CREDWELL

Project	15-17 Lupin Avenue, Fairfield East
Report	BCA Assessment Report (BCA 2022)
Reference	230318-BCA-r1
Date	27/07/2023
Client	BlueCHP
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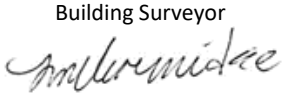
Contents

Document Control

Reference/Revision	Date	BCA Assessment Report	
230318-BCA-r1 DA report issued for review	27/07/2023	Prepared by	Tatenda Makurumidze Building Surveyor 
		Reviewed by	Christopher Ward Building Surveyor – Unrestricted (A1) BDC 2789 

1 Introduction

1.1 Objectives

The purpose of this report is to provide an assessment against Volume One of the Building Code of Australia 2022 (BCA) addressing all relevant Deemed-to-Satisfy clauses therein.

The report will identify where the subject building achieves compliance and non-compliance with the BCA, and provide instances where a Performance Solutions may be available. Any recommended Performance Solutions are required to be prepared under separate cover.

Part 3 'Assessment Summary' of this report outlines the identified compliance matters that require further information or consideration and/or assessment as a Performance Solution (to be prepared separately).

It is presumed the assumptions, content, and limitations of this report are reviewed, noted, and understood by the reader. Credwell Consulting are to be contacted to clarify any queries or assumptions made in relation to the contents of this report and further, Credwell Consulting take no responsibility for misinterpretation of any of the content herein.

1.2 Limitations

This report does not include, nor imply, any audit, assessment, or upgrading of:

1. The structural adequacy or design of the building;
2. The capacity or design of any electrical, fire, hydraulic or mechanical services;
3. The inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
4. The Disability (Access to Premises – Building) Standards 2010 and the Disability Discrimination Act 1992 (Cth)

This report does not include, nor imply, any assessment of, or compliance with:

1. The National Construction Code – Plumbing Code of Australian Volume 3;
2. The Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to),
3. The provision of disabled access to the subject development, being any assessment of the Deemed-to-Satisfy provisions of Part D3 and Clauses E3.6, F2.4 & F2.9;
4. Any Development Consent conditions;
5. The Liquor Licencing Act 2007;
6. The Work Health and Safety Act 2011;
7. The Swimming Pools Act 1992; and
8. Requirements of Authorities including, but not limited to, Fire and Rescue NSW, WorkCover, RMS, Council, Telecommunications Supply Authority, Electricity Supply Authority, Water Supply Authority, Gas Supply Authority and the like.
9. Requirements of BCA Section J.

Interpretations

A number of matters within the BCA are known to be interpretive. Where these matters are encountered, interpretations have been used that are consistent with Credwell Consulting's understanding of standard industry practice.

Dimensions and Tolerances

In some instances, the BCA specifies minimum dimensions for construction. The assessment of plans and specifications includes a review of such minimum dimensions that are relevant to the project, but Credwell Consulting does not guarantee that all relevant minimum dimensions have been assessed where they are not clearly and explicitly denoted/marked on the architectural drawings.

The relevant designer(s) and builder(s) should confirm that all minimum dimensions are achievable on site prior to works and consideration/attention should be given to construction tolerances impacted by wall set outs, applied finishes, and skirtings to corridors and bathrooms. For example, tiling bed thickness on walls and floors can adversely impact critical minimum dimensions relating to access for people with disabilities, stair and corridor widths, and balustrade heights.

1.3 Reviewed documentation

This report is based on documentation referenced in Annexure A.

2 Proposed Development

2.1 Building location

The building, the subject of this report, is located at 15-17 Lupin Avenue, Fairfield East.

Figure 1| Satellite Image of the Site (outlined in red) | Source: Nearmap

2.2 Proposal

The proposed development consists of a multistorey residential apartment building with a total of thirty-nine (39) residential units. The building also comprises of a two-level carpark located within the Basement with forty (40) car park spaces.

Figure 2| Image of the proposed development | Source: Loucas Architects

2.3 Building description

For the purposes of the BCA, the building is described as follows:

Building Classification	Class 2 Class 7a	Levels Contained	9
Rise in Storeys	8	Effective Building Height (m)	23.48m (RL 40.35 – RL 16.87)
Type of Construction	Type A	Climate Zone	5 Fairfield City Council local government area

2.4 Classification

Location	Class	Use	Floor Area (estimated)
Lower Basement Plan	7a & 7b	Carpark and Storage	753m^2
	7a	Carpark	715.6m^2
	7b	Storage (<10% of the floor area of lower basement storey)	37.40m^2
Basement	7a & 7b	Carpark and Storage	754.07m^2
	7a	Carpark	715.55m^2
	7b	Storage (<10% of the floor area of basement storey)	15.19m^2
Ground floor	2	Residential and Storage	603.41 m^2
	2	Residential SOUs	.
	7b	Storage	43.68m^2
Level 1 to the roof top	2	Residential	-

Note:

In accordance with Clause A6G1 [2019:A6.0], Exemption 1 of the BCA, for the purposes of determining a building classification, where a part of a building has been designed, constructed or adapted for a different purpose and is less than 10% of the floor area of the storey it is situated on, the classification of the other part of the storey may apply to the whole storey.

Storage areas (class 7b) includes general storage areas, cleaners' rooms, garbage rooms and bicycle parking areas.

Occupant numbers have been calculated in accordance with Clause D2D18 [2019:D1.13] of the BCA/ provided by the tenant building owner.

The concessions under Spec 18 have been applied (sprinklers to Class 2 and 3 buildings not more than 25m in effective height).

The floor areas identified within the table are in accordance with the BCA definition which may vary from the GFA as determined in accordance with NSW planning legislation.

2.5 Fire Compartmentation

The following fire compartments have been assumed:

1. The car parking areas located at Basement level 03 to the ground floor carpark entry are considered one fire compartment.
2. The garbage storage areas located on the ground floor is considered one fire compartment.

3 Assessment Summary

3.1 Assessment

The reviewed documentation referenced in Annexure A of this report has been assessed against the Deemed-to-Satisfy (DtS) provisions of the BCA. This assessment has identified the following areas where compliance with the BCA will require further consideration.

Annexure B of this report provides a detailed assessment of the proposal against each of the relevant DtS provisions of the BCA.

3.2 Possible Performance Solutions (Fire Safety)

The following items relate to areas where a Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution.

Where a Fire Engineered Performance Solution is proposed, the solution is to be prepared by a *Certifier – Fire Safety (C10)* in consultation with all stakeholders.

Referral to Fire Rescue NSW under Clause 21 of the Environmental planning and Assessment (Development Certification and Fire Safety) Regulation 2021 is required where the Fire Engineering Report contains any performance solution to address Performance Requirement C1P2 *(CP2)* (for class 2 C1P9 *(CP9)*, E1P3 *(EP1.3)*, E1P4 *(EP1.4)*, E1P6 *(EP1.6)*, E2P2 *(EP2.2)* or E3P2 *(EP3.2)*. This process is to be coordinated by the certifier as part of the Construction Certificate assessment process.

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	**Bin Rooms containing a garbage chute (Enclosure of Shafts)** Clause S5C8 of Spec 5 specifies that shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL of 90 minutes. The buildings contain Garbage Chutes which run vertically through the residential levels and discharge directly into the waste room on level 1. Due to typical arrangements, the bottom of the garage chutes cannot meet the Deemed-to-satisfy provisions by being enclosed whilst achieving an FRL of 90 minutes. This will need to be addressed at the construction stage on a performance basis.	C2D2 Spec 5 S5C8	C1P2
2.	**Travel via fire-isolated exits**	D2D12	D1P2 E2P2

Item	Possible Performance Solution	DtS Provision	Performance Requirements
	The fire-isolated stairways serving the residential levels have been shown that the final door discharges to a point within the confines of the building that is not open for at least ⅔ of its perimeter. At the construction stage of the development a fire engineer will need to review the feasibility of addressing the Deemed to Satisfy departure of a performance basis.		
3.	**Fire hydrants** To permit the fire hydrant booster to be located within or affixed to the facade that does not contain the principal pedestrian entrance and within 20m of the pedestrian entrance	E1D2	E1P3
4.	**Provisions for special hazards** The provision for electric vehicle charging spaces & solar panels on the roof top is considered a special hazard to be considered as part of the Fire Engineering assessment. This is due to the location of the solar invertor which may pose a risk for fire brigade intervention.	E1D17	C1P6

3.3 Possible performance solutions (Other)

The following items relate to areas where a Performance Solution may be available to justify a deviation from the DtS requirements of the BCA. This report does not form a Performance Solution.

Where a Performance Solution is proposed, the solution is to be prepared by a suitably qualified person in consultation with all stakeholders.

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	**Roof Covering** Clause F3D2 specifies that a roof must be covered with one of the options provided, for example roof tiles or metal sheeting. The plans indicate a concrete roof is proposed which does not meet the deemed-to-satisfy provisions of the clause as a roof covering is not provided.	F3D2	F3P1

3.4 Design amendments required

The following items have been identified as departures from the BCA deemed-to-satisfy provisions, and Credwell recommend these items to be resolved with minor design amendments prior to the application for construction certificate:

Item	Amendments required	DtS Provision
1.	**Exit travel distances** The following areas have been provided with non-compliant exit travel distances: I. The lower basement level has been provided with a non-compliant distance to a point of choice measured to be 31m in lieu of the maximum permitted 20m. II. The basement level has been provided with a non-compliant distance to a point of choice measured to be 31m in lieu of the maximum permitted 20m. To comply with the Clause the design will be required to be amended such that the distance must not exceed: • 20m to a single exit or a point of choice where 2 exits are available. • 40m to an exit where 2 exits are available.	D2D12
2.	**Fire hydrants** The fire hydrant booster has been shown to be not located within or affixed to the facade that does not contain the principal pedestrian entrance and within 20m of the pedestrian entrance. To comply the design will be required to be amended and show the hydrant booster in accordance with Clause 7.3.1 (c) of AS 2419.1-2021 and be located within or affixed to the facade that contains the principal pedestrian entrance; and be within 20m of the pedestrian entrance.	E1D2

3.5 Further information required

For the purposes of this report, general arrangement floor plans, elevations and sections have been reviewed to determine whether the building is capable of complying with the BCA.

Construction Documentation is to be provided and reviewed by Credwell prior to the issuance of the BCA Report for the purposes of the Construction Certificate application. A detailed list of information required for review will be provided by Credwell upon engagement for the Construction Certificate stage assessment.

Item	Further information required	DtS Provision	Performance Requirements
1.	The basement-level plans show two doorways that discharge into open space along the side allotment without a stairway with handrails and a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14. The plans will need to be amended to show a compliant pathway in accordance with D2D15. In addition to the above the project elevations will also need to be amended to show the discharge doorways and pathway to the road.   	D2D15	D1D6

4 Statement of Compliance

The architectural design documentation prepared for submission for the Development Application (as referred to in Annexure A of this report) have been assessed against the relevant provisions of the BCA. This assessment was limited to an assessment of the BCA in order to identify any items that may necessitate a modified development consent or additional key items that must be included in the design. It is considered that the documentation complies or is capable of complying with the BCA as outlined in Annexure B subject to resolution of items identified in this Report.

As identified in the Clause by Clause assessment, sufficient construction documentation is required in order to undertake a full assessment prior to the application for Construction Certificate.

5 Clause by Clause Assessment

An assessment of the proposal has been undertaken against each clause of the BCA and the following abbreviations have been used.

PS	A Performance Solution is proposed to achieve compliance with this Clause.
CRA	"Compliance Readily Achievable" – it is considered that whilst there is insufficient information currently provided to determine strict compliance with the DtS provisions of the BCA the proposed design is capable of comply subject to noting the requirements of the Clause. Additional information or documentation is necessary to confirm compliance. This may be in the form of additional drawing, a specification or design certification. See Appendix D for a proposed specification
Complies	The proposal shows compliance with the Deemed-to-Satisfy Clause.
DNC	The design does not comply with the Deemed-to-Satisfy Clause and design amendments are required
FI	Further information is required for assessment of the proposal relative to the DtS Clause
N/A	The DtS Clause is not applicable at this stage to this design.
Noted	The DtS Clause provides information not requiring specific assessment of the proposed design.
To be assessed at CC stage	An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.

SECTION B - STRUCTURE				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part B1 – Structural Provisions				
An assessment against Section B has not been undertaken as part of this report and a suitably qualified Structural Engineer is to be engaged to confirm compliance with this part (where applicable).				

SECTION C – FIRE RESISTANCE				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part C1 – Fire resistance				
This part details the objectives, functional statements, performance requirements and verification methods relevant to this Section.				
Part C2 – Fire resistance and stability				
C2D1	C1.0	DtS Provisions	Information only.	Noted
C2D2	C1.1	Type of construction required	The building is to be of Type A Construction.	Noted
C2D3	C1.2	Calculation of rise in storeys	The rise in storey of the building is seven (7) The rise in storey is the sum of storeys at any part of the external wall of the building and any storey within the roof space.	Noted
C2D4	C1.3	Buildings of multiple classifications	The top storey of the building contains a Class 2 part.	N/A
C2D5	C1.4	Mixed types of construction	The building will be a single type of construction – Type A, therefore this clause does not apply.	Noted
C2D6	C1.5	Two storey Class 2, 3 and 9c buildings	The building is not a two storey class 2, 3 or 9c building and therefore this clause does not apply.	N/A
C2D7	C1.6	Class 4 parts of buildings	The building does not contain a class 4 part and therefore this clause does not apply.	N/A
C2D8	C1.7	Open spectator stands and indoor sports stadiums	The building does not contain an open spectator stands or indoor sports stadiums and therefore this clause does not apply.	N/A
C2D9	C1.8	Lightweight construction	Lightweight construction must comply with Specification 6.	**To be assessed at CC stage**
C2D10	C1.9	Non-combustible building elements	Elements of a Building of Type A Construction are required to be non-combustible as listed within this Clause. This Clause also provides a list of materials permitted to be used wherever non-combustible materials are required. The materials and finishes indicated on the DA plans are capable of complying with this provision. The Deemed-to-satisfy provisions have been not met, as the proposed design of the building includes living plants installed within planter boxes on the roof top level. Details of materials, finishes, linings and wall types are to be provided to enable assessment, including AS 1530 test reports for each product must be provided as part of the CC stage.	**To be assessed at CC stage**
C2D11	C1.10	Fire hazard properties	Fire hazard properties of all materials to comply with this Clause and Specification 7. Details of proposed floor, wall and ceiling linings, air-handling ductwork, sarking and insulation type materials, including AS 1530.3 test reports are to be provided to enable a full assessment.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
C2D12	C1.11	Performance of external walls in fire	1-2 storey buildings with external walls constructed with tilt-up panels or the like must comply with specification 8	To be assessed at CC stage
C2D13	C1.13	Fire-protected timber: Concession	Fire-protected timber may be used wherever an element is required to be non-combustible if in accordance with this provision.	To be assessed at CC stage
C2D14	C1.14	Ancillary elements	Ancillary elements other than those listed in this Clause are not to be fixed, installed or attached to internal parts or external face of an external wall that is required to be non-combustible. The Deemed-to-satisfy provisions have been not met, as the proposed design of the building includes living plants installed within planter boxes on the roof top level. The ancillary elements indicated on the DA plans are capable of complying with this provision. Details of materials are to be provided to enable assessment, including AS 1530 test reports for each product must be provided as part of the CC stage.	**To be assessed at CC stage**
C2D15	-	Fixing of bonded laminated cladding panels	Bonded laminated cladding on a Building of Type A Construction must be in accordance with this provision.	**To be assessed at CC stage**
Part C3 – Compartmentation and separation				
C3D1	C2.0	DtS Provisions	Information only.	Noted
C3D2	C2.1	Application of Part	C3D3, C3D4, C3D5 do not apply to a carpark provided with an AS 2118 sprinkler system complying with Specification 17, an open deck carpark, or an open spectator stand.	Noted
C3D3	C2.2	General floor area and volume limitations	The proposal is within the area and volume limitations of this clause	Complies
C3D4	C2.3	Large isolated building	The building does not exceed the area and volume limitations of clause C3D3 and therefore this clause does not apply.	N/A
C3D5	C2.4	Requirements for open spaces and vehicular access	The building does not exceed the area and volume limitations of clause C3D3 and therefore this clause does not apply.	N/A
C3D6	C2.5	Class 9 buildings	The building does not contain a class 9 part and therefore this clause does not apply.	N/A
C3D7	C2.6	Vertical separation of openings in external walls	The building is proposed to be provided with an AS 2118.1 sprinkler system and therefore does not require spandrels or horizontal construction in accordance with this provision.	N/A
C3D8	C2.7	Separation by fire walls	If fire walls are utilised, they must comply with this Clause.	**To be assessed at CC stage**
C3D9	C2.8	Separation of classifications in the same storey	Each storey must be constructed to achieve the FRLs applicable to a higher class, or the different classifications must be separated from one another by fire walls. Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	**To be assessed at CC stage**
C3D10	C2.9	Separation of classifications in different storeys	Each storey must be separated from the storey below by construction having the FRL applicable to a floor for the classification in the lower storey. This requires the floor between the basement level and the ground floor to achieve a FRL of 120/120/120. Where separation is required, FRL plans are to be provided	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
			as part of the Construction Documentation to confirm compliance with this provision.	
C3D11	C2.10	Separation of lift shafts	FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	**To be assessed at CC stage**
C3D12	C2.11	Stairways and lifts in one shaft	The fire-isolated stairway and the lift are in separate shafts.	**To be assessed at CC stage**
C3D13	C2.12	Separation of equipment	Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	**To be assessed at CC stage**
C3D14	C2.13	Electricity supply system	Where separation is required, FRL plans are to be provided as part of the Construction Documentation to confirm compliance with this provision.	**To be assessed at CC stage**
C3D15	C2.14	Public corridors in a Class 2 and 3 buildings	The Class 2 parts of the building do not incorporate any public corridors that have a length of more than 40m.	N/A
Part C4 – Protection of openings				
C4D1	C3.0	DtS Provisions	Information only.	Noted
C4D2	C3.1	Application of Part	Information only.	Noted
C4D3	C3.2	Protection of openings in external walls	Currently, there are no openings in external walls of the building considered to be exposed to a fire source feature.	N/A
C4D4	C3.3	Separation of external walls and associated openings in different fire compartments	The development does not contain different fire compartments separated by a fire wall and therefore this clause does not apply.	N/A
C4D5	C3.4	Acceptable methods of protection	Where protection is required, doorways, windows and other openings must be protected in accordance with provision	**To be assessed at CC stage**
C4D6	C3.5	Doorways in fire walls	If fire walls are utilised, any doorways through them must be protected in accordance with the requirements of this Clause.	**To be assessed at CC stage**
C4D7	C3.6	Sliding fire doors	There are no sliding fire doors within the subject buildings fire walls, there for this clause is not applicable.	N/A
C4D8	C3.7	Protection of doorways in horizontal exits	The building does not include any horizontal exits therefore this Clause does not apply.	N/A
C4D9	C3.8	Openings in fire-isolated exits	The doorways to fire-isolated exits are to be self-closing -/60/30 fire door sets.	**To be assessed at CC stage**
C4D10	C3.9	Service penetrations in fire-isolated exits	Fire-isolated exits may not be penetrated by any service other than electrical wiring for lighting and intercom systems, water supply for fire services and other fire related services.	**To be assessed at CC stage**
C4D11	C3.10	Openings in fire-isolated lift shafts	Lift doors are to achieve an FRL of not less than -/60- and be in accordance with this Clause. Lift indicator panes are also to comply with this Clause.	**To be assessed at CC stage**
C4D12	C3.11	Bounding construction: Class 2 and 3 buildings and Class 4 parts	The doorways to the units, and rooms off the public corridors, are to be self-closing -/60/30 fire door sets.	**To be assessed at CC stage**
C4D12	C3.12	Openings in floors and ceilings for services	All service shafts are to have FRLs as set by Tables S5C11a-S5C11g of Specification 5	**To be assessed at CC stage**
C4D14	C3.13	Openings in shafts	Access openings in fire rated service shafts are to be through an access panel, or self-closing fire door, having an FRL of not less than -/60/30.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
C4D15	C3.15	Openings for service installations	Service penetrations through fire rated building elements are to be sealed in accordance with a tested system and manufacturer specifications in accordance with this Clause.	**To be assessed at CC stage**
C4D16	C3.16	Construction joints	Construction joints in fire rated building elements are to be appropriately treated to maintain the integrity and insulation of the element in which they are located.	**To be assessed at CC stage**
C4D17	C3.17	Columns protected with lightweight construction to achieve an FRL	Any columns protected with lightweight fire rated materials to achieve a required FRL are to comply with this Clause.	**To be assessed at CC stage**
Specification 5 – Fire-resisting construction [2019: Spec C1.1]				
S5C1	1	Scope	This Specification contains the requirements for fire resisting construction of building elements.	Noted
	2	General Requirements	-	-
S5C2	2.1	Exposure to FSF	The building is not exposed to FSF to the from neighbouring properties, therefore this Clause does not apply	N/A
S5C3	2.2	Fire protection for support of another part	Where a part of a building required to have a FRL depends on direct vertical or lateral support from another part to maintain its FRL. That supporting part must have a FRL not less than that required by other provisions as set out in this Clause.	**To be assessed at CC stage**
S5C4	2.3	Lintels	A lintel must have the FRL required for the part of the building in which it is situated unless it does not contribute to the support of a fire door, fire window or fire shutter and it otherwise complies with this Clause.	**To be assessed at CC stage**
S5C5	2.4	Method of attachment reduce the fire-resistance of building element	The fire-resistance of a building element is not to be impacted by the method of attaching or installing a finish, lining, ancillary element or a service installation in accordance with this Clause	**To be assessed at CC stage**
S5C6	2.5	General concessions	Information only	**To be assessed at CC stage**
S5C7	2.6	Mezzanine floors: Concession	The building does not contain a mezzanine and therefore this clause does not apply.	N/A
S5C8	2.7	Enclosure of Shafts	Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building, except that these provisions need not apply to - the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or the bottom of a shaft if it is non-combustible and laid directly on the ground. Clause S5C8 of Spec 5 specifies that shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL of 90 minutes. The buildings contain Garbage Chutes which run vertically through the residential levels and discharge directly into the waste room located on the ground floor. The bottom of the garage chutes cannot meet the Deemed-to-satisfy provisions by being enclosed whilst achieving and FRL of 90 minutes.	**PS Refer to section 3.2**

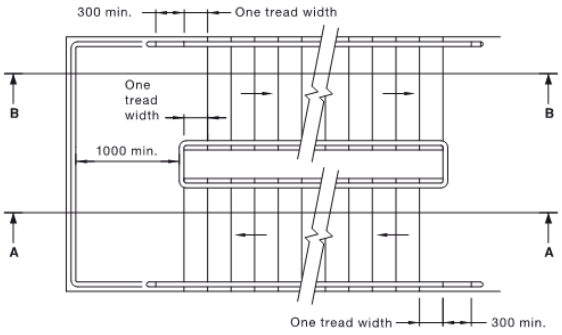
Clause	[2019]	Description	Comments	Assessment
			At the construction this Deemed-to-Satisfy deviation will be required to be addressed on a performance basis.	
S5C9	2.8	Carparks in Class 2 and 3 buildings	The development does not meet the requirements for this concession and therefore it does not apply.	N/A
S5C10	2.9	Residential aged care building: Concession	The building does not contain a residential aged care building and therefore this clause does not apply.	N/A
	3	Type A Construction		
S5C11	3.1	Fire-resistance of building elements	The building elements are to have FRLs as determined by this Clause. See annexure C of the Report.	**To be assessed at CC stage**
S5C12	3.2	Concessions for floors	A floor need not have an FRL in accordance with the concessions given in this clause.	**To be assessed at CC stage**
S5C13	3.3	Floor loading of Class 5 and 9b buildings: Concession	If a floor of a Class 5 or 9b building is designed for a live load not exceeding 3kPa then reductions in FRLs are available.	**To be assessed at CC stage**
S5C14	3.4	Roof superimposed on concrete slab: Concession	A roof superimposed on a concrete slab need not have an FRL of it complies with this Clause.	**To be assessed at CC stage**
S5C15	3.5	Roof: Concession	A roof need not have an FRL if its covering is non-combustible, and the building meets the requirements of this Clause.	**To be assessed at CC stage**
S5C16	3.6	Rooflights	Where a roof is required to achieve an FRL or have a non-combustible covering, roof lights must meet the requirements of this provision.	**To be assessed at CC stage**
S5C17	3.7	Internal columns and walls: Concession	This concession may be applied where applicable	**To be assessed at CC stage**
S5C18	3.8	Open spectator stands and indoor sports stadiums: Concession	This concession may be applied where applicable	**To be assessed at CC stage**
S5C19	3.9	Carparks	This concession may be applied where applicable	**To be assessed at CC stage**
S5C20	3.10	Class 2 and 3 buildings: Concession	This concession may be applied where applicable	**To be assessed at CC stage**
	4	Type B Construction		
S5C21	4.1	Fire resistance of building elements	The building is of Type A construction, therefore this Clause does not apply.	N/A
S5C22	4.2	Carparks	The building is of Type A construction, therefore this Clause does not apply.	N/A
S5C23	4.3	Class 2 and 3 buildings: Concession	The building is of Type A construction, therefore this Clause does not apply.	N/A
	5	Type C Construction		
S5C24	5.1	Fire resistance of building elements	The building is of Type A construction, therefore this Clause does not apply.	N/A
S5C25	5.2	Carparks	The building is of Type A construction, therefore this Clause does not apply.	N/A
Specification 6 – Structural tests for lightweight construction [2019: Spec C1.8]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 7 – Fire hazard properties [2019: Spec C1.10]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.				
Specification 8 – Performance of external walls in fire [2019: Spec C1.11]				

Clause	[2019]	Description	Comments	Assessment
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 9 – Cavity barriers for fire-protected timber [2019: Spec C1.13]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 10 – Fire-protected timber [2019: Spec C1.13a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 11 – Smoke-proof walls in health-care and residential care buildings [2019: Spec C2.5]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 12 – Fire doors, smoke doors, fire windows and shutters [2019: Spec C3.4]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 13 – Fire doors, smoke doors, fire windows and shutters [2019: Spec C3.15]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

SECTION D – ACCESS AND EGRESS				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part D1 – Access and egress				
This part details the objectives, functional statements, performance requirements and verification methods relevant to this Section.				
Part D2 – Provision for escape				
D2D1	D1.0	DtS Provisions	Information only.	Noted
D2D2	D1.1	Application of Part	Information only.	Noted
D2D3	D1.2	Number of exits required	The provision of exits throughout the building complies.	Complies
D2D4	D1.3	When fire-isolated stairways and ramps are required	The exit stairway is required to be fire-isolated and is indicated as such on the plans.	**To be assessed at CC stage**
D2D5	D1.4	Exit travel distances	The following areas have been provided with non-complaint exit travel distances: I. The lower basement level has been provided with a non-compliant distance to a point of choice measured to be 21m in lieu of the maximum permitted 20m. II. The basement level has been provided with a non-compliant distance to a point of choice measured to be 21m in lieu of the maximum permitted 20m. The distances to an exit are within the limitations of this clause except where subject to a possible performance solution as outlined in part 3.2 of this report. Note: The concessions under Spec 18 have been applied (sprinklers to Class 2 and 3 buildings not more than 25m in effective height)	**PS Refer to section 3.2**
D2D6	D1.5	Distance between alternative exits	The distances between alternative exits are within the limitations of this clause for the basement carpark.	**Complies**
D2D7	D1.6(a)	Height of exits, paths of travel to exits and doorways	The required exit or path of travel to an exit must be not less than 2m in height. The reduction in height to 1980mm is permitted at any doorway.	**To be assessed at CC stage**
D2D8	D1.6(b), (c), (d) and (e)	Width of exits and paths of travel to exits	A minimum clear width of 1m is required. The 1m is to be clear of all obstructions such as handrails, PFE, hydrants etc.	CRA
D2D9	D1.6(f)	Width of doorways in exits or paths of travel to exits	The minimum width of 750mm through a doorway is required unless otherwise specified in this clause. Given that the access requirements in D4 require a minimum 850mm clearance in accessible areas, we recommend providing clear width of 850mm throughout the development.	CRA
D2D10	D1.6(g)	Exit width not to diminish in direction of travel	The unobstructed width of a required exit must not diminish in the direction of travel.	CRA
D2D11	D1.6(h) & (i)	Determination and measurement of exits and paths of travel to exits	The required stairway and/or ramp must have an unobstructed width (measured clear of handrails) of no less than 1,000mm.	CRA

Clause	[2019]	Description	Comments	Assessment
D2D12	D1.7	Travel via fire-isolated exits	The fire-isolated stairways serving the residential levels have been shown to a point in storey within the confines of the building that is not open or at least ⅔ of its perimeter. At the construction stage of the development a fire engineer will need to review the feasibility of addressing the Deemed to Satisfy departure of a performance basis.	**PS Refer to Section 3.2**
D2D13	D1.8	External stairways or ramps in lieu of fire-isolated exits	There are no external stairways in lieu of fire-isolated stairways in the development.	N/A
D2D14	D1.9	Travel by non-fire-isolated stairways or ramps	All exit stairways serving the building are considered to be fire isolated.	N/A
D2D15	D1.10	Discharge from exits	The basement-level plans show two doorways that discharge onto open space along the side allotment without a stairway with handrails and a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14. The plans will need to be amended to show a compliant pathway in accordance with D2D15 and the have the elevations updated to show the basement plans with the elevations.	**FI**
D2D16	D1.11	Horizontal exits	There are no horizontal exits in the development.	N/A
D2D17	D1.12	Non-required stairways, ramps or escalators	There are no escalator, moving walkway or non-required non fire-isolated stairway or pedestrian ramp proposed in the development	N/A
D2D18	D1.13	Number of persons accommodated	Occupant calculations have been provided in part 2.4 of this report.	Noted
D2D19	D1.14	Measurement of distances	Information only.	Noted
D2D20	D1.15	Method of measurement	Information only.	Noted
D2D21	D1.16	Plant rooms, lift machine rooms, electricity network substations: Concession	Access for maintenance must be in accordance with this provision.	**To be assessed at CC stage**
D2D22	D1.17	Access to lift pits	If the building incorporates a lift pit, access to it must comply with this clause.	**To be assessed at CC stage**
D2D23	D1.18	Egress from primary schools	The building does not incorporate a Class 9b primary school and therefore this clause does not apply	N/A
Part D3 – Construction of Exits				
D3D1	D2.0	DtS Provisions	Information only.	Noted
D3D2	D2.1	Application of Part	Information only.	Noted
D3D3	D2.2	Fire-isolated stairways and ramps	The stairs within the fire-isolated stairs are to be non-combustible and not cause structural damage to the shaft if there is local failure.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
D3D4	D2.3	Non-fire-isolated stairways and ramps	The construction of the non-fire-isolated exit stairway(s) must be in accordance with this provision	**To be assessed at CC stage**
D3D5	D2.4	Separation of rising and descending stair flights	The building does not incorporate rising and descending stair flights and therefore this clause does not apply.	N/A
D3D6	D2.5	Open access ramps and balconies	The building is not proposed to be provided with open access ramp or balconies to meet the smoke hazard management requirements of E2D4-E2D13 and therefore this clause does not apply.	N/A
D3D7	D2.6	Smoke lobbies	The building is not required to be provided with a smoke lobby required by D2D12 and therefore this clause does not apply.	N/A
D3D8	D2.7	Installations in exits and paths of travel	Access to services must be in accordance with this provision.	**To be assessed at CC stage**
D3D9	D2.8	Enclosure of space under stairs and ramps	The stairways are not shown to be enclosed to for a cupboard or similar enclosed space.	N/A
D3D10	D2.9	Width of required stairways and ramps	The plans do not include a required stairway or ramp with a width over 2m.	N/A
D3D11	D2.10	Pedestrian ramps	There are no ramps within the building serving as a required exit shown on the current plans.	N/A
D3D12	D2.11	Fire-isolated passageways	Where applicable, fire-isolated passageways must be constructed in accordance with this clause.	**To be assessed at CC stage**
D3D13	D2.12	Roof as open space	There is no roof that has been assessed as open space.	N/A
D3D14	D2.13	Goings and risers	Stair geometry and treads slip resistance must comply with this Clause. Based on a review of the floor plans, the proposed stairs are capable of complying with this provision. Stair construction details must be provided as part of the Construction documentation to enable further review.	**To be assessed at CC stage**
D3D15	D2.14	Landings	Landings for flights of stairs are to be at least 750mm long, have a maximum gradient of 1:50 and have a slip resistance in accordance with this Clause. Stair construction details must be provided as part of the Construction documentation to enable further review.	**To be assessed at CC stage**
D3D16	D2.15	Thresholds	The threshold of a door must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf in accordance with this Clause.	**To be assessed at CC stage**
	D2.16	Barriers to prevent falls		
D3D17	D2.16(a), (b) and (c)	Barriers to prevent falls	Trafficable surfaces above a meter in height are to be provided with a barrier.	**To be assessed at CC stage**
D3D18	Table D2.16a	Height of barriers	Generally, the minimum barrier height required is 1m in height. However, on stairways and ramps the minimum barrier height required is 865mm.	**To be assessed at CC stage**
D3D19		Openings in barriers	The openings are to comply with the requirements of this clause.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
D3D20		Barrier climbability	Barriers required on a floor more than 4m above the surface beneath must not incorporate climbable elements between 150mm to 760mm.	**To be assessed at CC stage**
D3D21		Wire barriers	Wire barriers must be in accordance with this provision	**To be assessed at CC stage**
D3D22	D2.17	Handrails	To enable installation of a compliant handrail, the stairway must be configured so that there is an offset of one (1) tread width between the bottom riser of the upper flight and the top riser of the lower flight.  (a) Plan DIMENSIONS IN MILLIMETRES FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS Furthermore, handrails must: ▪ Be continuous with no obstructions that will break a handhold ▪ Must have a consistent height located between 865mm – 1000mm above the stair tread or landing. ▪ Be circular or elliptical between 30mm – 50mm. ▪ Have a minimum clearance of 50mm from a wall or obstruction to a height of 600mm above the handrail	**To be assessed at CC stage**
D3D23	D2.18	Fixed platforms, walkways, stairways and ladders	Where used must comply with AS1657, not proposed in the development.	**To be assessed at CC stage**
D3D24	D2.19	Doorways and doors	The doorways and doors throughout the building comply.	**To be assessed at CC stage**
D3D25	D2.20	Swinging doors	The swinging exit doors throughout the building comply. The swinging door(s) serving the exits must not encroach - (a)at any part of its swing by more than 500mm on the required width (including any landings) of a required— (i)stairway; or (ii)ramp; or (iii)passageway, if it is likely to impede the path of travel of the people already using the exit; and (b)when fully open, by more than 100 mm on the required width of the required exit, and the measurement of encroachment in each case is to include door handles or other furniture or attachments to the door.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
D3D26	D2.21	Operation of latch	All doorways must be provided with latches compliant with the requirements of this clause.	**To be assessed at CC stage**
D3D27	D2.22	Re-entry from fire-isolated exits	Re-entry is not required from the fire-isolated stairs. or There are no fire-isolated stairways proposed on the current plans.	**To be assessed at CC stage**
D3D28	D2.23	Signs on doors	Signage is to be located on all fire and smoke doors in accordance with this Clause. For self-closing doors the sign is to stay “FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN” and for the door discharging from a fire-isolated exit “FIRE SAFETY DOOR – DO NOT OBSTRUCT”. The text is to be a minimum of 20mm in height and a colour contrasting to the background of the sign.	**To be assessed at CC stage**
D3D29	D2.24	Protection of openable windows	Windows to the bedrooms of the Class 2 and 3 parts are to be provided with window locks in accordance with this Clause.	**To be assessed at CC stage**
D3D30	D2.25	Timber stairway: Concession	The concession is not being sought.	N/A

Part D4 – Access for People with a Disability
Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.

SECTION E – SERVICES AND EQUIPMENT				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part E1 – Fire fighting equipment				
E1D1	E1.0	DtS Provisions	Information only.	Noted
E1D2	E1.3	Fire hydrants	The building is required to be provided with a Hydrant System in accordance with this provision and AS 2419.1-2021 The fire hydrant booster has been shown to be not located within or affixed to the facade that does not contain the principal pedestrian entrance and within 20m of the pedestrian entrance. To comply the design will be required to be amended and show the hydrant booster in accordance with Clause 7.3.1 (c) of AS 2419.1-2021 and be located within or affixed to the facade that contains the principal pedestrian entrance; and be within 20m of the pedestrian entrance. Alternatively at the construction stage a suitably qualified fire engineer can undertake a feasibility assessment if a performance to address the location of the fire hydrant booster's location. Details of the proposed hydrant system is to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from DtS within the hydrant system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	**PS Refer to section 3.2 DNC**
E1D3	E1.4	Fire hose reels	The buildings Carpark is required to be provided with a Fire Hose Reel System in accordance with this provision and AS 2441. Details of the proposed fire hose reel system is to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from DtS within the hose reel system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	**To be assessed at CC stage**
NSW E1D4 - E1D13	E1.5	Sprinklers	The building is required to be provided with a sprinkler system to Spec 17 / 18 and AS 2118.1 / AS 2118.4 / FPAA101H / FPAA101D in accordance with clause XXX. Details of the proposed sprinkler system are to be provided by a suitably qualified hydraulic consultant as part of the Construction Documentation. Any proposed deviations from DtS within the sprinkler system design are to be raised by the hydraulic consultant for discussion with relevant stakeholders to determine whether a performance solution can be supported.	**To be assessed at CC stage**
E1D5	Table E1.5	Where sprinklers are required: all classifications	The building does not have an effective height or more than 25m and therefore this clause does not apply.	**To be assessed at CC stage**
E1D6	Table E1.5	Where sprinklers are required: Class	The building has a rise in storeys of 4 or more, but an effective height of not more than 25m and therefore is	

Clause	[2019]	Description	Comments	Assessment
		2 and 3 buildings other than residential care buildings	required to be provided with a sprinkler system to Spec 18 and AS 2118.1, or AS 2118.4, or FPAA101D; or FPAA101H.	**To be assessed at CC stage**
E1D7	Table E1.5	Where sprinklers are required: Class 3 building used as a residential care building	The building does not contain class 3 residential care areas and therefore this clause does not apply.	N/A
E1D8	Table E1.5	Where sprinklers are required: Class 6 building	The building does not contain class 6 areas and therefore this clause does not apply.	N/A
E1D9	Table E1.5	Where sprinklers are required: Class 7a building, other than an open-deck carpark	The building does not contain class 7a carpark with a fire compartment that accommodates more than 40 vehicles and therefore this clause does not apply.	N/A
E1D10	Table E1.5	Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings	The building does not contain class 9a or 9c use and therefore this clause does not apply.	N/A
E1D11	Table E1.5	Where sprinklers are required: Class 9b buildings	The building does not contain class 9b use and therefore this clause does not apply.	N/A
E1D12	Table E1.5	Where sprinklers are required: additional requirements	The building does not contain an atrium and has not been assessed as a large isolated building and therefore this clause does not apply.	N/A
E1D13	Table E1.5 (note 4)	Where sprinklers are required: occupancies of excessive hazard	The building does not contain excessive hazards and therefore this clause does not apply.	N/A
E1D14	E1.6	Portable fire extinguishers	The building is to be provided with portable fire extinguishers in accordance with this provision and AS 2444.	**To be assessed at CC stage**
E1D15	E1.8	Fire control centres	The building has an effective height of less than 25m and does not contain class 6, 7, 8, or 9 uses with a floor area or more than 18,000m^2. Therefore, the building is not required to be provided with a fire control centre and this clause does not apply.	N/A
E1D16	E1.9	Fire precautions during construction	In a building under construction not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit. After the building has reached an effective height of 12m the fire hydrant and hose reels are to be operational in at least every storey covered by a roof or floor, except the 2 uppermost storeys. The fire hydrant booster connections must also be installed.	Noted
E1D17	E1.10	Provisions for special hazards	No special hazards have been identified at this time. Any proposed special hazards such as EV charging stations, or battery storage are to be detailed as part of the Construction Documentation.	**To be assessed at CC stage**
Part E2 – Smoke hazard management				

Clause	[2019]	Description	Comments	Assessment
E2D1	E2.0	DtS Provisions	Information only.	Noted
E2D2	E2.1	Application of Part	Information only.	Noted
E2D3	E2.2	General requirements	An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must comply with the requirements of this clause	**To be assessed at CC stage**
E2D4	Table E2.2a	Fire-isolated exits	The exits must be fire isolated as per the requirements of this provision.	**To be assessed at CC stage**
E2D5	Table E2.2a	Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D6	Table E2.2a	Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D7	Table E2.2a	Buildings more than 25 m in effective height: Class 9a buildings	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E2D8	Table E2.2a	Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	In a Class 2 and 3 building or part of a building, or Class 4 part of a building, if the building is not more than 25 m in effective height must be provided with an automatic smoke detection and alarm system complying with Specification 20	**To be assessed at CC stage**
E2D9	Table E2.2a	Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings	This clause does not apply to this development as it is not a Class 5, 6, 7b, 8 and 9b buildings	N/A
E2D10	Table E2.2a	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4	This clause does not apply to this development as it is not a large-isolated buildings subject to C3D4	N/A
E2D11	Table E2.2a	Buildings not more than 25 m in effective height: Class 9a and 9c buildings	This clause does not apply to this development as it is not a Class 9a and 9c buildings	N/A
E2D12	Table E2.2a	Class 7a buildings	A Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2, must comply with clause 5.5 of AS 1668.1.	**To be assessed at CC stage**
E2D13	Table E2.2a	Basements (other than Class 7a buildings)	This clause does not apply to this development as it does not contain a basements other than Class 7a buildings.	N/A
E2D14	Table E2.2b	Class 6 buildings – in fire compartments more than 2000 m2: Class 6	This clause does not apply to this development as it does not contain a Class 6 buildings in fire compartments more than 2000 m2 containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit.	N/A

Clause	[2019]	Description	Comments	Assessment
		building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)		
E2D15	Table E2.2b	Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (containing an enclosed common walkway or mall)	This clause does not apply to this development as it does not contain Class 6 buildings in fire compartments more than 2000 m2 containing an enclosed common walkway or mall.	N/A
NSW E2D16	Table E2.2b	Class 9b – assembly buildings: all	This clause does not apply to this development as it does not contain Class 9b assembly building or The class 9b assembly building must be provided with and automatic shutdown of any air-handling system upon the activation of smoke detections complying with S20C6. Note: This only applies when an air-conditioning system is installed in the building (excluding non-ducted individual room units with a capacity of not more than 1000L/s). Mechanical consultant to confirm whether any air-conditioning system is proposed subject to this provision as part of the Construction Certificate phase.	N/A
NSW E2D17	Table E2.2b	Class 9b – assembly buildings: night clubs, discotheques and the like	This clause does not apply to this development as it does not contain a Class 9b night club, discotheque or the like.	N/A
NSW E2D18	Table E2.2b	Class 9b – assembly buildings: exhibition halls, museums and art galleries	This clause does not apply to this development as it does not contain a Class 9b exhibition hall, museum or art gallery.	N/A
NSW E2D19	Table E2.2b	Class 9b – assembly buildings: other assembly buildings (not listed in NSW E2D16-E2D18)	This clause does not apply to this development as it does not contain Class 9b uses other assembly buildings (not listed in NSW E2D16-E2D18)	N/A
NSW E2D20	Table E2.2b	Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)	Clause E2D20 has not been adopted for NSW	N/A
E2D21	E2.3	Provision for special hazards	No special hazards have been identified at this time. Any proposed special hazards such as EV charging stations, or battery storage are to be detailed as part of the Construction Documentation.	**PS**
Part E3 – Lift installations				
E3D1	E3.0	DtS Provisions	Information only.	Noted

Clause	[2019]	Description	Comments	Assessment
E3D2	E3.1	Lift installations	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	**To be assessed at CC stage**
E3D3	E3.2	Stretcher facility in lifts	The lift must accommodate an area not less than 600mm wide x 2000mm long x 1400mm above the floor level for a stretcher. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	**To be assessed at CC stage**
E3D4	E3.3	Warning against use of lifts in fire	Warning signage stating DO NOT USE LIFTS IF THERE IS A FIRE is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	**To be assessed at CC stage**
E3D5	E3.4	Emergency lifts	The building has an effective height of less than 25m and therefore this clause does not apply.	N/A
E3D6	E3.5	Landings	Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2, D3 and D4	N/A
E3D7	E3.6, table E3.6a, Table E3.6b	Passenger lifts and their limitations	If the lift(s) provided are use of electric passenger lifts, electrohydraulic passenger lifts or inclined lifts they have no limitations. Details are to be provided at CC Stage.	**To be assessed at CC stage**
E3D8	Table E3.6a, Table E3.6b	Accessible features required for passenger lifts	In an accessible building, every passenger lift must have the following features in the lift to provide for accessibility to the requirements of this clause.	**To be assessed at CC stage**
E3D9	E3.7	Fire service controls	The lift serves a storey above an effective height of 12m, therefore, must be provided with a fire service recall control switch and a lift car fire service drive control switch in accordance with this clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	N/A
E3D10	E3.8	Residential care buildings	This clause does not apply to this development as it does not contain residential care as defined by the BCA.	N/A
E3D11	E3.9	Fire service recall control switch	Where required by Clause E3D9 a fire service recall control switch is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	**To be assessed at CC stage**
E3D12	E3.10	Lift car fire service drive control switch	Where required by Clause E3D9 a lift car fire service drive control switch is to be provided in accordance with this Clause. The lift manufacture is to ensure compliance with this clause is achieved as part of the CC stage.	**To be assessed at CC stage**
Part E4 – Visibility in an emergency, exit signs and warning systems				
E4D1	E4.0	DtS Provisions	Information only.	Noted
E4D2	E4.2	Emergency lighting requirements	The building is to be provided with emergency lighting in accordance with this Clause.	**To be assessed at CC stage**
E4D3	E4.3	Measurement of distance	Information only.	**Noted**
E4D4	E4.4	Design and operation of emergency lighting	Services designer to confirm the emergency lighting complies with the BCA and AS 2293.1-2018 as part of the CC stage.	**To be assessed at CC stage**
E4D5	E4.5	Exit signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	**To be assessed at CC stage**
E4D6	E4.6	Direction signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	**To be assessed at CC stage**

Clause	[2019]	Description	Comments	Assessment
E4D7	E4.7	Class 2 and 3 buildings and Class 4 parts: Exemptions	This clause/exemption does not apply to this development as it does not contain a class 2 and 3 buildings and Class 4 parts	**To be assessed at CC stage**
E4D8	E4.8	Design and operation of exit signs	Services designer to confirm the exit signage complies with the BCA and AS 2293.1-2018 as part of the CC stage.	**To be assessed at CC stage**
E4D9	E4.9	Emergency warning and intercom systems	The building has an effective height of less than 25m, does not contain a class 3 or 9 part subject this clause and these for is not required to have an EWIS.	N/A
Specification 17 – Fire sprinkler systems [2019: Spec E1.5]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 18 – Class 2 and 3 buildings not more than 25 m in effective height [2019: Spec E1.5a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 19 – Fire control centres [2019: Spec E1.8]				
An assessment against clauses D19C1-S19C3, S19C5 - S19C8, & S19C11-S19C13 has not been included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
S19C4	Spec E1.8 Clause 3	Location of fire control centre	A fire control centre must be located so that egress from any part of its floor to a road or open space does not involve changes in level which in aggregate exceed 300mm.	N/A
S19C7	Spec E1.8 Clause 6	Construction of a fire control room	The building contains an effect height of less than 50m and therefore is not required to contain a separate fire control room.	N/A
S19C9	Spec E1.8 Clause 8	Doors to a fire control room	The building contains an effect height of less than 50m and therefore is not required to contain a separate fire control room.	N/A
S19C10	Spec E1.8 Clause 9	Size and contents of a fire control room	The building contains an effect height of less than 50m and therefore is not required to contain a separate fire control room.	N/A
Specification 20 – Smoke detection and alarm systems [2019: Spec E2.2a]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 21 – Smoke exhaust systems [2019: Spec E2.2b]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 22 – Smoke and heat vents [2019: Spec E2.2c]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 23 – Residential fire safety systems [2019: Spec E2.2d]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Please refer to the proposed Fire Safety Schedule for details of the required Fire Safety Systems.				
Specification 24 – Lift installations [2019: Spec E3.1]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

Clause	[2019]	Description	Comments	Assessment
Specification 25 – Photoluminescent exit signs [2019: Spec E4.8]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

SECTION F – HEALTH AND AMENITY

Part F1 – Surface water management, rising damp and external waterproofing				
An assessment against Part F1 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to stormwater drainage, and damp-proofing.				
Part F2 – Wet areas and overflow protection				
An assessment against Part F2 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to waterproofing and provision for floor wastes in wet areas of buildings.				
Part F3 – Roof and wall cladding				
An assessment against Part F3 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to roof coverings and weatherproofing of external walls.				
Part F4 – Sanitary and other facilities				
F4D1	F2.0	DtS Provisions	Information only.	Noted
F4D2	F2.1	Facilities in residential buildings	The number of persons served by the new sanitary facilities must be calculated in accordance with clause D2D18.	Noted
F4D3	F2.2	Calculation of number of occupants and facilities	The number of persons served by the new sanitary facilities must be calculated in accordance with clause D2D18.	Noted
F4D4	F2.3	Facilities in Class 3 to 9 buildings	The building does not include the provision of facilities to the class 7a part.	N/A
F4D5	F2.4	Accessible sanitary facilities	Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.	N/A
F4D6	Table F2.4a	Accessible unisex sanitary compartments	Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.	N/A
F4D7	Table F2.4B	Accessible unisex showers	Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.	N/A
F4D8	F2.5	Construction of sanitary compartments	The sanitary compartments must be provided with clearance in accordance with NCC Figure F2.5.	**To be assessed at CC stage**
F4D9	F2.6	Interpretation: Urinals and washbasins	Information only	Note
F4D10	F2.7	Microbial (legionella) control	This Clause is deleted from the BCA in NSW, as the installation of hot water, warm water and cooling water systems is regulated in the Public Health Regulation 2012.	Noted
F4D11	F2.8	Waste management	In a Class 9a health care building a slop hopper or other like device is to be provided in accordance with this Clause.	CRA
F4D12	F2.9	Accessible adult change facilities	Credwell have not been engaged to undertake an assessment against Part D4 of the BCA. Please refer to the third party Access Report for details.	N/A
Part F5 – Room heights				
F5D1	F3.0	DtS Provisions	Information only.	Noted
F5D2	F3.1	Height of rooms and other spaces	The height of all spaces and rooms must comply with the requirements of this clause.	CRA

Part F6 – Light and ventilation				
F6D1	F4.0	DtS Provisions	Information only.	Noted
F6D2	F4.1	Provisions of natural light	Natural light must be provided to bedrooms and dormitories within the Class 2 parts.	CRA
F6D3	F4.2	Methods and extent of natural light	The method and extent of natural light provided to bedrooms and dormitories within the Class 2 parts must be in accordance with the requirements of this clause.	CRA
F6D4	F4.3	Natural light borrowed from adjoining room	Natural light can be borrowed (where required) in accordance with the requirements of this clause.	CRA
F6D5	F4.4	Artificial lighting	Artificial lighting must be provided throughout the building in accordance with the requirements of AS 1680.0-2009.	CRA
F6D6	F4.5	Ventilation of rooms	All occupiable spaces throughout the building must be provided with natural or mechanical ventilation.	CRA
F6D7	F4.6	Natural ventilation	If natural ventilation is utilised, a ventilating area of no less than 5% of the floor area must be provided.	CRA
F6D8	F4.7	Ventilation borrowed from adjoining room	Ventilation can be borrowed from an adjacent room in accordance with the requirements of this clause.	CRA
F6D9	F4.8	Restriction on location of sanitary compartments	The location of sanitary compartments complies with this clause.	Complies
F6D10	F4.9	Airlocks	The provisions of this Clause do not apply to the sanitary facilities within the building.	CRA
F6D11	F4.11	Carparks	Every storey of a carpark, except an open-deck carpark, must have a system of mechanical ventilation complying with AS1668.2-2012 or a system of natural ventilation complying with Section 4 of AS1668.4-2012.	**To be assessed at CC stage**
F6D12	F4.12	Kitchen local exhaust ventilation	The building does not contain a commercial kitchen and therefore this clause does not apply.	N/A
Part F7 – Sound transmission and insulation				
An assessment against Part F7 is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation. Note: This part relates to measures required to reduce noise transmission between adjoining parts of the building. This part applies to class 2, 3 and 9c buildings only.				
Specification 26 – Waterproofing and water-resistance requirements for building elements in wet area [2019: Table F1.7]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 27 – Accessible adult change facilities [2019: Spec F2.9]				
The building is not required to be provided with an accessible adult change facility and therefore is not required to be assessed against this specification.				
Specification 28 – Sound insulation for building elements [2019: Spec F5.2]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 29 – Impact sound – test of equivalence [2019: Spec F5.5]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				

SECTION G – ANCILLARY PROVISIONS				
Clause	**[2019]**	**Description**	**Comments**	**Assessment**
Part G1 – Minor structures and components				
G1D1	G1.0	DtS Provisions	Information only.	Noted
G1D2	G1.1	Swimming pools	The building does not contain a swimming pool and therefore this clause does not apply.	N/A

Clause	[2019]	Description	Comments	Assessment
G1D3	G1.2	Refrigerated chambers, strong-rooms and vaults	The building does not contain any refrigerated chambers, strong-rooms or and therefore this clause does not apply.	N/A
G1D4	G1.3	Outdoor play spaces	The building does not contain a Class 9b early childhood centre and therefore this clause does not apply.	N/A
NSW G1D5	NSW G1.101	Provision for cleaning windows	A building must be provided with a safe manner of cleaning any windows located 3 or more storeys above the ground level via either windows that can be cleaned wholly from within the building or provision for the cleaning of the windows by a method complying with the WH&S Act 2001 and regulations made under that Act.	**To be assessed at CC stage**
Part G2 – Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues				
The building does not contain any boilers, pressure vessels, heating appliances, fireplaces, chimney or flues and therefore an assessment against this part has not been undertaken.				
Part G3 – Atrium construction				
The building does not contain an atrium that connects more than 2 storeys, or more than 3 storeys (if each storey is provided with a sprinkler system and one of those storeys is located at a level with direct egress to a road or open space). Therefore, an assessment against this part has not been undertaken and the remaining clauses have been removed from this report.				
Part G4 – Construction in alpine areas				
The building is not within an alpine area and therefore an assessment against this part has not been undertaken.				
Part G5 – Construction in bushfire prone areas				
G5D1	G5.0	DtS Provisions	Information only.	Noted
G5D2	G5.1	Application of Part	The provisions of this Clause do not apply to the sanitary facilities within the building.	N/A
G5D3	NSW G5.2	Protection – residential buildings	The provisions of this Clause do not apply to the sanitary facilities within the building.	N/A
G5D4	New	Protection – certain Class 9 buildings	The provisions of this Clause do not apply to the sanitary facilities within the building.	N/A
Part G6 – Occupiable outdoor areas				
G6D1	G6.1	Application of Part	This Part applies to “occupiable outdoor areas”. The Communal Open Space provided on roof top is an occupiable outdoor area.	Noted
G6D2	G6.2	Fire hazard properties	The Communal Open Space located on the roof top level must comply with the fire hazard requirements of this clause.	CRA
G6D3	G6.3	Fire separation	For information.	Noted
G6D4	G6.4	Provision of escape	The requirements of Part D1 are applicable to the communal open space provided on roof top level in accordance with this clause.	Noted
G6D5	G6.5	Construction of exits	The requirements of Part D2 apply to the communal open space provided on the in accordance with this clause.	Noted
G6D6	G6.6	Fire fighting equipment	The requirements of Part E3 apply to the communal open space provided on the roof top level in accordance with this clause.	CRA
G6D7	G6.7	Lift installations	The requirements of Part E3 apply to the communal open space provided on the roof top level in accordance with this clause.	CRA
G6D8	G6.8	Visibility in an emergency, exit signs and warning systems	The requirements of Part E4 apply to the communal open space provided on the roof top level in accordance with this clause.	CRA
G6D9	G6.9	Light and ventilation	The requirements of clause F4.4, F4.8, and F4.9 are applicable to the communal open space provided on roof top in accordance with this clause.	CRA
G6D10	G6.10	Fire orders	The requirements of clause G4.9 are applicable to the communal open space provided on roof top in accordance with this clause.	Noted
Part G7 – Livable housing design				

Clause	[2019]	Description	Comments	Assessment
Part G7 does not apply in NSW and therefore this part has been removed from this report.				
Specification 30 – Installation of boilers and pressure vessels [2019: Spec G2.2]				
An assessment against this specification is not included in a DA stage report due to the level of documentation provided. Pending further engagement, where applicable, this will be assessed upon receipt of Construction Documentation.				
Specification 31 – Fire and smoke control systems in buildings containing atriums [2019: Spec G3.8]				
The building does not contain an atrium that connects more than 2 storeys, or more than 3 storeys (if each storey is provided with a sprinkler system and one of those storeys is located at a level with direct egress to a road or open space). Therefore, an assessment against this specification has not been undertaken and the remaining clauses have been removed from this report.				

SECTION I– SPECIAL USE BUILDINGS

The proposed development does not incorporate any uses subject to the provisions of Section I and therefore this section has been removed from the report.

SECTION J – ENERGY EFFICIENCY

An assessment against Section J has not been undertaken as part of this report.

Where applicable, a suitably qualified consultant is to be engaged to confirm compliance with this part. Credwell Energy is a specialised team and can offer this service.

If you require assistance, please contact Credwell Energy on 02 9281 8555 or info@credwell.com.au for further information.

Annexure A – Reviewed Documentation

This report has been based on the documentation listed below:

Architectural Details prepared by Loucas, Project reference Pn 21020		
Drawing Number	Revision	Title
A-800	D	Lower Basement
A-900	D	Basement
A-1000	D	Ground floor Plan
A-1100	D	L1 Floor Plan
A-1200	D	L2 Floor Plan
A-1300	D	L3 Floor Plan
A-1400	D	L4 Floor Plan
A-1500	D	L5 Floor Plan
A-1600	D	L6 Roof Top Plan
A-2000	E	Elevations 01
A-2100	E	Elevations 02
A-2200	E	Elevations 03
A-2300	E	Elevations 04
A-2500	E	Section A

Annexure B – Fire Safety Measures

Given the assessment in this report, the following fire safety measures are required to be installed in the building. This list is subject to change if Performance Solutions are proposed, or other options are taken during the Construction Certificate (CC) and/or construction stages.

	Fire Safety Measure	Standard of Performance
1.	Automatic fail-safe devices (electronic latching)	BCA 2022 Clause D3D26 Manufacturer's Specifications
2.	Automatic fire detection and alarm systems	BCA 2022 Part E2 Clause E2D5 and Specification 20 Clause S20C4 AS 3786-2014 (amendment 1 & 2) AS1670.1-2018 (amendment 1)
3.	Building occupant warning system	BCA 2022 Part E2 and Specification 20
4.	Automatic fire suppression systems (sprinklers) – Residential buildings (Class 2 or 3) greater than three storeys	BCA 2022 NSW E1D4and Specification 17 and Specification 18 AS 2118.1-2017 (amendment 1 & 2) AS 2118.4-2012 FPAA101D FPAA101H
5.	Emergency lighting	BCA 2022 Clauses E4D2 and E4D4 AS/NZS 2293.1-2018 (amendment 1)
6.	Exit signs	BCA 2022 Clauses E4D5, NSW E4D6 and E4D8 AS/NZS 2293.1-2018 (amendment 1)
7.	Fire dampers	BCA 2022 Clause C4D15 Manufacturer's Specification
8.	Fire doors	BCA 2022 Clauses C4D9, C4D12 and Specification 12 AS 1905.1-2015
9.	Fire hose reel systems (Car park)	BCA 2022 Clause E1D3 AS 2441-2005 (amendment 1)
10.	Fire hydrant systems	BCA 2022 Clause E1D2 AS 2419.1-2021
11.	Fire seals protecting openings in fire-resisting components of the building	BCA 2022 Clause C4D15 AS 1530.4-2014 Manufacturer's Specification
12.	Lightweight construction (fire rated)	BCA 2022 Clause C2D9 and Specification 6 Manufacturer's Specification
13.	Portable fire extinguishers	BCA 2022 Clause E1D14 AS 2444-2001
14.	Smoke alarms and heat alarms (internal alarms in residential units)	BCA 2022 Part E2 and Specification 20
15.	Wall-wetting sprinkler and drencher systems over permanently closed or self-closing glazed elements (option for providing protection of openings)	BCA 2022 Clauses C4D3, C4D4 and C4D5 AS 2118.1-2017
16.	Warning and operational signs	BCA 2022 Clauses D3D28 & E3D4 Environmental Planning and Assessment Regulation 2000 (EP&A Reg) Clause 183
17.	Paths of travel	BCA 2022 Parts D2 and D3 Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 Clause 109
18.	Fire alarm monitoring	BCA 2022 Clause Part E2 and Specification 20 AS 1670.3-2018 (amendment 1)
19.	Performance Solutions	TBA – Performance Solution to be carried out at the CC stage of the development

Annexure C – Fire Resistance Levels

The following fire resistance levels (FRLs) are required for the various elements of the building. Where the table below refers to a fire source feature (FSF), this is as defined in the BCA as the far boundary of a road, river, lake or the like adjoining the allotment, or a side or rear boundary of the allotment, or an external wall of another building on the allotment which is not a Class 10 building.

Building Element – Type A Construction	Class 2, (SOU)	Class 7a (Carpark)	Class 7b (Storsge)
Loadbearing External Walls - Less than 1.5m from a FSF - 1.5 - 3m from a FSF - 3m or more from a FSF	 90/90/90 90/60/60 90/60/30	 120/120/120 120/90/90 120/60/30	 240/240/240 240/240/180 240/180/90
Non-Loadbearing External Walls - Less than 1.5m from a FSF - 1.5 - 3m from a FSF - 3m or more from a FSF	 -/90/90 -/60/60 -/-/-	 -/120/120 -/90/90 -/-/-	 -/240/240 -/240/180 -/-/-
External Columns (not incorporated into an external wall) - Loadbearing - Non-loadbearing	 90/-/- -/-/-	 120/-/- -/-/-	 240/-/- -/-/-
Common Walls and Fire Walls	90/90/90	120/120/120	240/240/240
Internal Walls - Fire resisting lift and stair shafts – - Loadbearing - Non-loadbearing	 90/90/90 -/90/90	 120/120/120 -/120/120	 240/120/120 -/120/120
Internal Walls – Bounding public corridors, public lobbies and the like – - Loadbearing - Non-loadbearing	 90/90/90 -/60/60	 120/-/- -/-/-	 240/-/- -/-/-
Internal Walls – Between or bounding sole-occupancy units – - Loadbearing - Non-loadbearing	 90/90/90 -/60/60	 120/-/- -/-/-	 240/-/- -/-/-
Internal Walls – Ventilating, pipe, garbage and the like shafts not used for the discharge of hot products of combustion – - Loadbearing - Non-loadbearing	 90/90/90 -/90/90	 120/90/90 -/90/90	 240/120/120 -/120/120
Other loadbearing internal walls, internal beams, trusses and columns	90/-/-	120/-/-	240/-/-
Floors	90/90/90	120/120/120	240/240/240
Roofs	90/60/30	120/60/30	240/90/60