



AEDGROUP

Innovation & expertise in building regulations

BUILDING CODE OF AUSTRALIA COMPLIANCE ASSESSMENT REPORT

Proposed Independent Living Units and Community Building

3 Martin Luther Place Allambie Heights

DATE ► 13/07/2018

REPORT NO. ► PROJECT 8232 - REV 01

PREPARED FOR ► Jackson Teece

PREPARED BY ► AE&D



AE&D Pty Ltd **A:** Suite 3.04, 55 Miller Street, Pyrmont NSW 2009
Southern Highlands **A:** Unit 10, 19 Lyell Street, Mittagong NSW 2575
Sutherland Shire **A:** Suite 20, Level 1 Regus, 29 Kiora Road, Miranda NSW 2228
P: (02) 9571 8433 **E:** admin@aedconsulting.com.au
W: www.aedconsulting.com.au **ABN:** 15 149 587 495

CONTENTS

1.0	EXECUTIVE SUMMARY AND RECOMMENDATIONS	3
1.1	RECOMMENDATIONS	3
2.0	INTRODUCTION	8
2.1	BASIS OF REPORT	8
2.2	PURPOSE OF THE REPORT.....	8
2.3	LIMITATIONS OF THE REPORT	8
3.0	BCA ASSESSMENT DATA	9
3.1	LOCATION OF FIRE SOURCE FEATURES	10
4.0	BCA ASSESSMENT SUMMARY	11
5.0	CONCLUSION	52
6.0	ATTACHMENT A - INSPECTION & MAINTENANCE	53
6.1	FIRE SAFETY MEASURES.....	53
6.2	GOOD HOUSEKEEPING	53
7.0	ATTACHMENT B – REQUIREMENTS TYPE A CONSTRUCTION	54

REVISION STATUS				
REVISION	DATE	STATUS	WRITTEN	CHECKED
8232- Rev 00	14/06/2018	DRAFT FOR COMMENT	JC	JS
8232- Rev 01	13/07/2018	FINAL	JC	JS

COMMERCIAL IN CONFIDENCE

This document contains confidential material that is intended solely for the client commissioning AE&D to prepare this report. The client, project team and all regulatory authorities shall exercise precautionary measures to ensure that the information contained herein is not to be accessed by any third party. AE&D will take no responsibility for the use of any information contained within this report by any third party, unless AE&D's permission is requested and provided in writing.

1.0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

This report provides a Building Code of Australia (BCA) 2016, Amendment 1 assessment of the proposed independent living units (Building A & B), car park and community building, to be located at 3 Martin Luther Place Allambie Heights.

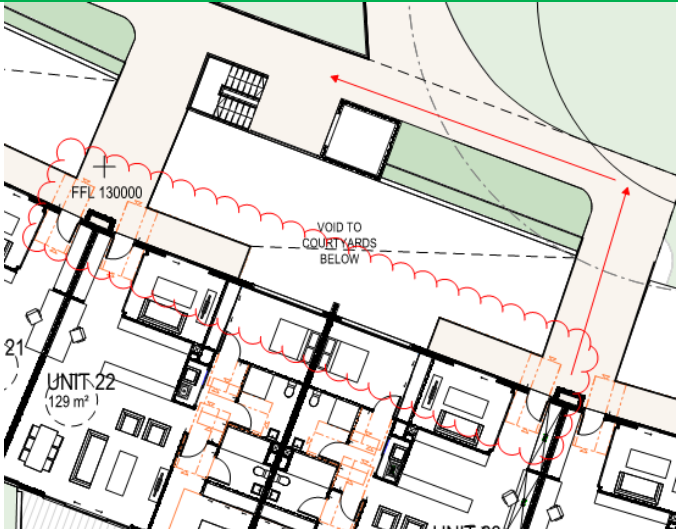
The primary purpose of this report is to identify the non-compliance matters contained in the proposed design against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

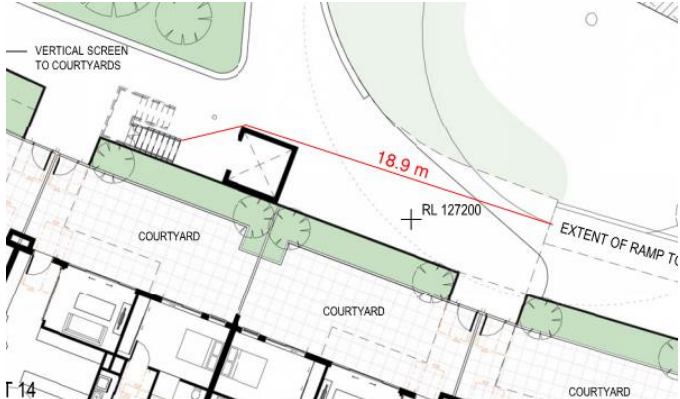
1.1 Recommendations

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
C1.1 Type of Construction Required	<u>Building A & B:</u> Refer to Spec C1.1 and Attachment B for Schedule of FRLs for Type A Construction. These are to be certified by the architect and structural engineer as having been met, based on the proposed design. <u>Additional Comments:</u> Details of the proposed bounding wall and external wall systems are required to be provided to AED for assessment prior to the issue of a Construction Certificate. <u>Community Building:</u> Refer to Spec C1.1 and Attachment C for Schedule of FRLs for Type C Construction. These are to be certified by the architect and structural engineer as having been met, based on the proposed design.
C2.8 Separation of Classifications in the same storey	In a building containing different classifications located alongside each other in the same storey: each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or the parts must be fire wall separated. <u>Required to comply:</u> Building A & B - The garbage room is required to be fire separated from the carpark by a minimum FRL of 240 minutes or be built to the higher FRL; Community Building - The hair studio is required to be fire separated from the remainder of the building by a minimum FRL of 90 minutes or be built to the higher FRL; - The storeroom is required to be fire separated from the remainder of the building by a minimum FRL of 90 minutes or be built to the higher FRL. It is recommended that a fire engineer is engaged to develop a performance based solution to rationalize the required FRL's. <u>Additional comments:</u> When there is more than 2 classifications on a story the concession under BCA Clause A3.4 cannot be utilized. When the BCA refers to a 'minor' and a 'major' use the wording implies that the concession can only be used when there is 2 x classifications one being the minor and the second being the major use. In this instance we have more than 3 classifications.

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.9 Separation of Classifications in different stories	Parts of different classifications situated one above the other in adjoining storeys must be fire separated in accordance with this clause. Required to comply: Building A & B The separating floor between the garbage room and the residential units is required to achieving a minimum FRL of 240 minutes. It is recommended that a fire engineer is engaged to rationalize the required FRL's to 120 minutes. Additional comments: When there is more than 2 classifications on a story the concession under BCA Clause A3.4 cannot be utilized. When the BCA refers to a 'minor' and a 'major' use the wording implies that the concession can only be used when there is 2 x classifications one being the minor and the second being the major use. In this instance we have more then 3 classifications. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C3.11 Bounding Construction	Required to comply: In a Class 3 building where a path of travel to an exit does not provide a person seeking egress with a choice of travel in different directions to alternative exits and is along an open balcony, landing or the like and passes an external wall of— (i) another sole-occupancy unit; or (ii) a room not within a sole-occupancy unit, then that external wall must— (iii) be constructed of concrete or masonry, or be lined internally with a fire-protective covering; and (iv) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (v) have any windows or other openings— (A) protected internally in accordance with C3.4; or (B) located at least 1.5 m above the floor of the balcony, landing or the like. In this instance the external walls of units 9, 10, 11, 12, 13, 14,, 15, 16, 18, 19, 20, 21, 22 & 23 will be required to be constructed of masonry or lined internally with a fire protective covering. In addition any openings located within 1.5m of the path of travel will be required to be protected in accordance with BCA Clause C3.4.

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D1.4 Exit Travel Distances	<u>Noncompliance:</u> Building B Lower Ground floor; the travel distance from an SOU exceeds 40m to an exit (Worst case 42m from unit 12). It is recommended that the extended travel distance is addressed via a fire engineered solution.  Lower ground floor carpark: The travel distance to an exit exceeds 40m (Worst case 46m). It is recommended that a fire engineer is engaged to develop a performance based solution.  Ground floor; the travel distance from unit 24 exceeds 6m to an exit or 6m to a point of choice (worst case 26m). In addition, occupants are required to re enter the building to access a road via the lower ground floor.

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	It is recommended that the additional egress paths and stairways are provided from the ground and lower ground levels or alternatively a fire engineer will be required to be engaged. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D1.9 Travel by non-fire-isolated stairs	<u>Noncompliance:</u> The discharge of the non fire isolated stairway exceeds 15m (Worst case 19m from eastern stairway) to an exit. It is recommended that a fire engineered solution is obtained.  <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D1.10 Discharge of Exits	<u>Noncompliance:</u> If an exit discharges to open space at a level that is different to the public road it is connected to, the path of travel must be via a ramp or other incline that is not steeper than 1:8 or 01:14 were required under BCA Part D3. Where compliance cannot be achieved a fire engineer is required to be engaged. In this instance it is noted that the public road is Martin Luther Place and the path of travel to the road is steep and may not achieve compliance with this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E1.3 Fire Hydrants	A hydrant system complying with AS 2419.1-2005 must be provided to serve a building having a total floor area greater than 500m², where a fire brigade is available to attend a fire. <u>Noncompliance:</u> The proposed location of the fire hydrants and booster assembly are required to be nominated on the architectural plans so compliance can be assessed. A hydrant system is required to be provided to serve building A/B and the community center if the total floor area exceeds 500m² (Please note no scale is nominated on the plans) <i>Hydraulic Services Design Certification and associated plans must be incorporated into the construction certificate specification</i>
E1.4 Fire Hose Reels	A fire hose reel system complying with AS 2441-2005 must be provided to serve the whole building where internal fire hydrants are installed OR where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m².

BCA Clause	Deemed-to-Satisfy Provision to be addressed
	Note: FHR's no longer required to serve a Class 2 or 3 building. <u>Noncompliance:</u> The proposed location of fire hose reels to serve the car park are required to be nominated on the architectural plans. A fire hose reel system is required to be provided to serve building A/B (Carpark) and the community center if the building exceeds 500m² in total floor area. (Please note no scale is nominated on the plans) <i>Hydraulic Services Design Certification and associated plans must be incorporated into the construction certificate specification</i>
F2.3 Facilities for Class 3 to 9 Buildings	<u>Noncompliance:</u> The unisex sanitary facilities located adjacent to the mulit function room are required to be nominated as either male or female and provided with washbasins within each facility. The male and female facilities are required to be completely separated by floor to ceiling partitions as the sharing of sanitary facilities between genders is not permitted. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>

2.0 INTRODUCTION

This report provides a Building Code of Australia (BCA) 2016, Amendment 1 assessment of the proposed independent living units (Building A & B), car park and community building, to be located at 3 Martin Luther Place Allambie Heights.

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.

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) 2016. 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 Jackson Teece – Project 2017019A, Drawing Numbers:

Drawing Number	Revision	Dated	Drawing Title
DA-011	A	21.05.18	Site Plan
DA-100	A	21.06.18	Floor plan lower ground floor
DA-101	A	21.06.18	Floor plan ground
DA-102	A	21.06.18	Roof plan level 1
DA-103	A	21.06.18	Roof plan
DA-104	A	21.05.18	Community building lower ground floor plan

The Building Code of Australia 2016, Amendment 1 prepared by the Australian Building Codes Board.

The Guide to the BCA 2016, Amendment 1, 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 2016, Amendment 1 and list any departures from the BCA 2016.

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 2016 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.

3.0 BCA ASSESSMENT DATA

The following data is provided in respect to review of the building under the Building Code of Australia 2016 in respect to the compliance assessment of the proposed independent living units and associated buildings, to be located at 3 Martin Luther Place Allambie Heights.

Additional comments:

- **Under the BCA building A and B are considered to be a single building as they are joined by the car park;**
- **When there is more than 2 classifications on a story the concession under BCA Clause A3.4 cannot be utilized. When the BCA refers to a 'minor' and a 'major' use the wording implies that the concession can only be used when there is 2 x classifications one being the minor and the second being the major use. Therefore in circumstances where a storey comprises more than 2 uses then this concession cannot apply.**

BCA Building Classifications:	Class 3 (Seniors Living) Class 6 (Hair dresser) Class 7a (Car parking) Class 7b (Storage) Class 9b (Community Building)
Building rise in storeys:	Building A & B = 3 Community building = 1 (determined in accordance with C1.2 of the BCA).
Type of Construction:	Building A & B = Type A Community building = Type C (determined in accordance with C1.1 of the BCA)

General Floor area limitations:

Class 3 = N/A

Class 9b = 3000m² / 12000m³

Effective Height (m):

Building A & B = Less than 12m

Community buildings: Less than 12m

3.1 Location of Fire Source features

The fire source features for the subject development are:

The northern boundary, eastern boundary, southern boundary and the existing buildings on the allotment to the east of the proposed buildings.



(Overall Site Plan)

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
SECTION B					
STRUCTURE					
Part B1: Structural Provisions				X	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. Glazing must comply with AS1288-2006 and AS2047-2014. 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	<u>Building A & B:</u> Refer to Spec C1.1 and Attachment B for Schedule of FRLs for Type A Construction. These are to be certified by the architect and structural engineer as having been met, based on the proposed design. Please note that specification C1.1 also requires design compliance with the following: 1. The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire – resistance of that element to below that required. 2. Fire isolated shafts are required to be enclosed at the top and bottom of the shaft with fire rated construction as per specification C1.1. This fire rating is required in two directions. 3. External walls, common walls and the flooring and floor framing of lift pits must be non-combustible construction. 4. Internal lightweight walls to be fire rated, as well as non-load bearing lift, ventilating, pipe, garbage or similar shaft wall must be of non-combustible construction. 5. The walls to fire rated shafts must achieve the fire rating from both directions i.e. from inside and outside the shaft.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					6. Roof: The roof of the building does not need an FRL, provided the roof covering is non-combustible (as per the concession in Clause 3.5 of Specification C1.1 of the BCA). 7. Bounding construction to residential units must comply with the fire rating requirements of table 3. 8. Floors: see clause C2.9. In addition floors require an FRL of 90/90/90 where between residential levels. <u>Community Building:</u> Refer to Spec C1.1 and Attachment C for Schedule of FRLs for Type A Construction. These are to be certified by the architect and structural engineer as having been met, based on the proposed design. <u>Additional Comments:</u> Details of the proposed bounding wall and external wall systems are required to be provided to AED for assessment prior to the issue of a Construction Certificate. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification (and structural details)</i>
C1.2 Calculation of Rise In Stories			X		Refer to Section 2.0 of this report for further details
C1.3 Buildings of Multiple Classifications			X		Informational clause only
C1.4 Mixed Types of Construction			X		The building will need to be of Type A Construction
C1.5 Two Storey Class 3 buildings			X		Not applicable as the independent living units comprise a rise in stories of 3.
C1.6 Class 4 Parts			X		Not applicable.
C1.7 Open Spectator Stands			X		Not applicable.
C1.8 Lightweight Construction			X		Information clause, any lightweight fire rated plasterboard should be compliant with clause.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C1.9 -				X	(a) In a building <i>required</i> to be of Type A or B construction, the following building elements and their components must be <i>non-combustible</i>: (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>. (b) <i>A shaft</i>, being a lift, ventilating, pipe, garbage, or similar <i>shaft</i> that is not for the discharge of hot products of combustion, that is <i>non-loadbearing</i>, must be of <i>non-combustible</i> construction in— (i) a building <i>required</i> to be of Type A construction; and (ii) a building <i>required</i> to be of Type B construction, subject to C2.10, in— (A) a Class 2, 3 or 9 building; and (B) a Class 5, 6, 7 or 8 building if the <i>shaft</i> connects more than 2 storeys. (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. (d) The requirements of (a) and (b) do not apply to gaskets, caulking, sealants and damp-proof courses. (e) The following materials may be used wherever a <i>non-combustible</i> material is <i>required</i>: (i) Plasterboard. (ii) Perforated gypsum lath with a normal paper finish. (iii) Fibrous-plaster sheet. (iv) Fibre-reinforced cement sheeting. (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. (vi) Bonded laminated materials where— (A) each lamina, including any core, is <i>non-combustible</i>; and (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (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.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C1.10 Fire Hazard Properties				X	Fire hazard properties must comply with C1.10 of the BCA and Spec C1.10 for floor, wall and ceiling linings, or be considered non-combustible. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
NSW C1.10 (b) Fire Hazard Properties			X		Noted - Informational clause only
C1.11 Performance of External Walls in Fire			X		Noted - Informational clause only
C1.12 Combustible materials			X		Noted - Informational clause only
C1.13 Fire protected timber: concession			X		Not applicable
Part C2					
Compartmentation & Separation					
C2.2 General Floor Area & Volume Limitations	X				Fire compartment floor area and volume limitations shall not exceed the limitations set by Table C2.2.
C2.3 Large Isolated Buildings			X		Not applicable
C2.4 Requirements for Open Space			X		Not applicable
C2.5 Class 9a & 9c Buildings			X		Not applicable
C2.6 Vertical Separation of openings in external walls				X	Type A buildings that are not sprinkler protected shall incorporate spandrel construction to separate openings in external walls. <u>This clause applies to Building A & B</u> Required to comply: Vertical Spandrels are required to be nominated on the architectural plans in the below locations.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<i>Details of compliant spandrel separation must be provided.</i>
					
C2.7 Separation by Fire Walls		X			Informational clause only
C2.8 Separation of Classifications in the same storey				X	In a building containing different classifications located alongside each other in the same storey: each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or the parts must be fire wall separated. <u>Required to comply:</u> Building A & B - The garbage room is required to be fire separated from the carpark by a minimum FRL of 240 minutes or be built to the higher FRL; Community Building - The hair studio is required to be fire separated from the remainder of the building by a minimum FRL of 90 minutes or be built to the higher FRL; - The storeroom is required to be fire separated from the remainder of the building by a minimum FRL of 90 minutes or be built to the higher FRL. It is recommended that a fire engineer is engaged to development a performance based solution to rationalize the required FRL's. <u>Additional comments:</u> When there is more than 2 classifications on a story the concession under BCA Clause A3.4 cannot be utilized. When the BCA refers to a 'minor' and a 'major' use the wording implies that the concession can only be used when there is 2 x classifications one being the minor and the second being the major use. In this instance we have more than 3 classifications.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.9 Separation of Classifications in different stories				X	Parts of different classifications situated one above the other in adjoining storeys must be fire separated in accordance with this clause. <u>Required to comply:</u> Building A & B The separating floor between the garbage room and the residential units is required to achieve a minimum FRL of 240 minutes. In this instance we have more than 3 classifications. <u>Additional comments:</u> When there is more than 2 classifications on a story the concession under BCA Clause A3.4 cannot be utilized. When the BCA refers to a 'minor' and a 'major' use the wording implies that the concession can only be used when there is 2 x classifications one being the minor and the second being the major use. In this instance we have more than 3 classifications. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.10 Separation of lifts shafts				X	Generally, any lift connecting more than 2 storeys, must be separated from the remainder of the building by enclosure in a fire rated shaft. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.11 Stairways and lifts in one shaft	X				A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.
C2.12 Separation of Equipment				X	Any lift motor rooms, lift control panels, battery rooms, boilers rooms, must be two hour fire separated as per this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.13 Electrical Supply				X	A main switch room housing emergency equipment which is required to operate in the emergency mode, must be fire separated from the remainder of the building in accordance with this Clause i.e. in construction achieving a FRL of not less than 120/120/120 with the access doorway provided with a self-closing fire door achieving a FRL of not less than -/120/30.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					In addition any sub-station must be 120/120/120 fire separated from the remainder of the building. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C2.14 Public corridors in Class 2 & 3 Buildings			X		Not applicable as public corridors do not exceed 40m in length.
Part C3 Protection of Openings					
C3.2 Protection of openings in external walls			X		Not applicable as there are no openings within 3m of the boundaries.
C3.3 Separation of external walls and associated openings in different fire compartments	X				The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C3.3, unless— (a) those parts of each wall have an FRL not less than 60/60/60; and (b) any openings protected in accordance with C3.4. Building A & B ▪ This clause does not apply to class 3 buildings Community Building ▪ The distance between the community building and the units exceeds 6m.
C3.4 Acceptable Methods of Protection			X		Not applicable
C3.5 Doorways in Fire Walls				X	Doors in fire walls to have a fire rating equivalent to the fire wall in which they are located, e.g. a two hour fire wall would require a -/120/30 fire door.
C3.6 Sliding Fire Doors			X		Not applicable
C3.7 Protection of Doorways in horizontal exits			X		Not applicable
C3.8 Openings in fire isolated exits			X		Not applicable

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C3.9 Service Penetrations in fire-isolated exits			X		Not applicable
C3.10 Openings in Fire isolated lift shafts				X	Lifts landing doors are required to be fire doors with an FRL of -/60/- that comply with AS 1735.11-1986, and be set to remain closed except when discharging or receiving, passengers, goods or vehicles. Lift indicator panels must also be fire rated in accordance with this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
C3.11 Bounding Construction				X	The doorways between sole occupancy units and the public balconies and any common rooms and the public lobbies (class 3 parts) must be protected by self-closing -/60/30 fire doors. <u>Required to comply:</u> In a Class 3 building where a path of travel to an exit does not provide a person seeking egress with a choice of travel in different directions to alternative exits and is along an open balcony, landing or the like and passes an external wall of— (i) another sole-occupancy unit;or (ii) a room not within a sole-occupancy unit, then that external wall must— (iii) be constructed of concrete or masonry, or be lined internally with a fire-protective covering;and (iv) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (v) have any windows or other openings— (A) protected internally in accordance with C3.4;or (B) located at least 1.5 m above the floor of the balcony, landing or the like. In this instance the external walls of units 9, 10, 11, 12, 13, 14,, 15, 16, 18, 19, 20, 21, 22 & 23 will be required to be constructed of masonry or lined internally with a fire protective covering.

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
C3.12 Openings in floors and ceilings for services				X	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. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3.13 Openings in Shafts				X	In a building of Type A construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be fire protected in accordance with this clause. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
C3.15 Openings for Service Installations				X	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 protected in accordance with this clause. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
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. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C3.17 Columns protected in lightweight construction to achieve an FRL				X	Any columns protected in fire rated plasterboard to be compliant with this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
SECTION D					
ACCESS & EGRESS					
Part D1					
Provision for Escape					
D1.2 Number of Exits required	X				(a) All buildings — Every building must have at least one exit from each storey. (d) Class 9 buildings — In addition to any horizontal exit, not less than 2 exits must be provided from the following: Any storey or mezzanine that accommodates more than 50 persons, calculated under D1.13. Refer NSW D1.2(d)(vii) (e) variations (g) Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to— an exit; or at least 2 exits, if 2 or more exits are required.
D1.3 When Fire Isolated exits are required			X		Not applicable as the stairways do not connect more than 2 consecutive stories.
D1.4 Exit Travel Distances		X			(a) Class 2 and 3 buildings— (i) The entrance doorway of any sole-occupancy unit must be not more than— (A) 6 m from an exit or from a point from which travel in different directions to 2 exits is available; or (B) 20 m from a single exit serving the storey at the level of egress to a road or open space; and (ii) no point on the floor of a room which is not in a sole-occupancy unit must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available. (c) Class 6, 7, or 9 buildings — Subject to (d), (e) and (f)— (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

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(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. (f) Assembly buildings — In a Class 9b building other than a school or early childhood centre, the distance to one of the exits may be 60 m if— (i) the path of travel from the room concerned to that exit is through another area which is a corridor, hallway, lobby, ramp or other circulation space; and (ii) the room is smoke-separated from the circulation space by construction having an FRL of not less than 60/60/60 with every doorway in that construction protected by a tight fitting, self-closing, solid-core door not less than 35 mm thick; and (iii) the maximum distance of travel does not exceed 40 m within the room and 20 m from the doorway to the room through the circulation space to the exit. Noncompliance: Building B Lower Ground floor; the travel distance from an SOU exceeds 40m to an exit (Worst case 42m from unit 12). It is recommended that the extended travel distance is addressed via a fire engineered solution.  Lower ground floor carpark: The travel distance to an exit exceeds 40m (Worst case 46m). It is recommended that a fire engineer is engaged to develop a performance based solution.  Ground floor; the travel distance from unit 24 exceeds 6m to an exit or 6m to a point of choice

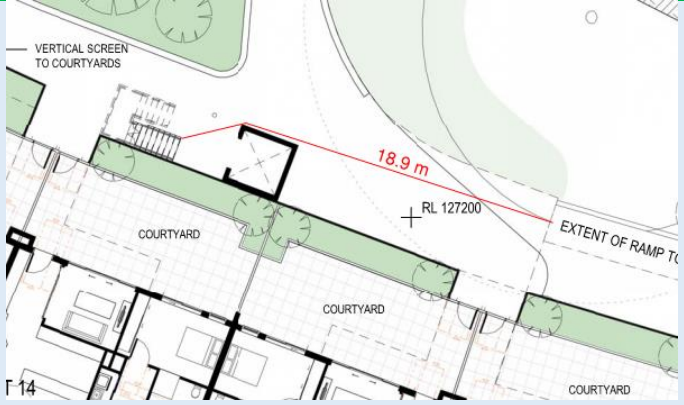
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(worst case 26m). In addition occupants are required to re enter the building to access a road via the lower ground floor. It is recommended that the additional egress paths and stairways are provided from the ground and lower ground levels or alternatively a fire engineer will be required to be engaged. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>



(Ground Floor)

D1.5 Distance Between Alternate Exits	X				Exits that are required as alternative means of egress must be— (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than—
--	---	--	--	--	---

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(i) in a Class 3 building — 45 m apart; or (d) located so that alternative paths of travel do not converge such that they become less than 6 m apart.
D1.6 Dimensions of Exits and paths of Travel to Exits				X	In a required exit or path of travel to an exit— (a) 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 (b) the unobstructed width of each exit or path of travel to an exit, except for doorways, must be not less than— (i) 1 m. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D1.7 Travel via Fire Isolated Stairs			X		Not applicable as the stairways do not connect more than 2 consecutive stories.
D1.8 External Stairways or ramps in lieu of Fire Isolated Stairs			X		Not applicable
D1.9 Travel by non-fire-isolated stairs		X			(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. (b) In a Class 3 building, the distance between the doorway of a room or sole occupancy unit and the point of egress to a road or open space by way of a stairway or ramp that is not fire-isolated and is required to serve that room or sole-occupancy unit must not exceed— (i) 60 m. (c) In a Class 6, 7, 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. (d) In a Class 3 building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than— (i) 15 m from a doorway providing egress to a road or open space or from a fire isolated passageway leading to a road or open space; or <u>Noncompliance:</u> The discharge of the non fire isolated stairway exceeds 15m (Worst case 19m from eastern stairway) to an exit. It is recommended that a fire engineered solution is obtained.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					 (ii) 30 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (e) In a Class 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than— (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. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D1.10 Discharge from Exits		X			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. (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— (i) the minimum width of the required exit; (ii) or 1 m, whichever is the greater. (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— (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 (d) The discharge point of alternative exits must be located as far apart as practical. Noncompliance: If an exit discharges to open space at a level that is different to the public road it is connected to, the path of travel must be via a ramp or other incline that is not steeper than 1:8 or 1:14 were required under BCA

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Part D3. Where compliance cannot be achieved a fire engineer is required to be engaged. In this instance it is noted that the public road is Martin Luther Place and the path of travel to the road is steep and may not achieve compliance with this clause. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D1.11 Horizontal Exits			X		Not applicable
D1.12 Non-required stairways, ramps or escalators			X		Not applicable
D1.13 Number of Persons Accommodated Note NSW Table D1.13 Area per person according to use			X		For the purpose of the <i>Deemed-to-Satisfy provisions</i>, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by— (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D1.13 according to the use of that part, excluding spaces set aside for— (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (iii) reference to the seating capacity in an assembly building or room; or (iv) any other suitable means of assessing its capacity. Refer NSW Table D1.13
D1.14 Measurement of Distances			X		The nearest part of an exit means in the case of— (a) a fire-isolated stairway, fire-isolated passageway, or fire-isolated ramp, the nearest part of the doorway providing access to them; and (b) a non-fire-isolated stairway, the nearest part of the nearest riser; and (c) a non-fire-isolated ramp, the nearest part of the junction of the floor of the ramp and the floor of the storey; and (d) a doorway opening to a road or open space, the nearest part of the doorway; and (e) a horizontal exit, the nearest part of the doorway.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D1.15 Method of Measurement			X		Informational clause only
D1.16 Plant Rooms and lift Motor Rooms: Concession			X		Not applicable
D1.17 Access to lift pits				X	Access to lift pits must— (a) where the pit depth is not more than 3 m, be through the lowest landing doors. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification (and structural details)</i>
Part D2					
Construction of Exits					
D2.1 Application of Part Note NSW D2.1			X		Informational clause only
D2.2 Fire-Isolated stairways and ramps			X		Not applicable
D2.3 Non-fire Isolated stairways and ramps				X	The non-fire isolated stairways must be constructed according to D2.2, or only of- (a) reinforced or prestressed concrete; or (b) steel in no part less than 6 mm thick; or (c) timber that— (i) has a finished thickness of not less than 44 mm; and (ii) has an average density of not less than 800 kg/m ³ at a moisture content of 12%; and (iii) has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue". <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.4 Separation of Rising and Descending Stairs			X		Not applicable
D2.5 Open Access ramps and balconies			X		Not applicable

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D2.6 Smoke Lobbies			X		Not applicable
D2.7 Installations in Exits and Paths of Travel				X	Any electricity meters, distribution boards; telecommunications distribution boards or equipment; electrical motors or other motors within corridors/hallways/lobbies or the like must be enclosed with non-combustible construction or a fire protective covering with doorways suitably sealed against smoke spread. Electrical wiring may be installed with a fire isolated exit, but only where associated with a lighting, detection, pressurisation, security, surveillance, intercommunication, or hydraulic fire services monitoring valves. 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	Any space under a non-fire-isolated stair must be enclosed in 60-minute fire rated construction. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D2.9 Width of Stairs			X		Not applicable as stairways do not exceed 2m in width.
D2.10 Pedestrian Ramps				X	All pedestrian ramps are to have a non-slip finish complying with AS 4586-2013 Slip resistance classification of new pedestrian surface materials. Clause contains additional information relevant to fire isolation and access requirements applicable to pedestrian ramps. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D2.11 Fire-Isolated Passageways			X		Not applicable
D2.12 Roof as Open Space			X		Not applicable
D2.13 Goings & Risers				X	Stairways to achieve compliance with this clause relevant to going and riser dimensions. Stairways to achieve constant risers & goings except:-

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Treads must have a surface with a slip-resistant classification not less than that listed in Table D2.14 when tested in accordance with AS 4586-2013 <i>Slip resistance classification of new pedestrian surface materials</i>. BCA 2016 does not directly specify slip-resistance classification(s) for all <i>accessible paths of travel</i>; however, we highlight the need under AS 1428.1-2009 for all <i>accessible paths of travel</i> to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.14 Landings				X	Landings must not be less than 750mm long and have a slip-resistant classification not less than that listed in Table D2.14 when tested in accordance with AS 4586-2013 <i>Slip resistance classification of new pedestrian surface materials</i>. BCA 2016 does not directly specify slip-resistance classification(s) for all <i>accessible paths of travel</i>; however, we highlight the need under AS 1428.1-2009 for all <i>accessible paths of travel</i> to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.15 Thresholds				X	Generally the threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaves unless the doorway is in a building required to be accessible by Part D3, and in which case the doorway opens to a road or open space and is provided with a threshold ramp or step ramp in accordance with AS 1428.1. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.16 Balustrades and other Barriers Note NSW D2.16				X	Balustrades must be provided to stairs and balconies, driveway ramps etc. where there is a fall of more than 1m. Balustrades shall comply with D2.16. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.17 Handrails				X	All stairways and ramps must be provided with a handrail as per this clause.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					A required exit serving an area required to be accessible must be designed and constructed to comply with Clause 12 of AS 1428.1, except that Clause 12(d) does not apply to a handrail required by (a)(iii)(B). All ramps with a gradient steeper than 1:20 or more must be provided with a handrail as per this clause, including any driveway ramps that form paths of travel to the street. See also clause D3.3 regarding handrail requirements to assist people with a disability. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification.</i>
D2.18 Fixed Platforms, walkways and ladders			X		Not applicable
D2.19 Doorways & Doors	X				Information clause relevant to the operation of doors in the path of travel.
D2.20 Swinging Doors	X				Information clause relevant to door swing direction requirements.
D2.21 Operation of Latch				X	All doors in a required exit or forming part of a required exit AND doors in a path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by 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 – 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 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 C. a single hand pushing action on a single device which is located between 900mm and 1.2m from the door. The above requirements do not apply to doors that serve only or is within a SOU in a Class 3 building. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.22 Re-entry from Fire isolated exits			X		Not applicable as the building does not exceed 25m in effective height.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D2.23 Signs on Doors			X		Not applicable
D2.24 Protection of openable windows				X	In a Class 3 building, where the floor below the window is 2 m or more above the surface beneath it must be protected in accordance with this clause; AND For protection of openable windows of other classifications where the floor below the window is 4 m or more above the surface beneath it. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
D2.25 Timber stairways concession			X		Not applicable
Part D3 Access for People with Disabilities					
Please refer to separate access report.					
SECTION E SERVICES & EQUIPMENT					
Part E1 Fire Fighting Equipment					
E1.3 Fire Hydrants		X			A hydrant system complying with AS 2419.1-2005 must be provided to serve a building having a total floor area greater than 500m², where a fire brigade is available to attend a fire. <u>Noncompliance:</u> The proposed location of the fire hydrants and booster assembly are required to be nominated on the architectural plans so compliance can be assessed. A hydrant system is required to be provided to serve building A/B and the community center if the total floor area exceeds 500m² (Please note no scale is nominated on the plans) <i>Hydraulic Services Design Certification and associated plans must be incorporated into the construction certificate specification</i>
E1.4 Fire Hose Reels				X	A fire hose reel system complying with AS 2441-2005 must be provided to serve the whole building where internal fire hydrants are installed OR where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m².

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Note: FHR's no longer required to serve a Class 2 or 3 building. <u>Noncompliance:</u> The proposed location of fire hose reels to serve the car park are required to be nominated on the architectural plans. A fire hose reel system is required to be provided to serve building A/B (Carpark) and the community center if the building exceeds 500m² in total floor area. (Please note no scale is nominated on the plans) <i>Hydraulic Services Design Certification and associated plans must be incorporated into the construction certificate specification</i>
E1.5 Sprinklers			X		Not applicable
E1.6 Portable Fire Extinguishers				X	Portable fire extinguishers must be provided in accordance with Table E1.6 of the BCA and must be selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444-2001. Note: Portable fire extinguishers now required to serve Class 3 buildings to cover Class A fire risks, where: Internal fire hydrants area installed; and Where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m², and for the purpose of this clause, a SOU unit in a Class 3 building is considered to be a fire compartment. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E1.8 Fire Control Centre			X		Not applicable
E1.9 Fire Precautions during construction				X	During construction, 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 <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E1.10 Provision for Special Hazards			X		Not applicable
Part E2 Smoke Hazard Management					

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
E2.2 General Requirements (inclusive of Table E2.2a / Table E2.2b & NSW amendments)				X	<u>Required to comply:</u> <u>Residential Building A & B</u> Class 3 building / part must be provided an automatic smoke detection and alarm system complying with Specification E2.2a. <u>Car Park</u> A Class 7a building including a basement provided with a mechanical ventilation system in accordance with AS 1668.2 must comply with clause 5.5 of AS/NZS 1668.1 except that fans with metal blades for operation at normal temperatures may be used, and the electrical power and control cabling need not be fire rated. <u>Community Building:</u> The community building is required to be provided with the automatic shutdown of air handling equipment. <i>Appropriate Design Certification must be incorporated into the construction certificate specification</i>
E2.3 Provision for Special Hazards			X		Not applicable
Part E3 Lift Installations					
E3.1 Lift installations				X	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1 <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3.2 Stretcher Facility in Lifts			X		Not applicable as the building has an effective height of 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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3.4 Emergency Lifts			X		Not applicable as the building does not exceed an effective height 25m.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
E3.5 Landings				X	Access and egress to and from lift-well landings must comply with the Deemed-to-Satisfy Provisions of Section D. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3.7 Fire Service Controls			X		Not applicable as the lift does not serve a storey exceeding 12m in effective height.
E3.8 Aged Care Buildings			X		Not applicable.
E3.9 Fire service recall operation switch			X		Not applicable as the lift does not serve a storey exceeding 12m in effective height.
E3.10 Lift car fire service drive control switch			X		Not applicable as the lift does not serve a storey exceeding 12m in effective height.
Part E4 Emergency Lighting, Exit Signs and Warning Systems					
E4.2 Emergency Lighting Requirements				X	Emergency lighting system requirements for class 2-9 buildings. <i>Electrical Design Certification must be incorporated into the construction certificate specification</i>
E4.3 Measurement of Distance			X		Noted. Informational clause only.
E4.4 Design and Operation of Emergency Lighting			X		The emergency lighting system must comply with AS 2293.1-2005.
E4.5 Exit Signs				X	Exit sign requirements for class 2-9 buildings. <i>Electrical Design Certification must be incorporated into the construction certificate specification and exit</i>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<i>sign locations must be illustrated on the architectural floor plans</i>
E4.6 Direction Signs (inclusive of NSW E4.6)				X	If an exit is not readily apparent to persons occupying or visiting the building then directional exit signs must be installed in appropriate positions. Class 9b buildings used as an entertainment venue - Exit signs must also be installed on external egress paths to a street, where the exit from the building does not open directly onto the street. <i>Electrical Design Certification must be incorporated into the construction certificate specification and directional exit sign locations must be illustrated on the architectural floor plans</i>
E4.7 Class 3 Buildings: Exemption			X		Exit doors in Class 3 parts need not comply with E4.5 provided every exit door is clearly and legibly labelled on the side remote from the exit with the word "EXIT" in capital letters 25mm high in a colour contrasting with that of the background or some other suitable method. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E4.8 Design & Operation of Exit Signs				X	Exit signs must comply with: AS 2293.1-2005; or For a photoluminescent exit sign, Specification E4.8. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E4.9 Emergency Warning & Intercommunication Systems			X		Not applicable
SECTION F					
HEALTH & AMENITY					
Part F1 Damp & Weatherproofing					
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	Any external above ground membranes must be waterproofed as per AS 4654 Parts 1 and 2-2012.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1.5 Roof coverings				X	Information clause relevant to the Australian Standards applicable to different types of roof coverings. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1.6 Sarking				X	Sarking-type materials used for weatherproofing must comply with AS/NZS 4200 Part 1 and 2-1994. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1.7 Waterproofing of wet area				X	Wet areas must be waterproofed in accordance with AS 3740-2010 and F1.7 of the BCA. Please note that no windows are permitted in a shower at they are not consider waterproof under AS 3740 – 2010. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
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 Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
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). Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1.11 Provision of Floor Wastes				X	Bathrooms and laundries in Class 3 buildings must be provided with a floor waste, and the floor of such areas must be graded to such floor waste. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F1.12 Sub Floor Ventilation			X		Not applicable

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS								
F1.13 Glazed Assemblies				X	The provision of 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				Clause detailing the minimum sanitary facilities required in Class 3 buildings. <table><tr><th>Facilities required</th><th>Facilities provided</th></tr><tr><td>A bath or shower</td><td>Yes</td></tr><tr><td>A closet pan and washbasin</td><td>Yes</td></tr><tr><td>Laundries</td><td>Yes</td></tr></table>	Facilities required	Facilities provided	A bath or shower	Yes	A closet pan and washbasin	Yes	Laundries	Yes
Facilities required	Facilities provided												
A bath or shower	Yes												
A closet pan and washbasin	Yes												
Laundries	Yes												
F2.2 Calculation of number of occupants and fixtures			X		Noted. Informational clause only.								
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, 6, 7,or 9 buildings in accordance with Table F2.3. (b) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex. (c) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy. (d) 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. (e) Adequate means of disposal of sanitary towels must be provided in sanitary facilities for use by females. <u>Noncompliance:</u> The unisex sanitary facilities located adjacent to the mulit function room are required to be nominated as male and female and provided with washbasins within each facility. The male and female facilities are required to be completely separated by floor to								

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					ceiling partitions as the sharing of sanitary facilities between genders is not permitted. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F2.4 Facilities for People with Disabilities			X		Refer to separate access report.
F2.5 Construction of Sanitary Compartments				X	Doors and partitions that separate adjacent compartments; and 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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F2.6 Interpretation: Urinals and washbasins			X		Not applicable
F2.7 Microbial Control Note NSW F2.7 (Clause Deleted)			X		N/A Clause Deleted in NSW.
F2.8 Waste Management			X		Not applicable
Part F3 Room Sizes					
F3.1 Height of Rooms and other spaces				X	The ceiling height must be not less than— (a) in a Class 3 building — (i) a kitchen, laundry, or the like — 2.1 m; (ii) and a corridor, passageway or the like — 2.1 m; and (iii) a habitable room excluding a kitchen — 2.4 m; and (iv) in a room or space with a sloping ceiling or projections below the ceiling line within - (A) a habitable room— (aa) in an attic — a height of not less than 2.2 m for not less than two thirds of the floor area of the room or space; and

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(bb) in other rooms — a height of not less than 2.4 m for not less than two thirds of the floor area of the room or space; and (B) a non-habitable room — a height of not less than 2.1 m for not less than two thirds of the floor area of the room or space; and when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included; and (b) in a Class 6 or 7 building— (i) except as allowed in (ii) and (f) — 2.4 m; and (ii) a corridor, passageway, or the like — 2.1 m; and in a Class 9b building— (i) a school classroom or other assembly building or part that accommodates not more than 100 persons — 2.4 m; and (ii) a theatre, public hall or other assembly building or part that accommodates more than 100 persons — 2.7 m; and (iii) a corridor— (A) that serves an assembly building or part that accommodates not more than 100 persons — 2.4 m; or (B) that serves an assembly building or part that accommodates more than 100 persons — 2.7 m; and (iv) the number of persons accommodated must be calculated according to D1.13. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
Part F4 Light & Ventilation					
F4.1 Provision of natural light	X				Natural lighting must be provided to all bedrooms and dormitories in a Class 3 building. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F4.2 Methods and extent of natural lighting				X	Required natural lighting must be provided by— (i) windows, excluding roof lights, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					(ii) roof lights, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (B) are open to the sky; or (iii) a proportional combination of windows and roof lights required by (i) and (ii). (b) Except in a Class 9c aged care building, in a Class 2, 3 or 9 building or Class 4 part of a building a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of— (i) generally — 1 m; and (ii) in a patient care area or other room used for sleeping purposes in a Class 9a building — 3 m; and (iii) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill.
F4.3 Natural light borrowed from adjoining room			X		(a) Natural lighting to a room in a Class 2 building or Class 4 part of a building or in a sole occupancy unit of a Class 3 building, may come through a glazed panel or opening from an adjoining room (including an enclosed verandah) if— (i) both rooms are within the same sole-occupancy unit or the enclosed verandah is on common property; and (ii) the glazed panels or openings have an aggregate light transmitting area of not less than 10% of the floor area of the room to which it provides light; and the adjoining room has— (A) windows, excluding roof lights, that— (aa) have an aggregate light transmitting area of not less than 10% of the combined floor areas of both rooms; and (bb) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (B) roof lights, that— (aa) have an aggregate light transmitting area of not less than 3% of the combined floor areas of both rooms; and (bb) are open to the sky; or (C) a proportional combination of windows and roof lights required by (A) and (B).

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(b) The areas specified in (a)(ii) and (a)(iii) may be reduced as appropriate if direct natural light is provided from another source.
F4.4 Artificial lighting				X	Clause relevant to the provision of artificial lighting in accordance with AS/NZS 1680.0-2009 to specific building areas. <i>Electrical Design Certification must be incorporated into the construction certificate specification</i>
F4.5 Ventilation of Rooms				X	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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F4.6 Natural Ventilation				X	(a) Natural ventilation provided in accordance with F4.5(a) must consist of permanent openings, windows, doors or other devices which can be opened— (i) with ventilating area not less than 5% of the floor area of the room required to be ventilated; and (ii) open to— (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. (b) The requirements of (a)(i) do not apply to a Class 8 electricity network substation. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F4.7 Ventilation borrowed from adjoining room			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 both rooms are within the same sole-occupancy unit or the enclosed verandah is common property, and— (a) in a Class 2 building, a sole-occupancy unit of a Class 3 building or Class 4 part of a building— (i) the room to be ventilated is not a sanitary compartment; and (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 (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

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(b) in a Class 5, 6, 7, 8 (except a Class 8 electricity network substation) or 9 building— (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 (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 (c) the ventilating areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source.
F4.8 Restriction of position of water closets and urinals			X		Rooms containing closet pans or urinals must not open directly into kitchen / pantry areas, public dining areas, Class 3 dormitory areas, public assembly areas (excluding early childhood centres, primary schools and open spectator stands) and a workplace normally occupied by more than one person.
F4.9 Airlocks				X	Not applicable
F1.11 Carparks				X	Every storey of a carpark (except an open deck carpark) must have: a system of mechanical ventilation complying with AS1668.2-2012; or a system of natural ventilation complying with Section 4 of AS 1668.4-2012. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F4.12 Kitchen local exhaust			X		Not applicable
Part F5 Sound Transmission					
F5.1 Application of Part			X		The provisions of this Part apply to Class 3 buildings only.
F5.2 Determination of airborne sound insulation ratings				X	A form of construction required to have an airborne sound insulation rating must— (a) have the required value for weighted sound reduction index (Rw) or weighted sound reduction index with spectrum adaptation term (Rw + Ctr) determined in accordance with AS/NZS 1276.1 or ISO 717.1 using results from laboratory measurements; or

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(b) comply with Specification F5.2. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F5.3 Determination of impact sound insulation ratings				X	(a) A floor in a building required to have an impact sound insulation rating must— (i) have the required value for weighted normalised impact sound pressure level ($L_{n,w}$) determined in accordance with AS/ISO 717.2 using results from laboratory measurements; or (ii) comply with Specification F5.2. (b) A wall in a building required to have an impact sound insulation rating must— (i) for a Class 3 building be of discontinuous construction; and (c) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and (i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and (ii) for other than masonry, there is no mechanical linkage between leaves except at the periphery. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F5.4 Sound Insulation of floors between units				X	A floor in a Class 3 building must achieve an $R_w + C_{tr}$ (airborne) not less than 50, and an $L_{n,w}$ (impact) not more than 62, if separating: SOU's; or An SOU from a plant room, lift shaft, public corridor, public lobby or parts of a different classification. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
F5.5 Sound insulation of walls between units				X	(a) A wall in a Class 3 building must— (i) have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates sole-occupancy units; and (ii) have an R_w (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and (iii) comply with F5.3(b) if it separates—

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					(A) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or (B) a sole-occupancy unit from a plant room or lift shaft. (b) A door may be incorporated in a wall in a Class 3 building that separates a sole occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30. (e) Where a wall required to have sound insulation has a floor above, the wall must continue to— (i) the underside of the floor above; or (ii) a ceiling that provides the sound insulation required for the wall. (f) Where a wall required to have sound insulation has a roof above, the wall must continue to— (i) the underside of the roof above; or (ii) a ceiling that provides the sound insulation required for the wall. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F5.6 Sound insulation rating of services				X	Ducts and pipes must achieve an $R_w + C_{tr}$ (airborne) of no less than 40 if the adjacent room is habitable or 25 if non-habitable. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F5.7 Sound isolation of pumps				X	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating pump. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
SECTION G ANCILLIARY PROVISIONS					
Part G1 Minor Structures and Components					
G1.1 Swimming Pools				X	A swimming pool associated with a Class 3 or building or Class 4 part of a building, with a depth of water more than 300mm must have suitable barriers to restrict access by young children in accordance with AS 1926.1-2012 and AS 1926.2-2007.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					A water recirculation system in a swimming pool with a depth of water more than 300mm must comply with AS 1926.3-2010. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
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: The windows can be cleaned wholly from within the building; or Via a method complying with the Work Health and Safety Act 2011 and regulations made under that Act. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G1.2 Refrigeration chambers, strong-rooms and vaults			X		Not applicable
G1.3 Outdoor play areas			X		Not applicable
Part G2 Boilers, Pressure Vessels, Heating Appliances, Fireplaces, Chimneys and Flues					
G2.2 Installation of appliances			X		Not applicable
G2.3 Open fire places			X		Not applicable
G2.4 Incinerator rooms			X		Not applicable
Part G3 Atrium Construction					
G3.1 Application of Part			X		Not applicable
Part G4 Construction in Alpine Areas					
G4.1 Application of Part			X		Not applicable
Part G5 Construction in Bushfire Prone Areas					

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
G5.1 Application of Part				X	This part applies to Class 3 buildings, in addition to Class 10a building or deck associated with a Class 2 and 3 building. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
G5.2 Protection				X	Clause relevant to the minimum bushfire construction standards applicable to Class 2 and 3 buildings, Class 4 parts of a building, a Class 9 building that is a special fire protection purpose, and associated Class 10a buildings, located within a designated bushfire prone area. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
SECTION J					
ENERGY EFFICIENCY					
NSW SECTION J					
ENERGY EFFICIENCY					
NSW SUBSECTION J(A) ENERGY EFFICIENCY - CLASS 2 BUILDINGS AND CLASS 4 PARTS			X		Not applicable to class 3 buildings.
NSW J(A)1 BUILDING FABRIC					
NSW J(A)1.1 Application of Part			X		Not applicable to class 3 buildings.
NSW J(A)1.2 Compliance with BCA provisions			X		Not applicable to class 3 buildings.
NSW J(A)2 BUILDING SEALING					
NSW J(A)2.1 Application of Part			X		Not applicable to class 3 buildings.
NSW J(A)2.2 Compliance with BCA Provisions			X		Not applicable to class 3 buildings.
NSW J(A)3 AIR CONDITIONING AND VENTILATING SYSTEMS					
NSW J(A) 3.1 Application of Part			X		Not applicable to class 3 buildings.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
NSW J(A) 3.2 Compliance with BCA Provisions			X		Not applicable to class 3 buildings.
NSW J(A)4 HOT WATER SUPPLY					
NSW J(A)4.1 Application of Part			X		Not applicable to class 3 buildings.
NSW J(A)4.2 Compliance with BCA Provisions			X		Not applicable to class 3 buildings.
NSW J(A)5 ACCESS FOR MAINTENANCE					
NSW J(A)5.1 Application of Part			X		Not applicable to class 3 buildings.
NSW J(A)5.2 Access for maintenance			X		Not applicable to class 3 buildings.
NSW J(A)5.3 Compliance with BCA provisions			X		Not applicable to class 3 buildings.
NSW SUBSECTION J(B) ENERGY EFFICIENCY - CLASS 3 AND CLASS 5-9 BUILDINGS					
NSW J(B) 1 Compliance with BCA Provisions				X	Class 3 and Class 5 to 9 buildings must comply with all of the provisions of the National Section J, except as varied by NSW J3.1 (as referenced below).
NSW J3.1 Application of Part			X		Add the following sub-clause to the National Section J provisions of Clause J3.1: <i>J3.1(d) – “parts of buildings that cannot be fully enclosed”</i>
SECTION J - NATIONAL ENERGY EFFICIENCY PROVISIONS					
Part J0: Energy Efficiency					
J0.1 Application of Section J			X		Not applicable to class 3 buildings.
J0.2 Heating and cooling loads of sole-occupancy units of a class 2 building or a class 4 part			X		Not applicable to class 3 buildings.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
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.
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. Details demonstrating compliance with this clause must be incorporated into the construction certificate specification
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. Details demonstrating compliance with this clause must be incorporated into the construction certificate specification
J1.4 Roof lights			X		Not applicable as no roof lights proposed.
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. Details demonstrating compliance with this clause must be incorporated into the construction certificate specification
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,

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					other than a sole occupancy unit of a class 2 building or Class 4 part of a building.
J2.2			X		Blank clause.
J2.3			X		Blank clause.
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: Glazing in the external fabric facing each orientation; and 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: 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		Not applicable
J3.3 Roof lights			X		Not applicable as no roof lights are proposed.
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).

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
J3.5 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. 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		Not applicable
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
Part J6: Artificial lighting and power					

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
J6.1 Application of Part			X		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
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
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

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					provision of pool covers, and time switches. The requirements of this clause do not apply to a spa pool. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
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. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
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 Access for maintenance			X		This Clause has been deleted
J8.3 Facilities for energy monitoring				X	The building must have facilities to record the consumption of gas and electricity as per clause J8.3(a). <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate specification</i>

5.0 CONCLUSION

This report provides a Building Code of Australia (BCA) 2016, Amendment 1 assessment of the proposed independent living units and associated buildings, to be located at 3 Martin Luther Place Allambie Heights.

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.

Prepared by:  Prepared by: Joshua Curan Senior Building Consultant Grad Dip Build Surv (UWS) A3 – Accredited Certifier – Building Surveying BPB No. 2679 for AE&D	Checked by:  Approved by: Jason Storer Director Grad Dip Build Surv (UWS) A1 (Unrestricted) – Accredited Certifier – Building Surveying BPB No. BPB 0394 for AE&D
--	---

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

7.0 ATTACHMENT B – REQUIREMENTS TYPE A CONSTRUCTION

3. TYPE A FIRE-RESISTING CONSTRUCTION

3.1 Fire-resistance of building elements

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

- (a) each building element listed in Table 3 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) *external walls, common walls* and the flooring and floor framing of lift pits must be *non-combustible*; and
- (c) any *internal wall required* to have an FRL with respect to *integrity* and *insulation* must extend to—
 - (i) the underside of the floor next above; or
 - (ii) the underside of a roof complying with Table 3; or
 - (iii) if under Clause 3.5 the roof is not required to comply with Table 3, the underside of the non-combustible roof covering 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) a ceiling that is immediately below the roof and has a *resistance to the incipient spread of fire* to the roof space between the ceiling and the roof of not less than 60 minutes; and
- (d) a *loadbearing internal wall* and a *loadbearing fire wall* (including those that are part of a *loadbearing shaft*) must be of
 - (i) concrete; or
 - (ii) masonry; or
 - (iii) Fire-protected timber provided that –
 - (A) The building is a Class 2,3 or 5 building which is -
 - (aa) a separate building; or
 - (bb) a part of a building-
 - (AA) which only occupies part of a storey, and is separated from the remaining part by a fire wall;
or
 - (BB) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than prescribed for a fire wall for the lower storey; and
 - (B) The building has an effective height of not more than 25m; and
 - (C) The building has a sprinkler system throughout complying with Specification E1.5; and
 - (D) Any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and
 - (E) Cavity barriers are provided in accordance with Specification C1.13
- (e) a *non-loadbearing*—
 - (i) internal wall required to be fire-resisting; and
 - (ii) lift, ventilating, pipe, garbage, or similar *shaft* that is not for the discharge of hot products of combustion, must be of *non-combustible* construction; and
- (f) the FRLs specified in **Table 3** for an external column apply also to those parts of an internal column that face and are within 1.5 m of a *window* and are exposed through that *window* to a *fire-source feature*.

Table 3 TYPE A 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/ 60	120/ 90/ 90	180/180/120	240/240/180
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90	240/180/ 90
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/ 60	—/ 90/ 90	—/180/120	—/240/180
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—
EXTERNAL COLUMN not incorporated in an <i>external wall</i> —				
For <i>loadbearing</i> columns—				
	90/—/—	120/—/—	180/—/—	240/—/—
For non- <i>loadbearing</i> columns—				
	—/—/—	—/—/—	—/—/—	—/—/—
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180	240/240/240

Table 3 TYPE A CONSTRUCTION: FRL OF BUILDING ELEMENTS— continued

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
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
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>	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
Non- <i>loadbearing</i>	- / 60/ 60	- / - / -	- / - / -	- / - / -
Between or bounding <i>sole-occupancy units</i> —				
<i>Loadbearing</i>	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
Non- <i>loadbearing</i>	- / 60/ 60	- / - / -	- / - / -	- / - / -
Ventilating, pipe, garbage, and like <i>shafts</i> not used for the discharge of hot products of combustion—				
<i>Loadbearing</i>	90/ 90/ 90	120/ 90/ 90	180/120/120	240/120/120
Non- <i>loadbearing</i>	- / 90/ 90	- / 90/ 90	- /120/120	- /120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES and COLUMNS—				
	90/ - / -	120/ - / -	180/ - / -	240/ - / -
FLOORS	90/ 90/ 90	120/120/120	180/180/180	240/240/240
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30	240/ 90/ 60

3.2 Concessions for floors A floor need not comply with Table 3 if—

- (a) it is laid directly on the ground; or
- (b) in a Class 2, 3, 5 or 9 building, the space below is not a *storey*, does not accommodate motor vehicles, is not a storage or work area, and is not used for any other ancillary purpose; or
- (c) it is a timber *stage* floor in a Class 9b building laid over a floor having the *required* FRL and the space below the *stage* is not used as a dressing room, store room, or the like; or
- (d) it is within a *sole-occupancy unit* in a Class 2 or 3 building or Class 4 part; or
- (e) it is an open-access floor (for the accommodation of electrical and electronic services and the like) above a floor with the *required* FRL.

3.3 Floor loading of Class 5 and 9b buildings: Concession

If a floor in a Class 5 or 9b building is designed for a live load not exceeding 3 kPa—

- (a) the floor next above (including floor beams) may have an FRL of 90/90/90; or
- (b) the roof, if that is next above (including roof beams) may have an FRL of 90/60/30.

3.4 Roof superimposed on concrete slab: Concession

A roof superimposed on a concrete slab roof need not comply with Clause 3.1 as to *fire-resisting construction* if—

- (a) the superimposed roof and any construction between it and the concrete slab roof are *non-combustible* throughout; and
- (b) the concrete slab roof complies with Table 3.

3.5 Roof: Concession

A roof need not comply with Table 3 if its covering is *non-combustible* and the building—

- (a) has a sprinkler system complying with Specification E1.5 installed throughout; or
- (b) has a *rise in storeys* of 3 or less; or
- (c) is of Class 2 or 3; or
- (d) has an *effective height* of not more than 25 m and the ceiling immediately below the roof has a *resistance to the incipient spread of fire* to the roof space of not less than 60 minutes.

3.6 Rooflights

If a roof is *required* to have an FRL or its covering is *required* to be *non-combustible*, rooflights or the like installed in that roof must—

- (a) have an aggregate area of not more than 20% of the roof surface; and
- (b) be not less than 3 m from—
 - (i) any boundary of the allotment other than the boundary with a road or public place; and
 - (ii) any part of the building which projects above the roof unless that part has the FRL *required* of a *fire wall* and any openings in that part of the wall for 6 m vertically above the rooflight or the like are protected in accordance with C3.4; and
 - (iii) any rooflight or the like in an adjoining *sole-occupancy unit* if the walls bounding the unit are *required* to have an FRL; and
 - (iv) any rooflight or the like in an adjoining fire-separated section of the building; and
- (c) if a ceiling with a *resistance to the incipient spread of fire* is *required*, be installed in a way that will maintain the level of protection provided by the ceiling to the roof space.

3.7 Internal columns and walls: Concession

For a building with an *effective height* of not more than 25 m and having a roof without an FRL in accordance with Clause 3.5, in the *storey* immediately below that roof, internal columns other than those referred to in Clause 3.1(f) and *internal walls* other than *fire walls* and *shaft walls* may have—

- (a) in a Class 2 or 3 building: FRL 60/60/60; or
- (b) in a Class 5, 6, 7, 8 or 9 building—
 - (i) with *rise in storeys* exceeding 3: FRL 60/60/60
 - (ii) with *rise in storeys* not exceeding 3: no FRL.

3.8 Open spectator stands and indoor sports stadiums: Concession

In an open spectator stand or indoor sports stadium, the following building elements need not have the FRL specified in Table 3:

- (a) The roof if it is non-combustible.
- (b) Columns and loadbearing walls supporting only the roof if they are noncombustible.
- (c) Any non-loadbearing part of an external wall less than 3 m—
 - (i) from any fire-source feature to which it is exposed if it has an FRL of not less than –/60/60 and is non-combustible; or
 - (ii) from an external wall of another open spectator stand if it is non-combustible.

3.9 Carparks

- (a) Notwithstanding Clause 3.1, a carpark may comply with Table 3.9 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—
 - (A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or
 - (B) which is located above or below another classification, and the floor separating the classifications complies with C2.9; or
 - (C) which is located above another Class 7 part of the building not used for carparking, and the floor separating the parts complies with Table 3 for a Class 7 part other than a carpark; or
 - (D) which is located below another Class 7 part of the building not used for carparking, and the floor separating the parts complies with Table 3.9.
- (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 3.9 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
Non- <i>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) non- <i>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 <i>required</i> by Table 3
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) and one that does not support a part of a building that is not used as a <i>carpark</i>	60/—/— or 26 m ² /tonne
(c) any other column not covered by (a) or (b)	60/—/—
Beam	
(a) steel floor beam in continuous contact with a concrete floor slab	60/—/— or 30 m ² /tonne

Table 3.9 REQUIREMENTS FOR CARPARKS — continued

Building element	FRL (not less than) <i>Structural adequacy/Integrity/Insulation</i> ESA/M (not greater than)
(b) any other beam	60/-/-
Fire-resisting lift and stair shaft (within the <i>carpark</i> only)	60/60/60
Floor slab and vehicle ramp	60/60/60
Roof (not used for carparking)	-/-/-
Notes: 1. ESA/M means the ratio of exposed surface area to mass per unit length. 2. Refer to Specification E1.5 for special requirements for a sprinkler system in a <i>carpark</i> complying with Table 3.9 and located within a multi-classified building.	

3.10 Class 2 and 3 buildings: Concession

- (a) A Class 2 or 3 building having a rise in storeys of not more than 3 need not comply with Clauses 3.1(b), (d) and (e) of Specification C1.1 and the requirement of C2.6 for non-combustible material, 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 noncombustible; 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 4 may have the top three storeys 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 3—
 - (i) for any floor and 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 each side with 13 mm standard grade plasterboard or similar non-combustible material; and
 - (B) it extends—
 - to the underside of the floor next above; or
 - to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes; or
 - 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 joint, space or the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material; and

- (E) any doorway in the wall is protected by a self-closing, tight fitting, solid core door not less than 35 mm thick.

8.0 ATTACHMENT C – REQUIREMENTS TYPE C CONSTRUCTION

5.1 Fire-resistance of building elements

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

(a) a building element listed in **Table 5** 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) an *external wall* that is *required* by **Table 5** to have an FRL need only be tested from the outside to satisfy the requirement; and

(c) a *fire wall* or an *internal wall* bounding a *sole-occupancy unit* or separating adjoining units must comply with **Specification C1.8** if it is of *lightweight construction* and is *required* to have an FRL; and

(d) in a Class 2 or 3 building, an *internal wall* which is *required* by **Table 5** to have an FRL must extend—

(i) to the underside of the floor next above if that floor has an FRL of at least 30/30/30 or a *fire-protective covering* on the underside of the floor; or

(ii) to 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) to 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) 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, and any column supporting the floor, must—

(i) 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 and around the column, if the floor or column is combustible or of metal; and

(f) 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) 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 and around the column, if the floor or column is combustible or of metal.

Table 5 TYPE C 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—				
Less than 1.5 m	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90
1.5 to less than 3 m	—/—/—	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60
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—				
Less than 1.5 m	90/-/-	90/-/-	90/-/-	90/-/-
1.5 to less than 3 m	-/-/-	60/-/-	60/-/-	60/-/-
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90
INTERNAL WALLS-				
Bounding <i>public corridors</i> , public lobbies and the like—	60/ 60/ 60	-/-/-	-/-/-	-/-/-
Between or bounding <i>sole-occupancy units</i> —	60/ 60/ 60	-/-/-	-/-/-	-/-/-
Bounding a stair if <i>required</i> to be rated—	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60
ROOFS	-/-/-	-/-/-	-/-/-	-/-/-

5.2 Carparks

(a) Notwithstanding Clause 5.1, a carpark may comply with Table 5.2 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.

(a) 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 5.2 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 1.5 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) 1.5 m or more from a <i>fire-source feature</i> to which it is exposed	—/—/—
(b) <i>internal wall</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>	90/90/90
Column	
(a) steel column less than 1.5 m from a <i>fire-source feature</i>	60/—/— or 26 m ² /tonne
(b) any other column less than 1.5 m from a <i>fire-source feature</i>	60/—/—
(c) any other column not covered by (a) or (b)	—/—/—
Beam	
(a) less than 1.5 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) 1.5 m or more from a <i>fire-source feature</i>	—/—/—
Roof, floor slab and vehicle ramp	—/—/—
Note: ESA/M means the ratio of exposed surface area to mass per unit length.	