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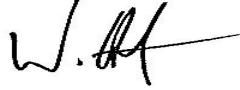
Revision	Date	Description	
111451-BCA-r1	23 April 2020	Development Application - BCA Assessment Report	
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BASIS OF ASSESSMENT

1.1. Location and Description

The building development, the subject of this report, is located at 16 Maretimo Street, Balgowlah. It is proposed to carry out alterations and additions to an existing residential dual occupancy building. It will include internal reconfiguration and external carport, portico entry and stairway.



Photograph courtesy of Six Maps

1.2. Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA 2019, 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 2019. 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.

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, 2019 Edition (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:

- (a) the structural adequacy or design of the building;
- (b) the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
- (c) the design basis and/or operating capabilities of any proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- (a) the National Construction Code – Plumbing Code of Australia Volume 3

- (b) the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to), (Note: The provision of disabled access to the subject development has been assessed against the deemed to satisfy provision of Part D3 and F2.4 of BCA2019 only);
- (c) Demolition Standards not referred to by the BCA;
- (d) Work Health and Safety Act 2011;
- (e) Requirements of Australian Standards unless specifically referred to;
- (f) 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
- (g) Conditions of Development Consent issued by the Local Consent Authority.

1.5. Design Documentation

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

2 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 C1.2)

The building has a rise in storeys of two (2)

2.2. Classification (Clause A6.0)

The building has been classified as follows.

Table 1. Building Classification

Class	Level	Description
2	Ground & First Floor	Residential sole occupancy units
10a	Ground	Carport, Pergola and entry Portico

2.3. Effective Height (Clause A1.0)

The building has an *effective height* of 3.34 metres.

2.4. Type of Construction Required (Table C1.1)

The building is required to be of Type C Fire Resisting Construction.

2.5. Floor Area and Volume Limitations (Table C2.2)

There are no fire compartment size limitations applicable

2.6. Exits

Each unit has its own entry/exit direct to the open space.

2.7. Climate Zone (Clause A1.0)

The building is located within Climate Zone 5

2.8. Location of Fire-source features

The fire source features for the subject development are:

North: The allotment boundary.

South: The allotment boundary.

East: The allotment boundary.

West: The far side boundary of Maretimo Street.

In accordance with Clause 2.1 of Specification C1.1, 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 ESSENTIAL FIRE SAFETY MEASURES

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 2. Essential Fire Safety Measures

Item	Essential Fire and Other Safety Measures	Standard of Performance
1.	Construction Joints	BCA2019 C1.1, Spec C1.1 BCA2019 C3.16 AS 1530.4:2014 & AS 4072.1:2005
2.	Fire doors	BCA2019 D2.8 (Enclosure of Space under Stairs) Spec C3.4 AS1905.1: 2015
3.	Fire seals protecting openings in fire resisting components of the building	BCA2019 C3.15 (Openings for service installations) BCA2019 Spec C3.15 AS1530.4:2014 & AS4072.1-2005
4.	Fire shutters	BCA2019 C3.4 (Acceptable methods of protection) BCA2019 Spec. C3.4 AS1905.2-2005
5.	Lightweight construction	BCA2019 C1.1, Spec. C1.1 BCA2019 C1.8, Spec C1.8 AS1530.4:2014
6.	Portable fire extinguishers	BCA2019 E1.6 AS 2444–2001
7.	Fire blankets	AS 2444–2001
8.	Automatic fire detection & alarm	BCA2019 E2.2 , NSW Table E2.2a, Spec E2.2a – Smoke Alarms AS 3786:2014 (Amdt 1-4)

4 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 C Construction

Table 3. Type C Construction

Item	Class 2
External Walls	
- Less than 1.5m to a <i>fire-source feature</i>	90/90/90
- 1.5 – less 3m from <i>fire-source feature</i>	-/-/-
- 3m or more from a <i>fire-source feature</i>	-/-/-
External Column not incorporated in an external wall	
- Less than 1.5m to a fire source feature	90/-/-
- 1.5 – less 3m from fire source feature;	-/-/-
- 3m or more from a fire source feature	-/-/-
Common Walls and Fire Walls	90/90/90
Internal walls bounding sole occupancy units	60/60/60
Internal walls bounding public corridors, hallways and the like	60/60/60
Internal walls bounding a stair if required to be fire rated	60/60/60

Note:

- An external wall that is required to have an *FRL* need only be tested from the outside to satisfy the *FRL* requirement.
- No FRLs are required to the Class 10a parts, other than they must not significantly increase the risk for the spread of fire.
- Floors between the units to maintain an FRL of 30/30/30 or fire protective covering to underside.

5 MATTERS FOR FURTHER CONSIDERATION

5.1. General

Assessment of the Architectural design documentation against the Deemed-to Satisfy Provisions of the Building Code of Australia, 2019 (BCA) and is summarised in the following sections.

5.2. Dimensions and Tolerances

The BCA contains the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. BCA Logic's assessment of the plans and specifications has been undertaken to ensure the minimal dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as stair and corridor widths and balustrade heights.

5.3. Section C – Fire Resistance

- a) The existing construction of the building is considered to readily meet the fire resisting requirements of this section. External wall construction is masonry and a fire-resistant separation occurs between the floor levels.
- b) New windows on the Southern Elevation are less than 1.5m from the boundary and are suitably proposed to be protected.
- c) The Carport and Pergola Structure on the Northern Elevation provide suitable measures to prevent the spread of fire, consistent with the Class 10a requirements in Volume Two of the BCA.
- d) New materials and linings can readily achieve the required fire hazard properties.

5.4. Section D – Access and Egress

- a) Each unit has its own direct egress to the open space and connected to the road.
- b) No access for persons with a disability is considered necessary as not common area works are proposed for the building. The Disability (Access to Premises – Building) Standards 2010 are not applicable to as the building is not used as short term accommodation and is an existing building.
- c) The proposed stairways and barriers to prevent falls can be suitably provided.
- d) The bin store beneath the new stairway for unit can achieve the required fire resistant enclosure requirements if its construction causes it to be fully enclosed.

5.5. Section E – Services and Equipment

- a) The building will need to be provided with the fire safety measures outlined in Part 3 of this Report.

5.6. Section F – Health and Amenity

- a) Suitable health and amenity is provided, including required facilities, ceiling heights, light and ventilation.
- b) No sound insulation works are considered required as the existing floor separation is to remain.

6 STATEMENT OF COMPLIANCE

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 (as outlined in Part 5 of this Report) with that Code.

ANNEXURE A DESIGN DOCUMENTATION

Annexure A – Design Documentation

This report has been based on the following design documentation.

Table 4. Architectural Plans

Architectural Plans Prepared by Northern Beaches Design		
Drawing Number	Date	Title
DA1	04 Apr 20	Cover Page – Materials and Finishes
DA2	04 Apr 20	Survey
DA3	04 Apr 20	Site Analysis and Waste Management Plan
DA4	04 Apr 20	Ground Floor Plan
DA5	04 Apr 20	First Floor Plan
DA6	04 Apr 20	Roof Floor Plan
DA7	04 Apr 20	Elevations, N, S
DA8	04 Apr 20	Elevations, E, W
DA9	04 Apr 20	Section A-A, B-B
DA10	04 Apr 20	Landscaping Plan
DA11	04 Apr 20	Safety Notes
DA12	04 Apr 20	Sediment Control Plan
DA13	04 Apr 20	Solar June 21-9am
DA14	04 Apr 20	Solar June 21-12pm
DA15	04 Apr 20	Solar June 21-3pm
DA16	04 Apr 20	BASIX