Date: 20 November 2021
Our Ref: P210172

G Brothers
3 Perak Ave,
Mona Vale NSW 2103
Att Mr Mark Guberina

Dear Mark,

RE: Unit 2, 51 - 55 Bassett Ave, Mona Vale
BCA COMPLIANCE ASSESSMENT

Please find enclosed our BCA Design Compliance Report prepared in respect of the proposed change of use at the above listed property.

In reviewing the content of this Report, particular attention is drawn to the content of Parts 3 and 4 as: –

- Part 3 summarizes the compliance status of the proposed design in terms of each prescriptive provision of the BCA.
  The inclusion of this summary enables an immediate understanding of the compliance status of the proposed design to be obtained.
- Part 4 contains a detailed analysis of the proposed design, and provides informative commentary & recommendation in respect of each instance of prescriptive non-compliance and area of insufficient (design) detail, as applicable.

  This commentary enables the project team to readily identify and understand the nature and extent of information required within the Building Permit (or other) application to demonstrate the attainment of BCA compliance.

Should you require any further information, please do not hesitate to contact me on the number provided.

Yours faithfully

Kieran Tobin
Director

BUILDING CODE OF AUSTRALIA ASSESSMENT

PREPARED FOR

G BROTHERS

REGARDING

Unit 2, 51 - 55 Bassett Ave, Mona Vale

Prepared By

BCA vision

REPORT REGISTER

The following report register documents the development and issue of this report and project as undertaken by this office, in accordance with the *Quality Assurance* policy of BCA Vision Pty Ltd.

Our Reference	Issue No.	Remarks	Issue Date
P210172	1	Design Compliance Assessment	20 November 2021

CONTENTS PAGE

1.0 INTRODUCTION

1.1 GENERAL

This "BCA Compliance Assessment" report has been prepared at the request of G Brothers and relates to Unit 2, 51-55 Basset Street Mona Vale.

The site contains an industrial complex with a Rise in Storeys of three.
The subject unit is a ground floor tenancy previously occupied as a Gymnasium.

The project proposal is for change of use from a gymnasium to a smash repair centre within tenancy 2.
The purpose of this report is to identify how the change of use will affect BCA compliance within the tenancy and where required make recommendations on how to improve compliance.

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

1.2 REPORT BASIS

The content of this report reflects –

(a) The principles and provisions of BCA 2019 amendment 1 Parts C, D & E;
(b) A Site Inspection of the subject premises on Tuesday the 2nd of November 2021;
(c) Architectural Plans A01 – A15 prepared by Efficio Projects and dated October 2021
(d) Mechanical plan mark up prepared by LAM Consulting Engineers

1.3 EXCLUSIONS

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

(a) Structural and services design documentation;
(b) General building services (i.e. passenger lifts);
(c) The individual requirements of service providers (i.e. Telstra, Water Supply, Energy Australia);
(d) The individual requirements of the Workcover Authority;
(e) Disability Discrimination Act (DDA)

1.4 REPORT PURPOSE

The purpose of this report is to identify the extent to which the architectural design documentation complies with the relevant prescriptive provisions of the BCA 2019 amendment 1, Parts C, D & E.
Assessment of the proposed design considers each prescriptive BCA provision, and identifies such as either: –

(a) Being complied with; or
(b) Not being complied with; or

(c) Requiring the provision further detail with the future Building Permit or other application or
(d) Not being relevant to the particular building works proposal.

The status of the design, in terms of these four (4) categories, is summarised within Part 3 of this report.
Where prescriptive non-compliance is identified, suitable recommendations to remedy the non-compliance shall be detailed in Part 4.

In instances where insufficient detail exists, summary of the information required from the project team for inclusion within future applications (i.e. Building Permit) shall also be outlined in Part 4.

2.0 BUILDING DESCRIPTION

2.1 GENERAL

In the context of the Building Code of Australia (BCA), the subject development is described within items 2.2 – 2.6 below.

2.2 RISE IN STOREYS (CLAUSE C1.2)

The building is proposed to have a rise in storeys of three (3)

2.3 BUILDING CLASSIFICATION (CLAUSE A3.2)

The entire building incorporates the following classifications:-

CLASS	DESCRIPTION
Class 5	A Class 5 building is an office building used for professional or commercial purposes
Class 7a	A Car Park
Class 7b	A building that is used for storage, or display of goods or produce for sale by wholesale.
Class 8	A Class 8 building is a process-type building that includes the following: (1)A laboratory. (2)A building in which the production, assembling, altering, repairing, packing, finishing, or cleaning of goods or produce for sale takes place.

The subject tenancy incorporates the following classifications:-

CLASS	DESCRIPTION
Class 5	A Class 5 building is an office building used for professional or commercial purposes
Class 8	A Class 8 building is a process-type building that includes the following: (1)A laboratory. (2)A building in which the production, assembling, altering, repairing, packing, finishing, or cleaning of goods or produce for sale takes place.

2.4 EFFECTIVE HEIGHT (CLAUSE A1.1)

The building has an effective height Not exceeding 12m.

2.5 TYPE OF CONSTRUCTION (TABLE C1.1)

Note:- The floor are of the building appears to exceed the maximum 3,500m2 as designated by Clause C2.2 and Table C2.2.
Fire separation within the building to achieve separate Fire compartmentation between tenancies would be difficult as the separating walls between tenancies are

generally penetrated by the Portal Frame construction, rendering them not compliant with the Separating wall requirements of Clause C2.7
In this regard the building can either

a) Fire separate between tenancies in accordance with Clause C2.7, C2.8 and C2.9 – In our opinion this would be difficult to achieve without considerable structural change to the building.
b) Seek to achieve compliance with Clause C2.3 and C3.4 – large Isolated Buildings – In our opinion this is not an option due to the absence of a Fire services ring road and a Sprinkler system throughout the building.
c) Treat the building as Type A construction
   Queries/non compliances that are presented by this approach are as follows:-
   Structural Engineering advice will be required to determine if the external wall systems can achieve the higher FRL requirements for Type A construction
   The subject tenancy has lightweight sections separating levels within the tenancy and in this regard the floors do not achieve the FRLs required by Table 3.

Table 3 TYPE C CONSTRUCTION: FRL OF BUILDING ELEMENTS

External walls, common walls flooring and floor framing of lift pits must be non-combustible.
Any internal wall having an FRL must extend to –
(i) the underside of the floor above; or
(ii) the underside of a complying roof; or
(iii) if the roof is not required to comply, the underside of the non-combustible roof covering and must not be crossed by combustible building elements (except 75 x 50 mm roof battens); or
(iv) a ceiling immediately below the roof having a resistance to the incipient spread of fire to the roof space of not less than 60 minutes.
A loadbearing internal wall and fire wall (including part of a loadbearing shaft) must be of concrete or masonry.
Non-loadbearing fire-resisting internal walls, fire and non-fire rated lift, ventilating, pipe, garbage, or similar shaft not for the discharge of hot products of combustion, must be of non-combustible construction.
External column FRL's apply to any internal columns that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature.
Attachments not to impair fire-resistance
(a) A combustible material may be used as a finish or lining to a wall or roof, or in a sign, sunscreen or blind, awning, or other attachment to a building element which has the required FRL if—
(i) the material is exempted under C1.10 or complies with the fire hazard properties prescribed in Specification C1.10; and
(ii) it is not located near or directly above a required exit so as to make the exit unusable in a fire; and
(iii) it does not otherwise constitute an undue risk of fire spread via the facade of the building.
(b) The attachment of a facing or finish, or the installation of ducting or any other service, to a part of a building required to have an FRL must not impair the required FRL of that part.

Table 3 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, 7a or 9**	**6**	**7b or 8**
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any *fire-source feature* to which it is exposed is—				
For *loadbearing* parts—				
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120	240/240/180
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90	240/180/ 90
For non- *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

2.6 General Floor Area Limitations (Table C2.2)

Type B Construction: –

Table C2.2 – Maximum size of Fire Compartments				
Building Class		Type A	**Type B**	Type C
6, 7, 8, 9a	Max Floor area Max Volume	5000 m^2 30,000 m^3	**3500 m^2** **21,000 m^3**	2000 m^2 12,000 m^3

2.7 ACCESS TO PREMISES STANDARD

1.1 Name of Standards
These Standards are the Disability (Access to Premises — Buildings) Standards 2010.
1.2 Commencement
These Standards commenced on 1 May 2011.
1.3 Objects
The objects of these Standards are:
(a) to ensure that dignified, equitable, cost-effective and reasonably achievable access to buildings, and facilities and services within buildings, is provided for people with a disability; and

(b) to give certainty to building certifiers, building developers and building managers that, if access to buildings is provided in accordance with these Standards, the provision of that access, to the extent covered by these Standards, will not be unlawful under the Act.

Excerpt from Disability (Access to Premises Buildings) Standards 2010
Clause (4) A part of a building is a ***new part*** of the building if it is an extension to the building or a modified part of the building about which:
(a) an application for approval for the building work is submitted, on or after 1 May 2011, to the competent authority in the State or Territory where the building is located; or
(b) all of the following apply:
(i) the building work is carried out for or on behalf of the Crown;
(ii) the building work commences on or after 1 May 2011;
(iii) no application for approval for the building work is submitted, before 1 May 2011, to the competent authority in the State or
Territory where the building is located.
(5) An affected part is:
(a) the principal pedestrian entrance of an existing building that contains a new part; and
(b) any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.

Subsection 2.1(5) - Affected part
The Premises Standards introduce a new concept referred to as the 'affected part' of an existing building. The introduction of this defined area reflects the desire to improve general accessibility of existing buildings over time where full upgrades of a building are not taking place.
The requirement for upgrading of the 'affected part' of buildings recognises that there is little value in improving access in new parts of existing buildings if people with disability cannot get to those new parts.
Subsection 2.1(5) defines the term 'affected part' of a building.
Affected part means the path of travel between (and including) the principal pedestrian entrance of an existing building to the 'new part' or modified part of the building. This path of travel must provide a continuous accessible path of travel (see 'Accessway' as defined in A1.1 of the Access Code) from the principal pedestrian entrance to the new part or modified part of the building.

Note on extent of 'affected part'
The definition of 'affected part' of a building is limited to the area between (and including) the principal pedestrian entrance and the new work, but does not extend from the entrance to the allotment boundary or any required carparking spaces. It also does not extend to any toilet facilities or other rooms adjacent to the pathway between the principal pedestrian entrance and the area of the new work.

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accessway means a continuous *accessible* path of travel (as defined in AS 1428.1) to, into or within a building.

2.7 FIRE SAFETY UPGRADES TO EXISTING BUILDINGS (EP & A REGS)

Subject to the following maximum fire compartment floor area and volume limits for Construction: –

93 FIRE SAFETY AND OTHER CONSIDERATIONS

Sub clause	**Requirement**	**Comment/Advice**
1	This clause applies to a development application for a change of building use for an existing building where the applicant does not seek the rebuilding, alteration, enlargement or extension of a building.	There is a change of use within the premises
2	In determining the development application, the consent authority is to take into consideration whether the fire protection and structural capacity of the building will be appropriate to the building's proposed use.	For Reference
3	Consent to the change of building use sought by a development application to which this clause applies must not be granted unless the consent authority is satisfied that the building complies (or will, when completed, comply) with such of the Category 1 fire safety provisions as are applicable to the building's proposed use. **Note:** The obligation to comply with the Category 1 fire safety provisions may require building work to be carried out even though none is proposed or required in relation to the relevant development consent.	For Reference

94 CONSENT AUTHORITY MAY REQUIRE BUILDINGS TO BE UPGRADED

Sub clause	**Requirement**	**Comment/Advice**
1	This clause applies to a development application for development involving the rebuilding, alteration, enlargement or extension of an existing building where: (a) the proposed building work, together with any other building work completed or authorised within the previous 3 years, represents more than half the total volume of the building, as it was before any such work was commenced, measured over its roof and external walls, or does not apply (b) the measures contained in the building are inadequate: (i) to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or	The proposed works represent less than 50% of the building floor area

	(ii) to restrict the spread of fire from the building to other buildings nearby.	
2	In determining a development application to which this clause applies, a consent authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the *Building Code of Australia*.	For Reference

3.0 BCA ASSESSMENT – SUMMARY

3.1. GENERAL

The tables contained within items 3.2 – 3.5 below summarise the compliance status of the proposed architectural design in terms of each prescriptive provision of the Building Code of Australia.

For those instances of either "prescriptive non-compliance" or "insufficient detail", a detailed analysis and commentary is provided within Part 4.

3.2. SECTION C – FIRE RESISTANCE

BCA reference	Complies	Does not comply	Detail required	Not relevant
Spec. C1.1 – fire resisting construction			✓	
C1.3 – buildings of multiple classification				✓
C1.4 – mixed types of construction				✓
C1.5 – two storey Class 2 or 3 buildings				✓
C1.6 – Class 4 parts of a building				✓
C1.7 – open spectator stands & indoor sports stadiums				✓
C1.8 – lightweight construction				✓
C1.9 – Non Combustible materials				✓
C1.10 – fire hazard properties			✓	
C1.11 – performance of external walls				✓
C1.13 – Fire protected timber				✓
C2.2 – general floor area & volume limits			✓	
C2.3 – large isolated buildings			✓	
C2.4 – requirements for open spaces & vehicular access			✓	
C2.5 – Class 9a and 9c buildings				✓
C2.6 – vertical separation of openings in external walls				✓
C2.7 – separation of firewalls			✓	
C2.8 – separation of classifications in same storey			✓	
C2.9 – separation of classifications in different storeys			✓	
C2.10 – separation of lift shafts				✓
C2.11 – stairways and lifts in one shaft				✓
C2.12 – separation of equipment				✓
C2.13 – electricity supply system				✓
C2.14 – public corridors in Class 2 and 3 buildings				✓
C3.2 – openings in external walls				✓
C3.3 – separation of external walls & associated openings				✓
C3.4 – acceptable methods of protection				✓
C3.5 – doorways in firewalls				✓
C3.6 – sliding fire doors				✓
C3.7 – doorways in horizontal exits				✓
C3.8 – openings in fire-isolated exits			✓	
C3.9 – service penetrations in fire-isolated exits			✓	
C3.10 – openings in fire-isolated lift shafts				✓
C3.11 – bounding construction: Class 2, 3, 4 and 9 buildings				✓
C3.12 – openings in floors & ceilings for services			✓	
C3.13 – openings in shafts			✓	
C3.15 – openings for service installations			✓	
C3.16 – construction joints			✓	
C3.17 – columns protected with f/r lightweight construction			✓	

3.3. SECTION D – ACCESS AND EGRESS

BCA reference	Complies	Does not comply	Detail required	Not relevant
D1.2 – number of exits required	✓			
D1.3 – when fire-isolated exits are required		✓		
D1.4 – exit travel distances	✓			
D1.5 – distance between alternative exits	✓			
D1.6 – dimensions of exits and paths of travel to exits		✓		
D1.7 – travel via fire-isolated exits	✓			
D1.8 – external stairways or ramps in lieu of fire-isolated exits				✓
D1.9 – travel via non-fire isolated stairways or ramps				✓
D1.10 – discharge from exits	✓			
D1.11 – horizontal exits				✓
D1.12 – non-required stairways or ramps				✓
D1.13 – number of persons accommodated	✓			
D1.16 – plant rooms and lift motor rooms: concession				✓
D1.17 – access to lift pits				✓
D2.2 – fire-isolated stairways and ramps			✓	
D2.3 – non-fire isolated stairways and ramps			✓	
D2.4 – separation of rising and descending stair flights				✓
D2.5 – open access ramps and balconies				✓
D2.6 – smoke lobbies				✓
D2.7 – installations in exits and paths of travel				✓
D2.8 – enclosure of space under stairs and ramps			✓	
D2.9 – width of stairways				✓
D2.10 – pedestrian ramps				✓
D2.11 – fire-isolated passageways				✓
D2.12 – roof as open space				✓
D2.13 – goings and risers		✓		
D2.14 – landings			✓	
D2.15 – thresholds			✓	
D2.16 – balustrades	✓			✓
D2.17 – handrails			✓	
D2.18 – fixed platforms, walkways, stairways and ladders				✓
D2.19 – doorways and doors				✓
D2.20 – swinging doors		✓		
D2.21 – operation of latch			✓	
D2.22 – re-entry from fire-isolated exits				✓
D2.23 – signs on doors				✓
D2.24 – Openable windows				✓
D3.1 – general building access requirements		✓		
D3.2 – Access to buildings			✓	
D3.3 – parts of buildings to be accessible		✓		
D3.4 – exemptions			✓	
D3.5 – accessible car parking				✓
D3.6 – signage				✓
D3.8 – Tactile Indicators			✓	
D3.12 – glazing on an accessway				✓

3.4. SECTION E – SERVICES AND EQUIPMENT

BCA reference	Complies	Does not comply	Detail required	Not relevant
E1.3 – fire hydrants			✓	
E1.4 – fire hose reels		✓		
E1.5 – sprinklers				✓
E1.6 – portable fire extinguishers			✓	
E1.8 – fire control centres				✓
E1.9 – fire precautions during construction				✓
E1.10 – provision for special hazards				✓
E2.2a – general provisions		✓		
E2.2b – specific provisions				✓
E2.3 – provision for special hazards				✓
E3.2 – stretcher facility in lifts				✓
E3.3 – warning against use of lifts in fire				✓
E3.4 – emergency lifts				✓
E3.5 – landings				✓
E3.6 – facilities for people with disabilities				✓
E3.7 – fire service controls				✓
E3.8 – aged care buildings				✓
E3.9 – Fire Service Recall switch				✓
E3.10 – Lift Car Drive Control Switch				✓
E4.2 – emergency lighting			✓	
E4.4 – design and operation of emergency lighting			✓	
E4.5 – exit signs			✓	
E4.6 – direction signs			✓	
E4.7 – Class 2 and 3 buildings and Class 4 parts: exemptions			✓	
E4.8 – design and operation of exit signs			✓	
E4.9 – emergency warning and intercommunication systems				✓

4.0 BCA ASSESSMENT – DETAILED ANALYSIS

4.1 GENERAL

With reference to the "BCA Assessment Summary" contained within Part 3 above, the following detailed analysis and commentary is provided.

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

In our opinion compliance with the Building Code of Australia 2019 (amendment 1) Volume 1 Parts C, D and E can be achieved subject to the implementation of the following details into the Construction documentation.

5.2 SECTION C – FIRE RESISTANCE

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. C1.1	Type of construction required (a) The minimum Type of *fire-resisting construction* of a building must be that specified in Table C1.1 and Specification C1.1, (b) Type A construction is the most fire-resistant and Type C the least fire-resistant of the Types of construction.	Generally the building construction must achieve the minimum FRL requirements specified within clause 2.3 (page 3, 4 & 5) of this report for Type A Construction. Fire separation within the building to achieve separate Fire compartmentation between tenancies would be difficult as the separating walls between tenancies are generally penetrated by the Portal

		Frame construction, rendering them not compliant with the Separating wall requirements of Clause C2.7 In this regard the building can either (i) Fire separate between tenancies in accordance with Clause C2.7, C2.8 and C2.9 – In our opinion this would be difficult to achieve without considerable structural change to the building. (ii) Seek to achieve compliance with Clause C2.3 and C3.4 – large Isolated Buildings – In our opinion this is not an option due to the absence of a Fire services ring road and a Sprinkler system throughout the building. (iii) Treat the building as Type A construction Queries/non compliances that are presented by this approach are as follows:- Structural Engineering advice will be required to determine if the external wall systems can achieve the higher FRL requirements for Type A construction The subject tenancy has

		lightweight sections separating levels within the tenancy and in this regard the floors do not achieve the FRLs required by Table 3.
Cl. C1.9	Non-combustible building elements (a) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: (i) External walls and common walls, including all components incorporated in them including the facade 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. (b) A shaft, being a of hot products of combustion, lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge that is non-loadbearing, must be of non-combustible construction in— (i) a building required to be of Type A construction; and (ii) a building required to be of Type B construction, subject to C2.10, in— (A) a Class 2, 3 or 9 building; and (B) a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys (c) A loadbearing internal wall and a loadbearing fire wall loadbearing shaft, must comply with , including those that are part of a Specification C1.1. (d) The requirements of (a) and (b) do not apply to gaskets, caulking, sealants and damp-proof courses. (e) The following materials may be used wherever a non-combustible material is required: (i) Plasterboard. (ii) Perforated gypsum lath with a normal paper finish. (iii) Fibrous-plaster sheet. (iv) Fibre-reinforced cement sheeting. (iv) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0. (vi) Bonded laminated materials where—	For Reference An audit of claddings within the building has not been undertaken

	(A) each lamina, including any core, is non-combustible; and (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (C) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively.	
Cl. C1.10	Fire Hazard Properties (a) The *fire hazard properties* of the following linings, materials and assemblies in a Class 2 to 9 building must comply with Specification C1.10	Confirmation of the Fire Hazard properties will be required with the Construction Certificate Documentation. Floor linings and floor coverings A floor lining or floor covering must have— (a) a *critical radiant flux* not less than a grouping of 2.2; and (b) in a building not protected by a sprinkler system complying with Specification E1.5, a maximum *smoke development rate* of 750 percent-minutes; and (c) a group number complying with Clause 6(a)(ii), for any portion of the floor covering that is continued more than 150 mm up a wall. Wall and ceiling linings – requires groupings as follows Fire Isolated Exit = Grouping of 1 Public Corridors = a grouping of 1,2 Other areas = a grouping of 1,2,3 (a) For the purposes of this Clause, the *group number* of a material is

		determined by either— (i) physical testing in accordance with AS ISO 9705; or (ii) prediction in accordance with Clause 3 of Specification A2.4 using data obtained by testing the material at 50 kW/m^2 irradiance in the horizontal orientation with edge frame in accordance with AS/NZS 3837. (b) The *group number* of a material is as follows when tested or predicted in accordance with sub-clause (a): (i) A Group 1 material is one that does not reach *flashover* when exposed to 100 kW for 600 seconds followed by exposure to 300 kW for 600 seconds. (ii) A Group 2 material is one that reaches *flashover* following exposure to 300 kW within 600 seconds after not reaching *flashover* when exposed to 100 kW for 600 seconds. (iii) A Group 3 material is one that reaches *flashover* in more than 120 seconds but within 600 seconds when exposed to 100 kW. (iv) A Group 4 material is one that reaches *flashover* within 120 seconds when exposed to 100 kW. (c) A material used as a finish, surface, lining or attachment to a wall or ceiling

		must be a Group 1, Group 2 or Group 3 material used in accordance with Table 3 and for buildings not fitted with a sprinkler system complying with Specification E1.5, have— (i) a *smoke growth rate index* not more than 100; or (ii) an *average specific extinction area* less than 250 m^2/kg. Lift cars (a) Materials used as— (i) floor linings and floor coverings must have a *critical radiant flux* not less than 2.2; and (ii) wall and ceiling linings must be a Group 1 material or a Group 2 material in accordance with Clause 4(b). (a) Materials, other than those referenced in (a), used in the construction of a lift car in a Class 2 to 9 building must comply with the *fire hazard properties required* by AS 1735.2.
Cl 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* unless it is one of the following: (a)An *ancillary element* that is *non-combustible*. (b)A gutter, downpipe or other plumbing fixture or fitting. (c)A flashing.	Fore Reference An audit of attachments to the building has not been undertaken

	(d)A grate or grille not more than 2 m2 in area associated with a building service. (e)An electrical switch, socket-outlet, cover plate or the like. (f)A light fitting. (g)A *required* sign. (h)A sign other than one provided under (a) or (g) that— (i)achieves a *group number* of 1 or 2; and (ii)does not extend beyond one *storey*; and (iii)does not extend beyond one *fire compartment*; and (iv)is separated vertically from other signs permitted under (h) by at least 2 *storeys*. (i)An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that— (i)meets the relevant requirements of Table 4 of Specification C1.10 as for an internal element; and (ii)serves a *storey*— (A)at ground level; or (B)immediately above a *storey* at ground level; and (iii)does not serve an *exit*, where it would render the *exits* unusable in a fire. (j)A part of a security, intercom or announcement system. (k)Wiring. (l)A paint, lacquer or a similar finish. (m)A gasket, caulking, sealant or adhesive directly associated with (a) to (k).	
Cl. C2.2	General floor area and volume limitations (a)The size of any *fire compartment* or *atrium* in a Class 5, 6, 7, 8 or 9 building must not exceed the relevant maximum *floor area* nor the relevant maximum volume set out in Table C2.2 and C2.5 except as permitted in C2.3. (b)A part of a building which contains only heating, ventilating, or lift equipment, water tanks, or similar service units is not counted in the *floor area* or volume of a *fire compartment* or *atrium* if it is situated at the top of the building.	The building exceeds floor area requirements for Type B and C construction and must be assessed as Type A Construction

	(c)In a building containing an *atrium*, the part of the *atrium well* bounded by the perimeter of the openings in the floors and extending from the level of the first floor above the *atrium* floor to the roof covering is not counted in the volume of the *atrium* for the purposes of this clause.	
Cl. C2.3	Large isolated buildings The size of a *fire compartment* in a building may exceed that specified in Table C2.2 where— (a)the building does not exceed 18 000 m2 in *floor area* nor exceed 108 000 m3 in volume, if— (i)the building is Class 7 or 8 and— (A)contains not more than 2 *storeys*; and (B)is provided with open space complying with C2.4(a) not less than 18 m wide around the building; or (ii)the building is Class 5, 6, 7, 8 or 9 and is— (A)protected throughout with a sprinkler system complying with Specification E1.5; and (B)provided with a perimeter vehicular access complying with C2.4(b); or b)the building is Class 5, 6, 7, 8 or 9 and exceeds 18 000 m2 in *floor area* or 108 000 m3 in volume, if it is— (i)protected throughout with a sprinkler system complying with Specification E1.5; and (ii)provided with a perimeter vehicular access complying with C2.4(b); or (c)there is more than one building on the allotment and— (i)each building complies with (a) or (b); or (ii)if the buildings are closer than 6 m to each other they are regarded as one building and collectively comply with(a)or (b).	For Reference The building is not capable of achieving the Clause C2.3 and C3.4 requirements
Cl. C2.4	Requirements for open spaces and vehicular access (a)An open space *required* by C2.3 must— (i)be wholly within the allotment except that any road, river, or public place adjoining the allotment, but not the farthest 6 m of it may be included; and	For Reference The building is not capable of achieving the Clause C2.3 and C3.4 requirements

	(ii)include vehicular access in accordance with (b); and (iii)not be used for the storage or processing of materials; and (iv)not be built upon, except for guard houses and service structures (such as electricity substations and pumphouses) which may encroach upon the width of the space if they do not unduly impede fire-fighting at any part of the perimeter of the allotment or unduly add to the risk of spread of fire to any building on an adjoining allotment. (b)Vehicular access *required* by this Part— (i)must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and (ii)must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and (iii)must provide reasonable pedestrian access from the vehicular access to the building; and (iv)must have a load bearing capacity and unobstructed height to permit the operation and passage of *fire brigade* vehicles; and (v)must be wholly within the allotment except that a public road complying with (i), (ii), (iii) and (iv) may serve as the vehicular access or part thereof.	
Cl. C2.6	Vertical separation of openings in external walls (a) If in a building of Type A construction, any part of a *window* or other opening in an *external wall* is above another opening in the *storey* next below and its vertical projection falls no further than 450 mm outside the lower opening (measured horizontally), the openings must be separated by— (i) a spandrel which— (A) is not less than 900 mm in height; and (B) extends not less than 600 mm above the upper surface of the intervening floor; and	Verification will be required with the Construction Documentation

	(C) is of *non-combustible* material having an FRL of not less than 60/60/60; or (ii) part of a *curtain wall* or *panel wall* that complies with (i); or (iii) construction that complies with (i) behind a *curtain wall* or *panel wall* and has any gaps packed with a *non-combustible* material that will withstand thermal expansion and structural movement of the walling without the loss of seal against fire and smoke; or (iv) a slab or other horizontal construction that— (A) projects outwards from the external face of the wall not less than 1100 mm; and (B) extends along the wall not less than 450 mm beyond the openings concerned; and (C) is *non-combustible* and has an FRL of not less than 60/60/60.	
Cl. C2.8	Separation of classifications in the same storey If a building has parts of different classifications located alongside one another in the same *storey*— (a)each building element in that *storey* must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or (b)the parts must be separated in that *storey* by a *fire wall* having— (i)the higher FRL prescribed in Table 3 or 4; or (ii)the FRL prescribed in Table 5, of Specification C1.1 as applicable, for that element for the Type of construction and the classifications concerned; or (c)where one part is a carpark complying with Table 3.9, 4.2 or 5.2 of Specification C1.1, the parts may be separated by a *fire wall* complying with the appropriate Table.	For Reference The building is not capable of achieving the Clause C2.8 requirements
Cl. C2.9	Separation of classifications in different storeys If parts of different classification are situated one above the other in adjoining *storeys* they	The floors between levels within tenancy 2 do not appear to achieve the required Fire Resistance Levels

	must be separated as follows: (a) Type A construction — The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower *storey*.	
Cl. C2.12	Separation of equipment (a) Equipment other than that described in (b) and (c) must be separated from the remainder of the building with construction complying with (d), if that equipment comprises— (i) lift motors and lift control panels; or (ii) emergency generators used to sustain emergency equipment operating in the emergency mode; or (iii) central smoke control plant; or (iv) boilers; or (v) a battery or batteries installed in the building that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours. (b) Equipment need not be separated in accordance with (a) if the equipment comprises– (i) smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification E2.2b; or (ii) stair pressurising equipment installed in compliance with the relevant provisions of AS/NZS 1668.1; or (iii) a lift installation without a machine-room; or (iv) equipment otherwise adequately separated from the remainder of the building. (c) Separation of on-site fire pumps must comply with the requirements of AS 2419.1. (d) Separating construction must have—	Verification will be required within the Construction Documentation.

	(i) except as provided by (ii)— (A) an FRL as *required* by Specification C1.1, but not less than 120/120/120; and (B) any doorway protected with a *self-closing* fire door having an FRL of not less than –/120/30; or (ii) when separating a lift *shaft* and lift motor room, an FRL not less than 120/–/–.	
Cl. C2.13	Electricity supply system (a) An electricity substation located within a building must— (i) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and (ii) have any doorway in that construction protected with a *self-closing* fire door having an FRL of not less than –/120/30. (b) A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must— (i) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and (ii) have any doorway in that construction protected with a *self-closing* fire door having an FRL of not less than –/120/30. (c) Electrical conductors located within a building that supply— (i) a substation located within the building which supplies a main switchboard covered by (b); or (ii) a main switchboard covered by (b), must— (iii) have a classification in accordance with AS/NZS 3013 of not less than—	Verification will be required within the Construction Documentation.

	(A) if located in a position that could be subject to damage by motor vehicles — WS53W; or (B) otherwise — WS52W; or (iv) be enclosed or otherwise protected by construction having an FRL of not less than 120/120/120. (d) Where emergency equipment is ***required*** in a building, all switchboards in the electrical installation, which sustain the electricity supply to the emergency equipment, must be constructed so that emergency equipment switchgear is separated from non-emergency equipment switchgear by metal partitions designed to minimise the spread of a fault from the non-emergency equipment switchgear. (e) For the purposes of (d), emergency equipment includes but is not limited to the following: (i) Fire hydrant booster pumps. (ii) Pumps for ***automatic*** sprinkler systems, water spray, chemical fluid suppression systems or the like. (iii) Pumps for fire hose reels where such pumps and fire hose reels form the sole means of fire protection in the building. (iv) Air handling systems designed to exhaust and control the spread of fire and smoke. (v) Emergency lifts. (vi) Control and indicating equipment. (vii) Sound systems and intercom systems for emergency purposes.	
Cl. C3.8	**Openings in fire-isolated exits** (a)Doorways that open to *fire-isolated stairways*, *fire-isolated passageways* or *fire-isolated ramps*, and are not doorways opening to a road or *open space*, must be protected by –/60/30 fire doors that are *self-closing*, or *automatic*-closing in accordance with (b) and (c). (b)The *automatic*-closing operation *required* by (a) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway.	The Stair 1 within the tenancy is required by Clause D1.3 to be a fire isolated stair Currently the stair is not a fire Isolated stair The Doors provided to the stair are not -/60/30 fire doors and frames

	(c)Where any other *required* suitable fire alarm system, including a sprinkler system (other than a FPAA101D system)complying with Specification E1.5, is installed in the building, activation of the system must also initiate the *automatic*-closing operation. (d)A *window* in an *external wall* of a *fire-isolated stairway*, *fire-isolated passageway* or *fire-isolated ramp* must be protected in accordance with C3.4 if it is within 6 m of, and exposed to, a *window* or other opening in a wall of the same building, other than in the same fire-isolated enclosure.	
Cl. C3.9	Service penetrations in fire-isolated exits Fire-isolated *exits* must not be penetrated by any services other than— (a)electrical wiring permitted by D2.7(e) to be installed within the *exit*; or (b)ducting associated with a pressurisation system if it— (i)is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and (ii)does not open into any other part of the building; or (c)water supply pipes for fire services.	Verification will be required with the Construction Documentation
Cl. C3.12	Service openings through any floors in the building must be either fire sealed or enclosed in a fire rated shaft, using materials having an FRL not less than the floor concerned.	Currently Service penetrations are not provided with fire protection however the floors between levels do not appear to achieve the required FRL
Cl. C3.13	Openings to shafts must be self-closing and 1-hour fire rated (i.e. access panels, doors, hoppers).	For Reference
Cl. C3.15	Openings for service installations Where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an *external wall* or roof) that is *required* to have an FRL with respect to *integrity* or *insulation* or a *resistance to the incipient spread of fire*, that installation must comply with any one of the following: (a) **Tested systems** (i) The service, building element and any protection method at the penetration are identical with a prototype assembly of the service, building element and protection method which has been tested in accordance with AS 4072.1 and AS 1530.4 and has achieved the *required* FRL or *resistance to the incipient spread of fire*.	For Reference

(ii) It complies with (i) except for the *insulation* criteria relating to the service if—

(A) the service is a pipe system comprised entirely of metal (excluding pipe seals or the like); and

(B) any *combustible* building element is not located within 100 mm of the service for a distance of 2 m from the penetration; and

(C) *combustible* material is not able to be located within 100 mm of the service for a distance of 2 m from the penetration; and

(D) it is not located in a *required exit*.

(b) **Ventilation and air-conditioning** — In the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS/NZS 1668.1.

(c) **Compliance with Specification C3.15**

(i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification C3.15 and it—

(A) penetrates a wall, floor or ceiling, but not a ceiling *required* to have a *resistance to the incipient spread of fire*; and

(B) connects not more than 2 *fire compartments* in addition to any *fire-resisting* service *shafts*; and

(C) does not contain a flammable or *combustible* liquid or gas.

(ii) The service is sanitary plumbing installed in accordance with Specification C3.15 and it—

(A) is of metal or UPVC pipe; and

(B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and

(C) is in a *sanitary compartment* separated from other parts of the building by walls with the FRL *required* by Specification C1.1 for a stair *shaft* in the building and a *self-closing* –/60/30 fire door.

(iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification C3.15 and it—

(A) penetrates a wall, floor or ceiling, but not a ceiling *required* to have a *resistance to the incipient spread of fire*; and

(B) connects not more than 2 *fire compartments* in addition to any *fire-resisting* service *shafts*.

	(iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification C3.15.	
Cl. C3.16	Construction joints between fire resistant elements must be fire sealed with a material having a fire resistance level not less than the elements being joined.	For Reference

5.3 SECTION D – ACCESS AND EGRESS

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. D1.3	When fire-isolated stairways and ramps are required Class 5, 6, 7, 8 or 9 buildings — Every stairway or ramp serving as a *required exit* must be fire-isolated unless— (i)in a Class 9a *health-care building* — it connects, or passes through or passes by not more than 2 consecutive *storeys* in areas other than *patient care areas*; or (ii)it is part of an *open spectator stand*; or (iii)in any other case except in a Class 9c building, it connects, passes through or passes by not more than 2consecutive *storeys* and one extra *storey* of any classification may be included if— (A)the building has a sprinkler system (other than a FPAA101D system) complying with Specification E1.5installed throughout; or (B)the *required exit* does not provide access to or egress for, and is separated from, the extra *storey* by construction having— (aa)an FRL of –/60/60, if non-*loadbearing*; and (bb)an FRL of 90/90/90 for Type A construction or 60/60/60 for Type B or C construction, if *loadbearing*; and (cc)no opening that could permit the passage of fire or smoke.	Stair 1connects greater than 2 levels and is required to be a Fire Isolated stair
Cl. D1.6	Dimensions of exits and paths of travel to exits In a *required exit* or path of travel to an *exit*— (a) the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; and (b) the unobstructed width of each *exit* or path of travel to an *exit*, except for doorways, must be not less than 1m	The Stair 1 (connecting levels GF, 1 and 2) is approximately 858mm in clear unobstructed width which is less than the required 1000mm
Cl. D2.7	Electrical ducts, meter or distribution boards, and communication boards or equipment, and electrical	Verification will be required with the

	motors, must be separated from an exit or path of travel by smoke sealed non-combustible construction.	Construction Documentation
Cl. D2.8	Enclosure of space under stairs and ramps (a) Fire-isolated stairways and ramps — If the space below a *required fire-isolated stairway* or *fire-isolated ramp* is within the fire-isolated *shaft*, it must not be enclosed to form a cupboard or similar enclosed space. (b) Non fire-isolated stairways and ramps — The space below a *required* non *fire-isolated stairway* (including an external stairway) or non *fire-isolated ramp* must not be enclosed to form a cupboard or other enclosed space unless— (i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and (ii) any access doorway to the enclosed space is fitted with a *self-closing* –/60/30 fire door.	For reference
Cl. D2.13	Goings and risers (a) A stairway must have— (i) not more than 18 nor less than 2 risers in each *flight*; and (ii) except as permitted by (b) and (c), going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13; and (iii) except as permitted by (b) and (c), goings and risers that are constant throughout in one *flight*; and (iv) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (v) treads which have— (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or (B) a nosing strip with a slip-resistance classification not less than	Stair 2 within the workshop area has a bottom riser dimensions of 70mm which is less is not within 10mm of the remaining riser dimensions and is less than the minimum 115mm Its recommended that the stair is modified to comply

	that listed in Table D2.14 when tested in accordance with AS 4586; and (vi) treads of solid construction (not mesh or other perforated material) if the stairway is more than 10 m high or connects more than 3 *storeys*; and (viii) in the case of a *required* stairway, no winders in lieu of a landing. (b) In the case of a non- *required* stairway— (i) the stairway must have— (A) not more than 3 winders in lieu of a quarter landing; and (B) not more than 6 winders in lieu of a half landing; and (ii) the going of all straight treads must be constant throughout the same *flight*; and (iii) the going of all winders in lieu of a quarter or half landing may vary from the going of the straight treads within the same *flight* provided that the going of all such winders is constant. (c) Where a stairway discharges to a sloping public walkway or public road— (i) the riser (R) may be reduced to account for the slope of the walkway or road; and (ii) the quantity (2R+G) may vary at that location.	
Cl. D2.14	Landings In a stairway— (a) landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each *flight* and each landing must— (i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and	For reference

(ii) have—

(A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or

(B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a *flight* below

Table D2.14 SLIP-RESISTANCE CLASSIFICATION

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

Cl. D2.15

Thresholds

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless—

(a) in *patient care areas* in a Class 9a *health-care building*, the door sill is not more than 25 mm above the finished floor level to which the doorway opens; or

(b) in a Class 9c *aged care building*, a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or

Thresholds at the building entry points must comply with AS 1428.1 – 2009.

	(c) in a building *required* to be *accessible* by Part D3, the doorway— (i) opens to a road or *open space*; and (ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or (d) in other cases— (i) the doorway opens to a road or *open space*, external stair landing or external balcony; and (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.	
Cl. D2.17	Handrails must be provided to at least one side of all stairways and ramps less than 2-metres in width, and to both sides where more than 2-metres in width, and must: – ❑ Be continuous between stair flight landings ❑ Have no obstruction that would cause a break in the hand hold ❑ Have one rail fixed at a height not less than 865-mm ❑ Within accessible areas must comply with clause 11 of AS 1428.1 - 2009	The existing stairs do not comply with Clause 11 of AS 1428.1 – access to buildings as the handrails are not consistent with the standard The width of the stairs will make it difficult to comply in their current form
Cl. D2.20	Swinging doors A swinging door in a *required exit* or forming part of a *required exit*— (a)must not encroach— (i)at any part of its swing by more than 500 mm on the *required* width (including any landings) of a *required*— (A)stairway; or (B)ramp; or (C)passageway, if it is likely to impede the path of travel of the people already using the *exit*; and (ii)when fully open, by more than 100 mm on the *required* width of the *required exit*, and the measurement of encroachment in each case is to include door handles or other furniture or	The Stair 1 Ground Floor Foyer exit door from the required Fire Isolated stair must be altered to swing outward in the direction of egress

	attachments to the door; and (b)must swing in the direction of egress unless— (i)it serves a building or part with a *floor area* not more than 200 m_2, it is the only *required exit* from the buildingor part and it is fitted with a device for holding it in the open position; or (ii)it serves a *sanitary compartment* or airlock (in which case it may swing in either direction); and (c)must not otherwise impede the path or direction of egress.	
Cl. D2.21	All doors in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily provided with door hardware located between 900-1100-mm above floor level and be readily openable without a key from the side facing a person seeking egress by a single downward action.	Verification will be required with the Construction Documentation
Cl. D2.23	Signs on doors (a) A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to— (i) a required— (A) fire door providing direct access to a fire-isolated exit, except a door providing direct egress from a sole- occupancy unit in a Class 2 or 3 building or Class 4 part of a building; and (B) on the side of the door that faces a person seeking egress and, if the door is fitted with a device for holding it in the open position, on either the wall adjacent to the doorway or both sides of the door; and smoke door, (ii) a— (A) fire door forming part of a horizontal exit; and (B) smoke door that swings in both directions; and (C) door leading from a fire isolated exit to a road or open space, on each side of the door. (b) A sign referred to in (a) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state— (i) for an automatic door held open by an automatic hold-open device— “FIRE SAFETY DOOR—DO NOT OBSTRUCT”; or (ii) for a self-closing door— “FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN”; or (iii) for a door discharging from a fire-isolated exit— “FIRE SAFETY DOOR—DO NOT	Verification will be required with the Construction Documentation

	OBSTRUCT".	
Cl. D3.1	General building access requirements Buildings and parts of buildings must be *accessible* as *required* by Table D3.1, unless exempted by D3.4. Class 5 - 8 To all areas normally occupied within the building Common areas Class 3 Units At Least 2 Units are required to be fully "Accessible" Common Areas From a pedestrian entrance *required* to be *accessible* to at least 1 floor containing *sole-occupancy units* and to the entrance doorway of each *sole-occupancy unit* located on that level. To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, *swimming pool*, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like. Where a ramp complying with AS 1428.1 or a passenger lift is installed— (a) to the entrance doorway of each *sole-occupancy unit*; and (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp. Not more than 2 *required accessible sole-occupancy units* may be located adjacent to each other. Where more than 2 *accessible sole-occupancy units* are *required*, they must be representative of the range of rooms available.	As there is no Lift within the building there is no compliant access to Levels 1 and 2 within the tenancy. Key Compliance Issues:- Compliance with the AS 1428.1 Clauses following must be identified within the Construction Certificate plans:- Clause 6 - CONTINUOUS ACCESSIBLE PATHS OF TRAVEL Clause 7 - FLOOR OR GROUND SURFACES ON CONTINUOUS ACCESSIBLE PATHS OF TRAVEL AND CIRCULATION SPACES Clause 8 - SIGNAGE Clause 9 - TACTILE GROUND SURFACE INDICATORS Clause 10 - WALKWAYS, RAMPS AND LANDINGS Clause 11 - STAIRWAYS Clause 12 - HANDRAILS Clause 13 - DOORWAYS, DOORS AND CIRCULATION SPACE AT DOORWAYS Clause 14 - SWITCHES AND GENERAL PURPOSE OUTLETS

		(POWER POINTS) Clause15 - SANITARY FACILITIES
Cl. D3.2	Access to Buildings ▪ Must be provided by an AS 1428.1 complying path of travel from – (i) a entry point from the road at the allotment boundary to the entrance doorway. (ii) any disabled car parking space on the allotment. (iii) any other accessible building on the allotment. (iv) through the principal public entrance. ▪ Parts of buildings required to be accessible must comply with AS 1428.1	For reference
Cl. D3.3	Parts of buildings to be accessible In a building *required* to be *accessible*: (a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with: (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; (b) every passenger lift must comply with clause E3.6; (c) *access ways* must have: (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an *access way* where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1: (A) within 2 m of the end of *access ways* where it is not possible to continue travelling along the *access way*; and (B) at maximum 20 m intervals along the *access way*; (d) an intersection of *access ways* satisfies the spatial requirements for a passing and turning space; (e) a passing space may serve as a turning space;	For reference

	(f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a *storey* or level other than the entrance *storey* in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 *storeys*; and (ii) with a *floor area* for each *storey*, excluding the entrance *storey*, of not more than 200 m2.	
Cl. D3.6	Signage In a building *required* to be *accessible*— (a) braille and tactile signage complying with Specification D3.6 must— (i) incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each— (A) sanitary facility, except a sanitary facility within a *sole-occupancy unit* in a Class 1b or Class 3 building; and (B) space with a hearing augmentation system; and (ii) identify each door *required* by E4.5 to be provided with an *exit* sign and state— (A) "**Exit**"; and (B) "**Level**" followed by the floor level number; and (b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying— (i) the type of hearing augmentation; and (ii) the area covered within the room; and (iii) if receivers are being used and where the receivers can be obtained; and (c) signage in accordance with AS 1428.1 must be provided for *accessible* unisex sanitary facilities to identify if the facility is suitable for left or right handed use; and (d) signage to identify an ambulant *accessible* sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and	Verification will be required with the Construction Documentation

	(e) where a pedestrian entrance is not *accessible*, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest *accessible* pedestrian entrance; and (f) where a bank of sanitary facilities is not provided with an *accessible* unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 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.	
Cl. D3.8	Tactile indicators (a) For a building *required* to be *accessible*, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching— (i) a stairway, other than a *fire-isolated stairway*; and (ii) an escalator; and (iii) a passenger conveyor or moving walk; and (iv) a ramp other than a *fire-isolated ramp*, step ramp, kerb ramp or *swimming pool* ramp; and (v) in the absence of a suitable barrier— (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and (B) an *accessway* 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, except for areas exempted by D3.4. (b) Tactile ground surface indicators *required* by (a) must comply with sections 1 and	Verification will be required with the Construction Documentation

	2 of AS/NZS 1428.4.1	
Cl. 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.	Verification will be required with the Construction Documentation

5.4 SECTION E – SERVICES AND EQUIPMENT

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. E1.3	**Fire hydrants** (a)A fire hydrant system must be provided to serve a building— (i)having a total *floor area* greater than 500 m2; and (ii)where a *fire brigade station* is— (A)no more than 50 km from the building as measured along roads; and (B)equipped with equipment capable of utilising a fire hydrant. (b)The fire hydrant system— (i)must be installed in accordance with AS 2419.1, except— (A)a Class 8 *electricity network substation* need not comply with clause 4.2 of AS 2419.1 if— (aa)it cannot be connected to a town main supply; and (bb)one hour water storage is provided for fire-fighting; and (B)where a sprinkler system is installed throughout a building in accordance with AS 2118.1, AS 2118.4, AS2118.6, FPAA101H or FPAA101D the fire hydrant booster protection requirements of clauses 7.3(c)(ii) and7.3(d)(iii) of AS 2419.1 do not apply; and (C)a fire hydrant booster assembly may be located between 3.5 m and 10 m of the building, and need not comply with clause 7.3(d)(iii) of AS 2419.1 where the assembly is protected by an adjacent fire-rated freestanding wall that— (aa)achieves an FRL of not less than 90/90/90; and (bb)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 (cc)extends to a height of not less than 2 m above finished ground level; and (ii)where internal fire hydrants are provided, they must serve only the *storey* on which they are located except that a *sole-occupancy unit*— (A)in a Class 2 or 3 building or Class 4 part of a building may be served by a single fire hydrant located at the level of egress from that *sole-occupancy unit*; or (B)of not more than 2 *storeys* in a Class 5, 6, 7, 8 or 9 building may be served by a single fire	The subject tenancy is provided coverage from a street Hydrant forward of the property Flow and Pressure from the Street and its compliance with AS 2419.1 – 2005 have not been qualified A departure from the standard was identified in that Hydrant points have not been provided within the (required) Fire Isolated Stair to the east of the tenancy

	hydrant located at the level of egress from that *sole-occupancy unit* provided the fire hydrant can provide coverage to the whole of the *sole-occupancy unit*.	
Cl. E1.5	**Fire hose reels** (a)E1.4 does not apply to— (i)a Class 2, 3 or 5 building or Class 4 part of a building; or (ii)a Class 8 *electricity network substation*; or (iii)a Class 9c building; or (iv)classrooms and associated corridors in a primary or secondary *school*. *SA E1.4(a)(v)* and *(vi)* (b)A fire hose reel system must be provided— (i)to serve the whole building where one or more internal fire hydrants are installed; or (ii)where internal fire hydrants are not installed, to serve any *fire compartment* with a *floor area* greater than 500m2. (c)The fire hose reel system must— (i)have fire hose reels installed in accordance with AS 2441; and (ii)provide fire hose reels to serve only the *storey* at which they are located, except a *sole-occupancy unit* of not more than 2 *storeys* in a Class 6, 7, 8 or 9 building may be served by a single fire hose reel located at the level of egress from that *sole-occupancy unit* provided the fire hose reel can provide coverage to the whole of the *sole-occupancy unit*. (d)Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441. (e)In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system: (i)Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated *exit*),except that a fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved. (ii)Fire hose reels must be located within 4 m of an *exit*, except that a fire hose reel need not be located adjacent to every *exit*, provided system coverage can be achieved.	Fire Hose reels are provided externally to the building Non compliances identified:- a) The Fire hose reels are not within 4m of an exit b) Fire hose reels are not provided within levels 1 and 2 The Hose reels appear to have been installed under Ordinance 70

	(iii)Where system coverage is not achieved by compliance with (i) and (ii), additional fire hose reels may be located in paths of travel to an *exit* to achieve the *required* coverage. (f)Fire hose reels must be located so that the fire hose will not need to pass through doorways fitted with fire or smoke doors, except— (i)doorways in walls referred to in C2.5(a)(v) in a Class 9a building and C2.5(b)(iv) in a Class 9c building, separating ancillary use areas of high potential *fire hazard*; and (ii)doorways in walls referred to in C2.12 or C2.13 separating equipment or electrical supply systems; and (iii)doorway openings to *shafts* referred to in C3.13.	
Cl. E1.6	Portable fire extinguishers (a) Portable fire extinguishers must be— (i) provided as listed in Table E1.6; and (ii) for a Class 2 or 3 building or Class 4 part of a building, provided— (A) to serve the whole Class 2 or 3 building or Class 4 part of a building where one or more internal fire hydrants are installed; or (B) where internal fire hydrants are not installed, to serve any *fire compartment* with a *floor area* greater than 500 m^2, and for the purposes of this clause, a *sole-occupancy unit* in a Class 2 or 3 building or Class 4 part of a building is considered to be a *fire compartment*; and (iii) subject to (b), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444. (b) Portable fire extinguishers provided in a Class 2 or 3 building or Class 4 part of a building must be— (i) an ABE type fire extinguisher; and (ii) a minimum size of 2.5 kg; and (iii) distributed outside a *sole-occupancy unit*— (A) to serve only the *storey* at which they are located; and	Verification will be required with the Construction Documentation

	(B) so that the travel distance from the entrance doorway of any *sole-occupancy unit* to the nearest fire extinguisher is not more than 10 m.	
Cl. E2.2a	General requirements (a) A building must comply with (b), (c), (d) and— (i) Table E2.2a as applicable to Class 2 to 9 buildings such that each separate part complies with the relevant provisions for the classification; and (ii) Table E2.2b as applicable to Class 6 and 9b buildings such that each separate part complies with the relevant provisions for the classification. (b) An air-handling system which does not form part of a smoke hazard management system in accordance with Table E2.2a or Table E2.2b and which recycles air from one *fire compartment* to another *fire compartment* or operates in a manner that may unduly contribute to the spread of smoke from one *fire compartment* to another *fire compartment* must— (i) be designed and installed to operate as a smoke control system in accordance with AS/NZS 1668.1; or (ii) (A) incorporate smoke dampers where the air-handling ducts penetrate any elements separating the *fire compartments* served; and (B) be arranged such that the air-handling system is shut down and the smoke dampers are activated to close *automatically* by smoke detectors complying with clause 4.10 of AS/NZS 1668.1; and for the purposes of this provision, each *sole-occupancy unit* in a Class 2 or 3 building is treated as a separate *fire compartment*. (c) Miscellaneous air-handling systems covered by Sections 5 and 11 of AS/NZS 1668.1 serving more than one *fire compartment* (other than a *carpark* ventilation system) and not	The building has a rise in storeys of 3 but is not provided with a smoke hazard management system

	forming part of a smoke hazard management system must comply with that Section of the Standard. (d) A smoke detection system must be installed in accordance with Clause 5 of Specification E2.2a to operate AS/NZS 1668.1 systems that are provided for zone smoke control and *automatic* air pressurisation for fire-isolated *exits*. In a— (a)Class 5 or 9b *school* building or part of a building having a *rise in storeys* of more than 3; or (b)Class 6, 7b, 8 or 9b building (other than a *school*) or part of a building having a *rise in storeys* of more than 2; or (c)building having a *rise in storeys* of more than 2 and containing— (i)a Class 5 or 9b *school* part; and (ii)a Class 6, 7b, 8 or 9b (other than a *school*) part, the building must be provided with— (d)in each *required fire-isolated stairway*, including any associated *fire-isolated passageway* or *fire-isolated ramp*, an *automatic* air pressurisation system for fire-isolated *exits* in accordance with AS 1668.1; or (e)a zone pressurisation system between vertically separated *fire compartments* in accordance with AS 1668.1, if the building has more than one *fire compartment*; or (f)an *automatic* smoke detection and alarm system complying with Specification E2.2a; or (g)a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5. **Note:** The requirement for pressurisation 'between vertically separated *fire compartments*' refers to *fire compartments* above and below each other, and does not apply to *fire compartments* within the same *storey*.	
Cl. E4.2	AS 2293.1 compliant emergency lighting must be provided throughout the building.	Verification will be required with the Construction Documentation

Cl. E4.4	Refer Clause E4.2 above for emergency lighting requirements	Verification will be required with the Construction Documentation
Cl. E4.5 **Cl. E4.8**	AS 2293.1 compliant Exit Signage is required above each Exit (door or stair)	Verification will be required with the Construction Documentation
Cl. E4.6 **Cl. E4.8**	AS 2293.1 compliant Directional signage must be provided where Exit signage is not directly visible	Verification will be required with the Construction Documentation

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