

# BUILDING CODE OF AUSTRALIA SECTION C, D & E COMPLIANCE AUDIT REPORT

Residential Flat Building

97 Queenscliff Road, Queenscliff

DATE ► 21/03/2025

REPORT NO. ► 14094 Rev.00

PREPARED FOR ► P-3 Living

PREPARED BY ► AE&D



**AEDGROUP**

Innovation & expertise in building regulations

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REVISION STATUS			
REVISION	DATE	STATUS	WRITTEN
14094 Rev.00	21/03/2025	FINAL REPORT	JS

### COMMERCIAL IN CONFIDENCE

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## 1 INTRODUCTION

AED have been engaged by P-3 Living to carry out a Fire Safety Audit on the subject building at 97 Queenscliff Rd, Queenscliff, to determine compliance with the fire and life safety provisions of Section C (**Fire resistance**), Section D (**Access and egress**) and Section E (**Services and equipment**) of the Building Code of Australia 2022. It is noted that unit 6 was not available for inspection.

The primary purpose of this report is to identify the non-compliance matters contained within the construction against the current Deemed-to-Satisfy (DtS) Provisions of the BCA and to provide compliance recommendations to overcome the DtS non-compliances.

### 1.1 Basis of Report

The key basis of this report is to address compliance with the Building Code of Australia (BCA) 2022. The scope of services is limited to the fire and life safety provisions of Sections C – “Fire Resistance”, Section D – “Access & Egress”, Section E – “Services & Equipment”. This is based on the clients request to review the building for compliance relative to the potential for strata subdividing the building in the future. The report has been prepared based upon the following:

- The Building Code of Australia 2022 prepared by the Australian Building Codes Board.
- The Guide to the BCA 2022, prepared by the Australian Building Codes Board.
- Site inspection completed by Jason Storer of AED on 20 February 2025.

This report does not and cannot make comment upon:

- (a) defects that may have been concealed;
- (b) the assessment or detection of defects (including rising damp and leaks) which may be subject to the prevailing weather conditions;
- (c) the presence or absence of timber pests;
- (d) gas fittings;
- (e) environmental concerns;
- (f) the proximity of the property to flight paths, railways, or busy traffic;
- (g) noise levels
- (h) health and accessibility issues
- (i) heritage concerns;
- (j) security concerns;
- (k) active fire protection;
- (l) site drainage (apart from surface water drainage);
- (m) detection and identification of illegal building work;
- (n) detection and identification of illegal plumbing work;
- (o) durability of exposed finishes;
- (p) neighbourhood problems;
- (q) document analysis;
- (r) electrical installation;

- (s) any matters that are solely regulated by statute;
- (t) any area(s) or item(s) that could not be inspected by the consultant.

Accordingly, this Report is not a guarantee that defects and/or damage does not exist in any inaccessible or partly inaccessible areas or sections of the property.

## 1.2 Limitations of the Report

This report does not assess the following:

- Structural Provisions of the BCA (Section B) have not been considered. A suitably qualified Structural Engineer should be engaged to determine compliance.
- Accessibility Provisions of the BCA (BCA Part D4, BCA Clause E3D7-E3D8 (inclusive), F4D5-F4D7 (inclusive) and F4D12) have not been considered.
- Reporting on hazardous materials, WHS matters, or site contamination.
- Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building.
- Consideration of any fire services operational capacity (including hydraulic, electrical, or other systems).
- Assessment of plumbing and drainage installations, including stormwater.
- Assessment of mechanical plant operations, electrical systems, or security systems.
- Heritage significance.
- Consideration of energy or water authority requirements.
- Consideration of Council's local planning policies.
- Environmental or planning issues.
- Requirements of statutory authorities.
- Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out).
- Provision of any construction approvals or certification under Part 6 of the Environmental Planning & Assessment Act 1979.

## 1.3 Inspection

The inspection is a visual, non-invasive inspection only and is limited to those areas and sections of the property fully accessible and visible to the inspector on the dates of inspection.

The inspection did not include breaking apart, dismantling, removing or moving objects including but not limited to, foliage, moldings, roof insulation / insulation, floor or wall coverings, sidings, ceilings, floors, furnishings, appliances or personal possessions.

The inspector cannot see inside walls, between floors, inside skillion roofing, behind stored goods in cupboards, other areas that are concealed or obstructed. The inspector did not dig, gouge, force or perform any other invasive procedures.



## 2 BCA ASSESSMENT DATA

The following data is provided in respect to review of the building under the Building Code of Australia 2022 in respect to the compliance assessment of the building/s at 97 Queenscliff Road, Queenscliff:

BCA Building Classifications:	2, 7a, 7b Residential
Building rise in storeys:	4 (determined in accordance with C2D3 of the BCA).
Type of Construction:	Type A (determined in accordance with C2D2 of the BCA)
Effective Height (m):	Unknown

### 2.1 Aerial Image of Building/s



Source: Six Maps

## 2.2 Location of Fire Source features

The potential *fire source features* to be considered for this building are the external wall of another building on the allotment which is not a Class 10 building, the side or rear of the allotment boundary or the far side of the road bounding the allotment.

In this instance the following setbacks are determined in respect to the fire source features applicable to the building:

- South – far side of Queenscliff Rd – more than 6-m.
- North – boundary of the allotment adjoining - more than 3-m.
- East – side boundary of the allotment adjoining appears to be closed than 3-m.
- West – side boundary of the allotment adjoining appears to be closed than 3-m.


### 3 BCA AUDIT & UPGRADE RECOMMENDATIONS




AED have been engaged by P-3 Living to carry out a Fire Safety Audit on the subject building at 97 Queenscliff Road, Queenscliff to determine compliance with Sections C, D & E of the Building Code of Australia 2022.

The primary purpose of this report is to identify the non-compliance matters contained within the construction against the current Deemed-to-Satisfy (DtS) Provisions of the BCA and to provide compliance recommendations to overcome the DtS non-compliances.



#### 3.1 Inspection Findings



The following is a list of Deemed-to-Satisfy non-compliances that have been identified within the subject building. Recommendations have been provided for how compliance can be achieved. It is also noted that only the units noted below in the table were inspected.


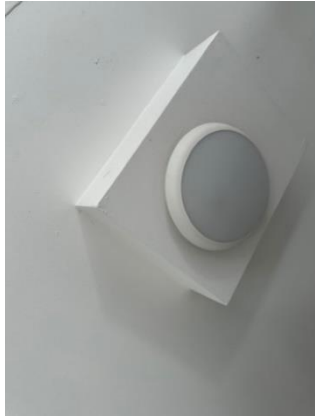
Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
1.	External Street hydrant		<p>BCA clause E1D2</p> <p>The street hydrant located to the west is approximately 40m from the footpath at the front of the site.</p> <p>The street hydrant located to the east of the building is approximately 35m from the footpath at the front of the site</p> <p>Compliant hydrant coverage was not able to be confirmed.</p>	<p>A hydraulic engineer is required to review the existing street hydrants to assess if they provide compliant coverage to the building in accordance with AS 2419.1 – 2021.</p> <p>Where a street hydrant does not achieve compliant coverage, it is also to be reviewed for coverage with the three lengths of hose concession relative to Fire and Rescue NSW Hydrant technical information guide for hydrants for existing buildings – reference D16/62522.</p> <p>If compliant with Fire and Rescue NSW Hydrant technical information guide for existing buildings, the hydraulic engineer is to specify what additional works are required to achieve compliance with the Fire and</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
		 		Rescue NSW Hydrant technical information guide D16/62522.
2.	TYPICAL ALL UNITS Front Door		BCA clause C4D12. No tags to doors or door frames, the doors and frames are not fire doors.	A new fire door and fire door frame to be installed as per BCA clause C4D12 and AS 1905.1 – 2015 for all unit entry doors.





Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
3.	TYPICAL ALL UNITS Front Door		BCA clause D3D16 This clause does not allow a step closer to a door than the width of the door leaf.	A performance-based solution to address the step at the doors would be required.
4.	Common area Stairs for Whole Building ground to top floor		BCA clause D3D19 All the balustrading in the stairs has gaps greater than 125mm.	The balustrade should be upgraded so that it has no gaps greater than 125mm, where the fall exceeds 1-m, in accordance with BCA clause D3D19.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
				
5.	TYPICAL ISSUE Within the residential units		BCA Specification 20 Smoke alarms are not hardwired in all units other than units 8, 9 and 10 which are hardwired.	Hard wired smoke alarms should be installed within all residential units in accordance with BCA specification 20 and AS3786 - 2014 other than units 8, 9 and 10.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
6.	TYPICAL ISSUE Common Area – bounding walls of units Milk Boxes		<p>BCA Specification 5.</p> <p>The milk boxes are cut into the bounding walls between the units and the common areas. This compromises the fire rating of the bounding walls.</p>	<p>Further invasive inspection is required to identify the level of non-compliance with respect to these opening into the bounding walls of the units.</p> <p>Once this has been completed and the method of construction and separation verified, fire separation will be required to ensure that the fire rating of the bounding walls is compliant with BCA Specification 5 for type A construction. This could be via bricking in the boxes area once the boxes are removed.</p>
7.	TYPICAL ISSUE Units		<p>BCA clause C4D15</p> <p>There was limited access to inspect services penetrations throughout the building to check the building for compliance. Set ceilings did not contain any access panels.</p>	<p>An invasive audit of the building will be required by a suitably qualified fire contractor to determine what service penetrations are not fire rated that penetrate fire rated building elements and provide a report detailing what fire upgrading is required in accordance with BCA clause C4D15.</p> <p>All non-fire sealed service penetrations are to be fire rated in accordance with this invasive inspection report to achieve compliance with BCA clause C4D15.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
8.	TYPICAL ISSUE Stairs		<p>BCA clauses D3D14 and D3D15</p> <p>There are no non-slip nosings to the stairs and the stair landings.</p>	Non slip nosing should be installed in accordance with BCA clauses D3D14 and D3D15.
9.	Unit 1 Ground		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.




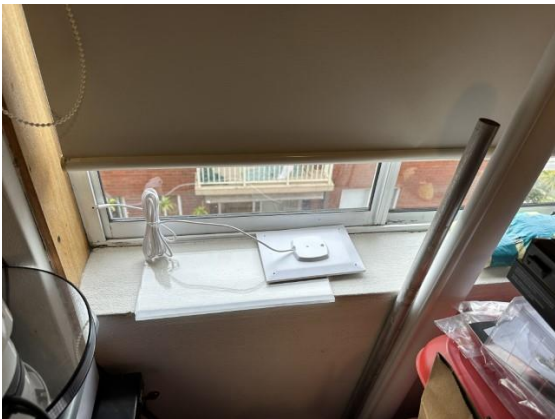
Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
10.	Unit 2 2 <sup>nd</sup> Bedroom		BCA clause D3D29 The bedroom window has not been fitted with a window restrictor in accordance with this clause.	A window restrictor should be installed to the bedroom window as required by clause D3D29.
11.	Unit 2 Main Bedroom		BCA clause D3D29 The bedroom window has not been fitted with a window restrictor in accordance with this clause.	A window restrictor should be installed to the bedroom window as required by clause D3D29.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
12.	Unit 6 Main Bedroom		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.
13.	Unit 7 Bedroom		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
14.	Unit 7 2 <sup>nd</sup> Bedroom		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.
15.	Unit 8		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.
16.	Unit 9 Bedroom	NO PHOTO	<p>BCA clause D3D29</p> <p>The bedroom windows have not been fitted with window restrictors in accordance with this clause.</p>	Window restrictors should be installed to all bedroom windows as required by clause D3D29.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
17.	Unit 10 Main Bedroom Level 2		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.
18.	Unit 10 2nd Bedroom Level 2		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	A window restrictor should be installed to the bedroom window as required by clause D3D29.





Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
19.	Unit 11 Both Bedrooms	 	<p>BCA clause D3D29</p> <p>The bedroom windows have not been fitted with window restrictors in accordance with this clause.</p>	<p>Window restrictors should be installed to all bedroom windows as required by clause D3D29.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
20.	Unit 12 Balcony		<p>BCA clause D3D18</p> <p>The balustrade is less than 1m in height above the floor, as the owner has added artificial grass on the floor.</p>	<p>The artificial grass should be removed and the balustrade rechecked for compliance with this clause, where still non-compliant the balustrade should be upgraded to be compliant with BCA clause D3D218 relative to being 1m minimum height.</p>
21.	Unit 12 Bedrooms x 2		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	<p>A window restrictor should be installed to the bedroom window as required by clause D3D29.</p>


Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
				
22.	Unit 13 Bedroom		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	<p>A window restrictor should be installed to the bedroom window as required by clause D3D29.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
23.	Unit 15 Both bedrooms		<p>BCA clause D3D29</p> <p>The bedroom window has not been fitted with a window restrictor in accordance with this clause.</p>	<p>A window restrictor should be installed to the bedroom window as required by clause D3D29.</p>
24.	Front Block Commons Third Floor (top)		<p>BCA clause D3D18</p> <p>The balustrade at the landing was less than 1m high.</p>	<p>The balustrade should be upgraded to be a minimum 1 metre high to comply with BCA clause D3D18 and AS 1170.1 - 2022.</p>



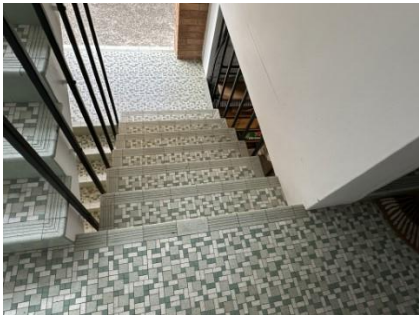

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
25.	Front Block Commons 3 <sup>rd</sup> Floor (top) L3 to L2		BCA clauses D3D18 and D3D22 The balustrade and handrail to the stair are less than 865mm high.	The balustrade and handrail should be upgraded to be compliant with BCA clauses D3D18 and D3D22 and AS 1170.1 - 2002.
26.	Front Block Commons 3 <sup>rd</sup> Floor (top) L3 to L2		BCA clause D3D14 Risers variance is greater than 5mm riser to riser and greater than 10mm in the flight, circa 20mm.	The stair risers should be modified so as to be compliant with BCA clause D3D14.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
27.	Front Block Level 3 Mid Landing to Level 2		BCA clause D3D22 A handrail was not provided.	The stair should be upgraded to be compliant with BCA clause D3D22 - handrail.
28.	Both Blocks Common Area Smoke alarms		BCA Specification 20. The smoke alarms in the public corridors of the building are not interconnected.	The smoke alarms within the common areas of the building are to be upgraded so that they are interconnected in accordance with BCA Specification 20.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
29.	Front Block Level 2 to level 1 Stair		BCA clause D3D22 A handrail was not provided.	The stair should be upgraded to be compliant with BCA clause D3D22 via providing a handrail.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
30.	Front Block Level 2		<p>BCA clause D3D8</p> <p>The path of travel from Unit 1 to the common stair is less than 1m, only 970mm.</p>	<p>Due to the minor nature of the non-compliance and the low occupant load of this area I do not consider that upgrade works are required as the minor reduced width would be compliant with the performance requirement D1P6.</p>
31.	Front Block Level 2		<p>BCA clause D3D8</p> <p>The path of travel from Unit 2 to the common stair is less than 1m, only 970mm.</p>	<p>Due to the minor nature of the non-compliance and the low occupant load of this area I do not consider that upgrade works are required as the minor reduced width would be compliant with the performance requirement D1P6.</p>





Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
32.	Front Block Level 1 to Ground Stair		BCA clause D3D22 A handrail was not provided.	The stair should be upgraded to be compliant with BCA clause D3D22 via providing a handrail.
33.	Front Block Level 1 Ground		BCA Specification 20 A smoke alarm was not installed at the ground floor entry.	A smoke alarm should be installed at the ground floor entry in accordance with BCA specification 20 and be interlinked to the remaining smoke alarms in the common area.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
34.	Front Block Level 1 Ground		<p>BCA clause E4D5</p> <p>There was no exit sign installed at the exit location at ground floor.</p>	<p>An exit sign should be installed at the ground floor in accordance with BCA clause E4D5 and AS/NZS 2293.1 – 2018.</p>
35.	Front Block Common Area Two steps at residential unit egress level		<p>BCA clause D3D22</p> <p>A handrail was not provided.</p>	<p>The stair should be upgraded to be compliant with BCA clause D3D22 via providing a handrail.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
36.	Front Block Common Area Two steps at residential unit egress level		BCA clause D3D14  Riser variance is greater than 5mm riser-to-riser and the variance is greater than 10mm in flight (circa 13-mm).	Due to the minor non-compliance we would recommend a performance solution is provided to address this issue.
37.	Rear Block Level 3 Landing		BCA clause D3D18  The balustrade at the landing was less than 1m high.	The balustrade should be upgraded to be a minimum 1 metre high to comply with BCA clause D3D18 and AS 1170.1 - 2022.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
38.	Rear Block Level 3 Stair		BCA clauses D3D18 and D3D22 The balustrade and handrail to the stair are less than 865mm high.	The balustrade and handrail should be upgraded to be compliant with BCA clauses D3D18 and D3D22 and AS 1170.1 - 2002.
39.	Rear Block Level 3 Stair		BCA clauses D3D22 The handrail at the mid-landing is not continuous vertically above the riser.	The handrail should be upgraded to be compliant with BCA clauses D3D22.




Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
40.	Rear Block Level 3 Stair		BCA clause D3D14 Riser variance is greater than 5mm bottom riser to second bottom riser and the variance is greater than 10mm in flight (circa 12-mm).	Due to the minor non-compliance we would recommend a performance solution is provided to address this issue.
41.	Rear Block Stair L3 to Ground		BCA clause D3D22 A handrail was not provided.	The stair should be upgraded to be compliant with BCA clause D3D22 via providing a handrail.







Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
				
42.	Rear Block Level 1		<p>BCA clause E4D5</p> <p>There was no exit sign installed at the exit location at ground floor.</p>	<p>An exit sign should be installed at the ground floor in accordance with BCA clause E4D5 and AS/NZS 2293.1 – 2018.</p>

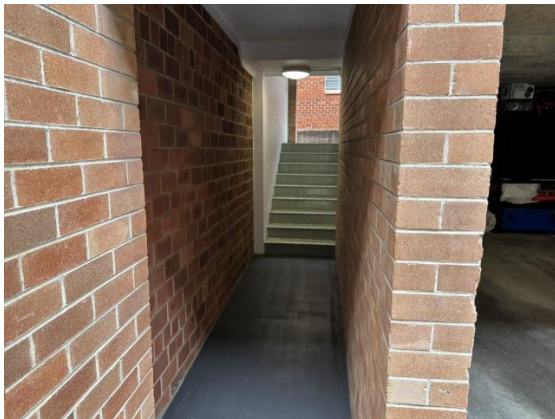

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
43.	Rear Block Level 1		BCA Specification 20 A smoke alarm was not installed at the ground floor entry.	A smoke alarm should be installed at the ground floor entry in accordance with BCA specification 20 and be interlinked to the remaining smoke alarms in the common area.
44.	Rear Block Stair Ground up to L1		BCA clause D3D22 A handrail was not provided.	The stair should be upgraded to be compliant with BCA clause D3D22 via providing a handrail.


Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
45.	Rear Block Ground Level Cupboard under Stair		BCA clause D3D9 No access was provided to check if this room under the stair is fire rated and whether penetrations are sealed.	Given the age of the building I consider it highly likely the room, the door and any services penetrations in the room will not be fire rated in accordance with BCA clause D3D9.  The room should be fire rated to a fire resistance level of one hour, the door be replaced with a one hour self-closing fire door and any service penetrations be fire rated to achieve a minimum 60 minute fire rating on both sides of the wall.
46.	Ground Level Electrical Board		BCA clause C4D15. The cables and conduits in the soffit are not fire sealed.	The service penetration should be fire sealed in accordance with BCA clause C4D15.



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
				
47.	Ground Level Soffit	 	<p>BCA clause C4D15.</p> <p>Numerous service penetrations between Ground and level 1 are not fire sealed.</p>	<p>All the service penetrations between ground floor and level 1 should be fire sealed in accordance with BCA clause C4D15.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
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Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
48.	Ground Level Path of Travel to Stair		<p>BCA clause D3D8</p> <p>The path of travel from the stair to external is less than 1m, only 940mm.</p>	<p>Due to the minor nature of the non-compliance and the low occupant load of this area I do not consider that upgrade works are required as the minor reduced width would be compliant with the performance requirement D1P6.</p>
49.	Ground Level Stair up to L1 Main Entry		<p>BCA clause D3D8</p> <p>The path of travel on the stair is less than 1m, only 950mm.</p>	<p>Due to the minor nature of the non-compliance and the low occupant load of this area I do not consider that upgrade works are required as the minor reduced width would be compliant with the performance requirement D1P6.</p>

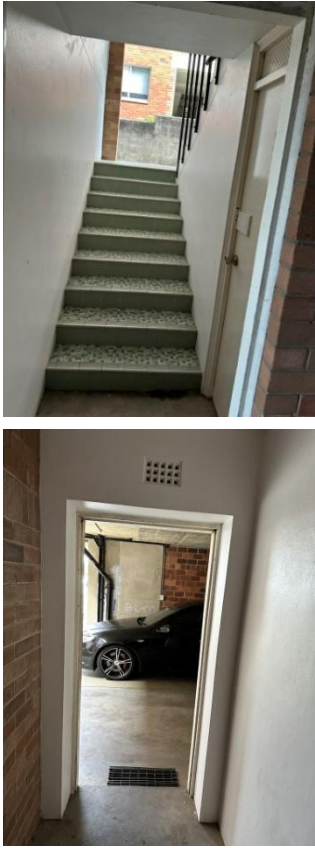
Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
50.	Roof level		<p>BCA Specification 5</p> <p>The ceiling at roof level is not continuous throughout the whole of the top floor and stops and starts between the masonry divided walls within the top floor.</p>	<p>A performance-based solution is recommended to address this non-compliance.</p> <p>This would provide justification of the suitability of allowing for the fire rated ceiling to be non-continuous.</p> <p>Typically this requires that any penetrations into the walls below the fire rated ceiling are fire rated at the entry point to ensure that fire does not gain access into the wall and then spread up through the wall and into the roof space allowing fire to spread to an adjacent unit. Any ceiling/wall junctions would also be required to be fire sealed.</p> <p>A fire engineer should attend the site to inspect the non-compliance to then provide details of a suitable performance-based solution to address this non-compliance.</p>


Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
51.	Roof level		<p>BCA Specification 5.</p> <p>There was a hole in the wall of the riser that was not fire sealed.</p>	<p>The hole in the wall of the riser should be fire sealed to comply with BCA Specification 5.</p>
52.	Roof level		<p>BCA clause C4D15</p> <p>Within the roof area there were service penetrations that were not fire sealed where they came through the ceiling. The ceiling appears to be a fire rated ceiling as two layers of fire rated plasterboard have been provided.</p>	<p>A fire contractor specialising in fire rating of service penetration should gain access to the roof space and fire rate all service penetrations within the roof space that penetrate through the ceiling, so that the penetrations achieve a minimum 60 minute incipient spread fire rating.</p>

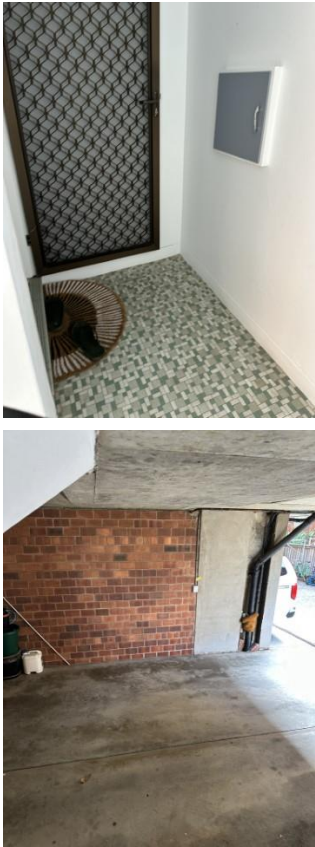
Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
		 		



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
53.	External		<p>BCA clauses C4D3 and C4D5.</p> <p>Openings in the external wall on the west side of the building are potentially less than 3m from the side boundary and are not fire protected in accordance with BCA clause C4D5.</p>	<p>A survey should be undertaken to confirm the distance the external wall is located from the boundary.</p> <p>If the wall is within 3m of the boundary any openings in the wall are required to be fire rated in accordance with BCA clause C4D5 or addressed via a performance solution from a fire engineer.</p>
54.	External		<p>BCA clauses C4D3 and C4D5.</p> <p>Openings in the external wall on the east side of the building are potentially less than 3m from the side boundary and are not fire protected in accordance with BCA clause C4D5.</p>	<p>A survey should be undertaken to confirm the distance the external wall is located from the boundary.</p> <p>If the wall is within 3m of the boundary any openings in the wall are required to be fire rated in accordance with BCA clause C4D5 or addressed via a performance solution from a fire engineer.</p>



Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
55.	Ground floor rear area		<p>BCA clause E4D6</p> <p>There was no directional exit sign installed at ground floor.</p>	<p>An exit sign should be installed at the ground floor in accordance with BCA clause E4D6 and AS/NZS 2293.1 – 2018.</p>

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
56.	Ground floor		<p>BCA clause S2OC7</p> <p>A Building Occupant Warning System is not provided with the ground floor.</p>	<p>A Building Occupant Warning System should be provided to this level in accordance with BCA clause S2OC7.</p>

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
57.	Throughout		<p>BCA clause E1D14 No portable fire extinguishers were installed throughout the building.</p> <p>BCA clause E1D3 In addition there were no fire hose reels within the ground floor carpark area.</p> <p>This level may be less than 500m<sup>2</sup> in floor area, if so fire hose reels would not be required (where compliant street hydrant coverage is achieved see comments further above about hydrants above).</p>	<p>Confirmation of the floor area of the ground level is required in terms of over or under 500m<sup>2</sup></p> <p>Install fire extinguishers and fire hose reels as required in accordance with clauses E1D3 and E1D14 of the BCA once the floor area of the carpark and the hydrant requirements are confirmed.</p>

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
58.	Throughout	 <p>Photo above shows the residentail units egress at the high side of the building.</p> 	<p>BCA clause E1D6</p> <p>The building has a rise in storeys of four.</p> <p>Due to the rise in storeys of four, the building is required to be provided with a sprinkler system throughout. It is currently not sprinklered.</p>	<p>Whilst the building has a rise in storeys of only 4 storeys, it is noted that the occupants of the class 2 residential levels only need to travel a maximum of 3 storeys to egress the building as the class 2 occupants level of egress is on the high side of the site and their egress path does not require them to travel down to the carpark level below, due to the stepped nature of the site and of the building.</p> <p>Whilst it is acknowledged that the BCA requires the building to be sprinkler protected throughout where it is a new building, I am of the opinion that it is not necessary for this building to be sprinkler protected due to the rise in storeys only being four and that the class 2 residential component of the building is only three stores.</p> <p>In addition the building is to be heavily fire separated due to the fire upgrade works, with these works including fire rating of the service penetrations, installation of fire doors, upgrading of the bounding wall for the fire rating of the milk boxes, installation of hard wired smoke alarms in units and interconnection of smoke alarms in the common areas.</p> <p>As a further measure to assist with occupant evacuation the upgrade of the building should include hard wired thermal smoke alarms within 1.5-m of</p>

Item	Location	Photo	Details of Defect & Nominated Breach	Recommended Remedial Works
		<p>Photo above shows the typical ground floor area that would be 120 minute fire rated to fire separate the stair from ground level where it connects to the egress from the residential levels at level 1.</p>		<p>the residential unit entry doors within each residential unit linked to a Building Occupant Warning System to provide early notification to all occupants of a fire.</p> <p>The Building Occupant Warning System should also provide a minimum of 75dBA at the bedheads within the bedrooms throughout as well as be provided throughout the lower ground floor of the building in accordance with BCA clause S20C7.</p> <p>In addition the area around the stairs that connect the ground floor to level 1 should be fire rated to achieve a minimum fire rating of 120 minutes so that the ground level and level 1 residential levels are 120 minute fire separated from each other, this provides an enhanced occupant egress path from the residential units for the fire scenario where a fire originates with the ground floor car park level.</p>



## 4 CONCLUSION

AED have been engaged by P-3 Living to carry out a Fire Safety Audit on the subject building to determine compliance with Sections C, D & E of the Building Code of Australia 2022.

The primary purpose of this report is to identify the non-compliance matters contained within the construction against the current Deemed-to-Satisfy (DtS) Provisions of the BCA and to provide compliance recommendations to address the deemed-to-satisfy non-compliances identified.

Report prepared by:



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