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BUILDING CODE OF AUSTRALIA 2022 COMPLIANCE REPORT

Project: Senior Dwellings
Building Address: 1-3 Rodd Street, Eden
Prepared for: Homes NSW
Date: 6 March 2025

Prepared by: Stephen Melville

Reviewed by: Ray Williams

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1.0 BASIS OF ASSESSMENT

1.1 Location and Building Description

The development subject to this report is located 1-3 Rodd Street, Eden.

The development consists of Senior Dwellings comprising 10 sole-occupancy units.

1.2 Purpose of Building Report

The purpose of this report is to:

- Review the relevant Deemed-to-Satisfy Provisions of the Building Code of Australia (BCA) in relation Sections B, C, D, E and F to identify any non-compliances with the relevant clauses for the proposed development in order to issue a Section 6.28 Crown Certificate, and
- Provide a schedule of fire safety measures for the proposed development.

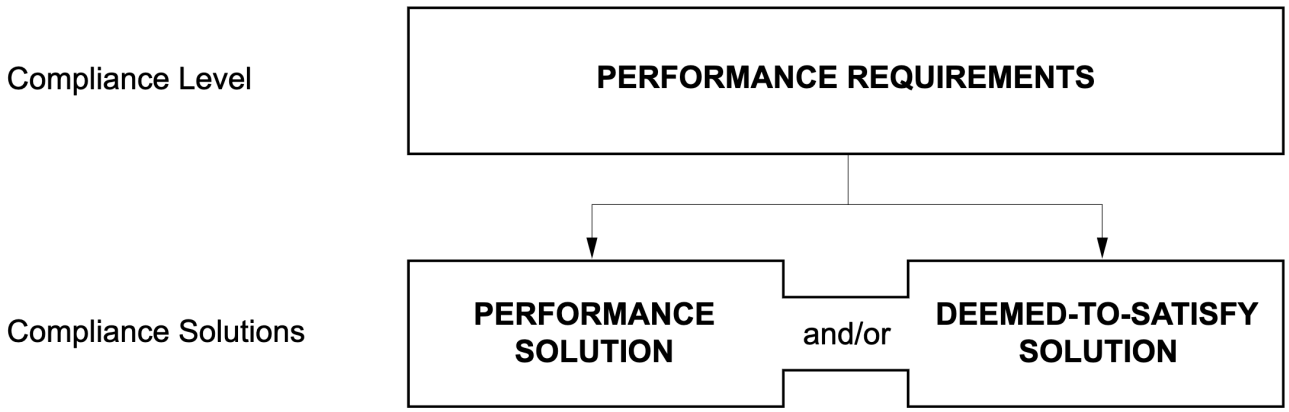
Section A2G1 of the Building Code of Australia 2022 states that the Performance Requirements can only be satisfied by a:

(a) Performance Solution; or
(b) Deemed-to-Satisfy Solution; or
(c) A combination of (a) and (b).

The following is noted:

- the term *Performance Solution* was formerly known as an *Alternative Solution*
- The terms *Performance Solution* and *Deemed-to-Satisfy Solution* were formerly used under the term *Building Solution.*

Figure A2G1 NCC compliance structure



1.3 Building Code of Australia (BCA)

This Report is based on the Deemed-to-Satisfy Provisions of the National Construction Code (NCC) Series – Building Code of Australia (BCA) 2022 – Volume 1 and the NSW variations where applicable and the Disability (Access to Premises – Buildings) Amendment Standards 2020.

1.4 Report Limitations

This Report does not include nor imply any detailed review or assessment for design compliance or upgrading for: –

1. The structural adequacy or design of the building;
2. The inherent derived fire-resistance ratings of any existing structural elements of the building (unless specifically referred to); and
3. The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire safety measure.

This Report does not include, imply or comply with:

1. Demolition Standards not referred to by the BCA;
2. Occupational Health and Safety Act;
3. Construction Safety Act; and
4. Requirements of other Regulatory Authorities including, but not limited to, Telstra, Water Authority, Electricity Authority, WorkSafe, RTA, Council and the like.
5. Conditions of any Development Consent.

Note:
The content of this Report is provided for information only to demonstrate the types of fire safety measures that may be required to be installed in a building of this design when referencing the Deemed-to-Satisfy provisions of the Building Code of Australia.

1.5 Relevant Stakeholders

The relevant stakeholders for this project are as listed in the table below.

Role	Organisation
Client	Homes NSW
Consent Authority	N/A
Principal Certifier	Buildcert NSW Pty Ltd
BCA Consultant	N/A
Access Consultant	N/A

1.6 Design Documentation

This Report has been based on the following:

- Plans prepared by Integrated Design Group

Drawing No.	Sheet Name	Rev No.	Date
-	Cover Page, Drawing List & Compliance Table	-	-
P5-0002	Basix Commitments (Blank page)	A	21-2-2025
P5-0003	Basix Commitments 02	A	21-2-2025
P5-0004	Area Calculations (Blank page)	A	21-2-2025
DD-0004	SEPP 65 Diagrams	A	21-2-2025
P5-0100	Site Plan	A	21-2-2025
P5-1100	Plan - Ground	A	21-2-2025

Drawing No.	Sheet Name	Rev No.	Date
P5-1101	Plan - Level 1	A	21-2-2025
P5-1102	Plan - Roof	A	21-2-2025
P5-2000	Elevations 01	A	21-2-2025
P5-2001	Elevations 02	A	21-2-2025
P5-3000	Sections 01	A	21-2-2025

- Building Code of Australia 2022 and relevant Australian Standards.
- Environmental Planning and Assessment Act 1979.
- Environmental Planning and Assessment Regulation 2021.
- Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.
- Disability (Access to Premises – Buildings) Standards 2010.

1.7 Summary of Non-compliances

The following table provides a list of Deemed-to-Satisfy compliance departures with the proposed design.

Summary of Non-Compliances		
Item #	**BCA Clause**	**Comments**
1.	Section B	Structural engineer's details and design statement is to be provided for all structural elements of the development.
2.	C2D2 & Spec 5	The building is to be designed to comply with Type B Construction If a stair shaft supports any floor or a structural part of it— A) The floor or part must have an FRL of 60/–/– or more; or B) The junction of the stair shaft must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the shaft. Spec 5C21(1)(d) – A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from— (i)concrete; or (ii)masonry; or (iii)subject to (2), fire-protected timber. (iv)or any combination of (i) to (iii) Plans to be reviewed as the design develops. **NB:** Refer to concessions available under S5C23(1)(b). Notwithstanding S5C21(1)(d), for *loadbearing internal walls* and *loadbearing fire walls*— (i) timber framing may be used; and (ii) *non-combustible* materials may be used.
3.	C2D9	Lightweight construction must comply with Spec 6 if it is used in a wall system that is required to have an FRL.
4.	C2D10	The following elements and their components are required to be non-combustible: - External walls and common walls, including all components incorporated in them including the façade covering, framing and insulation. Provide details confirming compliance. - Non-loadbearing internal walls where they are required to be fire-resisting. Provide details confirming compliance. - The flooring and floor framing of lift pits. Provide details confirming compliance.

		NB: Refer to concessions available under S5C23(1)(a) Notwithstanding C2D10(1) and (2), timber framing may be used for— (i) *external walls*; and (ii) *common walls*; and (iii) the floor framing of lifts pits; and (iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and (v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion.
5.	NSW C2D11 & Spec 7	The fire hazard properties for all floor linings and coverings, wall and ceiling linings are to be provided by the manufacture in the form of the following. (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory The rigid and flexible air-handling ductwork must comply with the relevant fire hazard properties set out in AS4254.1 and AS4254.2 in the form of the following. (a) a current CodeMark certificate, (b) a current certificate of Accreditation, (c) a report issued by an Accredited Testing Laboratory
6.	C2D14	Ancillary elements 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 complies with the allowable points in C2D14. The architect/structural engineer is to provide specifications for each ancillary building element to satisfy the non-combustibility provisions.
7.	C3D8	For the purposes of our assessment, we have assumed any fire rated walls located between or bounding sole occupancy units are not fire walls for the purpose of this assessment. Therefore, Specification 5, Table S5C21d does not apply to this development. The design team shall clarify on plan if the building contains any fire walls.
8.	C3D10	If parts of different classification are situated one above the other in adjoining storeys they must be separated as follows: Type B or C construction — If one of the adjoining parts is of Class 2, 3 or 4, the floor separating the part from the storey below must— 1. Be a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or 2. Have an FRL of at least 30/30/30; or 3. Have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal. A floor plan, sectional details and manufacturer system details and fire test report identifying the required fire protection measures for the floor/ceiling shall be provided with the structural/architectural details to confirm compliance.
9.	C3D14	Any main switchboard located in the building which sustains emergency equipment operating in emergency mode, is required to be fire separated from the remainder of the building by and FRL not less than 120/120/120 and doorways protected with a self-closing fire door having an FRL not less than –/120/30. All switchboards in the electrical distribution system, which sustain the electricity supply to the emergency equipment must provide full segregation by way of enclosed metal partitions designed to prevent the spread of any fault from non-emergency equipment switchgear to the emergency equipment switchgear. Where required, construction details and appropriate FRL details are required to confirm compliance.

10.	C4D12	Type B Construction – Sole-occupancy unit entry doors shall be provided with self-closing, tight fitting, solid core doors not less than 35mm thick. A door schedule is to be provided to confirm compliance.
11.	C4D13, C4D15, C4D16 & Spec 13	A Passive Fire/Stopping and Sealing detail and specification is to be provided for all penetrations in fire rated building elements. The detail and specification shall be prepared by an independent certifier/building surveyor who has the level of accreditation sufficient to issue the approval for the development, or a suitably qualified consultant or company specialising in passive fire/stopping and sealing of building elements.
12.	C4D17	A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire. A system of design is to be provided should columns be protected with lightweight construction to achieve an FRL.
13.	D2D6	For the purpose of this assessment, 2 required exits are located on ground level. Exit point 1 is located between units G.01 and G.02 and discharges to the Rodd St elevation. Exit 2 is located between units G.03 and G.04 and discharges to the external car park.
14.	D2D7-D2D11	The unobstructed height throughout a required exit or path of travel to a required exit must be not less than 2m, except the unobstructed height of doorway may be reduced to not less than 1980mm. A minimum 1m clear path of travel to exits is to be provided. Note: At the doorway the opening width may be reduced by 250mm. The door opening must achieve 850mm clear opening where the opening is required to comply with AS1428.1-2009. The common corridors and stairways are required to have an unobstructed width of 1m. Note, stairwells are measured between the narrowest points which is generally between the two handrails. Details to be shown on plan.
15.	D3D8	The following services or equipment may be located in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit, where they are enclosed by: (a) non-combustible construction, or (b) a fire protective covering and (c) suitably sealed against smoke spreading from the enclosure. Permitted services or equipment: 1. electricity meters, distribution boards or ducts; or 2. central telecommunications distribution boards or equipment; or 3. electrical motors or other motors serving equipment in the building. Fire protective covering means any one or more of the following: (a)13 mm fire-protective grade plasterboard. (b)12 mm cellulose cement flat sheeting complying with AS/NZS 2908.2 or ISO 8336. (c)12 mm fibrous plaster reinforced with 13 mm x 13 mm x 0.7 mm galvanised steel wire mesh located not more than 6 mm from the exposed face. (d)other material not less fire-protective than 13 mm fire-protective grade plasterboard, fixed in accordance with the normal trade practice for a fire-protective covering.

		Details to be nominated on architectural and electrical services plans.
16.	D3D9	The space below the stairs at each level must not be enclosed to form a cupboard or other enclosed space unless the walls and ceiling have an FRL of 60/60/60 and a –/60/30 fire door.
17.	D3D14 & D3D15	Stair details demonstrating compliance with AS1428.1-2009 to be reviewed as the design develops.
18.	D3D17 & D3D19	Balustrades are to be provided to stairs and balconies where there is a fall of more than 1m. I.e. min. 865mm above stair nosing's and 1m in all other locations. 2 x handrails complying with AS1428.1-2009 to be provided to all stairs. Plans are required to confirm compliance.
19.	D3D22	Handrails are to be located on both sides of ramps and stairways and shall be designed in accordance with Clause 12 of AS 1428.1-2009. Stair/ramp details and sections are to be provided to confirm compliance.
20.	D3D26	Doorways serving areas required to be accessible in accordance with Part D4 of the BCA are to be provided with downward action lever door hardware. The hand of a person who cannot grip must not slip from the handle during operation of the latch. The clearance between the handle and the back plate or door face at the centre grip section of the handle must not be less than 35mm and not more than 45mm. Refer to AS1428.1-2009 Fig 35(A).
21.	D3D29	Bedroom windows are required to be protected in accordance with this clause.
22.	Part D4	A disability access design audit certified by an accredited access consultant is to be provided confirming compliance with Part D4 of the BCA and AS1428.1-2009.
23.	E1D2	A fire hydrant system is required to serve the building which exceeds 500m2. Provide hydraulic details and a design certificate prepared by an accredited practitioner (fire safety) to confirm compliance with pressure/flow and coverage in accordance with AS 2419.1-2021.
24.	E1D14	The building is to be provided with portable fire extinguishers in accordance with E1D14 and AS 2444-2001.
25.	E1D16	In a building under construction— Not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit. The CC issue plans are to reference the fire precautions during construction requirements as noted above.
26.	E1D17	Consideration to be given to the installation and maintenance for Solar Panels. Fire and Rescue NSW Recommendations for PV Generating Systems shall be installed in the building. Refer to recommendations located in Section 3 below.
27.	E2D3, E2D8 & Spec 20	The building is to be provided with an automatic smoke detection and alarm system complying with Specification 20 Clause 3, or Specification 20 Clause 4, or a combination of a smoke alarm system within the sole-occupancy units and a smoke detection system in areas not within sole-occupancy units complying with Spec 20 Clause 5. Electrical details and design certificate to be provided by an accredited practitioner (fire safety) prior to issue of any approval.
28.	E3D2, E3D4, E3D6, E3D7, E3D8 & Spec 24	The lift design is to comply with these clauses and AS1735.12-1999 and manufacturer details and specifications are to be provided.
29.	E4D2, E4D5, E4D6, E4D8 & Spec 25	Emergency lighting, exit signs and direction signs are required throughout the building, including common corridors, non-fire-isolated stairways, lift and public areas. Electrical details and design certificate are required to confirm compliance with these clauses and AS/NZS 2293.1-2018.
30.	F1D1	The architect or façade engineer is to demonstrate that the construction of the roof and external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements.

31.	F1D3	Stormwater drainage must comply with AS/NZS 3500.3-2021. Stormwater details and design statement are to be provided to demonstrate compliance with F1D3 and AS/NZS 3500.3-2021.
32.	F1D4	Exposed joints in the drainage surface on balcony, podium or similar horizontal surface part of a building must be protected in accordance with Section 2.9 of AS 4654.2; and not be located beneath or run through a planter box, water feature or similar part of the building. The architect and structural engineer are to provide sections demonstrating compliance.
33.	F1D5	The architect and structural engineer are to provide sections demonstrating compliance with AS 4654.1 and AS 4654.2 with particular attention to detail on the stepdown / termination heights. Refer to wind classification to determine the balcony stepdown/termination heights. Pedestal pavers to be installed therefore, capable of compliance.
34.	F1D6	Architectural/structural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D6 Damp-proofing and AS/NZS 2904 or AS3660,1 as applicable.
35.	F1D7	Where floors are directly laid on the ground a vapour barrier must be provided in accordance with AS2870. Architectural/structural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D7 and AS 2870.
36.	F1D8	Subfloor spaces must include openings in external and internal subfloor walls as specified for the climatic zones in Table F1D8 and Figure F1D8 and maintain clearance between the ground surface and the lowest horizontal member of the subfloor according to Table F1D8.
37.	F2D2	Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance with F2D2 Wet Area Construction, Specification 26 and AS 3740-2021.
38.	F2D4	Where a floor waste is installed, the continuous fall of a floor plane to the waste must be minimum 1:80 and maximum 1:50. Plans are required to confirm compliance.
39.	F3D2	A roof must be covered with— - roof tiles complying with AS 2049, fixed in accordance with AS 2050; or - metal sheet roofing complying with AS 1562.1; or - plastic sheet roofing designed and installed in accordance with AS 1562.3; or - terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or - an external waterproofing membrane complying with F1D5. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
40.	F3D3	Sarking-type material used for weatherproofing of roofs and walls must comply with AS 4200.1 and AS 4200.2. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
41.	F3D4	Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance for any glazed assemblies. Provide a window schedule.
42.	F3D5	The external wall cladding must be in accordance with: - Masonry to AS 3700; or - Autoclaved aerated concrete to AS 5146.3; or - Metal wall cladding to AS 1562.1 Provide product certification and plans are required to confirm compliance. Where the cladding does not meet this provision, it must be assessed on a performance basis (F3P1 Weatherproofing performance Solution Report). Alternatively, a CodeMark Certificate demonstrating compliance with F3P1 shall be provided.
43.	F4D2	Details of the location of the laundry facility including a washbasin and location of washing machine is required to be incorporated within the design documentation. Note. A kitchen sink or washbasin must not be counted as a laundry washtub.

44.	F6D5	Artificial lighting is required to be provided throughout the building in accordance with this Clause and AS/NZS1680.0-2009. Electrical design details and a compliance statement to be provided.
45.	F6D3, F6D4, F6D6, F6D7 & F6D8	Habitable rooms are to be provided with a minimum 10% natural light and 5% natural ventilation. Where natural ventilation is not achievable, a mechanical ventilation or air-conditioning system complying with AS1668.2 is to be provided. Provide calculations including the floor area of the room, area of the window and area of the openable portion of the window to confirm compliance.
46.	F6D9 & F6D10	The bathrooms located centrally of each sole occupancy unit are required to be provided with mechanical ventilation. Mechanical details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
47.	F7D5, F7D6, F7D7 & F7D8	A system for sound insulation of the floors/walls/ceiling is to be provided on plans to demonstrate compliance with Part 7 Sound Transmission & Insulation and also specify/maintain the fire rating level (FRL's) in accordance with BCA Spec 5.
48.	F8D3	Where a pliable building membrane is installed in an external wall, it must comply with AS4200.1, be installed in accordance with AS4200.2 and be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. A specification is to be provided to demonstrate compliance. The subject site is climate zone 6 which impacts the vapor permeance level required for the pliable membrane.
49.	F8D4	Provide details including a design statement to demonstrate compliance with the flow rate and discharge (kitchen, bathroom, sanitary compartment or laundry) of exhaust systems (bathroom – 25 L/s and kitchen & laundry – 40 L/s). Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air. Note: Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air. This requirement does not apply if a condensing-type clothes drying appliance is installed.
50.	F8D5	Provide details including a design statement for any ventilation of roof space.
51.	Section J	A report is required to demonstrate that the energy efficiency of the proposed building comply with the relevant clauses. **Note**: The Section J commitments are to be illustrated on the final CC plans with BASIX commitments.

1.8 Terminology

- ***Accredited Practitioner (Fire Safety)***
  An Accredited Practitioner (Fire Safety) is the holder of an accreditation under the *Building and Development Certifiers Act 2018* that authorises the holder to exercise the functions of an accredited practitioner (fire safety).

- ***Building Code of Australia***
  Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act 1979 and Regulation 2021.

- ***Effective Height***
  Effective height means the vertical distance between the floor of the lowest storey included in a determination 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).

- ***Exit***

Exit means –
(a) Any, or any combination of the following if they provide egress to a road or open space—
  (i) An internal or external stairway.
  (ii) A ramp.
  (iii) A fire-isolated passageway.
  (iv) A doorway opening to a road or open space.
(b) A horizontal exit or a fire-isolated passageway leading to a horizontal exit.

- ***Fire Compartment***
  Fire compartment means either –
  (a) the total space of a building; or
  (b) when referred to in—
    (i) the *Performance Requirements* — any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
    (ii) the *Deemed-to-Satisfy Provisions* — any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that *required* for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the *Deemed-to Satisfy Provisions* of the relevant Part.

- ***Fire Resistance Level (FRL)***
  FRL means the grading periods in minutes tested in accordance with Specifications 1 and 2 for the following criteria -
  a) *structural adequacy*; and
  b) *integrity;* and
  c) *insulation*,
  and expressed in that order.

- ***Fire Source Feature (FSF)***
  Fire source feature means any one of the following:
  (a) The far boundary of a road, river, lake or the like adjoining the allotment.
  (b) A side or rear boundary of the allotment.
  (c) An external wall of another building on the allotment which is not a Class 10 building.

- ***Fire Wall***
  Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments.

- ***Loadbearing***
  Loadbearing means intended to resist vertical forces additional to those due to its own weight.

- ***Mezzanine***
  Mezzanine means an intermediate floor within a room that is not enclosed by a wall.

- ***Non-combustible***
  Non-combustible means—
  (a) applied to a material — not deemed combustible as determined by AS 1530.1 — Combustibility Tests for Materials; and
  (b) applied to construction or part of a building — constructed wholly of materials that are not deemed combustible

- ***Open Space***

Open space means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

- ***Performance Requirements of the BCA***
  Performance requirements of the BCA means a Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must achieve.

  Compliance with the Performance Requirements can only be achieved by-
  (a) complying with the Deemed-to-Satisfy Provisions; or
  (b) formulating an Alternative Solution which-
  (i) complies with the Performance Requirements; or
  (ii) is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
  a combination of (a) and (b).

- ***Sarking-Type Material***
  Sarking-type material means a material such as a reflective insulation or other flexible membrane of a type normally used for a purpose such as waterproofing, vapour management or thermal reflectance.

- ***Smoke Growth Rate Index***
  Smoke growth rate index (SMOGRA RC) means the index number for smoke used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.

- ***Sole-Occupancy Unit***
  Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—
  a) a dwelling; or
  b) a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
  c) a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
  d) a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

- ***Statutory measures***
  Means the measures specified in the S79(4) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

1.	Access Panels, Doors and Hoppers in Fire-Resisting Shafts
2.	Automatic Fail-Safe Devices
3.	Automatic Fire Detection & Alarm Systems (Inc Automatic shutdown of A/C system)
4.	Automatic Fire Suppression System (sprinklers)
5.	Emergency Lifts
6.	Emergency Lighting
7.	Emergency Warning and Intercommunication Systems
8.	Exit Signs
9.	Fire Control Centres and Rooms
10.	Fire Dampers
11.	Fire Doors
12.	Fire Hydrant Systems
13.	Fire Seals Protecting Openings in Fire-Resisting Components of the Building
14.	Fire Shutters
15.	Fire Windows

16.	Hose Reel Systems
17.	Lightweight Construction
18.	Mechanical Air Handling Systems (Inc Automatic shutdown of A/C system)
19.	Perimeter Vehicular Access for Emergency Vehicles
20.	Portable Fire Extinguishers
21.	Safety Curtains in Proscenium Openings
22.	Smoke Alarms and Heat Alarms
23.	Smoke and Heat Vents
24.	Smoke Dampers
25.	Smoke Detectors and Heat Detectors (Inc Automatic shutdown of A/C system)
26.	Smoke Doors
27.	Solid-Core Doors
28.	Standby Power Systems
29.	Wall Wetting Sprinkler and Drencher Systems
30.	Warning and Operational Signs
31.	**Performance Solution -**
32.	**Other Fire Safety Measures –**

2.0 BUILDING DESCRIPTION

2.1 BCA Assessment Information

This section incorporates the access related provisions contained in the BCA. A summary of the compliance status of the architectural design is subsequently provided relevant to each clause. Alongside each clause heading; compliance shall be indicated by using one (or more) of the following compliance categories –

Characteristics	Building Classification and Description	
Climate Zone as per BCA Map https://www.abcb.gov.au/resources/climate-zone-map	6	
Building Classification (Part A6)	Class 2	Residential Flat Building
	Class 10b	Retaining walls
Rise in Storeys (C2D3)	2	
Levels Contained	2	
Type of Construction (C2D2 & Table C2D2)	Type B Construction	
Effective Height (Schedule 1 – Definitions)	≤12m	
Floor Area (Schedule 1 – Definitions)	Ground Floor (Includes all covered areas which may contribute to fire load)	App 479sqm
	Level 1 (Includes all covered areas which may contribute to fire load)	App 476sqm
*A6G1 – 10% rule - Where a part of a building has been designed, constructed or adapted for a different purpose and is less than 10% of the floor area of the storey it is situated on, the classification of the other part of the storey may apply to the whole storey. (N/A Laboratory, Class 9b Early Childhood Center or Class 2, 3 or 4 part).		
Largest Fire Compartment as per BCA definition The following fire compartments have been assumed: 1. The Class 2, 3 or 4 portions of a building are not subject to floor area and volume limitations of C3D3. 2. The building is considered a single fire compartment for the purposes of this assessment.		955sqm

- **Determining a building classification (BCA A6G1)**

  (1) The classification of a building or part of a building is determined by the purpose for which it is designed, constructed or adapted to be used.

  (2) Each part of a building must be classified according to its purpose and comply with all the appropriate requirements for its classification.

  Exemption 1: For A6G1(1) where a part of a building has been designed, constructed or adapted for a different purpose and is less than 10% of the floor area of the storey it is situated on, the classification of the other part of the *storey* may apply to the whole *storey*.

- **Limitation 1:** *Exemption 1* does not apply where the minor use of a building is a laboratory or a Class 2, 3 or 4 part of a building.
  - A room that contains a mechanical, thermal or electrical facility or the like that serves the building must have the same classification as the major part or principal use of the building or *fire compartment* in which it is situated.
  - Unless another classification is more suitable an *occupiable outdoor area* must have the same classification as the part of the building to which it is associated.

2.2 Fire Sources Features

Summary table for the building setbacks.

Fire Source Feature	Setback
Front (Rodd St) to far boundary of Rodd St	**18m or more to a fire-source feature**
Side North/East Allotment Boundary	**3m to less than 9m from a fire-source feature**
Side South/West Allotment Boundary	**3m to less than 9m from a fire-source feature**
Rear North/West Allotment Boundary	**3m to less than 9m from a fire-source feature**
Other buildings on the allotment	N/A

Table C3D3: Building Floor Area & Volume Limitations

Class		Type A	Type B	Type C
5, 9b or 9c aged care building parts	Maximum floor area	8,000m^2	5,500m^2	3000m^2
5, 9b or 9c aged care building parts	Maximum volume	48,000m^3	33,000m^3	18,000m^3
6,7,8 or 9a (except patient care areas) parts	Maximum floor area	5,000m^2	3,500m^2	2,000m^2
6,7,8 or 9a (except patient care areas) parts	Maximum volume	30,000m^3	21,000m^3	12,000m^3
N/A Building floor area and volume limitations do not apply to a Class 2 building				

3.0 BUILDING CODE OF AUSTRALIA ASSESSMENT (BCA)

Legend:

N/A	Not applicable
Noted	Information purposes only
Applies	Applicable for project
Complies/Yes	Compliant
Capable of Compliance	Capable of Compliance subject to design changes or further information being provided to demonstrate compliance with the BCA
Not Specified	Insufficient information to ascertain compliance
Non-compliant/No	Design does not comply with Deemed-to-Satisfy provisions of BCA
Performance Solution	Performance Solution to meet the Performance Requirements of BCA

Item	Description	Status	Comments
SECTION B STRUCTURAL PROVISIONS			
B1D2	Resistance to actions	Capable of Compliance	Structural engineer's details and a design statement is to be provided for all structural elements of the development to demonstrate compliance with the structural provisions of Section B.
B1D3	Determination of individual actions	Capable of Compliance	Structural engineer's details and a design statement is to be provided for all structural elements of the development to demonstrate compliance.
B1D4	Determination of structural resistance of materials and forms of construction	Capable of Compliance	Structural engineer's details and a design statement is to be provided for all structural elements of the development to demonstrate compliance.
B1D5	Structural software	Capable of Compliance	Structural engineer's details and a design statement is to be provided for all structural elements of the development to demonstrate compliance.
B1D6	Construction of buildings in flood hazard areas	N/A	
SECTION C FIRE RESISTANCE			
Part C2	**Fire Resistance and Stability**		
C2D2	Type of construction	Capable of Compliance	Type B Construction
	Fire source features (Proposed Building)	Capable of Compliance	Load bearing external walls and columns located within 18m of a fire source feature must be fire rated.
	External wall/column to South/West side boundary	3m to less than 9m from a fire source feature	External load bearing walls located <18m from a side boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21a.

Item	Description	Status	Comments
			External load bearing columns located <18m from a side boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21c.
	External wall/column to North/East side boundary	3m to less than 9m from a fire source feature	External load bearing walls located <18m from a side boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21a. External load bearing columns located <18m from a side boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21c
	External wall/column to North/West rear boundary	3m to less than 9m from a fire source feature	External load bearing walls located <18m from a rear boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21a. External load bearing columns located <18m from a rear boundary shall achieve a fire resistance level in accordance with Specification 5 Table S5C21c.
	Externa wall/column to far boundary of Rodd St	Greater than 18m from a fire source feature	N/A
	Other buildings on site	No other buildings located on the lot.	N/A
Spec 5	Fire-resisting construction	Noted	The proposed development can comply with the FRL requirements of Building Elements in Tables S5C21a – S5C21g of Spec 5, S5C21 for Type B Construction. Details to be reviewed as the design develops.
S5C2	Exposure to fire source feature	Noted	The building is required to be constructed in accordance with Specification 5. External loadbearing walls and columns located within 18m of a fire source feature require fire protection.
S5C3	Fire protection for a support of another part	Noted	Where a part of a building required to achieve a fire resistance level depends upon the direct or lateral support from another part to maintain its fire resistance level, the supporting part must have FRL not less that required by BCA Specification 5 throughout.
S5C4	Lintels	Noted	A lintel must achieve the fire resistance level required for the part of building. This

Item	Description	Status	Comments
			does not apply to non-loading bearing walls of a Class 2 part of the building.
S5C5	Method of attachment not to reduce the fire-resistance of the building elements	Noted	The method of attaching or installing a finish, lining, ancillary element or service installation to the building element must not reduce the fire resistance of that element to below that required.
S5C6	General concessions	Noted	Refer to comments below.
S5C6(1)	Steel columns	N/A	Building exceeds design limitations. Therefore, the steel column concession does not apply.
S5C6(2)	Timber structures	N/A	Applies to single storey buildings only.
S5C6(3)	Structures on roofs	N/A	Not proposed.
S5C6(4)	Curtain walls and panel walls	N/A	Not proposed.
S5C6(5)	Balconies and verandahs	Noted	A balcony or the like (and any incorporated supporting part) which is attached to, or forming part of the building need not comply with Table S5C21c and S5C21g where it does not form part of the only path of travel to a required exit from the building. As the balconies are not configured as the required exits, the required FRL noted above is not required to be achieved.
S5C7	Mezzanine Floors: Concession	N/A	Concession noted but is not applicable.
S5C8	Enclosure of shafts	Noted	Shafts which are required to achieve a fire resistance level must be enclosed at the top and bottom by construction achieving a fire resistance level not less than that required for the wall of a non- loadbearing shaft in the same building.
S5C9	Car parks in Class 2 and 3 buildings	N/A	
S5C10	Residential care buildings	N/A	
S521(1)(a)	Type B Construction fire-resisting construction – fire- resistance of building elements	Capable of Compliance	Each building element listed in Tables S5C21a, S5C21b, S5C21c, S5C21d, S5C21e, S5C21f, S5C21g, must have an FRL not less than that listed in the Tables for the Class of building concerned. For the purposes of Table S5C21a and Table S5C21b, external wall includes any column and other building element incorporated within it or other external building element. Plans to be reviewed as the design develops.

Item	Description	Status	Comments
S521(1)(b)	Type B Construction fire-resisting construction – fire- resistance of building elements	Capable of Compliance	If a stair shaft supports any floor or a structural part of it— A) The floor or part must have an FRL of 60/–/– or more; or B) The junction of the stair shaft must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the shaft. Architectural and structural engineer certification shall confirm these provisions have been satisfied. Manufacturer fire system details and fire test reports to be provided.
S521(1)(c)	Type B Construction fire-resisting construction – fire- resistance of building elements	Capable of Compliance	Any internal wall which is required to have an FRL with respect to integrity and insulation, except a wall that bounds a sole-occupancy unit in the topmost (or only) storey and there is only one unit in that storey, must extend to: A) The underside of the floor next above if that floor has an FRL of at least 30/30/30; or B) The underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or C) The underside of the roof covering if it is non-combustible and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or 450 mm above the roof covering if it is combustible. Plans to be reviewed as the design develops.
S521(1)(d)	Type B Construction fire-resisting construction – fire- resistance of building elements	Capable of Compliance	Spec 5C21(1)(d) – A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from— (i) concrete; or (ii) masonry; or (iii) subject to (2), fire-protected timber. (iv) or any combination of (i) to (iii) Plans to be reviewed as the design develops.

Item	Description	Status	Comments
			NB: Refer to concessions available under S5C23(1)(b). Notwithstanding S5C21(1)(d), for *loadbearing internal walls* and *loadbearing fire walls*— (i) timber framing may be used; and (ii) *non-combustible* materials may be used.
S521(1)(f)	Type B Construction fire-resisting construction – fire- resistance of building elements	Capable of Compliance	In a Class 2 building, except where within the one sole-occupancy unit, a floor separating storeys, or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, must: A) Be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or B) Have an FRL of at least 30/30/30; or C) Have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal. Plans to be reviewed as the design develops.
S5C23	Class 2 and 3 buildings: Concession	Noted	(1) In a Class 2 or 3 building with a *rise in storeys* of not more than 2— (a) notwithstanding C2D10(1) and (2), timber framing may be used for— (i) *external walls*; and (ii) *common walls*; and (iii) the floor framing of lifts pits; and (iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and (v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion; and (b) notwithstanding S5C21(1)(d), for *loadbearing internal walls* and *loadbearing fire walls*— (i) timber framing may be used; and (ii) *non-combustible* materials may be used; and (c) notwithstanding S5C3(1)(c), timber framing may be used for a part of a building that provides support to a part of

Item	Description	Status	Comments
			a building constructed of timber framing or *non-combustible* material in accordance with S5C23(1)(a) and (b).
C2D3	Calculation of rise in storeys	Noted	No. of Storeys = 2
C2D4	Buildings of multiple classification	N/A	The building is Class 2 throughout.
C2D6	Two storey Class 2, 3 or 9 buildings concession	N/A	A building which has a rise in storeys of two may be of Type C Construction if it is a Class 2 building (or mixture of these building classification) and each sole occupancy has access to at least two exits or its own direct access to a road or open space. The upper-level units do not have access to two exits or their own direct access to a road or open space.
C2D7	Class 4 parts of buildings	N/A	N/A
C2D8	Open spectator stands and indoor sports stadiums	N/A	N/A
C2D9 and Spec 6	Lightweight construction	Capable of Compliance	All lightweight construction is to comply with Spec 5 and C2D10. Manufacturers specifications are to be provided to demonstrate compliance.
C2D10	Non-combustible building elements	Capable of Compliance	(1) In a Class 2 or 3 building with a *rise in storeys* of not more than 2— (a) notwithstanding C2D10(1) and (2), timber framing may be used for— (i) *external walls*; and (ii) *common walls*; and (iii) the floor framing of lifts pits; and (iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and (v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion; and (b) notwithstanding S5C21(1)(d), for *loadbearing internal walls* and *loadbearing fire walls*— (i) timber framing may be used; and (ii) *non-combustible* materials may be used; and (c) notwithstanding S5C3(1)(c), timber framing may be used for a part of a building that provides support to a part of a building constructed of timber

Item	Description	Status	Comments
	The following table lists building elements required to be non-combustible, concrete, or masonry in a building of Type A construction. **Building elements required to be non-combustible, concrete, masonry or fire-protected timber in a building of Type A construction** | Building element | Type A construction | | --- | --- | | External wall | Non-combustible | | Common wall | Non-combustible | | Floor and floor framing of lift pit | Non-combustible | | All loadbearing internal walls (including those of shafts) | Concrete, masonry or fire-protected timber | | Loadbearing fire walls | Concrete, masonry or fire-protected timber | | Non-loadbearing walls required to be fire-resistant | Non-combustible | | Non-loadbearing lift, ventilation, pipe, garbage and like shafts which do not discharge hot products of combustion | Non-combustible | The following table lists building elements required to be non-combustible, concrete, masonry or fire-protected timber in a building of Type B construction. **Building elements required to be non-combustible, concrete, masonry or fire-protected timber in a building of Type B construction** | Building element | Type B construction | | --- | --- | | External wall | Non-combustible | | Common wall | Non-combustible | | Floor and floor framing of lift pit | Non-combustible | | All loadbearing internal walls (including those of shafts) | Concrete, masonry or fire-protected timber | | Loadbearing fire walls | Concrete, masonry or fire-protected timber | | Non-loadbearing walls required to be fire-resistant | Non-combustible | | Non-loadbearing lift, ventilation, pipe, garbage and like shafts which do not discharge hot products of combustion | Non-combustible (subject to conditions outlined in C1.9(b)) | It should be noted that Parts C1, C2 and C3 and the associated Specifications contain some further non-combustibility requirements for certain building elements. Note also that C1.9 and other Deemed-to-Satisfy Provisions contain a number of concessions from non-combustibility. For example, C1.13 allows fire-protected timber to be used where an element is required to be non-combustible. C1.9(d) allows a concession from the requirement for non-combustibility for minor ancillary items forming part of an external wall. These minor ancillary items include gaskets, caulking, sealants and damp-proof courses. They may be used wherever a material is required to be non-combustible. In some instances the material may contain combustible components. C1.9(e) lists materials deemed to be non-combustible. These materials may be used wherever a material is required to be non-combustible. In some instances the material may contain combustible components. The materials listed are not intended to apply to fire place hearths (see G2.3).		framing or *non-combustible* material in accordance with S5C23(1)(a) and (b). **NB:** Refer to concessions available under S5C23(1)(a) Notwithstanding C2D10(1) and (2), timber framing may be used for— (i) *external walls*; and (ii) *common walls*; and (iii) the floor framing of lifts pits; and (iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and (v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion.
NSW C2D11 and Spec 7.	Fire hazard properties	Capable of Compliance	The fire hazard properties of the proposed floor linings and coverings, wall and ceiling linings in common areas and Specific areas (Refer to Note 2) are to be provided to the Principal Certifier prior to issue of the Construction Certificate. Comments: The fire hazard properties for all floor linings and coverings, wall and ceiling linings are to be provided by the manufacture in the form of the following: a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory Capable of complying Air-handling ductwork – Rigid and flexible ductwork in a Class 2 to 9 building must comply with the relevant fire hazard properties set out in AS4254.1 and AS4254.2 and provided to the Principal Certifier prior to issue of the Construction Certificate.

Item	Description	Status	Comments
			Comments: Rigid and flexible air-handling ductwork shall comply with the relevant fire hazard properties set out in AS4254.1 and AS4254.2 in the form of the following. a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory
C2D12 and Spec 8	Performance of external walls in fire	N/A	Not applicable – no concrete external walls are proposed.
C2D13	Fire protected timber "concession"	Noted	Note only.
C2D14	Ancillary elements	Capable of Compliance	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. (d) A grate or grille not more than 2sqm 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— - achieves a group number of 1 or 2; and - does not extend beyond one storey; and - does not extend beyond one fire compartment; and - is separated vertically from other signs permitted under (h) by at least 2 storeys. (i) An awning, sunshade, canopy, blind or shading hood other one provided under (a) that— - meets the relevant requirements of Table S7C7 as for an internal element; and - serves a storey— at ground level; or immediately above a storey at ground level; and - does not serve an exit, where it would render the exit unusable in a fire. (j) A part of a security, intercom or announcement system. (k) Wiring.

Item	Description	Status	Comments
			(l) Waterproofing material installed in accordance with AS4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface. (m) collars, sleeves and insulation associated with service installations. (n) Screens applied to vents, weepholes and gaps complying with AS3959. (o) Wiper and brush seals associated with doors, windows or other openings. (p) A gasket, caulking, sealant or adhesive directly associated with (a) to (o). The architect/structural engineer is to provide evidence of suitability under BCA A5G3 via the following. a current CodeMark certificate, a current certificate of Accreditation, a report issued by an Accredited Testing Laboratory or a certificate, or a report from a professional engineer for each non-combustible ancillary element.
Part C3 Compartmentation and Separation		**Table C2.2 Maximum size of fire compartments or atria** Classification / Type A construction / Type B construction / Type C construction 5, 9b or 9c: Max *floor area*—8000 m² Max volume—48000 m³ / Max *floor area*—5500 m² Max volume—33000 m³ / Max *floor area*—3000 m² max volume—18000 m³ 6, 7, 8 or 9a (except for *patient care areas*): Max *floor area*—5000 m² Max volume—30000 m³ / Max *floor area*—3500 m² Max volume—21000 m³ / Max *floor area*—2000 m² Max volume—12000 m³ **Note to Table C2.2:** See C2.5 for maximum size of compartments in *patient care areas* in Class 9a *health-care buildings*.	
C3D3	General floor area and limitations	Noted	The max floor area and volume limitations do not apply to Class 2 portions of the building.
C3D4	Large isolated buildings	N/A	N/A
C3D5	Requirements for open spaces and vehicular access	N/A	N/A
C3D6	Class 9 buildings	N/A	N/A
C3D7	Vertical separation of openings in external walls	N/A	N/A
C3D8	Separation by fire walls	Not Specified	It is our understanding the building does not contain any fire walls. For the purposes of our assessment, we have assumed any fire rated walls located between or bounding sole occupancy units are not fire walls for the purpose of this assessment. Therefore, Specification 5, Table S5C21d does not apply to this development. **The design team shall clarify on plan if the building contains any fire walls.**

Item	Description	Status	Comments
			Fire Wall - Fire wall means a wall with an appropriate resistance to the spread of fire that divides a storey or building into fire compartments.
C3D9	Separation of classifications in the same storey	N/A	This clause does not apply as it only applies to different classifications located above one another. The building is Class 2 throughout.
C3D10	Separation of classifications in different storeys	Capable of Compliance	If parts of different classification are situated one above the other in adjoining *storeys* they must be separated as follows; Type B or C construction — If one of the adjoining parts is of Class 2, 3 or 4, the floor separating the part from the *storey* below must— (i) be a floor/ceiling system incorporating a ceiling which has a *resistance to the incipient spread of fire* to the space above itself of not less than 60 minutes; or (ii) have an FRL of at least 30/30/30; or (iii) have a *fire-protective covering* on the underside of the floor, including beams incorporated in it, if the floor is *combustible* or of metal. A floor plan, sectional details and manufacturer system details and fire test report identifying the required fire protection measures for the floor/ceiling shall be provided with the structural/architectural details to confirm compliance.
C3D11	Separation of lift shafts	N/A	The lift does not connect more than 2 storeys.
C3D12	Stairways and lifts in one shaft	N/A	The plans indicate that no stairways and lifts are in one shaft.
C3D13	Separation of equipment	N/A	
C3D14	Electricity supply system	Capable of Compliance	Details are to be provided for the proposed electrical supply to the building. **Note**: Emergency equipment is to be fire separated in separate switchboards from non-emergency equipment. To be reviewed as the design develops.
C3D15	Public corridors in Class 2 and 3 buildings	N/A	In a Class 2 or 3 building, a public corridor (*enclosed*), if more than 40 m in length,

Item	Description	Status	Comments
			must be divided at intervals of not more than 40 m with smoke-proof walls complying with Specification 11. The public corridors serving the sole-occupancy units do not exceed 40m in distance.
Part C4 Protection of Openings			
C4D3	Protection of openings in external walls that are required to have an FRL	N/A	Building openings are not located within 3m of a fire-source feature.
C4D4	Separation of openings in different fire compartments	N/A	Does not apply to Class 2 sole occupancy units.
C4D5	Acceptable methods of protection	N/A	The windows and doors are required to be provided with the following: Doorways – (i) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or (ii) –/60/30 fire doors that are self-closing or automatic closing. Windows – (i) Internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or (ii) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or (iii) –/60/– automatic closing fire shutters. Other openings – (i) Excluding voids – internal or external wall-wetting sprinklers, as appropriate; or (ii) Construction having an FRL not less than –/60/–.
C4D6	Doorways in fire walls	N/A	The building does not contain any fire walls. Refer to comments under C3D8 above.
C4D7	Sliding fire doors	N/A	N/A - No sliding fire doors are proposed.
C4D8	Protection of doorways in horizontal exits	N/A	N/A - No horizontal exits are proposed.
C4D9	Openings in fire-isolated exits	N/A	N/A - The stairs are not required to be constructed as fire isolated exits.

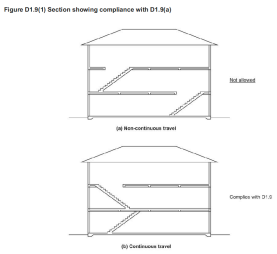
Item	Description	Status	Comments
C4D10	Service penetrations in fire-isolated exits	N/A	N/A - The stairs are not required to be constructed as fire isolated exits.
C4D11	Openings in fire-isolated lift shafts	N/A	N/A - The lift shaft connects only two storeys and is therefore not required to be located in a fire-isolated shaft.
NSW C4D12	Bounding construction: Class 2, 3 & 4 buildings	Capable of Compliance	Type B Construction – Sole-occupancy unit entry doors shall be provided with self-closing, tight fitting, solid core doors not less than 35mm thick. A door schedule is to be provided to confirm compliance.
C4D13	Openings in floors for services	Capable of Compliance	(1) Where a service passes through— (a) a floor that is required to have an FRL with respect to integrity and insulation; or (b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (b). (2) A service must be protected— (a) in a building of **Type B** construction, by a shaft that will not reduce the fire performance of the building elements it penetrates; or (b) in accordance with C4D15. (3) Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering. An approved system from the manufacture is to be provided to maintain the FRL for services that pass through a floor, wall or ceiling in the form of the following: a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory
C4D14	Openings in shafts	N/A	N/A – Applies to buildings constructed using Type A Construction
C4D15	Openings for service installations **Note**: Should an insulation used as a thermal break to comply with Section J be proposed the service	Capable of Compliance	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

Item	Description	Status	Comments
	penetrations, are not to be covered by the lining and therefore, cutback and then taped where the foam is exposed. This only applies to bottom down fire stopping systems such as fire collars and only requires the steel ring of the collar to be exposed.		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. (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 13 (i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification 13 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.

Item	Description	Status	Comments
			(ii) The service is sanitary plumbing installed in accordance with Specification 13 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 13 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 13. An approved system from the manufacture is to be provided to maintain the FRL for services that pass through a floor, wall or ceiling in the form of the following. a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory **Note:** It is recommended that the services of a passive fire safety systems practitioner be engaged to review the systems, undertake inspections and provide a penetration register and certification of the as installed systems.
C4D16	Construction joints	Capable of Compliance	(1) Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner –

Item	Description	Status	Comments
			(a) Identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or (b) That differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL. (2) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. (3) The requirements of (a) do not apply where joints, spaces and the like between fire-protected timber elements are provided with cavity barriers in accordance with Specification 9. An approved system from the manufacture is to be provided to maintain the FRL for construction joints in the form of the following. a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory
C4D17	Columns protected with lightweight construction to achieve an FRL	Capable of Compliance	A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire. A system of design is to be provided should columns be protected with lightweight construction to achieve an FRL.
SECTION D ACCESS & EGRESS			
Part D2	**Provision for Escape**		
D2D2	Application of part	Applies	
D2D3	Number of Exits required	Complies/Yes	All buildings – Every building must have at least one exit from each storey.

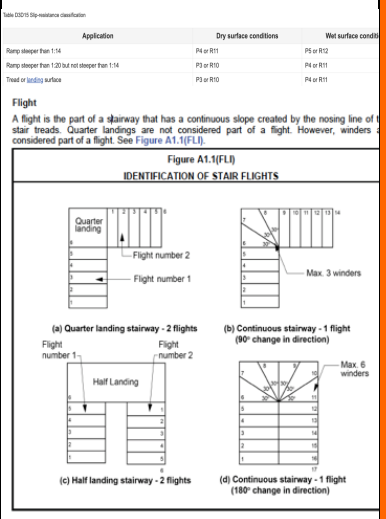
Item	Description	Status	Comments
			Class 2 – (b) Class 2 to 8 buildings — In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has an effective height of more than 25m. (ii) A Class 2 or 3 building subject to C2D6. Why do some buildings require multiple exits? The purpose of regulatory control over the number of exits in a building is to maximise the opportunities for people to have egress from the building in an emergency. Egress from some buildings can be very difficult (for example, particularly tall or large buildings, or even small buildings which have a complex passageway design). It may be necessary to provide several alternative exits. The building does not have an effective height of more than 25m and is not subject to C2D6. Each storey is provided with at least one exit.
D2D4	When fire isolated exits are required	N/A	N/A
D2D5	Exit travel distances	Complies/Yes	Class 2 – 6m from an exit or from a point from which travel in different direction to 2 exits is available. A single exit serves units located above ground floor. 2 exits serve units located at ground level. Travel distances are compliant.
D2D6	Distance between alternative exits	Complies/Yes	Note: For the purpose of this assessment, 2 required exits are located on ground level. Exit point 1 is located between units G.01 and G.02 and discharges to the Rodd St elevation. Exit 2 is located between units G.03 and G.04 and discharges to the external car park.
D2D7 – D2D11	Dimensions of exits	Capable of Compliance	The unobstructed height throughout a required exit or path of travel to a required exit must be not less than 2m, except the unobstructed height of doorway may be reduced to not less than 1980mm. A minimum 1m clear path of travel to exits is to be provided.

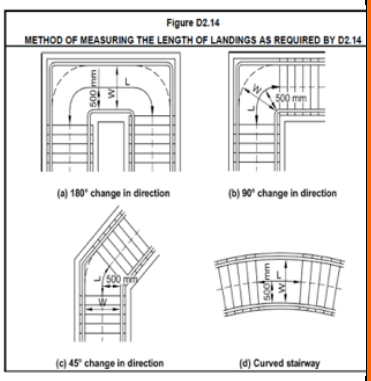
Item	Description	Status	Comments
			Note: At the doorway the opening width may be reduced by 250mm, however, the door opening must achieve 850mm clear opening where the opening is required to comply with AS1428.1-2009. The common corridors and stairways are required to have an unobstructed width of 1m. Note, stairwells are measured between the narrowest points which is generally between the two handrails.
D2D12	Travel via fire-isolated exits	N/A	The building does not contain any fire-isolated exits.
D2D13	External stairways in lieu of fire-isolated stairways	N/A	N/A
D2D14	Travel by non-fire-isolated stairways or ramps  	Complies/Yes	(1) A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided. (2) In a Class 2, 3 or 4 building, the distance between the doorway of a room or sole-occupancy unit and the point of egress to a road or open space by way of a stairway or ramp that is not fire-isolated and is required to serve that room or sole-occupancy unit must not exceed – (a) 30 m in a building of Type C construction; or (b) 60 m in all other cases. (3) In a Class 5, 6, 7, 8 or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or non-fire-isolated ramp must not exceed 80 m. (4) In a Class 2, 3 or 9a building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than – (a) 15m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 30m from one of 2 such doorways or passageways if travel to each of

Item	Description	Status	Comments
			them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (5) In a Class 5 to 8 or 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than – (a) 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (6) In a Class 2 or 3 building, if 2 or more exits are required and are provided by means of internal non-fire-isolated stairways or non-fire-isolated ramps, each exit must – (a) provide separate egress to a road or open space; and (b) be suitably smoke-separated from each other at the level of discharge. **Note**: See D3D7 for further requirements.
D2D15	Discharge from exits	Complies/Yes	(1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. (2) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than – (a) the minimum width of the required exit; or (b) 1m, Whichever is the greater. (3) If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by – (a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if

Item	Description	Status	Comments
			required by the Deemed-to-Satisfy Provisions of Part D4; or (b) except if the exit is from a Class 9a building, a stairway complying with the Deemed-to-Satisfy Provisions of the BCA. (4) The discharge point of alternative exits must be located as far apart as practical. An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit or access to it. An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit or access to it.
D2D16	Horizontal exits	N/A	N/A
D2D17	Non-required stairways, ramps or escalators	N/A	N/A
D2D18	Number of persons accommodated	Noted	Noted
D2D19 & D2D20	Measurement of distances and method of measurement	Noted	Noted
D2D21	Plant rooms and lift monitor rooms: concession	N/A	N/A
D2D22	Access to lift pits DANGER: LIFTWELL ENTRY OF UNAUTHORISED PERSONS PROHIBITED KEEP CLEAR AT ALL TIMES	Noted	N/A - No lift pits
D2D23	Egress from primary schools **Explanatory information:** D2D23 (1) recognises the difficulties associated with evacuation of primary schools. Should a primary school be proposed within a *storey* that does not meet the requirements of D2D23, a *Performance Solution* is to be used to demonstrate compliance with the relevant	N/A	N/A

Item	Description	Status	Comments
	Performance Requirements.		
Part D3 Construction of Exits			
D3D2	Application of part	Applies	BCA Clauses D3D14, D3D15(a), D3D17, D31D18, D3D19, D3D20, D3D22(5), D3D22(6), D3D23 and D3D29, the Deemed-to-Satisfy provisions of this Part do not apply to the internal parts of a sole occupancy unit in a Class 2 building or Class 4 parts of a building.
D3D3	Fire-isolated stairways and ramps	N/A	N/A
D3D4	Non-fire-isolated stairways and ramps	N/A	N/A – The building does not have a rise in storeys of more than two.
D3D5	Separation of rising and descending stair flights	N/A	N/A
D3D6	Open access ramps and balconies	N/A	N/A
D3D7	Smoke lobbies	N/A	N/A
D3D8	Installations in exits and paths of travel	Capable of Compliance	Services or equipment comprising electricity meters, distribution boards or ducts or central telecommunications distribution boards or equipment or electrical motors or other motors serving equipment in the building, may be installed in a required exit, in any corridor, hallway, lobby or the like leading to a required exit if the services or equipment are enclosed by non-combustible construction or a fire protective covering with doorways and openings suitably sealed against smoke spreading from the enclosure. To be reviewed as the design develops.
D3D9	Enclosure of space under stairs and ramps	Capable of Compliance	The space below a required non-fire isolated stairway must not be enclosed to form a cupboard or other enclosed space unless the enclosing walls & ceilings have an FRL of not less than 60/60/60 and any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door. To be reviewed as the design develops.
D3D10	Width of stairways – Required by **D2D7 – D2D11 (Dimensions of Exits)**	N/A	N/A - No stairs are proposed in excess of 2m.

Item	Description	Status	Comments
D3D11	Pedestrian ramps, also reference Part D4 & AS1428.1	Noted	Any proposed ramp serving as a required exit must be constructed in accordance with BCA Part D4 and AS1428.1-2009 where required to be accessible or in any other case, achieve a gradient not steeper than 1:8. Any new pedestrian ramps are required to achieve a non- slip finish complying with AS4586-2013 slip resistance classification of new pedestrian surface materials.
D3D12	Fire-isolated passageways	N/A	N/A
D3D13	Roof as open space	N/A	N/A
D3D14	Treads and risers  Flight A flight is the part of a stairway that has a continuous slope created by the nosing line of t stair treads. Quarter landings are not considered part of a flight. However, winders considered part of a flight. See Figure A1.1(FLI). Figure A1.1(FLI) IDENTIFICATION OF STAIR FLIGHTS Quarter landing Flight number 2 Flight number 1 Max. 3 winders (a) Quarter landing stairway - 2 flights (b) Continuous stairway - 1 flight (90° change in direction) Flight number 1 Flight number 2 Half Landing Max. 6 winders (c) Half landing stairway - 2 flights (d) Continuous stairway - 1 flight (180° change in direction)	Capable of Compliance	(1) A stairway must have— (a) not more than 18 and not less than 2 risers in each flight; and (b) going (G), riser (R) and quantity (2R + G) in accordance with Table D3D15, except as permitted by (2) and (3); and (c) constant goings and risers throughout each flight, except as permitted by (2) and (3), and the dimensions of goings (G) and risers (R) in accordance with (1)(b) are considered constant if the variation between— (i) adjacent risers, or between adjacent goings, is no greater than 5 mm; and (ii) the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm; and (d) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (e) treads which have— (i) a surface with a slip resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or (ii) a nosing strip with a slip resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; and

Item	Description	Status	Comments
			(f) 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 (g) in a Class 9b building, not more than 36 risers in consecutive flights without a change in direction of at least 30°; and (2) In the case of a **required stairway**, no winders in lieu of a landing. To be reviewed as the design develops. A stair detail and section including opaque/enclosed risers, non-slip nosings, compliant handrails and one tread width offset to the lower landing is required to facilitate accessible compliant handrails is to be provided to confirm compliance.
D3D15	Landings 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  	Capable of Compliance	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 (ii) have— (A) a surface with a slip resistance classification not less than that listed in Table D3D15 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 D3D15 when tested in accordance with AS 4586, where the edge leads to a flight below. Stair landing details and sections are to be provided to confirm compliance. The Building Code of Australia 2022, Volume 1 does not directly specify slip-resistance classification(s) for all accessible paths of travel; however, we highlight the need under AS1428.1-2009

Item	Description	Status	Comments
			for all accessible paths of travel to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

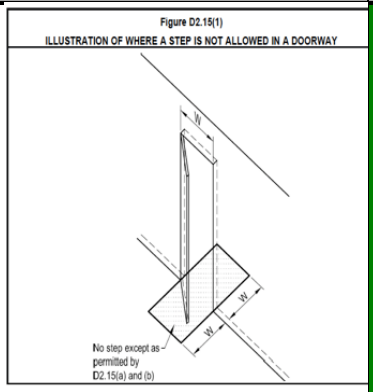
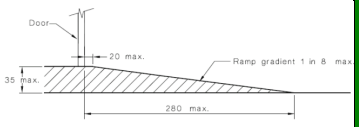
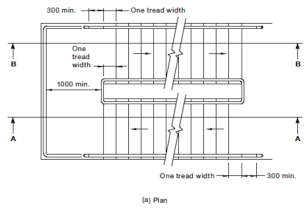
Extraction from Standards Australia Handbook 197:1999

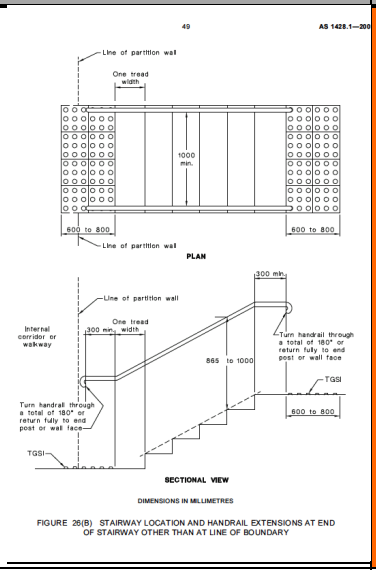
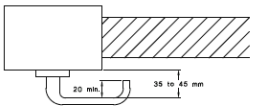
TABLE 3

PEDESTRIAN FLOORING SELECTION GUIDE – MINIMUM PENDULUM OR RAMP RECOMMENDATIONS FOR SPECIFIC LOCATIONS

Location	Pendulum	Ramp
External colonnade, walkway and pedestrian crossings	W	R10
External ramps	V	R11
Entry foyers hotel, office, public buildings - wet	X	R10
Entry foyers hotel, office, public buildings - dry	Z	R9
Shopping centre excluding food court	Z	R9
Shopping centre – food court	X	R10
Internal ramps, slopes (greater than 2 degrees) - dry	X	R10
Lift lobbies above external entry level	Z	R9
Other separate shops inside shopping centres	Z	R9
Other shops with external entrances – entry area	X	R10
Fast food outlets, buffet food servery areas	X	R10
Hospitals and aged care facilities – dry areas	Z	R9
Hospital and aged care facilities – ensuites	X	A or R10
Supermarket aisles except fresh food areas	Z	R9
Shop and supermarket fresh fruit and vegetable areas	X	R10
Communal changing rooms	X	A
Swimming pool surrounds and communal shower rooms	W	B
Swimming pool ramps and stairs leading into water	V	C
Toilet facilities in offices, hotels, shopping centres	X	R10
Undercover concourse areas of sports stadium	X	R10
Accessible internal stair nosings (dry) – handrails present	X	R10
Accessible internal stair nosings (wet) – handrails present	W	B or R11
External stair nosings	W	R11

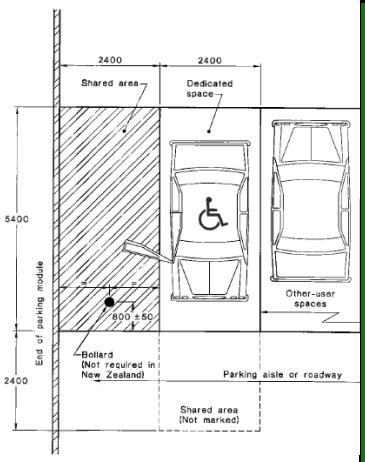
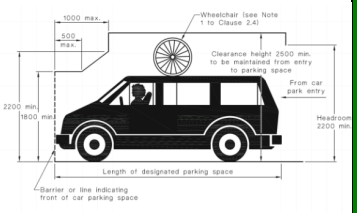
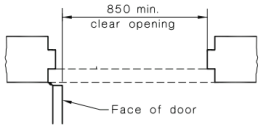
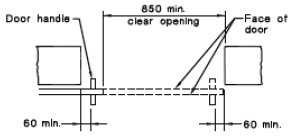
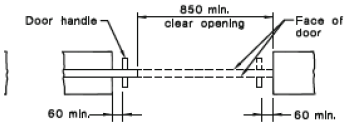
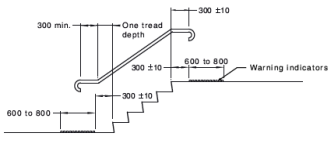
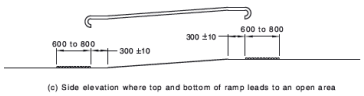
D3D16	Thresholds	Complies/Yes	The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless— (a) in patient care areas in a Class 9a health-care building, the door sill is not more than 25 mm above the finished floor level to which the doorway opens; or (b) in a Class 9c building, a ramp is

Item	Description	Status	Comments
	 **Concessions**—D2.15(a), (b) and (c) Concessions are granted in specified circumstances. These include: • D2.15(a)—in the patient care areas of a hospital; and • D2.15(b)—in Class 9c buildings; and • D2.15(c)—in a building required to be accessible by Part D3. • D2.15(d)—in other buildings, to allow for weatherproofing under an external door.  DIMENSIONS IN MILLIMETRES FIGURE 21 THRESHOLD RAMP		provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or (c) in a building required to be accessible by Part D4, 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 NSW D3D16 (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.
D3D17-D3D19	Barriers to prevent falls – Balustrades/Stairways	Capable of Compliance	Balustrades are to be a minimum of 1m in height and have no openings greater than 125mm. Details to be reviewed as the design develops. A balustrade detail and section are to be provided to confirm compliance.
D3D22	Handrails Accessible stairway handrails  DIMENSIONS IN MILLIMETRES FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS	Capable of Compliance	Handrails in required non-fire-isolated exits and fire isolated exits are to be continuous between stair flight landings and have no obstruction on or above them that will tend to break a handhold. A stair detail and section are to be provided to confirm compliance. <u>Stairways/Ramps required to be accessible</u> Handrails are to be located on both sides of ramps and stairways in required exits where they are required to be accessible to comply with Clause 12 of AS1428.1-2009. Comments: A stair/ramp detail and section including offset landing/step (where required) on any lower flight is required to facilitate accessible compliant handrails is to be provided to confirm compliance. Refer to diagram (left) from AS1428.1-2009 which illustrates the one tread width offset.

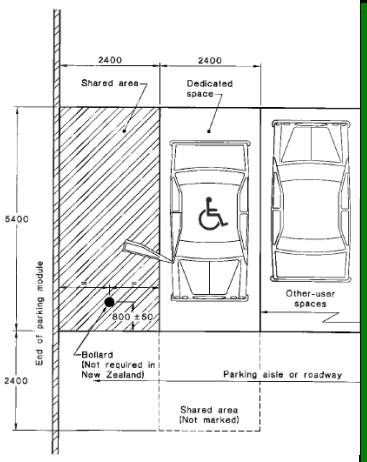
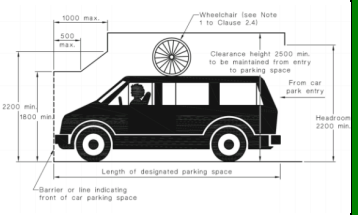
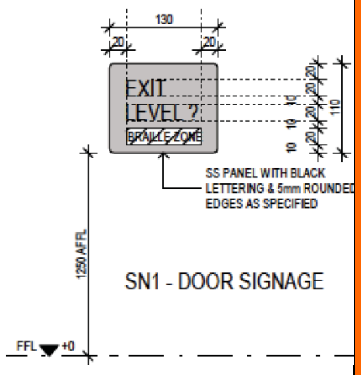
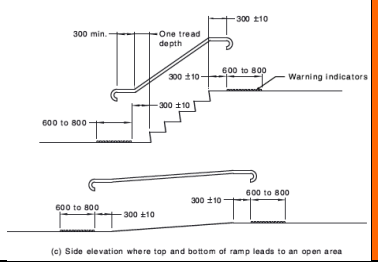
Item	Description	Status	Comments
	 FIGURE 26(B) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT END OF STAIRWAY OTHER THAN AT LINE OF BOUNDARY		To be reviewed as the design develops.
D3D23	Fixed platforms, walkways, stairways and ladders	N/A	N/A
D3D24	Doorways and doors	N/A	N/A - No power operated doors
D3D25	Swinging doors	Noted	Noted - No swinging doors form part of a required exit or are proposed to be within a required exit.
D3D26	Operation of latch Lever Action Door Hardware   FIGURE 35(A) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR HINGED DOORS	Capable of Compliance	Except in early childhood centres, swimming pool barriers or similar situations where the location of the opening and locking controls is prescribed by the relevant statutory authority, the location of the controls for doors and gates shall be above a level surface and as follows: Lever downward action door hardware located between 900mm and 1100mm above the floor that is readily openable without a key from the side seeking egress is to be installed on all path of travel and required exit doors. This clause does not apply to the internal parts of aa sole occupancy unit of a Class 2 building. Doorways/gates serving areas required to be accessible in accordance with D4 BCA are to be provided with lever downward action door hardware that the hand of a person who cannot grip will not slip from the handle during operation of the latch and have clearance between the handle and the back plate or door face at the

Item	Description	Status	Comments
			centre grip section of the handle of not less than 35mm and not more than 45mm. The plans are to confirm compliance in the form of door/gate schedule.
D3D27	Re-entry from fire isolated exits	N/A	N/A
D3D28	Signs on fire doors	N/A	N/A
D3D29	Protection of openable windows	Capable of Compliance	(1) A window opening must be provided with protection, if the floor below the window is 2m or more above the surface beneath in – (a) a bedroom in a Class 2 or 3 building or Class 4 part of a building; or (b) a Class 9b early childhood centre. (2) Where the lowest level of the window opening is less than 1.7m above the floor, a window opening covered by (1) must comply with the following: (a) The openable portion of the window must be protected with – (i) a device capable of restricting the window opening; or (ii) a screen with secure fittings. (b) A device or screen required by (a) must – (i) not permit a 125mm sphere to pass through the window opening or screen; and (ii) resist an outward horizontal action of 250N against the – (A) window restrained by a device; or (B) screen protecting the opening; and (iii) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. (3) A barrier with a height not less than 865mm above the floor is require to an openable window – (a) in addition to window protection, when a child resistant release mechanism is required by (2)(b)(iii); and (b) where the floor below the window is a 4m or more above the surface beneath if the window is not covered by (1).

Item	Description	Status	Comments
			(4) A barrier covered by (3) except for (5) must not – (a) permit a 125mm sphere to pass through it; and (b) have any horizontal or near horizontal elements between 150mm and 760mm above the floor that facilitate climbing. (5) A barrier required by (3) to an openable window in – (a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, excluding external stairways and external ramps; and (b) Class 7 (other than carparks) and Class 8 buildings and parts of buildings containing those classes; must not permit a 300mm sphere to pass through it. To be reviewed as the design develops. Plans and specifications to nominate compliance.
Part D4 Access for People with a Disability			
D4D2	General Building Access Requirements	Capable of Compliance	Class 2 – Common areas Access for people with a disability is to be provided from a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to each entrance doorway of each sole-occupancy unit located on that level. It should be noted that a lift is provided to serve each storey. Lift details to be reviewed as the design develops. The initial review indicates the design is generally compliant.
D4D3	Access to Buildings	Complies/Yes	Access and AS 1428.1-2009 – (a) Access is to be provided via a walkway, ramp or lift from street to the principal entrance/s of the building. (b) The shared area adjacent to the accessible car space is to be provided with a bollard to prevent vehicles parking (AS 2890.6). (c) A level walkway 1m wide is to be provided from the shared accessible

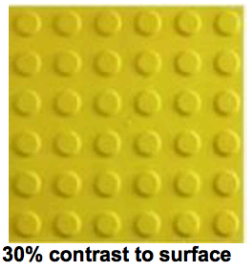
Item	Description	Status	Comments
	   (a) Swing door  (c) Surface-mounted sliding door DIMENSIONS IN MILLIMETRES  (b) Cavity sliding door   (c) Side elevation where top and bottom of ramp leads to an open area **Note**: Walkway – Gradient 1:20		car space to the principal entrance of the building. (d) All door openings on the ground floor are to have a clear opening of 850mm (920mm door), with exception the W.C and storage areas. (e) Circulation spaces to doorways are to comply with AS 1428.1-2009. (f) Tactile ground surface indicators are to be installed on top and bottom of landings of the required non fire – isolated stairways and ramps. (g) A scaled 1:50 floor and internal elevation plan is to be provided for the uni-sex accessible sanitary facility and ambulant facility. (Should one be required by F4D5)

Item	Description	Status	Comments
	Ramp – Gradient 1:14 Accessible shared car space – Gradient 1:40 or 1:33 (Bituminous seal)		
D4D4	Parts of Buildings to be Accessible	Capable of Compliance	Parts of the building required to be accessible – (a) every ramp and stairway must comply with Cl10 (ramps) and Cl11 (stairs) of AS 1428.1; circulation spaces must comply with AS1428.1. **Note**: Except for a fire isolated stairway, only Cl11.1(f) and (g) of AS1428.1 applies. (b) every passenger lift must comply with E3.6 (c) external/internal accessways must have passing spaces complying with AS 1428.1-2009 at a maximum of 20m intervals, where direct line of sight is not available; and (d) turning spaces complying with AS 1428.1-2009 within 2m of the end of accessways where it is not possible to continue traveling along the accessway and at maximum 20m intervals along the accessway. **Definition** – Accessway means a continuous accessible path of travel (as defined in AS 1428.1) to, into or within a building. **Note:** Passing space for 2 persons using wheelchairs shall be a minimum width of 1800 mm for a minimum length of 2000 mm. Stair and lift design details, sections and elevations to be reviewed as the design develops. The lift shall comply with E3D7 and E3D8. The design generally appears compliant.
D4D5	Exemptions	N/A	N/A
D4D6	Accessible Car parking	Complies/Yes	In accordance with D4D6 – A shared accessible car space is to be provided in the car park with access to lift to serve all storeys provided. Plans to confirm compliance with AS2890.6.2009

Item	Description	Status	Comments
	  **Note**: Gradients for shared accessible car spaces are not to exceed 1:40 in any direction and 1:33 for bituminous seal as per AS2890.6.		
D4D7	Signage 	Capable of Compliance	In a building required to be accessible – Braille and tactile signage complying with Specification 15 and incorporating the international symbol of access or deadness, as appropriate, in accordance with AS 1428.1 must identify each – - Identify each door *required* by E4D5 to be provided with an *exit* sign and state— (A)"Exit"; and (B)"Level"; and the floor level number or floor level descriptor, or a combination of the two. Provide a sign specification or relevant details on the architectural plans.
D4D8	Hearing Augmentation	N/A	N/A
D4D9	Tactile Indicators 	Capable of Compliance	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 in accordance with this clause. I.e.: - A stairway, other than a fire-isolated stairway,

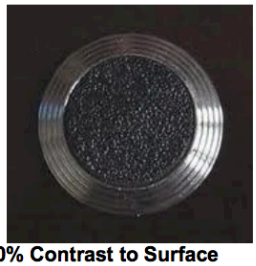
Item	Description	Status	Comments
			- In the absence of a suitable barrier an overhead obstruction less than 2m above floor level, other than a doorway. Tactile ground surface indicators required by (a) must comply with sections 1 and 2 of AS/NZS 1428.4.1 Details/sections required to confirm compliance for stairways to AS 1428.4.1-2009. The plans generally look compliant.

There are three (3) distinct types of TGSI, these each need to be assessed as to the most appropriate based on the surface it is to be applied and lighting conditions. AS1428.4.1 – 2009 clearly provides installation requirements.

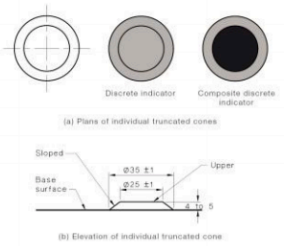


30% contrast to surface

45% Contrast to Surface



60% Contrast to Surface

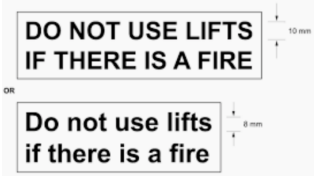


D4D10	Wheelchair seating spaces in Class 9b Assembly Buildings	N/A	N/A
D4D11	Swimming Pools	N/A	N/A
D4D12	Ramps	N/A	N/A
D4D13	Glazing on an Accessway	Capable of Compliance	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1. Building entry ways to be reviewed as the design develops.
SECTION E SERVICES & EQUIPMENT			
Part E1 Fire Fighting Equipment		Applies	**Capable of complying**
E1D2	Fire Hydrants	Capable of Compliance	The building exceeds 500m2 which means the building must be protected by a fire hydrant system. Details prepared by an Accredited Practitioner (Fire Safety) to be reviewed as the design develops. Where street hydrant coverage is provided, provide fire hydrant

Item	Description	Status	Comments
			coverage plans to demonstrate compliance.
E1D3	Hose reels	N/A	N/A - Does not apply to A Class 2 building part.
E1D4 to E1D13	Sprinklers	N/A	N/A – The building has an effective height <25m and does not exceed 2 storeys. Sprinkler protection is not required.
E1D14	Portable fire extinguishers	Capable of Compliance	The building is to be provided with Portable Fire Extinguishers in accordance with E1D14 and AS 2444-2001. Portable fire extinguishers provided in a Class 2 building must be— (a) An ABE type fire extinguisher; and (b) A minimum size of 2.5 kg; and (c) Distributed outside a sole-occupancy unit— (i) To serve only the storey at which they are located; and (ii) 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.
E1D15	Fire control centres	N/A	N/A
E1D16	Fire precautions during construction	Capable of Compliance	In a building under construction— (a) Not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each *storey* adjacent to each *required exit* or temporary stairway or *exit* The CC issue plans are to reference the fire precautions during construction requirements as noted above.
E1D17	Provision for special hazards	Capable of Compliance	Suitable additional provision must be made if special problems of fighting fire could arise because of — (a) the nature or quantity of materials stored, displayed or used in a building or on the allotment; or (b) the location of the building in relation to a water supply for fire-fighting purposes. Where installed, consideration to be given to Solar Panels.

Item	Description	Status	Comments
			Fire and Rescue NSW Recommendations for PV Generating Systems • Keys for the cupboard containing the Photovoltaic inverter shall be secured within the FIP. The keys shall be labelled 'PHOTOVOLTAIC INVERTER CUPBOARD' in capital letters not less than 20 mm high in a colour contrasting with the background. • Signage is to be provided on the door identifying the location of the Photovoltaic Inverter. • FRNSW recommends a list of instructions is to be provided outlining the process to isolate the Solar Panels. • An A4 notice on fade resistant material shall be displayed at the FIP notifying attending fire fighters as to the existence of the Photovoltaic Solar Panel Array on the roof of the building. The notice shall include: a. the location of the panels and orientated to align with the building layout and the orientation of the subject site (allotment). b. the location of all associated isolation switches, AC and DC isolators for the shut- off generated electricity c. wayfinding signage that incorporates the use of directional arrows is to be installed along the route as guidance to gain access to solar inverters. d. If the PV automatically isolate on fire trip, a statement advising of the same. e. A statement in 8mm font stating (or similar): **Photovoltaic (PV) Panels Present** **PV panels are mechanically fixed to the roof as shown below.**

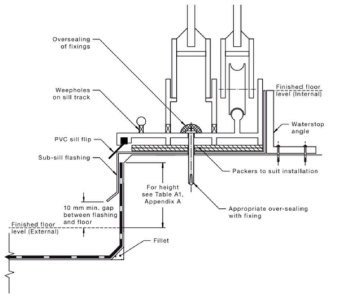
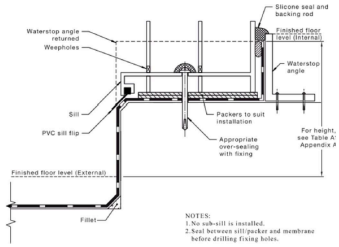
Item	Description	Status	Comments
			f. FRNSW recommends installing permanent PV signage on the door of the electrical cabinet and the rooftop hatch access to identify the location of the isolation switches and inverter isolators for the shut-off of the generated electricity so that their location is readily identified. To be reviewed as the design develops.
Part E2 Smoke Hazard Management			
E2D2	Application of part	Applies	
E2D3 & Spec 20 – Smoke Detection and Alarm Systems	General requirements	Noted	An air handing system which does not form part of a smoke hazard management system in accordance with BCA Clause E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must be designed and installed to: Operate as a smoke control system in accordance with AS1668; or Such that it incorporates smoke dampers where the air- handling ducts penetrate any elements separating the fire compartment served and is arranged such that the air- handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors comply with Clause 7.5 of AS1670.1.
E2D8	Buildings not more than 25m in effective height: Class 2 and 3 buildings and Class 4 part of a building	Capable of Compliance	The building is to be provided with an automatic smoke detection and alarm system complying with Specification 20 Clause 3, or Specification 20 Clause 4, or a combination of a smoke alarm system within the sole-occupancy units and a smoke detection system in areas not within sole-occupancy units complying with Spec 20 Clause 5. Electrical details and design certificate is to be provided by an accredited practitioner (fire safety) and are to be provided prior to issue of any approval.

Item	Description	Status	Comments
E2D21	Provision for special hazards	N/A	N/A
Part E3 Lift Installations			
E3D2	Lift Installations	Capable of Compliance	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. Manufacturers specifications and design certification is to be provided to the Principal Certifying Authority.
E3D3	Stretcher facility in lifts	N/A	N/A
E3D4	Warning against use of lifts in fire 	Capable of Compliance	Warning against use of lifts in fire are to be included in the lift specification.
E3D5	Emergency lifts	N/A	N/A
E3D6	Landings	Capable of Compliance	Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Section D. Lift design details, specification and certification to be reviewed as the design develops.
E3D7, E3D8	Facilities for people with disabilities **Table E3.6a Limitations on use of types of passenger lifts** Lift type / Limitations on use *Electric passenger lift* — No limitation. *Electrohydraulic passenger lift* — No limitation. *Stairway platform lift* — Must not— (a) be used to serve a space in a building accommodating more than 100 perso calculated according to D1.13; or (b) be used in a high traffic public use area such as a theatre, cinema, auditoriu transport interchange, shopping centre or the like; or (c) be used where it is possible to install another type of passenger lift; or (d) connect more than 2 *storeys*; or (e) where more than 1 stairway lift is installed, serve more than 2 consecutive *storeys*; or (f) when in the folded position, encroach on the minimum width of a stairway *required* by D1.6. *Inclined lift* — No limitation. *Low-rise platform lift* — Must not travel more than 1000 mm. *Low-rise, low-speed constant pressure lift* — Must not— (a) for an enclosed type, travel more than 4 m; or (b) for an unenclosed type, travel more than 2 m; or (c) be used in a high traffic public use areas in buildings such as a theatre, cinen auditorium, transport interchange, shopping complex or the like. *Small-sized, low-speed automatic lift* — Must not travel more than 12 m. **Table E3.6b Application of features to passenger lifts** Feature / Application Handrail complying with the provisions for a mandatory handrail in AS 1735.12 — All lifts except— (a) a *stairway platform lift*; and (b) a *low-rise platform lift*. Lift floor dimension of not less than 1400 mm wide x 1900 mm deep — All lifts which travel more than 12 m. Lift floor dimensions of not less than 1100 mm wide x 1400 mm deep — All lifts which travel not more than 12 m except a *stairw platform lift*. Lift floor dimensions of not less than 810 mm wide x 1200 mm deep — A *stairway platform lift*. Minimum clear door opening complying with AS 1735.12 — All lifts except a *stairway platform lift*. Feature / Application Passenger protection system complying with AS 1735.12 — All lifts with a power operated door. Lift landing doors at the upper landing — All lifts except a *stairway platform lift*. Lift car and landing control buttons complying with AS 1735.12 — All lifts except— (a) a *stairway platform lift*; and (b) a *low-rise platform lift*. Lighting in accordance with AS 1735.12 — All enclosed lift cars. (a) Automatic audible information within the lift car to identify the level each time the car stops; and (b) audible and visual indication at each lift landing to indicate the arrival of the lift car; and (c) audible information and audible indication *required* by (a) and (b) is to be provided in a range of between 20–80 dB(A) at a maximum frequency of 1 500 Hz — All lifts serving more than 2 levels. Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received — All lifts except a *stairway platform lift*.	Capable of Compliance	The lift design is to comply with E3D7, E3D8 and AS1735.12-1999. Lift design details, specification and certification to be reviewed as the design develops.

Item	Description	Status	Comments
E3D9	Fire service controls	N/A	N/A – The lift does not serve a storey above an effective height of 12m.
E3D10	Aged care buildings	N/A	N/A
E3D11	Fire service recall control switch	N/A	N/A – The lift does not serve a storey above an effective height of 12m.
E3D12	Lift car fire service drive control	N/A	N/A – The lift does not serve a storey above an effective height of 12m.
Part E4 Emergency Lighting, Exit Signs and Warning Systems			
E4D2	Emergency lighting requirements **Note**: The treads of stairways are to achieve a minimum of 1Lux.	Capable of Compliance	Emergency lighting is to be provided in common corridors, stairways and public areas to comply with AS/NZS 2293.1-2018. Electrical details and design certificate are to be provided prior to issue of the approval.
E4D5	Exit signs	Capable of Compliance	An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each— (a) door providing direct egress from a storey to— (i)an enclosed stairway, passageway or ramp serving as a required exit; and (ii)an external stairway, passageway or ramp serving as a required exit; and (iii)an external access balcony leading to a required exit; and (b)door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and (c)horizontal exit; and (d)door serving as, or forming part of, a required exit in a storey required to be provided with emergency lighting in accordance with E4D2. Exits signs shall be designed to comply with AS/NZS 2293.1-2018. Electrical details and design certificates are to be provided prior to issue of the approval.
E4D6	Directional exit signs	Capable of Compliance	The building is to be provided with directional exit signs to assist building occupants identify the location of required exits. Directional exits signs shall be designed to comply with AS/NZS 2293.1-2018.

Item	Description	Status	Comments
			Electrical details and design certificates are to be provided prior to issue of the approval.
E4D7	Class 2 and 3 buildings and Class 4 parts: exemptions	N/A	N/A - An entrance door to a Class 2 part of a building does not require exit signs in accordance with E4D5.
E4D8	Design and operation of exit signs	Capable of Compliance	Every required exit sign must— (a)comply with— (i)AS/NZS 2293.1; or (ii)for a photoluminescent exit sign, Specification 25; and (b)be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building. Electrical details and design certificates are to be provided prior to issue of the approval.
E4D9	Sound systems and intercom systems for emergency purposes	N/A	N/A
SECTION F HEALTH & AMENITY		Applies	
Part F1 Surface Water Management, Rising Damp and External Waterproofing			
F1D1	Deemed-to-Satisfy Provisions	Capable of Compliance	(1) Where a Deemed-to-Satisfy Solution is proposed, Performance RequirementsF1P1 to F1P4 are satisfied by complying with F1D2 to F1D8. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable. The façade engineer is to demonstrate that the construction of the roof and external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements. To demonstrate that the construction of the roof and external walls prevent the penetration of water, evidence of suitability

Item	Description	Status	Comments
			under BCA A5G3 is required via the following methods. a) a current CodeMark certificate, b) a current certificate of Accreditation, c) a report issued by an Accredited Testing Laboratory, or d) a certificate or report from a professional engineer. Or Performance Solution prepared by a suitably qualified consultant or company.
F1D3	Stormwater Drainage	Capable of Compliance	Stormwater drainage must comply with AS/NZS 3500.3-2021. Stormwater details and design statement are to be provided to demonstrate compliance with F1D3 and AS/NZS 3500.3-2021.
F1D4	Exposed joints	Capable of Compliance	Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must— (a) be protected in accordance with Section 2.9 of AS 4654.2; and (b) not be located beneath or run through a planter box, water feature or similar part of the building. **Notes** For the purposes of F1D4, an exposed joint is a construction joint, control joint, expansion joint, contraction joint or movement joint and includes an exposed joint which is directly below a drainage surface. **Explanatory information: Location of exposed joints** To minimise the potential of water ingress, the exposed joint should be located at a ridge or high point of the structural substrate, where possible. **Explanatory information: Exposed joints subject to excessive movement** Where an exposed joint is subject to excessive movement, such as more than 10 mm, additional measures should be considered to ensure protection of the exposed joint. These additional measures may include use of a hob with a minimum height of 50 mm formed within the

Item	Description	Status	Comments
			structural substrate for the full length of both sides of the exposed joint, and the exposed joint protected by a discontinuous membrane in accordance with Section 2.9 of AS 4654.2. Architectural details, sections and design statement are to be provided to demonstrate compliance with F1D4 and AS 4654 parts 1 & 2-2012.
F1D5	External waterproofing membranes **Typical Details of Membrane Termination at External Opening Doors**  *Opening higher than sill upward termination*  *Sill – No Sub-Sill* **VERTICAL UPWARD TERMINATION HEIGHTS** Wind class Regions A and B (non-cyclonic) AS 4055 / Wind class Regions C and D (cyclonic) AS 4055 / Ultimate limit state wind speed (V_{ult}) AS/NZS 1170.2 / Termination height mm N1 — — 34 40 N2 — — 40 50 N3 C1 50 70 N4 C2 61 100 N5 C3 74 150 N6 C4 86 180	Capable of Compliance	*Waterproofing* membranes for external above ground use must comply with AS 4654.2-2012. The architect and structural engineer are to provide sections demonstrating compliance with AS 4654.1 and AS 4654.2 with particular attention to detail on the stepdown/termination heights. **Note:** Refer to wind classification to determine the balcony stepdown/termination heights. Openings onto external areas required to have an above-ground external waterproofing membrane are required to have an external termination and set-down or hob providing a vertical surface of sufficient dimension in accordance with AS 4654.2-2012, Table A1, Appendix A. - 40mm termination height - N1 Wind Class - Ultimate Wind Speed 34 m/s - 50mm termination height - N2 Wind Class - Ultimate Wind Speed 40 m/s - 70mm termination height - N3 Wind Class - Ultimate Wind Speed 50 m/s - 100mm termination height - N4 Wind Class - Ultimate Wind Speed 61 m/s - 150mm termination height - N5 Wind Class - Ultimate Wind Speed 74 m/s - 180mm termination height - N6 Wind Class - Ultimate Wind Speed 86 m/s Architectural details, sections and design statement are to be provided to demonstrate compliance with F1D5 and AS 4654 parts 1 & 2-2012
F1D6	Damp-proofing	Capable of Compliance	The building is required to be designed to prevent moisture from the ground reaching the lowest floor timbers and the walls

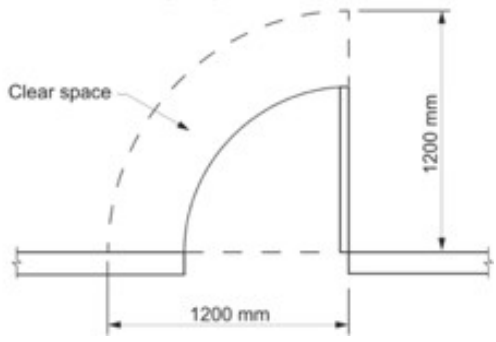
Item	Description	Status	Comments
			above the lowest floor joists, the walls above the damp-proof course and the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. Materials must comply with AS/NZS 2904 or be an impervious sheet material in accordance with AS3660.1. Architectural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D6 and AS/NZS 2904 or AS3660,1 as applicable.
F1D7	Damp-proofing of floors on the ground	Capable of Compliance	Where floors are directly laid on the ground a vapour barrier must be provided in accordance with AS2870. Architectural/structural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D7 and AS 2870.
F1D8	Subfloor ventilation	Capable of Compliance	(1) Subfloor spaces must— (a) be provided with openings in *external walls* and internal subfloor walls in accordance with for the climatic zones given in; and Table F1D8 Figure F1D8 (b) have clearance between the ground surface and the underside of the lowest horizontal member in the subfloor in accordance with. Table F1D8 (2) In addition to (1), a subfloor space must— (a) be cleared of all building debris and vegetation; and (b) have the ground beneath the suspended floor graded to prevent ponding under the building; and *surface water*; and (c) contain no dead air spaces; and (d) have openings evenly spaced as far as practicable; and (e) have openings placed not more than 600 mm in from corners. (3) In double leaf masonry walls, openings specified in (1) must be provided in both leaves of the masonry, with openings being aligned to allow an unobstructed flow of air.

Item	Description	Status	Comments
			(4) Openings in internal subfloor walls specified in (1) must have an unobstructed area equivalent to that for the adjacent external openings. *required* (5) Where the ground or subfloor space is excessively damp or subject to frequent flooding, in addition to the requirements of (1) to (4)— (a) the subfloor ventilation required in (1) must be increased by 50%; or (b) the ground within the subfloor space must be sealed with an impervious membrane; or (c) subfloor framing must be— (i) where above ground, above-ground durability Class 1 or 2 timbers or H3 preservative treated timbers in accordance with AS 1684.2, AS 1684.3 or AS 1684.4; or (ii) where in ground, in-ground durability Class 1 or 2 timbers or H5 preservative treated timbers in accordance with AS 1684.2, AS 1684.3 or AS 1684.4; or (iii) steel in accordance with NASH Standard 'Residential and Low-Rise Steel Framing' Part 2. Table F1D8: Subfloor openings and ground clearance | Climatic zone (see Figure F1D6) | Minimum aggregate subfloor ventilation openings without a *membrane* (mm^2/m of wall) | Minimum aggregate subfloor ventilation openings having the ground sealed with an impervious *membrane* (mm^2/m of wall) | Minimum ground clearance height where termite inspection or management system is not required (mm) | Minimum ground clearance height where termite inspection is required (mm) Note 1 | |---|---|---|---|---| | A | 2000 | 1000 | 150 | 400 | | B | 4000 | 2000 | 150 | 400 | | C | 6000 | 3000 | 150 | 400 | Table Notes (1) 400 mm clearance *required* only where termite management systems are installed that need to be inspected (see B1D4). (2) On sloping sites, the 400 mm clearance *required* by (1) may be reduced to 150 mm within 2 m of *external walls*. (3) In situations where openings in *external walls* and internal subfloor walls are not able to be provided, additional measures must be provided to ensure that the overall level of ventilation of the subfloor space is maintained. (4) Additional measures referred to in (3) may include measures similar to those in F1D8(5), such as providing durability class timbers, or having the ground sealed in the subfloor space with an impervious *membrane*. Where required, architectural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D7 and AS 2870.
Part F2			

Item	Description	Status	Comments
Wet Areas and Overflow Protection			
F2D1	Deemed-to-Satisfy Provisions	Applies	(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements F2P1 and F2P2 are satisfied by complying with F2D2 to F2D4. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.
F2D2	Wet area construction	Capable of Compliance	(1) In a Class 2 and 3 building and a Class 4 part of a building, building elements in wet areas must— (a) be *water resistant* or *waterproof* in accordance with Spec 26; and (b) comply with AS 3740. (2) In a Class 5, 6, 7, 8 or 9 building, building elements in a bathroom or shower room, a slop hopper or sink compartment, a laundry or sanitary compartment must— (a) be *water resistant* or *waterproof* in accordance with Spec 26; and (b) comply with AS 3740, as if they were in a Class 2 or 3 building or a Class 4 part of a building. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance with F2D2, Specification 26 and AS 3740-2021.
F2D3	Rooms containing urinals	N/A	N/A
F2D4	Floor wastes	Capable of Compliance	(1) In a Class 2 or 3 building or Class 4 part of a building, a bathroom or laundry located at any level above a *sole-occupancy unit* or public space must have a *floor waste*. (2) Where a floor waste is installed – (a) the minimum continuous fall of a floor plane to the waste must be 1:80; (b) and the maximum continuous fall of a floor plane to the waste must be 1:50. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
Part F3			

Item	Description	Status	Comments
Roof and Wall Cladding			
F3D2	Roof coverings	Capable of Compliance	A roof must be covered with— (a) roof tiles complying with AS 2049, fixed in accordance with AS 2050; or (b) metal sheet roofing complying with AS 1562.1; or (c) plastic sheet roofing designed and installed in accordance with AS 1562.3; or (d) terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or (e) an external waterproofing *membrane* complying with F1D5. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
F3D3	Sarking	Capable of Compliance	Sarking-type material used for weatherproofing of roofs and walls must comply with AS 4200.1 and AS 4200.2. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
F3D4	Glazed assemblies	Capable of Compliance	(1) Subject to (2) and (3), the following glazed assemblies in an external wall, must comply with AS 2047 requirements for resistance to water penetration: (a) Windows. (b) Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame. (c) Adjustable louvres. (d) Shopfronts. (e) Window walls with one piece framing. (2) The following buildings need not comply with (1): (a) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the

Item	Description	Status	Comments
			like contributes to the weatherproofing of the other part of the building. (c) An *open spectator stand* or open-deck car park. (3) The following glazed assemblies need not comply with (1): (a) All glazed assemblies not in an *external wall* (b) Revolving doors. (c) Fixed louvres. (d) Skylights, roof lights and windows in other than the vertical plane. (e) Sliding and swinging glazed doors without a frame. (f) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (g) Second-hand windows, re-used windows and recycled windows. (h) Heritage windows. Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance. Provide a window schedule.
F3D5	Wall Cladding	Capable of Compliance	(1) External wall cladding must comply with one or a combination of the following: (a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700. (b) Autoclaved aerated concrete: AS 5146.3. (c) Metal wall cladding: AS1562.1. (d) A CodeMark Certificate Architectural details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
Part F4 Sanitary and Other Facilities			
F4D2	Facilities in Residential Buildings	Capable of Compliance	In a Class 2 buildings, the following facilities are required: Within a sole occupancy unit: - A kitchen sink and facilities for the preparation of food; and - A bath or shower; and - A closet pan; and

Item	Description	Status	Comments
			- A washbasin. - For laundry facilities: Clothes washing facilities, comprising of at least one washtub and space for a washing machine and a clothes line/hoist or space for a drying cabinet or similar appliance for the exclusive use of the occupants. Note. A kitchen sink or washbasin must not be counted as a laundry washtub. Details of the location of the laundry facility including a washbasin and location of washing machine is required to be incorporated within the design documentation.
F4D3	Calculation of number of occupants and facilities	Noted	Noted
F4D4	Facilities in Class 3 to 9 Buildings	N/A	N/A
F4D5	Accessible sanitary facilities	N/A	N/A
F4D6	Accessible unisex sanitary compartments	N/A	N/A
F4D7	Accessible unisex shower	N/A	N/A
F4D8	Construction of sanitary compartments	Complies/Yes	The door to a fully enclosed sanitary compartment must open outwards or slide or be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2m, measured in accordance with Figure F4D8, extract provided below, between the closet pan within the sanitary compartment and the doorway. Construction of sanitary compartments  The doors to the sanitary compartyments achieve a clear space of 1.2m between the door frame and closet pan.

Item	Description	Status	Comments
F4D11	Waste	N/A	N/A - Not a Class 9a or 9c building.
F4D12	Accessible adult change facilities	N/A	N/A
Spec 27	Accessible adult change facilities	N/A	N/A
Part F5 Room Heights			
F5D2	Height of rooms and other spaces	Complies/Yes	(1) The height of rooms and other spaces in a Class 2 or 3 building or Class 4 part of a building must be not less than – (a) A kitchen, laundry, or the like – 2.1m; and (b) A corridor, passageway or the like – 2.1m; and (c) A habitable room excluding a kitchen – 2.4m; and (d) In a room or space with a sloping ceiling or projections below the ceiling line within – (i) in an attic – a height of not less than 2.2m for not less than two-thirds of the floor area of the room or space; and (ii) in other rooms – a height of not less than 2.4m for not less than two-thirds of the floor area of the room or space; and (e) In a non-habitable room, or space within a non-habitable room, with a sloping ceiling or projections below the veiling line – a height of not less than 2.1m for not less than two-thirds of the floor area of the room or space. (2) For the purposes of (1), when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5m is not included. (3) The height of rooms and other spaces in a Class 5, 6, 7 or 8 building must not be less than – (a) Except as allowed in (b) and (8) – 2.4m; and (b) A corridor, passageway or the like – 2.1m.

Item	Description	Status	Comments
			(4) The height of rooms and other spaces in a Class 9a *health-care building* must not be less than – (a) a *patient care area* — 2.4m; and (b) an operating theatre or delivery room — 3m; and (c) a treatment room, clinic, waiting room, passageway, corridor, or the like — 2.4m; and (5) The height of rooms and other spaces in a Class 9b building must not be less than – (a) For a *school* classroom or other *assembly building* or part that accommodates not more than 100 persons — 2.4m; and (b) For a theatre, public hall or other *assembly building* or part that accommodates more than 100 persons — 2.7m; and (c) For a corridor – (i) that serves an *assembly building* or part that accommodates not more than 100 persons — 2.4m; or (ii) that serves an *assembly building* or part that accommodates more than 100 persons — 2.7m; and (6) For the purposes of (5) the number of persons accommodated must be calculated according to D2D18. (7) The height of rooms and other spaces in a Class 9c building must not be less than – (a) For a kitchen, laundry, or the like — 2.1m; and (b) For a corridor, passageway or the like — 2.4m; and (c) For a *habitable room* excluding a kitchen — 2.4m. (8) The height of rooms and other spaces in any building must not be less than – (a) For a bathroom, shower room, *sanitary compartment*, other than an *accessible* adult change facility, airlock, tea preparation room, pantry, storeroom, garage, car parking area, or the like — 2.1 m; and (b) For a commercial kitchen — 2.4 m; and

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			(c) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like; and (d) for a *required accessible* adult change facility — 2.4 m. The height of rooms must not be less than 2.4m in habitable rooms (excl. kitchen/bathroom which must not be less than 2.1m). A review of the design indicates compliance is achieved.
Part F6 Light and Ventilation			
F6D3	Methods and extent of natural light	Capable of Compliance	(1) Required natural light must be provided by – (a) windows, excluding roof lights, that – (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (ii) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (b) roof lights, that – (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (ii) are open to the sky; or (c) a proportional combination of windows and roof lights required by (i) and (ii). (2) Except in a Class 9c building, in a Class 2, 3 or 9 building or Class 4 part of a building a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal

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			distance from that boundary or wall that is the greater of – (a) Generally – 1m; and (b) In a patient care area or other room used for sleeping purposes in a Class 9a building – 3m; and (c) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill. To be reviewed as the design develops. A window schedule shall be provided to demonstrate compliance.
F6D4	Natural light borrowed from adjoining room	Capable of Compliance	(1) Natural light to a room in a Class 2 building or Class 4 part of a building or in a sole-occupancy unit of a Class 3 building, may come through one or more glazed panels or openings from an adjoining room (including an enclosed verandah) if – (a) both rooms are within the same sole-occupancy unit, or the enclosed verandah is on common property; and (b) the glazed panels or openings have an aggregate light transmitting area of not less than 10% of the floor area of the room to which it provides light; and (c) the adjoining room has – (i) windows, excluding roof lights, that – (A) have an aggregate light transmitting area of not less than 10% of the combined *floor areas* of both rooms; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) roof lights, that – (A) have an aggregate light transmitting area of not less than 3% of the combined *floor areas* of both rooms; and (B) are open to the sky; or

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			(iii) a proportional combination of *windows* and *roof lights required* by (i) and (ii). (2) The areas specified in (1)(b) and (c) may be reduced as appropriate if direct natural light is provided from another To be reviewed as the design develops. A window schedule shall be provided to demonstrate compliance.
F6D5	Artificial lighting	Capable of Compliance	(1) Artificial lighting must be provided – (a) in required stairways, passageways, and ramps; and (b) if natural light of a standard equivalent to that required by F4.2 is not available, and the periods of occupation or use of the room or space will create undue hazard to occupants seeking egress in an emergency, in – (i) Class 4 parts of a building — to sanitary compartments, bathrooms, shower rooms, airlocks and laundries; and (ii) Class 2 buildings — to sanitary compartments, bathrooms, shower rooms, airlocks, laundries, common stairways and other spaces used in common by the occupants of the building; and (iii) Class 3, 5, 6, 7, 8 and 9 buildings — to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. (2) The artificial lighting system must comply with AS/NZS 1680.0. (3) The system may provide a lesser level of illumination to the following spaces during times when the level of lighting would be inappropriate for the use: (a) A theatre, cinema or the like, when performances are in progress, with the exception of aisle lighting required by Part H1.

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			(b) A museum, gallery or the like, where sensitive displays require low lighting levels. (c) A discotheque, nightclub or the like, where to create an ambience and character for the space, low lighting levels are used. Artificial lighting is required to be provided throughout the building in accordance with this Clause. Artificial lighting is required to comply with AS/NZS1680.0-2009. Electrical design details and a compliance statement to be provided.
F6D6	Ventilation of rooms	Capable of Compliance	A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have – (a) Natural ventilation complying with F6D7; or NSW F6D6 (b) A mechanical ventilation or air-conditioning system complying with AS1668.2 and AS/NZS3666.1. To be reviewed as the design develops. A window schedule shall be provided to demonstrate compliance. Note: Refer to F8D4 in the report for further requirements.
F6D7	Natural Ventilation	Capable of Compliance	(1) Natural ventilation provided in accordance with F6D6(a) must consist of openings, *windows*, doors or other devices which can be opened— (a) with a ventilating area not less than 5% of the *floor area* of the room *required* to be ventilated; and (b) open to— (i) a suitably sized court, or space open to the sky; or (ii) an open verandah, carport, or the like; or (iii) an adjoining room in accordance with F6D8. (2) The requirements of (1)(a) do not apply to a Class 8 *electricity network substation*.

Item	Description	Status	Comments
			Capable of complying
F6D8	Ventilation borrowed from adjoining room	Capable of Compliance	Natural ventilation to a room may come through a *window*, opening, door or other device from an adjoining room (including an enclosed verandah) if both rooms are within the same *sole-occupancy unit* or the enclosed verandah is common property, and— (a) in a Class 2 building, a *sole-occupancy unit* of a Class 3 building or Class 4 part of a building— (i) the room to be ventilated is not a *sanitary compartment*; and (ii) the *window*, opening, door or other device has a ventilating area of not less than 5% of the *floor area* of the room to be ventilated; and (iii) the adjoining room has a *window*, opening, door or other device with a ventilating area of not less than 5% of the combined *floor areas* of both rooms; and (b) in a Class 5, 6, 7, 8 (except a Class 8 *electricity network substation*) or 9 building— (i) the *window*, opening, door or other device has a ventilating area of not less than 10% of the *floor area* of the room to be ventilated, measured not more than 3.6 m above the floor; and (ii) the adjoining room has a *window*, opening, door or other device with a ventilating area of not less than 10% of the combined *floor areas* of both rooms; and (c) the ventilation areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source. To be reviewed as the design develops. A window schedule shall be provided to demonstrate compliance.
F6D9	Restriction and location of sanitary compartments	Capable of Compliance	A sanitary compartment within a Class 2 Sole Occupancy Unit must be accessed by an airlock hallway or other room or provided with mechanical exhaust ventilation. The bathrooms located centrally of each sole occupancy unit are required to be

Item	Description	Status	Comments
			provided with mechanical ventilation. Mechanical details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
F6D10	Airlocks	Capable of Compliance	A sanitary compartment within a Class 2 Sole Occupancy Unit must be accessed by an airlock hallway or other room or provided with mechanical exhaust ventilation. The bathrooms located centrally of each sole occupancy unit are required to be provided with mechanical ventilation. Mechanical details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.
F6D11	Car parks	N/A	N/A
F6D12	Kitchen local exhaust ventilation	N/A	N/A
Part F7 Sound Transmission and Insulation			
F7D3	Determination of airborne sound insulation ratings	Capable of Compliance	A form of construction required to have an airborne sound insulation rating must— (a) have the required value for weighted sound reduction index (Rw) or weighted sound reduction index with spectrum adaptation term (Rw + Ctr) determined in accordance with AS/NZS 1276.1or ISO717.1 using results from laboratory measurements; or (b) comply with Specification 28. A system for sound insulation is to be provided on plans to demonstrate compliance with F7D3 & F7D4. To be reviewed as the design develops.
F7D4	Determination of impact sound insulation ratings	Capable of Compliance	(1) A floor in a building required to have an impact sound insulation rating must – (a) have the required value for weighted normalized impact sound pressure level (Ln,w) determined in accordance with ASISO717.2 using results from laboratory measurements; or (b) comply with Specification 28. (2) A wall in a building required to have an impact sound insulation rating must – (a) for a Class 2 or 3 building be of discontinuous construction; and

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			(b) for a Class 9c building, must – (i) for other than masonry, be two or more separate leaves without rigid mechanical connection except at the periphery; or (ii) be identical with a prototype that is no less resistant to the transmission of impact sound when tested in accordance with Specification 29 than a wall listed in Table 2 of Specification 28. (3) For the purpose so of this Part, discontinuous construction means a wall having a minimum 20mm cavity between 2 separate leaves, and (a) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and (b) for other than masonry, there is no mechanical linkage between leaves except at the periphery. A system for sound insulation is to be provided on plans to demonstrate compliance with F7D3 & F7D4. To be reviewed as the design develops.
F7D5	Sound insulation rating of floors	Capable of Compliance	(1) A floor in a Class 2 or 3 building must have an Rw + Ctr (airborne) not less than 50 and an Ln,w (impact) not more than 62 if it separates – (a) sole-occupancy units; or (b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification. (2) A floor in a Class 9c building separating sole-occupancy units must have an Rw not less than 45. A system for sound insulation of the floors is to be provided on plans to demonstrate compliance with F7D3, F7D4 & F7D5. To be reviewed as the design develops.
F7D6	Sound insulation rating of walls	Capable of Compliance	(1) A wall in a Class 2 or 3 building must – (a) have an Rw + Ctr (airborne) not less than 50, if it separates sole-occupancy units; and (b) have an Rw (airborne) not less than 50, if it separates a sole-

Item	Description	Status	Comments
			occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and (c) comply with F7D4 if it separates – (i) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or (ii) a sole-occupancy unit from a plant room or lift shaft. (2) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an Rw not less than 30. (3) A wall in a Class 9c building must have an Rw not less than 45 if it separates – (a) sole-occupancy units; or (b) a sole-occupancy unit from a kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room. (4) In addition to (c), a wall separating a sole-occupancy unit in a Class 9c building from a kitchen or laundry must comply with F7D4. (5) Where a wall required to have sound insulation has a floor above, the wall must continue to – (a) the underside of the floor above; or (b) a ceiling that provides the sound insulation required for the wall. (6) Where a wall required to have sound insulation has a roof above, the wall must continue to – (a) the underside of the roof above; or (b) a ceiling that provides the sound insulation required for the wall. A system for sound insulation of the walls is to be provided on plans to demonstrate compliance with F7D6. To be reviewed as the design develops.
F7D7	Sound insulation rating of internal services	Capable of Compliance	(1) If a duct, soil, waste or water supply pipe, including a duct or pipe that is

Item	Description	Status	Comments
			located in a wall or floor cavity, serves or passes through more than one *sole-occupancy unit*, the duct or pipe must be separated from the rooms of any *sole-occupancy unit* by construction with an Rw + Ctr (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*. (2) If a stormwater pipe passes through a *sole-occupancy unit*, it must be separated in accordance with (1)(a) and (b). Provide a system for sound insulation (lagging) to duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit. To be reviewed as the design develops.
F7D8	Sound isolation of pumps	Capable of Compliance	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump. To be reviewed as the design develops.
Part F8 Condensation Management			Part F8 aims to limit the amount of condensation that can accumulate within a building by requiring that water vapour be extracted to a point external to the building. It only applies to residential building classifications which are considered to be more susceptible to the accumulation of moisture due to the building's intended function and use.
F8D2	Application of Part	Noted	Only applies to sole-occupancy units of a Class 2 building and a Class 4 part of building.
F8D3	External wall construction **<u>Definitions</u>** ***Pliable building membrane*** – means a water barrier as classified by AS/NZS 4200.1.	Capable of Compliance	(1) Where a *pliable building membrane* is installed in an *external wall*, it must— (a) comply with AS/NZS 4200.1; and (b) be installed in accordance with AS 4200.2; and (c) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building.

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	- pliable building membranes (also known as sarking or underlay), when used either independently or as a facing to other materials, such as insulation materials, and as control functions for water, thermal vapour or air control. ***Water control layer*** – means a *pliable building membrane* or the exterior cladding when no *pliable building membrane* is present. ***Water sensitive materials*** – means materials that have an inherent capacity to absorb water vapour and include timber, plasterboard, plywood, oriented strand board and the like.		(2) Where a pliable building membrane, sarking-type material or insulation layer is installed on the exterior side of the primary insulation layer of an external wall it must have a vapour permeance of not less than – (a) in *climate zones* 4 and 5, 0.143 µg/N.s; and (b) in *climate zones* 6, 7 and 8, 1.14 µg/N.s. (3) Except for single skin masonry and single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity. A detailed specification is to be provided to demonstrate compliance. The subject site is climate zone 6.
F8D4	Exhaust systems	Capable of Compliance	(1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of – (a) 25L/s for a bathroom or sanitary compartment; and (b) 40 L/s for a kitchen or laundry. (2) Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must be discharged directly or via a shaft or duct to outdoor air. (3) Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air. (4) (3) does not apply if a condensing-type clothes drying appliance is installed. (5) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with F6D7

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			must – (a) Be interlocked with the room's light switch; and (b) Include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off. (6) Except for rooms that are ventilated in accordance with F6D7, a room with space for ducting a clothes drying appliance to outdoor air in accordance with (3) must be provided with make-up air in accordance with AS 1668.2. Provide design details and certification to demonstrate compliance with the flow rate and discharge (kitchen, bathroom, sanitary compartment of laundry) or exhaust systems in F8D4. Note: Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air. This requirement does not apply if a condensing-type clothes drying appliance is installed.
F8D5	Ventilation of roof space	Capable of Compliance	(1) In climate zones 6, 7 and 8, a roof must have a roof space that – (a) Is located – (i) Immediately above the primary insulation layer, or (ii) Immediately above sarking with a vapour permeance of not less than 1.14 µg/N.s, which is immediately above the primary insulation layer; or (iii) Immediate above ceiling insulation which meets the requirements of J3D7(3) and J3D7(4); and (b) Has a height of not less than 20mm; and (c) Is either – (i) Ventilated to outdoor air through evenly distributed openings in accordance with Table F8D5; or (ii) Located immediately underneath roof tiles of an unsarked tiled roof.

Item	Description	Status	Comments
			(2) The requirements of (1) do not apply to a – (a) Concrete roof; or (b) Roof that is made of structural insulated panels; or (c) Roof that is subject to Bushfire Attack Level FZ requirements in accordance with AS 3959. Table F8D5: Roof space ventilation requirements Roof pitch: Ventilation openings <10°: 25,000 mm²/m provided at each of two opposing ends ≥10° and <15°: 25,000 mm²/m provided at the eaves and 5,000 mm²/m at high level ≥15° and <75°: 7,000 mm²/m provided at the eaves and 5,000 mm²/m at high level, plus an additional 18,000 mm²/m at the eaves if the roof has a cathedral ceiling Details including a design statement shall be provided to demonstrate compliance with F8D5. The subject site is climate zone 6.
SECTION G ANCILLARY PROVISIONS			
Part G1 Minor Structures and Components			
NSW G1D2	Swimming Pools	N/A	N/A
G1D3	Refrigerated chambers, strong-rooms and vaults	N/A	N/A
G1D4	Outdoor play spaces – Early childhood centre	N/A	N/A
NSW G1D5	Provision for cleaning windows	N/A	N/A
Part G3 Atrium construction			
Spec G3D8	N/A	N/A	N/A
Part G4 Construction in Alpine Areas		N/A	N/A
Part G5 Construction in bushfire prone areas		N/A	N/A RFS site check - The parcel of land selected is not identified as bush fire prone however you could still be affected by a bush fire. Not applicable – does not appear to be located within a designated bushfire area as per NSW ePlanning Spatial viewer.
Part G6 Occupiable outdoor areas			
G6D1	Application of part	N/A	(1) The *Deemed-to-Satisfy Provisions* of this Part apply to buildings containing an *occupiable outdoor area* in addition

Item	Description	Status	Comments
			to the other *Deemed-to-Satisfy Provisions* of NCC Volume One. (2) The *Deemed-to-Satisfy Provisions* of this Part take precedence where there is a difference to the *Deemed-to-Satisfy Provisions* of Sections C, D, E, F and G. (3) Except for G6D2, the *Deemed-to-Satisfy Provisions* of this Part do not apply to— (a) an *occupiable outdoor area* of a *sole-occupancy unit* in a Class 2 or 3 building, Class 9c building or Class 4 part of a building; or (b) an *occupiable outdoor area* with an area less than 10sqm.
G6D2	Fire hazard properties	N/A	N/A
G6D3	Fire Separation	N/A	N/A
G6D4	Provision for escape	N/A	N/A
G6D5	Construction of exits	N/A	N/A
G6D6	Fire fighting equipment	N/A	N/A
G6D7	Lift installations	N/A	N/A
G6D8	Visibility in an emergency, exit and warning systems	N/A	N/A
G6D9	Light and ventilation	N/A	N/A
SECTION J Energy Efficiency		Capable of Compliance	A report is required to demonstrate that the energy efficiency of the proposed building comply with the relevant clauses. **Note**: The Section J commitments are to be illustrated on the final CC plans with BASIX commitments.

4.0 CONCLUSION

The proposed development can comply with the provisions of the Building Code of Australia (BCA).

Recommendations: That the following options are recommended to ensure BCA Deemed to Satisfy (DTS) compliance;

1. Spec 5 – The building is to be designed to comply with Type B Construction as noted in Appendix B.

   Class 2 –

   For loadbearing parts –

less than 1.5m	90/90/90
1.5m to less than 3m	90/60/60
3m to less than 9m	90/30/30
9m to less than 18m	90/30/-
18m or more	-/-/-

   For non-loadbearing parts –

less than 1.5m	-/90/90
1.5m to less than 3m	-/60/60
3m or more	-/-/-

   For internal walls between or bounding SOUs –

Loadbearing	60/60/60
Non-loadbearing	-/60/60

   Other building elements –

Other loadbearing internal walls & columns	60/-/-
Roofs	-/-/-

   External columns not located in an external wall

Loadbearing column less 18m	90/-/-

   Floors & ceilings> Refer to Appendix B for options.

   Structural design statement required to confirm loadbearing parts achieve relevant FRL as per the above.

   Wall type details/schedule and layout plan, including specifications for selected systems from manufacturer/supplier, are required to confirm FRLs for all walls.

2. Spec 5 – Internal walls required to have an FRL must extend to:

   Any internal wall which is required to have an FRL with respect to integrity and insulation, except a wall that bounds a sole-occupancy unit in the topmost (or only) storey and there is only one unit in that storey, must extend to—
   (i)the underside of the floor next above if that floor has an FRL of at least 30/30/30; or
   (ii)the underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or
   (iii)the underside of the roof covering if it is non-combustible and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or 450 mm above the roof covering if it is combustible.

3. Spec 5 – Floor separating storeys:
   In a Class 2 building, except where within the one sole-occupancy unit, a floor separating storeys or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, must—

(i)be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or
(ii)have an FRL of at least 30/30/30; or
(iii)have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal.

4. Spec 5 – A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from—
(i)concrete; or
(ii)masonry; or
(iii)subject to (2), fire-protected timber.
(iv)or any combination of (i) to (iii)

5. Spec 5 - If a stair shaft supports any floor or a structural part of it—
A) The floor or part must have an FRL of 60/–/– or more; or
B) The junction of the stair shaft must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the shaft.

Structural engineer certification shall confirm these provisions have been satisfied.

6. 6. Spec 5 – A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from—
(i)concrete; or
(ii)masonry; or
(iii)subject to (2), fire-protected timber.
(iv)or any combination of (i) to (iii)

Plans to be reviewed as the design develops.

NB: Refer to concessions available under S5C23(1)(b).
Notwithstanding S5C21(1)(d), for loadbearing internal walls and loadbearing fire walls—
(i)timber framing may be used; and
(ii)non-combustible materials may be used.

7. Spec 5 - Where a part of a building required to achieve a fire resistance level depends upon the direct or lateral support from another part to maintain its fire resistance level, the supporting part must have FRL not less that required by BCA Specification 5 throughout.

8. C2D9 – Lightweight construction must comply with Spec 6 if it is used in a wall system that is required to have an FRL.

9. C2D10 – The following elements and their components are required to be non-combustible:
- External walls and common walls, including all components incorporated in them including the façade covering, framing and insulation.
- Non-loadbearing internal walls where they are required to be fire-resisting.
- The flooring and floor framing of lift pits.

The architect is to provide evidence of suitability under BCA A5G3 via the following.
a) a current CodeMark certificate,
b) a current certificate of Accreditation,
c) a report issued by an Accredited Testing Laboratory or a certificate, or
d) a report from a professional engineer for each non-combustible ancillary element.

NB: Refer to concessions available under S5C23(1)(a)
Notwithstanding C2D10(1) and (2), timber framing may be used for—
(i) *external walls*; and
(ii) *common walls*; and
(iii) the floor framing of lifts pits; and
(iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and

(v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion.

10. C2D11, Spec 7 & A5G6 – The fire hazard properties for all floor linings and coverings, wall and ceiling linings are to be provided by the manufacture in the form of the following.
    a) a current CodeMark certificate,
    b) a current certificate of Accreditation,
    c) a report issued by an Accredited Testing Laboratory

11. C2D11 & Spec 7 – The rigid and flexible air-handling ductwork must comply with the relevant fire hazard properties set out in AS 4254.1 and AS 4254.2 in the form of the following.
    a) a current CodeMark certificate,
    b) a current certificate of Accreditation,
    c) a report issued by an Accredited Testing Laboratory

12. C2D14 – 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 complies with the allowable points in C2D14. The architect/structural engineer is to provide evidence of suitability under BCA A5G3 via the following.
    a) a current CodeMark certificate,
    b) a current certificate of Accreditation,
    c) a report issued by an Accredited Testing Laboratory or a certificate, or
    d) a report from a professional engineer for each non-combustible ancillary element.

13. C3D10 – A floor plan demonstrating the FRL's between storeys is to be provided.

14. C3D14 – Details are to be provided for the proposed electrical supply for the building.

    Note: Emergency equipment is to be fire separated in separate switchboards from non-emergency equipment.

15. C4D12 – Type B Construction – Sole-occupancy unit entry doors shall be provided with self-closing, tight fitting, solid core doors not less than 35mm thick.

    A door schedule is to be provided to confirm compliance.

16. C4D13, C4D15 & Spec 13 – An approved system from the manufacture is to be provided to maintain the FRL for services that pass through a floor, wall or ceiling in the form of the following.
    a) a current CodeMark certificate,
    b) a current certificate of Accreditation,
    c) a report issued by an Accredited Testing Laboratory
17. C4D16 - An approved system from the manufacture is to be provided to maintain the FRL for construction joints in the form of the following.

    - a current CodeMark certificate,
    - a current certificate of Accreditation,
    - a report issued by an Accredited Testing Laboratory

18. C4D17 - A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.
    A system of design is to be provided should columns be protected with lightweight construction to achieve an FRL.

19. D2D7-D11 – The unobstructed height throughout a required exit or path of travel to a required exit must be not less than 2m, except the unobstructed height of doorway may be reduced to not less than 1980mm.
    - A minimum 1m clear path of travel to exits is to be provided.
    - Note: At the doorway the opening width may be reduced by 250mm.
    - The common corridors and stairways are required to have an unobstructed width of 1m. Note, stairwells are measured between the narrowest points which is generally between the two handrails.

    Plans demonstrating compliance to be provided.

20. D3D8 – Services or equipment comprising electricity meters, distribution boards or ducts or central telecommunications distribution boards or equipment or electrical motors or other motors serving equipment in the building, may be installed in a required exit, in any corridor, hallway, lobby or the like leading to a required exit if the services or equipment are enclosed by non-combustible construction or a fire protective covering with doorways and openings suitably sealed against smoke spreading from the enclosure.

    To be reviewed as the design develops.

21. D3D9 – The space below the stairs at each level must not be enclosed to form a cupboard or other enclosed space unless the walls and ceiling have an FRL of 60/60/60 and a –/60/30 fire door. Plans to be reviewed as the design develops.

22. D3D14, D3D15 – Stairs are to have maximum risers between 115-190mm and be provided with slip resistance in accordance with this clause. Sectional details are to be provided that demonstrate compliance with the BCA and AS 1428.1-2009 for the proposed stairways, landings, thresholds, balustrades and handrails on both sides of stairways in the development. (Opaque risers, handrails both sides, 300mm handrail extensions, tactiles, nosing strips, etc.)

23. D3D17, D3D18, D3D19, D3D20, D3D22 – Balustrades are to be provided to stairs and balconies where there is a fall of more than 1m. I.e. min. 865mm above stair nosings and 1m in all other locations and where the floor is more than 4m above the surface beneath, the balustrade must not incorporate any horizontal or near horizontal elements between 150mm and 760mm above the floor that could facilitate climbing. Plans are required to confirm compliance.

24. D3D22 – Handrails are to be located on both sides of stairways in required exits and shall comply with AS 1428.1-2009.

25. D3D26 – Operation of door hardware –

    - Lever downward action door hardware is to be provided to required exits and paths of travel doors and are to be openable without a key from the side seeking egress.
    - The doors which serve as the exits for the building must be readily openable without a key from the side that faces a person seeking egress, by a single hand downward action on a single device which is located between 900mm and 1.1m from the floor or a single hand pushing action on a single device which is located between 900mm and 1.2m from the floor.
    - Doorways serving areas required to be accessible in accordance with D4 BCA are to be provided with lever downward action door hardware that the hand of a person who cannot grip will not slip from the handle during operation of the latch and have clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35mm and not more than 45mm.

    Plans are required to confirm compliance.

26. D3D29 – Bedroom windows are required to be protected in accordance with this clause. Plans are required to confirm compliance.

27. D4D3 – Access and AS 1428.1-2009

- Access is to be provided via walkway, ramp or lift from street and accessible carparking space to the principal entrance/s of the building.
- A level walkway 1m wide is to be provided from the shared accessible car space to the principal entrance of the building.
- All door openings on the ground floor are to have a clear opening of 850mm (920mm) door.
- Circulation spaces to doorways are to comply with AS 1428.1-2009.
- Tactile ground surface indicators are to be installed on top and bottom of landings of non-fire-isolated stairways and ramps.

28. D4D4 – Parts of the building required to be accessible.
    - every ramp and stairway must comply with Clause 10 (ramps) and Clause 11 (stairs) of AS 1428.1; circulation spaces must comply with AS 1428.1.
    - every passenger lift must comply with E3D7.

29. E1D2 – Fire hydrant system is required. Provide hydraulic details and design certificate prepared by an accredited practitioner (fire safety) to confirm compliance with pressure/flow and coverage in accordance with AS 2419.1-2021.

    E1D2 & AS 2419.1-2021 – Where the fire brigade booster assembly is located between 3.5m and 10m from the external wall of the building, it must be protected by a freestanding wall, fire brigade booster assembly cabinet, or a similar structure. Provide elevation and section details confirming that the booster assembly will be separated from the building by construction with an FRL of not less than 90/90/90. This construction must extend at least 1m on each side of the centre-line of the outermost fire hydrant pipe risers (for a minimum total width of 3m) and 2m above the upper hose connections of the booster assembly. Additionally, the booster assembly must be positioned directly behind the fire hydrant, between the building and the fire hydrant.

30. E1D14 – Portable fire extinguishers are required to be provided in accordance with BCA E1D14 and AS 2444-2001. Plans are required to confirm compliance.

31. E1D16 In a building under construction—
    Not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit

    The CC issue plans are to reference the fire precautions during construction requirements as noted above.

32. E1D17 – Consideration to be given to the installation and maintenance for Solar Panels. Fire and Rescue NSW Recommendations for PV Generating Systems shall be installed in the building.

Fire and Rescue NSW Recommendations for PV Generating Systems

- Keys for the cupboard containing the Photovoltaic inverter shall be secured within the FIP. The keys shall be labelled 'PHOTOVOLTAIC INVERTER CUPBOARD' in capital letters not less than 20 mm high in a colour contrasting with the background.
- Signage is to be provided on the door identifying the location of the Photovoltaic Inverter.
- FRNSW recommends a list of instructions is to be provided outlining the process to isolate the Solar Panels.
- An A4 notice on fade resistant material shall be displayed at the FIP notifying attending fire fighters as to the existence of the Photovoltaic Solar Panel Array on the roof of the building. The notice shall include:
    a. the location of the panels and orientated to align with the building layout and the orientation of the subject site (allotment).
    b. the location of all associated isolation switches, AC and DC isolators for the shut- off generated electricity
    c. wayfinding signage that incorporates the use of directional arrows is to be installed along the route as guidance to gain access to solar inverters.

d. If the PV automatically isolate on fire trip, a statement advising of the same.
e. A statement in 8mm font stating (or similar):
Photovoltaic (PV) Panels Present
PV panels are mechanically fixed to the roof as shown below.
f. FRNSW recommends installing permanent PV signage on the door of the electrical cabinet and the rooftop hatch access to identify the location of the isolation switches and inverter isolators for the shut-off of the generated electricity so that their location is readily identified.

33. E2D3/E2D8 – The building is to be provided with an automatic smoke detection and alarm system complying with Specification 20 Clause 3, or Specification 20 Clause 4, or a combination of a smoke alarm system within the sole-occupancy units and a smoke detection system in areas not within sole-occupancy units complying with Spec 20 Clause 5.

    Electrical details and design certificate is to be provided by an accredited practitioner (fire safety) and are to be provided prior to issue of any approval.

34. E3D2, E3D4, E3D6, E3D7, E3D8 & Spec 24 – The lift design and platform lift design are to comply with E3D2, E3D6, E3D7, E3D8 & Spec 24 and AS 1735.12-1999 and manufacturer details and specifications are to be provided.

35. E4D2, E4D5, E4D6, E4D8 & Spec 25 – Emergency lighting, exit signs and direction signs are required throughout the building, including required non-fire-isolated stairways and public areas. Plans are required to confirm compliance with these clauses of the BCA and AS/NZS 2293.1-2018.

36. F1D1 – The architect or façade engineer is to demonstrate that the construction of the roof and external walls is such that they will prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity to occupants and undue dampness or deterioration of building elements.

37. F1D3 – Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3-2021.

38. F1D4 - Architectural details, sections and design statement is to be provided to demonstrate compliance with F1D4 Construction Joints and AS 4654 parts 1 & 2-2012.

39. F1D5 – The architect and structural engineer are to provide sections demonstrating compliance with AS 4654.1 and AS 4654.2 with particular attention to detail on the stepdown/termination heights.

40. F1D6 – A damp-proof course is required to prevent moisture rising and must consist of a material that complies with AS/NZS 2904 or impervious sheet material in accordance with AS 3660.1. Plans are required to confirm compliance.

41. F1D7 - Where floors are directly laid on the ground a vapour barrier must be provided in accordance with AS2870.

    Architectural/structural details, sections, specification and design statement are to be provided to demonstrate compliance with F1D7 and AS 2870.

42. F1D8 – Subfloor spaces must include openings in external and internal subfloor walls as specified for the climatic zones in Table F1D8 and Figure F1D8 and maintain clearance between the ground surface and the lowest horizontal member of the subfloor according to Table F1D8. Plans are required to confirm compliance.

43. F2D2 – Bathrooms are to be waterproofed in accordance with BCA F2D2, Spec 26 and AS 3740-2021. Plans are required to confirm compliance.

44. F2D4 – Where a floor waste is installed, the continuous fall of a floor plane to the waste must be minimum 1:80 and maximum 1:50. Plans are required to confirm compliance.

45. F3D2 – Metal roof sheeting must be in accordance with AS 1526.1. Provide product certification and plans are required to confirm compliance.

46. F3D3 – Sarking must be in accordance with AS 4200.1 & AS 4200.2. Plans are required to confirm compliance.

47. F3D4 – Glazing within the external wall must be in accordance with AS 2047 and this provision. Plans are required to confirm compliance.

48. F3D5 – The external wall cladding must be in accordance with:
    - Masonry to AS 3700; or
    - Autoclaved aerated concrete to AS 5146.3; or
    - Metal wall cladding to AS 1562.1

    Provide product certification and plans are required to confirm compliance. Where the cladding does not meet this provision, it must be assessed on a performance basis (F3P1 Weatherproofing performance Solution Report).

49. F4D2 - Clothes washing facilities, comprising of at least one washtub and space for a washing machine and a clothes line/hoist or space for a drying cabinet or similar appliance for the exclusive use of the occupants.

    Note. A kitchen sink or washbasin must not be counted as a laundry washtub.

    Details of the location of the laundry facility including a washbasin and location of washing machine is required to be incorporated within the design documentation.

50. F6D3 - F6D8 – Habitable rooms are to be provided with a minimum 10% natural light and 5% natural ventilation. Where natural ventilation is not achievable, a mechanical ventilation or air-conditioning system complying with AS1668.2 is required. Provide calculations including the floor area of the room, area of the window and area of the openable portion of the window to confirm compliance.

51. F6D5 – Artificial lighting is to be provided in required stairways, passageways and ramps and where natural light is insufficient. The artificial lighting system must comply with AS/NZS 1680.0. Electrical details and design certificate are required to confirm compliance.

52. F6D9 & F6D10 - The bathrooms located centrally of each sole occupancy unit are required to be provided with mechanical ventilation.
    Mechanical details, sections, elevations, specification and design statement are to be provided to demonstrate compliance.

53. F7D5, F7D6 & F7D7 – A system for sound insulation of the floors/walls is to be provided on plans to demonstrate compliance with F7D5 & F7D6 and also specify the fire rating level (FRL's) in accordance with BCA Spec 5.

54. F7D8 – A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump. A system for sound insulation is to be provided on plans to demonstrate compliance with F7D8.

55. F8D3 – Where a pliable building membrane is installed in an external wall, it must
    comply with AS 4200.1, be installed in accordance with AS 4200.2 and be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of the building. Plans are required to confirm compliance. Climate Zone 6.

56. F8D4 – Provide details including a design statement to demonstrate compliance with the flow rate and discharge (kitchen, bathroom, sanitary compartment of laundry) of exhaust systems (bathroom – 25 L/s and kitchen & laundry – 40 L/s). Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air.

Note: Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air. This requirement does not apply if a condensing-type clothes drying appliance is installed.

57. F8D5 – Provide details including a design statement for any ventilation of roof space. Climate Zone 6.

58. Section J Report (Class 2 Buildings) – Energy efficiency report from an appropriately qualified consultant or company demonstrating compliance with applicable clauses in Section J, including NSW variations, of the Building Code of Australia. Note: The Section J commitments are to be illustrated on the final CC plans with the BASIX commitments.

A list of existing, modified or proposed fire safety measures has been created and can be found in Appendix A of the Report.

Prepared by:

Stephen Melville

Registered Building Surveyor – A1
BDC No.2188
Mobile: 0499 388 884

Reviewed by:

Ray Williams

Registered Building Surveyor – A1
BDC No.0779
Mobile: 0449 177 344

APPENDIX A – FIRE SAFETY SCHEDULE

1-3 Rodd St, Eden – Residential Flat Building

Fire Safety Measure	Proposed Standard of Performance
~~Access Panels, doors and hoppers to fire resisting shaft~~	~~BCA C4D11 & AS1735.11-1986, C4D14 & AS1905.1-2015, AS1905.2-2005~~
~~Automatic fail-safe devices~~	~~BCA D324 & D326~~
Automatic fire detection and alarm system	BCA E2D3, Spec 20 – S20C3 (smoke alarm), S20C4 (smoke detection), S20C5 (combination smoke alarm & smoke detection), S20C7 (building occupant warning), AS1670.1-2018 (fire detection) and AS3786-2014 (stand-alone)
~~Automatic fire suppression system~~	~~BCA E1D4, Spec 17, Spec 18 & AS2118.1-2017, AS2118.4-2012 (accommodation buildings < 4 storeys) & AS2118.6-2012 (combined sprinkler and hydrant systems in multi-storey buildings), FPAA101D – 2018 (automatic fire sprinkler system design and installation – drinking water) and FPAA101H – 2018 (automatic fire sprinkler system design and installation – hydrant water supply)~~
Emergency lighting	BCA E4D2, E4D4 & AS/NZS2293.1-2018
~~Emergency lifts~~	~~BCA E3D5 & AS1735.2-2001~~
Exit signs	BCA E4D5, E4D6, E4D8 & AS/NZS2293.1-2018
~~Fire control centres and rooms~~	~~BCA E1D15 & Spec 19 Clause S19C3 to S19C6~~
~~Fire dampers~~	~~BCA C4D13, C4D15 & AS/NZS1668.1-2015, AS1668.2-2012, and AS1668.4-2012~~
~~Fire windows~~	~~BCA C4D5 & Specification 12~~
~~Fire shutters~~	~~BCA Spec 12 & AS1905.2-2005~~
~~Fire-stair pressurisation system~~	~~BCA E2D21 & AS/NZS 1668.1-2015~~
~~Fire doors~~	~~BCA Spec 12 & AS1905.1-2015 & AS1905.2-2005~~
Fire hydrant systems	BCA E1D2 & AS2419.1-2005
Fire seals protecting openings in fire resisting components of the building	BCA C4D13, C4D15 & Spec 13 & AS1530.4-2014
~~Hose reel system~~	~~BCA E1D3 & AS2441-2005~~
Lightweight construction	C2D9 & Spec 6 and Manufacturers details
~~Mechanical air handling system~~	~~BCA E2D3, Spec 21 & AS/NZS1668.1-2015~~
~~Perimeter vehicle access for emergency vehicles~~	~~BCA C3D5~~
Portable fire extinguishers	BCA E1D14 & AS2444-2001
~~Safety curtains in proscenium openings~~	~~BCA I4D15, I4D16 & Spec 32~~
~~Smoke detectors and heat detectors~~	~~BCA E2D3, Spec 20 & AS1670.1-2018, AS3786-2014~~
~~Smoke dampers~~	~~BCA E2D3~~
~~Smoke and heat vents~~	~~BCA E2D3 & Spec 22~~
~~Smoke doors~~	~~BCA Spec C4D5~~
Solid core doors	BCA C4D12
~~Sound systems and intercom systems for emergency purposes~~	~~BCA E4D9 & AS1670.4-2018~~
~~Stand by power systems~~	~~BCA Part G3 & Spec 31~~
~~Wall wetting sprinkler & drencher system~~	~~BCA C4D5 & AS2118.2-2017~~
Warning and operational signs	EPA Regulation (reg 138), BCA E3D4 (lifts) & D4D4 (signs on or near exit doors)
Performance Solution – To be determined	Performance Solution Report No.xxxx Rev:xxxx Dated: xxxx, Prepared by xxxx to permit -

APPENDIX B – TYPE B CONSTRUCTION FRL OF BUILDING ELEMENTS

Specification 5 – Fire-resisting construction

1. Scope
This Specification contains requirements for the *fire-resisting construction* of building elements.

General Requirements

S5C1 Scope
This Specification contains requirements for the of building elements. *fire-resisting construction*

S5C2 Exposure to fire-source features
[2019: Spec C1.1: 2.1]

(1) A part of a building element is exposed to a *fire-source feature* if any of the horizontal straight lines between that part and the *fire-source feature*, or vertical projection of the feature, is not obstructed by another part of the building that—
  (a) has an FRL of not less than 30/–/–; and
  (b) is neither transparent nor translucent.

(2) A part of a building element is not exposed to a *fire-source feature* if the *fire source feature* is—
  (a) an *external wall* of another building that stands on the allotment and the part concerned is more than 15m above the highest part of that *external wall; or*
  (b) a side or rear boundary of the allotment and the part concerned is below the level of the finished ground at every relevant part of the boundary concerned.

(3) If various distances apply for different parts of a building element—
  (a) the entire element must have the FRL applicable to that part having the least distance between itself and the relevant *fire source feature*; or
  (b) each part of the element must have the FRL applicable according to its individual distance from the relevant *fire source feature.*

(4) The requirements of (3) do not override or permit any exemption from S5C3.

S5C3 Fire protection for a support of another part
[2019: Spec C1.1: 2.2]

(1) 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, subject to (2), must—
  (a) have an FRL not less than that *required* by other provisions of this Specification; and
  (b) if located within the same *fire compartment* as the part it supports have an FRL in respect of *structural adequacy* the greater of that *required*—
    (i) for the supporting part itself; and
    (ii) for the part it supports; and
  (c) be *non-combustible*—
    (i) if *required* by other provisions of this Specification; or
    (ii) if the part it supports is *required* to be *non-combustible*.

(2) The following building elements need not comply with (1)(b) and (1)(c)(ii):
  (a) An element providing lateral support to an *external wall* complying with S5C24(1)
  (b) or C2D12. An element providing support within a *carpark* and complying with S5C19, S5C22 or S5C25.
  (c) A roof providing lateral support in a building—
    (i) of Type A construction if it complies with S5C15(a), (b) or (d); and
    (ii) of Type B and C construction.
  (d) A column providing lateral support to a wall where the column complies with S5C6(1) and (2).

(e) An element providing lateral support to a *fire wall* or *fire-resisting* wall, provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall.

S5C4 Lintels

[2019: Spec C1.1: 2.3]

(1) A lintel must have the FRL *required* for the part of the building in which it is situated.

(2) A lintel need not comply with (1) if it does not contribute to the support of a fire door, fire *window* or fire shutter, and—

(a) it spans an opening in—

(i) a wall of a building containing only one storey; or

(ii) a non-*loadbearing* wall of a Class 2 or 3 building; or

(b) it spans an opening in masonry which is not more than 150 mm thick and—

(i) not more than 3 m wide if the masonry is non-*loadbearing*; or

(ii) not more than 1.8 m wide if the masonry is *loadbearing* and part of a solid wall or one of the leaves of a cavity wall.

S5C5 Method of attachment not to reduce the fire-resistance of building elements

[2019: Spec C1.1: 2.4]

The method of attaching or installing a finish, lining, *ancillary element* or service installation to the building element must not reduce the fire-resistance of that element to below that *required.*

S5C6 General concessions

[2019: Spec C1.1: 2.5]

(1) Steel columns — A steel column, other than one in a *fire wall* or *common wall*, need not have an FRL in a building that contains—

(a) only 1 *storey*; or

(b) 2 *storeys* in some of its parts and 1 *storey* only in its remaining parts if the sum of the *floor areas* of the upper *storeys* of its 2 *storey* parts does not exceed the lesser of—

(i) 1/8 of the sum of the *floor areas* of the 1 *storey* parts; or

(ii) in the case of a building to which one of the maximum *floor areas* specified in Table C3D3 is applicable — 1/10of that area; or

(iii) in the case of a building to which two or more of the maximum *floor area* specified in Table C3D3 is applicable — 1/10 of the lesser of those areas.

(2) Timber columns — A timber column may be used in a single *storey* building if—

(a) in a *fire wall* or *common wall* the column has an FRL not less than that listed in the appropriate Table S5C11d, S5C21d or S5C24c as appropriate; and

(b) in any other case where the column is *required* to have an FRL in accordance with Table S5C11a, S5C11c, S5C11g, S5C21a, S5C21c, S5C21g, S5C24a or S5C24b it has an FRL of not less than 30/–/–.

(3) Structures on roofs — A *non-combustible* structure situated on a roof need not comply with the other provisions of this Specification if it only contains—

(a) lift motor equipment; or

(b) one or more of the following:

(i) Hot water or other water tanks.

(ii) Ventilating ductwork, ventilating fans and their motors.

(iii) Air-conditioning chillers.

(iv) *Window* cleaning equipment.

(v) Other service units that are *non-combustible* and do not contain flammable or combustible liquids or gases.

(4) Curtain walls and panel walls — A requirement for an *external wall* to have an FRL does not apply to a *curtain wall* or *panel wall* which is of *non-combustible* construction and fully protected by *automatic* external wall-wetting sprinklers.

(5) Balconies and verandahs — A balcony, verandah or the like and any incorporated supporting part, which is attached to or forms part of a building, need not comply with Table S5C11c, S5C11g, S5C21c, S5C21g, S5C24b or S5C24e if—

(a) it does not form part of the only path of travel to a *required exit* from the building; and

(b) in Type A construction—

(i) it is situated not more than 2 *storeys* above the lowest *storey* providing direct egress to a road or *open space;* and

(ii) any supporting columns are of *non-combustible* construction.

S5C7 Mezzanine floors: Concession

[2019: Spec C1.1: 2.6]

(1) This Clause does not apply to a Class 9b building that is a spectator stand or audience viewing area accommodating more than 100 persons as calculated according to D2D18.

(2) A *mezzanine* and its supports need not have an FRL or be *non-combustible* provided—

(a) the total *floor area* of all the *mezzanines* in the same room does not exceed 1/3 of the of the room or 200m2, whichever is the lesser; and

(b) the FRL of each wall and column that supports any other part of the building within 6m of the *mezzanine* is increased by the amount listed in Table S5C7.

Table S5C7: Increased FRLs — Construction surrounding mezzanines

Level otherwise *required* for any FRL criterion (mins)	Increase in level to not less than (mins)
30	60
60	90
90	120
120	180
180	240

Table Notes

The increase in level applies to each FRL criterion (*structural adequacy*, *integrity* or *insulation*) relevant to the building element concerned.

S5C8 Enclosure of shafts

[2019: Spec C1.1: 2.7]

(1) *Shafts required* to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that *required* for the walls of a non-*loadbearing shaft* in the same building.

(2) The provisions of (1) need not apply to—

(a) the top of a *shaft* extending beyond the roof covering, other than one enclosing a *fire-isolated stairway* or *ramp*; or

(b) the bottom of a *shaft* if it is *non -combustible* and laid directly on the ground.

S5C9 Carparks in Class 2 and 3 buildings

[2019: Spec C1.1: 2.8]

(1) If a Class 2 building contains not more than 4 *storeys* of which—

(a) one is Class 7 used solely for the purpose of parking motor vehicles or for some other purpose that is ancillary to a Class 2; and

(b) the remaining *storeys* are of Class 2,

the *carpark storey* is regarded as Class 2 only for the purpose of determining the relevant *fire-resisting* requirements of this Specification.

(2) If a Class 3 building or a building of Class 2 and 3 contains not more than 3 *storeys* of which—
  (a) one *storey* is Class 7 used solely for the purpose of parking motor vehicles or for some other purpose that is ancillary to the other *storeys*; and
  (b) the remaining *storeys* are of Class 2 or 3,
the *carpark storey* is regarded as Class 2 or 3 only for the purpose of determining the relevant *fire-resisting* requirements of this Specification.

S5C10 Residential care building: Concession

[2019: Spec C1.1: 2.9]

(1) In a Class 3 building protected with a sprinkler system complying with Specification 17 and used as a *residential care building*, any FRL criterion prescribed in Tables S5C11a, S5C11d, S5C11e, S5C11f, S5C11g, S5C21a, S5C21d, S5C21e, S5C21f, S5C21g, S5C24a, S5C24c and S5C24d—
  (a) for any floor and any *loadbearing* wall, may be reduced to 60, except any FRL criterion of 90 for an *external wall* must be maintained when tested from the outside; and
  (b) for any non-*loadbearing internal wall*, need not apply if—
    (i) it is lined on each side with standard grade plasterboard not less than 13mm thick or similar *non-combustible* material; and
    (ii) it extends—
      (A) to the underside of the floor next above; or
      (B) to the underside of a ceiling lined with standard grade plasterboard not less than 13mm thick or a material with at least an equivalent level of fire protection; or
      (C) to the underside of a *non-combustible* roof covering; and
    (iii) any insulation installed in the cavity of the wall is *non-combustible*; and
    (iv) any construction joint, space or the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material.

(3) The concession described at (1) does not apply to *fire-protected timber* building elements.

Type B Fire-Resisting Construction

S5C21 Type B fire-resisting construction — fire-resistance of building elements

[2019: Spec C1.1: 4.1 and Table 4]

(1) In a building required to be of Type B construction—
  (a) each building element listed in Tables S5C21a, S5C21b, S5C21c, S5C21d, S5C21e, S5C21f and S5C21g, and any beam or column incorporated in it, must have an FRL not less than that listed in the Table for the particular class of building concerned; and
  (b) if a stair *shaft* supports any floor or a structural part of it—
    (i) the floor or part must have an FRL of 60/–/– or more; or
    (ii) the junction of the stair *shaft* must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the shaft; and
  (c) any *internal wall* which is *required* to have an FRL with respect to *integrity* and *insulation*, except a wall that bounds a *sole-occupancy unit* in the topmost (or only) *storey* and there is only one unit in that *storey*, must extend to—
    (i) the underside of the floor next above if that floor has an FRL of at least 30/30/30; or
    (ii) the underside of a ceiling having a *resistance to the incipient spread of fire* to the space above itself of not less than 60 minutes; or
    (b) the underside of the roof covering if it is *non-combustible* and, except for roof battens with dimensions of 75 mm x 50 mm or less or *sarking-type material*, must not be crossed by timber or other combustible building elements; or
    (c) 450 mm above the roof covering if it is combustible; and
  (d) a *loadbearing internal wall* and a *loadbearing fire wall* (including those that are part of a *loadbearing shaft*) must be constructed from—
    (i) concrete; or
    (ii) masonry; or

(iii) subject to (2), *fire-protected timber*; or
(iv) any combination of (i) to (iii); and

(e) in a Class 5, 6, 7, 8 or 9 building, in the *storey* immediately below the roof, internal columns and *internal walls* other than *fire walls* and shaft walls, need not comply with Tables S5C21e, S5C21f and S5C21g; and

(f) in a Class 2 or 3 building, except where within the one *sole-occupancy units*, or a Class 9a *health-care building* or a Class 9b building, a floor separating a *storey* or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, must—
(i) be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a *resistance to the incipient spread of fire* to the space above itself of not less than 60 minutes; or
(ii) have an FRL of at least 30/30/30; or
(iii) have a *fire-protective covering* on the underside of the floor, including beams incorporated in it, if the floor is *combustible* or of metal; and

(g) in a Class 9c building a floor above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, and any column supporting the floor must—
(i) be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a *resistance to the incipient spread of fire* to the space above itself of not less than 60 minutes; or
(ii) have an FRL of at least 30/30/30; or
(iii) have a *fire-protective covering* on the underside of the floor, including beams incorporated in it, if the floor is *combustible* or of metal.

(2) For the purposes of (1)(d)(iii), *fire-protected timber* may be used, provided that—
(a) the building is—
(i) a separate building; or
(ii) a part of a building—
(A) which only occupies part of a *storey*, and is separated from the remaining part by a *fire wall*; or
(B) which is located above or below a part not containing *fire-protected timber* and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a *fire wall* for the lower *storey; and*
(b) the building has an *effective height* of not more than 25m; and
(c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and
(d) any *insulation* installed in the *cavity* of the timber building element *required* to have an FRL is *non-combustible; and*
(e) cavity barriers are provided in accordance with Specification 9.

(3) For the purposes of Table S5C21a and Table S5C21b, *external wall* includes any column and other building element incorporated within it or other external building element.

Table S5C21a: Type B construction: FRL of loadbearing parts of external walls

Distance from a *fire-source feature*	FRL (in minutes) *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/30	120/90/60	180/120/90	240/180/120
3 m to less than 9 m	90/30/30	120/30/30	180/90/60	240/90/60
9 m to less than 18 m	90/30/–	120/30/–	180/60/–	240/60/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C21b: Type B construction: FRL of non-loadbearing parts of external walls

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	–/90/90	–/120/120	–/180/180	–/240/240
1.5 m to less than 3 m	–/60/30	–/90/60	–/120/90	–/180/120
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C21c: Type B construction: FRL of external columns not incorporated in an external wall

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy / Integrity / Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing column — less than 18 m	90/–/–	120/–/–	180/–/–	240/–/–

Distance from a *fire-source feature*	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing column — 18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
Non-*loadbearing* column	–/–/–	–/–/–	–/–/–	–/–/–

Table S5C21d: Type B construction: FRL of common walls and fire walls

Wall type	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Loadbearing or non-*loadbearing*	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C21e: Type B construction: FRL of loadbearing internal walls

Location	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair *shafts*	90/90/90	120/120/120	180/120/120	240/120/120
Bounding *public corridors*, public lobbies and the like	60/60/60	120/–/–	180/–/–	240/–/–
Between or bounding *sole-occupancy units*	60/60/60	120/–/–	180/–/–	240/–/–

Table S5C21f: Type B construction: FRL of non-loadbearing internal walls

Location	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair *shafts*	–/90/90	–/120/120	–/120/120	–/120/120
Bounding *public corridor*, public lobbies and the like	–/60/60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*	–/60/60	–/–/–	–/–/–	–/–/–

Table S5C21g: Type B construction: FRL of other building elements not covered by Tables S5C21a to S5C21f

Building element	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Other *loadbearing* internal walls and columns	60/–/–	120/–/–	180/–/–	240/–/–
Roofs	–/–/–	–/–/–	–/–/–	–/–/–

S5C23 Type B fire-resisting construction — Class 2 and 3 buildings: Concession

[2019: Spec C1.1: 4.3]

(1) In a Class 2 or 3 building with a *rise in storeys* of not more than 2—

(a) notwithstanding C2D10(1) and (2), timber framing may be used for—

(i) *external walls*; and

(ii) *common walls*; and

(iii) the floor framing of lifts pits; and

(iv) non-*loadbearing internal walls* which are *required* to be *fire-resisting*; and

(v) non-*loadbearing shafts*, except *shafts* used for the discharge of hot products of combustion; and

(b) notwithstanding S5C21(1)(d), for *loadbearing internal walls* and *loadbearing fire walls*—

(i) timber framing may be used; and

(ii) *non-combustible* materials may be used; and

(c) notwithstanding S5C3(1)(c), timber framing may be used for a part of a building that provides support to a part of a building constructed of timber framing or *non-combustible* material in accordance with S5C23(1)(a) and (b).

(2) A Class 2 or 3 building having a *rise in storeys* of not more than 2 may have the top *storey* constructed in accordance with (1) provided—

(a) the lowest *storey* is used solely for the purpose of parking motor vehicles or for some other ancillary purpose; and

(b) the lowest *storey* is constructed of concrete or masonry including the floor between it and the Class 2 or 3 part of the building above; and

(c) the lowest *storey* and the *storey* above are separated by construction having an FRL of not less than 90/90/90 with no openings or penetrations that would reduce the *fire-resisting* performance of that construction except that a doorway in that construction may be protected by a –/60/30 *self-closing* fire door.

(3) In a Class 2 or 3 building complying with (1) or (2) and fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, any FRL criterion prescribed in Tables S5C21a, S5C21d, S5C21e, S5C21f and—

(a) for any *loadbearing* wall, may be reduced to 60, except any FRL criterion of 90 for an *external wall* must be maintained when tested from the outside; and

(b) for any non-*loadbearing internal wall*, need not apply, if—

(i) it is lined on both sides with 13mm standard grade plasterboard or similar *non-combustible* material; and

(ii) it extends—

(A) to the underside of the floor next above if that floor has an FRL of at least 30/30/30 or is lined on the underside with a *fire-protective covering; or*

(B) to the underside of a ceiling with a *resistance to the incipient spread of fire* of 60 minutes; or

(C) to the underside of a *non-combustible* roof covering; and

(iii) any insulation installed in the cavity of the wall is *non-combustible*; and

(iv) any construction joints, spaces and the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material.