



Disability Access Report

Project: Residential Development

Address: 60 Beaconsfield Street
Newport

Stage: Development Application

Ref: J000378

Date: 14 November 2019

For: Stables Properties Pty Ltd

COMPANY INFORMATION

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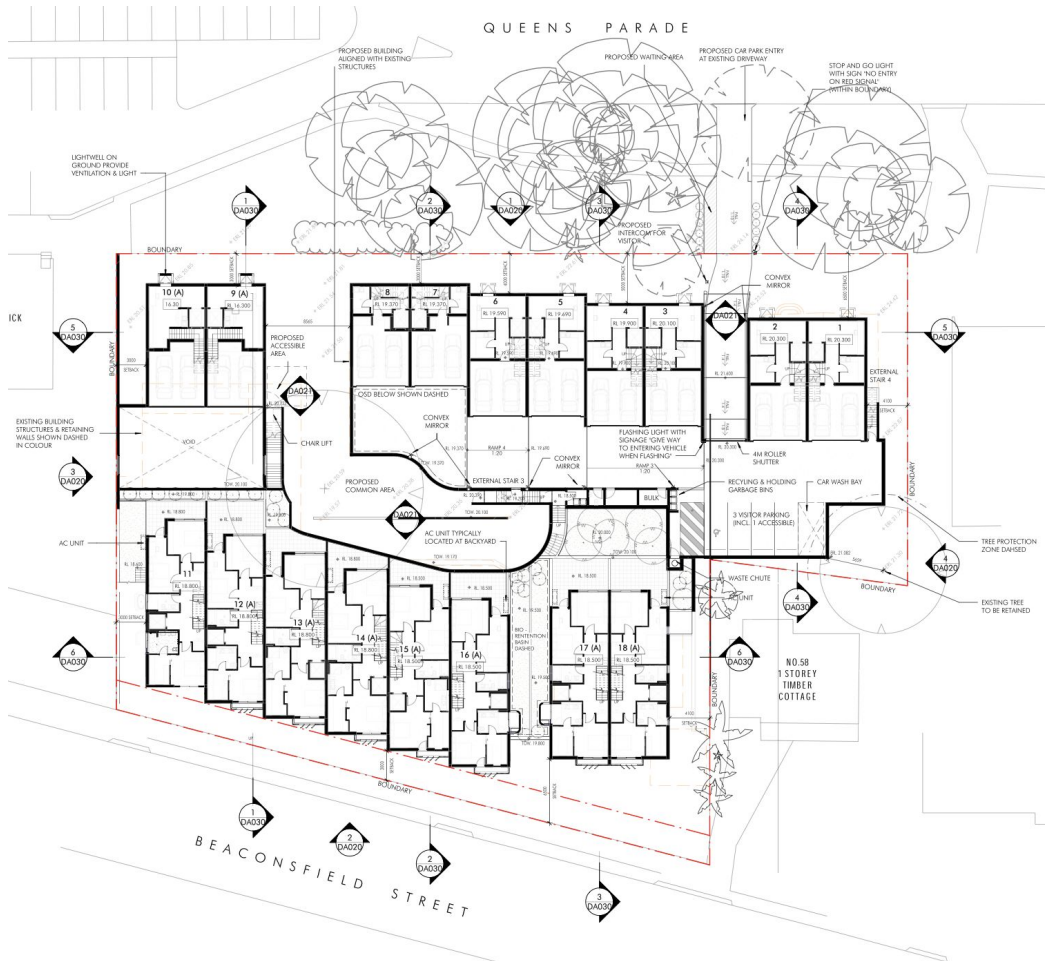
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1. Introduction

1.1 Report Background

Cheung Access Pty Ltd has been commissioned by Stables Properties Pty Ltd to provide professional Access Consulting services for the proposed construction of a residential development. The site consists of 18 three bedroom townhouses in two buildings with a maximum rise of 3 storeys above ground level relative to the street frontage.

All on-site accessible car parking is proposed to be provided in a single basement level, which includes 18 residential double or tandem garages and 7 visitor spaces. Communal areas includes courtyard landscaped areas.



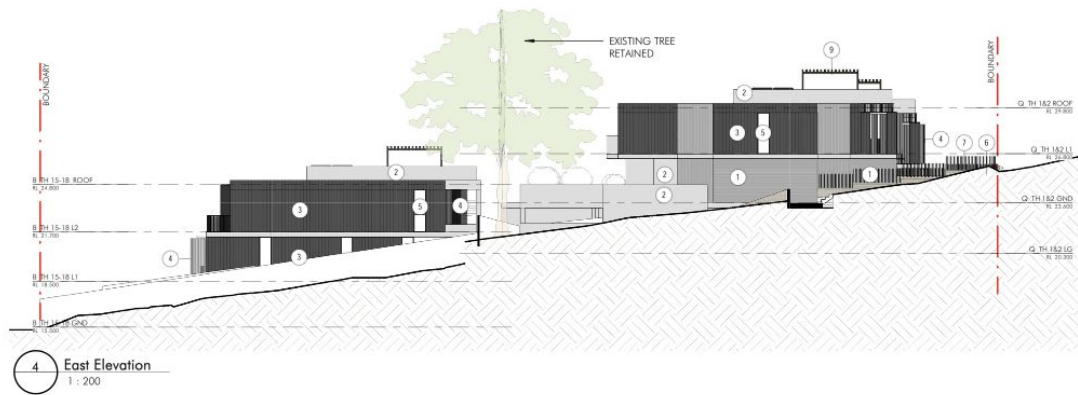


Figure 1 - site plan and east elevation showing site slope

Our engagement involved a detailed desktop assessment of the architectural design documentation against the provisions of the Part D3, E3.6 and F2.4 of the National Construction Code Series (Volume 1) Building Code of Australia 2019 (BCA) and controls for Access for People with Disabilities as outlined in Pittwater Development Control Plan (2004) as amended 14 November 2015.

1.2 Report Purpose

The key objectives of the report are as follows:

- ❑ Undertake an assessment of the proposed development against:
 - ❑ Part D3, E3.6 and F2.4 Deemed to satisfy provisions of the National Construction Code Series – Volume 1- Building Code of Australia.
 - ❑ Pittwater Development Control Plan (2004)
 - ❑ SEPP 65 & Apartment Design Guide Part 4Q-1 Universal Design
- ❑ Identify any compliance departures that require resolution/attention for the proposed development by way of design change or Performance Solutions prior to the submission of the Construction Certificate application.
- ❑ Verify that the referenced documentation has been reviewed by an appropriately qualified Accredited Access Consultant and demonstrate that compliance with the BCA / Access to Premises – Building Standard 2010 / Pittwater DCP is readily achievable.
- ❑ Enable the certifying authority to satisfy its statutory obligations under Clause 145 of the Environmental Planning and Assessment Regulation, 2000 and its statutory obligations under the Building Professionals Regulation 2007.
- ❑ Accompany the submission of the Development Application to the Consent Authority to enable them to be satisfied that the building design is capable of complying with the NCC/BCA and that subsequent compliance with the access requirements of the BCA, will not give rise to design changes to the proposed

townhouses, which may necessitate the submission of additional Section 4.55 applications under the Environmental Planning and Assessment Act, 1979.

Cheung Access has reviewed drawings for the Beaconsfield Street development (Class 2 residential), to assess for consistency with the following disability design criteria contained within:

1. The intent and objects of the Disability (Access to Premises- Buildings) Standards (2010).
2. Part D3, E3.6 and F2.4 of the Building Code of Australia (BCA) 2019
3. Relevant Australian Standards listed in the BCA 2019 and AS4299, as follows:
 - a. AS1428.1 Design for Access and Mobility: General requirements for Access – New Building Work (2009)
 - b. AS1428.4.1 Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators (2009)
 - c. AS1735.12 Lifts, escalators and moving walks – Facilities for persons with disabilities, Amendment 1 (1999).
 - d. AS2890 (Part 6) (2009) – Parking Facilities – Off-street parking for people with disabilities
 - e. AS4586 (2013) Slip resistance classification of new pedestrian surface materials
4. The following state and local planning documents;
 - a. Intent of State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development (SEPP 65) & Apartment Design Guide Part 4Q-1 Universal Design - 20% of the total apartments incorporating the Livable Housing Design Guidelines silver level universal design features (2015)
 - b. 50% of all residential apartments in accordance with AS4299 - 1995 Adaptable housing Class B (Pittwater DCP-2004)

In the preparation of this report, documentation relied upon for the development application stage review is referenced in Appendix A.

1.3 Report Limitations and Exclusions

The limitations and exclusions of this report are as follows:

- This report is based on a review of the referenced documentation in the Appendix A.

- ❑ This Report does not address issues in relation to the design, maintenance or operation electrical, mechanical, hydraulic or fire protection services, Utility Services Provider Requirements (Water, Gas, Telecommunications and Electricity supply authorities), Local Government Act and Regulations, Occupational Health and Safety Act and Regulations or the like.
- ❑ This assessment does not incorporate the detailed requirements of the BCA Referenced Australian Standards and it's the responsibility of design and installation contractors to demonstrate and achieve compliance for all new works.
- ❑ The commentary within this Access Assessment Report does not relieve the Principal Designer, Principal Building Contractor or the Certifying Authority from their statutory obligations under the EP&A Act, Work Health Safety Act, BPB Act and the like and they are to be satisfied that the proposal meets their requirements prior to approval.
- ❑ It is important to note that without the written permission from Cheung Access Pty Ltd, no part of this report may be reproduced in any form or by any means. This report is based solely on client instructions and therefore should not be relied upon or used by any third party without prior knowledge and instructions from Cheung Access Pty Ltd.
- ❑ All reasonable attempts have been made to identify key compliance matters pursuant to the BCA and additional issues which have been deemed an impediment to access provision and may increase Client risk of attracting a complaint under the DDA.
- ❑ Cheung Access accepts no responsibility for any loss suffered as a result of any reliance upon such assessment or report other than providing guidance to alleviate access barriers in the built environment and reduce Client risk of attracting a complaint under the DDA.
- ❑ If the layouts or specified fixtures and fittings of the nominated adaptable and livable townhouses are modified by the Client from the date of issue of this access report, then Cheung Access accepts no responsibility for any variations to required access provisions or adaptable or livable housing design specifications.

Exclusions to the access Report:

- ❑ Cheung Access has not reviewed external pathway lighting. This is the responsibility of the Client to address via design certification from the landscape architect or Electrical Consultant.
- ❑ Cheung Access has not reviewed any new roadside public domain works which are outside the scope of this BCA assessment. This is the responsibility of the Client to address via design certification from the civil engineer or landscape architect.

1.4 Disability Discrimination Act 1992 (DDA)

The Federal Disability Discrimination Act 1992 (DDA) provides protection for everyone in Australia against discrimination based on disability. Section 32 of the DDA focuses on the provision of equitable and dignified access to services and facilities for people with mobility, sensory and cognitive disabilities.

Disability discrimination happens when people with a disability and their relatives, friends, carers, co-workers or associates are treated less fairly than people without a disability. Compliance with Access to Premises Standards give certainty to building certifiers, building developers and building managers that, if access to (new parts) of buildings is provided in accordance with these Standards, the provision of that access, to the extent covered by these Standards, will not be unlawful under the DDA. This however applies only to the new building or new parts of an existing building and its affected part. All areas outside the scope of these areas are still subject to the DDA. We cannot guarantee or certify for DDA compliance because DDA compliance can only be assessed by the Courts. Scope of DDA extends beyond the building fabric and also includes furniture and fittings.

From 1 May 2011, the Commonwealth's Disability (Access to Premises - Buildings) Standards made under the Disability Discrimination Act 1992 (DDA) applies to all new building work. The Premises Standards, established requirements for access to buildings, that are incorporated into the BCA 2019.

The Premises Standards contain an Access Code of construction that is mirrored in the disability access provisions of the BCA 2019. New building work must comply with the Access Code in the same manner as complying with the BCA 2019 by meeting deemed-to-satisfy provisions or by adopting a performance solution that achieves the relevant performance requirements.

This means if access is provided in accordance with the Premises Standards then it is not unlawful under the DDA. It also ensures that Object 1.3 (a) of the Premises Standards is met which is to:

'Ensure that dignified, equitable, cost-effective and reasonably achievable access to buildings and facilities and services within buildings is provided for people with a disability.'

1.5 Proposed Development

The proposed mixed residential development consists of 18 townhouses which are connected by accessible pathways from the ground level street entrances from existing roads around the site.

Vehicle entry into the two (2) car parking areas for the residential building is via driveways from Beaconsfield St and Queens Parade.

BCA Classification:

Class	Level	Description
7a	Basement	Car parking
2	Ground to Level 3 (rooftop terrace)	Residential Sole Occupancy Units (SOU's) (Townhouses)

Areas Required to be Accessible:

Level	Area	Description
Basement	Carparking	Common Areas - lifts, storage, resident storage areas, pathways to lift cores.
Ground Floor portion	Ground floor - external	To and within all areas normally used by the occupants. From Accessible car parking Common areas - such as communal open space
Ground	Ground	To doors of Residential Sole Occupancy Units (SOU's) on each level there is a ramp or lift.

Building overview:

Level	Building Features
External	<p>Carpark Entry</p> <ul style="list-style-type: none"> ● Northern side of site - Queens Parade ● Southern side of site - Beaconsfield Street <p>Pedestrian access from allotment boundaries on both streets to residential entrances</p> <p>Communal areas</p> <ul style="list-style-type: none"> ● Open Space <p>Service areas</p> <ul style="list-style-type: none"> ● Hydrant booster ● Bin collection area
Beaconsfield Street Ground Level	<p>External</p> <p>Pedestrian access to ground level of townhouses fronting Beaconsfield Street allotment boundary</p> <p>Carparking garages for 10 SOU (Townhouses 9 to 18) includes internal pedestrian lift providing access to all other levels of the individual townhouses</p> <p>Visitor carparking (3 including one (1) accessible space and share zone)</p> <p>Parking aisle</p> <p>Stairs to common area</p> <p>Stairs to common courtyard with stairway platform chair lift</p> <p>Bin room</p> <p>Bulk waste</p>
Beaconsfield Street Level 1 Queens Parade Basement level	<p>8 SOU (Townhouses 1 to 8) includes internal pedestrian lift providing access to all other levels of the individual townhouses</p> <p>Stairs to common area</p> <p>Visitor carparking (4 including one (1) accessible space and share zone)</p> <p>Garbage chute (circulation area for chute utilises shared zone of accessible car parking space)</p> <p>Recycling bin area</p> <p>Car wash bay</p> <p>Parking aisle</p> <p>Stairs to common area</p>

Beaconsfield Street Level 2 Queens Parade Ground level	Pedestrian access to ground level of townhouses fronting Queens Parade allotment boundary
Beaconsfield Street roof level Queens Parade Level 1	
Total townhouses	18 townhouses Beaconsfield Street - 8 townhouses (incl. 7 Adaptable / Livable Townhouses) Queens Parade - 10 townhouses (incl. 2 Adaptable / Livable Townhouses)

1.6 Report Structure

The report consists of a Summary of Compliance Departures provided in the table under Section 2 below, which is for the reader's ease of reference and most urgent attention. Notwithstanding the summary of issues within **Section 2** must also be read in conjunction with the body of the assessment provided under **Section 3** of the report which further details compliance matters needing consideration in design development and during construction.

It is also the responsibility of all design consultants to ensure compliance with relevant NCC access requirements, DCP controls, Australian Standards and Manufacturers Specifications. This report does not in any way relieve design consultants from their obligations in designing to achieve compliance with the NCC. Furthermore, this report does not relieve the PCA from their statutory obligations required to assess the drawings in detail prior to the issue of a Construction Certificate.

2. Summary of Potential Key Compliance Departures

The following comprises a summary of the potential key compliance issues identified under the Disability Access Assessment in Section 3 and is to be read in conjunction with the aforementioned Sections and the Building Code of Australia Volume 1.

The following matters are to be considered & addressed to the satisfaction of the Principal Certifying Authority as part of the Construction Certificate application.

Relevant BCA Clause	Element	Issue	Potential for non-compliance
D3.1	Common courtyard - Beaconsfield Street	Ongoing design detail	Ensure access is provided to all areas required to be accessible
D3.1	Common courtyard - Queens Parade	Ongoing design detail	Ensure access is provided to all areas required to be accessible
D3.1	Accessible vertical circulation	Ongoing design detail	Ensure stairway platform chair lift is designed, installed and has required circulation areas at top and base landings. Where there is a gate on a landing this will need to be automated as there is not enough circulation space.
D3.2	External entry paths to SOU entrances and common areas	Ongoing design detail	Ensure access is provided to all areas required to be accessible. NB. It is noted that due to the natural topography along Queens Parade, that an accessible path of travel can not be provided to the entry doors of townhouses 1, 2, 3, 4, 5, 6, 7, 8.
D3.3	Landscaping	Ongoing design detail	Ensure access is provided to all common areas required to be accessible

3. Disability Access Assessment

Section of Report	Design Criteria
3.1	<p>Overview of Accessible building features</p> <p>3.1.1 Compliance with BCA Part D3 3.1.2 Compliance with Pittwater DCP (2004) 3.1.3 Compliance with SEPP 65 / Apartment Design Guide (ADG) Part 4Q</p>
3.2	<p>BCA Part D3 – Access For People with Disabilities</p>
3.3	<p>AS4299 Adaptable Housing - Class A essential and desirable Features</p> <p>Note: Adaptable townhouses can incorporate Livable Housing Silver Level Elements.</p>
3.4	<p>Livable Housing Design (LHD) Guidelines</p> <p>The LHD Guidelines aim to improve the level of accessibility and adaptability of new housing so that the housing can meet the needs of a wide range of occupants across time. The LHD Guidelines has 7 core design elements.</p>

3.1 Overview of Accessible building features

3.1.1 Compliance with BCA Part D3

The proposed development, will satisfy the prescriptive deemed to satisfy provisions of Part D3, E3.6 and F2.4 of the BCA 2019, as follows:

1. Pathways from Beaconsfield Street and Queens Parade to the principal entrances of the following townhouses: 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 only. *Please note: Due to the natural topography along Queens Parade, that an accessible path of travel can not be provided to the entry doors of townhouses 1, 2, 3, 4, 5, 6, 7, 8.*
2. Access to and within common areas such as communal open spaces for the residents and waste deposit areas.
3. Access to the entrance doorway of sole occupancy units.

Performance Solutions

Due to the topography of the site, this has resulted in a departure from the Building Code requirements. These departures need to be addressed to meet the relevant Performance Requirements of the Building Code, prior to Construction Certificate (CC) Stage. These include, but are not limited to, the following:

#	Non-compliance BCA Clause	Location of Non-compliance
1	D3.2	It is noted that due to the natural topography along Queens Parade, that an accessible path of travel can not be provided to the entry doors of townhouses 1, 2, 3, 4, 5, 6, 7, 8.

3.1.2 Compliance with Pittwater DCP (2004)

The Controls for Accessibility are as follows:

- *50% of residential apartments in accordance with AS4299-1995 Adaptable Housing Class B*
- *20% of all residential apartments incorporate the Liveable Housing Guideline's silver level*

It is my professional opinion that this development has the capacity to satisfy the following adaptable and visitable housing design requirements, as follows:

1. Drawings - 9 townhouses to be adaptable in accordance with Class B AS4299 Adaptable Housing (1995). Please note that the adaptable townhouses have been designed to also be considered as Livable Housing townhouses.
2. Siting - Access is proposed from the Beaconsfield street frontages and car parking areas to the individual townhouse entries on that street, with access to common use facilities via a platform lift. Queens Parade street frontages have issues with the steep local topography. The entry pathways to townhouses 1, 2, 3, 4, 5, 6, 7, 8 can not achieve accessible gradients.
3. Security - potential for pathway lighting to be 50lx and safe vehicle drop off point.
4. Provision of letterboxes near street entrance of each townhouse
5. Private Car Accommodation - Basement car parking provided for all of the adaptable townhouses
6. Accessible 850mm clear entry to the adaptable townhouses.
7. Interior General - Minimum door width 820mm, internal corridors 1000mm.
8. Living room and dining room circulation space, GPO's and telephone outlets.
9. Adaptable Kitchen

10. Main Bedroom circulation space and GPO's
11. Bathroom
12. Toilet
13. Laundry
14. Door Locks 900 - 1100mm height
15. Non-slip floor coverings to outside paved areas.

Table of Adaptable / Visitable townhouses (AS4299 Adaptable Housing)

Count	Level	Townhouse Number	No. of bedrooms	Type
1	Queens Parade	9	3 (2 bedrooms on entry level + 1 on upper level)	Q1
2	Queens Parade	10	3	Q1
3	Beaconsfield Street	12	3	B1
4	Beaconsfield Street	13	3	B2
5	Beaconsfield Street	14	3	B2
6	Beaconsfield Street	15	3	B2
7	Beaconsfield Street	16	3	B1
8	Beaconsfield Street	17	3	B1
9	Beaconsfield Street	18	3	B1
TOTALS				
	Beaconsfield Street		1	
	Queens Parade		8	
TOTAL			9	

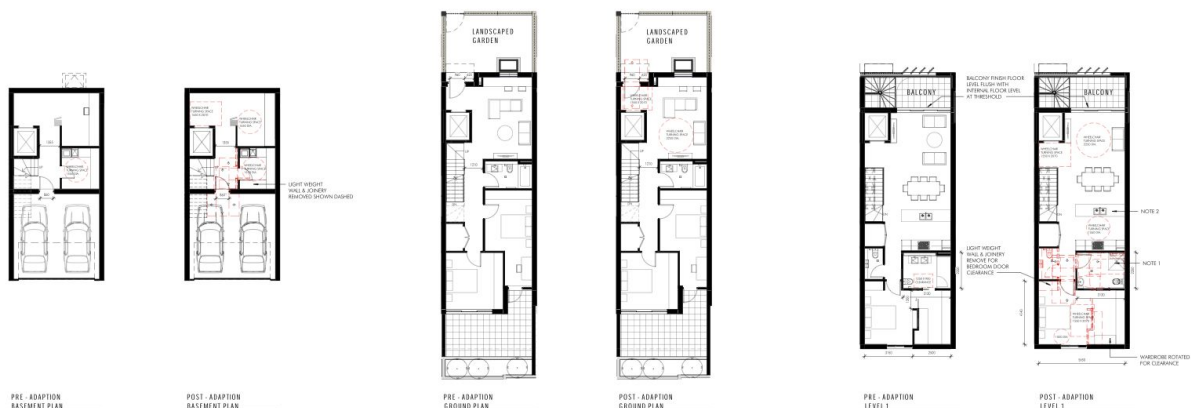


Figure 2 - Townhouse Type Q1 - Adaptable/Livable 3 bed unit

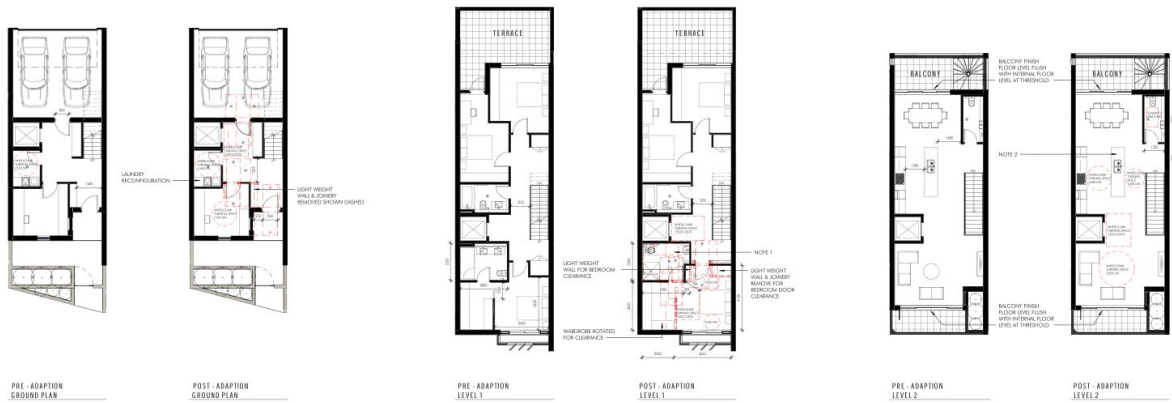


Figure 3 - Townhouse Type B1 - Adaptable 3 bed unit

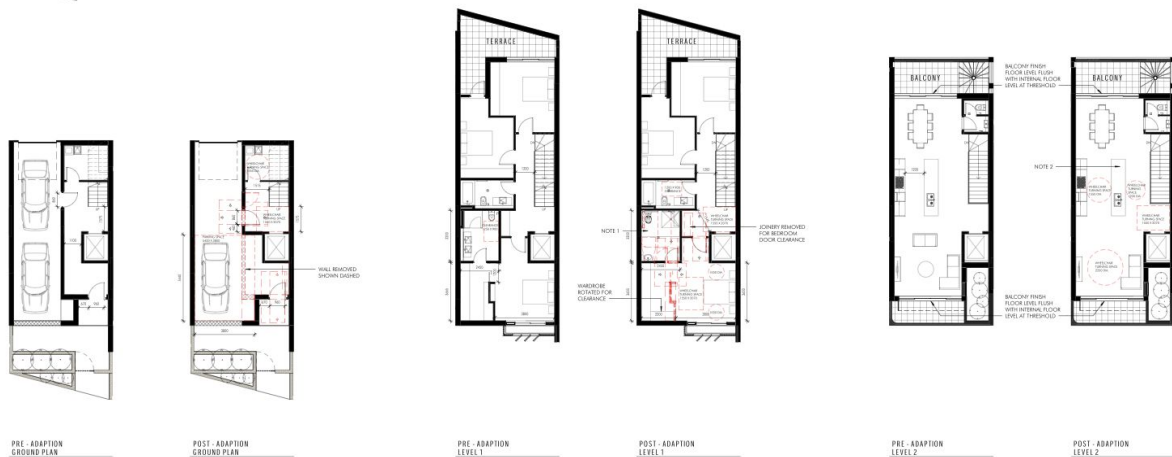


Figure 4 - Townhouse Type B1 - Adaptable 3 bed unit

3.1.3 Compliance with SEPP 65 / Apartment Design Guide (ADG) Part 4Q

Livable Housing Design Guidelines (LHDG) universal design features are required for Class 2 buildings and applicable to the parts of the building class not covered by the Disability Standards and BCA2019(Vol. 1 and 2).

The NSW ADG / SEPP65 is applicable for development applications lodged from 17th of July 2015 which requires a benchmark of 20% of townhouses to be designed under the LHDG “silver level” universal design requirements.

A total of eighteen (18) Townhouses (SOU's) are proposed. All nine (9) of the Adaptable townhouses are proposed to include LHDG requirements exceeding compliance of the 20% benchmark according ADG / SEPP65.

3.2. BCA Part D3 – Access For People with Disabilities

The following is a clause-by-clause assessment of the architectural drawings against BCA Part D3 – Access For People with a Disability. For more detail on each requirement, please refer to *Appendix B: BCA Part D3 – Access For People with a Disability*.

Deemed to Satisfy Provision	Complies	Comments
D3.1 General building access requirements Class 2 and 7a	✓	<p>The drawings demonstrate access will be provided to the maximum extent possible to all areas on all levels of the development.</p> <p>Circulation spaces and passing spaces have been provided at the end of corridors and common area doorways to comply with AS1428.1 (2009).</p> <p>It is noted that the Garbage Chute for Queens Parade Townhouses are in an area that is accessible</p> <p>The site has a significant slope from Queens Parade down to Beaconsfield Street. The common landscaped areas are proposed to be centrally located and split level.</p> <p>Compliant access pathways are provided to common areas particularly the central courtyard common landscaped areas via a stair lift from the lower level.</p> <p>Residences fronting Queens Parade will access the common landscaped area from a street path. Details of the path gradients and crossfall have been provided to show only adaptable units 9 and 10 will have compliant access from the allotment boundary. Townhouses 1 to 8 on Queens Parade do not have compliant wheelchair access from the allotment boundary to the common central courtyard.</p> <p>Beaconsfield Street residences will have stair access to the common landscaped area from the basement garage. One set of stairs is proposed to have a stairway platform chair lift. The stairs are noted to provide 1600mm width.</p> <p><u>Recommended Action</u></p>

		<p>During ongoing design and construction::</p> <ol style="list-style-type: none"> 1. Ensure external and internal pathways comply with AS1428.1 (2009). 2. Ensure stairway platform chair lift complies with BCA E3.6 and appropriate parts of AS1735 suite 3. Ensure landing and gate at top of platform lift includes AS1428.1 compliant door circulation areas and an automated gate to enable a clear access. 4. At time of CC ensure common area door and gate schedule demonstrates compliance with AS1428.1 (2009) with respect to clear opening widths, luminance contrast on doors, door hardware, and door force is 20N where a door closer is fitted. 5. Provide slip resistance certification for common area paving, flooring, ramp surfaces and stairs, to show testing under wet surface conditions in accordance with AS4586 – 2013. 6. To meet the intent of the DDA, ensure that accessible communal area facilities are provided including: <ol style="list-style-type: none"> a. Seating b. Table seating - one table to have an area that has no built in seating so that the table can be approached and used by a person using a wheelchair
<p>D3.2 Access to buildings</p>	<p>✓</p>	<p>Accessible pathways have been provided to the entry of all nine (9) nominated adaptable townhouses. The landscape details appear to provide compliant width, gradient and crossfall of pathways required to be accessible for compliance with AS1428.1-2009.</p> <p>Due to the natural topography along Queens Parade, an accessible path of travel can not be provided to the entry doors of townhouses 1, 2, 3, 4, 5, 6, 7, 8. This will require a performance solution for Construction Certificate stage.</p> <p>Entry to common area courtyard from allotment boundary</p> <p>The adaptable units have access to the common area</p>

		<p>and have access provided from the allotment boundary.</p> <p>Townhouses 1, 2, 3, 4, 5, 6, 7, 8 do not have the capacity for compliant wheelchair accessible pathways from the allotment boundary and to the central courtyard.</p> <p>Accessible path of travel from on-site parking</p> <p>On-site parking is provided on different basement levels. Access to the different basement levels is provided from one street only. There is no pedestrian connectivity between the different basement levels.</p> <ul style="list-style-type: none"> ● Basement parking for units 1 to 8 is accessed from Queens Parade ● Basement parking for units 9 to 18 is accessed from Beaconsfield Street ● Note townhouses 9 and 10 front Queens Parade but have garage access on the Beaconsfield St parking level ● Residential parking is provided within a garage for each townhouse <ul style="list-style-type: none"> ○ Townhouses 1 to 11 and 16 to 18 have double garages ○ Townhouses 12 to 15 have tandem garages ● Lift access is proposed within each townhouse from outset. ● Two (2) accessible carparking spaces are provided within the visitors parking area <ul style="list-style-type: none"> ○ One (1) for Queens Parade parking level ○ One (1) for Beaconsfield Street parking level ● Accessible path from onsite visitor parking is via units only. <p>Gradient levels in basements provide an accessible path of travel from each townhouse basement level lift lobby to the common area facility on that basement level.</p> <p>It is noted that each basement level has equivalent features. It is noted that pedestrian access to the</p>
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		<p>Queens Parade basement level is within the townhouse garages for townhouses 1 to 8 only.</p> <p>Common areas are external only or within the basement garage. Plans show that there are no common area entry doors but one common area gateway from Queens Parade.</p> <p><u>Recommended Action</u></p> <p>At time of Construction Certificate:</p> <ol style="list-style-type: none"> 1. Ensure pathways required to be accessible comply with AS1428.1 (2009) including but not limited to: <ol style="list-style-type: none"> a. Sides of walkways and ramps have level abutment or barriers as required b. Gradients c. Crossfalls d. Handrails and kerbrails where required 2. Ensure during ongoing design and construction that all materials used on accessible paths of travel have slip resistance certifications for external and internal areas. To show testing under wet surface conditions as a pendulum classification (AS4586 – 2013) 3. Ensure common area entry doors and gates are in accordance with AS1428.1 (2009) including: <ol style="list-style-type: none"> a. clear openings 850mm, b. level circulation space, c. door force d. luminance contrast of doors and gates 4. Ensure thresholds of residential building entrances and common area doors and gates are level. 5. Ensure signage is installed at entrances that are not accessible with directional information to the location of the nearest accessible entrance in accordance with BCA 2019 Part D3.6 (e)
<p>D3.3 Parts of building to be accessible - residential</p>	<p>✓</p>	<p>The residential buildings are positioned around a central courtyard area, which is proposed to contain communal facilities as noted in section D3.1 of this report (above).</p> <p>Accessible walkways and ramps</p>

		<p>Landscape plans provided show sufficient detail to assess AS1428.1-2009 compliant graded walkways are included in the paths of travel from the allotment boundary to the individual two adaptable unit entrances on Queens Parade and adaptable units on Beaconsfield Parade .</p> <p><u>Recommended Action</u> Accessible pathways (including communal areas) to comply with AS1428.1-2009:</p> <ul style="list-style-type: none"> ● Clause 6 - dimensions ● Clause 7 - slip resistance (AS/NZS 4586) ● Clause 7 - construction tolerances between abutment of surfaces ● Clause 10 - gradients, crossfalls and landings ● Clause 10 Ramp edging - kerb, kerb rail or other suitable ramp edging ● Clause 10 - handrails and handrails extensions ● Clause 11 - where there are stairs ● Clause 13 - where there are doors or gates <p>Stairs Plans for the Beaconsfield St basement level to courtyard level shows that vertical circulation is proposed to be via stairs. It is proposed that the one (1) flight of external stairs 1 from the Beaconsfield basement level is to include a stairway platform chair lift of 1600m with.</p> <p>There is another set of external stairs 2 from the beaconsfield car parking area to link to the proposed common area.</p> <p>Within the central courtyard there are sets of stairs proposed.</p> <p><u>Recommended Action</u> All non-fire-isolated stairs to comply with AS1428.1 Cl 11 Stairs (2009) with regards to</p> <ul style="list-style-type: none"> ● Minimum width between handrails of 1000mm ● Note greater minimum width of 1600mm
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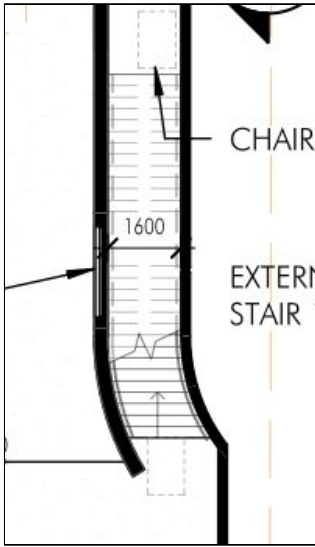
		<p>required on stairs within platform lift</p> <ul style="list-style-type: none"> ● Handrails on both sides ● Handrail heights to be 865mm to 1000mm above step nosing ● Handrail extensions at top and base ● Tactile indicators on top and bottom landing of steps ● Tactile indicators on mid point landings where handrails are not continuous on both sides of landing ● Single solid contrast strips to edge of stair nosings 50 - 75mm deep (30% contrast) <p>Stairs - fire-isolated</p> <p>No fire-isolated stairs are shown on the plans.</p> <p><u>Recommended Action</u></p> <p>Where provided, Fire isolated stairs to have</p> <ul style="list-style-type: none"> ● Single solid contrast strip to edge on stair nosings 50-75mm deep (30% contrast) to comply with AS1428.1 ● handrail at 865mm to 1000mm above step nosing on at least one side of the stairs to comply with AS1428.1 (2009) ● Handrail extensions at landings where the handrail is not continuous ● Handrails to have no vertical sections <p>Lifts</p> <p>Each adaptable dwelling contains either a lift providing access from the basement level up to the highest residential level. Lift access is not provided to the individual rooftop terraces as balcony access is provided on levels with lift access.</p> <p>A stairway platform chair lift is proposed between the Beaconsfield Street carparking level and the central courtyard (see also section D3.1, D3.2 and E3.6 of this table)</p> <p><u>Recommended Action</u></p> <p>At time of Construction Certificate, ensure:</p> <ul style="list-style-type: none"> ● compliance with
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		<ul style="list-style-type: none"> ○ accessible features of AS1735.12 as required by Table E3.6b BCA for internal lifts. ○ AS1735.7 - platform lift ● Appropriately dimensioned landings are provided at all landings <ul style="list-style-type: none"> ○ Within units ○ In common areas <p>Turning spaces</p> <p>Plans for the landscaped areas to include sufficient details to enable assessment for accessibility by Construction Certificate.</p> <p>Basement level common areas have sufficient dimensions to provide turning areas including at the Queens Parade garbage chute.</p> <p><u>Recommended Action</u></p> <p>At time of Construction Certificate, ensure turning areas are provided:</p> <ul style="list-style-type: none"> ● At end of all corridors or within 2 metres of the end of corridors ● In common area rooms. <p>Common area doors</p> <p>A bin area provided on the basement level of the Beaconsfield St is shown on Dwg No DA004.</p> <p><u>Recommended Action</u></p> <p>Ensure at the time of Construction Certificate all common area doors and gates comply with AS1428.1 (2009) including:</p> <ol style="list-style-type: none"> 1. clear openings 850mm 2. level circulation space 3. door force 4. luminance contrast of doors and gates <p>Garbage Chute and recycling bins - Queens Parade</p> <p>A Garbage Chute and bin area is located adjacent to the shared space for the accessible carparking on the</p>
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		<p>basement level for townhouses 1 to 8, fronting Queens Parade.</p> <p>It was noted that the Garbage room for townhouses 9 to 10 as well as all townhouses fronting Beaconsfield Street is provided in the Beaconsfield St basement level.</p> <p><u>Recommended Action</u></p> <p>Garbage Chute and bin area to be designed so that a person using a wheelchair can access the chute or bins.</p> <ul style="list-style-type: none"> ● 1550mm in front of chute ● Turning area of 1540 x 2070 to enable a person using a wheelchair to make a 180 degree turn within bin room. <p>Ensure garbage chute access door is designed so that a person using a wheelchair can access the chute i.e. the handle to be located more than 500mm from an internal corner.</p>
D3.4 Exemptions	✓	<p>All service areas for this development are deemed exempt due to the nature of the work required to be performed in these areas. This includes</p> <ul style="list-style-type: none"> ● Pump rooms ● Service areas ● Fire control rooms ● Loading docks ● Plant areas ● Rooftops - residential ● Caretaker toilet
D3.5 Car parking spaces for people with a disability	✓	<p>There are no requirements for accessible parking for a Class 2 building. However plans for this development includes parking for garage parking for residents and 7 on-site parking spaces for visitors over two unconnected levels.</p> <p><i>Visitor Parking</i></p> <p>Seven (7) car parking spaces including two (2) accessible car parking spaces are shown on the plans on the basement level car parking areas for visitors.</p>

		<p>This includes three (3) on the Beaconsfield Street Level and four (4) on the Queens Parade. Both levels have one accessible car parking space with associated share zone in accordance with the requirements of AS2890.6.</p> <p>It is noted that the accessible path of travel from the Queens Parade visitor parking is only available within the townhouses.</p> <p><i>Resident Parking</i></p> <p>Each townhouse includes 2 car parking spaces. The garages associated with the townhouses 1 to 12, 16, 17 & 18 have two side by side car parking spaces. Townhouses 13, 14 and 15 have tandem parking. At post-adaption, it is proposed that the basement level of the Adaptable units with tandem parking will be modified to provide AS4299 compliant parking areas.</p> <p><u>Recommended Action</u></p> <p>Ensure at the time of Construction Certificate parking is:</p> <ul style="list-style-type: none"> ● Provided for each Adaptable Townhouse <ul style="list-style-type: none"> ○ Ensure that no structural or mechanical duct services are installed above the adaptable car park space to maintain a clear head height of 2500mm ○ In accordance with the requirements of AS4299 (3.8 metres by 6.0 metres, post-adaption; note that it is permissible within AS4299 for the length of the garage to be reduced to 5.4m where hard stand is provided immediately outside the garage, as in this case) ● Provided for visitor parking at required rates ● Accessible Visitor Parking bays to be in accordance with AS2890.6 including: <ul style="list-style-type: none"> ○ Bay dimensions ○ Shared zones ○ 2500mm Overhead clearance (ensure that no structural or mechanical duct
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		<p>services are installed above the accessible car spaces to maintain a clear head height of 2500mm)</p> <ul style="list-style-type: none"> ■ At bay - 2500mm ■ On path to bay - 2200mm ○ Markings as required <ul style="list-style-type: none"> ● Shared zones to have bollards in accordance with AS2890.6 ● Located on an accessible path of travel
D3.6 Signage	x	<p>At this stage of the design signage is not required to be developed.</p> <p><u>Recommended Action</u></p> <p>At time of Construction Certificate, accessible signage in accordance with BCA2019 and AS1428.1-2009 will be required.</p> <ol style="list-style-type: none"> 1. Required exit doors stating 'Exit' and 'Level' followed by floor number. 2. Common area accessible sanitary facilities <p>Ensure signage is provided at required locations directing people with disabilities to accessible entrances</p>
D3.7 Hearing augmentation	n/a	Not applicable to development.
D3.8 Tactile indicators	x	<p>At this stage of the design TGSIs have not been developed.</p> <p><u>Recommended Action</u></p> <p>Tactile indicators to:</p> <ul style="list-style-type: none"> ● be installed on the top and bottom of non-fire isolated stairs and ramps to comply with AS1428.4.1. ● meet luminance contrast requirements of AS1428.4.1 ● meet slip resistance requirements of AS/NZS 4586 <p>To enable detection of TGSIs by a person using a long cane ensure that the TGSIs are:</p> <ul style="list-style-type: none"> ● installed on relatively smooth surfaces

		<ul style="list-style-type: none"> • surfaces within 1000mm of warning TGSIs (on the side away from the hazard being identified) are relatively smooth • surfaces within 1000mm of directional TGSIs are relatively smooth
<p>D3.12 Glazing on an accessway</p>	<p>x</p>	<p>Visual barriers on glazing details are not required to be developed at this stage of design</p> <p><u>Recommended Action</u> Ensure that at the time of Construction Certificate, on all glazed doors and glazed panels that form part of an accessible path of travel, provide a solid contrast line 75mm width at 900 - 1000mm and 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side</p>
<p>E3.6 Passenger lifts</p>	<p>✓</p>	<p>Lift Passenger lifts are proposed within each residential townhouse, to provide access to all levels of the residential parts of this development.</p> <p>A common area stairway platform lift is proposed between the Beaconsfield Street basement level and the central courtyard common landscaped area. The drawings show a clear width of 1600mm between walls to accommodate a wheelchair stair lift.</p>  <p>The diagram shows a cross-section of a stairwell. A wheelchair is positioned on a platform between two walls. A dimension line indicates a clear width of 1600mm between the walls. Labels include 'CHAIR' pointing to the wheelchair, and 'EXTERN STAIR' pointing to the stairwell structure.</p>

		<p><u>Recommended Action</u></p> <p>The lifts require accessible features to be in accordance with E3.6b BCA 2019</p> <p>To be assessed at Construction Certificate.</p>
F2.4 Accessible sanitary facilities	n/a	<p>There are no common area toilet facilities are shown on the plans.</p> <p>A care-takers/cleaners toilet is shown on plans on the Queens Parade level. It is not required to be accessible, and is therefore exempt from access requirements.</p>

3.3. AS4299: Adaptable House Class A Features

The checklist contained in Appendix C is a clause-by-clause assessment of the three (3) layouts detailed by the architectural drawings against AS4299 Adaptable House Class B. This classification level is achieved by incorporating all essential and some of the desirable features for adaptable housing. This table includes information on the schedule of features, which is in accordance with AS 4299 - Schedule of Features for Adaptable Housing.

3.4 Livable Housing Design (LHD) Guidelines

The LHD Guidelines aim to improve the level of accessibility and adaptability of new housing so that the housing can meet the needs of a wide range of occupants across time. The LHD Guidelines has 7 core design elements to meet Silver level compliance, the core performance statement for each is outlined below:

1. Dwelling access - There is at least one level step free entrance into the dwelling to enable home occupants to easily enter and exit the dwelling
2. Dwelling entrance - There is a safe, continuous pathway from the street entrance and/or parking area to a dwelling entrance that is level
3. Internal doors and corridors - Internal doors and corridors facilitate comfortable and unimpeded movements between spaces
4. Toilet - The ground (or entry) level has a toilet to support easy access for home occupants and visitors
5. Shower - The bathroom and shower is designed for easy and independent access for all home occupants.

6. Reinforcement of bathroom and toilet walls - The bathroom and toilet walls are built to enable grab rails to be safely and economically installed at a future date
7. Internal stairways - Where installed, stairways are designed to reduce the likelihood of injury and also enable future adaptation

(<http://www.livablehousingaustralia.org.au>).

Lack of pathway detailing means that it is not possible to confirm compliance with SEPP 65 Part 4Q - 20% of townhouses to meet Silver level LHDG, particularly provision of dwelling access from the closest street footpath.

It is noted that the stairs within the townhouses deemed Livable are not straight. However as lift access is provided to all living levels, this provides a higher level of access than stairs.

4. Conclusion

On the basis of our assessment, the Development Application plans for the 60 Beaconsfield Street Newport development have the capacity to meet:

1. Performance Requirements of the Disability (Access to Premises-Buildings) Standards 2010 and Part D3, E3.6, F2.4 of the Building Code of Australia (BCA) 2019 through the deemed-to-satisfy provisions.
2. 50% of all dwellings to meet Class C essential AS4299 Adaptable Housing (1995)
3. 20% of all dwellings must be designed to achieve the Silver Standards of the Livable Housing Design Guideline (Livable Housing Australia 2015)

We note some further assessment at Construction Certificate stage is required to ensure adequate access compliance as highlighted in the table below.

Item	Recommended Action
1	Accessible paths of travel are provided to all facilities required to be accessible
2	External accessible pathways to comply with AS1428.1-2009: <ul style="list-style-type: none"> ● Clause 6 - dimensions - width and turning areas ● Clause 7 - construction tolerances between abutment of surfaces, in particular to and within the communal open space ● Clause 7 - cover strips at floor surface joints ● Clause 10 - gradients and crossfalls ● Clause 10 - surface abutment beside pathways

	<ul style="list-style-type: none"> ● Clause 10 - ramp edging
3	<p>All internal accessible paths of travel, including to and within common area facilities (including within the Bin room) to comply with AS1428.1 (2009) for:</p> <ul style="list-style-type: none"> ● Width ● Gradient ● Crossfall ● Turning spaces ● Construction tolerances between different surfaces on an accessible path of travel
4	<p>Doors and gates on all internal and external accessible paths of travel (including within Adaptable Townhouses) to have compliance with AS1428.1 (2009) with respect to:</p> <ul style="list-style-type: none"> ● Minimum clear openings, ● Level circulation space (gradient no greater than 1:40) ● luminance contrast on doorway elements, ● door force is 20N including where a door closer is fitted ● Level threshold
5	<p>Visual indicators on glazing to comply with AS1428.1-2009 including</p> <ul style="list-style-type: none"> ● be 50 - 75mm wide on all glazed windows and doors ● solid ● luminance contrast of minimum 30% from when viewed against the floor surface ● at a height 900-1000mm.
6	<p>All ramps (including step and threshold ramps) to comply with AS1428.1 including but not limited to:</p> <ul style="list-style-type: none"> ● Handrails on both sides with compliant diameter and wall clearances ● Handrail extensions ● Handrail extension returns ● Kerbrails or other suitable barrier ● Maximum distance between landings to be no greater than 9 meters ● Tactile ground surface indicators, where required
7	<p>All non-fire-isolated stairs to comply with AS1428.1 Cl 11 Stairs (2009) with regards to</p> <ul style="list-style-type: none"> ● Minimum width of 1000mm ● Minimum width where there is a stairway platform chair lift between walls of 1600mm (to accommodate the platform lift and a person walking beside the lift) ● Handrails on both sides ● Handrail heights to be 865mm to 1000mm above step nosing ● Handrail extensions at top and base ● Tactile indicators on top and bottom landing of steps



	<ul style="list-style-type: none"> ● Level landings with AS1428.1-2009 complying dimensions at top and base ● Level landing at top and base of stairway platform lift to meet circulation requirements of AS1428.1-2009 including areas to undertake turns
8	<p>Fire isolated stairs to have</p> <ul style="list-style-type: none"> ● contrast strip to edge on stair nosings 50-75mm deep (30% contrast) to comply with AS1428.1 ● handrail at 865mm to 1000mm above step nosing on at least one side of the stairs to comply with AS1428.1 (2009)
9	<p>Townhouse Lifts and wheelchair stair lift to have</p> <ul style="list-style-type: none"> ● Lift car, platform area and landing dimensions as well as accessible features to comply with E3.6b BCA 2019 ● Design and fittings in accordance with AS1735 including: <ul style="list-style-type: none"> ○ Lighting ○ Control buttons - lift landing ○ Control buttons - lift car ○ Audible information ○ Emergency hands free communication ○ Passenger protection system ○ Handrail
10	<p>Visitor Parking and Accessible visitor parking to be in accordance with AS2890.6 including:</p> <ul style="list-style-type: none"> ○ Required number of accessible parking bays for visitors ○ Bay dimensions ○ Shared zones (accessible only) ○ Overhead clearance (note these clearance requirements includes ceiling or overhead services such as electrical cabling, plumbing and fire services/sprinklers) <ul style="list-style-type: none"> ■ At bay - 2500mm ■ On path to bay - 2200mm ○ Markings as required ● Shared zones to have bollards in accordance with AS2890.6 ● Located on an accessible path of travel
11	<p>Accessible signage to be provided in accordance with BCA2019 and AS1428.1-2009 for:</p> <ol style="list-style-type: none"> 1. Required exit doors stating 'Exit' and 'Level' followed by floor number. 2. Common area accessible sanitary facilities

12	<p>Tactile indicators to:</p> <ul style="list-style-type: none"> ● be installed on the top and bottom of non-fire isolated stairs and ramps to comply with AS1428.4.1. ● meet luminance contrast requirements of AS1428.4.1 ● meet slip resistance requirements of AS/NZS 4586
13	Adaptable unit letterboxes to be located near the street entrance (AS4299 CI 3.8) of each townhouse
14	Adaptable unit door hardware (AS4299 CI 4.3.4)
15	Adaptable unit kitchen (AS4299 CI 4.5)
16	Adaptable unit bathroom (AS4299 CI 4.4)
17	Slip resistant floor surface in adaptable unit kitchen, bathroom and laundry and balcony as per AS/NZS4586
18	Livable Housing to comply with Silver level of Livable Housing Design Guidelines
19	<p>Adaptable Townhouse parking to be in accordance with AS4299 including:</p> <ul style="list-style-type: none"> ● Dimensions ● Overhead clearance (note these clearance requirements includes ceiling or overhead services such as electrical cabling, plumbing and fire services/sprinklers) <ul style="list-style-type: none"> ○ At bay - 2500mm ○ On path to bay - 2200mm ● Located on an accessible path of travel
20	<p>For all pedestrian pathways and internal flooring:</p> <p>1. Provide Slip resistance certificates for paving and floor surfaces which are on an accessible path of travel or in areas required to be accessible (Adaptable townhouses and Livable Housing townhouses) - As per Table 3B, HB198:2014 - Wet pendulum test or Oil-wet inclining platform classifications for applications where NCC does not require slip resistance, as detailed below.</p> <p>a. External footpaths and walkways no steeper than 1:14</p> <p>Wet Pendulum P4 or Oil-wet platform test R11</p> <p>b. Entries to lift lobby (Transitional areas)</p> <p>Wet Pendulum P2 or Oil-wet platform test R9</p> <p>c. Toilet facilities</p>

	<p>Wet Pendulum P3 or Oil-wet platform test R10</p> <p>d. Kitchen areas</p> <p>Wet Pendulum P3 or Oil-wet platform test R10</p> <p>e. TGSIs</p> <p>(NCC requirement Table D2.14)</p> <p>Wet Pendulum P4 or Oil-wet platform test R11</p> <p>f. Step nosings</p> <p>(NCC requirement Table D2.14)</p> <p>Wet Pendulum P4</p>
21	<p>Luminance contrast testing prior to issuing of Occupation Certificate</p> <ol style="list-style-type: none"> In situ measurement of luminance contrast between the TGSIs and the substrate or pavement on which they are installed In situ measurement of at least 30% luminance contrast between the Stair nosing and the surrounding pavement In situ measurement of at least 30% luminance contrast between the visual barriers and the pavement & flooring within 2 metres of the glazed panel or door In situ measurement of at least 30% luminance contrast between Door elements (AS1428.1 - 2009 Clause 13)
22	<p>Common area and adaptable unit carpeted flooring:</p> <ul style="list-style-type: none"> Meets the Access to Premises Standard and the BCA Part D3.3 (g) and (h) for pile height. Edge cover strips to comply with AS1428.1-2009 Clause 7
23	<p>Pedestrian building access controls and internal security controls for area on accessible paths of travel to be located in accordance with AS1428.1-2009</p>
24	<ul style="list-style-type: none"> Ensure signage is installed at entrances that are not accessible with directional information to the location of the nearest accessible entrance in accordance with BCA 2019 Part D3.6 (e)
25	<p>Garbage chute to have doors that enable a person using a wheelchair to access the chute.</p>
26	<p>To meet the intent of the DDA:</p> <ul style="list-style-type: none"> accessible communal area facilities are provided

Statement of Qualifications

I certify that I am an appropriately qualified and competent person practising in the relevant area of work. I have recognised relevant experience in the area of work assessing disability access compliance and hold appropriately current insurance policies. (My qualifications and accreditations are listed below)

Full Name	Jane Bryce
Company	Cheung Access Pty Ltd
Address	GPO Box 1380 Sydney NSW 2001
Qualifications and Accreditations	<ol style="list-style-type: none"> 1. Diploma of Arts (Habilitation Studies – Orientation & Mobility) 2. Grad Dip Rehabilitation Counselling 3. Cert IV Workplace Assessment and Training 4. Cert IV Access Consulting 5. Accredited with the Association of Consultants in Access, Australia Member No. 200 
Signature	
Date	14 November 2019

Appendix A: Report Documentation Relied Upon

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- ❑ National Construction Code Series – Volume 1 of the Building Code of Australia 2019 (BCA)
- ❑ National Construction Code Series – Guide to the Building Code of Australia 2019
- ❑ Access to Premises - Building Standards 2010
- ❑ SEPP 65 & Apartment Design Guide Part 4Q-1 Universal Design - 20% of the total apartments incorporating the Livable Housing Design Guidelines silver level universal design features
- ❑ Pittwater Development Control Plan (2004) - 50% of all dwellings to meet Class B essential AS4299 Adaptable Housing (1995)
- ❑ Architectural drawings and documentation, provided by Nettleton Tribe Architects as detailed in screen capture below:

DA001	Site Analysis Plan	A
DA002	Demolition Plan	A
DA003	Site Plan/ Roof Plan	E
DA004	Beaconsfield St Ground Level Plan	G
DA005	Beaconsfield Level 1 Plan & Queens Parade Basement Level Plan	H
DA006	Beaconsfield Level 2 Plan & Queens Parade Ground Level Plan	F
DA007	Beaconsfield Roof Plan & Queens Parade Level 1 Plan	E
DA020	Elevations - Sheet 1	D
DA021	Elevations - Sheet 2	C
DA030	Sections	E
DA043	Adaptable Unit Plan - Type Q1	C
DA044	Adaptable Unit Plan - Type B1	C
DA045	Adaptable Unit Plan - Type B2	C
DA050	Shadow Diagram Proposed - Winter	A
DA051	Shadow Diagram Existing - Winter	A
DA052	Solar Access Analysis	A
DA055	Height Limit Diagram	A
DA075	Landscape Area Plan	A
DA090	Perspectives - Sheet 1	A
DA091	Perspectives - Sheet 2	A

- ☐ drawings and documentation, provided by Scape Landscape Architects as detailed below

Dwg No	Dwg title	Revision
L.SK.01	Landscape Sketch Plan - GF	B
L.SK.02	Landscape Sketch Plan - Roof	B
L.SK.03	Landscape Planting Plan - GF	B
L.SK.04	Landscape Planting Plan - Roof	B
L.SK.05	Existing Tree Plan	B
L.SK.06	Detailed Plan 1	B
L.SK.07	Detailed Plan 2	B
L.SK.08	Landscape Sections	A

Appendix B: BCA Part D3 - Access for People with a Disability

Below is a list of Building Code of Australia (BCA) Part D3 requirements relating to access requirements for people with a disability in Class 2 Buildings.

Clause	Requirements
D3.1 General building access requirements Class 2	<p><i>Common Areas</i></p> <p>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.</p> <p>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.</p> <p>Where a ramp complying with AS 1428.1 or a passenger lift is installed—</p> <ul style="list-style-type: none"> (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.
D3.1 General building access requirements Class 6	To and within all areas normally used by the occupants
D3.1 General building access requirements Class 7a	To and within any level containing accessible carparking spaces.
D3.2 Access to buildings	<ul style="list-style-type: none"> (a) An accessway must be provided to a building required to be accessible— <ul style="list-style-type: none"> (i) from the main points of a pedestrian entry at the allotment boundary; and (ii) from another accessible building connected by a pedestrian link; and (iii) from any required accessible carparking space on the allotment. (b) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and— <ul style="list-style-type: none"> (i) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and (ii) in a building with a total floor area more than 500 m², a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible

	<p>pedestrian entrance, except for pedestrian entrances serving only areas exempted by D3.4.</p> <p>(c) Where a pedestrian entrance required to be accessible has multiple doorways—</p> <ul style="list-style-type: none"> (i) if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and (ii) if a pedestrian entrance consists of more than 3 doorways — not less than 50% of those doorways must be accessible. <p>(d) For the purposes of (c)—</p> <ul style="list-style-type: none"> (i) an accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where— <ul style="list-style-type: none"> (A) all doorways serve the same part or parts of the building; and (B) the distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D3.2); and (ii) a doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D3.2). <p>(e) Where a doorway on an accessway has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1.</p>
<p>D3.3 Parts of building to be accessible</p>	<p>In a building required to be accessible—</p> <ul style="list-style-type: none"> (a) every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with— <ul style="list-style-type: none"> (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and (b) every passenger lift must comply with E3.6; and (c) accessways must have— <ul style="list-style-type: none"> (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1—

	<p>(A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and</p> <p>(B) at maximum 20 m intervals along the accessway; and</p> <p>(d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and</p> <p>(e) a passing space may serve as a turning space; and</p> <p>(f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building—</p> <p style="padding-left: 40px;">(i) containing not more than 3 storeys; and</p> <p style="padding-left: 40px;">(ii) with a floor area for each storey, excluding the entrance storey, of not more than 200 m²; and</p> <p>(g) 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'; and</p> <p>(h) the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</p>
D3.4 Exemptions	<p>The following areas are not required to be accessible:</p> <p>(a) An area where access would be inappropriate because of the particular purpose for which the area is used.</p> <p>(b) An area that would pose a health or safety risk for people with a disability.</p> <p>(c) Any path of travel providing access only to an area exempted by (a) or (b).</p>
D3.5 Car parking spaces for people with a disability	<p>Accessible carparking spaces—</p> <p>(a) subject to (b), must be provided in accordance with Table D3.5 in—</p> <p style="padding-left: 40px;">(i) a Class 7a building required to be accessible; and</p> <p style="padding-left: 40px;">(ii) a carparking area on the same allotment as a building required to be accessible; and</p> <p>(b) need not be provided in a Class 7a building or a carparking area where a parking service is provided and direct access to any of the carparking spaces is not available to the public; and</p> <p>(c) subject to (d), must comply with AS/NZS 2890.6; and</p> <p>(d) need not be designated where there is a total of not more</p>

	<p>than 5 carparking spaces, so as to restrict the use of the carparking space only for people with a disability.</p>
<p>D3.6 Signage</p>	<p>In a building required to be accessible—</p> <p>(a) braille and tactile signage complying with Specification D3.6 must—</p> <p>(i) incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each—</p> <p>(A) sanitary facility, except a sanitary facility within a sole-occupancy unit in a Class 1b or Class 3 building; and</p> <p>(B) space with a hearing augmentation system; and</p> <p>(ii) identify each door required by E4.5 to be provided with an exit sign and state—</p> <p>(A) "Exit"; and</p> <p>(B) "Level" ; and either</p> <p>(aa) the floor level number; or</p> <p>(bb) a floor level descriptor; or</p> <p>(cc) a combination of (aa) and (bb); and</p> <p>(b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—</p> <p>(i) the type of hearing augmentation; and</p> <p>(ii) the area covered within the room; and</p> <p>(iii) if receivers are being used and where the receivers can be obtained; and</p> <p>(c) signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use; and</p> <p>(d) signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and</p> <p>(e) where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance; and</p> <p>(f) where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a</p>

	<p>person to the location of the nearest accessible unisex sanitary facility.</p>
<p>D3.7 Hearing augmentation</p>	<p>(a) A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed—</p> <ul style="list-style-type: none"> (i) in a room in a Class 9b building; or (ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or (iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. <p>(b) If a hearing augmentation system required by (a) is—</p> <ul style="list-style-type: none"> (i) an induction loop, it must be provided to not less than 80% of the floor area of the room or space served by the inbuilt amplification system; or (ii) a system requiring the use of receivers or the like, it must be available to not less than 95% of the floor area of the room or space served by the inbuilt amplification system, and the number of receivers provided must not be less than— <ul style="list-style-type: none"> (A) if the room or space accommodates up to 500 persons, 1 receiver for every 25 persons or part thereof, or 2 receivers, whichever is the greater; and (B) if the room or space accommodates more than 500 persons but not more than 1000 persons, 20 receivers plus 1 receiver for every 33 persons or part thereof in excess of 500 persons; and (C) if the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons or part thereof in excess of 1000 persons; and (D) if the room or space accommodates more than 2000 persons, 55 receivers plus 1 receiver for every 100 persons or part thereof in excess of 2000 persons. <p>(c) The number of persons accommodated in the room or space served by an inbuilt amplification system must be calculated according to D1.13.</p> <p>(d) Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.</p>

D3.8 Tactile indicators	<p>(a) For a building 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—</p> <ul style="list-style-type: none"> (i) a stairway, other than a fire-isolated stairway; and (ii) an escalator; and (iii) a passenger conveyor or moving walk; and (iv) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and (v) in the absence of a suitable barrier— <ul style="list-style-type: none"> (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and (B) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4. <p>(b) Tactile ground surface indicators required by (a) must comply with sections 1 and 2 of AS/NZS 1428.4.1.</p> <p>(c) A hostel for the aged, nursing home for the aged, a residential aged care building Class 3 accommodation for the aged, Class 9a health-care building or a Class 9c building need not comply with (a)(i) and (iv) if handrails incorporating a raised dome button in accordance with the requirements for stairway handrails in AS 1428.1 are provided to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp.</p>
D3.12 Glazing on an accessway	<p>On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening must be clearly marked in accordance with AS1428.1.</p>
E3.6 Passenger lifts	<p>In an accessible building, every passenger lift must—</p> <ul style="list-style-type: none"> (a) be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and (b) have accessible features in accordance with Table E3.6b; and (c) not rely on a constant pressure device for its operation if the lift car is fully enclosed.

<p>F2.4 Accessible sanitary facilities</p>	<p>In a building required to be accessible—</p> <p><i>SA F2.4(a)</i></p> <p>(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and</p> <p><i>SA F2.4(b)</i></p> <p>(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and</p> <p>(c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and</p> <p>(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and</p> <p>(e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and</p> <p>(f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and</p> <p>(g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and</p> <p>(h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and</p> <p>(i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D3.3(f) to be provided with a passenger lift or ramp complying with AS 1428.1.</p>
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Appendix C: Adaptable Housing Compliance Checklist

The following is a clause-by-clause assessment of the architectural drawings against AS4299 Class C All essential features for Adaptable Housing (refer to Appendix A Schedule of Features for Adaptable Housing 1995).

#	Access Requirement	AS4299 Clause	Access Comments
Drawings			
1.	Provision of drawings showing the housing unit in its pre-adaptation and post-adaptation stages.	Essential 2.3	<i>Drawings show the Adaptable townhouses in pre and post-adaptation layouts.</i>
Siting			
2.	A level or gently sloping site with up to 1:14 gradient	3.2.2*	<i>The natural topography slopes steeply from Queens Parade down to Beaconsfield Street.</i> <i>Limited details have been provided to enable assessment of common area and townhouse street access pathway gradients</i>
3.	A continuous accessible path of travel from street frontage, vehicle parking and visitors parking to entry complying with AS 1428.1.	Essential 3.3.2	<i>From the basement car park, lifts are shown on drawings to link all floors within each townhouse within the development.</i> <i>Lifts to comply with the requirements of AS1735.12 in Part E3.6b of the Building Code of Australia.</i>
4.	Additional paths and walkways to be continuous, slip resistant and and hard surfaced with gradients complying with AS1428.1	3.3.2 **	<i>Additional paths within the site will be accessible.</i> <i>To be shown in more detail for Construction Certificate drawings.</i>
5.	Within a residential estate development, common use	3.3.3 *	<i>Pathways will be provided to the common areas.</i>

	facilities to be accessible		<i>To be shown in more detail for Construction Certificate drawings.</i>
6.	Within a residential estate development, street names with house numbers at each intersection.	3.3.3 **	<i>Not applicable</i>
7.	Within a residential estate development, internal roadways to be separate from pedestrian walkways	3.3.3 *	<i>Not applicable</i>
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 *	<i>Achievable.</i>
9.	Clear line of sight from a well-lit vehicle drop-off point to safe pedestrian entry point	3.6.2 *	<i>Not detailed</i>
Letterboxes			
10.	Within residential estate developments, letterboxes centrally located adjacent to street entry. Lockable.	3.8 *	<i>Letterboxes to be located adjacent to street entry of each townhouse.</i>
11.	Letterboxes to be on hard standing level area connected to accessible pathway.	Essential 3.8	<i>To be shown on Construction Certificate drawings.</i>
12.	Letterbox area roofed in a well-lit location.	3.8 *	<i>To be shown on Construction Certificate drawings.</i>
13.	Parcel rack included with letterboxes	3.8 *	<i>Design of letterboxes required for Construction Certificate.</i>
Private Car Accommodation			

14.	Carparking space or garage min. area 6.0m x 3.8m.	Essential 3.7.2	<i>All adaptable dwellings have basement level two car garages AS4299 permits garages to be reduced to 5.4 m internally when there is an area of hardstand immediately outside the garages</i>
15.	Roof to car parking space	3.7.1 *	<i>Parking provided in the basement level.</i>
16.	Internal clearance of garage or carport 2.5m min	3.7.2 **	<i>Basement clearance at adaptable car spaces to provide 2500mm.</i>
17.	Provision for power-operated roller door to garage	3.7.2 **	<i>There is a basement garage door for each townhouse.</i>
18.	Covered access to dwelling unit	3.7.3 *	<i>Complies.</i>
19.	Illumination level min. 50 lux	4.10 **	<i>To be assessed at CC.</i>
Accessible Entry			
20.	At least one accessible entrance.	Essential 4.3.1	<i>Adaptable townhouses show clear openings of 850mm with sufficient latch side spaces.</i>
21.	Entry protected by porch or similar	4.3.1 **	<i>Complies.</i>
22.	Accessible entry to be level (i.e. max 1:40 slope).	Essential 4.3.2	<i>Entry to all adaptable townhouses, appear level.</i>
23.	Threshold to be low-level (construction tolerance of 5mm permitted).	Essential 4.3.2	<i>Further design detail is to be provided at CC stage and to be checked during construction phases for each adaptable unit.</i>
24.	Landing to enable wheelchair manoeuvrability (i.e. 1550mm min. diameter)	Essential 4.3.2	<i>Complies.</i>
25.	Accessible entry door to have 850mm min. clear (920mm entry doors recommended).	Essential 4.3.1	<i>Complies.</i>

26.	Weatherproofed entry door	4.3.3 **	<i>Complies</i>
27.	Door lever handles and hardware to AS 1428.1 installed between 900-1100mm ffl.	Essential 4.3.4	<i>To be specified at Construction Certificate Stage.</i>
28.	Provision for combined door/security	4.3.5 *	<i>To be specified at Construction Certificate Stage.</i>
29.	Potential min. illumination level 300 lux	4.10 *	<i>To be specified at Construction Certificate Stage.</i>
Exterior General			
30.	All external doors to be keyed alike	4.3.4 **	<i>To be specified at Construction Certificate Stage.</i>
31.	Provision for security screen to exterior opening or sliding windows and doors	4.7.6 *	<i>To be specified at Construction Certificate Stage.</i>
Interior General			
32.	Internal doors to have 820 mm min effective door clearances (870mm leaf doors recommended).	Essential 4.3.3	<i>This complies for all adaptable townhouses</i>
33.	Internal corridors min. clear width of 1000mm.	Essential 4.3.7	<i>Complies.</i>
34.	Compliance with AS 1428.1 for door approaches to visitable toilet and main bedroom pre - adaptation. Drawings of post adaptation door approaches in compliance with AS 1428.1.	Essential 4.3.7	<i>Complies</i>

35.	Window sills at max 730mm above floor level to living and 600mm above floor level to bedroom areas	4.7.2 and 4.6.2. **	<i>To be specified at Construction Certificate Stage.</i>
Living Room & Dining Room			
36.	Circulation space of min. 2250 mm diameter clear of furniture.	Essential 4.7.1	<i>Complies.</i>
37.	Minimum 4 double GPO's	4.7.3 *	<i>To be specified at Construction Certificate Stage.</i>
38.	Telephone adjacent to GPO.	Essential 4.7.4	<i>To be checked at Construction Certificate.</i>
39.	Telephone outlet location between kitchen and living spce, adjacent to GPO.	4.7.4 **	<i>To be specified at Construction Certificate Stage.</i>
40.	Two TV antenna outlets adjacent to GPO	4.7.5 *	<i>To be specified at Construction Certificate Stage.</i>
41.	Potential illumination level min. 300 lux .	Essential 4.10	<i>To be checked at Construction Certificate.</i>
Kitchen			
42.	Minimum width 2.7 m (1550 mm clear width between benches).	Essential 4.5.2	<p><i>For both kitchen types there will be opposing benches to be built 1200mm distance apart.</i></p> <p><i>The Kitchens will allow suitable 1550m clearances at post-adaptation, via relocation of the pre-adapted opposing kitchen bench.</i></p> <p><i>CC Drawings to show continuous tiling under the pre-adapted island bench for the required relocation at post-adaptation stage.</i></p> <p><i>CC Drawings to also have a note for Kitchen provisional plumbing points, capped off, so</i></p>

			<i>that benches can be increased to 1550mm clear between benches at a later stage</i>
43.	Circulation at doors to comply with AS 1428.1.	Essential 4.5.3	<i>N/A - open plan</i>
44.	Benches to include at least one worksurface of 800 mm length, which can be reinstalled or replaced within the range 750mm to 850mm ffl.	Essential 4.5.5	<i>Further design detail within kitchen shop fit drawing to be checked at Construction Certificate.</i>
45.	Refrigerator to be located adjacent to a work surface.	Essential 4.5.5	<i>To be checked at Construction Certificate.</i>
46.	Kitchen sink to be adjustable or replaceable to between 750mm to 850mm.	Essential 4.5.6	<i>To be checked at Construction Certificate.</i>
47.	Kitchen sink bowl max. 150mm deep.	Essential 4.5.6	<i>To be checked at Construction Certificate.</i>
48.	Tap set to be capstan, lever type or lever mixer.	Essential 4.5.6(e)	<i>As above.</i>
49.	Tap set located within 300mm of front of sink.	Essential 4.5.6(e)	<i>As above.</i>
50.	Installation of thermostatic mixing valve	4.5.6 (f) *	<i>To be specified at Construction Certificate Stage.</i>
51.	Cooktops to include either front or side controls with raised cross bars.	Essential 4.5.7	<i>To be checked at Construction Certificate.</i>
52.	Cooktops to include isolating switch.	Essential 4.5.7	<i>To be checked at Construction Certificate.</i>
53.	Work surface min. 800mm length	Essential 4.5.7	<i>To be checked at Construction Certificate.</i>

	adjacent to cooktop at same height.		
54.	Oven located adjacent to an adjustable or replaceable work surface.	Essential 4.5.8	<i>As above.</i>
55.	Provision for microwave oven at height of 750mm-1200mm above floor.	4.5.9 **	<i>To be specified at Construction Certificate Stage.</i>
56.	Central Light with second light over sink. Illumination levels 300-550lux.	4.10 *	<i>To be specified at Construction Certificate Stage.</i>
57.	Adjustable shelving:	4.5.10**	<i>To be specified at Construction Certificate Stage.</i>
58.	Location of cupboard handles	4.5.10*	<i>To be specified at Construction Certificate Stage.</i>
59.	GPOs to comply with AS 1428.1. At least one double GPO within 300mm of front of work surface.	Essential 4.5.11	<i>To be detailed at Construction Certificate Stage.</i>
60.	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position.	Essential 4.5.11	<i>As above.</i>
61.	Slip resistant floor surface	Essential 4.5.4	<i>To be checked at Construction Certificate.</i>
Bedroom			
62.	At least one bedroom of area sufficient to accommodate queen size bed and wardrobe and AS 1428.2 circulation requirements of min.	Essential 4.6.1	<i>Complies.</i>

	1000mm to one side of bed and 180° wheelchair turn (2070mm x 1540mm)		
63.	2 double GPO's on bedhead wall	4.6.3 *	<i>To be specified at Construction Certificate Stage.</i>
64.	Min. of 1 GPO opposite wall	4.6.3 **	<i>To be specified at Construction Certificate Stage.</i>
65.	Telephone outlet next to bed on the side closest to door	4.6.5 **	<i>To be specified at Construction Certificate Stage.</i>
66.	TV antenna point and double GPO on opposite wall to bedhead	4.6.6 *	<i>To be specified at Construction Certificate Stage.</i>
67.	2 way light switches	4.6.4 *	<i>To be specified at Construction Certificate Stage.</i>
68.	Potential illumination 300 lux	4.10 *	<i>To be specified at Construction Certificate Stage.</i>
69.	Sliding doors on wardrobe with full length mirror	4.6.7 **	<i>As Above.</i>
Other Bedrooms			
70.	2 double GPO's on bedhead wall	4.6.3 *	<i>To be specified at Construction Certificate Stage.</i>
71.	2 way light switches	4.6.4 *	<i>To be specified at Construction Certificate Stage.</i>
72.	Telephone outlet next to GPO	4.6.5 **	<i>To be specified at Construction Certificate Stage.</i>
73.	TV antenna point next to GPO	4.6.6. *	<i>To be specified at Construction Certificate Stage.</i>
74.	Potential illumination 300 lux	4.10 *	<i>To be specified at Construction Certificate Stage.</i>
Bathroom			
75.	Provision for bathroom area to comply with AS 1428.1:2009 (Min	Essential 4.4.1	<i>The dimensions for combined accessible shower and toilet for Pre and Post Adaptation drawings have the capacity to comply with AS1428.1 (2009).</i>

	dimensions for combined, accessible shower and toilet).		
76.	Slip-resistant floor surface as per AS/NZ4586.	Essential 4.4.2	<i>To be checked at Construction Certificate.</i>
77.	Hobless shower recess. Minimum size 1160mm X 1100mm to comply with AS 1428.1. (AS4299 Figures 4.6 and 4.7).	Essential 4.4.4(f)	<i>Details have been provided for Post Adaptation to comply.</i>
78.	Shower area waterproofed to AS3740 with floor to fall to waste.	Essential 4.4.4(f)	<i>Demonstrate in wet area details at Construction Certificate</i>
79.	Recessed soap holder.	Essential 4.4.4(f)	<i>Demonstrate in wet area details at Construction Certificate</i>
80.	Shower taps positioned for easy reach to access side of shower sliding track.	Essential 4.4.4(f)	<i>Demonstrate in wet area details at Construction Certificate</i>
81.	Shower waste min.80mm diameter	4.4.4(f) **	<i>To be specified at Construction Certificate Stage.</i>
82.	Provision for adjustable, detachable hand held shower hose mounted on a slider grab rail or fixed hook (plumbing and wall-strengthening provision).	Essential 4.4.4(h)	<i>Demonstrate in wet area details at Construction Certificate</i>
83.	'Provision' for grab rail in shower (refer to figure 4.7) to comply with AS 1428.1.	Essential 4.4.4(h)	<i>Demonstrate in wet area details at Construction Certificate</i>
84.	Provision for additional grabrail	4.4.4 (h) *	<i>To be specified at Construction Certificate Stage.</i>

85.	Provision for folding seat in shower.	4.4.4 (h) **	<i>Demonstrate in wet area details at Construction Certificate</i>
86.	Taps set to be capstan or lever handles with single outlet.	Essential 4.4.4(c)	<i>Demonstrate in wet area details at Construction Certificate</i>
87.	Installation of thermostatic mixing valve	4.4.4 (b) *	<i>N/A</i>
88.	Provision for washbasin with clearances to comply with AS 1428.1 (if to be used in conjunction with “visitable toilet” or accessible toilet).	Essential 4.4.4(g)	<i>Demonstrate in wet area details at Construction Certificate</i>
89.	Wall cabinet with light	4.4.4 (d) *	<i>To be specified at Construction Certificate Stage.</i>
90.	Double GPO beside mirror.	Essential 4.4.4(d)	<i>Demonstrate in wet area details at Construction Certificate</i>
91.	Potential illumination level 300lux	4.10 *	<i>Demonstrate in wet area details at Construction Certificate</i>
Toilet			
92.	Provision of either “visitable toilet” or accessible toilet on the entrance level to comply with AS1428.1. <i>Visitable toilet – a toilet which has a space of minimum 1250mm in front of the toilet x 900mm wide clear of door swings and fixtures. See AS4299.1.1 Fig 1.1.</i>	Essential 4.4.1 4.4.3	<i>Complies</i> <i>Drawings show a visitable toilet in all of the adaptable townhouses with a clear space 900mm x 1250mm in front of the toilet</i>
93.	Provision to comply with AS1428.1	Essential 4.4.1	<i>Complies.</i>
94.	Location of WC pan at minimum 600mm	Essential 4.4.3	<i>Show on construction certificate drawings, for ease of plumbing modifications, It is</i>

	from the rear wall and 450mm from the side wall as per AS4299 Figure 4.3.		<i>advised to initially install WC pan plumbing within main bathrooms of adaptable townhouses at correct distance from the fixed walls.</i>
95.	Provision for grab rail zone as per AS4299 Figure 4.6.	Essential 4.4.4(h) Fig. 4.5	<i>Show on construction certificate drawings, walls to be strengthened with 12mm structural plywood if framed walls are used.</i>
96.	Slip-resistant floor surface compliant with AS/NZ4586 (vitreous tiles similar).	Essential 4.4.2	<i>Flooring schedule required for Construction Certificate.</i>
97.	Recessed toilet roll holder	4.4.3 **	<i>To be specified at Construction Certificate Stage.</i>
Laundry			
98.	Circulation at door to comply with AS 1428.1 Figure 12.	Essential 4.8	<i>Complies.</i>
99.	Adequate circulation space in front of or beside appliances (min. 1550 mm clear depth forward of appliances).	Essential 4.8	<i>Pre-adaptation the laundry area will be enclosed. As the walls are not load bearing, they can be removed to provide 1550mm clear post adaptation. Alternately the hinges on the doors to open 180 degrees.</i>
100.	Provision for automatic washing machine.	Essential 4.8 (e)	<i>Space is available for an automatic washing machine.</i>
101.	Provision for drier	4.8 (f) *	<i>Complies</i>
102.	If clothes line is located externally in a common are, an accessible path of travel to clothes line must be provided.	Essential 4.8 (a)	<i>There is a balcony area adjacent to living areas with sliding doors. During the construction stages confirmation is required for sliding door thresholds to be capable of facilitating wheelchair access to comply with AS1428.1 (2009). Level transition between the internal flooring, sliding door threshold and external floor surface is noted as a requirement on the drawings for the three (3) adaptable layouts</i>

103.	Installation of thermostatic mixing valve	4.8 (d) *	<i>To be specified at Construction Certificate Stage.</i>
104.	Taps positioned at side of tub	4.8 (c) **	<i>To be specified at Construction Certificate Stage.</i>
105.	Double GPO shall be provided as a minimum.	Essential 4.8 (g)	<i>To be checked at Construction Certificate.</i>
106.	Provision of shelf for soaps and similar, 1200mm max, height	4.8 (h) **	<i>To be specified at Construction Certificate Stage.</i>
107.	Potential illumination level 300 lux generally with 550 lux task lighting	4.10 *	<i>To be checked at Construction Certificate.</i>
108.	Slip resistant floor surface as per AS/NZ4586.	Essential 4.9.1	<i>To be checked at Construction Certificate.</i>
Storage			
109.	Linen cupboard min. 600mm wide with adjustable shelving	4.11.5 *	<i>To be specified at Construction Certificate Stage.</i>
Door Locks			
110.	Door hardware operable with one hand, located 900 – 1100 mm above floor.	Essential 4.3.4	<i>At Construction Certificate, door schedule required to check for compliance.</i>
Floor Coverings			
111.	Slip resistant surfaces – balconies and external paved areas (vitreous tile or similar)	4.9.1 *	<i>Provide flooring schedule at Construction Certificate.</i>
Ancillary Items			
112.	Switches located 900 – 1100mm above floor in line with door handles.	4.11.1 *	<i>Construction Certificate drawings to show switches to be 900mm – 1100mm above floor level.</i>

113.	GPO's located not less than 600 above floor.	4.11.1 *	<i>Construction Certificate drawings to show GPO's to be 600mm above floor level and not less than 500mm from an internal corner</i>
114.	Electrical distribution board located inside housing unit	4.11.2 **	<i>To be specified at Construction Certificate Stage.</i>
115.	Window controls located in an accessible position	4.11.4 **	<i>To be specified at Construction Certificate Stage.</i>
Garbage			
116.	Provision for bin in an accessible location.	4.11.6 *	<i>There is a waste room located on each level next to the lift.</i>
117.	Provision for external wheelchair storage	4.11.6 **	<i>To be specified at Construction Certificate Stage.</i>
118.	Provision for external battery charging facility	4.11.6 **	<i>To be specified at Construction Certificate Stage.</i>
119.	Guide dog accommodation	4.11.6 **	<i>To be specified at Construction Certificate Stage.</i>

Further Comments AS4299 – 1995:

Appendix A - Schedule of features for Adaptable Housing

The above checklist confirms that 9 adaptable townhouses have the capacity to satisfy the requirement of Adaptable House Class B Essential Features.

The number of essential features incorporated into the design is 55 items.

In addition to this, where there are clauses with (*) this indicates a First priority desirable feature (Class B) and clauses with (**) indicate a desirable feature (Class A).

Livable Housing Guidelines SILVER LEVEL	
Y = YES; N = NO; D = Design detail required at CC; N/A = Not Applicable	
Element	Overall compliance
1 Dwelling access	
Performance Statement There is a safe and continuous step-free pathway from the street entrance and/or parking area to a dwelling entrance that is level.	
(a) Provide a safe and continuous pathway from the front boundary of the allotment to an entry door to the dwelling EXCEPT where the average slope of the ground for the path is steeper than 1:14	D More detail to provided about the gradients of access paths from street to adaptable dwellings by Construction Certificate
(b) The path of travel as referred to in (a) should have a minimum clear width of · SILVER 1000mm	Y
i. No steps	Y
ii. An even, firm, slip resistant surface;	D
iii. A crossfall of not more than 1:40;	D
iv. Where ramps are required they should have landings provided at no greater than 9m for 1:14 ramps and no greater than 15m for ramps steeper than 1:20. Landings should be no less than 1200mm in length	D
(c) The path of travel referred to in (a) may be provided via an associated car parking space for the dwelling. Where a car parking space is relied upon as the safe and continuous pathway to the dwelling entrance the space should incorporate:	
i. minimum dimensions of at least · SILVER 3200mm (width) x 5400mm (length) * applies to townhouses, villas, single residential dwellings ie Class 1a	Y Entry to the dwelling is via the car parking area in the basement of the building. NB *individual car parking bays provide in basement 2500mm
ii. an even, firm and slip resistant surface; and	D
iii. a level surface (1:40 maximum gradient, 1:33 max gradient for bitumen)	D
(d) A step ramp may be incorporated at an entrance doorway where there is a change in height of 190mm or less. The step ramp should provide:	D
i. A maximum gradient of 1:10	

ii. A minimum clear width of 1000mm (which should reflect the path width)	
A maximum length of 1900mm	
i. (e) Where a ramp is part of the pathway, level landings no less than 1200mm in length, exclusive of the swing of the door or gate that opens onto them, must be provided at the head and foot of the ramp	D More detail to provided by Construction Certificate
2 Dwelling Entrance	
Performance Statement There is at least one level (step-free) entrance into the dwelling to enable home occupants to easily enter and exit the dwelling.	
a) The dwelling should provide an entrance door with - i. a minimum clear opening width of · SILVER 820mm (see Figure 2(a));	Y
ii. a level (step-free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled); and	D
iii. reasonable shelter from the weather.	Y
b) A level landing area of at least · SILVER 1200mm x 1200mm should be provided at the level (step free) entrance door.	D
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
d) The level (step-free) entrance should be connected to the safe and continuous pathway as specified in Element 1.	D More detail to provided by Construction Certificate
3 Internal doors and corridors	
Performance Statement Internal doors and corridors facilitate a comfortable and unimpeded movement between spaces	
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 · SILVER 820mm	Y
ii) a level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or beveled).	D
b) Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of SILVER 1000mm	Y

4 Toilet	
Performance Statement The ground (or entry) level has a toilet to support easy access for home occupants or visitors	
a) Dwellings should have a toilet on the ground (or entry) level that provides:	Lift access is provided to levels with toilets
i) a minimum clear width of 900mm between the walls of the bathroom if located in a separate room; and	Y
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).	Y
iii) toilet pan located in the corner of the room to enable installation of grab rails at a future date	Y
5 Shower	
Performance Statement The bathroom and shower is designed for easy and independent access for all home occupants	
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.	Y
b) The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.	Y
6 Reinforcement of bathroom and toilet walls	
Performance statement The bathroom and toilet walls are built to enable grabrails to be safely and economically installed	
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 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:	
noggings with a thickness of at least 25mm in accordance with Figure 7(a); or	
sheeting with a thickness of at least 12mm in accordance with Figure 7(b).	
d) The walls around the hobless (step-free) shower recess are to be reinforced by installing:	D

noggings with a thickness of at least 25mm in accordance with Figure 8(a); or	
sheeting with a thickness of at least 12mm in accordance with Figure 8(b).	
7 Internal Stairways	
Performance statement Where installed, stairways are designed to reduce the likelihood of injury and also enable future adaptation	
a) Stairways in dwellings must feature:	
i) A continuous handrail on one side of the stairway where there is a rise of more than 1 metre.	There are no STRAIGHT stairs within the livable townhouses. However lift access is provided which exceeds the accessibility of stairs