient circulation space at doorways (clause 13.3 and figures 31 - 34).
+ Level landings at doorways (figures 25(D), 31-34)
+ Any ramped threshold to include a max. rise of 35mm; max. length of 280mm; max. gradient of 1:8 and located within 20mm of the door leaf which it serves (clause 10.5 and figure 21)
+ The force required to activate door closers, glazed or pivot action doors is to meet as close as possible the requirements of clause 13.5.2(e).
+ A luminance contrast of 30% provided at doorways is required to comply with AS1428.1 (2009) clause 13.1 and will assist in identification by people with low vision.
+ All glazing which is unframed and which is capable of being mistaken for a doorway or opening is to be provided with highlighting to meet the requirements of AS1428.1 (2009) clause 6.6. A solid strip 75mm high is to be provided 900-1000mm AFFL with a minimum 30% luminance contrast with the floor surface when viewed from either side.

4.5 Common Areas

4.5.1 Proposed Design

Garbage is proposed to be managed through the provision of garbage chutes on each level with clear circulation space in front of the chutes (min. 1540mm x 2070mm) to meet AS1428.1 6.5.3.

Storage is proposed to be provided at the end of each basement car parking space. Space for letterboxes is available at building lobbies.

4.5.2 Recommendations

In ongoing design, include the following for common areas to comply with BCA D3.1 and AS1428.1 2009:

+ Provide letterboxes on an accessible path of travel with circulation space in front of the boxes to facilitate the maneuvering of a wheelchair (min. 1500mm x 1500mm). Provide adaptable unit letterboxes located at an accessible height.
+ Intercoms and security swipe card readers located on level landings at an accessible height to meet AS1428.1 clause 14 (not less than 900mm and not more than 1100mm AFFL and not less than 500mm from internal corners).
+ Ensure access which includes circulation space meeting AS1428.1 to residential garbage areas is maintained

4.6 Lifts

4.6.1 Proposed Design

Lifts are proposed to link all levels of the building. Lift A is indicated to link all levels of building A and Lift B is indicated to link all levels of building B. Lift C links the basement with all levels of the commercial tenancies. The lifts are indicated to have a lift lobby that provides sufficient circulation space for a wheelchair or mobility aid user.

4.6.2 Recommendations

To comply with BCA E3.6 the lifts must be of a class to meet the requirements identified in Table E3.6 (a); have floor dimensions not less than 1400mm x 1600m for lifts traveling more than 12m and include the following features in accordance with AS1735.12:

+ A handrail complying with the provisions for a mandatory handrail in AS 1735.12 clause 5.3
+ Minimum clear door opening of 900mm as in AS 1735.12 section 2
+ Passenger protection system complying with AS 1735.12 clause 4.2
+ Lift car and landing control buttons complying with AS 1735.12 section 7 for Braille, tactile and luminance contrast
+ Lighting in complying with AS 1735.12 section 10
+ Automatic audible information within the lift car to identify the level each time the lift stops; and audible and visual indication at each lift landing to indicate the arrival of the lift car.
+ Emergency hands free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received.

4.7 Stairways

4.7.1 Proposed Design

Fire isolated stairways are proposed in the building linking from basement levels to the ground level; and linking all levels of the buildings to ground floor. A refuge for wheelchair users is indicated in the fire stairs on the basement levels.

4.7.2 Recommendations

In ongoing design, include the following for stairways to comply with BCA D3.1 and AS1428.1 2009:

+ All stairways, (including fire isolated stairs) have nosing profiles which include 50-75mm wide solid slip resistant highlighting strips on the tread at the nosing that includes a minimum luminance contrast of 30% with the tread to comply with AS1428.1 figures 27(A) and (B)
+ Non-fire isolated stairs have handrails on both sides that include a 300mm horizontal extension at the top and bottom set back by a minimum of 300mm so that the handrail does not protrude into the transverse path of travel as per AS1428.1 (2009) figure 26(A)
+ External stairs to include tactile ground surface indicators (tgsi) in a band 600mm-800mm deep set back 300mm from the top and bottom tread (clause 11)

4.8 Internal Accessible Paths of Travel

4.8.1 Proposed Design

Internal corridors on each level linking the lifts to units are proposed to meet the BCA part D3.1 and AS1428.1 by including:

+ Space for passing and turning (at least 1800 x 2070 mm) at the lift lobbies
+ Circulation space to meet AS1428.1 clause 13 at the unit doorways
+ Doors to units to provide a clear door opening of minimum 850mm (AS1428.1 clause 13)

4.9 Emergency Egress

4.9.1 Proposed Design

Places of refuge, which are fire rated areas such as the areas adjacent the entry landings of fire stairs where people who are unable to negotiate stairs, can wait for assisted evacuation are considered a possible way of making an appropriate provision for emergency egress. To meet the intent of the DDA refuges are recommended to be provided in the stair entry landings for a wheelchair user or a person with ambulant mobility equipment and an accompanying person, with a recommended unobstructed space of 1300mm x 800mm outside of the egress route (BCA RD 97/01 Table D1.6).
Refuges are proposed at fire stair entry landings in the basement levels. It is understood that on the apartment levels the apartments are deemed as fire refuges.

4.9.2 Recommendations

In ongoing design, include the following for emergency egress to comply with the DDA:

+ Development of individual evacuation plans for staff is recommended as part of the facility operational management strategy
+ To meet AS3745 (2009) Planning for Emergencies in Facilities we recommend in ongoing design that consideration be given to the inclusion of suitable emergency evacuation devices for people to be carried down the stairwell.

4.10 Sanitary Facilities in Common Areas

4.10.1 Proposed Design

Toilet facilities are provided in the commercial tenancy on the ground floor and first floor. To meet the requirements of the BCA part F2.4(a) the design is proposed to include a combined unisex accessible toilet and shower facility, and a sanitary compartment suitable for a person with an ambulant disability in both the male and female toilets.

4.10.2 Recommendations

In ongoing design, include the following for sanitary facilities:

+ Ensure that in ongoing design the combined unisex accessible sanitary facility + shower includes a layout, circulation space (door, WC pan, basin) and fittings to meet the requirements of AS1428.1 clause 15.
+ Ensure that in ongoing design cubicles for people with ambulant disabilities are provided in the commercial tenancy toilets and include features complying with AS1428.1 clauses 13.4 and 16 and figures 34 and 53 (signage, entry airlock and cubicle door circulation, WC pan, grabrails, toilet paper dispenser, clothes hook).

5. Livable Housing Silver Level Unit Review and Requirements

Sepp 65 states that: (2) Development consent must not be granted if, in the opinion of the consent authority, the development or modification does not demonstrate that adequate regard has been given to:

(a) the design quality principles, and

(b) the objectives specified in the Apartment Design Guide for the relevant design criteria.

Objective 4Q-1 of the Apartment Design Guide states that:

Universal design features are included in apartment design to promote flexible housing for all community members

Design guidance

Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features for dwelling access, dwelling entrance, internal doors and corridors, toilet, shower and reinforcement of bathroom and toilet walls.

5.1.1 Proposed Design

The following is proposed to be included for 20% of units to meet the Livable Housing Guideline's silver level universal design features. See Drawing DA 9001 Rev D.

1.Dwelling Access – 100% compliance with Silver and Gold Level

- There is a safe, continuous, step-free pathway from the street entrance and/or parking area to a dwelling entrance that is level.
- Gold level as for silver level except in (b) replace the minimum clear pathway width of 1000mm with 1100mm

2. Dwelling Entrance – 100% compliance with Silver and Gold Level

a. The dwelling should provide an entrance door with –

i. a minimum clear opening width of 820mm (see Figure 2(a));

ii. a level (step-free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or beveled); and

iii. reasonable shelter from the weather.

b. A level landing area of 1200mm x 1200mm should be provided at the level (step-free) entrance door.

c. Where the threshold at the entrance exceeds 5mm and is less than 56mm, a ramped threshold may be provided (see Figure 1(b)).

d. The level (step-free) entrance should be connected to the safe and continuous pathway as specified in Element 1.

Note The entrance must incorporate waterproofing and termite management requirements as specified in the NCC.

3. Car Parking – n/a

a. Where the parking area forms part of the dwelling access the space should incorporate:

i. minimum dimensions of at least 3200mm (width) x 5400mm (length);

ii. an even, firm and slip resistant surface; and

iii. a level surface (1:40 maximum gradient, 1:33 maximum gradient for bitumen).

4. Internal Doors and Corridors – 20% compliance with Silver Level (Units 2.08, 3.07, 4.07, 5.07, 6.06, 3.06, 4.06, 5.06)

a. Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:i. a minimum clear opening width of 820mm (see Figure 2(a)); and

ii. a level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or beveled).

b. Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of 1000mm.

5. Toilet – 20% compliance with Silver Level (Units 2.08, 3.07, 4.07, 5.07,6.06, 3.06, 4.06, 5.06)

a. Dwellings should have a toilet on the ground (or entry) level that provides:

i. a minimum clear width of 900mm between the walls of the bathroom if located in a separate room; and

ii. a minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door in accordance with Figure 3(a).

b. If the toilet is located within the ground (or entry) level bathroom, the toilet pan should be located in the corner of the room to enable the installation of grabrails.

6. Shower - 20% compliance with Silver and Gold Level (Units 2.08, 3.07, 4.07, 5.07,6.06, 3.06, 4.06, 5.06)

a. One bathroom should feature a slip resistant, hobless (step-free) shower recess. Shower screens are permitted provided they can be easily removed at a later date.

b. The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.

Gold Level is as for silver level except:

c.The hobless (step-free) shower recess described in (a) should:
i. be located in a bathroom on the ground (or entry) level;
ii. provide minimum dimensions of 900mm (width) x 900mm (length); and
iii. provide a clear space of at least 1200mm (width) x 1200mm (length) forward of the shower recess entry as detailed in Figure 5(a).

7. Reinforcement of Bathroom and Shower Walls - 100% compliance with Silver Level is possible (commitment by builder)

a. Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails.

b. The fastenings, wall reinforcement and grabrails combined must be able to withstand 1100N of force applied in any position and in any direction.

c. The walls around the toilet are to be reinforced by installing:

i. noggings with a thickness of at least 25mm in accordance with Figure 6(a); or

ii. sheeting with a thickness of at least 12mm in accordance with Figure 6(b).

c. The walls around the bath are to be reinforced by installing:

i. noggings with a thickness of at least 25mm in accordance with Figure 7(a); or

ii. sheeting with a thickness of at least 12mm in accordance with Figure 7(b).

e. The walls around the hobless (step-free) shower recess are to be reinforced by installing:

i. noggings with a thickness of at least 25mm in accordance with Figure 8(a); or

ii. sheeting with a thickness of at least 12mm in accordance with Figure 8(b).

8. Internal Stairways – n/a

a. Stairways in dwellings must feature:

i. a continuous handrail on one side of the stairway where there is a rise of more than 1m.

6. Adaptable Unit Review and Requirements

6.1 Adaptable Apartments

The development is proposed to include a total of 39 residential apartments. Residential apartments are proposed to include a mix of one, two and three bedroom units.

To meet the Penrith Development Control Plan for adaptable housing, a total of 5 adaptable 2 bedroom apartments are proposed. These will be provided on levels 2 to 5 inclusive.

Adaptable apartments are proposed to be provided in apartments 2.08, 3.07, 4.07, 5.07 and 6.06.

6.2 Design Requirements

To meet the DCP requirements the adaptable two bedroom apartment layouts are indicated to include an accessible layout to meet the essential design criterion as listed in AS4299 and include circulation spaces to comply with the functional requirements of AS1428.1 for the entry doorway, internal doors, living room, kitchen, laundry, bedroom and bathroom as detailed in the following table. See drawing DA 9001 Rev D.

To meet the DCP requirements the adaptable apartments are proposed to be linked via a continuous accessible path of travel complying with AS1428.1 to all common use facilities including the garbage chutes and letterboxes.

Adaptable Apartment Table Key:

In line with the Penrith Council Development Control Plan and adaptable housing, principles are to include essential design criteria as outlined in the following table:

✓ = compliance indicated
X = compliance not indicated
TBI = to be indicated in ongoing design development

Item No.	Room / Item Requirement	Clause No.	Provided
	DRAWINGS		
1	Provision of drawings showing the housing unit in its pre-adaption and post-adaption stages.	2.3	✓
	SITING		
3	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with AS1428.1	3.3.2	✓
	SECURITY		
8	Pathway lighting shall be positioned at low height to avoid glare and to provide min. 50 lux at ground level	3.6.1	TBI
9	Clear line of sight from a well lit vehicle drop off point to safe pedestrian entry point	3.6.2	TBI
10	Within residential estate developments, letterboxes centrally located adjacent to street entry and lockable	3.8	TBI
	LETTERBOXES IN ESTATE DEVELOPMENTS		
11	Letterboxes to be on hard standing area connected to accessible pathway.	3.8	✓
	PRIVATE CAR ACCOMMODATION		

14	Carparking space or garage min. area 6.0m x 3.8m.	3.7.2	layout to comply with AS2890.6
	ACCESSIBLE ENTRY		
20	Accessible Entry	4.3.1	✓
22	Accessible entry to be level (i.e.: max. 1:40 slope)	4.3.2	✓
23	Threshold to be low level	4.3.2	✓
24	Landing to enable wheelchair maneuverability	4.3.2	✓
25	Accessible entry door to have 850 min. clearance	4.3.1	✓
27	Door lever handles and hardware to AS 1428.1	4.3.4	TBI
	EXTERIOR GENERAL		
30	All external doors to be keyed alike	4.3.4	N/A
31	Provision for security screen to exterior opening or sliding windows and doors	4.7.6	TBI
	INTERIOR GENERAL		
32	Internal doors to have 820mm min. clearance	4.3.3	✓
33	Internal corridors min. width of 1000mm.	4.3.7	✓
34	Provision for compliance with AS 1428.1 for door approaches	4.3.7	✓
	LIVING ROOM AND DINING ROOM		
36	Provision for circulation space of min. 2250mm diameter	4.7.1	✓
38	Telephone adjacent to GPO	4.7.4	TBI
41	Potential illumination level of min. 300 lux.	4.10	TBI
	KITCHEN		
42	Minimum width 2700mm (1550mm clear between benches)	4.5.2	Post adaptation
43	Provision of circulation at doors to comply with AS 1428.1	4.5.1	✓
44	Provision of benches planned to include at least one work surface of 800mm. length, adjustable in height from 750-850mm. or replaceable	4.5.5	TBI
45	Refrigerator adjacent to work surface	4.5.5	✓
46	Kitchen sink adjustable to heights from 750-850mm or replaceable	4.5.6	TBI
47	Kitchen sink bowl max. 150 deep	4.5.6	TBI
48	Tap set capstan or level handles or lever mixer	4.5.6(e)	TBI
49	Tap set located within 300mm of front of sink	4.5.6(e)	TBI

51	Cooktops to include either front or side controls with raised cross bars	4.5.7	TBI
52	Cooktops to include isolating switch	4.5.7	TBI
53	Work surface min. 800mm. length adjacent to cooktop at same height	4.5.7	TBI
54	Oven located adjacent to an adjustable height or replaceable work surface	4.5.8	TBI
59	GPO's to comply with AS 1428.1. At least one double GPO within 300mm of front of workspace	4.5.11	TBI
60	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position	4.5.11	TBI
61	Slip resistant floor surface	4.5.4	TBI
	MAIN BEDROOM		
62	At least one bedroom of area sufficient to accommodate queen size bed and wardrobe and circulation space requirements of AS 1428.2	4.6.1	✓
	BATHROOM		
75	Provision of bathroom area to comply with AS 1428.1	4.4.1	✓
76	Slip resistant floor surface	4.4.2	TBI
77	Shower recess – no hob. Minimum size 1160x1100 to comply with AS1428.1	4.4.4(f)	✓
78	Shower area waterproofed to AS 3740 with floor to fall to waste	4.4.4(f)	TBI
79	Recessed soap holder	4.4.4(f)	TBI
80	Shower taps positioned for easy reach to access side of shower sliding track	4.4.4(f)	TBI
82	Provision for adjustable, detachable hand held shower rose mounted on a slider grab rail or fixed hook (plumbing and wall strengthening provision)	4.4.4(h)	TBI
83	Provision for grab rail in shower	4.4.4(h)	TBI
86	Tap sets to be capstan or lever handles with single outlet	4.4.4(c)	TBI
88	Provision for washbasin with clearances to comply with AS 1428.1	4.4.4(g)	✓
90	Double GPO beside mirror	4.4.4(d)	TBI
	TOILET		
92	Provision of either a 'visitable toilet' or an accessible toilet	4.4.3	✓
93	Provision to comply with AS 1428.1	4.4.1	✓
94	Location of WC pan at correct distance from fixed walls	4.4.3	✓
95	Provision for grab rail zone	4.4.4(h)	TBI
96	Slip resistant floor surface (vitreous tiles or similar)	4.4.2	TBI

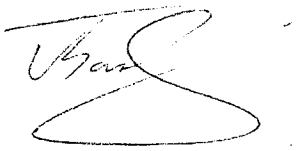
	LAUNDRY		
98	Circulation at doors to comply with AS 1428.1	4.8	✓
99	Provision for adequate circulation space in front of or beside appliances (min. 1550 depth)	4.8	✓
100	Provision for automatic washing machine	4.8(e)	TBI
102	Where clothes line is provided, an accessible path of travel to this	4.8(a)	TBI
105	Double GPO	4.8(g)	TBI
108	Slip resistant floor surface	4.9.1	TBI
	DOOR LOCKS		
110	Door hardware operable with one hand, located 900-1100mm. above floor	4.3.4	TBI

6. Conclusion

We have evaluated the DA design documentation for the proposed new building at 344 High Street Penrith for compliance with the access and mobility requirements of the BCA 2015 and the Disability (Access to Premises - Buildings) Standards (2010). The designs have been assessed to ensure the inclusion of safe, equitable and dignified access for people with disabilities to meet the intent of the DDA.

Having reviewed the listed drawings, it is our opinion that t this stage of the design, the access provisions for people with physical and sensory disabilities complies with the performance requirements of BCA (2015) sections D3, E3.6 and F2.4; AS1428.1, AS1428.2, AS1428.4.1, AS2890.6, AS4299, AS1735.12, SEPP 65 Livable Housing Guidelines Silver Level and the Penrith Council DCP. With the inclusion of the recommendations in this report, the development has the potential to continue to meet these requirements in ongoing design.

In our opinion the proposed design, in conjunction with inclusion of the recommendations, has the potential to meet the objectives of the Disability Discrimination Act through its intention to provide non-discriminatory access and the equitable and dignified use of all appropriate areas of this residential development.



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