DESIGN CONFIDENCE

Mr Michael Battaglia

BCA Design Assessment Report

2 Wattle Road
Brookvale NSW 2100

ACCESSIBILITY | BUILDING REGULATIONS | FIRE ENGINEERING | MANAGEMENT SERVICES

Project:	2 Wattle Road Brookvale NSW 2100
Document Type:	BCA Design Assessment Report
Our Reference:	P221_488-1.1 (BCA) NH

The following report register documents the development and issue of this and each subsequent report(s) undertaken by Design Confidence (Sydney) Pty Ltd.

Revision History —

OUR REFERENCE	REMARKS	ISSUE DATE
P221_488-1 (BCA) NH	Report issued in DRAFT for review and comment	8 December 2021
P221_488-1.1 (BCA) NH	Report issued as final	9 December 2021

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EXECUTIVE SUMMARY

This BCA Design Assessment report has been prepared at the request of Michael Battaglia and relates to the proposed change of use of the ground floor unit (unit 2) of an existing mixed-use building located at 2 Wattle Road Brookvale NSW 2100.

The proposed change of use is understood to be for the purpose of a class 9b recreation facility (kick boxing, personal & group training) from a current use as a class 6 wholesale premises of aluminum construction components.

With respect to the assessment undertaken the following areas in particular need further review as the project develops into construction documentation —

ITEM	ITEMS FOR FURTHER CONSIDERATION	RESPONSIBILITY
1.	Determination of the classification of the topmost storey so that the appropriate fire resisting requirements are provided to the subject tenancy space.	Project Architect

1.0 INTRODUCTION

1.1 General

This BCA Design Assessment report has been prepared at the request of Michael Battaglia and relates to the proposed change of use of the ground floor unit (unit 2) of an existing mixed-use building located at 2 Wattle Road Brookvale NSW 2100.

The proposed change of use is understood to be for the purpose of a class 9b recreation facility (kick boxing, personal & group training) from a current use as a class 6 wholesale premises of aluminum construction components.

1.2 Purpose of Report

The purpose of this report is to identify the extent to which the architectural design documentation complies with the relevant prescriptive provisions of the Building Code of Australia (BCA) Volume 1, Edition 2019 Amendment 1.

This report is based upon, and limited to, the information depicted in the documentation provided for assessment, and does not make any assumptions regarding 'design intention' or the like.

1.3 Documentation Provided for Assessment

This assessment is based upon the architectural documentation prepared by DARC and listed within **Appendix 1**.

1.4 Report Exclusions

It is conveyed that this report should not be construed to infer that an assessment for compliance with the following has been undertaken—

(i) Work Health & Safety Act and Regulations;

(ii) Work Cover Authority requirements;

(iii) Structural and Services Design Documentation;

(iv) The individual requirements of service authorities (i.e. Telecommunication Carriers, Sydney Water, Energy Australia);

(v) The Disability (Access to Premises - Buildings) Standards 2010;

(vi) The Disability Discrimination Act (DDA) 1992; and

(vii) The relevant Accessibility and Energy Efficiency Provisions as contained within the BCA.

2.0 DEVELOPMENT DESCRIPTION

2.1 General

In accordance with the BCA, the assessment undertaken relates to the proposed change of use of an existing mixed-use building for the purpose of a class 9b recreation facility (kick boxing, personal & group training) from a current use as a class 6 wholesale premises of aluminum construction components.

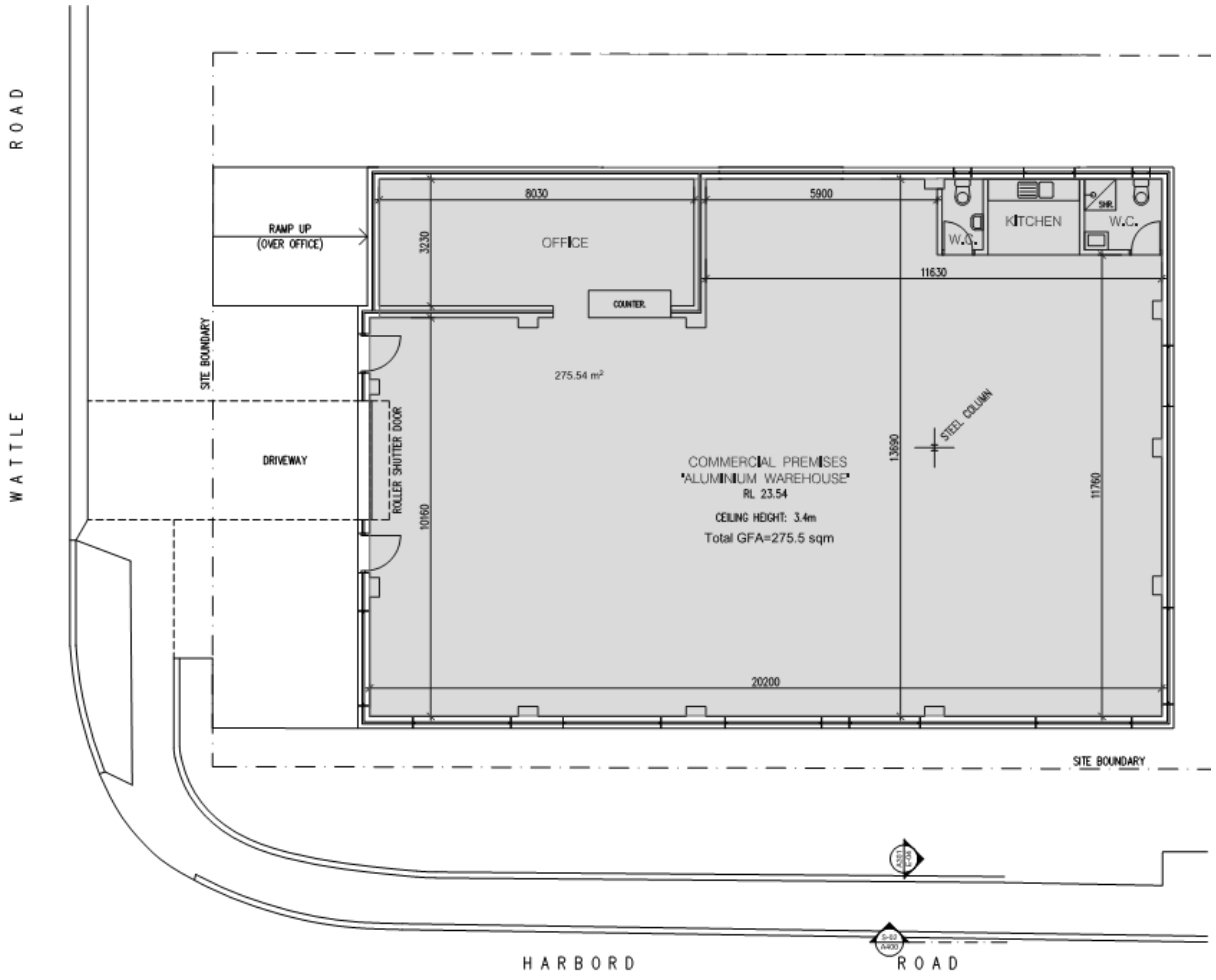


Figure 2.1 – Proposed plan

2.2 Building Description

DESCRIPTION OR REQUIREMENT		
Proposed Classification	Gymnasium (Unit 2)	9b
	Other Parts of the Building	Unknown
Rise in Storeys	Three (3)	
Construction Type	Unknown	
Effective Height	<12m	
Floor Area	Ground Floor (Unit 2)	275m^2
	Total	**Unknown**
Volume	Ground Floor (Unit 2)	935m^3
	Total	**Unknown**
Fire Compartment Sizes	Class 9b (Unit 2)	275m^2
Climate Zone:	Climate Zone 5	

Table 2.2 – Building Characteristics

2.4 BCA Interpretation Notes

The building has been assessed on the basis the following –

(i) The building classification of the topmost storey is not known, hence the building has been assessed as being of both Type B and C construction, with relevant provisions pertaining to each construction type contained within;

(ii) The proposed gymnasium has been assessed as a single sole occupancy unit;

(iii) Distance between alternate exits have been measure through the point of choice and treated as being ≥45° apart;

(iv) The office part is noted as occupying less than 10% of the storey and hence the class 9b part has been applied throughout the whole storey;

(v) It is understood that no works are proposed, with the assessment limited to a change of use only;

(vi) It is understood that the proposed tenancy will accommodate up to 6 persons at any one time, this includes 2 staff and 4 patrons as outlined within the Statement of Environmental Effects (SEE) prepared by DARC Studio.

3.0 BCA ACCESS DESIGN ASSESSMENT SUMMARY

3.1 General

The following tables summarises the compliance status of the architectural design in terms of each *applicable* prescriptive provision of the BCA and indicates a ***capability for compliance*** ('COMPLIES') with the provisions of the BCA.

A detailed analysis and commentary are provided in **Section 3.0** of this report in the instance that prescriptive non-compliance occurs ('DOES NOT COMPLY') or further 'DESIGN DETAIL' is required.

Such instances should not necessarily be considered BCA deficiencies, but rather matters which need to be considered by the design team, the certifying authority and all other relevant stakeholders as design progresses.

For those instances of either prescriptive non-compliance ('DOES NOT COMPLY') or further 'DESIGN DETAIL' is required, a detailed analysis and commentary is provided within **Section 4.0** of this report.

3.2 Section B – Structure

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
B1.1	resistance to actions			✓
B1.2	determination of individual actions			✓
B1.4	materials and form of construction			✓

3.3 Section C – Fire Resistance

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
C1.1	fire resisting construction			✓
C1.8	lightweight construction			✓
C1.9	non-combustible building elements			✓
C1.10	fire hazard properties			✓
C1.14	ancillary elements			✓
C2.2	general floor area and volume limitations	✓		
C2.13	electricity supply system			✓
C3.12	openings in floors and ceilings for services			✓
C3.15	openings for services installations			✓
C3.16	construction joints			✓
C3.17	columns protected with lightweight construction to achieve an FRL			✓

3.4 Section D – Access and Egress

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
D1.2	number exits required	✓		
D1.4	exit travel distances		✓	
D1.6	dimensions of exits and paths of travel to exits	✓		
D2.7	installations in exits and paths of travel			✓
D2.20	swinging doors		✓	
D2.21	operation of latch			✓

3.5 Section E – Services and Equipment

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
E1.3	fire hydrants			✓
E1.4	fire hose reels			✓
E1.6	portable fire extinguishers			✓
E2.2	smoke hazard management			✓

3.6 Section F - Health and Amenity

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
F2.3	facilities in 3 to 9 buildings		✓	
F2.5	construction of sanitary compartments			✓
F3.1	heights of rooms and other spaces			✓
F4.4	artificial lighting			✓
F4.5	ventilation of rooms			✓
F4.8	restriction of position of water closets and urinals		✓	
F4.9	airlocks			✓

4.0 BCA DETAILED ASSESSMENT – CLASS 2-9 BUILDINGS

4.1 General

With reference to the BCA Design Assessment Summary contained in **Section 3.0** above, the following analysis and commentary is provided.

This commentary is formulated to enable the design documentation to be further progressed, for the purpose of evidencing the attainment of compliance with the relevant provisions of the BCA.

4.2 Section B - Structure

B1.1	The resistance of a building or structure shall be greater than the most critical action effect determined by B1.2 of the BCA, AS/NZS 1170.0-2002 and B1.4 of the BCA.
B1.2	The structural design of the building is required to be determined in accordance with the varying "actions" considerations contained within this clause (i.e. permanent actions, imposed actions, wind / snow / earthquake actions).
B1.4	The structural resistance of materials and forms of construction shall be determined in accordance with the following: (i) Masonry - AS3700-2018 (ii) Concrete construction - AS3600-2018 (iii) Footings and slabs – AS2870-2011 (iv) Steel construction - AS4100-1998 or AS/NZS 4600-2005 (v) Termite Risk Management - AS3660.1-2014 (vi) Piling - AS2159-2009 (vii) Glazed assemblies - AS2047-2014-amendments 1 & 2 (external), and/or AS1288-2006 (internal)

4.3 Section C – Fire Resistance

C1.1 The classification for the topmost storey is not known and hence the building may either be of Type B or C construction based on the rise in storeys of 3.

The building elements are required to achieve the nominated FRLs as nominated within BCA Spec C1.1 as applicable, these FRLs have been summarised within Table A2.1 & A2.2 as contained within Appendix 2, appropriate to each Type of Construction.

C1.8 Any lightweight construction to internal walls required to achieve an FRL or protection to steel columns required achieve an FRL are required to be tested for resistance in accordance with this clause.

C1.9 **Where the building is determined as being of Type B construction**, the following building elements and their components must be non-combustible -

(i) External walls and common walls, including all components in them including the facade covering, framing and insulation;

(ii) Non-loadbearing internal walls where they are required to be fire-resisting;

(iii) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing;

(iv) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft.

C1.10 The fire hazard properties for materials proposed to be provided have been summarised within Table A3.1 as contained within Appendix 3.

C1.14 **Where the building is determined as being of Type B construction,** 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 elements -

(i) an ancillary element that is non-combustible;

(ii) a gutter, downpipe or other plumbing fixtures;

(iii) a flashing;

(iv) a grate or grille not more than $2m^2$ in area associated with a building service;

(v) an electrical switch socket – outlet, cover plate or the like;

(vi) a light fitting;

(vii) a required sign;

(viii) a sign other than one provided under (i) or (vii) that –
   a. achieves a group number of 1 or 2; and
   b. does not exceed beyond one storey; and
   c. does not extend beyond one fire compartment; and
   d. is separated vertically from other signs permitted under (viii) by at least 2 storeys.

C1.14 *Cont'd*

(ix) an awning, sunshade, canopy, blind or shading hood other than one provided and (i) that –
   a. meets the relevant requirements of Table 4 of specification C.10 as for an internal element; and
   b. serves a storey -
      (A) at ground level; or
      (B) immediately above a storey at ground level; and
   c. does not serve an exit, where it would render the exits unusable in a fire.

(x) a part of a security, intercom or announcement system;

(xi) wiring;

(xii) a paint lacquer or a similar finish;

(xiii) a gasket, caulking, sealant or adhesive directly associated with (i) to (xi)

C2.13

A switch board within the proposed tenancy that will sustain emergency equipment operating in the emergency mode are ot be fire separated from any other part of the building which sustains emergency equipment operating in the emergency mode must –

(i) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and

(ii) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than –/120/30.

C3.12

Where a service passes through a floor required to have an FRL or a ceiling required to have a resistance to the incipient spread of fire, that service is required to protected by either a shaft that will not reduce the fire performance of the building elements it penetrates or in accordance with C3.15.

C3.15

Any openings for service installations (electrical, mechanical, plumbing, etc.) that penetrates a building element which is required to be of fire resisting construction is required to be protected (i.e. fire seals).

C3.16

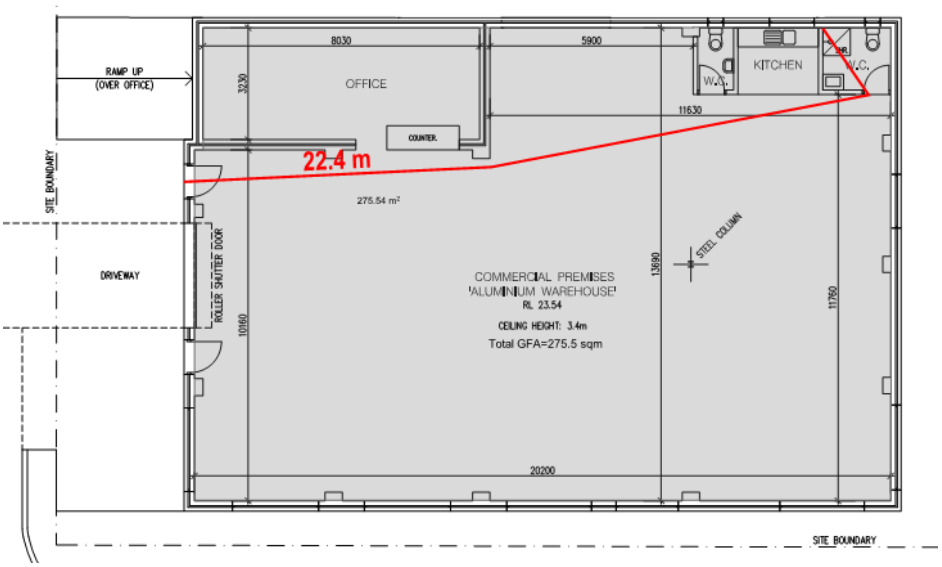
Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation are required to be protected in a manner identical with a prototype tested in accordance with AS1530.4-2014 to achieve the required FRL.

C3.17

Where a column is protected by lightweight construction to achieve the required FRL defined by C1.1 passes through a building element that is also required to have an FRL it is required to be installed using a method and materials identical with the prototype assembly of the construction which has achieved the required FRL.

4.4 Section D – Access and Egress

D1.2	The proposed floor is noted as having 2 swing doors along the entry to the tenancy with any one able to be used as a required exit. Only a single exit is required on the basis the tenancy will accommodate less than 50 persons (i.e. 6 as noted within the Statement of Environmental Effects prepared by DARC Studio).
D1.4	The distance from the most disadvantaged part of the floor to the exit exceeds 20m, being up to 23m. To address the extended exit travel distance identified, the following options are offered for resolution – (i) Modify the existing layout so that a travel distance of not more than 20m to the exit is provided; or (ii) Pursue a performance-based solution justifying the extended travel distance identified. Compliance is readily achievable at the Construction Certificate application stage.



D1.6	It is noted that the proposed tenancy will accommodate up to 6 persons at any one time, this includes 2 staff and 4 patrons as outlined within the Statement of Environmental Effects (SEE) prepared by DARC Studio. In this regard, the egress width via the available exit door is adequate for the proposed number of persons. The path of travel to an exit and any required exit is to have an unobstructed height throughout of not less than 2m (except a doorway, which can be 1980mm) and an unobstructed width not less than 1m (except a doorway, which can be 750mm in an area not required to be accessible and 850mm in an area required to accessible).

D2.7 Gas or other fuel services shall not be installed within the required exits; and

Any services or equipment (being electrical meters, distribution boards or the like) installed within the hallway are required to be enclosed by non-combustible construction or a fire-protective covering (i.e. 1 layer of 13mm fire-protective grade plasterboard) with doorway(s) or opening(s) suitably sealed against smoke spreading from the enclosure.

D2.20 It is noted that the required exit door swings against the direction of egress and hence is recommended to be re-configured to swing in the direction of egress.

Compliance is readily achievable at the Construction Certificate application stage.

A swinging door in a required exit or forming part of a required exit must swing in the direction of egress unless –

(i) It serves a building or part of a building with a floor area of not more than 200m^2, it is the only required exit from the building or part and it is fitted with a device for holding it in the open position, or

(ii) It serves a sanitary compartment or airlock (in which case it may swing either direction), and

(iii) Must not impede the path or direction of egress.

D2.21 Any door in a required exit, forming part of a required exit or in the path of travel to a required exit are required to be readily operable without a key from the side that faces a person seeking egress and:

(i) By a single hand pushing or downward action on a single device located between 900mm and 1100mm from the floor;
- Be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and
- Have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35mm nor more than 45mm; or
- A single hand pushing action on a single device which is located between 900mm and 1.2m above the floor.

(ii) Where the latch operation device referred to above is not located on the door leaf itself –
- Manual controls to power-operated doors must be at least 25mm wide, proud of the surrounding surface and located-
- Not less than 500mm from an internal corner; and
- For a hinged door, between 1m and 2m from the door leaf in any position; and
- For a sliding door, within 2m of the doorway and clear of a surface mounted door in the open position
- Braille and tactile signage complying with Clause 2 and 6 of Specification D3.6 must identify the latch operation.

(iii) Fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system or detection system deemed suitable in accordance with AS1670.1-2018 installed throughout the building.

4.5 Section E – Services and Equipment

E1.3

Fire hydrant coverage is to be maintained throughout the proposed tenancy space in accordance with the existing standard of performance.

Where a fire hydrant system has not been provided, a fire hydrant system complying with AS2419.1-2005 is to be provided.

E1.4

Fire hose reel coverage is to be maintained throughout the proposed tenancy space in accordance with the existing standard of performance.

Where a fire hose reels have not been provided, a fire hose reel system complying with AS2441-2005 is to be provided.

E1.6

Portable extinguishers must be provided in accordance with Table E1.6 to cover risk classes throughout the tenancy space.

E2.2

Considered the uses of other parts of the building are unknown, where the bulding contains a 5, and 6, 7b, 8 or 9b part, the bulding must be provided with a smoke detection and alarm system complying with clause 4 of Spec. E2.2a and AS1670.1-2018.

Additionally, the proposed class 9b tenancy must be provided with automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS 1668.1) which does not form part of the smoke hazard management system, on the activation of smoke detectors installed complying with Clause 6 of Specification E2.2a.

4.6 Section F – Health and Amenity

F2.3

An assessment of the required sanitary facilities indicates that a shortfall of 1 urinal, 1 toilet pan and 1 washbasin exist. Additionally, the existing shower facility as required to satisfy clause F2.3 (i) of the BCA is identified as not being provided as accessible.

The following provides a summary of the sanitary facility assessment.

	Wash Basin		Closet Pan		Urinal	
	PROVIDED	**REQUIRED**	**PROVIDED**	**REQUIRED**	**PROVIDED**	**REQUIRED**
STAFF						
Male	1	1	1	1	-	-
Female	1	1	1	1	-	-
PATRONS						
Male	0	1	0	1	0	1
Female	1	1	1	1	-	-

To address the above shortfall, it is recommended that a performance-based solution is pursued to justify the shortfall in sanitary facilities as well as the omission of an accessible shower facility.

Compliance is readily achievable at the Construction Certificate application stage.

F3.1 The required unobstructed ceiling heights throughout the building are to be provided as follows -

(i) A bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m.

(ii) Above a stairway, ramp, landing or the like – 2m.

(iii) A corridor, passageway or the like – 2.1m.

(iv) All other areas – 2.4m.

F4.4 Artificial lighting in accordance with AS/NZS1680.0 must be provided —

(i) In required stairways, passageways and ramps; and

(ii) If natural lighting equivalent to the requirements of F4.2 is not available, to all rooms frequently occupied, all spaces required to be accessible; corridors, lobbies and similar circulation spaces and paths of egress.

F4.5 Any habitable room, sanitary compartment, bathroom, laundry and any other room occupied by a person for any purpose must have either:

(i) Natural ventilation (i.e. opening(s) having an openable area of 5% of the room being served) complying with F4.6; or

(ii) Mechanical ventilation complying with AS1668.2-2012 (amendment 2).

F4.6 Natural ventilation 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.

Natural ventilation may be provided by borrowing ventilation from an adjoining room in accordance with the requirements of Clause F4.7.

F4.8 The sanitary compartments are noted as opening directly into the main floor area and hence provisions contained within F4.9 must be provided.

F4.9 A sanitary compartment prohibited under F4.8 from opening directly to another room must have one of the following provisions provided –

(i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1 m2 and fitted with self-closing doors at all access doorways; or

(ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view.

Compliance is readily achievable at the Construction Certificate application stage.

5.0 CONCLUSION

5.1 General

Based upon our detailed review of the proposed architectural drawings, it is the opinion of this office that the subject development is capable of complying with the performance provisions of the BCA.

Compliance would be achieved via a mixture of adopting a performance-based approach as well as complying with the relevant deemed-to-satisfy requirements as outlined within the BCA, compliance via the performance-based approach could occur without significant changes to the proposed design.

The performance solutions for the building will be developed as part of the ongoing design and consultation with the design team.

Report By

Nicolas Hurtado
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Verified By

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APPENDIX 1 – DOCUMENTATION PROVIDED FOR ASSESSMENT

This design assessment was based upon the architectural documentation prepared by DARC Studio, namely—

DRAWING NO.	TITLE	DATE	REVISION
3	EXISTING GROUND FLOOR PLAN	OCTOBER 2021	-

APPENDIX 2 – FIRE RESISTANCE LEVELS

Table A2.1 & A2.2 below represents the Fire Resistance Levels (FRLs) required in accordance with BCA 2019 Amendment 1, for Type B and Type C construction, as applicable.

Table A2.1 - TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes) *Structural adequacy*/*Integrity*/*Insulation*			
	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 *fire-source feature* to which it is exposed is—				
For *loadbearing* parts—				
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 30	120/ 90/ 60	180/120/ 90	240/180/120
3 to less than 9 m	90/ 30/ 30	120/ 30/ 30	180/ 90/ 60	240/ 90/ 60
9 to less than 18 m	90/ 30/–	120/ 30/–	180/ 60/–	240/ 60/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
For non-*loadbearing* parts—				
less than 1.5 m	–/ 90/ 90	–/120/120	–/180/180	–/240/240
1.5 to less than 3 m	–/ 60/ 30	–/ 90/ 60	–/120/ 90	–/180/120
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–
LOAD BEARING EXTERNAL COLUMN not incorporated in an *external wall*, where the distance from any *fire-source feature* to which it is exposed is—				
less than 18 m	90/–/–	120/–/–	180/–/–	240/–/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
COMMON WALLS and FIRE WALLS—	90/ 90 / 90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS—				
Fire-resisting lift and stair *shafts*—				
Loadbearing	90/ 90/ 90	120/120/120	180/120/120	240/120/120
Fire-resisting stair *shafts*				
Non-*loadbearing*	–/ 90/ 90	–/120/120	–/120/120	–/120/120
Bounding *public corridors*, public lobbies and the like—				
Loadbearing	60/ 60/ 60	120/–/–	180/–/–	240/–/–
Non-*loadbearing*	–/ 60/ 60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*—				
Loadbearing	60/ 60/ 60	120/–/–	180/–/–	240/–/–
Non-*loadbearing*	–/ 60/ 60	–/–/–	–/–/–	–/–/–
OTHER LOADBEARING INTERNAL WALLS and COLUMNS—	60/–/–	120/–/–	180/–/–	240/–/–
ROOFS	–/–/–	–/–/–	–/–/–	–/–/–

Table A2.2 - TYPE C CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes) *Structural adequacy*/*Integrity*/*Insulation*			
	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 *fire-source feature* 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 *external wall*, where the distance from any *fire-source feature* to which it is exposed is—				
less than 1.5 m	90/ –/ –	90/ –/ –	90/ –/ –	90/ –/ –
1.5 m to less than 3m	–/–/–	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 *public corridors*, public lobbies and the like—				
	60/ 60/ 60	--/–/–	--/–/–	--/–/–
Between or bounding *sole-occupancy units—*				
	60/ 60/ 60	--/–/–	--/–/–	--/–/–
Bounding a stair if required to be rated -				
	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60
ROOFS	–/–/–	–/–/–	–/–/–	–/–/–

APPENDIX 3 – FIRE HAZARD PROPERTIES

The table below represents the required fire hazard properties for building materials applicable to this development in accordance with BCA 2019 Amendment 1.

Table A3.1 – Fire hazard properties

FLOOR LININGS AND FLOOR COVERINGS CRITICAL RADIANT FLUX (CRF IN KW/M2)	
All Areas	2.2
WALL LININGS AND CEILING LININGS TESTED TO AS5637.1	
Public Corridors – Walls	Group 1
Public Corridors – Ceilings	Group 1
Specific Areas – Walls	Group 1, or 2
Specific Areas – Ceilings	Group 1, or 2
Other Areas – Walls	Group 1, 2 or 3
Other Areas – Ceilings	Group 1, 2 or 3
NOTE -	In addition to achieving the group number above they too must comply with the following – ▪ a smoke growth rate index not more than 100; or ▪ an average specific extinction area less than 250m^2/kg
OTHER MATERIALS OR ASSEMBLIES	
Sarking-type material	Flammability Index 0 (fire control rooms) Flammability Index 5 (other areas)
Other materials	Spread-of Flame Index 9 Smoke-Developed Index 8 (if the Spread-of Flame Index is more than 5)

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