

CORNERSTONE PROPERTY GROUP

BCA AND ACCESS ASSESSMENT REPORT

16-20 Homestead Avenue, Collaroy

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Executive summary

This document provides an assessment of the architectural design drawings for the proposed residential development at 16-20 Homestead Avenue, Collaroy, against the Deemed-to-Satisfy provisions of the Building Code of Australia (BCA) 2022 and SEPP (Housing) 2021 - Seniors Housing.

Part 3 'Matters for Further Consideration' of this report outlines the identified BCA compliance issues that require further information or consideration and/or assessment as Performance Solutions.

Any Performance Solution will need to be detailed in a separate report and must clearly indicate methodologies for achieving compliance with the relevant BCA Performance Requirements.

Item	Description	BCA Provision
Performance Solutions Required		
1.	Allow for a travel distance of up to 29m to a single exit in the basement in lieu of 20m	D2D5
2.	Allow for the provision of EV chargers within the basement	E1D17 E2D21
3.	Allow for a lack of handrail extensions being provided within the non-fire isolated stairways as required by AS1428.1-2009.	D4D4
4.	The construction of external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements.	F3P1
Further Information Required For Construction Certificate		
1.	Lift landing door to achieve an FRL of -/60/30 otherwise address with Fire Engineering.	C4D11
2.	Allow for protection of the openings within 3m to the side boundaries being provided	C4D3
3.	Allow for an offset riser or handrail extension being provided throughout the central stairways to maintain a continuous handrail height; otherwise, seek a Performance Solution.	D3D22
4.	Modify the main entry gates and doorways to each building to ensure 850mm clear widths and 530mm latchside clearances in accordance with AS1428.1-2009	D4D3
5.	Modify the storage corridor in the basement to allow for a 1540mm x 2070mm turning space at the end of the corridors.	D4D4
6.	Modify the basement lift lobby doorway and storage doorway to ensure sufficient circulation is maintained in accordance with AS1428.1-2009; otherwise, seek a Performance Solution with the provision of an auto opening doorway.	D4D4
7.	Modify the internal layouts of the SOUs to allow for compliance with the SEPP Housing requirements for Seniors in accordance with this Report	SEPP (Housing) 2021 – Seniors Housing

1.0 Basis of Assessment

1.1 LOCATION AND DESCRIPTION

The building development, the subject of this report, is located at 16-20 Homestead Avenue, Collaroy. The proposed is for two building located above a common basement for the purpose of independent living in accordance with SEPP (Housing) 2021. The building contains a basement for carparking with two residential storeys located above with three (3) SOUs per building.

Both pedestrian access and vehicular access is provided via Homestead Avenue.



Site plan sourced from architectural plans

1.2 PURPOSE

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA 2022 and to clearly outline those areas (if any) where compliance is not achieved, where areas may warrant redesign to achieve strict BCA compliance or where areas may be able to be assessed against the relevant performance criteria of BCA 2022. Such assessment against relevant performance criteria will need to be addressed by means of a separate Performance Based Fire Safety Engineered Assessment Report to be prepared under separate cover.

The purpose of this report is to assess the proposed building against relevant provisions of SEPP (Housing) 2021 - Seniors Housing and to clearly outline those areas where compliance is not achieved and provide recommendations to upgrade such areas to achieve relevant compliance.

1.3 BUILDING CODE OF AUSTRALIA

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code Series Volume 1 – Building Code of Australia, 2022 (BCA) incorporating the State variations where applicable. Please note that the version of the BCA applicable to new building works is the version applicable at the time of the lodgement of the Construction Certificate application to the Accredited Certifying Authority. The BCA is updated generally on a three-yearly cycle, starting from the 1st of May 2016.

1.4 LIMITATIONS

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

1. the structural adequacy or design of the building;
2. the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
3. the design basis and/or

This report does not include, or imply compliance with:

1. the National Construction Code – Plumbing Code of Australia Volume 3
2. the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to)
3. not referred to by the BCA;
4. Work Health and Safety Act 2011;
5. Requirements of Australian Standards unless specifically referred to;
6. Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and
7. Conditions of Development Consent issued by the Local Consent Authority.

1.5 FEDERAL DISABILITY DISCRIMINATION ACT (DDA)

Disability is broadly defined and includes disabilities which are physical, intellectual, psychiatric, neurological, cognitive or sensory (a hearing or vision impairment), learning difficulties, physical disfigurement and the presence in the body of disease causing organisms.

All organisations have a responsibility, under the DDA, to provide equitable, dignified access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas included within the subject development.

The DDA applies nationally and is complaint based. While the Disability (Access to Premises – Buildings) Standards 2010 and the BC2019 are recognised as a design standard to satisfy certain aspects of the DDA, compliance with the BCA2019 and the referenced standards does not guarantee that a complaint will not be lodged.

1.6 DISABILITY ACCESS TO PREMISES STANDARDS (PREMISES STANDARDS)

The aim of the Premises Standards is to provide the building and design industry with detailed information regarding the required access provisions associated with the design and construction of new buildings and upgrade to existing buildings.

The Premises Standards intend to provide certainty for the building industry in relation to meeting the requirements for access in new and upgraded buildings. They only apply to elements addressed within the Standards. All other elements related to premises will still be subject to the existing provisions of the DDA.

The Premises Standards generally align with the BCA2019 and reference a range of Australian Standards relating to access and other associated matters.

They do not apply to existing buildings that are not undergoing upgrade, however they introduce the concept of the “Affected Part”. This means that new works need to be connected to the building’s Principal Pedestrian Entrance by an accessible path of travel. This can mean that upgrade to the building may be necessary even where none is proposed.

1.7 DESIGN DOCUMENTATION

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

2.0 Building Description

For the purposes of the Building Code of Australia (BCA), the development may be described as follows.

2.1 RISE IN STOREYS (CLAUSE C2D3)

The building has a rise in storeys of three (3).

2.2 CLASSIFICATION (CLAUSE A6G1)

The building has been Classified as follows.

Table 1: Building Classification

Class	Level	Description
Class 2	Ground Floor – Level 1	Sole Occupancy Units and Common Area
Class 7a	Basement	Carparking

Note: The storage and bin rooms in the basement represent less than 10% of the storey and will not require its own classification

2.3 EFFECTIVE HEIGHT (CLAUSE A1G4)

The building has an *effective height* of less than 12 metres. (RL26.350 – RL18.580 = 7.7m)

2.4 TYPE OF CONSTRUCTION REQUIRED (TABLE C2D2)

The building is required to be of Type A Construction.

2.5 FLOOR AREA AND VOLUME LIMITATIONS (TABLE C3D3)

The building is subject to maximum floor area and volume limits of:-

Class 7a	Maximum Floor Area	5,000m ²
	Maximum Volume	30,000m ³
Class 2	The Class 2 portions of the building are not subject to floor area and volume limitations of C3D3 as Table 3 of Specifications C2D2 and Clause C4D12 of the BCA regulates the compartmentation and separation provisions applicable to buildings, or building portions, of Class 2 Classifications.	

2.6 FIRE COMPARTMENTS

The following *fire compartments* have been assumed:

1. The residential storeys will form their own fire compartment.
2. The basement carpark will for a single fire compartment.

2.7 EXITS

The following points in the building have been considered as the exits:

1. The doorway leading to open space in the basement.
2. The doorway leading to open space on the Ground Floor.

2.8 CLIMATE ZONE (CLAUSE A1G4)

The building is located within Climate Zone 5.

2.9 LOCATION OF FIRE-SOURCE FEATURES

The fire source features for the subject development are:

North: The far boundary of Homestead Avenue | more than 6m

South: The rear boundary of the allotment | more than 3m

East: The side boundary of the allotment | less than 3m

West: The side boundary of the allotment | less than 3m

In accordance with Clause 2.1 of Specification 5, a part of a building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that–

- a. has an FRL of not less than 30/–/–; and
- b. is neither transparent nor translucent.

3.0 BCA and SEPP Assessment

3.1 INTRODUCTION

The assessment undertaken is in relation to the plans prepared for the development consent application. The technical details required for a development consent are far less than that required for a construction certificate and as such, this assessment is designed to address a higher level assessment of the building against the provisions of the BCA.

The main purpose of this report is to address any major design changes required to the building, services required to be installed, and the fundamentals of design required by sections C, D, E, F, G and H (where applicable) of the BCA. This report does not address the design requirements for the structure of the building (Section B), or for the detailed design of services (Section E).

The summary below is to be read in conjunction with the BCA specification contained in Annexure E of the report.

3.2 RELATIONSHIP TO THE DESIGN AND BUILDING PRACTITIONERS ACT

The Design and Building practitioners Act requires certain design elements of a Class 2, 3 or 9c building to be certified by a Registered Practitioner and the issuing of a Design Compliance Declaration (DCD). The declared designs include:

- + Structure
- + Building Enclosure (e.g., Façade);
- + Fire Safety Systems (e.g., services, egress and FRL's)
- + Waterproofing
- + Fire Safety performance solutions

This report contains an assessment of the plans and specifications available, which are not sufficient in detail to allow any DCD to be issued by others. This report is not to be construed as, or used to support to a DCD at CC stage as it is based on development application drawings only.

3.3 FIRE RESISTANCE AND STABILITY – PART C2 & SPECIFICATION 5

The required fire resistance levels for the building elements are outlined in Annexure C of this report.

The external walls and all components of the wall, in a building of Type A and B construction, are required to be non-combustible. The plans do not indicate the materials of the external wall and further details will be required to be submitted at CC stage for assessment, however compliance is readily achievable by a number of common wall types.

All newly constructed ancillary attachments (i.e privacy screens etc) shall be constructed of non-combustible materials, further details will be required at CC stage to confirm compliance with Clause C2D14.

Linings, materials and assemblies are required to maintain the required fire hazard properties in accordance with BCA Clause C2D11 and Specification 7. Documentation shall be provided as part of the Construction Certificate package to detail compliance being maintained.

Subject to the required FRL's being provided, the proposed building is capable of complying with the requirements of the BCA with respect to fire resistance.

3.4 COMPARTMENTATION AND SEPARATION – PART C3

Under the provisions of Clause C3D3 of the BCA, the residential portion of the building is not the subject to any floor area and volume limitations.

The carpark is not required to have sprinklers, and therefore is subject to the floor area and volume limitations of the BCA. The proposed floor area and volume of the carpark is less than that permitted by Clause C3D3 of the BCA and therefore compliance is achieved.

Clause C3D7 of the BCA requires suitable vertical and/or horizontal spandrel separation between the openings in the external walls on different storeys. The plans indicate suitable spandrels are provided by a combination of horizontal balcony slabs and vertical walls beneath windows. The walls beneath the windows are required to be a minimum of 900mm high with 600mm above the slab, and an FRL of 60/60/60. No specific details of the spandrel walls have been provided to allow assessment however compliance is readily achievable.

If the switchboard is required service emergency equipment required to operate in an emergency, the switch room is to have an FRL of 120/120/120. The design of the switch room is such that compliance can be readily achieved.

Compliance with Part C3 of the BCA can be readily achieved by the proposal.

3.5 PROTECTION OF OPENINGS – PART C4

5.5.1 Openings in external walls

The openings on the side elevation are within 3m of the boundary and will require protection. Protection can be provided by self-closing fire doors, fire windows, fire shutters or fixed glazing with sprinklers. Details are to be provided with the Construction Certificate to outline how compliance will be achieved.

Consideration will need to be given as to the method of protection being provided to ensure that natural ventilation will be maintained to the habitable bedrooms.

5.5.2 Bounding Construction

The walls between the SOU's and between the SOU's and corridor are internal walls that require an FRL. Also, the walls to the lift require an FRL. As such, the doors to the sole occupancy units and stairs are required to be self-closing FRL -/60/30 fire doors in accordance with Clause C4D12 of the BCA. The doors to the lift are required to have an FRL of -/60/-.

However, it is noted that the top storey units are provided with a lift that opens directly into the SOU and generally the lift landing doors would not maintain an FRL of -/60/30. This is possible to achieve, although if the door does not maintain the required 30minutes insulation this may be addressed via a Fire Engineering Report.

5.5.3 Openings in Floors for Services and Service Installations

Where electrical, plumbing, mechanical or other services pass through an element of construction that is required to achieve a fire resistance level (FRL), the service installation shall not compromise the fire resistance level of the element. As such, the service installation must be fire sealed with a compliant system such as fire collar on PVC pipes or fire rated mastic on electrical cables.

3.6 OCCUPANT ACCESS AND EGRESS – SECTION D

5.6.1 Egress from the building

Egress from the carpark is required in sufficient numbers and location to ensure that no point on the floor is more than twenty (20) metres from an exit. The current egress within the basement is noted to be 29m and will need to be addressed via a Fire Engineered Performance Solution. It is noted that direct egress to open space is available via the driveway and therefore only a single exit is required.

In the residential portion of the building, the distance to an exit on the ground floor is permitted to be twenty (20) metres. The distance to an exit on other floors is to be no more than six (6) metres (from any point on the floor to an exit). The travel distances comply with the above.

The building has no more than three (3) storeys connected by a stairway, and therefore under the provisions of Clause D2D4 of the BCA, the building is permitted to have non fire isolated stairways. The egress from the basement non-fire stairs lead to the driveway which is open space and considered to have sufficient travel distances to open space.

Dimensioned details of all exit paths including the fire stairs will be required at CC stage to confirm that a minimum egress width of at least 1 metre (measured clear of any obstructions or handrails) is maintained throughout the entirety of the exit as required by Clause D2D8. Within the basement it will be required to ensure that the traffic lights and mirrors will not reduce this required clear width and will therefore be located 2m above the floor.

Where the egress discharges to open space on the property, a continuous pathway from the point of discharge to the street is required. The plans do indicate such a pathway and as such the provisions of Clause D2D15 of the BCA are readily satisfied with the provision of the stairway adjacent to the carpark ramp and the main entry pathway from the Ground Floor.

Details of treads and risers, landings, thresholds, balustrades, and handrails have not been provided however compliance is readily achievable. The design of these elements can be assessed at the CC stage. Consideration will need to be given to the stairway design during detailed design, it is considered that several offset risers are provided but these are not applied to all landings. It will be required to have an offset rise or maintain a landing large enough to allow for a handrail extension of at least one tread width to comply with AS1428.1-2009. Otherwise a Performance Solution may be sought at Construction Certificate stage.

The final discharge doors on the Ground Floor lobbies are not found to swing in the direction of egress. However, as these are the single exit from a small portion it is considered that a hold open device may be installed in accordance with BCA Clause D3D25. Otherwise, the doors shall be re-swung to allow for compliance.

Electrical distribution cupboards are to be provided with smoke separation to satisfy the requirements of BCA D3D8. The doors are to be lined internally with fire grade plasterboard or metal backing sheets and smoke seals provided to all four sides, including drop down seals on the bottom. All penetrations from the enclosure are to be suitable sealed against smoke spread by sealing with fire mastic.

5.6.2 Access for people with disabilities

Clause D4D2 of the BCA requires access to the building as follows:

Class 2 Common Areas	<i>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.</i>
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	<p><i>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.</i></p> <p><i>Where a ramp complying with AS 1428.1 or a passenger lift is installed—</i></p> <ul style="list-style-type: none"> <i>a. to the entrance doorway of each sole-occupancy unit; and</i> <i>b. to and within rooms or spaces for use in common by the residents,</i> <p><i>located on the levels served by the lift or ramp.</i></p> <p>The access into the building is considered to be provided via a flat walkway that is capable of complying with AS1428.1-2009. However, to gain entry to either of the building there is passage via a gate and the main entry doors. Both the gates and the entry doors are not considered to comply with AS1428.1-2009. It would be required to have 850mm clear widths and 530mm latchside clearances. This may be modified and addressed at CC stage to ensure compliance is maintained.</p> <p>The common areas and lifts are of sufficient size to allow for access being maintained throughout the residential storeys.</p> <p>It is considered that since non-fire stairs are being provided, they must have two handrails which contain handrail extensions and TGSIs, however it is noted that due to the location of the doorways handrail extensions will not be possible and would be required to be addressed within a Performance Solutions.</p>
Class 7a	<p><i>To and within any level containing accessible carparking spaces.</i></p> <p>Access into the basement is provided via the lift car, however, the doorways would require a latchside clearance being provided of 530mm. This will include the lift lobby doorways and the doorway into the storage corridor. Otherwise this may be addressed via an auto opening doorway subject to a Performance Solution at the CC stage.</p>

	Furthermore, the storage corridor is not detailed as having a turning space at the end of the accessway in accordance with AS1428.1-2009. This will need to be detailed at CC stage to ensure compliance.
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3.7 SERVICES AND EQUIPMENT- PARTS E1, E2 AND E4

The building is required to be provided with the services and equipment set out in Annexure B of this report. The annexure also outlines the standard of performance to be achieved by the services and equipment.

It is noted that Fire Hydrant coverage is proposed as being maintain from the street system. Details for confirmation will be provided at CC stage.

3.8 LIFT INSTALLATIONS – PART E3

Lifts are provided to the building and are located in their own shaft and are serviced by a common lobby. The lifts do not require a stretcher facility as the building is under 12m in effective height and the dimensions of the shaft are sufficient to allow compliance.

3.9 FACILITIES IN RESIDENTIAL BUILDINGS – PART F4

Clause F4D2 of the BCA requires the following facilities within a Class 2 building:

- + Kitchen sink;
- + Bath or shower;
- + Closet pan;
- + Washbasin
- + Laundry facilities

The plans indicate that each of these facilities are provided within each sole occupancy unit and therefore compliance is achieved with Clause F2.1 of the BCA.

3.10 ROOM HEIGHTS – PART F5

The ceiling heights have been assessed in accordance with Part F5 of the BCA which has indicated that compliance is readily achievable within all habitable spaces, corridors and the like.

3.11 LIGHT AND VENTILATION – PART F6

Natural light and ventilation are required to all habitable rooms within a Class 2 building. The plans have been assessed which reveals all habitable spaces are serviced by windows or glazed doors. The area of the doors and windows are sufficient in size to provide the required minimum natural light and ventilation to all habitable rooms.

Consideration shall be given as to the bedrooms that will require the openings to be protected where within 3m to ensure that natural ventilation will still be maintained.

The carpark is required to be provided with a system of mechanical ventilation where required by Clause F6D11 of the BCA.

3.12 SOUND TRANSMISSION AND INSULATION – PART F7

The bounding walls between the Class 2 sole occupancy units and the walls which separate the units from the lobbies, lift and service shafts must meet the sound insulation requirements of this part. Compliance is readily achievable at CC stage.

The top floor units are found to have the lift opening directly into the SOU and would not have a lift landing door maintain the required acoustics for a bounding wall. Confirmation would need to be sought by the Acoustic Consultant to ensure that compliance will be made available.

3.13 SEPP (HOUSING) 2021 – SENIORS HOUSING

The standards set out in Part 5 Seniors Housing – Division 3 Clause 85 (1) – Development consent must not be granted for development for the purposes of a hostel or an independent living unit unless the hostel or independent living unit complies with the standards specified in Schedule 4 for the development.

An assessment of the development with Schedule 4 of this policy is as follows:

Specific Requirements

Table 1. Specific Requirements

Item	Room/Item	Clause	Comment	Compliance
1	Application			
	The standards set out in this Part apply to any seniors housing that consists of hostels or independent living units.		The building includes self-contained SOU's (independent living units).	Complies
2	Sitting Standards			
	If the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road.	1	<p>The site is accessed via a level walkway which is capable of complying with AS1428.1-2009.</p> <p>However, to gain entry to either of the building there is passage via a gate and the main entry doors. The gates and doors are not considered to comply with AS1428.1-2009 and will need to be rotated to align with the path. This will need to be adjusted as part of the CC documentation to confirm compliance.</p> <p>The building entry door is noted to maintain the required clear width and circulation.</p>	FI
	<p>If the site has a gradient of more than 1:10:</p> <p>> the percentage of dwellings that must</p>	2a	The site does not have a gradient of more than 1:10	-

Item	Room/Item	Clause	Comment	Compliance
	have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and			
	> the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.	2b	The site does not have a gradient of more than 1:10.	-
	Common areas Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.	3	The only common area is the Ground Floor entry lobby and the basement. Access is provided into the basement with the lifts.	CRA – Refer Annexure B
3	Security			
	Pathway lighting to be: > must be designed and located so as to avoid glare for pedestrians and adjacent dwellings, and	3a	Certification to be provide from Electrical Constructor to confirm compliance is maintained.	CRA – Refer Annexure B
	> must provide at least 20 lux at ground level.	3b	Certification to be provide from Electrical Constructor to confirm compliance is maintained.	CRA – Refer Annexure B
4	Letterboxes			
	Letterboxes must be situated on a hard standing area and have wheelchair access and circulation by a continuous accessible path of travel (within the meaning of AS 1428.1),	4a	Mailboxes must provided with a hard stand space in accordance with this Clause. Details are not provided at this stage but may be located adjacent to the entry path.	CRA – Refer Annexure B

Item	Room/Item	Clause	Comment	Compliance
	> To be lockable	4b	Provisioning to be provided according to this clause.	CRA – Refer Annexure B
	> Must be located together in a central location adjacent to the street entry or, in the case of independent living units, must be located together in one or more central locations adjacent to the street entry.	4c	Provisioning to be provided according to this clause.	Complies
5	Private Car Accommodation			
	Where Car parking is provided (not for employees): > car parking spaces must comply with the requirements for parking for persons with a disability set out in AS 2890.6, and	5a	The proposed carparking provided throughout the building will be provided in accordance with the requirements of AS2890.6. Each of the townhouses are provided with a shared zone as required. Based on the section of the garage the required 2500mm clearance will be maintained. It is noted that each unit is provide with an additional carpark above the requirements of the SEPP and therefore these are not required to have shared zones. Furthermore, it is noted that new provision for this requirement is being considered to be gazetted. Although this is not enforced as of yet it is noted that the proposed carparking layout would allow for compliance with the new provisions.	Complies
	> 10% of the total number of car parking spaces (or at least one space if there are fewer than 10 spaces) must be designed to enable the width of the spaces to be increased to 3.8 metres, and	5b	10% of the proposed carparking spaces (or 1 of them if less than 10 in total) requires to be 5400x3800mm. It is considered that the carparking to each of the townhouses would enable the space to be increased to 3.8m as required with the removal of the bollard.	Complies
	> any garage must have a power-operated door, or	5c	Provisioning to be provided according to this clause.	CRA – Refer Annexure B

Item	Room/Item	Clause	Comment	Compliance
	there must be a power point and an area for motor or control rods to enable a power-operated door to be installed at a later date.			
6	Accessible Entry			
	Every entry (whether a front entry or not) to a dwelling, not being an entry for employees, must comply with clauses 4.3.1 and 4.3.2 of AS 4299.	6	<p>Main entrance to the residential SOU's are non-compliant in accordance with AS1428.1-2009 for the required opening and circulation spaces.</p> <p>The doorways will require the 850mm clear opening and the 510mm latchside clearance from the common area side.</p> <p>This will need to be adjusted as part of the CC documentation to confirm compliance.</p>	FI
7	Interior General			
	Internal doorways to have a minimum clear opening in compliance with AS1428.1:2009.	7.1	<p>Doorways throughout the SOU are required to have a clear width of 850mm. Currently the doorways will not maintain this requirement. This must be applied to a single leaf under AS1428.1-2009 therefore each of the door doors will not comply.</p> <p>This will need to be adjusted as part of the CC documentation to confirm compliance.</p>	FI
	Internal corridors to have 1000mm min. clear width.	7.2	<p>Corridors do not achieve a 1000mm clear width throughout. Within the kitchen and the laundry less than 1000mm is maintained.</p> <p>This will need to be adjusted as part of the CC documentation to confirm compliance.</p>	FI
	Circulation space at approaches to internal doorways must comply with AS1428.1:2009.	7.3	<p>All internal doorways do not have compliant circulation space on both sides of the door in accordance with AS1428.1-2009.</p>	FI

Item	Room/Item	Clause	Comment	Compliance
			<p>This will need to be adjusted as part of the CC documentation to confirm compliance.</p> <p>Note: It is understood that non-accessible bedrooms & WC's are not included in this clause.</p>	
8	Bedroom			
	an area sufficient to accommodate a wardrobe and a bed sized as follows— (i) in the case of a dwelling in a hostel—a single-size bed, in the case of an independent living unit—a queen-size bed, and	8a	The development comprises self-contained SOU's. One accessible bedroom per SOU is provided with at least a queen size bed.	Complies
	<p>A clear area for the bed of at least:</p> <ul style="list-style-type: none"> > 1200mm clearance at bed base > 1000mm side clearance 	8b	One accessible bedroom per SOU is provided with at least 1200mm clearance as bed base and 1000mm side clearances.	Complies
	2 double general power outlets at the head of the bed wall.	8c	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B
	1 general power outlet at the bed foot wall.	8d	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B
	1 phone outlet and a general power outlet adjacent to the bed on the door side.	8e	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B
	Wiring to allow a potential illumination level of at least 300 lux.	8f	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B
9	Bathroom			
	At least one bathroom on ground floor (or main floor) and have the following facilities arranged to provide circulation space in compliance with AS1428.1:2009:	1a	Bathrooms will be at entry level of the SOU's	CRA – Refer Annexure B

Item	Room/Item	Clause	Comment	Compliance
	> Floor surface to be slip-resistant	1a	Flooring to be slip-resistant according to this clause and AS4586 –to be reviewed at construction stage.	CRA – Refer Annexure B
	> a washbasin with plumbing that would allow, either immediately or in the future, clearances that comply with AS 1428.1,	1b	Washbasins shown within the accessible ensuites maintain sufficient circulations spaces. Plumbing that allows either immediately or in the future knee/toe clearances to comply with Figure 45 of AS1428.1:2009.	CRA – Refer Annexure B
	> Shower to have compliant circulation space with AS1428.1-2009. Note: Grabrail, portable shower head and folding seat can be accommodated in the future.	1c	Showers are required to have compliant circulation space in accordance with Figure 47 of AS1428.1. None of the SOUs are provided with showers that would maintain the required circulation in accordance with this Clause. This will need to be adjusted as part of the CC documentation to confirm compliance. Note: Extra nogging or sheeting is required behind the wall finishes to accommodate future grabrail and folding seat. Note: Shower screens are allowed if they can be easily removed to facilitate future accessibility.	FI
	A well illuminated wall cabinet.	1d	Provisioning to be provided according this clause. Confirmation to be sought by Electrical Designer.	CRA – Refer Annexure B
	A double general power outlet adjacent the mirror.	1e	Provisioning to be provided according this clause. Confirmation to be sought by Electrical Designer.	CRA – Refer Annexure B
	Shower screen that can easily be removed	2	Provisioning to be according this clause.	CRA – Refer Annexure B
10	Toilet			
	A dwelling must have at least one toilet on the ground (or main) floor and be a visitable toilet that		Each SOU is not provided with a visitable toilet (900x1250mm) clearance in front of the WC pan, excluding door swing. This will need	FI

Item	Room/Item	Clause	Comment	Compliance
	complies with the requirements for sanitary facilities of AS 4299.		to be adjusted as part of the CC documentation to confirm compliance.	
11	Surface Finishes			
	Balconies and external paved areas must have slip-resistant surfaces.		Provisioning to be provided according this clause.	CRA – Refer Annexure B
12	Door Hardware			
	Door handles and hardware for all doors (including entry doors and other external doors) must be provided in accordance with AS 4299.		Provisioning to be provided according this clause.	CRA – Refer Annexure B
13	Ancillary Items			
	Switches and power points to be in compliance with AS4299.		Provisioning to be provided according AS4299 Clause 4.11.1, Confirmation to be sought by Electrical Designer.	CRA – Refer Annexure B
14	Application Standards Additional			
	Applicable to seniors housing (self-contained SOU's only)		Self-contained SOU's are proposed thus items below are applicable.	Noted
15	Living Room and Dining Room			
	<p>A living room must:</p> <ul style="list-style-type: none"> > have a 2250mm diameter circulation space after furniture is placed, compliant with 4.7.1 of AS4299. > have a telephone adjacent to a general power outlet. 	1	<p>Compliance can be readily achieved within the living rooms with circulation generally being maintained.</p> <p>Provisioning to be provided according to this clause.</p>	CRA – Refer Annexure B
	A living room and dining room to have wiring to allow a potential illumination level of at least 300 lux.	2	Provisioning to be provided according to this clause. Confirmation to be sought by Electrical Designer.	CRA – Refer Annexure B
16	Kitchen			
	A kitchen in a self-contained SOU is to have:	16a	All kitchens are not provided with a 1550mm clearance in front of the	FI

Item	Room/Item	Clause	Comment	Compliance
	> (a) a circulation space in accordance with clause 4.5.2 of AS 4299, and		appliances. This will need to be adjusted as part of the CC documentation to confirm compliance.	
	> A circulation space at door approaches that complies with AS1428.1.	16b	There are no doors provided to any of the kitchens	-
	Provision of the following fittings in accordance with the relevant subclauses of clause 4.5 of AS4299: > (benches that include at least one work surface at least 800 millimetres in length that comply with clause 4.5.5(a), > a tap set compliant (AS4299 Clause 4.5.86 > Cooktops in compliance with AS4299 Clause 4.5.7 (800mm adjacent surface, raised crossed bars, isolated switches, exposed front controls) > An oven adjacent to the work surface with the door opening away from the bench (AS4299 Clause 4.5.8)	16c	Provisioning to be provided according this clause at CC stage. However, it is noted that the cooktop are not provided with a 800mm wide benchtop to comply. This will need to be adjusted as part of the CC documentation to confirm compliance.	FI
	"D" pull cupboard handles that are located towards the top of below-bench cupboards and towards the bottom of overhead cupboards.	16d	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B
	General power outlets: > At least one of which is a double general power outlet within 300 millimetres of the front of a work surface > One of which is provided for a refrigerator as per this clause	16e	Provisioning to be provided according this clause at CC stage.	CRA – Refer Annexure B

Item	Room/Item	Clause	Comment	Compliance
17	Access to Kitchen, Main Bedroom, Bathroom and Toilet			
	In a multi-storey SOU's, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.		Applicable rooms will be at the entry level of the SOU's.	Complies
18	Lifts in Multi-Storey Buildings			
	Lift shall comply with Part E3.6		The proposed lift is of a sufficient size to comply with the BCA. Assessed above.	-
19	Laundry			
	SOU's to have a laundry with: > Doorway circulation spaces in compliance with AS1428.1.	19a	The laundries are not provided with doorways, that would be compliant with AS1428.1-2009 with the clear width requirement and latchside clearance. This will need to be adjusted as part of the CC documentation to confirm compliance.	FI
	> Provision for the installation of a washing machine and dryer.	19b	Laundry rooms to have provision for a washing machine and dryer side by side.	CRA – Refer Annexure B
	> 1300mm clearance in front of appliances.	19c	1300mm clearance is not made available to each of the appliances to the Ground Floor units. This will need to be adjusted as part of the CC documentation to confirm compliance.	FI
	> Slip-resistant floor surface.	19d	Provisioning to be provided according this clause.	CRA – Refer Annexure B
	> An accessible path of travel to clothes lines.	19e	Provisioning to be provided according this clause.	CRA – Refer Annexure B
20	Storage for Linen			
	Provision of a linen storage cupboard of 600mm width min, and adjustable shelving.		Linen storage is shown to be provided to each of the unit types.	Complies
21	Garbage			

Item	Room/Item	Clause	Comment	Compliance
	Provision of an accessway to the garbage storage.		Access has generally been provided to the garbage enclosure in accordance with AS1428.1-2009	Complies

4.0 *Statement of Compliance*

The plans assessed were developed to a standard suitable for submission as a development application and do not contain all the details necessary to allow a CC to be issued. As such, this assessment was limited to the major items of the BCA with the view of identifying any items that may result in a modified development consent being required, or additional key items that need to be included in the design.

The architectural design documentation as referred to in report has been assessed against the applicable provisions of the Building Code of Australia, (BCA) and it is considered that such documentation complies or is capable of complying with that Code.

Annexures

Annexure A - Design Documentation

This report has been based on the following design documentation.

Table 3: Architectural Plans

Architectural Plans Prepared by Burley Katon Halliday Pty Ltd			
Drawing Number	Revision	Date	Title
DA.01.01	A	19/09/2023	Site Plan
DA.01.02	A	19/09/2023	Basement Plan
DA.01.04	A	19/09/2023	Ground Floor Plan
DA.01.05	A	19/09/2023	Ground Floor Plan - Dimensioned
DA.01.06	A	19/09/2023	Level 1 Plan
DA.01.07	A	19/09/2023	Level 1 Plan – Dimensioned
DA.01.08	A	19/09/2023	Roof Plan
DA.04.01	A	19/09/2023	Elevations - North
DA.04.02	A	19/09/2023	Elevations - South
DA.04.03	A	19/09/2023	Elevations - East & West
DA.05.01	A	19/09/2023	Sections Long
DA.05.02	A	19/09/2023	Sections Long
DA.05.03	A	19/09/2023	Sections Short

Annexure B - Essential Services

The following fire safety measures are required to be installed in the building. The following table may be required to be updated as the design develops and options for compliance are confirmed.

Table 4: Essential Fire Safety Measures

Item	Essential Fire and Other Safety Measures	Standard of Performance
Fire Resistance (Floors – Walls – Doors – Shafts)		
1.	Access Panels & doors/hoppers (fire rated)	BCA2022 C4D14 (Openings in Shafts) BCA2022 Specification 12 AS 1905.1:2015 (Fire Resistant Doorsets) AS 1905.2:2005 (Fire Resistant roller shutters)
2.	Protection of Openings	BCA2022 C4D5 (Acceptable methods of protection)
3.	Fire doors	BCA2022 C3D14 (Electricity Supply Systems) BCA2022 C4D5 (Acceptable methods of protection) BCA2022 C4D11 (Opening in Fire Isolated Lift Shafts) AS1735.11- 1986 BCA2022 C4D12 (Bounding Construction) BCA2022 C4D14 (Opening in Shafts) Specification 12 AS1905.1: 2015
4.	Fire seals protecting openings in fire resisting components of the building	BCA2022 C4D15 (Openings for service installations) BCA2022 C4D16 (Construction joints) BCA2022 Specification 13 AS1530.4:2014 & AS4072.1-2005
5.	Lightweight construction	BCA2022 C2D2, Specification 5 BCA2022 C2D9, Specification 6 AS1530.4:2014
General		
6.	Portable fire extinguishers	BCA2022 E1D14 AS 2444–2001
7.	Swing of Exit Doors	D3D24 (Swinging Doors)

Item	Essential Fire and Other Safety Measures	Standard of Performance
8.	Warning & operational signs	BCA2022 D4D7 (Braille Exit Signs) (Note: E4D5 (Exit Signs)) BCA2022 E3D4 (Lift Signs)
Lifts		
9.	Access to Lift Pits + Located at lowest level or if >3m provided through an access door	BCA2022 D2D22 (Access to Lift Pits) 'DANGER LIFT WELL – ENTRY OF UNAUTHORISED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES'
Electrical Services		
10.	Automatic fire detection & alarm: + Clause S20C3 – AS 3786:2014 Smoke Alarm systems powered from consumer mains to all residential SOU's, + Clause S20C4 – AS 1670.1:2018 system throughout the building/part connected to a BOWS @ 100dB(A). + Incorporating a thermal detection system in the basement carpark.	BCA2022 E2 Spec 20 - Clause S20C3 (Smoke alarm system) Spec 20 - Clause S20C4 (Smoke detection system) Spec 20 - Clause S20C5 (Combined smoke alarm and smoke detection system) Spec 20 - Clause S20C7 (BOWS) AS 3786:2014 (Amdt 1-4) AS 1670.1:2018 (Fire) – Section 4 and 5 (Detectors)
11.	Emergency lighting	BCA2022 E4D2, E4D4 AS/NZS 2293.1:2018
12.	Exit signs	BCA2022 E4D55 (Exit Signs) BCA2022 E4D6 (Direction Signs) BCA2022 E4D7 (Residential Concession) BCA2022 E4D8 (Design and Operation - Exits) AS/NZS 2293.1:2018
Hydraulic Services		
13.	Fire hydrant systems	BCA2022 E1D2 AS 2419.1:2021
Mechanical Services		
14.	1. Mechanical air handling systems 2. Mechanical ventilation to carpark.	BCA2022 E2, Spec 20, Spec 21 AS 1668.1:2015 (Amdt 1) Note: 5.5.3 Override control

Item	Essential Fire and Other Safety Measures	Standard of Performance
		<p>To enable manual control by attending emergency services personnel, fans that are not required to shut down on initiation of fire mode in the car park shall be provided with a control switch at the designated building entry point.</p> <p>Note: Signage should be located at the car park entry indicating the location of the control switches.</p>

Annexure C - Fire Resistance Levels

The following fire resistance levels (FRL's) are required for the various building elements, with a fire source feature being the far boundary of a road adjoining the allotment, a side or rear boundary or an external wall of another building on the allotment except a Class 10 structure.

Type A Construction

Table 5: Type A Construction

Item	Class 2	Class 7a
Loadbearing External Walls (including columns and other building elements incorporated therein)		
+ Less than 1.5m to a fire-source feature	90/90/90	120/120/120
+ 1.5 – less than 3m from a fire-source feature	90/60/60	120/90/90
+ 3m or more from a fire source feature	90/60/30	120/60/30
Non-Loadbearing External Walls		
+ Less than 1.5m to a fire-source feature	-/90/90	-/120/120
+ 1.5 – less than 3m from a fire-source feature	-/60/60	-/90/90
+ 3m or more from a fire-source feature	-/-/-	-/-/-
External Columns		
+ Loadbearing	90/-/-	120/-/-
+ Non-loadbearing	-/-/-	-/-/-
Common Walls & Fire Walls	90/90/90	120/120/120
Stair and Lift Shafts required to be fire-resisting		
+ Loadbearing	90/90/90	120/120/120
+ Non-loadbearing	-/90/90	-/120/120
Internal walls bounding sole occupancy units		
+ Loadbearing	90/90/90	120/-/-

Item	Class 2	Class 7a
+ Non-loadbearing	-/60/60	-/-/-
Internal walls bounding public corridors, public lobbies and the like:		
+ Loadbearing	90/90/90	120/-/-
+ Non-loadbearing	-/60/60	-/-/-
Ventilating, pipe, garbage and like shafts:		
+ Loadbearing	90/90/90	120/90/90
+ Non-loadbearing	-/90/90	-/90/90
Other loadbearing internal walls, beams trusses and columns	90/-/-	120/-/-
Floors	90/90/90	120/120/120
Roofs ¹	90/60/30	120/60/30

¹ The roof need not comply with any FRL's due to the sprinkler protection of the entire building.

Annexure D - Definitions

Average specific extinction area

Average specific extinction area means the average specific extinction area for smoke as determined by AS 5637.1:2015.

Critical radiant flux

Critical radiant flux (CRF) means the critical heat flux at extinguishment (CHF in kW/m²) as determined by AS ISO 9239.1:2003.

Designated bushfire prone area

Designated bushfire prone area means land which has been designated under a power of legislation as being subject, or likely to be subject, to bushfires.

Effective height

Effective height means the vertical distance between the floor of the lowest storey included in a determination of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).

Envelope

Envelope, for the purposes of Section J in Volume One, means the parts of a building's fabric that separate a conditioned space or habitable room from—

1. the exterior of the building; or
2. a non-conditioned space including—
 - a. the floor of a rooftop plant room, lift-machine room or the like; and
 - b. the floor above a carpark or warehouse; and
 - c. the common wall with a carpark, warehouse or the like.

Exit

Exit means –

1. Any, or any combination of the following if they provide egress to a road or open space—
 - a. An internal or external stairway.
 - b. A ramp.
 - c. A fire-isolated passageway.
 - d. A doorway opening to a road or open space.
 - e. A horizontal exit or a fire-isolated passageway leading to a horizontal exit.

Fire compartment

Fire compartment means –

1. the total space of a building; or
2. when referred to in—
 - a. the Performance Requirements — any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
 - b. the Deemed-to-Satisfy Provisions — any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to-Satisfy Provisions of the relevant Part.

Fire-resistance level (FRL)

Fire-resistance level (FRL) means the grading periods in minutes determined in accordance with Specification A2.3, for the following criteria—

1. structural adequacy; and
2. integrity; and
3. insulation,

and expressed in that order.

Note: A dash means that there is no requirement for that criterion. For example, 90/–/– means there is no requirement for an FRL for integrity and insulation, and –/–/– means there is no requirement for an FRL.

Fire-source feature

1. the far boundary of a road, river, lake or the like adjoining the allotment; or
2. a side or rear boundary of the allotment; or
3. an external wall of another building on the allotment which is not a Class 10 building

Fire wall

Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments.

Flammability index

Flammability Index means the index number as determined by AS 1530.2:1993.

Group number

Group number means the number of one of 4 groups of materials used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling.

Horizontal exit

Horizontal exit means a required doorway between 2 parts of a building separated from each other by a fire wall.

Loadbearing

Intended to resist vertical forces additional to those due to its own weight.

Non-combustible

Non-combustible means—

1. applied to a material — not deemed combustible as determined by AS 1530.1:1994 — Combustibility Tests for Materials; and
2. applied to construction or part of a building — constructed wholly of materials that are not deemed combustible

Occupiable outdoor area

Occupiable outdoor area means a space on a roof, balcony or similar part of a building—

1. that is open to the sky; and
2. to which access is provided, other than access only for maintenance; and
3. that is not open space or directly connected with open space.

Open space

Open space means a space on the allotment, or a roof or similar part of a building adequately protected from fire, open to the sky and connected directly with a public road.

Performance Requirement

Performance Requirement means a requirement which states the level of performance which a Performance Solution or Deemed-to-Satisfy Solution must meet.

Performance Solution

Performance Solution means a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution.

Sarking-type material

Sarking-type material means a material such as a reflective insulation or other flexible membrane of a type normally used for a purpose such as waterproofing, vapour management or thermal reflectance.

Smoke developed index

Smoke developed index means the index number for smoke as determined by AS/NZS 1530.3.

Smoke development rate

Smoke development rate means the development rate for smoke as determined by testing flooring materials in accordance with AS ISO 9239.1.

Smoke growth rate index

Smoke growth rate index (SMOGRA RC) means the index number for smoke used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.

Sole-occupancy unit

Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—

1. a dwelling; or
2. a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
3. a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
4. a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

Annexure E - BCA Compliance Specification

The following BCA matters are to be addressed by specific BCA Design Certificate to be issued by the relevant architectural, services and engineering consultants at the Construction Certificate Stage. This schedule should be forwarded to all consultants to obtain verification that these items have and will be included in the design documentation / specifications:

Architectural Design Certification

5. Lightweight construction used to achieve required fire resistance levels will comply with Specification C2D9 of the BCA.
6. Building elements must be non-combustible in accordance with C2D10 of the BCA.
7. Materials, floor and wall linings/coverings, surface finishes and air-handling ductwork used in the works will comply with the fire hazard properties of Clause C2D11 and Specification 7 of the BCA.
8. Any ancillary elements fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible will comply with Clause C2D14 of the BCA.
9. Vertical separation will be provided to the new openings in the external walls in accordance with Clause C3D7 of the BCA. It is noted that no spandrel separation is required in the stairway or to a void.
10. The fire walls proposed to separate buildings and/or fire compartments will comply with Clause C3D8 of the BCA.
11. The parts of different Classifications located alongside one another in the same storey will be separated in accordance with Clause C3D9 and Specification 5 of the BCA.
12. Floors separating storeys of different Classifications will comply with BCA Clause C3D10 of the BCA.
13. Any main switch room sustaining emergency equipment required to operate in emergency mode, will be separated from the remaining building with construction having an FRL 120/120/120 and provided with self-closing -/120/130 fire doors in accordance with Clause C3D14 of the BCA.
14. Openings in the external walls that are required to have an FRL will be in located in accordance with Clause C4D3 of the BCA or protected in accordance with Clause C4D5 of the BCA.
15. Doorways in any fire walls separating fire compartments will be protected in accordance with Clause C4D6 of the BCA.
16. Services penetrating elements required to possess an FRL including the floor slabs, walls, shafts, etc. will be protected in accordance with Clause C4D13, C4D14. and C4D15 and Specification 13 of the BCA.
17. Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation will be protected in accordance with BCA Clause C4D16.
18. The lift doors will be -/60/- fire doors complying with AS 1735.11:1986 in accordance Clause C4D11 of the BCA.
19. Doorways and other openings in internal walls required to have an FRL will be protected in accordance with Clause C4D12 of the BCA.
20. Columns protected by light weight construction will achieve an FRL not less than the FRL for the element it is penetrating, in accordance with Clause C4D17 of the BCA.
21. A lintel will have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and it spans an opening in masonry

which is not more than 150 mm thick and is not more than 3m wide if the masonry is non- loadbearing; or not more than 1.8m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall, or it spans an opening in a non-loadbearing wall of the Class 2 or 3 building, in accordance with S5C4 of the BCA.

22. All attachments to the external façade of the building will be fixed in a way that does not affect the fire resistance of that element in accordance with S5C6 of the BCA.
23. The top and bottom of the riser shafts will achieve an FRL not less than the FRL required for the walls of the shaft in accordance with S5C8 of the BCA.
24. Fire doors will comply with AS 1905.1:2015 and Specification 12 of the BCA.
25. Fire shutters and fire windows will be in accordance with Specification 12 of the BCA.
26. Travel distances to exits will be in accordance with Clause D2D5 of the BCA.
27. The dimensions of exits and paths of travel to exits, including the height, width, and width of doorways will be provided in accordance with D2D7 to D2D10 of the BCA.
28. Discharge from exits will be in accordance with Clause D2D15 of the BCA.
29. The ladder from the plant, lift machine rooms, and electricity network substation in lieu of a stairway will be in accordance with Clause D2D21 of the BCA.
30. Access to the lift pit will be in accordance with Clause D2D22 of the BCA.
31. The non-fire isolated stairs will be constructed in accordance with Clause D3D5 of the BCA.
32. The construction of EDB's and telecommunications distribution boards will be in accordance with Clause D3D8 of the BCA with the enclosure bounded by non-combustible construction or fire protective covering and smoke seals provided around the perimeter of the non-combustible doors and any openings sealed with non-combustible mastic to prevent smoke spreading from the enclosure.
33. New pedestrian ramps will comply with AS 1428.1:2009, Clause D3D11 and Part D4 of the BCA. The floor surface of a ramp must have a slip-resistance Classification complying with Table D3D15 when tested in accordance with AS 4586:2013.
34. Stair geometry will be in accordance with Clause D3D14 of the BCA. Stair treads are to have a surface with a slip-resistance Classification complying with Table D3D15 when tested in accordance with AS 4586:2013.
35. Landings and door thresholds throughout the development will be provided in accordance with Clause D3D15 and D3D16 of the BCA. Landings will have either a surface with a slip-resistance Classification complying with Table D3D15 when tested in accordance with AS 4586:2013 or a strip at the edge of the landing with a slip-resistance Classification complying with Table D3D15 when tested in accordance with AS 4586:2013.
36. The handrails and balustrades to all stairs and throughout the building will be in accordance with D3D17 to D3D22 of the BCA.
37. The doorways and doors will be in accordance with Clause D3D24 and D3D25 of the BCA.
38. Door latching mechanisms will be in accordance with Clause D3D26 of the BCA
39. The openable portion of a window in a bedroom will be protected with a restricting device or secure screen that does not allow a 125mm sphere to pass through the opening or screen and resist an outward horizontal action of 250N in accordance with Clause D3D29 of the BCA. In addition to window protection, and for other openable windows 4 metres or more above the ground below, a barrier with a height not less than 865mm above the floor will be installed to the openable window.

40. The new works will be accessible in accordance with Clause D4D1 to D4D4 of the BCA, and with AS 1428.1:2009, with particular note to door circulation spaces, accessway widths, turning spaces and floor coverings, in accordance with Part D4 of the BCA.
41. Braille and tactile signage will in accordance with Clause D4D7, and Specification 15 of the BCA.
42. Tactile ground surface indicators will be provided in accordance with Clause D4D9 of the BCA and AS/NZS 1428.4.1:2009.
43. 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, will be clearly marked in accordance with AS 1428.1:2009 and Clause D4D13 of the BCA.
44. Fire precautions whilst the building is under construction will be in accordance with Clause E1D16 of the BCA.
45. Additional provisions will be made in accordance with Clause E1D17 of the BCA, due to the special hazards associated with the building works or the location of the building works.
46. External above ground waterproofing membranes will comply with Clause F1D5 of the BCA and AS 4654 Parts 1 & 2:2012.
47. The new roof covering will be in accordance with Clause F3D1 of the BCA.
48. Any sarking proposed will be installed in accordance with Clause F3D2 of the BCA.
49. Waterproofing of all wet areas to the building will be carried out in accordance with Clause F2D2 of the BCA and AS 3740:2010.
50. Damp proofing of the proposed structure will be carried out in accordance with Clause F1D6 and F1D7 of the BCA.
51. Floor wastes will be installed to bathrooms and laundries above sole-occupancy units or public space in accordance with Clause F2D4 of the BCA.
52. Sub-floor ventilation will be provided in accordance with Clause F1D8 of the BCA.
53. All new glazing will be in accordance with Clause F3D4 of the BCA and AS 1288:2021 / AS 2047:2014 (incorporating amendments 1 and 2).
54. Sanitary facilities will be provided in the building in accordance with Clause F4D1 of the BCA.
55. The construction of the sanitary facilities will be in accordance with Clause F4D8 of the BCA.
56. Ceiling heights will be in accordance with Clause F5D2 of the BCA.
57. Natural light will be provided in accordance with Clause F4.1, F4.2, and F4.3 of the BCA.
58. Natural ventilation will be provided in accordance with Clause F6D6, F6D7, and F6D8 of the BCA.
59. Water closets and urinals will be located in accordance with Clause F6D9 of the BCA.
60. The sanitary compartments will either be provided with mechanical exhaust ventilation or an airlock in accordance with Clause F6D10 of the BCA.
61. Pliable building membranes installed in external walls will comply with Clause F6.2 of the BCA and where a pliable building membrane is not installed in an external wall, the primary water control layer will be separated from water sensitive materials by a drained cavity.
62. Every storey of the carpark will be provided with an adequate system of permanent natural or mechanical ventilation in accordance with Clause F6D11 of the BCA.

63. A safe manner for cleaning of windows located 3 or more storeys above ground level will be provided in accordance with the Work Health & Safety Act 2011 and regulations made under that Act in accordance with NSW G1D5 of the BCA.
64. The construction of the residential portions of the development will be undertaken in accordance with the relevant BASIX commitments that form part of the Development Consent approval.
65. Essential fire or other safety measures will be maintained and certified on an ongoing basis, in accordance with the provisions of the Environmental Planning and Assessment Regulation, 2000.
66. Building Fabric and Thermal Construction will be in accordance with Part J1 of the BCA.
67. Glazing will be in accordance with Part J1 of the BCA.
68. Building sealing will be in accordance with Part J3 of the BCA.
69. Facilities for Energy Monitoring will be provided in accordance with Clause J8.3 of the BCA.

Electrical Services Design Certification:

70. A smoke detection and alarm system will be installed throughout the building in accordance with Part E2 of the BCA.
71. Emergency lighting will be installed throughout the development in accordance with Clause E4D2 and E4D4 of the BCA and AS/NZS 2293.1:2018.
72. Exit signage will be installed in accordance with Clause E4D5, E4D7 and E4D8 of the BCA and AS/NZS 2293.1:2018.
73. Artificial lighting will be installed throughout the development in accordance Clause F6D5 of the BCA and AS/NZS 1680.0:2009.
74. Lighting power and controls will be installed in accordance with Part J6 of the BCA.
75. Electrical conductors located within the building that supply a main switchboard that sustains emergency equipment will comply with Clause C3D14 of the BCA.

Hydraulic Services Design Certification:

76. Storm water drainage will be provided in accordance with Clause F1D3 of the BCA and AS/NZS 3500.3:2018
77. Fire hydrant system will be installed in accordance with Clause E1D2 of the BCA and AS 2419.1:2021 as required.
78. Portable fire extinguishers will be installed in accordance with Clause E1D14 of the BCA and AS 2444:2001.
79. The heated water supply systems will be designed and installed to NCC Volume Three – Plumbing Code and Clause J7.2 of the BCA.

Mechanical Services Design Certification:

80. An air-handling system which does not form part of a smoke hazard management system will be installed in accordance with Clause E2D3 of the BCA, and AS 1668.1:2015.
81. Where not naturally ventilated the building will be mechanically ventilated in accordance with Clause F6D6 of the BCA and AS 1668.2:2012.

82. Every storey of the car park will be ventilated in accordance with Clause F6D11 of the BCA and where not naturally ventilated it will be mechanically ventilated in accordance with AS 1668.2:2012 as applicable.
83. Exhaust systems installed in a kitchen, bathroom, sanitary compartment or laundry of a Class 2 or 4 *sole-occupancy unit* will have a minimum flow rate and discharge location in accordance with Clause F8D4 of the BCA.
84. Where exhaust discharges directly or via shaft into a roof space of a Class 2 or 4 *sole-occupancy unit*, ventilation of the roof space will comply with Clause F8D5 of the BCA.
85. The air-conditioning and ventilations systems will be designed and installed in accordance with Part J5 of the BCA
86. Rigid and flexible ductwork will comply with the fire hazard properties set out in AS 4254 Parts 1 and 2.

Structural Engineers Design Certification:

87. The material and forms of construction for the proposed works will be in accordance with Clause B1D2, B1D3 and B1D4 of the BCA as follows:
 - a. Dead and Live Loads – AS/NZS 1170.1:2002 (incorporating amendments 1 and 2)
 - b. Wind Loads – AS/NZS 1170.2:2021
 - c. Earthquake actions – AS 1170.4:2007
 - d. Masonry – AS 3700:2018
 - e. Concrete Construction – AS 3600:2018
 - f. Steel Construction AS 4100:1998
 - g. Aluminium Construction – AS/NZS 1664.1 or 2:1997
 - h. Timber Construction – AS 1720.1:2010
 - i. ABCB Standard for Construction of Buildings in Flood Hazard Areas.
88. The FRL's of building elements for the proposed works have been designed in accordance with Tables S5C11a to S5C11g of the BCA for a building of Type A Construction.
89. The lift shaft will have an FRL in accordance with S5C8 of the BCA.
90. Lightweight construction used to achieve required fire resistance levels will comply with Specification 6 of the BCA.
91. The construction joints to the structure will be in accordance with Clause C4D16 of the BCA to reinstate the FRL of the element concerned.

Lift Services Design Certification:

92. Warning signage in accordance with Clause E3D4 of the BCA will be provided to advise not to use the lifts in a fire.
93. Access and egress to the lift landings will comply with the Deemed-to-Satisfy Provisions of D4 of the BCA and will be suitable to accommodate disabled persons.
94. The type of lifts will be suitable to accommodate persons with a disability in accordance with Clause E3D8 and will have accessible features in accordance with that Clause.
95. The lifts will comply with AS 1735.12:1999 in accordance with Clause E3D8 of the BCA.

96. All electric passenger lifts and electrohydraulic passenger lifts shall comply with Specification 24 of the BCA.

Acoustic Services Design Certification:

97. The sound transmission and insulation of the residential portions of the development will comply with Part F75 of the BCA.

SEPP Seniors

98. Gradients and wheelchair access across the site will comply with Clause 2 of Schedule 5 – SEPP Housing (2021).
99. Lighting in pathways will comply with Clause 3 of Schedule 4 – SEPP Housing (2021).
100. Carparking spaces will comply with Clause 5 of Schedule 4 – SEPP Housing (2021).
101. The accessible bedroom will comply with Clause 8 of Schedule 4 – SEPP Housing (2021)
102. The accessible bathroom will comply with Clause 9 of Schedule 4 – SEPP Housing (2021)
103. Surface finishes will comply with Clause 11 of Schedule 4 – SEPP Housing (2021).
104. Door hardware will comply with Clause 12 of Schedule 4 – SEPP Housing (2021).
105. Switches and power points will comply with Clause 13 of Schedule 4 – SEPP Housing (2021).
106. Living and dining rooms will comply with Clause 15 of Schedule 4 – SEPP Housing (2021).
107. Kitchen will comply with Clause 16 of Schedule 4 – SEPP Housing (2021).
108. Laundry will comply with Clause 19 of Schedule 4 – SEPP Housing (2021).
109. Garbage rooms will comply with Clause 21 of Schedule 4 – SEPP Housing (2021).