BUILDING CODE OF AUSTRALIA 2022 COMPLIANCE REPORT

Alterations to Existing Unit for Attic

Unit 4, 235 Pittwater Road, Manly

Date	Prepared for	Reference No.
6 January, 2025	Philippa Hayes	24270B – R1.1

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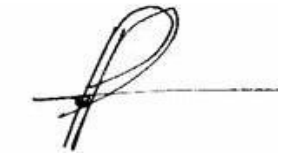 Paul Prestidge **Director** Grad Dip Build Surveying (UWS) Building Surveyor - Unrestricted Accreditation No. BDC1800 Member of the ASSOCIATION OF AUSTRALIAN CERTIFIERS	 Anthony Banham **Director** Grad Dip Build Surv. (UWS) ACAA Member – No. 291

Revision	Date	Status
R1.0	13 December, 2024	Draft
R1.1	6 January, 2025	Final

1 Contents

2 EXECUTIVE SUMMARY

2.1 General Summary

Ai Consultancy has been engaged by Philippa Hayes to carry out a Building Code of Australia 2022 compliance review of the proposed alterations to existing unit for attic at Unit 4, 235 Pittwater Road, Manly.

In accordance with the client's instructions, we have completed this report with the principal objective of establishing the extent to which the proposal achieves compliance with the Building Code of Australia 2022 (BCA) including any NSW variations. Within the report we provide recommendations as to the works required to achieve the specified outcomes of this legislation.

2.2 Matters Identified / Recommendations

The following table provides a list of Deemed-To-Satisfy compliance departures with the proposed design:

<table>
<tr><th colspan="3">Recommended Deemed-To-Satisfy Compliance Solutions</th></tr>
<tr><th>Item No.</th><th>BCA Clause</th><th>Comment</th></tr>
<tr><td>1.</td><td>BCA C2D2,
Spec 5</td><td>All building elements to achieve the fire resistance levels of Type A Construction as outlined in Specification 5 (Refer Appendix A).

It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case FRL's do not apply to external walls that are more than 1.5m from the side allotment boundaries. However, the external walls are now required to be fire rated due to the change in Type of Construction from Type C to Type A.

Additionally, the internal fire ratings have increased due to the change in Type of Construction from Type C to Type A.

Typical fire resistance levels for different classifications are as follows:

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<table><tr><th>Distance from a fire-source feature</th><th>FRL (in minutes)</th></tr><tr><td>Less than 1.5m</td><td>90/90/90</td></tr><tr><td>1.5m to less than 3m</td><td>90/60/60</td></tr><tr><td>3m or more</td><td>90/60/30</td></tr></table>
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<tr><td>2.</td><td>C2D10</td><td>The existing walls serving the building are externally masonry construction.

It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case the building elements and their components in external walls and common walls are permitted to include combustible materials.</td></tr>
</table>

		However, due to the change in Type of Construction from Type C to Type A, building elements and their components in external walls and common walls must be non-combustible.
3.	A5G6, NSW C2D11(1), NSW C2D11(2), NSW C2D11(3), and Spec. 7	The fire hazard properties for all floor linings and coverings, wall and ceiling linings and air-handling ductwork are to be provided by the manufacture in the form of the following; (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory
4.	C2D14	The existing walls serving the building are externally masonry construction. Structural engineer's details are required to confirm that existing and proposed external walls and common walls, including all components incorporated in them complies. Ancillary elements must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it complies with the allowable points in C2D14. The architect/structural engineer is to provide evidence of suitability under BCA A5G3 via the following; (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory or a certificate, or (d) a report from a professional engineer for each non-combustible ancillary element.
5.	C3D7	It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case spandrels are not required. However, due to the change in Type of Construction from Type C to Type A, spandrel protection is required to window or other opening in an external walls above another opening in the storey next below and its vertical projection falls no further than 450 mm outside the lower opening (measured horizontally).
6.	C4D3, C4D5	The existing building satisfies the concession in C2D6 which permits Type C construction, in which case FRL's do not apply to external walls that are more than 1.5m from the side or rear allotment boundaries. Openings in walls that are not required to have an FRL do not require protection. As the building has changed to Type A Construction, all openings within 3.0m of the side or rear boundaries now require protection in accordance with C4D5.
7.	C4D12, NSW C4D12(4), NSW C4D12(5), NSW C4D12(10)	The existing building satisfies the concession in C2D6 which permits Type C construction, in which case doorways providing access from a sole-occupancy unit to a public corridor, public lobby, or the like must be protected a self-closing, tight fitting, solid core door not less than 35 mm thick. However, due to the change in Type of Construction from Type C to Type A, these doorways must be protected a self-closing –/60/30 fire door.
8.	C4D13, C4D15	The existing building satisfies the concession in C2D6 which permits Type C construction, in which case the floors separating

		units is required to have an FRL of 30/30/30, a covering on the underside of the floor a fire-protective or ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes, and the walls are required to have an FRL of 60/60/60. As the building has changed to Type A Construction the floor and walls is required to have an FRL of 90/90/90. On that basis, electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrations through building elements required to have an FRL must comply with a tested system.
9.	D3D4	The existing building does not have a rise in storeys of more than 2 (2). The proposed addition changes the rise in storeys to 3 and on that basis the staircase is required to be concrete, steel (not less than 6 mm thick) or timber that has a finished thickness of not less than 44 mm, has an average density of not less than 800 kg/m3 at a moisture content of 12% and has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.
10.	D3D14, NSW D3D14(1)	A stairway must have not more than 18 and not less than 2 risers in each flight. The proposed staircase serving the proposed attic bedroom/loft includes a landing at the top o the flight which results in a single riser up to the floor level of the proposed attic bedroom/loft which does not comply. A performance solution may be considered to address this non-compliance.
11.	E2D2, E2D8, E2D20, Specification 20	The building is to be provided with a smoke detection system complying with Spec. 20, AS3786-2014 and AS 1670.1-2018.
12.	F5D2	The height of a stairway and landing is to be not less than 2.0m, however the staircase and landing serving the proposed attic bedroom/loft is transitional down to 1.65m and 1.9m which does not comply. The proposed attic bedroom/loft is required to have a height of not less than 2.2 m for not less than two-thirds (6.66%) of the floor area of the room or space. It's noted that the floor area of a room or space, any part that has a ceiling height of less than 1.5m is not included. A performance solution may be considered to address these non-compliances.
13.	F6D3	A window or skylight is not shown serving the proposed attic bedroom/loft, on the architectural plans which does not comply.
14.	F6D7	All enclosed areas of the building are required to be provided with either; complying natural ventilation or a system of mechanical ventilation complying with AS1668.2-2012. A window or skylight is not shown serving the proposed attic bedroom/loft, on the architectural plans which does not comply.

15.	F7D3	A system for sound insulation of the floors/walls is to be provided on plans to demonstrate compliance.

2.3 Design Certifications

The following table provides a consolidated list of BCA compliance matters that are required to be addressed by design certifications and/or specifications to be issued by the relevant architectural, services and engineering consultants:

Relevant Discipline	Compliance Requirements
Project Architect	• The finished surface materials to stairs, ramps and landings will achieve a slip resistance classification that accords with Tables D3D15 when tested to AS4586-2013. • Balustrades will be provided to all elevated balconies, landings, stairs and ramps in accordance with Clause D3D17, D3D18, D3D19 and D3D20 of BCA 2022. • Handrails will be provided to all stairs and ramps in accordance with Clause D3D22 of BCA 2022. • The door latching mechanisms to the proposed required exit doors and doors within the path of travel to an exit will be in accordance with Clause D3D26, NSW D3D26(5), NSW D3D26(6)of BCA 2022. • Water proofing membranes for external above ground use will comply with AS4654 Parts 1 and 2. • Metal roof sheeting will comply with AS1562.1. • Glazed assemblies to comply with AS2047 and AS1288. • Stairways will be constructed of the materials specified within BCA Clause D3D4 of BCA 2022.
Structural Engineer	• The building has been designed to resist all necessary actions and imposed loads determined in accordance with BCA Part B1 and the relevant Structural Australian Standards as they relate to the relevant materials and forms of construction. • The FRL's of the structural elements for the proposed works have been designed for a building of Type A Construction of Specification 5 of BCA 2022. • Joints in fire rated external walls are to have the required FRL with respect to integrity and insulation relative to the building element they are joining.
Hydraulic Consultant	• Storm water drainage will be provided in accordance with AS3500.3 and AS3500.5 (as appropriate) • Portable Fire Extinguishers will be provided to protect the main switch board and the kitchen to comply with AS2444-2001 and Clause E1D14 of BCA 2022.
Electrical Consultant	• A smoke alarm system will be installed throughout the building in accordance with E2D8, S20C3 of BCA Specification 20 of BCA 2022, AS3786-2014 and AS1670.1-2018.
Mechanical Consultant	• Enclosed areas of the building will be provided with compliant mechanical ventilation systems that accord with AS1668.2-2012 per NSW F6D6 of BCA 2022.

2.4 Compliance Statement

It is deemed from the assessments carried out within this report that **the proposed development is capable of achieving compliance** with the relevant requirements of the National Construction Code 2022, Volume 1 – Building Code of Australia Class 2 to 9 buildings ("BCA") subject to the recommendations/ works identified being accommodated into the finalised design documentation.

3 INTRODUCTION

3.1 General

This document represents the statutory compliance assessment and report for the proposed alterations to existing unit for attic at Unit 4, 235 Pittwater Road, Manly.

This report has been completed with the principal objective of establishing the extent to which the proposal achieves compliance with the relevant statutory requirements of the Environmental Planning and Assessment Regulation, (Development Certification and Fire Safety) 2021 ("the Reg") and in particular the Building Code of Australia 2022 (BCA) including any NSW variations. Within the report we provide recommendations as to the works required to achieve the specified outcomes of this legislation.

Detailed commentary with regard to specific compliance departures identified is provided in the assessment tables under Section 5.0 of this report.

3.2 Report Basis

This report has been prepared on the basis of the following:

- Architectural plans prepared by Wray and Cutcliffe Architects as follows:

Title	Sheet No.	Rev	Date
Cover Page	A000	B	08/11/2024
Site Plan & Analysis	A010	B	08/11/2024
Existing Unit 4 Plan	A100	B	08/11/2024
Opt C – Proposed Unit 4 Plan	A110	B	08/11/2024
Opt C – Proposed Unit 4 Loft Plan	A120	B	08/11/2024
Proposed Concept Sections	A130	B	08/11/2024

- National Construction Code Series 2022, Building Code of Australia for Class 2 to 9 Buildings, published by the Australian Building Codes Board (ABCB). It's noted that the version of the BCA
- The Guide to the National Construction Code Series 2019, Amendment 1, Building Code of Australia or Class 2 to 9 Buildings, published by the Australian Building Codes Board (ABCB). Note: The BCA 2022 Guide was not published at the time this report was prepared.

3.3 Purpose of the Report

The purpose of this report is to:

- Identify the relevant Deemed-to-Satisfy Provisions of the Building Code of Australia 2022 (BCA) in relation Clauses C, D1, D2, D3 and E and provide any non-compliances with the relevant Clauses for the proposed development; and
- Provide a schedule of fire safety measures for the proposed development.

Section A2G1 of the Building Code of Australia 2022 (BCA), Volume 1 states that the Performance Requirements can only be satisfied by a:

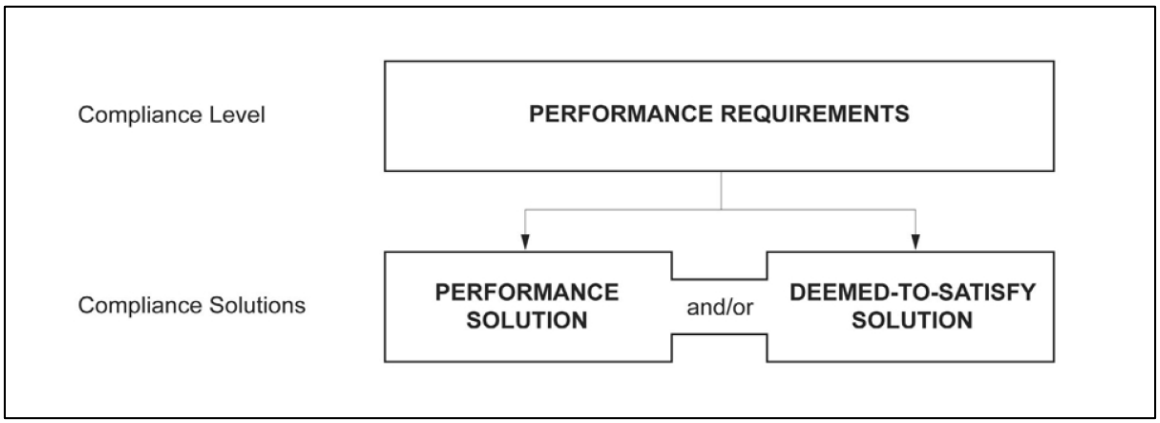
(a) Performance Solution; or

(b) Deemed-to-Satisfy Solution; or

(c) A combination of (a) and (b).

The following is noted:

- the term *Performance Solution* was formerly known as *Alternative Solution*
- The terms *Performance Solution* and *Deemed-to-Satisfy Solution* were formerly used under the term *Building Solution*.



3.4 Building Code of Australia

This report is based on the Deemed-to-Satisfy Provisions of the Building Code of Australia 2022 (BCA) and the NSW variations where applicable.

3.5 Limitations

This report is strictly limited to a statutory compliance Review of the project listed in the Executive Summary. This Report cannot be applied to any other project or building design as the assessments are specific for this project only.

The statutory compliance assessment and report specifically excludes the following:

- Any changes made to the final published version of BCA 2022.
- Determining compliance with the BCA for matters other than addressed with in this report or addressing any matters outside the scope or limitations of the BCA.
- The operations of any of the installed (or to be installed) fire services.
- Compliance against Australian Standards and products, specialist advice for each standard and product must be to the satisfaction of the Design Architect.
- Protection of Property other than required by the Deemed-to-Satisfy provisions of the BCA, unless specifically referenced in the report (i.e. for Heritage purposes).
- Fires caused by arson, other than as a single source of fire initiation, or terrorist attacks.
- Emergencies other than for fires and fire related evacuations.
- This report has been prepared for the exclusive use of the client referred to on the cover sheet of this report. We do not warrant or accept liability for the reliance upon or use of this report by any other party.
- The report considers matters of a significant nature only and should not be considered exhaustive.
- The report does not consider structural adequacy of the building.
- Any service provider requirements are outside the scope of this report (e.g. Sydney Water, Telstra, etc)

3.6 Assumptions

The assumptions of this report are as follows:

- This report provides a Statutory Compliance assessment to confirm compliance of proposed development with the relevant Performance Requirements of the BCA.
- The assessment and subsequent recommendation(s) provided by this report is based on the design documentation provided for assessment and as listed in Section 3.2. Any future alteration, enlargement or addition will require re-assessment of the revised design documentation.
- The building/s will be subject to ongoing annual maintenance as required by the AFSS.

3.7 Relevant stakeholders

The relevant stakeholders for this project are as listed in the table below.

Role	Organisation
Client	Philippa Hayes
Architect	Wray and Cutcliffe Architects
Consent Authority	Northern Beaches Council
Principal Certifier	TBC
BCA Consultant	Paul Prestidge
Access Consultant	TBC

4 BUILDING ASSESSMENT DATA

4.1 Description of Development

The development, subject to this report, is located at Unit 4, 235 Pittwater Road, Manly.

The development consists of the construction of proposed alterations to existing unit for attic.

4.2 BCA Assessment Information

This section incorporates the access related provisions contained in the BCA. A summary of the compliance status of the architectural design is subsequently provided relevant to each clause.

Alongside each clause heading; compliance shall be indicated by using one (or more) of the following compliance categories –

Characteristic	Description	
Building Classification	Class 2	Residential Units
Rise in Storeys	3	
Levels Contained	3	
Type of Construction	Type A	
Effective Height	<12m (~5.75m)	
Floor Area	Ground Floor	~173m^2
	First Floor	~173m^2
	Attic	~25m^2
	Total	~371m^2

BCA Assessment/Interpretation Notes:

- **Determining a building classification (BCA A6G1)**

  (1) The classification of a building or part of a building is determined by the purpose for which it is designed, constructed or adapted to be used.

  (2) Each part of a building must be classified according to its purpose and comply with all the appropriate requirements for its classification.

  (3) A room that contains a mechanical, thermal or electrical facility or the like that serves the building must have the same classification as the major part or principal use of the building or fire compartment in which it is situated.

  (4) Unless another classification is more suitable an occupiable outdoor area must have the same classification as the part of the building to which it is associated.

  Exemption 1: For A6G1(1) where a part of a building has been designed, constructed or adapted for a different purpose and is less than 10% of the floor area of the storey it is situated on, the classification of the other part of the storey may apply to the whole storey.

  Limitation 1: Exemption 1 does not apply where the minor use of a building is a laboratory or a Class 2, 3 or 4 part of a building.

- **Determining a building classification (BCA A7G1)**

  Buildings are deemed united when two or more buildings adjoining each other are connected and used as one building.

Applications

(1) For A7G1, two or more buildings are a united building if they are connected through openings in the walls dividing them and together comply with all the requirements of the NCC as though they are a single building.

(2) A7G1 only applies to Class 2 to 9 buildings.

4.3 Fire Sources Features

Summary table for the building setbacks.

Fire Source Feature	Setback
Front (Northern) Allotment Boundary (Pittwater Road)	5.03m
Side (Eastern) Allotment Boundary	1.60m
Side (Western) Allotment Boundary	2.15m
Rear (Southern) Allotment Boundary	12.93m

4.4 Maximum Size of Fire Compartments

Summary table for the size of fire compartments for Type A construction.

Classification	Type A Construction		Type B Construction		Type C Construction	
5, 9b or 9c	Max floor area	8000m^2	Max floor area	5500m^2	Max floor area	3000m^2
	Max volume	48000m^3	Max volume	33000m^3	Max volume	18000m^3
6, 7, 8 or 9a (except for patient care areas)	Max floor area	5000m^2	Max floor area	3500m^2	Max floor area	2000m^2
	Max volume	30000m^3	Max volume	21000m^3	Max volume	12000m^3

4.5 Terminology

- **An Accredited Practitioner (Fire Safety)** - Is the holder of an accreditation under the *Building and Development Certifiers Act 2018* that authorises the holder to exercise the functions of an accredited practitioner (fire safety).
- **Building Code of Australia** - Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.
- **Effective height** - Effective height means the vertical distance between the floor of the lowest storey included in a determination of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).
- **Exit** - means –
  (a) Any, or any combination of the following if they provide egress to a road or open space—
    (i) An internal or external stairway.
    (ii) A ramp.
    (iii) A fire-isolated passageway.
    (iv) A doorway opening to a road or open space.
  (b) A horizontal exit or a fire-isolated passageway leading to a horizontal exit.
- **Fire compartment** - means –

(a) the total space of a building; or
(b) when referred to in—
  (i) the Performance Requirements — any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
  (ii) the Deemed-to-Satisfy Provisions — any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to Satisfy Provisions of the relevant Part.

- **Fire Resistance Level (FRL)** - means the grading periods in minutes tested in accordance with Specifications 1 and 2 for the following criteria -
  (a) structural adequacy; and
  (b) integrity; and
  (c) insulation,
  and expressed in that order.
- **Fire Source Feature (FSF)** – Any one or more of the following:
  (a) The far boundary of a road, river, lake or the like adjoining the allotment.
  (b) A side or rear boundary of the allotment.
  (c) An external wall of another building on the allotment which is not a Class 10 building.
- **Fire wall** - Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments.
- **Loadbearing** - Intended to resist vertical forces additional to those due to its own weight.
- **Non-combustible -** Non-combustible means—
  (a) A material — not deemed combustible as determined by AS 1530.1 — Combustibility Tests for Materials; and
  (b) Construction or part of a building — means constructed wholly of materials that are not deemed combustible.
- **Open space** - means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.
- **Performance Requirements of the BCA** — A Performance Solution must be shown to comply with the relevant Performance Requirements through one or a combination of the following Assessment Methods:
  (a) Evidence of suitability in accordance with Part A5 that shows the use of a material, product, plumbing and drainage product, form of construction or design meets the relevant Performance Requirements.
  (b) A Verification Method including the following:
    (i) The Verification Methods provided in the NCC.
    (ii) Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements.
  (c) Expert Judgement. Comparison with the Deemed-to-Satisfy Provisions.
  (d) Comparison with the Deemed-to-Satisfy Provisions.
- **Public corridor** means an enclosed corridor, hallway or the like which—
  (a) serves as a means of egress from 2 or more sole-occupancy units to a required exit from the storey concerned; or
  (b) is required to be provided as a means of egress from any part of a storey to a required exit.
- **Rise in Storeys** means the greatest number of storeys calculated in accordance with C2D3 of the BCA.
- **Sarking-type material** - Sarking-type material means a material such as a reflective insulation or other flexible membrane of a type normally used for a purpose such as waterproofing, vapour management or thermal reflectance.

- **Smoke growth rate index** - Smoke growth rate index ($SMOGRA_{RC}$) means the index number for smoke used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.
- **Sole occupancy unit** - Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—
  (a) a dwelling; or
  (b) a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
  (c) a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building.
  (d) a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.
- **Storey** - means a space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not—
  (a) a space that contains only—
    (i) a lift shaft, stairway or meter room; or
    (ii) a bathroom, shower room, laundry, water closet, or other sanitary compartment; or
    (iii) accommodation intended for not more than 3 vehicles; or
    (iv) a combination of the above; or
  (b) a mezzanine

5 BCA Assessment

The following presents our assessment of the proposed development against the relevant Deemed-To-Satisfy requirements of the BCA in the context of the legislative considerations that are required of a Consent Authority (as outlined above).

The following acronyms are used throughout the assessment tables to provide an indication of the compliance status against each of the Deemed-To-Satisfy requirements.

Category	Description
Complies	Indicates that Deemed-to-Satisfy design compliance is achieved.
Capable	Typically issues that can be readily accommodated into the CC/CDC Design documentation by way of minor plan notation or verification of compliance in design certifications and/or specifications issued by the relevant architectural, services and engineering consultants
Does not comply	Indicates that a Deemed-to-Satisfy compliance departure/s is noted. Resolution options are provided.
Not applicable	Not applicable or not directly relevant.
Design Detail	Compliance commentary is provided. Such should not be considered deficiencies but matters for consideration by the design team / assessment authority at relevant / nominated stages of design.
For Note Only	General informational commentary.
Performance Solution	The opportunity exists to develop a Performance Solution to resolve the identified compliance departure.

Interpretation Note(s) –

i. Readily moveable furniture has been treated as indicative. The person/s responsible for furnishing the building (parts) should ensure their furnishing layout/s do not cause AS 1428.1 circulation deficiencies.

ii. *Slip-resistant floor surface/s* – BCA does not directly specify slip-resistance classification(s) for all accessible paths of travel; however, we highlight the need under AS1428.1-2009 for all accessible paths of travel to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

Section C2 – FIRE RESISTANCE AND STABILITY

BCA Clause	Description	Status	Comments
C2D2, Spec 5	Type of Construction Fire Ratings	For Note Only	All building elements to achieve the fire resistance levels of Type A Construction (refer to concession in C2D6) as outlined in Specification 5 (Refer Appendix A). **Comment**: All building elements to achieve the fire resistance levels of Type A Construction as outlined in Specification 5 (Refer Appendix A). It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case FRL's do not apply to external walls that are more than 1.5m from the side allotment boundaries.

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Structural engineer's details are required to confirm compliance for the existing building and the proposed works.
Details to be provided with the application for CC.</td></tr>
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<tr><td></td><td></td><td>Capable</td><td>S5C3 Fire protection for a support of another part
(a) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (2), must—</td></tr>
</table>

BCA Clause	Description	Status	Comments
			(i) have an FRL not less than that required by other provisions of this Specification; and (ii) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required— (A) for the supporting part itself; and (B) for the part it supports; and (iii) be non-combustible— (A) if required by other provisions of this Specification; or (B) if the part it supports is required to be non-combustible. **Comment:** Details to be provided with the application for CC.
		Capable	**S5C16 Type A fire-resisting construction — roof lights** If a roof is required to have an FRL or its covering is required to be non-combustible, roof lights or the like installed in that roof must— (a) have an aggregate area of not more than 20% of the roof surface; and (b) be not less than 3 m from— (i) any boundary of the allotment other than the boundary with a road or public place; and (ii) any part of the building which projects above the roof unless that part has the FRL required of a fire wall and any openings in that part of the wall for 6 m vertically above the roof light or the like are protected in accordance with C4D5; and (iii) any roof light or the like in an adjoining sole-occupancy unit if the walls bounding the unit are required to have an FRL; and (iv) any roof light or the like in an adjoining fire-separated section of the building; and (c) if a ceiling with a resistance to the incipient spread of fire is required, be installed in a way that will maintain the level of protection provided by the ceiling to the roof space.

BCA Clause	Description	Status	Comments
			Comment: Details to be provided with the application for CC.
C2D3	Calculation of rise in storeys	For Note Only	Rise in Storeys of three (3).
C2D4	Buildings of multiple classification	Complies	All parts of the building are required to be of Type A construction.
C2D5	Mixed Types of Construction	Complies	All parts of the building are required to be of Type A construction.
C2D6	Two Storey Class 2, 3 & 9c buildings	Not Applicable	A building having a rise in storeys of 2 may be of Type C construction if— (a) it is a Class 2 or 3 building or a mixture of these classes and each sole-occupancy unit has— (i) access to at least 2 exits; or (ii) its own direct access to a road or open space; or (b) is a Class 9c building protected throughout with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 and complies with the maximum compartment size specified in Table C3D3 for Type C construction. **Comment**: The building is proposed to have a rise in storeys of 3, on that basis it's required to be of Type A construction.
C2D7	Class 4 Parts of buildings	Not Applicable	
C2D8	Open spectator stands and indoor sports stadiums	Not Applicable	
C2D9, Spec 6	Lightweight Construction	Capable	(1) Lightweight construction must comply with Specification 6 if it is used in a wall system— (a) that is required to have an FRL; or (b) for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor including a non fire-isolated passageway or non fire-isolated ramp, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal. (2) If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if—

BCA Clause	Description	Status	Comments
			(a) the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and (b) the column is liable to be damaged from the movement of vehicles, materials or equipment, then the covering must be protected by steel or other suitable material. **Comments**: Details to be provided with the application for CC.
C2D10	Non-combustible building elements	Capable	(1) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: (a) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation. (b) The flooring and floor framing of lift pits. (c) Non-loadbearing internal walls where they are required to be fire-resisting. (2) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in— (a) a building required to be of Type A construction; and (b) a building required to be of Type B construction, subject to C3D11, in— (i) a Class 2, 3 or 9 building; and (ii) a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys. (iii) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification C1.1. (3) A loadbearing internal wall and a loadbearing fire wall, including those

BCA Clause	Description	Status	Comments
			that are part of a loadbearing shafts, must comply with Specification 5. (4) The requirements of (1) and (2) do not apply to the following: (a) Gaskets. (b) Caulking. (c) Sealants. (d) Termite management systems. (e) Glass, including laminated glass. (f) Thermal breaks associated with— (i) glazing systems; or (ii) external wall systems, where the thermal breaks— (A) are no larger than necessary to achieve thermal objectives; and (B) do not extend beyond one storey; and (C) do not extend beyond one fire compartment. (g) Damp-proof courses. (h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm. (i) Isolated— (i) construction packers and shims; or (ii) blocking for fixing fixtures; or (iii) fixings, including fixing accessories; or (iv) acoustic mounts. (j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level. (k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm. (l) Weather sealing materials, applied to gaps not wider than 50 mm, used within and between concrete elements. (m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as appropriate, and associated with masonry wall construction. (n) Reinforcing bars and associated minor elements that are wholly

BCA Clause	Description	Status	Comments
			or predominately encased in concrete or grout. (o) A paint, lacquer or a similar finish or coating. (p) Adhesives, including tapes, associated with stiffeners for cladding systems. (q) Fire-protective materials and components required for the protection of penetrations. (5) The following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required: (a) Concrete. (b) Steel, including metallic coated steel. (c) Masonry, including mortar. (d) Aluminium, including aluminium alloy. (e) Autoclaved aerated concrete, including mortar. (f) Iron. (g) Terracotta. (h) Porcelain. (i) Ceramic. (j) Natural stone. (k) Copper. (l) Zinc. (m) Lead. (n) Bronze. (o) Brass. (6) The following materials may be used wherever a non-combustible material is required: (a) Plasterboard. (b) Perforated gypsum lath with a normal paper finish. (c) Fibrous-plaster sheet. (d) Fibre-reinforced cement sheeting. (e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0. (f) Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than5.

BCA Clause	Description	Status	Comments
			(g) Bonded laminated materials where— (i) each lamina, including any core, is non-combustible; and (ii) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (iii) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively. **Comment:** The existing walls serving the building are externally masonry construction. It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case the building elements and their components in external walls and common walls are permitted to include combustible materials. However, due to the change in Type of Construction from Type C to Type A, building elements and their components in external walls and common walls must be non-combustible. Structural engineer's details are required to confirm that existing and proposed external walls and common walls, including all components incorporated in them including the facade covering, framing and insulation and non-loadbearing internal walls where they are required to be fire-resisting are of non-combustible materials.
	Explanatory Information For C2D10(4)(i), isolated refers to localised situations where these elements are used. For example, construction packers and shims used for levelling window frames at fixing points and blocking used to fix a handrail. Blocking an entire wall is not considered to be used in an isolated situation. Isolated fixings and fixing accessories may include, but are not limited to, screws, anchors, wall plugs, nails and washers. Associated minor elements in C2D10(4)(n) refers to elements such as bar chairs, tie wire and spacers commonly used to support reinforcement in concrete construction.		

BCA Clause	Description	Status	Comments
	C2D10(4)(p) applies only to adhesives and tapes associated with stiffeners that may be installed to prevent buckling, bowing or distortion of a cladding material. This provision does not allow for the use of adhesives and tapes as the primary method of support or fixing the cladding material. Refer also to C2D15. C4D15 is a provision that necessitates the installation of fire-protective materials and components referred to in C2D10(4)(q).		
A5G6, NSW C2D11(1), NSW C2D11(2), NSW C2D11(3), and Spec. 7	Fire Hazard Properties	Capable	(1) The fire hazard properties of the following internal linings, materials and assemblies within a Class 2 to 9 building must comply with Specification 7: (a) Floor linings and floor coverings. (b) Wall linings and ceiling linings. (c) Air-handling ductwork. (d) Lift cars. (e) In Class 9b buildings used as— (i) an entertainment venue, a material used to cover closed back upholstered seats; and (ii) a public hall or the like, a proscenium curtain required by Specification 32. (f) Escalators, moving walkways and non-required non fire-isolated stairways or pedestrian ramps subject to Specification 14. (g) Sarking-type materials. (h) Attachments to floors, ceilings, internal walls, common walls, fire walls and to internal linings of external walls. (i) Other materials including insulation materials other than sarking-type materials. (2) Paint or fire-retardant coatings must not be used in order to make a material comply with a required fire hazard property, except in respect of a material referred to in NSW Specification 7, Table S7C7 and to which Notes 4 and 5 are applicable. (3) The requirements of (1) do not apply to a material or assembly if it is— (a) plaster, cement render, concrete, terrazzo, ceramic tile or the like; or (b) a fire-protective covering; or (c) a timber-framed window; or

BCA Clause	Description	Status	Comments
			(d) a solid timber handrail or skirting; or (e) a timber-faced door; or (f) an electrical switch, socket-outlet, cover plate or the like; or (g) a material used for— (i) a roof insulating material applied in continuous contact with a substrate; or (ii) an adhesive; or (iii) a damp-proof course, flashing, caulking, sealing, ground moisture barrier, or the like; or (h) a paint, varnish, lacquer or similar finish, other than nitro-cellulose lacquer; or (i) a clear or translucent roof light of glass fibre-reinforced polyester if— (i) the roof in which it is installed forms part of a single storey building required to be Type C construction; and (ii) the material is used as part of the roof covering; and (iii) it is not closer than 1.5 m from another roof light of the same type; and (iv) each roof light is not more than 14 m2 in area; and (v) the area of the roof lights per 70 m2 of roof surface is not more than 14 m2; or (j) a face plate or neck adaptor of supply and return air outlets of an air handling system; or (k) a face plate or diffuser plate of light fitting and emergency exit signs and associated electrical wiring and electrical components; or (l) a joinery unit, cupboard, shelving, or the like; or (m) an attached non-building fixture and fitting such as— (i) a curtain, blind, or similar decor, other than— (A) a proscenium curtain required by Specification 32; or (B) in a Class 9b building used as an

BCA Clause	Description	Status	Comments
			entertainment venue, a material regulated under ; and (ii) a whiteboard, window treatment or the like; or (n) timber treads, risers, landings and associated supporting framework installed in accordance with D3D30 where the Spread-of-Flame Index and the Smoke-Developed Index of the timber does not exceed 9 and 8 respectively; or any other material that does not significantly increase the hazards of fire. **Comments**: The fire hazard properties for all floor linings and coverings, wall and ceiling linings and air-handling ductwork are to be provided by the manufacture in the form of the following; (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory Details to be provided with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
	S7C3 Floor linings and floor coverings [2019: Spec C1.10: 3] A floor lining or floor covering must have— (a) a *critical radiant flux* not less than that listed in Table S7C3; and (b) in a building not protected by a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, a maximum *smoke development rate* of 750 percent-minutes; and (c) a *group number* complying with S7C6(b), for any portion of the floor covering that is continued more than 150 mm up a wall.		

BCA Clause	Description	Status	Comments

Table S7C3: Critical radiant flux (CHF in kW/m^2) of floor linings and floor coverings

Class of building	Building not fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17	Building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17	Fire-isolated *exits* and fire control rooms
Class 2, 3, 5, 6, 7, 8 or 9b, excluding Class 3 accommodation for the aged and Class 9b as specified below	2.2 kW/m^2	1.2 kW/m^2	2.2 kW/m^2
Class 3 accommodation for the aged	4.5 kW/m^2	2.2 kW/m^2	4.5 kW/m^2
Class 9a *patient care areas*	4.5 kW/m^2	2.2 kW/m^2	4.5 kW/m^2
Class 9a areas other than *patient care areas*	2.2 kW/m^2	1.2 kW/m^2	4.5 kW/m^2
Class 9b auditorium or audience seating area used mainly for indoor swimming or ice skating	1.2 kW/m^2	1.2 kW/m^2	2.2 kW/m^2
Class 9b auditorium or audience seating area used mainly for other sports or multi-purpose functions	2.2 kW/m^2	1.2 kW/m^2	2.2 kW/m^2
Class 9c *resident use area*	N/A	2.2 kW/m^2	4.5 kW/m^2
Class 9c areas other than *resident use areas*	N/A	1.2 kW/m^2	4.5 kW/m^2

Table S7C4: Wall and ceiling lining materials (material groups permitted)

Class of building	Fire-isolated *exits* and fire control rooms	Public corridors	Specific areas	Other areas
Class 2 or 3, unsprinklered, excluding accommodation for the aged, people with disabilities and children	Walls: 1	Walls: 1, 2	Walls: 1, 2, 3	Walls: 1, 2, 3
	Ceilings: 1	Ceilings: 1, 2	Ceilings: 1, 2, 3	Ceilings: 1, 2, 3
Class 2 or 3, sprinklered, excluding accommodation for the aged, people with	Walls: 1	Walls: 1, 2, 3	Walls: 1, 2, 3	Walls: 1, 2, 3
	Ceilings: 1	Ceilings: 1, 2, 3	Ceilings: 1, 2, 3	Ceilings: 1, 2, 3

<table>
<tr><th>BCA Clause</th><th>Description</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td colspan="3">
<table>
<tr><th>Class of building</th><th>Fire-isolated exits and fire control rooms</th><th>Public corridors</th><th>Specific areas</th><th>Other areas</th></tr>
<tr><td>disabilities and children</td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Class 3 or 9a, unsprinklered, accommodation for the aged, people with a disability, children and health-care buildings</td><td>Walls: 1</td><td>Walls: 1</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td></tr>
<tr><td rowspan="2">Class 3 or 9a, sprinklered, accommodation for the aged, people with a disability, children and health-care buildings</td><td>Walls: 1, 2</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td><td>Ceilings: 1, 2, 3</td></tr>
<tr><td rowspan="2">Class 5, 6, 7, 8 or 9b schools, unsprinklered</td><td>Walls: 1</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td></tr>
<tr><td rowspan="2">Class 5, 6, 7, 8 or 9b schools, sprinklered</td><td>Walls: 1</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1, 2, 3</td><td>Ceilings: 1, 2, 3</td><td>Ceilings: 1 ,2, 3</td></tr>
<tr><td rowspan="2">Class 9b other than schools, unsprinklered</td><td>Walls: 1</td><td>Walls: 1</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td></tr>
<tr><td rowspan="2">Class 9b other than schools, sprinklered</td><td>Walls: 1</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td><td>Ceilings: 1, 2, 3</td></tr>
<tr><td rowspan="2">Class 9c, sprinklered</td><td>Walls: 1</td><td>Walls: 1, 2</td><td>Walls: 1, 2, 3</td><td>Walls: 1, 2, 3</td></tr>
<tr><td>Ceilings: 1</td><td>Ceilings: 1, 2</td><td>Ceilings: 1, 2, 3</td><td>Ceilings: 1, 2, 3</td></tr>
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Table Notes
(1) "Sprinklered" means a building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17.
(2) "Specific areas" means within—
(i) for Class 2 and 3 buildings, a sole-occupancy unit; and
(ii) for Class 5 buildings, open plan offices with a minimum floor dimension/floor to ceiling height ratio > 5; and
(iii) for Class 6 buildings, shops or other building with a minimum floor dimension/floor to ceiling height ratio > 5; and
(iv) for Class 9a health-care buildings, patient care areas; and
(v) for Class 9b theatres and halls, etc, an auditorium; and
(vi) for Class 9b schools, a classroom; and
(vii) for Class 9c buildings, resident use area.
</td></tr>
<tr><td>C2D12, Spec. 8</td><td>Performance of external walls in fire (Concrete tilt-up panels)</td><td>Not Applicable</td><td>Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification 8.</td></tr>
<tr><td>C2D13, Spec. 9</td><td>Fire-protected Timber: Concession</td><td>Not Applicable</td><td>Fire-protected timber may be used wherever an element is required to be non-combustible, provided—
(a) the building is—
(i) a separate building; or
(ii) a part of a building—
(A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or</td></tr>
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BCA Clause	Description	Status	Comments
			(B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and (b) the building has an effective height of not more than 25m; and (c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and (d) any insulation installed in the cavity of the timber building element to have an FRL is non-combustible; and (e) cavity barriers are provided in accordance with Specification 9.
C2D14	Ancillary elements	Capable	An ancillary element must not be fixed, installed, attached to or supported by the concealed internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following: (a) An ancillary element that is non-combustible. (b) A gutter, downpipe or other plumbing fixture or fitting. (c) A flashing. (d) A grate or grille not more than 2 m^2 in area associated with a building service. (e) An electrical switch, socket-outlet, cover plate or the like. (f) A light fitting. (g) A required sign. (h) A sign other than one provided under (a) or (g) that— (i) achieves a group number of 1 or 2; and (ii) does not extend beyond one storey; and (iii) does not extend beyond one fire compartment; and (iv) is separated vertically from other signs permitted under (h) by at least 2 storeys. (i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that—

BCA Clause	Description	Status	Comments
			(i) meets the relevant requirements of Table S7C7 as for an internal element; and (ii) serves a storey— (A) at ground level; or (B) immediately above a storey at ground level; and (iii) does not serve an exit, where it would render the exits unusable in a fire. (j) A part of a security, intercom or announcement system. (k) Wiring. (l) Waterproofing material installed in accordance with AS 4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface. (m) Collars, sleeves and insulation associated with service installations. (n) Screens applied to vents, weepholes and gaps complying with AS 3959. (o) Wiper and brush seals associated with doors, windows or other openings. (p) A gasket, caulking, sealant or adhesive directly associated with (a) to (o). **Limitations** C2D14 does not apply to ancillary elements fixed, installed or attached to the internal face or lining of an external wall. **Notes** C2D14 does not prevent the mounting of domestic air-conditioning condenser units on external walls. **Explanatory Information** Ancillary elements fixed, installed or attached to the internal face or lining of an external wall may be subject to other provisions such as C2D11. **Comments**: The existing walls serving the building are externally masonry construction. Structural engineer's details are required to confirm that existing and proposed external walls and common walls, including all components incorporated in them complies.

BCA Clause	Description	Status	Comments
			The structural engineer is to provide evidence of suitability under BCA A5G3 via the following; (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory or a certificate, or (d) a report from a professional engineer for each non-combustible ancillary element.
C2D15	Fixing of bonded laminated cladding panels	Not Applicable	(1) In a building required to be of Type A or B construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame. (2) An externally located bonded laminated cladding panel need not comply with (1) if it is one of the following: (a) A laminated glass system. (b) Layered plasterboard product. (c) Perforated gypsum lath with a normal paper finish. (d) Fibrous-plaster sheet. (e) Fibre-reinforced cement sheeting. (f) A component of a garage door. **Notes** For (1), mechanical support or restraint means fixing that does not solely rely on chemical adhesive and includes concealed fixing systems such as cassette fixing, channel-type fixing and face fixing. **Explanatory Information** For structural requirements relating to the fixing of cladding, refer to Section B. For most cladding systems, the requirements of Section B will necessitate mechanical fixing of the cladding panel to the supporting frame.

Part C3 – COMPARTMENTATION AND SEPARATION

BCA Clause	Description	Status	Comments
C3D3	General Floor Area & Volume Limitations	Complies	(1) The size of any fire compartment or atrium in a Class 5, 6, 7, 8 or 9 building must not exceed the relevant maximum floor area nor the relevant maximum volume set out in Table

BCA Clause	Description	Status	Comments
			C3D3 and C3D6 except as permitted in C3D4. (2) A part of a building which contains only heating, ventilating, or lift equipment, water tanks, or similar service units is not counted in the floor area or volume of a fire compartment or atrium if it is situated at the top of the building. (3) In a building containing an atrium, the part of the atrium well bounded by the perimeter of the openings in the floors and extending from the level of the first floor above the atrium floor to the roof covering is not counted in the volume of the atrium for the purposes of this clause.
C3D4	Large Isolated Buildings	Not Applicable	
C3D5	Requirements for Open Space and Vehicular Access	Not Applicable	
C3D6, NSW C3D6	Class 9 Buildings	Not Applicable	(2) In a building containing a Class 9b early childhood centre— (a) unless the Class 9b early childhood centre is the only use in the building, it must be separated from the remainder of the building by walls and/or floors with an FRL not less than that required for a fire wall; and (b) each storey must contain not less than 2 fire compartments. **Exemptions** C3D6(2) does not apply to a Class 9b early childhood centre— (a)wholly within a storey that provides direct egress to a road or open space; or with a rise in storeys of not more than 2, where the Class 9b early childhood centre is the only use in the building.
Spec. 11	Smoke-proof walls in health-care and residential care buildings	Not Applicable	
C3D7	Vertical separation of openings in external walls (Spandrels)	Capable	To Type **A** construction (1) If in a building of Type A construction, any part of a window or other opening in an external wall is above another opening in the storey next below and its vertical projection falls

BCA Clause	Description	Status	Comments
			no further than 450 mm outside the lower opening (measured horizontally), the openings must be separated by— (a) A spandrel which – (i) Is not less than 900mm in height; and (ii) Extends not less than 600mm above the upper surface of the intervening floor; and (iii) Is of non-combustible material having an FRL of not less than 60/60/60; or (b) Part of a curtain wall or panel wall that complies with (a); or (c) Construction that complies with (a) behind a curtain wall or panel wall and has any gaps packed with a non-combustible material that will withstand thermal expansion and structural movement of the walling without the loss of seal against fire and smoke; or (d) A slab or other horizontal construction that – (i) Projects outwards from the external face of the wall not less than 1100mm; and (ii) Extends along the wall not less than 450mm beyond the openings concerned; and (iii) Is non-combustible and has an FRL of not less than 60/60/60. (2) The requirements of (1) do not apply to – (a) An open-deck car park; or (b) An open spectator stand; or (c) A building which has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or (d) Openings within the same stairway; or (e) Openings in external walls where the floor separating the storeys does not require an FRL with respect to integrity and insulation.

BCA Clause	Description	Status	Comments
			(3) For the purposes of C3D7, window or other opening means that part of the external wall of a building that does not have an FRL off 60/60/60 or greater. **Comments**: It's noted that the existing building has a rise in storeys of 2 and as such satisfies the concession in C2D6 which permits Type C construction, in which case spandrels are not required. However, due to the change in Type of Construction from Type C to Type A, spandrel protection is required to window or other opening in an external walls above another opening in the storey next below and its vertical projection falls no further than 450 mm outside the lower opening (measured horizontally). Details to be provided with the application for CC.
C3D8	Separation by fire walls	Capable	(1) Construction — A fire wall must be constructed in accordance with the following: (a) The fire wall has the relevant FRL prescribed by Specification 5 for each of the adjoining parts, and if these are different, the greater FRL, except where S5C18(c), S5C21(3) and S5C24(3) permit a lower FRL on the carpark side. (b) Any openings in a fire wall must not reduce the FRL required by Specification 5 for the fire wall, except where permitted by the Deemed-to-Satisfy Provisions of Part C4. (c) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not pass through or cross the fire wall unless the required fire-resisting performance of the fire wall is maintained. (2) Separation of buildings — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate building for the purposes of the Deemed-to-Satisfy Provisions of Sections C, D and E if it is constructed

BCA Clause	Description	Status	Comments
			in accordance with (1) and the following: (a) The fire wall extends through all storeys and spaces in the nature of storeys that are common to that part and any adjoining part of the building. (b) The fire wall is carried through to the underside of the roof covering. (c) Where the roof of one of the adjoining parts is lower than the roof of the other part, the fire wall extends to the underside of— (i) the covering of the higher roof, or not less than 6 m above the covering of the lower roof; or (ii) the lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3 m to any wall above the lower roof; or (iii) the lower roof if its covering is non-combustible and the lower part has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (3) Separation of fire compartments — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with (a) and the fire wall extends to the underside of— (a) a floor having an FRL required for a fire wall; or (b) the roof covering. **Comments**: Structural engineer's details are required to confirm compliance for the existing building and the proposed works.
C3D9	Separation of classifications in the same storey	Not Applicable	(1) If a building has parts of different classifications located alongside one another in the same storey— (a) each building element in that storey must have the higher FRL prescribed in Specification 5 for that element for the classifications concerned; or

BCA Clause	Description	Status	Comments
			(b) the parts must be separated in that storey by a fire wall. (2) A fire wall required by (1)(b) must have the FRL prescribed in accordance with Specification 5 as applicable for that element for the Type of construction and the classifications concerned. (3) For the purposes of (2), the FRL in Specification 5 must be either— (a) the higher FRL prescribed in Tables S5C11d or S5C21d or S5C21a to S5C21f; or (b) the FRL prescribed in Table S5C24c. (4) For the purposes of (1), where one part is a carpark complying with S5C19, S5C22 and S5C25, the parts may be separated by a fire wall complying with S5C19, S5C22 or as appropriate.
C3D10	Separation of classifications in different storeys	Not Applicable	If parts of different classification are situated one above the other in adjoining storeys they must be separated as follows: (a) Type A construction — The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification 5 for the classification of the lower storey. (b) Type B or C construction — If one of the adjoining parts is of Class 2, 3 or 4, the floor separating the part from the storey below must— (i) be a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or (ii) have an FRL of at least 30/30/30; or (iii) have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal.
C3D11	Separation of lift shafts	Not Applicable	(1) Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the

BCA Clause	Description	Status	Comments
			remainder of the building by enclosure in a shaft in which— (a) in a building required to be of Type A construction—the walls have the relevant FRL prescribed by Specification 5; and (b) in a building required to be of Type B construction — the walls— (i) if loadbearing, have the relevant FRL prescribed by Tables S5C21a, S5C21b, S5C21c, S5C21d, S5C21e and S5C21f of Specification 5; or (ii) if non-loadbearing, be of non-combustible construction. (2) Any lift in a patient care area in a Class 9a health-care building or a resident use area in Class 9c aged care building must be separated from the remainder of the building by a shaft having an FRL of not less than— (a) in a building of Type A or B construction — 120/120/120; or (b) in a building of Type C construction — 60/60/60. (3) An emergency lift must be contained within a fire-resisting shaft having an FRL of not less than 120/120/120. (4) Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4. **Comments:** The existing building does not contain a lift, and a lift is not proposed.
C3D12	Stairways and lifts in one shaft	Not Applicable	A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft. **Comments:** The existing building does not contain a lift, and a lift is not proposed.
C3D13	Separation of Equipment	Not Applicable	(1) Equipment other than that described in (2) and (3) must be separated from the remainder of the building with construction complying with (4), if that equipment comprises—

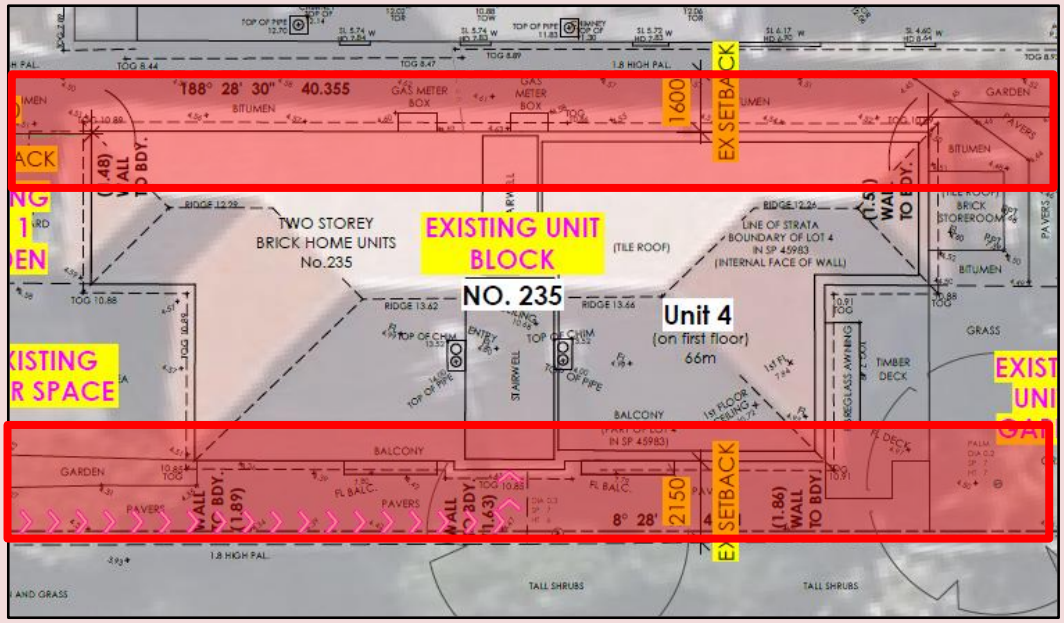
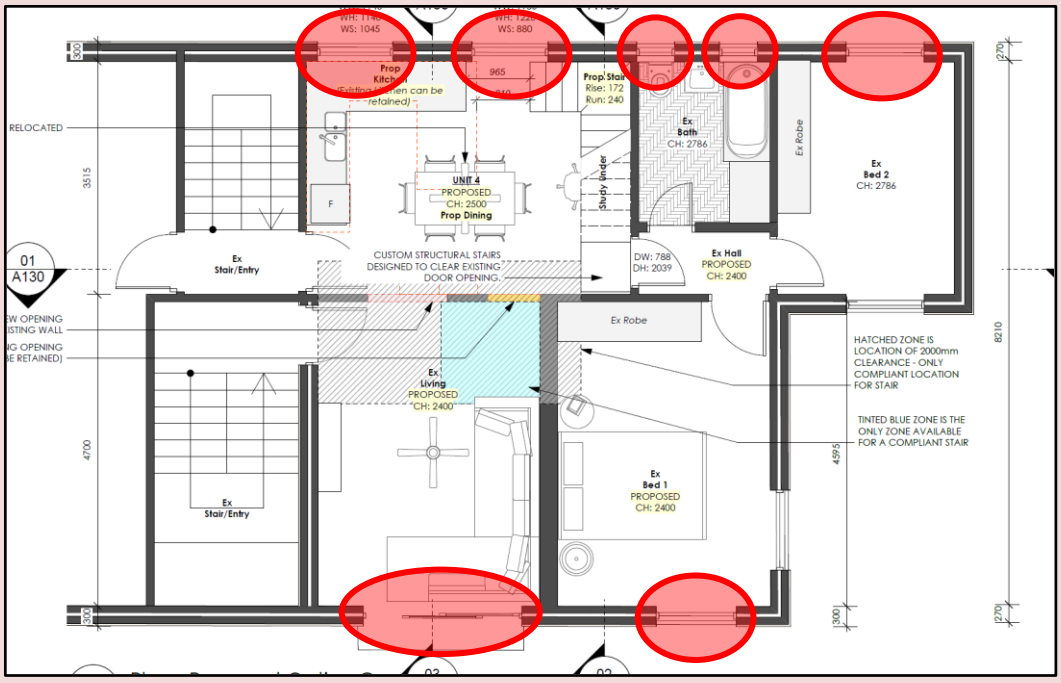
BCA Clause	Description	Status	Comments
			(a) lift motors and lift control panels; or (b) emergency generators used to sustain emergency equipment operating in the emergency mode; or (c) central smoke control plant; or (d) boilers; or (e) a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more. (2) Equipment need not be separated in accordance with (1) if the equipment comprises— (a) smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification 21; or (b) stair pressurising equipment installed in compliance with the relevant provisions of AS 1668.1; or (c) a lift installation without a machine-room; or (d) equipment otherwise adequately separated from the remainder of the building. (3) Separation of on-site fire pumps must comply with the requirements of AS 2419.1. (4) Separating construction must have— (a) except as provided by (b)— (i) an FRL as required by Specification 5, but not less than 120/120/120; and (ii) any doorway protected with a self-closing fire door having an FRL of not less than –/120/30; or (b) when separating a lift shaft and lift motor room, an FRL not less than 120/–/–.
C3D14	Electricity Supply System	Not Applicable	A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must— (a) be separated from any other part of the building by construction having

BCA Clause	Description	Status	Comments
			an FRL of not less than 120/120/120; and (b) have any doorway in that construction protected with a *self-closing* fire door having an FRL of not less than –/120/30. **Comment:** No assessment has been made as to whether the existing building complies with this clause.
C3D15	Public corridors in Class 2 and 3 buildings	Not Applicable	In a Class 2 or 3 building, a public corridor, if more than 40m in length, must be divided at intervals of not more than 40m with smoke-proof walls complying with S11C2. **Public corridor:** An enclosed corridor, hallway or the like which— (a) serves as a means of egress from 2 or more sole-occupancy units to a required exit from the storey concerned; or (b) is required to be provided as a means of egress from any part of a storey to a required exit. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.

Part C4 – PROTECTION OF OPENINGS

BCA Clause	Description	Status	Comments
C4D3	Protection of openings in external walls	Capable	(1) Subject to (2), openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used they must be located externally. (2) The requirements of (1) only apply if the distance between the opening and the fire-source feature to which it is exposed is less than— (a) 3 m from a side or rear boundary of the allotment; or (b) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or

BCA Clause	Description	Status	Comments
			(c) 6 m from another building on the allotment that is not Class 10. (3) Openings in an external wall that is required to have an FRL, if required to be protected under (1), must not occupy more than 1/3 of the area of the external wall of the storey in which it is located unless they are in a Class 9b building used as an open spectator stand. **Comment**: The existing building satisfies the concession in C2D6 which permits Type C construction, in which case FRL's do not apply to external walls that are more than 1.5m from the side or rear allotment boundaries. Openings in walls that are not required to have an FRL do not require protection. As the building has changed to Type A Construction, all openings within 3.0m of the side or rear boundaries now require protection in accordance with C4D5. Details to be provided with the application for CC. Alternatively, a performance solution may be considered. The following is also noted: **Spec. 5 cl. S5C2 Exposure to fire-source features** (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.

BCA Clause	Description	Status	Comments
	 		
C4D4	Separation of external walls and associated openings in different fire compartments	Not Applicable	The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C4D4, unless— (a) those parts of each wall have an FRL not less than 60/60/60; and (b) any openings protected in accordance with C4D5.

<table>
<tr><th>BCA Clause</th><th>Description</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td colspan="3">
<table>
<tr><th>Angle between walls</th><th>Minimum distance (m)</th></tr>
<tr><td>0° (walls opposite)</td><td>6</td></tr>
<tr><td>more than 0° to 45°</td><td>5</td></tr>
<tr><td>more than 45° to 90°</td><td>4</td></tr>
<tr><td>more than 90° to 135°</td><td>3</td></tr>
<tr><td>more than 135° to less than 180°</td><td>2</td></tr>
<tr><td>180° or more</td><td>Nil</td></tr>
</table>
</td></tr>
<tr><td>C4D5</td><td>Acceptable methods of protection</td><td>Capable</td><td>(1) Where protection is required, doorways, windows and other openings must be protected as follows:
(a) Doorways—
(i) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or
(ii) –/60/30 fire doors that are self-closing or automatic closing.
(b) Windows—
(i) internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or
(ii) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or
(iii) –/60/– automatic closing fire shutters.
(c) Other openings—
(i) excluding voids — internal or external wall-wetting sprinklers, as appropriate; or
(ii) construction having an FRL not less than –/60/–.
(2) Fire doors, fire windows and fire shutters must comply with Specification 12.

Comment: The openings identified in C4D3 are required to be fire protected.
Protection of these openings is required in accordance with Clause C4D5.</td></tr>
</table>

BCA Clause	Description	Status	Comments
			Alternatively, a performance solution may be considered.
Spec. 12	Fire doors, smoke doors, fire windows and shutters	For Note Only	**Comments:** The existing building does not contain a lift, and a lift is not proposed.
C4D6	Doors in Fire Walls	Not Applicable	(1) The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed ½ of the length of the fire wall, and each doorway must be protected by— (a) 2 fire doors or fire shutters, one on each side of the doorway, each of which has an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30; or (b) a fire door on one side and a fire shutter on the other side of the doorway, each of which complies with (a); or (c) a single fire door or fire shutter which has an FRL of not less than that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30. (2) A fire door or fire shutter required by (1)(a), (b) or (c) must be self-closing, or automatic closing in accordance with (3) and (4). (3) The automatic closing operation required by (2) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5 m horizontal distance from the opening. (4) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system in either fire compartment separated

BCA Clause	Description	Status	Comments
			by the fire wall must also initiate the automatic closing operation.
C4D7	Sliding Fire Doors	Not Applicable	
C4D8	Protection of doorways in horizontal exits	Not Applicable	
C4D9	Openings in Fire Isolated Exits	Not Applicable	(1) Doorways that open to fire-isolated stairways, fire-isolated passageways or fire-isolated ramps, and are not doorways opening to a road or open space, must be protected by –/60/30 fire doors that are self-closing, or automatic closing in accordance with (2) and (3). (2) The automatic-closing operation required by (1) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (3) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic-closing operation. (4) A window in an external wall of a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp must be protected in accordance with C4D5 if it is within 6 m of, and exposed to, a window or other opening in a wall of the same building, other than in the same fire-isolated enclosure. **Comments**: A fire isolated exit is not proposed.
C4D10	Service Penetrations in Fire Isolated Exits	Not Applicable	Fire-isolated exits must not be penetrated by any services other than— (a) electrical wiring permitted by D3D8(6) to be installed within the exit; or

BCA Clause	Description	Status	Comments
			(b) ducting associated with a pressurisation system if it— (i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and (ii) does not open into any other part of the building; or (c) for fire services, water supply and test drain pipes. **Comments:** The existing building does not contain a lift, and a lift is not proposed.
C4D11	Openings in Fire Isolated Lift Shafts	Not Applicable	(1) Doorways — If a lift shaft is required to be fire-isolated, an entrance doorway to that shaft must be protected by –/60/– fire doors that— (a) comply with AS 1735.11; and (b) are set to remain closed except when discharging or receiving passengers, goods or vehicles. (2) Lift indicator panels — A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35 000 mm^2 in area. **Comments:** The existing building does not contain a lift, and a lift is not proposed.
C4D12, NSW C4D12(4), NSW C4D12(5), NSW C4D12(10)	Bounding construction: Class 2 and 3 buildings and Class 4 parts	Capable	(1) A doorway in a Class 2 or 3 building must be protected if it provides access from a sole-occupancy unit to— (a) a public corridor, public lobby, or the like; or (b) a room not within a sole-occupancy unit; or (c) the landing of an internal non fire-isolated stairway that serves as a required exit; or (d) another sole-occupancy unit. (2) A doorway in a Class 2 or 3 building must be protected if it provides access from a room not within a sole-occupancy unit to— (a) a public corridor, public lobby, or the like; or (b) the landing of an internal non fire-isolated stairway that serves as a required exit. (3) A doorway in a Class 4 part of a building must be protected if it

BCA Clause	Description	Status	Comments
			provides access to any other internal part of the building. (4) Except as provided for in NSW C4D12(5), protection for a doorway required under (1), (2) or (3) must be at least— (a) in a building of Type A construction — a self-closing –/60/30 fire door; and (b) in a building of Type B or C construction — a self-closing, tight fitting, solid core door not less than 35 mm thick. (5) In a Class 3 building used as a residential care building protected with a sprinkler system complying with Specification 17, protection for a doorway must be at least a tight fitting solid core door not less than 35 mm thick that is— (a) self-closing; or (b) fitted with a free-arm closing device which closes the door or causes the door to remain closed (without preventing manual re-opening), upon the detection of smoke caused by a smoke detector located within the room. (6) Other openings in internal walls which are required to have an FRL with respect to integrity and insulation must not reduce the fire-resisting performance of the wall. (7) A door required by (4) or (5) may be automatic-closing in accordance with the following: (a) The automatic-closing operation must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (b) Where any other required suitable fire alarm system, including a sprinkler system

BCA Clause	Description	Status	Comments
			(other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic-closing operation. (8) The requirements of (9) apply in a Class 2 or 3 building where a path of travel to an exit— (a) does not provide a person seeking egress with a choice of travel in different directions to alternative exits; and (b) is along an open balcony, landing or the like; and (c) passes an external wall of— (i) another sole-occupancy unit; or (ii) a room not within a sole-occupancy unit. (9) The external wall mentioned in (8)(c) must— (a) be constructed of concrete or masonry, or be lined internally with a fire-protective covering; and (b) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (c) have any windows or other openings— protected internally in accordance with C4D5; or (d) located at least 1.5 m above the floor of the balcony, landing or the like. (10) In a Class 9b building used as an entertainment venue, openings in construction required to separate one space from another must be protected in accordance with C4D5. **Comment**: The existing building satisfies the concession in C2D6 which permits Type C construction, in which case doorways providing access from a sole-occupancy unit to a public corridor, public lobby, or the like must be protected a self-closing, tight fitting, solid core door not less than 35 mm thick. However, due to the change in Type of Construction from Type C to Type A,

BCA Clause	Description	Status	Comments
			these doorways must be protected a self-closing –/60/30 fire door. Details to be provided with the application for CC.
C4D13	Openings in Floors & Ceilings	Capable	(1) Where a service passes through— (a) a floor that is required to have an FRL with respect to integrity and insulation; or (b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (2). (2) A service must be protected— (a) in a building of Type A construction, by a shaft complying with Specification 5; or (b) in a building of Type B or C construction, by a shaft that will not reduce the fire performance of the building elements it penetrates; or (c) in accordance with C4D15. (3) Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering. **Comment**: The existing building satisfies the concession in C2D6 which permits Type C construction, in which case the floors separating units is required to have an FRL of 30/30/30, a covering on the underside of the floor a fire-protective or ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes, and the walls are required to have an FRL of 60/60/60. As the building has changed to Type A Construction the floor and walls is required to have an FRL of 90/90/90. On that basis, electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrations through building elements required to have an FRL must comply with a tested system. Details to be provided with the application for CC.

BCA Clause	Description	Status	Comments
C4D14	Openings in Shafts	Not Applicable	In a building of Type A construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be protected by— (a) if it is in a sanitary compartment — a door or panel which, together with its frame, is non-combustible or has an FRL of not less than –/30/30; or (b) a self-closing –/60/30 fire door or hopper; or (c) an access panel having an FRL of not less than –/60/30; or (d) if the shaft is a garbage shaft — a door or hopper of non-combustible construction.
C4D15	Openings for Service installations	Capable	(1) The requirements of (2) apply where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire. (2) An installation mentioned in (1) must comply with any one of the following: (a) Tested systems — the following applies: (i) The service, building element and any protection method at the penetration— (A) are identical with a prototype assembly of the service, building element and protection method which has been tested in accordance with AS 4072.1 and AS 1530.4 and has achieved the required FRL or resistance to the incipient spread of fire; or (B) differ from a prototype assembly of the service, building element and protection method in

BCA Clause	Description	Status	Comments
			accordance with Section 4 of AS 4072.1. (ii) It complies with (i) except for the insulation criteria relating to the service if— (A) the service is a pipe system comprised entirely of metal (excluding pipe seals or the like); and (B) any combustible building element is not located within 100 mm of the service for a distance of 2 m from the penetration; (C) and combustible material is not able to be located within 100 mm of the service for a distance of 2 m from the penetration; and (D) it is not located in a required exit. (iii) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. (b) Ventilation and air-conditioning — in the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS 1668.1. (c) Compliance with Specification 13 — the following applies: (i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification 13 and it— of fire; and penetrates a wall, floor or ceiling, but not a ceiling required to have a (A) resistance to the incipient spread (B) connects not more than 2 fire compartments in addition to any fire-

BCA Clause	Description	Status	Comments
			resisting service shafts; and (C) does not contain a flammable or combustible liquid or gas. (ii) The service is sanitary plumbing installed in accordance with Specification 13 and it— (A) is of metal or UPVC pipe; and (B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and (C) is in a sanitary compartment separated from other parts of the building by walls with the FRL required by Specification 5 for a stair shaft in the building and a self-closing –/60/30 fire door. (iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification 13 and it— of fire; and penetrates a wall, floor or ceiling, but not a ceiling required to have a (A) resistance to the incipient spread (B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts. (iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification 13. **Comment**: The existing building satisfies the concession in C2D6 which permits Type C construction, in which case the floors separating units is required to have an FRL of 30/30/30, a covering on the underside of the floor a fire-protective or ceiling having a resistance to the

BCA Clause	Description	Status	Comments
			incipient spread of fire to the space above itself of not less than 60 minutes, and the walls are required to have an FRL of 60/60/60. As the building has changed to Type A Construction the floor and walls is required to have an FRL of 90/90/90. On that basis, electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrations through building elements required to have an FRL must comply with a tested system. Details to be provided with the application for CC.
Specification 13	Penetration of walls, floors and ceilings by services	Capable	As above
C4D16	Construction Joints	Capable	(1) Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner— (a) identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or (b) that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL. (2) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. (3) The requirements of (1) do not apply where joints, spaces and the like between fire-protected timber elements are provided with cavity barriers in accordance with Specification 9. **Comment:** Joints are to have the required FRL with respect to integrity and insulation relative to the building element they are joining.
C4D17	Columns protected with lightweight construction to achieve an FRL	For Note Only	A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to

BCA Clause	Description	Status	Comments
			the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.

PART D2 – PROVISION FOR ESCAPE

BCA Clause	Description	Status	Comments
D2D2	Application of Part	For Note Only	The Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a sole-occupancy unit in a Class 2 or 3 building or a Class 4 part of a building.
D2D3, NSW D2D3(4)	Number of Exits Required	Complies	(1) All buildings — Every building must have at least one exit from each storey. (2) Class 2 to 8 buildings — (a) In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has an effective height of more than 25 m. (ii) A Class 2 or 3 building subject to C2D6. (b) The requirements of (a)(i) do not apply to a part of a storey that— (i) is provided with direct egress to a road or open space; and (ii) satisfies D2D5 by the provision of 1 exit. (3) Basements — In addition to any horizontal exit, not less than 2 exits must be provided from any storey if egress from that storey involves a vertical rise within the building of more than 1.5 m, unless— (a) the floor area of the storey is not more than 50 m²; and (b) the distance of travel from any point on the floor to a single exit is not more than 20 m. (4) Class 9 buildings — (a) In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has a rise in storeys of more than 6 or an effective height of more than 25 m.

BCA Clause	Description	Status	Comments
			(ii) Any storey which includes a patient care area in a Class 9a health-care building. (iii) Any storey that contains sleeping areas in a Class 9c building. (iv) Any storey used as a Class 9b early childhood centre, or any Class 9b early childhood centre which forms part of a storey. (v) Each storey in a primary or secondary school with a rise in storeys of 2 or more. (vi) Any storey or mezzanine that accommodates more than 50 persons, calculated under D2D18. (vii) Any storey or mezzanine within an auditorium in an entertainment venue. (b) The requirements of (a) do not apply to a part of a storey that— (i) is a plant room, machinery room, storeroom, lift-machine room or the like; and (ii) is provided with direct egress to a road, open space or a fire-isolated exit complying with D2D12(2); and (iii) satisfies D2D5 by the provision of 1 exit. (5) Exits from Class 9c buildings and patient care areas in Class 9a health-care buildings — In a Class 9a health-care building and a Class 9c building, at least one exit must be provided from every part of a storey which has been divided into fire compartments in accordance with C3D3 or C3D6. (6) Exits in open spectator stands — In an open spectator stand containing more than one tier of seating, every tier must have not less than 2 stairways or ramps, each forming part of the path of travel to not less than 2 exits. (7) Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or

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			part of a storey must have access to— (a) an exit; or (b) at least 2 exits if 2 or more exits are required. **Comment:** One exit is required for each unit and is provided. The proposed addition is internal to unit 4 and does not impact on the existing building in this regard.
D2D4	When fire-isolated stairways and ramps are required	Not Applicable	(1) Class 2 and 3 buildings — The following applies: (a) Subject to (b), every stairway or ramp serving as a *required exit* must be fire-isolated unless it connects, passes through or passes by not more than— (i) 3 consecutive *storeys* in a Class 2 building; or (ii) 2 consecutive *storeys* in a Class 3 building. (b) Notwithstanding (a), one extra *storey* of any classification may be included if— (i) it is only for the accommodation of motor vehicles or for other ancillary purposes; or (ii) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (iii) the *required exit* does not provide access to or egress for, and is separated from, the extra *storey* by construction having— (A) an FRL of –/60/60, if non-*loadbearing*; and (B) an FRL of 90/90/90, if *loadbearing*; and (C) no opening that could permit the passage of fire or smoke. (2) Class 5, 6, 7, 8 or 9 buildings — Every stairway or ramp serving as a *required exit* must be fire-isolated unless— (a) in a Class 9a *health-care building* — it connects, or passes through or passes by not more than 2

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			consecutive *storeys* in areas other than *patient care areas*; or (b) it is part of an *open spectator stand*; or (c) in any other case, except in a Class 9b *early childhood centre* or a Class 9c building, it connects, passes through or passes by not more than 2 consecutive *storeys* and one extra *storey* of any classification may be included if— (i) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (ii) the *required exit* does not provide access to or egress for, and is separated from, the extra *storey* by construction having— (A) an FRL of –/60/60, if non-*loadbearing*; and (B) an FRL of 90/90/90 for Type A construction or 60/60/60 for Type B or C construction, if *loadbearing*; and (C) no opening that could permit the passage of fire or smoke. **Exemptions** D2D4(2) does not apply to— (a) a Class 9b early childhood centre wholly within a storey that provides direct egress to a road or open space; or (b) a Class 9b early childhood centre with a rise in storeys of not more than 2, where the Class 9b early childhood centre is the only use in that building. **Comment:** Fire-isolated stairways are not required.
D2D5	Exit travel distances	Complies	(1) **Class 2 and 3 buildings** — (a) The entrance doorway of any sole-occupancy unit must be not more than— (i) 6 m from an exit or from a point from which travel in

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			different directions to 2 exits is available; or (ii) 20 m from a single exit serving the storey at the level of egress to a road or open space; and (b) no point on the floor of a room which is not in a sole-occupancy unit must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available. (2) **Class 4 parts of a building** — The entrance doorway to any Class 4 part of a building must be not more than 6 m from an exit or a point from which travel in different directions to 2 exits is available. (3) **Class 5, 6, 7, 8 or 9 buildings** — Subject to (4), (5) and (6)— (a) no point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m; and (b) in a Class 5 or 6 building, the distance to a single exit serving a storey at the level of access to a road or space may be increased to 30 m. (4) **Class 9a buildings** — In a patient care area in a Class 9a building— (a) no point on the floor must be more than 12 m from a point from which travel in different directions to 2 of the required exits is available; and (b) the maximum distance to one of those exits must not be more than 30 m from the starting point. (5) **Open spectator stands** — The distance of travel to an exit in a Class 9b building used as an open spectator stand must be not more than 60 m. (6) **Assembly buildings** — In a Class 9b building other than a school or early childhood centre, the distance to one of the exits may be 60 m if— (a) the path of travel from the room concerned to that exit is through

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			another area which is a corridor, hallway, lobby, ramp or other circulation space; and (b) the room is smoke-separated from the circulation space by construction having an FRL of not less than 60/60/60 with every doorway in that construction protected by a tight fitting, self-closing, solid-core door not less than 35 mm thick; and (c) the maximum distance of travel does not exceed 40 m within the room and 20 m from the doorway to the room through the circulation space to the exit.
D2D6	Distance between alternative exits	Not Applicable	Exits that are required as alternative means of egress must be— (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than— (i) in a Class 2 or 3 building – 45 m apart; or (ii) in a Class 9a health-care building, if such required exit serves a patient care area – 45 m apart; or (iii) in all other cases – 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6 m apart.
D2D7	Height of exits, paths of travel to exits and doorways	Not Applicable	In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980mm. **Comments:** No assessment has been made as to whether the existing building complies with this clause.
D2D8, NSW D2D8(5)	Dimensions of exits and paths of travel to exits	Not Applicable	(1) The unobstructed width of each required exit or path of travel to an exit, except for ladders provided in accordance with D2D21, D3D23 or

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			I3D5, and doorways, must be not less than— (a) 1 m; or (b) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a treatment area or ward area; and (c) in a public corridor in a Class 9c aged care building, notwithstanding (2) and (3)— (i) 1.5 m; and (ii) 1.8 m for the full width of the doorway, providing access into a sole-occupancy unit or communal bathroom. (2) If the storey, mezzanine or open spectator stand accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (i) 1 m plus 250 mm for each 25 persons (or part) in excess of 100; or (ii) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a treatment area or ward area. (3) If the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than— (a) 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons if egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12; or (b) in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200. (4) In an open spectator stand which accommodates more than 2000 persons, the aggregate unobstructed width of each required exit or path of travel to an exit,

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			except for doorways, must be not less than 17 m plus a width (in metres) equal to the number in excess of 2000 divided by 600. (5) In a Class 9b building used as an entertainment venue— (a) the aggregate width must be not less than 2 m plus 500 mm for every 50 persons or part in excess of 200; and (b) D2D8(1), (2) and (3) do not apply; and (c) where or more paths of travel merge, the width of the combined path of travel must be not less than the sum of the required widths of those paths of travel; and (d) the required widths of those paths of travel connecting the exits from the building to a public road or open space must comply with (c); or **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
NSW D2D9	Width of doorways in exits or paths of travel to exits	Not Applicable	In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than— (a) in patient care areas through which patients would normally be transported in beds— (i) if the doorway provides access to, or from, a corridor of width— (A) less than 2.2 m — 1200 mm; or (B) 2.2 m or greater — 1070 mm; and (ii) where the doorway referred to in (i) is fitted with two leaves and one leaf is secured in the closed position in accordance with D3D26(3)(e), the other leaf must permit an unobstructed opening not less than 800 mm wide; or (b) in patient care areas in a horizontal exit — 1250 mm; or (c) the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or

BCA Clause	Description	Status	Comments
			(d) in a Class 9c building, 800mm, except— (i) in resident use areas the minimum unobstructed width must be 870mm; and (ii) for doorways leading from a public corridor to a sole-occupancy unit the minimum unobstructed width must be 1070mm; and (iii) where the doorway is fitted with two leaves and one leaf is secured in the closed position in accordance with D3D26(3)(e), the other leaf must permit an unobstructed opening not less than 870 mm wide in resident use areas and 800 mm wide in non-resident use areas; or (e) in a Class 9b building used as an entertainment venue— (i) in parts of the building used by the public, the width of the required exit or path of travel, and the unobstructed width of each doorway must not be less than 1 m and not more than 3 m; and (ii) in other parts of the building, doorways must comply with NSW D2D9; or (f) in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D2D10	Exit width not to diminish in direction of travel	Not Applicable	The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i). **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D2D11	Determination and measurement of exits	For Note Only	For the purposes of D2D7 to D2D10 the following apply:

BCA Clause	Description	Status	Comments
	and paths of travel to exits		(a) The required width of a stairway or ramp in a required exit or path of travel to an exit must— (i) be measured clear of all obstructions such as handrails, projecting parts of barriers and the like; and (ii) extend without interruption, except for ceiling cornices, to a height not less than 2 m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing. (b) To determine the aggregate unobstructed width, the number of persons accommodated must be calculated according to D2D18.
D2D12	Travel via Fire-Isolated Exits	Not Applicable	(1) A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from— (a) a public corridor, public lobby or the like; or (b) a sole-occupancy unit occupying all of a storey; or (c) a sanitary compartment, airlock or the like. (2) Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway— (a) to a road or open space; or (b) to a point— (i) in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least ⅔ of its perimeter; and (ii) from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or (c) into a covered area that— (i) adjoins a road or open space; and (ii) is open for at least ⅓ of its perimeter; and (iii) has an unobstructed clear height throughout, including

BCA Clause	Description	Status	Comments
			the perimeter openings, of not less than 3 m; and (iv) provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m. (3) Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies: (a) That part of the wall must have— (i) an FRL of not less than 60/60/60; and (ii) any openings protected internally in accordance with C4D5; and (b) The protection required by (a) must extend for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser. (4) If more than 2 access doorways, not from a sanitary compartment or the like, open to a required fire-isolated exit in the same storey— (a) a smoke lobby in accordance with D3D7 must be provided; or (b) the exit must be pressurised in accordance with AS 1668.1. (5) A ramp must be provided at any change in level less than 600 mm in a fire-isolated passageway in a Class 9 building.
D2D13	External Stairways or ramps in lieu of fire-isolated exits	Not Applicable	
D2D14	Travel by non-fire-isolated stairways or ramps	Not Applicable	(1) A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided. (2) In a Class 2, 3 or 4 building, the distance between the doorway of a room or sole-occupancy unit and the point of egress to a road or open space by way of a stairway or ramp

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			that is not fire-isolated and is required to serve that room or sole-occupancy unit must not exceed— (a) 30 m in a building of Type C construction; or (b) 60 m in all other cases. (3) In a Class 5, 6, 7, 8 or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or non-fire-isolated ramp must not exceed 80 m. (4) In a Class 2, 3 or 9a building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than— (a) 15 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 30 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (5) In a Class 5 to 8 or 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than— (a) 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (6) In a Class 2 or 3 building, if 2 or more exits are required and are provided by means of internal non-fire-isolated stairways or non-fire-isolated ramps each exit must— (a)provide separate egress to a road or open space; and be suitably smoke-separated from each other at the level of discharge.

BCA Clause	Description	Status	Comments
			Comments: The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D2D15 NSW D2D15(6)	Discharge from Exits	Not Applicable	(1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. (2) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than— (a) the minimum width of the required exit; or (b) 1 m, whichever is the greater. (3) If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by— (a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed-to-Satisfy Provisions of Part D4; or (b) except if the exit is from a Class 9a building, a stairway complying with the Deemed-to-Satisfy Provisions of the BCA. (4) The discharge point of alternative exits must be located as far apart as practical. (5) In a Class 9b building which is an open spectator stand that accommodates more than 500 persons, a required stairway or required ramp must not discharge to the ground in front of the stand. (6) In a Class 9b building used as an entertainment venue, at least half of the required number of exits from each storey or mezzanine, and at least half of the aggregate width of such exits must discharge otherwise than through the main entrance, or the area immediately adjacent to the main entrance to the building.

BCA Clause	Description	Status	Comments
			(7) The number of persons accommodated must be calculated according to D2D18. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D2D16	Horizontal Exits	Not Applicable	
D2D17	Non-required stairs, ramps or escalators	Not Applicable	An escalator, moving walkway or non-required non fire-isolated stairway or pedestrian ramp— (a) must not be used between storeys in— (i) a patient care area in a Class 9a health-care building; or (ii) a resident use area in a Class 9c building; and (b) may connect any number of storeys if it is— (i) in an open spectator stand or indoor sports stadium; or (ii) in a carpark or an atrium; or (iii) outside a building; or (iv) in a Class 5 or 6 building that is sprinklered throughout, where the escalator, walkway, stairway or ramp complies with Specification 14; and (c) except where permitted in (b) must not connect more than— (i) 3 storeys if each of those storeys is provided with a sprinkler system (other than a FPAA101D system) complying with Specification 17 throughout; or (ii) 2 storeys, provided that in each case, those storeys must be consecutive, and one of those storeys is situated at a level at which there is direct egress to a road or open space; and (d) except where permitted in (b) or (c), must not connect, directly or indirectly, more than 2 storeys at any level in a Class 5, 6, 7, 8 or 9 building and those storeys must be consecutive.

BCA Clause	Description	Status	Comments
			Comments: There a no non-required stairways proposed.
D2D18 NSW Table D2D18	Number of persons accommodated	For Note Only	For the purposes of the Deemed-to-Satisfy Provisions, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by— (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for— (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (b) reference to the seating capacity in an assembly building or room; or (c) any other suitable means of assessing its capacity.
D2D19	Measurement of distances	For Note Only	The nearest part of an exit means in the case of— (a) a fire-isolated stairway, fire-isolated passageway, or fire-isolated ramp, the nearest part of the doorway providing access to them; and (b) a non-fire-isolated stairway, the nearest part of the nearest riser; and (c) a non-fire-isolated ramp, the nearest part of the junction of the floor of the ramp and the floor of the storey; and (d) a doorway opening to a road or open space, the nearest part of the doorway; and (e) a horizontal exit, the nearest part of the doorway.
D2D20	Method of measurement	For Note Only	The following rules apply: (a) In the case of a room that is not a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building, the distance includes the straight-line measurement from any point on the floor of the room to the nearest part of a doorway leading from it, together with the distance from that part of the doorway to the single

BCA Clause	Description	Status	Comments
			required exit or point from which travel in different directions to 2 required exits is available. (b) Subject to (d), the distance from the doorway of a sole-occupancy unit in a Class 2 or 3 building or a Class 4 part of a building is measured in a straight line to the nearest part of the required single exit or point from which travel in different directions to 2 required exits is available. (c) Subject to (d), the distance between exits is measured in a straight line between the nearest parts of those exits. (d) Only the shortest distance is taken along a corridor, hallway, external balcony or other path of travel that curves or changes direction. (e) If more than one corridor, hallway, or other internal path of travel connects required exits, for the purposes of D2D6(c) the measurement is along the path of travel through the point at which travel in different directions to those exits is available, as determined in accordance with D2D5. (f) If a wall (including a demountable internal wall) that does not bound a room, corridor, hallway or the like causes a change of direction in proceeding to a required exit, the distance is measured along the path of travel past that wall. (g) If permanent fixed seating is provided, the distance is measured along the path of travel between the rows of seats. (h) In the case of a non-fire-isolated stairway or non-fire-isolated ramp, the distance is measured along a line connecting the nosings of the treads, or along the slope of the ramp, together with the distance connecting those lines across any intermediate landings.
D2D21	Plant rooms, lift machine rooms and electricity network substations: concession	Not Applicable	(1) A ladder may be used in lieu of a stairway to provide egress from— (a) a plant room with a floor area of not more than 100m^2; or (b) all but one point of egress from a plant room, a lift machine room

BCA Clause	Description	Status	Comments
			or a Class 8 electricity network substation with a floor area of not more than 200m^2. **Comments:** No such rooms are proposed to be accessed via a ladder.
D2D22	Access to Lift Pits	Not Applicable	Access to lift pits must— (a) where the pit depth is not more than 3 m, be through the lowest landing doors; or (b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following: (i) In lieu of D2D7 to D2D11, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii). (ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer. (iii) Access to the doorway must be by a stairway complying with AS 1657. (iv) In lieu of D3D26, doors fitted to the doorway must be— (A) of the horizontal sliding or outwards opening hinged type; and (B) self-closing and self-locking from the outside; and (C) marked on the landing side with the letters not less than 35 mm high: **DANGER LIFTWELL – ENTRY OF UNAUTHORIZED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES** **Comments:** The existing building does not contain a lift, and a lift is not proposed.
D2D23	Egress from primary schools	Not Applicable	(1) Every part of a Class 9b primary school must be wholly within a storey that provides direct egress to a road or open space. (2) The requirements of (1) do not apply to a building with a rise in storeys of 4 or less, where the primary school is the only use in that building.

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			Applications (1) For D2D23(1), a primary school includes classrooms, offices, staffrooms, halls, canteens and the like within the primary school. (2) For D2D23(2), a primary school includes classrooms, offices, staffrooms, halls, canteens, carparks, end of trip facilities and the like provided solely for the primary school, or school which incorporates the primary school. **Explanatory Information** D2D23(1) recognises the difficulties associated with evacuation of primary schools. Should a primary school be proposed within a storey that does not meet the requirements of D2D23, a Performance Solution is to be used to demonstrate compliance with the relevant Performance Requirements.

PART D3 – CONSTRUCTION OF EXITS

BCA Clause	Description	Status	Comments
D3D3	Fire Isolated Stairs & Ramps	Not Applicable	A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed— (a) of non-combustible materials; and (b) so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.
D3D4	Non-Fire Isolated Stairs & Ramps	Capable	In a building having a rise in storeys of more than 2, required stairs and ramps (including landings and any supporting building elements) which are not required to be within a fire-resisting shaft, must be constructed according to D3D3, or only of— (a) reinforced or prestressed concrete; or (b) steel in no part less than 6 mm thick; or (c) timber that— (i) has a finished thickness of not less than 44 mm; and (ii) has an average density of not less than 800 kg/m3 at a moisture content of 12%; and (iii) has not been joined by means of glue unless it has been

BCA Clause	Description	Status	Comments
			laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue. **Comment:** The existing building does not have a rise in storeys of more than 2 (2). The proposed addition changes the rise in storeys to 3 and on that basis the staircase is required to be concrete, steel (not less than 6 mm thick) or timber that has a finished thickness of not less than 44 mm, has an average density of not less than 800 kg/m3 at a moisture content of 12% and has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue. Details to be provided with the application for CC.
D3D5	Separation of Rising and descending stairs	Not Applicable	If a stairway serving as an exit is required to be fire-isolated— (a) there must be no direct connection between— (i) a flight rising from a storey below the lowest level of access to a road or open space; and (ii) a flight descending from a storey above that level; and (b) any construction that separates or is common to the rising and descending flights must be— (i)non-combustible; and smoke proof in accordance with S11C2.
D3D6	Open access ramps and balconies	Not Applicable	
D3D7	Smoke lobbies	Not Applicable	
D3D8	Installations in exits and paths of travel	Not Applicable	(1) Access to service shafts and services other than to fire-fighting or detection equipment as permitted in the Deemed-to-Satisfy Provisions of Section E, must not be provided from a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp. (2) An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway,

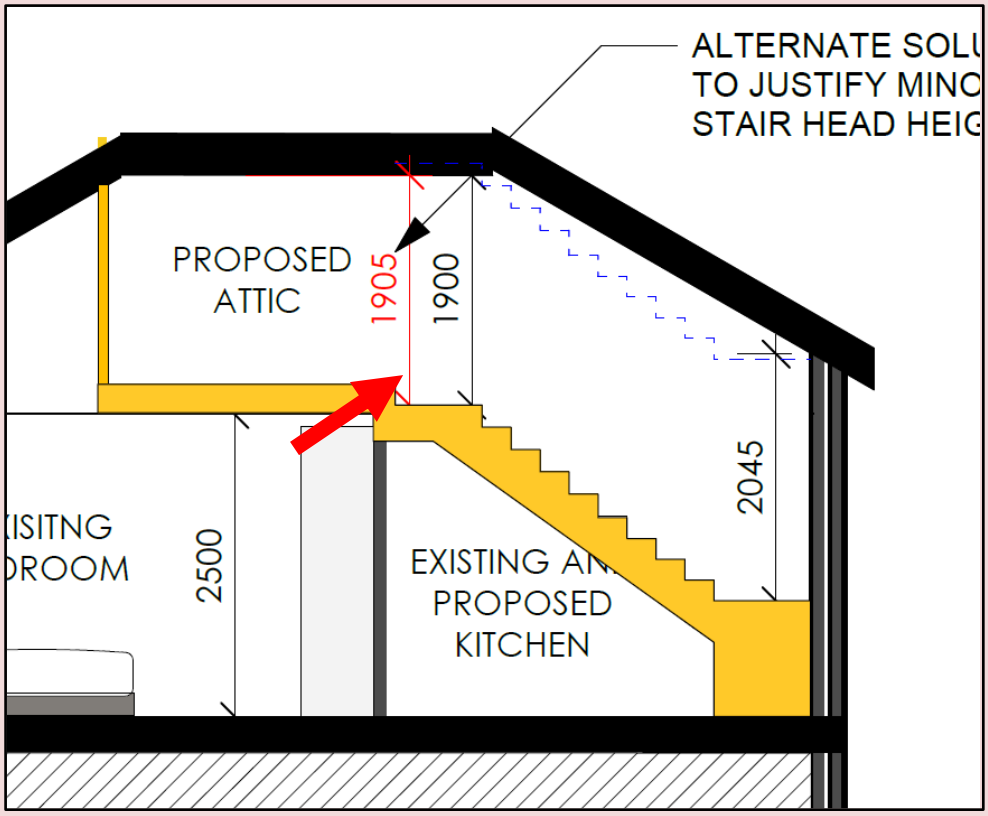
BCA Clause	Description	Status	Comments
			lobby or the like leading to a required exit. (3) Gas or other fuel services must not be installed in a required exit. (4) Except for in a fire-isolated exit specified in (1), services or equipment enclosed in accordance with (5) may be installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit, where that service or equipment comprises— (a) electricity meters, distribution boards or ducts; or (b) central telecommunications distribution boards or equipment; or (c) electrical motors or other motors serving equipment in the building. (5) An enclosure for the purposes of (4) must be suitably sealed against smoke spreading from the enclosure and be— (a) non-combustible construction; or (b) a fire-protective covering. (6) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with— (a) a lighting, detection, or pressurisation system serving the exit; or (b) a security, surveillance or management system serving the exit; or (c) an intercommunication system or an audible or visual alarm system in accordance with D3D27; or (d) the monitoring of hydrant or sprinkler isolating valves. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D3D9	Enclosure of space under stairs and ramps	Not Applicable	(1) **Fire-isolated stairways and ramps** — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it

BCA Clause	Description	Status	Comments
			must not be enclosed to form a cupboard or similar enclosed space. (2) **Non fire-isolated stairways and ramps** — The space below a required non fire-isolated stairway (including an external stairway) or non fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless— (a) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and (b) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D3D10	Widths of required stairs and ramps	Not Applicable	A required stairway or ramp that exceeds 2m in width is counted as having a width of only 2 m unless it is divided by a handrail or barrier continuous between landings and each division has a width of not more than 2 m.
D3D11	Pedestrian Ramps	Not Applicable	(1) A fire-isolated ramp may be substituted for a fire-isolated stairway if the construction enclosing the ramp and the width and ceiling height comply with the requirements for a fire-isolated stairway. (2) A ramp serving as a required exit must— (a) where the ramp is also serving as an accessible ramp under Part D4, be in accordance with AS 1428.1; or (b) in any other case, have a gradient not steeper than 1:8. (3) The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586. **Comment:** No ramps are proposed.
D3D12	Fire-isolated Passageways	Not Applicable	

BCA Clause	Description	Status	Comments
D3D13	Roof as Open Space	Not Applicable	If an exit discharges to a roof of a building, the roof must— (a) have an FRL of not less than 120/120/120; and (b) not have any roof lights or other openings within 3 m of the path of travel of persons using the exit to reach a road or open space.
D3D14, NSW D3D14(1)	Goings & Risers	Does not Comply	(1) A stairway must have— (a) not more than 18 and not less than 2 risers in each flight; and (b) going (G), riser (R) and quantity (2R + G) in accordance with Table D3D14, except as permitted by (2) and (3); and (c) constant goings and risers throughout each flight, except as permitted by (2) and (3), and the dimensions of goings (G) and risers (R) in accordance with (1)(b) are considered constant if the variation between— (i) adjacent risers, or between adjacent goings, is no greater than 5 mm; and (ii) (the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm; and (d) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (e) treads which have— (i) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or (ii) a nosing strip with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; and (f) treads of solid construction (not mesh or other perforated material) if the stairway is more than 10 m high or connects more than 3 storeys; and (g) in a Class 9b building, not more than 36 risers in consecutive flights

BCA Clause	Description	Status	Comments
			without a change in direction of at least 30°; and (h) in the case of a required stairway, no winders in lieu of a landing; and (i) conspicuous edges to the treads of steps in a Class 9b building used as an entertainment venue; and (j) in a Class 9b building used as an entertainment venue, not more than one helical stairway serving as a required exit and that stairway must— (i) have a width of not less than 1500 mm; and (ii) be of constant radius; and (iii) be constructed so that each tread, when measured 500 mm in from its narrow end, has a width of at least 280 mm; and (k) in a Class 9b building used as an entertainment venue, in a curved stairway serving as a required exit — an internal radius of not less than twice the width of the stair. (2) In the case of a non-required stairway— (a) the stairway must have— (i) not more than 3 winders in lieu of a quarter landing; and (ii) not more than 6 winders in lieu of a half landing; and (b) the going of all straight treads must be constant throughout the same flight and the dimensions of goings (G) is considered constant if the variation between— (i) adjacent goings, is no greater than 5 mm; and (ii) the largest and smallest going within a flight, does not exceed 10 mm; and (c) the going of all winders in lieu of a quarter or half landing may vary from the going of the straight treads within the same flight provided that the going of all such winders is constant. (3) Where a stairway discharges to a sloping public walkway or public

BCA Clause	Description	Status	Comments
			road— (a)the riser (R) may be reduced to account for the slope of the walkway or road; and the quantity (2R+G) may vary at that location. **Comment:** A stairway must have not more than 18 and not less than 2 risers in each flight. The proposed staircase serving the proposed attic bedroom/loft includes a landing at the top o the flight which results in a single riser up to the floor level of the proposed attic bedroom/loft which does not comply. A performance solution may be considered to address this non-compliance. A stair detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.



<table>
<tr><th>BCA Clause</th><th>Description</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td colspan="3">

Table – Risers and Going Dimensions

<table>
<tr><th rowspan="2">Stairway Location</th><th colspan="2">Riser (R)</th><th colspan="2">Going (G) Note 3</th><th colspan="2">Status (2R+G)</th></tr>
<tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr>
<tr><td>Public</td><td>190mm</td><td>115mm</td><td>355mm</td><td>250mm</td><td>700mm</td><td>550mm</td></tr>
<tr><td>Private Note 1</td><td>190mm</td><td>115mm</td><td>355mm</td><td>240mm</td><td>700mm</td><td>550mm</td></tr>
</table>

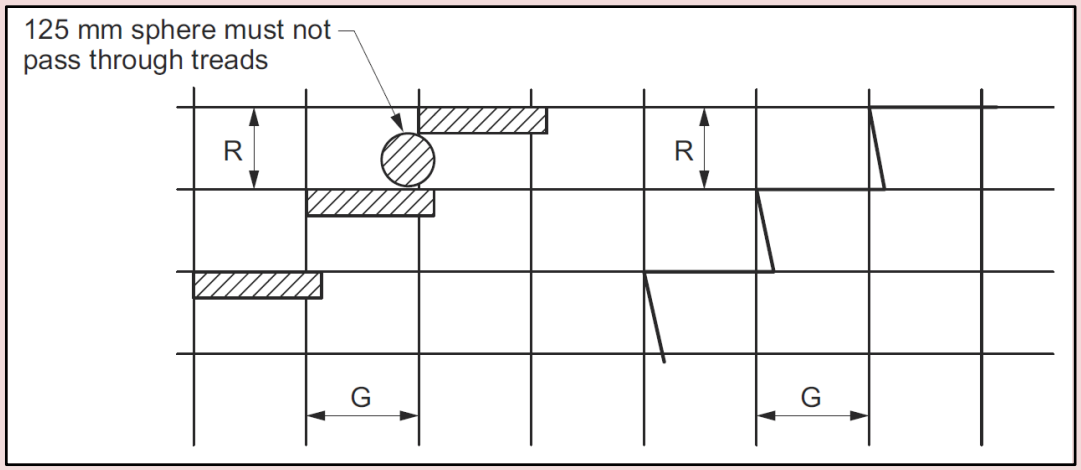
Table Notes

(1) Private stairways are—
- (a) stairways in a sole-occupancy unit in a Class 2 building or Class 4 part of a building; and
- (b) in any building, stairways which are not part of a required exit and to which the public do not normally have access.

(2) Going and riser dimensions must be measured in accordance with Figure D3D14.

(3) The going in tapered treads (except winders in lieu of a quarter or half landing) in a curved or spiral stairway is measured—
- (a) 270 mm in from the outer side of the unobstructed width of the stairway if the stairway is less than 1 m wide (applicable to a non-required stairway only); and
- (b) 270 mm from each side of the unobstructed width of the stairway if the stairway is 1 m wide or more.

Diagram – Riser and Going Dimensions



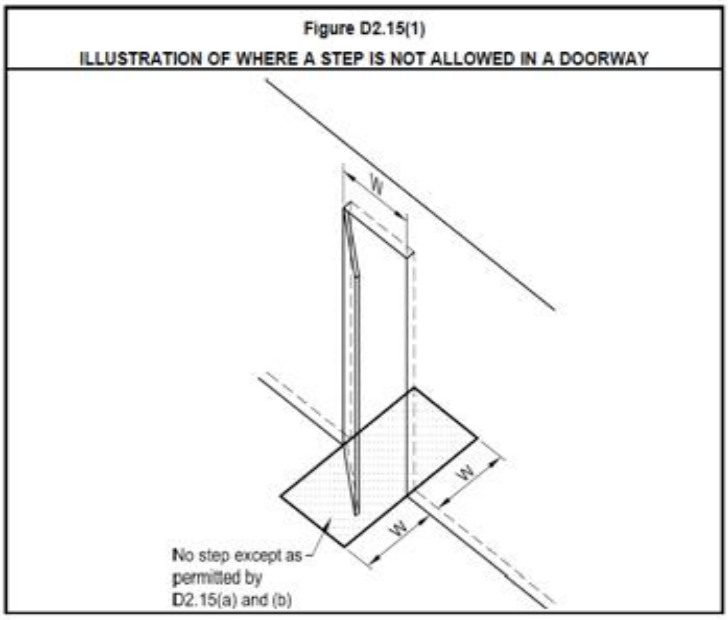
</td></tr>
<tr><td>D3D15</td><td>Landings</td><td>Capable</td><td>In a stairway—
(a) landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must—
(i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and
(ii) have—</td></tr>
</table>

<table>
<tr><th>BCA Clause</th><th>Description</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td></td><td></td><td>(A) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or
(B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586, where the edge leads to a flight below; and
(b) in a Class 9a building—
(i) the area of any landing must be sufficient to move a stretcher, 2 m long and 600 mm wide, at a gradient not more than the gradient of the stairs, with at least one end of the stretcher on the landing while changing direction between flights; or
(ii) the stair must have a change of direction of 180°, and the landing a clear width of not less than 1.6 m and a clear length of not less than 2.7 m.

Comment: A stair detail and section is to be provided for the proposed staircase with the application for CC.

No assessment has been made as to whether the existing building complies with this clause.</td></tr>
<tr><td></td><td></td><td></td><td>Table – Slip resistance Classification
<table>
<tr><th rowspan="2">Application</th><th colspan="2">Surface Conditions</th></tr>
<tr><th>Dry</th><th>Wet</th></tr>
<tr><td>Ramp steeper than 1:14</td><td>P4 or R11</td><td>P5 or R12</td></tr>
<tr><td>Ramp steeper than 1:20 but not steeper than 1:14</td><td>P3 or R10</td><td>P4 or R11</td></tr>
<tr><td>Tread or landing surface</td><td>P3 or R10</td><td>P4 or R11</td></tr>
<tr><td>Nosing or landing edge strip</td><td>P3</td><td>P4</td></tr>
</table></td></tr>
<tr><td>NSW D3D16</td><td>Thresholds</td><td>Capable</td><td>The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless—
(a) in patient care areas in a Class 9a health-care building, the door sill is not more than 25 mm above the</td></tr>
</table>

BCA Clause	Description	Status	Comments
			finished floor level to which the doorway opens; or (b) in resident use areas in a Class 9c building, a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or (c) in a building required to be accessible by Part D4, the doorway— (i) opens to a road or open space; and (ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or (d) in other cases— (i) the doorway opens to a road or open space, external stair landing or external balcony; and (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens. (e) in other cases— (i) the doorway opens to a road or open space, external stair landing or external balcony; and (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens. **Comment:** Details to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
		The following diagram is taken from The Guide to Building Code of Australia 2019, Amendment 1.	

BCA Clause	Description	Status	Comments
			 **Concessions**—D2.15(a), (b) and (c) Concessions are granted in specified circumstances. These include: • D2.15(a)—in the patient care areas of a hospital; and • D2.15(b)—in Class 9c buildings; and • D2.15(c)—in a building required to be accessible by Part D3. • D2.15(d)—in other buildings, to allow for weatherproofing under an external door.
D3D17	Barriers to Prevent Falls	Capable	(1) A continuous barrier must be provided along the side of— (a) a roof to which general access is provided; and (b) a stairway or ramp; and (c) a floor, corridor, hallway, balcony, deck, verandah, *mezzanine*, access bridge or the like; and (d) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath. (2) The requirements of (1) do not apply to— (a) the perimeter of a *stage*, rigging loft, loading dock or the like; or (b) areas referred to in D3D23; or (c) a retaining wall unless the retaining wall forms part of, or is directly associated with a delineated path of access to a building from the road, or a delineated path of access between buildings; or (d) a barrier provided to an openable window covered by D3D29.

BCA Clause	Description	Status	Comments
			(3) A barrier *required* by (1) must be constructed in accordance with D3D18, D3D19, D3D20 and, if a wire barrier is used, D3D21. **Comment:** A balustrade detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
D3D18 NSW D3D18(1)	Height of barriers	Capable	(1) The height of a barrier required by D3D17 must be not less than the following: (a) For stairways or ramps with a gradient of 1:20 or steeper — 865 mm. (b) For landings to a stair or ramp where the barrier is provided along the inside edge of the landing and does not exceed 500 mm in length — 865 mm. (c) In front of fixed seating on a mezzanine or balcony within an auditorium in a Class 9b building— (i) 1 m; or (ii) 700 mm where the horizontal projection extends not less than 1 m outwards from the top of the barrier; or (iii) in a Class 9b building used as an entertainment venue, the height prescribed for guardrails in NSW I4D41 or NSW I5D9. (d) In a Class 9b building used as an entertainment venue, for stairways and ramps and the floor of any access path, balcony, landing or the like— (i) 1 m when provided inside the building; and (ii) 1200 mm when provided externally to the building. (e) For all other locations — 1 m. (2) For a barrier provided under (1) — (a) barrier heights are measured vertically from the surface beneath, except that for stairways the height must be

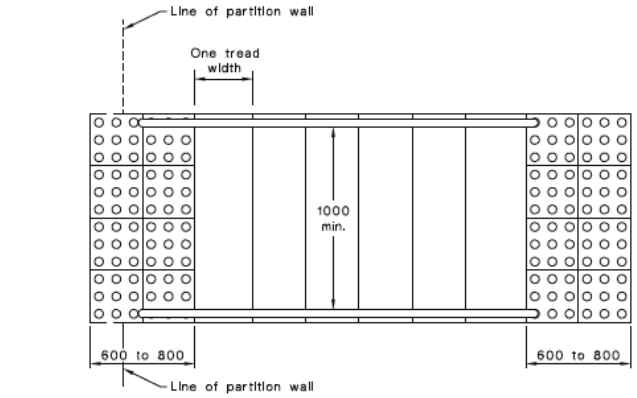
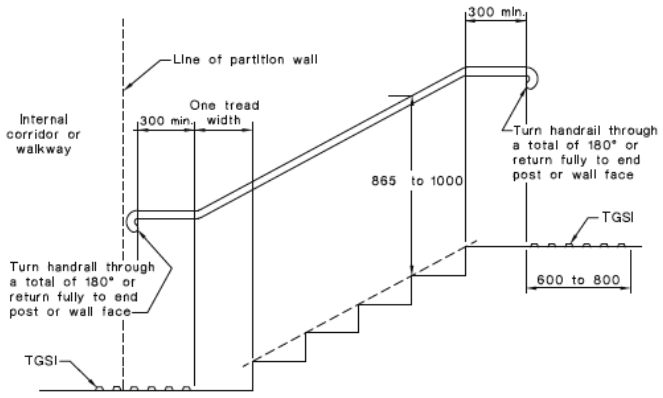
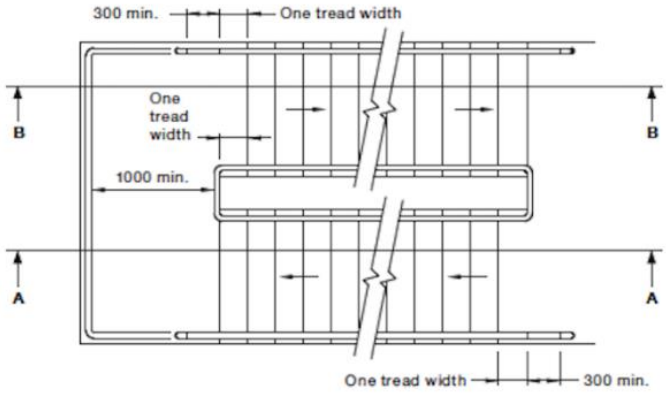
BCA Clause	Description	Status	Comments
			measured above the nosing line of the stair treads; and (b) a transition zone may be incorporated where the barrier height changes from 865 mm on a stair flight or ramp to 1 m at a landing or floor. **Comment:** A balustrade detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
D3D19	Opening in barriers	Capable	(1) Except where allowed by (2), openings in a required barrier must not allow a 125 mm sphere to pass through. (2) In a fire-isolated stairway, fire-isolated ramp or other area used primarily for emergency purposes, openings in a required barrier— (a) must not allow a 300 mm sphere to pass through; or (b) where rails are used— (i) a 150 mm sphere must not be able to pass through the opening between the nosing line of the stair treads and the rail or between the rail and the floor of the landing, balcony or the like; and (ii) the opening between rails must not be more than 460 mm. (3) In Class 7 (other than carparks) and Class 8 buildings, openings in a required barrier— (a) must not allow a 300 mm sphere to pass through; or (b) where rails are used— (i) a 150 mm sphere must not be able to pass through the opening between the nosing line of the stair treads and the rail or between the rail and the floor of the landing, balcony or the like; and (ii) the opening between the rails must not be more than 460 mm.

BCA Clause	Description	Status	Comments
			(4) The requirements of (2) do not apply to external stairways, external ramps, or fire-isolated stairways or fire-isolated ramps serving Class 9b early childhood centres. (5) For a barrier provided under (1), the maximum 125 mm barrier opening for a stairway, such as a non fire-isolated stairway, is measured above the nosing line of the stair treads. (6) Where a required barrier is fixed to the vertical face forming an edge of a landing, balcony, deck, stairway or the like, the opening formed between the barrier and the face must not exceed 40 mm. (7) For the purposes of (6), the opening is measured horizontally from the edge of the trafficable surface to the nearest internal face of the barrier. **Comment:** A balustrade detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
D3D20	Barrier climbability	Not Applicable	(1) A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor. (2) The requirements of (1) do not apply to— (a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, other than— (i) external stairways; and (ii) external ramps; and (b) Class 7 (other than carparks) and Class 8 buildings. **Comment:** A balustrade detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.

BCA Clause	Description	Status	Comments
D3D21	Wire barriers	Not Applicable	Where a required barrier is constructed of wire, it is deemed to meet the requirements of D3D19(1) if it is constructed in accordance with the following: (a) For horizontal wire systems— (i) when measured with a strain indicator, it must be in accordance with the tension values in Table D3D21a; or (ii) must not exceed the maximum deflections in Table D3D21c. (b) For non-continuous vertical wire systems, when measured with a strain indicator, must be in accordance with the tension values in Table D3D21a. (c) For continuous vertical or continuous near vertical sloped wire systems— (i) must have wires of no more than 2.5 mm diameter with a lay of 7×7 or 7×19 construction; and (ii) changes in direction at support rails must pass around a pulley block without causing permanent deformation to the wire; and (iii) must have supporting rails, constructed with a spacing of not more than 900 mm, of a material that does not allow deflection that would decrease the tension of the wire under load; and (iv) when the wire tension is measured with a strain indicator, it must be in accordance with the tension values in Table D3D21b and measured in the furthermost span from the tensioning device.
D3D22	Handrails	Capable	(1) Except for handrails referred to in D3D23, and subject to (2), handrails must— (a) be located along at least one side of the ramp or *flight*; and (b) be located along each side if the total width of the stairway or ramp is 2 m or more; and (c) in a Class 9b building used as a primary *school* or a building that

BCA Clause	Description	Status	Comments
			contains an *early childhood centre*— (i) have one handrail fixed at a height of not less than 865 mm; and (ii) in addition to (i), have a handrail— (A) fixed at a height between 665 mm and 750 mm in a primary *school*; and (B) with a cross-sectional dimension not less than 16 mm and not greater than 45 mm as measured in any direction across its centre, fixed at a height between 450 mm and 700 mm in a Class 9b *early childhood centre*; and (d) in any other case, be fixed at a height of not less than 865 mm; and (e) be continuous between stair *flight* landings and have no obstruction on or above them that will tend to break a hand-hold; and (f) in a *required exit* serving an area *required* to be *accessible*, be designed and constructed to comply with clause 12 of AS 1428.1, except that clause 12(d) does not apply to a handrail *required* by (1)(c)(ii). (2) The height *required* by (1)(c) and (d) is measured above the nosings of stair treads and the floor surface of the ramp, landing or the like. (3) Handrails— (a) in a Class 9a *health-care building* must be provided along at least one side of every passageway or corridor used by patients, and must be— (i) fixed not less than 50 mm clear of the wall; and (ii) where practicable, continuous for their full length; and (b) in a Class 9c *aged care building* must be provided along both sides of every passageway or

BCA Clause	Description	Status	Comments
			corridor used by residents, and must be— (i) fixed not less than 50 mm clear of the wall; and (ii) where practicable, continuous for their full length. (4) Handrails *required* to assist people with a disability must be provided in accordance with D4D4. (5) Handrails to a stairway or ramp within a *sole-occupancy unit* in a Class 2 or 3 building or Class 4 part of a building must— (a) be located along at least one side of the *flight* or ramp; and (b) be located along the full length of the *flight* or ramp, except in the case where a handrail is associated with a barrier, the handrail may terminate where the barrier terminates; and (c) have the top surface of the handrail not less than 865 mm vertically above the nosings of the stair treads or the floor surface of the ramp; and (d) have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like. (6) The requirements of (5) do not apply to— (a) handrails referred to in D3D23; or (b) a stairway or ramp providing a change in elevation of less than 1 m; or (c) a landing; or (d) a winder where a newel post is installed to provide a handhold. **Comments**: Handrails are to be continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand-hold. A stair detail and section is to be provided for the proposed staircase with the application for CC. No assessment has been made as to whether the existing building complies with this clause.

BCA Clause	Description	Status	Comments
			 PLAN  SECTIONAL VIEW DIMENSIONS IN MILLIMETRES FIGURE 26(B) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT END OF STAIRWAY OTHER THAN AT LINE OF BOUNDARY  (a) Plan DIMENSIONS IN MILLIMETRES FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS
D3D23	Fixed Platforms, Walkways, Stairways and Ladders	Not Applicable	A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657 in lieu of D3D14,

BCA Clause	Description	Status	Comments
			D3D16, D3D17, D3D18, D3D19, D3D20, D3D21 and D3D22 if it only serves— (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building or Class 4 part of a building. **Comments:** No such rooms are proposed to be accessed via a ladder.
D3D24 NSW D3D24(2)	Doorways and Doors	Not Applicable	(1) A doorway in a resident use area of a Class 9c building must not be fitted with— (a) a sliding fire door; or (b) a sliding smoke door; or (c) a revolving door; or (d) a roller shutter door; or (e) a tilt-up door. (2) A doorway serving as a required exit or forming part of a required exit, or a doorway in a patient care area of a Class 9a health-care building— (a) must not be fitted with a revolving door; and (b) must not be fitted with a roller shutter or tilt-up door unless— (i) it serves a Class 6, 7 or 8 building or part with a floor area not more than 200m^2; and (ii) the doorway is the only required exit from the building or part; and (iii) it is held in the open position while the building or part is lawfully occupied; and (c) must not be fitted with a sliding door unless— (i) it leads directly to a road or open space; and (ii) the door is able to be opened manually under a force of not more than 110 N; and (d) if fitted with a door which is power-operated— (i) it must be able to be opened manually under a force of not more than 110N if there is a

BCA Clause	Description	Status	Comments
			malfunction or failure of the power source; and (ii) if it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door; and (e) in a Class 9b building used as an entertainment venue— (i) must not be fitted with a collapsible gate, accordion door, turnstile or rigid barrier; and (ii) if fitted with a door, must be— (A) a swing door which opens in the direction of egress; and (B) doors hung in two folds where the unobstructed width of the doorway is more than 1m; and (iii) a doorway or opening within sight of the audience but not intended for egress must have a notice displayed clearly indicating its purpose and such a notice must not be internally illuminated; and (iv) notwithstanding (2)(c), a sliding door may be fitted where— (A) it leads directly to a road or open space and forms a main entrance; and (B) it is capable of swinging in the direction of egress when pressure is applied to the inside face of the door; and (C) the door is provided with signage that clearly indicates to persons seeking egress, the potential for swinging the door open in an emergency. (3) A power-operated door in a path of travel to a required exit, except for a door in a patient care area of a Class 9a health-care building as provided

BCA Clause	Description	Status	Comments
			in (2), must be able to be opened manually under a force of not more than 110N if there is a malfunction or failure of the power source. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D3D25	Swinging Doors	Not Applicable	(1) A swinging door in a required exit or forming part of a required exit— (a) must not encroach— (i) at any part of its swing by more than 500mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and (ii) when fully open, by more than 100mm on the required width of the required exit; and (b) must swing in the direction of egress unless— (i) it serves a building or part with a floor area not more than 200m^2, it is the only required exit from the building or part and it is fitted with a device for holding it in the open position; or (ii) it serves a sanitary compartment or airlock (in which case it may swing in either direction); and (c) must not otherwise impede the path or direction of egress. (2) The measurement of encroachment referred to in (1)(a) in each case is to include door handles or other furniture or attachments to the door. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.

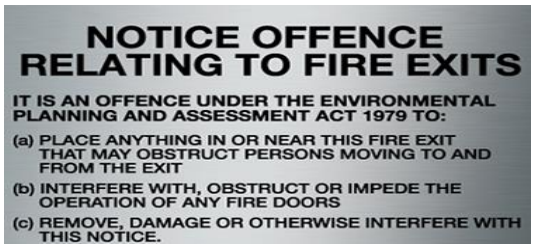
BCA Clause	Description	Status	Comments
D3D26 NSW D3D26(5) NSW D3D26(6)	Operation of Latch	Not Applicable	(1) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by— (a) a single hand downward action on a single device which is located between 900mm and 1.1m from the floor and if serving an area required to be accessible by Part D4— (i) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and (ii) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35mm and not more than 45mm; or (b) a single hand pushing action on a single device which is located between 900mm and 1.2m from the floor. (2) Where the latch operation device referred to in (1)(b) is not located on the door leaf itself— (a) manual controls to power-operated doors must be at least 25mm wide, proud of the surrounding surface and located— (i) not less than 500mm from an internal corner; and (ii) for a hinged door, between 1m and 2m from the door leaf in any position; and (iii) for a sliding door, within 2m of the doorway and clear of a surface mounted door in the open position; and (b) braille and tactile signage complying with S15C3 and S15C6 must identify the latch operation device. (3) The requirements of (1) and (2) do not apply to a door that—

BCA Clause	Description	Status	Comments
			(a) serves a vault, strong-room, sanitary compartment, or the like; or (b) serves only, or is within— (i) a sole-occupancy unit in a Class 2 building or a Class 4 part of a building; or (ii) a sole-occupancy unit in a Class 3 building (other than an entry door to a sole-occupancy unit of a boarding house, guest house, hostel, lodging house or backpacker accommodation); or (iii) a sole-occupancy unit with a floor area not more than 200m^2 in a Class 5, 6, 7 or 8 building; or (iv) a space which is otherwise inaccessible to persons at all times when the door is locked; or (c) complies with (4) and serves— (i) Australian Government Security Zones 4 or 5; or (ii) the secure parts of a bank, detention centre, mental health facility, early childhood centre or the like; or (d) is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system (other than a FPAA101D system) complying with Specification 17 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building, and is readily openable when unlocked; or (e) is in a Class 9a or 9c building and— (i) is one leaf of a two-leaf door complying with D2D9(1)(a) or D2D9(1)(d) provided that it is not held closed by a locking mechanism and is readily openable; and (ii) the door is not required to be a fire door or smoke door.

BCA Clause	Description	Status	Comments
			(4) A door referred to in (3)(c) must be able to be immediately unlocked— (a) by operating a fail-safe control switch, not contained within a protective enclosure, to actuate a device to unlock the door; or (b) by hand by a person or persons, specifically nominated by the owner, properly instructed as to the duties and responsibilities involved and available at all times when the building is lawfully occupied so that persons in the building or part may immediately escape if there is a fire. (5) The requirements of (1) and (2) do not apply in a Class 9b building (other than a school, an early childhood centre or a building used for religious purposes) to a door in a required exit, forming part of a required exit or in the path of travel to a required exit serving a storey or room accommodating more than 100 persons, determined in accordance with D2D18, in which case it must be readily openable— (a) without a key from the side that faces a person seeking egress; and (b) by a single hand pushing action on a single device such as a panic bar located between 900 mm and 1.2m from the floor; and (c) where a two-leaf door is fitted, the provisions of (a) and (b) need only apply to one door leaf if the appropriate requirements of D2D7 to D2D11 are satisfied by the opening of that one leaf; and (d) where the door is a door in a path of travel providing re-entry to the building from a balcony, terrace or the like, it may be fitted with key-operated fastenings only, the tongues of which must be locked in the retracted position whenever the building is occupied by the public, so the door can yield to pressure. (6) The requirements of (1) and (3) do not apply to a door serving a Class

BCA Clause	Description	Status	Comments
			9b building used as an entertainment venue where the following provisions apply to a door or gate used by the public— (a) on a door, the single device operating the latch or bolts must be a panic bar if those doors are to be secured; or (b) an exit door or gate used by the public as the main entrance may be fitted with key-operated fastenings only, the tongues of which must be locked in the retracted position whenever the building is occupied by the public so the door or gate can yield to pressure from within; or (c) a door from a balcony, terrace or the like, being a door in a path of travel providing re-entry to the building, may comply with the locking provision of (b) above. **Comments:** The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D3D27	Re-entry from Fire-Isolated Exits	Not Applicable	(1) Doors of a fire-isolated exit must not be locked from the inside as follows: (a) In a Class 9a health-care building. (b) In a Class 9b early childhood centre. (c) In a Class 9c building. (d) In a fire-isolated exit serving any storey above an effective height of 25 m, throughout the exit. (2) The requirements of (1)(a), (c) and (d) do not apply to a door fitted with a fail-safe device that automatically unlocks the door upon the activation of a fire alarm and— (a) on at least every fourth storey, the doors are not able to be locked and a sign is fixed on such doors stating that re-entry is available; or (b) an intercommunication system, or an audible or visual alarm system, operated from within the enclosure is provided near

BCA Clause	Description	Status	Comments
			the doors and a sign is fixed adjacent to such doors explaining its purpose and method of operation. (3) The requirements of (1)(b) do not apply to a door fitted with a fail-safe device that automatically unlocks the door serving the Class 9b early childhood centre upon the activation of a fire alarm.
D3D28	Signs on Doors	Not Applicable	(1) A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to— (a) a required— (i) fire door providing direct access to a fire-isolated exit, except a door providing direct egress from a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building; and (ii) smoke door; and (b) any door which is a— (i) fire door forming part of a horizontal exit; and (ii) smoke door that swings in both directions; and (iii) door leading from a fire isolated exit to a road or open space. (2) A sign required by (1)(a) must be fixed on the side of the door that faces a person seeking egress and, if the door is fitted with a device for holding it in the open position, either a sign must be fixed on the wall adjacent to the doorway, or signs must be fixed to both sides of the door. (3) A sign required by (1)(b) must be fixed on each side of the door. (4) A sign referred to in (1) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state the following: (a) For an automatic door held open by an automatic hold-open device— **FIRE SAFETY DOOR — DO NOT OBSTRUCT** (b) For a self-closing door—

BCA Clause	Description	Status	Comments
			DO NOT OBSTRUCT **DO NOT KEEP OPEN** **FIRE SAFETY DOOR** (c) For a door discharging from a fire-isolated exit— **FIRE SAFETY DOOR — DO NOT OBSTRUCT** **See example below;**  **Note**: In accordance with Clause 108 and 109 of the EP&A Regulation, (Development Certification and Fire Safety) 2021, a fire safety notice be displayed in the following areas of the building; A fire safety notice is to be displayed at all times in a conspicuous position adjacent to a doorway providing access to, but not within, that fire stairway, passageway or ramp. The notice is to display **the following words**; 
D3D29	Protection of Openable Windows	Not Applicable	(1) A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in— (a) a bedroom in a Class 2 or 3 building or Class 4 part of a building; or (b) a Class 9b early childhood centre. (2) Where the lowest level of the window opening is less than 1.7m above the floor, a window opening covered by (1) must comply with the following: (a) The openable portion of the window must be protected with—

BCA Clause	Description	Status	Comments
			(i) a device capable of restricting the window opening; or (ii) a screen with secure fittings. (b) A device or screen required by (a) must— (i) not permit a 125mm sphere to pass through the window opening or screen; and (ii) resist an outward horizontal action of 250N against the— (A) window restrained by a device; or (B) screen protecting the opening; and (iii) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. (3) A barrier with a height not less than 865 mm above the floor is required to an openable window— (a) in addition to window protection, when a child resistant release mechanism is required by (2)(b)(iii); and (b) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by (1). (4) A barrier covered by (3) except for (5) must not— (a) permit a 125mm sphere to pass through it; and (b) have any horizontal or near horizontal elements between 150mm and 760mm above the floor that facilitate climbing. (5) A barrier required by (3) to an openable window in— (a) (a)fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, excluding external stairways and external ramps; and (b) Class 7 (other than carparks) and Class 8 buildings and parts of buildings containing those classes, must not permit a 300mm sphere to pass through it.

BCA Clause	Description	Status	Comments
			Comments: The proposed addition is internal to unit 4 and does not impact on the existing building in this regard. No assessment has been made as to whether the existing building complies with this clause.
D3D30	Timber Stairway: Concession	Not Applicable	
NSW D3D31	Doors in paths of travel to an entertainment venue	Not Applicable	In a Class 9b building used as an entertainment venue, a doorway in a path of travel must comply with NSW D3D24(2)(e).

PART E1 – FIRE FIGHTING EQUIPMENT

BCA Clause	Description	Status	Comments
E1D2	Fire Hydrants	Not Applicable	(1) A fire hydrant system must be provided to serve a building— (a) having a total floor area greater than 500m²; and (b) where a fire brigade station is— (i) no more than 50km from the building as measured along roads; and (ii) equipped with equipment capable of utilising a fire hydrant. (2) The fire hydrant system must be installed in accordance with AS 2419.1. (3) Notwithstanding (2), a Class 8 electricity network substation need not comply with clause 4.2 of AS 2419.1 if— (a) it cannot be connected to a town main supply; and (b) one hour water storage is provided for fire-fighting. (4) Where internal fire hydrants are provided, they must serve only the storey on which they are located except that a sole-occupancy unit— (a) in a Class 2 or 3 building or Class 4 part of a building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit; or (b) of not more than 2 storeys in a Class 5, 6, 7, 8 or 9 building may be served by a single fire hydrant located at the level of egress

BCA Clause	Description	Status	Comments
			from that sole-occupancy unit provided the fire hydrant can provide coverage to the whole of the sole-occupancy unit. **Comments**: The building does not have a total floor area of greater than 500m^2.
E1D3	Fire hose reels	Not Applicable	(1) E1D3 does not apply to— (a) a Class 2, 3 or 5 building or Class 4 part of a building; or (b) a Class 8 electricity network substation; or (c) a Class 9c building; or (d) classrooms and associated corridors in a primary or secondary school. (2) A fire hose reel system must be provided— (a) to serve the whole building where one or more internal fire hydrants are installed; or (b) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m^2. (3) The fire hose reel system must— (a) have fire hose reels installed in accordance with AS 2441; and (b) provide fire hose reels to serve only the storey at which they are located, except a sole-occupancy unit of not more than 2 storeys in a Class 6, 7, 8 or 9 building may be served by a single fire hose reel located at the level of egress from that sole-occupancy unit provided the fire hose reel can provide coverage to the whole of the sole-occupancy unit. (4) Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441. (5) In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system: (a) Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated exit), except that a

BCA Clause	Description	Status	Comments
			fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved. (b) Fire hose reels must be located within 4m of an exit, except that a fire hose reel need not be located adjacent to every exit, provided system coverage can be achieved. (c) Where system coverage is not achieved by compliance with (a) and (b), additional fire hose reels may be located in paths of travel to an exit to achieve the required coverage. (6) Fire hose reels must be located so that the fire hose will not need to pass through doorways fitted with fire or smoke doors, except— (a) doorways in walls referred to in C3D6(1)(e) in a Class 9a building and C3D6(5)(d) in a Class 9c building, separating ancillary use areas of high potential fire hazard; and (b) doorways in walls referred to in C3D13 or C3D14 separating equipment or electrical supply systems; and (c) doorway openings to shafts referred to in C4D14. (7) Where the normal water supply cannot achieve the flow and pressures required by AS 2441, or is unreliable— (a) a pump; or (b) water storage facility; or both a pump and water storage facility, (c) must be installed to provide the minimum flow and pressures required by clause 6.1 of AS 2441.
E1D4	Sprinklers	Not Applicable	An automatic fire suppression system must be installed to the degree necessary to control the development and spread of fire appropriate to— (a) the size of the fire compartment; and (b) the function or use of the building; and (c) the fire hazard; and (d) the height of the building.

BCA Clause	Description	Status	Comments
E1D5	Where sprinklers are required: all classifications	Not Applicable	Sprinklers are required throughout all buildings if any part of the building has an effective height of more than 25m— (a) including an open-deck carpark within a multi-classified building; but (b) excluding— (i) an open-deck carpark being a separate building; and (ii) a Class 8 electricity network substation, with a floor area not more than 200m^2, located within a multi-classified building. **Notes** (1) See Specification 5 for use of sprinklers in Class 2 buildings and carparks generally. (2) See Part E2 for use of sprinklers to satisfy smoke hazard management provisions. (3) See C2D13 and Specification 5 for use of sprinklers in buildings where the fire-protected timber concession is applied.
E1D6	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	Not Applicable	(1) In a Class 2 or 3 building and any other class of building containing a Class 2 or 3 part, sprinklers are required throughout the building if any part of the building has— (a) a rise in storeys of 4 or more; and (b) an effective height of not more than 25 m. (2) The requirements of (1) do not apply to a residential care building. **Comments**: The building has a rise in storeys of less than 4.
E1D7	Where sprinklers are required: Class 3 building used as a residential care building	Not Applicable	Sprinklers are required throughout a building containing— (a) a Class 3 part used as a residential care building; and (b) any fire compartment containing a Class 3 part used for residential care.
E1D8	Where sprinklers are required: Class 6 building	Not Applicable	In a Class 6 building, sprinklers are required in fire compartments where either of the following apply: (a) A floor area of more than 3,500m^2. (b) A volume of more than 21,000m^3.
E1D9	Where sprinklers are required: Class 7a building, other than an open-deck carpark	Not Applicable	In a Class 7a building, other than an open-deck carpark, sprinklers are required in fire compartments where more than 40 vehicles are accommodated.

BCA Clause	Description	Status	Comments
E1D10	Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings	Not Applicable	(1) In a Class 9a health-care building used as a residential care building, sprinklers are required throughout the building and in any fire compartment containing a Class 9a part used for residential care. (2) In a Class 9c building, sprinklers are required throughout the building and in any fire compartment containing a Class 9c part.
E1D11	Where sprinklers are required: Class 9b buildings	Not Applicable	(1) In a Class 9b building, other than an early childhood centre, see Part I1. (2) In a building containing a Class 9b early childhood centre, sprinklers are required throughout the whole building, including any part of another class. **Exemptions** E1D11(2) does not apply to a Class 9b early childhood centre— (a) wholly within a storey that provides direct egress to a road or open space; or (b) with a rise in storeys of not more than 2, where the Class 9b early childhood centre is the only use in the building.
E1D12	Where sprinklers are required: additional requirements	Not Applicable	(1) For sprinkler requirements for atriums, see Part G3. (2) For sprinkler requirements for large isolated buildings, see C3D4.
E1D13	Where sprinklers are required: occupancies of excessive hazard	Not Applicable	(1) In occupancies of excessive hazard, sprinklers are *required* in *fire compartments* where either of the following apply: (a) A *floor area* of more than 2,000m^2. (b) A *volume* of more than 12,000m^3. (2) For the purposes of (1), occupancies of excessive fire hazard comprise buildings which contain— (a) hazardous processes or storage including the following: (i) Aircraft hangars. (ii) Cane furnishing manufacture, processing and storage. (iii) Fire-lighter and fireworks manufacture and warehousing. (iv) Foam plastic and foam plastic goods manufacture,

BCA Clause	Description	Status	Comments
			processing and warehousing e.g. furniture factory. (v) Hydrocarbon based sheet product, manufacture, processing and warehousing e.g. vinyl floor coverings. (vi) Woodwool and other flammable loose fibrous material manufacture. (b) combustible goods with an aggregate volume exceeding 1000 m3 and stored to a height greater than 4 m including the following: (i) Aerosol packs with flammable contents. (ii) Carpets and clothing. (iii) Electrical appliances. (iv) Combustible compressed fibreboards (low and high density) and plywoods. (v) Combustible cartons, irrespective of content. (vi) Esparto and other fibrous combustible material. (vii) Furniture including timber, cane and composite, where foamed rubber or plastics are incorporated. (viii) Paper storage (all forms of new or waste) e.g. bales, sheet, horizontal or vertical rolls, waxed coated or processed. (ix) Textiles raw and finished, e.g. rolled cloth, clothing and manchester. (x) Timber storage including sheets, planks, boards, joists and cut sizes. (xi) Vinyl, plastic, foamed plastic, rubber and other combustible sheets, offcuts and random pieces and rolled material storage, e.g. carpet, tar paper, linoleum, wood veneer and foam mattresses. (xii) All materials having wrappings or preformed containers of foamed plastics.

BCA Clause	Description	Status	Comments
E1D14	Portable fire extinguishers	Design Detail	(1) Portable fire extinguishers must be— (a) provided as listed in (3) and (4); and (b) for a Class 2, 3 or 5 building or Class 4 part of a building, provided— (i) to serve the whole Class 2, 3 or 5 building or Class 4 part of a building where one or more internal fire hydrants are installed; or (ii) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m2, and for the purposes of this clause, a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment; and (c) subject to (2), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444. **Comments**: Portable Fire Extinguishers complying with AS2444-2001 are required.
E1D15	Fire control centres	Not Applicable	A fire control centre facility in accordance with Specification 19 must be provided for— (a) a building with an effective height of more than 25m; and (b) a Class 6, 7, 8 or 9 building with a total floor area of more than 18,000 m^2.
E1D16	Fire precautions during construction	For Note Only	In a building under construction— (a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit; and (b) after the building has reached an effective height of 12 m— (i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storeys; and (ii) any required booster connections must be installed.

BCA Clause	Description	Status	Comments
			Comments: Whilst the building is under construction there is to be not less than one fire extinguisher provided at all times to each storey.
E1D17	Provision for special hazards	Not Applicable	Suitable additional provision must be made if special problems of fighting fire could arise because of— (a) the nature or quantity of materials stored, displayed or used in a building or on the allotment; or (b) the location of the building in relation to a water supply for fire-fighting purposes.

PART E2 – SMOKE HAZARD MANAGEMENT

BCA Clause	Description	Status	Comments
E2D2	Application of Requirements	For Note Only	(1) The Deemed-to-Satisfy Provisions of this Part do not apply to— (a) an open-deck carpark; or (b) an open spectator stand; or (c) a Class 8 electricity network substation with a floor area not more than 200m^2, located within a multi-classified building. (2) In addition to the Deemed-to-Satisfy Provisions of E2D3 to E2D13, the following specific Deemed-to-Satisfy Provisions apply to the following Class 6 and Class 9b buildings: (a) For Class 6 buildings, in fire compartments more than 2000m^2— (i) not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit — must comply with E2D14; or (ii) containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit — must comply with E2D15. (b) For Class 9b assembly buildings— (i) nightclubs, discotheques and the like — must comply with E2D16; and (ii) exhibition halls — must comply with E2D17; and (iii) theatres and public halls — must comply with E2D18; and

BCA Clause	Description	Status	Comments
			(iv) theatres and public halls (not covered by E2D18) including lecture theatres and cinema/auditorium complexes — must comply with E2D19; and (v) other assembly buildings (not listed in (i) to (iv)) excluding schools — must comply with E2D20. (3) The smoke exhaust and smoke-and-heat vent provisions of this Part do not apply to any area not used by occupants for an extended period of time such as a storeroom with a floor area less than 30m^2, sanitary compartment, plant room or the like.
E2D3	General Requirements	Not Applicable	(1) An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must, subject to (2), be designed and installed— (a) to operate as a smoke control system in accordance with AS 1668.1; or (b) such that it— (i) incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and (ii) is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1. (2) For the purposes of (1), each sole-occupancy unit in a Class 2 or 3 building is treated as a separate fire compartment. (3) Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark

BCA Clause	Description	Status	Comments
			ventilation system) and not forming part of a smoke hazard management system must comply with these Sections of the Standard. (4) A smoke detection system must be installed in accordance with S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.
E2D4	Fire isolated exits	Not Applicable	(1) A part of a building listed in (2) must be provided with— (a) an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (b) open access ramps or balconies in accordance with D3D6. (2) The requirements of (1) apply to— (a) a required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp serving— (i) any storey above an effective height of 25m; or (ii) more than 2 below ground storeys, not counted in the rise in storeys in accordance with C2D3; or (iii) an atrium to which Part G3 applies; or (iv) a Class 9a building with a rise in storeys of more than 2; or (v) a Class 9c building with a rise in storeys of more than 2; or (vi) a Class 3 building used as a residential care building with a rise in storeys of more than 2; and (b) a required fire-isolated passageway or fire-isolated ramp with a length of travel more than 60m to a road or open space. (3) An automatic air pressurisation system for a fire-isolated exit must serve the entire exit. **Notes** Refer to D2D12(4) for pressurisation of a fire-isolated exit having more than 2 access doorways from within the same storey.

BCA Clause	Description	Status	Comments
E2D5	Buildings more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	Not Applicable	An automatic smoke detection and alarm system complying with Specification 20 must be provided to the following: (a) A Class 2 or 3 building which is more than 25m in effective height. (b) A Class 2 or 3 part of a building, or a Class 4 part of a building, in a building which is more than 25m in effective height. **Notes** Refer to C3D15 for division of public corridors greater than 40 m in length. **Comments**: The building does not have an effective height more than 25m.
E2D6	Buildings more than 25m in effective height: Class 5, 6, 7b, 8 or 9b buildings	Not Applicable	(1) A Class 5, 6, 7b, 8 or 9b building or part of a building must be provided with a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building is more than 25 m in effective height. (2) The requirements of (1) do not apply to a building that has a fire compartment containing a Class 5, 6, 7b, 8 or 9b part (or a combination of these classes in the same fire compartment) where there is only one fire compartment containing these classifications in an otherwise Class 2, 3, 9a or 9c building. (3) For the purposes of (1), 'vertically separated fire compartments' are fire compartments above and below each other, and not fire compartments within the same storey. **Notes** Refer to E2D14 to E2D20 for specific provisions applicable to a Class 6 (in a fire compartment having a floor area of more than 2000m^2) and Class 9b building or part of a building. **Comments**: The building does not have an effective height more than 25m.
E2D7	Buildings more than 25m in effective height: Class 9a buildings	Not Applicable	(1) A Class 9a building must be provided with— (a) an automatic smoke detection and alarm system complying with Specification 20; and

BCA Clause	Description	Status	Comments
			(b) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building is more than 25 m in effective height. (2) For the purposes of (1), 'vertically separated fire compartments' are fire compartments above and below each other, and not fire compartments within the same storey. **Notes** A building more than 25 m in effective height requires a sprinkler system under E1D4. **Comments**: The building does not have an effective height more than 25m.
E2D8	Buildings not more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	Design Detail	In a Class 2 and 3 building or part of a building, or Class 4 part of a building, if the building is not more than 25m in effective height— (a) it must be provided with an automatic smoke detection and alarm system complying with Specification 20; and (b) where a required fire-isolated stairway serving the Class 2 or 3 parts also serves one or more storeys of Class 5, 6, 7 (other than an open-deck carpark), 8 or 9b parts— (i) the fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, must be provided with an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (ii) the Class 5, 6, 7 (other than an open-deck carpark), 8 and 9b parts must be provided with— (A) an automatic smoke detection and alarm system complying with Specification 20; or (B) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17; and

BCA Clause	Description	Status	Comments
			(c) where a required fire-isolated stairway serving the Class 4 part also serves one or more storeys of Class 5, 6, 7 (other than an open-deck carpark), 8 or 9b parts— (i) a system complying with (b)(i) or (b)(ii) must be installed; or (ii) a smoke alarm or detector system complying with Specification 20 must be provided except that alarms or detectors need only be installed adjacent to each doorway into each fire-isolated stairway (set back horizontally from the doorway by a distance of not more than 1.5 m) to initiate a building occupant warning system for the Class 4 part. **Notes** (1) Refer to C3D15 for division of public corridors greater than 40 m in length. (2) Refer to E2D14 to E2D20 for specific provisions applicable to a Class 6 (in a fire compartment having a floor area of more than 2000m^2) and Class 9b building or part of a building. **Comment:** The building is required to be provided with a smoke alarm system complying with S20C3 of BCA Specification 20 as follows: **S20C2 Type of system** A required automatic smoke detection and alarm system must be provided in accordance with the following: (a) Class 2 buildings and Class 4 parts of a building— (i) a smoke alarm system complying with S20C3; or (ii) a smoke detection system complying with S20C4; or (iii) a combination of a smoke alarm system and a smoke detection system complying with S20C5. (b) Class 3 buildings— (i) with a Class 3 part located more than 2 storeys above ground level — a smoke detection system complying with S20C4; or (ii) which accommodate more than 20 residents and are the residential part of a school,

BCA Clause	Description	Status	Comments
			accommodation for the aged, children or people with a disability — a smoke detection system complying with S20C4; or (iii) all other Class 3 buildings— (A) a smoke alarm system complying with S20C3; (AS3786) or (B) a smoke detection system complying with S20C4; (AS 1670.1) or (C) a combination of a smoke alarm system and a smoke detection system complying with S20C5. (AS3786 and AS1670.1) **S20C7 Building occupant warning system** Subject to E4D9, a building occupant warning system provided as part of a smoke hazard management system must comply with clause 3.22 of AS 1670.1 to sound through all occupied areas except— (a) in a Class 2 and 3 building or Class 4 part of a building provided with a smoke alarm system in accordance with S20C3(2)(c)— (i) the sound pressure level need not be measured within a sole-occupancy unit if a level of not less than 85 dB(A) is provided at the door providing access to the sole-occupancy unit; and (ii) the inbuilt sounders of the smoke alarms may be used to wholly or partially meet the requirements; and (b) in a Class 2 and 3 building or Class 4 part of a building provided with a smoke detection system in accordance with S20C4(2), the sound pressure level from a building occupant warning system need not be measured within a sole-occupancy unit if a level of not less than 100 dB(A) is provided at the door providing access to the sole-occupancy unit;
E2D9	Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings	Not Applicable	(1) A building not more than 25 m in effective height that—

BCA Clause	Description	Status	Comments
			(a) is a Class 5 or 9b school building or part of a building having a rise in storeys of more than 3; or (b) is Class 6, 7b, 8 or 9b building (other than a school) or part of a building having a rise in storeys of more than 2; or (c) has a rise in storeys of more than 2, and contains— (i) a Class 5 or 9b school part; and (ii) a Class 6, 7b, 8 or 9b (other than a school) part, must meet the requirements of (2). (2) A building referred to in (1) must be provided with— (a) in each required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (b) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building has more than one fire compartment; or (c) an automatic smoke detection and alarm system complying with Specification 20; or (d) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (3) For the purposes of (2), vertically separated fire compartments are fire compartments above and below each other, and not fire compartments within the same storey.
NSW E2D10	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4	Not Applicable	(1) In a Class 5, 6, 7, 8 or 9 building of not more than 25 m in effective height, and which exceeds 18 000 m2 in floor area or 108 000 m3 in volume, the building must be provided with— (a) if the ceiling height of the fire compartment is not more than 12m— (i) an automatic smoke exhaust system in accordance with Specification 21; or

BCA Clause	Description	Status	Comments
			(ii) automatic smoke-and-heat vents in accordance with Specification 22; or (b) if the ceiling height of the fire compartment is more than 12 m, an automatic smoke exhaust system in accordance with Specification 21. (2) For the purposes of (1), reference to 'the building' being provided with specified measures, means to the nominated classes within the building. **Notes** (1) Refer to E2D14 and E2D15 for specific provisions applicable to a Class 6 building or part of a building (in a fire compartment having a floor area of more than 2000 m2). (2) Refer to NSW E2D16 to NSW E2D19 for specific provisions applicable to a Class 9b building or part of a building. (3) Refer to E2D5 and E2D8 where a Class 5, 6, 7b, 8 and 9b building contains a Class 2, 3 or 4 part.
E2D11	Buildings not more than 25m in effective height: Class 9a and 9c buildings	Not Applicable	(1) A Class 9a health-care building or a Class 9c building, or a building containing a part thereof, which is not more than 25m in effective height, must be provided throughout with— (a) an automatic smoke detection and alarm system complying with Specification 20; and (b) automatic shutdown of any air-handling system which does not form part of a zone pressurisation system (other than individual room units with a capacity not more than 1000 L/s, systems serving critical treatment areas and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1) on the activation of— (i) smoke detectors installed in accordance with (a); and (ii) any other installed fire detection and alarm system including a sprinkler system

BCA Clause	Description	Status	Comments
			complying with Specification 17; and (c) in a building having a rise in storeys of more than 2 and not more than 25m effective height (not being a Class 9c building)— (i) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1; or (ii) a sprinkler system complying with Specification 17 throughout with residential sprinkler heads in patient care areas. (2) For the purposes of (1), 'vertically separated fire compartments' are fire compartments above and below each other, and not fire compartments within the same storey. **Comment:** The building is not a Class 9a health-care building, a Class 9c building, or a building containing parts thereof.
E2D12	Class 7a buildings	Not Applicable	A Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2, must comply with clause 5.5 of AS 1668.1.
E2D13	Basements (other than Class 7a buildings)	Not Applicable	(1) A basement, other than a Class 7a basement, not counted in the rise in storeys in accordance with C2D3, must— (a) comply with measures in accordance with this Part applicable to the building generally; and (b) where the basement has a total floor area of more than 2000m^2, be provided with— (i) if not more than 2 below ground storeys— (A) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the basement has more than one fire compartment; or

BCA Clause	Description	Status	Comments
			(B) an automatic smoke detection and alarm system complying with Specification 20; or (C) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17; or (ii) if more than 2 below ground storeys, a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (2) For the purposes of (1), 'vertically separated fire compartments' are fire compartments above and below each other, and not fire compartments within the same storey. **Notes** (1) Refer to E2D14 to E2D20 for specific provisions applicable to a Class 6 (in a fire compartment having a floor area of more than 2000m^2) and Class 9b building or part of a building. (2) Basements with more than 3 below ground storeys or containing Class 6 or 9b occupancies with a large number of occupants may require special consideration in accordance with E2D9.
E2D14	Class 6 buildings – in fire compartments more than 2000m^2: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	Not Applicable	(1) This clause applies to a Class 6 building not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit, except for— (a) a Class 6 sole-occupancy unit that— (i) has a floor area of not more than 2000m^2; and (ii) is single storey with a main public entrance opening to a road or open space; and (iii) is separated from other parts of the fire compartment by construction, including openings, penetrations and junctions with other building elements, that prevents the free passage of smoke; and

BCA Clause	Description	Status	Comments
			(b) parts of any other classification that are smoke separated from a Class 6 part by construction complying with (a)(iii). (2) Where the floor area of a Class 6 part of a fire compartment referred to in (1) is more than 2000m², the fire compartment must be provided with— (a) an automatic smoke exhaust system complying with Specification 21; or (b) if the building is single storey, automatic smoke-and-heat vents complying with Specification 22; or (c) if the floor area of the fire compartment is not more than 3500m² and the building— (i) is single storey, an automatic smoke detection and alarm system complying with Specification 20; or (ii) has a rise in storeys of not more than 2, a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17.
E2D15	Class 6 buildings – in fire compartments more than 2000m²: Class 6 building (containing an enclosed common walkway or mall)	Not Applicable	(1) This clause applies to a Class 6 building containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit, except for— (a) a Class 6 sole-occupancy unit that— (i) opens onto the enclosed common walkway or mall if the Class 6 sole-occupancy unit has a floor area of not more than 1000m²; or (ii) does not open onto the enclosed common walkway or mall if the Class 6 sole-occupancy unit— (A) has a floor area of not more than 2000m²; and (B) is single storey with a main entrance opening to a road or open space; and

BCA Clause	Description	Status	Comments
			(C) is separated from other parts of the fire compartment by construction, including openings, penetrations and junctions with other building elements, that prevents the free passage of smoke; and (b) parts of any other classification that are smoke separated from a Class 6 part by construction complying with (a)(ii)(C). (2) Where the floor area of a Class 6 part of a fire compartment referred to in (1) is more than 2000m², the fire compartment, including the enclosed common walkway or mall, must be provided with— (a) an automatic smoke exhaust system complying with Specification 21; or (b) if the building is single storey, automatic smoke-and-heat vents complying with Specification 22; or (c) if the floor area of the fire compartment is not more than 3500m² and the building has a rise in storeys of not more than 2, a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. **Notes** A fire compartment having a floor area of more than 3500m² in a Class 6 building requires a sprinkler system under E1D4.
NSW E2D16	Class 9b – assembly buildings: all	Not Applicable	The following provisions apply to all Class 9b assembly buildings: (a) **Automatic shutdown**: A building or part of a building used as an assembly building must be provided with 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) which does not form part of the smoke hazard management system, on the activation of—

BCA Clause	Description	Status	Comments
			(i) smoke detectors installed complying with S20C6; and (ii) any other installed fire detection and alarm system, including a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (b) **Basements**: A basement not counted in the rise in storeys in accordance with C2D3, less than 2000m^2 used as an assembly building or part of an assembly building containing an auditorium or other public area, must be equipped with— (i) an automatic smoke detection system in accordance with Specification 20; or (ii) an automatic zone pressurisation system in accordance with AS 1668.1 if the basement has more than one fire compartment; or if the basement forms part of a multi fire compartmented building served by the zone pressurisation system; or (iii) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (c) **Stages and backstages**: (i) For the purposes of this clause, where a stage is separated from the auditorium by a proscenium wall incorporating a proscenium opening, a backstage room or area that is not separated from the stage by construction having an FRL of not less than 60/60/60, is taken to form part of the stage. (ii) A building or part of a building used as an assembly building which has a stage with a floor area of more than 50m^2 and not more than 150m^2 must, over the stage, be provided with— (A) an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2); or (B) roof mounted automatic smoke-and-heat vents complying with NSW I4D59, in a single storey building or the

BCA Clause	Description	Status	Comments
			top storey of a multi storey building. (iii) A building or part of a building used as an assembly building which has a stage with a floor area of more than 150m^2 must, over the stage, be provided with an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2). (iv) A building or part of a building used as an assembly building which has a stage equipped with means of flying scenery must, over the stage, be provided with an automatic smoke exhaust system complying with Specification 21 (including Figure S21C2). **Explanatory Information** Smoke hazard management provisions for an assembly building used for multiple purposes must comply with all the relevant provisions of NSW E2D16, NSW E2D17, NSW E2D18 and NSW E2D19 according to usage.
NSW E2D17	Class 9b – assembly buildings: night clubs, discotheques and the like	Not Applicable	A building or part of a building being a night club, discotheque or the like, must be provided with— (a) in an auditorium— (i) an automatic smoke exhaust system complying with Specification 21; or (ii) roof mounted automatic smoke-and-heat vents complying with Specification 22, in a single storey building or the top storey of a multi storey building; or (iii) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 with fast response sprinkler heads; and (b) in all other areas— (i) where a building or part of a building has a floor area not more than 2000m^2— (A) one of the smoke hazard management measures listed under (a) above; or

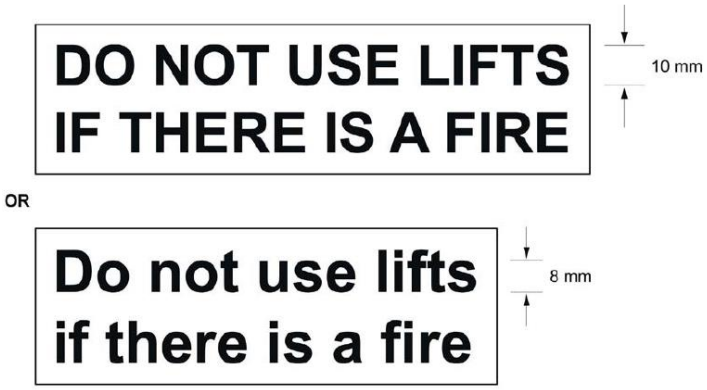
BCA Clause	Description	Status	Comments
			(B) an automatic smoke detection and alarm system complying with Specification 20; or (ii) where a building or part of a building has a floor area of more than 2000m^2, smoke hazard management measures as provided for under NSW E2D19. **Notes** (1) Paragraph (a) applies only to an auditorium designed principally to accommodate an audience to an entertainment. (2) Smoke hazard management provisions for an assembly building used for multiple purposes must comply with all the relevant provisions of NSW E2D16, NSW E2D17, NSW E2D18 and NSW E2D19 according to usage.
NSW E2D18	Class 9b – assembly buildings: exhibition halls, museums and art galleries	Not Applicable	A building or part of a building used as an exhibition hall, museum, art gallery or the like, must be provided with— (a) where the floor area is more than 2000m^2 and not more than 3500m^2— (i) an automatic smoke exhaust system complying with Specification 21; or (ii) roof mounted automatic smoke-and-heat vents complying with Specification 22 in a single storey building or the top storey of a multi storey building; or (iii) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17; and (b) where the floor area is more than 3500m^2, a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 and— (i) an automatic smoke exhaust system complying with Specification 21; or (ii) roof mounted automatic smoke-and-heat vents complying with Specification 22, in a single storey building or the top storey of a multi storey building. **Notes**

BCA Clause	Description	Status	Comments
			Smoke hazard management provisions for an assembly building used for multiple purposes must comply with all the relevant provisions of NSW E2D16, NSW E2D17, NSW E2D18 and NSW E2D19 according to usage.
NSW E2D19	Class 9b – assembly buildings: other assembly buildings (not listed in NSW E2D16 to E2D18)	Not Applicable	(1) Unless otherwise described in (2), in a building or part of a building used as an assembly building (not being a night club, discotheque or the like; or an exhibition hall, museum or art gallery) where the floor area of a fire compartment is more than 2000m^2, the fire compartment must be provided with— (a) an automatic smoke exhaust system complying with Specification 21; or (b) roof mounted automatic smoke-and-heat vents complying with Specification 22, in a single storey building or the top storey of a multi storey building; or (c) if the floor area of the fire compartment is not more than 5000m^2 and the building has a rise in storeys of not more than 2— (i) an automatic smoke detection and alarm system complying with Specification 20; or (ii) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (2) The following buildings are exempt from the provisions of (1): (a) Sporting complexes, (including sports halls, gymnasiums, swimming pools, ice and roller rinks, and the like) other than indoor sports stadiums with total spectator sating for more than 1000 persons. (b) Churches and other places used solely for religious worship. (c) School classrooms. (3) A building containing a Class 9b early childhood centre must be provided with an automatic smoke detection and alarm system complying with Specification 20

BCA Clause	Description	Status	Comments
			throughout the whole building, including any part of another Class. **Notes** Smoke hazard management provisions for an assembly building used for multiple purposes must comply with the relevant provisions of NSW E2D16, NSW E2D17, NSW E2D18 or NSW E2D19 according to usage.
NSW E2D20	Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)	For Note Only	This clause has deliberately been left blank. E2D20 does not apply in NSW. This clause is deleted from the BCA in NSW, as requirements for Class 9b – Assembly buildings in NSW are covered under NSW E2D16 to NSW E2D19.
E2D21	Provision for special hazards	Not Applicable	Additional smoke hazard management measures may be necessary due to the— (a) special characteristics of the building; or (b) special function or use of the building; or (c) special type or quantity of materials stored, displayed or used in a building; or (d) special mix of classifications within a building or fire compartment, which are not addressed in E2D4 to E2D20.

PART E3 – LIFT INSTALLATIONS

BCA Clause	Description	Status	Comments
E3D2	Lift Installations	For Note Only	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24.
E3D3	Stretcher Facility in lifts	Not Applicable	(1) A stretcher facility in accordance with (2) must be provided— (a) in at least one emergency lift required by E3D5; or (b) where an emergency lift is not required, if passenger lifts are installed to serve any storey above an effective height of 12 m, in at least one of those lifts to serve each floor served by the lifts. (2) A stretcher facility must accommodate a raised stretcher with a patient lying on it horizontally

BCA Clause	Description	Status	Comments
			by providing a clear space not less than 600 mm wide x 2000 mm long x 1400 mm high above the floor level. **Comments**: No lift is existing or proposed.
E3D4	Warning against use of lifts in fire	Not Applicable	(1) A warning sign must be displayed where it can be readily seen near every call button for a passenger lift or group of lifts throughout a building. (2) The requirements of (1) do not apply to a small lift such as a dumb-waiter or the like that is for the transport of goods only. (3) Each warning sign required by (1) must comply with the details and dimensions of Figure E3D4 and consist of— (a) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or (b) letters incised or inlaid directly into the surface of the material forming the wall.
			
E3D5	Emergency Lift	Not Applicable	(1) At least one emergency lift complying with (4) must be installed in— (a) a building which has an effective height of more than 25m; and (b) a Class 9a building in which patient care areas are located at a level that does not have direct egress to a road or open space. (2) An emergency lift may be combined with a passenger lift and must serve those storeys served by the passenger lift so that all storeys of the building served by passenger lifts are

BCA Clause	Description	Status	Comments
			served by at least one emergency lift. (3) Where two or more passenger lifts are installed and serve the same storeys, excluding a lift that is within an atrium and not contained wholly within a shaft— (a) at least two emergency lifts must be provided to serve those storeys; and (b) if located within different shafts, at least one emergency lift must be provided in each shaft. (4) An emergency lift must— (a) be contained within a fire-resisting shaft in accordance with C3D11; and (b) in a Class 9a building serving a patient care area— (i) have minimum dimensions, measured clear of all obstructions, including handrails, etc complying with Table E3D5; and (ii) be connected to a standby power supply system where installed; and (c) if the building has an effective height of more than 75 m, have a rating of at least— (i) 600 kg if not provided with a stretcher facility; or (ii) 900 kg if provided with a stretcher facility. **Comments**: No lift is existing or proposed.
E3D6	Landings	Not Applicable	Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2, D3 and D4. **Comments**: No lift is existing or proposed.
E3D7	Passenger lift types and their limitations	Not Applicable	(1) In an accessible building, every passenger lift must be one of the following lift types, subject to the limitations (if any) of each lift type: (a) There are no limitations on the use of electric passenger lifts, electrohydraulic passenger lifts or inclined lifts. (b) Stairway platform lifts must not— (i) be used to serve a space in a building accommodating more than 100 persons

BCA Clause	Description	Status	Comments
			calculated according to D2D18; or (ii) be used in a high traffic public use area such as a theatre, cinema, auditorium, transport interchange, shopping centre or the like; or (iii) be used where it is possible to install another type of passenger lift; or (iv) connect more than 2 storeys; or (v) where more than 1 stairway lift is installed, serve more than 2 consecutive storeys; or (vi) when in the folded position, encroach on the minimum width of a stairway required by D2D8 to D2D11. (c) A low-rise platform lift must not travel more than 1000 mm. (d) A low-rise, low-speed constant pressure lift must not— (i) for an enclosed type, travel more than 4 m; or (ii) for an unenclosed type, travel more than 2 m; or (iii) be used in a high traffic public use areas in buildings such as a theatre, cinema, auditorium, transport interchange, shopping complex or the like. (e) A small-sized, low-speed automatic lift must not travel more than 12 m. (2) A passenger lift referred to in (1) must not rely on a constant pressure device for its operation if the lift car is fully enclosed. **Comments**: No lift is existing or proposed.
E3D8	Accessible features required for passenger lifts	Not Applicable	Does not form part of the scope of this assessment.
E3D9	Fire Service Controls	Not Applicable	Where lifts serve any storey above an effective height of 12m, the following must be provided: (a) A fire service recall control switch complying with E3D11 for— (i) a group of lifts; or (ii) a single lift not in a group that serves the storey.

BCA Clause	Description	Status	Comments
			(b) A lift car fire service drive control switch complying with E3D12 for every lift. **Comments**: No lift is existing or proposed.
E3D10	Residential care buildings	Not Applicable	(1) Where residents in a Class 9c residential care building are on levels which do not have direct access to a road or open space, the building must be provided with either— (a) at least one lift to accommodate a stretcher in accordance with E3D3(2); or (b) a ramp in accordance with AS 1428.1. (2) The lift or ramp required by (1) must discharge at a level providing direct access to a road or open space. **Comments**: No lift is existing or proposed.
E3D11	Fire Service Recall Control Switch	Not Applicable	(1) Each group of lifts must be provided with one fire service recall control switch required by E3D9 that activates the fire service recall operation at (6). **Comments**: No lift is existing or proposed.
E3D12	Lift Car Fire Service Drive Control Switch	Not Applicable	(1) The lift car fire service drive control switch *required* by E3D9 must be activated from within the lift car. **Comments**: No lift is existing or proposed.

PART E4 – VISIBILITY IN AN EMERGENCY, EXIT SIGNS AND WARNING SYSTEMS

BCA Clause	Description	Status	Comments
E4D2	Emergency lighting requirements	Not Applicable	An emergency lighting system must be installed— (a) in every fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; and (b) in every storey of a Class 5, 6, 7, 8 or 9 building where the storey has an area more than 300 m2— (i) in every passageway, corridor, hallway, or the like, that is part of the path of travel to an exit; and (ii) in any room having a floor area more than 100m^2 that does not open to a corridor or space that has emergency lighting or to a road or open space; and (iii) in any room having a floor area more than 300m^2; and

BCA Clause	Description	Status	Comments
			(c) in every passageway, corridor, hallway, or the like, having a length of more than 6 m from the entrance doorway of any sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building to the nearest doorway opening directly to— (i) a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or (ii) an external stairway serving instead of a fire-isolated stairway under D2D13; or (iii) an external balcony leading to a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or (iv) a road or open space; and (d) in every required non-fire-isolated stairway; and (e) in a sole-occupancy unit in a Class 5, 6 or 9 building if— (i) the floor area of the unit is more than 300m^2; and (ii) an exit from the unit does not open to a road or open space or to an external stairway, passageway, balcony or ramp, leading directly to a road or open space; and (f) in every room or space to which there is public access in every storey in a Class 6 or 9b building if— (i) the floor area in that storey is more than 300m^2; or (ii) any point on the floor of that storey is more than 20 m from the nearest doorway leading directly to a stairway, ramp, passageway, road or open space; or (iii) egress from that storey involves a vertical rise within the building of more than 1.5 m, or any vertical rise if the storey concerned does not admit sufficient light; or (iv) the storey provides a path of travel from any other storey required by (i), (ii) or (iii) to have emergency lighting; and (g) in a Class 9a health-care building— (i) in every passageway, corridor, hallway, or the like, serving a

BCA Clause	Description	Status	Comments
			treatment area or a ward area; and (ii) in every room having a floor area of more than 120m² in a patient care area; and (h) in every Class 9c building excluding within sole-occupancy units; and (i) in every required fire control centre.
E4D3	Measurement of distance	For Note Only	Distances, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.
E4D4	Design and operation of emergency lighting	Not Applicable	Every required emergency lighting system must comply with AS/NZS 2293.1-2018.
E4D5	Exit signs	Not Applicable	An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each— (a) door providing direct egress from a storey to— (i) an enclosed stairway, passageway or ramp serving as a required exit; and (ii) an external stairway, passageway or ramp serving as a required exit; and (iii) an external access balcony leading to a required exit; and (b) door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and (c) horizontal exit; and (d) door serving as, or forming part of, a required exit in a storey required to be provided with emergency lighting in accordance with E4D2. Example below; 
NSW E4D6	Direction signs	Not Applicable	If an exit is not readily apparent to persons occupying or visiting the building, then exit signs must be installed— (a) in appropriate positions in corridors, hallways, lobbies, foyers, auditoria, and the like, indicating the direction to a required exit; and

BCA Clause	Description	Status	Comments
			(b) in a Class 9b building used as an entertainment venue — in any external egress path to a road where the exit does not open directly onto a road.
E4D7	Class 2 and 3 buildings and Class 4 parts: Exemptions	For Note Only	E4D5 does not apply to— (a) a Class 2 building in which every door referred to is clearly and legibly labelled on the side remote from the exit or balcony— (i) with the word "EXIT" in capital letters 25 mm high in a colour contrasting with that of the background; or (ii) by some other suitable method; and (b) an entrance door of a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building.
E4D8	Design and operation of exit signs	Not Applicable	Every required exit sign must— (a) comply with— (i) AS/NZS 2293.1; or (ii) for a photoluminescent exit sign, Specification 25; and (b) be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.
E4D9	Emergency warning and intercom systems	Not Applicable	An emergency warning and intercom system complying, where applicable, with AS 1670.4 must be installed— (a) in a building with an effective height of more than 25m; and (b) in a Class 3 building having a rise in storeys of more than 2 and used as— (i) the residential part of a primary or secondary school; or (ii) accommodation for the aged, children or people with a disability; and (c) in a Class 3 building used as a residential care building, except that the system— (i) must be arranged to provide a warning for occupants; and (ii) in areas used by the residents, may have its alarm adjusted in volume and content to minimise trauma consistent with the type and condition of residents; and (d) in a Class 9a building having a floor area of more than 1000m^2 or a rise in

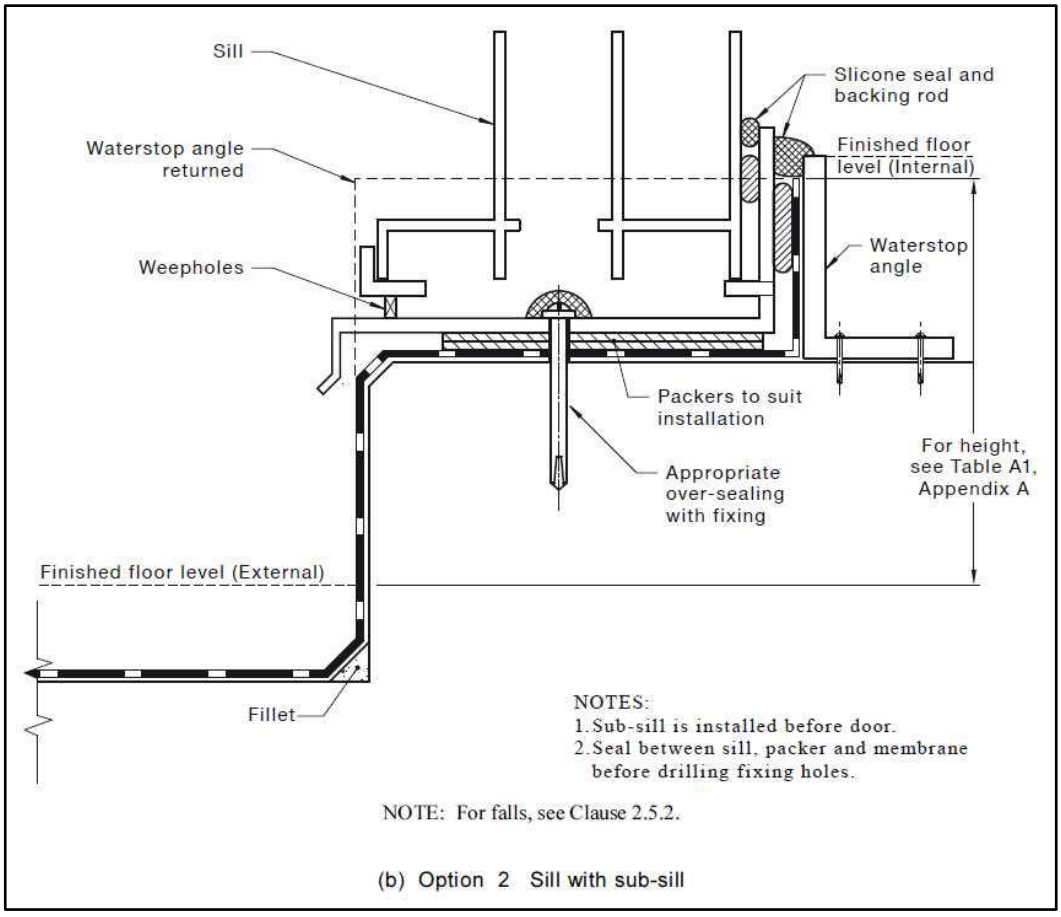
BCA Clause	Description	Status	Comments
			storeys of more than 2, and the system— (i) must be arranged to provide a warning for occupants; and (ii) in a ward area, may have its alarm adjusted in volume and content to minimise trauma consistent with the type and condition of patients; and (e) in a Class 9b building— (i) used as a school and having a rise in storeys of more than 3; or (ii) used as a theatre, public hall, or the like, having a floor area more than 1000m^2 or a rise in storeys of more than 2.

PART F1 – DAMP AND WEATHERPROOFING

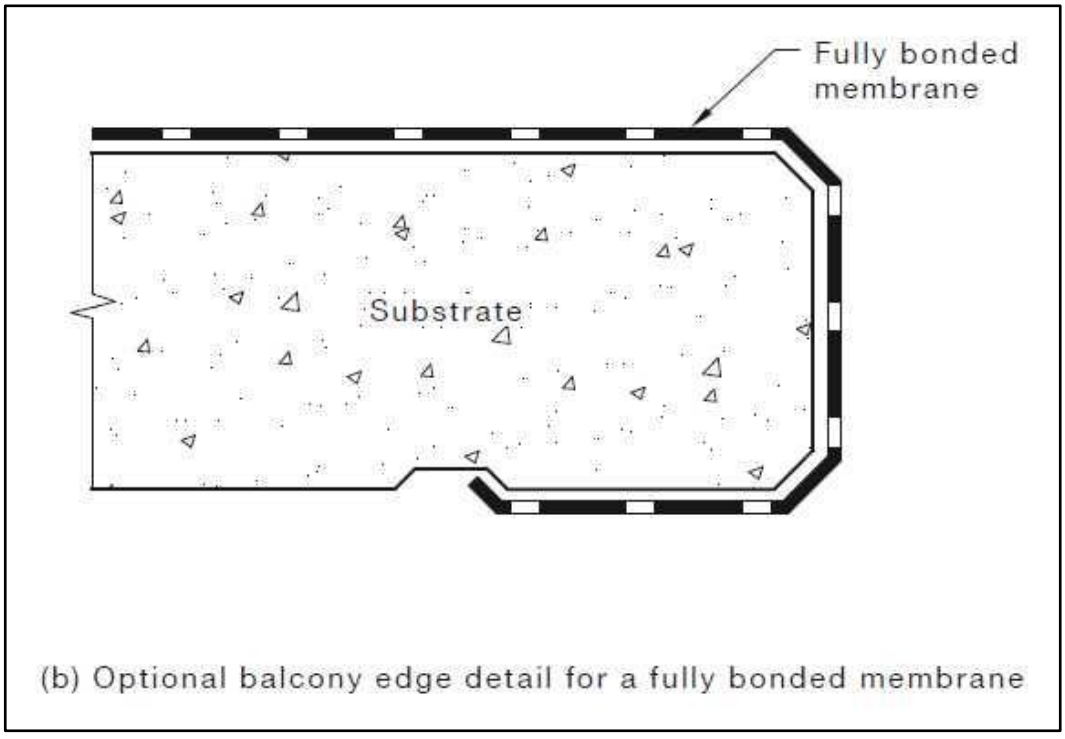
BCA Clause	Description	Status	Comments
F1D2	Application of Part	For Note Only	(1) F1D4 and F1D5 do not apply to a roof with a covering complying with F3D2(a) to (d). (2) F1D3 to F1D5 do not apply to a balcony, podium or similar horizontal surface part of a building— (a) where the flooring is of timber decking or other perforated flooring; or (b) which is located directly above ground.
F1D3	Stormwater drainage	Capable	Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3. **Comment:** Details to be provided with the application for CC.
F1D4	Exposed Joints	Capable	Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must— (a) be protected in accordance with Section 2.9 of AS 4654.2; and (b) not be located beneath or run through a planter box, water feature or similar part of the building. **Notes** For the purposes of F1D4, an exposed joint is a construction joint, control joint, expansion joint, contraction joint or movement joint and includes an exposed joint which is directly below a drainage surface.

BCA Clause	Description	Status	Comments
			Explanatory Information: Location of exposed joints To minimise the potential of water ingress, the exposed joint should be located at a ridge or high point of the structural substrate, where possible. **Explanatory Information: Exposed joints subject to excessive movement** Where an exposed joint is subject to excessive movement, such as more than 10 mm, additional measures should be considered to ensure protection of the exposed joint. These additional measures may include use of a hob with a minimum height of 50 mm formed within the structural substrate for the full length of both sides of the exposed joint, and the exposed joint protected by a discontinuous membrane in accordance with Section 2.9 of AS 4654.2. **Comment:** Details to be provided with the application for CC.
F1D5	External waterproofing membranes	Not Applicable	A roof, balcony, podium or similar horizontal surface part of a building must be provided with a waterproofing membrane— (a) consisting of materials complying with AS 4654.1; and (b) designed and installed in accordance with AS 4654.2.

BCA Clause	Description	Status	Comments



(b) Option 2 Sill with sub-sill



(b) Optional balcony edge detail for a fully bonded membrane

BCA Clause	Description	Status	Comments
F1D6	Damp-proofing	Capable	(1) Except for a building covered by (3), moisture from the ground must be prevented from reaching— (a) the lowest floor timbers and the walls above the lowest floor joists; and (b) the walls above the damp-proof course; and (c) the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. (2) Where a damp-proof course is provided, it must consist of— (a) a material that complies with AS/NZS 2904; or (b) impervious sheet material in accordance with AS 3660.1. (3) The following buildings need not comply with (1): (a) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes. (c) An open spectator stand or open-deck carpark. **Comment:** Details to be provided with the application for CC.
F1D7	Damp-proofing of floors on the ground	Not Applicable	(1) If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870. (2) The requirements of (1) do not apply where— (a) weatherproofing is not required; or (b) the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means.
F1D8	Subfloor ventilation	Not Applicable	(1) Subfloor spaces must— (a) be provided with openings in external walls and internal subfloor walls in accordance with Table F1D8 for the climatic zones given in Figure F1D8; and

BCA Clause	Description	Status	Comments
			(b) have clearance between the ground surface and the underside of the lowest horizontal member in the subfloor in accordance with Table F1D8.

PART F2 – WET AREAS AND OVERFLOW PROTECTION

BCA Clause	Description	Status	Comments
F2D2	Wet area construction	Not Applicable	(1) In a Class 2 and 3 building and a Class 4 part of a building, building elements in wet areas must— (a) be water resistant or waterproof in accordance with Specification 26; and (b) comply with AS 3740. (2) In a Class 5, 6, 7, 8 or 9 building, building elements in a bathroom or shower room, a slop hopper or sink compartment, a laundry or sanitary compartment must— (a) be water resistant or waterproof in accordance with Specification 26; and (b) comply with AS 3740, as if they were in a Class 2 or 3 building or a Class 4 part of a building.
F2D3	Rooms containing urinals	Not Applicable	(1) Where a slab or stall type urinal is installed— (a) the floor surface of the room containing the urinal must be an impervious material; and (i) where no step is installed, must— (A) be graded to the urinal channel for a distance of 1.5 m from the urinal channel; and (B) have the remainder of the floor graded to a floor waste; and (ii) where a step is installed— (A) the step must have an impervious surface and be graded to the urinal channel; and (B) the floor behind the step must be graded to a floor waste; and (b) the junction between the floor surface and the urinal channel must be impervious.

BCA Clause	Description	Status	Comments
			(2) Where a wall hung urinal is installed— (a) the wall must be surfaced with impervious material extending from the floor to the top of the urinal and not less than 225 mm on each side of the urinal; and (b) the floor must be surfaced with an impervious material and be graded to a floor waste. (3) In a room with timber or steel-framed walls and containing a urinal— (a) the wall must be surfaced with an impervious material extending from the floor to not less than 100 mm above the floor surface; and (b) the junction of the floor surface and the wall surface must be impervious.
F2D4	Floor wastes	Not Applicable	(1) In a Class 2 or 3 building or Class 4 part of a building, a bathroom or laundry located at any level above a sole-occupancy unit or public space must have a floor waste. (2) Where a floor waste is installed— (a) the minimum continuous fall of a floor plane to the waste must be 1:80; and (b) the maximum continuous fall of a floor plane to the waste must be 1:50.

PART F3 – ROOF AND WALL CLADDING

BCA Clause	Description	Status	Comments
F3D2	Roof coverings	Capable	A roof must be covered with— (a) roof tiles complying with AS 2049, fixed in accordance with AS 2050; or (b) metal sheet roofing complying with AS 1562.1; or (c) plastic sheet roofing designed and installed in accordance with AS 1562.3; or (d) terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or (e) an external waterproofing membrane complying with F1D5. **Comment:** Details to be provided with the application for CC.
F3D3	Sarking	Capable	Sarking-type material used for weatherproofing of roofs and walls must comply with AS 4200.1 and AS 4200.2.

BCA Clause	Description	Status	Comments
F3D4	Glazed assemblies	Capable	(1) Subject to (2) and (3), the following glazed assemblies in an external wall, must comply with AS 2047 requirements for resistance to water penetration: (a) Windows. (b) Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame. (c) Adjustable louvres. (d) Shopfronts. (e) Window walls with one piece framing. (2) The following buildings need not comply with (1): (a) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the like contributes to the weatherproofing of the other part of the building. (c) An open spectator stand or open-deck carpark. (3) The following glazed assemblies need not comply with (1): (a) All glazed assemblies not in an external wall. (b) Revolving doors. (c) Fixed louvres. (d) Skylights, roof lights and windows in other than the vertical plane. (e) Sliding and swinging glazed doors without a frame. (f) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (g) Second-hand windows, re-used windows and recycled windows. (h) Heritage windows.
F3D5	Wall Cladding	Not Applicable	(1) External wall cladding must comply with one or a combination of the following: (a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700.

BCA Clause	Description	Status	Comments
			(b) Autoclaved aerated concrete: AS 5146.3. (c) Metal wall cladding: AS 1562.1. (2) The following buildings need not comply with (1): (a) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the like contributed to the weatherproofing of another part of the building that is required to be weatherproofed. (c) An open spectator stand or open deck carpark. **Comment:** Details to be provided with the application for CC.

PART F4 – SANITARY AND OTHER FACILITIES

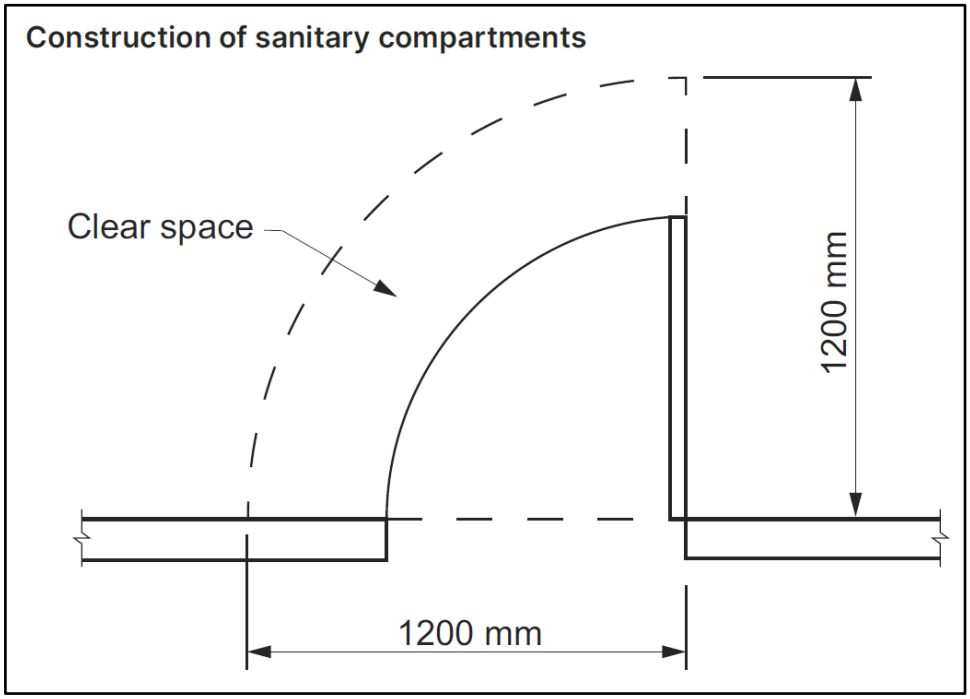
BCA Clause	Description	Status	Comments
F4D2	Facilities in residential buildings	Capable	(1) For facilities in Class 2 buildings, the following applies: (a) Within each sole-occupancy unit, provide— (i) a kitchen sink and facilities for the preparation and cooking of food; and (ii) a bath or shower; and (iii) a closet pan; and (iv) a washbasin. (b) For laundry facilities, provide either— (i) in each sole-occupancy unit— (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and (B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line, or space for one heat operated drying cabinet or appliance in the same room as the clothes washing facilities; or

BCA Clause	Description	Status	Comments
			(ii) a separate laundry for each 4 sole-occupancy units, or part thereof, that must comprise— (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and (B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line per sole-occupancy unit, or space for one heat operated drying cabinet or appliance. (c) For the purposes of (a) and (b), a kitchen sink or washbasin must not be counted as a laundry washtub. **Comment:** No change is proposed to the existing facilties.
F4D3	Calculation of number of occupants and facilities	For Note Only	(1) The number of persons accommodated must be calculated according to D2D18 if it cannot be more accurately determined by other means. (2) Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females. (3) In calculating the number of sanitary facilities to be provided under F4D4, a unisex facility *required* for people with a disability (other than a facility provided under F4D12) may be counted once for each sex. (4) For the purposes of this Part, a unisex facility comprises one closet pan, one washbasin and means for the disposal of sanitary products.
F4D4	Facilities in Class 3 to 9 buildings	Not Applicable	(1) Except where permitted by (3), (4), (7), F4D5(a) and F4D5(b), separate sanitary facilities for males and females must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Tables F4D4a to F4D4l, as appropriate. (2) In Tables F4D4a to F4D4l— (a) 'Number' means the number of facilities required; and (b) '>' means greater than; and

BCA Clause	Description	Status	Comments
			(c) a hyphen means no data (refer to the row above for the highest value applicable); and (d) 'N/A' means not applicable; and (e) a reference to— (i) employees includes owners and managers using the building; and (ii) add 1 per 100 or 150, 250, 500" etc. includes any part of that number.
		Not Applicable	(3) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex.
		Not Applicable	(4) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy.
		Not Applicable	(5) Employees and the public may share the same facilities in a Class 6 and 9b building (other than a school or early childhood centre) provided the number of facilities provided is not less than the total number of facilities required for employees plus those required for the public.
		Not Applicable	(6) Adequate means of disposal of sanitary products must be provided in sanitary facilities used by females.
		Not Applicable	(7) Separate sanitary facilities for males and females need not be provided for patients in a ward area of a Class 9a building.
		Not Applicable	(8) A Class 9a health-care building must be provided with— (a) one kitchen or other adequate facility for the preparation and cooking or reheating of food including a kitchen sink and washbasin; and (b) laundry facilities for the cleansing and drying of linen and clothing or adequate facilities for holding and dispatch or treatment of soiled linen and clothing, sanitary products and the like and the receipt and storage of clean linen; and

BCA Clause	Description	Status	Comments
			(c) one shower for each 8 patients or part thereof; and (d) one island-type plunge bath in each storey containing a ward area.
		Not Applicable	(9) A Class 9b early childhood centre must be provided with— (a) a kitchen or food preparation area with a kitchen sink, separate hand washing facilities, space for a refrigerator and space for cooking facilities, with— (i) the facilities protected by a door or gate with child proof latches to prevent unsupervised access to the facilities by children younger than 5 years old; and (ii) the ability to facilitate supervision of children from the facilities if the early childhood centre accommodates children younger than 2 years old;
		Not Applicable	(b) one bath, shower or shower-bath; and
		Not Applicable	(c) if the centre accommodates children younger than 3 years old— (i) a laundry facility comprising a washtub and space in the same room for a washing machine; and (ii) a bench type baby bath, which is within 1 m of the nappy change bench; and (iii) a nappy changing bench which— (A) is within 1 m of separate adult hand washing facilities and bench type baby bath; and (B) must be not less than 0.9m2 in area and at a height of not less than 850mm, but not more than 900mm above the finished floor level; and (C) must have a space not less than 800mm high, 500mm wide and 800mm deep for the storage of steps; and

BCA Clause	Description	Status	Comments
			(D) is positioned to permit a staff member changing a nappy to have visibility of the play area at all times.
F4D5	Accessible sanitary facilities	Not Applicable	Does not form part of the scope of this assessment.
F4D6	Accessible unisex sanitary compartments	Not Applicable	Does not form part of the scope of this assessment.
F4F7	Accessible unisex showers	Not Applicable	Does not form part of the scope of this assessment.
F4D8	Construction of sanitary compartments	Not Applicable	(1) Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend— (a) from floor level to the ceiling in the case of a unisex facility; or (b) to a height of not less than 1.5 m above the floor if primary school children are the principal users; or (c) 1.8 m above the floor in all other cases. (2) The door to a fully enclosed sanitary compartment must— (a) open outwards; or (b) slide; or (c) be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F4D8, between the closet pan within the sanitary compartment and the doorway.
		Not Applicable	(3) In an early childhood centre, facilities for use by children must have each sanitary compartment screened by a partition which, except for the doorway, is opaque for a height at least 900mm but not more than 1200mm above floor level.

BCA Clause	Description	Status	Comments
			
F4D9	Interpretation: urinals and washbasins	For Note Only	(1) A urinal may be— (a) an individual stall or wall-hung urinal; or (b) each 600 mm length of a continuous urinal trough; or (c) a closet pan used in place of a urinal. (2) A washbasin may be— (a) an individual basin; or (b) a part of a hand washing trough served by a single water tap.
NSW F4D10	Microbial (legionella) control	Not Applicable	This clause is deleted from the BCA in NSW, as the installation of hot water, warm water and cooling water systems (and their operation and maintenance) is regulated in the Public Health Regulation, 2012, under the Public Health Act, 2010.
F4D11	Waste management	Not Applicable	Only applies in Class 9a and 9c buildings.
F4D12	Accessible adult change facilities	Not Applicable	(1) One unisex accessible adult change facility must be provided in an accessible part of a— (a) Class 6 building that is a shopping centre having a design occupancy of not less than 3,500 people, calculated on the basis of the floor area and containing a minimum of 2 sole-occupancy units; and (b) Class 9b sports venue or the like that—

BCA Clause	Description	Status	Comments
			(i) has a design occupancy of not less than 35,000 spectators; or (ii) contains a swimming pool that has a perimeter of not less than 70 m and that is required by D4D2 to be accessible; and (c) museum, art gallery or the like having a design occupancy of not less than 1,500 patrons; and (d) theatre or the like having a design occupancy of not less than 1,500 patrons; and (e) passenger use area of an airport terminal building within an airport that accepts domestic and/or international flights that are public transport services as defined in the Disability Standards for Accessible Public Transport 2002.

PART F5 – ROOM SIZES

BCA Clause	Description	Status	Comments
F5D2	Height of rooms and other spaces	Does not Comply	(1) The height of rooms and other spaces in a Class 2 or 3 building or Class 4 part of a building must be not less than— (a) for a kitchen, laundry, or the like — 2.1 m; and (b) for a corridor, passageway or the like — 2.1 m; and (c) for a habitable room excluding a kitchen — 2.4 m; and (d) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line— (i) in an attic — a height of not less than 2.2 m for not less than two-thirds of the floor area of the room or space; and (ii) in other rooms — a height of not less than 2.4 m for not less than two-thirds of the floor area of the room or space; and (e) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line — a height of not less than 2.1 m for not less

BCA Clause	Description	Status	Comments
			than two-thirds of the floor area of the room or space. (2) For the purposes of (1), when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included. (3) The height of rooms and other spaces in a Class 5, 6, 7 or 8 building must be not less than— (a) except as allowed in (b) and (8) — 2.4 m; and (b) a corridor, passageway, or the like — 2.1 m. (4) The height of rooms and other spaces in a Class 9a health-care building must be not less than— (a) for a patient care area — 2.4 m; and (b) for an operating theatre or delivery room — 3 m; and (c) for a treatment room, clinic, waiting room, passageway, corridor, or the like — 2.4 m. (5) The height of rooms and other spaces in a Class 9b building must be not less than— (a) for a school classroom or other assembly building or part that accommodates not more than 100 persons — 2.4 m; and (b) for a theatre, public hall or other assembly building or part that accommodates more than 100 persons — 2.7 m; and (c) for a corridor— (i) that serves an assembly building or part that accommodates not more than 100 persons — 2.4 m; or (ii) that serves an assembly building or part that accommodates more than 100 persons — 2.7 m. (6) For the purposes of (5) the number of persons accommodated must be calculated according to D2D18. (7) The height of rooms and other spaces in a Class 9c building must be not be less than— (a) for a kitchen, laundry, or the like — 2.1 m; and

<table>
<tr><th>BCA Clause</th><th>Description</th><th>Status</th><th>Comments</th></tr>
<tr><td></td><td></td><td></td><td>
(b) for a corridor, passageway or the like — 2.4 m; and
(c) for a habitable room excluding a kitchen — 2.4 m.
(8) The height of rooms and other spaces in any building must be not be less than—
(a) for a bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and
(b) for a commercial kitchen — 2.4 m; and
(c) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like; and
(d) for a required accessible adult change facility — 2.4 m.

Comment: The height of a stairway and landing is to be not less than 2.0m, however the staircase and landing serving the proposed attic bedroom/loft is transitional down to 1.65m and 1.9m which does not comply.
The proposed attic bedroom/loft is required to have a height of not less than 2.2 m for not less than two-thirds (6.66%) of the floor area of the room or space. It's noted that the floor area of a room or space, any part that has a ceiling height of less than 1.5m is not included.

A performance solution may be considered to address these non-compliances.

The attic bedroom/ loft calculations are as follows:
<table>
<tr><th colspan="2">Ground Floor - Shops</th></tr>
<tr><td>Floor area above 1.5m</td><td>15.1m^2</td></tr>
<tr><td>Floor Area above 2.2m</td><td>5.9m^2</td></tr>
<tr><td>Required area above 2.2m</td><td>66.66%</td></tr>
<tr><td>Proposed area above 2.2m</td><td>39 %</td></tr>
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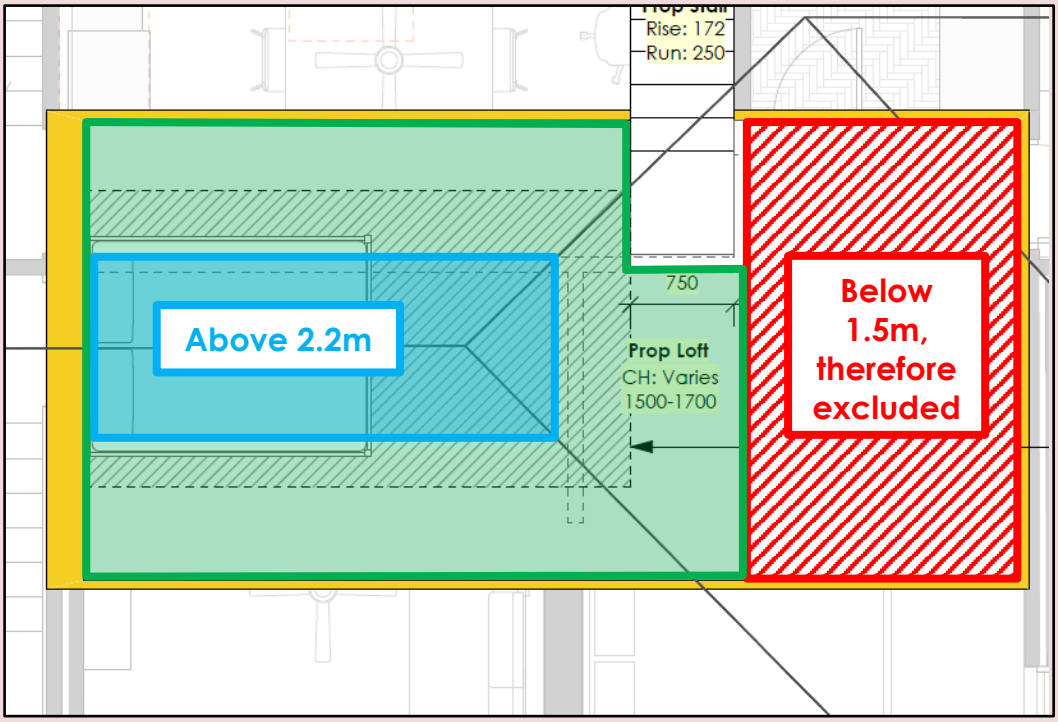
BCA Clause	Description	Status	Comments
			No assessment has been made as to whether the existing building complies with this clause.
			

PART F6 – LIGHT AND VENTILLATION

BCA Clause	Description	Status	Comments
F6D2	Provision of natural light	For Note Only	Natural light must be provided in: (a) Class 2 buildings and Class 4 parts of buildings — to all habitable rooms. (b) Class 3 buildings — to all bedrooms and dormitories. (c) Class 9a and 9c buildings — to all rooms used for sleeping purposes. (d) Class 9b buildings — to all general purpose classrooms in primary or secondary schools and all playrooms or the like for the use of children in an early childhood centre.
F6D3	Methods and extent of natural light	Does not Comply	(1) Required natural light must be provided by – (a) windows, excluding roof lights, that – (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and

BCA Clause	Description	Status	Comments
			(ii) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (b) roof lights, that – (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (ii) are open to the sky; or (c) a proportional combination of windows and roof lights required by (i) and (ii). **Comment:** A window or skylight is not shown serving the proposed attic bedroom/loft, on the architectural plans which does not comply. A design table detailing room floor areas, glazed window and door sizes/areas, achieved aggregate area for transmitting light and percentage of floor area to all habitable rooms is to be provided with the application for CC where natural light is proposed to be relied upon. No assessment has been made as to whether the existing building complies with this clause.
F6D4	Natural light borrowed from an adjoining room	Not Applicable	
F6D5	Artificial Lighting	Capable	(1) Artificial lighting must be provided— (a) in required stairways, passageways, and ramps; and (b) if natural light of a standard equivalent to that required by F6D3 is not available, and the periods of occupation or use of the room or space will create undue hazard to occupants seeking egress in an emergency, in— (i) a Class 4 part of a building — to sanitary compartments, bathrooms, shower rooms, airlocks and laundries; and (ii) a Class 2 building — to sanitary compartments,

BCA Clause	Description	Status	Comments
			bathrooms, shower rooms, airlocks, laundries, common stairways and other spaces used in common by the occupants of the building; and (iii) Class 3, 5, 6, 7, 8 and 9 buildings — to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. (2) The artificial lighting system must comply with AS/NZS 1680.0. (3) The system may provide a lesser level of illumination to the following spaces during times when the level of lighting would be inappropriate for the use: (a) A theatre, cinema or the like, when performances are in progress, with the exception of aisle lighting required by Part I1. (b) A museum, gallery or the like, where sensitive displays require low lighting levels. (c) A discotheque, nightclub or the like, where to create an ambience and character for the space, low lighting levels are used. **Comment:** Artificial lighting is to be provided to comply with AS1680.0-2009
NSW F6D6	Ventilation of Rooms	Capable	A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have— (a) natural ventilation complying with F6D7; or (b) a mechanical ventilation or air-conditioning system complying with AS 1668.2. **Notes** The reference to AS/NZS 3666.1 is deleted from the BCA in NSW, as the need to comply with this standard is regulated in the Public Health Regulation 2012, under the Public Health Act 2010.

BCA Clause	Description	Status	Comments
			Comment: All enclosed areas of the building are required to be provided with either; complying natural ventilation or a system of mechanical ventilation complying with AS1668.2-2012.
F6D7	Natural ventilation	Does not Comply	(1) Natural ventilation provided in accordance with F6D6(a) must consist of openings, windows, doors or other devices which can be opened— (a) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and (b) open to— (i) a suitably sized court, or space open to the sky; or (ii) an open verandah, carport, or the like; or (iii) an adjoining room in accordance with F6D8. (2) The requirements of (1)(a) do not apply to a Class 8 electricity network substation. **Comment:** All enclosed areas of the building are required to be provided with either; complying natural ventilation or a system of mechanical ventilation complying with AS1668.2-2012. A window or skylight is not shown serving the proposed attic bedroom/loft, on the architectural plans which does not comply. Where natural ventilation is proposed, a design table detailing room floor areas, openable window and door sizes/areas, achieved aggregate ventilation area and percentage of floor area is to be provided with the application for CC. No assessment has been made as to whether the existing building complies with this clause.
F6D8	Ventilation borrowed from an adjoining room	Not Applicable	
F6D9	Restriction on Position of Water Closest and Urinals	Complies	A sanitary compartment must not open directly into— (a) a kitchen or pantry; or (b) a public dining room or restaurant; or (c) a dormitory in a Class 3 building; or

BCA Clause	Description	Status	Comments
			(d) a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand); or (e) a workplace normally occupied by more than one person.
F6D10	Airlocks	Capable	If a sanitary compartment is prohibited under F6D9 from opening directly to another room— (a) in a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building— (i) access must be by an airlock, hallway or other room; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation; and (b) in a Class 5, 6, 7, 8 or 9 building (which is not an early childhood centre, primary school or open spectator stand)— (i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1m2 and fitted with self-closing doors at all access doorways; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view. **Comment:** All sanitary compartments are required to be provided with mechanical exhaust ventilation complying with AS1668.2-2012.
F6D11	Carparks	Not Applicable	Every storey of a carpark, except an open-deck carpark, must have— (a) a system of mechanical ventilation complying with AS 1668.2; or (b) a system of natural ventilation complying with Section 4 of AS 1668.4.
F6D12	Kitchen local exhaust ventilation	Not Applicable	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1 and AS 1668.2 where— (a) any cooking apparatus has— (i) a total maximum electrical power input exceeding 8 kW; or (ii) a total gas power input exceeding 29 MJ/h; or

BCA Clause	Description	Status	Comments
			(b) the total maximum power input to more than one apparatus exceeds— (i) 0.5 kW electrical power; or (ii) 1.8 MJ/hour gas, per m^2 of floor area of the room or enclosure. **Comment:** A commercial kitchen is not proposed.

PART F7 – SOUND TRANSMISSION AND INSULATION

BCA Clause	Description	Status	Comments
F7D2	Application of Part	Not Applicable	The Deemed-to-Satisfy Provisions of this Part apply to Class 2 and 3 buildings and Class 9c buildings.
F7D3	Determination of airborne sound insulation ratings	Capable	A form of construction required to have an airborne sound insulation rating must— (a) have the required value for weighted sound reduction index (Rw) or weighted sound reduction index with spectrum adaptation term (Rw + Ctr) determined in accordance with AS/NZS ISO 717.1 using results from laboratory measurements; or (b) comply with Specification 28. **Comments:** A system for sound insulation is to be provided on plans to demonstrate compliance with F7D3 & F7D4.
F7D4	Determination of impact sound insulation ratings	Capable	(1) A floor in a building required to have an impact sound insulation rating must— (a) have the required value for weighted normalised impact sound pressure level (Ln,w) determined in accordance with AS ISO 717.2 using results from laboratory measurements; or (b) comply with Specification 28. (2) A wall in a building required to have an impact sound insulation rating must— (a) for a Class 2 or 3 building be of discontinuous construction and (b) for a Class 9c building, must— (i) for other than masonry, be two or more separate leaves without rigid mechanical connection except at the periphery; or

			(ii) be identical with a prototype that is no less resistant to the transmission of impact sound when tested in accordance with Specification 29 than a wall listed in S28C4 to S28C7. (3) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and— (a) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and (b) for other than masonry, there is no mechanical linkage between leaves except at the periphery. **Comments:** A system for sound insulation is to be provided on plans to demonstrate compliance with F7D3 & F7D4.
F7D5	Sound insulation rating of floors	Capable	(1) A floor in a Class 2 or 3 building must have an Rw + Ctr (airborne) not less than 50 and an Ln,w (impact) not more than 62 if it separates— (a) sole-occupancy units; or (b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification. (2) A floor in a Class 9c building separating sole-occupancy units must have an Rw not less than 45. **Comments:** A system for sound insulation is to be provided on plans to demonstrate compliance with F7D3, F7D4 & F7D5.
F7D6	Sound insulation rating of walls	Not Applicable	(1) A wall in a Class 2 or 3 building must— (a) have an Rw + Ctr (airborne) not less than 50, if it separates sole-occupancy units; and (b) have an Rw (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and (c) comply with F7D4(2) if it separates— (i) a bathroom, sanitary compartment, laundry or kitchen in one sole-

			occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or (ii) a sole-occupancy unit from a plant room or lift shaft. (2) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an Rw not less than 30. (3) A wall in a Class 9c building must have an Rw not less than 45 if it separates— (a) sole-occupancy units; or (b) a sole-occupancy unit from a kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room. (4) In addition to (3), a wall separating a sole-occupancy unit in a Class 9c building from a kitchen or laundry must comply with F7D4(2). (5) Where a wall required to have sound insulation has a floor above, the wall must continue to— (a) the underside of the floor above; or (b) a ceiling that provides the sound insulation required for the wall. (6) Where a wall required to have sound insulation has a roof above, the wall must continue to— (a) the underside of the roof above; or (b) a ceiling that provides the sound insulation required for the wall.
F7D7	Sound insulation rating of internal services	Capable	(1) If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an Rw + Ctr (airborne) not less than— (a) 40 if the adjacent room is a habitable room (other than a kitchen); or (b) 25 if the adjacent room is a kitchen or non-habitable room.

			(2) If a stormwater pipe passes through a sole-occupancy unit, it must be separated in accordance with (1)(a) and (b). **Comments:** A system for sound insulation is to be provided on plans to demonstrate compliance with F7D7.
F7D8	Sound isolation of pumps	Capable	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump. **Comments:** A system for sound insulation is to be provided on plans to demonstrate compliance with F7D8.

PART F8 – CONDENSATION MANAGEMENT

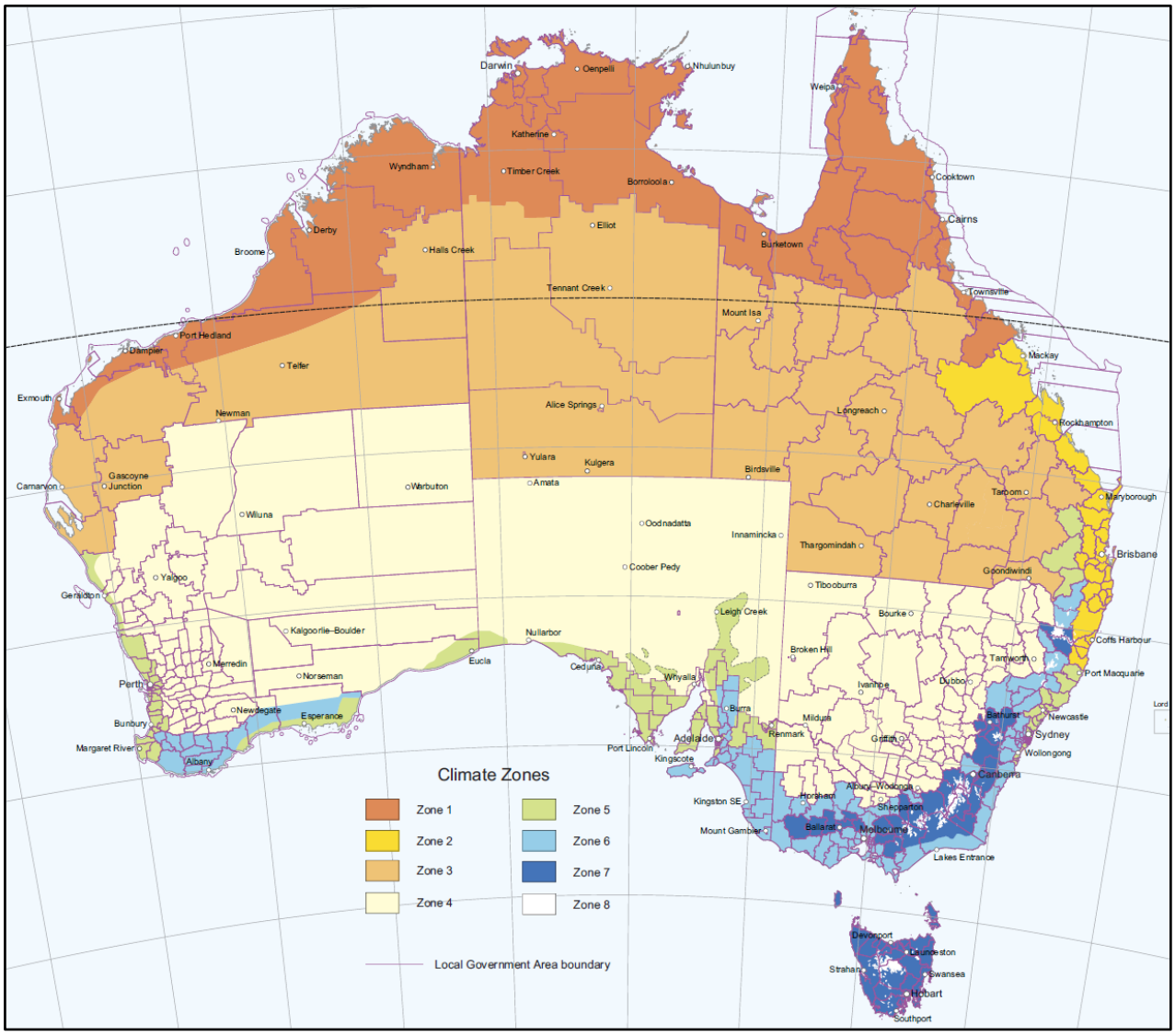
BCA Clause	Description	Status	Comments
F8D1	Deemed-to-Satisfy Provisions	For Note Only	(1) Compliance with Performance Requirement F8P1 is satisfied by complying with Deemed-to-Satisfy Provisions F8D2 to F8D5. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable. **Explanatory Information** The intent of these requirements is to assist in the mitigation of condensation within a building. The implementation of a condensation management strategy may not prevent condensation from occurring.
F8D2	Application of Part	For Note Only	The Deemed-to-Satisfy Provisions of this Part only apply to a sole-occupancy unit of a Class 2 building and a Class 4 part of a building.
F8D3	External wall construction	Capable	(1) Where a pliable building membrane is installed in an external wall, it must— (a) comply with AS 4200.1; and (b) be installed in accordance with AS 4200.2; and (c) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. (2) Where a pliable building membrane, sarking-type material or insulation layer is installed on the exterior side of the primary insulation layer of an external wall it must have a vapour permeance of not less than—

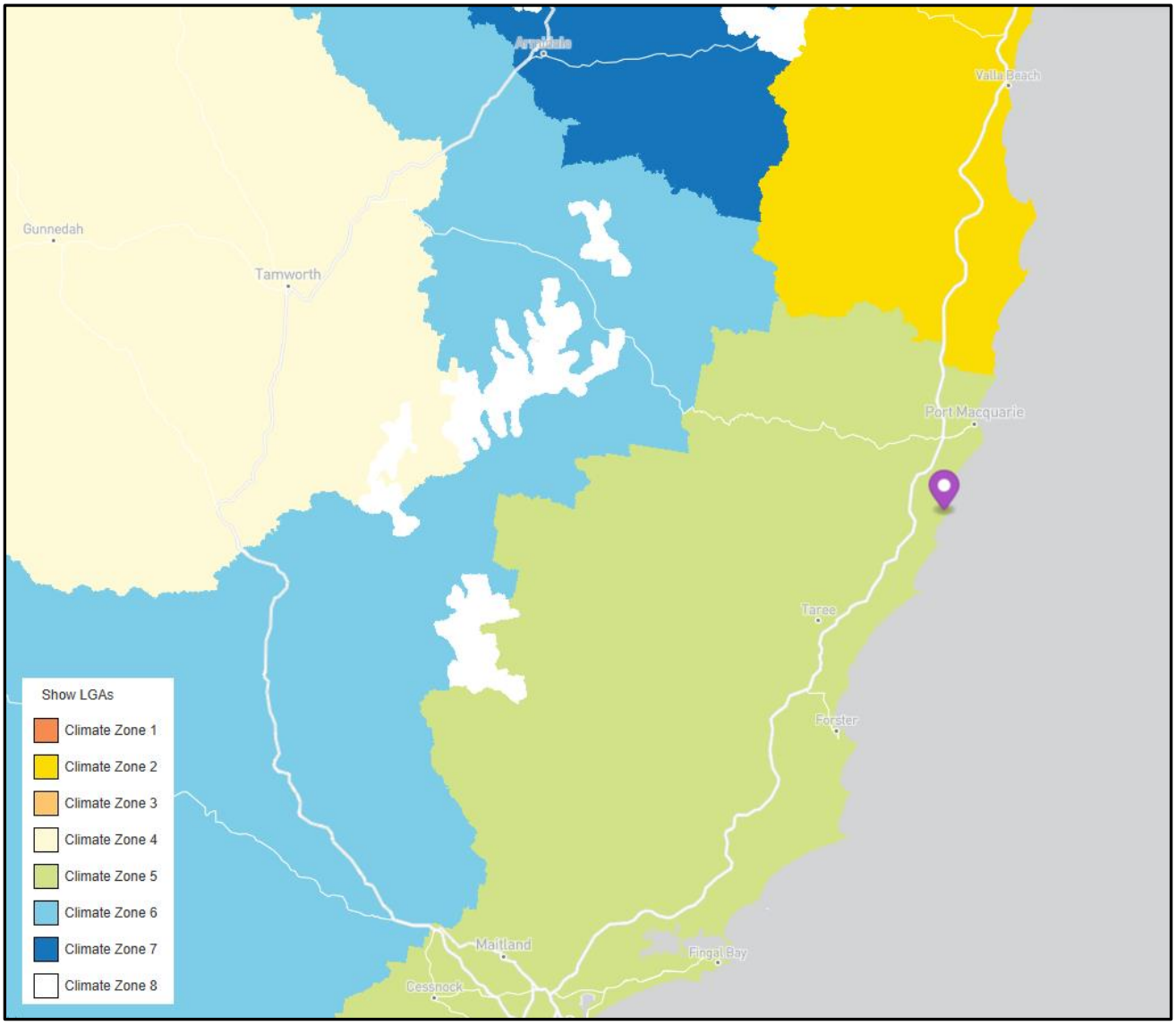
BCA Clause	Description	Status	Comments
			(a) in climate zones 4 and 5, 0.143 µg/N.s; and (b) in climate zones 6, 7 and 8, 1.14 µg/N.s. (3) Except for single skin masonry and single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity. **Comment:** Details to be provided with the application for CC. **Explanatory Information** F8D3(2) requires some wall materials on the external side of the primary insulation layer to have a minimum level of vapour permeance. Vapour permeance is measured in µg/N.s (micrograms per newton-second). Class 3 and 4 vapour control membranes (as defined by clause 5.3.4 of AS 4200.1) meet the vapour permeance requirements of F8D3(2)(a), while Class 4 vapour control membranes meet the vapour permeance requirements of F8D3(2)(b). Open-cell insulation, such as mineral wool or fibreglass, typically has a high vapour permeance, while closed-cell insulation such as polystyrene typically has a low vapour permeance. Many foil-faced insulation products have a low vapour permeance.
F8D4	Exhaust systems	Capable	(1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of— (a) 25 L/s for a bathroom or sanitary compartment; and (b) 40 L/s for a kitchen or laundry. (2) Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air. (3) Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting

BCA Clause	Description	Status	Comments
			from the clothes drying appliance to outdoor air. (4) (3) does not apply if a condensing-type clothes drying appliance is installed. (5) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with F6D7 must— (a) be interlocked with the room's light switch; and (b) include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off. (6) Except for rooms that are ventilated in accordance with F6D7, a room with space for ducting a clothes drying appliance to outdoor air in accordance with (3) must be provided with make-up air in accordance with AS 1668.2. **Comment:** Details to be provided with the application for CC. **Explanatory Information** A range hood installed in a kitchen must comply with F8D4(2). Part F6 includes other ventilation requirements which must be met, including a requirement for make-up air to be provided to mechanically ventilated rooms in accordance with AS 1668.2.
F8D5	Ventilation of roof spaces	Not Applicable	(1) In climate zones 6, 7 and 8, a roof must have a roof space that— (a) is located— (i) immediately above the primary insulation layer; or (ii) immediately above sarking with a vapour permeance of not less than 1.14 µg/N.s, which is immediately above the primary insulation layer; or (iii) immediately above ceiling insulation which meets the requirements of J3D7(3) and J3D7(4); and (b) has a height of not less than 20 mm; and

BCA Clause	Description	Status	Comments
			(c) is either— (i) ventilated to outdoor air through evenly distributed openings in accordance with Table F8D5; or (ii) located immediately underneath roof tiles of an unsarked tiled roof. (2) The requirements of (1) do not apply to a— (a) concrete roof; or (b) roof that is made of structural insulated panels; or roof that is subject to Bushfire Attack Level FZ requirements in accordance with AS 3959. **Comment:** The property is in climate zones 5.

Roof Pitch	Ventillation openings
<10°	25,000 mm^2/m provided at each of two opposing ends.
≥10° and <15°	25,000 mm^2/m provided at the eaves and 5,000 mm^2/m at high level.
≥15° and <75°	7,000 mm^2/m provided at the eaves and 5,000 mm^2/m at high level, plus an additional 18,000 mm2/m at the eaves if the roof has a cathedral ceiling.


Darwin
Oenpelli
Nhulunbuy
Weipa
Katherine
Wyndham
Timber Creek
Borroloola
Cooktown
Cairns
Derby
Broome
Halls Creek
Elliot
Burketown
Townsville
Tennant Creek
Mount Isa
Port Hedland
Dampier
Telfer
Mackay
Exmouth
Newman
Alice Springs
Longreach
Rockhampton
Yulara
Kulgera
Birdsville
Gascoyne Junction
Carnarvon
Warburton
Amata
Tarcoom
Maryborough
Charleville
Wiluna
Oodnadatta
Innamincka
Thargomindah
Brisbane
Coober Pedy
Goondiwindi
Yalgoo
Tibooburra
Geraldton
Leigh Creek
Bourke
Kalgoorlie–Boulder
Nullarbor
Coffs Harbour
Broken Hill
Merredin
Eucla
Tamworth
Port Macquarie
Norseman
Ceduna
Whyalla
Dubbo
Perth
Ivanhoe
Burra
Bathurst
Newcastle
Newdegate
Esperance
Mildura
Sydney
Bunbury
Renmark
Griffith
Adelaide
Wollongong
Margaret River
Port Lincoln
Kingscote
Albany
Canberra
Albury
Wodonga
Kingston SE
Horsham
Shepparton
Ballarat
Melbourne
Mount Gambier
Lakes Entrance
Devonport
Launceston
Strahan
Swansea
Hobart
Southport
Climate Zones
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
Local Government Area boundary



PART G1 – MINOR STRUCTURES AND COMPONENTS

BCA Clause	Description	Status	Comments
NSW G1D2	Swimming pools	Not Applicable	
G1D3	Refrigerated chambers, strong-rooms and vaults	Not Applicable	
G1D4	Outdoor play spaces	Not Applicable	(1) Any outdoor play space in a Class 9b early childhood centre must be enclosed on all sides with a barrier which— (a) where the edge of the trafficable surface of the outdoor play space is at the same level or less than 2m above the surface beneath — complies with AS 1926.1; and

			(b) where the edge of the trafficable surface of the outdoor play space is 2 m or more above the surface beneath— (i) is not less than 1.8 m high, as measured from above the trafficable surface; and (ii) is non-climbable and does not contain horizontal or other elements that could facilitate climbing; and (iii) does not have any openings or apertures through which a 100 mm or greater sphere could pass; and (iv) is not within 1.8 m, as measured directly from the top of the barrier, of any elements within the outdoor play space that facilitate climbing; and (v) is not within 900 mm of elements in a wall that facilitate climbing; and (c) has strength and rigidity complying with AS 1926.1. (2) For the purposes of (1)(a), AS 1926.1 is applied as if there is a swimming pool located outside the outdoor play space, so that the barrier restricts children from exiting the premises without the knowledge of staff in the centre. (3) The requirements of (1) do not apply to a wall, including doors and windows, which form part of the Class 9b early childhood centre, except where the wall is within a non-climbable zone for a barrier provided under (1)(a).
NSW G1D5	Provision for cleaning windows	Not Applicable	(1) A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level. (2) A building satisfies (1) where— (a) the windows can be cleaned wholly from within the building; or (b) provision is made for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.

PART G6 – OCCUPIABLE OUTDOOR AREAS

BCA Clause	Description	Status	Comments
G6D1	Application of part	For Note Only	(1) The Deemed-to-Satisfy Provisions of this Part apply to buildings containing an occupiable outdoor area in addition to the other Deemed-to-Satisfy Provisions of NCC Volume One. (2) The Deemed-to-Satisfy Provisions of this Part take precedence where there is a difference to the Deemed-to-Satisfy Provisions of Sections C, D, E, F and G. (3) Except for G6D2, the Deemed-to-Satisfy Provisions of this Part do not apply to— (a) an occupiable outdoor area of a sole-occupancy unit in a Class 2 or 3 building, Class 9c building or Class 4 part of a building; or (b) an occupiable outdoor area with an area less than 10m^2. **Explanatory Information** Part G6 contains Deemed-to-Satisfy Provisions additional to those contained in Sections C, D, E, F and G for occupiable outdoor areas.
G6D2	Fire hazard properties	Not Applicable	(1) Subject to (2), a lining, material or assembly in an occupiable outdoor area must comply with C2D11 as for an internal element. (2) The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C2D11: (a) Average specific extinction area. (b) Smoke-Developed Index. (c) Smoke development rate. (d) Smoke growth rate index ($SMOGRA_{RC}$).
G6D3	Fire separation	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of C3D8, C3D9 and C3D10, a reference to a storey includes an occupiable outdoor area, however a fire wall cannot be used to separate an occupiable outdoor area into different fire compartments.
G6D4	Provision for escape	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of Part D2, a reference to a storey or room includes an occupiable outdoor area.

G6D5	Construction of exits	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of Part D3, a reference to a storey or room includes an occupiable outdoor area.
G6D6	Fire fighting equipment	Not Applicable	Except for S17C7(2)(a), for the purposes of the Deemed-to-Satisfy Provisions of Part E1, a reference to a storey includes an occupiable outdoor area. **Comment:** Details to be provided with the application for CC. **Notes** An occupiable outdoor area is not a storey for the purposes of Schedule 2 of the NCC and therefore is not included in the determination of rise in storeys.
G6D7	Lift installations	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of Part E3, a reference to a storey includes an occupiable outdoor area.
G6D8	Visibility in an emergency, exit signs and warning systems	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of Part E4, a reference to a storey includes an occupiable outdoor area.
G6D9	Light and ventilation	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of F6D5, F6D9 and F6D10, a reference to a room includes an occupiable outdoor area.
G6D10	Fire orders	Not Applicable	For the purposes of the Deemed-to-Satisfy Provisions of G4D9, a reference to a storey includes an occupiable outdoor area.

6 Conclusion

This report identifies the compliance status of the architectural design with the relevant 'deemed-to-satisfy' (DTS) requirements of the Building Code of Australia 2022, Volume 1.

The outcome of the report highlights that the current design is capable of compliance with the Deemed-to-Satisfy provisions of the BCA and BCA Performance Requirements subject to the recommendations identified within this report being incorporated into the finalised construction certificate design documentation.

BCA Performance Solutions shall be provided where suggested in Sections 5.0 of this report.

7 Appendix

7.1 Fire Safety Schedule (Draft)

Fire Safety Measures	Proposed Standard of Performance
Automatic fire detection and alarm system	BCA E2D2, E2D3, E2D9, Spec. 20, AS3786-2014 and AS1670.1-2018
Emergency lighting	BCA E4D2, E4D4 and AS/NZS2293.1-2018
Exit signs	BCA E4D5, NSW E4D6, E4D8 and AS/NZS2293.1-2018
Fire seals protecting openings in fire resisting components of the building	BCA C4D13, C4D15 & Spec 13 and AS1530.4-2014
Fire doors	BCA Spec 12 and AS1905.1-2015 & AS1905.2-2005
Fire windows	BCA C4D5 and Specification 12
Paths of Travel, stairways, passageways or ramps	BCA Section D, EP&A Regulation, (Development Certification and Fire Safety) 2021, Clause 109
Portable fire extinguishers	BCA E1D14 and AS2444-2001
Performance Solution/s	Future Performance Solution Report

7.2 Glossary of Terms

The Act means the Environmental Planning and Assessment Act 1979 (NSW). All amendments and references to the Act also mean amendments and references to the Regulations.
Accessible means having features to enable use by people with a disability.
Access Code means the Access Code contained in the Premises Standards. The code outlines design requirements for a building to be accessible
Accessway means a continuous accessible path of travel (as defined in AS1428.1) to, into or within a building.
AFSS or **Annual Fire Safety Statement** has the same meaning as it has in "The Reg".
Affected Part has the same meaning as that in the Premises Standards, being the Principal Public Entrance to a building and access way to new work.
Alternative Solution has the same meaning as **Performance Solution**.
AS1428.1 means AS1428 'Design for access and mobility' Part 1: 2009; General requirements for access – New building work', unless specified.
AS means Australia Standard
Automatic means designed to operate when activated by a heat, smoke or fire sensing device.
Building means the building or part of the building which is the subject of the Building Works.
BCA if not otherwise specified, means National Construction Code 2022, Volume 1 Building Code of Australia Class 2 to 9 Buildings.
Certificates mean statutory certificates and non-statutory certificates.
Certifying Authority or **CA** has the same meaning as it has in **The Act**.
Change of building use or change of use has the same meaning as it has in **The Act**.
Circulation Space means a clear unobstructed area to enable persons using mobility aids to manoeuvre.
Combustible means—
(a) applied to a material — combustible as determined by AS 1530.1; and
(b) applied to construction or part of a building — constructed wholly or in part of combustible materials.
Compliant means to the standards specified by the Access Code, BCA or AS1428.1 *Note: for clarity, works may be specified in this report that may omit reference to 'compliant' or a specific standards. Where this is the case, those works are to be 'compliant' to the extent required by this definition.
Complying Development Certificate or **CDC** has the same meaning as it has in "The Act".
Consent Authority has the same meaning as it has in "The Act".
Construction Certificate or **CC** has the same meaning as it has in "The Act".
Deemed to Satisfy Provision or **DTS** has the same meaning as the same term in Volumes 1 & 2 of the National standards deemed to achieve compliance with the BCA or Access Code, as applicable.
DDA means the "Disability Discrimination Act 1992"
Development Consent has the same meaning as it has in **The Act**.
Effective height means the vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).
Fabric means the basic building structural elements and components of a building including the roof, ceilings, walls and floors.
Fire brigade or **FRNSW** means Fire and Rescue New South Wales being the statutory authority constituted under an Act of Parliament having as one of its functions, the protection of life and property from fire and other emergencies.
Fire compartment has the same mean as the BCA.
Fire Engineering Brief, **FEB** or **Brief** has the same meaning as the term in the IFEG. It is a summary document of proposed assessment methods and goals for a Performance Solution relating to a fire safety matter.
Fire Engineering Report or **FER** has the same meaning as the term in the IFEG. It is a detailed report of assessment methods, calculations and outcomes of a Performance Solution relating to a fire safety matter.
Fire hazard properties has the same meaning as the BCA. Generally the properties of a material or assembly that indicate how they behave under specific fire test conditions.
Fire-isolated passageway means a corridor, hallway or the like, of fire-resisting construction, which provides egress to or from a fire-isolated stairway or fire-isolated ramp or to a road or open space.
Fire-isolated stairway means a stairway within a fire-resisting shaft and includes the floor and roof or top enclosing structure.
Fire-resistance level (FRL) means the grading periods in minutes determined in accordance with BCA Specification A2.3. *Note: A dash means that there is no requirement for that criterion. For example, 90/–/– means there is no requirement for an FRL for integrity and insulation, and –/–/– means there is no requirement for an FRL.
Fire Safety Certificate means an Interim or Final Fire Safety Certificate within the meaning of The Reg.
Floor Area has the same meaning as the National Construction Code 2019 Volume 1 Building Code of Australia Class 2 to 9 Buildings.
IFEG means the International Fire Engineering Guidelines, 2005.
Insulation, in relation to an FRL, means the ability to maintain a temperature on the surface not exposed to the furnace below the limits specified in AS 1530.4.
Integrity, in relation to an FRL, means the ability to resist the passage of flames and hot gases specified in AS 1530.4.
Loadbearing means intended to resist vertical forces additional to those due to its own weight.
Non-combustible means—
(a) applied to a material — not deemed combustible as determined by AS 1530.1 — Combustibility Tests for Materials; and
(b) applied to construction or part of a building — constructed wholly of materials that are not deemed combustible.

Occupation Certificate or **OC** has the same meaning as it has in **The Act**.
Open space means a space on the allotment, or a roof or similar part of a building adequately protected from fire, open to the sky and connected directly with a public road.
Performance Requirement or **PR** has the same meaning as the term in Volumes 1 & 2 of the National Construction Code.
Premises Standards means the "Disability (Access to Premises – Buildings) Standards 2010"
Performance Solution has the same meaning as the term in Volumes 1 & 2 of the National Construction Code as in force at the time of application for a CDC or CC including all applicable amendments.
Principal Certifier or **PC** is a building practitioner as defined by **The Act**
Public corridor means an enclosed corridor, hallway or the like which—
(a) serves as a means of egress from 2 or more sole-occupancy units to a required exit from the storey concerned; or
(b) is required to be provided as a means of egress from any part of a storey to a required exit.
Building Regulations or **Bldg Reg** means the Building Regulation 2006(NSW) (as amended) and all applicable amendments.
The Reg means the Environmental Planning and Assessment Regulation 2000 (NSW). All amendments and references to the Regulation.
Resistance to the incipient spread of fire , in relation to a ceiling membrane, means the ability of the membrane to insulate the space between the ceiling and roof, or ceiling and floor above, so as to limit the temperature rise of materials in this space to a level which will not permit the rapid and general spread of fire throughout the space
Rise in storeys means the greatest number of storeys calculated in accordance with BCA Clause
Self-closing, applied to a door, means equipped with a device which returns the door to the fully closed position immediately after each opening. C1.2.
Slip Resistant means a property of a surface having a frictional force-opposing movement of an object across a surface.
Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier
Storey means a space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not—
(a) a space that contains only—
    (i) a lift shaft, stairway or meter room; or
    (ii) a bathroom, shower room, laundry, water closet, or other sanitary compartment; or
    (iii) accommodation intended for not more than 3 vehicles; or
    (iv) a combination of the above; or
(b) a mezzanine.
Structural adequacy, in relation to an FRL, means the ability to maintain stability and adequate loadbearing capacity as determined by AS 1530.4.

7.3 Table – FRL of Building Elements – Type A Construction

The following tables identify the Fire ratings that are applicable to the general building structure. It should be noted that these fire ratings do not relate to specific elements requiring fire separation (e.g. main switchboard, separation of fire compartments and the like);

Table S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a fire-source	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	90/90/90	120/120/120	180/180/180	240/240/240
1.5m to less than 3m	90/60/60	120/90/90	180/180/120	240/240/180
3m or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a fire-source	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5m	–/90/90	–/120/120	–/180/180	–/240/240
1.5m to less than 3m	–/60/60	–/90/90	–/180/120	–/240/180
3m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C11c: Type A construction: FRL of external columns not incorporated in an external wall

Column Type	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing	90/–/–	120/–/–	180/–/–	240/–/–
Non-loadbearing	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C11d: Type A construction: FRL of common walls and fire walls

Wall Type	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or non-loadbearing	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A construction: FRL of loadbearing internal walls

Location	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire resisting lift and stair shafts	90/90/90	120/120/120	180/180/180	240/240/240
Bounding public corridors, public lobbies and the like	90/90/90	120/–/–	180/–/–	240/–/–
Between or bounding sole-occupancy units	90/90/90	120/–/–	180/–/–	240/–/–

Location	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A construction: FRL of non-loadbearing internal walls

Location	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire resisting lift and stair shafts	–/90/90	–/120/120	–/120/120	–/120/120
Bounding public corridors, public lobbies and the like	–/60/60	–/–/–	–/–/–	–/–/–
Between or bounding sole-occupancy units	–/60/60	–/–/–	–/–/–	–/–/–
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	–/90/90	–/90/90	–/120/120	–/120/120

Table S5C11g: Type A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Building Element	FRL (in minutes): Structural adequacy/ Integrity / Insulation			
	Class 2, 3 or 4	Class 5, 7a or 9	Class 6	Class 7b or 8
Other loadbearing internal walls, internal beams, trusses and columns	90/–/–	120/–/–	180/–/–	240/–/–
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60