



BCA



CREDWELL

BCA CAPABILITY STATEMENT

ISSUED FOR S4.56 SUBMISSION

Mixed-use residential building

9-11 Victoria Parade, Manly

250365-Capability Statement-r1
10 July 2025

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DOCUMENT CONTROL

Report Reference Description	Date	Prepared by	Reviewed/Approved by
250365-Capability Statement-r1 <i>Issued for S4.56 submission</i>	10/07/2025	Quan Pham Building Surveyor	Adam Southwell Associate Building Surveyor – Unrestricted (A1) BDC 3305

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1 INTRODUCTION

1.1 OBJECTIVES

The purpose of this capability statement is to provide an overview of the key BCA compliance issues identified that must be considered in the design to enable compliance with Volume One of the Building Code of Australia 2022 Amendment 1 (BCA).

Part 3 'Assessment Summary' of this capability statement outlines the identified compliance matters that require design consideration and/or assessment as a Performance Solution (to be prepared at a later stage of the development).

It is presumed the assumptions, content, and limitations of this report are reviewed, noted, and understood by the reader. Credwell Consulting are to be contacted to clarify any queries or assumptions made in relation to the contents of this report and further, Credwell Consulting take no responsibility for misinterpretation of any of the content herein.

1.2 LIMITATIONS

This report does not include, nor imply, any audit, assessment, or upgrading of:

1. The structural adequacy or design of the building;
2. The capacity or design of any electrical, fire, hydraulic or mechanical services;
3. The inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
4. The Disability (Access to Premises – Building) Standards 2010 and the Disability Discrimination Act 1992 (Cth).

This report does not include, nor imply, any assessment of, or 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. The provision of disabled access to the subject development, being any assessment of the Deemed-to-Satisfy provisions of Part D4, and Clauses E3D7, E3D8, F4D5, F4D6, F4D7, and F4D12, and Specifications 14, 15, 16, and 27;
4. Any Development Consent conditions;
5. The Liquor Act 2007;
6. The Work Health and Safety Act 2011;
7. The Swimming Pools Act 1992;
8. Requirements of Authorities including, but not limited to, Fire and Rescue NSW, WorkCover, RMS, Council, Telecommunications Supply Authority, Electricity Supply Authority, Water Supply Authority, Gas Supply Authority and the like;
9. Requirements of BCA Section J
10. The structural design of the building;
11. The design of any electrical, fire, hydraulic or mechanical services; and

12. The inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to).
13. Wet area and external area waterproofing (unless specifically referred to).
14. Surface water management and rising damp under Part F1 of the BCA (unless specifically referred to).
15. Sound transmission and insulation under Part F7 of the BCA.
16. Condensation management under part F8 of the BCA.
17. Energy Efficiency requirements under Section J of the BCA.
18. Construction in alpine areas under part G4 of the BCA.
19. Bushfire requirements under part G5 of the BCA.

Interpretations

A number of matters within the BCA are known to be interpretive. Where these matters are encountered, interpretations have been used that are consistent with Credwell Consulting's understanding of standard industry practice.

Dimensions and Tolerances

In some instances, the BCA specifies minimum dimensions for construction. The assessment of plans and specifications includes a review of such minimum dimensions that are relevant to the project, but Credwell Consulting does not guarantee that all relevant minimum dimensions have been assessed where they are not clearly and explicitly denoted/marked on the architectural drawings.

The relevant designer(s) and builder(s) should confirm that all minimum dimensions are achievable on site prior to works and consideration/attention should be given to construction tolerances impacted by wall set outs, applied finishes, and skirtings to corridors and bathrooms. For example, tiling bed thickness on walls and floors can adversely impact critical minimum dimensions relating to access for people with disabilities, stair and corridor widths, and balustrade heights.

1.3 REVIEWED DOCUMENTATION

This report is based on documentation referenced in Annexure A.

2 PROPOSED DEVELOPMENT

2.1 BUILDING LOCATION

The development, the subject of this report, is located at 9-11 Victoria Parade, Manly NSW 2095.

The site adjoins a public road (Victoria Parade) to the south, and all other boundaries adjoin private properties.

The site is understood to currently only contain the existing heritage building which is to be retained.

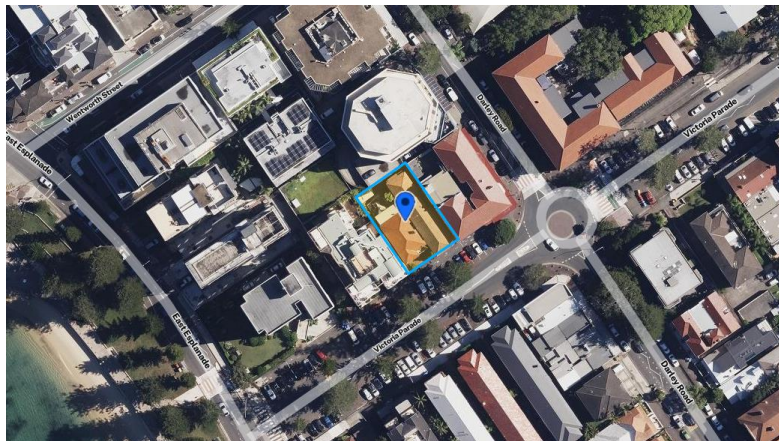


Figure 1 | Satellite image of the proposed site | Source: Six maps

2.2 PROPOSAL

The proposed development consists of the construction of a Nine (9) storey mixed use development including:

- Residential Sole occupancy Units
- Carparking
- Retail

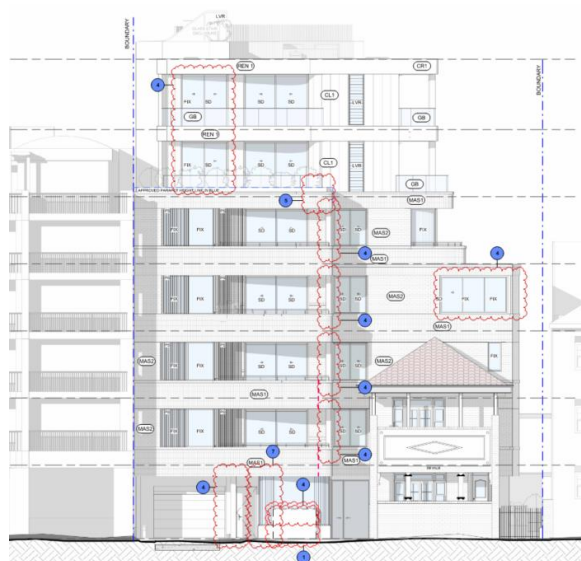


Figure 2 | The proposed development | Source: Platform Architects Pty Ltd

2.3 BUILDING DESCRIPTION

For the purposes of the BCA, the building is described as follows:

Building Classification <i>As per Part A6 of the BCA</i>	2 (Residential) 6 (Retail/commercial) 7a (Carpark)	Levels Contained <i>Total number of floor levels in the building</i>	Ten (10)
Rise in Storeys <i>As per BCA Clauses C2D3 & C2D4</i>	Eight (8)	Effective Building Height (m) <i>As per BCA definition</i>	22.15 m (RL 26.90 – RL 4.75)
Type of Construction <i>As per BCA Clause C2D2</i>	Type A	Climate Zone <i>As per BCA Map</i>	5 Northern Beaches Council
Sprinkler System proposed	To be confirmed at CC stage		

2.4 CLASSIFICATION

Location	Class	Use	Floor Area	Occupants
Basement 2 & 2.5	7a	Carpark	425 m ²	-
Basement 1 & 1.5	7a	Carpark	425 m ²	-
Ground Floor	2 & 6	Residential and retail/commercial	355 m ²	67
	2	Residential lobby and plant rooms	130 m ²	
	2	Garbage rooms (10% of Ground Floor storey)	20 m ²	
	6	Retail/commercial	205 m ²	67 (Shop – 3m ² per person)
Level 1	2	Residential	360 m ²	-
Level 2	2	Residential	320 m ²	-
Level 3	2	Residential	315 m ²	-
Level 4	2	Residential	220 m ²	-
Level 5	2	Residential	190 m ²	-
Level 6	2	Residential	190 m ²	-
Roof Terrace	2	Residential	29 m ²	-

Note:

In accordance with Clause A6G1 [2019: A6.0], Exemption 1 of the BCA, for the purposes of determining a building classification, where an ancillary use does not occupy more than 10%

of the floor area of the storey which it is situated on, it may be absorbed into the dominate use for that level.

Storage areas (Class 7b) includes: general storage areas, cleaners' rooms, garbage rooms, bicycle parking areas and the like.

Occupant numbers have been calculated in accordance with Clause D2D18 [2019:D1.13] of the BCA.

The floor areas identified within the above table are in accordance with the BCA definition which may vary from the GFA as determined in accordance with NSW planning legislation.

2.5 FIRE COMPARTMENTATION

A detailed FRL and fire compartmentation review has not been undertaken at this stage due to the level of documentation provided for DA. Pending further engagement this will be assessed upon receipt of Construction Documentation.

In accordance with clause C3D3 of the BCA, as the building is of Type A Construction, and based on the building classification, the size of any fire compartment must not exceed:

- Floor Area: 5,000 m²
- Volume: 30,000 m³

Note: Class 2 parts of the building are not subject to maximum compartment sizes.

The following fire compartments have been assumed:

1. Basements 1, 1.5, 2 and 2.5
2. Ground Floor
3. Each residential level has been considered a separate fire compartment

The largest fire compartment is located on the basement levels and is approximately:

- Area: 850m²
- Volume: 5,000m³

The fire compartments are within the limitations of clause C3D3.

3 ASSESSMENT SUMMARY

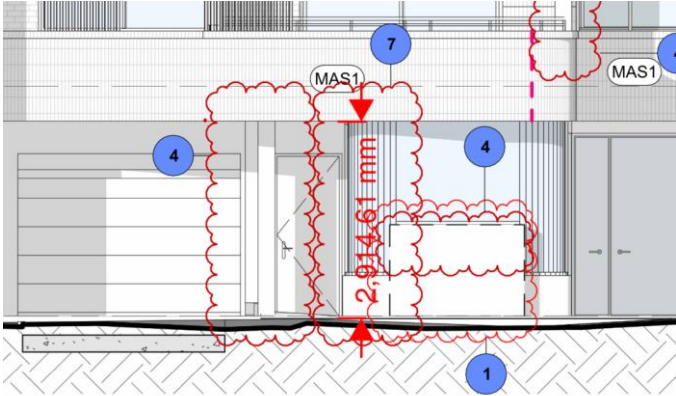
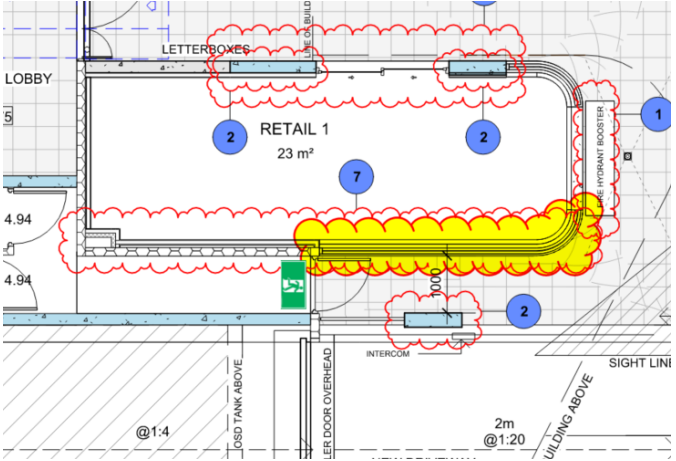
3.1 ASSESSMENT

The reviewed documentation referenced in Annexure A of this report has been assessed against the Deemed-to-Satisfy (DtS) provisions of the BCA. This assessment has identified the following areas where compliance with the BCA will require further consideration.

3.2 POSSIBLE PERFORMANCE SOLUTIONS (FIRE SAFETY)

The following items relate to areas where a Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution. Fire Engineered Performance Solutions must be prepared by a certifier – fire safety in consultation with all stakeholders as part of the Construction Certificate assessment stage

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	<p>Protection of openings in external walls</p> <p>The access hatches and openings for the ladder to the OSD tank on Level 1 is within 3m of the South-west lot boundary are required to be protected.</p> <p>The hatches are either to achieve an FRL of at least 120/120/120 or a performance solution from a suitably qualified fire engineer can be sought to provide a solution.</p>	C3D2	C1P2
2.	<p>Roof lights</p> <p>The roof lights cannot be located within 3m of any lot boundary or part of the building projecting above the roof (carpark exhaust, hot water plant, lift overrun and roof terrace).</p> <p>A performance solution from a suitably qualified fire engineer can be sought to address the non-compliance.</p>	S5C16	C1P2
3.	<p>Number of exits required</p> <p>The basement levels 1, 1.5, 2 and 2.5 are required to be provided with a minimum of two (2) exits.</p> <p>Only one (1) exit has been provided to the subject levels.</p> <p>A performance solution from a suitably qualified fire engineer can be sought to address the non-compliance.</p>	D2D3	D1P4
4.	<p>Travel via fire-isolated exits</p>	D2D12	D1P4

Item	Possible Performance Solution	DtS Provision	Performance Requirements
	<p>The fire isolated exit currently discharges into a covered area on the ground floor.</p> <p>The covered area currently has an unobstructed clear height throughout (including perimeter openings) of 2.9m in lieu of the minimum 3m required by D2D12(2)(c)(iii).</p>  <p>Path of travel from the point of discharge of the fire-isolated exit on the ground floor passes by the external wall of Retail 1. The wall is currently shown to be glazing and would therefore not meet the minimum required FRL of 60/60/60.</p>  <p>A performance solution from a suitably qualified fire engineer can be sought to address the non-compliances.</p>		

3.3 POSSIBLE PERFORMANCE SOLUTIONS (OTHER)

The following items relate to areas where a non-fire engineered Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution.

Where a Performance Solution is proposed, the solution is to be prepared by a suitably qualified person in consultation with all stakeholders as part of the Construction Certificate assessment stage

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	Nil.	-	-

3.4 DESIGN CONSIDERATIONS

Credwell have undertaken a preliminary BCA assessment of the plans referenced in Annexure A and found that the following elements of the design require design amendment. These elements must be reviewed in further detail as part of the design development / Construction Certificate phase.

Item	Design Considerations	DtS Provision
1.	Nil.	-

4 STATEMENT OF COMPLIANCE

The architectural design documentation prepared for submission for the S4.56 Application (as referred to in Annexure A of this report) have been assessed against the relevant provisions of the BCA. This assessment was limited to an assessment of the BCA in order to identify any key items that must be included in the design. It is considered that the documentation complies or is capable of complying with the BCA subject to resolution of items identified in this Report.

Sufficient construction documentation is required in order to undertake a full assessment prior to the application for Construction Certificate.

5 LEGISLATIVE REQUIREMENTS

The following legislation outline some of the pertinent requirements which must be reviewed and satisfied prior to the issue of a Development Application.

5.1 CLAUSE 62 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2021

Clause 62 of the Environmental Planning and Assessment Regulations 2021 applies to existing buildings subject to a Development Application for the change of building use, where the proposal does not seek the rebuilding or alteration of the building.

This clause does not apply to the development as the proposal involves building alteration works.

5.2 CLAUSE 64 OF THE ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2021

Clause 64 of the Environmental Planning and Assessment Regulations 2021 applies to existing buildings subject to a Development Application for the rebuilding or alteration of the building where:

Clause 64 (1)

(a) the proposed building work and previous building work together represent more than half of the total volume of the building, or

(b) the measures contained in the building are inadequate—

(i) to protect persons using the building, if there is a fire, or

(ii) to facilitate the safe egress of persons using the building from the building, if there is a fire, or

(iii) to restrict the spread of fire from the building to other buildings nearby.

Where this clause applies to the development:

(2) The consent authority must consider whether it is appropriate to require the existing building to be brought into total or partial conformity with the Building Code of Australia.

This clause applies to the development as the total building work represents more than half of the building volume as per Clause 64(1)(a).

The local Consent Authority (Council) have at the Development Approval stage discretion on the level of fire safety upgrading deemed necessary, being either a total upgrade to satisfy the provisions of the BCA or partial upgrading depending on the design, construction extent of alterations and additions and circumstances of the particular building.

It should be noted that under Clauses 64 above, the primary concern with existing buildings is that of protecting persons using the building and to facilitate their egress from the building in the event of a fire or to restrict the spread of fire from the building to other buildings nearby.

Element	Credwell Assessment
<i>(1)(b)(i) to protect persons using the building, if there is a fire</i>	<p>The existing building is to be provided with the required fire safety measures as outlined in Annexure B of this report to meet the DtS provisions of the BCA.</p> <p>The existing timber flooring between the ground floor and first floor of the heritage building is required to be upgraded to achieve the required 180/180/180 FRL.</p> <p>The existing openings within 3m of the Eastern side lot boundary is required to be provided with protection in accordance with clause C4D5.</p>
<i>(1)(b)(ii) to facilitate the safe egress of persons using the building from the building, if there is a fire</i>	<p>An assessment of egress throughout the building has been undertaken against the DtS provisions of the BCA.</p> <p>The proposal is capable of complying with the DtS provisions in relation to egress which is deemed appropriate and no further upgrades are required.</p>
<i>(1)(b)(iii) to restrict the spread of fire from the building to other buildings nearby</i>	<p>The building is the only building on this allotment.</p>

ANNEXURE A – REVIEWED DOCUMENTATION

This report has been based on the documentation listed below:

Architectural Details prepared by Platform Architects		
Drawing Number	Revision	Title
A1.01 a	P8	SECOND BASEMENT PLAN
A1.01 b	P8	FIRST BASEMENT PLAN
A1.02	P5	GROUND FLOOR PLAN
A1.03	P5	FIRST FLOOR PLAN
A1.04	P5	SECOND FLOOR PLAN
A1.05	P5	THIRD FLOOR PLAN
A1.06	P5	FOURTH FLOOR PLAN
A1.07	P5	FIFTH FLOOR PLAN
A1.08	P5	SIXTH FLOOR PLAN
A1.09	P5	ROOF PLAN TERRACE
A2.01	P6	SOUTHEAST ELEVATION
A2.02	P6	SOUTHWEST ELEVATION
A2.03	P6	NORTHWEST ELEVATION
A2.04	P6	NORTHEAST ELEVATION
A3.01	P4	SECTION B
A3.03	P5	SECTION C

ANNEXURE B – FIRE SAFETY MEASURES

Given the assessment in this report, the following fire safety measures are required to be installed in the building. This list is subject to change if Performance Solutions are proposed, or other options are taken during the Construction Certificate (CC) and/or construction stages.

Item No.	Fire Safety Measure	Minimum Standard of Performance
1.	Access panels, doors and hoppers to fire-resisting shaft	BCA 2022 Clause C4D14 Manufacturer's Specifications
2.	Automatic fail-safe devices (automatic doors)	BCA 2022 Clause D3D24 Manufacturer's Specifications
3.	Automatic fail-safe devices (electronic latching)	BCA 2022 Clause D3D26 Manufacturer's Specifications
4.	Automatic fire detection and alarm systems	BCA 2022 Part E2 Clause E2D8 and Specification 20 AS 3786-2014 (amendment 1 & 2) AS1670.1-2018 (amendment 1)
5.	Building occupant warning system	BCA 2022 Part E2 Clause E2D8, S17C8 and Specification 20
6.	Automatic fire suppression systems (sprinklers) – Residential buildings (Class 2 or 3) greater than three storeys	BCA 2022 NSW E1D4 and Specification 17 and Specification 18 AS 2118.1-2017 (amendment 1 & 2) AS 2118.4-2012 FPAA101D FPAA101H
7.	Emergency lighting	BCA 2022 Clauses E4D2 and E4D4 AS/NZS 2293.1-2018 (amendment 1)
8.	Exit signs	BCA 2022 Clauses E4D5, NSW E4D6 and E4D8 AS/NZS 2293.1-2018 (amendment 1)
9.	Fire dampers	BCA 2022 Clause C4D15 Manufacturer's Specification
10.	Fire doors	BCA 2022 Clauses C4D9, C4D12 and Specification 12 AS 1905.1-2015
11.	Fire hose reel systems	BCA 2022 Clause E1D3 AS 2441-2005 (amendment 1)
12.	Fire hydrant systems	BCA 2022 Clause E1D2 AS 2419.1-2021
13.	Fire seals protecting openings in fire-resisting components of the building	BCA 2022 Clause C4D15 AS 1530.4-2014 Manufacturer's Specification
14.	Fire shutters (option for providing protection of openings)	BCA 2022 Clauses C4D3, C4D4, C4D5 and Specification 12

Item No.	Fire Safety Measure	Minimum Standard of Performance
		Manufacturer's Specification
15.	Fire windows (option for providing protection of openings)	BCA 2022 Clauses C4D3, C4D4, C4D5 and Specification 12 Manufacturer's Specification
16.	Lightweight construction (fire rated)	BCA 2022 Clause C2D9 and Specification 6 Manufacturer's Specification
17.	Mechanical air handling systems (automatic shutdown)	BCA 2022 Clause E2D3 and Specification 20 AS 1668.1-2015 (amendment 1)
18.	Portable fire extinguishers	BCA 2022 Clause E1D14 AS 2444-2001
19.	Smoke alarms and heat alarms (internal alarms in residential units)	BCA 2022 Part E2 and Specification 20
20.	Wall-wetting sprinkler and drencher systems over permanently closed or self-closing glazed elements (option for providing protection of openings)	BCA 2022 Clauses C4D3, C4D4 and C4D5 AS 2118.1-2017
21.	Warning and operational signs	BCA 2022 Clauses D3D28 & E3D4 Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 Clause 108
22.	Performance Solutions	<i>This will be completed upon receipt of the final Fire Engineering Report at the CC stage.</i>

ANNEXURE C – MATTERS FOR DESIGN DEVELOPMENT

For the purposes of this report, general arrangement floor plans, elevations and sections have been reviewed to determine whether the building is capable of complying with the BCA.

Construction Documentation is to be provided and reviewed by Credwell prior to the issuance of the BCA Report for the purposes of the Construction Certificate application. A detailed list of information required for review will be provided by Credwell upon engagement for the Construction Certificate stage assessment.

The following matters are to be addressed by further information for review at the design development phase prior to the application for construction certificate. The documented is to be issued by the architect or relevant design consultant.

Architectural Design Certification (Registered Architect)

1. The building elements of the proposed works have been designed to have the FRL relevant in accordance with BCA 2022 Amendment 1 Clause C2D2 and Specification 5 where applicable:
 - S5C1 to S5C10
 - S5C11 to S5C20 S5C24
2. Lightweight construction must comply with BCA 2022 Amendment 1 Clause C2D9 and Specification 6 if it is used in a wall system.
3. Non-combustible building elements must be in accordance with BCA 2022 Amendment 1 Clause C2D10
4. Materials, floor and wall linings/coverings, surface finishes and air-handling ductwork used in the works will comply with the fire hazard properties in accordance with BCA 2022 Amendment 1 Clause NSW C2D11 and Specification 7.
5. Fire-protected timber concession shall be in accordance with BCA 2022 Amendment 1 Clause C2D13.
6. Ancillary elements are to be in accordance with Clause C2D14.
7. The building will be separated in accordance with BCA 2022 Amendment 1 Clause C3D6 and NSW C3D6 (3).
8. Vertical separation will be provided to the new openings in the external walls in accordance with BCA 2022 Amendment 1 Clause C3D7. It is noted that no spandrel separation is required in the stairway or to a void.
9. The parts of different classifications located alongside one another in the same storey will be separated in accordance with BCA 2022 Amendment 1 Clause C3D9 and Specification 5.
10. The parts of different classifications situated one above another in adjoining storeys, will need to be separated in accordance with BCA 2022 Amendment 1 Clause C3D10 and Specification 5.
11. The electricity substation, 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 of 120/120/120 and provided with self-closing -/120/30 fire doors in accordance with BCA 2022 Amendment 1 Clause C3D13.
12. The public corridors will be divided at intervals of not more than 40m in length with smoke proof walls in accordance with BCA 2022 Amendment 1 Clause C3D14 and Clause 2 of Specification 11.

13. Openings in the external walls that are required to have an FRL will be located in accordance with BCA 2022 Amendment 1 Clause C4D3 and C4D4 or protected in accordance with Clause C4D5.
14. Doors in a fire-isolated exit will be self-closing or automatic closing fire doors with an FRL of not less than -/60/30 in accordance with BCA 2022 Amendment 1 Clause C4D9.
15. Services penetrating elements required to possess an FRL including the floor slabs, walls, shafts, etc. will be protected in accordance with BCA 2022 Amendment 1 Clause C4D10, C4D13, C4D14 and C4D15 and Specification 13.
16. The lift doors will be -/60/- fire doors complying with AS1735.11-1986 in accordance with BCA 2022 Amendment 1 Clause C4D11.
17. Doorways and other openings in internal walls required to have an FRL will be protected in accordance with BCA 2022 Amendment 1 Clause C4D12, and NSW C4D12 (4, 5 & 10).
18. A lintel must 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 it 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 Clause S5C4 of BCA 2022 Amendment 1 Specification 5.
19. All attachments to the external façade of the building will be of a non-combustible material in accordance with BCA 2022 Amendment 1 Clause S5C5 of Specification 5.
20. 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 BCA 2022 Amendment 1 Clause S5C8 of Specification 5.
21. Fire doors will comply with AS1905.1-2015 and BCA 2022 Amendment 1 Specification 12.
22. Fire shutters and fire windows will be in accordance with BCA 2022 Amendment 1 Specification 12.
23. The number of exits provided to the building will be in accordance BCA 2022 Amendment 1 Clause D2D3.
24. The required exits will be fire-isolated in accordance with BCA 2022 Amendment 1 Clause D2D4 and NSW D2D3 (4).
25. Travel distances to exits will be in accordance with BCA 2022 Amendment 1 Clause D2D5.
26. The dimensions of exits and paths of travel to exits will be provided in accordance with BCA 2022 Amendment 1 Clauses D2D7-D2D11 and NSW D2D8 (5) and NSW D2D9.
27. The fire-isolated exits will be in accordance with BCA 2022 Amendment 1 Clause D2D12.
28. The discharge points of exits will be in accordance with BCA 2022 Amendment 1 Clause D2D15 and NSW D2D15 (6).
29. The non-required stairways, ramps and escalators will be in accordance with BCA 2022 Amendment 1 Clause D2D17.
30. Number of persons accommodated in a storey, room or mezzanine must be determined with the consideration of Table D2D18 and BCA 2022 Amendment 1 Clause D2D18.
31. The ladder from the plant, lift machine rooms, and electricity network substation in lieu of a stairway will be in accordance with BCA 2022 Amendment 1 Clause D2D21.
32. Access to the lift pit will be in accordance with BCA 2022 Amendment 1 Clause D2D22.

33. The stairway or ramp within the fire-isolated shaft is to be non-combustible, and if there is a local failure it must not cause structural damage or impair the fire resistance of the shaft, in accordance with BCA 2022 Amendment 1 Clause D3D25.
34. The construction separating rising and descending stairs in the fire-isolated exit stairway will be non-combustible and smoke proof, in accordance with BCA 2022 Amendment 1 Clause D3D5.
35. The construction of EDB'S will be in accordance with BCA 2022 Amendment 1 Clause D3D8 with the enclosure bounded by a non-combustible or fire protective covering and smoke seals provided around the perimeter of the doors at each level.
36. New pedestrian ramps will comply with AS1428.1-2009 and BCA 2022 Amendment 1 Clause D3D11 and Part D4. The floor surface of a ramp must have a slip-resistance classification complying with Table D3D15 when tested in accordance with AS4586-2013.
37. The fire-isolated passageway will be in accordance with BCA 2022 Amendment 1 Clause D3D12.
38. The roof of the building where the exit discharges will have an FRL of 120/120/120. It will also not have roof lights or openings within 3m of the path of travel in accordance with BCA 2022 Amendment 1 Clause D3D13.
39. Stair geometry to the new stairways will be in accordance with BCA 2022 Amendment 1 Clause D3D14, and NSW D3D14(1). Stair treads are to either have a surface with a slip-resistance classification or a nosing strip with a slip-resistance classification both complying with Table D3D15 when tested in accordance with AS4586-2013.
40. Landings will be provided in accordance with BCA 2022 Amendment 1 Clause D3D15. Landings are to have either a surface or a strip at the edge of a landing (where the edge leads to a flight below) with a slip-resistance classification complying with Table D3D15 when tested in accordance with AS4586-2013.
41. Door thresholds are to be provided in accordance with BCA 2022 Amendment 1 Clause NSW D3D16.
42. The handrails and balustrades to stairs and throughout the building will be in accordance with BCA 2022 Amendment 1 Clause D3D17-D3D21 and D3D22 and NSW Clause D3D18(1).
43. The fixed platform, walkway, stairway, and ladder and any associated going and riser, landing, handrail, balustrade, located within the machinery room, boiler house, lift-machine room, plantroom, or non-habitable attic/storeroom within the sole occupancy unit will comply with AS1657-2018 in lieu of BCA 2022 Amendment 1 Clause D3D13, D3D15, D3D17-D3D21 and D3D22.
44. The doorways and doors will be in accordance with BCA 2022 Amendment 1 Clause D3D24 & D3D25 and NSW D3D24(2).
45. The door latching mechanisms to the proposed exit doors will be in accordance with BCA 2022 Amendment 1 Clause D3D26 and NSW D3D26 (5 & 6).
46. Signage will be provided on fire and smoke doors in accordance with BCA 2022 Amendment 1 Clause D3D28.
47. The openable portion of a window in a bedroom of a Class 2, 3, 4, must 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 BCA 2022 Amendment 1 Clause D3D29. In addition to window protection and for openable windows 4 metre or more above the ground below, a barrier with a height not less than 865mm above the floor to an openable window must be installed.

48. The new works will be accessible in accordance with BCA 2022 Amendment 1 Part D4 and with AS1428.1-2009, with particular note to door circulation spaces, access way widths, turning spaces, passing spaces and floor coverings.
49. Accessible car parking will be in accordance with BCA 2022 Amendment 1 Clause D4D6.
50. Braille and tactile signage will be in accordance with BCA 2022 Amendment 1 Clause D4D7 and Specification 15.
51. Tactile ground surface indicators will be provided in accordance with BCA 2022 Amendment 1 Clause D4D9 and AS1428.4.1-2009.
52. The ramps associated with the access way will not have a combined vertical rise of more than 3.6m and a landing for a step ramp will not overlap a landing for another step ramp or ramp in accordance with BCA 2022 Amendment 1 Clause D4D12.
53. On an access way, 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 AS1428.1-2009 and comply with BCA 2022 Amendment 1 Clause D4D13.
54. Fire precautions whilst the building is under construction will be in accordance with BCA 2022 Amendment 1 Clause E1.D16.
55. Additional provisions will be made in accordance with BCA 2022 Amendment 1 Clause E1D17, due to the special hazards associated with the building works or the location of the building works.
56. Non-illuminated exit signage will be installed in accordance with BCA 2022 Amendment 1 Clause E4D7.
57. The new roof covering will be in accordance with BCA 2022 Amendment 1 Clause F3D2.
58. Any sarking proposed including waterproofing of roofs and walls must comply with AS/NZS4200.1-2017 and AS4200.2-2017 and will be installed in accordance with BCA 2022 Amendment 1 Clause F3D3.
59. Damp proofing of the proposed structure will be carried out in accordance with BCA 2022 Amendment 1 Clauses F1D6 and F1D7.
60. Floor wastes will be installed to bathrooms and laundries above sole occupancy units or public spaces where floor grading to the floor waste will permit drainage of water in accordance with BCA 2022 Amendment 1 Clause F2D4.
61. Sanitary facilities will be provided in the building in accordance with BCA 2022 Amendment 1 Clauses F4D2 and F4D4.
62. Accessible sanitary facilities will be provided in the building in accordance with BCA 2022 Amendment 1 Clause F4D5, F4D6, F4D7 and AS1428.1-2009.
63. The construction of the sanitary facilities will be in accordance with BCA 2022 Amendment 1 Clause F4D8.
64. Ceiling heights to the new areas will be in accordance with BCA 2022 Amendment 1 Clause F5D2.
65. Natural light will be provided in accordance with BCA 2022 Amendment 1 Clauses F6D2, F6D3 and F6D4. While artificial lighting shall be provided in accordance with BCA 2022 Amendment 1 Clause F6D5.
66. Natural ventilation will be provided in accordance with BCA 2022 Amendment 1 Clauses NSW F6D6, F6D7 and F6D8.

67. Water closets and urinals will be in accordance with BCA 2022 Amendment 1 Clause F6D9.
68. The sanitary compartments will either be provided with mechanical exhaust ventilation or an airlock in accordance with BCA 2022 Amendment 1 Clause F6D10.
69. Every storey of the carpark will be provided with an adequate system of permanent natural or mechanical ventilation in accordance with BCA 2022 Amendment 1 Clause F6D11 and AS1668.2-2012 and AS1668.4-2012.
70. A means of cleaning windows in accordance BCA 2022 Amendment 1 NSW G5D5 and the Work Health and Safety (WHS) Act. 2011 and Regulations made under that Act.
71. The stoves, heaters or similar appliances installed in the building will be in accordance with AS/NZS2918-2018 and AS/NZS1200-2000 and in complying with Clause G2D2 and Specification 30.
72. 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.
73. Essential fire or other safety measures must be maintained and certified on an ongoing basis, in accordance with the provisions of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation, 2021.
74. Insulation will be in accordance with AS/NZS4859.1-2018 and will be installed as required by BCA 2022 Amendment 1 NSW J4D3.
75. The building will be constructed in accordance with BCA 2022 Amendment 1 Section J.
76. Wall and glazing will be in accordance with BCA 2022 Amendment 1 J4D6 and NSW J4D6.
77. The building will be sealed in accordance with BCA 2022 Amendment 1 Part J5 including NSW Variations.
78. Energy Monitoring for Facilities will be provided in accordance with BCA 2022 Amendment 1 Clause J9D3.

Electrical Services Design Certification - Electrical Engineer

79. Emergency lighting will be installed throughout the development in accordance with BCA 2022 Amendment 1 Clauses E4D2 and E4D4 and AS 2293.1-2018 (amendment 1).
80. Exit signage will be installed in accordance with BCA 2022 Amendment 1 Clauses E4D5, NSW E4D6, E4D7, E4D8 and AS 2293.1-2018 (amendment 1).
81. Artificial lighting will be installed throughout the development in accordance with BCA 2022 Amendment 1 Clause F6D5 and AS/NZS1680.0-2009.
82. Lighting power and controls will be installed in accordance with BCA 2022 Amendment 1 Part J6.

Dry Fire Services Design Certification - Fire Systems Designer (detection and alarm systems)

83. An automatic fire detection and alarm system will be installed throughout the building in accordance with BCA 2022 Amendment 1 Clause E2D8, Specification 20 and AS 3786-2014 (amendment 1 & 2)
84. A building occupant warning system will be installed throughout the building in accordance with BCA 2022 Amendment 1 Clause E2D8 and Specification 20.

Wet Fire Services Design Certification - Fire Systems Designer (fire hydrant and fire hose reel)

- 85. Fire hydrants will be installed in accordance with BCA 2022 Amendment 1 Clause E1D2 and AS2419.1-2021
- 86. Fire hose reels will be installed in accordance with BCA 2022 Amendment 1 Clause E1D3 and AS2441-2005

Wet Fire Services Design Certification - Fire Systems Designer (fire sprinkler)

- 87. A sprinkler system will be installed in accordance with BCA 2022 Amendment 1 Clause E1D4, Specification 17 and AS2118-2017
- 88. A sprinkler system will be provided to a Class 2 and/or 3 building that has a rise in storeys of four or more will be installed in accordance with BCA 2022 Amendment 1 Clause E1D4, Specification 18 and AS2118.1-2017 / AS2118.4-2012 / FPAA101D / FPAA101H

Weatherproofing Design Certification – Facade Engineer / Architect

- 89. Damp-proofing must comply with BCA 2022 Amendment 1 Clause F1D6 and F1D7.
- 90. The roof must be covered in accordance with BCA 2022 Amendment 1 Clause F3D2.
- 91. Sarking type materials used for weatherproofing walls and roofs must be in accordance with BCA 2022 Amendment 1 Clause F3D3, AS 4200.1 and AS 4200.2
- 92. All new glazing to be installed throughout the development will be in accordance with BCA 2022 Amendment 1 Clause F3D4 and AS1288-2006 and AS2047-2014.
- 93. All wall cladding will be in accordance with BCA 2022 Amendment 1 Clause F3D5.

Waterproofing Design Certification – Waterproofing specialist / Architect

- 94. Exposed joints in drainage surfaces on a roof, balcony, podium, or the like must be protected in accordance with Clause 2.9 of AS 4654.2 and must not be located beneath or run through a planter box, water feature or the like.
- 95. External above ground waterproofing membranes must comply with BCA Clause F1D5, AS4654.1-2012 and AS4654.2-2012.
- 96. Waterproofing of all wet areas within building will be carried out in accordance with BCA 2022 Amendment 1 Clauses F2D2 & F2D3 and AS3740-2010.

Civil Services Design Certification – Civil Engineer

- 97. Stormwater drainage will be provided in accordance with BCA 2022 Amendment 1 Clause F1D3 and AS3500.3-2018.

Hydraulic Services Design Certification – Hydraulic Designer

- 98. Portable fire extinguishers will be installed in accordance with BCA 2022 Amendment 1 Clause E1D14 and AS2444-2001.
- 99. The heated water supply systems will be designed and installed to BCA Volume 3 – Plumbing Code and BCA 2022 Amendment 1 Clause J7.2.

Mechanical Services Design Certification – Mechanical Engineer

100. An air-handling system which does not form part of a smoke hazard management system will be installed in accordance with BCA 2022 Amendment 1 Clause E2D3-E2D20 and AS1668.1-2015 (amendment 1).
101. Automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1) will be installed in the building in accordance with BCA 2022 Amendment 1 NSW E2D16 and AS 1668.1-2015 (amendment 1).
102. Where not naturally ventilated the building will be mechanically ventilated in accordance with BCA 2022 Amendment 1 NSW F6D6 and AS1668.2-2012.
103. Every storey of the car park will be ventilated in accordance with BCA 2022 Amendment 1 Clause F6D11 and where a storey is not naturally ventilated, it will be mechanically ventilated in accordance with AS1668.2-2012 as applicable.
104. The air conditioning and ventilation systems will be designed and installed in accordance with BCA 2022 Amendment 1 Part J6.

Structural Design Certification – Structural Engineer

105. The material and forms of construction for the proposed works will be in accordance with BCA 2022 Amendment 1 Clauses B1D3, B1D4 and B1D6 as follows:
 - Dead and live loads – AS/NZS1170.1-2002
 - Wind loads – AS/NZS1170.2-2011
 - Masonry – AS3700-2018
 - Concrete Construction – AS3600-2018
 - Steel Construction – AS4100-1998
 - Aluminium Construction – AS/NZS1664.1-1997 or AS/NZS1664.2-1997
 - ABCB Standard for Construction of Building in Flood Hazard Areas
106. The structural building elements of the proposed works have been designed to have the FRL relevant in accordance with BCA 2022 Amendment 1 Clause C2D2 and Specification 5 where applicable:
 - S5C1 to S5C10
 - S5C11 to S5C20
107. The lift shaft will have an FRL in accordance with BCA 2022 Amendment 1 Clause C3D11 and Specification 5.
108. Lightweight construction used to achieve required FRL complying with BCA 2022 Amendment 1 Specification 6.
109. The construction joints to the structure will be in accordance with BCA 2022 Amendment 1 Clause C4D16 to maintain the FRL integrity of the element concerned.
110. Upon completion of the works, a structural engineer will be able to certify that the local failure will be in accordance with BCA 2022 Amendment 1 Clause D3D25 for the fire isolated stairs.

Lift Services Design Certification – Lift Designer

111. The lifts will comply with BCA 2022 Amendment 1 Clause E3D2 and Specification 24.

112. The lifts throughout the development will be provided with stretcher facilities in accordance with BCA 2022 Amendment 1 Clause E3D3 and will be capable of accommodating a stretcher with a patient lying on it horizontally by providing a clear space not less than 600mm wide X 2000mm long X 1400mm high above the floor level.
113. Warning signage in accordance with BCA 2022 Amendment 1 Clause E3D4 will be provided to the lifts to advise not to use lifts in a fire.
114. A fire service recall control switch is to be installed on a landing at a location nominated by the appropriate authority in accordance with BCA 2022 Amendment 1 Clause E3D11.
115. A lift car fire service drive control switch is to be installed within the lift car in accordance with BCA 2022 Amendment 1 Clause E3D12.
116. Access and egress to the lift landings will comply with the Deemed-to-Satisfy Provisions of the BCA 2022 Amendment 1 Part D4 and will be suitable to accommodate persons with a disability.
117. The type of lifts will also be suitable to accommodate persons with a disability in accordance with BCA 2022 Amendment 1 Clause E3D7 and Table E3D7a and will have accessible features in accordance with BCA 2022 Amendment 1 Table E3D7b.
118. The new lift will comply with AS1735.12-1999 in accordance with BCA 2022 Amendment 1 Clause E3D7.

Acoustic Services Design Certification

119. The sound transmission and insulation of the residential portions of the development will comply with BCA 2022 Amendment 1 Part F5.