

30 May 2016

RSL LifeCare
C/- Core Project Group
122A Hannell Street
WICKHAM NSW 2293

Attention: Tom Elliot
Email: tom.elliott@coreprojectgroup.com.au

Dear Tom,

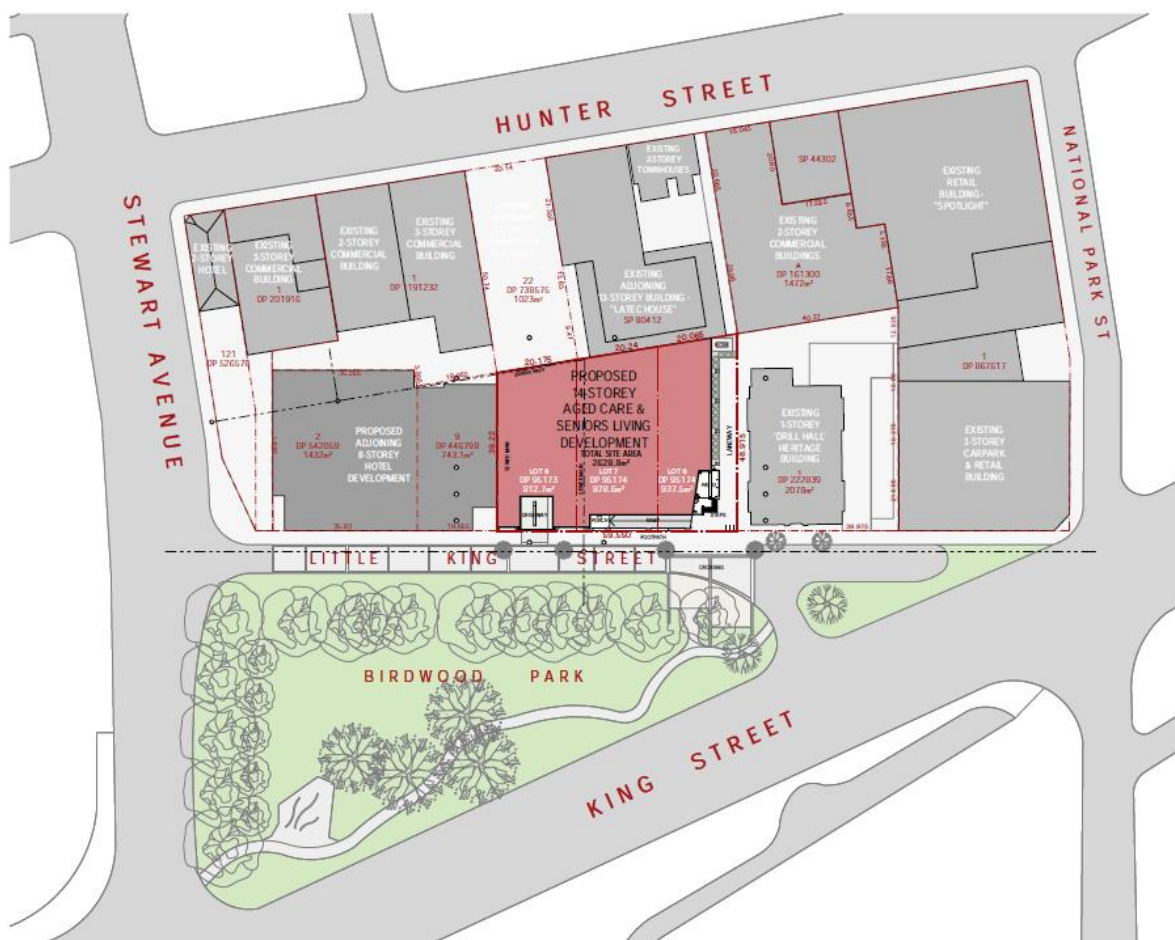
**RE: RSL LIFECARE - BIRDWOOD PARK - NEWCASTLE
BUILDING CODE OF AUSTRALIA (BCA) CAPABILITY STATEMENT**

Blackett Maguire + Goldsmith Pty Ltd have been commissioned to carry out an assessment of the proposed development against the requirements of the National Construction Code Series (Volume 1) - Building Code of Australia (BCA) 2016.

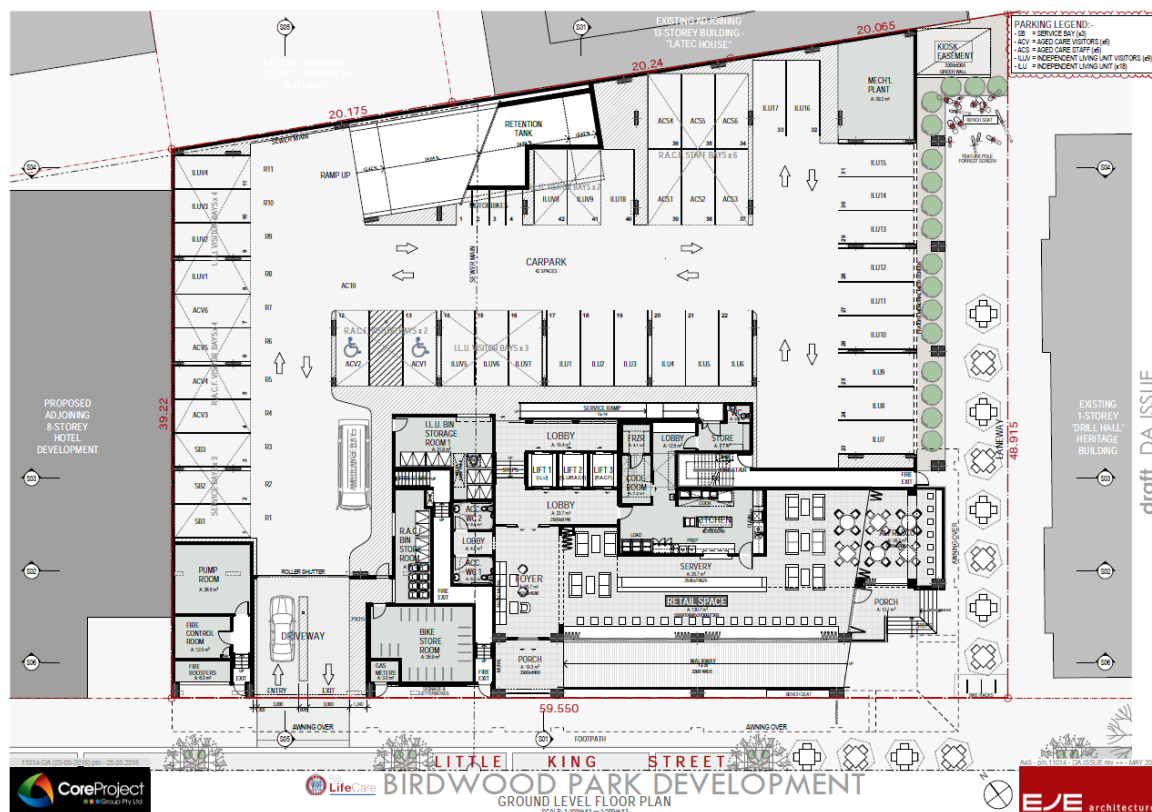
It is understood that the proposed development will be subject to a Development Consent application and this BCA Capability Statement will form part of the submission to Council for their consideration as part of the determination.

Our assessment of the concept design documentation was based on the following:

- + National Construction Code Series (Volume 1) Building Code of Australia 2016 (BCA)
- + Guide to the Building Code of Australia 2016 (BCA Guide)
- + Environmental Planning and Assessment Act 1979 (EP&A)
- + Environmental Planning and Assessment Regulation 2000 (EP&AR)
- + Architectural plans prepared by EJE Architecture:

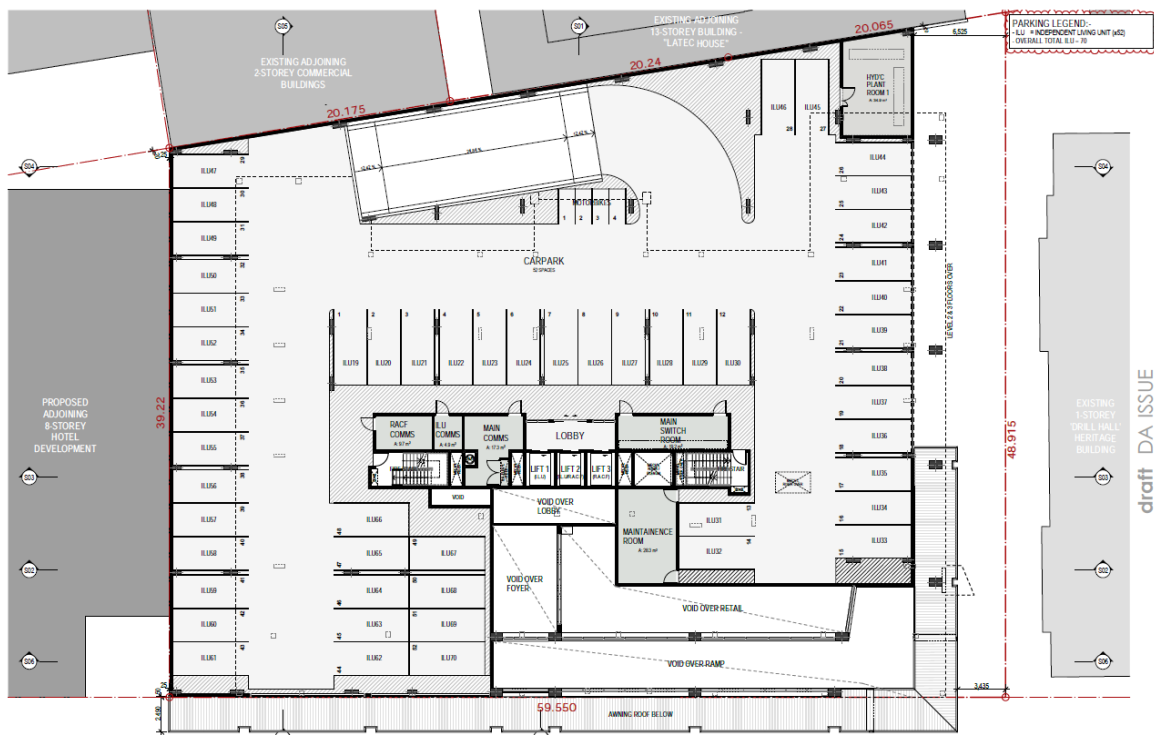


Site Plan





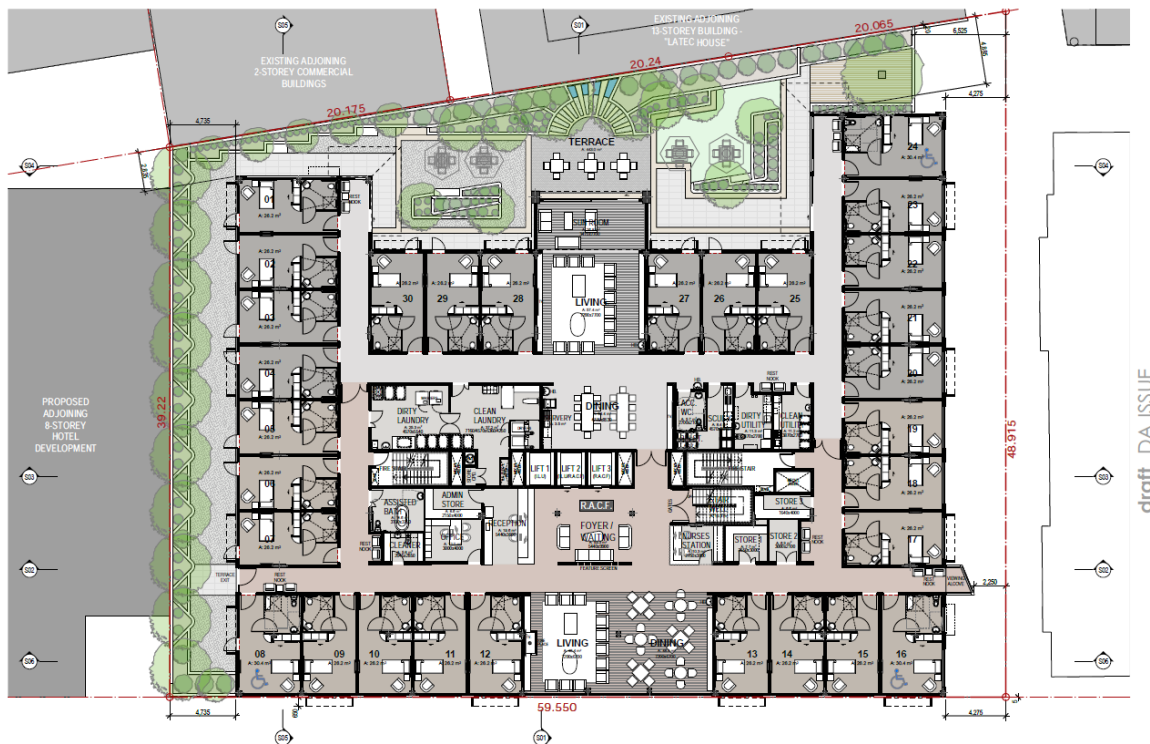
Ground Floor Plan



BIRDWOOD PARK DEVELOPMENT
LEVEL 1 CARPARK
SCALE 1:100 (A1 or 1:200 (A2))



Level 1 Floor Plan



BIRDWOOD PARK DEVELOPMENT
"PETER BADCOE VC" R.A.C.F. - LEVEL 2 FLOOR PLAN
SCALE 1:100 (A1 or 1:200 (A2))



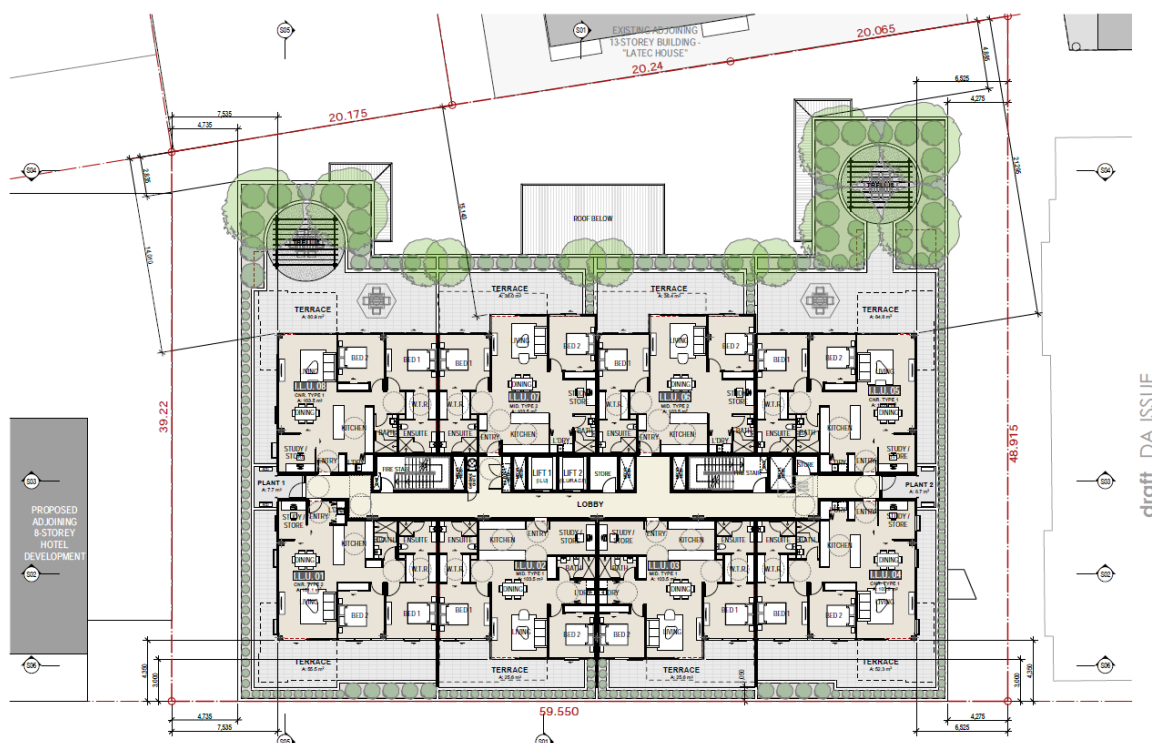
Level 2 Floor Plan



BIRDWOOD PARK DEVELOPMENT
"PETER BADCOE VC" R.A.C.F. - LEVEL 3 FLOOR PLAN
SCALE 1:1000 (A1 or 1:2000 A3)



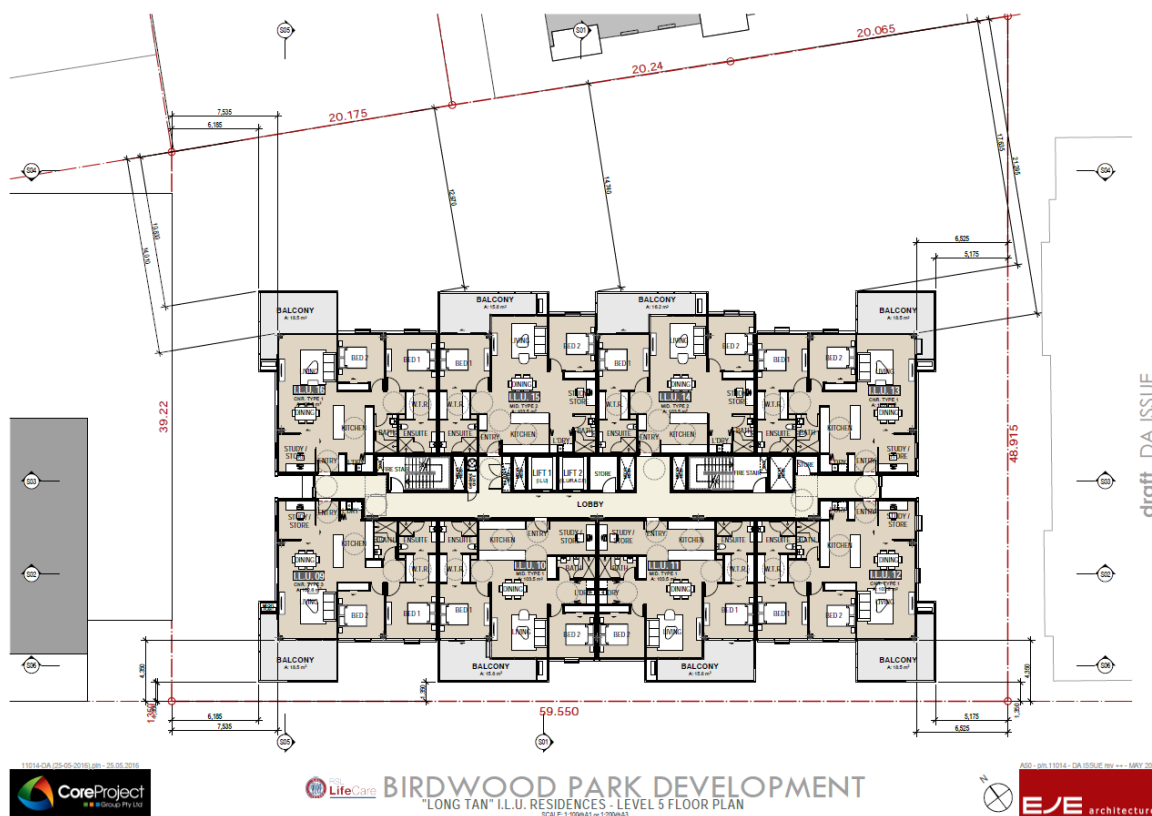
Level 3 Floor Plan



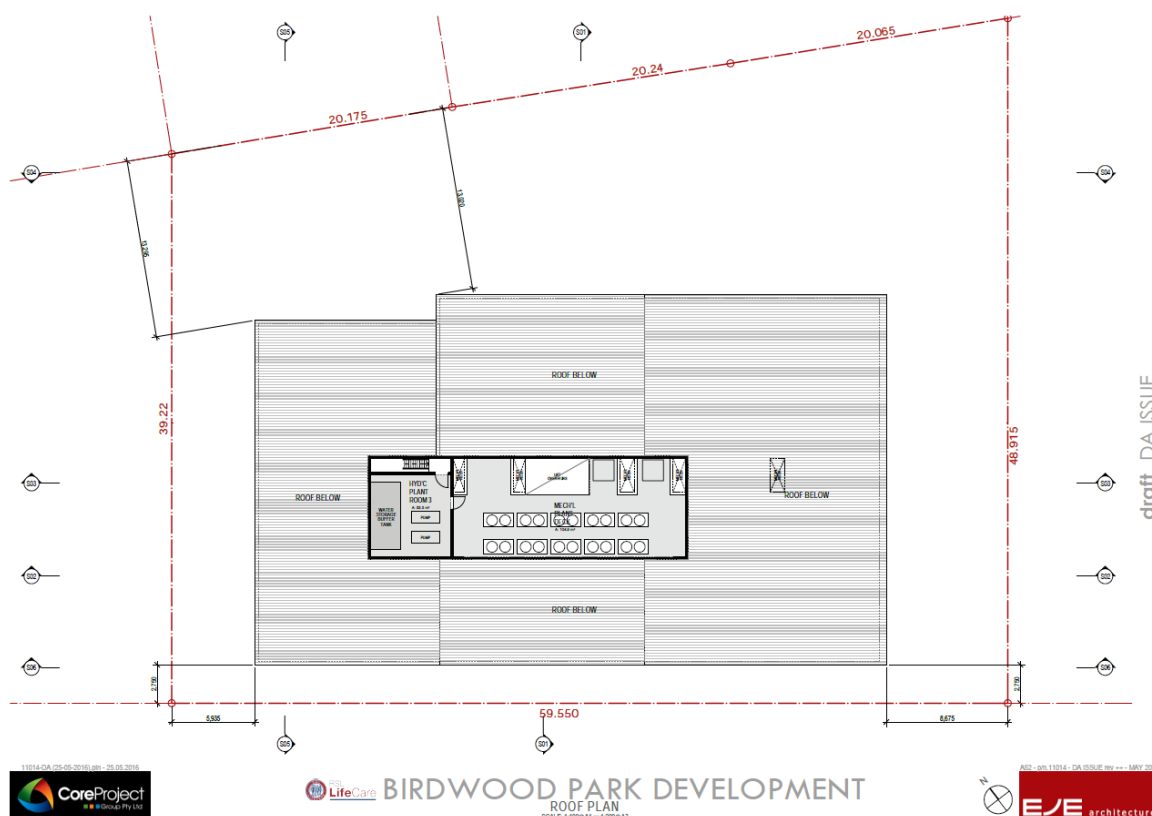
BIRDWOOD PARK DEVELOPMENT
"LONG TAN" I.L.U. RESIDENCES - LEVEL 4 FLOOR PLAN
SCALE 1:1000 (A1 or 1:2000 A3)



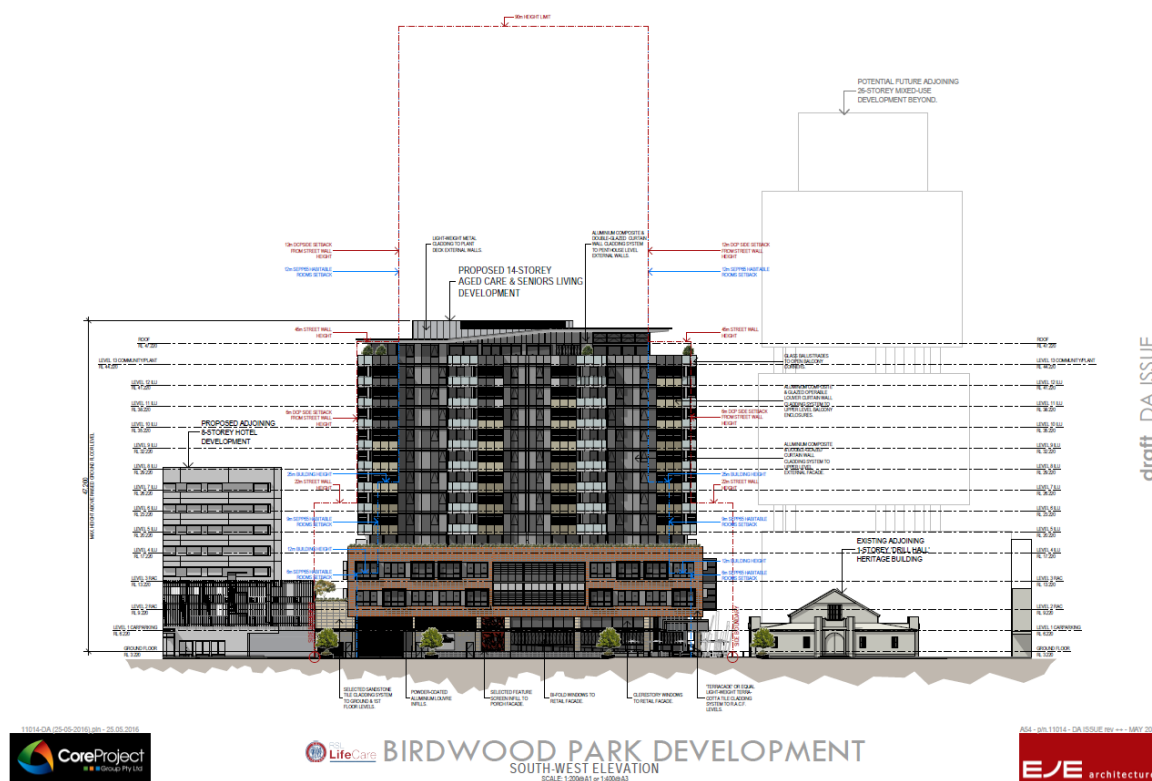
Level 4 Floor Plan

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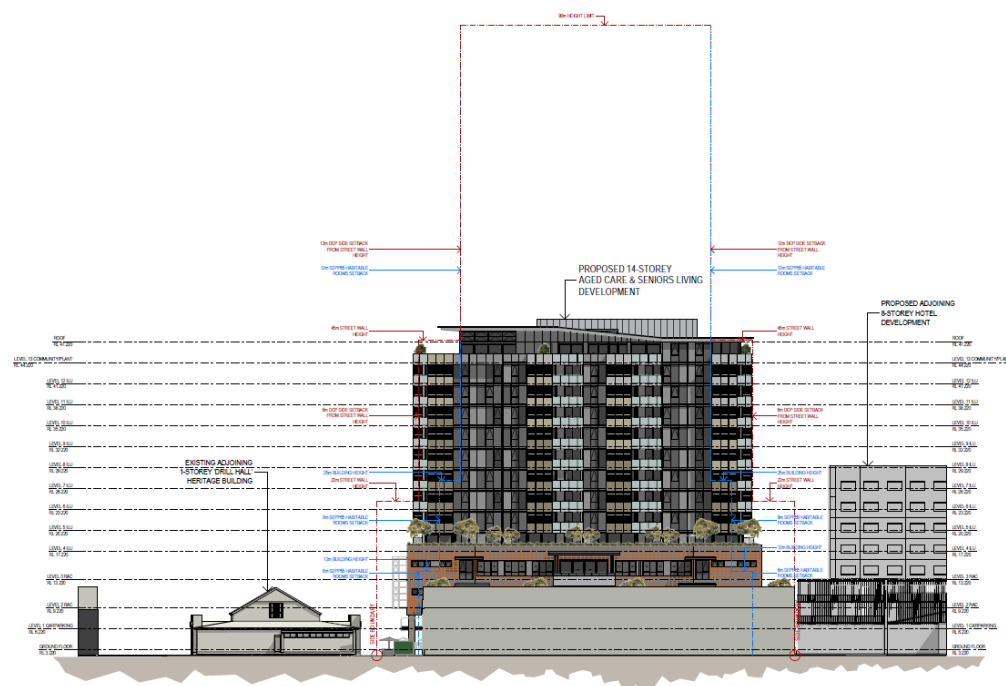
Roof Plan



Elevations



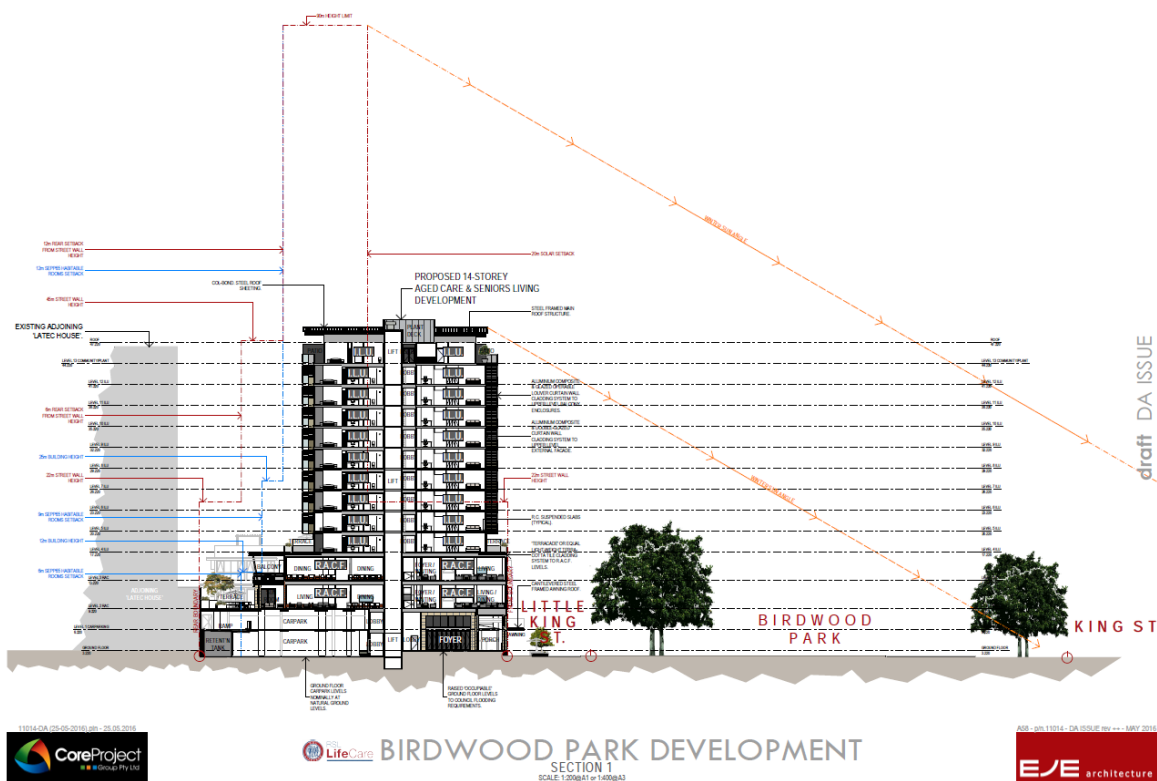
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BIRDWOOD PARK DEVELOPMENT
NORTH-EAST ELEVATION
SCALE: 1:200 (A1) or 1:400 (A2)



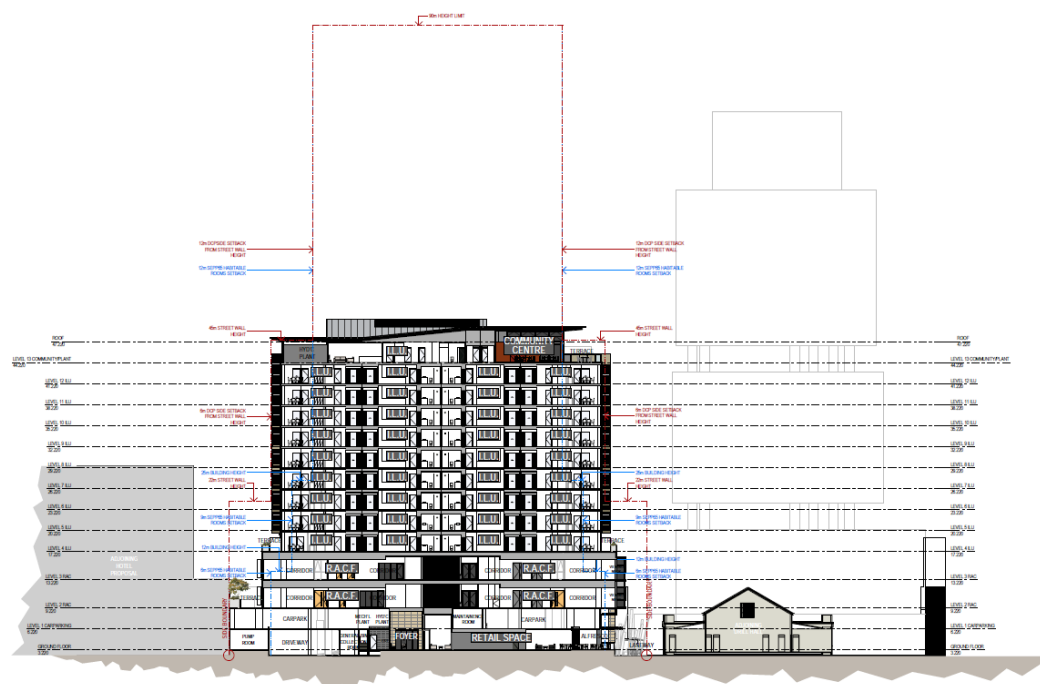
Elevations



BIRDWOOD PARK DEVELOPMENT
SECTION 1
SCALE: 1:200 (A1) or 1:400 (A2)

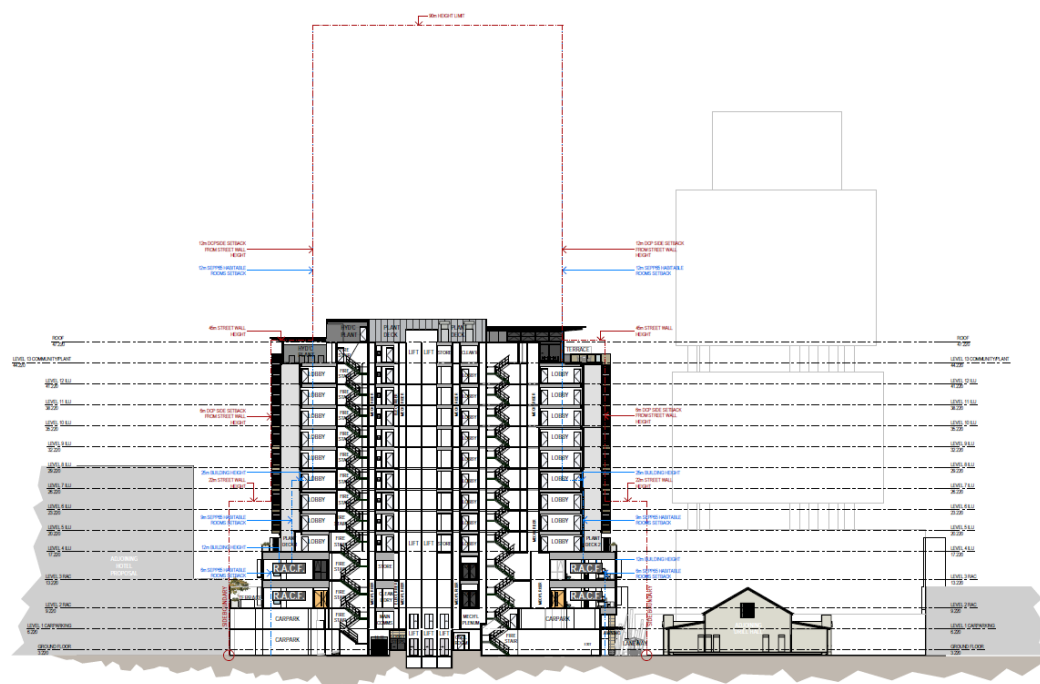


Sections



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 **CoreProject**
Group Pty Ltd

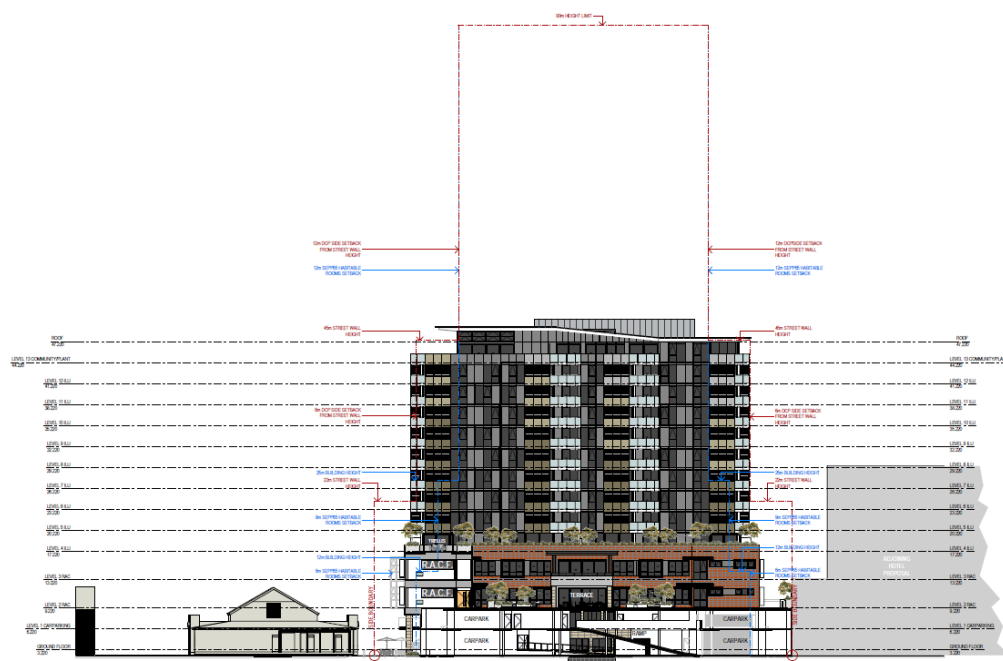


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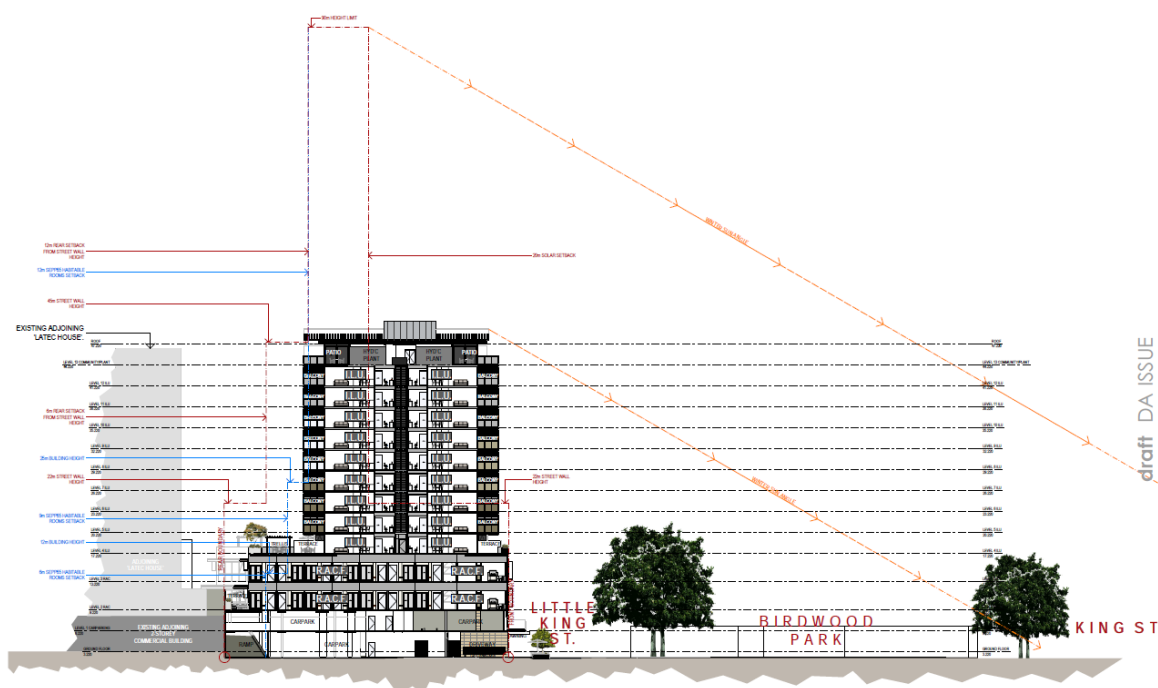


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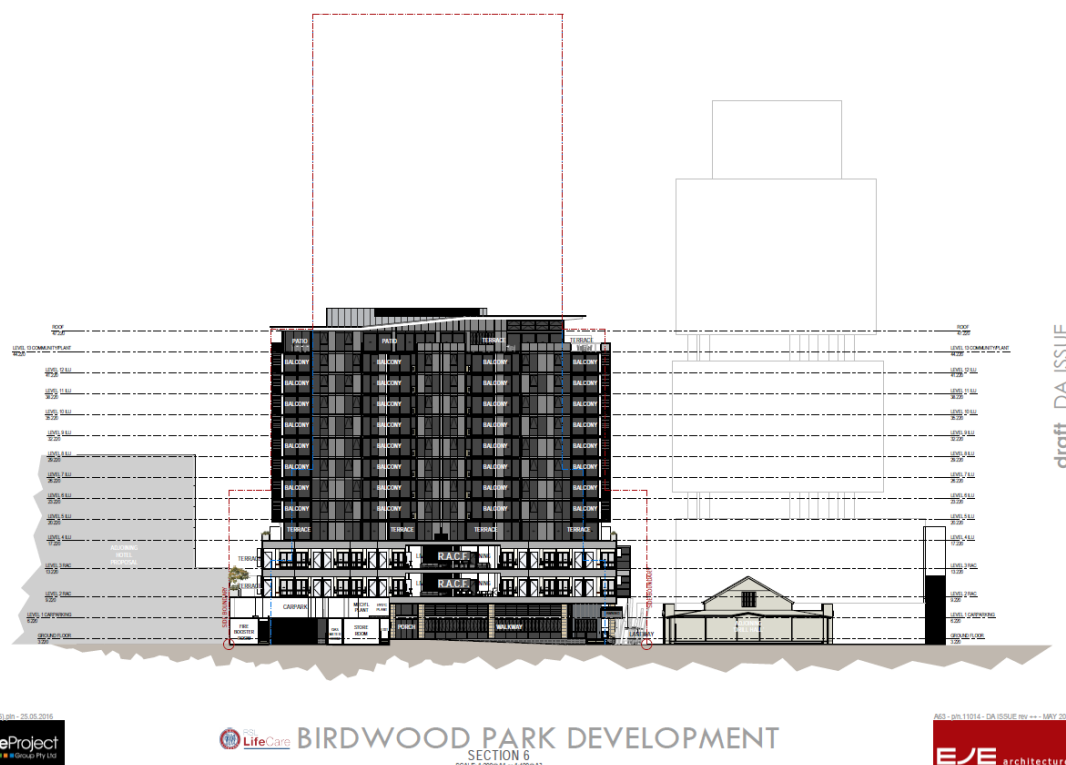


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Sections

BUILDING DESCRIPTION:

The proposed development involves the construction of a multiple storey Residential Aged Care Facility (RACF) and Independent Living Units (ILU) consisting of carparking on ground and Level 1, RACF on Levels 2 & 3, ILU's on Levels 4-12 and Community Centre, roof terrace, ILU's and plant room on Level 13.

STATEMENT OBJECTIVES:

The objectives of this statement are to:

- + Confirm that a preliminary review of the DA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- + Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to Clause 145 of the *Environmental Planning & Assessment Regulation 2000*.

LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- + The following assessment is based upon a review of the architectural documentation.
- + No assessment has been undertaken with respect to the Disability Discrimination Act (DDA) 1992. The building owner should be satisfied that their obligations under the DDA have been addressed.
- + The Report does not address matters in relation to the following:
 - i. Local Government Act and Regulations.
 - ii. NSW Public Health Act 1991 and Regulations.
 - iii. Occupational Health and Safety (OH&S) Act and Regulations.



- iv. Work Cover Authority requirements.
- v. Water, drainage, gas, telecommunications and electricity supply authority requirements.
- + BM+G Pty Ltd do not guarantee acceptance of this report by Local Council, NSW Fire Brigades or other approval authorities.
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BUILDING CODE OF AUSTRALIA 2015 COMPLIANCE:

Arising from our preliminary assessment of the proposed development against the Deemed-to-Satisfy provisions and Performance Requirements of National Construction Code Series – Volume 1 – Building code of Australia 2015, the following key compliance matters are noted.

The principal building characteristics as defined by the BCA are as follows:

BCA CLASSIFICATION:	Class 9c (RACF), 7a (carpark), Class 2 (ILUs), Class 6 (café) & Class 9b (community centre)
RISE IN STOREYS:	Thirteen (13)
TYPE OF CONSTRUCTION:	Type A Construction
EFFECTIVE HEIGHT:	Greater than 25m
FIRE COMPARTMENT SIZE:	Complies with C2.2 Limitations (as applicable)
CLIMATE ZONE:	Energy Efficiency Zone 5

The detailed BCA desktop assessment was carried out against the provisions of the BCA. It is noted that the proposed development must comply with the relevant requirements of BCA and this can be achieved by complying with the following:

- a) Complying with the Deemed-to-satisfy (DTS) Provisions; or
- b) Formulating an Alternative Solution which –
 - i) Complies with the performance requirements; or
 - ii) Is shown to be at least equivalent to the DTS provisions; or
- c) A combination of the above.

Terminology

Alternative Solution

A Building Solution which complies with the Performance Requirements other than by reason of satisfying the DTS Provisions.

Building Code of Australia (BCA)

Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in New South Wales (NSW) under the provisions of the EPA Act and Regulation. Building regulatory legislation stipulates that compliance with the BCA Performance Requirements must be attained and hence this reveals BCA's performance based format.

Construction Certificate

Building Approval issued by the Certifying Authority pursuant to Part 4A of the EP&A Act 1979.



Construction Type

The construction type is a measure of a buildings ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C1.1 and Specification C1.1, except as allowed for—

- (i) certain Class 2, 3 or 9c buildings in C1.5; and
- (ii) a Class 4 part of a building located on the top storey in C1.3(b); and
- (iii) open spectator stands and indoor sports stadiums in C1.7.

Note: Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.

Climatic Zone

Is an area defined in BCA Figure A1.1 and in Table A1.1 for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

Deemed to Satisfy Provisions (DtS)

Provisions which are deemed to satisfy the Performance Requirements.

Exit

An exit means –

- i. Any of a 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 leading to a road or open space
- ii. A horizontal exit or a fire isolated passageway leading to a horizontal exit

Effective Height

The height to 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) from the floor of the lowest storey providing direct egress to a road or open space.

Fire Resistance Level (FRL)

The grading periods in minutes for the following criteria-

- (a) structural adequacy; and
 - (b) integrity; and
 - (c) insulation,
- and expressed in that order.

Fire Source Feature (FSF)

The far boundary of a road which adjoins the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

National Construction Code Series (NCC)

The NCC was introduced 01 May 2011 by the Council of Australian Governments. The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

Occupation Certificate

Building Occupation Approval issued by the Principal Certifying Authority pursuant to Part 4A of the EPA Act 1979.

Open Space

A space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

Performance Requirements of the BCA

A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-



- (a) complying with the DtS Provisions; or
- (b) formulating an Alternative Solution which-
 - (i) complies with the Performance Requirements; or
 - (ii) is shown to be at least equivalent to the DtS Provisions; or
- (c) a combination of (a) and (b).

Residential Aged Care Building

A building whose residents, due to their incapacity associated with the ageing process, are provided with physical assistance in conducting their daily activities and to evacuate the building during an emergency.

Resident Use Area

Part of a Class 9c building normally used by residents, and—

- (a) includes sole-occupancy units, lounges, dining areas, activity rooms and the like; but
- (b) excludes offices, storage areas, commercial kitchens, commercial laundries and other spaces not for the use of residents.

Sole Occupancy Unit (SOU)

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 a dwelling.

SUMMARY OF KEY COMPLIANCE ISSUES

The following comprises a summary of the key compliance issues that will need to be addressed prior to issue of the Construction Certificate:

- 1) Clause C1.1 – Type of Construction Required: The minimum type of fire-resisting construction of a building must be that specified in Table 3 of Specification C1.1 for Type A Construction.

The building will comply with the following FRLs:-

Building element	Class of building — FRL: (in minutes)		
	<i>Structural adequacy/ Integrity/ Insulation</i>		
	2, part	7a & or 9	6
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—			
For <i>loadbearing</i> parts—			
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90
For non- <i>loadbearing</i> parts—			



less than 1.5 m	-/ 90/ 90	-/120/120	-/180/180
1.5 to less than 3 m	-/ 60/ 60	-/ 90/ 90	-/180/120
3 m or more	-/-/-	-/-/-	-/-/-
EXTERNAL COLUMN not incorporated in an <i>external wall</i> —			
For <i>loadbearing</i> columns—			
	90/-/-	120/-/-	180/-/-
For non- <i>loadbearing</i> columns—			
	-/-/-	-/-/-	-/-/-
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180
INTERNAL WALLS—			
<i>Fire-resisting</i> lift and stair <i>shafts</i> —			
<i>Loadbearing</i>	90/ 90/ 90	120/120/120	180/120/120
Non- <i>loadbearing</i>	-/ 90/ 90	-/120/120	-/120/120
Bounding <i>public corridors</i> , public lobbies and the like—			
<i>Loadbearing</i>	90/ 90/ 90	120/-/-	180/-/-
Non- <i>loadbearing</i>	-/ 60/ 60	-/-/-	-/-/-
Between or bounding <i>sole-occupancy units</i> —			
<i>Loadbearing</i>	90/ 90/ 90	120/-/-	180/-/-
Non- <i>loadbearing</i>	-/ 60/ 60	-/-/-	-/-/-
Ventilating, pipe, garbage, and like <i>shafts</i> not used for the discharge of hot products of combustion—			
<i>Loadbearing</i>	90/ 90/ 90	120/ 90/ 90	180/120/120
Non- <i>loadbearing</i>	-/ 90/ 90	-/ 90/ 90	-/120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES			
and COLUMNS—	90/-/-	120/-/-	180/-/-
FLOORS	90/ 90/ 90	120/120/120	180/180/180
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30

- 2) Clause C2.5– Compartmentation and Separation: The Class 9c parts will be separated into fire and smoke compartments to comply with BCA.

The location of the proposed fire walls within the respective levels will also be positioned to provide internal horizontal exits as required.



- 3) Clause C3.3 – Separation of External Walls & Openings in Adjoining Fire Compartments: Where external walls and openings in external walls are exposed to adjoining fire compartments, the external walls and openings will be protected or subject to a fire engineered solution
- 4) Clause C3.15 – Openings for service installations: Where service installations penetrate the walls or floors required to have an FRL with respect to integrity and insulation they are to be protected by fire seals having an FRL of the building element concerned. Fire seals are required to comply with Specification C3.15
- 5) Clause D1.4 – Exit Travel Distance: The BCA requires not less than two (2) exits and maximum 20m to an exit from each floor.

Egress travel distances within the respective floors include marginal extended distances to the point of travel to alternative exits. This issue will be subject to a fire engineered solution.

- 6) Clause D1.6 – Dimensions of paths of travel to an exit: The minimum clear height through all egress paths is required to be no less than 2m, and a minimum of 1.5m wide (this width dimension is measured clear of any obstructions such as handrails and joinery).

All door widths throughout will be compliant with BCA as applicable to the respective Classifications.

Egress widths will be compliant with BCA.

- 7) Clause D1.7 – Discharge from Fire Isolated Exits: The discharge of the northern and southern fire isolated exits will necessitate protection to the various openings along the ground floor level northern façade in order to facilitate external egress travel to the roadway. Egress discharge will also be assessed from a fire engineering perspective.
- 8) Clause D2.7 – Installations in Exits and Paths of Travel: Electricity and communications cupboards located within a nominated egress paths within the proposed building will be required to be suitably smoke sealed and enclosed in non-combustible construction in accordance with D2.7(d).
- 9) Clause D2.13 – Goings and Risers: Stairways are required to have risers and goings in accordance with Table D2.14 and most have no winders in the required egress stairways.
- 10) Clause D2.16 – Balustrades or other barriers: Balustrades are required where the fall to the level below is more than 1m in height. The minimum height of a balustrade is 1m above the floor of the landing, walkway or the like; and 865mm above the floor of a stairway or a ramp. Balustrades must be constructed so as to not permit a sphere of 125mm diameter to pass through.

Provision to address climbability to all balcony balustrades, in particular at the location of the proposed balcony spas, louvred screens and at bedroom windows, is to be compliant with BCA to mitigate risk of climb and fall.

- 11) Clause D2.17 – Handrails: Handrails will be provided to all resident use corridors and walkways to the degree necessary.
- 12) Clause D2.20 – Swinging Doors: All swinging doorways in a required exit (final exit door from the building) are required to swing in the direction of egress.

This includes the final egress door at ground floor

- 13) Part D3 – Access for People with a Disability: An access consultant has been engaged to the project and will provide final certification to the effect that the design of the facility complies with BCA and the Access to Premises Standards (as applicable).



Any alternative solutions in terms of ensuite or bathrooms layouts for resident (only) use facilities will necessitate a performance solution to be prepared by the access consultant.

Accessible sanitary facilities will be provided at each level in communal locations.

- 14) Clause E1.3 – Fire Hydrants: Fire hydrants are required to serve the building and comply with AS2419.1-2005. A FH booster assembly is to be located to the front of the site to comply with BCA and related standards.
- 15) Clause E1.6 – Portable Fire Extinguishers: Portable fire extinguishers are required to serve the Class 9c and 2 parts building and comply with AS2444-2001.
- 16) Part E2 – Smoke Hazard Management: A smoke detection system is required to be provided in accordance with Specification E2.2a.
Stairway pressurization will be required to all egress stairways unless that stairways are designed as 'external' stairs in lieu of fire isolated stairways.
- 17) Part E3 Lift Installations: The proposed passenger lift will be compliant with AS1428 in relation to access and facilities for people with disabilities and will also facilitate accommodation of an upright stretcher.
Not less than two emergency lifts will be required.
The emergency lifts are to be located in separate shafts.
- 18) Part F3 – Room Sizes: The floor to ceiling heights in the Class 9c will not be less than 2.4 metres in habitable rooms and corridors.
- 19) Part F4 – Light and Ventilation: Any installations or modifications to the existing artificial lighting system are required to comply with Clause F4.4 and AS 1680.
- 20) Part F5 – Sound Transmission and Insulation: The walls separating all Class 9c bedrooms will have appropriate STC rating.
- 21) Section J – Energy Efficiency: Section J as applicable to all new building works will be compliant in accordance with BCA for Climate Zone 5.

Fire Engineering Strategies

In accordance with the above, BM+G verify that the proposed building design will entail a combination of compliance with the DTS provisions and Performance Requirements of the BCA, by the development and justification of Performance Based Alternative Solutions prepared by suitably Accredited Consultants.

The fire engineered solutions will be prepared in relation to the relevant Construction Certificate documentation for the assessment and approval of the Certifying Authority.

**Proposed Essential Fire & Other Safety Measures:**

Based on the information provided to date, the following fire safety measures are required to be incorporated into the design to satisfy the requirements of the BCA.

Essential Fire and Other Safety Measures	Standard of Performance
Access Panels, Doors & Hoppers	BCA Clause C3.13 & AS 1530.4 - 2005
Alarm Signaling Equipment	AS1670.3 - 2004
Automatic Fail Safe Devices (doors and external gates)	BCA Clause D2.21
Automatic Fire Detection & Alarm System	BCA Spec. E2.2a & AS 1670.1 - 2004.
Automatic Fire Suppression Systems	BCA Spec. E1.5 & AS 2118.1-2009
Building Occupant Warning System activated by the Sprinkler System	BCA Spec E1.5 Clause 8 and/ or Clause 3.22 of AS 1670.1 - 2004
Emergency Lifts	BCA Clause E3.4 & AS 1735.2 - 2001
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005
Emergency Evacuation Plan	AS 3745 - 2002
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005
Fire Blankets	AS 3504 - 006 & AS 2444 - 2001
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990
Fire Doors	BCA Clause C2.12, C2.13, C3.2, C3.4, C3.5, C3.6 & C3.7, C3.8, C3.11 and AS 1905.1 - 2005
Fire Hose Reels (Class 6, 7a & 9b parts)	BCA Clause E1.4 & AS 2441 - 2005
Fire Hydrant Systems	Clause E1.3 & AS 2419.1 - 2005
Fire Seals	BCA Clause C3.15 & AS 1530.4 - 2005 & AS 4072.1 - 2005
Lightweight FRL Construction	BCA Clause C1.8 & AS 1530.3 - 1999
Loadbearing Internal walls (masonry or concrete)	Spec C1.1 of the BCA
Manual Call Points (BGAs)	BCA Section E
Mechanical Air Handling Systems (shutdown and override)	BCA Clause E2.2, AS/NZS 1668.1 - 1998 & AS 1668.2 - 1991
Paths of Travel	EP & A Regulation Clause 186
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444 - 2001
Pressurization System (each fire isolated stairway)	BCA Clause E2.2 and AS1668.1
Required Exit Doors (power operated)	BCA Clause D2.19(d)
Smoke Dampers	AS/NZS 1668.1 - 1998
Smoke Doors	BCA Spec. C3.4 & C2.5
Sound System & Intercom Systems for Emergency Purposes (SSISEP)	BCA E4.9, Clause 5 of BCA Spec G3.8 and AS1670.4-2004
Wall wetting sprinklers	BCA Clause C3.4 & AS 2118.2 - 1995
Warning & Operational signs	AS 1905.1 - 2005, BCA Clause C3.6, D2.23, E3.3

Note: The above measures may be subject to further change pending the outcomes of the final Fire Safety Engineering Review to confirm the works are permissible and do not contradict the base building Alternative Solutions.



CONCLUSION:

This report contains an assessment of the referenced architectural documentation for the proposed development located at RSL LifeCare Birdwood Park – Little King Street, Newcastle, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2016.

In view of the above assessment we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable.

In addition, it is considered that such matters can adequately be addressed in the preparation of the Construction Certificate documentation without giving rise to any inconsistencies with the Development Approval.

Should you require further assistance or clarification please do not hesitate to contact the undersigned on 02 9211 7777 or david@bmplusg.com.au.

Yours sincerely

David Blackett
Accredited Certifier (A1)
Director
Blackett Maguire + Goldsmith Pty Ltd