

BUILDING CODE OF AUSTRALIA COMPLIANCE ASSESSMENT REPORT

Alterations and additions to existing building

49K French Avenue, Frenchs Forest

DATE ► 25/10/2019

REPORT NO. ► PROJECT 9781 - Rev 2.0

PREPARED FOR ► Northern Beaches Cancer Care Associates

PREPARED BY ► AE&D



AEDGROUP

Innovation & expertise in building regulations



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REVISION STATUS				
REVISION	DATE	STATUS	WRITTEN	CHECKED
9781 - Rev 1.0	22.10.19	DRAFT FOR COMMENT	BM	TJ
9781 - Rev 2.0	28.10.19	FINAL	BM	TJ

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1.0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

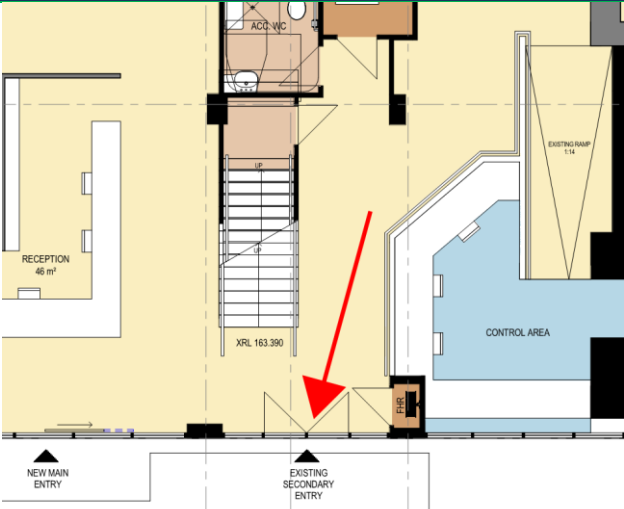
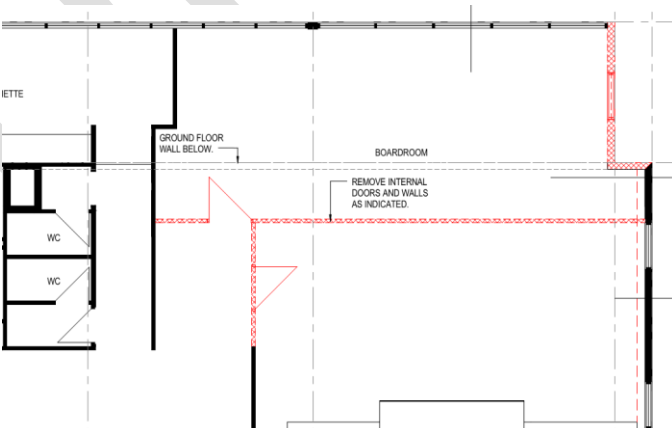
This report provides a Building Code of Australia (BCA) 2019 assessment of the proposed alterations and additions to the existing building, located at 49K French Ave, Frenchs Forest.

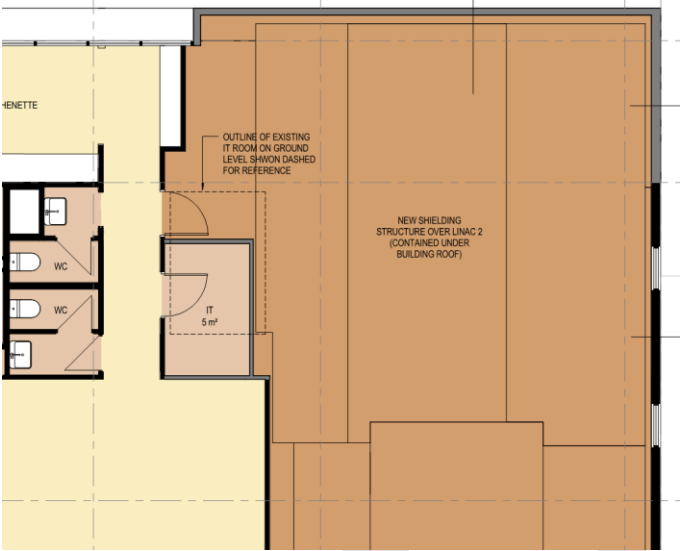
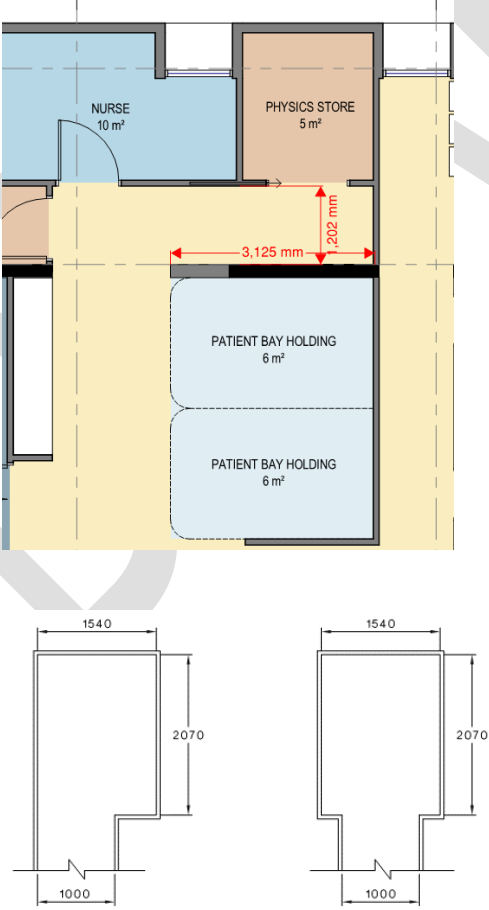
The primary purpose of this report is to identify the non-compliance matters contained in the proposed design against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

1.1 Recommendations

The following is a list of Deemed-to-Satisfy Provisions that should be addressed either by design amendments, additional information **OR** by way of an Alternative Solution:

BCA Clause	Deemed-to-Satisfy Provision to be addressed
<p>D1.4 Exit Travel Distances</p>	<ul style="list-style-type: none"> The distance to a point of choice on Ground Floor is greater than 20m, being 21.9m  <p><i>It is recommended that this is addressed by a Fire Engineered Performance Solution.</i></p>
<p>D1.5 Distance Between Alternative Exits</p>	<p>The exits are located less than 9m apart, being 5.5m.</p>  <p><i>It is recommended that this is addressed by a Fire Engineered Performance Solution.</i></p>
<p>D2.20 Swinging Doors</p>	<p>The existing doorway is swinging against direction of egress.</p>

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	
<p>Disability (Access to Premises – Buildings) Standards 2010</p>	<p>The Standards apply to the new part and any affected part of the building.</p> <div data-bbox="478 806 1149 1075" style="border: 1px solid black; padding: 10px;"> <p><i>An affected part is:</i></p> <p><i>The principal pedestrian entrance of an existing building that contains a new part; and</i></p> <p><i>Any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.</i></p> </div> <p>Where the first-floor works require an application for approval (i.e., in isolated constitute <i>exempt development</i> under the Codes SEPP) then a continuous path of travel is required to that part.</p> <p>A continuous path of travel in the subject building would require a passenger lift.</p> <p>The proposed deletion of the boardroom and construction of a plant room would require an approval and therefore under the provisions of the Disability (Access to Premises – Buildings) Standards 2010, a lift will be required.</p> 

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <p><i>The omission of the lift will require a Performance Solution.</i></p>
<p>D3.3 Parts of the building required to be accessible</p>	<p>No turning space is provided at the end of the corridor serving the Physics Store. The width of the turning space, being 1202mm, is less than the 1540mm required by Clause 6.5.3 of AS 1428.1-2009.</p>  <p>(a) Space required in corridor (b) Space required in corridor</p>
<p>E1.3</p>	<p>Details of the existing fire hydrants are required to assess compliance.</p>



BCA Clause	Deemed-to-Satisfy Provision to be addressed
Fire Hydrants	
E1.6 Portable Fire Extinguishers	Portable fire extinguishers are required on the architectural plans.

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2.0 INTRODUCTION

This report provides a Building Code of Australia (BCA) 2019 assessment of the proposed alterations and additions to the existing building, located at 49K French Ave, Frenchs Forest.

This report provides a BCA assessment table in Section 3.0 that summarises the identified non-compliance matters and offers specific recommendations.

2.1 Basis of Report

The key basis of this report is to address compliance with the Building Code of Australia (BCA) 2019. The scope of services is limited to Sections C – “Fire Resistance”, Section D – “Access & Egress”, Section E – “Services & Equipment”, Section F “Health and Amenity” and Section J “Energy Efficiency”

This report is based on a desktop assessment of the proposed plans, with specific reference to the following:

- Architectural plans prepared by Become – Project 19007, Drawing Numbers:

Drawing Title	Drawing No.	Revision	Dated
Existing / Demolition Basement Floor Plan	DA-050	B	25.10.19
Existing / Demolition Ground Floor Plan	DA-051	B	25.10.19
Existing / Demolition First Floor Plan	DA-052	B	25.10.19
Proposed Basement Floor Plan	DA-100	B	25.10.19
Proposed Ground Floor Plan	DA-101	B	25.10.19
Proposed Basement Floor Plan	DA-102	B	25.10.19

- The Building Code of Australia 2019 prepared by the Australian Building Codes Board.
- The Guide to the BCA 2019, prepared by the Australian Building Codes Board.

2.2 Purpose of the Report

The purpose of this report is to assess the following:

- Assessment under the current Building Code of Australia 2019 and list any departures from the BCA 2019.
- Provide recommendations to address identified non-compliances, and/or identify potential alternative solutions

2.3 Limitations of the Report

This report does not assess the following:

- Access and facilities for people with disabilities is addressed however compliance with Disability Discrimination Act 1992 (DDA) is outside the scope of this report. It should be noted that BCA compliance does not necessarily meet the requirements of the Disability Discrimination Act (DDA).
- Reporting on hazardous materials, OH&S matters or site contamination
- Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building
- Consideration of any fire services operations (including hydraulic, electrical or other systems)
- Assessment of plumbing and drainage installations, including stormwater
- Assessment of mechanical plant operations, electrical systems or security systems
- Heritage significance
- Consideration of energy or water authority requirements

- Consideration of Council's local planning policies
- Environmental or planning issues
- Requirements of statutory authorities
- Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out)
- Sections G, H or I of the BCA are not considered.
- Provision of any construction approvals or certification under Part 4A or Part 5 of the Environmental Planning & Assessment Act 1979.
- Glazing, shading, lighting calculations and the like required by Section J of the BCA not been carried out
- This assessment excludes BCA clauses D3.0-3.12 (Inclusive), F2.4 and E3.6. Refer to separate access consultant's report.
- BCA 2019 does not directly specify slip-resistance classification(s) for all *accessible paths of travel*; however, we highlight the need under AS 1428.1-2009 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.

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3.0 BCA ASSESSMENT DATA

The following data is provided in respect to review of the building under the Building Code of Australia 2019 in respect to the compliance assessment of the proposed alterations to the existing building, located at 49K French Ave, Frenchs Forest.

BCA Building Classifications:	Basement: Class 7a (carpark) Ground Floor: Class 6 (cancer care centre) First Floor: Class 5 (office).
Building rise in storeys:	3 (determined in accordance with C1.2 of the BCA).
Type of Construction:	B (determined in accordance with C1.1 of the BCA)
General Floor area limitations:	<5,000m ² & <30,000m ³
Effective Height (m):	<12m
Climate Zone (Thermal Design)	5 (determined in accordance with ABCB climate map, dated Sept, 2019)





4.0 BCA ASSESSMENT SUMMARY

The following table details the BCA compliance of the assessed design.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
SPECIFICATION A1.1 FIRE PROTECTED TIMBER					
Specification A1.1 has been introduced to allow fire-protective timber construction utilising a non-combustible fire protective covering for buildings not exceeding 25m which are sprinkler protected.					
2.1 General requirements			X		Not applicable. Not proposed to be constructed as fire protected timber.
2.2 Massive Timber					Not applicable. Not proposed to be constructed as fire protected timber.
SECTION B STRUCTURE					
Part B1: Structural Provisions				X	<ul style="list-style-type: none">❖ Structural engineer to provide structural drawings/details and accompanying structural design certificate to demonstrate that all building elements will comply with Section B of the BCA.❖ If the building is in a flood hazard area it is required to comply with BCA clause B1.6. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification (and structural details)</i>
SECTION C FIRE RESISTANCE					
Part C1 - Fire Resistance & Stability					
C1.1 Type of Construction Required				X	Refer to Spec C1.1 and Attachment B for Schedule of FRLs for Type B Construction. These are to be certified by the architect and structural engineer as having been met, based on the proposed design.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS																																																																																																																																						
					<p>Table 4 Type B construction: FRL of building elements</p> <table><tr><th rowspan="3">Building element</th><th colspan="3">Class of building—FRL: (in minutes)</th></tr><tr><th colspan="3">Structural adequacy/Integrity/Insulation</th></tr><tr><th>2, 3 or 4 part</th><th>5, 7a or 9</th><th>6</th></tr><tr><td colspan="4">EXTERNAL WALL (including any column and other building element incorporated within it) or other element, where the distance from any <i>fire-source feature</i> to which it is exposed is—</td></tr><tr><td colspan="4">For <i>loadbearing</i> parts—</td></tr><tr><td>less than 1.5 m</td><td>90/ 90/ 90</td><td>120/120/120</td><td>180/180/180</td></tr><tr><td>1.5 to less than 3 m</td><td>90/ 60/ 30</td><td>120/ 90/ 60</td><td>180/120/ 90</td></tr><tr><td>3 to less than 9 m</td><td>90/ 30/ 30</td><td>120/ 30/ 30</td><td>180/ 90/ 60</td></tr><tr><td>9 to less than 18 m</td><td>90/ 30/—</td><td>120/ 30/—</td><td>180/ 60/—</td></tr><tr><td>18 m or more</td><td>—/—/—</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td colspan="4">For non-<i>loadbearing</i> parts—</td></tr><tr><td>less than 1.5 m</td><td>—/ 90/ 90</td><td>—/120/120</td><td>—/180/180</td></tr><tr><td>1.5 to less than 3 m</td><td>—/ 60/ 30</td><td>—/ 90/ 60</td><td>—/120/ 90</td></tr><tr><td>3 m or more</td><td>—/—/—</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td colspan="4">EXTERNAL COLUMN not incorporated in an <i>external wall</i>, where the distance from any <i>fire-source</i> is exposed is—</td></tr><tr><td colspan="4">For <i>loadbearing</i> columns—</td></tr><tr><td>less than 18 m</td><td>90/—/—</td><td>120/—/—</td><td>180/—/—</td></tr><tr><td>18 m or more</td><td>—/—/—</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td colspan="4">For non-<i>loadbearing</i> columns—</td></tr><tr><td>For non-<i>loadbearing</i> columns—</td><td>—/—/—</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td>COMMON WALLS and FIRE WALLS—</td><td>90/ 90 / 90</td><td>120/120/120</td><td>180/180/180</td></tr><tr><td colspan="4">INTERNAL WALLS—</td></tr><tr><td colspan="4"><i>Fire-resisting</i> lift and stair <i>shafts—</i></td></tr><tr><td><i>Loadbearing</i></td><td>90/ 90/ 90</td><td>120/120/120</td><td>180/120/120</td></tr><tr><td colspan="4"><i>Fire-resisting</i> stair <i>shafts—</i></td></tr><tr><td>Non-<i>loadbearing</i></td><td>—/ 90/ 90</td><td>—/120/120</td><td>—/120/120</td></tr><tr><td colspan="4">Bounding <i>public corridors</i>, public lobbies and the like—</td></tr><tr><td><i>Loadbearing</i></td><td>60/ 60/ 60</td><td>120/—/—</td><td>180/—/—</td></tr><tr><td>Non-<i>loadbearing</i></td><td>—/ 60/ 60</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td colspan="4">Between or bounding <i>sole-occupancy units—</i></td></tr><tr><td><i>Loadbearing</i></td><td>60/ 60/ 60</td><td>120/—/—</td><td>180/—/—</td></tr><tr><td>Non-<i>loadbearing</i></td><td>—/ 60/ 60</td><td>—/—/—</td><td>—/—/—</td></tr><tr><td>OTHER LOADBEARING INTERNAL WALLS and COLUMNS—</td><td>60/—/—</td><td>120/—/—</td><td>180/—/—</td></tr><tr><td>ROOFS</td><td>—/—/—</td><td>—/—/—</td><td>—/—/—</td></tr></table> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification (and structural details)</p>	Building element	Class of building—FRL: (in minutes)			Structural adequacy/Integrity/Insulation			2, 3 or 4 part	5, 7a or 9	6	EXTERNAL WALL (including any column and other building element incorporated within it) or other element, where the distance from any <i>fire-source feature</i> to which it is exposed is—				For <i>loadbearing</i> parts—				less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	1.5 to less than 3 m	90/ 60/ 30	120/ 90/ 60	180/120/ 90	3 to less than 9 m	90/ 30/ 30	120/ 30/ 30	180/ 90/ 60	9 to less than 18 m	90/ 30/—	120/ 30/—	180/ 60/—	18 m or more	—/—/—	—/—/—	—/—/—	For non- <i>loadbearing</i> parts—				less than 1.5 m	—/ 90/ 90	—/120/120	—/180/180	1.5 to less than 3 m	—/ 60/ 30	—/ 90/ 60	—/120/ 90	3 m or more	—/—/—	—/—/—	—/—/—	EXTERNAL COLUMN not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source</i> is exposed is—				For <i>loadbearing</i> columns—				less than 18 m	90/—/—	120/—/—	180/—/—	18 m or more	—/—/—	—/—/—	—/—/—	For non- <i>loadbearing</i> columns—				For non- <i>loadbearing</i> columns—	—/—/—	—/—/—	—/—/—	COMMON WALLS and FIRE WALLS—	90/ 90 / 90	120/120/120	180/180/180	INTERNAL WALLS—				<i>Fire-resisting</i> lift and stair <i>shafts—</i>				<i>Loadbearing</i>	90/ 90/ 90	120/120/120	180/120/120	<i>Fire-resisting</i> stair <i>shafts—</i>				Non- <i>loadbearing</i>	—/ 90/ 90	—/120/120	—/120/120	Bounding <i>public corridors</i> , public lobbies and the like—				<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	Non- <i>loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	Between or bounding <i>sole-occupancy units—</i>				<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	Non- <i>loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	OTHER LOADBEARING INTERNAL WALLS and COLUMNS—	60/—/—	120/—/—	180/—/—	ROOFS	—/—/—	—/—/—	—/—/—
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C1.2 Calculation of Rise In Storeys			X		Refer to Section 2.0 of this report for further details																																																																																																																																						
C1.3 Buildings of Multiple Classifications			X		Informational. Type B construction based on upper level being Class 5.																																																																																																																																						
C1.4 Mixed Types of Construction			X		Not applicable. Type B construction only.																																																																																																																																						
C1.5 Two Storey Class 2, 3 or 9c buildings			X		Not applicable. Not a Class 2, 3 or 9c building.																																																																																																																																						
C1.6 Class 4 Parts			X		Not applicable. No Class 4 part.																																																																																																																																						
C1.7 Open Spectator Stands			X		Not applicable. Not spectator stand.																																																																																																																																						
C1.8 Lightweight Construction			X		Where it is proposed to use <i>lightweight construction</i> (within the meaning of the BCA) this must comply with Specification C1.8 if it is used in a wall system— (i) that is required to have an FRL; or (ii) for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor																																																																																																																																						





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>including a non fire-isolated passageway or non fire-isolated ramp.</p> <p>If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if —</p> <ul style="list-style-type: none">(i) 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(ii) 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. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C1.9 Non - combustible building elements				X	<p>(a) In a building <i>required</i> to be of B construction, the following building elements and their components must be <i>non-combustible</i>:</p> <ul style="list-style-type: none">(i) <i>External walls</i> and <i>common walls</i>, including all components incorporated in them including the facade covering, framing and insulation.(ii) The flooring and floor framing of lift pits.(iii) <i>Non-loadbearing internal walls</i> where they are <i>required</i> to be <i>fire-resisting</i>. <p>(b) 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—</p> <ul style="list-style-type: none">(i) a building required to be Type B construction, subject C2.10, in a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys. <p>(c) A <i>loadbearing internal wall</i> and a <i>loadbearing fire wall</i>, including those that are part of a <i>loadbearing shaft</i>, must comply with Specification C1.1.</p> <p>(d) The requirements of (a) and (b) do not apply to gaskets, caulking, sealants, termite management systems, glass including laminated glass, thermal breaks associated with glazing systems, damp-proof courses.</p> <p>(e) The following materials may be used wherever a <i>non-combustible</i> material is <i>required</i>:</p> <ul style="list-style-type: none">(i) Plasterboard.(ii) Perforated gypsum lath with a normal paper finish.(iii) Fibrous-plaster sheet.(iv) Fibre-reinforced cement sheeting.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(v) Pre-finished metal sheeting having a <i>combustible</i> surface finish not exceeding 1 mm thickness and where the <i>Spread-of-Flame Index</i> of the product is not greater than 0.</p> <p>(vi) Sarking type materials that do not exceed 1mm in thickness and have a Flammability Index not greater than 5.</p> <p>(vii) Bonded laminated materials where—</p> <p>(A) each lamina, including any core, is <i>non-combustible</i>; and</p> <p>(B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2mm; and</p> <p>(C) the <i>Spread-of-Flame Index</i> and the <i>Smoke-Developed Index</i> of the bonded laminated material as a whole do not exceed 0 and 3 respectively.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
C1.10 Fire Hazard Properties				X	<p>(a) The fire hazard properties of the following internal linings, materials and assemblies must comply with Specification C1.10 by way of test reports / certificates provided from a <i>registered testing authority</i> (within the meaning of the BCA):</p> <p>(i) Floor linings and floor coverings.</p> <p>(ii) Wall linings and ceiling linings.</p> <p>(iii) Air-handling ductwork.</p> <p>(iv) Sarking type materials.</p> <p>(v) Attachments to floors, ceilings, internal walls and the internal linings of external walls.</p> <p>(vi) Other materials including insulation materials other than sarking type materials.</p> <p>(a) The requirements of (a) do not apply to a material or assembly if it is –</p> <p>(i) plaster, cement render, concrete, terrazzo, ceramic tile or the like; or</p> <p>(ii) a fire protective covering; or</p> <p>(iii) a timber framed window; or</p> <p>(iv) a solid timber handrail or skirting; or</p> <p>(v) a timber-faced door; or</p> <p>(vi) an electrical switch, socket-outlet, cover plate or the like; or</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(vii) a material used –</p> <p>(A) a roof insulating material applied in continuous contact with a substrate; or</p> <p>(B) an adhesive; or</p> <p>(C) a damp-proof course, flashing, caulking, sealing, ground moisture barrier or the like; or</p> <p>(viii) a paint, varnish, lacquer or similar finish, other than nitro-cellulose lacquer; or</p> <p>(ix) a face plate or neck adaptor of supply and return air outlets of an air handling system; or</p> <p>(x) a face plate or diffuser plate of light fitting and emergency exit signs and associated electrical wiring and electrical components; or</p> <p>(xi) a joinery unit, cupboard, shelving or the like; or</p> <p>(xii) Timber treads, risers, landings and associated supporting framework installed in accordance with D2.25 where the Spread-of-Flame Index and the Smoke-Developed Index of the timber does not exceed 9 and respectively; or</p> <p>(xiii) Any other material that does not significantly increase the hazards of the fire.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C1.11 Performance of External Walls in Fire			X		Not applicable. External walls are not tilt up panels.
C1.12 ****			X		Clause deleted.
C1.13 Fire protected timber: concession			X		Not applicable. No fire protected timber proposed.
C1.14 Ancillary elements			X		Not applicable. Internal alteration only.
Part C2 - Compartmentation & Separation					
C2.1 Application of Part			X		Informational C2.2, C2.3 and C2.4 do not apply to a carpark provided with a sprinkler system (other than a FPAA101D or FPAA101H system complying with Specification E1.5, an open-deck carpark or an open spectator stand.
C2.2 General Floor Area & Volume Limitations	X				The size of the fire compartment or atrium in the proposed Class 5, 6, 7, 9 building does not exceed the relevant maximum floor area and maximum volume set out in Table C2.2 & C2.5,






BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C2.3 Large Isolated Buildings			X		Not applicable. Not a large isolated building.
C2.4 Requirements for Open Space			X		Not applicable. Not a large isolated building.
C2.5 Class 9a & 9c Buildings			X		Not applicable. Not a Class 9a & 9c building.
C2.6 Vertical Separation of openings in external walls			X		Not applicable. Not Type A construction.
C2.7 Separation by Fire Walls			X		Not applicable. No fire walls are proposed or required.
C2.8 Separation of Classifications in the same storey			X		Not applicable. No fire walls are proposed or required.
C2.9 Separation of Classifications in different storeys			X		Not applicable. No Class 2, 3 or 4 parts.
C2.10 Separation of lifts shafts			X		Not applicable. No lift shafts proposed.
C2.11 Stairways and lifts in one shaft			X		Not applicable. No lift shafts proposed.
C2.12 Separation of Equipment				X	<p>(a) Equipment other than that described in (b) and (c) must be separated from the remainder of the building with construction complying with (d), if that equipment comprises –</p> <ul style="list-style-type: none"> (i) lift motors and lift control panels or (ii) Emergency generators used to sustain emergency equipment operating in the emergency mode; or (iii) Central smoke control plant; or (iv) Boilers; or (v) A battery system installed in that building that has a total voltage of 12 volts or more and a storage capacity of 200kWh or more. <p>(b) Equipment need not be separated in accordance with (a) if the equipment comprises-</p> <ul style="list-style-type: none"> (i) Smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification E2.2b; or (ii) Stair pressurizing equipment installed in compliance with AS 1668.1; or (iii) A lift installation without a machine room; or





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(iv) Equipment otherwise adequately separated from the remainder of the building.</p> <p>(c) Separation of onsite fire pumps must comply with the requirements of AS2419.1.</p> <p>(d) Separating construction must have –</p> <p>(i) Except as provided by (ii) –</p> <p>(A) An FRL is required by Specification C1.1, but not less than 120/120/120; and</p> <p>(B) Any doorway protected with a -/120/30 self-closing fire door; or</p> <p>(ii) When separating a lift shaft and lift motor room, an FRL not less than 120/-/-.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification.</p>
C2.13 Electrical Supply				X	Not applicable. No electricity supply in accordance with this provision proposed.
C2.14 Public corridors in Class 2 & 3 Buildings			X		Not applicable. No Class 2 or 3 parts.
Part C3 - Protection of Openings					
C3.1 Application of Part			X		Not applicable. Openings are not modified.
C3.2 Protection of openings in external walls			X		<p>Not applicable. New openings are located more than 3m from the side boundary.</p> 
C3.3 Separation of external walls and associated openings in different fire compartments			X		Not applicable. No different fire compartments on the same level.
C3.4 Acceptable Methods of Protection			X		Not applicable.
C3.5 Doorways in Fire Walls			X		Not applicable. No fire walls proposed or required.
C3.6 Sliding Fire Doors			X		Not applicable. No fire walls proposed or required.







BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C3.7 Protection of Doorways in horizontal exits			X		Not applicable. No horizontal exits are proposed or required.
C3.8 Openings in fire isolated exits			X		Not applicable. No fire walls proposed or required.
C3.9 Service Penetrations in fire-isolated exits			X		Not applicable. No fire-isolated exits proposed or required.
C3.10 Openings in Fire isolated lift shafts				X	<p>(a) 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-</p> <p>(i) comply with AS 1735.11, and</p> <p>(ii) are set to remain closed except when discharging or receiving, passengers, goods or vehicles.</p> <p>(b) 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 35,000mm² in area.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3.11 Bounding Construction: Class 2, 3 and 4 Parts.			X		Not applicable. No Class 2, 3 or 4 parts.
C3.12 Openings in floors and ceilings for services				X	<p>Where services pass through a floor which is required to achieve a FRL or a ceiling required to have a RISF, the service must be enclosed within a fire resisting shaft or fire protected in accordance with Clause C3.15.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3.13 Openings in Shafts			X		Not applicable. Not Type A construction.
C3.15 Openings for Service Installations				X	<p>Where services pass through an element which is required to achieve a FRL (other than an external wall or roof), the service must be fire stopped by a tested system.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3.16 Construction Joints				X	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 identical with a prototype tested in accordance with AS 1530.4 to achieve the required FRL.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>The requirements above do not apply where joints, spaces and the like between fire protected timber elements are provided with cavity barriers in accordance with Specification C1.13.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>C3.17</p> <p>Columns protected in lightweight construction to achieve an FRL</p>			X		<p>Any 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 the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of construction which has achieved the required FRL or resistance to the incipient spread of fire.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
SECTION D					
ACCESS & EGRESS					
Part D1 - Provision for Escape					
<p>D1.1</p> <p>Application of Part</p>			X		Information clause only.
<p>D1.2</p> <p>Number of Exits required</p>		X			<p>(a) All buildings — Every building must have at least one exit from each storey.</p> <p>(b) Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to—</p> <p>(i) an exit; or</p> <p>(ii) at least 2 exits, if 2 or more exits are required.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D1.3</p> <p>When Fire Isolated exits are required</p>			X		The central stairway is not required to be fire-isolated.
<p>D1.4</p> <p>Exit Travel Distances</p>		X			<p>Class 5, 6, 7, 8 or 9 buildings — Subject to (d), (e) and (f)—</p> <p>(i) 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</p> <p>(ii) 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 open space may be increased to 30 m.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> The distance to a point of choice on Ground Floor is greater than 20m, being 21.9m 
D1.5 Distance Between Alternative Exits		X			<p>Exits that are required as alternative means of egress must be—</p> <ol style="list-style-type: none"> 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 not less than 9 m apart; and not more than 60 m apart; and located so that alternative paths of travel do not converge such that they become less than 6 m apart. <p>The exits are located less than 9m apart, being 5.5m.</p> 



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<i>It is recommended that this is addressed by a Fire Engineered Performance Solution.</i>
D1.6 Dimensions of Exits and paths of Travel to Exits				X	<p>In a required exit or path of travel to an exit—</p> <p>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 1980 mm; and</p> <p>the unobstructed width of each exit or path of travel to an exit, except for doorways, must be not less than—</p> <ul style="list-style-type: none">(i) 1 m; 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; and(iii) in a public corridor in a Class 9c aged care building, notwithstanding (c) and (d)—<ul style="list-style-type: none">(A) 1.5 m; and(B) 1.8 m for the full width of the doorway, providing access into a sole-occupancy unit or communal bathroom; and <p>the unobstructed width of a doorway must be not less than—</p> <ul style="list-style-type: none">(iv) the unobstructed width of each exit provided to comply with (b), (c), (d) or (e), minus 250 mm; or <p>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 (b)(ii) or (f)(i); and</p> <p>the required width of a stairway or ramp must—</p> <ul style="list-style-type: none">(i) be measured clear of all obstructions such as handrails, projecting parts of balustrades or other 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. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D1.7 Travel via Fire Isolated Stairs			X		Not applicable. Central stairway is not required to be fire-isolated.
D1.8 External Stairways or ramps in lieu of Fire Isolated Stairs			X		Not applicable. No external stairways are proposed in lieu of a FIS.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D1.9 Travel by non-fire-isolated stairs	X				<p>(a) 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.</p> <p>(b) 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.</p> <p>(c) 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—</p> <p>(i) 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</p> <p>(ii) 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.</p>
D1.10 Discharge from Exits				X	<p>(a) 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.</p> <p>(b) 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—</p> <p>(i) the minimum width of the required exit;</p> <p>(ii) or 1 m,</p> <p>whichever is the greater.</p> <p>(c) 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—</p> <p>(i) 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 D3; or</p> <p>(ii) a stairway complying with the Deemed-to-Satisfy Provisions of the BCA.</p> <p>(d) The discharge point of alternative exits must be located as far apart as practical.</p> <p>The path of travel to the road from open space is existing.</p>
D1.11 Horizontal Exits			X		Not applicable. No horizontal exit are proposed or required.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D1.12 Non-required stairways, ramps or escalators			X		Not applicable. All stairways and ramps are <i>required</i> .
D1.13 Number of Persons Accommodated Note NSW Table D1.13 Area per person according to use			X		<p>Informational.</p> <p>For the purpose 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—</p> <p>(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 D1.13 according to the use of that part, excluding spaces set aside for—</p> <p>(i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and</p> <p>(ii) service ducts and the like, sanitary compartments or other ancillary uses; or</p> <p>(b) reference to the seating capacity in an assembly building or room; or</p> <p>(c) any other suitable means of assessing its capacity.</p> <p><i>Refer NSW Table D1.13 to calculate area per person according to use.</i></p>
D1.14 Measurement of Distances			X		<p>Informational</p> <p>The nearest part of an exit means in the case of—</p> <p>(a) a fire-isolated stairway, fire-isolated passageway, or fire-isolated ramp, the nearest part of the doorway providing access to them; and</p> <p>(b) a non-fire-isolated stairway, the nearest part of the nearest riser; and</p> <p>(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</p> <p>(d) a doorway opening to a road or open space, the nearest part of the doorway; and</p> <p>(e) a horizontal exit, the nearest part of the doorway.</p>
D1.15 Method of Measurement			X		<p>Informational</p> <p>The following rules apply:</p> <p>(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 of the floor of the room to the nearest part of the doorway leading from it, together with the distance from the part of the doorway to the single required exit or point from which travel in different directions to 2 required exits is available.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) Subject to (d), the distance from the doorway of a sole occupancy unit in a Class 2 or 3 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.</p> <p>(c) Subject to (d), the distance between exits is measured in a straight line between the nearest parts of those exits.</p> <p>(d) Only the shortest distance is taken along a corridor, hallway, external balcony or other path of travel that curves or changes direction.</p> <p>(e) If more than one corridor, hallway, or other internal path of travel connects required exits, for the purposes of D1.5(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 D1.4.</p> <p>(f) If a wall (including a demountable internal wall) that does not bound –</p> <p>(i) A room; or</p> <p>(ii) A corridor, hallway or the like, causes a change in direction in proceeding to a required exit, the distance is measured along the path of travel past the wall.</p> <p>(iii) If permanent fixed seating is provided, the distance is measured along the path of travel between the rows of seats.</p> <p>(iv) 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, along the slope of the ramp, together with the distance connecting those lines across any intermediate landing.</p>
D1.16 Plant Rooms and lift Motor Rooms: Concession			X		Not applicable. No ladders are proposed to plant and lift motor rooms.
D1.17 Access to lift pits			X		Not applicable. No lift pits proposed.
Part D2 - Construction of Exits					
D2.1 Application of Part			X		Informational.
D2.2 Fire-Isolated stairways and ramps			X		Not applicable. Central stairway is not required to be fire-isolated.
D2.3 Non-fire Isolated stairways and ramps			X		The central non-fire-isolated stairway is existing.
D2.4			X		Not applicable. Stairway is not required to be fire-isolated.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Separation of Rising and Descending Stairs					
D2.5 Open Access ramps and balconies			X		Not applicable. No open access ramps and balconies proposed. m
D2.6 Smoke Lobbies			X		Not applicable. No smoke lobbies are required by D1.7
D2.7 Installations in Exits and Paths of Travel				X	<p>(a) 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.</p> <p>(b) 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, lobby or the like leading to a required exit.</p> <p>(c) Gas or other fuel services must not be installed in a required exit</p> <p>(d) Services or equipment comprising –</p> <ul style="list-style-type: none">(i) Electricity meters, distribution boards or cuts; or(ii) Central telecommunications distribution boards or equipment; or(iii) Electrical motors or other motors service equipment in the building, <p>May be installed in –</p> <ul style="list-style-type: none">(iv) A required exit, except for fire-isolated exits specified in (a); or(v) In any corridor, hallway, lobby or the like leading to a required exit, <p>If the services or equipment are enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure</p> <p>(e) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with;</p> <ul style="list-style-type: none">(i) A lighting, detection, or pressurization system serving the exit; or(ii) A security, surveillance or management system serving the exit; or(iii) An intercommunication system or an audible or visual alarm system in accordance with D2.22; or(iv) The monitoring of hydrant or sprinkler isolating valves.





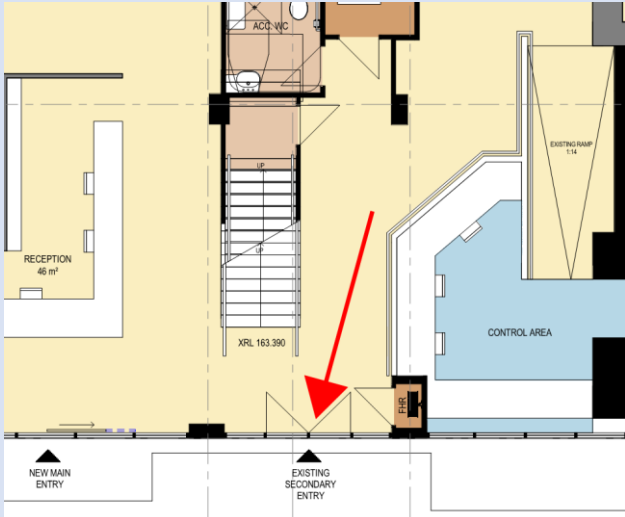
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D2.8 Enclosure of Space Under Stairs and ramps				X	Not applicable. No space under stairs are proposed to be enclosed.
D2.9 Width of Stairs			X		Not applicable. No required stairway or ramp exceeds 2 m in width.
D2.10 Pedestrian Ramps			X		Not applicable. No pedestrian ramps are proposed.
D2.11 Fire-Isolated Passageways			X		Not applicable. No fire-isolated passageways are proposed or required.
D2.12 Roof as Open Space			X		Not applicable. No exit discharges to the roof of a building.
D2.13 Goings & Risers			X		Not applicable. Stairways are existing.
D2.14 Landings			X		Not applicable. Stairways are existing.
D2.15 Thresholds			X		Not applicable. Floor levels are not proposed to be modified.
D2.16 Balustrades and other Barriers Note NSW D2.16			X		Not applicable. No balustrades are proposed to be provided.
D2.17 Handrails			X		Not applicable. No handrails are proposed or required.
D2.18 Fixed Platforms, walkways and ladders			X		Not applicable. No platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier is proposed.
D2.19 Doorways & Doors	X				<p>A doorway serving as a required exit or forming part of a required exit –</p> <ul style="list-style-type: none"> (i) Must not be fitted with a revolving door; and (ii) Must not be fitted with a roller shutter or tilt-up door unless – <ul style="list-style-type: none"> (A) It serves a Class 6, 7 or 8 building or part with a floor area not more than 200m²; and (B) The doorway is the only required exit from the building or part; and (C) It is held in the open position while the building or part is lawfully occupied; and (iii) Must not be fitted with a sliding door unless –





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(A) It leads directly to a road or open space; and</p> <p>(B) The door is able to be opened manually under a force of not more than 110 N; and</p> <p>(iv) If fitted with a door which is power-operated –</p> <p>(A) It must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and</p> <p>(B) 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.</p> <p>(f) A power-operated door in a path of travel to a required exit must be able to open manually under a force of not more than 110 N if there is a malfunction or failure of the power source.</p>
D2.20 Swinging Doors		X			<p>A swinging door in a required exit or forming part of a required exit –</p> <p>(a) Must not encroach –</p> <p>(i) At any part of its swing by more than 500mm of the required width (including any landings) of a required –</p> <p>(A) Stairway; or</p> <p>(B) Ramp; or</p> <p>(C) Passageway,</p> <p>If it is likely to impede the path of travel of the people already using the exit; and</p> <p>(ii) When fully open, by more than 100 mm on the required width of the required exit, and</p> <p>The measurement of encroachment in each case is to include door handles or other furniture or attachments to the door; and</p> <p>(b) Must swing in the direction of egress unless</p> <p>(i) It serves a building part with a floor area not more than 200m², it is the only required exit from the building part and it is fitted with a device for holding it in the open position; or</p> <p>(ii) It serves a sanitary compartment or airlock (in which case it may swing in either direction; and</p> <p>(c) Must not otherwise impede the path or direction of egress.</p>

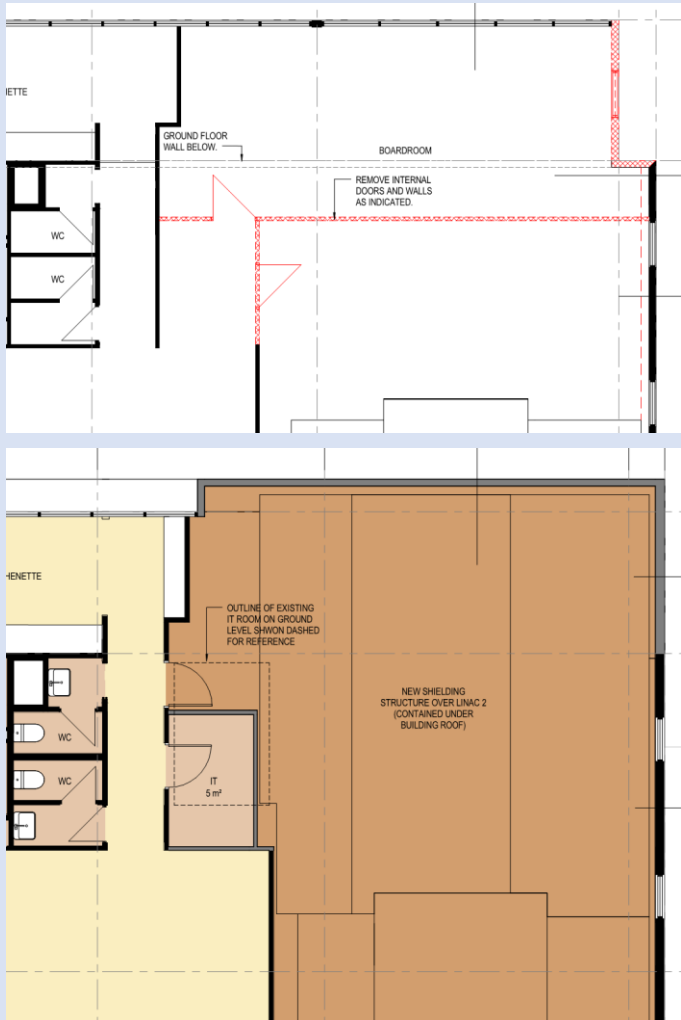


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>The existing doorway is swinging against direction of egress.</p> 
<p>D2.21 Operation of Latch</p>				<p>X</p>	<p>(a) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress by –</p> <p>(i) A single hand downward action or pushing action on a single device which is located between 900mm and 1.1 m from the floor and if serving an area required to be accessible by Part D3 –</p> <p>(A) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and</p> <p>(B) have a clearance between the handle and the back plate or door face at the center grip section of the handle of not less than 35mm and not more than 45mm; or</p> <p>(ii) a single hand pushing action on a single device which is located between 900mm and 1.2m from the door; and</p> <p>(iii) where the latch operation device referred to in (ii) is not located on the door leaf itself –</p> <p>(A) manual controls to power operated doors must be at least 25mm wide, proud of the surrounding surface and located –</p> <p>(aa) not less than 500mm from an internal corner; and</p> <p>(bb) for a hinged door, between 1m and 2m from the door leaf in any position; and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(cc) for a sliding door, within 2m of the doorway and clear of a surface mounted door in the open position.</p> <p>(B) Braille and tactile signage complying with Clause 3 and 6 of Specification D3.6 must identify the latch operation device.</p> <p>(b) The requirements of (a) do not apply to a door that Serves –</p> <p>(A) By operating a fail-safe control switch, not contained within the protective enclosure, to actuate a device to unlock the door; or</p> <p>(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; or</p> <p>(iv) Is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system complying with Specification E1.5, or smoke, or any other detector system deemed suitable in accordance with AS1670.1 installed throughout the building, and is readily operable when unlocked; or</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D2.22 Re-entry from Fire isolated exits			X		Not applicable. No FIS proposed or required.
D2.23 Signs on Doors			X		Not applicable. No FIS proposed or required.
D2.24 Protection of openable windows			X		Not applicable. No window is proposed.
D2.25 Timber stairways concession			X		Not applicable. Timber stairways are not proposed.
Part D3 - Access for People with Disabilities					
Disability (Access to Premises – Buildings) Standards 2010		X			<p>The Standards apply to the new part and any affected part of the building.</p> <p><i>An affected part is:</i></p> <p><i>The principal pedestrian entrance of an existing building that contains a new part; and</i></p> <p><i>Any part of an existing building, that contains a new part, that is necessary to provide a continuous</i></p>

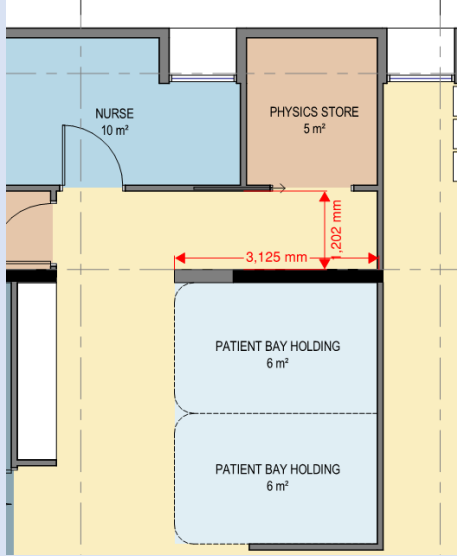
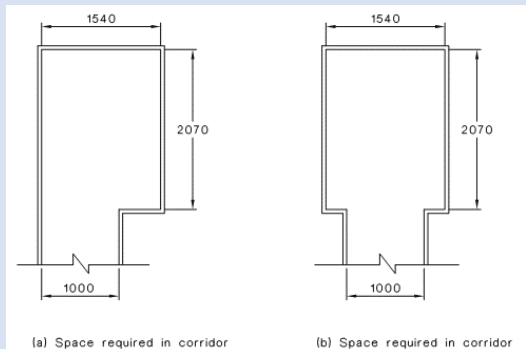


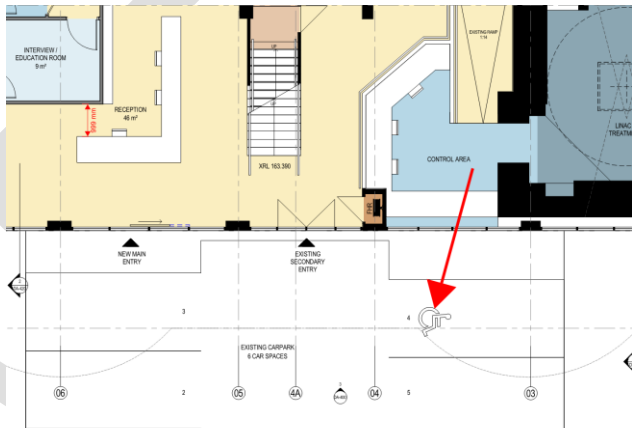
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p><i>accessible path of travel from the entrance to the new part.</i></p> <p>Where the first-floor works require an application for approval (i.e., in isolated constitute <i>exempt development</i> under the Codes SEPP) then a continuous path of travel is required to that part.</p> <p>A continuous path of travel in the subject building would require a passenger lift.</p> <p>The proposed deletion of the boardroom and construction of a plant room would require an approval and therefore under the provisions of the Disability (Access to Premises – Buildings) Standards 2010, a lift will be required.</p>  <p>The omission of the lift will require a Performance Solution.</p>
D3.1 General building access requirements		X			<p>The extent of disabled access required depending upon the building classification, and the features required by</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					AS 1428.1-2009 to ensure such buildings or parts are accessible. All doors that are required for disabled access are to be a minimum of 850mm clear width. This also includes doors into fire stairs.
D3.2 Access to buildings				X	AS 1428.1-2009 compliant accessway: <ul style="list-style-type: none">❖ from the main points of a pedestrian entry at the allotment boundary; and❖ from other accessible buildings on the same allotment; and❖ from any accessible residential carparking space on the allotment. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D3.3 Parts of the building required to be accessible		X			In a building required to be accessible— <ul style="list-style-type: none">(a) every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with—<ul style="list-style-type: none">(i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and(ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and(b) every passenger lift must comply with E3.6; and(c) accessways must have—<ul style="list-style-type: none">(i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and(ii) turning spaces complying with AS 1428.1—<ul style="list-style-type: none">(A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and(B) at maximum 20 m intervals along the accessway; and(d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and(e) a passing space may serve as a turning space; and(f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building—<ul style="list-style-type: none">(i) containing not more than 3 storeys; and



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) with a floor area for each storey, excluding the entrance storey, of not more than 200 m²; and</p> <p>(g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and</p> <p>(h) the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</p> <p><i>Note: BCA 2019 does not directly specify slip-resistance classification(s) for all accessible paths of travel; however, we highlight the need under AS 1428.1-2009 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.</i></p> <p>No turning space is provided at the end of the corridor serving the Physics Store. The width of the turning space, being 1202mm, is less than the 1540mm required by Clause 6.5.3 of AS 1428.1-2009.</p>   <p>(a) Space required in corridor (b) Space required in corridor</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification.
D3.4 Exemptions			X		Access is exempted from the Linac Treatment Rooms.
D3.5 Carparking	X				<p>The number of accessible carparking spaces required in accordance with AS/NZS 2890.6-2009.</p> <p>An existing accessible carparking space is provided on the same allotment on Ground Level.</p>  <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3.6 Signage				X	<p>Braille and tactile signage complying with Specification D3.6 to identify:</p> <ul style="list-style-type: none"> ❖ sanitary facilities; and ❖ a space with hearing augmentation; and ❖ each door required by Clause E4.5 to be provided with an exit sign, inclusive of the requirement to state "EXIT" and "Level" followed by the floor level number on such doors. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3.7 Hearing augmentation			X		Not applicable.
D3.8 Tactile indicators				X	Not applicable. The stairways and ramps are existing and therefore not required to be modified to comply.
D3.9 Wheelchair seating spaces in Class 9b assembly buildings			X		Not applicable. Not a Class 9b building.
D3.10 Swimming Pools			X		Not applicable.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D3.11 Ramps			X		Not applicable. No ramps proposed
D3.12 Glazing on an accessway				X	<p>On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

SECTION E SERVICES & EQUIPMENT

Part E1 - Fire Fighting Equipment

E1.3 Fire Hydrants		X			<p>(a) A hydrant system must be provided to serve a building –</p> <p>(i) Having a total floor area greater than 500m²; and</p> <p>(ii) Where a fire brigade station is –</p> <p>(A) No more than 50 km from the building as measured along roads; and</p> <p>(B) Equipped with equipment capable of utilising a fire hydrant.</p> <p>(b) The fire hydrant system-</p> <p>(i) Must be installed in accordance with AS2419.1, except –</p> <p>Details of the existing fire hydrants are required to assess compliance.</p>
E1.4 Fire Hose Reels	X				Existing fire hose reel locations comply with this clause.
E1.5 Sprinklers			X		Not applicable. Effective height is less than 25m.
E1.6 Portable Fire Extinguishers		X			<p>(a) Portable fire extinguishers must be –</p> <p>(i) Provided as listed in Table E1.6;</p> <p>(ii) For a Class 5 building, provided –</p> <p>(A) To serve the whole Class 5 where one or more internal fire hydrants are installed; or</p> <p>(B) Where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m²,</p> <p>(iii) Subject (b), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>Portable fire extinguishers are required on the architectural plans.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E1.8 Fire Control Centre		X			Not applicable. Effective height is less than 25m.
E1.9 Fire Precautions during construction				X	<p>In a building under construction –</p> <p>(a) not less than one portable 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 / temporary exit; and</p> <p>(b) After the building has reach an effective height of 12m –</p> <p>(i) the required fire hydrants and fire hose reels must be operational on all floor / roof covered storeys, except for the 2 uppermost storeys; and</p> <p>(ii) Any required booster connections must be installed.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E1.10 Provision for Special Hazards			X		Not applicable. Not a special hazard.
Part E2 Smoke Hazard Management					
E2.2 General Requirements (inclusive of Table E2.2a / Table E2.2b & NSW amendments)				X	<p><u>General smoke hazard management requirements</u></p> <p>(a) A building must comply with Table E2.2a as applicable to Class 2 to 9 buildings and Table E2.2b as applicable to Class 6 and 9b buildings such that each separate part complies with the relevant provisions for the classification.</p> <p>(b) An air-handling system which does not form part of a smoke hazard management system in accordance with Table E2.2a or Table E2.2b 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 (such as lobby air supply) must—</p> <p>(i) (i) be designed and installed to operate as a smoke control system in accordance with AS/NZS 1668.1; or</p> <p>(ii) (A) incorporate smoke dampers where the air-handling ducts penetrate any</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>elements separating the fire compartments served; and</p> <p>(B) be 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;</p> <p>and for the purposes of this provision, each sole-occupancy unit in a Class 2 or 3 building is treated as a separate fire compartment.</p> <p>(c) Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with the Section of the Standard.</p> <p>(d) A smoke detection system must be installed in accordance with Clause 6 of Specification E2.2a to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire isolated exits.</p> <p>Smoke Detection in accordance with Specification E2.2 (Clause 4) is required throughout the building.</p> <p>Specifically, a AS 1670.1-2017 smoke detection and alarm system and building occupant warning system in accordance with Clause 7 of Specification E2.2a</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification.</i></p>
E2.3 Provision for Special Hazards			X		Not applicable. Not considered a special hazard.
Part E3 - Lift Installations					
E3.1 Lift installations				X	The passenger lift required by Access to Premises Standards must comply with Specification E3.1
E3.2 Stretcher Facility in Lifts			X		Not applicable. Effective height is less than 12m.
E3.3 Warning Against the use of lifts in Fire				X	Warning signs indicating “ DO NOT USE LIFTS IF THERE IS A FIRE ” shall be displayed near every call button for a passenger lift or group of lifts throughout a building as per E3.3.
E3.4 Emergency Lifts			X		Not applicable. Effective height is less than 25m.
E3.5 Landings				X	Access and egress to and from lift-well landings must comply with the Deemed-to-Satisfy Provisions of Section D.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
E3.6 Facilities for People with Disabilities				X	In an accessible building, every passenger lift must be one of the types specified in Table E3.6a, have accessible features in accordance with Table E3.6b, and not rely on a constant pressure device for its operation if the lift car is fully enclosed. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
E3.7 Fire Service Controls				X	Lifts serving any storey above an effective height of 12m must be provided with a: (a) fire service recall control switch complying with E3.9 (for a group of lifts or a single lift not in a group that serves the storey); and (b) lift car fire drive control switch complying with E3.10 for every lift. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
E3.8 Residential Care Buildings			X		Not applicable. Not a Class 9c residential care building
E3.9 Fire service recall operation switch				X	Information relevant to specific fire service recall control switch requirements. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
E3.10 Lift car fire service drive control switch				X	Information relevant to specific lift car fire service drive control switch requirements. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part E4 - Visibility in an Emergency, Exit signs and Warning Systems					
E4.2 Emergency Lighting Requirements				X	Emergency lighting must be provided throughout the building relevant to the requirements of this clause. Electrical Design Certification must be incorporated into the construction certificate specification
E4.3 Measurement of Distance			X		Distances, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.
E4.4 Design and Operation of Emergency Lighting				X	The emergency lighting system must comply with AS/NZS 2293.1-2005.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
E4.5 Exit Signs				X	<p>An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each—</p> <ul style="list-style-type: none"> (a) door providing direct egress from a storey to— <ul style="list-style-type: none"> (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 E4.2. <p>Electrical design plans and certification must be incorporated into the construction certificate specification</p>
E4.6 Direction Signs (inclusive of NSW E4.6)				X	<p>Where an exit is not readily apparent to persons occupying or visiting the building then directional exit signs must be installed in appropriate positions.</p> <p>Electrical Design Certification must be incorporated into the construction certificate specification and directional exit sign locations must be illustrated on the architectural floor plans</p>
E4.7 Class 2 & 3 Buildings & Class 4 Parts: Exemption			X		Not applicable. Not a Class 2, 3 or 4 building
E4.8 Design & Operation of Exit Signs				X	<p>Exit signs must comply with:</p> <ul style="list-style-type: none"> (a) AS/NZS 2293.1-2005; or (b) For a photoluminescent exit sign, Specification E4.8. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4.9 Emergency Warning & Intercom Systems			X		Not applicable. Effective height less than 25m.
SECTION F					
HEALTH & AMENITY					
Part F1 - Damp & Weatherproofing					





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
F1.0 Deemed -to-Satisfy Provisions			X		Performance Requirements FP1.4, for the prevention of the penetration of water through external wall, must be complied. There are no Deemed -to Satisfy Provisions for this Performance Solution in respect to external walls. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.1 Stormwater Drainage				X	Stormwater drainage must comply with AS/NZS 3500.3-2015. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.4 External above ground membranes			X		Not applicable. No external above ground membranes proposed.
F1.5 Roof coverings				X	A roof must be covered with— (a) concrete roofing tiles complying with AS 2049 and fixed, except in cyclonic areas, in accordance with AS 2050, as appropriate; or (b) terracotta roofing tiles complying with AS 2049 and fixed, except in cyclonic areas, in accordance with AS 2050; or (c) cellulose cement corrugated sheeting complying with AS/NZS 2908.1 and installed in accordance with AS/NZS 1562.2; or (d) metal sheet roofing complying with AS 1562.1; or (e) plastic sheet roofing designed and installed in accordance with AS/NZS 4256 Parts 1, 2, 3 and 5 and AS/NZS 1562.3; or (f) Terracotta, fibre-cement and timber slates and shingles designed and installed to complying with AS 4597 except in cyclonic areas <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.6 Sarking				X	Sarking-type materials used for weatherproofing must comply with AS/NZS 4200.1 and AS 4200.2. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.7 Waterproofing of wet area				X	Wet areas must be waterproofed in accordance with AS 3740-2010 and F1.7 & Table F1.7 of the BCA. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>





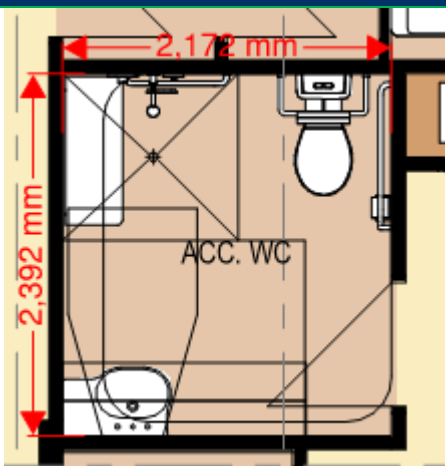
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	N/A or Informational	Compliance Required	COMMENTS
F1.9 Damp-proofing				X	Where a damp-proof course is required, it must consist of a material that complies with AS/NZS 2904-1995; or impervious sheet material in accordance with AS 3660.1-2000 <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.10 Damp-proofing of floors on the ground				X	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 2870-2011 (N/A to areas that do not require weatherproofing – refer specific clause exemptions). <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F1.11 Provision of Floor Wastes			X		Not applicable. No Class 2, 3 or 4 parts.
F1.12 Sub Floor Ventilation			X		Not applicable. No slab floor ventilation.
F1.13 Glazed Assemblies				X	Glazed assemblies within external walls in accordance with AS 2047-1999. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
Part F2 - Sanitary & Other Facilities					
F2.1 Facilities in residential buildings			X		Not applicable. Not a residential building.
F2.2 Calculation of number of occupants and fixtures	X				<ul style="list-style-type: none"> ❖ The number of persons accommodated must be calculated according to D1.13 if it cannot be more accurately determined by other means. ❖ Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females. ❖ In calculating the number of sanitary facilities to be provided under F2.1 and F2.3, a unisex facility required for people with a disability may be counted once for each sex. ❖ For the purposes of this Part, a unisex facility comprises one closet pan, one washbasin and means for the disposal of sanitary towels.
F2.3 Facilities for Class 3 to 9 Buildings	X				(a) Except where permitted by (b), (c), (f), F2.4(a) and F2.4(b), separate sanitary facilities for males and females must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Table F2.3.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex.</p> <p>(c) 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.</p> <p>(d) Adequate means of disposal of sanitary towels must be provided in sanitary facilities for use by females.</p>
F2.4 Facilities for People with Disabilities				X	<p>In a building required to be accessible— SA F2.4(a)</p> <p>(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and</p> <p>(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and</p> <p>(c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and</p> <p>(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and</p> <p>(e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and</p> <p>(f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and</p> <p>(g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and</p> <p>(h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and</p> <p>(i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D3.3(f) to be provided with a passenger lift or ramp complying with AS 1428.1.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					
F2.5 Construction of Sanitary Compartments				X	<p>Other than in an early childhood centre, sanitary compartments must have:</p> <ul style="list-style-type: none"> (a) Doors and partitions that separate adjacent compartments; and (b) the door to a fully enclosed sanitary compartment must open outwards, or slide, or be removable from outside of the compartment, unless there is a clear space of at least 1.2m between the closet pan within the compartment and the doorway.
F2.6 Interpretation: Urinals and washbasins			X		Information relevant to urinal and washbasin design.
F2.7 Microbial Control Note NSW F2.7 (Clause Deleted)			X		N/A Clause Deleted in NSW.
F2.8 Waste Management					Information relevant to requirements for Class 9a & 9c.
F2.9 Accessible adult change facilities			X		Not applicable.
Part F3 Room Sizes					
F3.1 Height of Rooms and other spaces				X	<p>The ceiling height must be not less than in a Class 5, 6, 7 or 8 building—</p> <ul style="list-style-type: none"> (i) except as allowed in (ii) and (f) — 2.4 m; and (ii) a corridor, passageway, or the like — 2.1 m; and <p>In any building—</p> <ul style="list-style-type: none"> (i) a bathroom, shower room, sanitary compartment, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> (ii) a commercial kitchen & required accessible change room facility — 2.4 m; and (iii) 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.
Part F4 - Light & Ventilation					
F4.1 Provision of natural light			X		Not applicable. Not a Class 2, 3 or 9 building.
F4.2 Methods and extent of natural lighting			X		Not applicable. Not a Class 2, 3 or 9 building.
F4.3 Natural light borrowed from adjoining room			X		Not applicable. Not a Class 2, 3 or 9 building.
F4.4 Artificial lighting				X	<p>Artificial lighting in accordance with AS/NZS 1680.0-2009 to specific building areas.</p> <p>Electrical Design Certification must be incorporated into the construction certificate specification</p>
F4.5 Ventilation of Rooms				X	<p>All rooms to be provided with Clause F4.6 compliant natural ventilation OR a mechanical ventilation or air-conditioning system complying with AS 1668.2-2012.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4.6 Natural Ventilation			X		<p>(a) Natural ventilation provided in accordance with F4.5(a) must consist of permanent openings, windows, doors or other devices which can be opened—</p> <ul style="list-style-type: none"> (i) with ventilating area not less than 5% of the floor area of the room required to be ventilated; and (ii) open to— <ul style="list-style-type: none"> (A) a suitably sized court, or space open to the sky; or (B) an open verandah, carport, or the like; or (C) an adjoining room in accordance with F4.7. <p>(b) The requirements of (a)(i) do not apply to a Class 8 electricity network substation.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4.7			X		Natural ventilation to a room may come through a window, opening, ventilating door or other device from an adjoining room (including an enclosed verandah) if





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Ventilation borrowed from adjoining room					<p>both rooms are within the same sole-occupancy unit or the enclosed verandah is common property, and—</p> <p>(a) in a Class 2 building, a sole-occupancy unit of a Class 3 building or Class 4 part of a building—</p> <p>(i) the room to be ventilated is not a sanitary compartment; and</p> <p>(ii) the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and</p> <p>(iii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms; and</p> <p>(b) in a Class 5, 6, 7, 8 (except a Class 8 electricity network substation) or 9 building—</p> <p>(i) the window, opening, door or other device has a ventilating area of not less than 10% of the floor area of the room to be ventilated, measured not more than 3.6 m above the floor; and</p> <p>(ii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 10% of the combined floor areas of both rooms; and</p> <p>(c) the ventilating areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4.8 Restriction of position of water closets and urinals	X				<p>Rooms containing closet pans or urinals must not open directly into kitchen / pantry areas, and a workplace normally occupied by more than one person.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4.9 Airlocks			X		Not applicable. An Airlock is not required.
F4.11 Carparks				X	<p>Every storey of a carpark (except an open deck carpark) must have:</p> <p>(a) a system of mechanical ventilation complying with AS1668.2-2012; or</p> <p>(b) a system of natural ventilation complying with Section 4 of AS 1668.4-2012.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
F4.12 Kitchen local exhaust			X		Not applicable. No commercial kitchen is proposed.
Part F5 - Sound Transmission					
F5.1 Application of Part			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.2 Determination of airborne sound insulation ratings			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.3 Determination of impact sound insulation ratings			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.4 Sound Insulation of floors between units			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.5 Sound insulation of walls between units			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.6 Sound insulation rating of services			X		Not applicable. Not a Class 2, 3 and 9c building.
F5.7 Sound isolation of pumps			X		Not applicable. Not a Class 2, 3 and 9c building.
Part F6 – Condensation Management					
F6.1 Application of Part			X		Not applicable. Not a Class 2, 3 and 4 building.
F6.2 Pliable building membrane			X		Not applicable. Not a Class 2, 3 and 4 building.
F6.3 Flow rate and discharge of exhaust systems			X		Not applicable. Not a Class 2, 3 and 4 building.
F6.4 Ventilation of roof spaces			X		Not applicable. Not a Class 2, 3 and 4 building.
SECTION G ANCILLIARY PROVISIONS					
Part G1 - Minor Structures and Components					
NSW G1.101 Provision for cleaning windows				X	A safe manner for cleaning of windows located 3 or more storeys above ground level must be provided, and compliance is achieved where: (a) The windows can be cleaned wholly from within the building; or





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(b) Via a method complying with the Work Health and Safety Act 2011 and regulations made under that Act. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>

SECTION J ENERGY EFFICIENCY

SECTION J - NATIONAL ENERGY EFFICIENCY PROVISIONS

Part J0: Energy Efficiency

J0.1 Application of Section J			X		Informational clause
J0.2 Heating and cooling loads of sole-occupancy units of a class 2 building or a class 4 part			X		Not applicable. Not a Class 2, 3 and 4 building.
J0.3 Ceiling fans				X	Ceiling fans required as part of compliance with J0.2(a), must— (a) be permanently installed; and (b) have a speed controller; and (c) serve the whole room, with the floor area that a single fan serves not exceeding— (i) 15 m ² if it has a blade rotation diameter of not less than 900 mm; and (ii) 25 m ² if it has a blade rotation diameter of not less than 1200 mm.
J0.4 Roof thermal breaks					For compliance with J0.2(c), a roof that – (a) Has metal roof sheet roofing fixed to metal purlins, metal rafters or metal battens; and (b) Does not have a ceiling lining or has a ceiling lining fixed directly to those metal purlins, metal rafters or metal battens, must have a thermal break, consisting of a material with an R-Value of not less than R0.2, installed at all points of contact between the metal sheet roofing and its supporting metal purlins, metal rafters or metal battens.
J0.5 Wall thermal breaks					For compliance with J0.2(c), a wall that – (a) Does not have a wall lining or has a wall lining that is fixed directly to the same metal frame; and (b) Has lightweight external cladding such as weatherboards, fibre-cement or metal sheeting fixed to a metal frame, must have a thermal break, consisting of a material with an R-Value of not less





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					than R0.2, installed at all points of contact between the external cladding and metal frame.
Part J1: Building Fabric					
J1.1 Application of Part				X	The DTS Provisions of this Part apply to building elements forming the envelope of Class 2 to 9 buildings.
J1.2 Thermal construction –general				X	Where required, insulation must be provided as per AS/NZS 4859.1-2002 and installed as per this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</i>
J1.3 Roof and ceiling construction				X	A roof or ceiling that is part of the envelope, other than a sole occupancy unit of a Class 2 building or Class 4 part of a building, must achieve the Total R-Value specified in Table J1.3a for the direction of heat flow, and must satisfy all requirements of this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</i>
J1.4 Roof lights			X		Roof lights including any shaft or diffuser forming part of the envelope, must comply with the thermal performance requirements of Table J1.4. Refer additional requirements relevant to satisfying Part F4. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</i>
J1.5 Walls				X	Each part of a wall that is part of the envelope must satisfy one of the thermal performance options in Table J1.5, noting the specific exceptions of this clause relevant to doors, vents, penetrations, shutters, glazing, and an earth retaining wall or earth berm, in other than climate zone 8. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</i>
J1.6 Floors				X	A floor that is part of the building's envelope must achieve the Total R-Value specified in Table J1.6, and must satisfy all requirements of this clause.
Part J2: Glazing					
J2.1 Application of Part				X	The DTS Provisions of this Part apply to building elements forming the envelope of Class 2 to 9 buildings, other than a sole occupancy unit of a class 2 building or Class 4 part of a building.
J2.4 Glazing				X	The glazing in each storey, including any mezzanine, must be assessed separately in accordance with the requirements of this clause, for: (a) Glazing in the external fabric facing each orientation; and





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(b) Glazing in the internal fabric, to ensure that the aggregate air-conditioning energy value attributable to the glazing does not exceed the allowance obtained by multiplying the façade area that is exposed to the conditioned space for the orientation by the energy index in Table J2.4a. Glazing calculations demonstrating compliance with this clause must be incorporated into the specification
J2.5 Shading				X	Where required to comply with J2.4, shading must be provided in accordance with this clause. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part J3: Building Sealing					
J3.1 Application of Part				X	The requirements of this Part apply to elements forming the envelope of Class 2 to 9 buildings, other than: <ul style="list-style-type: none">❖ A building in a climate zones 1, 2, 3 and 5 where the only means of air-conditioning is by using an evaporative cooler;❖ A permanent building opening necessary for the safe operation of a gas appliance;❖ A building or part where mechanical ventilation required by Part F4 provides sufficient pressurization to prevent infiltration;❖ Parts of buildings that cannot be fully enclosed.
J3.2 Chimney and flues			X		The chimney or flue of an open solid-fuel burning appliance must be provided with a damper or flap that can be closed to seal the chimney or flue. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J3.3 Roof lights			X		Roof lights must be sealed, or capable of being sealed as per the requirements of this clause. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J3.4 Window and doors				X	Seals to restrict air infiltration to windows and doors must be provided as required (note exceptions listed in J3.4 (b), and requirements for sealing of main entrance in J3.4 (d)). Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J3.5 Exhaust fans				X	Miscellaneous exhaust fans must be fitted with self-closing dampers, where serving a conditioned space or a habitable room in climate zones 4, 5, 6, 7 or 8.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J3.6 Construction of roofs, walls and floors				X	Roofs, ceilings, walls, floors and any openings such as a window frame, door frame, light frame or the like must be sealed in accordance with the requirements of this clause to minimise air leakage. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J3.7 Evaporative coolers				X	An evaporative cooler must be fitted with a self-closing damper of the like when serving a heated space, or a habitable room or a public area of a building in climate zones 4, 5, 6, 7 or 8. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part J4: Blank					
Part J5: Air-conditioning and ventilation systems					
J5.1 Application of Part			X		The Deemed-to-Satisfy Provisions of this Part do not apply to a Class 8 electricity network substation.
J5.2 Air-conditioning systems				X	An air-conditioning unit or system must comply with J5.2(a) to J5.2(g). Mechanical Design certification must be submitted in support of the construction certificate application
J5.3 Mechanical ventilation systems				X	Mechanical ventilation systems must comply with J5.3(a) to J5.3(c). Mechanical Design certification must be submitted in support of the construction certificate application
J5.4 Miscellaneous exhaust systems				X	A miscellaneous exhaust system with an air flow rate of more than 1000 L/s that is associated with equipment having a variable demand such as a stove in a commercial kitchen or a chemical bath in a factory, must have the means for the operator to reduce the energy used (such as by a variable speed fan), and to stop the motor when it is not needed. Refer concessions contained in this clause. Mechanical Design certification must be submitted in support of the construction certificate application
J5.5 Ductwork insulation			X		Ductwork and fittings in an air-conditioning system must be provided with insulation complying with AS/NZS 4859.1 and an insulation R-Value as specified in this clause.
J5.6 Ductwork sealing			X		Ductwork in an air-conditioning system with a capacity of 3000 L/s or greater, not located within the only or last room served by the system, must be sealed against air loss in accordance with the duct sealing requirements of





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					AS 4254.1 and AS 4254.2 for the static pressure in the system.
J5.7 Pump systems			X		Pumps and pipework are form part of an air-conditioning system must comply with the requirements of this clause.
J5.8 Pipework insulation			X		Piping, vessels, heat exchangers and tanks containing heating or cooling fluid that are part of an air-conditioning system must be provided with insulation per the requirements of this clause.
J5.9 Space heating			X		A heater used for air-conditioning or as part of an air-conditioning system must be of a type specified in this clause.
J5.10 Refrigerant chillers			X		An air-conditioning system refrigerant chiller must comply with MEPS and the full load operation energy efficiency ratio and integrated part load energy efficiency ratio in Table J5.10a or Table J5.10b when determined in accordance with AHRI 551/591.
J5.11 Unitary air-conditioning equipment			X		Unitary air-conditioning equipment including packaged air-conditioners, split system, and variable refrigerant flow systems must comply with MEPS and for a capacity greater than or equal to 65 kW _r per the requirements of this clause.
J5.12 Heat rejection equipment			X		The motor rated power of a fan in a cooling tower, closed circuit cooler or evaporative condenser must not exceed the allowances in Table J5.12. The fan in an air cooled condenser must comply with the requirements of this clause.
Part J6: Artificial lighting and power					
J6.1 Application of Part					J6.2, J6.3 and J6.5(a)(ii) do not apply to a Class 8 electricity network substation.
J6.2 Artificial lighting				X	Artificial lighting must comply with J6.2(a), J6.2(b) and J6.2(c), relevant to maximum permitted illumination power loads. Electrical Design certification must be submitted in support of the construction certificate application
J6.3 Interior artificial lighting and power control				X	Internal artificial lighting systems must be switched and zoned in accordance with the specific requirements of this clause. Electrical Design certification must be submitted in support of the construction certificate application
J6.4 Interior decorative and display lighting				X	Interior decorative and display lighting, such as for a foyer mural or art display, must be controlled separately from other artificial lighting, and be switched in accordance with the specific requirements of this clause. Electrical Design certification must be submitted in support of the construction certificate application





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
J6.5 Artificial lighting around the perimeter of a building				X	Artificial lighting around the perimeter of a building must be controlled by sensors or time switches in accordance with the specific requirements of this clause. Refer exclusions relevant to emergency lighting and lighting around detention centres. Electrical Design certification must be submitted in support of the construction certificate application
J6.6 Boiling water and chilled water storage units				X	Power supply to boiling or chilled water storage units must be time switch controlled in accordance with Specification J6. Electrical Design certification must be submitted in support of the construction certificate application
J6.7 Lifts					Lifts must – (a) Be configured to ensure artificial lighting and ventilation in the car are turned off when it is unused for 15 minutes and (b) Achieve the idle and standby energy performance level in Table 6.7a; and (c) Achieve – (i) The energy efficiency class in Table 6.7b; or (ii) If a dedicated goods lift, energy efficiency class D in accordance with ISO 25745-2.
J6.8 Escalators and moving walkways					Escalators and moving walkways must have the ability to slow to between 0.2m/s and 0.05 m/s when unused for more than 15 minutes.
Part J7: Hot water supply and swimming pool and spa pool plant					
J7.2 Hot water supply				X	A heated water supply system for food preparation and sanitary purposes must be designed and installed in accordance with Part B2 of NCC Volume Three — Plumbing Code of Australia. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J7.3 Swimming pool heating and pumping				X	Heating for a swimming pool must be provided by one of the options listed within this clause, and must satisfy the specific requirements of this clause relevant to the provision of pool covers, and time switches. The requirements of this clause do not apply to a spa pool. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
J7.4 Spa pool heating and pumping				X	Heating for a spa pool that shares a water recirculation system with a swimming pool, must be by one of the energy source options listed within this clause, and must satisfy the specific requirements of this clause relevant to the provision of spa pool covers, a push button and time switch operation for the heater.





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Part J8: Access for maintenance and facilities for monitoring					
J8.1 Application of Part			X		The Deemed-to-Satisfy Provisions of this Part do not apply within a sole-occupancy unit of a Class 2 building or a Class 4 part of a building, or to a Class 8 electricity network substation.
J8.2 *****					This Clause has been deleted
J8.3 Facilities for energy monitoring				X	<p>The building must have facilities to record the consumption of gas and electricity as per clause J8.3(a). OR</p> <p>The building must have facilities to record individually the energy consumption of:</p> <ul style="list-style-type: none">❖ air-conditioning plant including, where appropriate, heating plant, cooling plant and air handling fans; and❖ artificial lighting; and❖ appliance power; and❖ central hot water supply; and❖ internal transport devices including lifts, escalators and travelators where there is more than one serving the building; and❖ other ancillary plant. <p><i>Noting J8.3(b) above does not apply to class 2 buildings with a floor area >2500m² and where the total floor area of the common areas of the class 2 is less than 500m²</i></p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</p>





5.0 CONCLUSION

This report provides a Building Code of Australia (BCA) 2019 assessment of the proposed alterations and additions to the existing building, located at 49K French Ave, Frenchs Forest.

The primary purpose of this report was to identify the non-compliance matters contained in the proposed design philosophy against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

This report provided a BCA assessment table in Section 3.0 that summarises the identified non-compliance matters and offers specific recommendations that are also outlined in the Executive Summary.

Further, if compliance with the deemed-to-satisfy provisions is not achievable or desirable, Alternative Solutions could be further developed and verified by an appropriately qualified BCA Consultant or Fire Safety Engineer.

DRAFT Ben Murrow for AE&D	DRAFT Trenton Jones for AE&D
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6.0 ATTACHMENT A - INSPECTION & MAINTENANCE

6.1 Fire Safety Measures

The fire safety measures within the building must be maintained to ensure correct operation at all times the building is occupied. All firefighting equipment should be tagged when tested/inspected and log books kept up-to-date for all smoke detection, warning systems and sprinkler systems (where installed).

An annual fire safety certificate must be submitted to the local consent authority and the NSW Fire Brigade each year indicating satisfactory performance of the fire safety measures contained within the building. The annual fire safety statement should be displayed in a prominent place within the building (i.e. the main entry foyer)

The correct operation and maintenance of the buildings fire safety measures is critical in affording an adequate level of fire safety.

6.2 Good Housekeeping

The ongoing management of the building should ensure good housekeeping procedures. The following matters should be considered by building management:

- ❖ Ensure exits and paths of travel to exits remain unobstructed (in particular stairways)
 - ❖ Avoid storage of materials in unoccupied areas
 - ❖ Limit storage of flammable/combustible materials to designated and approved areas
 - ❖ Prevent chocking open fire/smoke doors
 - ❖ Prevent storage of materials that could hinder access to firefighting equipment
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7.0 ATTACHMENT B – REQUIREMENTS TYPE B CONSTRUCTION

4.1 Fire-resistance of building elements

In a building *required* to be of Type B construction—

- (a) each building element listed in **Table 4**, and any beam or column incorporated in it, must have an FRL not less than that listed in the Table for the particular Class of building concerned; and
- (b) the *external walls*, *common walls*, and the flooring and floor framing in any lift pit, must be *non-combustible*; and
- (c) if a stair *shaft* supports any floor or a structural part of it—
 - (i) the floor or part must have an FRL of 60/—/— or more; or
 - (ii) the junction of the stair *shaft* must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the *shaft*; and
- (d) any *internal wall* which is *required* to have an FRL with respect to *integrity* and *insulation*, except a wall that bounds a *sole-occupancy unit* in the topmost (or only) *storey* and there is only one unit in that *storey*, must extend to—
 - (i) the underside of the floor next above if that floor has an FRL of at least 30/30/30; or
 - (ii) the underside of a ceiling having a *resistance to the incipient spread of fire* to the space above itself of not less than 60 minutes; or
 - (iii) the underside of the roof covering if it is *non-combustible* and, except for roof battens with dimensions of 75 mm x 50 mm or less or *sarking-type material*, must not be crossed by timber or other *combustible* building elements; or
 - (iv) 450 mm above the roof covering if it is *combustible*; and
- (e) a *loadbearing internal wall* and a *loadbearing fire wall* (including those that are part of a *loadbearing shaft*) must be of concrete or masonry; and
- (f) a *non-loadbearing internal wall required* to be *fire-resisting* must be of *non-combustible* construction; and
- (g) in a Class 5, 6, 7, 8 or 9 building, in the *storey* immediately below the roof, internal columns and *internal walls* other than *fire walls* and *shaft walls*, need not comply with **Table 4**; and
- (h) lift, subject to **C2.10**, ventilating, pipe, garbage, and similar *shafts* which are not for the discharge of hot products of combustion and not *loadbearing*, must be of *non-combustible* construction 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*; and
- (i) in a Class 2 or 3 building, except where within the one *sole-occupancy unit*, or a Class 9a *health-care building* or a Class 9b building, a floor separating *storeys* or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, must—
 - (i) be constructed so that it is at least of the standard achieved by 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
- (ii) have a *fire-protective covering* on the underside of the floor, including beams incorporated in it, if the floor is *combustible* or of metal; and
- (j) in a Class 9c *aged care building* a floor above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, and any column supporting the floor must—
 - (i) be constructed so that it is at least of the standard achieved by 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.



Table 4 TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes)			
	<i>Structural adequacy/Integrity/Insulation</i>			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—				
For <i>loadbearing</i> parts—				
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 30	120/ 90/ 60	180/120/ 90	240/180/120
3 to less than 9 m	90/ 30/ 30	120/ 30/ 30	180/ 90/ 60	240/ 90/ 60
9 to less than 18 m	90/ 30/—	120/ 30/—	180/ 60/—	240/ 60/—
18 m or more	—/—/—	—/—/—	—/—/—	—/—/—
For non- <i>loadbearing</i> parts—				
less than 1.5 m	—/ 90/ 90	—/120/120	—/180/180	—/240/240
1.5 to less than 3 m	—/ 60/ 30	—/ 90/ 60	—/120/ 90	—/180/120
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—
EXTERNAL COLUMN not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—				
For <i>loadbearing</i> columns—				
less than 18 m	90/—/—	120/—/—	180/—/—	240/—/—
18 m or more	—/—/—	—/—/—	—/—/—	—/—/—
For non- <i>loadbearing</i> columns—				
	—/—/—	—/—/—	—/—/—	—/—/—
COMMON WALLS and FIRE WALLS—	90/ 90 / 90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS—				
<i>Fire-resisting</i> lift and stair <i>shafts</i> —				
<i>Loadbearing</i>	90/ 90/ 90	120/120/120	180/120/120	240/120/120
<i>Fire-resisting</i> stair <i>shafts</i> —				
Non- <i>loadbearing</i>	—/ 90/ 90	—/120/120	—/120/120	—/120/120
Bounding <i>public corridors</i> , public lobbies and the like—				
<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	240/—/—
Non- <i>loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	—/—/—
Between or bounding <i>sole-occupancy units</i> —				
<i>Loadbearing</i>	60/ 60/ 60	120/—/—	180/—/—	240/—/—
Non- <i>loadbearing</i>	—/ 60/ 60	—/—/—	—/—/—	—/—/—
OTHER LOADBEARING INTERNAL WALLS and COLUMNS—				
	60/—/—	120/—/—	180/—/—	240/—/—
ROOFS	—/—/—	—/—/—	—/—/—	—/—/—

4.2 Carparks

(a) Notwithstanding **Clause 4.1**, a *carpark* may comply with **Table 4.2** if it is an *open-deck carpark* or is protected with a sprinkler system complying with **Specification E1.5** and is—

- (i) a separate building; or
- (ii) a part of a building, and if occupying only part of a *storey*, is separated from the remaining part by a *fire wall*.

(b) For the purposes of this clause, a *carpark*—

(i) includes—

(A) an administration area associated with the functioning of the *carpark*; and

(B) where the *carpark* is sprinklered, is associated with a Class 2 or 3 building and provides carparking for separate *sole-occupancy units*, each carparking area with an area not greater than 10% of its *floor area* for purposes ancillary to the *sole-occupancy units*; but

(ii) excludes—

(A) except for **(b)(i)**, any area of another classification, or other part of a Class 7 building not used for carparking; and

(B) a building or part of a building specifically intended for the parking of trucks, buses, vans and the like.

Table 4.2 REQUIREMENTS FOR CARPARKS

Building element	FRL (not less than) <i>Structural adequacy/Integrity/Insulation</i> ESA/M (not greater than)
Wall	
(a) <i>external wall</i>	
(i) less than 3 m from a <i>fire-source feature</i> to which it is exposed:	
<i>Loadbearing</i>	60/60/60
<i>Non-loadbearing</i>	—/60/60
(ii) 3 m or more from a <i>fire-source feature</i> to which it is exposed	—/—/—
(b) <i>internal wall</i>	
(i) <i>loadbearing</i> , other than one supporting only the roof (not used for carparking)	60/—/—
(ii) supporting only the roof (not used for carparking)	—/—/—
(iii) <i>non-loadbearing</i>	—/—/—
(c) <i>fire wall</i>	
(i) from the direction used as a <i>carpark</i>	60/60/60
(ii) from the direction not used as a <i>carpark</i>	as required by Table 4
Column	
(a) supporting only the roof (not used for carparking) and 3 m or more from a <i>fire-source feature</i> to which it is exposed	—/—/—
(b) steel column, other than one covered by (a)	60/—/— or 26 m ² /tonne
(c) any other column not covered by (a) or (b)	60/—/—

Beam	
(a) less than 3 m from a <i>fire-source feature</i> :	
(i) steel floor beam in continuous contact with a concrete floor slab	60/-/- or 30 m ² /tonne
(ii) any other beam	60/-/-
(b) 3 m or more from a <i>fire-source feature</i>	-/-/-
Lift shaft	-/-/-
Fire-resisting stair shaft (within the <i>carpark</i> only)	60/60/60
Roof, floor slab and vehicle ramp	-/-/-
Note: ESA/M means the ratio of exposed surface area to mass per unit length.	

4.3 Class 2 and 3 buildings: Concession

(a) A Class 2 or 3 building having a *rise in storeys* of not more than 2 need not comply with **Clause 4.1(b), (e), (f)** and **(h)** of Specification C1.1 if it is constructed using—

- (i) timber framing throughout; or
- (ii) *non-combustible* material throughout; or
- (iii) a combination of **(i)** and **(ii)**, provided—
- (iv) *****
- (v) any insulation installed in the cavity of a wall *required* to have an FRL is *non-combustible*; and
- (vi) the building is fitted with an *automatic* smoke alarm system complying with **Specification E2.2a**.

(b) A Class 2 or 3 building having a *rise in storeys* of not more than 2 may have the top *storey* constructed in accordance with **(a)** provided—

- (i) the lowest *storey* is used solely for the purpose of parking motor vehicles or for some other ancillary purpose; and
- (ii) the lowest *storey* is constructed of concrete or masonry including the floor between it and the Class 2 or 3 part of the building above; and
- (iii) the lowest *storey* and the *storey* above are separated by construction having an FRL of not less than 90/90/90 with no openings or penetrations that would reduce the *fire-resisting* performance of that construction except that a doorway in that construction may be protected by a -/60/30 *self-closing* fire door.

(c) In a Class 2 or 3 building complying with **(a)** or **(b)** and fitted with a sprinkler system complying with **Specification E1.5**, any FRL criterion prescribed in **Table 4**—

- (i) for any *loadbearing* wall, may be reduced to 60, except any FRL criterion of 90 for an *external wall* must be maintained when tested from the outside; and
- (ii) for any *non-loadbearing internal wall*, need not apply, if—
 - (A) it is lined on both sides with 13 mm standard grade plasterboard or similar *non-combustible* material; and
 - (B) it extends—
 - (aa) to the underside of the floor next above if that floor has an FRL of at least 30/30/30 or is lined on the underside with a *fire-protective covering*; or
 - (bb) to the underside of a ceiling with a *resistance to the incipient spread of fire* of 60 minutes; or
 - (cc) to the underside of a *non-combustible* roof covering; and
 - (C) any insulation installed in the cavity of the wall is *non-combustible*; and
 - (D) any construction joints, spaces and the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material.