

27<sup>th</sup> October 2023

Propel Investment Pty Ltd  
C/- Zone Planning NSW

Ref Number: 14559

**BCA High Level Review of Proposed Townhouse Development at 14 Bangalow Road, Byron Bay NSW 2481.**

Axis Building Certification have prepared high level compliance advice against the National Construction Code 2022 Volume 2 & the ABCB Housing Provisions in relation to a proposed development as detailed in DA design package issued by Raunik Architects on 17<sup>th</sup> October 2023. Where an Australian Standard is referenced, this is a reference to the year of the standard as detailed in the NCC 2022.

The intent of this report is to:

- Provide high level BCA assessment and highlight non-compliance matters of significance that may be resolved as design progresses.
- Highlight non-compliance matters to assist with submission of a development approval.





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## **Project Description**

The project consists of a unit development comprising 24 units, including 6 affordable housing units.

<b>NCC Version</b>	BCA 2022 Volume 2 & ABCB Housing Provisions 2022.
<b>Building Description</b>	Townhouse development comprising of twenty-four (24) units.
<b>Classification</b>	Class 1a – Dwelling Class 10a – Private Garages
<b>Total No. Storeys</b>	Three (3) storeys
<b>Total Site Area</b>	4066m <sup>2</sup>
<b>Site Cover</b>	30.06%
<b>Floor areas</b>	Total floor area = 1624m <sup>2</sup>

## **BCA & ABCB Housing Provisions Requirements**

### **Section 2 – Structure**

Structural engineers design and certification to consider Section 2 requirements of NCC Volume 2. Structural design and certification to be provided as design progresses.

### **Section 3 – Site Preparation**

It is assumed that a 50mm external step-down and a fall away from the building of 25mm over the first 1m will be provided for all slab on ground construction as the design progresses in accordance with Part 3.3.3 of the Housing Provisions.

A termite management system will be installed in accordance with Part 3.4 of the Housing Provisions & AS3660.1-2014.

### **Section 4 – Footings and Slabs**

Structural engineers design and certification to consider Section 4 requirements of NCC Volume 2. Structural design and certification to be provided as design progresses.

### **Section 6 – Framing**

Structural engineers design and certification to consider Section 6 requirements of NCC Volume 2. Structural design and certification to be provided as design progresses.

### **Section 7 – Roof and Wall Cladding**

#### **Part 7.2 – Sheet Roofing**

Metal sheet roofing is proposed to all twenty-four units.

Currently a 3-degree pitch is proposed to all roof structures other than unit 6 which is proposed to have an 8-degree pitch. It is assumed that the appropriate type of roof sheeting will be selected to comply with figure 7.2.3 (Minimum pitch requirements) of the Housing Provisions. All roof sheeting will be required to comply with AS1562.1-2018.

#### **Part 7.4 – Gutters and Downpipes**

The selection and design of gutters and downpipes are to be in accordance with AS3500.3-2018 & Part 7.4 of the housing provisions. Hydraulic engineer design and certification to be obtained as the design develops confirming compliance with these provisions.

## Part 7.5 – Timber and Composite Wall Cladding

Fiber cement cladding is proposed to all twenty-four units. Test reports showing compliance with AS2908.2 are to be obtained as the design develops.

A minimum of 50mm clearance from the bottom of the wall cladding to the adjoining finished ground level is required in accordance with Part 7.5.7 of the ABCB Housing Provisions. Compliance can be achieved through design development.

## Section 8 - Glazing

All glazing is to comply with AS2047-2014 and AS1288-2021. Design development is to ensure the requirements listed in these standards are met.

## Section 9 – Fire Safety

### Part 9.2 – Fire Separation of External Walls

The current design shows building A, B & C external walls of adjoining class 1a units located less than 1.8m from each other on the same allotment requiring a fire rated wall with an FRL of not less than 60/60/60 when tested from the outside. Any doors located within these walls are required to be self-closing 35mm thick solid core door and any windows will have to be non-openable fire windows with an FRL of -/60/-. There is currently no indication on the plans that these walls will comply with Part 9.2.3 of the Housing Provisions. This can either be addressed as part of the ongoing design process with further design reviews or a fire engineering performance solution can be sought.

Buildings A, B and C are provided with more than 1.8m separation therefore no protection is required between adjoining buildings.

It is noted that no external walls are located within 900mm of an allotment boundary.

### Part 9.3 – Fire Protection of Separating Walls and Floors

It is assumed that lightweight fire walls will be provided with an FRL of not less than 60/60/60 between all units. The current design details all separating walls commencing at the ground floor slab and extending up to the underside of the roof covering. All lightweight fire separating walls are to comply with NCC 2022 Volume 1 Specification 6. Further consideration should be given as the design develops.

### Part 9.4 – Fire Protection of Garage Top Dwellings

There are eight (8) dwellings located above private garages not associated with the class 1a dwelling. It is assumed that all the walls for the private garages will be fire rated to a minimum FRL of 30/30/30. Most of the walls are a continuation of the fire separating wall for the units above which are required to achieve an FRL of 60/60/60 exceeding the required fire rating for private garages. It is also assumed that the ceiling of the private garages will be fire rated to an

FRL of 30/30/30 to achieve compliance with NSW Part 9.4.2. Construction details are to be created as the design develops.

### **Part 9.5 – Smoke Alarms and Evacuation Lighting**

Smoke alarms are to be provided in every corridor leading to a bedroom and at least one on each storey or part thereof. Compliance can be achieved through design development.

## **Section 10 - Health and Amenity**

### **Part 10.2 – Wet Area Waterproofing**

Wet area waterproofing is to be in accordance with Part 10.2 or the Housing Provisions and AS3740-2021. A minimum fall of 1:100 at substrate level and 1:80 – 1:50 at finished floor level is to be provided to all floor wastes. Further consideration to be taken as design develops.

Note: all external waterproofing is to be in accordance with Part H2D8 & AS4654.1 & AS4654.2.

### **Part 10.3 – Room Heights**

The current design shows compliant head heights for all dwellings.

### **Part 10.4 – Facilities**

All five-unit types are provided with the minimum level of facilities required for class 1a dwellings.

### **Part 10.5 – Light**

Natural light at the rate of 10% of the room's floor area is required for all habitable rooms. The current design appears to be generally capable of compliance subject to further design detail.

### **Part 10.6 – Ventilation**

Ventilation is to be provided to all habitable rooms, sanitary compartments and laundries of a rate not less than 5% of the room's floor area. The current design is generally capable of compliance with this provision subject to further design considerations.

## **Section 11 – Safe Movement and Access**

Stairways and ramps are capable of complying with Part 11.2 of the Housing Provisions subject to further design development. A handrail is to be provided to all stairways with a change in level of 1m or greater.

Current design shows compliance balustrade heights.



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If you have any queries, please do not hesitate to contact me.

Regards,

A handwritten signature in black ink, appearing to read "S Grimmond", with a long horizontal stroke extending to the right.

Stephen Grimmond  
Director | Building Certifier  
BDC3439