



Accessibility Assessment Report BCA 2019

Project Address: 30 Fairlight Street, Fairlight NSW 2094

Client: Ôæ d^ÁG €ÁÚc ÁŠcå Report Number: 190483 Revision: 2

24 JANUARY 2020



REPORT REVISION HISTORY

Revision	Date Issued	Revision Description	
01	20/01/2020	Draft report issued to client	
		Prepared by	Verified by
		Lucy Shepherd Manager - Access	DRAFT
02	24/01/2020	Final report issued to client	
		Prepared by	Verified by
		Lucy Shepherd	Adam DeLooze
		Manager - Access	Executive Director – Building BPB0085 – A1 Unrestricted

Disclaimer

This report is and shall remain the property of City Plan Services P/L and has been prepared with input from a number of other expert consultants (if relevant). To the best of our knowledge, the information contained herein is neither false nor misleading and the contents are based on information and facts that were correct at the time of writing. City Plan Services P/L accepts no responsibility or liability for any errors, omissions or resultant consequences including any loss or damage arising from reliance in information in this publication.

This document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement. Unauthorised use of this document in any form whatsoever is prohibited. City Plan Services Pty Ltd undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document.

Copyright © City Plan Services P/L ABN 30 075 223 353

All Rights Reserved.



TABLE OF CONTENTS

1.	Introd	luction	3
	1.1.	General	3
	1.2.	Purpose of Report	3
	1.3.	Report Basis	3
	1.4.	Exclusions and Limitations	4
	1.5.	Building Description	5
2.	Disab	ility (Access to Premises – Building) Standards 2010	6
3.	Adap	table and Livable Unit Requirements	6
4.	Acce	ssible and Adaptable Carparking	6
5.	Build	ing Code of Australia Accessibility Assessment	7
	5.1.	BCA Interpretation	7
	5.2.	Access for People with a Disability	7
		5.2.1. Design for Access and mobility - AS1428.1-20091	4
6.	Livab	le Housing 2	3
	6.1.	Table 7.1 – Schedule of features for Livable Housing	3
7.	Adap	table Housing	6
	7.1.	Table 6.1 – Schedule of features for Adaptable Housing 2	6
8.	Conc	lusion3	8
Арј	oendix	1	8



1. INTRODUCTION

1.1. General

The development, the subject of this report, is for the proposed residential development located at 30 Fairlight Street, Fairlight NSW 2094.

The property is situated within the local government area of Northern Beaches Council.

1.2. Purpose of Report

This report has been prepared, on behalf of $\hat{O} \approx q^{\hat{A}} \in \hat{A} \cup \hat{C} \times \hat{A} \otimes \hat{C}$, to establish compliance with the access requirements of the *Building Code of Australia* (hereafter referred to as the BCA), the *Disability (Access to Premises - Buildings) Standards 2010* (hereafter referred to as the *Premises Standards 2010*), the Adaptable Housing requirements of Australian Standard *AS4299-1995 Adaptable Housing, Livable Housing Design Guidelines* and relevant Acts and Regulations of the development application documentation for the proposed works.

1.3. Report Basis

This report is based on:

- 1. Environmental Planning and Assessment Act 1979.
- 2. Environmental Planning and Assessment Regulation 2000.
- 3. Disability (Access to Premises Buildings) Standards 2010.
- 4. The Building Code of Australia 2019, inclusive of NSW variations (See Note 1).
- 5. Australian Standards, as referenced within the BCA:
- Australian Standard AS1428.1-2009 (incorporating amendment Nos 1 and 2) Design for access and mobility Part 1: General requirements for access - New building work.
- Australian Standard AS/NZS 2890.6-2009 Parking Facilities Part 6: Off-street parking for people with disabilities.
- Australian Standard AS/NZS 1428.4.1:2009 (incorporating amendment Nos 1 and 2) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators.
- Australian Standard AS1735.12-1999 Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities.
- 6. Australian Standard AS4299-1995 Adaptable Housing.
- 7. Livable Housing Design Guidelines Fourth Edition, Livable Housing Australia.
- 8. Architectural plans prepared by Bianchino Architects, as listed in Appendix 1.
- Note 1: *Building Code of Australia* (BCA) 2019 was adopted in NSW on 01 May 2019. The amendment of the BCA in force at the date of lodgement of the Construction Certificate application is the version



called up by clause 98 of the Environmental Planning and Assessment Regulation 2000 for the purpose of the building design. Therefore, comments may be subject to changes to comply with updated versions of the Building Code of Australia.

1.4. Exclusions and Limitations

This report has been prepared based on the following limitations and exclusions:

- This report has been prepared by City Plan for Ôæ d^ÁG €ÁÚc ÁScå and may only be used and relied on by Castle 240 Pty Ltd for the purpose agreed between City Plan and Castle 240 Pty Ltd, as set out in section 2.3 of this report.
- City Plan otherwise disclaims responsibility to any person other than Castle 240 Pty Ltd arising in connection with this report. City Plan also excludes implied warranties and conditions, to the extent legally permissible.
- City Plan Services Pty Ltd undertakes no duty, nor accepts any responsibility to any third party who may rely upon or use this document.
- The services undertaken by City Plan in connection with preparing this report are limited to those specifically detailed within the report and subject to scope limitations as set out in the report but specifically exclude:
 - Structural design in any form or content.
 - The Disability Discrimination Act 1992.
 - The existing level of Building Code of Australia compliance unless specifically identified in Section 2.3 within this report.
 - The operational capabilities or compliance of any existing services installed within the building.
 - Assessment of any existing Performance Solutions, including Fire Safety, addressing compliance with the Performance Requirements of the BCA.
- This report is not a Part 4A compliance certificate under the Environmental Planning & Assessment Act 1979 or Regulation 2000.
- The opinions, conclusions and any recommendations within this report are based on conditions encountered and information reviewed at the date of preparation of the report. City Plan has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.
- The methodologies adopted within this report specifically relate to the subject building and must not be used for any other purpose.
- City Plan has prepared this report on the basis of information provided by others, including but not limited to Architectural Plans. City Plan has not independently verified or checked beyond the agreed scope of work the validity of the documentation prepared and provided by others. City Plan accepts no liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions within the information relied upon.
- The documentation relied upon has been reviewed only to the degree reasonable as pertaining to City Plans scope, as defined within the contract and fee agreement. It is expressly not the responsibility of City Plan to:
 - Familiarise ourselves with all information and documentation relating to the project, or the potential BCA, Access or fire safety aspect derivatives thereof;



- Conduct a "full BCA audit or compliance assessment" in any way defined, implied or assumed, for matters outside of City Plans scope; or
- Prepare a holistic BCA, Access or Fire Safety strategy for the building or carry out a full assessment of all information and documentation relating to the project, or the potential BCA, Access or Fire Safety aspect derivatives thereof.
- Were the report relied on a site inspection, the inspection was based on a visual, non-invasive check of representative samples of the building to which the report and scope applied, and to which safe and reasonable access was available/permitted on the date and time of the inspection. The inspection should not be considered as a testing, commissioning or maintenance procedure nor act as a guarantee or warranty of any kind.

1.5. Building Description

The proposed building consists of:

Basement

Ground Floor - level 3

Class 7a - Parking

Class 2 – Residential



2. DISABILITY (ACCESS TO PREMISES – BUILDING) STANDARDS 2010

The *Premises Standards 2010* applies to all new buildings and building parts, including existing buildings undergoing upgrade works. The *Premises Standards 2010* aims to provide certainty for the building industry in relation to meeting the DDA requirements for access to buildings. The *Premises Standards 2010* generally aligns with the BCA and provides specific prescriptive requirements for compliance with a range of Australian Standards relating to access and associated matters. If a building is designed and constructed under the current BCA and the *Premises Standards 2010* there is a greater level of assurance that the design complies with the DDA.

The BCA, in conjunction with the DDA applies to all new buildings, new building works to existing buildings and buildings undergoing significant refurbishment or alteration.

3. ADAPTABLE AND LIVABLE UNIT REQUIREMENTS

Manly Council DCP 2013 (Amendment 11) requires that within residential developments where four (4) or more dwellings are provided, 25% are to be Adaptable, in accordance with the requirements of AS 4299-1995. The DCP specifies that Adaptable units are to be identified within DA drawings. The development documentation illustrates pre and post adaptation layouts.

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65) applies the Apartment Design Guide, which requires within section 4Q1 that 20% of apartments achieve a Silver Level Livable Housing rating, in addition to local DCP requirements for adaptable units provided in accordance with AS4299-1995

A total of seven (7) units are proposed as part of this development, therefore **two (2)** are required to be **Adaptable and Livable Silver Level.** Features are to be provided as outlined in Table 6.1 in Section 7.1 of this report.

4. ACCESSIBLE AND ADAPTABLE CARPARKING

One (1) accessible / adaptable car space is required for each adaptable unit to satisfy clause 3.7.2 of AS4299-1995, being the only essential carparking feature required for Class C developments. The designated accessible car space should have minimum dimensions of 5.4m x 3.8m as per the requirements of the Manly DCP 2013. Two (2) adaptable parking spaces will be required within the subject development.

The Silver Livable Rating required by SEPP 65 does not contain any specific carparking requirements.



5. BUILDING CODE OF AUSTRALIA ACCESSIBILITY ASSESSMENT

This assessment considers the accessibility requirements of the BCA, specifically clauses D2.17, E3.6, F2.4, F2.9 and Part D3.

5.1. BCA Interpretation

The following assessment methodology has been applied to the subject development:

Movable furniture has not been considered as part of this assessment; and

5.2. Access for People with a Disability

The following table provides an assessment of the documentation listed within Appendix 1 against the requirements of the BCA and relevant standards, the status of each clause is based upon the definitions below:

- Not applicable The Deemed-to-Satisfy clause is not applicable to the proposed design;
- **Complies** the work the work, if completed in accordance with the plans and specifications identified in Schedule 1, complies with the Deemed-to-Satisfy requirements of the BCA;
- **Capable of complying** It is considered that there was not enough information included within the documentation to accurately determine strict compliance with the individual clause requirements. However, subject to noting the requirements of each clause, compliance can be readily achieved.
- **Further information required** Further Information is necessary to determine the compliance potential of the building design;
- **Performance solution** A performance-based approach is proposed, for which a separate Performance Solution Report will be required to demonstrate compliance with the relevant Performance Requirements;
- **Does not comply –** Design modification or a performance solution will be required to comply with the requirements of this clause; and
- Note The BCA clause has no action and simply provides a statement.

BCA clause	Title	Assessment and Comment	Status
D2.17	Handrails in exits	Handrails in exits Handrails are required along at least one side of all fire-isolated required exit stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m.	Capable of Complying
		Handrails within fire-isolated required exit stairs / ramps are required to comply with clause 12 of AS1428.1-2009.	
		clauses 12(e) and 12(j) of AS1428.1-2009 requires that the handrails be consistent throughout the stair and that handrails at landings shall always be continuous. This is	



BCA clause	Title	Assessment and Comment	Status
		generally achieved by providing an offset tread, as shown in figure 28 of AS1428.1-2009, however the offset tread is not a prescriptive requirement and is just one method of achieving consistent handrail heights throughout the stair. Handrails containing vertical sections or sections with an inconsistent height at landings do not achieve compliance with clause 12 of AS 148.1- 2009.	
		Befer to Section D3.3 for handrail requirements	
		in parts of buildings required to be accessible. Ensure at construction certificate handrails can achieve compliance with the requirements of this clause.	
D2.21	Manual controls to power operated doors at required exits	 Manual controls to power operated doors at or forming part of a required exit must be: At least 25mm wide and proud of the surface. Located not less than 500mm from an internal corner. 	Capable of Complying



BCA clause	Title	Assessment and Comment	Status
		 At a hinged door, between 1m and 2m from the door leaf in any position. For a sliding door within 2m of the doorway and clear of a surface mounted door in the open position. Braille and tactile signage compliant with clause 3 and 6 of Specification D3.6. 	
D3.1	General building access requirements	In accordance with Table D3.1, access is to be available in the following areas: Class 2 Apartments To and within not less than one (1) type of room or space for use in common by residents or guests and to the entrance doorway of each apartment in accordance with table D3.1 of the BCA.	Capable of Complying
		Class 7a Carpark Access is required to and within any level containing accessible carparking spaces.	Capable of Complying
D3.2	Access to buildings	 An accessway (continuous accessible path as defined by AS1428.1-2009) must be provided to a building required to be accessible: from the main points of a pedestrian entry at the allotment boundary; and from another accessible building connected by a pedestrian link; and from the required accessible carparking spaces on the allotment. Access is required to be provided to not less than 50% of all pedestrian entrances and a pedestrian entrance which is not accessible must not be located more than 50m from an accessible entry. Doorways with multiple leaves, on any accessway are required to achieve a clear opening width of not less than 850mm at one of the leaves, in accordance with AS 1428.1-2009. Detailed construction documentation is to demonstrate compliance with AS1428.1. 	Capable of Complying



BCA clause	Title	Assessment and Comment	Status
		From the main points of pedestrian entry at the allotment boundary:	Capable of Complying
		Pedestrian access is provided from Fairlight Street via nine (9) steps to the entrance doorway.	
		A stairway platform lift is proposed to address the level difference between the street and the building entrance.	
		At construction certificate lift specification to be provided confirming compliance with the requirements of BCA clause E3.6.	
		From another accessible building connected by a pedestrian link:	N/A
		No other accessible buildings are connected via a pedestrian link.	
		From required accessible car parking spaces on the allotment:	N/A
		No accessible parking bays are required by the BCA within Class 2 developments.	
		Pedestrian entrances and the Principal Pedestrian entrance:	Capable of Complying
		The principal pedestrian entrance is located on Fairlight Street, set back from the building frontage, accessed via a stairway or a stairway platform lift.	
D3.3	Parts of building	Ramps and Stairways	Capable of Complying –
		Every ramp and stairway must comply with: for a ramp, except a fire-isolated ramp	Performance Solution at CC
		 for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1 (set-backs, gradients, rise, length, landings, handrails, TGSIs); and 	
		 for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1 (set-backs, nosings, TGSIs, handrail extensions, handrail design); and 	
		 for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1-2009. 	



BCA clause	Title	Assessment and Comment	Status
		Full details to be provided with construction documentation.	
		Handrails and TGSIs are not fully documented and details are to be included in further design documents	
		Details to be included within the construction certificate documentation. A performance solution is proposed at construction certificate stage to address reduced obstruction of the handrail at the entrance stairway, due to the provision of a stairway platform lift, when in its standby position.	
		Accessways	Capable of Complying
		Accessways require passing spaces in accordance with AS1428.1-2009 (1800 x 2000mm) at maximum 20m intervals where no direct line of sight is available.	Complying
		Carpet pile height	Note
		clause 7.4.1(a) of AS1428.1-2009 does not apply and is superseded by BCA clauses D3.3 (g) and(h), whereby the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm and the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in figure 8 of AS1428.1-2009 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.	
D3.4	Exemptions	The following areas are not required to be accessible:	Note
		 An area where access would be inappropriate because of the particular purpose for which the area is used. 	
		 An area that would pose a health or safety risk for people with a disability. 	
		 Any path of travel proving access only to an area exempted by (a) or (b). 	
		Within the context of the above the following areas have been excluded under clause D3.4:	



BCA clause	Title	Assessment and Comment	Status
		 Basement – Plant Room; and 	
		 Basement – Electrical Room. 	
D3.5	Car parking	Residential	Capable of
		The BCA does not require accessible carparking spaces to be provided within carparks that serve Class 2 developments only.	Complying
		One (1) accessible car space associated with each adaptable apartment is required to satisfy clause 3.7.2 of AS4299-1995. The designated accessible car spaces are required to have minimum dimensions of 6.0m x 3.8m to achieve compliance with AS4299-1995.	
		Two (2) adaptable carparking bays have been provided.	
D3.6	Signage	Braille and tactile signage complying with Specification D3.6 must identify the following:	Capable of Complying
		 Each doorway forming part of a required exit must be provided with braille and tactile signage incorporating wording of, "Exit", and "Level", and either, the floor level number or floor level descriptor. 	
		Braille and tactile wayfinding signage complying with Specification D3.6 must identify the following:	
		 Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol for access must be provided to direct a person to the nearest accessible entrance. 	
		Signage details have not been specified at this stage. Construction documentation to incorporate a signage schedule and demonstrate compliance.	
D3.7	Hearing augmentation	There are no Class 9b building / parts or uses applicable to the requirements of this clause.	N/A
D3.8	Tactile indicators	Tactile ground surface indicators (TGSIs) are required at the following locations:	Capable of Complying



BCA clause	Title	Assessment and Comment	Status
		 all stairs and ramps (excluding fire-isolated required exits); 	
		 overhead obstructions where a height clearance of less than 2000mm is provided in an open public space and no suitable barrier is provided; and 	
		 Where a pedestrian area joins a carriageway at the same grade. 	
		TGSIs have not been specified at this stage.	
		Provide specification details for TGSIs to ensure compliance with AS/NZS 1428.4.1:2009 can be achieved.	
D3.9	Wheelchair seating spaces in Class 9b assembly buildings	The building does not contain a Class 9b part.	N/A
D3.10	Swimming Pools	This building does not contain a swimming pool.	N/A
D3.11	Ramps	No ramps are proposed at this stage.	N/A
D3.12	Glazing on an accessway	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 AS 1428.1- 2009.	Capable of Complying
		Full height glazed panels and doors throughout the building will require compliant visual indicators, specified in accordance with the requirements of clause 6.6 of AS1428.1-2009.	
		Construction documentation should demonstrate compliance.	
E3.6	Passenger lifts	Passenger lifts are required to be in accordance with BCA clause E3.6.	Capable of Complying
		A passenger lift has been proposed, serving levels basement-level 3. Current drawings show the lift car size as approximately 1100mm wide x 1400mm deep, which is in accordance with the	



BCA clause	Title	Assessment and Comment	Status
		requirements of BCA clause E3.6 for a lift travelling an effective height of less than 12m.	
		A Stairway Platform Lift is proposed to provide level access from Fairlight Street to the building entrance and common areas.	
		Detailed drawings of lift fixtures and fittings will be required for review at design development to ensure compliance with BCA Table E3.6 and AS1735.12-1999 has been achieved.	
		A lift design statement certifying compliance with BCA E3.6 and with AS 1735.12-1999 is to be provided.	
F2.4	Accessible sanitary facilities	No sanitary facilities are proposed within Class 2 areas.	N/A
	Ambulant sanitary facilities	No sanitary facilities are proposed within Class 2 areas	N/A
	Accessible unisex showers	No sanitary facilities are proposed within Class 2 areas.	N/A

5.2.1. Design for Access and mobility - AS1428.1-2009

1428.1 Clause	Title	Assessment and Comment	Status
6.1	General	The continuous accessible path does not incorporate a step, stairway, turnstile, escalator, moving walk or other impediment.	Capable of Complying
6.2	Height of continuous accessible path of travel	The minimum unobstructed height along the accessible path of travel is to be 2m and 1980mm at doorways. Construction documentation should demonstrate compliance.	Capable of Complying
6.3	Width of continuous accessible path of travel	Unless otherwise specified (such as doors, curved ramps etc.) the minimum unobstructed width along the path of travel is no less than 1000mm.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
6.4	Passing space for wheelchairs	Accessways require a circulation space with dimensions not less than 1800mm (W) and 2000mm (L) at 20m intervals where a direct line of sight is not available. Construction documentation should demonstrate compliance.	Capable of Complying
6.5	Circulation space for wheelchair turn	Accessways require turning spaces in accordance with AS1428.1-2009. 60°-90° turns require a minimum circulation space of 1500 x 1500mm with a gradient of not more than 1:40. 30°-60° turns where the width of path of travel is less than 1200mm, require a splay of 500 x 500mm at the internal corner. 90°-180° turns require a minimum circulation space of 1540 x 2070mm. Construction documentation should demonstrate compliance.	Capable of Complying
6.6	Visual indicators on glazing	On frameless or fully glazed doors, side lights or glazing capable of being mistaken for a doorway where there are no transom visual indicators are required. Contrasting line to be not less than 75mm wide with the lower edge located between 900mm and 1000mm above FFL. The contrasting strip must have a minimum luminance contrast of 30%. Construction documentation should demonstrate compliance.	Capable of Complying
7.1	Floor and ground surfaces	The continuous accessible paths of travel and circulation spaces are to have a slip resistance and should be traversable by wheelchair users and people with an ambulant or sensory disability.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
7.2	Tolerances for abutment of surfaces	All abutment of surfaces is required to have a smooth transition including any feature pavement used as a pedestrian zone and along the continuous accessible path of travel. Construction documentation should demonstrate compliance.	Capable of Complying
7.3	Changes in level	A change in level along the path of travel should not exceed a vertical tolerance of 3mm, or 5mm if bevelled. Construction documentation should demonstrate compliance	Capable of Complying
7.4	Soft floor coverings	Carpets and mats are required to comply with the requirements of this clause with the exemption of clause 7.4.1(a) which does not apply and is replaced with clause D3.3(g) & (h) of the BCA. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	Capable of Complying
8	Signage	Signage is required to be installed throughout the proposed development in accordance with this provision and clause D3.6 and Specification D3.6 of the BCA. Where specified by the BCA signage shall be provided in accordance with the technical requirements of AS1428.1-2009. Signage has not been documented at this stage. Construction documentation should demonstrate compliance.	Capable of Complying
9	Tactile ground surface indicators	TGSIs are required to be provided to all moving walkways, escalators, stairways and ramps (excluding fire-isolated) and are to comply with sections 1 and 2 of AS/NZS 1428.4.1:2009.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		TGSIs are also required where an accessway adjoins a vehicular crossing or driveway at grade.	
		TGSIs should be perpendicular to the direction of travel when approaching the hazard and for the full width of the path of travel.	
		Where handrails are continuous on both sides of the landing and the landing edge is less than 3000mm to the nearest nosing edge, indicators are not required.	
		TGSIs should be set back 300mm ±10mm from the edge of the hazard (except at railway platforms and wharves).	
		Where the distance of the landing to the nosing edge is less than 3000mm, TGSIs are to be over a distance of 300-400mm.	
		Where the distance of the landing to the nosing edge is more than 3000mm, TGSIs are to be over a distance of 600-800mm.	
		Integrated TGSIs are to have luminance contrast of no less than 30% against the surrounding surface, Discrete TGSIs are to have a luminance contrast of 45% to the surrounding surface.	
		TGSIs have not been specified at this stage.	
		Construction documentation should demonstrate compliance.	
10.1	Walkways, ramps and landings	Walkways, ramps and landings are required to be provided in accordance with the requirements of this clause.	Capable of Complying
		Construction documentation should demonstrate compliance.	
10.2	Walkways	One of the following is to be provided at walkways:	Capable of Complying
		 The ground surface abutting the walkways shall be firm and level, follow the grade of the walkway, be of a different material and extend a minimum of 600mm; or Kerb with a minimum height of 65mm; or 	



1428.1 Clause	Title	Assessment and Comment	Status
		Kerb rail and handrail; orA wall with a height of not less than 450mm.	
		Landings are not required where the walkways are shallower than a 1:33 gradient.	
		Construction documentation should demonstrate compliance.	
10.3	Ramps	Ensure all ramps have a gradient of no more than 1:14 and that handrails, kerb rails and TGSIs are provided in accordance with the requirements of AS1428.1-2009.	Capable of Complying
		Ramps at a gradient of 1:14 to have landings at minimum 9m intervals and at 15m intervals at a gradient of 1:20.	
		Ramps with gradients between 1:20 and 1:14 to have landings at intervals obtained by linear interpolation.	
		Construction documentation should demonstrate compliance.	
10.4	Curved walkways, ramps and landings	No curved ramps or walkways are proposed.	N/A
10.5	Threshold ramps	Threshold ramps are to have a maximum rise of 35mm, a maximum length of 280mm and a maximum gradient of 1:8.	Capable of Complying
		Threshold ramps are required to be located within 20mm of the door leaf which it serves.	
		Construction documentation should demonstrate compliance.	
10.6	Step ramps	No steps ramps are proposed.	N/A
10.7	Kerb ramps	No kerb ramps are proposed.	N/A
10.8	Landings	Landings require a minimum length of 1200mm or where a change in direction is 90° or more 1500mm.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
11.1	Stairways	Stairways are required to comply with the requirements of this clause.	Capable of Complying
		At a property boundary, stairways shall be set back a minimum of 900mm, so that handrails and TGSIs do not protrude into the traverse path of travel.	
		At an intersection within an internal corridor stairway to be setback a minimum of one tread width + 300mm + handrail return to ensure handrails and TGSIs to not protrude into the traverse path of travel.	
		Stairways are required to have opaque risers and nosings with a contrasting strip not less than 50mm nor more than 75mm in depth, set back a maximum of 15mm from the front of the nosing. Where the contrasting strip is not set back from the front of the nosing then the area of contrast must not extend down the riser by more than 10mm.	
		Strip of contrasting colour 50 to 75 wide 15 max. setback 5 radius max. 25 max. splay WTE: A chamfered nosing 5 × 5 mm may be used.	
		This level of detail is not currently documented on the plans and construction documentation should demonstrate compliance.	
11.2	Stairway handrails	Handrails are required on both sides of the stairway and are to be installed in accordance with the requirements of AS1428.1-2009 (fire-isolated required exit stairways excluded).	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
		Internal corridor or walkway Turn handrail through a total of 180° or return fully to end post or wall face TGSI	
12	Handrails	Handrails are required to comply with the requirements of this clause.	Capable of Complying
		The top of handrails is required to be 865-1000mm above FFL.	
		Handrails must be circular or elliptical with a cross-section of between 30mm to 50mm and a clearance of a minimum 50mm maintained between the handrails and an adjacent wall surface. Clearance to extend above the top of the handrail by not less than 600mm.	
		Handrails shall have no obstruction and are to be returned in accordance with AS1428.1-2009.	
		Handrail details have not been specified at this stage. Construction documentation should demonstrate compliance.	
13.1	Doorway luminance contrast	 A minimum luminance contrast of 30% must be provided between one of the following: door leaf and door jamb; or door leaf and adjacent wall; or architrave and wall; or door leaf and architrave or door jamb and adjacent wall. The minimum width of the luminance contrast is 	Capable of Complying
		50mm.	



1428.1 Clause	Title	Assessment and Comment	Status
		This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
13.2	Clear opening of doorways	All doors on the continuous accessible path of travel must have a minimum clear unobstructed width of 850mm to the active leaf.	Capable of Complying
		Doorways with multiple leaves, on any accessway are required to achieve a clear opening width of not less than 850mm for one of the leaves in accordance with AS1428.1-2009.	
		Construction documentation should demonstrate compliance.	
13.3	Circulation spaces at doorways	Circulation spaces are required to be provided on both sides of every door on an accessible path of travel. Where swing doors are automated and have a side approach – circulation space is required on the approach side only.	Capable of Complying
13.4	Distance between successive doorways	A minimum of 1450mm is required between successive doorways in vestibules and air locks. Where the doors encroach into space, the 1450mm is required to be increased by the width of the door.	Capable of Complying
		On the path of travel to an ambulant sanitary facility a minimum of 900mm is to be provided between successive doorways.	
		Construction documentation should demonstrate compliance.	
13.5	Door controls	Door handles are to comply with the requirements of this clause.	Capable of Complying
		Door handles should allow the door to be unlocked and opened with one hand, be located between 900mm and 1100m above FFL, the handle must be such that the hand of a person will not slip from the handle and the clearance between the handle and door face shall not be less than 35mm and more than 45mm.	



1428.1 Clause	Title	Assessment and Comment	Status
		This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
14	Switches and general-purpose outlets	All switches and controls on an accessible path of travel are required to be located between 900mm and 1100mm from FFL and not less than 500mm from internal corners.	Capable of Complying
		General purpose outlets are required to be located between 600mm and 1100mm from the finished floor level not less than 500mm from internal corners.	
		Ensure within accessible sole-occupancy units and accessible sanitary facilities that rocker action and toggle switches are provided, and the switch has a minimum dimension of 30 x 30mm. Push pad switches shall have a minimum dimension of 25mm in diameter.	
		This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
15	Sanitary facilities and showers	No sanitary facilities are proposed.	N/A
16	Ambulant sanitary facilities	No sanitary facilities are proposed.	N/A
17	Grab rails	No sanitary facilities are proposed.	N/A
18	Assembly Buildings	No fixed seating is proposed.	N/A
A4	Access controlled entry	Where provided, access control or intercom button into a secure carpark should be positioned to allow a driver to use the device.	Capable of Complying
		Any ticket system should cater for someone who may have a weak hand grip.	
		This level of detail is not currently documented on the plans	



6. LIVABLE HOUSING

Within Section 4Q1 of the Apartment Design Guide (SEPP 65) 20% of the apartments are required to achieve a Silver Level Livable Housing rating. This equates to two (2) apartment within the subject development.

6.1. Table 7.1 – Schedule of features for Livable Housing

This assessment considers the accessibility requirements within the Livable Housing Design Guidelines as applicable and required by SEPP 65.

Clause	Requirement	Assessment and Comment	Status			
1. Dwelling	1. Dwelling access					
Silver Level	Access is required to and through the entrance doorway of the Sole Occupancy Units (SOU). Accessway are to comply with the BCA.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying			
2. Dwelling	entrance					
Silver Level	 The SOU entry doors require; An 820mm clear opening width, Level entrance (5mm tolerance), A landing with dimensions of 1200m x 1200mm on the lobby side of SOU entry door, Where the threshold at the entrance exceeds 5mm and is less than 56mm, a threshold ramped in may be provided. 	The pre-adaptable design demonstrates compliance with the requirements of this provision. Full details are to be included within the Construction Certificate documentation.	Capable of Complying			
3. Carparkii	ng					
Silver Level	Carparking to achieve minimum dimensions of 3200mm x 5400mm where parking forms part of the dwelling access.	The carparking does not form part of the dwelling access and the requirements of this clause do not apply.	N/A			
4. Internal c	4. Internal doors and corridors					
Silver Level	Internal doors within the SOU are required to achieve a clear opening width of 820mm, have a	Ensure at construction certificate all internal doors at pre- adaptation to have a minimum	Capable of Complying - design			



Clause	Requirement	Assessment and Comment	Status
	level transitions (5mm tolerance) and internal corridors are to achieve a clear width of 1000mm.	clear opening width of 820mm to achieve Livable Silver requirements.	modification at CC
5. Toilets	I		
Silver Level	 A toilet is required to be provided on the SOU entry and is to include the following: A clear width of 900mm between the walls of the bathroom if located in a separate room, A 900 x 1200mm circulation space in front of the pan (exclusive of door swing), The pan located in the corner of the room to enable the installation of grabrails. 	A toilet which can achieve these requirements has not been provided at this stage. Ensure at construction certificate clearances are provided exclusive of any door swing in a corner position.	Capable of Complying – design modification at CC
6. Shower	Ι		
Silver Level	One bathroom should feature a slip resistant, hobless shower located in the corner of the room to enable the installation of grabrails at a future date. Shower screens are permitted provided they can be easily removed at a later date.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying
7. Reinforce	ement of bathroom and toilet walls	; ;	
Silver Level	The walls around the shower, bath and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails in accordance with the requirements of this provision.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying
8. Internal s	tairways		
Silver Level	Stairways in dwellings must have a continuous handrail on one side of the stairway where there is a rise of more than 1m.	No internal stairways are proposed.	N/A



Clause	Requirement	Assessment and Comment	Status		
9. Kitchen s	9. Kitchen space				
Silver Level	No requirements	Note	Note		
10. Laundry	space				
Silver Level	No requirements	Note	Note		
11.Ground (or entry level) bedroom space				
Silver Level	No requirements	Note	Note		
12.Switches	and power points				
Silver Level	No requirements	Note	Note		
13. Door and	tap hardware				
Silver Level	No requirements	Note	Note		
14.Family / I	iving room space	·			
Silver Level	No requirements	Note	Note		
15. Window s	sills				
Silver Level	No requirements	Note	Note		
16.Flooring	16. Flooring				
Silver Level	No requirements	Note	Note		



7. ADAPTABLE HOUSING

Two (2) units (Apartments 1 and 3) have been identified as Adaptable, in accordance with the requirements of Manly DCP.

7.1. Table 6.1 – Schedule of features for Adaptable Housing

Clause	Requirement	Assessment and Comment	Status			
Objectives a	Objectives and Performance Requirements					
2.1, 2.2(a)	 Initial design to be Visitable by people who use wheelchairs, unit/s required to have: At least one wheelchair accessible entry Wheelchair accessible path of travel to the living area and toilet. Toilet to be either accessible or visitable. 	The entrance door can achieve compliance with AS1428.1. Ensure at CC that a visitable toilet is provided within adaptable units in accordance with AS4299-1995.	Capable of Complying – design modification at CC			
2.2(b)	Adaptable housing to have no steps and avoid level changes	There are no level changes proposed within units.	Capable of Complying			
2.2(d)	If design for adaptation requires further demolition of walls, then these walls shall be non-load- bearing and free of electrical and plumbing services.	 The following walls are proposed to be moved at post adaptation to achieve circulation requirements in accordance with AS 4299-1995: Study / bathroom walls; and Bedroom 1 walls. Ensure at CC and construction that no services are provided within walls proposed to be moved to achieve post-adaptation layout. 	Capable of Complying			
Drawings –	Potential for Adaptation					
2.3	As built drawings to be provided demonstrating both pre and post adaptation layouts.	Pre and post-adaptation plans have been provided for one (1) unit type.	Capable of Complying			
Sitting Stan	dards		·			



Clause	Requirement	Assessment and Comment	Status		
3	A continuous accessible path of travel in accordance with AS1428.1 is required from the street frontage and vehicle parking to the entrance doorways of adaptable units.	A continuous accessible path from the allotment boundary (via a stairway platform lift) and from parking (via a passenger lift) has been provided.	Capable of Complying		
Private Car	Accommodation				
3.7	One (1) car parking space per adaptable unit shall be provided. Private car parking shall be large enough to enable a person with a wheelchair to get in and out of both the car and parking space. Dimensions in accordance with AS 4299-1995 (3800 x 5400mm) or AS/NZS 2890.6:2009 (2400 x 5400mm with adjacent 2400 x 5400mm shared zone) are acceptable to accommodate users with a disability.	Two (2) adaptable car parking bays have been provided in accordance with the requirements of this clause.	Capable of Complying		
Letterboxes	in Estate Developments				
3.8	Letterboxes are to be located on a hard stand and connected to the accessible pathway.	Full construction details are to be included within the construction documentation.	Capable of Complying		
Accessible	Accessible Entry				
4.3.1	Accessible entry – At least one (1) accessible entry to be provided in accordance with AS 1428.1-2009.	Doorways are required to achieve a clear opening width of 850mm and compliant doorway circulation in accordance with clause 13.3 of AS1428.1-2009.	Capable of Complying		



Clause	Requirement	Assessment and Comment	Status
		$\begin{tabular}{ c c c c } \hline \hline$	
		<image/>	
		Detail should be included within pre-adaptation construction documentation.	
4.3.2	Accessible entry to be level and have a gradient of not more than 1:40.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
23	Threshold to be low-level.	Where thresholds are required for weatherproofing, they are to be designed in accordance with the following criteria (typical design solutions specified within Appendix C of AS 4299-1995).	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
		(b) Aluminium-framed door (b) Aluminium-framed door Details should be included within pre-adaptation construction documentation	
4.3.2	Landing area at entrance doorway to have sufficient circulation to allow for wheelchair manoeuvrability.	A landing to permit a 1550mm diameter circulation space should be included within pre-adaptation construction documentation.	Capable of Complying
4.3.24	Door hardware and handles are to comply with AS 1428.1-2009.	Lever type handles that allow the door to be unlocked and opened with one hand are required to be installed at a height not less than 900mm nor more than 1100mm.	Capable of Complying
Interior Gen	eral		
4.3.3	All specified internal doors to have a minimum clear opening width of 850mm and circulation space in accordance with AS 1428.1-2009. Specified doors include the following:	Specified doors are in accordance with the requirements of AS 1428.1-2009 and AS 4299-1995. Door dimensions should be included within the design documentation.	Capable of complying



Clause	Requirement	Assessment and Comment	Status
	 Bedroom 1 (adaptable bedroom) Kitchen Toilet / bathroom 1 (adaptable bathroom) Laundry 		
	All doors (other than those specified above) to have a minimum clear opening width of 820mm. This will likely include second bedrooms and bathrooms, where provided.	All remaining doors have a clear opening width of 820mm as required by AS 4299-1995.	Capable of complying
4.3.7	Internal corridors to have clear width of 1000mm.	Corridor dimensions should be included within the design documentation. Ensure a minimum of 1000mm is provided after all wall finished have been applied (including skirting, where provided).	Capable of Complying
	After adaptation circulation at doors to be capable of being modified to comply with AS1428.1.	Post-adaptation plans are to demonstrate compliant doorway circulation spaces in accordance with AS 1428.1-2009.	Capable of Complying
Living Roor	n and Dining Room		·
4.7.1	A circulation space of 2250mm in diameter is to be provided to enable a 360° wheelchair turn after furniture is placed.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.7.4	A telephone outlet is to be provided within the living area and is to be located adjacent to a GPO.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.10	Potential for lighting achieving a minimum 300 lux is to be provided in accordance with AS1680.1	Details should be included within the pre-adaptation construction documentation.	Capable of Complying
Kitchen	1		1



Clause	Requirement	Assessment and Comment	Status
4.5.1	Potential configuration of kitchen after adaptation to be demonstrated prior to certification.	Pre and post adaptation drawings demonstrated that compliance with AS 42990-1995 can be achieved at post-adaptation.	Capable of Complying
4.5.2	A minimum floor space of 1500 x 820mm is requires at the sink and at all appliances. A minimum of 1550mm is to be maintained between opposing base cabinets.	Where it is proposed that base cabinets be relocated to achieve circulation space in accordance with AS 4299-1995, capped services (where required) and continuous tiling / flooring is to be provided at pre-adaptation to allow joinery to be reconfigured at minimal cost and inconvenience. Details should be included within the post-adaptation construction documentation.	Capable of Complying
4.5.5	Provision for benches shall include at least one section with a minimum length of 800mm, adjustable in height from 750mm to 850mm or replaceable.	The required clear floor space of 1500 x 820mm should allow a forward approach to the work station. and no more than 500mm of the clear floor space shall extend beneath the work surface.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
4.5.5	The refrigerator is to be positioned adjacent to the work surface.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.5.6	Work surface with minimum length of 800mm to be provided adjacent to cooktop, at same height as cooktop.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
	The kitchen sink is to the adjustable in height from 750mm to 850mm or replaceable as a unit.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Taps shall be capstan, or lever handle or lever mixer in accordance with AS1428.1	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Tap set, or operating component, to be located within 300mm of the front of the sink.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Cooktops to include either front or side controls with raised cross bar.	Details should be included within post-adaptation construction documentation.	Capable of Complying
4.5.8	Ovens shall be located adjacent to an adjustable or replaceable work surface. Where the oven door specified is hinged, the clear work surface shall be on the opposite side to the hinge.	Details should be included within post-adaptation construction documentation.	Capable of Complying
4.5.11	A double general power outlet (GPO) located within 300 mm from the front of a work surface.	Details should be included within the pre and post-adaptation construction documentation.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	A GPO for a refrigerator must be located in such a position that can be easily accessible after the refrigerator is installed.	Details should be included within the pre and post-adaptation construction documentation.	Capable of Complying
4.5.4	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement. Details should be included within	Capable of Complying
		the construction documentation.	
Bedroom	1	1	
4.6.1	At least one bedroom within each dwelling must be capable of accommodating a queen-size bed (1530 x 2030mm) and a and the circulation space requirements of AS1428.2-1992 clear of wardrobe fixtures.	A minimum of 1000mm is required on both sides of the bed and 1540 x 2070mm at the foot of the bed to allow a wheelchair user to perform a 180° turn. Details should be included within the pre and post-adaptation construction documentation.	Capable of Complying
4.6.3	A minimum of two (2) double- socket GPOs shall be provided on the wall of the bedroom	Details should be included within the pre-adaptation construction documentation.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	where the bedhead is likely to be located.		
Sanitary F	acilities		
4.4.1	All sanitary facilities and components shall be adaptable, at minimum cost to comply with AS 1428.1.	Circulation spaces at doorways, around WC pan, washbasin and shower must be able to comply with AS 1428.1 without major plumbing changes.	Capable of Complying
		The WC pan should either be in its post-adaptation position or fitted with a P-trap.	
		Capped services are proposed in post adaptation to meet the requirements of this clause.	
4.4.2	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement.	Capable of Complying
		Details should be included within the construction documentation.	
4.4.4	A hob-less shower with minimum dimensions of 1160mm x 1100mm shall be provided and	Details to be included within post- adaptation construction documentation.	Capable of Complying
	capable of achieving compliance with AS1428.1.	Capped services are proposed in post adaptation to meet the requirements of this clause.	
	The shower area is to be water proofed in accordance with AS3740.	Any waterproofing used in the shower to be such that it can be extended to suit the larger hobless configuration.	Capable of Complying
		Details to be included within pre- adaptation construction documentation.	
4.4.4	If grabrails or a shower seat are not initially required, provision for grabrails shall be made in	Where framed walls are used, strengthened areas shall be provided to support loads imposed	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	moderated configurations as required by AS 1428.1.	by grabrails in accordance with Figure 4.6 of AS 4299-1995.	
		Support grabral with portable shower head installed) for abover head for abover head for abover secure fixing for abover secure for abover	
4.4.4	Tap sets shall be capstan, or lever handle with a single outlet.	Specification detail to be provided within construction documentation.	Capable of Complying
	At post-adaptation a washbasin shall be provided in accordance with AS 1428.1.	Details are to be included within the post-adaption construction documentation.	Capable of Complying
	A double GPO is to be provided adjacent to the mirror.	Details to be included within the construction documentation.	Capable of Complying
4.10	Potential illumination of 300 lux and 600 lux task lighting is to be achieved.	Details should be included within the construction documentation.	Capable of Complying
Toilet	1	1	<u> </u>
4.4.3	Either a visitable or accessible toilet is to be provided from the outset.	Visitable toilet to have a minimum circulation space forward of the pan of 900 x 1250mm exclusive of any door swing.	Capable of Complying - modification required at CC



Clause	Requirement	Assessment and Comment	Status
		No door swine or basin to encroach on this spece Ensure at CC a visitable toilet is provided in accordance with the requirements of this clause.	
4.4.4	If grabrails are not initially required, provision for grabrails shall be made in moderated configurations as required by AS 1428.1.		Capable of Complying
4.4.2	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
		Details should be included within the construction documentation.	
Laundry			
4.8	Provision for adequate circulation space (1550mm in depth) in front of or beside appliances shall be provided.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Provision shall be made of an automatic washing machine	Details should be included within the post-adaptation construction documentation.	Capable of Complying
	Where a clothes line is provided, and accessible path of travel is to be provided.	Details should be included within the construction documentation.	Capable of Complying
	A double GPO is to be provided.	Details should be included within the construction documentation.	Capable of Complying
	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement.	Capable of Complying
		Details should be included within the construction documentation.	



8. CONCLUSION

The design as proposed is capable of complying with the BCA, Class C accessibility requirements within AS4299-1995 and the Silver level requirements of the Livable Housing Design Guidelines which will satisfy SEPP 65 and Council's DCP for adaptable housing. This report has identified areas of non-compliance and indicates the design intent to demonstrate compliance through design modifications or performance-based solution at construction certificate stage.

Whilst the design modifications are to be developed, it is our view that the changes will not impact the overall design.

APPENDIX 1

Assessed plans prepared by Bianchino Associates:

Plan Title	Drawing No	Revision	Date
Existing Site Plan & Site Analysis Plan	DA01	A	12.12.2019
Demolition Plan	DA02	A	12.12.2019
Proposed Site Plan & Roof Plan	DA03	A	12.12.2019
Basement Floor Plan	DA04	A	12.12.2019
Ground Floor Plan	DA05	A	12.12.2019
Level 1 Floor Plan	DA06	A	12.12.2019
Level 2 Floor Plan	DA07	A	12.12.2019
Level 3 Floor Plan	DA08	A	12.12.2019
East & West Elevations	DA09	A	12.12.2019
South & North Elevations & Section A-A	DA10	A	12.12.2019
Section B-B & Post Adaptation Unit Layout	DA11	A	12.12.2019
Enlarged Driveway Plan & Driveway Sections	DA12	А	12.12.2019