



BUILDING CODE OF AUSTRALIA (BCA) COMPLIANCE

ASSESSMENT REPORT







Project Address	2 DELMAR PARADE DEE WHY, NSW 2099
Report No.	19/055
Prepared for	LANDMARK GROUP
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Date	25 JUNE 2020



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DOCUMENT CONTROL

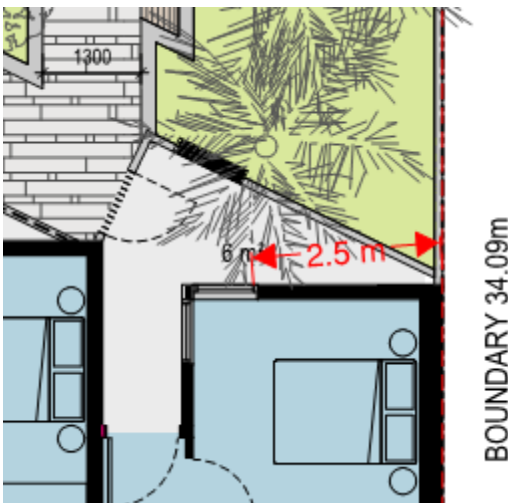
Report No.	Revision	Issue date	Report Status	Prepared By	Reviewed By
19/055	A	04/02/2020	Draft report created for client review and comment after initial assessment done	Ben Leedham	Paul Aramini
					
19/055	B	24/02/2020	Revised based off latest plans provided by architect	Ben Leedham	Paul Aramini
					
19/055	C	25/06/2020	Additional details added based off comments made by council	Ben Leedham	Paul Aramini
					

EXECUTIVE SUMMARY

This report provides a Building Code of Australia 2019 (BCA)¹ assessment of the proposed development at **2 Delmar Parade Dee Why for the construction of a new seven storey mixed use building including ground floor retail/commercial space and two levels of basement carparking**. The primary purpose of this report is to identify the non-compliance matters contained in the proposed design in comparison to the current Deemed-to-Satisfy (DTS) Provisions of the BCA Volume One.

It should be noted that the proposed development is required to comply with ALL relevant BCA Clauses marked 'Compliance Required' in Table 3.0 of this report, which shall be further detailed as nominated prior to the issue of a Construction Certificate. The list provided below identifies the DTS departures that are required to be addressed through design changes/amendments to comply with the Deemed-to-Satisfy (DTS) Provisions, additional information shown on plans or by way of a Performance Solution being developed that satisfy the Performance Requirements of the BCA.

The following is a list of Deemed-to-Satisfy Provisions that should be addressed by design amendments to achieve Deemed-to-Satisfy compliance with the BCA.

DTS Provision	Outline of DTS departure
<p>C3.2 Protection of openings in external walls</p>	<p>There appears to be window openings within the bedroom of units closest to the southern boundary on level 1 to level 3 that are located within 3m of the boundary (fire source feature) therefore require protection in accordance with C3.4 to comply with the DTS provisions of this clause.</p> 

DTS Provision **Outline of DTS departure**

Basement levels 1 & 2

- Travel distances exceed 20m to a point of choice between the two exits provided



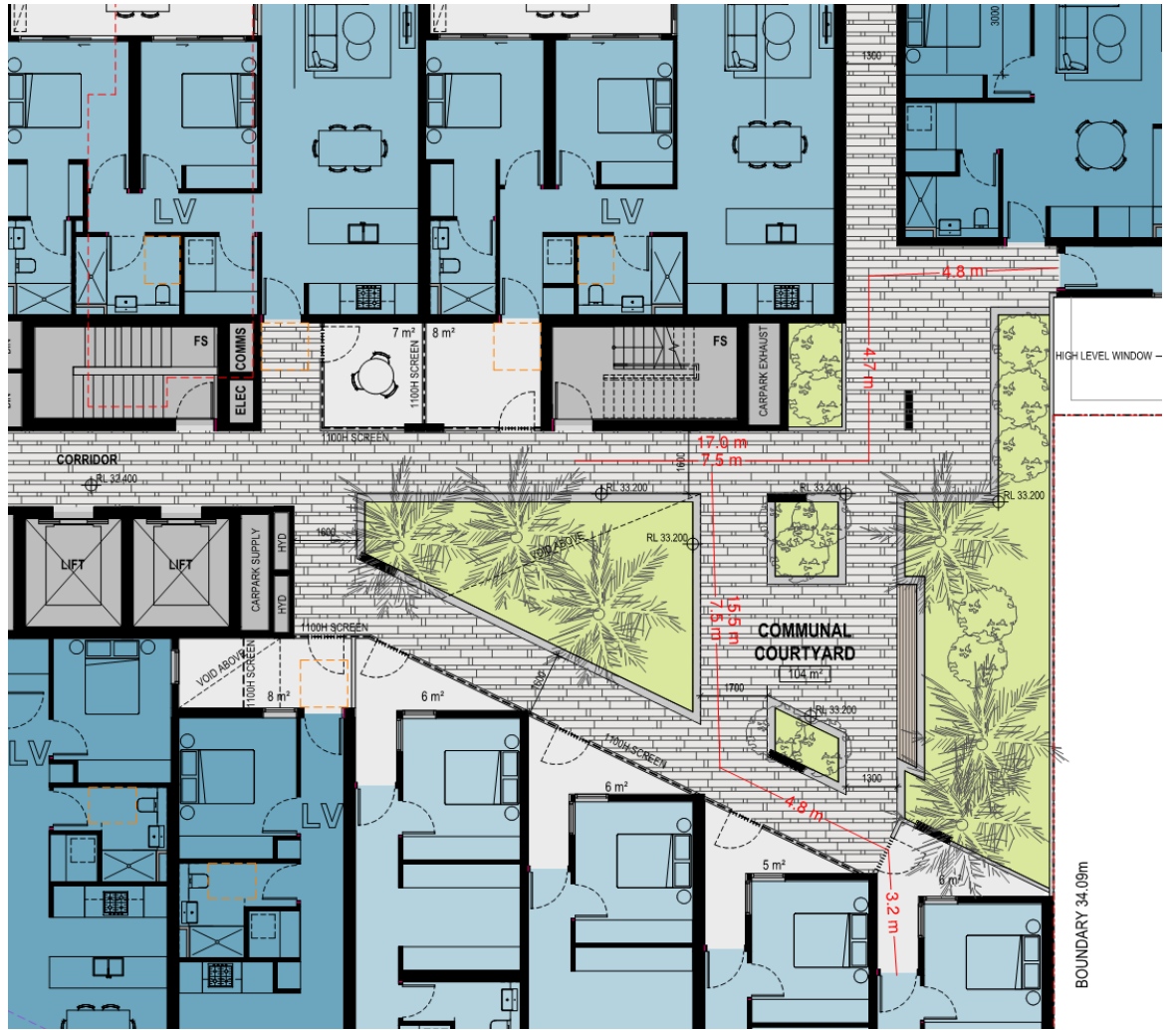
D1.4 Exit travel distances

Level one

- Travel distances to a point of choice between the two exits provided well exceeds the maximum permissible 6m distance. Some units are required to travel up to 25m to the point of choice, which still exceeds the 12m limit if the permitted concession applies under Specification E1.5a Clause 3
- Travel distances from the communal courtyard to the closest exit also well exceeds the maximum permissible 20m

DTS Provision

Outline of DTS departure



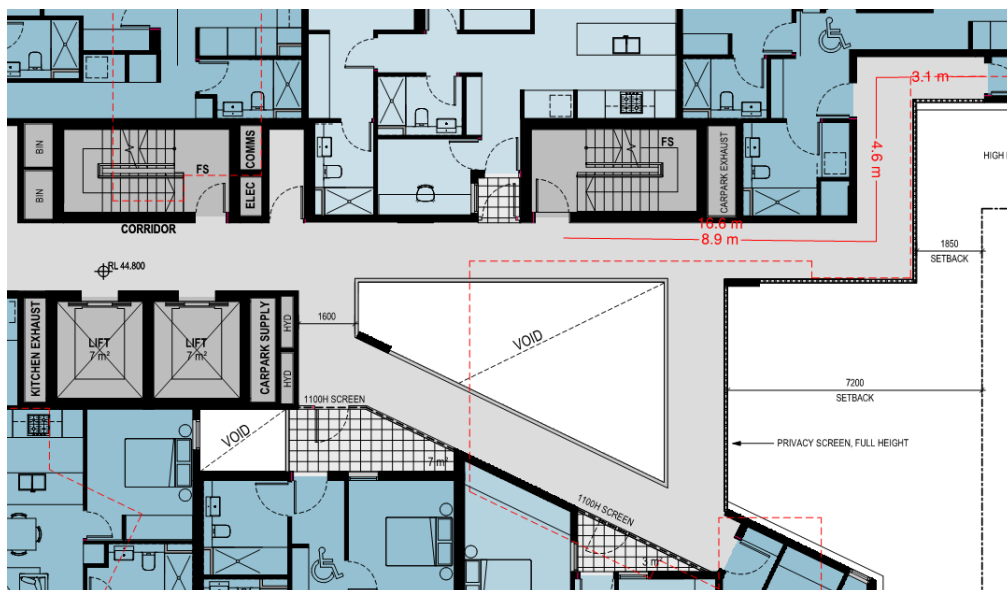
Level two & three

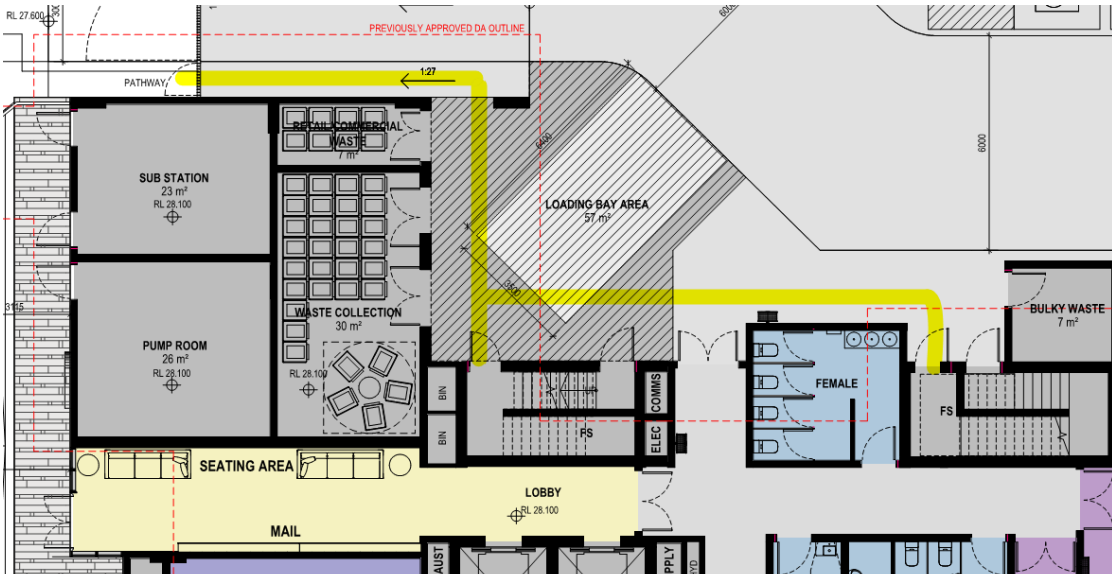
- Travel distances to a point of choice between the two exits provided exceed the maximum permissible 6m distance. Even if concession applies under Specification E1.5a Clause 3, the 12m limit is still exceeded to a point of choice.



Level four, five & six

- Travel distance to a point of choice between two exits has been exceeded (similar layout to lower levels)



DTS Provision	Outline of DTS departure
<p>D1.7 Travel via fire isolated exits</p>	<p>Both fire isolated stairs providing egress from residential and basement levels discharge out at ground floor level within the confines of the building (in the loading bay area), not complying with the requirements of D1.7(b)(ii) or (iii).</p>  <p>The diagram is a detailed floor plan of a building. Key areas include: <ul style="list-style-type: none"> Sub Station: 23 m², RL 28.100 Pump Room: 26 m², RL 28.100 Seating Area: Located below the pump room. Mail: Located below the seating area. Lobby: RL 28.100 Waste Collection: 30 m² Commercial Waste: Located above the waste collection area. Loading Bay Area: 57 m², highlighted with a yellow path indicating egress. Bulky Waste: 7 m² Female: Restroom area. Other rooms: ELEC COMMIS, SUPPLY, CHAUST, BIN, FS, and PATHWAY. A yellow path starts from a staircase area, goes through a fire-isolated exit into the loading bay area. A red dashed line indicates a 'PREVIOUSLY APPROVED DA OUTLINE'. A slope of 1:27 is noted near the loading bay area. Reference levels (RL) are marked at 27.600, 28.100, and 28.150.</p>

¹ Australian Building Codes Board. "Building Code of Australia 2019"



1.0 INTRODUCTION

This report provides a Building Code of Australia 2019 (BCA) assessment of the proposed development at **2 Delmar Parade Dee Why for the construction of a new seven storey mixed use building including ground floor retail/commercial space and two levels of basement carparking**

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

1.1 Basis of Report

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

1.2 Information relied upon

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

- The following architectural plans as listed hereunder:

Item No.	Documentation type		
1	Plans		
Architectural plans (Job No.219132) by Rothe Lowman			
Drawing No.	Drawing Title	Revision	Date
TP01.08	Basement level 2	P1	24/02/2020
TP01.09	Basement level 1	P1	24/02/2020
TP01.10	Ground level	P2	23/06/2020
TP01.11	Level 1	P2	23/06/2020
TP01.12	Level 2	P2	23/06/2020
TP01.13	Level 3	P2	23/06/2020
TP01.14	Level 4	P2	23/06/2020
TP01.15	Level 5	P2	23/06/2020
TP01.16	Level 6	P2	23/06/2020

TP01.17	Roof level	P6	19/02/2020
TP02.05	Site elevations - north	P3	19/02/2020
TP02.06	Site elevations - south	P3	19/02/2020
TP02.07	Site elevations - east	P3	19/02/2020
TP02.08	Site elevations - west	P3	19/02/2020
TP03.01	Site section 1	P3	19/02/2020
TP03.02	Site section 2	P3	19/02/2020
TP03.03	Site section 3	P3	19/02/2020
TP03.04	Site section 4	P2	19/02/2020
TP08.15	GFA plans	P6	19/02/2020
2	BCA applicable to project		
National Construction Code 2019 – Volume One – Building Code of Australia (Class 2 to 9 buildings), published by the Australian Building Codes Board (ABCB)			
Guide to the National Construction Code 2019 – Volume One – Building Code of Australia (Class 2 to 9 buildings), published by the Australian Building Codes Board (ABCB)			

1.3 Purpose of the Report

The purpose of this report is to assess the following:

- Assessment under the current Building Code of Australia 2019 and list any departures from the current BCA Volume One DTS provisions

1.4 Limitations of the Report

- 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 be carried out)
- Sections B 'structure' and I 'maintenance' 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.
- A detailed section J assessment including glazing, shading, lighting calculations and the like required by Section J of the BCA not been carried out
- This report does not provide any assessment of the existing fire resistance levels (FRL) of the building or combustibility or fire hazard properties of any materials inside/outside the building.



2.0 BCA ASSESSMENT DATA

The following is a summary of the Building Code of Australia 2019 assessment data in relation to the proposed development:

Applicable edition of the BCA	2019
Applicable volume of the BCA	One
BCA Building Classification/s	2 (residential)
	5 (commercial)
	6 (retail)
	7a (basement carpark)
Number of contained storeys	9
Building "Rise in storeys"	7
Type of construction	A
General floor area limitations	Class 7a carpark
	Area Permitted: 5,000m ² Area Proposed: 3,594m ²
	Volume Permitted: 30,000m ³ Volume Proposed: 10,423m ³
Climate zone	The building is located within climate zone 5, being within the City of Sydney local government area.
Effective height	20m approximately

Effective height is defined in Part A1.1 of the BCA as:

"the vertical distance between the floor of the lowest storey included in the calculation of rise in storeys on the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilation, lift or other equipment, water tanks or similar service units."

Note: for Fire Engineering Purposes, if the largest fire compartment exceeds 2,000m² or the total gross floor area of the building exceeds 6,000m², the non compliances identified in the Executive Summary need to be approved via a Fire Engineered Solution against the BCA Performance Requirements, the proposal with the Fire Engineers Report will need to be submitted for the approval of FRNSW under clause 144 of the Environmental Planning & Assessment Act 1979. As per table above, the largest fire compartment being the basement carpark levels, exceeds 2,000m², therefore submission to FRNSW will be required.



3.0 BCA ASSESSMENT SUMMARY

The following table details the BCA compliance of the assessed design against the DTS Provisions of the BCA.

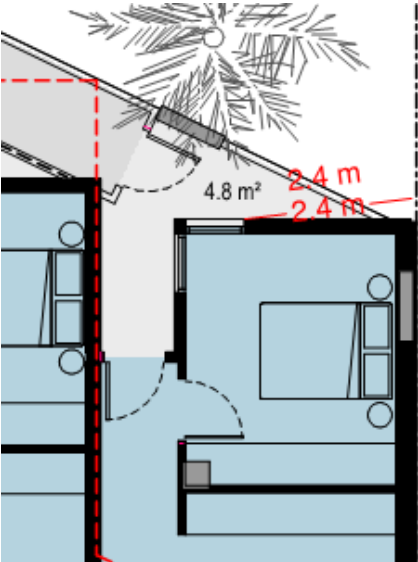
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
SECTION B STRUCTURE		
Part B1: Structural Provisions	Further details to be provided at CC stage	Consulting structural engineer to provide structural drawings & details, plus accompanying structural design certificate to demonstrate that all building elements will comply with Section B of BCA 2019.
SECTION C FIRE RESISTANCE		
Part C1 Fire Resistance & Stability		
C1.1 Type of Construction Required	Further details to be provided at CC stage	<p>Plans should identify the type of construction & materials to be used & the Fire Resistance Level (FRL) required under Table 3 of Specification C1.1. Please also note that Specification C1.1 also outlines design compliance with the following:</p> <ul style="list-style-type: none"> • Where combustible materials are proposed as a finish or lining to a wall or roof, to a building element required to have an FRL, the material must comply with the fire hazard properties prescribed under C1.10. This includes aluminum panels • External walls, common walls & flooring must be non-combustible construction. If timber paneling or aluminum composite panels are proposed to the external façade of building, evidence of suitability will need to be provided confirming the product is non-combustible i.e CodeMark certification. • A loadbearing internal wall & a loadbearing fire wall (including

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<p>loadbearing shaft) must be concrete, masonry or fire resisting timber</p> <ul style="list-style-type: none"> The FRL's for external columns also apply to those parts of internal columns that are within 1.5m of a window and exposed through that window to the fire source feature The roof of the building does not require an FRL, provided the roof covering is non-combustible Roof lights must not be less than 3m from the boundary and any roof light in an adjoining SOU.
C1.2 Calculation of Rise In Stories	Noted	The building has a rise in storey's of seven
C1.3 Buildings of Multiple Classifications	Noted	Informational clause only
C1.4 Mixed Types of Construction	Not applicable	
C1.5 Two Storey Class 2, 3 or 9 buildings	Not applicable	
C1.6 Class 4 Parts	Not applicable	
C1.7 Open Spectator Stands	Not applicable	
C1.8 Lightweight Construction	Further details required at CC stage	Lightweight construction must comply with BCA Specification C1.8 if it is used in a wall system under sub-clause (a) and if used for the covering of steel column or the like under sub-clause (b)
C1.9 Non-combustible building elements	Further details required at CC stage	<p>In a building required to be of Type A construction, the following building elements are to be completely non-combustible:</p> <ul style="list-style-type: none"> External walls and common walls Flooring and floor framing of lift pits Non-loadbearing internal walls required to be fire resisting <p>Product specifications, test reports and installation guides for any attachments/cladding are to be provided to confirm if non combustible</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
C1.10 Fire Hazard Properties	Further details required at CC stage	<p>The fire hazard properties of the following new linings, materials and assemblies in the proposed development must comply with Specification C1.10</p> <ul style="list-style-type: none"> • Floor linings and floor coverings • Wall linings and ceiling linings • Air handling ductwork • Sarking type materials • Attachments to floors, ceilings, internal walls and the internal linings of external walls <p>Other materials including insulation materials other than sarking type materials</p>
C1.11 Performance of External Walls in Fire	Not applicable	
C1.12 Combustible materials	Deleted	
C1.13 Fire Protected timber: Concession	Not applicable	
C1.14 Ancillary elements	Further detail required at CC stage	<p>An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following:</p> <ul style="list-style-type: none"> • Non-combustible ancillary element • Gutter, downpipe or other plumbing fixture or fitting • Flashing • Grate or grille not more than 2m² in area associated with building service • An electrical switch, socket-outlet, cover plate • Light fitting • A required sign • A sign other than one provided under (a) or (g) that <ul style="list-style-type: none"> ○ Achieves a group number 1 or 2 and; ○ Does not extend beyond one storey and; ○ Does not extend beyond one fire compartment and;

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<ul style="list-style-type: none"> ○ Is separated vertically from other signs permitted under (h) by at least 2 storeys • An awning, sunshade, canopy, blind or shading hood other than one provided under (a) • Part of a security, intercom or announcement system • Wiring
Part C2		
Compartmentation & Separation		
C2.1 Application of Part	Noted	Informational
C2.2 General Floor Area & Volume Limitations	Further details required at CC stage	Details to be provided that demonstrate the maximum fire compartment sizes of the basement carpark have not been exceeded.
C2.3 Large Isolated Buildings	Not applicable	
C2.4 Requirements for Open Space	Not applicable	
C2.5 Class 9a & 9c Buildings	Not applicable	
C2.6 Vertical Separation of openings in external walls	Not applicable	Building is sprinkler protected in accordance with Specification E1.5 therefore this clause does not apply.
C2.7 Separation by Fire Walls	Further details required at CC stage	A part of a building that is separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with subclause (a) of this Clause & the fire wall extends to the underside of a floor having an FRL required for a fire wall. Looking at the plans it appears as though the retail/commercial tenancy's will be separated from the remainder of the building with a fire wall separating the compartments which must achieve an FRL not less than 180/180/180 in accordance with Specification C1.1
C2.8 Separation of Classifications in the same storey	Further details required at CC stage	Must be separated in accordance with Specification C1.1, specifically the retail/commercial tenancy's are to be

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		separated from the remainder of the building with a fire wall that attracts an FRL of 180/180/180
C2.9 Separation of Classifications in different stories	Further details required at CC stage	Must be separated in accordance with Specification C1.1, in particular the ground floor construction is to achieve an FRL not less than 180/180/180 to be separated from the basement carpark below.
C2.10 Separation of lifts shafts	Further details required at CC stage	Any lift connecting more than 2 storeys must be separated in accordance with Specification C1.1, which requires an FRL not less than 120/120/120
C2.11 Stairways and lifts in one shaft	Not applicable	
C2.12 Separation of Equipment	Further details required at CC stage	Equipment that comprises lift motors, lift control panels, central smoke control plant, boilers or batteries must be separated from the remainder of the building by construction with an FRL as required under Specification C1.1 but not less than 120/120/120 and any doorways in that construction protected with a self-closing -- /120/30 fire door
C2.13 Electrical Supply	Further details required at CC stage	Any new main switchboard located within the building which sustains emergency equipment operating in the emergency mode must: <ul style="list-style-type: none"> • Be separated from any other part of the building by construction having an FRL of not less than 120/120/120 and; Have any doorway in that construction protected with a self closing fire door having an FRL of not less than -/120/30
C2.14 Public corridors in Class 2 & 3 Buildings	Complies	The public corridors are all deemed to be open therefore excess corridor lengths do not apply in this clause.
Part C3		
Protection of Openings		
C3.1 Application of part	Noted	Informational Clause
C3.2 Protection of openings in external	Does not comply	There appears to be window openings within the bedroom of units closest to the

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
walls		<p>southern boundary on level 1 to level 3 that are located within 3m of the boundary (fire source feature) therefore require protection in accordance with C3.4 to comply with the DTS provisions of this clause.</p> 
C3.3 Separation of external walls and associated openings in different fire compartments	Not applicable	
C3.4 Acceptable Methods of Protection	Noted	<p>Where protection is required, doorways, windows and other openings must be protected as follows:</p> <p>(a) Windows –</p> <p>(i) Internal or external wall wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position OR;</p> <p>(ii) -/60/- fire windows that are automatic closing or permanently fixed in the closed position OR</p> <p>(iii) -/60/- automatic closing fire shutters</p> <p>(b) Doorways –</p> <p>(i) Internal or external wall wetting sprinklers as appropriate used with doors that are self closing or automatic</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		closing OR (ii)-/60/30 fire doors that are self closing or automatic closing
C3.5 Doorways in Fire Walls	Further details required at CC stage	Doors in firewalls are to have a fire rating equivalent to the fire wall in which they are located
C3.6 Sliding Fire Doors	Not applicable	
C3.7 Protection of Doorways in horizontal exits	Not applicable	
C3.8 Openings in fire isolated exits	Further details required at CC stage	--/60/30 self-closing fire doors are required to doorways providing access to fire isolated stairs.
C3.9 Service Penetrations in fire-isolated exits	Further details required at CC stage	Fire isolated exits are not to be penetrated by any services other than water supply pipes for fire services OR electrical wiring permitted by D2.7(e)
C3.10 Openings in Fire isolated lift shafts	Further details required at CC stage	Openings in lift shafts are to be protected by --/60/-- fire doors complying with AS1735.11. Lift indicator panels are to be backed by construction having an FRL of not less than -/60/60 if it exceeds 35,000mm ² Lift contractor to note lift doors to address BCA Clause C3.11 as applicable
C3.11 Bounding Construction	Further details required at CC stage	Doorways to units are to be indicated on plans as being self-closing -/60/30 fire doors. Note, doorways providing access to public corridors from room not within SOU i.e garbage room, are also required to be protected.
C3.12 Openings in floors and ceilings for services	Further details required at CC stage	Services passing through floors that are required to have an FRL are to be placed within fire resisting shafts or in accordance with Clause C3.15
C3.13 Openings in Shafts	Further details required at CC stage	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. Note: Garbage shaft must have door or

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		hopper of non-combustible construction
C3.14	Deleted	
C3.15 Openings for Service Installations	Further details required at CC stage	Any new service passing through an element which is required to achieve an FRL (other than an external wall or roof) is to be protected in accordance with a tested system, Specification C3.15 of the BCA or AS 1668.1-2015
C3.16 Construction Joints	Noted	Construction joints, spaces and the like in and between buildings 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
C3.17 Columns protected in lightweight construction to achieve FRL	Noted	A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.
SECTION D		
ACCESS & EGRESS		
Part D1		
Provision for Escape		
D1.2 Number of Exits required	Complies	Adequate number of exits have been provided on each level.
D1.3 When Fire Isolated exits are required	Complies	Both stairs are shown on plans as being fire isolated.
D1.4 Exit Travel Distances	Does not comply	<u>Basement levels 1 & 2</u> <ul style="list-style-type: none"> Travel distances exceed 20m to a point of choice between the two exits provided <u>Level one</u> <ul style="list-style-type: none"> Travel distances to a point of

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<p>choice between the two exits provided well exceeds the maximum permissible 6m distance. Some units are required to travel up to 25m to the point of choice, which still exceeds the 12m limit if the permitted concession applies under Specification E1.5a Clause 3</p> <ul style="list-style-type: none"> Travel distances from the communal courtyard to the closest exit also well exceeds the maximum permissible 20m <p><u>Level two & three</u></p> <ul style="list-style-type: none"> Travel distances to a point of choice between the two exits provided exceed the maximum permissible 6m distance. Even if concession applies under Specification E1.5a Clause 3, the 12m limit is still exceeded to a point of choice. <p><u>Level four, five & six</u></p> <ul style="list-style-type: none"> Travel distance to a point of choice between two exits has been exceeded (similar layout to lower levels)
D1.5 Distance Between Alternate Exits	Complies	Appears compliant on plans provided.
D1.6 Dimensions of Exits and Paths of Travel to Exits	Further details required at CC stage	<p>In a required exit or path of travel to an exit;</p> <ul style="list-style-type: none"> The unobstructed height throughout must not be less than 2m (except doorways which can be reduced to not less than 1980mm) The unobstructed width of not be less than 1m <p>The unobstructed width of a doorway not less than 750mm except where it opens into a bathroom</p>
D1.7 Travel via Fire Isolated Exits	Does not comply	Both fire isolated stairs providing egress from residential and basement levels discharge out at ground floor level within the confines of the building (in the loading

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		bay area), not complying with the requirements of D1.7(b)(ii) or (iii).
D1.8 External Stairways or ramps in lieu of Fire Isolated Stairs	Not applicable	
D1.9 Travel by non-fire-isolated stairs	Not applicable	
D1.10 Discharge from Exits	Further details required at CC stage	Suitable barriers such as bollards are to be provided to prevent the blockage of exits by vehicles etc. This will be required in the loading bay area where the fire isolated stairs discharge onto. All external ramps used as a path of travel from an exit to a road must have a gradient not steeper than 1:8 at any part. Further detail is required to be shown on plans that demonstrate compliance
D1.11 Horizontal Exits	Not applicable	
D1.12 Non-required stairways, ramps or escalators	Not applicable	
D1.13 Number of Persons Accommodated	Noted	Informational clause only
D1.14 Measurement of Distances	Noted	Informational clause only
D1.15 Method of Measurement	Noted	Informational clause only
D1.16 Plant Rooms and lift Motor Rooms: Concession	Noted	Informational clause only
D1.17 Access to lift pits	Noted	Access to the lift pits must be through the lowest landing doors where the pit depth is not more than 3m
Part D2		
Construction of Exits		
D2.1 Application of Part	Noted	Informational clause only
D2.2 Fire-Isolated stairways and ramps	Noted	The fire isolated stairways must be constructed of non-combustible materials and constructed so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of the shaft

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
D2.3 Non-fire Isolated stairways and ramps	Not applicable	
D2.4 Separation of Rising and Descending Stairs	Further details required at CC stage	It appears from the plans provided that the stairs from the basement carpark levels and residential levels are connected at ground level, therefore must be separated with smoke proof construction in accordance with Clause 2 of Specification C2.5. Details to be included on plans indicating how this is achieved
D2.5 Open Access ramps and balconies	Not applicable	
D2.6 Smoke Lobbies	Not applicable	
D2.7 Installations in Exits and Paths of Travel	Further details required at CC stage	<p>Any new services or equipment comprising;</p> <ul style="list-style-type: none"> • electricity meters, distribution boards or ducts; • telecommunications distribution boards or equipment; • electrical motors or other motors serving equipment in the building <p>May be installed in:</p> <ul style="list-style-type: none"> • a required exit, except for fire isolated exits specified in (a) • corridors/hallways/lobbies or the like leading to a required exit <p>If the service or equipment are enclosed by non-combustible construction or a fire protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure</p>
D2.8 Enclosure of Space Under Stairs and ramps	Not applicable	No enclosures beneath stairways have been indicated on the proposed plans
D2.9 Width of Stairs	Noted	Informational clause only
D2.10 Pedestrian Ramps	Not applicable	
D2.11 Fire-Isolated Passageways	Not applicable	
D2.12 Roof as Open Space	Not applicable	

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
D2.13 Goings & Risers	Further details required at CC stage	<p><u>All new public internal stairs:</u></p> <ul style="list-style-type: none"> • Risers are to be between 115-190mm • Goings are to be between 250-355mm • Risers are not to have any openings that would allow a 125mm sphere to pass through between the treads • Treads must have a non-slip finish or an adequate non-skid strip near the edge of the nosings. <p>The risers and goings are to be consistent throughout each flight within the permissible tolerances in this clause</p>
D2.14 Landings	Further details required at CC stage	<p>Landings must not be less than 750 mm long and where this involves a change in direction the length is measured from the inside edge of the landing.</p> <p>All landings must have a non-slip finish or an adequate non-skid strip near the edge of the landings</p>
D2.15 Thresholds	Further details required at CC stage	<p>The threshold of exit doors from the proposed buildings shall be provided with a threshold ramp or step ramp in accordance with AS 1428.1 if there is a change of level at the doorways threshold.</p>
D2.16 Balustrades and other barriers	Further details required at CC stage	<p>Balustrades compliant with BCA Clause D2.16 must be provided to all stairways and landings where the difference in level to the surface below exceeds 1 m. They must;</p> <ul style="list-style-type: none"> • Not be less than 1m in height measured from the finished floor level of the adjacent surface • Not permit a 125mm sphere to pass through any opening <p>Any horizontal or near horizontal elements between 150mm and 760mm above the finished floor level must not facilitate climbing if the surface below is more than 4m</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
D2.17 Handrails	Further details required at CC stage	<p>Handrails must:</p> <ul style="list-style-type: none"> • Be installed along at least one side of each ramp or stair flight; and both sides if the width of the stairway or ramp is 2m or more; and • Be fixed at a height of not less than 865 mm above the nosings of the stair treads or floor surface of the ramp, landing or the like; and • Be continuous between stair flight landings and have no obstruction that will break a hand-hold. • Fixed not less than 50mm clear of the wall <p>Handrails in accessible parts of the building must accord with D3.3.</p>
D2.18 Fixed Platforms, walkways and ladders	Noted	Informational clause only
D2.19 Doorways & Doors	Further details required at CC stage	<p>Any power-operated exit doors and doors in the path of travel to an exit must comply with BCA Clause D2.19 and must;</p> <ul style="list-style-type: none"> • Be able to be opened manually under a force of not more than 110N if there is a malfunction or failure of the power source and; <p>Must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the building</p>
D2.20 Swinging Doors	Complies	All exit doors and doors within a path-of-travel to an exit must swing in the direction of egress. Appears compliant on plans provided. If egress routes are modified, should be re-assessed

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
D2.21 Operation of Latch	Further details required at CC stage	<p>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 900 mm and 1.1 m above the floor.</p> <p>If a push-button device is installed, must be located and signage provided in accordance with D2.21(a)(ii) and (iii).</p> <p>Doors fitted with a fail-safe device must unlock upon activation of the sprinkler system, or any other AS-1670 detection system installed throughout the building.</p>
D2.22 Re-entry from Fire isolated exits	Not applicable	
D2.23 Signs on doors	Further details required at CC stage	<p>Fire Door and Smoke Door signage is required to be provided to all doors giving access to and egress from the fire isolated stairways. NOTE: Brail exit level signs are to be installed at each exit.</p> <p>Along with the required BCA signage, the EPA & A Regulations require a warning notice to be displayed in a conspicuous position adjacent to a doorway providing access to, but not within, that stairway, passageway or ramp.</p> <p>The signs must be in capital letters not less than 20mm high in a colour contrasting with the background and state</p> <ul style="list-style-type: none"> • for a self closing door – “FIRE SAFETY DOOR – DO NOT OBSTRUCT – DO NOT KEEP OPEN” <p>for a door discharging from a fire isolated exit – “FIRE SAFETY DOOR – DO NOT OBSTRUCT”</p>
D2.24 Protection of openable Windows	Further details required at CC stage	Bedrooms with windows having a floor level more than 2m above the surface beneath (outside) and a sill height less than 1.7m above the floor, must have the opening portion of the window protected with:

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<ul style="list-style-type: none"> • a device capable of restricting the window opening or; • a screen with secure fittings
D2.25 Timber stairways: Concession	Not applicable	
Part D3 Access for People with Disabilities – refer to Access consultant report for D3 of the BCA.		
D3.1 General building access requirements	Further details required at CC stage	<p>Access must be provided from the pedestrian entrance to at least 1 floor containing sole-occupancy units (SOE), to the entrance doorway of each SOE on that level & any spaces/rooms for use in common by the residents.</p> <p>This appears to have been achieved via the ground floor level once correct locations of doors shown on plans. Note also that the entrance doorway to building must have a door leaf width minimum clear opening of 850mm. Further detail should also be provided as to the accessibility (levels) at the pedestrian entrance to property (front boundary) at CC stage</p> <p>It is highly recommended that an access consultant be engaged to provide a detailed access for people with disabilities assessment.</p>
D3.2 Access to buildings	Further details required at CC stage	<p>An accessway is required from the main points of the pedestrian entry at the allotment boundary into the building and from any required accessible car space and be in accordance with AS 1428.1-2009, including sections 6, 7 & 13 of this standard:</p> <ul style="list-style-type: none"> • Section 6 – Continuous accessible paths of travel • Section 7 – Floor or ground surfaces on continuous accessible paths of travel and circulation spaces

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<ul style="list-style-type: none"> • Section 13 – Doorways, doors and circulation space at doorways <p>Due to the building having a total floor area greater than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.</p>
D3.3 Parts of buildings to be accessible	Further details required at CC stage	Fire isolated stairs proposed are to comply with Clause 11.1(f) & (g) of AS 1428.1
D3.4 Exemptions	Noted	<p>The following rooms shall be considered exempt from being accessible:</p> <ul style="list-style-type: none"> • Substation • Pump and plant rooms • Electrical switch room
D3.5 Accessible Carparking	Further details to be provided at CC stage	Basement carpark indicates a total of 9 accessible car parking spaces. Details surrounding compliance with AS 2890.6 in particular height clearances and car space dimensions are to be included on plans
D3.6 Signage	Noted	<p>Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must identify each accessible sanitary facility and identify each new exit door (required by E4.5 to be provided with an exit sign) and state:</p> <p>(a) "EXIT" and;</p> <p>"Level" and either the floor level number OR floor level descriptor</p>
D3.7 Hearing augmentation	Not applicable	
D3.8 Tactile indicators	Further details required at CC stage	Tactile ground surface indicators, complying with sections 1 and 2 of AS/NZS 1428.4.1, must be provided to the top and bottom of the stairways and ramps to warn people who

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		are blind or have a vision impairment that they are approaching a stairway or ramp. In particular this should be shown on plans for external stairs and any ramps
D3.9 Wheelchair seating spaces in Class 9b assembly buildings	Not applicable	
D3.10 Swimming pools	Not applicable	
D3.11 Ramps	Not applicable	
D3.12 Glazing on an accessway	Noted	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.
SECTION E SERVICES & EQUIPMENT		
Part E1 Fire Fighting Equipment		
E1.3 Fire Hydrants	Further details required at CC stage	Hydraulic engineer to confirm location of any external hydrants. Note that as middle courtyard is open to the sky, any hydrants located within this area would be technically deemed external, therefore subject to the requirements of clause 3.2.2.2(e) of AS 2419.1 which requires a 10m setback from the building. May or may not be achievable.
E1.4 Fire Hose Reels	Further details required at CC stage	Hose Reels locations are to be consistent with that shown on hydraulic plans (if required) & designed by the hydraulic consultant.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
E1.5 Sprinklers	Further details required at CC stage	<p>As the building has a rise in storeys of 4 or more and has an effective height less than 25m, Table E1.5 requires the building to be sprinkler protected throughout in accordance with Specification E1.5. Note that Specification <u>E1.5a</u> does not apply to this building due to the retail/commercial components of the building on ground floor.</p> <p>The sprinkler system must be provided throughout the basement carpark levels also due to containing more than 40 car spaces within the same fire compartment.</p> <p>Detailed plans and specifications are to be provided by a qualified hydraulic engineer at CC stage</p>
E1.6 Portable Fire Extinguishers	Further details required at CC stage	Portable fire extinguishers to be selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444-2001.
E1.8 Fire Control Centre	Not applicable	
E1.9 Fire Precautions during construction	Noted	Informational
E1.10 Provision for Special Hazards	Noted	Informational
Part E2 Smoke Hazard Management		
E2.2 General Requirements	Further details required at CC stage	<p>The building must be serviced by an automatic smoke detection and alarm system complying with BCA Specification E2.2a, Clause 4 & 7.</p> <p>Note if building is sprinkler protected in accordance with Specification E1.5 (other than FPAA101D & FPAA101H systems), smoke detectors are not required in public corridors and other internal public spaces</p>
E2.3 Provision for Special Hazards	Noted	Informational
Part E3 Lift Installations		

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
E3.2 Stretcher Facility in Lifts	Further details required at CC stage	The proposed lift/s are all required to be provided with stretcher facilities which accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600mm wide x 2000mm long x 1400mm high above the floor level
E3.3 Warning Against the use of lifts in Fire	Noted	<p>A warning sign must be displayed where it can be seen stating "DO NOT USE LIFTS IF THERE IS A FIRE" and must be:</p> <ul style="list-style-type: none"> • Near every call button for a passenger lift or group of lifts throughout a building and • Consist of incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall.
E3.4 Emergency Lifts	Not applicable	
E3.5 Landings	Noted	Must comply with the Provisions of Section D of the BCA
E3.6 Passenger lifts	Further details required at CC stage	<p>The proposed passenger lifts are to be provided with the following features:</p> <ul style="list-style-type: none"> • Handrail complying with the provisions for a mandatory handrail in AS 1735.12 • Lift floor dimensions of not less than 1100 wide x 1400mm deep • Minimum clear door opening complying with AS 1735.12 • Passenger protection system complying with AS 1735.12 • Lift car and landing control buttons complying with AS 1735.12 • Lighting in accordance with AS1735.12 • Emergency hands free communication including a button that alerts a call centre of a problem
E3.7 Fire Service Controls	Noted	Lifts are to be provided with a lift car fire service drive control switch complying with E3.10

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
E3.8 Aged Care Buildings	Not applicable	
E3.9 Fire Service Recall Control Switch	Not applicable	
E3.10 Lift Car Fire Service Drive Control	Noted	Refer to subclauses (a) – (d) for requirements
Part E4		
Emergency Lighting, Exit Signs and Warning Systems		
E4.2 Emergency Lighting Requirements	Further details required at CC stage	All work to comply with Clause E4.2 of the BCA and AS 2293.1-2018. Detailed plans and specifications endorsed by an electrical engineer or competent fire safety practitioner is to be provided
E4.3 Measurement of Distance	Noted	Informational
E4.4 Design and Operation of Emergency Lighting	Noted	The emergency lighting system must comply with AS 2293.1-2018.
E4.5 Exit Signs	Further details required at CC stage	All work to comply with Clause E4.5 of the BCA and AS 2293.1-2018. Detailed plans and specifications endorsed by an electrical engineer or competent fire safety practitioner is to be provided
E4.6 Direction Signs	Further details required at CC stage	Directional exit signs must be installed throughout the building in accordance with E4.6 of the BCA and AS 2293.1-2018. Detailed plans and specifications endorsed by an electrical engineer or competent fire safety practitioner is to be provided
E4.7 Class 2 & 3 Buildings & Class 4 Parts: Exemption	Not applicable	
E4.8 Design & Operation of Exit Signs	Noted	The exit sign system must comply with AS 2293.1-2018 and be clearly visible at all times when the building is occupied.
E4.9 Emergency Warning & Intercommunication Systems	Not applicable	
SECTION F		
HEALTH & AMENITY		

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
Part F1		
Damp & Weatherproofing		
F1.1 Stormwater Drainage	Further details required at CC stage	New work to comply with Hydraulic Engineers details and/or AS3500.3
F1.4 External above ground membranes	Further details required at CC stage	New waterproofing membranes for external above ground use must comply with AS 4654 Parts 1 & 2
F1.5 Roof coverings	Further details required at CC stage	New roofing is to comply with the requirements of F1.5
F1.6 Sarking	Further details required at CC stage	New sarking type materials used for weatherproofing of roofs and walls must comply with AS 4200 Parts 1 & 2
F1.7 Waterproofing of wet area	Further details required at CC stage	All internal wet area work to comply with AS 3740
F1.9 Damp-proofing	Further details required at CC stage	Where a damp proof course is provided, it must consist of a material that complies with AS 2904 or have impervious termite shields/barriers in accordance with AS 3660.1
F1.10 Damp-proofing of floors on ground	Not applicable	
F1.11 Provision of Floor Wastes	Further details required at CC stage	All bathrooms or laundries located at any level above a sole occupancy unit or public space must have: <ul style="list-style-type: none"> • A floor waste and; • The floor graded to the floor waste to permit drainage of water
F1.12 Sub Floor Ventilation	Not applicable	
Part F2		
Sanitary & Other Facilities		
F2.1 Facilities in residential buildings	Complies	Each SOU is to be provided with a laundry that is to comprise of a dedicated washtub & washing machine within the same room. Plans provided appear to indicate this.
F2.2 Calculation of number of occupants and fixtures	Noted	Number of occupants within proposed retail/commercial tenancy is to be specified or otherwise determined using clause D1.13

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
F2.3 Facilities for Class 3 to 9 Buildings	Further details required at CC stage	Sanitary facilities must be provided for class commercial/retail tenancy in accordance with Table F2.3. Further details required at CC stage to determine the type of occupancy number of occupants within each tenancy to determine compliance. It is noted that currently the plans indicate two accessible toilets and separate male and female sanitary compartments, however direct access from retail tenancy does not appear to be provided.
F2.4 Facilities for People with Disabilities	Further details required at CC stage	Further details/sections and specifications that demonstrate full compliance with AS 1428.1 for accessible toilet are required Note all new accessible unisex sanitary compartments must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels. The circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) must comply with clause 15.6 of AS 1428.1. It is noted that two accessible toilets have been indicated on plans at ground floor level to serve the commercial tenancy's
F2.5 Construction of Sanitary Compartments	Further details required at CC stage	Doors to the fully enclosed toilets are to open readily removable from the outside of the sanitary compartment unless there is a clear space of at least 1.2m between the closet pan & hinge side of the door or open outwards
F2.6 Interpretation: Urinals and washbasins	Noted	Informational
F2.7 Microbial Control	Deleted	
F2.8 Waste management	Not applicable	
F2.9 Accessible adult change facilities	Not applicable	
Part F3 Room Sizes		
F3.1 Height of Rooms and other spaces	Further details required at CC stage	Minimum floor to ceiling heights are to be: <ul style="list-style-type: none"> • Habitable rooms: 2.4m

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
		<ul style="list-style-type: none"> • Kitchen/bathroom/laundry/carpark/corridor etc: 2.1m • Above a stairway, ramp, landing or the like – 2m measured vertically above nosing line
Part F4 Light & Ventilation		
F4.1 Provision of natural light	Noted	Natural light must be provided to all habitable rooms in Class 2 portions.
F4.2 Methods and extent of natural lighting	Further details required at CC stage	Required natural light must be provided by; <ul style="list-style-type: none"> • Windows that 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 are open to the sky or face a court or other space open to the sky OR; • Roof lights that 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 are open to the sky
F4.3 Natural light borrowed from adjoining room	Noted	
F4.4 Artificial lighting	Noted	Informational Clause
F4.5 Ventilation of Rooms	Further details required at CC stage	Ventilation shall be provided throughout the building by means of natural ventilation complying with Clause F4.6 or mechanical ventilation complying with the requirements of AS 1668.2 -2012
F4.6 Natural Ventilation	Noted	Natural ventilation provided must consist of openings, windows, doors or other devices which can be opened with a ventilating area not less than 5% of the floor area of the room required to be ventilated and open to the sky or balcony.
F4.7 Ventilation borrowed from adjoining room	Noted	

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
F4.8 Restriction of position of water closets and urinals	Noted	Rooms containing closet pans or urinals must not open directly into kitchen, pantry or dining areas
F4.9 Airlocks	Noted	Rooms prohibited under clause F4.8 from opening directly into another room, must be provided with mechanical ventilation
F4.11 Carparks	Further details required at CC stage	The basement car park is to be provided with ventilation complying with AS 1668.2 or have adequate system of natural ventilation designed and endorsed by a qualified mechanical engineer
F4.12 Kitchen local exhaust	Further details required at CC stage	Any proposed commercial kitchens are to be provided with kitchen exhausts as per AS 1669.1 & AS 1668.2
Part F5		
Sound transmission and insulation		
F5.2 Determination of airborne sound insulation ratings	Further details required at CC stage	A form of construction required to have an airborne sound insulation rating must: <ul style="list-style-type: none"> • Have the required value for weighted sound reduction index or weighted sound reduction index with spectrum adaptation term determined in accordance with AS ISO 717.1 using results from laboratory measurements OR; • Comply with specification F5.2
F5.3 Determination of impact sound insulation ratings	Further details required at CC stage	A wall in a class 2 building required to have an impact sound insulation rating must be of discontinuous construction, which means a wall having a minimum 20mm cavity between 2 separate leaves
F5.4 Sound Insulation of floors between units	Further details required at CC stage	A floor in a class 2 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w}$ (impact) not more than 62
F5.5 Sound insulation of walls between units	Further details required at CC stage	A wall in a class 2 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and must comply with F5.3(b) if it separates a bathroom, sanitary compartment, laundry or kitchen in one SOU from a habitable room in an adjoining unit.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
F5.6 Sound insulation rating of services	Further details required at CC stage	Ducts and pipes must be separated from the rooms of SOU by construction with an $R_w + C_{tr}$ (airborne) not less than 40 if the adjacent room is a habitable room or 25 if the adjacent room is a kitchen or non-habitable room
F5.7 Sound isolation of pumps	Further details required at CC stage	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating pump
SECTION G		
ANCILLARY PROVISIONS		
Part G1		
Minor structures and components		
G1.1 Swimming pools	Not applicable	
G1.2 Refrigerated chambers, strong rooms and vaults	Not applicable	
NSW G1.101 Provision for cleaning windows	Noted	The building must provide for a safe manner of cleaning windows. Windows must be able to be cleaned wholly from within the building, or the cleaning method must comply with the Work Health and Safety Act 2011 and regulations made under that Act
Part G2		
Heating appliances, fireplaces, chimneys and flues		
G2.2 Installation of appliances	Not applicable	
G2.3 Open fireplaces	Not applicable	
G2.4 Incinerator rooms	Not applicable	
SECTION J		
ENERGY EFFICIENCY		
NSW SUBSECTION J(A) ENERGY	Further details required at CC stage	A detailed assessment of Section J Energy Efficiency Provisions has not been carried

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES/DOES NOT COMPLY/OTHER	COMMENTS
EFFICIENCY - CLASS 2		out as this will be subject to a separate dedicated report by an Energy Efficiency Consultant at the Construction Certificate Stage which will also incorporate the relevant requirements of the BASIX Certificate.



4.0 CONCLUSION

This report has assessed the proposed development at 2 Delmar Parade Dee Why under the provisions of the BCA 2019. The primary purpose of this report is to identify the non-compliance matters in comparison to the current Deemed-to-Satisfy Provisions of the BCA, which are outlined in the **executive summary** and further detailed in Section 3.0 above. Compliance with the recommendations will ensure that the proposed development is in keeping with the Performance Requirements of the BCA 2019, either via design amendments to achieve a DTS Solution or developing a Performance Based Solution to address the departure.

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ATTACHMENT A – TYPE A CONSTRUCTION REQUIREMENTS

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 within it) 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
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
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
ROOFS				
	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30	240/ 90/ 60

ATTACHMENT B - INSPECTION & MAINTENANCE

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 fire fighting 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 (ie. 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.

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 fire fighting equipment