# NATIONAL BCA

# BCA Report-Fire Safety Change in building Use 73 Bulwer Street <u>Maitland. NSW.</u>

Prepared for: Hoover Group Prepared by: Rodger Dowsett. Project N°24119 Date: 21<sup>st</sup> October,2024. Status: Council submission V2.0

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#### Limitations and Exclusions.

- 1. The structural soundness of the building.
- 2. The design of proposed work excludes stage or back stage construction within the building.
- 3. The accuracy of total floor area calculation.
- 4. The report only relates to the existing building. The alterations proposed to the building are outside the scope of this report placing the onus on the certifier to ensure the requirements of Section 14 and 19 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation, 2021 are complied with in all respects.

## **DOCUMENT CONTROL**

Project No	24119
Project Name	73 Bulwer Street, Maitland
Document Title	BCA Capability Report-Fire safety
Document Reference	V2.0
Issue Type	Council review

Revision	Date	Description	Editing	Issued to	Prepared by
1.0	9 <sup>th</sup> Oct 2024	BCA Report	Client review	Hoover Group	Rodger Dowsett
2.0	21 <sup>st</sup> Oct 2024	BCA report	Council Submission	Hoover Group	Rodger Dowsett



## BCA Report-Fire Safety Requirements. Lot 1 in DP1038953.

## 1.0 Preamble.

National BCA have been approached by the Hoover Group to prepare a report in relation to fire safety upgrade requirements that are necessary in the process to obtain authorisation from the Consent Authority (Maitland City Council) to change the use of the existing building that stands on land in Folio Identifier 1/1038953.

The report is to form part of documentation required to assist the Council in its determination of a Development Application.

In this regard a recommendation has been made for the Councils consideration.

### 2.0 Engagement Terms

National BCA have been engaged to provide a report in response to the Hoover Group development application to change building use from a classification recognised by the Building Code of Australia to another classification.

The change in building use invokes certain obligations in relation to fire safety and, as opportunity presents, building upgrade in defined areas.

The buildings previous lawful use was that of a dwelling which has a Class 1a classification.

The current use in BCA terminology is a **place of assembly** which aligns with the building's current use as a place where people, in this case, persons with a disability may assemble for social and educational purposes.

The development application also involves the alteration of an existing building.

The assessment provided relates to the relevant provisions of the Building Code of Australia that apply as a consequence of the consideration of the Development Standards under Section 64 of the Environmental Planning and Assessment Regulation, 2021.

The report therefore has focused on the new Class 9b use of the building and whether or not-

"The measures contained in the building are inadequate—

#### (i) to protect persons using the building, if there is a fire, or

## *(ii)* to facilitate the safe egress of persons using the building from the building, if there is a fire, or

#### (iii) to restrict the spread of fire from the building to other buildings nearby."

Accordingly, the report serves as an adjunct report to Section 1.0(b) of the BCA Report Ref: 2024-0529 dated 14<sup>th</sup> October, 2024-Issue 2.

The above 'development standards' are discussed under Section 5.0 below.

## 3.0 Commentary-Land and Buildings.

The development site is known as 73 Bulwer Street, Maitland, land registered in Torrens Tile as Lot 1 in DP1038953, otherwise known as the allotment.

The allotment has secondary road frontage to Napolean Lane, a site feature that allows building occupants alternative access to either public road.

The allotment supports the following buildings-

- A single level building of brick construction, and
- Detached structure (carport) for the accommodation of two(2) vehicles parked in parallel configuration. The carport is fabricated from non-combustible materials.

The building for which Class 9b use is sought is-

- Single storey in height.
- The external walls are cavity masonry construction.
- The roof is pitched in configuration terminating in gable ends, one of which is of masonry construction the other, clad with fibro cement sheeting.
- The floor is bearer and joist construction, the flooring comprises hardwood boards that are more than 19mm in thickness.
- Internal cross walls are timber framed lined with standard grade plasterboard, timber 'ship-lap' boards and corrugated iron sheeting.
- The external walls of the building that face the side allotment boundaries contain window openings fitted with internal pre-finished metal shading devices.
- The ceiling is exposed beyond the building's main pedestrian entry, elsewhere the ceiling is suspended and supported construction which houses ceiling tiles.

• The building has a ducted air handling system.

Anecdotal evidence indicates the building's original design use was for a manufacturing purpose for which a Class 8 building classification would have applied at that time.

## 4.0 Building Characteristics.

The buildings are assessed as follows having regard to the Governing Requirements under Part A6 of the Building Code of Australia, 2022 Edition.

Aspect	BCA Provision- Volume 1	Determination	
Existing Use			
Classification			
• Dwelling	Part A6G2	Class 1a	
Classification.	5		
Carport	Part A6G11	Class 10a	
Current Use			
Classification.			
Place of assembly	Part A6G10	Class 9b	
Classification			
Carport	Part A6G11	Class 10a	
Building Characteristics -Class 9b			
Rise in storeys	C2D3	One Storey	
Construction Type	C2D2	Туре С	

#### **Building Particulars**

Floor area and volume limitations	C3D3	The building is within the compartment size limitation for a Class 9b building of Type C construction.
Effective Height	Schedule 1	0.00m
	Sche	edule 1
Fire Source Features(FSF)	North FSF-Sid of the allotme South FSF- Sid of the allotme East FSF-far be the road reser Lane. West FSF- far the road reser Street. Note: Class 10 neglected in t determination	e boundary line ent. le boundary line ent. oundary line of rve of Napoleon boundary line of rve of Bulwer ) structures he n of the FSFs.

Table 1.

#### **Building Inspection**

The findings of the inspection of the building conducted on the 3<sup>rd</sup> October,2024, relevant to the subject matter are as follows-

- The building has a total floor area of 520m<sup>2</sup> as determined in accordance with calculation requirements of Schedule 1 and, the available information.
- 2. The stairway to the building's main pedestrian entry from Bulwer Street is not geometrically consistent in relation to tread and going dimensions.
- 3. Unobstructed door widths to pedestrian entrances and internal circulation paths are less than that required for persons with a disability i.e. less than 850mm in clear width.
- 4. Parts of the buildings timber flooring were covered with soft floor covering(carpet) and, to a lesser extent, manufactured

'soft' boards referred to as "Masonite" sheeting. Evidence is available that the existing hardwood timber floor boards are like to comply with required fire hazard requirements.

- 5. Wall linings (ship-lap timber boards) suspended ceiling tile construction and the floor covering(s) are unlikely to comply with the required fire hazard properties under BCA S7C2 and Table S7C2 as it applies to
  - a) Floor covering and floor linings, and
  - b) Wall and ceiling linings.
- 6. In relation to existing fire safety measures, the building contains
  - a) Portable fire extinguishers, and
  - b) Three (3) domestic type, single station 'stand-alone' smoke alarms affixed to the ceiling of the building's hallway. Two (2) of the alarms emitted sound pressure levels at 3m in excess of that required by AS3786-2014, the other was not compliant.
- 7. The buildings air handling system (A/C system) was without any form of automatic shutdown activation facility in the event of fire.
- 8. Immediate to the building frontage to Bulwer Street was a street hydrant belonging to the Public Water Supply Authority.

In relation to building patrons, it was observed that they did not require physical assistance to undertake activities within the centre.

Further the following questions were raised with the applicant following building inspection and observation of the patrons in attendance at the time-

#### Questions placed with the applicant

As I understood the patrons do not require any type of physical assistance to-

- 1. Participate in activities of the centre, or
- 2. Attend to their daily activities, or
- 3. Evacuate the building.

#### **Response from the applicant**

"Yes, you are correct. While no participants attend the building without assigned staff to supervise, those who work here and visit do not need assistance with evacuation or personal care".

## 5.0 Statutory Requirements-Certification Process

Apart from the building alterations to which Section 64 of the Environmental Planning and Assessment Regulation, 2021 applies, the certifier ahead of construction certificate issue is obligated to consider the following development standards-

"a) the fire protection and structural capacity of the building will be appropriate to its new use, and

(b) the building will comply with the Category 1 fire safety provisions that apply to the new use".

#### Fire protection and structural capacity means-

(a) the structural strength and load-bearing capacity of the building, and

(b) the measures to protect persons using the building, and to facilitate their safe egress from the building, if there is a fire, and

(c) the measures to restrict the spread of fire from the building to other buildings nearby.

#### Structural Strength.

Whilst the buildings structural strength and load bearing capacity commensurate with a Class 9b use are outside the scope of this report, the buildings original design use for a manufacturing activity together with its height (single storey) serve to indicate the floor loadings likely to arise from its assembly use of less than 50 persons are within acceptable limits.

#### Safe Egress.

The building has direct access to the adjoining public roads in the form of two exits that are diagrammatically opposed to each other.

The existence within the building of a ducted air handing system and, smoke alarms, the latter of which provide a degree of warning as to the presence of smoke warrant that-

- 1. The smoke detection be retained and upgraded to current standards, and
- 2. The upgraded smoke detection system be electrically interlocked with the building's air conditioning system to facilitate its automatic shutdown on activation of the systems' smoke detectors.

#### Spread of Fire.

The building is of cavity brick construction which is not dissimilar to that required for a Class 9b building of Type C construction that stands closer than 3m to the side allotment boundaries. Notwithstanding there are window openings within the external walls, protection of these openings only serves to prevent the spread of fire from the allotment boundary to the subject building when consider in accordance with S5C24(1)(b) of the Building Code of Australia.

Further Type C construction does not require the roof to have a fire resistance level (FRL).

Therefore, the introduction into the building of fire safety measures above that which now exist together with the building's construction elements, serve to satisfy the development standard.

#### **Category 1 Fire Safety Provisions**

As the building (part thereof) is to change in use, the development when complete is to comply with Category 1 Fire Safety Provisions that are applicable to the new use.

Whilst the determination of required Category 1 portions is generally determined at the compliance certificate stage, the following table outlines their applicability to the building.

Category 1 Provision BCA Volume1	BCA Performance Provision	BCA Deemed to Satisfy Provision	Comment
E1P3	E1P3	E1D2Hydrants and AS 2419.1-2021	Required by reason the buildings total floor area exceeds 500m <sup>2</sup> . Compliance with AS2419.1- 2021 is required.
E1P4	E1P4	E1D6 Sprinkler Systems	Not required- Stage, backstage not proposed.
E1P6	E1P6	E1D15Fire Control Centre.	Not required by reason the buildings Effective Height is less than 25m and the total floor area of the building is less than 18000m <sup>2</sup>
E2P1	E2P1	E2D1	Not required as the use does not propose sleeping facilities.

#### **Category 1 Fire Safety Provisions**

E2P2	E2P2	E2D1	Required by reason the building contains a ducted air handing system.
E3P2	E3P2	E3D5 Emergency lift	Not required-single storey building.

Table 2.

#### Comment.

The Category 1 Fire Safety Provisions required as a consequence of the buildings change in uses are-

- Smoke detectors are required in accordance with Specification 20, S20C6(3) to activate automatic shutdown of the building's air handling system together with a Building Occupant Warning System, and
- 2. Fire hydrants in accordance with AS2419.1-2021.

## 6.0 Fire Safety Requirements.

The buildings change in use from one classification to another classification has been assessed in accordance with the development standards of the regulations applicable both to, the determination of the development application and, the subsequent issue of a construction certificate with particular emphasis placed on the following criteria-

- Occupant safety (egress and fire warning),
- Fire suppression, and
- Category One Fire Safety Provisions applicable to a Class 9b use.

The assessment gave rise to matters of the buildings design and construction that should be complied with as part of its change in use.

These matters have been documented in a BCA format compliance table.

## 7.0 Compliance Table.

In accordance with Section 64 (2) of the Environmental Planning and Assessment Regulation,2021, it is considered appropriate that in the determination of the development application the Council require the building be brought into partial conformity with the Building Code of Australia as proposed in the below table.

## BCA Compliance Table-Work Specification

ltem	Element	BCA	Compliance Procedure
1	Existing- a) Floor coverings b) Wall linings c) Ceiling tiles	NSW C2D11	Evidence of suitability in accordance with A5G3(1)(d) be obtained that the elements comply with Specification 7. Alternatively, the elements be replaced with materials and coverings that have the appropriate test reports to demonstrate the product and or construction fulfils the specific requirements of Specification 7
2	External stair- pedestrian entry from Bulwer Street	NSW D3D14 Table D3D14 and Table D3D15	<ul> <li>The stairs are to be rebuilt to comply with the following-</li> <li>a) The geometrical provisions of Table D3D14,</li> <li>b) The slip resistance requirements of Table D3D15, and</li> <li>c) Handrail requirements of Part D3D22(4).</li> </ul>
3	Door swing-Exit doorways	D3D25	Exit doors are to swing in the direction of egress from the building.
4	Operation of latch- Exit door and doors in travel path to exits.	D3D26	The doors nominated must be readily openable without a key from the side that faces a person seeking egress by a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D4— 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 centre grip section of the handle of not less than 35 mm and not more than 45 mm, and c) In accordance with D4D3 the doors are to have a clear opening width of not less than 850mm.

5	<ul> <li>Fire suppression-</li> <li>a) Fire hydrants,</li> <li>b) Fire hose reels, and</li> <li>c) Portable fire extinguishers.</li> </ul>	Part E1	The building is to be protected with the required fire suppression services and appliances Compliance standards- a) Fire hydrants-AS2419.1-2021. b) Fire hose reels-AS2441-2005. c) Portable fire extinguishers-AS2444- 2001. Note 1.	
6	Existing air handling system (Air conditioning system)	NSW E2D14(a)	<ul> <li>The building is to be provided with a smoke detection system in accordance with S20C6 and connected to-</li> <li>a) Cause automatic shutdown of the buildings A/C system, and</li> <li>b) Activate a Building Occupant Warning System(BOWS) in accordance with S20C7, and</li> <li>c) The existing domestic smoke alarm system decommissioned.</li> </ul>	
7	Exit sign and Emergency lighting	Part E4	The building is to be provided with exit signs and emergency lighting in accordance with AS 2293.1-2018.	
8	Warning signs	D4D7	Braille and tactile signage are required to be provided at doorways with EXIT signs and state- "Exit"; "Level"	

Table 3.

#### Note 1.

The site inspection revealed the existence of a hydrant in the footpath immediate to the building's frontage to Bulwer Street. Compliance with the standard maybe achieved through compliance with Section 3.5.2 of the standard.

#### 3.5.2 Street hydrants

Where street fire hydrants are incorporated into a fire hydrant system design in lieu of the installation of on-site feed fire hydrants, the following shall apply:

- (a) Street hydrants shall
  - (i) be classified as a feed fire hydrant;
  - (ii) be capable of delivering not less than the minimum flow and pressure for feed fire hydrants as specified in <u>Table 2.2.6(A)</u> for the number of fire hydrant outlets required to flow; and
  - (iii) only be used if located in a position that allows for the hydrant to conform to the location requirements for external feed fire hydrants detailed in <u>Clauses 3.5.3.1</u> and <u>3.5.3.2</u>, except that the requirement of <u>Clause 3.5.3.1(e)</u> pertaining to bollards does not apply.
- (b) Not more than two street fire hydrants shall be used to provide fire hydrant coverage to a building.
- (c) Where multiple buildings are located on a site, more than two street fire hydrants may be used to provide fire hydrant coverage to the site provided not more than two street fire hydrants are used to protect each building.
- (d) A location plan indicating the location of street hydrants shall be provided in accordance with Clause 11.7.
- (e) Where an on-site feed fire hydrant is installed, its location shall be included on the plan as required by Item (d).
- (f) Where a fire brigade booster assembly is installed, street hydrants shall not be used.
- (g) The requirements of <u>Clause 3.2.2</u> do not apply to street hydrants.

## 8.0 Fire Safety Schedule.

As far as can be determined the building premises are without the benefit of a Fire Safety Schedule.

In accordance with Section 78 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation,2021 a fire safety schedule is drafted to identify the existing and required fire safety measures for implementation in the building.

#### Fire Safety Schedule-V1.0

Fire Safety Measures- Statutory	Existing	Required	Standard of Performance
Building Occupant Warning System	No	Yes	NCC S20C7 and clause 3.22 of AS1670.1-2018
Emergency lighting	No	Yes	NCC E4D2 and AS2293.1- 2018
Exits signs	No	Yes	NCC E4D5,NSW E4D6 and AS2293.1-2018

Fire hose reels	No	Yes	NCC E1D3 and AS2441-2005
Fire hydrants	No	TBD	E1D2 and AS2419.1-2021 Note 1
Exits and paths of travel to exits	No	Yes	NCC D2D15(1) and D3D26(1)(b)
Mechanical air handling systems-Automatic shutdown	No	Yes	NCC E2D16(a)
Portable Fire Extinguishers	Yes	Yes	NCC E1D14 (3) and AS 2444- 2001.
Smoke detectors and heat detectors	No	Yes	NCC S20C6(3) and AS1670.1- 2018
Warning and operational signs	****	Yes	NCC D4D7(1)(a)(ii)

Table 4.

**Note 1**: If the available road hydrants are in compliance with AS2419.1-2021, their listing in the buildings Fire Safety Schedule is no longer required.

## 9.0 Conclusion.

The building is suitable for its proposed use, subject to the implementation of measures that have been listed in the Work Specification and, as required by Section 7.0 the BCA Report.

The Work Specification also serves to assist the Council in the exercise of the discretionary provisions under Section 64 of the Environmental Planning and Assessment Regulation, 2021.

The report also has developed a Fire Safety Schedule for the building premises, a schedule that includes the required statutory fire safety measures and also fire safety measures that form part of the development.

The building solution for the development is in compliance with Part A2G1(2)(b) i.e. *Deemed-to Satisfy Solution.* 

The building solution undertaken to comply with the Building Code of Australia's performance requirements will not impact on the buildings' design and therefore unlikely to require a modification to any consent granted.

A recommendation is therefore made for the Councils consideration.

## 10.0 Recommendation.

The Council in response to a development application for consent to use the building at 73 Bulwer Street, Maitland requires-

1. a) The building to be upgraded in accordance with the Work Specification together with Section 7.0 of the BCA Report,

b) The Work Specification incorporated in the plans and specifications of the Construction Certificate, and

2. All building work to comply with the Building Code of Australia.

## 11.0 Reference Material

- 1. National Construction Codes Series, Building Code of Australia BCA 2022-Volume 1 (BCA).
- 2. National Construction Codes Series, Building Code of Australia BCA 2022-Volume 2 and the Housing Provisions.
- 3. The Environmental Planning and Assessment Act ,1979.
- 4. The Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation,2021.
- 5. The Environmental Planning and Assessment Regulation, 2021.
- 6. Architectural Plans listed in the Table to Annexure B prepared by Hoover Group, Revision B dated 18<sup>th</sup> Sept,2024.
- 7. BCA Report Ref 2024-0529 dated 14<sup>th</sup> October 2024 Issue 2.
- 8. Email exchange with M/s D Frost.

#### Rodger Dowsett BDC04541



#### Annexure A

## Building Code of Australia. Deemed -to-Satisfy Assessment Section C, Parts D2 and D3, Section E and Part I1 Class 9b Building

Project Address: 73 Bulwer Street, Maitland.

File Reference: 24119

Date: 9<sup>th</sup> October, 2024

BCA Edition: Volume 1,2022.

Building occupancy	Determination
ClassificationPart A6	Class 9b
Number of levels—	One Storey
Allotment details	Lot 1 in DP1038953
Total floor area	>500m²

#### Legend

- NA—Not applicable.
- Schedule 1 is the Definition Section of the BCA.
- CC-Compliance; Construction Certificate.
- FSF---Fire Source Feature.
- DtS –Deemed to Satisfy.

## Assessment Table---Volume 1

PART/CLAUSE	REFERENCE	COMMENT	
SECTION A – GENE	RAL PROVISIONS		
Part A4	Reference documents	NA	
Part A5	Documentation of design and construction	NA	
Part A6	Building classification-Existing building	Class 9b	
Part A6G11	Building classification-Carport	Class 10a	
Part A7G1	United building	NA	
SECTION B			
PART B1 STRUCTU	IRAL PROVISIONS		
B1D1	Deemed to Satisfy provisions	Information.	
B1D2	Structural Provisions-Resistance	Structural Engineers design and specification.	
	to actions	Notes: Structural engineer must be a Professional Engineer as defined under Schedule 1Definitions	
B1D3	Determination of individual actions	Structural Engineers design and specification and certification including AS 1170 parts 1, 2 and 4	
B1D4	Determination of structural resistance of materials and forms of construction.	NA.	
B1D4(i)	Termite management	NA.	
B1D5	Structural software	NA	
B1D6	Construction of buildings in flood hazard areas	NA	
Specification 4	Design of buildings in cyclonic areas	NA	
SECTION C – FIRE R	ESISTANCE		
Part C2 - Fire resistance and stability			
	Application of Part DtS	Noted/information.	

C2D2	Type of Construction required	Туре С.
C2D3	Calculation of Rise in Storeys (RiS)	The building has a RiS of one(1) storey
C2D3(4)	RiS- Mezzanine floors	NA
C2D4	Buildings of Multiple Classification	Type C construction applies throughout the building.
C2D5	Mixed Types of Construction	NA
C2D6	Two Storey Class 2, 3 or 9c Buildings	NA
C2D7	Class 4 Parts of Buildings	NA
C2D8	Open Spectator Stands & Indoor Sports Stadiums	NA
C2D9	Lightweight Construction	NA
C2D10	Non-combustible building elements	NABuilding as it stands is without a combustible façade or combustible facings.
NSW C2D11	Fire Hazard Properties	Fire hazard properties of floor linings, floor coverings, wall linings, ceiling linings, air handling ductwork, insulation, sarking type materials must comply with NSW Specification 7 and where appropriate NSW Clause S7C7 of Specification 7 <b>Refer to BCA Work Specification for compliance</b> <b>procedures.</b>
NSW C2D11(3)(i)	Fire Hazard Properties	NA
C2D12	Performance of External Walls in fire	NA
C1.12	No provision	*******
C2D13	Fire protected timber: Concession	NA
C2D14	Ancillary elements	NA
PART C3 - FIRE RES	ISTANCE	
C3D1	Deemed-to-Satisfy Provisions.	Noted/information
C3D2	Application of Part	NA
C3D3	General Floor Area and Volume Limitations	The building is within the floor area and volume limitations prescribed for building of Type C

		construction as d classification.	etermined by the	e buildings Class 9b
		Quantity	Limitation	Existing
		Floor area	3000m²	526m <sup>2</sup>
		Volume	18000m <sup>3</sup>	1600m <sup>3</sup>
C3D4	Large Isolated Buildings	NA		
C3D5	Requirements for open space and vehicular access	NA		
C3D6	Class 9 Buildings	NA		
C3D7	Vertical separation of openings in external Walls	NA-		
C3D8	Separation by fire walls	NA		
C3D9	Separation of classifications in the same storey	NA		
C3D10	Separation of classifications in different storeys	NA		
C3D11	Separation of lift shafts	NA		
C3D12	Stairways and lifts in One shaft	NA		
C3D13	Separation of equipment	TBD		
C3D14	Electricity supply system	The main switcht building.	board is located e	external to the
		As far as can be c associated electr to sustain the op an emergency.	letermined the so ical installations eration of emerg	witchboard and are not required ency equipment in
		Note:		
		Amendment may switchboard is re equipment which	vbe required to th quired to sustain are as follows-	ne report if the emergency
		a)Pumps-Fire hyd	frants.	
		b) Pumps-Fire ho	se reels.	
		c) Control and Ind	dicating Equipme	nt.
C3D15	Public corridors in Class 2 & 3 buildings	NA		
PART C4 – PROTEC	TION OF OPENINGS			

C4D1	Deemed-to-Satisfy Provisions	Noted/information.
C4D2	Application of Part	information
C4D3	Protection of openings in external walls	There are openings within the building's external walls that are within 3m of the identified fire source features. I.e. the side allotment boundaries.
		development standards for change in building use
C4D4	Separation of external walls and associated openings in different fire compartments	NA
C4D5	Acceptable methods of protection	NA
C4D6	Doorways in fire walls	NA
C4D7	Sliding fire doors	NA
C4D8	Protection of doorways in horizontal exits	NA
C4D9	Openings in fire isolated exits	NA
C4D10	Service penetrations in fire Isolated exits	NA
C4D11	Openings in fire isolated lift shafts	NA
C4D12	Bounding construction: Class 2 and 3 buildings and Class 4 parts	NA
C4D12(5)		NA
C4D12(8)		NA
C4D13	Openings in floors and ceilings for services	NA
C4D14	Openings in shafts	NA
C4D15	Openings for service installations	Service installations (electrical, electronic, plumbing, ventilation component and the like) that pass- through construction required to have a FRL must be protected at the point of penetration with a system that has been tested in accordance with AS 4072.1-2005 and AS 1530.4-2014
C4D16	Construction Joints	NA

C4D17	Columns protected with lightweight construction to achieve an FRL	NA
Specification 5	Fire resisting construction	
S5C3	Fire protection for a support of another part.	NA
S5C4	Lintels	NA
S5C5	Method of attachment not to reduce the fire resistance performance of building elements	NA
S5C6	General concessions	NA
S5C7	Mezzanine floors-Concession	NA
S5C8	Enclosure of shafts	NA
S5C9	Carparks -Class 2 buildings	NA
S5C10	Residential care buildings- concession	NA
S5C11	Type A fire resisting construction	NA
S5C12	Concession for floors	NA
S5C15	Roof: Concession	NA
S5C16	Roof lights/Skylights	NA
S5C17	Internal walls and columns: Concession	NA
S5C20	Type A construction -Class 2 and 3 buildings-Concession	NA
S5C21	Type B-fire resisting construction	NA
S5C24	Type C-fire resisting construction	New building work is required to comply with the requirements of Type C construction
Table S5C24c	FRL for common and fire walls	NA
S5C24(1)(d)	Fire wall construction	NA
SPECIFICATION 6	Structural Test for Light Weight Construction	NA
SPECIFICATION 7	Fire Hazard Properties	Refer to comments under clause C2D11 above
SPECIFICATION 8	External Walls	Refer to C2D12

SPECIFICATION 9	Cavity Barriers-Timber Const.	NA
SPECIFICATION 10	Fire-protected timber	NA
SPECIFICATION 11	Smoke proof walls in health care and residential care buildings.	NA
SPECIFICATION 12	Fire doors smoke doors and Fire windows and shutters	NA
SPECIFICATION 13	Penetration of walls and floors and ceilings by services	NA
SECTION D – ACCES	S & EGRESS	
PART D2 - PROVISIO	ON FOR ESCAPE	
D2D1	Deemed-to-Satisfy Provisions	Noted/informational.
D2D2	Application of Part	NA
NSW D3D2(4)(vi)	Number of exits required-Class	Ground Floor Level
	9b part	Two (2) exits required
		Building complies.
D2D4	When Fire isolated stairways	NA
	and ramps are required	
D2D5	Exit Travel Distances	Ground floor level
		Building complies
D2D6	Distances between alternative	Distance between the alternative exits exceeds 9m
	exits	and is less than 60m apart.
		Building complies
D2D7	Height of exits, path of travel to	Paths of travel to exits including from the sorting
	exits and door ways	height of not less than 2m.
D2D8	Width of exits and paths of	Building capable of compliance
	travel to exits	
D2D9	Width of doorways in exits or paths of travel to exits	Building capable of compliance
D2D10	Exit width not to dimmish in direction of travel	Building capable of compliance
D2D11	Determination and measurement of exits and paths	Informational in relation to D2D7 and D2D10
	of travel to exits	
D2D12	Travel via fire isolated exits	NA
D2D13	External stairways or ramps in lieu of fire isolated exits	NA

D2D14(3)	Travel by non-fire isolated	Building complies	
D2D14(5)	stairways or ramps		
D2D15	Discharge from exits	Exit discharge from the enclosed part ground floor storey require barrier construction to prevent the exits being blocked by vehicles	
D2D16	Horizontal exits	NA	
D2D17	Non-Required stairways ramps or escalators	NA	
D2D18	Number of persons accommodated	Noted.	
D2D19	Measurement of distances	Sub-clause (d) relied upon in the determination of egress compliance.	
D2D20	Method of measurement	Sub-clauses (c), (d) & (e) relied upon in the determination of egress compliance.	
D2D21	Plant rooms, lift machine rooms and electricity network substations: Concession	NA	
D2D22	Access to lift pits	NA	
D2D23	Egress from primary schools	NA	
PART D3 - CONSTR	UCTION OF EXITS		
D3D1	Deemed-to-Satisfy Provisions	Noted/informational.	
D3D2	Application of Part	Noted/informational.	
D3D3	Fire-Isolated stairways & ramps	NA-Structural engineers' certification re D3D3(b)	
D3D4	Non-Fire-Isolated stairways and ramps	NA-Ramps/non-fire isolated stairs to be constructed from reinforced concrete.	
D3D5	Separation of rising and descending stair flights	NA	
D3D6	Open access ramps and balconies	Noted.	
D3D7	Smoke lobbies	NA	
D3D8	Installations in exits and paths of travel	No services except those allowed in this clause can be installed within required exits, fire isolated stairs, paths of travel to exits.	
		(a) electricity meters, distribution boards or	

		<ul> <li>(b) central telecommunications distribution boards or equipment;</li> <li>Services are to be enclosed with construction that is- <ol> <li>Non-combustible; and</li> <li>Suitably sealed against smoke spreading from the enclosure</li> </ol> </li> </ul>
D3D9	Enclosure of space under stairs and ramps	NA
D3D10	Width of required stairways and ramps	NA
D3D11	Pedestrian ramps	Ramps serving as accessible ramps to comply with AS 1428.1; gradient more than 1:14. Slip resistance classification as outlined in table D2.14 when tested in accordance with AS 4586-2013
D3D12	Fire Isolated passageways- (Proposed)	NA
D3D13	Roof as open space	NA
D3D14(NSW) and	Goings and risers	Quantity calculation -TBD
Table D3D14 below	Existing external stair	Quantity calculation -TBD Refer to BCA Work Specification for compliance procedures.

#### Table D3D14: Riser and going dimensions

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Stairway location	Riser (	Riser (R)		Going (G) <sup>Note 3</sup>		Quantity (2R + G)	
	Max	Min	Max	Min	Max	Min	
Public	190	115	355	250	700	550	
Private Note 1	190	115	355	240	700	550	
D3D15	Landings		Land	ings must not	be less than 7	50 mm long.	
D3D15	Landings	andings		ings must not esistance crite	be less than 7 eria in accord	50 mm long. with Table D2.14	
			Shpi				

Table D3D15:

Slip-resistance classification

Application	Dry surface conditions	Wet surface conditions
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

D3D16	Thresholds	Threshold of a doorway must not incorporate a step except when opens to road or open space and the step is less than 190 mm.
		In addition, thresholds are to be accessible where the doorway opens to a road or open space, the threshold ramp or step ramp is to comply with AS 1428.1
D3D17	Barriers to prevent falls-	NA
D3D18-NSW	Height of barriers	Barrier height -not less than 1m including landings
D3D18-NSW	Height of barriers	NA
D3D19	Openings in barriers-Mezzanine floor	Opening in barrier construction must not allow a 300m sphere to pass through. Note Stairway barrier construction must not allow a 125mm sphere to pass through
D3D20	Barrier climbability	NA
D3D21	Wire barriers	NA
D3D22	Handrails	<ul> <li>Handrails are to be-</li> <li>1. Located on both sides of the stair flights,</li> <li>2. Fixed at a height of not less than 865mm,</li> <li>3. Comply with AS1428.1-2009.</li> </ul>
D3D23	Fixed platforms, walkways stairways and ladders	NA
D3D24(2) NSW	Doorways and doors	NA
D3D25	Swinging doors	Doors that form part of the exit system must swing in the direction of egress. Existing building does not comply. Refer to BCA Work Specification for compliance procedures.

D3D26	Operation of latch	Doors in required exits or doors in the paths of travel to exits must be readily openable without a key from the side that faces a person seeking egress by single handed downward or push action in accordance with this clause. <b>Refer to BCA Work Specification for compliance</b> <b>procedures.</b>
D3D27	Re-entry from fire isolated exits	NA
D3D28	Signs on doors	NA-
D3D29	Protection of openable windows	NA
D3D30	Timber stairways-Concession	NA
PART D4 - ACCESS	FOR PEOPLE WITH DISABILITIES	
D4D1	Deemed – to – Satisfy Provisions	Noted/ information
D4D2	General Building Access Requirements	NA
D4D3	Access to building	
D4D4	Parts of building to be accessible	
D4D5	Exemptions	
D4D6	Accessible Car Parking	Note:
D4D7	Signage	signs in accordance with E4D5 are required
D4D8	Hearing augmentation	
D4D9	Tactile Indicators	
D4D10	Wheel chair seating spaces in Class 9 (b) assembly buildings	
D4D11	Swimming pools	
D4D12	Ramps	
D4D13	Glazing on accessways	
SPECIFICATION 14	NON-REQUIRED STAIRWAYS RAMPS AND ESCALATORS	
SPECIFICATION 15	BRAILLE AND TACTILE SIGNS	
SPECIFICATION 16	ACCESSIBLE WATER ENTRY/EXIT FOR SWIMMING POOLS	
SECTION E - SERVI	CES AND EQUIPMENT	

PART E1 - FIRE FIGHTING EQUIPMENT		
E1D1	Deemed-to-Satisfy Provisions	Noted/informational.
E1D2	Fire Hydrants (FH)	<ul> <li>The buildings total floor area exceeds 500m<sup>2</sup></li> <li>Fire hydrants are required</li> <li>Compliance requirements.</li> <li>1. AS2419.1-2021</li> <li>Refer to BCA Work Specification for compliance procedures.</li> </ul>
E1D3	Fire Hose Reels (FHR)	Fire hose reels are required.
		<ul><li>Compliance requirements</li><li>1. FHRs located within 4m of an exit, and</li><li>2. AS 2441-2005</li></ul>
		Refer to BCA Work Specification for compliance procedures.
E1D4	Sprinklers	NA
E1D5	Where sprinklers are required: all classifications	NA
E1D6	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	NA
E1D7	Where sprinklers are required: Class 3 building used as a residential care building	NA
E1D8	Where sprinklers are required: Class 6 building	NA
E1D9	Where sprinklers are required: Class 7a building, other than an open-deck carpark	NA
E1D10	Where sprinklers are required: Class 9a health-care building used as a residential care building and Class 9c buildings	NA
E1D11	Where sprinklers are required: Class 9b buildings	NA
E1D12	Where sprinklers are required: additional requirements	NA

E1D13	Where sprinklers are required: occupancies of excessive hazard	NA
E1D14	Portable Extinguishers	Portable fire extinguishers exist in the building
		Compliance requirements
		AS 2444-2001
		Refer to BCA Work Specification for compliance
		procedures.
E1D15	Fire Control Contros	As building EH is assassed at $<25m$ , a fire control
	File Control Centres	centre is not required
E1D16	Fire precautions during construction	Noted.
E1D17	Provision for special hazards	NA
SPECIFICATION 17	Fire sprinkler system	NA-
SPECIFICATION 19	Fire control centres	NA
PART E2 – SMOKE I	HAZARD SYSTEM	
E2D1	Deemed-to-Satisfy Provisions	Information
E2D2	Application of Part	Noted.
E2D3	General requirements	NA
E2D4	Fire-isolated exits	NA
E2D5	Buildings more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	NA
E2D6	Buildings more than 25m in effective height: Class 5, 6, 7b, 8 and 9b buildings	NA
E2D7	Buildings more than 25m in effective height: Class 9a buildings	NA
E2D8	Buildings not more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	NA
E2D9	Buildings not more than 25m in effective height: Class 5, 6, 7b, 8 and 9 buildings	Refer to NSW E2D16 below

E2D10 (NSW)	Buildings not more than 25m in effective height: large isolated buildings subject to C3D4	NA
E2D11	Buildings not more than 25m in effective height: Class 9a and 9c buildings	NA
E2D12	Class 7a buildings	NA
E2D13	Basements (other than Class 7a buildings)	NA
E2D14	Class 6 buildings – in fire compartments more than 2000m2. Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	NA
E2D15	Class 6 buildings – in fire compartments more than 2000m2. Class 6 building (containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	NA
E2D16-NSW	Class 9b – assembly buildings: nightclubs, discotheques and the like	Ground Floor Storey—Class 9b part That part of a building used as an assembly building must be provided with <b>automatic shutdown</b> 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 S20C6; Refer to BCA Work Specification for compliance procedures.
E2D17	Class 9b – assembly buildings: exhibition halls	NA
E2D18	Class 9b – assembly buildings: theatres and public halls	NA

E2D19	Class 9b – assembly buildings: theatres and public halls (not listed in E2D18) including lecture theatres and cinema/auditorium complexes	NA
E2D20	Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19.	Refer to E2D16 above
E2D21	Provision for special hazard	NA
SPECIFICATION 20	Smoke detection and alarm systems	NA
S20C4		
SPECIFICATION 21	Smoke exhaust systems	NA
SPECIFICATION 22	Smoke and heat vents	NA
SPECIFICATION 23	Residential fire safety systems	NA.
PART E3 – LIFT INS	TALLATIONS	
E3D1	Deemed-to-Satisfy Provisions	Noted.
E3D2	Lift installations	NA
E3D3	Stretcher facility in lifts	NA
E3D4	Warning against use of lifts in fire	NA
E3D5	Emergency lifts	NA
E3D6	Landings	NA
E3D7	Passenger lift types and their limitations	NA
E3D9	Fire Service Controls	NA
E3D10	Residential care buildings	NA
E3D11	Fire service recall control switch	NA
E3D12	Lift car service drive control switch	NA
SPECIFICATION 24	Lift installations	NA
PART E4 - EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS		
E4D1	Deemed-to-Satisfy Provisions	Noted.
E4D2	Emergency Lighting requirements	Emergency lighting -Required

		Refer to BCA Work Specification for compliance procedures.
E4D3	Measurement of distance	Noted/information
E4D4	Design and operation of emergency lighting	Compliance standard-AS2293.1-2018
E4D5	Exit signs	Exit signs-Required.
		Refer to BCA Work Specification for compliance procedures.
E4D6 NSW	Direction signs	Directional exit signs required
E4D7	Class 2 and 3 Buildings and Class 4 parts: exemptions	NA
E4D8	Design and operation of exit signs	Compliance standard-AS2293.1-2018
E4D9	Emergency warning and intercom systems	NA
SPECIFICATION 25	Photoluminescent exit signs	NA
Part I1 CLASS 9b BU	JILDINGS	
NSW I1D1	Application of part	NA—Stages, backstage areas and rigging loft not proposed.
Assessment TableVolume 2		
Part A6G11	Building classification-Carport	Class 10a
Part 9.2.4(2)	Class 10a buildings	The existing carport is fabricated and constructed
	"A Class 10a building must not	from non-combustible materials.
	spread of fire between Class 2	Opinion
	to 9 buildings".	boundaries to the Class 9b building is considered to be not of any signifance.

## Annexure B

### Plan Schedule-Catered-202401-Issue B

Plan Number	Description
Sheet DA02	Site Plan
Sheet DA03	<b>Existing Floor and Roof Plan</b>
Sheet DA04	Existing Elevations
Sheet DA06	Proposed Ground Floor Plan
Sheet DA07	Proposed Elevations