STEVE WATSON
& PARTNERS

MicroNest: Located at 195 – 197 Sydney Road, Fairlight

BCA Assessment Report

Report 2020/1802 R1.0

Prepared for Construction Assignments

November 2020

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Client:	Construction Assignments
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Revision History

Revision No:	R1.0
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Author:	Joshua Hawke
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Disclaimer:

This report is based on a desktop audit of preliminary documentation only.
Details contained in the report address issues of significance to broad BCA compliance relevant to this stage of design resolution.

This report is based on a review of the design documentation only. It represents a compliance report for "documentation to this point in time" and will be subject to amendment and expansion as project documentation develops

Executive Summary

An assessment of the proposed design of the project for MicroNest: Located at 195 – 197 Sydney Road, Fairlight has been undertaken against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the Building Code of Australia and the applicable Building Regulations.

This report details the non-compliances identified that require either amendments to plans or an Alternative Solution to satisfy the Performance Requirements of the BCA.

Summary of BCA Parameters:

Building Use:	Boarding House & Carpark
Class of Occupancy	Class 3 & 7a
Type of Construction Required	Type A
Rise Storeys:	6 Storeys
Number of Storeys:	6 Storeys
Effective Height:	16.9m (Level 5 RL64.30 - Level 0 RL47.40)

The following are the main issues that require amendments to the design:

1. Sprinkler provisions – Requirements of spandrels (Clause C2.6);
2. Provisions of continuous height handrails to all stairways in the current design (Clause D2.17);
3. Swing of doors in required paths of egress (Clause D2.20); and
4. Location of an accessible facility (Clause F4.8).

The following are the main issues proposed to be addressed by the Fire Safety Engineer via a Performance Solution:

1. A reduction of the fire rating to the carparking levels (Clause C1.1);
2. Extended travel distances within the unit levels (Clause D1.4);
3. Discharge of the fire isolated exit past un protected openings (Clause D1.7);
4. Separation of rising and descending stair flights (Clause D2.4);
5. Operation of the main entry / exit sliding doors in accordance with Clauses D2.19 of the BCA; and
6. Location of the fire hydrant outlets in relation to the fire isolated stairs (Clause E1.3)

The design is capable of complying with the requirements of the relevant sections of the Environmental Planning Assessment Act 1979, the Environmental Planning and Assessment Regulations 2000 and the Building Code of Australia 2019 Amendment 1. Compliance is subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved.

Whilst not precluding the issue of a Construction Certificate, it is noted that many detailed design

issues are not indicated on the drawings. These issues are designated “Compliance Readily Achievable” in the *“Status”* column of the assessment in Section 14 of the report and should be resolved prior to construction.

Key issues which require additional details have been listed under Section 10.2 of this report and need to be clarified with SWP or the building certifier for the project prior to the issue of a construction certificate.

Table of Contents

1. Introduction

This report presents the findings of a preliminary assessment undertaken of the proposed design of a boarding house facility located at 195 – 197 Sydney Road, Fairlight against the Deemed-to-Satisfy (DtS) provisions of Building Code of Australia BCA 2019 Amendment 1.

It has been prepared by Steve Watson and Partners for Construction Assignments

2. Purpose

The purpose of this report is to provide an assessment of the design documentation against the current requirements of the BCA.

The assessment is undertaken for the purpose of, and to the extent necessary for, construction certification to be issued under Part 6 of the NSW Environmental Planning and Assessment Act 1979 (The Act) and Environmental Planning and Assessment Regulation 2000 (EPAR).

3. Scope and Limitations

3.1. Scope

The scope of this assessment is limited to the the design documentation referenced in Appendix A of this report.

3.2. Limitations

The following limitations apply to the assessment:

- The report considers matters of a significant nature only and should not be considered exhaustive.
- The plans are assessed to the extent necessary to issue a construction certificate under Part 6 of The Act. This means the design has been assessed to be capable of complying with the BCA without necessarily having all the detailed design completed at this stage.
- Details in regard to access for people with disabilities have been assessed to the extent of the deemed-to-satisfy provisions of the BCA/Premises Standard only. A detailed assessment against AS 1428 series, AS/NZS 2890.6 – 2009 and AS 4299 – 1995 is outside the scope of this report
- Generally, the assessment does not incorporate a detailed assessment of the requirements of the Australian Standards.
- Structural and services documentation have not been reviewed.
- Appraisals are limited to the provisions of the BCA and the Premises Standards. Other legislative requirements have not been considered. It does not address additional or specific requirements stipulated under other areas such as Safety in Design, Construction Safety, Disability Discrimination, Planning and Environment, Occupational Health and Safety, Health, Dangerous Goods, etc, which may impact on the design and use of the building. It is recommended that appropriate advice from suitably qualified consultants should be obtained for further information on these areas

3.3. Certification Works

This report is provided as part of SWP's contracted scope for this project, which is "Certification Work", as defined in the Building and Development Certifiers Regulation 2020. Due to the strict requirements and limits in terms of conflicts of interest imposed under that regulation, SWP cannot undertake any services other than Certification Work services on this project. Hence, the contents of this report, and any associated

correspondence, are provided in the context of a preliminary certification assessment of plans, and may not be construed to constitute involvement in building design, the preparation of plans and specifications, the provision of advice on how to amend a plan or specification to ensure that the aspect will comply with legislative or code requirements, or to breach any other restriction or limitation imposed under the conflict of interest provisions of that or any other legislation.

4. National Construction Code BCA 2019 Amendment 1– Volume 1: Building Code of Australia Class 2 to Class 9 Buildings

The National Construction Code (NCC) is a uniform set of technical provisions for the design and construction of buildings, structures and plumbing/drainage systems which is separated into 3 volumes. Volume 1 of the NCC is the Building Code of Australia (BCA) for Class 2 to 9 buildings which is the document to which the assessment in this report has been undertaken against. The BCA is legislated under The Act and specifies the Performance Requirements for the design and construction of Class 2 to 9 buildings that must be satisfied to achieve compliance. The Performance Requirements can only be satisfied by a Performance Solution, Deemed-to-Satisfy (DTS) solution or a combination of both.

5. Performance Solutions

The BCA is written in a performance format which allows performance based buildings. This has allowed for innovation and variation from the prescriptive deemed-to-satisfy requirements of the BCA, whilst maintaining the principle levels of health, safety and amenity of building occupants.

Performance solutions are generally adopted when a nominated deemed-to-satisfy provision appears inappropriate for the design, or when a proposed design varies from the prescriptive requirements of the BCA. Subsequently, a performance solution supported by Fire Engineering analysis can determine whether a proposed design that varies from prescriptive requirements, will satisfactorily meet the performance provisions of the BCA. Ultimately, it is with the discretion of the relevant building surveyor whether to accept a deviation from the prescriptive code requirements.

Utilising the performance provisions may result in more economical and somewhat safer building, however alternative solutions may require additional on-going maintenance. It is in this instance that all parties, such as the building owner, insurance companies, proposed tenants, etc., are aware of this decision making process and are kept informed of any additional requirements needed to maintain the level of safety.

6. Statutory Framework

The following table summarises the key statutory issues relating to fire safety and the BCA in relation to the certification of new building works.

Issue	Legislative reference	Comment
New Work	EPAR 145	All new works must comply
BASIX	EPAR 154B	BASIX certificate required for residential projects

6.1. New Work

Clause 145 of the EPAR requires that all new work comply with the current requirements of the BCA.

This means that all works proposed in the plans are required to comply but that existing features of an existing building need not comply with the BCA unless required to under other clauses of the legislation.

6.2. Fulfilment of BASIX Commitments

Clause 154B of the EPAR requires the certifying authority to monitor fulfilment of any commitments listed on the BASIX certificate, where the BASIX certificate requires the certifying authority to monitor those commitments. A final occupation certificate must not be issued until the certifying authority is satisfied that each of the commitments has been fulfilled.

7. Methodology

7.1. Process adopted

The following method of assessment has been used in the preparation of this report:

1) Determine the basic assessment data for the building.
2) Assess the design of the building against the current Deemed-to-Satisfy requirements of Sections B, C, D, E, F, G, H and J of the BCA. Establish the status of each clause into the following categories:
    1. Clause is administrative information only **(Noted)**;
    2. Clause is or is not relevant to the proposed work **(Applicable or N/A)**
    3. The proposed work complies with the requirements of the clause **(Complies)**;
    4. Compliance with the requirements of the clause is unable to be determined from the documentation provided **(Compliance Readily Achievable)**. A recommendation in the "Comments" column will indicate what is required to achieve compliance. The design and construction teams are responsible to ensure compliance is achieved;
    5. Compliance with the requirements of the clause is unable to be determined from the documentation provided. Additional details or relevant information required to verify compliance (**Additional Details Required**);
    6. Proposed work does not comply with the requirements of the clause **(Does Not Comply)**. An indication will be given in the Comments field as to the nature of the issue and whether an alternative solution has been proposed to address the issue;
    7. Proposed work is to be addressed on a performance basis via an Alternative Solution satisfying the relevant Performance Requirements. (**Performance Solution**);
3) Nominate the status of the design against each BCA requirement;
4) Provide comments against each BCA requirement as appropriate.

8. Description of Proposed Development

Construction of a multi storey boarding house facility for use by Micronest. The development contains carparking, units and communal facilities for the occupants.

It is located at 195 – 197 Sydney Road, Fairlight.

9. Assessment Data Summary

The following basic assessment data has been drawn from the provisions of the BCA 2019 Amendment 1.

9.1. Assumptions

No assumptions made in the preparation of this report are listed below:

9.2. Interpretations

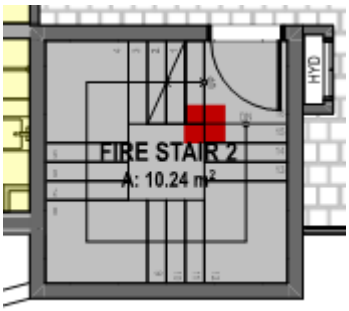
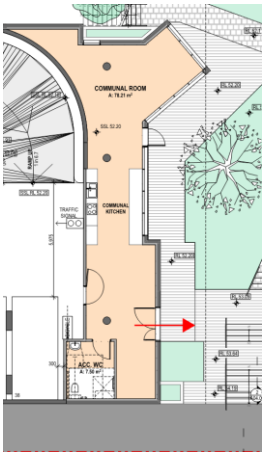
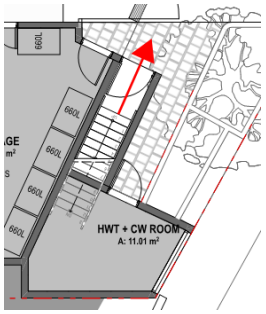
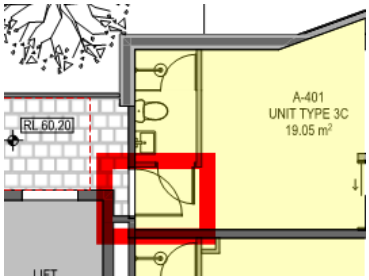
A number of issues within the BCA are recognised to be interpretive in nature. Where these issues are encountered, interpretations are made that are consistent with Standard Industry Practise and/or Steve Watson & Partners policy formulated in regard of each issue.

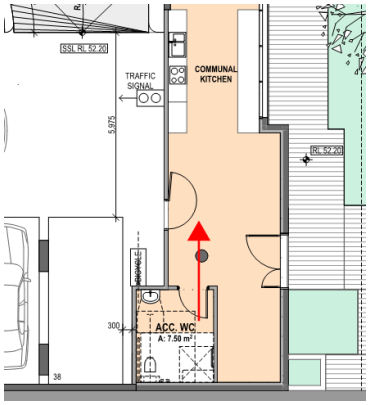
10. Issues Requiring Resolution

10.1. Issues requiring amendments to plans

The following issues need to be resolved before issuing the Construction Certificate.

Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
1.	Clause C2.6	The type of sprinklers proposed to the units is to be provided as it is currently unknown. As such this clause cannot be analysed	Confirmation of the type of sprinklers is to be provided to determine whether this clause is applicable is to be issued to the certifying authority prior to further design development occurs. If an FPA

Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
			sprinkler system is proposed then spandrels will need to be implemented meaning a redesign of the edge protection may be required.
2.	Clause D2.17	Clause 12 of AS1428.1-2009 requires a continuous height handrail to be installed to all stairs including fire-isolated stairs. The stairs proposed within this building design are not provided with offset stairs and as such will not be able to achieve a consistent height handrail	 Amended drawings of the stair designs are required to be provided to SWP as the Certifying Authority for review to ensure compliance has been met.
3.	Clause D2.20	The following doors swing in a direction that impedes on occupant evacuation.   The following door requires adequate clearances provided to utilise the door 	The doors to the left are required to be reswung or altered in the design so as to swing in the direction of occupants evacuating the premises or clearance is provided. A copy of amended drawings demonstrating compliance are required to be issued to the certifying authority for review

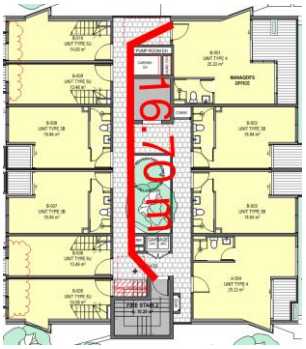
Item	DTS Clause	Description of Non-compliance	Requirement to Satisfy BCA
4.	Clause F4.8	The accessible facility currently located within the confines of the level 1 communal kitchen facility opens directly into a premises which will under use be occupied by more than 1 person. 	A design which documents a means of separation as listed under BCA Clause F4.9 is required to be implemented on amended drawings issued to the certifying authority for review. **Requirements of Clause F4.9** If a sanitary compartment opens directly into a space, which is occupied by more than one person one of the following is required to be installed / implemented: 1. Implementation of an airlock, hallway or other room with a floor area of not less than 1.1m² and fitted with self-closing doors; or 2. The sanitary compartment must be provided with mechanical exhaust ventilation and the doorway serving the room adequately screened from view

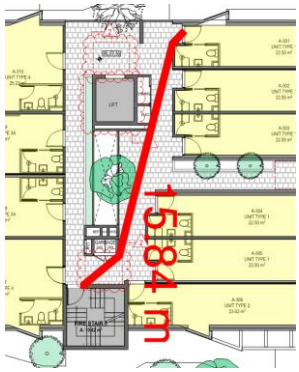
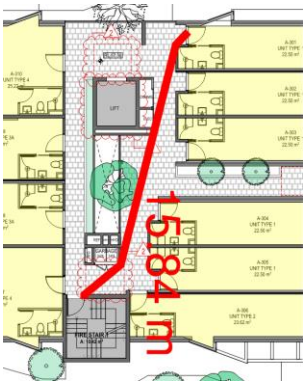
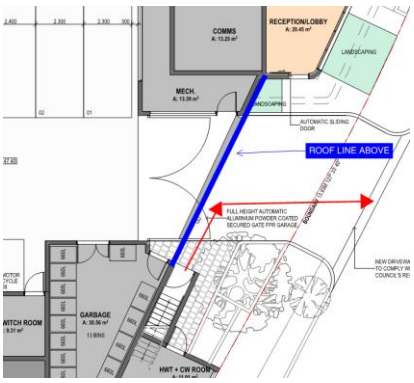
10.2. Items requiring additional details or documentation

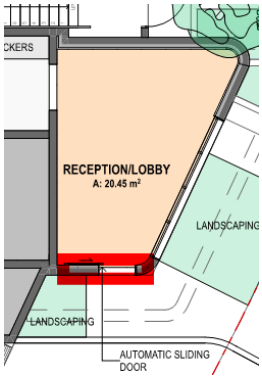
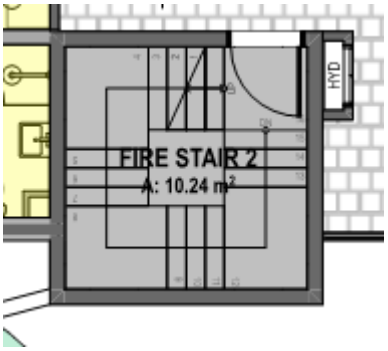
Items throughout the report have been identified which require further details or documentation to be provided to ensure compliance is achieved before issuing the Construction Certificate. These are marked accordingly in the colour orange.

10.3. Performance solutions required – Fire Engineer

It is proposed to satisfy the following non-compliances via performance solutions:

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
1.	Fire Resisting Construction	Clause & Spec C1.1 & Other clauses to be confirmed upon acceptance on the solution	A consideration is to be made through the projects fire engineer whether it would be acceptable to reduce the carpark FRLs down to an FRL of 90/90/90 understanding concessions are already granted for columns in a sprinkler protected carpark. This would enable the building to be constructed with a consistent FRL throughout,	CP1 & CP2
2.	Exit Travel Distances	D1.4	The following areas have been identified with distances exceeding 12m to a point of choice: 1. Level 5 – Up to 17m to the fire isolated exit  1. Level 4 – Up to 15m to the fire isolated exit	DP4 & EP2.2

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
			 2. Level 3 – Up to 16m to the fire isolated exit  3. Level 2 – Up to 18m to the fire isolated exit  **Details of the above extended travel distances are required to be assessed through the projects fire engineer to determine the feasibility of undertaking a performance solution**	
3.	Travel via fire isolated exits	D1.7	The provided fire isolated stairs which service the development pass by unprotected openings proposed within the development. The discharge onto the driveway past the gates is to be considered as a performance solution and addressed through the projects fire engineer. 	DP4, DP5 & EP2.2

Item	Non-Compliance	DTS Clause	Description	Performance Requirement
4.	Separation of rising and descending stair flights	D2.4	The provided fire isolated stairs serving this development are not afforded with means of separation of rising and descending flights.	DP5 & EP2.2
5.	Doorways and Doors	D2.19	The automatic sliding doors shown below is proposed to be installed on the ground floor which serves the reception. This door is required to be opened manually under a force of not more than 110N and be fitted with a fail-safe device if the door is power operated.  Due to security reasoning the door is not proposed to fail open upon trip of the relevant active fire systems however the installation of a push to button exit accompanied by a battery backup source is proposed to be installed.	DP2
6.	Fire Hydrants	E1.3	The internal fire hydrants that are located within the development are either going to be located on a mid-landing or alternatively external to the fire isolated stairway.  Details of the fire hydrant outlet location is required to analyzed through the projects fire engineer to determine whether a performance solution can be sought. **Please note FRNSW acceptance of this issue will need to be provided through the FEBQ process before proceeding on this design**	EP1.3

11. Relevant Authorities

Where an alternative solution is proposed to meet the performance requirements contained in any one or more of the Category 2 fire safety provisions referral to Fire and Rescue NSW under Clause 144 of the EP&A Regulations is required in either of the following types of buildings:

(a) a class 9a building that is proposed to have a total floor area of 2,000 square metres or more, or

(b) a building (other than a class 9a building) that is proposed to have:
    (i) a fire compartment with a total floor area of more than 2,000 square metres, or
    (ii) a total floor area of more than 6,000 square metres,

12. Statutory Fire Safety Measures

All fire/essential safety measures installed within the building are required required to be certified upon completion of the project and prior to occupation of the building by the owner of the building, by issuing a Final Fire Safety Certificate under the Act.

The owner is also required under the Act to certify each of the Fire Safety Measures annually by issuing a Fire Safety Statement.

With performance solutions, additional or more frequent maintenance may result.

13. Conclusion

The design is capable of complying with the requirements of the relevant sections of the of the Act and EPAR and the BCA 2019 Amendment 1 subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved.

14. BCA 2019 Amendment 1 – Clause by Clause Assessment

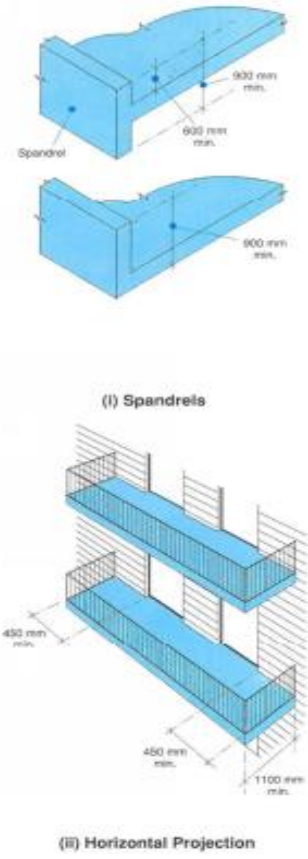
Clause	Description	Comment	Status
BCA Version			
BCA 2019 Amendment 1	**BCA version** The BCA is generally updated every 3 years with amendments influencing health, safety and amenity features required within the building. Legislation typically allows future BCA changes to be ignored provided substantial progress on the design of the development has previously occurred.	This report assumes that the applicable BCA version is BCA 2019 Amendment 1. In addition, requirements of the Premises Standards (PS) are covered as relevant.	Noted
Section A: General Provisions			
A5.2	**Suitability of materials** Every part of a building must be constructed in an appropriate manner to achieve the requirements of the BCA, using materials that are fit for the purpose for which they are intended.	The builder is responsible to adopt and install appropriate proprietary accredited building products and is to ensure that those products/assemblies are fit for the purpose they are intended and are installed in accordance with the manufacturer's specifications/ requirements for that system.	Compliance Readily Achievable
Part A6	**Classification and usage** Usage on each level of the building is as follows: **LEVEL** / **USE** / **CLASS** Level 0 – Carpark – 7a Level 1 – Carpark – 7a Boarding House – 3 Level 2 – Level 5 – Boarding House – 3		Noted
Part A7	**United buildings**	Buildings are deemed united when two or more buildings adjoining each other are connected and used as one building.	Noted
Section B: Structure			
B1.1	**Resistance to actions** The resistance of the building must be greater than the most critical action effect resulting from different combinations of actions	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage	Compliance Readily Achievable
B1.2	**Determination of individual actions** The magnitude of individual actions must be determined in accordance with Clause B1.2 of the BCA.	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage	Compliance Readily Achievable
B1.3	-	No provisions	-
B1.4	**Determination of structural resistance of materials and forms of construction** The structural resistance of materials and forms of construction must be determined in accordance with the relevant Australian Standards in accordance with Clause B1.4 of the BCA.	Certification from a qualified structural engineer will need to be provided at Construction Certificate stage. **Termite Protection – Use of Timber** Details of the method of protection against moisture and other associated termite attack should be documented within the specifications and on the drawings proposed for construction (Only applicable	Compliance Readily Achievable

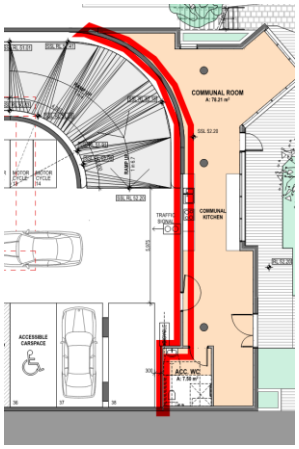
<table>
<tr><th>Clause</th><th>Description</th><th>Comment</th><th>Status</th></tr>
<tr><td></td><td></td><td>and confirmation should be given for the use of timber products)</td><td></td></tr>
<tr><td>B1.5</td><td>Structural software</td><td>-</td><td>Noted</td></tr>
<tr><td>B1.6</td><td>Construction of buildings in flood hazard areas</td><td>Class 3 building</td><td>N/A</td></tr>
<tr><td>Part B</td><td>Structure and importance level
Assessment of the building structure will be required for dead, live, wind, earthquake, fire and other loads required by current day AS Codes.
The design of the structure must be based on the appropriate ‘Importance Level’ under BCA Table B1.2a.</td><td>The building has an importance level 2 in accordance with Table B1.2a.</td><td>Compliance Readily Achievable</td></tr>
<tr><td colspan="4">Section C: Fire Resistance</td></tr>
<tr><td colspan="4">Part C1 – Fire Resistance and Stability</td></tr>
<tr><td>C1.1</td><td>Type of Construction Required
Type A Construction
BCA Type A fire resisting construction is required.
Refer to Appendix C1.1 and Specification C1.1 below for the relevant fire resisting requirements
<table>
<tr><th>Building Element</th><th>Required FRL</th></tr>
<tr><td>Loadbearing external walls, columns, beams</td><td><u>Class 7a</u>
Generally a 120 minute FRL throughout
<u>Class 3</u>
Generally a 90 minute FRL throughout</td></tr>
<tr><td>Non-loadbearing external walls, etc. less than 3m from a fire source or boundary or less than 6m from another building on the site</td><td><u>Class 7a</u>
Generally a 120 minute FRL throughout
<u>Class 3</u>
Generally a 90 minute FRL throughout</td></tr>
<tr><td>Non-loadbearing external walls etc. greater than 3m from a fire source or boundary or more than 6m from other buildings on the site.</td><td>Nil</td></tr>
<tr><td>Internal load-bearing walls/columns etc</td><td><u>Class 7a</u>
Generally a 120 minute FRL throughout</td></tr>
</table></td><td>Fire resisting requirements to building elements
1. External walls within 3m from the boundary:
• Must be non-combustible;
• Achieve an FRL of 90/90/90 to the Level 1 → Level 5 for the residential levels.
• Achieve an FRL of 120/120/120 for the ground floor → Level 1 for the carpark
2. Any loadbearing internal walls must be of concrete or masonry;
3. Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must have an FRL and be non-combustible as required by Clause 2.2 of the Specification;
4. Any non-loadbearing internal walls required to be fire resistant or shafts must be non-combustible; and
5. Roof is not required to achieve a fire rating provided the covering is non-combustible as the building contains class 3 units.
Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to the Certifying Authority upon application of the relevant Construction Certificate</td><td>Additional Details Required</td></tr>
</table>

Clause	Description		Comment	Status
		Class 3 Generally a 90 minute FRL throughout	A consideration is to be made through the projects fire engineer whether it would be acceptable to reduce the carpark FRLs down to an FRL of 90/90/90 understanding concessions are already granted for columns in a sprinkler protected carpark. This would enable the building to be constructed with a consistent FRL throughout,	Performance Solution
	Floors	**Class 7a** Generally a 120 minute FRL throughout **Class 3** Generally a 90 minute FRL throughout		
	Roofs	Nil – Building is of class 3 and as such only requires non-combustible construction		
C1.2	**Calculation of rise in storeys** **Effective Height / Calculation of rise in storeys**. Rise in storeys is a defined BCA term addressing the number of main building levels excluding basements. Effective height is defined under the BCA as vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units). These parameters influence the BCA provisions applicable to the building.		The following parameters apply: Rise in storeys: 6 storeys Effective Height: 16.9m	Noted
C1.3	**Buildings of multiple classification**		The building is required to be constructed of Type A fire resisting construction as the classification of the top storey is a Class 3	Noted
C1.4	**Mixed types of construction**		If a fire wall divides the building in accordance with Clause C2.7, the building portions are able to be constructed in differing levels of fire-resistance determined in accordance with Clause C1.1 and C1.3.	Noted
C1.5	**Two storey Class 2, 3 or 9c buildings**			N/A
C1.6	**Class 4 parts of buildings**			N/A
C1.7	**Open spectator stands and indoor sports stadiums**			N/A
C1.8	**Lightweight construction** Lightweight construction used in a wall system must comply with Specification C1.8. Lightweight construction used as a fire-resisting covering of a steel column or the like, and where the covering is not in continuous contact with the column must have the voids filled to a height of not less than 1.2m above the floor and where the column is liable to be damaged must be protected by steel or other suitable material.		Details of the proposed systems to be installed must be in accordance with a tested prototype.	Compliance Readily Achievable

Clause	Description	Comment	Status
C1.9	**Non-combustible building elements** In a building required to be of Type A construction, the following building elements and their components must be non-combustible: i. External walls and common walls, including all components incorporated within them including façade covering, framing and insulation; ii. The flooring and floor framing of lift pits; iii. Non-loadbearing internal walls where they are required to be fire-resisting; iv. Non-loadbearing shaft being a lift, ventilating, garbage or similar shaft. The following materials may be used where non-combustible materials are required:- • Plasterboard. • Perforated gypsum. • Fibrous-plaster sheeting to AS 2185. • Fibre-reinforced cement sheeting. • Pre-finished metal sheeting having a combustible surface finish not exceeding 1mm thickness and where the spread-of-flame index of the product is not greater than 0. • Sarking-type materials that do not exceed 1mm thickness and have a flammability index not greater than 5. • Bonded laminated materials where each lamina, including any core, is not combustible and each adhesive layer does not exceed 1mm thickness and the total thickness of the adhesive layers does not exceed 2mm and the spread of flame index and smoke development index of the bonded laminated material as a whole do not exceed 0 and 3 respectively. • Any product as determined by testing to AS 1530.1 • An appropriately BCA accredited product or system	A detailed review of the makeup of the wall systems and materials will be undertaken to ensure no combustible materials (including Aluminium Composite Panels ACP's) and non-compliant building products are proposed. **All materials proposed within and attached to the external wall are to be detailed and submitted as part of SWP's External & Common wall (Cladding and Wall register) Design Certificate. This also includes relevant test reports, Codemark certification and certificates of conformity demonstrating compliance with relevant Australian Standards.** *Should any deviation occur for the proposed cladding product or sarking material either an alternative solution will be required or a variation to the selected material will need to be implemented within the design*	Additional Details Required
C1.10 & Spec C1.10	**Fire Hazard Properties** Floor materials, floor coverings and wall and ceiling lining materials need to comply with prescribed fire hazard properties. Refer to Appendix C1.10.	Compliance assumed and will require verification test data for all timber and other combustible linings and materials, including:- • Carpets • Vinyls (walling and flooring) • Timber flooring and wall linings • Veneered wall panelling • Spray-on insulation material • Other combustible finishes • Carpark soffit insulation fire test reports, based on 'room fire testing'	Compliance Readily Achievable

Clause	Description	Comment	Status
		will be required to meet fire brigade consent conditions if applicable. The fire hazard properties of floor linings and coverings, wall linings and ceiling linings must comply with Specification C1.10 and NSW Specification C1.10. Test reports to be provided certifying that: • the floor linings achieve a critical radiant flux 1.2 • The wall and ceiling linings achieve a group 1, 2 or 3 rating Test reports of all the proposed lining materials are required to be provided to the project certifying Authority for review and acceptance prior to the installation	
C1.11	**Performance of external walls in fire**		N/A
C1.12		This Clause has deliberately been left blank	Noted
C1.13	**Fire-protected timber: Concession**		N/A
C1.14	**Ancillary Elements**	An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible **Details as part of the deliverables provided by the projects architect / façade engineer is to be issued to the certifying authority upon application of the relevant construction certificate**	Additional Details Required
Part C2 – Compartmentation and Separation			
C2.1	**Application of Part**	Clauses C2.2, C2.3 and C2.4 do not apply to a sprinkler protected carpark, open deck carpark or open spectator stand.	Noted
C2.2	**General floor area and volume limitations (Type A construction)** The floor area and volume limitations are: Class 5, 9b or 9c: 8,000m^2 and 48,000m^3 Class 6, 7, 8 or 9a: 5,000m^2 and 30,000m^3	The floor areas and volume of the development conform to the limitations set under table as the building contains sprinklers throughout and the BCA does not require class 3 parts of a building to be considered	Complies
C2.3	**Large isolated buildings**		N/A
C2.4	**Requirements for open space and vehicular access**		N/A
C2.5	**Class 9a and 9c buildings**		N/A
C2.6	**Vertical separation of openings in external walls** Only applicable to a building of Type A Construction, which is not sprinkler protected.	Subject to understanding the proposed sprinkler system being installed within the units, spandrel separation may be required. If spandrels are required the spandrel must be not less than 900mm in height, extended not less than 600mm above the upper surface of the intervening floor and be of non-combustible material having an FRL of not less than 60/60/60.	Does Not Comply

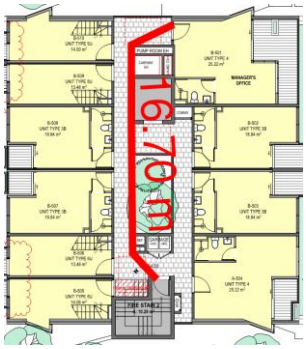
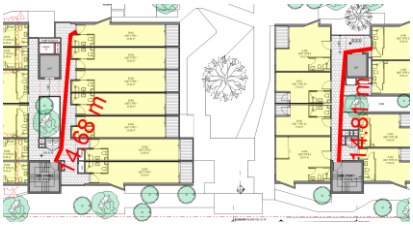
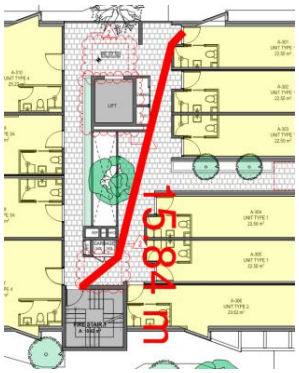
Clause	Description	Comment	Status
		**Confirmation of the type of sprinklers is to be provided to determine whether this clause is applicable is to be issued to the certifying authority prior to further design development occurs. If an FPA sprinkler system is proposed then spandrels will need to be implemented meaning a redesign of the edge protection may be required.**	
C2.7	**Separation by fire walls**	A fire wall must extend to the underside of a floor having an FRL required for a fire wall or the roof covering.	Noted

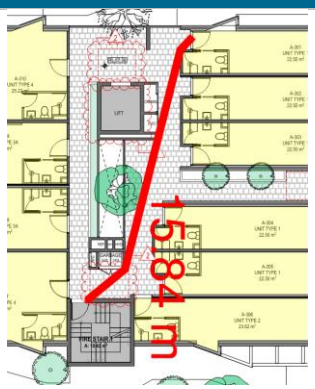
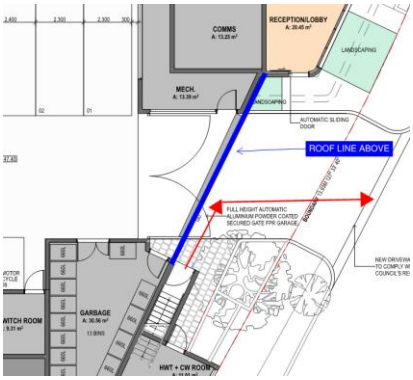
Clause	Description	Comment	Status
C2.8	**Separation of classifications in the same storey** As the building has parts of different classifications located alongside one another in the same storey each building element must have the higher FRL prescribed in Specification C1.1 of the BCA or the parts must be separated by a fire wall.	As two building classes are located next to each other (class 7a carpark and class 3 communal spaces) on the same level the wall separating the classifications is to be constructed to the higher FRL being the class 7a (120/120/120)  **Details of the wall construction is to be issued to the certifying authority to determine through wall schedules that compliance has been achieved. These details are to be issued prior to the issue of the relevant Construction Certificate**	Additional Details Required
C2.9	**Separation of classifications in different storeys** As different classifications are situated one above the other in adjoining storeys they must be separated in accordance with the DTS provisions of Table of BCA 2016 Specification C1.1.	As different classifications are situated one above the other in adjoining storeys they must be separated in accordance with the DTS provisions of the BCA. • The residential unit levels (Class 3) are to be separated from other Residential levels (Class 3) by a slab achieving an FRL of 90/90/90 • The residential unit levels (Class 3) are to be separated from the ground and level 1 carpark (Class 7a) by a slab achieving an FRL of 120/120/120 **Structural details & specifications are to be submitted to the certifying Authority upon application of the relevant Construction Certificate.**	Additional Details Required
C2.10	**Separation of Lift Shafts**	The proposed lift shafts serving the building must be separated as specified in Clause 2.10. Separation of the lift shaft must be achieved from the remainder of the building by complying with elements achieving the following nominated FRLs- • **Class 3 - 90/90/90** • **Class 7a – 120/120/120** Openings for lift landing doors and services must be protected in accordance with the DTS provisions of Part C3 of the BCA	Additional Details Required

Clause	Description	Comment	Status
		Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to the Certifying Authority upon application of the relevant Construction Certificate.	
C2.11	**Stairways and lifts in one shaft**	The lift is within its own shaft	Complies
C2.12	**Separation of Equipment** Two hour fire enclosure is required for:- • lift motor rooms • emergency generators sustaining emergency equipment operating in emergency mode • central mechanical smoke control plant • boilers a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more.	Equipment that comprises **boilers** or **batteries** (having a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours) must be separated from the remainder of the building by construction with an FRL as required under Specification C1.1 but not less than 120/120/120. Any UPS rooms or backup generators to sustain emergency equipment operating in the emergency mode throughout the building are required to be 2 hour 2-way fire separated from remainder of the building. **Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to the Certifying Authority upon application of the relevant approval.** *Note: Any door installed to one of these rooms is required to achieve an FRL of not less than --/120/30 as a concession is only granted for doors leading into a fire isolated exit.*	Additional Details Required
C2.13	**Electricity Supply System** A substation located within a building or main switchboard, which sustains emergency equipment, must be separated from the remainder of the building by 2hr fire rated construction.	Any switch room which sustains emergency equipment operating in the emergency mode is required to be 2-hour fire separated from the remainder of the building **Structural details & specifications of the wall types and relevant FRLs proposed are to be submitted from a suitably qualified Structural Engineer to the Certifying Authority upon application of the relevant approval.** *Note - Should any substation be installed within the proximity of the building energy authorities require it to be fire separated by an FRL of not less than 180/180/180 with the provisions of 2 x egress doors. This however should be confirmed by the project's energy coordinator / engineer*	Additional Details Required
C2.14	**Public corridors in Class 2 & 3 buildings**		Complies
Part C3 – Protection of Openings			
C3.1	**Application of Part**		Applicable

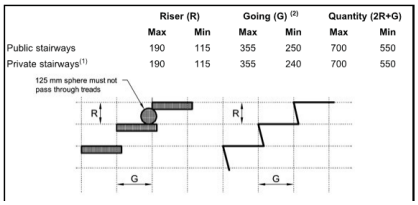
Clause	Description	Comment	Status
C3.2	**Protection of openings in external walls**	There are no openings within 3m of a fire source feature	Complies
C3.3	**Separation of external walls and associated openings in different fire compartments**		N/A
C3.4	**Acceptable method of protection**	The following methods of protection are permissible within Clause C3.4 of the BCA- **Window Protection** • Wall wetting sprinklers; • -/60/- Fire rated windows that are automatic closing or permanently fixed in the closed position; or • -/60/60 automatic fire shutters. **Doorway Protection** • wall wetting sprinklers used with doors that are self-closing; or Automatic closing, or -/60/30 self-closing or automatic closing fire doors.	Noted
C3.5	**Doorways in fire walls**		N/A
C3.6	**Sliding fire doors**		N/A
C3.7	**Protection of doorways in horizontal exits**		N/A
C3.8	**Openings in Fire Isolated Exits** -/60/30 self-closing fire doors are required to doorways providing access to fire isolated stairways.	A door schedule indicating compliance is required to be provided and will be checked upon an application for the main works Construction Certificate	Additional Details Required
C3.9	**Service penetrations in fire isolated exits**	Service penetrations other than electrical wiring for essential service installations, pressurisation ducts with an FRL of -/120/60, or water pipes for fire services are not permissible.	Noted
C3.10	**Openings in fire isolated lift shafts** Openings in lift shafts are to be protected by -/60/- fire doors complying with AS1735.11. Lift indicator panels are to be backed by construction having an FRL of not less than -/60/60 if it exceeds 35,000mm2 (175 X 200 mm).	Certification from the lift supplier is required for the installation of the new lifts	Additional Details Required
C3.11	**Bounding construction: Class 3 buildings** All doorways within the Class 3 portions which provide access into the public corridor must be fitted with -/60/30 self-closing fire doors.	A door schedule indicating compliance is required to be provided and will be checked upon an application for the main works Construction Certificate	Additional Details Required
C3.12	**Openings in floors for services** Services passing through floors are to be placed within fire resisting shafts or in accordance with Clause C3.15.	**Class 3** Loadbearing shafts are required to have an FRL of not less than 90/90/90, and for non-loadbearing shafts an FRL of not less than -/90/90. **Class 7a** Loadbearing shafts are required to have an FRL of not less than 120/90/90, and for non-loadbearing shafts an FRL of not less than -/90/90. **Details of the Shaft wall and passive fire systems proposed to be used within the**	Additional Details Required

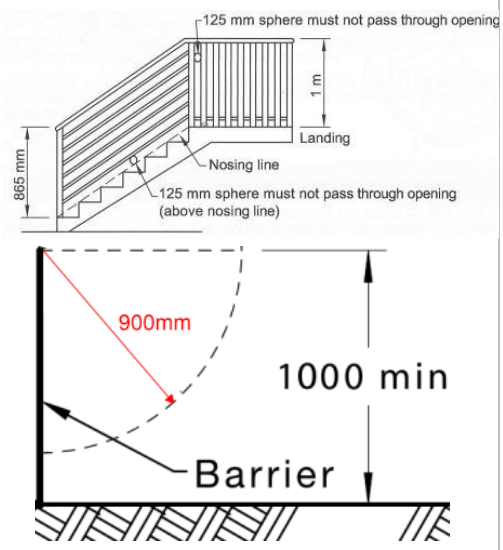
Clause	Description	Comment	Status
		building are to be submitted within a schedule upon application of the relevant Construction Certificate to the Certifying Authority	
C3.13	**Openings in shafts**	In a building of Type A construction, an opening in a wall providing access to a ventilating, pipe, garbage, or other service shaft must be protected by: • If it is a sanitary compartment - a door or panel which together with its frame, is non-combustible or has an FRL of not less than -/30/30, or • A self-closing -/60/30 fire door or hopper, or • An access panel with an FRL of not less than -/60/30, or • If the shaft is a garbage shaft - a door or hopper of non-combustible construction.	Compliance Readily Achievable
C3.14	-	This clause has deliberately been left blank	-
C3.15	**Openings for service installation** Services penetrations through a building elements (other than an external wall or roof) that are required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, must comply with a tested system or with Specification C3.15 Methods and materials used are to be identical to tested prototypes and in accordance with AS4072.1 and AS1530.4, and having achieved the required FRL or resistance to the incipient spread of fire or other specified method. , or differ from a prototype assembly of the service, building element and protection method in accordance with Section 4 of AS 4072.1. Ventilation and air-conditioning systems are to be installed in accordance with AS/NZS 1668.1.	Any system used must be a certified system and installed in accordance with the tested method. Specifications of the methods of fire sealing need to be provided	Compliance Readily Achievable
C3.16	**Construction Joints** Construction joints in elements required to have a fire resistance with respect to integrity and insulation must be protected.	Construction joints are to be installed in accordance with a tested prototype in accordance with AS1530.4.	Compliance Readily Achievable
C3.17	**Columns protected with lightweight construction**	Columns must be protected in accordance with the identical tested prototype.	Compliance Readily Achievable
Section D: Access and Egress			
Part D1 - Provision for Escape			
D1.1	**Application of Part**		Noted
D1.2	**Number of exits required**	An adequate means of exits have been provided to service the proposed design	Complies
D1.3	**When fire-isolated stairways and ramps are required**	Every stairway within this development is proposed to be fire isolated. These stairs	Compliance Readily

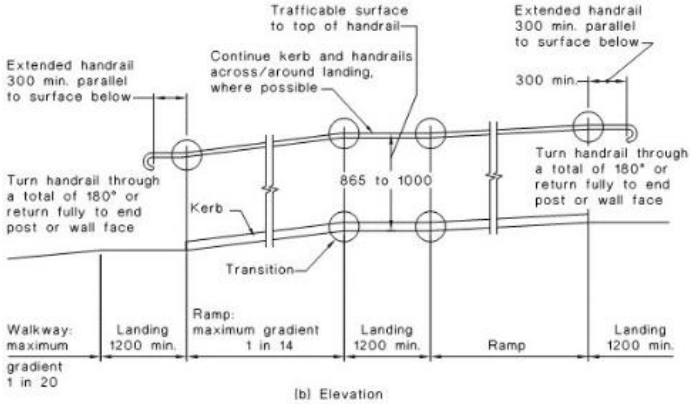
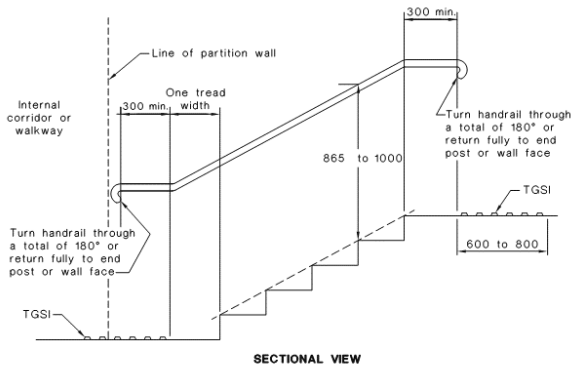
Clause	Description	Comment	Status
	Every stair in a Class 5 to 9 building must be fire isolated unless it does not connect or pass through more than 3 consecutive floors in a sprinkler protected building, or 2 storeys in a non-sprinkler protected building.	are considered isolated for the purposes of evacuating occupant safely to the road and / or open space. The shaft housing the fire isolated stairs is required to achieve an FRL of the following unless subject to a performance solution discussed within BCA Clause C2.8, C2.9 and Specification C1.1 • **Class 3 – 90/90/90** • **Class 7a – 120/120/120**	Achievable
D1.4	**Exit travel distances** No point on the floor must be more than 20m to an exit or a point in which travel in different directions to 2 exits is available, in which case, the maximum distance to 1 exit cannot exceed 40m. (Refer to concession under Spec E1.5a for Class 2 and 3 buildings not more than 25m in effective height with a sprinkler system complying with AS 2118.1 or AS 2118.4)	The following areas have been identified with distances exceeding 12m to a point of choice: 2. Level 5 – Up to 17m to the fire isolated exit  4. Level 4 – Up to 15m to the fire isolated exit  5. Level 3 – Up to 16m to the fire isolated exit  6. Level 2 – Up to 18m to the fire isolated exit	Performance Solution

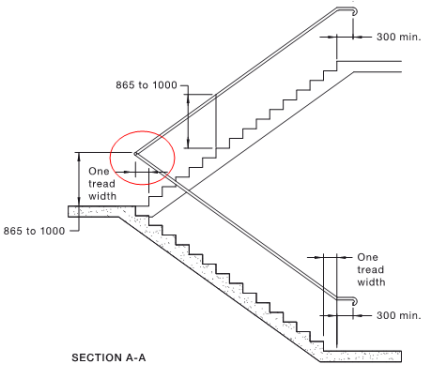
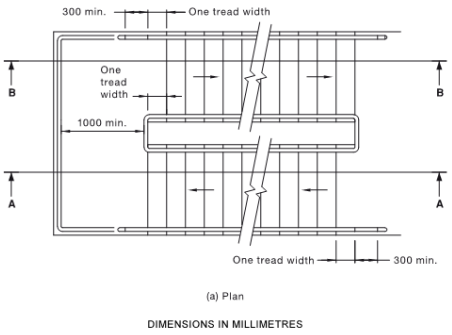
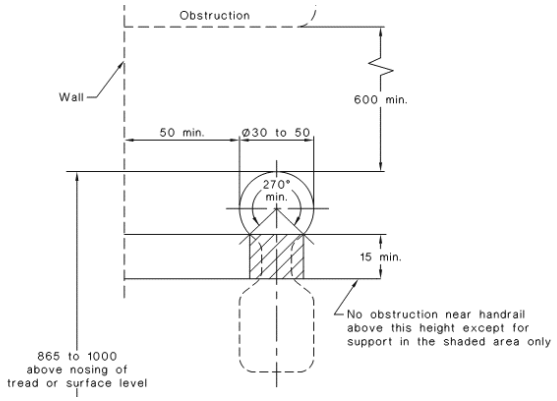
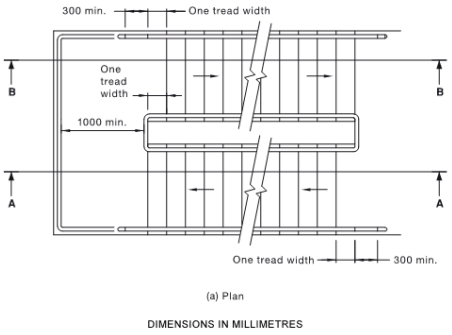
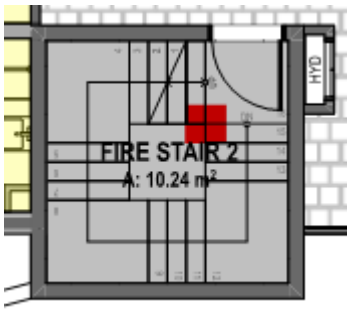
Clause	Description	Comment	Status
		 **Details of the above extended travel distances are required to be assessed through the projects fire engineer to determine the feasibility of undertaking a performance solution**	
D1.5	**Distance between alternative exits**		Complies
D1.6	**Dimensions of exits and paths of travel to exits**		Complies
D1.7	**Travel via fire-isolated exits**	The provided fire isolated stairs which service the development pass by unprotected openings proposed within the development. The discharge onto the driveway past the gates is to be considered as a performance solution and addressed through the projects fire engineer. 	Performance Solution
D1.8	**External stairways or ramps in lieu of fire-isolated exits**		N/A
D1.9	**Travel by non-fire-isolated stairways or ramps**		N/A
D1.10	**Discharge from exits** Suitable barriers such as bollards are to be provided to prevent the blockage of exits by vehicles, etc. An unobstructed path of travel to the road must be provided with a width not less than the width of the required exit.	Details of the methods of protection of the doors are required to be provided on the plans to demonstrate compliance against the requirements of BCA Clause D1.10	Compliance Readily Achievable
D1.11	**Horizontal exits**		N/A
D1.12	**Non-required stairways, ramps or escalators**		N/A
D1.13	**Number of persons accommodated**		Noted
D1.14	**Measurement of distances**		Noted
D1.15	**Method of measurement**		Noted

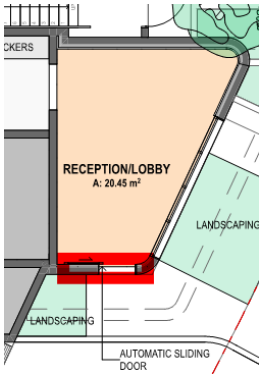
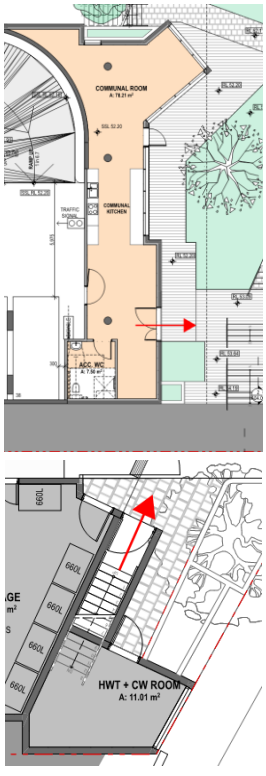
Clause	Description	Comment	Status
D1.16	**Plant rooms, lift machine rooms and electricity network substations: Concession**		Noted
D1.17	**Access to lift pits**		Noted
D1.18	**Egress from early childhood centres**		Noted
Part D2 – Construction of Exits			
D2.1	**Application of Part**		Noted
D2.2	**Fire Isolated Stairs or Ramps**	A stairway or ramp that is required to be within a fire-resisting shaft must be constructed- a) Of non-combustible materials; and b) So that if local failure occurs it will not cause structural damage to, or impair the fire resistance of the shaft	Compliance Readily Achievable
D2.3	**Non-Fire Isolated Stairways and Ramps**	Any proposed non-fire isolated stairs serving the development are required to be constructed in accordance with the provisions of D2.3, or only of- a) Reinforced or pre-stressed concrete; or b) Steel in no part less than 6mm thick; or c) Timber that- I. Has a finished thickness of not less than 44mm; and II. Has an average density of not less than 800kg/m3 at a moisture content of 12%; and III. Has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue	Compliance Readily Achievable
D2.4	**Separation of rising and descending stair flights**	The provided fire isolated stairs serving this development are not afforded with means of separation of rising and descending flights. **Details of this non-compliance are required to be assessed and if feasible, addressed through means of a performance solution prepared by the projects fire engineer.**	Performance Solution
D2.5	**Open access ramps and balconies**		N/A
D2.6	**Smoke lobbies**		N/A
D2.7	**Installations in Exits and Paths of Travel**	Electrical boards and the like are to be located within and enclosed by non-combustible construction or have a fire-protective covering with the doorway suitably sealed against smoke spreading from the enclosure. Generally, the services or equipment may be enclosed in non-combustible construction such as MDF with a solid core **Details of the proposed doors including notation of smoke seals and / or metal**	Additional Details Required

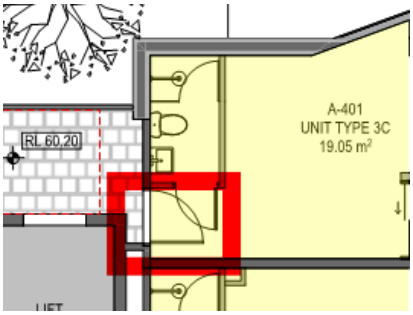
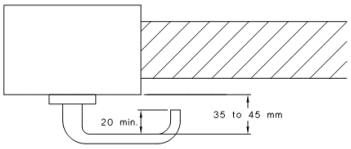
Clause	Description	Comment	Status
		backed solid core doors are to be incorporated within a door schedule to be submitted for the issue of the relevant Construction Certificate for review	
D2.8	**Enclosure of space beneath stairs and ramps**	If enclosures are proposed beneath stairs the following are to be considered: **Fire Isolated Stairways:** Must not be enclosed to form a cupboard or similar enclosed space. **Non-Fire Isolated Stairways:** Must not be enclosed to form a cupboard or similar enclosed space unless the enclosing walls have an FRL of not less than 60/60/60 and any doorway to the enclosed space is fitted with a self-closing -/60/30 fire door.	Compliance Readily Achievable
D2.9	**Width of required stairways and ramps**		N/A
D2.10	**Pedestrian ramps**	Ramps serving as required exit must have a gradient not less steep than 1:8. If the ramp is required for disabled access under Part D3 it must comply with AS1428.1. The surface of the ramp must have a non-slip finish.	Compliance Readily Achievable
D2.11	**Fire-isolated passageways**		N/A
D2.12	**Roof as open space**		N/A
D2.13	**Going and Risers** Stairways within this development are to be constructed and comply with the following- • Stairs are to have risers measuring between 115-190mm and goings between 250-355mm. • Goings and Risers are to satisfy the equation of 2R+G=700(max) and 550(min). • Adjacent risers, or between adjacent goings a variation no greater than 5mm is permitted and the largest and smallest riser within the flight or the largest and smallest going within a flight is not to exceed a variation of 10mm. • Under the requirements of AS1428.1-2009 open riser are not permitted. • All treads to be fitted with non-slip finish or non-skid strips. Treads are required to have a surface or nosing strip with a slip-resistance classification not less than listed in Table D2.14 when tested in accordance with AS 4586	 **Details and specifications of all stairways are to be submitted to the Certifying Authority for review prior to the issue of the relevant Construction Certificate**	Additional Details Required
D2.14	**Landings** Ramps Surfaces, stair tread surfaces or nosing strips, and stair landing surfaces, or landing nosing strips to a flight below, must achieve slip-resistance classifications to AS4586-2013 as follows: - **Application** / **Dry Surface Conditions** / **Wet Surface Condition**	Certification / test reports on the slip resistance of the surfaces will need to be provided on constructed elements. All stairways and ramps located throughout the ground floor and other associated entryways are considered to adopt slip ratings associated with wet surface conditions within the table to the left.	Additional Details Required

Clause	Description	Comment	Status
	1:14 or steeper ramps: P4 or R11 / P5 or R12 Ramps of 1:14 to 1:20: P3 or R10 / P4 or R11 Tread or Landing Surface: P3 or R10 / P4 or R10 Nosing Strip or Landing Strip: P3 / P4		
D2.15	**Thresholds** Steps should not occur at doorways without a threshold landing except as follows: • In a building required to be accessible and the doorway opens to a road or open space and is provided with a threshold ramp or step ramp in accordance with AS1428.1, • A single 190mm step is permitted at doors leading to the exterior.	Note that where access for people with disabilities is required it is not permitted to have a step at the threshold of a doorway	Additional Details Required
D2.16	**Barriers to Prevent Falls** 	• Balustrades complying with Deemed-to-Satisfy provisions of the BCA are to be provided to where the level of the surface below is 1m or more; • Where the level of the surface below is 4m or more, a balustrade or other barrier must not facilitate climbing of horizontal elements between 150mm and 760mm above the floor; • Any opening in the balustrade must not permit a 125mm sphere to pass through the balusters; and • Climbable elements cannot be located within 900mm of the top rail of each balustrade where the fall is greater than 4m. This measurement is taken in an arc as seen in the extract to the left. **Detailed drawings of any proposed balustrades and other occupant barriers are to be provided at the relevant Construction Certificate stage for verification.**	Additional Details Required
D2.17	**Handrails** Handrails to exits including parts of fire isolated exits serving an area required to be accessible to people with disabilities must comply with Clause 12 of AS1428.1: - • Handrails not to obstruct circulation space • 30-50mm diameter • 865-1000mm above nosing line of stairs • 865-1000mm above ramps and landings • Consistent height throughout	Handrails are to be provided in compliance with Clause D3.3 and include the following- • **Non-Fire Isolated Stairways and Ramps** All stairs and ramps not used as an emergency exit are to have handrails installed on both sides that comply with Clause 10 & 11 of AS1428.1-2009 • **Fire Isolated Stairways and Ramps** In Fire Isolated Stairways & Ramps a handrail is required to be installed to at least	Additional Details Required

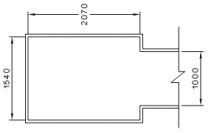
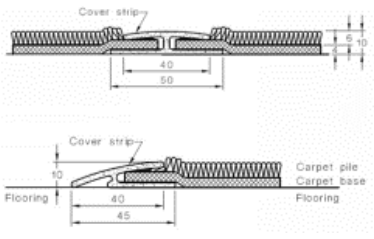
Clause	Description	Comment	Status
	• 50mm grip clearance and no obstructions to handhold • Continuous at internal (return) landings Provided with handrail extensions and 180-degree curled ends	one side of stair flights and located not less than 865mm above the nosing's of stair treads and the floor surfaces of landings • **Consistent Handrail Heights for all stairways** The height of the top of the handrail, measured at a height of between 865mm – 1000mm vertically from the stair nosing shall be consistent throughout the ramp (or stairs) and any landings. All stairs including fire stairs are required to be designed to comply with Clause 12 of AS1428.1 – 2009 **Detailed designs, drawings and specifications of the handrail design are to be submitted to the certifying Authority for a further detailed review upon application of the relevant Construction Certificate.**	
	Ramps  (b) Elevation DIMENSIONS IN MILLIMETRES FIGURE 14 RAMP HANDRAILS **Stairways**  SECTIONAL VIEW DIMENSIONS IN MILLIMETRES FIGURE 26(B) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT END OF STAIRWAY OTHER THAN AT LINE OF BOUNDARY		

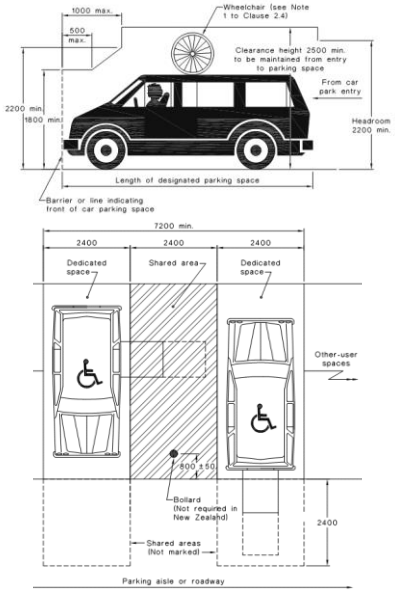
Clause	Description	Comment	Status
	  **Handrail Profile** 		
D2.17		Clause 12 of AS1428.1-2009 requires a continuous height handrail to be installed to all stairs including fire-isolated stairs. The stairs proposed within this building design are not provided with offset stairs and as such will not be able to achieve a consistent height handrail  **Amended drawings of the stair designs are required to be provided to SWP as the Certifying Authority for review to ensure compliance has been met.**	Does Not Comply
D2.18	**Fixed platforms, walkways, stairways and ladders**	Platforms, walkways, stairs, ladders and the like that give access to and around plant and equipment, machine rooms, attic spaces and other low use areas of the building are permitted provided that construction details are to AS1657.	Noted
D2.19	**Doorways and doors** Must not be revolving door, roller shutter or tilt	The automatic sliding doors shown below is proposed to be installed on the ground floor	Performance Solution

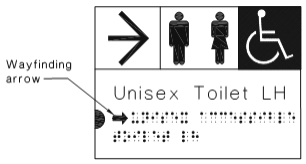
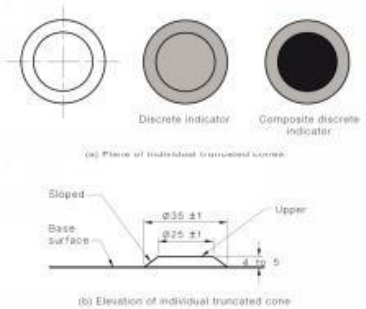
Clause	Description	Comment	Status
	door. Can be fitted with a sliding door if it leads directly to open space and can be opened manually under a force of not more than 110N and be fitted with a fail-safe device if the door is power operated.	which serves the reception. This door is required to be opened manually under a force of not more than 110N and be fitted with a fail-safe device if the door is power operated.  Due to security reasoning the door is not proposed to fail open upon trip of the relevant active fire systems however the installation of a push to button exit accompanied by a battery backup source is proposed to be installed. **Details of these non-compliances are to be submitted to an accredited fire engineer to determine the feasibility of justifying this non-compliance as part of a Performance Solution.**	
D2.20	**Swinging doors** Defined exit doors that serve a part of a building with a floor area over 200m² must swing outward in the direction of exit travel. Must not encroach more than 500mm into the required width of the stair or 100mm when fully open and swing in the direction of travel.	The following doors swing in a direction that impedes on occupant evacuation.  The following door requires adequate	Does Not Comply

Clause	Description	Comment	Status
		clearances provided to utilise the door  The above doors are required to be reswung or altered in the design so as to swing in the direction of occupants evacuating the premises or clearance is provided. A copy of amended drawings demonstrating compliance are required to be issued to the certifying authority for review	
D2.21	**Operation of latch** Exit doors should be provided with "free handle" egress via a downward or pushing action and, if serving an area accessible to people with disabilities, must have non-slip "D" pull handles with 35-45mm hand clearances. Where the latch operation device is not located on the door leaf itself- • manual controls to power-operated doors must be at least 25 mm wide, proud of the surrounding surface and located not less than 500 mm from an internal corner; and • for a hinged door, between 1 m and 2 m from the door leaf in any position; • and for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position. • braille and tactile signage complying with Clause 3 and 6 of Specification D3.6 must identify the latch operation device.	All exit doors and doors in the path of travel must comply.  (a) Isometric view  (b) Plan view	Compliance Readily Achievable
D2.22	**Re-Entry from Fire-Isolated Exits**		N/A
D2.23	**Signs on doors** Signage in capital letters not less than 20mm high to be provided on doors as follows i. An automatic door held open by an automatic hold-open device: **FIRE SAFETY DOOR - DO NOT OBSTRUCT** ii. for a self-closing door **FIRE SAFETY DOOR** **DO NOT OBSTRUCT** **DO NOT KEEP OPEN** iii. for a door discharging from a fire-isolated exit **FIRE SAFETY DOOR - DO NOT OBSTRUCT**	Under Clause 183 of the Environmental Planning and Assessment Regulation 2000 a notice is to be displayed in a conspicuous location adjacent to a doorway providing access to but not within a fire isolated stairway, passageway or ramp. The words "**OFFENCES RELATING TO FIRE EXITS**" are to be provided in letters at least 8mm high and the remaining words are to be at least 2.5mm high. The notice is to state the following:	Additional Details Required

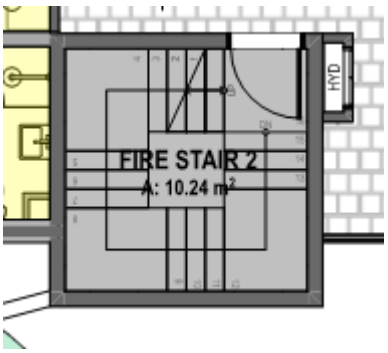
Clause	Description	Comment	Status
		 **A copy of the signage schedule prepared by the projects lead architect is required to be issued to the certifying authority upon issue of the relevant Construction Certifciate**	
D2.24	**Protection of Openable Windows**	Window openings must be provided with protection if the floor below the window is 2m or more above the surface beneath in the bedrooms of Class 2 buildings. The openable portion of the window must be protected with: • a device to restrict the window opening; or • a screen with secure fittings A device or screen required must: • Not permit a 125mm sphere to pass through the window opening or screen; and • Resist an outward horizontal action of 250N against the window restrained by a device or screen protecting the opening and have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. **Details of compliance by means of a window schedule will be required to be provided to the certifying Authority issued for the relevant Construction Certificate.**	Additional Details Required
D2.25	**Timber stairways: Concession**		N/A
NSW D2.101	**Doors in the path of travel in an Entertainment Venue**		N/A
Part D3 – Access for People with Disabilities			
An Access Report prepared by the projects accredited access consultant is to be provided to accompany the main works Construction Certificate. Any deviation from the DTS Provisions a performance solution is to be developed and endorsed under the relevant Construction Certificate.			
D3.1	**General building access requirements** Access is generally required for persons with a disability throughout all areas unless specifically exempted.	Access is required throughout complying with AS1428.1 – 2009 as follows: • From the pedestrian entrance required to be accessible where served by a lift	Additional Details Required

Clause	Description	Comment	Status
		to the entrance of each SOU throughout the levels served; and • To and within not less than 1 of each type of room or space for use in common by the residents. • A minimum of 4 accessible resident rooms is to be provided. **Access consultant is required to be provide a report detailing compliance for the Construction Certificate.**	
D3.2	**Access to buildings** External access to the building for people with a disability must be provided: • From main pedestrian entry points at the allotment boundary. • Through the principle pedestrian entrance. • Through at least 50% of all pedestrian entries. • From accessible car parking spaces. • For buildings over 500m², so that an accessible entry occurs within 50m of any non-accessible entry. • From any another accessible building on the site.	**A detailed report from an access consultant is required to be provided to the certifying Authority upon application of the main works Construction Certificate**	Compliance Readily Achievable
D3.3	**Parts of the building to be accessible** All parts of the building must be accessible to people with a disability except for areas where access would be inappropriate due to the particular use or areas that would pose a health or safety risk to people with a disability. .	All common areas throughout the proposed building are to be readily accessible and comply with the requirements of Part D3 of the BCA and AS1428.1 – 2009. Areas to be aware of include the following- • A fire isolated stairway must comply with Clause 11(f) and (g) of AS 1428.1. • Every passenger lift must comply with Clause E3.6. • Access ways must have passing spaces and turning spaces complying with AS 1428.1.  • Pile height or pile thickness of carpets shall comply with the requirements of this Clause and AS 1428.1.  **Design Documentation including a full**	Compliance Readily Achievable

Clause	Description	Comment	Status
		review is to be undertaken by the access consultant with a full detailed set of specifications, drawings of stairways, ramps showing compliance against AS1428.1 – 2009.	
D3.4	**Exemptions** Certain areas may not need to be accessible if the area is deemed inappropriate because of the particular use or the area would pose a health or safety risk for people with disabilities.	Access consultant is required to be provide a report detailing compliance for the Construction Certificate. Any areas provided with an exemption to be detailed in the access report.	Compliance Readily Achievable
D3.5	**Accessible Car Parking** The accessible parking spaces must comply with AS/NZS 2890.6 – 2009. General requirements are: - • 2.4m x 5.4m. • 2.2m head clearance for access and egress routes to and from accessible car spaces. • 2.5m head clearances over accessible car spaces. • Flat even surfaces. • Designated and sign posted for disabled users. *It is noted that the provision of 38 car spaces have been provided throughout the site. This therefore requires 1 x accessible spaces to be implemented to serve the building. Currently 3 have been documented on the design*	Accessible car parking spaces for people with disabilities are to be provided in compliance with AS/NZS 2890.6.  ***Class 3*** *The class 3 portion of the development requires for every 100 car spaces, 1 space is required to accessible.* **Details of height clearances including service drawings and Architectural sections & elevations of the accessible car spaces are to be submitted upon application of the Construction Certificate for review.**	Additional Details Required
D3.6	**Signage** Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness in accordance with AS1428.1 must identify every accessible sanitary facility and space with a hearing augmentation system. Every doorway required to be provided with an exit sign under Clause E4.5 is to be provided with braille and tactile signage that states "**EXIT**" and identify the floor level "**LEVEL #**".	Signage details for the proposed works must be in accordance with AS1428.1 - 2009 and Specification D3.6 of the BCA. **Details and a signage schedule are required to be submitted upon application of the main works Construction Certificate**	Additional Details Required

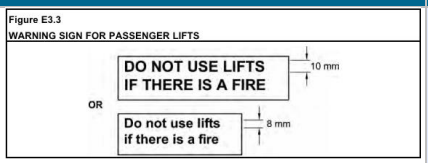
Clause	Description	Comment	Status
	 Signage must be provided within a room containing hearing augmentation identifying the type of hearing augmentation, the area covered in the room and if receivers are being used and where the receivers can be obtained. Signage identifying ambulant accessible sanitary facilities in accordance with AS 1428.1 must be located on the door of the facility.    Where the pedestrian entrance is not accessible, directional signage in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance. Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.		
D3.7	**Hearing augmentation**		N/A
D3.8	**Tactile Indicators (TGSIs)** Tactile indicators are to be provided to all stairways, ramps and escalators must be provided to warn people who are blind or have a vision impairment that they are approaching: • a stairway, other than a fire-isolated stairway, • a ramp other than a fire-isolated ramp, step ramp, kerb ramp, or • in the absence of a suitable barrier an overhead: ○ obstruction less than 2 m above floor level, other than a doorway; and ○ an access way meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point Tactile ground surface indicators must comply with sections 1 and 2 of AS/NZS 1428.4.1	 **Tactile indicators are to be provided and shown on all the required Architectural drawings on submission for the Construction Certificate.** *Note - All tactile indicators are required to achieve a 30% luminance contrast to achieve compliance*	Additional Details Required

Clause	Description	Comment	Status
D3.9	**Wheelchair seating spaces in Class 9b assembly buildings**		N/A
D3.10	**Swimming pools**		N/A
D3.11	**Ramps**		N/A
D3.12	**Glazing on an accessway** On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	Glazed shopfronts will need to have solid and non-transparent decals installed in accordance with AS 1428.1	Compliance Readily Achievable
Section E: Services and Equipment			
Part E1 – Fire Fighting Equipment			
E1.1	-	This Clause has deliberately been left blank	-
E1.2	-	This Clause has deliberately been left blank	-
E1.3	**Fire hydrants** The building requires a fire hydrant system in accordance with AS 2419.1 – 2005. Where a sprinkler system is installed in the building in accordance with AS 2118.1, AS 2118.4, AS 2118.6, FPAA101H or FPAA101D the fire hydrant booster protection requirements of clauses 7.3(c)(ii) and 7.3(d)(iii) of AS 2419.1 do not apply The fire brigade booster assembly is required to be installed in accordance with AS2419.1 – 2005 except that it may be located between 3.5m and 10m of the building where the assembly is protected by an adjacent fire-rated freestanding wall that— • achieves an FRL of not less than 90/90/90; and • extends not less than 1 m each side of the outermost fire hydrant booster risers within the assembly and is not less than 3 m wide; and • extends to a height of not less than 2 m above finished ground level.	Fire hydrants must conform to the pressure and flow requirements and distance limitations specified in AS 2419.1 – 2005.	Compliance Readily Achievable
		Detailed hydraulic drawings & Specifications identifying the locations of all fire hydrants and the booster assembly are to be provided to the certifying Authority for review. The hydraulic engineer must ensure that compliant coverage is provided to all areas of the building from the internal hydrants and must provide design certification to accompany the drawings certifying the design complies with Clause E1.3 of the BCA and AS2419.1 – 2005 (noting any non-compliances, which are to be addressed as a Performance Solution). *Note 1: Hydrant hose must extend at least 1m into rooms to be counted for coverage* *Note 2: If full coverage is not provided from hydrants located within the stairs alone. Intermittent hydrant outlets can be installed to achieve a compliant coverage.* *Note 3: The hydrant pump room is to be fire separated from the remainder of the carpark by being installed within a 2 hour fire compartment / room if the room is not serviced by means of a sprinkler system*	Additional Details Required
		The internal fire hydrants that are located within the development are either going to be located on a mid-landing or alternatively external to the fire isolated stairway.	Performance Solution

Clause	Description	Comment	Status
		 Details of the fire hydrant outlet location is required to analyzed through the projects fire engineer to determine whether a performance solution can be sought. Please note FRNSW acceptance of this issue will need to be provided through the FEBQ process before proceeding on this design	
E1.4	**Fire Hose Reels** • Fire hose reels are required to be provided throughout the building. • Fire hose reels are to be installed internally within 4m of an exit or internally adjacent to a fire hydrant. • Intermediate hose reels are permitted to be installed further then 4m from exit to achieve coverage. • Fire hose reels are to be installed accordance with AS2441. • Hoses are not permitted to pass through fire or smoke doors to achieve hose reel cover where coverage is not achieved due to the installation of such door an additional intermediate hose reel is required the be installed.	Details hydraulic plans identifying the locations of all fire hose reels are to be provided to the certifying Authority for review. The hydraulic engineer must ensure that compliant coverage is provided to all areas of the building and must provide design certification to accompany the drawings certifying the design complies with Clause E1.4 of the BCA and AS2441 – 2005. **Hydraulic plans showing details of the fire hose reels for the class 7a portions will be required to be submitted to the Certifying Authority for review upon application of the relevant Construction Certificate** *Note 1: Within the basement carpark consideration needs to be made with the provisions of aisle width requirements against AS2890.1 to ensure fire hose reels are not installed to obstruct vehicular access around the site.*	Additional Details Required
E1.5, Spec E1.5 & Spec E1.5a	**Sprinklers** (It is understood that either a residential Sprinkler System proposed against AS2118.1-2017 or AS2118.4-2012 is to be installed throughout the units) ***Permitted concessions are granted throughout the fire rated constructed elements should confirmation be provided as to the proposed sprinkler system. These concessions are listed under Specification E1.5a***	The building is to be provided with a sprinkler system throughout in accordance with Specification E1.5 due to the development having a rise in storeys of more than 4 and being of class 3	Applicable
		Provisions of a sprinkler system and associated infrastructure are required to be demonstrated within the services drawings in accordance with clauses 1 – 11 & 13 of Specification E1.5 of the BCA	Compliance Readily Achievable
		The designing services engineer is to prepare the sprinkler system design incorporating but not limited to the following items and submit it to the certifying Authority for review:	Additional Details Required

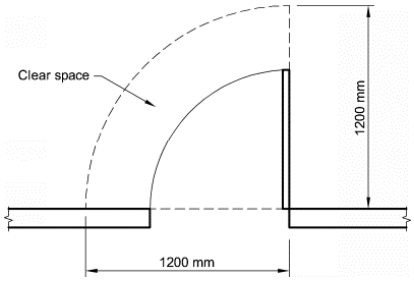
Clause	Description	Comment	Status
		• Layout Schematics, Specifications and design documentation of the pump and valve sets and water tanks; • Layout Schematics, Specifications and design documentation of the sprinkler system layout throughout the building The Hydraulic Engineer is to advise compliance of the system against the requirements of BCA Clause E1.5, BCA Specification E1.5 and Specification E1.5a	
E1.6	**Portable fire extinguishers**	Portable fire extinguishers are required to be provided in accordance with Table E1.6 of the BCA and Sections 1, 2, 3 and 4 of AS 2444.	Compliance Readily Achievable
		Within the Class 3 Unit portion of the proposed site portable fire extinguishers must be installed. The fire extinguishers are to be ABE type extinguishers, a minimum size of 2.5kg and distributed outside sole-occupancy units to serve only the storey at which they are located. The extinguishers are also to be located no greater than 10m from each SOU doorway. **Fire Extinguisher locations are to be nominated within the Architectural or Dry Fire Services drawings and submitted to the certifying authority for further assessment upon application of the relevant construction certificate.**	Additional Details Required
E1.7	-	This Clause has deliberately been left blank	-
E1.8	**Fire control centre**		N/A
E1.9	**Fire Services During Construction** Fire services are required during construction, including fire hydrants and hose reels which must be active and operational after the building reaches a construction stage effective height of 12m. When the building reaches 12m effective height:- • All required hydrants and hose reels must be operational on every storey covered by a roof or floor slab over, except for the two uppermost storeys. • Any required booster connections must be installed.	BCA compliance with respect to fire services during construction can be problematic as hydrants with required pressures and flows and booster connections often cannot be achieved at the required time. A temporary fire protection system, possibly with temporary boosters and no fire pumps, may need to be agreed with the fire brigade. This needs to be put in place early in the construction programme and may require liaison with the builder and his fire services contractor.	Compliance Readily Achievable
E1.10	**Provisions for special hazards**		N/A
Part E2 – Smoke Hazard Management			
E2.1	**Applicable of Part**	Part is not applicable to • open deck car parks • open spectator stands • a Class 8 electricity network substation with a floor area not more than 200m^2 • storerooms, etc. less than 30m^2	Noted

Clause	Description	Comment	Status
		• sanitary compartments • plant rooms or the like	
E2.2	**Smoke Hazard Management –** **<u>Residential Building – Class 3</u>** The following smoke hazard management systems are required for the complex: • Provided with an automatic smoke detection system in accordance with Clause 4 of Specification E2.2a and AS1670.1-2018; • A Building occupant warning system is required to be installed throughout the building in accordance with Clause 7 of Specification E2.2a. The proposed BOWS system is to be provided in accordance with AS1670.1-2018 and provide a sound pressure level of not less than 100dB(A) into the SOU across the closed unit door; and • A fire alarm monitoring system connected to a fire station or fire station dispatch centre in accordance with Clause 8 of Specification E2.2a & AS 1670.3 – 2018 is required to be provided in this instance for the development. • Air-handling systems serving multiple fire compartments and not forming part of a smoke hazard management system should be designed to AS1668.1 or should be fitted with smoke dampers and set to automatically shut down in fire mode. *Note: Each bedroom sole-occupancy unit in the Class 3 SOU is treated as a separate fire compartment for the purposes of this requirement.*	Details demonstrating compliance with the relevant standards such as however not limited to drawings, specifications and design certification are required to be submitted to the Certifying Authority from the relevant services Engineer for approval upon application of the relevant Construction Certificate	Additional Details Required
E2.3	**Provisions of special hazards**		N/A
Part E3 – Lift Installations			
E3.1	**Lift installations** Electric and electrohydraulic lifts must comply with the design requirements of BCA Specification E3.1.	Certification of lift design to be provided	Compliance Readily Achievable
E3.2	**Stretcher facility in lifts**	Buildings greater than 12m in effective height require a lift sized to accommodate a stretcher of 2m x 0.6m x 1.4m high. The lift must serve every level to which lift access is provided. **The project architect is to provide a statement of compliance along with associated drawings demonstrating compliance with the sizing requirements have been provided. These details need to be issued to the certifying authority prior to the issue of the relevant construction certificate**	Additional Details Required
E3.3	**Warning Against Use of Lift in Fire** Warning signage is required at lift doors advising that lifts should not be used in the event of a fire.	The warning sign is to comply with the details and dimensions set out in Figure E3.3 of the BCA.	Compliance Readily Achievable

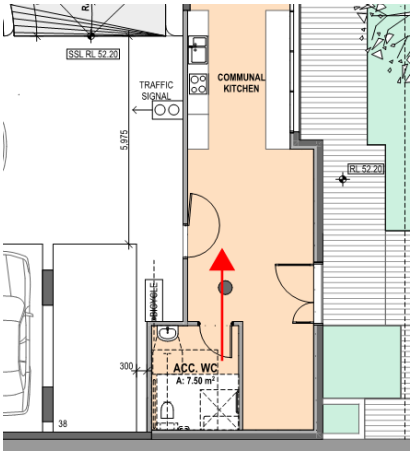
Clause	Description	Comment	Status
		Figure E3.3 WARNING SIGN FOR PASSENGER LIFTS  	
E3.4	**Emergency lifts**		N/A
E3.5	**Landings**		Complies
E3.6	**Passenger lifts**	Every passenger lift must be one of the types identified in Table E3.6a, have accessible features in accordance with Table E3.6b and not reply on a constant pressure device for its operation if the lift car is fully enclosed.	Compliance Readily Achievable
E3.7	**Fire Service Control**	Where lifts serve a storey above 12m in effective height: - • A fire service control switch is required for each lift or lift group; and • A lift car fire service drive control is required for each lift.	Compliance Readily Achievable
E3.8	**Residential care buildings**		N/A
E3.9	**Fire service recall control switch** The fire service control switch must be located at the landing nominated by the appropriate authority and, when activated, must return all lifts to the nominated floor. If a lift car drive control has been activated, it shall override the landing fire service control switch.	Certification of lift design to be provided	Compliance Readily Achievable
E3.10	**Lift car fire service drive control switch** The lift car service drive control must be activated from within the lift car. The switch is to be located between 600mm and 1500mm above the lift car floor and be labelled '**FIRE SERVICE**" in indelible white lettering on red background. The "**OFF**" and "**ON**" positions are to be identified.	Certification of lift design to be provided	Compliance Readily Achievable
Part E4 – Emergency Lighting, Exit and Warning Systems			
E4.1	**-**	This clause has been intentional left blank	-
E4.2	**Emergency lighting requirements** Emergency lighting is to be provided throughout the building.	Emergency lighting is to be provided in: • Every fire-isolated stairway, fire-isolated ramp or fire-isolated passageway; • Every passageway, hallway, corridor or the like, that is part of the path of travel to an exit; • In every room having a floor area more than 100m^2 that does not open to a corridor or space that has emergency lighting or to a road or open space; • In any room having a floor area more than 300m^2; and • In every required non-fire isolated stairway **Design Documentation including electrical specifications, plans and a design certificate**	Additional Details Required

Clause	Description	Comment	Status
		are to be provided to the Certifying Authority amongst the documentation submitted for the relevant Construction Certificate application for further review	
E4.3	**Measurement of distances**		Noted
E4.4	**Design and operation of emergency lighting**	Emergency lighting must comply with to AS2293.1	Compliance Readily Achievable
E4.5	**Exit signs** Exit signs are to be provided in accordance with Clause E4.5 of the BCA.	Exit signs must be clearly visible to a person approaching the exit and must be installed on, above or adjacent to; 1. A door providing direct egress from a storey to a stairway, passageway or ramp serving as a required exit; 2. A door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and 3. A door serving as or forming part of a required exit in a storey required to be provided with emergency lighting. **Design Documentation including electrical plans, specifications and a design certificate are to be provided to the certifying Authority upon application of the relevant Construction Certificate**	Additional Details Required
E4.6	**Direction signs**	Where an exit is not readily apparent then exit signs with directional arrows must be installed in appropriate positions in corridors, hallways, lobbies and the like indicating the direction to a required exit in accordance with Clause E4.6 of the BCA. **Design Documentation including electrical plans, specifications and a design certificate are to be provided to the certifying Authority upon application of the relevant Construction Certificate**	Additional Details Required
E4.7	**Class 2 and 3 buildings and Class 4 parts: Exemptions**	E4.5 does not apply to- • a Class 2 & 3 building in which every door referred to is clearly and legibly labelled on the side remote from the exit or balcony- ○ with the word "EXIT" in capital letters 25mm high in colour contrasting with that of the background: ▪ by some other method; or ▪ an entrance door of a sole-occupancy unit in a Class 3 part of the building.	Applicable
E4.8	**Design and operation of exit signs**	Exit signs are to operate in accordance with AS 2293.1. Photo luminescent exit sign are to comply with Specification E4.8	Compliance Readily Achievable
E4.9	**Emergency warning and intercom systems**		N/A

Clause	Description	Comment	Status
Section F: Health and Amenity			
Part F1 – Damp and Weatherproofing			
F1.0	**Water Proofing of External Walls** Weatherproofing of external wall systems must be in accordance with BCA Verification Method FV1.	A test report on the proposed wall system is to be provided to the certifying Authority for review. The test report must conform that the external wall complies with the provisions of the performance requirement FP1.4.	Additional Details Required
F1.1	**Stormwater Drainage** Stormwater drainage must comply with AS/NZS 3500.3.	Hydraulic drawings and design certification to be provided at Construction Certificate stage.	Compliance Readily Achievable
F1.2	-	This clause has deliberately been left blank	-
F1.3	-	This clause has deliberately been left blank	-
F1.4	**External above ground membranes** External waterproofing membrane systems for roofs, decks, balconies and the like must comply with AS4654 Parts 1 and 2.	The standard membrane detailing for waterproofing including minimum upturn termination lengths, requirements for stepped balcony details at doorways and windows and provision of continuous grates where stepping does not occur.	Compliance Readily Achievable
F1.5	**Roof coverings**	Roof coverings to be comply with the requirements of this clause.	Compliance Readily Achievable
F1.6	**Sarking**	Sarking type materials used for weatherproofing of roofs and walls must comply with AS/NZS 4200 Parts 1 and 2.	Compliance Readily Achievable
F1.7	**Water Proofing of Wet Areas in Buildings**	Water proofing of wet areas within a building to comply with AS 3740.	Compliance Readily Achievable
F1.8	-	This clause has deliberately been left blank	-
F1.9	**Damp-proofing** Moisture from the ground must be prevented from reaching the lowest timber element of the building should there be any and the walls above the lowest floor joists, the walls above the dam proof course and the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. Damp proof course must consist of a material that complies with AS/NZS 2904 or an impervious termite shield in accordance with AS 3660.1.	Details of the method of protection against moisture and other associated termite attack should be documented within the specifications and on the drawings proposed for construction (Termite protection is only applicable to and confirmation should be given for the use of timber products)	Compliance Readily Achievable
F1.10	**Damp-proofing of floors on the ground**	A vapour barrier in accordance with AS2870 is to be provided beneath the basement floor slab.	Compliance Readily Achievable
F1.11	**Provision of Floor Wastes** The floor of each bathroom and laundry in each sole occupancy of the Class 2 and 3 building portions must have a floor waste and the floor graded to the floor waste to permit drainage of water.	Detailed hydraulic Engineers plans are required to be submitted to the Certifying Authority upon application for the Construction Certificate.	Additional Details Required
F1.12	**Subfloor ventilation**		N/A
F1.13	**Glazed assemblies**		Compliance

Clause	Description	Comment	Status
	Windows, sliding doors with a frame, adjustable louvres, shopfronts and window walls with one piece framing in an external wall must comply with AS 2047 requirements for resistance to water penetration.		Readily Achievable
Part F2 – Sanitary and Other Facilities			
F2.1	**Facilities in residential buildings** Sanitary facilities must be provided within each sole-occupancy unit in the Class 3 portions are required by Table F2.1 of the BCA	The following facilities must be provided within each sole-occupancy unit: Class 3 1. A Bath Shower; and 2. Closet pan; and 3. A washbasin; and 4. Allocated space for laundry facilities	Additional Details Required
F2.2	**Calculation of number of occupants and fixtures**		Noted
F2.3	**Facilities in Class 3 to 9 buildings**		Complies
F2.4	**Facilities for Persons with Disabilities**	Facilities should be constructed to AS1428.1 – 2009. All accessible room within the building are required to be provided with means of an accessible facility and reviewed by the projects access consultant.	Additional Details Required
F2.5	**Construction of sanitary compartments** Where clear space between closet pan and doorway is less than 1.2m, doors must open outwards, slide or be readily removable from outside.	All hinged doors that swing inward to sanitary facilities and do not comply with achieving a 1200mm clearance to pan are required to be installed with lift-off hinges  Details of the type of doors and hinge sets need to be provided to the certifying Authority for review prior to the issue of the main works Construction approval.	Compliance Readily Achievable
F2.6	**Interpretation: Urinals and washbasins**	Each 600mm length of a continuous urinal trough is counted as 1 urinal.	Noted
F2.7	*(NSW variation – Deleted)*	-	-
F2.8	**Waste management**		N/A
F2.9	**Accessible adult change facilities**		N/A

Clause	Description	Comment	Status
Part F3 – Room Heights			
F3.1	**Height of rooms and other spaces** The following ceiling heights apply- **Class 3 portion:** • Kitchen, laundry or the like – 2.1m • Corridor, passageway or the like – 2.1m • Habitable room excluding a kitchen – 2.4m • Bathroom, sanitary compartment, car parking area store room or the like – 2.1m • Above a stairway, landing or the like – 2m measured vertically above nosing of stairway treads or floor surface of landing. **Class 7a:** • Corridor, passageway or the like – 2.1m • General habitable areas – 2.4m • Basement carpark – 2.1m ***(Note requirements under AS/NZS2890.6 – 2006 requires 2.2m leading to accessible car spaces and 2.5m above the actual accessible car spaces.*** • Bathroom, sanitary compartment, car parking area store room or the like – 2.1m • A commercial kitchen – 2.4m; and • Above a stairway, landing or the like – 2m measured vertically above nosing of stairway treads or floor surface of landing.	The project Architect is to provide detailed sections to the certifying Authority for an assessment upon application of the relevant Construction Certificate stage to verify compliance.	Additional Details Required
Part F4 – Light and Ventilation			
F4.1	**Provisions of natural Light** Natural lighting aggregating 10% of room floor area is required as follows:- • To all habitable rooms in residential buildings	Natural light is required to be provided to all habitable areas within the Class 3 Sole Occupancy Unit portion	Applicable
F4.2	**Methods and extent of natural lighting**	All habitable / bedrooms must be provided with natural lighting via windows which have an aggregate transmitting area not less than 10% of the floor area of the room. **Architect must demonstrate compliance via detailed window / door schedule identifying size of room and proposed aggregate area for transmitting light.**	Additional Details Required
F4.3	**Natural Light borrowed from adjoining room**		N/A
F4.4	**Artificial lighting** The artificial lighting system must comply with AS/NZS 1680.0.		Compliance Readily Achievable
F4.5	**Ventilation of rooms** Ventilation shall be provided throughout the building in by means of natural ventilation complying with Clause F4.6 or mechanical ventilation complying with the requirements of AS1668.2 as required by Clause F4.5 of the BCA.	Mechanical details including drawings, specification and a design certificate are required to be provided to the Certifying Authority from the projects Mechanical Engineer	Additional Details Required
F4.6	**Natural ventilation**		Applicable

Clause	Description	Comment	Status
F4.7	**Ventilation borrowed from adjoining room**		N/A
F4.8	**Restriction on location of sanitary compartments**	The accessible facility currently located within the confines of the level 1 communal kitchen facility opens directly into a premises which will under use be occupied by more than 1 person.  A design which documents a means of separation as listed under BCA Clause F4.9 is required to be implemented on amended drawings issued to the certifying authority for review.	Does Not Comply
F4.9	**Airlocks**	If a sanitary compartment opens directly into a space, which is occupied by more than one person one of the following is required to be installed / implemented: 3. Implementation of an airlock, hallway or other room with a floor area of not less than 1.1m^2 and fitted with self-closing doors; or 4. The sanitary compartment must be provided with mechanical exhaust ventilation and the doorway serving the room adequately screened from view	Noted
F4.10	-	This clause has intentionally been left blank	-
F4.11	**Carparks** Basement carparks must be provided with a system of mechanical ventilation complying with AS 1668.2	Design documentation such as drawings, specifications and certification prepared by a qualified mechanical engineer are to be provided *Note – Should the use of Jet fans be proposed the Fire Safety Engineer is to assess the non-compliance and address via means of an alternative solution*	Additional Details Required
F4.12	**Kitchen Local Exhaust Ventilation**	If applicable mechanical drawings and specifications are to be submitted to the Certifying Authority from a Mechanical Engineer if exhaust provisions are to be installed. Adequate provisions need to be made for the future use of these tenancies and a system adopted to cater for the largest capacity of output for the use.	Additional Details Required

Clause	Description	Comment	Status
	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS/NZS 1668.1 and AS 1668.2, where: • any cooking apparatus has a total maximum electrical power input exceeding 8kW, or • a total gas power input exceeding 29 MJ/h, or • the total maximum power input to more than one apparatus exceeds 0.5kW electrical power or 1.8 MJ gas per metre square of the room or enclosure.		
Part F5 – Sound Transmission and Insulation			
F5.1	**Application of Part** Applicable only to the Class 3 portions located throughout the development	A detailed assessment will need to be undertaken by a qualified acoustic consultant at the Construction Certificate stage to verify compliance. A copy of an acoustic report that also demonstrates specifications and compliance of the proposed wall types systems are required to be provided to the certifying authority for review.	Additional Details Required
F5.1	**Determination of airborne sound insulation ratings** Construction required to have an airborne sound insulation rating must have the value for weighted sound reduction index (R_w) or weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) determined in accordance with AS/NZS1276.1 or ISO717.1 using result from laboratory measurements, or comply with Specification F5.2 of the BCA.		Additional Details Required
F5.3	**Determination of impact sound insulation ratings** A floor required to have an impact sound insulation rating must have the required value for weighted normalised impact sound pressure level with spectrum adaptation term ($L_{n,w}+C_I$) determined in accordance with AS/ISO 717.2 using results from laboratory measurements or comply with Specification F5.2 of the BCA. Walls that are required to have an impact sound insulation rating must be of discontinuous construction.		Additional Details Required
F5.4	**Sound insulation rating of floors** Floors separating sole occupancy units or separating sole occupancy units from a plant room, lift shaft, public corridor, public lobby or the like or parts of different classifications must have an $R_w + C_{tr}$ of not less than 50 and an $L_{n,w} + C_I$ of not more than 62.		Additional Details Required
F5.5	**Sound insulation rating of walls** Walls must have an $R_w + C_{tr}$ of not less than 50 if it separates sole occupancy units and an R_w of 50 if it separates a sole occupancy unit from a plant room, lift shaft, public corridor, public lobby or the like or parts of different classifications. Compliance with F5.3(b) is required if the wall separates a bathroom, sanitary compartment,		Additional Details Required

Clause	Description	Comment	Status
	laundry or kitchen in one sole occupancy unit from a habitable room (excluding a kitchen) in another adjoining unit or a sole occupancy unit from a plant room or lift shaft. Doors incorporated the walls that separate sole-occupancy units from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30. Where a wall required to have sound insulation has a floor above, the wall must continue to the underside of the floor above or a ceiling that provides the sound insulation required for the wall. Where a wall required to have sound insulation has a roof above, the wall must continue to the underside of the roof above or a ceiling that provides the sound insulation required for the wall.		
F5.6	**Sound insulation rating of internal services** Services passing through more than one sole-occupancy unit must be separated from the rooms by construction with an $R_w + C_{tr}$ (airborne) not less than: a) 40 if the adjacent room is a habitable room (other than a kitchen); or b) 25 if the adjacent room is a kitchen or non-habitable room. Note if a stormwater pipe passes through a sole – occupancy unit it must be separated in accordance with (a) and (b).		Additional Details Required
F5.7	**Sound isolation pumps** A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.		Additional Details Required
Part F6 – Condensation management			**N/A**
Section G: Ancillary Provisions			
Part G1- Minor Structures and components			
G1.1	**Swimming pools**		N/A
G1.2	**Refrigerated chambers, strong rooms and vaults**		N/A
G1.3	**Outdoor play spaces**		N/A
NSW G1.101	**Provision for cleaning windows** A safe manner of cleaning windows is to be provided as windows are located 3 or more storeys above ground level.	The windows must either be able to be cleaned wholly from within the building, or a method complying with the Construction Safety Act 1912 and Regulations is required.	Compliance Readily Achievable

Clause	Description	Comment	Status
Part G2 - Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues			**N/A**
Part G3 - Atrium Construction			**N/A**
Part G4 - Construction in Alpine Areas			**N/A**
Part G5 - Construction in Bushfire Prone Areas			**N/A**
Part G6 – Occupiable outdoor areas			
G6.1	**Application of Part** Applies to occupiable outdoor areas in addition to other deemed-to-satisfy provisions of the BCA. Part G6 takes precedent where there is a difference to the deemed-to-satisfy provisions of Sections C, D, E, F & G. Except for clause G6.2, Part G6 does not apply to occupiable outdoor areas of individual resident rooms or outdoor occupiable areas less than $10m^2$.		Compliance Readily Achievable
G6.2	**Fire hazard properties** A lining, material or assembly in an occupiable outdoor area must comply with C1.10 as for an internal element. The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C1.10: (i) Average specific extinction area. (ii) Smoke-Developed Index. (iii) Smoke development rate. (iv) Smoke growth rate index ($SMOGRA_{RC}$)	Proposed materials used in outdoor occupiable areas are subject to C1.10 requirements as this clause.	Compliance Readily Achievable
G6.3	**Fire separation** For the purposes of the Deemed-to-Satisfy Provisions of C2.7, C2.8 and C2.9, a reference to a storey includes an occupiable outdoor area, however a fire wall cannot be used to separate an occupiable outdoor area into different fire compartments.		Compliance Readily Achievable
G6.4	**Provision for escape** For the purposes of the Deemed-to-Satisfy Provisions of Part D1, a reference to a storey or room includes an occupiable outdoor area.	Egress requirements under Part D1 apply to occupiable outdoor areas.	Compliance Readily Achievable
G6.5	**Construction of exits** For the purposes of the Deemed-to-Satisfy Provisions of Part D2, a reference to a storey or room includes an occupiable outdoor area.	Construction of exits requirements under Part D2 apply to occupiable outdoor areas.	Compliance Readily Achievable
G6.6	**Fire fighting equipment** Except for Clause 7(b)(i) of Specification E1.5, for the purposes of the Deemed-to-Satisfy Provisions of Part E1, a reference to a storey includes an occupiable outdoor area.	Fire fighting equipment required under Part E1 to be designed to include occupiable outdoor areas.	Compliance Readily Achievable
G6.7	**Lift installations** For the purposes of the Deemed-to-Satisfy Provisions of Part E3, a reference to a storey includes	Lift designs required under Part E3 to be designed to include occupiable outdoor areas.	Compliance Readily Achievable

Clause	Description	Comment	Status
	an occupiable outdoor area.		
G6.8	**Visibility in an emergency, exit signs and warning systems** For the purposes of the Deemed-to-Satisfy Provisions of Part E4, a reference to a storey includes an occupiable outdoor area.	Emergency lighting, exits signs and emergency warning and intercom systems to be designed to include occupiable outdoor areas.	Compliance Readily Achievable
G6.9	**Light and ventilation** For the purposes of the Deemed-to-Satisfy Provisions of F4.4, F4.8 and F4.9, a reference to a room includes an occupiable outdoor area.		Compliance Readily Achievable
G6.10	**Fire orders**		N/A
Section H: Special Use Buildings – Auditoriums, Public Halls, Public Transport Buildings			**N/A**
Part H1 - Class 9b Buildings			**N/A**
Part H2 - Public Transport Buildings			**N/A**
Part H3 - Farm Building and Farm Sheds			**N/A**
NSW Section J: Energy Efficiency Energy Efficiency for buildings requires buildings to reduce greenhouse gas emissions by efficiently using energy. A building's services must have features that facilitate the efficient use of energy. The discipline of Energy Efficiency with the BCA has become a specialised field where compliance with BCA Section J is to be certified with the issue of a Certificate of Compliance – Design from the relevant Services Engineer/Consultant. The purpose of this section is to provide a brief explanation of which areas are to achieve compliance with BCA Section J – Energy Efficiency during design and construction. The BCA should be referenced for exact requirements, clarification and further explanation.			
Section J	**Energy efficiency measures** Energy efficiency measures are prescribed for the following building elements to limit energy consumption:- • Building fabric • External glazing • Building sealing • Air movement. • Air-conditioning and ventilation systems. • Artificial lighting and power • Hot water supply • Access for maintenance	Compliance assumed, although further information is required to confirm compliance. A performance-based BCA JV3 assessment may be adopted for the project if compliance with BCA deemed to satisfy provisions are problematic.	Compliance Readily Achievable
NSW Subsection J(A) & NSW J(B) Energy Efficiency - Class 2 - 9 Buildings			
Note: Assessment by energy efficiency consultant to be carried out on the design and a report provided with the documentation for Construction Certificate. **An inspection and completion report will be report will be required on completion.**			

15. Appendix A – Referenced Documentation

The following documentation was used in the preparation of this report:

Drawing No.	Title	Issue	Date	Drawn By
A01.00	Level 0 Plan	P5	11/11/2020	Mostaghim Architects
A01.01	Level 1 Plan	P5	11/11/2020	Mostaghim Architects
A01.02	Level 2 Plan	P5	11/11/2020	Mostaghim Architects
A01.03	Level 3 Plan	P5	11/11/2020	Mostaghim Architects
A01.04	Level 4 Plan	P5	11/11/2020	Mostaghim Architects
A01.05	Level 5 Plan	P5	11/11/2020	Mostaghim Architects
A01.06	Roof Plan	P3	06/11/2020	Mostaghim Architects
A02.01	Typical Unit Layout Plan	P2	11/11/2020	Mostaghim Architects
A03.01	Elevation North + South	P2	06/11/2020	Mostaghim Architects
A03.02	Elevations East + West	P1	03/11/2020	Mostaghim Architects
A04.01	Section AA + Section BB	P2	06/11/2020	Mostaghim Architects
A04.02	Section CC + Section DD	P1	03/11/2020	Mostaghim Architects
A08.03	Gross Floor Area Calculations	P1	03/11/2020	Mostaghim Architects

16. Appendix B – Statutory Fire Safety Measures

Schedule of Statutory Fire Safety Measures

Measure	Standard of Performance
Access Panels, Doors And Hoppers To Fire Resisting Shafts	BCA 2019 Amendment 1 Clause C3.13 and tested prototypes (AS 1530.4 – 2014)
Automatic Fail Safe Devices	Scheduled devices release upon trip of smoke detection, fire detection and sprinkler activation in accordance with BCA 2019 Amendment 1 Clause D2.21.
Automatic Fire Detection And Alarm System *(Smoke Detection System)*	BCA 2019 Amendment 1 Clause 4 of Specification E2.2a and AS 1670.1 – 2018
Automatic Fire Detection And Alarm System *(Smoke Alarm System)*	BCA 2019 Amendment 1 Clause 3 of Specification E2.2a and AS 3786 – 2014
Automatic Fire Suppression Systems *(Sprinklers)*	BCA 2019 Amendment 1 Specification E1.5 and AS 2118.1 – 2017
Automatic Fire Suppression Systems *(Residential Sprinkler System)*	BCA 2019 Amendment 1 Specification E1.5 and AS2118.4 – 2012 or FPAA101D – 2018 or FPAA101H – 2018
Building Occupant Warning System	BCA 2019 Amendment 1 Clause 7 of Specification E2.2a and AS 1670.1 – 2018
Emergency Lighting	BCA 2019 Amendment 1 Clause E4.2, E4.4 and AS/NZS 2293.1 – 2018
Exit Signs	BCA 2019 Amendment 1 Clause E4.5, NSW E4.6, E4.7, E4.8 and AS/NZS 2293.1 – 2018
Fire Alarm Monitoring System	BCA 2019 Amendment 1 Clause 8 of Specification E2.2a and AS 1670.3 – 2018
Fire Dampers	BCA 2019 Amendment 1 Clause C3.15 and AS 1668.1 – 2015 (AS 1682.1 – 2015 and AS 1682.2 – 2015)
Fire Doors	BCA 2019 Amendment 1 Specification C3.4 and AS/NZS 1905.1 – 2015
Fire Hydrants Systems	BCA 2019 Amendment 1 Clause E1.3 and AS 2419.1 – 2005
Fire Seals Protecting Opening In Fire Resisting Components Of The Building	BCA 2019 Amendment 1 Clause C3.15, Specification C3.15, AS 1530.4 – 2014, AS 4072.1 – 2005 and installed in accordance with the tested prototype.
Hose Reel System	BCA 2019 Amendment 1 Clause E1.4 and AS 2441 – 2005
Lightweight Construction	BCA 2019 Amendment 1 Specifications C1.8, Clause A2.3 and AS 1530.4 – 2014
Mechanical Air Handling System *(Carpark Mechanical Ventilation System)*	BCA 2019 Amendment 1 Table E2.2a, Clause 5.5 of AS/NZ 1668.1 – 2015 and fans with metal blades suitable for operation at normal temperature may be used and the electrical power and control cabling need not be fire rated

Measure	Standard of Performance
Portable Fire Extinguishers	BCA 2019 Amendment 1 Clause E1.6 and AS 2444 – 2001
Warning And Operational Signs	BCA 2019 Amendment 1 Clauses D2.23, D3.6, Specification D3.6, E3.3, E3.9 & E3.10

Note the fire safety schedule will need to be amended subject to the inclusion of a fire engineered performance solution.

17. Appendix C1.1 – Fire Rating Requirements

Type A Construction: FRL of Building Elements				
Building element	**Class of building - FRL:** (in minutes) *Structural adequacy/Integrity/Insulation*			
	2, 3 or 4 part	5, 9 or 7a	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated within it) or other external building element, where the distance from any fire-source feature to which it is exposed is-				
For loadbearing parts-				
less than 1.5m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/60	120/ 90/ 90	180/180/120	240/240/180
3 or more	90/60/30	120/ 60/ 30	180/120/90	240/180/ 90
For non-loadbearing parts-				
less than 1.5 m	-/90/90	- /120/120	- /180/180	- /240/240
1.5 to less than 3 m	-/60/60	- / 90/ 90	- /180/120	- /240/180
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
EXTERNAL COLUMN not incorporated in an external wall-				
For loadbearing columns	90/ - / -	120/ - / -	180/ - / -	240/ - / -
For non-loadbearing columns	- / - / -	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS	90/90/90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS-				
Fire-resisting lift and stair shafts-				
Loadbearing	90/90/90	120/120/120	180/120/120	240/120/120
Non-loadbearing	- /90/90	- /120/120	- /120/120	- /120/120
Bounding public corridors, public lobbies and the like-				
Loadbearing	90/90/90	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
Between or bounding sole-occupancy units-				
Loadbearing	90/90/90	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- /60/60	- / - / -	- / - / -	- / - / -
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of Combustion-				
Loadbearing	90/90/90	120/ 90/ 90	180/120/120	240/120/120
Non-loadbearing	- /90/90	- / 90/ 90	- /120/120	- /120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES and COLUMNS	90/ - / -	120/ - / -	180/ - / -	240/ - / -
FLOORS	90/90/90	120/120/120	180/180/180	240/240/240
ROOFS	90/60/30	120/ 60/ 30	180/60/30	240/ 90/ 60

18. Appendix C1.10 – Early Fire Hazard Properties for Materials

Floor materials, floor coverings and wall and ceiling lining materials are required to comply with BCA prescribed fire hazard properties and AS5637.1-2015

Floor Linings and Floor Coverings	
General Non Sprinklered Areas	Minimum 2.2 (or 4.5 for Class 3 areas and 9a patient care areas) kw/m^2 critical radiant heat flux and, a maximum smoke development rate of 750 percent minutes.
General Sprinklered Areas	Minimum 1.2(or 2.2 for Class 3, 9a patient care, and 9c residential use areas) kw/m^2 critical radiant heat flux
Fire Isolated Exits and Fire Control Rooms	Minimum 2.2/(or 4.5 for Class 3, 9a and 9c areas) kw/m^2 critical radiant heat flux
Lift Cars	Minimum 2.2 kw/m^2 critical radiant heat flux

Wall Linings and Ceiling Linings	
Generally	Variously Group 1,2, or 3 materials (more restrictive Group number for non-sprinklered areas, public corridors, health care corridors and other prescribed locations) when tested to AS/ISO 9705 or clause 3 of BCA Spec A2.4 and AS/NZ 3837
Fire Isolated Exits	Group 1 material when tested as above
Lift Cars	Group 1 or 2 materials when tested as above

In addition, in non-sprinklered areas, wall and ceiling linings must have a smoke growth rate index not more than 100 or an average specific extinction area less than 250m^2/g.

Other than above, construction materials generally need to achieve as1530.3 early fire hazard indices requirements as follows:	
Generally	Spread of flame Index not > 9 Smoke developed index not > 8
Sarking	Flammability Index not > 5
Fire Isolated Exits and Fire Control Rooms	Spread of Flame Index 0 Smoke Developed Index not > 2 Sarking Flammability 0
Non Fire Isolated Stairs & Escalators and Auditorium Fixed Seating	Spread of Flame Index 0 Smoke Developed Index not > 5
Lifts	To AS 1735.2
Air Ducts	To AS4254

19. Appendix D2.24 – Protection of Openable Windows

Building Use	Openable Windows		
	<2m above surface beneath	>2m above surface beneath	>4m above surface beneath
Bedrooms	No restrictions	Window located below 1.7m above bedroom floor:- • Must be protected by device to restrict window opening **OR** screen with secure fittings; AND • No opening greater than 125mm; AND • Device and screen must resist outward horizontal action of 250N; AND • Have child resistant release if device or screen is able to be removed, unlocked or overridden; AND • If device or screen is able to be removed, unlocked or overridden minimum 865mm barrier required to protect window. Note: No 865mm barrier required if device or screen is permanent and cannot be removed, unlocked or overridden Window located min. 1.7m above bedroom floor • No restrictions	Comments as per >2m above surface beneath
Other rooms (i.e. lounge, dining room etc)	No restrictions	No restrictions	Barrier required • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor
All other buildings	No restrictions	No restrictions	Barrier required • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor

20. Appendix D3 – Significant Accessibility Requirements

Access for wheelchair users and people with disabilities generally must be to AS1428.1-2009.
Principle requirements are:

- Continuous accessible paths of travel throughout
- Minimum 1m wide travel paths with maximum 3-5mm joints, lips, level changes etc.
- No deep pile carpets or grates with large slots.
- Walls or 75-150mm kerbs at travel path sides or if level change occurs to cause a wheelchair hazard.
- 1.8m wide x 2m long wheelchair passing spaces at 20m intervals in passageways where a direct line of sight is not available.
- Turning spaces at 20m intervals and within 2m of dead end access ways. 1.5m x 1.5m 90 deg turning spaces (with splayed internal corner) and 1.54m x 2.07m long 180 deg turning spaces are required including at dead ends in passageways.
- Step ramps, kerb ramps and threshold ramps as prescribed.
- 1:14 maximum ramps with 9m between landings.
- 1.9m x 1 in 10 (maximum 190mm rise) step ramps
- 1.52m x 1 in 8 (maximum 190mm rise) kerb ramps.
- 30-50mm handrails with 300mm extensions and curls and 50mm clearances on both sides of steps, ramps, etc.
- 850mm clear width doors with 340 - 900mm latch side clearances and 1220-1670mm approach clearances depending on arrangements.
- Stairs and ramps set back from building lines and corridors to allow space for handrail extensions and TGSIs.
- Decals to glazing.
- 900-1100mm door hardware height.
- Lever handle hardware with low opening forces.
- Landings at doorways, direction changes and at intervals on ramps and inclined walkways.
- Walkways with colour contrast borders.
- Flat even surfaces.
- Colour contrasted hand rails and door frames.
- "D" pull handles to doors.
- Continuous protected paths from disabled persons' car spaces to lifts, access points, etc.
- Ambulant disabled persons' toilets with grab rails and outward swinging doors or longer cubicles.
- Prescribed types of water entry arrangements for swimming pools depending on pool size.
- Non fire enclosed stairs with opaque risers.
- Fire stairs and non-fire enclosed stairs with colour contrasting nosing strips.
- All switches and controls 900-1100mm above floor level.

The following general requirements apply to accessible toilets:

- Unisex facility.
- ~1.9 x 2.7m or 2.3 x 2.4m minimum room dimensions depending on arrangements. (~2.2m x 1.6m if AS1428.1-2001 concession applies).
- 30-40mm grab rails with 50-60mm clearances.
- Doors with appropriate clearances and circulation spaces and able to be operated externally in emergencies
- Washbasins with clearances as required.
- Shielded hot water pipes.
- Mirror, shelf, dispensers and coat hooks.
- Mirrored layout for alternative facilities

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