

BCA & DDA Capability Statement

IRT Moruya Seniors Living Development
1 Spencer Street, Moruya NSW 2537

Prepared for:

IRT Group C/- APG

Revision 3

19 March 2026

Reference: S250222



bmplusg.com.au

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BCA & DDA Capability Statement

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+ Subject	SSDA Stage BCA Capability Report – IRT Moruya – SSDA Review based on stakeholder review and updated design plans
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This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the Development Application (DA) against the Building Code of Australia 2022 (Amdt. 2) (BCA).

This SSDA Stage BCA Capability Statement will be provided to Department of Planning for the proposed Seniors Living development.

+ Revision History

+ Revision	0	+ Date	26/11/2025
+ Status	Draft SSDA Stage BCA Capability Report for stakeholder review		
+ Revision	1	+ Date	31/12/2025
+ Status	SSDA Stage BCA Capability Report – IRT Moruya – Preliminary SSDA Review based on updated design plans		
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+ Revision	3	+ Date	19/03/2026
+ Status	SSDA Stage BCA Capability Report – IRT Moruya – SSDA Review based on stakeholder review and updated design plans		

1.0 Proposed Development

The proposed IRT Moruya Seniors Housing development is located at 1 Spencer Street, Moruya NSW 2537.

The development includes,

1. Residential Care Facility comprising a total of 120 resident rooms with associated dining areas, common areas/siting areas, salon, conference areas and BOH areas/commercial kitchen/laundry etc.
2. Construction of five seniors housing apartment buildings comprising a total of 252 Independent Living Units (ILUs) with the following:
 - a. 152 ILU Class 2 Residential Flat Building Apartments consisting of:
 - i. 3-storey 'Valley' Apartments (Building A/B/C/D) including associated ground floor carparking;
 - ii. 5-storey 'Spencer Street' Apartments (Building E/F/G/H) including associated ground floor carparking;
 - b. 86 ILU Class 1a villas;
 - c. 14 ILU Class 2 Mini Manor apartments (ground floor only)
3. Stand-alone Key worker accommodation consisting of:
 - a. 14 Class 3 Mini Manor apartments (first floor only);
 - b. 36 Class 3 Cabins;
4. Community facilities including Bistro, Clubhouse, Library, Gym, Indoor pool, Medical Centre, and Café;
5. Landscaping and vegetation management; and
6. On-grade and open-to-the-sky carparking.



Figure 1: Masterplan SSDA Drawing (Source DA2.03 Rev.C)

1.2 Capability Statement Objectives

The objectives of this statement are to:

- + Confirm that the SSDA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- + Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to section 19 of the *Environmental Planning & Assessment (Development Certification & Fire Safety) Regulation 2021*.
- + Accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject further assessment following receipt of more detailed documentation at Construction Certificate stage.

This statement has been prepared pursuant to clause 18 of the *Building Professionals Regulation 2007*.

1.3 Relevant Version of the BCA

Pursuant to Section 19 of the *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021* the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the day on which the application for the Construction Certificate is made.

The current version of the BCA is BCA 2022 (Amdt. 2), with the next revision of the BCA 2025 available to industry in public comment draft. Adoption of BCA 2025 was intended for 1 May 2025 however this adoption date has been deferred by ABCB.

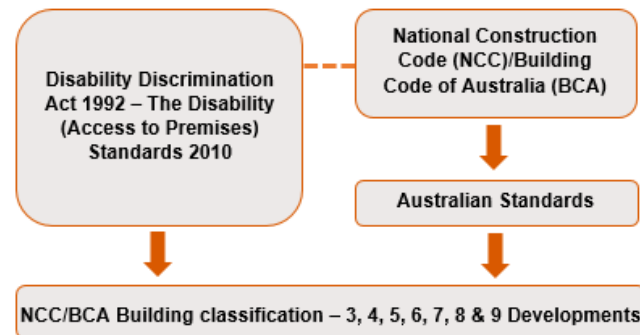
This SSDA BCA report assesses the design against compliance with the requirements of BCA 2022 (Amdt. 1) however does acknowledge key BCA 2025 design items in *italicised text*. As BCA 2025 is currently in public comment draft version at this stage and may evolve before it is finalised and adopted by all states and territories. The latest direction by ABCB is that BCA 2025 will be available on 1 May 2026 however that this stage is optional for each state and territory to adopt.

Where the building is a multi-storey building and multiple Construction Certificates will be issued under the same development consent, the relevant version of the BCA may be 'locked in' based on the day in which the application is made for the Construction Certificate which involves the **entrance floor**.

1.4 Regulatory Framework

New building works are to achieve compliance with the BCA pursuant to section 19 of the *Environmental Planning & Assessment (Development Certification & Fire Safety) Regulation 2021*.

The below figure represents the statutory framework addressing accessibility as noted in the below Act, Code and Standards.



The Disability Discrimination Act 1992 (DDA) is Commonwealth legislation enacted in 1993 that seeks to ensure that all new building infrastructure, refurbishments, services and transport projects provide independent and equitable access. The DDA is a complaints based legislation administered by the Australian Human Rights Commission (AHRC).

Subordinate to the DDA are the Disability Standards, which include; Disability (Access to Premises – Buildings) Standards 2010, Disability Standards for Education 2005, and the Disability Standards for Accessible Public Transport 2002. These Disability standards refer back to the AS 1428 suite of standards and Building Code of Australia.

Since 2011, the Building Code of Australia has adopted the key accessibility provisions of the Disability (Access to Premises – Buildings) Standards 2010, with compliance with AS 1428.1 – 2021, AS 1428.4.1 – 2009, and AS 2890.6 – 2009 becoming mandatory. As such, compliance with the relevant sections of the BCA ensures compliance with the Disability (Access to Premises – Buildings) Standards 2010 and vicariously the DDA.

With respect to existing works, there are statutory upgrade requirements within the Disability (Access to Premises – Buildings) Standards 2010 that apply to all building works which require consent (including Crown building work). This relates to the upgrade of any ‘affected part’ of the building, which includes;

- + The principal pedestrian entry (i.e. entry door and ramp), and
- + The pathway / corridor / lift / ramp which form an accessible path of travel to any area of new work (note: only one accessible path of travel is required to any new part under this requirement).

Section 23 of the Disability Discrimination Act DDA 1992 states;

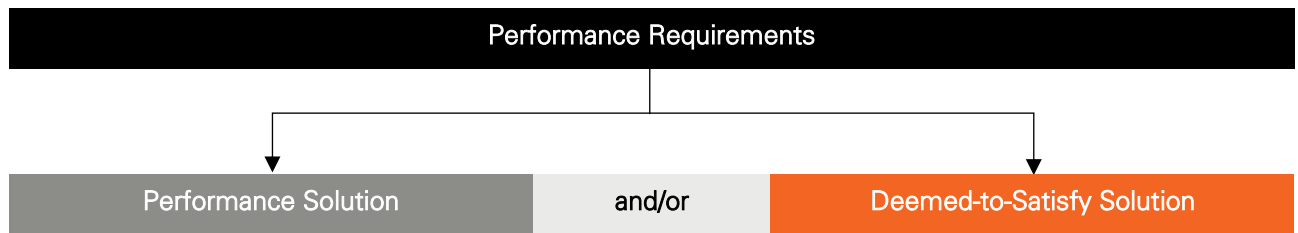
It is unlawful for a person to discriminate against another person on the ground of the other person’s disability:

- *By refusing to allow the other person access to, or the use of, any premises that the public or a section of the public is entitled or allowed to enter or use (whether for payment or not); or*
- *In the terms or conditions on which the first-mentioned person is prepared to allow the other person access to, or the use of, any such premises; or*
- *In relation to the provision of means of access to such premises.*

The DDA Act 1992 is a complaints-based legislation whilst compliance with The Disability (Access to Premises) Standards 2010 affords some certainty regarding the minimum compliance requirements it does not prevent a claim being made under the DDA Act 1992. Whilst implementing the minimum compliance requirements under the Disability (Access to Premises) Standards 2010 and BCA will satisfy the minimum compliance requirements there is nothing preventing a greater degree of access than those minimum requirements specified.

Note: The below report also includes recommendations for best practice/non mandatory items for consideration by the project team stakeholders and as applicable have been identified in the below report in *italics*.

1.5 Compliance with the National Construction Code



Compliance with the NCC is achieved by complying with:

- + the Governing Requirements of the NCC; and
- + the Performance Requirements.

Performance Requirements are satisfied by one of the following, as shown in the Figure below:

- + A Performance Solution.
- + A Deemed-to-Satisfy Solution.
- + A combination of the above two options.

Where a *Performance Requirement* is proposed to be satisfied by a *Performance Solution*, the following steps must be undertaken:

- + Prepare a performance-based design brief in consultation with relevant stakeholders.
- + Carry out analysis, using one or more of the Assessment Methods listed in A2G2(2), as proposed by the performance-based design brief.
- + Evaluation the results against the acceptance criteria in the performance-based design brief.
- + Prepare a final report that includes:
 - All Performance Requirements and/or Deemed-to-Satisfy provisions identified through A2G2(3) or A2G4(3) as applicable; and
 - Identification of all Assessment Methods used; and
 - Details of steps (a) to (c); and
 - Confirmation that the Performance Requirement has been met; and
 - Details of conditions or limitations, if any exist, regarding the Performance Solution.

1.6 Referenced Documentation

This report has been prepared based on a review of the preliminary DA architectural plans prepared by the relevant project Architects:

Apartments Masterplan – Marchese Partners Pty Ltd:

+ Drawing No.	+ Revision	+ Date	+ Drawing No.	+ Revision	+ Date
DA0.01	C	12/03/2026	DA0.02	C	12/03/2026
DA1.01	C	12/03/2026	DA1.02	C	12/03/2026
DA1.03	C	12/03/2026	DA1.04	C	12/03/2026
DA1.05	C	12/03/2026	DA1.06	C	12/03/2026
DA1.07	C	12/03/2026	DA1.08	C	12/03/2026
DA1.09	C	12/03/2026	DA2.01	C	12/03/2026
DA2.02	C	12/03/2026	DA2.03	C	12/03/2026
DA2.04	C	12/03/2026	DA2.05	C	12/03/2026
DA2.06	C	12/03/2026	DA2.07	C	12/03/2026
DA2.08	B	12/03/2026	DA2.09	C	12/03/2026
DA2.10	C	12/03/2026	DA2.11	C	12/03/2026
DA2.12	C	12/03/2026	DA2.13	C	12/03/2026
DA3.01	C	12/03/2026	DA3.11	C	12/03/2026
DA3.12	C	12/03/2026	DA3.13	C	12/03/2026
DA3.14	C	12/03/2026	DA3.15	C	12/03/2026
DA3.16	C	12/03/2026	DA3.17	C	12/03/2026
DA3.18	C	12/03/2026	DA3.21	C	12/03/2026
DA3.22	C	12/03/2026	DA3.23	C	12/03/2026
DA3.24	C	12/03/2026	DA3.25	C	12/03/2026
DA3.26	C	12/03/2026	DA3.27	C	12/03/2026
DA3.28	C	12/03/2026	DA4.02	C	12/03/2026
DA4.03	C	12/03/2026	DA4.04	C	12/03/2026
DA4.05	C	12/03/2026	DA4.06	C	12/03/2026
DA4.07	C	12/03/2026	DA4.11	C	12/03/2026
DA4.12	C	12/03/2026	DA4.13	C	12/03/2026
DA4.14	C	12/03/2026	DA4.15	C	12/03/2026
DA5.01	C	12/03/2026	DA5.02	C	12/03/2026
DA5.03	C	12/03/2026	DA5.04	C	12/03/2026
DA5.05	C	12/03/2026	DA5.06	C	12/03/2026
DA5.07	C	12/03/2026	DA5.11	C	12/03/2026
DA5.11	C	12/03/2026	DA5.12	C	12/03/2026
DA6.01	C	12/03/2026	DA6.02	C	12/03/2026

+ Drawing No.	+ Revision	+ Date
DA6.03	C	12/03/2026
DA6.04B	C	12/03/2026
DA6.06	C	12/03/2026
DA6.12	C	12/03/2026
DA7.02	C	12/03/2026
DA7.12	C	12/03/2026
DA7.14	C	12/03/2026
DA7.16	C	12/03/2026
DA7.21	C	12/03/2026
DA7.23	C	12/03/2026
DA7.32	C	12/03/2026
DA7.41	C	12/03/2026
DA7.51	C	12/03/2026
DA7.62	C	12/03/2026
DA7.71	C	12/03/2026

+ Drawing No.	+ Revision	+ Date
DA6.04A	C	12/03/2026
DA6.05	C	12/03/2026
DA6.11	C	12/03/2026
DA7.01	C	12/03/2026
DA7.11	C	12/03/2026
DA7.13	C	12/03/2026
DA7.15	C	12/03/2026
DA7.17	C	12/03/2026
DA7.22	C	12/03/2026
DA7.31	C	12/03/2026
DA7.33	C	12/03/2026
DA7.42	C	12/03/2026
DA7.61	C	12/03/2026
DA7.70	C	12/03/2026

Residential Care Facility Masterplan – Deicke Richards:

+ Drawing No.	+ Revision	+ Date		+ Drawing No.	+ Revision	+ Date
A001	P4	31/10/2025		A007	P1	31/10/2025
A011	P6	26/11/2025		A012	P5	26/11/2025
A013	P5	26/11/2025		A014	P5	26/11/2025
A101	P6	26/11/2025		A102	P6	26/11/2025
A103	P6	26/11/2025		A104	P6	26/11/2025
A105	P4	26/11/2025		A106	P4	26/11/2025
A107	P4	26/11/2025		A108	P4	26/11/2025
A109	P4	26/11/2025		A110	P4	26/11/2025
A111	P4	26/11/2025		A112	P4	26/11/2025
A113	P4	26/11/2025		A114	P4	26/11/2025
A115	P4	26/11/2025		A116	P4	26/11/2025
A201	P2	31/10/2025		A202	P2	31/10/2025
A301	P2	31/10/2025		A302	P2	31/10/2025
A303	P2	31/10/2025		A501	P1	26/11/2025
A502	P1	26/11/2025		A503	P1	26/11/2025
A601	P2	26/11/2025		A602	P2	26/11/2025
A603	P2	26/11/2025		A801	P1	31/10/2025

Villas/Townhouses/Mini Manor Masterplan – Breathe:

+ Drawing No.	+ Revision	+ Date
DA28.00	02	6/03/2026
DA29.05	02	6/03/2026
DA29.07	02	6/03/2026
DA30.05	02	6/03/2026
DA31.04	03	6/03/2026
DA31.06	02	6/03/2026
DA32.05	02	6/03/2026
DA32.06	02	6/03/2026
DA33.05	02	6/03/2026
DA34.03	03	6/03/2026
DA34.05	02	6/03/2026
DA35.04	02	6/03/2026
DA36.04	03	6/03/2026
DA36.06	02	6/03/2026
DA37.05	02	6/03/2026

+ Drawing No.	+ Revision	+ Date
DA29.04	02	6/03/2026
DA29.06	02	6/03/2026
DA30.04	03	6/03/2026
DA30.06	02	6/03/2026
DA31.05	02	6/03/2026
DA32.04	03	6/03/2026
DA32.06	02	6/03/2026
DA33.04	03	6/03/2026
DA33.06	02	6/03/2026
DA34.04	02	6/03/2026
DA35.03	03	6/03/2026
DA35.05	02	6/03/2026
DA36.05	02	6/03/2026
DA37.04	02	6/03/2026
DA37.06	02	6/03/2026

Community Buildings Masterplan – Gardner Wetherill & Assoc.:

+ Drawing No.	+ Revision	+ Date
DA8.00	3	25/12/2025
DA9.01	3	25/12/2025
DA9.03	3	25/12/2025
DA10.01	3	25/12/2025
DA10.03	3	25/12/2025
DA11.01	3	25/12/2025
DA11.03	3	25/12/2025
DA11.05	3	25/12/2025
DA12.01	3	25/12/2025
DA14.00	3	25/12/2025
DA14.02	3	25/12/2025

+ Drawing No.	+ Revision	+ Date
DA9.00	3	25/12/2025
DA9.02	3	25/12/2025
D10.00	3	25/12/2025
DA10.02	3	25/12/2025
DA11.00	3	25/12/2025
DA11.02	3	25/12/2025
DA11.04	3	25/12/2025
DA12.00	3	25/12/2025
DA12.02	3	25/12/2025
DA14.01	2	25/12/2025

1.7 Building Classification

The development has been classified as follows:

+ BCA Classification Refer to Note 1	+ Class 1a/10a - single storey villas (Independent Living Units Apartments/SOU's); + Class 2: - Building A/B/C/D/E/F/G/H & Mini Manor (ground floor) – Residential Flat Building (Independent Living Units Apartments/SOU's); + Class 3 – Key worker accommodation: - Standalone cabins - Mini Manor (first floor) – Residential Flat Building (key worker accommodation on first floor only Apartments/SOU's); + Class 5 - Medial Centre; + Class 6 - Café/ Craft Studio; + Class 7a Building A/B/C/D/E/F/G/H – Ground floor Enclosed Carpark/Services Corridor/Ancillary Storage Cages; + Class 9b - Community Buildings Bistro, Clubhouse, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) + Class 5 & 9c Residential Care Facility / Aged Care Facility: + Class 10a – BBQ Pavilion (Open non-habitable structure) + Class 10b – Open-to-the-sky Carpark/Roadways/open-to-the-sky Pedestrian Hardstand/Retaining Walls etc
+ Rise in Storeys Refer to Note 2	+ Villas – Rise in storeys of one (1) + Mini Manor – Rise in storeys of two (2) + Building A/B/C/D – Rise in storeys of three (3) + Building E/F/G/H – Rise in storeys of four (4) + Community Buildings Bistro, Clubhouse, Café/Craft Studio, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Rise in storeys of one (1) + Residential Care Facility / Aged Care Facility – Rise in storeys of three (3)
+ Storeys Contained	+ Villas – Rise in storeys of one (1) + Mini Manor – Rise in storeys of two (2) + Building A/B/C/D – Rise in storeys of three (3) + Building E/F/G/H – Rise in storeys of five (5) + Community Buildings Bistro, Clubhouse, Café/Craft Studio, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Rise in storeys of one (1) + Residential Care Facility / Aged Care Facility – Storeys of three (3)
+ Type of Construction Refer to Note 3	+ Villas – NA + Mini Manor – Type C Construction + Building A/B/C/D – Type A Construction + Building E/F/G/H – Type A Construction + Community Buildings Bistro, Clubhouse, Café/Craft Studio, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Type C Construction + Residential Care Facility / Aged Care Facility – Type A Construction
+ Importance Level (Structural) Refer to Note 4	+ Class 2 & 3 – ILU & ALU/apartments/SOU's – Importance Level 2 + Class 6, 7a, 9b & 9c – Residential Care Facility / Aged Care Facility / Club House / Community Building – Importance Level 3

+ Sprinkler Protected Throughout	+ Villas – No + Mini Manor – No + Building A/B/C/D – No + Building E/F/G/H – Yes + Community Buildings Bistro, Clubhouse, Café/Craft Studio, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – No + Residential Care Facility / Aged Care Facility – Yes
+ Effective Height	+ Villas – NA + Mini Manor – Less than 12m (circa 3.2m) + Building A/B/C/D – Less than 12m (circa 6.4m based on 23.800 - 17.400) + Building E/F/G/H – More than 12m (circa 15.8m based on 29.008 - 13.208) + Community Buildings Bistro, Clubhouse, Café/Craft Studio, Library, Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Less than 12m + Residential Care Facility / Aged Care Facility – Less than 12m (circa 7.45m based on 29.750-22.300);
+ Total Floor Area	+ Villas – NA + Mini Manor – Circa 361sqm + Building A/B/C/D – Circa 4,051sqm + Building E/F/G/H – Circa 4,054sqm + Community Buildings: - Bistro, Clubhouse – Circa 1,100sqm - Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Circa 1,350sqm - Café, Craft Studio – Circa 190sqm - Library – Circa 145sqm + Residential Care Facility / Aged Care Facility – Circa 12,339sqm
+ Largest Fire Compartment Size	+ Villas – NA + Mini Manor – NA + Building A/B/C/D – Circa 729sqm (Carpark) + Building E/F/G/H – Circa 880sqm (Carpark) + Community Buildings: - Bistro, Clubhouse – Circa 1,100sqm - Wellness Centre (Medical Centre, Gym, Indoor pool, associated plant) – Circa 1,350sqm - Café, Craft Studio – Circa 190sqm - Library – Circa 145sqm + Residential Care Facility / Aged Care Facility – Circa 2,633sqm
+ Max. Fire Compartment Size	+ Class 2 & 3 Residential Dwellings/SOU's – N/A + Class 6 – <5,000m² & <30,000m³ + Class 7a – N/A for basement carpark fire compartments which are sprinkler protected to BCA Spec. 17, Spec. 20 + Class 9b – <8,000m² & <48,000m³ + Class 9c – <8,000m² & <48,000m³ Note: Maximum fire compartment sizes do not apply to levels containing only Class 2 SOUs or sprinkler protected enclosed Class 7a carpark compartments in accordance with spec. 17 & 18.
+ Climate Zone	Zone 6

Note 1: It is assumed that there are no care models such as low care / assisted care (Class 3) or Residential Care (Class 9c) proposed within the residential flat buildings A-H; on this basis the use is Independent Living (Class 2). It is assumed there are no family over-night stay apartments within the residential care facility which would otherwise be designated Class 3.

Note 2: Whilst further assessment is required with the detailed design review the following commentary is made with regards to Rise in Storeys and Effective Height:

- + NCC/BCA Cl. C2D3(2)(a) does allow concessions to disregard the top most storey from the Rise in Storeys assessment where that storey is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment.
- + We have assumed that the basement carpark storey is substantially above ground and has been included in Rise in Storeys and Effective Height assessment as permitted under NCC/BCA Cl. C2D3(2)(b).

Note 3: A DtS concession is possible where Type C Construction is possible where the buildings are design in accordance with NCC Clause C2D6 i.e. A Class 2 building having a rise in storeys of 2 may be of Type C construction where SOU/apartment has access to at least 2 exits; or the SOU/apartment is to have its own direct access to a road or open space.

Note 4: Importance levels to be certified by the Project DEP/NER/MIE Structural Engineer at Construction Certificate Stage.

1.8 Distance to Fire Source Features

The distances from the nearest Fire Source Features (boundaries and/or buildings situated on the same allotments which are not a Class 10 Structure) are noted as follows:

+ Elevation	+ Fire Source Feature	+ Distance
North	Side/rear boundary	>3m Building G
East	Opposing boundary (Adjoining Public Road)	>6m RACF (ACC)
West	Side/rear boundary	>3m Cabin (Closest to Western Boundary)
South	Side/rear boundary	>3m Building A; >3m Cabin (Closest to Southern Boundary) & >900mm Villas

Note 1: Fire Source Feature (FSF) – The far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

Note 2: The above assessment assumes the Southern Boundary is a side/rear boundary until the future Maluka Avenue is established as a public road.

2.0 BCA Assessment – Key Issues – Class 2, 3, 5, 6, 7a, 9c & 9b

We confirm that the proposed design is capable of complying with the BCA however we note the following BCA compliance matters to be addressed as the design develops. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work and the below should be read in conjunction with the BCA.

2.1 Section B – Structure

Part B1

- + New building works are to comply with the structural provisions of the BCA 2022 (Amdt. 2) and referenced standards including AS 1170.
- + The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.
- + Any new glazing in association with walls/doors, which are acting as the barrier, are to satisfy AS1288-2021 Part 5.6 i.e. the glazing is to be certifiable as Grade A safety glass. Glazing used in the external walls are to satisfy AS 2047-2014 (Inc. Amdt.'s 1 and 2).
- + Consideration may be given to compliance with AS 3826-1998.

BCA 2025 Public Comment Draft adopts AS1170.2-2024 and AS1170.4-2024 as the minimum design standard.

2.2 Section C – Fire Resistance

C2D2

Type of Construction Required: The minimum type of fire-resisting construction of a building must be that specified in Table C2D2 and Specification C2D2 except as allowed for in this clause. Table C2D2 does not apply to Class 2, 3 or 9c buildings classified in Part C2D6 or open spectator stands/indoor sports stadiums.

Comment: Type A Construction applies to all buildings which are 3-storeys or more; Type C Construction applies to all single storey buildings and 2-storey mini manor apartments; refer to BCA Clause C2D6 for concession for Type C Construction.

Refer to Spec 5 of the BCA & APPENDIX 1 of this Report for the applicable FRL's to the project to satisfy DtS requirements in the absence of a Fire Engineered Performance Solution rationalising FRL's.

C2D3

General Floor Area and Volume Limitations: The building is to achieve fire compartment sizes not in excess of the DtS requirements of this clause.

C2D6

Two Storey Class 2, 3 & 9c Buildings: A building having a rise in storeys of 2 may be of Type C construction if:

- + it is a Class 2 or 3 building or a mixture of these classes and each sole-occupancy unit has—
 - access to at least 2 exits; or
 - its own direct access to a road or open space; or

	+ it is a Class 9c building protected throughout with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 and complies with the maximum compartment size specified in Table C3D3 for Type C construction. Comment: The 2-storey mini manor apartments on the first floor are provided with their own direct access to a road of open space; likewise the ground floor mini manor apartments are also provided with their own direct access to a road of open space. As such Type C Construction is permissible for these buildings.
C2D10	Non-Combustible Building Elements: In a building of Type A or B construction, the following building elements and their components must be non-combustible. + External walls and common walls, including all components incorporated in them, including the façade covering, framing and insulation. + The flooring and floor framing of lift pits. + Non-loadbearing internal walls where they are required to be fire-resisting. This clause contains provisions for combustible materials that may be used wherever a non-combustible material is required under the BCA, including: + Combustible elements permitted within the external wall under C2D10(4). + Materials, where comprised entirely of itself, which are deemed non-combustible under C2D10(5). + Materials which are permitted for use where non-combustible materials are required under C2D10(6). Note: Sarking type materials that do not exceed 1mm in thickness and have a Flammability Index not greater than 5 are permitted to be installed with an external wall. Comment: All materials and or components incorporated in an external wall (buildings of Type A and B Construction) must be non-combustible in the absence of a Fire Engineered Performance Solution. This includes but not limited to: + Any external wall claddings. + Any framing or integral formwork systems. I.e. timber framing, sacrificial formwork, etc. + Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc. + Any sarking or insulation contained within the wall assembly. This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and approved prior to the issue of a Construction Certificate. All timber-look external wall elements to be verified as being non-combustible in accordance with BCA Clause C2D10 for all buildings of Type A and B Construction. Also refer to comments under Part G6 regarding soffit areas associated with external areas within occupiable outdoor spaces. Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify: + To permit timber/plastic packers, timber noggings/blocking/supports within internal non-loadbearing fire-rated walls and external walls which exceed the non-combustibility requirements under BCA Clause C2D10(6). The installation of timber noggings/blocking/supports varies from the tested wall system in accordance with AS 1530.4-2014.
C2D11 & Spec. 7	Fire Hazard Properties: A schedule of all wall, floor, and ceiling linings along with associated test reports are to be provided for review to ensure compliance with the fire hazard property requirements of the BCA noting: + Minimum Group Numbers apply to wall and ceiling linings. AS 5637 test reports must be provided to determine compliance. + Minimum Critical Radiant Flux values apply to floor linings. AS ISO 9239.1 test reports must be provided to determine compliance

TABLE S7C3 OF SPECIFICATION 7– CRITICAL RADIANT FLUX OF FLOOR LININGS AND FLOOR COVERINGS

+ Class of building	+ Building not fitted with a sprinkler system	+ Building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system)	+ Fire-isolated exits and fire control rooms
Class 2, 3, 5, 6, 7, 8 or 9b	2.2 kW/m ²	1.2 kW/m ²	2.2 kW/m ²
Class 9b - Auditorium or audience seating area used mainly for other sports or multi-purpose functions.	2.2 kW/m ²	1.2 kW/m ²	2.2 kW/m ²
Class 9c - Resident Use Areas.	N/A	2.2 kW/m ²	4.5 kW/m ²
Class 9c - Areas other than resident use areas.	N/A	1.2 kW/m ²	4.5 kW/m ²

TABLE S7C4 OF SPECIFICATION 7 – WALL AND CEILING LINING MATERIALS (MATERIALS GROUPS PERMITTED)

+ Class of building	+ Fire-isolated exits and fire control rooms	+ Public corridors	+ Specific areas	+ Other areas
Class 2 or 3, Sprinklered Excluding accommodation for the aged, people with disabilities, and children	Walls: 1 Ceilings: 1	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3
Class 9b other than schools, Sprinklered	Walls: 1 Ceilings: 1	Walls: 1, 2 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3
Class 9c, Sprinklered	Walls: 1 Ceilings: 1	Walls: 1, 2 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3

C2D14

Ancillary Elements: An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible, unless it is in accordance with this clause.

C3D3

General Floor Area and Volume Limitations: Maximum fire compartment sizes are not to exceed those permitted under Clause D3D3.

Note this provision does not apply to levels containing only Class 2 SOUs or sprinkler protected enclosed Class 7a carpark compartments in accordance with spec. 17 & 18.

C3D6

Class 9c Buildings: A Class 9c building must be divided into areas not more than 500m² by smoke-proof walls complying with Specification 11.

Ancillary use areas containing equipment or materials that are a high potential fire hazard must be separated from the sole-occupancy units by smoke proof walls complying with Specification 11.

Comment: Documentation is to be provided verifying ancillary use areas, within the meaning of BCA C3D6, are appropriately segregated with smoke-proof construction from resident sleeping areas. All smoke compartments containing resident areas are within 500sqm limitations.

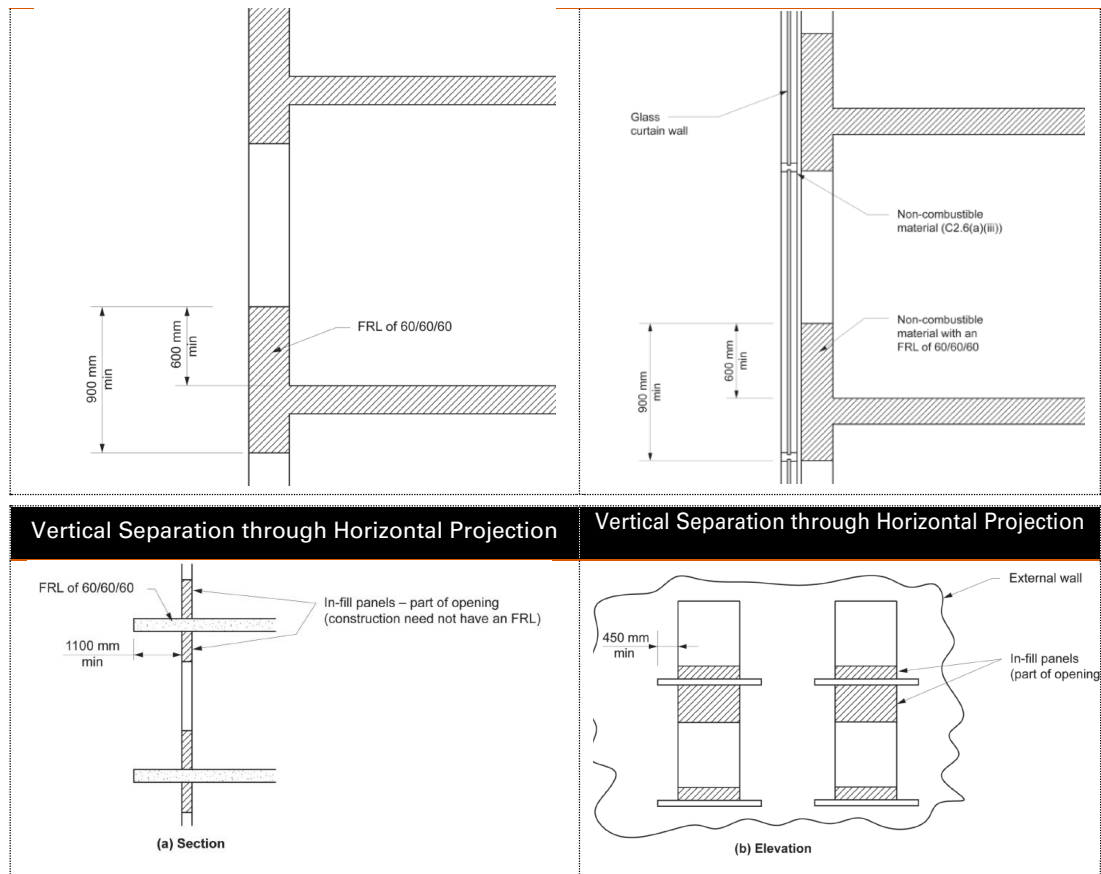
Fire Engineered Solution: The RACF comprises 2 x smoke compartments on ground floor that have a floor area of up to 791sqm and 757sqm respectively, in lieu of not greater than 500sqm within non-resident areas contrary to BCA Clause C3D6(3)(a).

C3D7

Vertical Separation of Openings in External Walls: In a building of Type A construction, any part of a window or other opening in an external wall is above another opening in the storey next below and its vertical projection falls no further than 450 mm outside the lower opening (measured horizontally), the openings must be separated by a fire-rated spandrel, or a horizontal fire-rated extension.

(Vertical Separation through Vertical Spandrel

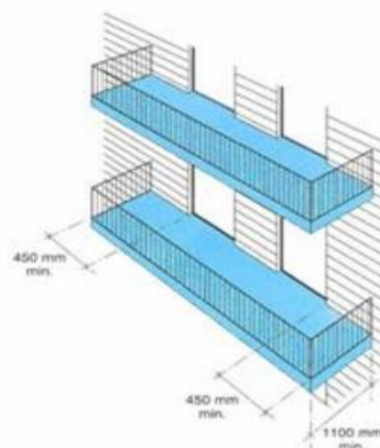
Vertical Separation through Vertical Spandrel



Comment: Where the buildings is to be sprinkler protected in accordance with BCA Spec. 17 and 18 (as per AS2118.1 OR AS2118.4) there is concession such that vertical separation of openings in the external wall is not required. This concession will apply to the Residential Care Facility and ILU Apartments 4 storey 'Spencer Street' Apartments (Building E/F/G/H).

Notwithstanding, the 3-storey 'Valley' apartments (Building A/B/C/D) are Type A Construction and we understand these apartment buildings are not to be sprinkler protected; as such spandrel protection will be required.

Further dimensions will also be required to ensure that vertical spandrels are achieved and 1,100mm and 450mm horizontal projection dimensions are achieved in relation to the balcony lengths and location of windows protected by balconies:



Note: C4D15 fire stopping to services (including downpipes) is required to slabs which form part of the 90/90/90 FRL horizontal protrusion. 90mins is triggered by Spec. 5 which prevails over C3D7.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed in association with the 'Valley' apartments (which are Type A Construction) to justify steel balconies of length 1,100mm which are being relied upon as a horizontal spandrel and

	<450mm horizontal projection dimensions not being achieved in relation to the balcony lengths and location of windows contrary to BCA Clause C3D7.
C3D8	Separation by Fire Walls: <u>Separation of buildings-</u> A part of a building may be considered separate from the remainder of the building if separated by a fire wall in accordance with the following: + The fire wall extends through all storeys and is carried through to the underside of the roof covering. - Where roofs of separate buildings are at different heights, the fire wall must extend to the underside of: - The higher roof, or >6m above the lower roof. - The lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3m to any wall above the lower roof. - The lower roof if its covering is non-combustible and the lower part is sprinkler protected. <u>Separation of fire compartments-</u> A part of a building, separated from the remainder by a fire wall, may be treated as a separate fire compartment if the fire wall extends to the underside of: + A floor having an FRL required for a fire wall; or + The roof covering. Comment: Required fire walls e.g. those separating the Class 7a carpark from the Class 2 Residential areas must satisfy BCA Clause C3D8 and achieve a minimum 120/120/120 FRL.
C3D9/ C3D10	Separation of Classifications: Separate classifications will either need to be separated by a fire wall achieving the higher FRL requirement between the two classes, or alternatively the higher FRL must apply to both areas subject to Spec 5. Comment: With the Construction Certificate application design details will be required validating compliance with the following: + The fire wall separating the Class 7a carpark from the Class 2 Residential areas must achieve a minimum 120/120/120 FRL. + The slab separating the Class 7a carpark from the residential levels above must achieve a minimum 120/120/120 FRL. + The slabs associated with the Class 5/9c uses must achieve a minimum 120/120/120 FRL. + All remaining slabs within Class 2 uses (including recessed areas such as wet areas and balcony areas) are to achieve a minimum 90/90/90 FRL unless rationalise under a Fire Engineered Performance Solution.
C3D13	Separation of Equipment: Equipment as listed below must be separated from the remainder of the building with construction that achieves an FRL of 120/120/120 (or that required by Spec 5, whichever is greater) and doorways being self-closing -/120/30 fire doors: + Lift motors and lift control panels; or + A battery or batteries installed in the building that have a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours. Comment: With the Construction Certificate application design details will be required validating compliance.
C3D15	Public Corridors in Class 2 Buildings: Public corridors must not exceed 40m in length, or otherwise be divided at 40m intervals with smoke-proof construction satisfying BCA S11C2. Comment: Where Public corridors are is >40m and must be divided at intervals of not more than 40m with smoke-proof walls complying with S11C2 in the absence of a Fire Engineered Performance Solution. Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify:

C4D3 & C4D5

- + Technical departure to BCA Clause C3D15 with longer corridors (>40m) with of the apartment buildings e.g. Spencer Street ground in the absence of smoke-proof construction satisfying BCA S11C2.

Protection of Openings in External Walls: Openings are exposed where they are located within an external wall requiring an FRL and the external wall is exposed to a fire-source feature within 3 m from a side or rear boundary of the allotment; or within 6 m from the far boundary of a road, river, lake or the like adjoining the allotment; or within 6 m from another building on the allotment that is not Class 10.

Openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used, they must be located externally.

Comment: Final site plan to be provided (with scalable dimensions) so that building setbacks can be addressed; notwithstanding direction has been provided that:

- + Class 2 ILU apartments or Class 3 Key Worker Mini Manor buildings/cabins (which are Type C Construction) are setback greater than 1.5m from:
 - Side and rear allotment boundaries; and
 - Other Class 2 ILU apartments or Class 3 Key Worker Mini Manor buildings/cabins (which are Type C Construction);
- + Class 5, 6, 9b office/retail/restaurant/community buildings (which are Type C Construction) are setback greater than 3m from:
 - Side and rear allotment boundaries; and
 - Other Class 5, 6, 9b buildings (which are Type C Construction);
- + All Class 2-9 buildings (which are Type A/B Construction) are setback greater than:
 - 3m from side and rear allotment boundaries; and
 - 6m from other Class 2-9 buildings (which are Type A/B Construction).

C4D4 & C4D5

Separation of external walls and associated openings in different fire compartments: The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must be at least that set out in Table C4D4 unless:

- + Those parts of each wall have an FRL of at least 60/60/60; and
- + Any openings protected in accordance with C4D5.

Method of measurement between adjoining fire compartments is set out below:

+ Angle between walls	+ Min. Distance
0° (walls opposite)	6m
More than 0° to 45°	5m
More than 45° to 90°	4m
More than 90° to 135°	3m
More than 135° to 180°	2m
0° or more	Nil

Comment: Compliance readily achievable with the DtS provisions of the BCA unless varied by a Fire Engineered Performance Solution with the relevant Construction Certificate application.

Note: for the purposes of Part C4, openings in building elements required to be fire-resisting include doorways, windows (including any associated fanlight), infill panels and fixed or openable glazed areas that do not have the required FRL. In this regard a louvre/screen associated with the carpark constitutes an opening.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution is to be prepared to justify departures to BCA Clause C4D4:

- + To vary the method of protection afforded to openings within the external walls of the subject building that will be exposed to an external wall of an adjacent fire compartment within the same building.

C4D6 & C4D8	Doorways in Fire Walls & Protection of Doorways in Horizontal Exits: Openings in fire walls, that are not part of a horizontal exit, must be protected in accordance with one of the methods set out in this clause. Doorways in fire walls, that are not part of a horizontal exit, must: + In aggregate door width, not exceed ½ of the length of the fire wall. + Be protected by fire doors achieving the FRL required for the wall in accordance with Spec 5 for Type A Construction. + Be self-closing or automatically close on the activation of a smoke detector and applicable sprinkler system. Comment: With the Construction Certificate application design details will be required validating compliance. Fire Engineered Solution: We understand a Fire Engineered Performance Solution is to be prepared to justify departures to BCA Clause C4D6 & C4D8: + Rationalisation of fire resisting elements within a fire wall requiring a 120/120/120 FRL i.e. doorset openings protected by glazing in lieu of -/120/30 FRL fire resistant construction.
C4D12	Bounding Construction: Class 2 buildings: A doorway in a Class 2 building must be protected if it provides access from a SOU to: + A public corridor, lobby, or the like; or + A room not within a SOU; or + A room not within a SOU; or + The landing of an internal non-fire-isolated required stairway; or + Another SOU. If it provides access from a room not within a SOU to, the following doorways must be protected: + A public corridor, lobby, or the like; or + The landing of an internal non-fire-isolated required stairway. Protection under this part refers to: + Type A Construction: a self-closing -/60/30 fire door satisfying AS1905.1-2015 and AS1530.4-2014. + In a Class 2 building where a path of travel does not offer a choice of travel in different directions to different exits and is located along an open balcony, landing, or the like and passes an external wall of another SOU or a room not within a SOU, then that external wall must- + Be constructed of concrete or masonry, or lined internally with a fire-protective covering. + Have any door fitted with a self-closing solid core door >35mm thick. + Having any windows or other openings protected in accordance with C4D5 or located >1.5m above finished floor level. Comment: Ensure compliance with BCA Clause C4D12(9) or Fire Engineered input may be required where strict DtS requirements cannot be satisfied.
C4D14	Openings in Shafts: In a building of Type A Construction, service shafts must be protected by: + A fire door, hopper or access panel achieving FRL -60/30. + If in a sanitary compartment - a non-combustible door and frame achieving an FRL of -/30/30. + If the shaft is a garbage shaft – a non-combustible door or hopper. Comment: With the Construction Certificate application design details will be required validating compliance.
C4D15	Openings for services installations: When a service penetrates a building element that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, that penetration must:

- + Be identical to a tested prototype assembly, tested in accordance with AS4072.1 and AS1530.4.
- + In the case of ventilating or air-conditioning ducts/equipment, the installation must comply with AS1668.1.

Comment: Details to be included in the design documentation prior to issue of the Construction Certificate application.

Where service installations penetrate the walls, floors or fire-resistant ceiling system required to have an FRL with respect to integrity and insulation they are to be protected by fire seals (fire stopping system) having an FRL of the building element concerned.

Note: Where a fire resistant or incipient spread ceiling is provided and a sacrificial non-fire-rated ceiling next below this arrangement could minimise the number of fire seals to services. In the absence of a sacrificial non-fire-rated ceiling, which could be utilised to run services, all services which pass through the fire resisting ceiling element are to be treated in accordance with C4D15.

Fire Seals are to comply with the requirements of BCA Clause C4D15 and Specification 13 noting the following:

- + Fire seals needs to have been tested on the substrate it has been used on i.e. concrete, masonry, fire rated plasterboard, Hebel, shaftliner etc. – E.g. some tested fire stopping systems tested in masonry cannot be relied upon for use in Hebel.
- + The maximum size of the services and the penetrations cannot exceed those tested for the fire stopping system
- + The fire stopping system needs to be used in the same orientation that it has been tested on i.e. floor or wall. A fire stopping system tested through a wall only cannot be relied upon when used for a service penetrating a floor.
- + The fire stopping system needs to have been tested on the service it is used to seal i.e., metal pipes, UPVC/PVC pipes, conduits, electrical cables etc. A fire stopping system tested on a PVC pipe cannot be relied upon for cables.
- + The test fire stopping system needs to include all elements specified to achieve the required FRL i.e. intumescent wraps are commonly required/used to achieve the insulation value (when required) for metal pipes, cable trays and large bundles of cables.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify:

- + Rationalisation of fire stopping to internal fire resisting elements contrary to BCA Clause C4D15:
 - To permit water filled metal pipes (i.e. sprinkler and hydrant pipe penetrations) to be fire stopped in accordance with BCA Clause C4D15(1), with the exception of the insulation criteria of the required FRL where there is likely to be combustible materials (i.e. PVC pipes, PEX pipes, cables etc) located within 100 mm radius for a distance of 2 m of the fire rated penetration.
 - The wet area/bathroom tap fittings/hydraulic services that will penetrate through one side of the fire rated linings to the fire rated bounding walls to approximately opposite sides of the bounding wall separating SOU's, these tap fittings/hydraulic services will not be protected in accordance with a tested system.
 - To permit services (such as NBN cables) to located within conduits to not be fire stopped in accordance with a tested system, noting that they run horizontally through the slab and AS 1530.4-2014 does not include specific requirements for the testing of services are embedded and travel horizontally through a concrete floor. As a result, there is no compliant testing methodology for fire tests for cast-in conduits and hence no compliant tested systems for this application

C4D16

Construction Joints: 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-

- + identical with a prototype tested in accordance with AS 1530.4 and AS 4072.1 to achieve the required FRL, or

	+ that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL. Comment: With the Construction Certificate application design details will be required validating compliance.
C4D17	Columns Protected with Lightweight Construction to Achieve an FRL: 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. The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. The requirements of (1) do not apply where joints, spaces and the like between fire-protected timber elements are provided with cavity barriers in accordance with Specification 9. Comment: With the Construction Certificate application design details will be required validating compliance.
Spec. 5	Fire-Resisting Construction: The building is required to comply with BCA Spec. 5 as relevant to FRLs required for buildings of Type A Construction. Refer to Appendix 1 for the relevant fire-resistance levels associated with the proposed development. With the Construction Certificate application details the following detailed documentation is required for review: + Details identifying the required FRL's achieved for each specific building elements (either loadbearing or non-loadbearing) are to be shown on the plans and commentary/ specification provided on how continuity of fire-resisting construction will be achieved where cavities/voids/roof space are concerned. + Further detail is to be provided of the fire resisting bounding walls or fire walls and how they interface with the non-combustible roof, insulation to the underside of the roof slab will need to be discontinued to ensure continuity of the fire-resisting wall. Careful consideration required between NER Structural Engineer and Internal fire resisting wall design; Fire Engineered input may be required where roof elements penetrate internal fire resisting walls. + Details identifying the required FRL's achieved for each specific building elements (either loadbearing or non-loadbearing) are to be shown on the plans and commentary/ specification provided on how continuity of fire-resisting construction will be achieved where cavities/voids/roof space are concerned. + Internal fire resisting construction bounding Class 2/3 apartments (or SOU's) or rooms not within an SOU's are required to achieve 90/90/90 FRL (loadbearing) or -/60/60 FRL (non-loadbearing) unless rationalised under the Fire Engineered Report. + Ventilating, pipe, garbage, and like shafts (not used for the discharge of hot products of combustion) are required to achieve 90/90/90 FRL (loadbearing) or -/60/60 FRL (non-loadbearing) however BCA Spec. 5 Clause S5C8 is predicated on: - 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. - The above shaft FRL provisions need not apply to— • the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; • or the bottom of a shaft if it is non-combustible and laid directly on the ground. Where the strict requirements under BCA Spec. 5 Clause S5C8 is not possible then a Fire Engineered Performance Solution will be required.

- + All loadbearing elements/columns (including external columns) are to be fire rated to achieve 90/- within Class 2 areas, 120/- within Class 5/7a/9b/9c.
- + The fire wall separating SOU's/apartments from carpark is required to achieve a minimum 120/120/120 FRL. Likewise, fire walls within Class 5/9c areas are required to achieve a minimum 120/120/120 FRL
- + Where loadbearing walls are not concrete or masonry or fire protected timber *or fire protected steel* a Fire Engineered Solution will be required to permit impact resistant fire-resisting lightweight construction as a departure to BCA Spec. 5 Clause S5C11.

BCA 2025 Public Comment Draft makes provision for the following with regards to fire protected steel

- + *New provisions added to allow for the use of 'fire-protected steel'.*
- + *Conditions:*
 - *Effective height of <25m.*
 - *May be applied to the entirety of a Class 2 or 3 building - Only uppermost storey for any other Class.*
 - *Building must be sprinkler protected.*
 - *Insulation in the wall must be non-combustible.*
 - *Cavity barriers must be provided where the walls are continuous between levels.*
- + Ensure all internal fire-resisting walls / bounding construction walls extend to:
 - the underside of the floor next above or
 - a fire-protective(covering on the underside of the floor; or
 - to 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
 - to 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.

Incomplete bounding construction OR roof elements (other than battens or exceeding 75mm x 50mm) will need to be rationalised/assessed under the Fire Engineered Report as a departure to BCA Spec. 5 Clause S5C11.

Steel roof penetrations through a lightweight internal fire-resisting wall will generally need to be assessed under a Fire Engineered Performance Solution as these types of penetrations are not strictly in line with the test literature for the lightweight wall system and depart with AS1530.4-2014.

- + Loadbearing columns which are not treated with a tested system for a column however are contained within a lightweight construction wall will need to be addressed as a Fire Engineered Solution as a departure to BCA Spec. 5 Clause S5C11.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause C2D2 and Spec. 5:

- + Rationalise cavity barriers and gaps between slab and internal face of external walls where they are not in accordance with a tested system to achieve the required fire-resistance level in accordance with BCA Spec. 5 i.e. Fire Engineered Report to permit:
 - To provide smoke-proof cavity barrier / separation at the perimeter slab edge between storeys.
 - It is proposed to allow the lightweight fire-resisting bounding construction walls between the SOU's/apartments to be extended to smoke-proof cavity barrier / separation rather than through to the external wall or inside of the outer face of the external wall.
- + Non-continuity of fire-resistant vertical shafts not strictly satisfy BCA Spec. 5 Clause S5C8 and Clause C4D14 as the base to the shaft will not be fire rated, instead it will interface with a fire rated enclosure or separate fire compartment:

	- Garbage/laundry chutes, mechanical and hydraulic services risers/shafts etc. + Apartment buildings which are Type A Construction are provided with balcony/floor structures which are structural steel; this will either need to be rationalised under a Fire Engineered performance Solution or redesigned as concrete slab and fire rated elements.
Spec. 11	Fire Walls & Smoke Walls: Fire walls and smoke walls must comply with the requirements of this specification; including smoke reservoirs of 400 mm minimum between the top door frame of each required smoke doorsets and the underside of a roof covering; or the floor above; or imperforate false ceiling that will prevent the free passage of smoke.
Spec. 12	Fire Doors, Smoke Doors, Fire Windows and Shutters: Fire doors and smoke doors must comply with the requirements of this specification.

2.3 Section D – Provision for Escape and Construction of Exits

D2D3	Number of exits required: + All buildings — Every building must have at least one exit from each storey. + Class 2 to 8 buildings — In addition to any horizontal exit, not less than 2 exits must be provided from the following: - Each storey if the building has an effective height of more than 25 m. - A Class 2 or 3 building subject to C2D6. + Basements – In addition to any horizontal exit, not less than 2 exits must be provided from any storey if egress from that storey involves a vertical rise within the building of more than 1.5 m, unless: - the floor area of the storey is not more than 50 m²; and - the distance of travel from any point on the floor to a single exit is not more than 20 m. + Class 9 buildings – In addition to any horizontal exit, not less than 2 exits must be provided from the following: - Each storey if the building has a rise in storeys of more than 6 or an effective height of more than 25 m. - Any storey which includes a patient care area in a Class 9a health-care building. - Any storey that contains sleeping areas in a Class 9c building. - Any storey used as a Class 9b early childhood centre, or any Class 9b early childhood centre which forms part of a storey. - Each storey in a primary or secondary school with a rise in storeys of 2 or more. - Any storey or mezzanine that accommodates more than 50 persons, calculated under D2D18. - The requirements above do not apply to a part of a storey that ▪ is a plant room, machinery room, storeroom, lift-machine room or the like; and ▪ is provided with direct egress to a road, open space or a fire-isolated exit complying with D2D12(2); and ▪ satisfies D2D5 by the provision of 1 exit. + Exits from Class 9c buildings and patient care areas in Class 9a health-care buildings — In a Class 9a health-care building and a Class 9c building, at least one exit must be provided from every part of a storey which has been divided into fire compartments in accordance with C3D3 or C3D6. + Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to: - an exit; or - at least 2 exits if 2 or more exits are required. Comment: Exit locations to be clarified as the design develops to demonstrate compliance with BCA Clause D2D3. Two exits are required from the basement level plant area associated with the Wellness Centre due to the total floor area of this storey being >50sqm and distance to an exit being >20m.
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D2D4

When Fire-Isolated Stairways and Ramps are Required: This clause sets out the requirements for stairways and ramps to be fire-isolated in buildings. It is generally permitted for a required stair to connect up to 3 storeys in a sprinkler protected building, provided that the sprinkler system is not a FPAA101D system.

Comment: The majority of exit stairway systems serving the ILU apartment buildings are not required fire-isolated stairway systems as they connect no more than four storeys within a building which is sprinkler protected throughout in accordance with BCA Spec. 17 and 18.

Notwithstanding, we understand all stairways are to be delivered as fire-isolated exits to achieve superior exit travel distances; including Spencer Street Apartment central exit stairway.

All exit stairways serving the RACF are required to be fire-isolated exits.

D2D5

Exit Travel Distances: Exit travel distances within the building are required to be not more than 6m to a point of choice or single exit on the storeys above ground level and 20m to a single exit on the storeys above ground level from Class 2/3 areas.

Exit travel distances within the building are required to be not more than 20m to a point of choice between alternative exits and 40m to the nearest one from Class 5 / 6 / 7 / 8 / 9 areas.

Comment: The following commentary is provided with regards to occupant exit travel distances:

- + Class 2/3:
 - Distance to a POC or single exit 12 m (>6m) on the levels about ground to be assessed under a Fire Engineered Performance Solution with the relevant Construction Certificate application;
 - Distance to a POC 13 m (>6m) on the ground level to be assessed under a Fire Engineered Performance Solution with the relevant Construction Certificate application;
- + Class 5/6/9b:
 - Identifying exit locations to enable an assessment of occupant egress under BCA Clause D2D5 including exit locations within Communal Buildings (including Club House, Bistro/terrace and Gym/indoor swimming pool).
- + Class 9c:
 - Identifying exit locations to enable an assessment of occupant egress under BCA Clause D2D5 including exit locations within RACF ground floor.
- + Class 7a:
 - Distance to a POC or single exit 30m (>20m); we understand exit travel distances within the carpark within the Spencer Street Apartment buildings will be limited to 30m. It is noted that the Spencer Street Apartment building carpark will be sprinkler protected.

Extended travel distances are to be assessed under a Fire Engineered Performance Solution with the relevant Construction Certificate application.
 - Distance to an exit when two are available 45m (>40m) from Spencer Street Apartment carpark to be assessed under a Fire Engineered Performance Solution with the relevant Construction Certificate application. It is noted that the Spencer Street Apartment building carpark will be sprinkler protected.

Notwithstanding, in accordance with BCA S18C4 for Class 2/3 parts the following concessions apply:

- + Exit travel distances must be no more than 12m (in lieu of 6m) from a point of choice between two exits by virtue of a sprinkler system being implemented in accordance with Spec. 17 & 18.
- + On a storey at the level of egress, this may be increased to 30m (in lieu of 20m) to a single exit by virtue of a sprinkler system being implemented in accordance with BCA Spec. 17 & 18.

Note: FRNSW have provided an opinion statement that they do not support the above concession when a Class 2/3 building contains a Class 7a carpark (regardless of a sprinkler system being provided) hence why this needs to be addressed under a Fire Engineered Performance Solution.

	Comment: Departures to BCA Clause D2D5 regarding exit travel distances can be readily addressed as the design develops and can be explored under a Fire Engineered Performance Solution. Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D5 regarding exit travel distances.
D2D6	Distance between Alternative Exits: Exits that are required as alternative means of egress must be: + distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and + not less than 9 m apart; and + not more than - in a Class 2 or 3 building — 45 m apart; or - in a Class 9a health-care building, if such required exit serves a patient care area — 45 m apart; or - in all other cases — 60 m apart; and + located so that alternative paths of travel do not converge such that they become less than 6 m apart. Comment: The following commentary is provided with regards to occupant exit travel distances: + Class 5/6/9b: - Identifying exit locations to enable an assessment of occupant egress under BCA Clause D2D6 including exit locations within Communal Buildings (including Club House, Bistro/terrace and Gym/indoor swimming pool). + Class 9c: - Identifying exit locations to enable an assessment of occupant egress under BCA Clause D2D6 including exit locations within RACF ground floor. Notwithstanding, in accordance with BCA S18C4 for Class 2/3 parts: + Exit travel distances between alternative exits must be no more than 60m (in lieu of 45m) by virtue of a sprinkler system being implemented in accordance with BCA Spec. 17 & 18. Note: FRNSW have provided an opinion statement that they do not support the above concession when a Class 2/3 building contains a Class 7a carpark (regardless of a sprinkler system being provided) hence why this needs to be addressed under a Fire Engineered Performance Solution. Comment: Departures to BCA Clause D2D6 regarding distance between alternative exits and convergence of exits/egress pathways can be readily addressed as the design develops and can be explored under a Fire Engineered Performance Solution. Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D6 regarding distance between alternative exits and convergence of exits/egress pathways.
D2D7/ D2D8/ D2D9/ D2D10/ D2D11	Dimensions of Paths of Travel to an Exit: + In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1,980 mm (this width dimension is measured clear of any obstructions such as handrails and joinery). + The unobstructed width of each required exit or path of travel to an exit, except for ladders provided in accordance with D2D21, D3D23 or I3D5, and doorways, must be not less than— - 1m; or - In a public corridor in a Class 9c aged care building, • 1.5 m; and

- 1.8 m for the full width of the doorway, providing access into a sole-occupancy unit or communal bathroom.

- + In a required exit or path of travel to an exit within a Class 9c building or part, the unobstructed width of a doorway must be not less than—
 - In resident use areas the minimum unobstructed width must be 870 mm;
 - For doorways leading from a public corridor to a sole-occupancy unit the minimum unobstructed width must be 1,070 mm;
 - where the doorway is fitted with two leaves and one leaf is secured in the closed position in accordance with D3D26(3)(e), the other leaf must permit an unobstructed opening not less than 870 mm wide in resident use areas and 800 mm wide in non-resident use area;
 - the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or
 - in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide.
- + In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than—
 - the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or
 - in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide.
- + The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i).

Comment: To satisfy BCA Clause D2D8, 1m clear widths are to be documented throughout all common areas including within storage areas, waste room areas and within egress passageways/stairways. Ensure minimum clear widths are provided free of obstructions such as handrails, wall linings/claddings and other obstructions.

1m is a minimum egress requirement under BCA Clause D2D8 however BCA Part D4 makes provision for 1,540mm wide x 2,070mm long circulation to facilitate turning/circulation zone to the ends of corridors (in the absence of a DDA Performance Solution).

Concession applies that 1m egress is not required within Class 2 SOU's/apartments however SEPP Housing 2021 makes provision for 1m clear width throughout SOU's/apartments and other enhancements to improve equitable access for persons with a disability.

To satisfy Clause D2D9 it is recommended that all Class 2 and Class 3 doors (including within SOU's) are specified as AS1428.1-2021 compliant doorsets i.e. 920mm door leaves which will achieve 850mm clear width.

Clear widths to public corridors in Class 9c resident care areas are to achieve 1,500mm clear widths however 1,800mm clear widths are required at resident room entry doorsets in the absence of a Fire Engineered Performance Solution.

The following clear widths to doorsets are required within Class 9c areas:

- + Doorsets leading into resident rooms from public corridors are to achieve 1,070mm;
- + Doors within resident areas used by residents are to achieve 870mm clear width;
- + Office/administration areas (available to the public and not residents) are to be specified as AS1428.1-2009 compliant doorsets i.e. 920mm door leaves which will achieve 850mm clear width. Should residents use these doorsets they should be specified as 870mm clear width.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D8 regarding public corridors leading to resident rooms and leading to fire-isolated exits which are less than 1,500mm.

D2D12

Travel by fire-isolated stairways or ramps:

- + Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway:
 - to a road or open space; or
 - to a point—
 - in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least $\frac{2}{3}$ of its perimeter; and
 - from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or
 - into a covered area that—
 - adjoins a road or open space; and
 - is open for at least $\frac{1}{3}$ of its perimeter; and
 - has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and
 - provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m.
- + Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies:
 - That part of the wall must have—
 - an FRL of not less than 60/60/60; and
 - any openings protected internally in accordance with C4D5; and

Note: The protection required must extend for a distance of 3 m above or below, as appropriate, the level of the (b)path of travel, or for the height of the wall, whichever is the lesser.

- + If more than 2 access doorways, not from a sanitary compartment or the like, open to a required fire-isolated exit in the same storey— a smoke lobby in accordance with D3D7 must be provided; or the exit must be pressurised in accordance with AS 1668.1.

Comment: Each building is provided with exits in the form of fire-isolated exits; discharge of required fire-isolated exits require occupants to pass within 6m of openings associated with each building.

Fire Engineered Solution: A Fire Engineered Performance Solution is required to address the following:

- + Each building is provided with exits in the form of fire-isolated exits; discharge of required fire-isolated exits require occupants to pass within 6m of exposed openings associated with each building contrary to BCA Clause D2D12(3).
- + Contrary to BCA Clause D2D12(2) the centralised stairway within the RACF discharges within the BOH area which is enclosed; this will likely require redesign to create a fire-isolated passageway. The stair/passageway design will need to be addressed under a Fire Engineered Performance Solution.
- + Introducing three doors leading into the fire-isolated passageway on ground floor (RACF centralised stairway/passageway) will create a departure with D2D12(4) which will need to be addressed under a Performance Solution. We understand that access to this stairway for occupant egress will only by the 2 floors above and not ground floor.

D2D14

Travel by non-fire-isolated stairways or ramps:

- + 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.
- + 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—
 - 60 m of Type A construction.

	+ 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. + 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— - 15 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 - 30 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. Comment: Currently there are no non-fire-isolated stairways provided; all stairways are fire-isolated.
D2D15	Discharge from Exits: The path of travel to the road from a required exit leading to open space must have an unobstructed exit width of that of the required exit, or if larger, 1m. If the discharge point of the exit is at a different level from the road, a stairway or ramp achieving no more than 1:14 must be provided, except for a Class 9a where a ramp must be provided. The discharge point of alternative exits must be located as far apart as practical and be suitably protected from vehicles potentially blocking the exit. Comment: 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. In this regard, bollards will be required particularly outside of exit stairs on ground level. Ensure 1m clear width hardstand connects the egress stairway with the road; this also applies to the circulation stairways from the carpark. Comment: Handstand pathways intersect with the vehicular carriageway; it is recommended that a delineated handstand of 1m is provided for egress (or 1.5m egress pathways serving the RACF).
D2D17	Non-required stairways, ramps or escalators: An escalator, moving walkway or non-required non fire-isolated stairway or pedestrian ramp must not be used between storeys in a resident use area in a Class 9c building. Comment: Currently there are no stairways provided which are non-required.
D3D4	Non-fire-isolated stairways and ramps: In a building having a rise in storeys of more than 2, required stairs and ramps (including landings and any supporting building elements) which are not required to be within a fire-resisting shaft, must be constructed according to D3D3, or only of— + reinforced or prestressed concrete; or + steel in no part less than 6 mm thick; or + timber that— - has a finished thickness of not less than 44 mm; and - has an average density of not less than 800 kg/m³ at a moisture content of 12%; - has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde (iii) or resorcinol phenol formaldehyde glue Comment: Construction Certification documentation to verify compliance with this requirement.
D3D5	Rising and descending stairway systems: If a stairway serving as an exit is required to be fire-isolated: + There must be no direct connection between: - A flight rising from a storey below the lowest level of access to a road or open space; and - A flight descending from a storey above that level; and

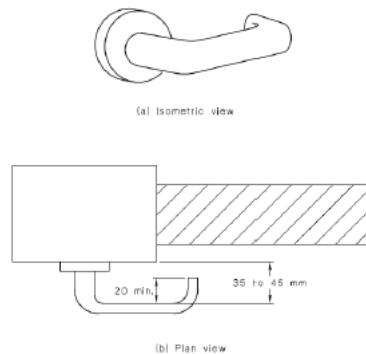
	+ Any construction that separates or is common to the rising and descending flights must be: - Non-combustible; and - Smoke proof in accordance with S11C2. Comment: Construction Certification documentation to verify compliance with this requirement.
D3D8	Installations in exits and paths of travel: + Access to service shafts and services other than to fire-fighting or detection equipment as permitted in the Deemed-to-Satisfy Provisions of Section E, must not be provided from a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp. + An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway, lobby or the like leading to a required exit. + Gas or other fuel services must not be installed in a required exit. Comment: Construction Certification documentation to verify compliance with this requirement. Fire Engineered Solution: In the absence of an airlock, a plant enclosure opens directly into a required fire-isolated stairway serving residential levels of Spencer Street' Apartments (Building E/F/G/H) contrary to BCA Clause D3D8.
D3D13	Roof as open space: If an exit discharges to a roof of a building, the roof must have an FRL of not less than 120/120/120; and not have any roof lights or other openings within 3 m of the path of travel of persons using the exit to reach a road or open space. Comment: There do not appear to be any podiums as such this item is not applicable.
D3D14/ D3D15/ D3D16/ D3D22	Stairways, Balustrades, and Handrails: Stairways, balustrades and handrails are to implemented to achieve compliance with the current provisions of the BCA and AS 1428.1-2021. Floor finishes will be required to achieve the correct slip resistance in accordance with AS 4586, and associated handbooks HB197 and HB198. Comment: Compliance with D3D14/ D3D15/ D3D16/ D3D22 to be documented with the relevant Construction Certificate application and certified with the relevant Occupation Certificate.
D3D25	Swinging Doors: A swinging door in a required exit or forming part of a required exit must not encroach (a) at any part of its swing by more than 500 mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and when fully open, by more than 100 mm on the required width of the required exit. A swinging door in a required exit or forming part of a required exit must not swing against the direction of egress unless: + it serves a building or part with a <i>floor area</i> not more than 200m², it is the only <i>required exit</i> from the building or part and it is fitted with a device for holding it in the open position; or + it serves a <i>sanitary compartment</i> or airlock (in which case it may swing in either direction); A swinging door in a required exit or forming part of a required exit must not otherwise impede the path or direction of egress. The measurement of encroachment referred to above in each case is to include door handles or other furniture or attachments to the door. Comment: Ensure all discharge doorsets swing outward to be conducive to occupant egress or be addressed under a Fire Engineered Performance Solution. Fire Engineered Solution: Any departures within BCA Clause D3D25 regarding door swings against occupant egress are to be addressed with the relevant Construction Certificate application; including:

- + To have discharge doors swing inward from apartment lobby areas contrary to BCA Clause D3D25;
- + To have a number of required fire and smoke doors of the RACF swing in one direction only and against the direction of egress contrary to BCA Clause D3D25.

D3D26

Doors and Latching: All egress doorways must swing in the direction of egress and must be readily openable without a key from the side that faces a person seeking egress, by a single handed downward or pushing action on a single device which is located between 900mm and 1,100mm from the floor.

AS1428.1-2021 Clause 13.5 also makes provision for D lever type door controls which can be utilised occupant egress and access:



Comment: Construction Certification documentation to verify compliance with this requirement.

D4D2

General building access requirements: Buildings and parts of buildings must be accessible as required by this clause, unless exempted by D4D5.

- + For a Class 2 building, common areas are to be accessible as follows:
 - From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.
 - To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.
 - Where a ramp complying with AS 1428.1 or a passenger lift is installed— (i) to the entrance doorway of each sole-occupancy unit; and
 - to and within rooms or spaces for use in common by the residents.
 - The requirements of (c) only apply where the space referred to in (c)(i) or (ii) is located on the levels served by the lift or ramp.
- + For a Class 3 building, access requirements are as follows:
 - Common areas:
 - From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.
 - To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
 - Where a ramp complying with AS 1428.1 or a passenger lift is installed—
 - (1) to the entrance doorway of each sole-occupancy unit; and
 - (2) to and within rooms or spaces for use in common by the residents.

The requirements of above only apply where the space referred to in (1) and (2) are located on the levels served by the lift or ramp.

- To and within sole-occupancy units — in accordance with Table D4D2b
- + For Class 5, 6 & 9b buildings, access must be provided to and within all areas normally used by the occupants.
- + For a Class 7a building, access must be provided to and within any level containing accessible carparking spaces.
- + For a Class 9c building, access requirements are as follows:
 - Common areas:
 - From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.
 - To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
 - Where a ramp complying with AS 1428.1 or a passenger lift is installed—
 - (1) to the entrance doorway of each sole-occupancy unit; and
 - (2) to and within rooms or spaces for use in common by the residents.

The requirements of above only apply where the space referred to in (1) and (2) are located on the levels served by the lift or ramp.
 - Sole-occupancy units — to and within a number of sole-occupancy units determined in accordance with Table D4D2b.

Comment: General access requirements must satisfy BCA Clause D4D2; including:

- + Class 2 areas:
 - Access is to be provided to all required areas (including common areas and ancillary areas). Each level within the site is accessed via a passenger lift or ramp.
 - Planning advice is required regarding whether there is any Council DCP requirements relating to AS4299-1995 for any Class 2 apartments although we understand that only Class 2 ILU's are provided over the site therefore compliance with SEPP Housing 2021 will likely take precedence over Council DCP / AS4299-1995 requirements.
 - We understand that the development will also satisfy SEPP Housing 2021; in this regard reference is made to Appendix 2 of this report which contains a review of SEPP Housing 2021 Schedule 4.
- + Class 3 areas:
 - The minimum number of accessible apartments are required to be 3 by virtue of the total number of apartments being 50.
 - The location of Class 3 key worker accommodation apartments/cabins/dwellings and associated carparking spaces are to be identified on the plans; rationalisation of BCA D4D2 and AS1428.1-2021 requirements may need to be considered under a Performance Solution with the relevant Construction Certificate where the number of accessible apartments/SOU's do not satisfy Table D4D2b or where the minimum accessible apartments may not satisfy Table D4D2b per building however may satisfy minimum Table D4D2b requirements over the site.

It is noted that the first floor Mini Manor apartments are only accessed via a stairway system with no lift access.
- + For Class 5, 6 & 9b areas:
 - Access is to be provided to and within all areas normally used by the occupants.
- + Class 7a areas:
 - Access is to be provided to all required areas (such as waste enclosures within the carpark). Each carpark level within the site is accessed via a passenger lift.
- + Class 9c areas:

- The number of accessible resident rooms are required to be 6 by virtue of the total number of resident rooms being 120. Notwithstanding, a Performance Solution can be explored with the relevant Construction Certificate where the number of accessible apartments/SOU's do not satisfy Table D4D2b or where the rooms may be designated as accessible however may not be accessible as per AS1428.1-2021 in favour of operator requirements.
- Access is to be provided to all required areas (including common areas such as dining areas, common areas/siting areas, salon, conference areas, offices). Each level within the site is accessed via a passenger lift or ramp.

Documentation verifying compliance with the above requirements are to be provided with the relevant Construction Certificate application demonstrating compliance.

D4D3

Access to buildings: Accessways must be provided to accessible buildings from the main points of pedestrian entry at the allotment boundary and any accessible car parking space or accessible associated buildings connected by a pedestrian link.

An accessway must be provided to a building required to be accessible-

- + From the main points of a pedestrian entry at the allotment boundary; and
- + From another accessible building connected by a pedestrian link; and
- + From any required accessible car parking space on the allotment.

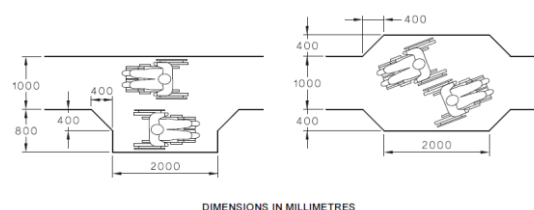
In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances including the principal pedestrian entry.

Comment: An accessway is provided to all buildings on the site from the main points of a pedestrian entry at the allotment boundary; and from any required accessible car parking space on the allotment.

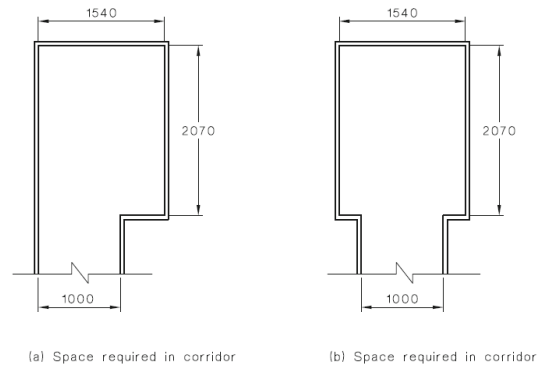
D4D4

Parts of Buildings to be accessible: The works are required to comply with the requirements of AS 1428.1-2021:

- + **AS1428.1 Cl. 6.1 General** - A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediment.
- + **AS1428.1 Cl. 6.2 Height of paths** - The minimum unobstructed height of a continuous accessible path of travel shall be 2,000 mm or 1,980 mm at doorways
- + **AS1428.1 Cl. 6.3 Widths of paths** – Unless otherwise specified (such as at doors, curved ramps and similar), the minimum unobstructed width of a continuous accessible path of travel shall be 1000 mm and the following shall not intrude into the minimum unobstructed width of a continuous accessible path of travel:
 - Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings and similar objects.
 - Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards.
 - Door handles less than 900 mm above the finished floor level.
- + **AS1428.1 Cl. 6.4 Passing Space** - Accessways must have passing spaces complying with AS 1428.1 at maximum 20m intervals on those parts of an accessway where a direct line of sight is not available.



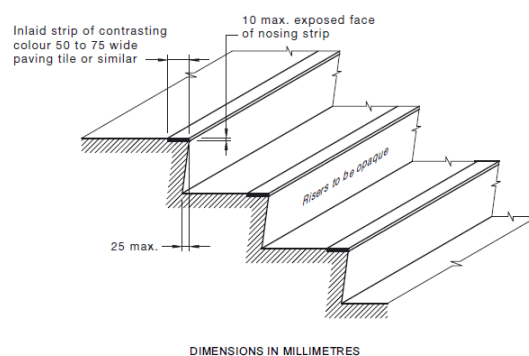
- + **AS1428.1 Cl. 6.5 Turning Space** - Turning spaces must comply with AS1428.1 and located within 2m of the end of accessways where it is not possible to continue travelling along the accessway, and at maximum 20m intervals along the accessway.



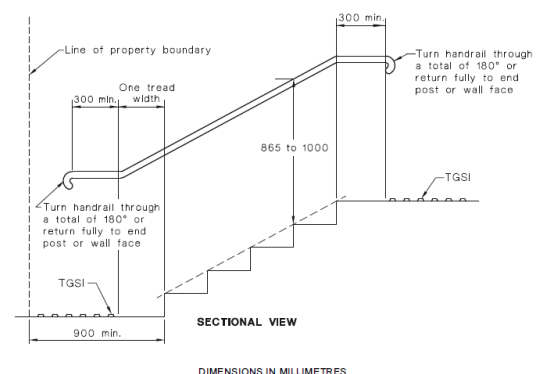
+ AS1428.1 Cl. 11.1 Stairway Construction:

- Where the intersection is at the property boundary, the stair shall be set back by a minimum of 900 mm so that the handrail (complying with Clause 12) and TGSIs do not protrude into the transverse path of travel.
- Where the intersection is at an internal corridor, the stair shall be set back so that handrails or TGSIs do not protrude in to the path of travel.
- Stairs shall have opaque risers.
- Stair nosing's shall not project beyond the face of the riser and the riser maybe vertical or have a splay backwards up to a maximum 25 mm.
- Stair nosing profiles shall—
 - have a sharp intersection;
 - be rounded up to 5 mm radius; or
 - be chamfered up to 5 mm × 5 mm.
- At the nosing, each tread shall have a strip not less than 50 mm and not more than 75 mm deep across the full width of the path of travel. The strip may be set back a maximum of 15 mm from the front of the nosing.
- The strip shall have a minimum luminance contrast of 30% to the background. Where the luminous contrasting strip is affixed to the surface of the tread, any change in level shall comply with Clause 7.2 and Clause 7.3.
- Where the luminance contrasting strip is not set back from the front of the nosing then any area of luminance contrast shall not extend down the riser more than 10 mm.

TGSIs shall be installed in accordance with AS 1428.4.1:



Example of Compliant Nosing Strip Detail

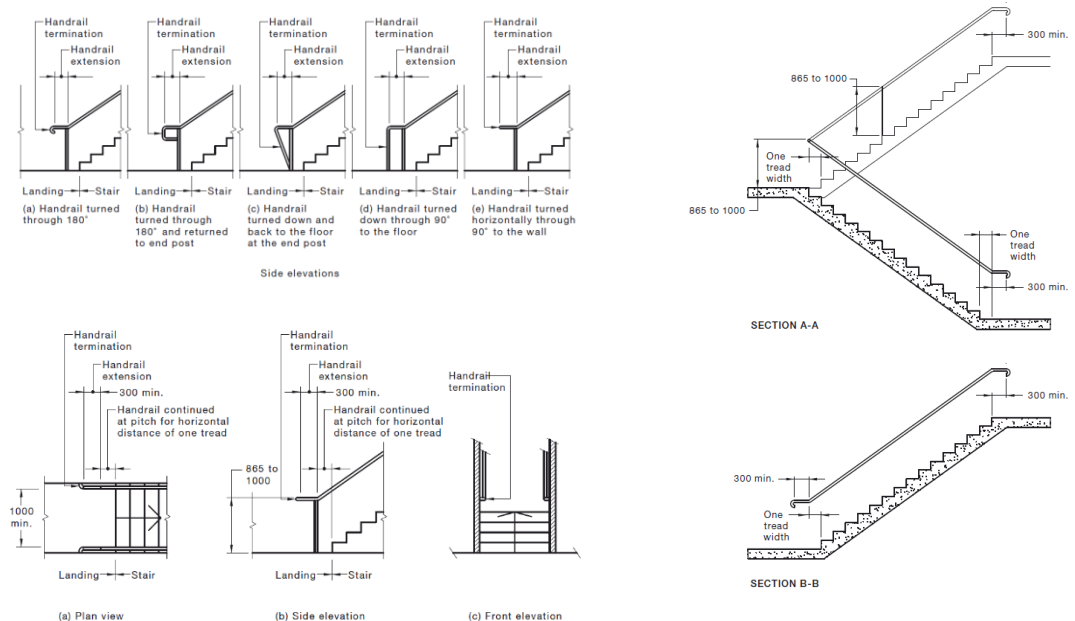


Example of Compliant Stairway Design

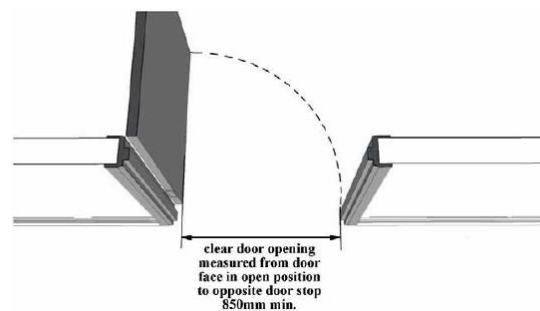
+ AS1428.1 Cl. 11.2 Stairway Handrails - Handrails shall be continuous throughout the stair flight and, where practicable, around landings and have no obstruction on or above up to a height of 600 mm and as follows:

- The design and construction of handrails shall comply with Clause 12 of AS 1428.1 – 2021.
- Handrails shall be installed on both sides of the stairs.
- Handrails shall have no vertical sections and shall follow the angle of the stairway nosing's.

- Where a handrail terminates at the bottom of a flight of stairs, the handrail shall extend at least one tread depth parallel to the line of nosing's plus minimum of 300 mm horizontally from the last riser.
- The handrail shall extend a minimum of 300 mm horizontally past the nosing on the top riser.
- Where the handrail is continuous, the 300 mm extension is not required in the inner handrail at intermediate landings.
- The dimensions indicating the heights of handrails shall be taken vertically from the nosing of the tread to the top of the handrail or from the landing to the top of the handrail.

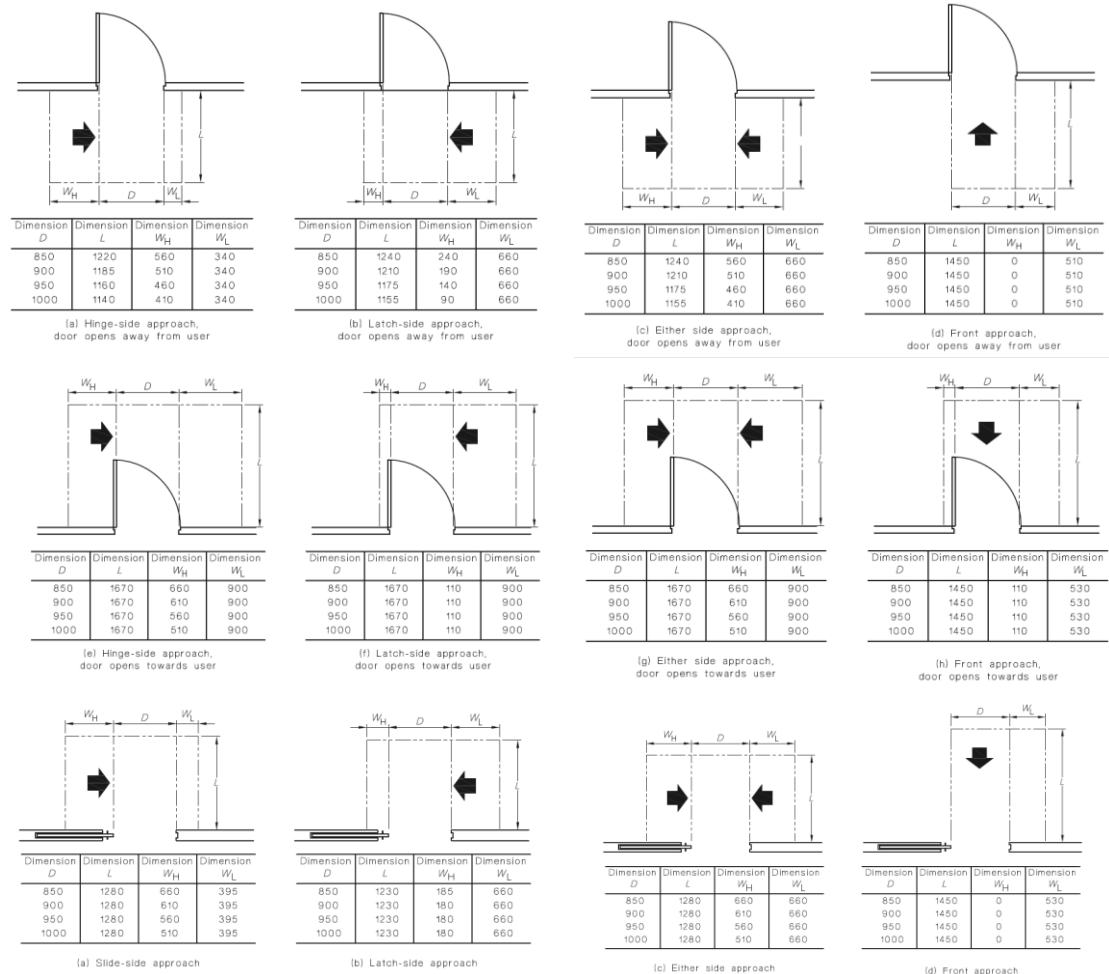


- + AS1428.1 Cl. 13.2 / 13.3 Doorways** - The minimum width of an accessible doorway must have a *clear opening* width of not less than 850mm in accordance with AS1428.1. Where double doors are provided, at least one leaf must have a clear unobstructed width of 850mm.



Clear Unobstructed Width of Doorway

Circulation space is required to all doorways throughout the building that are required to be accessible in accordance with Section 13 of AS 1428.1 – 2021 (see diagrams below). See below required doorway circulation space for swinging and sliding doors.



Comment: Construction Certification documentation to verify compliance with this requirement. Also note the following requirements which exceed minimum BCA requirements:

- + All walkways shall have a barrier or continue for a further 600mm in a different material on each side of the walkway.
- + Ensure 1,000mm clear width for occupant access/circulation; this includes the carpark external egress/circulation stairways.
- + Ensure 1,540mm wide x 2,070mm long turning/circulation zone to the ends of all corridors.
- + Circulation stairways requirements:
 - Handrails/extensions/turn-downs, colour contrasting nosing's and TGSI's to be documented with Construction Certification documentation.
 - Handrails are required on both sides on circulation stairway systems; this includes the carpark external egress/circulation stairways.
- + Door circulation and colour contrast transoms/mullions to be documented with Construction Certification documentation.

Note: AS1428.1-2021 requires 30% colour contrast between door vs wall, door vs frame, or frame vs wall to accessible doorsets hence frameless glazing will not satisfy AS 1428.1-2021 unless colour contrasting strips are provided to 30% colour contrast the door frame which are minimum 50mm wide.

BCA 2022 (Amdt. 2) adopts AS1428.1-2021 as the minimum design standard.

D4D5

Exemptions: The following areas, and any path of travel providing access only to these areas, are not required to be accessible:

- + An area deemed inappropriate to access due to the areas particular use; and/or
- + An area that would pose a health or safety risk for people with a disability.

Comment: Access/circulation space is not required to be provided to rooms/areas where access for a person with a disability is not required i.e. dirty utility / clean utility rooms, plant rooms, comms rooms etc.

D4D6

Accessible Parking: Accessible carparking spaces –

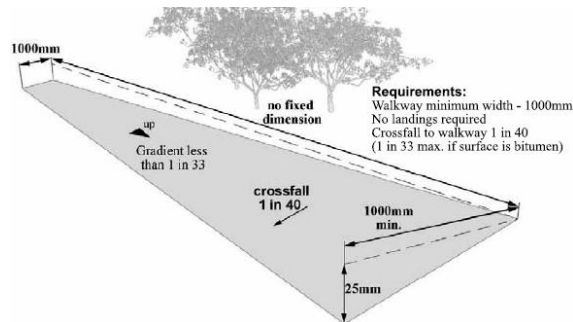
- + Must be provided in accordance with the ratios set out in this clause.
- + Must comply with AS 2890.6-2009

Comment: Accessible carparking requirements must satisfy BCA Clause D4D6; including the following commentary subject to a review of DA2.06 Rev.A:

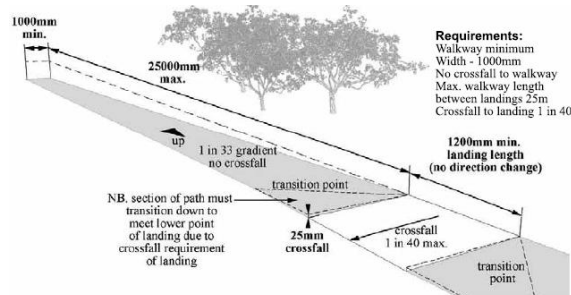
- + Class 2 areas:
 - Planning advice is required regarding whether there is any Council DCP requirements relating to AS4299-1995 for any Class 2 apartments although we understand that only Class 2 ILU's are provided over the site therefore compliance with SEPP Housing 2021 will likely take precedence over Council DCP / AS4299-1995 requirements.
 - We understand that the development will also satisfy SEPP Housing 2021; in this regard reference is made to Appendix 2 of this report which contains a review of SEPP Housing 2021 Schedule 4 carparking requirements.
- + For Class 3 areas:
 - The number of accessible carparking spaces are required based on whichever is greater of either:
 - 1 by virtue of the total number of carparking spaces being 44 (<100) OR
 - By multiplying the total number of carparking spaces by the percentage of accessible sole-occupancy units to the total number of sole-occupancy units.
 - The location of Class 3 key worker accommodation apartments/cabins/dwellings and associated carparking spaces are to be identified on the plans; rationalisation of BCA D4D2 and AS1428.1-2021 requirements may need to be considered under a Performance Solution with the relevant Construction Certificate where the number of accessible apartments/SOU's do not satisfy Table D4D2b or where the minimum accessible apartments may not satisfy Table D4D2b per building however may satisfy minimum Table D4D2b requirements over the site.

It is noted that the first floor Mini Manor apartments are only accessed via a stairway system with no lift access.
- + For Class 5 areas:
 - The number of accessible carparking spaces are required to be 1 by virtue of the total number of carparking spaces being 42 (<100).
- + For Class 6 areas:
 - The number of accessible carparking spaces are required to be 1 by virtue of the total number of carparking spaces being 42 (<50).
- + For Class 9b areas:
 - The number of accessible carparking spaces are required to be 1 by virtue of the total number of carparking spaces being 42 (<50).
- + For Class 9c areas:
 - The number of accessible carparking spaces are required to be 1 by virtue of the total number of carparking spaces being 36 (<100).
- + All building Class:
 - Carpark area clear head heights: 2.3m generally with the exception of 2.5m above an accessible carparking space/shared spaces from the FFL to any obstruction next above
 - The pavement marking shall have the appropriate slip resistance of P3/R10 within undercover accessible carparking spaces and shared zones or P4/R11 within open-to-the-

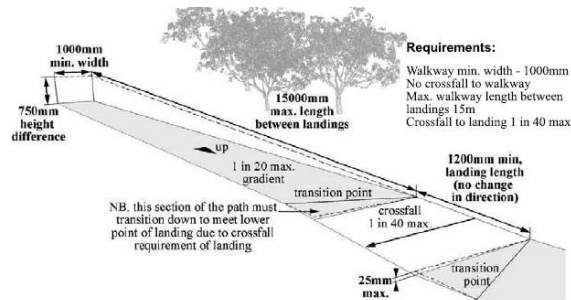
	sky accessible carparking spaces and shared zones. This requirement is to be added to the project specifications to ensure compliance. Construction Certification documentation to verify compliance with this requirement. <i>BCA 2025 Public Comment Draft adopts AS2890.6-2022 as the minimum design standard.</i>
D4D7	Signage: In a building required to be accessible, braille and tactile signage must be provided to all: + Required accessible sanitary facilities; + Spaces with hearing augmentation; + Ambulant sanitary facilities; + Non-accessible pedestrian entrances; and + Each door required to be provided with an exit sign. Braille and tactile signage is to comply with sub-clause (a) and Specification 15. Comment: Construction Certification documentation to verify compliance with this requirement. Also note the following requirements which exceed minimum BCA requirements.
D4D9	Tactile Indicators: Tactile ground surface indicators must be provided to: + A stairway, other than a fire-isolated stairway; and + An escalator or passenger conveyor; and + A ramp other than a fire-isolated ramp; and + In the absence of a suitable barrier- - An overhead obstruction <2m above floor level; and - An accessway meeting a vehicular way adjacent to any pedestrian entrance to a building including a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point. Tactile indicators are required to be designed in accordance with AS 1428.4.1-2009. Comment: Construction Certification documentation to verify compliance with this requirement. Note 1: Only fire-isolated exits have concession to omit DDA features, where stairways are open stairways (and therefore circulation stairways) a Performance Solution is documented at Construction Certificate stage. Note 2: A blanket Performance Solution can be explored to omit TGSI's throughout the site in favour of dome buttons; otherwise TGSI's are required throughout except for the Class 9c building where a DtS concessions is permissible.
D4D12	Ramps: Clause D4D12 requires makes provisions for accessway to consist of ramps based on limitations such as: + A series of connected ramps must not have a combined vertical rise of more than 3.6 m; and + A landing for a step ramp must not overlap a landing for another step ramp or ramp. Ramps may be used as part of an accessway where there is a change of level and must comply with the requirements set out in AS1428.1-2021 including: + AS1428.1 Cl 10.1 Walkways, Ramps, and Landings – Generally - Walkways, ramps and landings that are provided on a continuous accessible path of travel shall be as follows: - Sharp transitions shall be provided between the planes of landings and ramps. - Landings shall be provided at all changes in direction in accordance with Clause 10.8. - Landing or circulation space shall be provided at every doorway, gate, or similar opening. - For walkways and landings having gradients in the direction of travel shallower than 1 in 33, a camber or crossfall shall be provided for shedding of water and shall be no steeper than 1 in 40, except that bitumen surfaces shall have a camber or crossfall no steeper than 1 in 33. <i>NOTE: For requirements for ground surfaces, see Clause 7.</i>



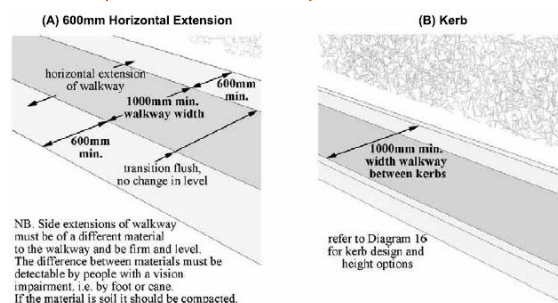
Requirements for a Walkway with a Gradient Less Than 1 in 33



Requirements for a Walkway with a 1 in 33 Gradient



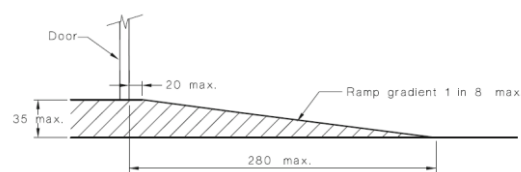
Requirements for a Walkway with a 1 in 20 Gradient



Requirements for Edges of Walkways

- + **AS1428.1 Cl. 10.3 Ramps** - Ramps to comply with the following:
 - Maximum gradient of a ramp exceeding 1900mm shall be 1 in 14.
 - The gradient of a ramp shall be constant throughout its length.
 - Ramps shall be provided with landings:
 - For ramp gradients of 1 in 14, at intervals not greater than 9m.
 - For ramp gradients steeper than 1 in 20, at intervals not greater than 15m.
 - For ramp gradients between 1 in 14 and steeper than 1 in 20, at interpolated intervals.
 - Handrails must be provided on either side complying with Clause 12.
 - TGSIs shall be installed in accordance with AS 1428.4.1.
 - Ramps shall be set-back at internal corridors so that handrail extensions do not protrude into paths of travel.

- Ramps and intermediate landings shall have kerbs or kerb rails on either side.
- + **AS1428.1 Cl. 10.4 Curved Walkways, Ramps, and Landings** - Curved ramps, walkways, and landings shall comply with the following:
 - Curved walkways shall have a width not less than 1500mm.
 - Any cross-fall shall be towards the centre of curvature.
 - The gradient of curved ramps and walkways shall comply with the graph in Figure 20 within AS 1428.1 – 2021.
- + **AS1428.1 Cl. 10.5 Threshold Ramps** - Threshold ramps at doorways on a continuous path of travel shall have—
 - a maximum rise of 35 mm;
 - a maximum length of 280 mm;
 - a maximum gradient of 1:8; and
 - be located within 20 mm of the door leaf which it serves.

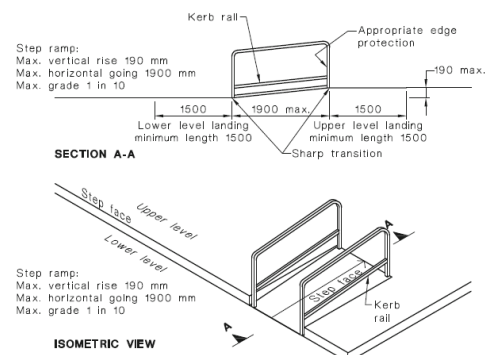
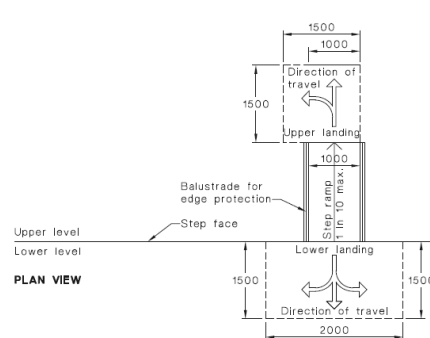


- + **AS1428.1 Cl. 10.6 Step Ramps** - Step ramps shall have—
 - a maximum rise of 190 mm;
 - a length not greater than 1900 mm; and
 - a gradient not steeper than 1 in 10.

The edges of step ramp shall have a 45° splay where there is pedestrian cross traffic.

Otherwise, it shall be protected by a suitable barrier, such as—

- a wall or suitable barrier with a minimum height of 450 mm; or
- where an open balustrade is provided a kerb or kerb rail shall be provided.



+ **AS1428.1 Cl. 10.8 Landings**

- Walkways and ramps
 - The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following:
 - Where there is no change in direction, the length shall be not less than 1200 mm, as shown in **Figure 25(A)**.
 - Where there is a change of direction not exceeding 90°, the landing shall be not less than 1500 mm. The internal corner shall be truncated for a minimum of 500 mm in both directions, as shown in **Figure 25(B)**.
 - For a 180° turn, the landing shall be as shown in **Figure 25(C)**.
- Step ramps

- The length of landings at step ramps shall be not less than 1200 mm in the direction of travel, as shown in **Figures 22(A)** and **22(B)**.
 - Where a change in direction is required, the length of step ramp landings shall be a minimum of 1500 mm, as shown in **Figure 22(A)**.
 - Where doorways are at landings, the dimensions of the landings shall be in accordance with the requirements of Clause 13.3 for circulation spaces at doorways shown in **Figure 25(D)**.
- Kerb ramps
- The length of landings at kerb ramps shall be not less than 1200 mm in the direction of travel.
 - Where a 'T' junction occurs, the kerb ramp landing shall be a minimum of 1500 × 2000 mm, as shown in Figure 24(B).
 - Where a single change in direction is required, the ramp landings shall be a minimum of 1500 mm × 1500 mm.
 - See Below for Figures 25A, 25B & 25C:

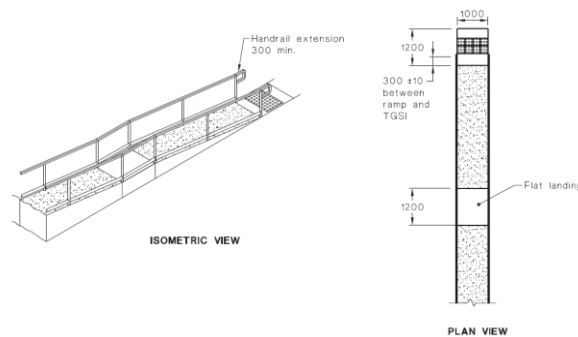


Figure 25A

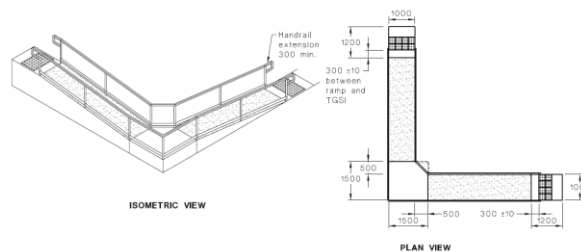


Figure 25B

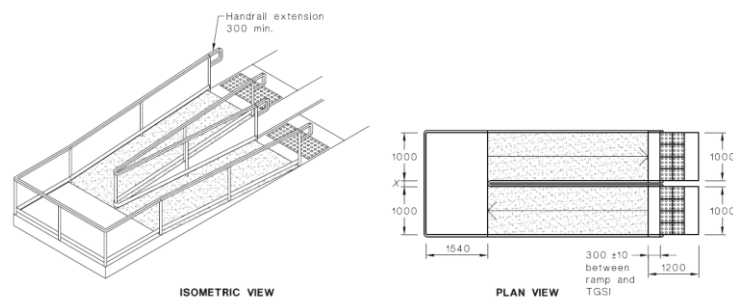


Figure 25C

Comment: The series of connecting ramps do not exceed a vertical height of 3.6m. Construction Certification documentation to verify compliance with this requirement to satisfy AS1428.1-2021.

D4D13

Glazing along an Accessway: Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid and non-transparent contrasting line.

Comment: Construction Certification documentation to verify compliance with this requirement. Note the strip must achieve 30% luminance contrast with the floor surface on each side and must be a solid, not translucent, strip with no other graphical representation or cut-outs.

2.4 Section E – Services and Equipment

E1D2

Fire Hydrants: Fire hydrant coverage is required to be provided to the building in accordance with satisfy NCC E1D2 and AS2419.1 – 2021.

Note: external hydrants within 10m of sprinkler protected buildings is permissible under AS2419.1-2021

Comment: For any new fire hydrants, FPAS Practitioner / Fire Services Design consultant to certify compliance at the Construction Certificate stage.

The following comments are also made with regards to onsite hydrant system design matters:

- + Hydrant booster to be identified on the design plans; ensuring they are 10m or more from electrical kiosks, EV charging stations etc.
- + Where non-fire-isolated exits are concerned, internal hydrants within 4m from the nearest required exit e.g. the top riser to each required non-fire-isolated egress stairway or the discharge doorset / exit on ground floor.
- + Where fire-isolated exits are concerned, internal hydrants within required exit. Ensure hydrant locations will not be obstructed by in-swinging doorsets especially where landings are narrow; refer to AS2419.1-2021 FRNSW operational appendix.
- + Where horizontal exits are concerned, internal hydrants within 4m from the nearest required exit
- + Any external hydrants on ground level courtyard/podium areas are to be shown as FRNSW prefer external hydrants for low-rise parts of facilities so they can enter the facility under the protection of a charged hose.
- + Ensure appropriate handstand is implemented directly in front of the booster.

Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to hydrant design requirements under BCA Clause E1D2 and AS2419.1-2021:

- + Booster not located at vehicular entry or visible from each building on the site to be addressed.
- + Rationalisation of handstand/vehicular access / location associated with the booster assembly.

E1D3

Fire Hose Reels: A required fire hose reel system must satisfy NCC E1D3 and AS2441 – 2005;

Comment:

The following comments are also made with regards fire hose reel system design matters:

- + Concession applies to Class 2 and Class 9c residential areas due to these areas being provided with Portable Fire Extinguishers in favour of Fire Hose Reels.
- + In this regard only the Class 5, 6, 7a, 9b fire compartments are required to be provided with fire hose reel coverage in accordance with NCC E1D3 and AS2441 – 2005.

E1D4

Sprinklers: An automatic fire sprinkler system is required to be provided to the building. Depending on the rise in storeys, there are a number of options available.

Comment: FPAS Practitioner / Fire Services Design consultant to certify compliance at the Construction Certificate stage in accordance with NCC E1D4, Spec. 17, Spec. 18 and AS2118.1 – 2017 (Amdts 1 and 2).

The following comments are also made with regards to sprinkler system design matters:

- + Sprinkler booster to be identified on the design plans; ensuring they are 10m or more from electrical kiosks, EV charging stations etc.

	+ APFS has provided written direction verifying that NCC E1D4, Spec. 17, Spec. 18 and AS2118.1 – 2017 (Amdts 1 and 2) compliance is achieved with regards to residual pressures and flows in the absence of fire services pumpsets and/or fire water storage / break-tank. + Ensure appropriate handstand is implemented directly in front of the booster. Fire Engineered Solution: We understand a Fire Engineered Performance Solution will be proposed to justify departures to sprinkler design requirements under BCA Clause E1D4 and AS2118.4-2012: + Booster not located at vehicular entry or visible from each building on the site to be addressed. + Rationalisation of handstand/vehicular access / location associated with the booster assembly. + Omission of sprinklers from smaller laundry areas under Fire Engineered Performance Solution noting that stacking of dryers/washers will affect sprinkler head locations. + Omission of sprinklers from all low voltage electrical cupboards (e.g. communications cupboards) and MSB enclosures.
E1D4 / E1D5 & Spec 17 Cl S17C6 & S17C7	Comment: Direction has been provided by the wet fire FPAS verifying that a Pumpset enclosure and fire water storage is required as per BCA E1D4/E1D5 & Spec. 17 based on their design and residual pressures and flows associated with the site. Ensure to include the design details (including elevations) of the Pumpset enclosure and fire water storage especially where these are located above ground.
E2D4/ E2D9/ E2D11/ E2D12/ E2D13	Smoke Hazard Management: Required smoke hazard management measures must satisfy NCC Clause E2D2/E2D3; including: + Class 2 areas: - A smoke alarm system complying with S20C3; or - A smoke detection system complying with S20C4; or - A combination of a smoke alarm system and a smoke detection system complying with S20C5; or - Any Fire Engineered or operator requirements. + Class 3 areas: - with a Class 3 part located more than 2 storeys above ground level — a smoke detection system complying with S20C4; or - which accommodate more than 20 residents and are the residential part of a school, accommodation for the aged, children or people with a disability — a smoke detection system complying with S20C4; or - all other Class 3 areas: • a smoke alarm system complying with S20C3; or • a smoke detection system complying with S20C4; or • a combination of a smoke alarm system and a smoke detection system complying with S20C5. - Any Fire Engineered or operator requirements. + Class 5, 6, 7a, 7b, 8, 9b, 9c areas: - A smoke detection system complying with S20C4; and - Automatic shut-down of mechanical air handling systems upon fire trip in accordance with Section 5 and 6 of AS 1668.1. - Any Fire Engineered or operator requirements (including rationalisation of auto stair pressurisation systems to required stairways serving Class 9c areas which would otherwise need to be implemented as per AS 1668.1 – 2015). + Class 7a areas: - A smoke detection system complying with S20C4; and

- Smoke extraction/exhaust where mechanical ventilation is provided to satisfy AS1668.2-2012; and
- Automatic shut-down of mechanical air handling systems upon fire trip in accordance with Section 5 and 6 of AS 1668.1.
- Any Fire Engineered or operator requirements.

Comment: The following comments are also made with regards to smoke detection and alarm system design matters:

- + Identify the location of the FDCIE / Main FIP in the building closest to the booster and FRNSW entry to the site; FPAS Practitioner to verify whether a Sub-FIP's are required within the other buildings associated with the site.
- + Where multiple buildings are networked to a main FDCIE monitored in accordance with AS1670.3 at least one Designated Site Entry Point (DSEP) shall be provided on a site. At the DSEP the building(s) an alarm shall be indicated by at least one of the following means in accordance with AS1670.1-2018 Cl. 2.2.2:
 - A Fire Brigade Panel; OR
 - A fire alarm mimic panel which does not provide any control functions and identifies the building in fire alarm without exiting the fire appliance; OR
 - An external alarm indication in accordance with Clause 3.8 on each protected building within the segregated area. Such an indication shall be clearly visible from the DSEP without exiting the fire appliance.
- + Ensure that smoke alarms are provided within each Class 2 SOU/apartment on each level between the bedroom entry doorset and the remainder of the apartment. Where more than one smoke alarm is required they must be interconnected.
- + Direction has been provided that Class 3 apartments are not located >2 storeys above ground level or within a building which accommodates more than 20 residents and accommodations a use dedicated to the aged, children or people with a disability. In this regard detection and alarm systems complying with S20C4 are not required within apartments/SOU's.
- + A smoke detection and alarm system is required through all other uses. In a Class 9c building provided with a smoke detection system, the following applies:
 - remote automatic indication of each zone must be given in each smoke compartment by means of mimic panels with an illuminated display; or annunciator panels with alpha numeric display; and
 - Manual call points must be installed in paths of travel so that no point on a floor is more than 30 m from a manual call point.
- + Fire Engineer may require enhancements to the smoke alarm system or smoke detection system in response to any Fire Engineered Performance Solutions.
- + Direction has been provided that Automatic Stair Pressurisation is to be rationalised/omitted based on the following options:
 - A fire isolated stairway only connecting 2 storeys for occupant egress purposes (which will need a Performance Solution with the relevant CC application) OR
 - An external stairway in lieu of a fire isolated stairway.

Fire Engineered Solution: Contrary to BCA Clause E2D4 it is not proposed to provide an air pressurisation system to the fire-isolated exits serving the RACF that only provide occupant egress for up to 2-storeys within an otherwise 3-storey building.

BCA 2025 Public Comment Draft adopts AS1670.1-2024 (Incl. Amdt. 1) and AS1670.3-2024 (Incl. Amdt. 1) as the minimum design standards.

E1D14

Fire Extinguishers: Required Portable Fire Extinguishers must satisfy NCC Clause E1D14 & AS 2444-2001.

- + In a Class 2 or 3 building, 2.5 kg ABE type fire extinguishers must be located within 10m of each SOU/apartment entry doorway.

	+ To cover Class AE or E fire risks Dry Chemical Powder Extinguisher(s) are to be implemented within emergency services switchboards (i.e. a switchboard which sustains emergency equipment operating in the emergency mode). + To cover Class F fire risks Wet Chemical Extinguisher(s) are to be implemented within kitchens within cooking oils and fats associated with their function and use. + Note: Wet chemical to be provided within the kitchen whilst serveries and kitchens must be provided with a extinguisher and blanket in accordance with AS2444. + To cover Class B fire risks Dry Chemical Powder Extinguisher(s) are to be implemented within locations where flammable liquids in excess of 50 litres are stored or used (not including that held in fuel tanks of vehicles). + To cover Class A and E fire risks throughout the building a combination of both Carbon Dioxide CO2 Fire Extinguisher and Water H2O Fire Extinguisher(s) are to be installed in every smoke compartment or where required for coverage. + Note: Although deemed suitable for Class A fire hazards ABE extinguishers are not permitted in Class 9c areas as they pose respiratory issues. + To cover Class E fire risks Carbon Dioxide CO2 Fire Extinguisher(s) are to implemented within nurse/staff/supervisor's stations. Comment: For any new installations/alterations, FPAS Practitioner / Fire Services Design consultant to certify compliance at the Construction Certificate stage in accordance with NCC E1D14 and AS2441-2001.
E2D17 & E2D21	Provisions for Special Hazards: FRNSW deem EV charging stations as a special hazard for the purposes of fire and life safety and brigade intervention. Where EV charging stations are proposed they are to be assessed in the trial design or separate fire safety assessment by the Fire Safety Engineer's Report with the Construction Certificate application.
E3D3 / E3D10	Stretcher Facilities in Lifts: Stretcher facilities, complying with this clause, must be provided in lifts in at least one emergency lift as required by E3D5 or in building where lifts serve any storey above an effective height of 12m. A stretcher facility must accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600mm wide x 2,000mm long x 1,400mm high above the floor level. Where residents in a Class 9c residential care building are on levels which do not have direct access to a road or open space, the building must be provided with either: + At least one lift to accommodate a stretcher in accordance with E3D3(2); or + A ramp in accordance with AS 1428.1. The required lift or ramp must discharge at a level providing direct access to a road or open space. Comment: Details to be included in the design statement at Construction Certificate stage.
E3D7	Passenger Lifts: All passenger lifts provided exceed the minimum dimensions required to comply as accessible lifts. In this regard, access to every floor in the development is achieved in the design. Note: Lift call button to be located 500mm or more from an internal corner to satisfy NCC/BCA Cl. E3D7 & AS 1735.12-1999 Clause 7.3.3 in the absence of a DDA Performance Solution.
E4D2 - E4D8	Emergency Lighting and Exits Signs: Emergency lighting and exit signage to be provided in accordance with E4D2-E4D5 complying with AS 2293.1 – 2018.

2.5 Section F – Health and Amenity

Part F1

Damp and Weatherproofing: Damp and weatherproofing to comply with the prescriptive requirements as follows (as applicable):

- + Stormwater drainage must comply with F1D3.
- + Exposed joints must comply with F1D4.
- + External waterproofing membranes must comply with F1D5.
- + Damp-proofing must comply with F1D6.
- + Damp-proofing of floors on the ground must comply with F1D7.
- + Subfloor ventilation must comply with F1D8.

Comment: Compliance readily achievable; architectural design documents with the Construction Certificate application to verify compliance with this requirement.

Where the door entrance needs to be flush between non-permeable external and internal areas, and the sub-sill is recessed, then AS4654 requires that a grate is to be provided before the sub-sill to mitigate water ingress into the building.

Compliance in design and completion to be certified by the registered Façade Consultant and/or Architect and Hydraulic Consultant.

Performance Solution: A Performance Solution is required to be obtained in relation to the departures from Part F1 with damp and waterproofing with respect to wall cladding systems. A Façade Engineer is required to prepare the Performance Based Design Brief (PBDB) and Performance Solution Report.

BCA 2025 Public Comment Draft makes provision for the following with regards to External Substrates – Concrete Roofs, Balconies, Podiums, or Similar:

- + *Structural Substrate definition clarified as: The surface of a structural member to be waterproofed as required by Part F1 or F2D2(2)(a).*
Note: A tile bed / screed can only be considered a structural substrate within planter boxes
- + *Waterproof membranes must be applied directly to the structural substrate.*
- + *Structural substrate must have minimum 1:80 falls as such falls must be inherent in the slab therefore the depth of the slab will be larger to accommodate the fall.*
- + *The structural design of concrete roofs, balconies, or similar parts of the building will now need to account for the expected 10-year deflection of structural substrates*
- + *Must not result in non-compliant falls with respect to the external waterproofing provisions (overall falls, creating of ponding, etc.).*

BCA 2025 Public Comment Draft makes provision for the following with regards to External set downs, hobs and hobs:

- + *A concrete roof, balcony, or similar part of a building must have a:*
 - o *70 mm step down from the internal floor level to the external structural substrate.*
 - o *70 mm high integral hob around its perimeter.*
- + *An exemption is provided where the external substrate abuts an external wall or door.*
- + *Exposed joints in concrete roofs, balconies, podiums or similar, must be located:*
 - o *On the ridge line or the highest point of the structural substrate, and*
 - o *Have a hob with a minimum height of 50mm formed within the structural substrate for the full length of both sides of the exposed joint*

BCA 2025 Public Comment Draft makes provision for the following with regards to External Substrates – Membranes and surface finishes:

- + *Self Draining definition clarified as: A surface finish allowing water to be conveyed by gravity from the finished surface level to the membrane on the top surface of the structural substrate. An external waterproof membrane must be installed directly on a structural substrate.*
- + *A surface finish must be self-draining or directly fixed to a waterproof membrane*

Part F2	Wet Areas and Overflow Protection: Wet areas and overflow protection is to comply with the prescriptive requirements as follows (as applicable): + Wet area construction must comply with F2D2. + Rooms containing urinals must comply with F2D3. + Floor wastes must comply with F2D4. Comment: Compliance readily achievable; architectural design documents with the Construction Certificate application to verify compliance with this requirement. Where a floor waste is required, F2D4 requires that the floor must be graded at a minimum continuous fall of 1:80 to a floor waste and the floor must be graded at a maximum continuous fall of 1:50 to a floor waste. This solution will likely lead to a Performance Solution for DDA compliant sanitary facilities where a minimum continuous fall of 1:100 is adopted in favour of 1:80 permitted under F2D4. Compliance in design and completion to be certified by the registered Façade Consultant and/or Architect and Hydraulic Consultant.
Part F3	Roof and Wall Cladding: This section contains DtS provisions for the weatherproofing of certain external wall and roof designs as follows (as applicable): + Roof coverings must comply with F3D2. + Sarking must comply with F3D3. + Glazed assemblies must comply with F3D4. + Wall cladding must comply with F3D5. Performance Solution: Where required, a Performance Solution is to be obtained in relation to the departures from F3D5 with respect to wall cladding systems. Should a Performance Solution be required a Façade Engineer is required to prepare the Performance Based Design Brief (PBDB) and Performance Solution Report.
Part F4	Sanitary Facilities: Sanitary and other facilities must be provided to comply with the relevant requirements of this part, as applicable to the building's classification and use. All laundries, slop hoppers, etc are to satisfy Clause F4D11. Note: For every 60 beds or part thereof on each storey containing resident use areas the following are to be provided: + One slop-hopper or other device (other than a water closet pan or urinal for the safe handling and disposal of liquid and solid wastes with a flushing apparatus, tap and grating); and + An appliance for the disinfection of pans or an adequate means to dispose of receptacles. Comment: Provide employee numbers throughout and patron numbers within assembly/café/activity areas for further review with the Construction Certificate application.
F5D2	Ceiling Heights: The floor to ceiling heights must be as follows: <i>The ceiling minimum heights for a Class 2 building are as follows:</i> + Kitchen, laundry or the like – 2.1m + Corridor or passageway – 2.1m + A habitable room, excluding kitchen – 2.4m <i>The minimum ceiling heights in a Class 7 building are as follows:</i> + Generally - 2.4m. + Corridor, passageways, or the like - 2.1m. <i>In any building:</i> + Bathrooms, sanitary compartments, tea preparations rooms, pantries, store rooms or the like – 2.1m, + A commercial kitchen – 2.4m,

Above a stairway, ramp, landing or the like – 2m.

Comment: Construction Certification documentation to verify compliance with this requirement. Also note the following requirements which exceed minimum BCA requirements:

- + A habitable rooms: to satisfy SEPP 65 / ADG requirements 2.7m clear ceiling heights are to be provided between FFL and the underside of ceilings within Class 2 buildings or parts, this must be achieved to all habitable rooms/areas regardless of structure and services above the ceiling.
- + Carpark areas: 2.3m generally with the exception of 2.5m above an accessible carparking space/shared spaces from the FFL to any obstruction next above.
- + NSW requirements for porte-cochere may be applicable; verify if porte-cochere heights need to be considered as NSW may require 3.7m clear heights.

Part F6

Light and Ventilation: In accordance with BCA Clause F6D2/F6D3 natural lighting must be provided within:

- + Class 2 buildings or parts — to all habitable rooms (including study areas within apartments).
- + Class 9c buildings or parts — to all rooms used for sleeping purposes.

A required window that faces a wall of the same building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of 1m or 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill.

In a Class 9c aged care building, a required window must be transparent and located

- + in an external wall with the window sill not more than 1 m above the floor level; and
- + where the window faces an adjoining allotment, another building or another wall of the same building, it must not be less than a horizontal distance of 3 m from the adjoining allotment, other building or wall.

Artificial lighting systems are required to comply with BCA Clause F6D4 and AS 1680-2009. All mechanical or air-conditioning installations must be undertaken in accordance with Clauses F6D6 and AS 1668.2-2012.

Comment: Construction Certificate design details to demonstrate that all:

- + Class 2/3 bedrooms (including study areas) are provided with natural light in accordance with BCA Clause F6D2/F6D3 and natural ventilation in accordance with Clause F6D7.
- + Class 9c resident rooms are provided with required windows which are transparent and located in an external wall with the window sill not more than 1 m above the floor level; with no obstructions associated with the building located within 3m of the required windows.
- + Artificial lighting is to be provided to in accordance with AS 1680.0 and air conditioning/ventilation to be proposed in accordance with 1668.2-2012.

BCA 2025 Public Comment Draft makes provision for the following with regards to ventilation:

- + *New additional option to provide natural ventilation via compliance with AS 1668.4 – as opposed to the previous 5% of floor area in openable windows / doors method.*

BCA 2025 Public Comment Draft adopts AS1668.2-2024 (Incl. Amdt. 's 1 and 2) as the minimum design standard.

Part F7

Sound Transmission and Insulation: Floors and walls bounding Class 2 or 9c parts are required to comply with the prescriptive provisions of Part F7 as related to sound transmission and insulation.

Comment: Provide a copy of the Acoustic Assessment Report and Design Statement in accordance with Part F7 at Construction Certificate application.

NCC Clause F7D4 requires discontinuous construction for internal wall systems; Construction Certification documentation to verify compliance with this requirement.

Part F8

Condensation Management: Condensation management to comply with the prescriptive requirements as follows (as applicable):

- + External wall construction must comply with F8D3.
- + Exhaust systems must comply with F8D4.

- + Ventilation of roof spaces must comply with F8D5.

Comment: Details and certification by the Architect to be provided verifying compliance with the condensation management requirements under F8 for each Class 2 building.

It is understood that the mechanical exhaust has been detailed by the Mechanical Consultant to meet these requirements with regards to bathrooms and kitchen areas.

Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air in accordance with BCA Cl. F8D4.

BCA 2025 Public Comment Draft makes provision for the following with regards to condensation management:

- + *Expansion of Condensation Management requirements to now require compliance for Class 3 (short term accommodation) and Class 9c (residential care buildings).*
- + *New changes include: Additional requirements to external walls in climate zones 1-8. Extension of roof space ventilation requirements to Climate zones 4 and 5.*

2.6 Section G – Ancillary Provisions

G1D5 NSW Amdt

Safe Cleaning of Windows: A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level.

Comment: New glazing proposed as part of the development. In this regard, measures must be implemented (where they do not already) enabling the windows to be cleaned wholly from within the building; or provision is to be made (where not already) for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.

Part G3

Atrium Construction: The BCA defines an atrium as a space within a building that connects 2 or more storeys and—

- Is enclosed at the top by a floor or roof (including glazed roof structure); and
- Includes any adjacent part of the building not separated by an appropriate barrier to fire; but
- Does not include a stairwell, rampwell or the space within a shaft; and
- For the purposes of a. a space is considered enclosed if the area of the enclosing floor or roof is greater than 50% of the area of the space, measured in plan, of any of the storeys connected by the space.

Atrium construction needs to satisfy BCA Part G3 however BCA Clause G3D1 permits the following concessions where the atrium provisions under Part G3 do not need to be complied with:

- + Where the atrium only connects 2-stories; OR
- + Where the atrium only connects 3-stories; and each storey is provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 throughout; and one of those storeys is situated at a level at which there is direct egress to a road or open space.

Comment: There are no atriums apparent in the design documentation.

Part G5

Construction in Bushfire Prone Areas: The Deemed-to-Satisfy Provisions of this Part apply in a designated bushfire prone area for a Class 2/3/4 building must comply with AS 3959 – 2018 (Amdt 1 & 2).

Where applicable, any Class 9 vulnerable occupancy building must comply with BCA Spec. 43, AS 3959 – 2018 (Amdt 1 & 2) or a Performance Solution which must be accepted by all key stakeholders (including NSW RFS).

Part G6

Occupiable outdoor areas: Linings associated with occupiable outdoor spaces are to satisfy BCA Clause C2D11, Spec. 7 (pertaining to fire hazard properties) and Part G6 (pertaining occupiable

outdoor spaces); including linings to the underside of soffit areas associated with external areas. Specifically G6D2 requires that:

- + A lining, material or assembly in an occupiable outdoor area must comply with C2D11 as for an internal element i.e.:
 - Floor Linings- A critical radiant flux 1.2 kW/m² and
 - Linings/materials within specific areas such as an apartment/SOU - Walls: Group 1, 2, 3 Ceilings: Group 1, 2, 3;
 - Provide literature for the product to demonstrate compliance with this requirement and AS1530.3.
- + Where the linings are associated with an external wall (not an eaves soffit) then they must be non-combustible.

Spec 43

+ S43C2 - Separation from classified vegetation

The building must be separated from classified vegetation—

- by not less than the minimum distances specified in Table S43C2; or
- such that radiant heat flux on exposed building elements will not exceed 10kW/m².
- For the purposes of the above, the term 'classified vegetation' has the meaning that it has in AS 3959.

Comment: The following comments are made:

- + S43C2 does not apply in NSW as Asset Protection Zones must be determined in accordance with Planning for Bush Fire Protection.
- + Final review and assessment to be undertaken by Bushfire Consultant with regard to bushfire matters.

+ S43C3 - Separation between buildings

- The building must be located not less than 12 m from any other building.
- The separation distance required by (1) need not be complied with if the building is constructed—
 - with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or
 - heat flux of 10 kW/m² or greater for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant

Comment: Confirmation is to be provided that all buildings are setback 12m or more from the RACF in the absence of a Performance Solution.

+ S43C4 - Separation from allotment boundaries and carparking areas

- The building must be located not less than 10 m from any allotment boundary or open carparking area/spots.
- The separation distance required by (1) need not be complied with if the building is constructed—
 - with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or
 - heat flux of 10 kW/m² or greater for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant.

Comment: The following comments are made:

- + The closest boundary to the North appears to be circa 43m (>10m) away from the Class 9c RACF hence compliance is achieved with S43C4;
- + The latest design includes a carparking area located directly next to (and within 10m of) the Class 9c RACF building which will need to be addressed in the absence of a Performance Solution.
- + Loading dock location to be confirmed; where this is the case Bushfire Consultant to provide comment whether this poses an equivalent risk to that of a carpark which needs to be assessed further.

+ S43C5 - Separation from hazards

- The external walls and roof of the building must be protected from potential hazards on the site such as liquefied petroleum gas bottles, fuel storage, storage of combustible materials, waste bins, vehicles, machinery, and the like, by—
 - a separation distance of not less than 10 m; or
 - where within the 10 m separation distance described in (a), constructed with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or
 - for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant heat flux of 10 kW/m² or greater.

Comment: The following comments are made:

- + The latest design documents are silent on hazards as defined by S43C5; this is to be reviewed further by Bushfire Consultant / Architect as the design develops.
- + From an operational perspective, confirmation should be sought as to the ongoing use requirements and the achievability of ongoing separation from these hazards (where applicable).

+ S43C6 - Non-combustible path around the building

- A non-combustible pathway directly adjacent to the building and not less than 1.5 m wide must be provided around the perimeter of the building.

Comment: The following comments are made:

- + There are pathways directly adjacent to the Class 9c RACF building however there are portions of the pathway which are not directly adjacent to the building
- + It appears as though a 4m wide ring road is being used in parts as the adjoining pathway.
- + Design Certification/specification/details to be prepared by Architect/Landscape Architect which nominates pathways to satisfy S43C6.

+ S43C7 - Access pathways

- Access pathways that lead to a road or open space must—
 - be readily identifiable; and
 - have an even surface; and
 - have a minimum clear width of not less than 1 m.
 - If the access pathway is an accessway that is required to comply with Part D4, the requirements of Part D4 override (1) to the extent of any inconsistency.

Comment: The following comments are made:

- + 1,000mm wide pathways from exit doors to the roadways are to be documented; these pathways are to be all-weather, identifiable and provided with a level surface.
- + Compliance readily achievable given the requirement for this building to comply with BCA Part D; Design Certification/specification/details to be prepared by Architect/Landscape Architect which nominates pathways comply with S43C7.

+ S43C8 - Exposed external areas

- An external area designed to hold people unable to be safely accommodated within the building, that may be exposed to radiant heat flux from a fire front during a bushfire event, must not be exposed to an incident radiant heat flux from the fire front exceeding 1 kW/m² above background solar radiant heat flux.

Comment: The following comments are made:

- + This is a Bushfire consultant assessment requirement; the operational and evacuation procedures of the Class 9c RACF building need to be confirmed to determine whether any external areas are intended to accommodate people in the event of bushfire.

+ S43C9 - Internal tenability

- To maintain internal tenability throughout the duration of occupancy during a bushfire event, the building must comply with the following:
 - An air handling system must be provided that is capable of—

- being adjusted for full recycling of internal air for a period of not less than 4 hours to avoid the introduction of smoke into the building; and
- maintaining an internal air temperature of not more than 25°C.
- The building envelope must be designed such that if an air handling system required by (a) fails, then—
 - internal air temperatures can be maintained below 39°C; and
 - internal surface temperatures can be maintained below 60°C.
- If the building is divided into separate compartments then, for the purposes of (a), each compartment must have a separate air handling system.
- Each air handling system required by (a) must be designed to account for the activation of smoke detectors from low concentrations of smoke from external sources, so as to ensure that air-conditioning and other essential systems remain operational.

Comment: The following comments are made:

- + The bushfire report to verify whether S43C9 is applicable to this development and whether DtS compliance is possible.
- + Where DtS compliance is not possible, a Fire Engineering Performance Solution may need to be entertained subject to agreement by all key stakeholders.
- + Note: Should S43C9 need to be adhered to we note that ducted mechanical air handling systems and auto shut-down by detectors to be considered also under BCA E2D16 (NSW). This may have bushfire implications if the mechanical systems are required to operate due to bushfire implications - bushfire consultant and dry fire FPAS to confirm.
- + Note: Should S43C9 need to be adhered to we note that Bushfire Consultant to provide advice and Thermal Simulation Report to demonstrate compliance with the requirements of Clause S43C9(b).
- + Note: Should S43C9 need to be adhered to we note that at this stage it is likely that the proposed Class 9c building is to contain separate compartments hence this would necessitate separate air handling systems.

+ **S43C10 - Building envelope**

- The building envelope must be constructed in accordance with AS 3959 – BAL 19 or greater, except that where the use of combustible materials is permitted by AS 3959, they are not to be used unless permitted by C2D10(4), (5) or (6).

Comment: The following comments are made:

- + Bushfire Consultant has confirmed that the Class 9c RACF building will be designed to AS3959 BAL-19 provisions.
- + We understand that compliance readily achievable; Design Certification/specification/details to be prepared by Architect which nominates building envelope composition complies with S43C10.
- + All external wall materials are to be non-combustible unless specifically permitted by BCA 2022 Clauses C2D10 or C2D14. For Type A Construction compliance with these clauses would be required regardless.

+ **S43C11 - Supply of water for fire-fighting purposes**

- Water for fire-fighting purposes must be available and consist of—
 - a fire hydrant system complying with E1D2, or
 - a static water supply consisting of tanks, swimming pools, dams or the like, or a combination of these, together with suitable pumps, hoses and fittings, capable of providing the required flow rate for a period of not less than 4 hours, determined in consultation with the relevant fire brigade.

Comment: The following comments are made:

- + Compliance readily achievable; Design Certification/details to be prepared by FPAS / NER Hydraulic Fire Services Consultant which confirms wet fire services complies with NSW S43C11.
- + The building is required to be served by a fire hydrant system complying with AS 2419.1 – 2021.
- + Documentation to be provided to the satisfaction of Bushfire Consultant.

+ S43C12 Emergency power supply

- Emergency power must be provided to support, for not less than 4 hours before and 2 hours after the passing of the fire front during a bushfire event, the ongoing operation of—
 - air handling systems to maintain internal tenability; and
 - any pumps for fire-fighting; and
 - any emergency lighting and exit signs; and
 - any other emergency equipment listed in C3D14(6) and required to be provided.
- Manual control for emergency back-up power supply must be provided to facilitate manual intervention where the power supply fails or runs out.

Comment: The following comments are made:

- + Compliance readily achievable; noting the following:
- + Refer to S43C9 for comments regarding S43C12(a).
- + Design Certification/details to be prepared by FPAS / NER Fire Services Electrical Consultant which confirms emergency power supply complies with S43C12(b) – (d) and (2).

+ S43C13 - Signage

- Signage must be provided to warn building occupants against storing combustible materials under or adjacent to the building.

Comment: The following comments are made:

- + Compliance readily achievable; Design Certification/specification/details to be prepared by Architect which nominates signage to satisfy S43C13.

+ S43C14 – Vehicular Access

- Vehicular access Vehicular access to the building must be provided in accordance C3D5(2), as if the building were a large-isolated building for the purposes of C3D4.

Comment: The following comments are made:

- + BCA Clause C3D5(2) sets out the requirements for open space and vehicular access, being: Vehicular access required by this Part—
 - must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and
 - must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and
 - must provide reasonable pedestrian access from the vehicular access to the building; and
 - must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles; and
 - must be wholly within the allotment except that a public road complying with the above requirements may serve as the vehicular access or part there of.
- + The bushfire report to verify whether S43C14 is applicable to this development and whether DtS compliance is possible.
- + Where DtS compliance is not possible, a Fire Engineering Performance Solution may need to be entertained subject to agreement by all key stakeholders.
- + Note: Should S43C14 need to be adhered to we note that the proposed Class 9c building departs from this requirement and does not provide perimeter vehicular access per C3D5(2) in the following areas:
 - Vehicular access discontinuous
 - Vehicular Access appears to be less than 6m throughout the ring road and throughout the carpark areas.

Part G6

Occupiable Outdoor Areas: Occupiable Outdoor Areas (such as the communal rooftop space) are required to comply with the fire hazard property, provision for escape, construction of exits, firefighting equipment, lift installations, visibility in an emergency, exit signs and warning systems,

and light and ventilation provisions of the BCA (as specifically prescribed under this part) as if it were an internal building part.

2.7 Section J – Energy Efficiency

Part J

Energy Efficiency: The new building works subject to compliance with the Energy Efficiency Provisions of BCA 2022 (Amdt. 2) Section J relating to:

- + J1: Energy Efficiency Performance Requirements
- + J2: Energy Efficiency
- + J3: Elemental Provisions
- + J4: Building Fabric
- + J5: Building Sealing
- + J6: Air-Conditioning and Ventilation
- + J7: Artificial Lighting and Power
- + J8: Heated Water Supply and Swimming Pool and Spa Pool Plant
- + J9: Energy Monitoring and On-Site Distributed Energy Resources

The Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).

BCA 2025 Public Comment Draft makes provision for the following with regards to energy efficiency (although the project ESD Consultant will be required to provide a comprehensive gap analysis for this development):

- + *Significant changes proposed – benchmark for DtS and Performance Requirement compliance is significantly raised.*
- + *Includes a requirement to facilitate near zero operational energy and Green House Gas (GHG) emissions appropriate to the use of the building and the required level of human comfort*
- + *Measures included to support broader government initiatives to transition towards a renewable electricity grid. E.g. enable gas-powered equipment to be easily changed to an electric replacement in the future (electrification).*
- + *Where varying from DtS building fabric via a JV3 Performance Solution – Removal of ability to offset energy consumption (e.g. via reduced building fabric performance) via reliance on energy production. I.e. cannot rely on solar PV in energy modelling.*
- + *Modelling undertaken via JV3 must now achieve at least 10% better annual GHG emissions than the reference building (DtS design). Previously simply had to demonstrate equivalence (no worse than).*
- + *Includes requirements for EV chargers for a specified number of spaces in carparking areas associated with a Class 3, 5, 6, 7b, 8 and 9 buildings. Previously only required provision for future installation of chargers.*
- + *Updates require on-site PV panels to be installed. Noting:*
- + *Capacity depends on the available roof space, climate zone and building classification.*
- + *Additional PV is specified where gas is used to balance the emissions from gas appliances.*
- + *PV must be installed to cover 100% of roof space, excluding certain shaded areas, plant zones, and trafficable zones.*

3.0 BCA Assessment – Class 1a & 10a Buildings

We confirm that the proposed design is capable of complying with the BCA however we note the following BCA compliance matters to be addressed as the design develops. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work and the below should be read in conjunction with the BCA.

3.1 Section H1 – Structural Provisions

Part H1D2

Structural Provisions: Structural Provisions - Determination of individual actions:

In accordance with H1D2, **Performance Requirements H1P1 and H1P2 are satisfied where** a Class 1 or Class 10 building is constructed in accordance with:

- + The relevant provisions of H1D3 to H1D12; or
- + Section 2 of the ABCB Housing Provisions; or
- + Any combination thereof.

Comment: Design certification and supplementary details are to be prepared by the NER Structural Engineer with the Construction Certificate Application demonstrating that the design achieves compliance with H1P1 and H1P2, inclusive of reference to the following Australian Standards (where relevant):

- + AS 1170.0 – 2002 General Principles
- + AS 1170.1 – 2002, including certification for balustrading (dead and live loads)
- + AS 1170.2 – 2021, Wind loads
- + AS 1170.3 – 2003, Snow loads.
- + AS 1170.4 – 2007, Earthquake loads

A compliance certificate from a NER Structural Professional Engineer is required for all structural works in design (with the Construction Certificate application) and at the completion of building works and prior to the issuance of an Occupation Certificate.

Part H1D2

Structural Provisions: Structural Provisions - Determination of individual actions:

In accordance with H1D2, **Performance Requirements H1P1 and H1P2 are satisfied where** a Class 1 or Class 10 building is constructed in accordance with:

- + The relevant provisions of H1D3 to H1D12; or
- + Section 2 of the ABCB Housing Provisions; or
- + Any combination thereof.

Comment: Design certification and supplementary details are to be prepared by the NER Structural Engineer with the Construction Certificate Application demonstrating that the design achieves compliance with H1P1 and H1P2, inclusive of reference to the following Australian Standards (where relevant):

- + Earthworks: H1D3(1) as applicable.
- + Earth retaining structures: H1D3(2) as applicable.
- + Termite risk management: H1D3(3) as applicable.
- + Concrete construction (including slabs and footings, and reinforced and prestressed concrete structures): H1D4 as applicable.

- + Piled footings: H1D12 and AS 2159-2009, as applicable.
- + Post-installed and cast-in fastenings in concrete: AS 5216 as applicable.
- + Masonry (including masonry veneer, unreinforced masonry and reinforced masonry): H1D5 as applicable.
- + Steel construction (including steel framing and structural steel members): H1D6 as applicable.
- + Timber construction (including design of timber structures, timber framing and design of nail-plated timber roof trusses): H1D6 as applicable.
- + Composite steel and concrete: AS/NZS 2327 as applicable.
- + Aluminium construction: AS/NZS 1664.1. AS/NZS 1664.2 as applicable.
- + Roof construction (including plastic sheeting, roofing tiles, metal roofing and terracotta, fibre-cement and timber slates and shingles): H1D7 as applicable.
- + Wall cladding: H1D7 as applicable.
- + Glazed assemblies: H1D8 & AS1288-2021, as applicable.
- + Barriers and handrails (including stairway and ramp construction): H5D3; and AS/NZS 1170.1 for the determination of loading forces on a barrier, as applicable.
- + Attachment of decks and balconies to external walls of buildings: H1D11 as applicable.
- + Garage doors and other large access doors in openings not more than 3 m in height in external walls of buildings determined as being located in wind region C or D in accordance with Figure 2.2.3: AS/NZS 4505, as applicable.
- + For high wind areas: requirements listed in (a) to (q) as appropriate or the Northern Territory Deemed to Comply Standards Manual, as applicable.

Structural certification is to be provided which confirms that the existing building is structurally capable of withstanding the newly proposed loads to be imposed as a result of the new building work and the existing structure is appropriate for any continued and proposed uses for the building.

A compliance certificate from a Professional Engineer is required for all structural works in design (with the Construction Certificate application) and at the completion of building works and prior to the issuance of an Occupation Certificate.

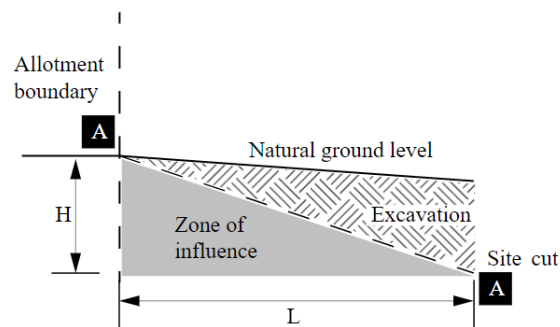
Part H1D3

Site Preparation – Earthworks Provisions: Site Preparation – Earthworks: In accordance with H1D3(1) and (2):

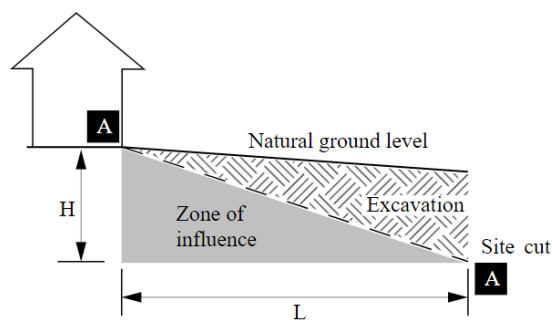
- + Performance Requirement H1P1 is satisfied for earthworks associated with the construction of a building or structure if they are in accordance with Part 3.2 of the ABCB Housing Provisions, provided that the site is classified as A, S, M, H or E in accordance with 4.2.2 of the ABCB Housing Provisions and the work is undertaken in normal site conditions.
- + Performance Requirement H1P1 is satisfied for an earth retaining structure associated with the construction of a building or structure if it is designed and constructed in accordance with AS 4678.

Comment: Design certification and supplementary details are to be prepared by the NER Structural Engineer demonstrating compliance with **ABCB Housing Provisions** 3.2 and/or AS 4678 with the Construction Certificate Application.

The following excerpts from the Housing Provisions Part 3.2.1 are provided with regards to site cut and fill details:



Site cut and fill using un-retained embankments — Site cut commencing at the allotment boundary or affecting an adjoining property



Site cut and fill using un-retained embankments — Fill commencing at the allotment boundary or affecting an adjoining property

Note 1:

- (1) Retaining walls or other types of soil retaining methods must be installed where—
 - a) the embankment slope is steeper than that described in this Table; or
 - b) the soil type is not described in this Table.
- (2) Embankments that are to be left exposed at the end of the construction works must be stabilised by vegetation or similar works to prevent soil erosion
- (3) Consideration must be given for drainage of surface water, particularly where fill affects an adjoining property.

Note 2: Prior to the issue of the Construction Certificate provide a copy of the Water Authority Approval on the development plans (as applicable) to ensure that the proposed development will not impact on Water Authorities infrastructure.

Part H1D3

Termite Risk Management Provisions: In accordance with H1D3(3), Compliance with Part 3.4 of the ABCB Housing Provisions satisfies Performance Requirement H1P1 for termite risk management.

Comment: Details and design certification to be provided with the Construction Certificate Application to confirm that a termite barrier is proposed to minimise the risk of termite attack to primary building elements in accordance with ABCB Housing Provisions 3.4 & AS/NZS 2904 & AS 3660.1.

- + With the Construction Certificate application, we are to receive specification on any proposed termite resistant primary timber elements proposed for the development to ensure compliance with AS3660.1-2014 where subterranean termites apply to this site.
- + Note: The following timber types which form primary timber elements are not deemed to be subject to termite attack under Housing Provision 3.4.1:
 - Naturally termite resistant timber in accordance with Appendix C of AS 3660.1; and/or
 - Preservative treated timber in accordance with Appendix D of AS 3660.1.

	- In accordance with ABCB Housing Provision Part 3.4.3, a durable notice is required to be installed in a prominent location such as the meter box indicating the method used, the date of the installation, the chemical barrier used and its life expectancy and the installers or manufacturer's recommendations for the scope and frequency of future inspections.
Part H1D4	Footings, Slabs & associated Elements Provisions: In accordance with H1D4, Performance Requirement H1P1 is satisfied for the design and construction of footings and slabs if they comply with either of the following: + One of the following: - AS 2870; or - AS 3600. + ABCB Housing Provisions Section 4 Subject to meeting the criteria under H1D4(2). Comment: Details and design certification are required from the Structural Engineer with the Construction Certificate Application to confirm that the design satisfies the requirements of 1) AS2870 and AS3600 or 2) ABCB Housing Provisions Section 4 (as applicable). Note: In NSW Performance Requirement H1P1 is satisfied for footings and slabs if they are installed in accordance with either (a) or (b): One of the following: + AS 2870 except that for the purposes of Clause 5.3.3.1 of AS 2870 a damp-proofing membrane is required (i) to be provided. AS 3600 except that barriers installed beneath slab on ground construction must have a high resistance to (ii) damage during construction. + ABCB Housing Provisions Section 4 (as applicable).
Part H1D5	Masonry Provisions: Masonry, Unreinforced Masonry, Reinforced Masonry, Masonry Veneer, Cavity Masonry, Unreinforced Single Leaf Masonry, Isolated Masonry Piers, and Masonry Components and Accessories, Weatherproofing of Masonry are required to comply with H1D5. In accordance with H1D5, Performance Requirement H1P1 is satisfied for cavity brick unreinforced masonry if it is designed and constructed in accordance with (as applicable): + AS 3700; or + AS 4773.1 and AS 4773.2; or + ABCB Housing Provisions Part 5.3 Comment: Design Certification and supplementary design details are to be provided by the Architect / NER Structural Engineer / Builder with the Construction Certificate Application confirming that the masonry works will satisfy 1) AS 3700 or 2) AS 4773 or 3) ABCB Housing Provisions Section 5 (as applicable). Note: Refer to H2D4 and ABCB Housing Provisions Part 5.7 and 7.4 for compliance requirements regarding weatherproofing of masonry.
Part H1D6	Framing Provisions: In accordance with H1D6(1), Diagrams depicting framing members and associated terminology used to describe them are set out in Figures H1D6c, H1D6d and H1D6e, and in most cases are applicable for both steel and timber frame members. In accordance with H1D6(2), Terminology and spacing for structural steel members are set out in Tables H1D6a and H1D6b, and Figures H1D6a, H1D6b and H1D6f. Comment: Design Certification and supplementary design details are to be provided by the NER Structural Engineer with the Construction Certificate Application. Note: Refer to H2D5 and Housing Provisions 6.2 for compliance requirements regarding ventilation requirements associated with framing in particular sub-floor areas.
Part H1D6	Steel Framing Provisions: In accordance with H1D6(3), Performance Requirement H1P1 is satisfied for steel framing if it is designed and constructed in accordance with one of the following: + Residential and low-rise steel framing: - Design: NASH Standard 'Residential and Low-Rise Steel Framing' Part 1. - Design solutions: NASH Standard 'Residential and Low-Rise Steel Framing' Part 2. + Steel structures: AS 4100. + Cold-formed steel structures: AS/NZS 4600.

	Comment: Where steel framing is proposed, it is required to satisfy 1) NASH – Residential and Low-Rise Steel Framing – Part 1 & Part 2 Design Criteria; or 2) AS 4100; or 3) AS/NZS 4600. Details and design certification are to be provided by the Structural Engineer with the Construction Certificate Application this regard.
Part H1D6	Timber Framing Provisions: In accordance with H1D6(4), Performance Requirement H1P1 is satisfied for timber framing if it is designed and constructed in accordance with the following, as appropriate: + Design of timber structures: AS 1720.1. + Design of nail plated timber roof trusses: AS 1720.5. + Residential timber-framed construction – non-cyclonic areas: AS 1684.2 or AS 1684.4. + Residential timber-framed construction – cyclonic areas: AS 1684.3. + Installation of particleboard flooring: AS 1860.2. Comment: Where timber framing is proposed, it is required to satisfy AS 1720.1, AS 1720.5, AS 1684.2 and AS 1684.4, AS 1684.3, AS 1860.2 (as applicable). Depending on the BAL rating associated with each building there may be bushfire compliance matters with the use of timber. Bushfire Consultant to review and confirm if any timber framing is proposed. Design certification and details are to be provided by the Structural Engineer with the Construction Certificate Application this regard.
Part H1D6	Structural Steel Member Provisions: In accordance with H1D6(5), Performance Requirement H1P1 is satisfied for structural steel sections if they are designed and constructed in accordance with one of the following: + Steel structures: AS 4100. + Cold-formed steel structures: AS/NZS 4600. + For structural stability, strength and deflection, ABCB Housing Provisions Part 6.3 where the criteria under H1D6(6) are satisfied. + For corrosion protection, clause 6.3.9 of ABCB Housing Provisions Part 6.3 Comment: Where structural steel members are proposed, they are required to satisfy 1) AS 4100 or 2) AS 4600 or 3) ABCB Housing Provisions Section 6 (as applicable). Details and design certification are to be provided by the Structural Engineer with the Construction Certificate Application this regard.
Part H1D6	Structural Software Provisions: In accordance with H1D6(7), needs to satisfy the criteria under this clause including (but not limited to) the use of the ABCB Protocol for Structural Software by appropriately qualified individuals. Note: The requirements of H1D6(7)(a) do not apply to design software for individual frame members such as electronic tables similar to those provided in— AS 1684; or NASH Standard – Residential and Low-Rise Steel Framing, Part 2. Comment: Where structural steel members are proposed, they are required to satisfy 1) AS 4100 or 2) AS 4600 or 3) ABCB Housing Provisions Section 6 (as applicable). Details and design certification are to be provided by the Structural Engineer with the Construction Certificate Application this regard.
Part H1D7	Roof & Wall Cladding Provisions: In accordance with H1D7(1), Diagrams depicting relevant roofing and supporting members and associated terminology used to describe them are set out in Figure H1D7a and Figure H1D7b. Comment: Architect and/or Builder along with NER Structural/Flood/Civil/Stormwater Engineer to validate compliance with the Construction Certificate documentation regarding roof and wall cladding systems.
Part H1D7	Sheet Roof Provisions In accordance with H1D7(2), Performance Requirement H1P1 is satisfied for sheet roofing if it complies with one or a combination of the following: + Metal Roofing: AS 1562.1 and ABCB Housing Provisions Section 2; and

	+ Plastic Sheet Roofing: AS 1562.3, and + Metal Sheet Roofing: ABCB Housing Provisions Section 7 (subject to relevant criteria being met). Comment: Any proposed metal sheet roof cladding or plastic sheet roofing is required to satisfy the requirements of H1D7(2). Design details are to be provided by the Architect or Design Certification by the Builder with the Construction Certificate application verifying compliance. Note: Refer to H2D4 and ABCB Housing Provisions Part 5.7 and 7.4 for compliance requirements regarding weatherproofing of masonry.
Part H1D7	Sheet Tiles and Shingles Provisions: In accordance with H1D7(3), Performance Requirement H1P1 is satisfied for Sheet Tiles and Shingles cladding if it complies with one or a combination of the following: + Terracotta, fibre-cement and timber slates and shingles: AS 4597; and + For roof tiles: AS 2050, or ABCB Housing Provisions Section 7.3 (as applicable to the locality, pitch of roof and AS 2049 compliance). Comment: Any proposed Sheet Tiles and Shingles cladding is required to satisfy the requirements of H1D7(3). Design details are to be provided by the Architect or Design Certification by the Builder with the Construction Certificate application verifying compliance.
Part H1D7	Gutters and Downpipes Provisions: Gutters and downpipes are required to satisfy the requirements of ABCB Housing Provisions Part 7.4 and any Plumbing Code of Australia 2022, AS/NZS 3500.3-2021 and any Council or Water Authority requirements applicable to this site. Comment: Design details are to be provided by the Architect or Design Certification by the Builder with the Construction Certificate application verifying compliance.
Part H1D7	Timber and Composite Wall Cladding Provisions: In accordance with H1D7(4), Performance Requirement H1P1 is satisfied for Timber and Composite Wall Cladding if it designed and constructed in accordance with the following: + Autoclaved aerated concrete wall cladding: AS 5146.1; and + For wall cladding ABCB Housing Provisions Section 7.5 (as applicable). Comment: Any proposed wall cladding is to comply with H1D7(4). Design details are to be provided by the Architect or Design Certification by the Builder with the Construction Certificate application verifying compliance.
Part H1D8	Glazing Provisions: + In accordance with H1D8(1), Performance Requirement H1P1 is satisfied for glazing and windows if they are: - Designed and constructed in accordance with AS 2047 for glazed assemblies in an external wall including: • Windows, other than those listed in (2); and • Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame; and • Adjustable louvres; and • Window walls with one-piece framing; and - Installed such that they comply with: • AS 2047; and • ABCB Housing Provisions Part 8.2, (provided relevant criteria are met). + In accordance with H1D8(2), Performance Requirement H1P1 is satisfied for glazing in glazed assemblies if it: - Complies with ABCB Housing Provisions Part 8.3; or

- Is designed and constructed in accordance with AS 1288 for all glazed assemblies not covered by (1) and the following glazed assemblies:
 - All glazed assemblies not in an external wall.
 - Revolving doors.
 - Fixed louvres.
 - Skylights, roof lights and windows other than in the vertical plane.
 - Sliding and swinging doors without a frame.
 - Windows constructed on-site and architectural one-off windows, which are not design tested in accordance with AS 2047.
 - Second-hand windows, re-used windows and recycled windows.
 - Heritage windows.
 - Glazing used in balustrades and overhead glazing.
- + In accordance with H1D8(3), Performance Requirement H1P1 is satisfied for glazed assemblies at risk of human impact if they:
 - Are designed, constructed and installed in accordance with
 - For glass, AS 1288; and
 - For windows, AS 2047; or
 - Comply with ABCB Housing Provisions Part 8.4.

Comment: All glazing is required to satisfy the requirements of H1D8, AS 2047, AS 1288 and ABCB Housing Provisions Section 8 (as applicable).

Note: Housing Provisions 13.4.4 now adopts AS2047-2014 which incorporates amendments 1 and 2 of the standard.

Whilst tests carried out under earlier editions of AS2047 remain valid, Note 4 of NCC Schedule 2 requires that reports based on AS2047 relating to tests carried out after the NCC reference date of AS2047-2014 Amdt 2 must relate to the amended Standard.

Safety Glass is to be provided in accordance with the requirements of H1D8. For Seniors Living Developments we recommend Grade A Safety Glass to satisfy AS1288-2021.

Decals are to be provided on glass that is capable of being mistaken for a doorway.

Certification is to be provided by the Glazier on completion of the works and prior to occupation.

Part H1D9

Earthquake Areas Provisions: In accordance with H1D9, Performance Requirement H1P1 is satisfied for Class 1 and 10 buildings located in earthquake areas (subject to seismic activity) if the building is constructed in accordance with ABCB Housing Provisions Section 2 (as applicable).

Comment: Where relevant, NER Structural Engineer to determine prior finalising their Construction Certificate stage documentation and incorporate into the design where necessary.

Note: There are certain limitations on the application to domestic structures such as Class 1a and 1b buildings in Appendix A of AS 1170.4. These limitations include building height, roof slope, etc. For additional information refer to Appendix A of AS 1170.4.

Part H1D10

Flood Hazard Area Provisions: In accordance with H1D10, Performance Requirement H1P2 is satisfied for Class 1 buildings located in flood hazard areas if the building is constructed in accordance with ABCB Standard of Construction of Buildings in Flood Hazard Areas (as applicable).

Comment: Where relevant, NER Structural Engineer to determine prior finalising their Construction Certificate stage documentation and incorporate into the design where necessary.

Part H1D11

Attachment of framed decks & balconies to external walls of buildings using a waling plate Provisions: In accordance with H1D12, Performance Requirement H1P1 is satisfied for the attachment of a deck or balcony to an external wall if it complies with H1D11 and ABCB Housing Provisions Section 12.3 (as applicable).

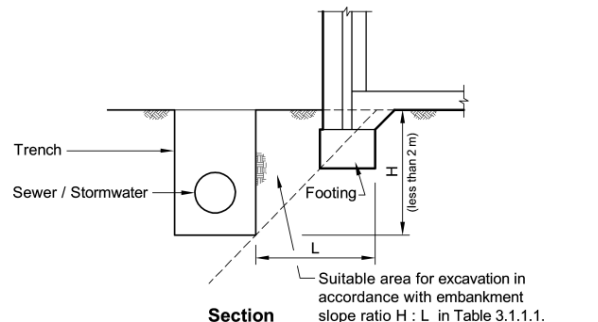
Provided the criteria under H1D11 is satisfied note that the total imposed load on the deck or balcony must not exceed 2 kPa unless validated by an NER Structural Engineer to satisfy ABCB Housing Provisions Section 2.2.

	Comment: Where relevant, NER Structural Engineer to determine prior finalising their Construction Certificate stage documentation and incorporate into the design where necessary. Note the 2 kPa imposed load is commensurate with domestic and residential activities associated with Class 1 buildings (e.g. dwellings with limited occupancy and restricted public access) and is not appropriate for applications where the deck or balcony supports heavy equipment, spa/bathing pools or circumstances where the deck or balcony is intended for community access (e.g. applications with a mid-high occupancy and possibility of public access).
Part H1D12	Piled Footings Provisions: In accordance with H1D12, Performance Requirement H1P1 is satisfied for piled footings if they are designed and installed in accordance with AS 2159. Comment: Where relevant, NER Structural Engineer to determine prior finalising their Construction Certificate stage documentation and incorporate into the design where necessary.

3.2 Section H2 – Damp & Weatherproofing Provisions

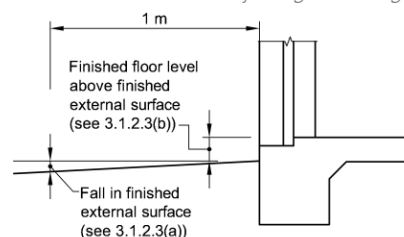
Part H2D1	Deemed-to-Satisfy Provisions: In accordance with H2D1(1), (2) and (3): + Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements H2P1 to H2P3 are satisfied by complying with H2D2 to H2D8. + Performance Requirement H2P4 must be complied with. + Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable. Note: There are no Deemed-to-Satisfy Provisions for H2P4 where Drainage is provided from swimming pools. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application confirming that the roof and wall cladding (and associated stormwater drainage) to satisfy 1) AS 3500, and/or 2) ABCB Housing Provisions Part 5.7 and 7.4 (as applicable). The NER Civil/Stormwater Engineer should validate the above design documentation to ensure compliance with H2D2 and H2D4. Note: Whilst H2D2 to H2D8 also contain design obligations relating to the Architect and/or Builder, these design components can affect the stormwater drainage design hence the NER Civil/Structural Engineer should also be validating these design documents.
Part H2D2	Drainage Provisions: In accordance with H2D2, Performance Requirement H2P1 is satisfied where drainage is designed and constructed in accordance with (as applicable): + AS/NZS 3500.3; or + Provided the stormwater drainage system otherwise complies with (a), ABCB Housing Provisions Part 3.3 (as applicable) for drainage of: + Roofs in areas subject to 5-minute duration rainfall intensities of not more than 255 mm per hour over an annual exceedance probability of 5% (as per Table 7.4.3d of the ABCB Housing Provisions) where a drainage system is required; and + Sub-soil areas where excessive soil moisture problems may occur; and + Land adjoining and under buildings. Note: It is incumbent on the Local Government Authority / Consent Authority (or Council) to provide requirements under the Development Consent with regards to legal discharge of drainage systems and/or requirement for easements (or other legal acknowledgments) in association with drainage systems. Comment: Where relevant, NER Civil/Stormwater/Structural Engineer to determine prior finalising their Construction Certificate stage documentation and incorporate into the design where necessary. This includes (but is not limited to):

- + Stormwater drainage design is to satisfy the Plumbing Code of Australia 2022, AS/NZS 3500.3-2021 and any Council or Water Authority requirements applicable to this site.
- + In addition, details are to be provided confirming how site drainage is to be provided to protect footings from subsoil water and how surface water will be diverted away from this Class 1a dwelling.
- + H2D2 requires a difference in vertically abutting surfaces where a slab-on-ground interfaces with an external finished surface. Depending on the rainfall intensity of the area or the impervious nature of the external finished surface the finished slab height may accessible nature of pathways around the dwelling and at door thresholds.
- + The following excerpts from the Housing Provisions Part 3.2.3 are provided with regards to excavation for drains adjacent to footings details:



Note: Any excavation below the area defined as being safe for excavation will need additional protection measures to be determined by appropriately qualified persons.

Excavation for drains adjoining to footings



Section
Site Surface drainage

- + Stormwater drainage design is to satisfy ABCB Housing Provisions Part 3.3 (as applicable); and
- + The proposed development must not affect the hydraulic performance (or surface water drainage) of the existing parts of the site in proximity to the new works.

Part H2D3

Footings and Slabs Provisions: In accordance with H2D3, Performance Requirement H2P3 is satisfied for footings and slabs if they are designed and installed in accordance with H1D4(1) (a) or (b).

Comment: Architect and NER Structural Engineer to validate compliance with the Construction Certificate documentation.

Part H2D4

Masonry Provisions: In accordance with H2D4, Performance Requirement H2P2 and H2P3 is satisfied for weatherproofing of masonry if it is carried out in accordance with the appropriate provisions of one of the following:

- + AS 3700;
- + AS 4773.1 and AS 4773.2;
- + ABCB Housing Provisions Part 5.7 provided masonry walls are constructed in accordance with H1D5 and the requirements of Part 5.7.

Note: H2D4(2) applies to every external wall (including the junction between the wall and any window or door) of a Class 1 building; and does not apply to any Class 10 building except where its construction contributes to the weatherproofing of the Class 1 building.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application confirming that the masonry works and

	weatherproofing satisfy 1) AS 3700, and/or 2) AS 4773 and/or ABCB Housing Provisions Part 5.7 (as applicable).
Part H2D5	Sub-Floor Ventilation Provisions: In accordance with H2D5, Performance Requirement H2P3 is satisfied for sub-floor ventilation if it is in accordance with ABCB Housing Provisions Part 6.2. Note: Part 6.2 applies to the sub-floor space of all suspended floors of a building or deck, including but not limited to, timber and steel-framed subfloors and suspended concrete slabs. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application confirming that any sub-floor ventilation will satisfy ABCB Housing Provisions Part 6.2 (as applicable). This will likely not be applicable for slab-on-ground construction with no sub-floor areas.
Part H2D6	Roof & Wall Cladding Provisions: + In accordance with H2D6(1), Performance Requirement H2P1 is satisfied for gutters and downpipes if they are designed and constructed in accordance with one of the following: - Subject to (2), AS/NZS 3500.3. - Subject to (2) and (3), ABCB Housing Provisions Part 7.4. - Note: In accordance with H2D6(2), the requirements of (1) do not apply to the removal of surface water from a storm having an annual exceedance probability of 1% for a Class 10 building where in the particular case there is no necessity for compliance. + In accordance with H2D6(3), ABCB Housing Provisions Part 7.4: - May only be used provided the roof drainage system is connected to a stormwater drainage system that complies with H2D2; and - Excludes box gutters. + In accordance with H2D6(4), Performance Requirement H2P2 is satisfied for roof and wall cladding if it is in accordance with H1D7(2), (3), (4) or (5) as appropriate. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application confirming that the roof and wall cladding (and associated stormwater drainage) to satisfy 1) AS 3500, and/or 2) ABCB Housing Provisions Part 7.4 (as applicable). The NER Civil/Stormwater Engineer should validate the above design documentation to ensure compliance with H2D2 and H2D4. Note: Whilst H2D2 to H2D8 also contain design obligations relating to the Architect and/or Builder, these design components can affect the stormwater drainage design hence the NER Civil/Structural Engineer should also be validating these design documents.
Part H2D7	Glazing Provisions: In accordance with H2D7, Performance Requirement H2P2 is satisfied for weatherproofing for glazing if it is designed and installed in accordance with H1D8(1). Note: When satisfying Performance Requirement H2P2, H1D8(1) only references AS 2047 for windows. If AS 1288 is used for glazing in an external wall, it is still necessary to satisfy H2P2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application confirming that the roof and wall cladding (and associated stormwater drainage) to satisfy H1D8(1).
Part H2D8	External Waterproofing Provisions: + In accordance with H2D8(1), Performance Requirement H2P2 is satisfied for the design and construction of external waterproofing for roofing systems on flat roofs, roof terraces, balconies and terraces and other similar horizontal surfaces located above internal spaces of a building provided: - Membranes used in the external waterproofing system comply with AS 4654.1; and - The design and installation of the external waterproofing system is in accordance with AS 4654.2. + In accordance with H2D8(2), the requirements of (1) apply to:

- Roofing systems other than those complying with H1D7(2) and (3); and
- Terraces, balconies and the like other than:
 - A concrete slab that has a minimum step-down of 50 mm below the internal floor level; or
 - A suspended concrete slab:
 - Where the subfloor space is not used for habitable or non-habitable purposes; and
 - That has a minimum step-down of 50 mm below the internal floor level; or
 - Spaced decking in conjunction with framing members that are suitable for external use.

Note 1: The design of occupiable roof-top spaces, decks, balconies, particularly where located over internal spaces of a building, can be susceptible to potential for water ingress into a building and causing damage. Therefore, careful consideration should be given to the design, construction and the materials used to minimise the potential for water ingress to spaces below.

Note 2: H2D8 prescribes external waterproofing requirements for buildings, and references AS 4654 Parts 1 and 2 that provide solutions for liquid and/or sheet membrane roofing systems on flat roofs, roof terraces, balconies and terraces located over habitable rooms. The term flat roof is commonly used to describe a near flat roof with enough pitch to provide drainage for rainwater.

Note 3: AS 4654.1 sets out the requirements for materials forming part of a waterproofing system and AS 4654.2 sets out design and construction/installation requirements.

A Performance Solution in accordance with A2G2 would need to be provided for other types of external waterproofing materials and designs.

Comment: There do not appear to be any proposed roofing systems on flat roofs, roof terraces, balconies and terraces and other similar horizontal surfaces located above internal spaces of a building.

Notwithstanding, H2D4 weatherproofing of external wall systems may still require treatments at doorsets to mitigate water ingress into the building.

3.3 Section H3 – Fire Safety Provisions

H3D1

Deemed-to-Satisfy Provisions: In accordance with H3D1(1), where a Deemed-to-Satisfy Solution is proposed, Performance Requirements H3P1 and H3P2 are satisfied by complying with H3D2 to H3D6.

In accordance with H3D1(2), where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D1.

H3D2

Fire hazard properties and non-combustible building element Provisions: In accordance with H3D2(1) the following materials, though combustible or containing combustible fibres, may be used wherever a non-combustible material is required in the Housing Provisions—

- + plasterboard; and
- + perforated gypsum lath with a normal paper finish; and
- + fibrous-plaster sheet; and
- + fibre-reinforced cement sheeting; and
- + pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thick and where the Spread-of-Flame Index of the product is not more than 0; and
- + sarking-type materials that do not exceed 1 mm in thickness and have a flammability index not greater than 5.
- + bonded laminated materials where—

	- each laminate including the core is non-combustible; and - each adhesive layer is not more than 1 mm in thickness; and the total thickness of adhesive layers is not more than 2mm; and - the Spread-of-Flame Index and the Smoke-Developed Index of the laminated material as a whole does not exceed 0 and 3 respectively. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D2. Bushfire Consultant is to review the latest design and determine if the site is deemed to be within a Bushfire Prone Area in line with H7D4 (NSW Amdt 2). Compliance with bushfire requirements may inform the design which can exceed the minimum requirements under H3D2 for fire hazard properties, fire resisting construction etc.
H3D2	Fire hazard property Provisions: In accordance with H3D2(2) the hazard properties of materials used in a Class 1 building, including floor or ceiling spaces common with a Class 10 building, must comply with the following: + Sarking-type materials used in the roof must have a flammability index not greater than 5. + Flexible ductwork used for the transfer of products initiating from a heat source that contains a flame must comply with the fire hazard properties set out in AS 4254 Parts 1 and 2 Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D2. Bushfire Consultant is to review the latest design and determine if the site is deemed to be within a Bushfire Prone Area in line with H7D4 (NSW Amdt 2). Compliance with bushfire requirements may inform the design which can exceed the minimum requirements under H3D2 for fire hazard properties, fire resisting construction etc.
H3D3	Fire separation of external wall Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3. + An external wall of a Class 1 building, and any openings in that wall, must comply with ABCB Housing Provisions Part 9.2.3 if the wall is less than— + 900mm from an allotment boundary other than the boundary adjoining a road alignment or other public space; or + 1.8m from another building on the same allotment other than an appurtenant Class 10 building or a detached part of the same Class 1 building. Class 1a villas are to be setback 1.8m from other villas or 900mm setback from side/rear allotment boundaries. Where villas are within 1.8m of other villas the encroachments must be permissible as per ABCB Housing Provisions Part 9.2.9. Where the exposure is a garage/carport to another garage/carport ABCB Housing Provisions Part 9.2.7e and 9.2.7f provide solutions which include the provisions of a 60/60/60 FRL fire resisting wall (as required).
H3D3	Measurement of Distances Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Note. + The distance from any point on an external wall of a building to an allotment boundary or another building is the distance to that point measured along a line at right angles from the allotment boundary or external wall of the other building which intersects that point without being obstructed by a wall complying with ABCB Housing Provisions Part 9.2.3. + Where a wall within a specified distance is required to be constructed in a certain manner, only that part of the wall (including any openings) within the specified distance need be constructed in that manner.

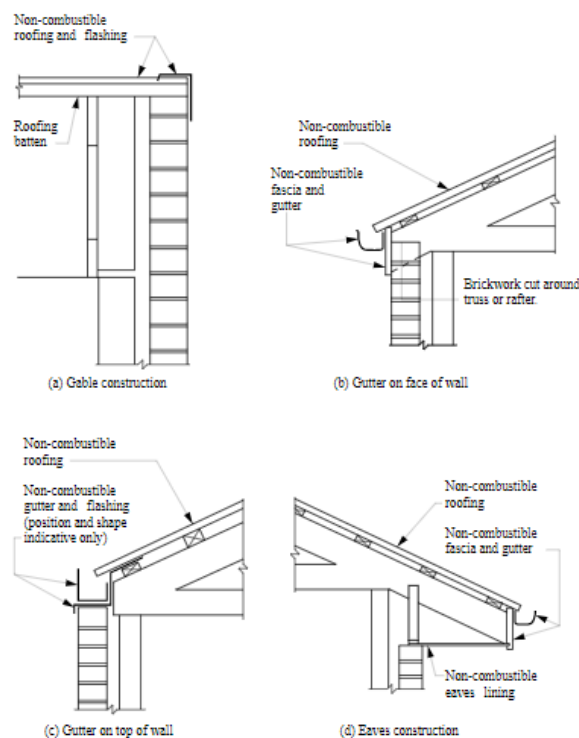
H3D3

- + Where the distance measured is between buildings of different heights, the distance must be taken from the external wall with the highest elevation measured at right angles to a point that intersects a vertical projection above the adjacent wall.

Construction of external wall Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3.

- + An external wall (including a gable) required to be fire-resisting (referred to in 9.2.1 or 9.2.4) must:
 - Commence at the footings or ground slab, except where the external wall commences above a separating wall complying with 9.3.1 (see Figure 9.2.2e); and
 - Extend to:
 - The underside of a non-combustible roof covering, except that a wall may terminate not more than 200 mm from the underside of a non-combustible roof covering, where the area between the external wall and underside of the roof covering is sealed with a non-combustible fascia, gutter or flashing;
 - The underside of a non-combustible eaves lining (See Figures 9.2.3a and b); and
 - Be constructed in accordance with (2).

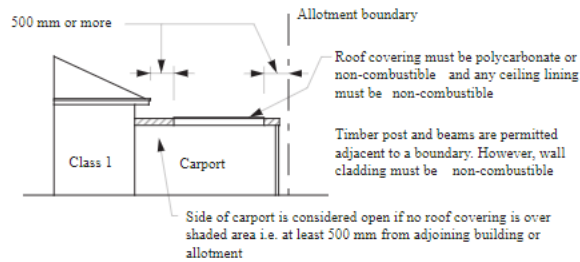


Typical Construction of External Walls

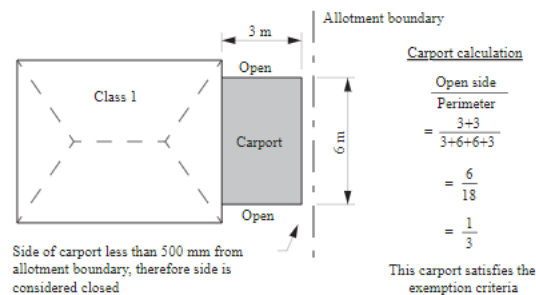
- + A wall required by (1) must:
 - Have an FRL of not less than 60/60/60 when tested from the outside; or
 - Be of masonry-veneer construction in which the external masonry veneer is not less than 90 mm thick; or
 - Be of masonry construction not less than 90 mm thick.
- + Openings in external walls required to be fire-resisting (referred to in 9.2.1 or 9.2.4) must be protected by:
 - Non-openable fire windows or other construction with an FRL of not less than –/60/–; or
 - Self-closing solid core doors not less than 35 mm thick.

	+ The requirements of (3) do not apply to a window in a non-habitable room that is located adjacent to and not less than 600 mm from the boundary of an adjoining allotment or 1.2 m from another building on the same allotment provided that: - In a bathroom, laundry or toilet, the opening has an area of not more than 1.2 m²; or - In a room other than one referred to in (a), the opening has an area of not more than 0.54 m² and: • The window is steel-framed, there are no opening sashes and it is glazed in wired glass; or • The opening is enclosed with translucent hollow glass blocks. - Subfloor vents, roof vents, weepholes, control joints, construction joints and penetrations for pipes, conduits and the like need not comply with (3).
H3D3	Class 10a buildings Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3. + A Class 1 building must be protected by a method in: - 9.2.5 where a Class 10a building is located between or adjacent to a Class 1 building and a boundary alignment that is not a boundary with a road alignment or other public space; or - 9.2.6 where a Class 10a building is located between or adjacent to a Class 1 building it is associated with and another building on the same allotment; or - 9.2.7 where two or more Class 10a buildings on the same allotment are located between and are associated with different Class 1 buildings. + A Class 10a building must not significantly increase the risk of spread of fire between Class 2 to 9 buildings.
H3D3	Protection of Class 1 buildings - Class 10a between Class 1 and the allotment boundary Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3. + The following methods are acceptable for the protection of a Class 1 building where a Class 10a building is located between or adjacent to a Class 1 building and a boundary alignment that is not a boundary with a road alignment or other public space: + The Class 10a building is not less than 900 mm from the allotment boundary, other than the boundary adjoining a road alignment or other public space, as shown in Figure 9.2.5a. + An external wall of the Class 10a building which is less than 900 mm from an allotment boundary, other than the boundary adjoining a road alignment or other public space, complies with 9.2.3 as shown in Figure 9.2.5b. + An external wall of the Class 10a building, which is less than 900 mm from the Class 1 building, complies with 9.2.3 as shown in Figure 9.2.5c. + The Class 1 building is not less than 900 mm from the Class 10a building, as shown in Figure 9.2.5d. + An external wall of the Class 1 building, which is less than 900 mm from the Class 10a building, complies with 9.2.3, as shown in Figure 9.2.5e. + An external wall of the Class 10a building which is less than 900 mm from an allotment boundary other than the boundary adjoining a road alignment or other public space, complies with 9.2.3, as shown in Figure 9.2.5f. + An external wall of the Class 10a building, which is less than 900 mm from the external wall of the Class 1 building, complies with 9.2.3, as shown in Figure 9.2.5g.

	+ An external wall of the Class 1 building, which is less than 900 mm from a Class 10a building that is situated less than 900 mm from an allotment boundary, complies with 9.2.3, as shown in Figure 9.2.5h. + The external wall of the Class 1 and Class 10a building which are less than 900 mm from an allotment boundary, other than the boundary adjoining a road alignment or other public space, complies with 9.2.3 as shown in Figure 9.2.5i.
H3D3	Protection of Class 1 buildings - Class 10a between Class 1 and other buildings on the allotment Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3. + The following methods are acceptable for the protection of a Class 1 building where a Class 10a building is located between or adjacent to a Class 1 building it is associated with and another building on the same allotment: + The Class 10a building is not less than 1.8 m from the other building, as shown in Figure 9.2.6a. + An external wall of the Class 10a building, which is less than 1.8 m from the other building, complies with 9.2.3, as shown in Figure 9.2.6b. + An external wall of the Class 10a building, which is less than 1.8 m from the Class 1 building, complies with 9.2.3, as shown in Figure 9.2.6c. + The Class 1 building is not less than 1.8 m from the Class 10a building, as shown in Figure 9.2.6d. + An external wall of the Class 1 building, which is less than 1.8 m from the Class 10a building, complies with 9.2.3, as shown in Figure 9.2.6e. + An external wall of the Class 10a building, which is less than 1.8 m from the external wall of the other building, complies with 9.2.3, as shown in Figure 9.2.6f. + An external wall of the Class 10a building, which is less than 1.8 m from the external wall of the Class 1 building, complies with 9.2.3, as shown in Figure 9.2.6g. + An external wall of the Class 1 and 10a building, which is less than 1.8 m from the external wall of the other building, complies with 9.2.3, as shown in Figure 9.2.6h.
H3D3	Open Carport Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2. Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3. A Class 10a carport is exempt from complying with 9.2.4(1) if: - It has two or more sides open and not less than one third of its perimeter open; and - For the purposes of (a), a side is considered to be open if the roof covering adjacent to that side is not less than 500 mm from another building or allotment boundary; and - It has a polycarbonate or non-combustible roof covering; and - Any ceiling lining and wall cladding, including gables, is non-combustible (see Figure 9.2.8a); and - It does not provide direct vertical support to any part of the Class 1 building; and - In the case where it has a common roof structure with the Class 1 building and the carport does not have a ceiling (See Figure 9.2.8b), the opening between the top of the wall of the Class 1 building and the underside of the roof covering is infilled with: - A non-combustible material; or - Construction clad with non-combustible material on the carport side.

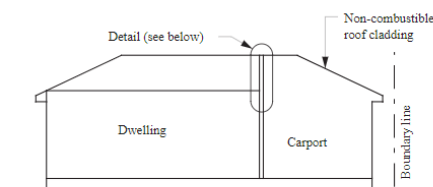


(a) Example A

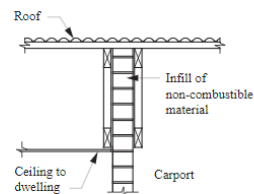


(b) Example B

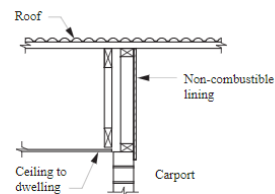
Identifying an open carport



(a) Elevation



(b) Detail - option 1



(c) Detail - option 2

Requirements for non-combustible infill panels to carport

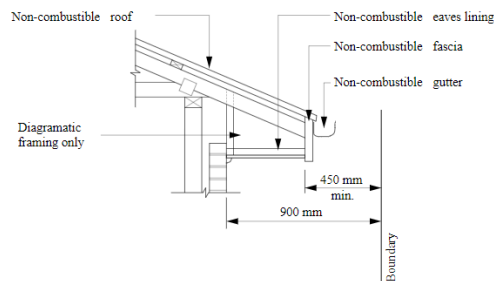
H3D3

Allowable Encroachments: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3.

- (a) An encroachment is any construction between:
- (i) the external wall of the building and the allotment boundary other than a boundary adjoining a road or other public space, or
 - (ii) the external walls of two buildings on the same allotment and relates to any external wall of a Class 1 building.
 - (iii) the external wall of the building and the vertical projection of an adjoining building on the same allotment.
- (b) The encroachments allowed within 900 mm of an allotment boundary or within 1.8m of another building on the same allotment are—
- (i) non-combustible fascias, gutters and downpipes; and
 - (ii) light fittings, electricity or gas meters, aerals or antennas; and
 - (iii) pergolas, sun blinds or water tanks; and

- (iv) unroofed terraces, landings, steps and ramps, not more than 1m in height.
- (c) Encroachments listed in (b)(i), if combustible, (b)(ii) and (b)(iii) must not be built within 450 mm of an allotment boundary nor be built within 900 mm of the external wall or associated encroachments of another building on the same allotment (see Figure below derived from ABCB Housing Provisions Part 9.2.9).



Allowable encroachments for non-combustible construction

H3D3

Roof Light Provisions: In accordance H3D3, Performance Requirement H3P1 is satisfied for fire separation of external walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.2.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D3.

Combustible roof lights, skylights or the like installed in a roof or part of a roof required to have a non-combustible covering must—

- (a) have an aggregate area not more than 20% of the roof or part of the roof; and
- (b) be not less than—
 - (i) 900 mm from—
 - (A) the allotment boundary other than the boundary adjoining a road alignment or other public space; and
 - (B) the vertical projection of a separating wall extending to the underside of the roof covering; and
 - (ii) 1.8 m from any roof light or the like in another building on the allotment other than an appurtenant building or a detached part of the same building.

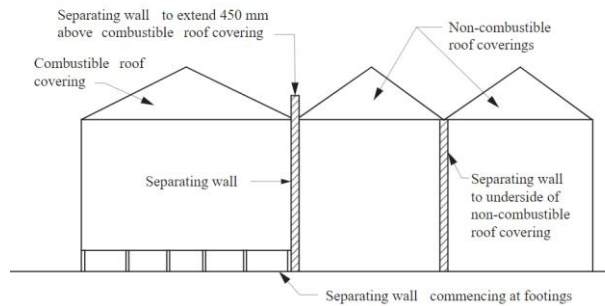
H3D4

Separating Wall Provisions: In accordance H3D4, Performance Requirement H3P1 is satisfied for fire protection of separating walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.3.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D4.

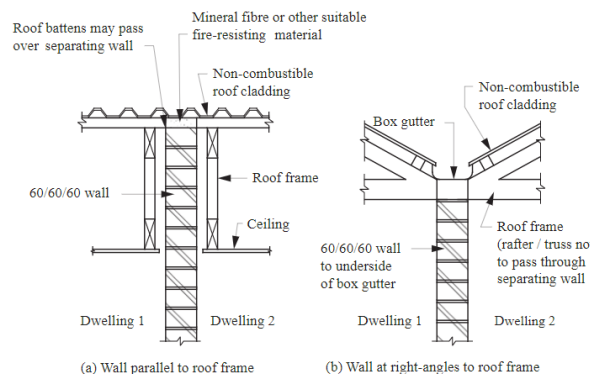
This includes (but is not limited to) consideration of the following:

- (a) The separating walls between the proposed dwellings, must have an FRL of not less than 60/60/60 or be of masonry construction not less than 90mm thick and—
 - (i) commence at the footings or ground slab; and
 - (ii) extend—
 - (A) if the building has a non-combustible roof covering, to the underside of the roof covering; or
 - (B) if the building has a combustible roof covering, to not less than 450mm above the roof covering.

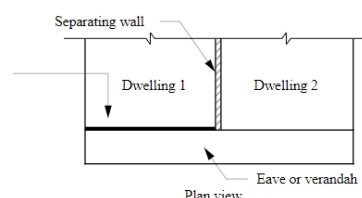


Separating wall construction

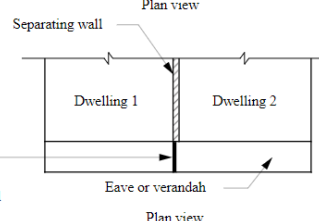
- (b) A separating wall of lightweight construction must be tested in accordance with Specification 6 of the BCA.
- Fire resistance of proposed building elements are to comply with BCA Specification 1 e.g. lightweight construction to be implemented onsite commensurate to a tested prototype which achieves the relevant FRL; in this regard product data sheets and/or test reports are to be provided for any lightweight systems before implementation during construction.
- (c) A separating wall complying with (a)(ii)(A)—
- (i) must not be crossed by timber or other combustable building elements except for roof battens with dimensions of 75 x 50 mm or less, or roof sarking; and
 - (ii) must have any gap between the top of the wall and the underside of the roof covering packed with mineral fibre or other suitable fire-resisting material.
- (d) Where a building has a masonry veneer external wall, any gap between the separating wall and the external masonry veneer must be—
- (i) not more than 50 mm; and
 - (ii) packed with a mineral fibre or other suitable fire-resistant material with the packing arranged to maintain any weatherproofing requirements of H2D4.
- (e) Eaves, verandas and similar spaces that are open to the roof space and are common to more than one Class 1 dwelling must be separated by a non-combustible vertical lining (see Diagram b).



OPTION 1 Non-combustible vertical lining installed between roof space of one Class 1 and the common eaves or verandah space



OPTION 2 Non-combustible vertical lining installed in common eaves or verandah space



Note: The non-combustible vertical lining need only be installed on one side of a rafter, truss or supporting framework, provided that it forms a continuous barrier with the separating wall

Separating wall construction

Trusses or roof elements may sit on wall framing (independent of the fire resisting wall) or roof elements affixed to the fire resisting wall provided that the fire resisting wall not be compromised and brought down should one side become fire affected and the roof collapse; structural engineering advice will be required in this regard at Construction Certificate stage.

The fire resisting wall is to continue into the cavity or a suitable tested system be utilised to ensure that the necessary fires resisting and weatherproofing properties are achieved in the cavity space.

Details verifying compliance are to be provided with the Construction Certificate application.

Certification will be required with the Occupation Certificate application verifying the performance of fire-resisting separating walls to verify compliance with the above. Continuity of internal separating walls between dwellings or villas must be achieved and extended into roof space, concealed areas, eaves areas etc.

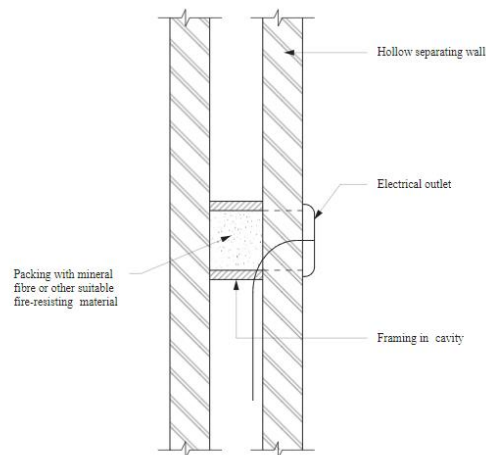
H3D4

Services in Separating Wall Provisions: In accordance H3D4, Performance Requirement H3P1 is satisfied for fire protection of separating walls if they are designed and installed in accordance with ABCB Housing Provisions Part 9.3.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D4.

This includes (but is not limited to) consideration of the following:

- (a) Any service opening, other than those listed in (a), (b) and (c), in a separating wall must have construction with an FRL of not less than -/60/60.
- (b) If an electrical wire or cable penetrates a separating wall—
 - (i) the service and building element at the penetration must be identical with a prototype assembly which has been tested in accordance with AS 4072.1 and AS 1530.4 and achieved an FRL of not less than -/60/60; or
 - (ii) the service must be installed so that—
 - (A) the opening is neatly formed, cut or drilled and no closer than 50 mm to any other service; and
 - (B) the opening is no larger in cross-section than—
 - (aa) 2,000mm² if only a single cable is accommodated and the gap between the cable and the wall is no wider than 15 mm; or
 - (bb) 500mm² in any other case; and
 - (C) any gap between the service and the wall is packed with mineral fibre or other suitable fire-resistant material.
- (c) If an electrical switch, outlet, socket or the like is accommodated in a separating wall—
 - (i) the service and building element at the penetration must be identical with a prototype assembly which has been tested in accordance with AS 4072.1 and AS 1530.4 and achieved an FRL of not less than -/60/60; or
 - (ii) the service must be installed so that—
 - (A) the opening or recess must not—
 - (aa) be located opposite any point within 300 mm horizontally or 600 mm vertically of any opening or recess on the opposite side of the wall; or
 - (bb) extend beyond half the thickness of the wall; and
 - (B) any gap between the service and the wall is packed with mineral fibre or other suitable fire-resistant material.
- (d) Other than where a tested system is used in accordance with (c)(i), if an electrical switch, socket, outlet or the like is accommodated in a hollow separating wall (such as a stud wall, masonry cavity wall or a wall of hollow blockwork), the cavity immediately behind the service must be framed and packed with mineral fibre or other suitable fire-resistant material (see Diagram c below).



Services in Separating walls

Note: NCC 2022 adopts AS1530.4-2014 therefore products tested to AS1530.4-2005 are not permissible.

Details verifying compliance are to be provided with the Construction Certificate application.

Certification will be required with the Occupation Certificate application verifying the performance of fire-resisting separating wall services penetrations to verify compliance with the above.

H3D6

Smoke alarm Provisions: In accordance H3D6, compliance with Part 9.5 of the ABCB Housing Provisions satisfies Performance Requirement H3P2 for smoke alarms and evacuation lighting. For the purposes of (1), a Class 1 building includes a Class 10a private garage located above or below the Class 1 building.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D6.

- + Smoke alarms must
 - be located in
 - a Class 1a building in accordance with 9.5.2 and 9.5.4; and
 - comply with AS 3786, except that in a Class 10a private garage where the use of the area is likely to result in smoke alarms causing spurious signals, any other alarm deemed suitable in accordance with AS 1670.1 may be installed provided that smoke alarms complying with AS 3786 are installed elsewhere in the Class 1 building; and
 - be powered from the consumer mains source where a consumer mains source is supplied to the building; and
 - be interconnected where there is more than one alarm.
- + In a Class 1a building, smoke alarms must be located in
 - any storey containing bedrooms, every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and
 - each other storey not containing bedrooms.
- + Smoke alarms required by 9.5.2 and 9.5.3 must be installed on or near the ceiling, in accordance with the following:
 - Where a smoke alarm is located on the ceiling it must be
 - a minimum of 300 mm away from the corner junction of the wall and ceiling; and
 - between 500 mm and 1500 mm away from the high point and apexes of the ceiling, if the room has a sloping ceiling.
 - Where the above is not possible, the smoke alarm may be installed on the wall, and located a minimum of 300 mm and a maximum of 500 mm off the ceiling at the junction with the wall.

Smoke alarms implemented to AS3786 are to be located intermittent of kitchens and all bedrooms. Where a kitchen is located intermittent of two bedrooms then more than one smoke alarm is required to ensure compliance is achieved as per diagram b. above.

Note: BCA identifies that, in order to reduce the likelihood of nuisance alarms, the smoke alarm should not be located near cooking appliances and bathrooms. However, if it is necessary to locate alarms in these positions, an ionisation type alarm is more suitable near bathrooms, while a photoelectric alarm may be used near cooking appliances.

H3D6

Location – Class 1a Buildings Provisions: In accordance with H3D6(1) and (2):

- (1) Compliance with ABCB Housing Provisions Part 9.5 satisfies Performance Requirement H3P2 for smoke alarms and evacuation lighting.
- (2) For the purposes of (1), a Class 1 building includes a Class 10a private garage located above or below the Class 1 building.

Note: When deciding on the position of smoke alarms it is important to remember that they are intended to detect smoke before it reaches the sleeping occupants of a building. The ensuing alarm is designed to wake the occupants and give them time to evacuate the building.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D6.

Licensed Electrical Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H3D6. This includes (but is not limited to) consideration of the following:

Smoke alarms must be installed in a Class 1a building on or near the ceiling in—

- (a) any storey containing bedrooms, every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and
- (b) Each other storey not containing bedrooms.

LOCATION OF SMOKE ALARM

Legend: ● Smoke alarm

☐ Smoke alarm with evacuation lighting (as required by 3.7.2.5(b)(i))

Diagram a. Class 1a buildings

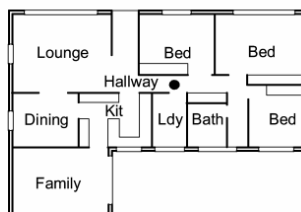
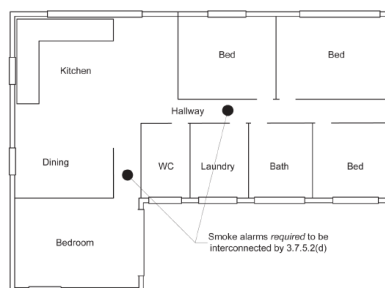
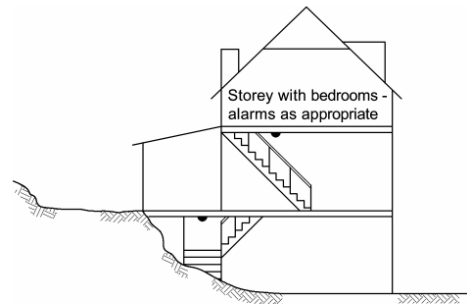


Diagram b Class 1a building where bedrooms are located in separate areas



LOCATION OF SMOKE ALARMS ON DIFFERENT STOREYS



(a) Smoke alarms installed on each storey not containing bedrooms — located in the area of the stairway

Smoke alarm locations

Smoke alarms implemented to AS3786 are to be located intermittent of kitchens and all bedrooms.

Where a kitchen is located intermittent of two bedrooms then more than one smoke alarm is required to ensure compliance is achieved as per diagram b. above.

Note: BCA identifies that, in order to reduce the likelihood of nuisance alarms, the smoke alarm should not be located near cooking appliances and bathrooms. However, if it is necessary to locate alarms in these positions, an ionisation type alarm is more suitable near bathrooms, while a photoelectric alarm may be used near cooking appliances.

3.4 Section H4 – Health & Amenity Requirements

H4D2

Wet Area Waterproofing: In accordance with H4D2, compliance with AS 3740 or Part 10.2 of the ABCB Housing Provisions satisfies Performance Requirement H4P1 for wet areas provided the wet areas are protected in accordance with the appropriate requirements of the ABCB Housing Provisions 10.2.1 to 10.2.6 and 10.2.12.

Comment: Licenced Waterproofing Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D2 and ABCB Housing Provisions 10.2.1-10.2.32.

In accordance with H4D2 compliance with AS 3740-2021 or ABCB Housing Provisions Part 10.2 will satisfy Performance Requirement H4P1 for wet areas provided the wet areas are protected in accordance with the appropriate requirements of 10.2.1 to 10.2.6 and 10.2.12 of the ABCB Housing Provisions.

All wet areas (including laundry areas) within the proposed building are to be waterproof or water resistant (where applicable) in accordance with H4D2 and AS 3740-2021.

Note: Cl. 10.2.12 of the ABCB Livable Housing Standards requires appropriate grades to wastes within wet area floors i.e. where a floor waste is installed the minimum continuous fall of a floor plane to the waste must be 1:80; and the maximum continuous fall of a floor plane to the waste must be 1:50.

Design statement to be provided at the Construction Certificate stage and details verifying compliance to be provided in the project specification.

Certification will be required from the installer prior to the issue of the Completion Certificate to ensure suitability of the products implemented in accordance with this part.

Vessels or area where the fixture is installed Shower area (enclosed and unenclosed)	Floors and horizontal surfaces	Walls	Wall junctions and joints	Wall / floor junctions	Penetrations
With hob	Waterproof floor in shower area (including any hob or step-down).	(a) Waterproof all walls in shower area to a height the greater of— (i) not less than 150 mm above floor substrate; or (ii) not less than 25 mm above maximum retained water level; and	Waterproof wall junctions within shower area.	Waterproof wall / floor junctions within shower area.	Waterproof penetrations in shower area.
With step-down		(b) Water resistant walls in shower area to not less than 1800 mm above finished floor level of the shower.			
Without hob or step-down		Water resistant walls in shower area to not less than 1800 mm above finished floor level of the shower.			
With preformed shower base	N/A	Water resistant walls in shower area to not less than 1800 mm above finished floor level of the shower.	Waterproof wall junctions within shower area.	Waterproof wall / floor junctions within shower area.	Waterproof penetrations in shower area.
Area outside shower area					
For concrete and compressed fibre-cement sheet flooring	Water resistant floor of the room.	N/A	N/A	Waterproof wall / floor junctions	N/A
For timber floors including particleboard, plywood and other timber based flooring materials	Waterproof floor of the room.				
Areas adjacent to baths and spas					
For concrete and compressed fibre-cement sheet flooring	Water resistant floor of the room.	(a) Water resistant to a height of not less than 150 mm above the vessel, for the extent of the vessel, where the vessel is within 75 mm of a wall.	Water resistant junctions within 150 mm above a vessel for the extent of the vessel.	Water resistant wall / floor junctions for the extent of the vessel.	Waterproof tap and spout penetrations which occur in horizontal surfaces.
For timber floors including particleboard, plywood and other timber based flooring materials	Waterproof floor of the room.	(b) Water resistant all exposed surfaces below vessel lip.			
Inserted baths and spas	Waterproof shelf area, incorporating waterstop under the bath lip.	(a) Waterproof to not less than 150 mm above lip of bath or spa; and	(a) Waterproof junctions within 150 mm above bath or spa; and	N/A	Waterproof tap and spout penetrations which occur in horizontal surfaces.
	(b) No requirement under bath.	(b) No requirement under bath.	(b) No requirement under bath.		
Note: Where a shower is above a bath or spa, use requirements for shower.					
Other areas					
Laundries and WCs	Water resistant floor of the room.	N/A	N/A	Waterproof wall / floor junctions.	Waterproof tap and spout penetrations which occur in surfaces required to be waterproof resistant.
Walls adjoining other vessels (e.g. sink, basin or laundry tub)	N/A	Water resistant to a height of not less than 150 mm above the vessel, for the extent of the vessel, where the vessel is within 75 mm of a wall.	Waterproof wall junctions where a vessel is fixed to a wall.	N/A	
Note: N/A means not applicable.					

Waterproofing of wet areas

H4D3

Materials and installation of Wet Area components and systems: In accordance with H4D3, Performance Requirement H4P1 is satisfied for materials and the installation of wet area components and systems if:

- + Building elements in wet areas are water resistant or waterproof in accordance with ABCB Housing Provisions clauses 10.2.1 to 10.2.6; and
- + Building elements in wet areas that comply with either:
 - AS 3740 and ABCB Housing Provisions clause 10.2.12; or
 - ABCB Housing Provisions 10.2.7 to 10.2.32.

Comment: Licensed Waterproofing Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D3.

Note: DDA fixtures and fittings for Seniors Living uses (e.g. T rails within shower areas) to be delivered within bathrooms initially as pre-adaptation measures to mitigate extensive re-work to implement them as post-adaptation measures.

H4D4

Room Heights: In accordance with H4D4, compliance with ABCB Housing Provisions Part 10.3 satisfies Performance Requirement H4P2 for room heights.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D4 and ABCB Housing Provisions Part 10.3.1.

Ceiling heights must be not less than—

- + In a habitable room excluding a kitchen — 2.4 m; and
- + In a kitchen — 2.1m; and
- + In a corridor, passageway or the like — 2.1m; and
- + In a bathroom, shower room, laundry, sanitary compartment, airlock, pantry, storeroom, garage, car parking area or the like — 2.1m.

The referenced plans show compliance with the above provisions.

H4D5

Facilities: In accordance with H4D5, compliance with ABCB Housing Provisions Part 10.4 satisfies Performance Requirement H4P3 for facilities.

Note 1: NCC Volume Three (Plumbing Code of Australia) contains a number of plumbing and drainage provisions which are relevant to facilities. These include, but may not be limited to, the following:

- + Access for maintenance of plumbing and drainage: Parts B1, B2, B3, C1 and C2.
- + Heated water temperature control for facilities used for personal hygiene: Part B2.
- + Installation of sanitary plumbing and drainage systems: Parts C1 and C2.

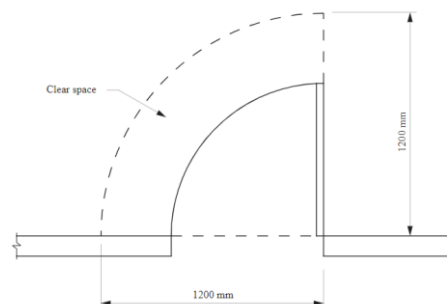
Note 2: Additional requirements relating to facilities for:

- + Seniors Living in a Class 1a and Class 10 building care contained in SEPP (Housing for Seniors or People with a Disability) 2004 (now known as SEPP Housing 2021)
- + People with a disability in Class 1b and Class 10a buildings are contained in NCC Volume One.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D5 and ABCB Housing Provisions Part 10.4.1-10.4.2.

This Class 1a dwelling is required to be provided with; a kitchen sink, facilities for preparing food, a bath or shower and clothes washing facilities comprising of at least one washtub and a space in the same room for a washing machine, and a closet pan and washbasin.

In addition, the door to a fully enclosed sanitary compartment must open outwards or slide or be readily openable from the outside of the compartment unless there is a clear space of at least 1.2m measured in accordance with the figure below.



Clearances for sanitary compartments

The referenced plans show that compliance is readily achievable with the above.

Note 1: Refer to comments under BASIX requirements will generally exceed these minimum F4D5 requirements.

Note 2: Heated water temperature control for facilities used for personal hygiene is a requirement of the Plumbing Code of Australia Part B2.

It is recommended that the heated water delivery temperature at the outlet of each sanitary fixture be reduced to 45°C under Safety-in-Design in lieu of 50°C due to the Seniors cohort (or vulnerable cohort) to satisfy the Plumbing Industry Technical Note 1/2013 Dated May 2021.

H4D6

Lighting: In accordance with H4D6, compliance with ABCB Housing Provisions Part 10.5 satisfies Performance Requirement H4P4 for lighting.

Comment: Natural light must be provided in a Class 1a building to all habitable rooms in accordance with ABCB Housing Provisions Part 10.5.1 i.e. Natural lighting must be provided by:

- + Windows, excluding roof lights that:
 - 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
 - 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
- + Roof lights that:
 - 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
 - Are open to the sky

In this regard, certification to be provided by the Architect with the Construction Certificate application verifying compliance.

In accordance with ABCB Housing Provisions Part 10.5.2, artificial lighting must be provided to sanitary compartments, bathrooms, shower rooms, airlocks and laundries at a rate of not less than one light fitting per 16m² of floor area or in accordance with AS/NZS 1680.0.

Note: Ensure Seniors Living areas and external areas (including walkways vs carriageways and external lighting/lux levels) satisfy SEPP Seniors.

Design Certification is required to be provided by the Electrical Consultant with the Construction Certificate application.

H4D7

Ventilation: In accordance with H4D7 (1) and (2):

- + Except for an exhaust fan from a sanitary compartment, laundry, kitchen or bathroom, Performance Requirement H4P5 is satisfied for a mechanical ventilation system if it is installed in accordance with AS 1668.2.
- + Compliance with ABCB Housing Provisions Part 10.6 satisfies Performance Requirement H4P5 for ventilation.

Comment: Ventilation must be provided to a habitable room, sanitary compartment, bathroom shower, laundry by means of permanent openings, windows, doors or other devices that can be opened with an aggregate opening size of not less than 5% of the floor area of the room required to be ventilated.

Licensed Mechanical Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D7 and ABCB Housing Provisions Part 10.6.1-10.6.3.

In addition, an exhaust fan or other means of mechanical ventilation may be used to ventilate a sanitary compartment, laundry or bathroom provided contaminated air exhausts directly to outside by way of a duct or into a roof space that is adequately ventilated by open eaves and/or roof vents or to the atmosphere / open air; refer to Condensation Management provisions under H4D9.

Mechanical ventilation or air-conditioning systems are to complying with AS 1668.2-2012.

Design certification is to be provided with the Construction Certificate Application confirming that the bathrooms not provided with natural ventilation will satisfy this clause.

Licensed Electrical Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D6.

H4D8

Sound Insulation Provisions: In accordance with H4D8, compliance with ABCB Housing Provisions Part 10.7 satisfies Performance Requirement H4P6 for sound insulation.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D8. This includes (but is not limited to) consideration of the following:

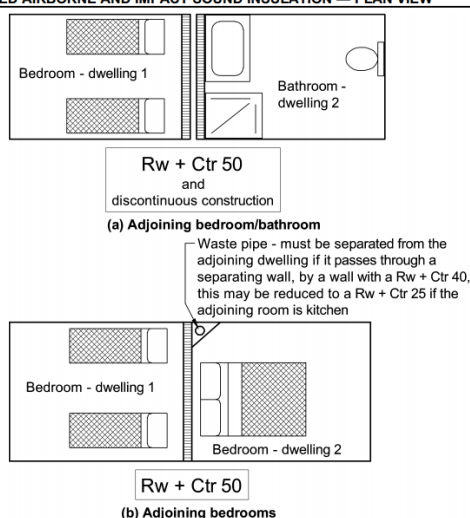
- (a) To provide insulation from airborne and impact sound, a separating wall between two or more Class 1 buildings must—
 - (i) achieve the weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) and discontinuous construction requirements, as required by 10.7.1; and
 - (ii) be installed in accordance with the appropriate requirements of 10.7.5, 10.7.6, 10.7.7 and 10.7.8.
- (b) For the purpose of this Part, the $R_w + C_{tr}$ must be determined in accordance with AS/NZS 1276.1 or ISO 717.1, using results from laboratory measurements as per the below:

SEPARATING WALL — LOCATION AND PENETRATIONS	DISCONTINUOUS CONSTRUCTION REQUIRED	$R_w + C_{tr}$ (As per Table 3.8.6.2)
Between a bathroom, <i>sanitary compartment</i> , laundry or kitchen and a <i>habitable room</i> (other than a kitchen) in an adjoining Class 1 building (dwelling) (see Figure 3.8.6.1).	YES	50
In all other cases to those listed above. (See Figure 3.8.6.1)	NO	50

SEPARATING WALL — LOCATION AND PENETRATIONS	DISCONTINUOUS CONSTRUCTION REQUIRED	$R_w + C_{tr}$ (As per Table 3.8.6.2)
DUCT, SOIL, WASTE, AND WATER SUPPLY PIPES AND STORM WATER PIPES A duct, soil, waste, or water supply pipe or storm water pipe that passes through a separating wall between Class 1 buildings— (a) if the adjacent room is a habitable room (other than a kitchen); or (b) if the room is a kitchen or any other room.	NO	40
Note: Discontinuous construction means a wall system having a minimum 20 mm cavity between two separate leaves, with— (a) for masonry, where wall ties are <i>required</i> 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 staggered stud wall is not deemed to be discontinuous construction.	NO	25

Figure 3.8.6.1

REQUIRED AIRBORNE AND IMPACT SOUND INSULATION — PLAN VIEW



Sound insulation Details

Details verifying compliance are to be provided with the Construction Certificate application.

H4D9

Condensation Management Provisions: In accordance with H4D9, compliance with ABCB Housing Provisions Part 10.8 satisfies Performance Requirement H4P7 for condensation management.

Note: The intent of these requirements is to assist in the mitigation of condensation within a building. The implementation of condensation management measures may not prevent condensation from occurring.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D9.

- (1) Where a pliable building membrane is installed in an external wall, it must:
 - (a) Comply with AS 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.
- (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 $\mu\text{g}/\text{N.s}$; and
 - (b) In climate zones 6, 7 and 8, 1.14 $\mu\text{g}/\text{N.s}$.
- (3) Except for single skin masonry or 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.

Details verifying compliance are to be provided with the Construction Certificate application.

H4D9

Condensation Management / Exhaust System Provisions: In accordance with H4D9, compliance with ABCB Housing Provisions Part 10.8 satisfies Performance Requirement H4P7 for condensation management.

Note: The intent of these requirements is to assist in the mitigation of condensation within a building. The implementation of condensation management measures may not prevent condensation from occurring.

Comment: Licenced Mechanical Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D9.

- (1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of—
 - (a) 25 L/s for a bathroom or sanitary compartment; and
 - (b) 40 L/s for a kitchen or laundry.
- (2) Exhaust from a bathroom, sanitary compartment, or laundry must be discharged—
 - (a) directly or via a shaft or duct to outdoor air; or
 - (b) to a roof space that is ventilated in accordance with ABCB Housing Provisions Part 10.6.2(a).
- (3) Where a venting clothes dryer is installed, it must discharge directly or via a shaft or duct to outdoor air.
- (4) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with 10.6.2(a) must— be interlocked with the room's light switch; and include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off.
- (5) Except for rooms that are ventilated in accordance with ABCB Housing Provisions Part 10.6.2(a), a room with an exhaust system in accordance with (1) must be provided with make-up air— via openings to an adjacent room with a free area of 14,000 mm²; or in accordance with AS 1668.2.
- (6) Except for rooms that are ventilated in accordance with ABCB Housing Provisions Part 10.6.2(a), a room with an exhaust system in accordance with (3) must be provided with make-up air in accordance with AS 1668.2.

Details verifying compliance are to be provided with the Construction Certificate application.

H4D9

Condensation Management / Ventilation of Roof Space Provisions: In accordance with H4D9, compliance with ABCB Housing Provisions Part 10.8 satisfies Performance Requirement H4P7 for condensation management.

Note: The intent of these requirements is to assist in the mitigation of condensation within a building. The implementation of condensation management measures may not prevent condensation from occurring.

Comment: Licenced Mechanical Contractor, along with Architect and/or Builder and Bushfire Consultant (as relevant) Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H4D9.

- (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 μ g/N.s, which is immediately above the primary insulation layer; or
 - (iii) Immediately above ceiling insulation that meets the requirements of 13.2.3(3) and 13.2.3(4); and
 - (b) Has a height of not less than 20 mm; and
 - (c) Is either:
 - (i) Ventilated to outdoor air through evenly distributed openings in accordance with Table 10.8.3; or
 - (ii) Located immediately underneath the roof tiles of an unsarked tiled roof.
- (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.

For the purposes of Table 10.8.3, high level openings are openings provided at the ridge or not more than 900 mm below the ridge or highest point of the roof space, measured vertically.

Details verifying compliance are to be provided with the Construction Certificate application.

3.5 Section H5 – Safe Movement & Access Requirements

H5D2

Stair Construction: In accordance with H5D2, compliance with ABCB Housing Provisions Part 11.2 satisfies Performance Requirement H5P1 for stair construction.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2.

Any new riser and going dimensions for each flight are required to comply with the following:

- + They must be consistent; and
- + The going (G), riser (R) and slope relationship quantity (2R+G) for a private stairway system must be in accordance with the following table:

	+ Riser (R)	+ Going (G)	+ Quantity (2R+G)
Minimum	115	240	550
Maximum	190	355	700

Stair Construction (private)

- + The going (G), riser (R) and slope relationship quantity (2R+G) for a spiral stairway system must be in accordance with the following table:

	+ Riser (R)	+ Going (G)	+ Quantity (2R+G)
Minimum	140	210	590
Maximum	220	370	680

Stair Construction (Spiral)

- + The going (G), riser (R) and slope relationship quantity (2R+G) for a public stairway system must be in accordance with the following table:

	+ Riser (R)	+ Going (G)	+ Quantity (2R+G)
Minimum	115	250	550
Maximum	190	355	700

Stair Construction (public)

Note 1: private stairway dimensions or spiral stairway dimensions are only permissible within the Class 1a dwelling/townhouse/SOU.

Note 2: Access Consultant to advise whether any of the villas are required to be accessible and whether door thresholds are to be provided with a threshold or step ramp to comply with AS 1428.1-2021 in lieu of a stairway system.

Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2 and ABCB Housing Provisions Part 11.1.1-11.1.2.

Access Consultant to verify compliance with AS1428.1-2021 for Seniors Living developments to mitigate any exposure under the DDA.

H5D2

Ramp Construction: In accordance with H5D2, compliance with ABCB Housing Provisions Part 11.2 satisfies Performance Requirement H5P1 for ramp construction.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2.

An external ramp serving an external doorway or a ramp within a building must—

- (a) be designed to take loading forces in accordance with AS/NZS 1170.1; and
- (b) have a gradient not steeper than 1:8; and
- (c) be provided with landings complying with 3.9.1.5 at the top and bottom of the ramp and at intervals not greater than 15 m.

It is likely SEPP Seniors and AS1428.1-2009 will supersede the above requirements within accessible areas.

Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2 and ABCB Housing Provisions Part 11.1.1-11.1.2.

Access Consultant to verify compliance with AS1428.1-2021 for Seniors Living developments to mitigate any exposure under the DDA.

H5D2

Slip Resistance Provisions: In accordance with H5D2, compliance with ABCB Housing Provisions Part 11.2 satisfies Performance Requirement H5P1 for stair and ramp construction.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2.

The requirements for slip-resistance treatment to stair treads, ramps and landings are as follows:

- (a) Treads must have—
 - (i) a surface with a slip-resistance classification not less than that listed in Table 11.2.4 when tested in accordance with AS 4586; or
 - (ii) a nosing strip with a slip-resistance classification not less than that listed in Table 11.2.4 when tested in accordance with AS 4586.
- (b) The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table 11.2.4 when tested in accordance with AS 4586.
- (c) Landings, where the edge leads to the flight below, must have—
 - (i) a surface with a slip-resistance classification not less than that listed in Table 11.2.4 when tested in accordance with AS 4586, for not less than 190 mm from the stair nosing; or
 - (ii) a nosing strip with a slip-resistance classification not less than that listed in Table 11.2.4 (below) when tested in accordance with AS 4586.

+ Application	+ Surface Conditions	
	+ Dry	+ Wet
Ramps steeper than 1:8	P4/R10	P5/R11
Tread or landing surface	P3/R10	P4/R11
Nosing or landing strip	P3	P4

Minimum slip resistance ratings for stairs and ramps

Details verifying compliance are to be provided with the Construction Certificate application.

Access Consultant to verify compliance with AS1428.1-2021 for Seniors Living developments to mitigate any exposure under the DDA.

H5D2

Landings: In accordance with H5D2, compliance with ABCB Housing Provisions Part 11.2 satisfies Performance Requirement H5P1 for stair and ramp construction.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2.

Landings must—

- + 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
- + have a gradient not steeper than 1:50; and

- + be provided where the sill of a threshold of a doorway opens onto a stairway or ramp that provides a change in floor level or floor to ground level greater than 3 risers or 570 mm (see Figure 11.2.5b); and
- + extend across the full width of a doorway; and
- + in the case of a stairway serving only non-habitable rooms, such as attics, storerooms and the like that are not used on a regular or daily basis, the requirements of (a) may be substituted with a minimum length of landing being not less than 600 mm long.

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

Minimum Slip Rating Requirements

Details verifying compliance are to be provided with the Construction Certificate application.

Access Consultant to verify compliance with AS1428.1-2021 for Seniors Living developments to mitigate any exposure under the DDA.

H5D2

Thresholds: In accordance with H5D2, compliance with ABCB Housing Provisions Part 11.2 satisfies Performance Requirement H5P1 for stair and ramp construction.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D2.

Where a threshold is more than 230 mm above the adjoining surface it must incorporate steps having riser and going dimensions in accordance with Part 11.2.2.

Access Consultant to verify compliance with AS1428.1-2021 for Seniors Living developments to mitigate any exposure under the DDA.

Access Consultant to advise whether any of the villas are required to be accessible and whether door thresholds are to be provided with a threshold or step ramp to comply with AS 1428.1-2021 in lieu of a stairway system.

H5D3

Barriers to prevent falls: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment:

(1) A continuous barrier must be provided along the side of a trafficable surface, such as:

- (a) A stairway, ramp or the like; and
- (b) A floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and
- (c) A roof top space or the like to which general access is provided; and
- (d) Any delineated path of access to a building,

where it is possible to fall 1 m or more measured from the level of the trafficable surface to the surface beneath (see Figure 11.3.3a).

(2) The requirements of (1) do not apply to:

- (a) A retaining wall unless the retaining wall forms part of, or is directly associated with, a delineated path of access to a building from the road, or

A delineated path of access between buildings (see Figure 11.3.3b); or a barrier provided to an openable window covered by 11.3.7 and 11.3.8.

H5D3

Construction of barriers to prevent falls: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D3.

The referenced Architectural details suggest that the minimum balustrade height of 1m is achieved from FFL at landings and balconies however details of balustrades are requested for review to ensure that all horizontal or near horizontal members do not occur within the zone of 150mm to 760mm above the FFL where the fall below is 4m or more.

All required balustrades are to meet the 125mm horizontal and vertical element provisions under ABCB Housing Provision Part 11.3.4a.

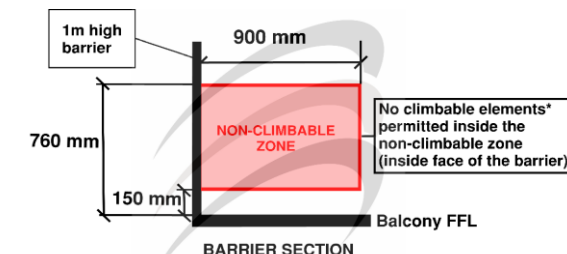
Details are requested for review to ensure that no climbable elements are present in proximity to balustrades i.e.:

- + No climbable elements within 150-760mm above FFL zone on the face of the balustrade / barrier.
- + Under a Safety-in-Design consideration it is recommended that all climbable elements such as AC condenser units, GPOs, gas bayonets or taps etc. are located a minimum 900mm away from the inside face of the balustrade / barrier.

Coordination with Architect and Service consultants is required in this regard.

Note: A climbable element is any indentation or protrusion >10mm from the vertical surface.

The below detail reflects this arrangement with regards to balustrade / barrier minimum clearances & setbacks to non-climbable elements:



**Note: A climbable element is any opening/aperture greater than 10mm which is sloped less than 60° to the horizontal plane that provides a hand or foothold.*

Required Balustrade Requirements H5D3

All required balustrades / barriers are to be designed in accordance with AS1170.1 (and AS1288-2021 where glazed balustrades are to be utilised) with respect to likely loadings and signed off by a qualified NER / MIE Structural Engineer with the Completion Certificate application.

H5D3

Handrails: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D3.

(a) Handrails to a stairway or ramp must—

- (i) be located along at least one side of the stairway flight or ramp; and
- (ii) be located along the full length of the stairway flight or ramp, except in the case where a handrail is associated with a barrier the handrail may terminate where the barrier terminates; and
- (iii) have the top surface of the handrail not less than 865 mm vertically above the nosing's of the stair treads or the floor surface of the ramp (see Figure 11.3.4b); and
- (iv) be continuous and have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like.

(b) The requirements of (a) do not apply to—

- (i) a stairway or ramp providing a change in elevation of less than 1 m; or
- (ii) a landing; or
- (iii) a winder where a newel post is installed to provide a handhold.

Details verifying compliance are to be provided with the Construction Certificate application.

H5D3

Construction of wire barriers: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D3.

The following requirements are provided with regards to wire balustrades and compliance with ABCB Housing Provisions Part 11.3.4:

- (a) For horizontal wire systems—
 - (i) when measured with a strain indicator, it must be in accordance with the tension values in Table 11.3.6a; or
 - (ii) must not exceed the maximum deflections in Table 11.3.6b.
- (b) For non-continuous vertical wire systems, when measured with a strain indicator, must be in accordance with the tension values in Table 11.3.6.
- (c) For continuous vertical or continuous near vertical sloped wire systems—
 - (i) must have wires of no more than 2.5 mm diameter with a lay of 7×7 or 7×19 construction; and
 - (ii) changes in direction at support rails must pass around a pulley block without causing permanent deformation to the wire; and
 - (iii) must have supporting rails, constructed with a spacing of not more than 900 mm, of a material that does not allow deflection that would decrease the tension of the wire under load; and
 - (iv) when the wire tension is measured with a strain indicator, it must be in accordance with the tension values in Table 11.3.6c and measured in the furthestmost span from the tensioning device.

Details verifying compliance are to be provided with the Construction Certificate application.

H5D3

Protection of openable windows – Bedrooms: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D3.

- (a) A window opening must be provided with protection, if the floor below the window in a bedroom is 2m or more above the surface beneath.
- (b) Where the lowest level of the window opening is less than 1.7m above the floor, a window opening covered by (a) must comply with the following:
 - (i) The openable portion of the window must be protected with—
 - (A) a device capable of restricting the window opening; or
 - (B) a screen with secure fittings.
 - (ii) A device or screen required by (i) must—
 - (A) not permit a 125mm sphere to pass through the window opening or screen; and
 - (B) resist an outward horizontal action of 250 N against the—
 - (aa) window restrained by a device; or
 - (bb) screen protecting the opening; and
 - (C) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden.
- (c) A barrier with a height not less than 865mm above the floor is required to an openable window—
 - (i) in addition to window protection, when a child resistant release mechanism is required by (b)(ii)(C); and
 - (ii) where the floor below the window is 4m or more above the surface beneath if the window is not covered by (a).
- (d) A barrier covered by (c) must not—
 - (i) permit a 125mm sphere to pass through it; and
 - (ii) have any horizontal or near horizontal elements between 150mm and 760mm above the floor that facilitate climbing.

Due to the Seniors Living cohort, we recommend that all windows be protected under a Safety-in-Design solution where the bottom sill is lower than 1.7m from FFL, regardless of where the windows are located.

Details verifying compliance are to be provided with the Construction Certificate application.

H5D3

Protection of openable windows – Rooms other than Bedrooms: In accordance with H5D3, compliance with ABCB Housing Provisions Part 11.3 satisfies Performance Requirement H5P2 for barriers and H5P1(b)(i) for handrails.

Comment: Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H5D3.

- (a) A window opening in a room other than a bedroom must be provided with protection where the floor below the window is 4 m or more above the surface beneath.
- (b) The openable part of the window covered by (a) must be protected with a barrier with a height of not less than 865 mm above the floor.
- (c) A barrier required by (b) must not—
 - (i) permit a 125 mm sphere to pass through it; and
 - (ii) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing.

Due to the Seniors Living cohort, we recommend that all openable windows be fixed so they open no more than 125mm under a Safety-in-Design solution.

Details verifying compliance are to be provided with the Construction Certificate application.

3.6 Section H6 – Energy Efficiency Requirements

NSW H6D1

Deemed-to-Satisfy Provisions: In accordance with H6D1(1) and (2):

- + Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements H6P1 and H6P2 are satisfied by complying with H6D2.
- + Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.

Comment: A BASIX Certificate is to be provided for the development and the requirements of the certificate are to be incorporated in the Construction Certificate drawings and specification.

Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H6D1.

NSW H6D2

Services: In accordance with H6D1(1) and (2):

- + Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements H6P1 and H6P2 are satisfied by complying with H6D2.
- + Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.

Comment: A BASIX Certificate is to be provided for the development and the requirements of the certificate are to be incorporated in the Construction Certificate drawings and specification.

Also note the following energy efficiency measures that apply in NSW to support and compliment BASIX; NSW ABCB Housing Provisions Part 13.2, 13.4, & 13.7 Part 2.6, NSW H6D2 etc.

Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with H6D2.

Licensed Electrical or Mechanical Contractor, along with Architect and/or Builder Design Certification and supplementary design details to be provided with the Construction Certificate Application verifying compliance with NSW H6D2.

Refer to comments under H4D5 regarding facilities required under the NCC. BASIX requirements will generally exceed these minimum H4D5 requirements.

3.7 Section H7 – Ancillary Provisions & Additional Construction Requirements

H7D3	Construction in Alpine Areas: In accordance with the following: + Compliance with ABCB Housing Provisions Part 12.2 satisfies Performance Requirement H7P4 for buildings that are located in alpine areas + The Deemed-to-Satisfy Provisions of this Part apply in addition to other Deemed-to-Satisfy Provisions of NCC Volume Two and the ABCB Housing Provisions. + Where any Deemed-to-Satisfy Provisions are in conflict, the provisions of H7D3 take precedence. Comment: Assumed Not applicable unless confirmed otherwise by a specialist consultant who will need to certify compliance with this part.
NSW H7D4	Construction in Bushfire Prone Areas: In accordance with H7D7(1) and (2) the following NSW amendment applies: + Performance Requirement H7P5 is satisfied for a Class 1 building, or a Class 10a building or deck associated with a Class 1 building, if it is constructed in accordance with: + AS 3959 except: - As amended by Planning for Bush Fire Protection; and - For Section 9 Construction requirements for Bushfire Attack Level FZ (BAL-FZ); or + NASH Standard – Steel Framed Construction in Bushfire Areas except: - As amended by Planning for Bush Fire Protection; and - For buildings subject to Bushfire Attack Level FZ (BAL-FZ); or + H7D4 (a) or (b) as modified by development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or + H7D4(a) or (b) as modified by development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development. + Note: In New South Wales, buildings subject to BAL-FZ must comply with specific conditions of development consent for construction at this level. Comment: Bushfire Consultant to undertake an assessment verifying compliance with the Development Consent conditions, NSW Rural Fire Service, Planning for Bushfire Protection 2022 Addendum and AS3959 requirements applicable to this development. Current NCC/BCA references AS3959-2018 (incl. Amdts 1 & 2) will need to be validated for compliance with the Construction Certificate application by the Bushfire Consultant to the satisfaction of the Certifying Authority.

4.0 Preliminary Summary of Fire Engineered Solutions

The following summary contains a list of preliminary Fire Engineered Solutions proposed based on our understanding of the DA stage design. This list may be subject to further change pending the outcomes of the final Fire Safety Engineering Review and further design development:

- + A Fire Engineered Performance Solution is to be prepared to justify departures to BCA Clause C2D2 and Spec. 5 Clause S5C11:
 - Apartment buildings which are Type A Construction are provided with balcony/floor structures which are structural steel; this will either need to be rationalised under a Fire Engineered performance Solution or redesigned as concrete slab and fire rated elements.
 - Rationalise cavity barriers as follows:
 - Rationalise cavity barriers and gaps between slab and internal face of external walls where they are not in accordance with a tested system to achieve the required fire-resistance level in accordance with BCA Spec. 5 i.e. Fire Engineered Report to permit:
 - To provide smoke-proof cavity barrier / separation at the perimeter slab edge between storeys.

It is proposed to allow the lightweight fire-resisting bounding construction walls between the SOU's/apartments to be extended to smoke-proof cavity barrier / separation rather than through to the external wall or inside of the outer face of the external wall.

- Incomplete bounding construction OR roof elements (other than battens or exceeding 75mm x 50mm) will need to be rationalised/assessed under the Fire Engineered Report as a departure to BCA Spec. 5 Clause S5C11.

Steel roof penetrations through a lightweight internal fire-resisting wall will generally need to be assessed under a Fire Engineered Performance Solution as these types of penetrations are not strictly in line with the test literature for the lightweight wall system and depart with AS1530.4-2014.
- Loadbearing columns which are not treated with a tested system for a column however are contained within a lightweight construction wall will need to be addressed as a Fire Engineered Solution as a departure to BCA Spec. 5 Clause S5C11.

- + Non-continuity of fire-resistant vertical shafts not strictly satisfy BCA Spec. 5 Clause S5C8 and Clause C4D14 as the base to the shaft will not be fire rated, instead it will interface with a fire rated enclosure or separate fire compartment:

- Garbage/laundry chutes, mechanical and hydraulic services risers/shafts etc.
- + To permit timber/plastic packers, timber noggings/blocking/supports within internal non-loadbearing fire-rated walls and external walls which exceed the non-combustibility requirements under BCA Clause C2D10(6). The installation of timber noggings/blocking/supports varies from the tested wall system in accordance with AS 1530.4-2014.
- + The RACF comprises 2 x smoke compartments on ground floor that have a floor area of up to 791sqm and 757sqm respectively, in lieu of not greater than 500sqm within non-resident areas contrary to BCA Clause C3D6(3)(a). All smoke compartments containing resident areas are within 500sqm limitations.
- + We understand a Fire Engineered Performance Solution will be proposed in association with the 'Valley' apartments to justify steel balconies of length 1,100mm which are being relied upon as a horizontal spandrel and <450mm horizontal projection dimensions not being achieved in relation to the balcony lengths and location of windows contrary to BCA Clause C3D7.

- + Technical departure to BCA Clause C3D15 with longer corridors (>40m) with of the apartment buildings e.g. Spencer Street ground in the absence of smoke-proof construction satisfying BCA S11C2.
- + We understand a Fire Engineered Performance Solution is to be prepared to justify departures to BCA Clause C4D4:
 - To vary the method of protection afforded to openings within the external walls of the subject building that will be exposed to an external wall of an adjacent fire compartment within the same building.
- + We understand a Fire Engineered Performance Solution is to be prepared to justify departures to BCA Clause C4D6 & C4D8:
 - Rationalisation of fire resisting elements within a fire wall requiring a 120/120/120 FRL i.e. doorset openings protected by glazing in lieu of -/120/30 FRL fire resistant construction.
- + Each building is provided with exits in the form of fire-isolated exits; discharge of required fire-isolated exits require occupants to pass within 6m of exposed openings associated with each building contrary to BCA Clause D2D12(3).
- + Contrary to BCA Clause D2D12(2) the centralised stairway within the RACF discharges within the BOH area which is enclosed; this will likely require redesign to create a fire-isolated passageway. The stair/passageway design will need to be addressed under a Fire Engineered Performance Solution.
- + Introducing three doors leading into the fire-isolated passageway on ground floor (RACF centralised stairway/passageway) will create a departure with D2D12(4) which will need to be addressed under a Performance Solution. We understand that access to this stairway for occupant egress will only by the 2 floors above and not ground floor.
- + In the absence of an airlock, a plant enclosure opens directly into a required fire-isolated stairway serving residential levels of Spencer Street' Apartments (Building E/F/G/H) contrary to BCA Clause D3D8.
- + Any departures within BCA Clause D3D25 regarding door swings against occupant egress are to be addressed with the relevant Construction Certificate application; including:
 - To have discharge doors swing inward from apartment lobby areas contrary to BCA Clause D3D25;
 - To have a number of required fire and smoke doors of the RACF swing in one direction only and against the direction of egress contrary to BCA Clause D3D25.
- + A Fire Engineered Performance Solution is to be prepared to justify fire stopping to internal fire resisting elements contrary to BCA Clause C4D15:
 - To permit water filled metal pipes (i.e. sprinkler and hydrant pipe penetrations) to be fire stopped in accordance with BCA Clause C4D15(1), with the exception of the insulation criteria of the required FRL where there is likely to be combustible materials (i.e. PVC pipes, PEX pipes, cables etc) located within 100 mm radius for a distance of 2 m of the fire rated penetration.
 - The wet area/bathroom tap fittings/hydraulic services that will penetrate through one side of the fire rated linings to the fire rated bounding walls to approximately opposite sides of the bounding wall separating SOU's, these tap fittings/hydraulic services will not be protected in accordance with a tested system.
 - To permit services (such as NBN cables) to located within conduits to not be fire stopped in accordance with a tested system, noting that they run horizontally through the slab and AS 1530.4-2014 does not include specific requirements for the testing of services are embedded and travel horizontally through a concrete floor. As a result, there is no compliant testing methodology for fire tests for cast-in conduits and hence no compliant tested systems for this application.
- + A Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D5 regarding exit travel distances.

- + A Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D6 regarding distance between alternative exits and convergence of exits/egress pathways.
- + A Fire Engineered Performance Solution will be proposed to justify departures to BCA Clause D2D8 regarding public corridors leading to resident rooms and leading to fire-isolated exits which are less than 1,500mm.
- + Any departures within BCA Clause D3D25 regarding door swings against occupant egress (e.g. lobby entry doorsets) are to be addressed with the relevant Construction Certificate application.
- + A Fire Engineered Performance Solution will be proposed to justify departures to hydrant design requirements under BCA Clause E1D2 and AS2419.1-2021:
 - Booster not located at vehicular entry or visible from each building on the site to be addressed.
 - Rationalisation of handstand/vehicular access / location associated with the booster assembly.
- + A Fire Engineered Performance Solution will be proposed to justify departures to sprinkler design requirements under BCA Clause E1D4 and AS2118.4-2012:
 - Booster not located at vehicular entry or visible from both main entries from each building on the site to be addressed.
 - Rationalisation of handstand/vehicular access / location associated with the booster assembly.
 - Omission of sprinklers from smaller laundry areas under Fire Engineered Performance Solution noting that stacking of dryers/washers will affect sprinkler head locations.
 - Omission of sprinklers from all low voltage electrical cupboards (e.g. communications cupboards) and MSB enclosures.
- + A Fire Engineered Solution will be required for the proposed Electric Vehicle (EV) stations with Lithium-Ion battery chargers noting:
 - BCA Clause E1D17 requires that additional provision must be made if special fire hazards or where difficulties in fighting fire could arise because of the nature or quantity of materials stored, displayed or used in a building.
 - BCA Clause E2D21 notes that additional smoke hazard management measures may be necessary due to the special characteristics, function or materials stored within a building or fire compartment.
- + Contrary to BCA Clause E2D4 it is not proposed to provide an air pressurisation system to the fire-isolated exits serving the RACF that only provide occupant egress for up to 2-storeys within an otherwise 3-storey building.

5.0 Preliminary Fire Safety Schedule

The following table is a list of the required fire safety measures within the building. These measures may be subject to further change pending the outcomes of the final Fire Safety Engineering Review and further design development.

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Residential Care Facility (Class 9c)			
Access Panels, Doors & Hoppers	BCA 2022 Clause C4D14 & AS 1530.4 – 2014 and Manufacturer's Specifications		✓
Alarm Signalling Equipment (<i>Site Wide ASE</i>)	NSW BCA 2022 Spec. 20 Clause S20C8 & AS 1670.3 – 2018		✓
Automatic Fail-Safe Devices (<i>Automated Doors & Gates</i>)	BCA 2022 Clause D3D26		✓
Automatic Fire Detection & Alarm System (<i>throughout</i>) (<i>Interfaced with other buildings onsite</i>)	BCA 2022 Clause E2D3, Spec. 20 & BCA Spec. 23 & AS 1670.1 – 2018		✓
Automatic Fire Suppression Systems (<i>throughout</i>)	BCA 2022 Clause E1D4, Spec. 17, AS 2118.1 – 2017 or AS2118.4-2012		✓
Building Occupant Warning System activated by the Sprinkler System and Smoke Detection	BCA 2022 Clause E2D3 and BCA Spec. 17, Spec. 20 & Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018		✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 & AS 2293.1 – 2018		✓
Fire Blankets	BCA 2022 Clause E1D14 AS 3504 – 2006 & AS2444 – 2001		✓
Fire Dampers	BCA 2022 Clause C4D15 & Spec. 11, AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification		✓
Fire Doors (Self-closing) (Including Lift Landing Doorsets)	BCA 2022 Clause C3D13, C3D14, C4D3, C4D5, C4D6, C4D7, C4D8, C4D9, AS 1905.1 – 2015 and Manufacturer's Specification		✓
Fire Hydrant Systems (Site Wide Hydrants)	BCA 2022 Clause E1D2 AS 2419.1 – 2021		✓
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and Manufacturer's Specification		✓
Fire-resisting Building Elements (Walls, Floors & Shafts)	BCA 2022 Section C & Spec. 5 Cl. S5C11		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Residential Care Facility (Class 9c)			
Lightweight Construction	BCA 2022 Clause C2D9 , AS 1530.4 – 2014 and Manufacturer's Specification		✓
Loadbearing Internal Walls (Concrete or Masonry)	BCA 2022 Section C & Spec. 5 Cl. S5C11(1)		✓
Manual Call Points (BGA's)	BCA 2022 Section E & Spec. 20 Cl. S20C4(3)		✓
Mechanical Air Handling Systems (Automatic Shutdown Class 9c areas)	BCA 2022 Part E2 Clause E2D11, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012		✓
Mimic and/or Annunciator Panels	BCA 2022 Section E & Spec. 20 Cl. S20C4(4)	✓	✓
Paths of Travel	EP&A (DC&FS) Reg. 2021 Clause 109	✓	✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001	✓	✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)	✓	✓
Self-Closing Fire Hoppers	BCA 2022 Clause C4D14 AS 1530.4 – 2014		✓
Smoke Dampers	BCA 2022 Spec. 11, AS/NZS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification		✓
Smoke Doors & Smoke-proof Walls	BCA 2022 Clause C3D6, Spec. 11 & 12		✓
Smoke Seals	BCA 2022 Clause C3D6, Spec. 11		✓
Wall-Wetting Sprinklers	BCA 2022 Clause C4D5 AS 2118.2 – 2010		✓
Warning & Operational Signs	EP&A (DC&FS) Reg. 2021 Clause 108 BCA 2022 Clause D3D28, D4D7, E3D4 AS 1905.1 – 2015		✓
Fire Engineered Performance Solutions relating to: TBC with CC Application	TBC with CC Application - BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Community facilities including Bistro, Clubhouse, Library, Gym, Indoor pool, Medical Centre, and Café (Class 6/9b)			
Alarm Signalling Equipment (<i>Site Wide ASE</i>)	NSW BCA 2022 Spec. 20 Clause S20C8 & AS 1670.3 – 2018		✓
Automatic Fail-Safe Devices (<i>Automated Doors & Gates</i>)	BCA 2022 Clause D3D26		✓
Automatic Fire Detection & Alarm System (<i>Throughout</i>) (<i>Interfaced with other buildings onsite</i>)	BCA 2022 Clause E2D3, Spec. 20 & BCA Spec. 23 & AS 1670.1 – 2018		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Community facilities including Bistro, Clubhouse, Library, Gym, Indoor pool, Medical Centre, and Café (Class 6/9b)			
Building Occupant Warning System activated by the Sprinkler System and Smoke Detection	BCA 2022 Clause E2D3 and BCA Spec. 17, Spec. 20 & Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018		✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 & AS 2293.1 – 2018		✓
Fire Blankets	BCA 2022 Clause E1D14, AS 3504 – 2006 & AS2444 – 2001		✓
Fire Hose Reels	BCA 2022 Clause E1D3 & AS 2441 – 2005		✓
Fire Hydrant Systems (Site Wide Hydrants)	BCA 2022 Clause E1D2 & AS 2419.1 – 2021		✓
Mechanical Air Handling Systems (Automatic Shutdown)	BCA 2022 Part E2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012		✓
Paths of Travel	EP&A (DC&FS) Reg. 2021 Clause 109		✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 & AS 2444 – 2001		✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)		✓
Warning & Operational Signs	EP&A (DC&FS) Reg. 2021 Clause 108 BCA 2022 Clause D3D28, D4D7, E3D4 AS 1905.1 – 2015		✓
Fire Engineered Performance Solutions relating to: TBC with CC Application	TBC with CC Application - BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
ILU Apartments 3-storey 'Valley' Apartments Building A/B/C/D (Class 2 & 7a)			
Access Panels, Doors & Hoppers	BCA 2022 Clause C4D14 & AS 1530.4 – 2014 and Manufacturer's Specifications		✓
Alarm Signalling Equipment (<i>Site Wide ASE</i>)	NSW BCA 2022 Spec. 20 Clause S20C8 & AS 1670.3 – 2018		✓
Automatic Fail-Safe Devices (<i>Automated Doors & Gates</i>)	BCA 2022 Clause D3D26		✓
Automatic Fire Detection & Alarm System (<i>common areas and areas not within an Class 2 ILU apartments/SOU's</i>) (<i>Interfaced with other buildings onsite</i>)	BCA 2022 Clause E2D3, Spec. 20 & BCA Spec. 23 AS 1670.1 – 2018		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
ILU Apartments 3-storey 'Valley' Apartments Building A/B/C/D (Class 2 & 7a)			
Building Occupant Warning System activated by the Smoke Detection	BCA 2022 Clause E2D3 & Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018		✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018		✓
Fire Dampers	BCA 2022 Clause C4D15 & Spec. 11 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification		✓
Fire Doors (Self-closing) (Including Lift Landing Doorsets)	BCA 2022 Clause C3D13, C3D14, C4D3, C4D5, C4D6, C4D7, C4D8, C4D9 & C4D12 AS 1905.1 – 2015 and Manufacturer's Specification		✓
Fire Hose Reels (Class 7a areas only)	BCA 2022 Clause E1D3 AS 2441 – 2005		✓
Fire Hydrant Systems (Site Wide Hydrants)	BCA 2022 Clause E1D2 AS 2419.1 – 2021		✓
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and Manufacturer's Specification		✓
Fire-resisting Building Elements (Walls, Floors & Shafts)	BCA 2022 Section C & Spec. 5 Cl. S5C11		✓
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification		✓
Loadbearing Internal Walls (Concrete or Masonry)	BCA 2022 Section C & Spec. 5 Cl. S5C11(1)		✓
Paths of Travel	EP&A (DC&FS) Reg. 2021 Clause 109		✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001		✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)		✓
Smoke Alarms (<i>within Class 2 ILU apartments only</i>)	BCA 2022 Spec. 20 AS 3786 – 2014		✓
Fire Engineered Performance Solutions relating to: TBC with CC Application	TBC with CC Application - BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
ILU Apartments 4 storey 'Spencer Street' Apartments Building E/F/G/H (Class 2 & 7a)			
Access Panels, Doors & Hoppers	BCA 2022 Clause C4D14 & AS 1530.4 – 2014 and Manufacturer's Specifications		✓
Alarm Signalling Equipment (<i>Site Wide ASE</i>)	NSW BCA 2022 Spec. 20 Clause S20C8 & AS 1670.3 – 2018		✓
Automatic Fail-Safe Devices (<i>Automated Doors & Gates</i>)	BCA 2022 Clause D3D26		✓
Automatic Fire Detection & Alarm System (<i>common areas and areas not within an Class 2 ILU apartments/SOU's</i>) (<i>Interfaced with other buildings onsite</i>)	BCA 2022 Clause E2D3, Spec. 20 & BCA Spec. 23 AS 1670.1 – 2018		✓
Automatic Fire Suppression Systems (<i>throughout</i>)	BCA 2022 Clause E1D4, Spec. 17 & BCA Spec. 18, AS 2118.1 – 2017 or AS2118.4-2012		✓
Building Occupant Warning System activated by the Sprinkler System and Smoke Detection	BCA 2022 Clause E2D3 and BCA Spec. 17, Spec. 20 & Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018		✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018		✓
Fire Dampers	BCA 2022 Clause C4D15 & Spec. 11 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification		✓
Fire Doors (Self-closing) (Including Lift Landing Doorsets)	BCA 2022 Clause C3D13, C3D14, C4D3, C4D5, C4D6, C4D7, C4D8, C4D9 & C4D12 AS 1905.1 – 2015 and Manufacturer's Specification		✓
Fire Hose Reels (Class 7a areas only)	BCA 2022 Clause E1D3 AS 2441 – 2005		✓
Fire Hydrant Systems (Site Wide Hydrants)	BCA 2022 Clause E1D2 AS 2419.1 – 2021		✓
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and Manufacturer's Specification		✓
Fire-resisting Building Elements (Walls, Floors & Shafts)	BCA 2022 Section C & Spec. 5 Cl. S5C11		✓
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification		✓
Loadbearing Internal Walls (Concrete or Masonry)	BCA 2022 Section C & Spec. 5 Cl. S5C11(1)		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
ILU Apartments 4 storey 'Spencer Street' Apartments Building E/F/G/H (Class 2 & 7a)			
Paths of Travel	EP&A (DC&FS) Reg. 2021 Clause 109		✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001		✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)		✓
Smoke Alarms (<i>within Class 2 ILU apartments only</i>)	BCA 2022 Spec. 20 AS 3786 – 2014		✓
Fire Engineered Performance Solutions relating to: TBC with CC Application	TBC with CC Application - BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Minor Manor - ILU Apartments ground floor and first floor key workers (Class 2 & 3)			
Access Panels, Doors & Hoppers	BCA 2022 Clause C4D14 & AS 1530.4 – 2014 and Manufacturer's Specifications		✓
Alarm Signalling Equipment (<i>Site Wide ASE</i>)	NSW BCA 2022 Spec. 20 Clause S20C8 & AS 1670.3 – 2018		✓
Automatic Fire Detection & Alarm System (<i>common areas and areas not within an Class 2 ILU apartments/SOU's</i>) (<i>Interfaced with other buildings onsite</i>)	BCA 2022 Clause E2D3, Spec. 20 & BCA Spec. 23 AS 1670.1 – 2018		✓
Building Occupant Warning System activated by the Smoke Detection	BCA 2022 Clause E2D3 & Clause 8 and / or Clause 3.22 of AS 1670.1 – 2018		✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018		✓
Emergency Evacuation Plan	AS 3745 – 2010		✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018		✓
Fire Dampers	BCA 2022 Clause C4D15 & Spec. 11 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification		✓
Fire Hydrant Systems (Site Wide Hydrants)	BCA 2022 Clause E1D2 AS 2419.1 – 2021		✓
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and Manufacturer's Specification		✓
Fire-resisting Building Elements (Walls, Floors & Shafts)	BCA 2022 Section C & Spec. 5		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
Minor Manor - ILU Apartments ground floor and first floor key workers (Class 2 & 3)			
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification		✓
Paths of Travel	EP&A (DC&FS) Reg. 2021 Clause 109		✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001		✓
Smoke Alarms (<i>within Class 2 ILU apartments only</i>)	BCA 2022 Spec. 20 AS 3786 – 2014		✓
Solid Core Doors (Self-closing)	BCA 2022 Clause C4D12		✓
Fire Engineered Performance Solutions relating to: TBC with CC Application	TBC with CC Application - BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated		✓

+ Statutory Fire Safety Measure	+ Design/Installation Standard	+ Existing	+ Proposed
ILU Villas (Class 1a & 10a)			
Fire Hydrants	FRNSW / NSWRFES Requirements & AS 2419.1 – 2021		✓
Lightweight Construction	BCA 2022 Volume 2 Clause H3D4 (Housing Provisions Part 9.3) & AS 1530.4 – 2014 and Manufacturer's Specification		✓
Smoke Alarms	BCA 2022 Volume 2 Clause H3D6 (Housing Provisions Part 9.5) & AS3786-2014		✓

NOTE:

- + The measures included and the standards of performances nominated above may vary as a result of any proposed Fire Engineered Performance Solutions and formal adoption of BCA 2025. By virtue of BCA 2025 beings in public comment draft the above schedule is based on the latest adopted BCA (BCA 2022 Amdt .2)
- + The above list is a schedule of fire safety measures required under Section E of the NCC/BCA only and does not take into consideration any other measures that may be required in the building as a result of other requirements of the NCC/BCA or other statutory standards.

6.0 Conclusion

This report contains an assessment of the referenced architectural documentation for the proposed Seniors Living development located at 1 Spencer Street, Moruya NSW 2537, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2022 (Amdt. 2).

Arising from our review and comments above, it is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA subject to the above measures being appropriately addressed by the project design team. Compliance with the BCA is to be demonstrated by a combination of DtS solutions and/or Performance Solutions prepared by appropriately qualified Registered/Accredited Consultants.

It is our experience that such compliance matters raised are not uncommon for a development of this nature and that they can be readily addressed with the Construction Certificate application. We are of the opinion that any amendments thereafter required to the design documentation in order to comply with the BCA can be addressed in the preparation of the detailed documentation with Construction Certificate application without giving rise to significant changes to the proposal as submitted for DA.

This SSDA Capability Statement is conditional on the following design items being addressed within the SSDA design:

- + All timber-look external wall elements to be verified as being non-combustible in accordance with BCA Clause C2D10 for all buildings of Type A and B Construction. Also refer to comments under Part G6 regarding soffit areas associated with external areas within occupiable outdoor spaces.
- + To satisfy BCA Volume 1 C4D3 and BCA Volume 2 H3D3 minimum building setbacks are to comply with the following:
 - o Class 1a ILU villas are to be setback 1.8m from other villas or 900mm setback from side/rear allotment boundaries.
Where villas are within 1.8m of other villas the encroachments must be permissible as per ABCB Housing Provisions Part 9.2.9. Where the exposure is a garage/carport to another garage/carport ABCB Housing Provisions Part 9.2.7e and 9.2.7f provide solutions which include the provisions of a 60/60/60 FRL fire resisting wall (as required);
 - o Class 2 ILU apartments or Class 3 Key Worker Mini Manor buildings/cabins (which are Type C Construction) are setback greater than 1.5m from side and rear allotment boundaries and other Class 2 ILU apartments or Class 3 Key Worker Mini Manor buildings/cabins (which are Type C Construction);
 - o Class 5, 6, 9b office/retail/restaurant/community buildings (which are Type C Construction) are setback greater than 3m from side and rear allotment boundaries and other Class 5, 6, 9b buildings (which are Type C Construction);
 - o All Class 2-9 buildings (which are Type A/B Construction) are setback greater than 3m from side and rear allotment boundaries and 6m from other Class 2-9 buildings (which are Type A/B Construction).
- + Subject to BCA D2D5 we understand exit travel distances within the Spencer Street Apartment buildings will be addressed under a Fire Engineered Performance Solution and limited as follows (final exit travel distances to be agreed with the Fire Engineer with the CC application):
 - o Exit travel distances will be limited to 30m within the carpark and;
 - o Exit travel distances to a single exit on the level above ground level will be limited to 12m.

- + We have been advised that design changes will be adopted regarding the RACF centralised stairway discharge to satisfy BCA D2D12 and/or a Fire Engineered Performance Solution:
 - o The centralised stairway discharges within the BOH area which is enclosed; this will likely require redesign to create a fire-isolated passageway which discharges directly to road or open space.
 - o This passageway must not be used for occupant egress from ground floor; only the 2 floors above.
- + Direction has been provided by the wet fire FPAS verifying that a Pumpset enclosure and fire water storage is required as per BCA E1D4/E1D5 & Spec. 17 based on their design and residual pressures and flows associated with the site. Ensure to include the design details (including elevations) of the Pumpset enclosure and fire water storage especially where these are located above ground
- + The following BCA Spec. 43 key compliance items are to be validated by the designers:
 - o We have been advised that the RACF building envelope will meet BAL-19 as per BCA Spec. 43 under a DtS solution (noting the overall site is BAL 12.5 based on bushfire consultant's advice).
 - o Access/perimeter roads are to satisfy Spec. 43 S43C14 unless a BSA variation is possible to permit departures to S43C14 including discontinuous perimeter roads;
 - o Location of buildings (within 12m of the RACF unless an FRL is provided to the external wall),
 - o Setback to any allotment boundary or open carparking area/spots (within 10m of the RACF unless an FRL is provided to the external wall);
 - o Refer to Spec. 43 under this report for all design items to be addressed with the Construction Certificate application.
- + To satisfy SEPP Housing 2021 Schedule 4 Cl. 2, if the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road.

Should you require further assistance or clarification please do not hesitate to contact the undersigned on 02 9211 7777.

Prepared by:



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Reviewed by:



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Director

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Appendices

+ Appendix 1 – Fire Resisting Construction Requirements

Table 1 - Residential Care Facility (Class 9c) & ILU Apartments (Class 2/7a)

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

FLOORS	90/90/90	120/120/120	180/180/180	240/240/240
ROOFS	90/60/30	120/60/30	180/60/30	240/90/60

Notes:

1. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 11.
2. Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must typically achieve the same FRL. Where that part is also required to be non-combustible, the supporting part must also be non-combustible.
3. A loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from; concrete or masonry.
4. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.
5. Fire rated shafts are required to be enclosed at the top and bottom by construction having an FRL of not less than what the shaft requires (in both directions)
6. The concession granted under S5C15 results in the roof of the building not being required to be fire rated (the building is provided throughout with sprinklers). Notwithstanding, the Atrium provisions override this general concession in BCA Specification 5.
7. Lift shafts are required to be enclosed at the top of the shaft with fire rated construction having an FRL of 120/120/120.
8. Fire isolated exits are to be provided with a fire rated "lid" that achieves an FRL of 120/120/120.
9. Where roof lights are proposed they are required to be located not less than 3 metres from a roof light in an adjoining fire separated part; and must not be more than 20% of the area of the roof.
10. External walls must be non-combustible construction. Non-loadbearing parts of an external wall that are more than 3m from a fire source feature need not be fire rated.

Table 2 – Mini Manor (Class 2), Community Facility (Class 9b) & Café (Class 6)

TYPE C CONSTRUCTION: FRL OF BUILDING ELEMENTS				
+ Building Element	+ Class of Building - FRL: (in minutes) Structural adequacy/integrity/insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL – (Including any column and other building element incorporated within it) or other external building element, where the distance from any fire-source feature to which it is exposed is:				
For loadbearing parts:				
Less than 1.5m	90/90/90	90/90/90	90/90/90	90/90/90
1.5 to less than 3m	-/-/-	60/60/60	60/60/60	60/60/60
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
EXTERNAL COLUMN - Not incorporated in an external wall				
Less than 1.5m	90/-/-	90/-/-	90/-/-	90/-/-
1.5 to less than 3m	-/-/-	60/-/-	60/-/-	60/-/-
3m or more	-/-/-	-/-/-	-/-/-	-/-/-
COMMON WALLS and FIRE WALLS	90/90/90	90/90/90	90/90/90	90/90/90
INTERNAL WALLS				
Bounding public corridors, public lobbies and the like:	60/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units:	60/60/60	-/-/-	-/-/-	-/-/-
Bounding a stair if required to be rated:	60/60/60	60/60/60	60/60/60	60/60/60
ROOFS	-/-/-	-/-/-	-/-/-	-/-/-

Notes:

1. New external walls that are located 1.5m or more from an allotment boundary / fire source feature require no FRLs.
2. Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must typically achieve the same FRL. Where that part is also required to be non-combustible, the supporting part must also be non-combustible.
3. An external wall required to have an FRL is only required from the outside.
4. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 6.
5. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.
6. No structural elements are permitted to pass through fire-rated walls.

+ Appendix 2 – SEPP Housing 2021 Requirements

+ Clause	+ Reference	+ Comment
Schedule 4	Standards concerning accessibility and usability for hostels and independent living units	
Part 1	Standards applying to hostels and independent living units	
1 Application of standard in this Part	The standards set out in this Part apply to any seniors housing that consists of hostels or independent living units.	Noted.
2 Siting Standards	+ Wheelchair access If the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road. + If the whole of the site does not have a gradient of less than 1:10— - the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and - the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents. Note— For example, if 70% of the site has a gradient of less than 1:10, then 70% of the dwellings must have wheelchair access as required by this subsection. If more than 50% of the site has a gradient greater than 1:10, development for the purposes of seniors housing is likely to be unable to meet these requirements. + Common areas Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.	Compliance Readily Achievable: The whole of the site is to be accessible on the basis that all gradients proposed are less than 1:10. Certification and plan notations have been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application.
3 Letterboxes	Letterboxes— + must be situated on a hard standing area, and + must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) from the letterbox to the relevant dwelling, and	Compliance Readily Achievable: Certification and plan notations have been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance

+ Clause	+ Reference	+ Comment
	+ must be lockable by a lock that faces a wheelchair accessible path. + If a structure contains multiple letterboxes, the structure must be in a prominent location. + At least 20% of the letterboxes on the site must be more than 600mm and less than 1,200mm above ground level (finished).	matters with the detailed design development / relevant Construction Certificate application.
4 Private car accommodation	If parking spaces attached to or integrated with a class 1 building under the Building Code of Australia are provided for use by occupants who are seniors or people with a disability, at least 1 parking space must: + Be at least 3.2m wide, and + be at least 2.5m high, and + have a level surface with a maximum gradient of 1:40 in any direction, and + be capable of being widened to 3.8m without requiring structural modifications to a building. + If parking spaces associated with a class 1, 2 or 3 building under the Building Code of Australia are provided in a common area for use by occupants who are seniors or people with a disability, the following applies: - o for a parking space not in a group—the parking space must comply with AS/NZS 2890.6, - o for a group of 2–7 parking spaces: ▪ at least 1 of the parking spaces must comply with AS/NZS 2890.6, and ▪ 50% of the parking spaces must: – comply with AS/NZS 2890.6, or – be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction, - o for a group of 8 or more parking spaces: ▪ at least 15% of the parking spaces must comply with AS/NZS 2890.6, and ▪ at least 50% of the parking spaces must: – comply with AS/NZS 2890.6, or	Compliance Readily Achievable: We have been advised that the Traffic Engineers compliance report addresses compliance with SEPP Housing 2021. In this regard refer to the Traffic Engineers compliance report. Note 1: concessions for Social Housing Providers can apply for carparking numbers where the ground floor is provided with accessible apartments / SOU's. Note 2: We do recommend the DA stage design consider this requirement to alleviate replanning of the carpark to satisfy SEPP Housing 2021.

+ Clause	+ Reference	+ Comment
	– be at least 3.2m wide and have a level surface with a maximum gradient of 1:40 in any direction. To avoid doubt, a parking space that complies with AS/NZS 2890.6 is only counted toward 1 of the requirements in subsection above. + At least 5% of any visitor parking spaces must comply with AS/NZS 2890.6. + A parking space required by this section to comply with AS/NZS 2890.6, other than a visitor parking space, is not required to include the international symbol of access. + If multiple parking spaces are accessible by a common access point, the access point must be secured by a power-operated garage door, vehicle gate, vehicle barrier or similar device. + A parking space, other than a parking space under subsection above, must be: - o secured by a power-operated door, or - o capable of accommodating the installation of a power-operated door, including by having: ▪ access to a power point, and ▪ an area for motor or control rods for a power-operated door. + A requirement in this section for a parking space to comply with AS/NZS 2890.6 extends to the associated shared area within the meaning of AS/NZS 2890.6. + In this section, a parking space is in a common area if it is not attached to or integrated with a hostel or independent living unit.	
5 Accessible entry	The main entrance to a dwelling must have: + a clear opening that complies with AS 1428.1, and + a circulation space in front of the door and behind the door that complies with AS 1428.1. This section does not apply to an entry for employees.	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters (including our comments below) with the detailed design development / relevant Construction Certificate application.

+ Clause	+ Reference	+ Comment
		Typical compliance matter; ensure circulation zones are accurate to demonstrate AS1428.1-2021 Cl. 13.3.2. To enable a front on approach: + Circulation on the inside of the doorset (when the door swings toward the user) should be 530mm; and + Circulation on the outside of the doorset (when the door swings away from the user) should be 510mm
6 Interior: General	+ An internal doorway must have an unobstructed opening that complies with AS 1428.1. + An internal corridor must have an unobstructed width of at least 1,000mm throughout. + The circulation spaces in front of and behind an internal doorway in the following areas must comply with AS 1428.1: - o a kitchen, - o a laundry, - o a bathroom, - o a toilet, - o a bedroom, - o a living area, - o the main area of private open space. + To avoid doubt, the above subsection regarding laundry areas does not apply to laundry facilities in a cupboard.	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters (including our comments below) with the detailed design development / relevant Construction Certificate application. The following comments are made: + Generally 1,000mm clear widths appear to be achieved except there appear to be areas where >1,000mm clearance is provided due to wall locations and other encroachments (such as skirtings and the like). E.g. the Spencer Street penthouse apartments, Valley apartments and villas/townhouses all floors generally should be reviewed for compliance with the 1,000mm clear width requirements. + Circulation space in front of and behind an internal doorway is to comply with AS 1428.1 and detailed on the plans i.e. to the main area of private open space; and the main bathroom etc. Note: Where access is via the bedroom B2 then this would

+ Clause	+ Reference	+ Comment
		require AS1428.1 circulation to the doorset leading into B2. + Ensure door circulation leading to main bed room satisfies AS1428.1-2021 Cl. 13.3.2. In this regard, confirmation required whether 510mm latch-side circulation is achieved at bedroom entry doorsets within the apartment corridor. This applies to the main bedroom associated with various 3B and 2B apartments based on the current plans; in this regard it is recommended that the final plans are updated accordingly. Note 1: Ensure apartments/SOU layouts are delivered with 1,000mm corridors throughout clear of obstructions such as fixed lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings and similar objects. Note 2: We do recommend the DA stage design consider this requirement to alleviate replanning of apartments/SOU layouts to satisfy SEPP Housing 2021.
7 Bedroom	+ At least one bedroom in a dwelling must have the following: - o a clear area, not including a circulation space, sufficient to accommodate: ▪ for a hostel—a wardrobe and a single-size bed, or ▪ for an independent living unit—a wardrobe and a queen-size bed, - o a clear area around the area for the bed of at least: ▪ 1,200mm at the foot of the bed, and ▪ 1,000mm on each side of the bed, - o at least 2 double general power outlets on the wall where the head of the bed is likely to be, + at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be.	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application.
8 Bathroom	+ At least one bathroom in a dwelling must be located on:	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying

+ Clause	+ Reference	+ Comment
	- o the same floor as the entry to the dwelling, or - o a floor serviced by a private passenger lift accessible only from inside the dwelling. + The bathroom must have the following— - o a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586-2013, - o a washbasin with tap ware capable of complying with AS 1428.1, including by future adaptation if the washbasin and tap ware continue to use existing hydraulic lines, - o a shower that: ▪ is accessible without a shower-hob or step, and ▪ complies with the requirements of AS 1428.1 for the entry, circulation space, floor gradient to the wastewater outlet and location of the mixer tap, and ▪ is in the corner of a room, and ▪ has a wall capable of accommodating the installation of a grab rail, portable shower head with supporting grab rail and shower seat, in accordance with AS 1428.1, - o a wall cabinet with shelving illuminated by an illumination level of at least 300 lux, - o a double general power outlet in an accessible location, in accordance with AS 1428.1 (including beside the mirror). The above subsection regarding shower requirements does not prevent the installation of a shower screen that can easily be removed to enable compliance with that paragraph.	compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application. Note 1: This requirement only applies to the single accessible sanitary facility and not other sanitary facilities (or powder rooms with a WC pan therein). Any enhancements to these other areas are over-and-above SEPP Housing requirements. Note 2: We do recommend the DA stage design consider this requirement to alleviate replanning of apartments/SOU layouts to satisfy SEPP Housing 2021. Note 3: Refer to the comments above relating to BCA Clause C2D10(6). Generally timber noggings/blocking/supports are not localised and cover the wall substantially. Where timber noggings/blocking/supports required for grab rail supports align within internal non-loadbearing fire-rated walls a Fire Engineered Performance Solution is required. The following recommended is made: + Where the location of fixtures such as WC pans, wash basins, sinks, laundry fixtures and any other fixtures are to be relocated post-adaptation to comply with AS1428.1, then the service pipes (waste and water supply pipes) have to be laid in the correct AS1428.1 specified position at pre-adaptation itself and the services to be capped off for future use. + Consideration to be given to set down the slab in the wet areas so that there is no level difference once the floor finishes are applied (i.e. flush

+ Clause	+ Reference	+ Comment
		transition from carpeted area to tiles area). + Where a floor waste is required, Cl.10.2.12 of the ABCB Livable Housing Standards requires that the floor must be graded at a minimum continuous fall of 1:80 to a floor waste and the floor must be graded at a maximum continuous fall of 1:50 to a floor waste. Notwithstanding, AS1428.1-2021 requires grades of maximum 1:80 hence should be adopted for this development. + This solution will likely lead to a Performance Solution for DDA compliant sanitary facilities where a minimum continuous fall of 1:100 is adopted in favour of 1:80 permitted under F2D4. + Hot water systems to be installed to deliver hot water at a maximum of 50°C at the hot water outlet.
9 Toilet	+ At least one toilet in a dwelling must be located on: - o the same floor as the entry to the dwelling, or - o a floor serviced by a private passenger lift accessible only from inside the dwelling. + The toilet must have the following: - o a water closet pan: ▪ in the corner of the room, and ▪ with a centreline set-out in accordance with AS 1428.1, - o a circulation space in front of the water closet pan that is: ▪ at least 1,200mm long and at least 900mm wide, and ▪ clear of door swings and fixtures, other than a toilet paper dispenser or grab rails, - o a circulation space around the water closet pan that complies with AS 1428.1, - o a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586-2013,	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application.

+ Clause	+ Reference	+ Comment
	o a wall capable of accommodating the installation of a back rest and grab rail that will comply with AS 1428.1. A removable shower screen may be located in the water closet pan circulation space specified in the subsection above.	
10 Surfaces & External Finishes	Balconies and external paved areas must have surfaces that are slip resistant and comply with: + the Building Code of Australia, or + The Standards Australia Handbook SA HB 198-2014, Guide to the specification and testing of slip resistance of pedestrian surfaces, published on 16 June 2014.	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters (including our comments below) with the detailed design development / relevant Construction Certificate application. The following recommended is made: + Where balconies / outdoor areas have been provided to ILU villas, provide the sliding doors such that the tracks are recessed, so level access can be provided to the balcony / outdoor areas from inside the villa. Also sliding doors in the living areas leading to outdoor areas are to be such that opening of the door is able to provide a clear opening space of 850mm with a latch side space of 530mm. + Grates to the threshold should be no more than 13mm where they run the length of the slider. + Consideration to be given to set down the slab in the wet areas so that there is no level difference once the floor finishes are applied (i.e. flush transition from carpeted area to tiles area). + A slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586-2013 on the basis that grade do not exceed 1:14.

+ Clause	+ Reference	+ Comment
11 Door hardware	Door handles and hardware for all doors, including entry doors and external doors, must comply with AS 1428.1. To avoid doubt, this subsection does not apply to cabinetry.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
12 Switches & Power points	Switches and power points must (a) comply with AS 1428.1, or (b) be capable of complying with AS 1428.1 through future adaptation. This subsection does not apply to (a) remote controls, or (b) power points likely to serve appliances that are not regularly moved or turned off.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
13 Private Passenger Lifts	+ This section applies to a private passenger lift that is required by this schedule to be accessible only from inside a particular dwelling. + The private passenger lift must— - o be at least 1,100mm wide and at least 1,400mm long, measured from the lift car floor, and - o have a clear indoor landing on all floors serviced by the lift, other than the floor on which the main area of private open space is located, at least 1,540mm long and at least 2,070mm wide, and - o have controls that comply with— ▪ AS 1735.12:2020, Lifts, escalators and moving walks, Part 12: Facilities for persons with disabilities, published on 26 June 2020, or ▪ AS 1735.15:2021, Lifts, escalators and moving walks, Part 15: Safety rules for the construction and installation of lifts — Special lifts for the transport of persons and goods — Vertical lifting platforms intended for use by persons with impaired mobility, published on 23 July 2021. + The width of the door opening of the private passenger lift must be at least 900mm. The private passenger lift must not be a stairway platform lift.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
Part 2	Additional Standards for independent living units	

+ Clause	+ Reference	+ Comment
14 Application of standards in this Part	The standards set out in this Part apply in addition to the standards set out in Part 1 to any seniors housing consisting of independent living units.	Noted:
15 Bedroom	At least one bedroom in an independent living unit that complies with this schedule, section 7 must be located on: + the same floor as the entry to the unit, or + a floor serviced by a private passenger lift accessible only from inside the unit.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
16 Living Room	+ A living room in an independent living unit must be located on: - o the same floor as the entry to the dwelling, or - o a floor serviced by a private passenger lift accessible only from inside the dwelling. + The living room must have— - o a circulation space that— ▪ is clear of all fixtures, and ▪ has a diameter of at least 2,250mm, and + a telecommunications or data outlet adjacent to a general power outlet.	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application.
17 Main area of Private Open Space	The main area of private open space for an independent living unit must be located on: + the same floor as the entry to the dwelling, or + a floor serviced by a private passenger lift accessible only from inside the dwelling.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
18 Kitchen	+ A kitchen in an independent living unit must be located on: - o the same floor as the entry to the dwelling, or - o a floor serviced by a private passenger lift accessible only from inside the dwelling. + The kitchen must have a circulation space with a diameter of at least 1,200mm between each bench top, cupboard or large appliance and each other bench top, cupboard or large appliance. + Each circulation space specified in the kitchen subsection above must be capable of being increased to a diameter of 1,550mm without: - o relocating the sink, or - o moving a load-bearing wall, or	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters (including our comments below) with the detailed design development / relevant Construction Certificate application. The following recommended is made: + Hot water systems to be installed to deliver hot water at

+ Clause	+ Reference	+ Comment
	○ breaching another circulation requirement. + The kitchen must have the following fittings: ○ a bench that includes at least one work surface that is: ▪ at least 800mm long, and ▪ clear of obstructions, and ▪ not in the corner of the room, ○ a lever tap set with the lever and water source that is within 300mm of the front of the bench, ○ a cooktop next to the work surface, ○ an isolating switch for the cooktop, ○ an oven that: ▪ has operative elements between 450mm and 1,250mm above the finished floor level, and ▪ is next to the work surface, ○ at least one double general power outlet located within 300mm of the front of a work surface. + The cupboards must: ○ not be entirely located in the corner of the bench or the corner of the room, and ○ face where the user of the fixture is likely to be. + An overhead cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the bottom of the cupboard. + A below-bench cupboard in the kitchen must be capable of being fitted with “D” pull cupboard handles towards the top of the cupboard. + The lever tap set, cooktop, isolating switch, oven and double general power outlet must— ○ not be in the corner of the bench or the corner of the room, and ○ face where the user of the fixture is likely to be. Cabinetry below a work surface must be able to be easily removed to allow wheelchair access to the work surface.	a maximum of 50°C at the hot water outlet.
19 Laundry	+ A laundry in an independent living unit must be located on: ○ the same floor as the entry to the dwelling, or	Compliance Readily Achievable: Certification has been provided by the relevant architect verifying

+ Clause	+ Reference	+ Comment
	- o a floor serviced by a private passenger lift accessible only from inside the dwelling. + The laundry must have the following: - o a circulation space that complies with AS 1428.1 at the approach to any external doors, - o an appropriate space for an automatic washing machine and a clothes dryer, - o a clear space in front of each appliance of at least 1,550mm, - o a slip resistant floor surface that achieves a minimum rating of P3 in accordance with AS 4586-2013, - o a continuous accessible path of travel to the main area of private open space or any clothes-line provided for the dwelling. + The space specified in subsection above relating to appliance clear space may overlap with a door swing or the circulation space for a door. + For laundry facilities in a cupboard, the cupboard must be capable of being fitted with “D” pull cupboard handles in the following locations: - o for below-bench cupboards—towards the top, - o for overhead cupboards—towards the bottom, - o for floor-to-ceiling doors—between 900mm and 1,100mm above the finished floor level. + In this section— laundry includes laundry facilities in a cupboard.	compliance with SEPP Housing 2021 Schedule 4. Furthermore, available documentation has been reviewed and compliance is capable subject to addressing any compliance matters with the detailed design development / relevant Construction Certificate application.
20 Storage for linen	An independent living unit must have a floor-to-ceiling linen storage cupboard that— (a) is at least 600mm wide, and (b) has adjustable shelving.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
21 Lifts in multi-storey buildings	An independent living unit on a storey above the ground storey must be accessible by a lift that complies with the Building Code of Australia, Volume 1, Part E3.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.
22 Garbage	A garbage storage area and a recycling storage area provided for an independent living unit must be accessible by a continuous accessible path of travel from the dwelling entrance.	Compliance Readily Achievable: Documentation verifying compliance to be provided with the relevant Construction Certificate application.

+ Clause	+ Reference	+ Comment
		application compliance. demonstrating