

# BUILDING CODE OF AUSTRALIA REPORT

# 28 LOCKWOOD AVE BELROSE NSW 2085

Four storey mixed used building over a basement

Report: **BCA342032-R1.1.2** 

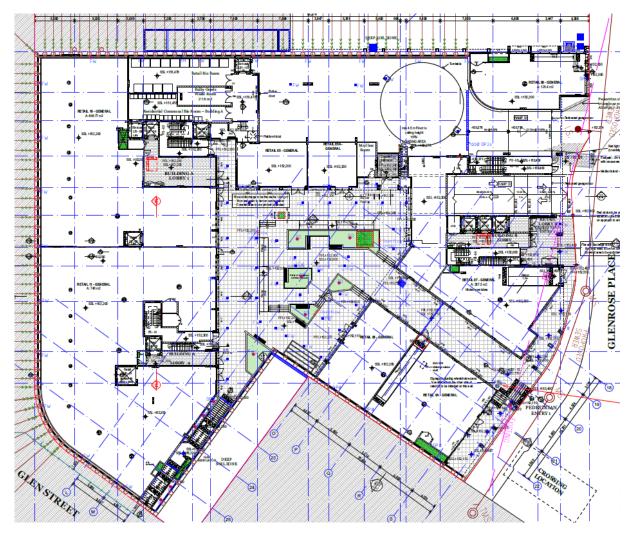
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Proposed development at 28 Lockwood Ave, Belrose NSW 2085

# **DOCUMENT RECORD**

# Document # BCA342032-R1.1.2

Details: 28 Lockwood Ave, Belrose NSW 2085

Issue Date	Revision	Prepared by	Signature
16/09/2024	R1.1	Manish Kumar	
30/09/2024	R1.1.1	Manish Kumar	
14/11/2024	R1.1.2	Manish Kumar	Mr. W



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#### 1 GENERAL

# 1.1 Location and description

The building is located at 28 Lockwood Ave, Belrose NSW 2085. The building comprises a mixed use development over a two storey underground basement for car parking. There is one retail storey at the ground floor that is under three residential storeys, and over a two storey basement. Effective height of the building is 10 m. Total floor area of the building is approximately 20,550 m², basement being the largest fire compartment of approximately 8,750 m². Total volume of the building is approximately 61,600 m³. The building is located on a corner lot and has direct access to Glenrose Place from Basement 02, as well as direct access to Lockwood Ave and Glenn Street from the ground level. The building is mixed use with building classification – Class 2, Class 6 & Class 7a.

# 1.2 Purpose

Purpose of this report is to identify the overall building status of compliance with current building regulations for the purpose of issuing approval for this development, including:

- Provides detailed assessment in accordance with the Deemed to Satisfy provisions of the National Construction Code 2022 Volume 1.
- Provides a summary of fire resistance levels applicable to various building elements.
- Provides a schedule of proposed fire safety measures and relevant standard of performance.

# 1.3 Building Code of Australia

This report is based on the Deemed to Satisfy provisions of the National Construction Series 2022 Volume 1– Building Code of Australia 2022 - Class 2-9 buildings (BCA).

#### 1.4 Limitations

This report is not a Part 6 certificate. It is based on plans that reflect early design that is subject to further modification. This report is based on the review of referenced documents only. All parties are responsible to ensure that design and construction fully reflects the requirements described in this report.

The assessment of disability access requirements is based on the provisions of the National Construction Code (NCC) 2022. The assessment does not cover all details of all relevant access requirements described in referenced documents such as AS1428.1-2009 and liveable housing design. Compliance with Part D4 of NCC 2022 does not preclude the possibility of a future complaint made under the Disability Discrimination Act 1992.

The report does not address matters in relation to:

- Structural adequacy of building materials or any other building material properties, including
  Fire Resistance Revels (FRL) of existing building elements. Where assumptions of FRL or
  other building material properties are made, these are based on expert opinion and are
  indicative only. Actual FRL and material properties are determined by tests and are outside
  the scope of this report;
- Status of maintenance of existing fire safety measures in the building and their capability to perform to a standard to which these fire safety measures were originally designed;



- Actual standard of performance of existing fire safety measures;
- Work health and safety regulations;
- Requirements of any other regulatory authorities including but not limited to RMS, Water services authorities, Energy supply authorities, Telecommunications Authorities, Local authorities;
- Requirements of referenced standards;
- Assessment of supporting documentation;
- Assessment of Performance solutions; and
- General condition of building fabric and building services.

This report has been prepared and/or reviewed by a registered building surveyor with registration corresponding to the building type.

All definitions included in the BCA and referenced regulations are relevant and are applied accordingly in this report.

In line with limitations listed in the Preface of Building Code of Australia Volume 1, no representation or warranty is made or given as to the currency, accuracy, reliability, merchantability, fitness for any purpose or completeness of this report and any information which may appear on any referenced websites, or in other linked information sources including referenced drawings, beyond those as stated in the Building Code of Australia. All such representations and warranties are excluded to the extent permitted by law.

Where in doubt of any information provided in this report, the user of the report should make all necessary inquiries to achieve the needed level of clarity by contacting the Australin Building Codes Board on:

Phone: 1300 134 631

Email: ncc@abcb.gov.au

This report reflects the deemed-to-satisfy provisions of the BCA. The report does not represent any legal, professional or design advice. Persons relying on this report are expected to have the necessary qualifications, understanding and ability to assess the appropriateness of the information included in this report and apply it as needed in the process of design development and approval of the finalised design. Persons rely on this report entirely at their own discretion and must take responsibility for assessing the relevance and accuracy of provided information in relation to their particular circumstances.



#### 1.5 Documentation

The following documentation has been viewed and assessed for the purposes of this revision in accordance with the conditions of the service proposal:

Drawing number, Issue	Title	Date
CC101 – Issue 2	BASEMENT 04 PLAN	Aug 2024
CC102 – Issue 2	BASEMENT 03 PLAN	Aug 2024
CC103 – Issue 2	BASEMENT 02 PLAN	Aug 2024
CC104 – Issue 2	LOWER GROUND FLOOR PLAN	Aug 2024
CC105 – Issue 2	GROUND FLOOR PLAN	Aug 2024
CC106 – Issue 2	LEVEL 01 PLAN	Aug 2024
CC107 – Issue 2	ROOF PLAN	Aug 2024

#### 1.6 Recommendations

The majority of the works, with minor exceptions, can be carried out in accordance with BCA Deemed-to-Satisfy DTS requirements. It is recommended that a modification of the design or performance solutions are considered to address deviations from DTS requirements C4D5, D2D3, D2D5, D2D12, D3D25, F6D2 and G6D4.

It is recommended an access report is obtained to clarify details regarding compliance with Part D4, clauses F4D5, F4D6 and also Part E3 where applicable. The review also identified several occasions where additional details or specifications need to be provided on architectural, electrical, hydraulic or fire services plans to ensure full compliance with the Deemed-to-Satisfy requirements of the BCA.



#### 2 BCA COMPLIANCE SUMMARY

The following table summarises the status of BCA 2022 compliance.

Abbreviations used in the summary are:

Complies – the building complies with the BCA requirements

Capable of Complying – plans do not show non-compliance and the building is capable of complying with the Deemed-to-satisfy (DTS) requirements of the BCA providing that details of building elements and their characteristics as well as methods of installation where applicable are included in the design documentation. In some cases compliance can be ensured during routine construction practice when carried out in accordance with manufacturer specifications, Australian standards and specifications provided in the BCA. It is recommended that requirements are detailed in drawings and building specifications as applicable and provided to the certifier prior to issuing the construction certificate.

Solution Required – refers to a DTS non-compliance that needs to be addressed by a performance solution or modifications to building elements to achieve compliance with DTS.

Performance Solution – Performance solution has been developed to address the DTS deviations. Assessment of performance solutions is not part of this report - refer section 1.4 Limitations.

Information Required – aspects of the design or construction need to be provided to the certifier to demonstrate compliance prior to issuing the construction certificate. This may be in the form of documentation referenced in BCA clause A5G3 Evidence of suitability – Volumes One and Two (BCA) as relevant and as noted in the tables of this report.

Note – a notation only, a statement summarising DTS requirements

n/a - requirement not applicable to this building

Other miscellaneous notations are used in several occasions – In such cases, please refer to details of the assessment in Part 5 of the report.

Part C2 Fire Resistance and Stability			
C2D1	Deemed-to-Satisfy Provisions	Note	
C2D2	Type of construction required	Type A	
Specification 5 - Fire Resisting Construction In		Information required	
C2D3	Calculation of rise in storeys	4	
C2D4	Buildings of multiple classification (Building classification)	Class 2, 6 & 7a	
C2D5	Mixed types of construction	n/a	
C2D6	Two storey Class 2, 3, or 9c buildings	n/a	
C2D7	Class 4 parts of buildings	n/a	
C2D8	Open spectator stands and indoor sports stadiums	n/a	
C2D9	Lightweight construction	Capable of complying	



C2D10	Non-combustible building elements	Information required
NSW C2D11	Fire hazard properties	Capable of complying
C2D12	Performance of external walls in fire	n/a
C2D13	Fire-protected timber: Concession	n/a
C2D14	Ancillary elements	Information required
C2D15	Fixing of bonded laminated cladding panels	Capable of complying
	Part C3 Compartmentation and Separation	
C3D1	Deemed-to-Satisfy Provisions	Note
C3D2	Application of Part	Note
C3D3	General floor area and volume limitations	Complies
C3D4	Large isolated buildings	n/a
C3D5	Requirements for open spaces and vehicular access	n/a
C3D6	Class 9 buildings	n/a
C3D7	Vertical separation of openings in external walls	Information required
C3D8	Separation by fire walls	Information required
C3D9	Separation of classifications in the same storey	Information required
C3D10	Separation of classifications in different storeys	Capable of complying
C3D11	Separation of lift shafts	Capable of complying
C3D12	Stairways and lifts in one shaft	n/a
C3D13	Separation of equipment	Information required
C3D14	Electricity supply system	Information required
C3D15	Public corridors in Class 2 and 3 buildings	Information required
	Part C4 Protection of Openings	
C4D1	Deemed-to-Satisfy Provisions	Note
C4D2	Application of Part	Note
C4D3	Protection of openings in external walls	n/a
C4D4	Separation of external walls and associated openings in different fire compartments	n/a
C4D5	Acceptable methods of protection	Solution required
C4D6	Doorways in fire walls	Information required
C4D7	Sliding fire doors	n/a
-		



C4D8	Protection of doorways in horizontal exits	Information required
C4D9	Openings in fire-isolated exits	Information required
C4D10	Service penetrations in fire-isolated exits	Information required
C4D11	Openings in fire-isolated lift shafts	Capable of complying
C4D12	Bounding construction: Class 2 and 3 buildings and Class 4 Parts	Information required
C4D13	Openings in floors and ceilings for services	Information required
C4D14	Openings in shafts	Information required
C4D15	Openings for service installations	Information required
C4D16	Construction joints	Information required
C4D17	Columns protected with lightweight construction to achieve an FRL	n/a
	Part D2 Provision for Escape	
D2D1	Deemed-to-Satisfy Provisions	Note
D2D2	Application of Part	Note
D2D3	Number of exits required	Solution Required
D2D4	When fire-isolated stairways and ramps are required	Complies
D2D5	Exit travel distances	Solution Required
D2D6	Distance between alternative exits	Complies
D2D7	Height of exits, paths of travel to exits and doorways	Capable of complying
D2D8	Width of exits and paths of travel to exits	Information required
NSW D2D9	Width of doorways in exits and paths of travel to exits	Capable of complying
D2D10	Exit width not to diminish in direction of travel	Compiles
NSW D2D11	Determination and measurement of exits and paths of travel to exits	Note
D2D12	Travel via fire-isolated exits.	Solution Required
D2D13	External stairways or ramps in lieu of fire-isolated exits	n/a
D2D14	Travel by non-fire-isolated stairways or ramps	Compiles
D2D15	Discharge from exits	Information required
D2D16	Horizontal exits	Complies
D2D17	Non-required stairways, ramps or escalators	n/a
D2D18	Number of persons accommodated	Note
D2D19	Measurement of distances	Note



D2D20	Method of measurement	Note
D2D21	Plant rooms, lift machine rooms and electricity network substations: Concession	Note
D2D22	Access to lift pits	Capable of complying
D2D23	Egress from primary schools	n/a
	Part D3 Construction of Exits	
D3D1	Deemed-to-Satisfy Provisions	Note
NSW D3D2	Application of Part	Note
D3D3	Fire-isolated stairways and ramps	Capable of complying
D3D4	Non-fire-isolated stairways and ramps	Capable of complying
D3D5	Separation of rising and descending stair flights	n/a
D3D6	Open access ramps and balconies	n/a
D3D7	Smoke lobbies	n/a
D3D8	Installations in exits and paths of travel	Capable of complying
D3D9	Enclosure of space under stairs and ramps	n/a
D3D10	Width of required stairways and ramps	n/a
D3D11	Pedestrian ramps	n/a
D3D12	Fire-isolated passageways	Information required
D3D13	Roof as open space	Capable of complying
D3D14	Goings and risers	Capable of complying
D3D15	Landings	Capable of complying
NSW D3D16	Thresholds	Capable of complying
D3D17	Barriers to prevent falls	Capable of complying
D3D18	Height of barriers	Capable of complying
D3D19	Openings in barriers	Capable of complying
D3D20	Barrier climbability	Capable of complying
D3D21	Wire barriers	Capable of complying
D3D22	Handrails	Information required
D3D23	Fixed platforms, walkways, stairways and ladders	n/a
D3D24	Doorways and doors	Capable of complying



D3D25	Swinging doors	Solution Required
D3D26	Operation of latch	Capable of complying
D3D27	Re-entry from fire-isolated exits	n/a
D3D28	Signs on doors	Capable of complying
D3D29	Protection of openable windows	Capable of complying
D3D30	Timber stairways: Concession	n/a
NSW D3D31	Doorways in paths of travel to an entertainment venue	n/a
	Part D4 Access for People with a Disability	
D4D1	Deemed-to-Satisfy Provisions	Note
D4D2	General building access requirements	Capable of complying
D4D3	Access to buildings	Capable of complying
D4D4	Parts of buildings to be accessible	Capable of complying
D4D5	Exemptions	n/a
D4D6	Accessible carparking	Capable of complying
D4D7	Signage	Capable of complying
D4D8	Hearing augmentation	n/a
D4D9	Tactile indicators	Capable of complying
D4D10	Wheelchair seating spaces in Class 9b assembly buildings	n/a
D4D11	Swimming pools	n/a
D4D12	Ramps	n/a
D4D13	Glazing on an accessway	Capable of complying
	Part E1 Fire Fighting Equipment	
E1D2	Deemed-to-Satisfy Provisions	Note
E1D2	Fire hydrants	Capable of complying
E1D3	Fire hose reels	Capable of complying
E1D4	Sprinklers	Capable of complying
E1D5	Where sprinklers are required: all classifications	n/a
E1D6	Where sprinklers are required: Class 2 and 3 buildings	Capable of complying
E1D7	Where sprinklers are required: Class 3 building used as a residential care building	n/a
E1D8	Where sprinklers are required: Class 6 building	n/a



E1D9	Where sprinklers are required: Class 7a building	Capable of complying
E1D10	Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings	n/a
E1D11	Where sprinklers are required: Class 9b buildings	n/a
E1D12	Where sprinklers are required: additional requirements	n/a
E1D13	Where sprinklers are required: occupancies of excessive hazard	n/a
E1D14	Portable fire extinguishers	Capable of complying
E1D15	Fire control centres	n/a
E1D16	Fire precautions during construction	Capable of complying
E1D17	Provision for special hazards	n/a
	Part E2 Smoke Hazard Management	
E2D1	Deemed-to-Satisfy Provisions	Note
E2D2	Application of requirements	Note
E2D3	General requirements	Capable of complying
E2D4	Fire-isolated exits	n/a
E2D5	Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	n/a
E2D6	Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings	n/a
E2D7	Buildings more than 25 m in effective height: Class 9a buildings	n/a
E2D8	Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	Capable of complying
E2D9	Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings	Capable of complying
NSW E2D10	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4	n/a
E2D11	Buildings not more than 25 m in effective height: Class 9a and 9c buildings	n/a
E2D12	Class 7a buildings	Capable of complying
E2D13	Basements (other than Class 7a buildings)	n/a
E2D14	Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	n/a
E2D15	Class 6 buildings – in fire compartments more than 2000 m2: Class 6 building (containing an enclosed common walkway or mall)	n/a



NSW E2D16	Class 9b – assembly buildings: all	n/a
NSW E2D17	Class 9b – assembly buildings: nightclubs discotheques and the like	n/a
NSW E2D18	Class 9b – assembly buildings: exhibition halls, museums art galleries	n/a
NSW E2D19	Class 9b – assembly buildings: other assembly buildings	n/a
NSW E2D20	Class 9b assembly buildings: other assembly buildings	n/a
E2D21	Provision for special hazards	n/a
	Part E3 Lift Installations	
E3D1	Deemed-to-Satisfy Provisions	Note
E3D2	Lift installations	Capable of complying
E3D3	Stretcher facility in lifts	n/a
E3D4	Warning against use of lifts in fire	Capable of complying
E3D5	Emergency lifts	n/a
E3D6	Landings	Capable of complying
E3D7	Passenger lift types and their limitations	Capable of complying
E3D8	Accessible features required for passenger lifts	Information required
E3D9	Fire service controls	Capable of complying
E3D10	Residential care buildings	n/a
E3D11	Fire service recall control switch	Capable of complying
E3D12	Lift car fire service drive control switch	Capable of complying
	Part E4 Emergency Lighting, Exit Signs and Warning Syst	<u>ems</u>
E4D1	Deemed-to-Satisfy Provisions	Note
E4D2	Emergency lighting requirements	Capable of complying
E4D3	Measurement of distance	Note
E4D4	Design and operation of emergency lighting	Capable of complying
E4D5	Exit signs	Capable of complying
NSW E4D6	Direction signs	Capable of complying
E4D7	Class 2 and 3 buildings and Class 4 parts: Exemptions	n/a
E4D8	Design and operation of exit signs	Capable of complying



 E4D9	Emergency warning and intercom systems	n/a
	Part F1 Surface Water Management, Rising Damp and External V	
F1D1	Deemed-to-Satisfy Provisions	Note
F1D2	Application of Part	Note
F1D3	Stormwater drainage	Capable of complying
F1D4	Exposed Joints	Capable of complying
F1D5	External waterproofing membranes	Capable of complying
F1D6	Damp-proofing	Capable of complying
F1D7	Damp-proofing of floors on the ground	Capable of complying
F1D8	Sub-floor ventilation	n/a
1 100	Part F2 Wet Areas and Overflow Protection	TI/A
F2D1	Deemed-to-Satisfy Provisions	Note
F2D2	Wet area construction	Capable of complying
F2D3	Rooms containing urinals	n/a
F2D4	Floor wastes	Capable of complying
FZD4	Part F3 Roof and Wall Cladding	Capable of complying
F3D1	Deemed-to-Satisfy Provisions	Note
F3D2	Roof coverings	Capable of complying
		, .
F3D3	Sarking Clazed eccephilics	Capable of complying
F3D4	Glazed assemblies	Capable of complying
F3D5	Wall Cladding	Capable of complying
E4D4	Part F4 Sanitary and Other Facilities	Nists
F4D1	Deemed-to-Satisfy Provisions	Note
F4D2	Facilities in residential buildings	Capable of complying
F4D3	Calculation of number of occupants and facilities	Note
F4D4	Facilities in Class 3 to 9 buildings	Information required
F4D5	Accessible sanitary facilities	Capable of complying
F4D6	Accessible unisex sanitary compartments	Capable of complying
F4D7	Accessible unisex showers	n/a
F4D8	Construction of sanitary compartments	Capable of complying
F4D9	Interpretation: Urinals and washbasins	Note



NSW F4D10	Microbial (legionella) control	n/a
F4D11	Waste management	n/a
F4D12	Accessible adult change facilities	n/a
	Part F5 Room Heights	
F5D1	Deemed-to-Satisfy Provisions	Note
F5D2	Height of rooms and other spaces	Information required
	Part F6 Light and Ventilation	
F6D1	Deemed-to-Satisfy Provisions	Note
F6D2	Provision of natural light	Solution required
F6D3	Methods and extent of natural lighting	Information required
F6D4	Natural light borrowed from adjoining room	Information required
F6D5	Artificial lighting	Capable of complying
NSW F6D6	Ventilation of rooms	See F6D7
F6D7	Natural ventilation	Information required
F6D8	Ventilation borrowed from adjoining room	See F6D4
F6D9	Restriction on location of sanitary compartments	See F6D10
F6D10	Airlocks	Capable of complying
F6D11	Carparks	Capable of complying
F6D12	Kitchen local exhaust ventilation	n/a
	Part F7 Sound Transmission and Insulation	
F7D1	Deemed-to-Satisfy Provisions	Note
F7D2	Application of Part	Note
F7D3	Determination of airborne sound insulation ratings	Capable of complying
F7D4	Determination of impact sound insulation ratings	Capable of complying
F7D5	Sound insulation rating of floors	Capable of complying
F7D6	Sound insulation rating of walls	Capable of complying
F7D7	Sound insulation rating of internal services	Capable of complying
F7D8	Sound isolation of pumps	Capable of complying
Part F8 Condensation Management		
F8D1	Deemed-to-Satisfy Provisions	Note
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F8D2	Application of Part	Note				
F8D3	External wall construction	Capable of complying				
F8D4	Exhaust systems	Capable of complying				
F8D5	Ventilation of roof spaces	n/a				
	Part G1 Minor Structures and Components					
	This part is not applicable to the building except NSW G1D5					
NSW G1D5	Provision for cleaning windows	Capable of complying				
	Part G2 Boilers Heating Appliances, Fireplaces, Chimneys an	nd Flues				
	This part is not applicable to the building					
Part G3 Atrium Construction						
	This part is excluded from the scope of services					
	Part G4 Construction in Alpine Areas					
	This part is not applicable to the building					
	Part G5 Construction in Bushfire Prone Areas					
	This part is not applicable to the building					
Part G6 Occupiable Outdoor Areas						
G6D1	Application of Part	Note				
G6D2	Fire hazard properties	Capable of complying				
G6D3	Fire separation	Capable of complying				
G6D4	Provision for escape	Solution required				
G6D5	Construction of exits	Capable of complying				
G6D6	Fire fighting equipment	Capable of complying				
G6D7	Lift installations	Refer to Part E3				
G6D8	Visibility in an emergency, exit signs and warning systems	Refer to Part E4				
G6D9	Light and ventilation	Complies				
G6D10	Fire Orders	n/a				
	Part G7 Livable Housing Design					
	This part is not applicable to the building					
	Section I Special Use Buildings					
	This section is not applicable to the building					



# Section J Energy Efficiency

This section is not included in the scope of services



# 3. FIRE RESISTANCE LEVELS SUMMARY

Item	FRL	FRL	FRL
	Class 2	Class 6	Class 7a
External walls:			
Less than 1.5 m from side boundary	90/90/90	180/180/180	120/120/120
- 1.5 m to less than 3 m from side boundary	90/60/60	180/180/120	120/ 90/ 90
3 m and over from side boundary	90/60/30	180/120/ 90	120/ 60/ 30
External walls, non-loadbearing:			
Less than 1.5 m from side boundary	-/90/90	-/180/180	-/120/120
<ul> <li>1.5 m to less than 3 m from side boundary</li> </ul>	-/60/60	-/180/120	-/90/90
3 m and over from side boundary	-/-/-	-/-/-	-/-/-
External columns:			
- loadbearing	90/-/-	180/–/–	120/–/–
<ul> <li>non-loadbearing</li> </ul>	-/-/-/	-/-/-	-/-/-
Common walls and Fire walls	90/90/90	180/180/180	120/120/120
Internal walls, loadbearing:			
- Fire resisting lift and stair shafts	90/90/90	180/120/120	120/120/120
- Bounding public corridors, public lobbies and the like	90/90/90	180/-/-	120/-/-
Between or bounding SOUs	90/90/90	180/-/-	120/-/-
Ventilating, pipe, garbage, and like shafts			
not used for the discharge of hot products	90/90/90	180/120/120	120/90/90
of combustion			
Internal walls, non-loadbearing:			
- Fire resisting lift and stair shafts	-/90/90	-/120/120	-/120/120
- Bounding public corridors, public lobbies	-/60/60	-/-/-	-/-/-
and the like			
Between or bounding SOUs	-/60/60	-/-/-	-/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	-/90/90	-/120/120	-/90/90
Other loadbearing internal walls, beams trusses and columns	90/-/-	180/-/-	120/-/-



Item	FRL	FRL	FRL
	Class 2	Class 6	Class 7a
Floors:			
Basement 03			120/120/120
Basement 02		180/180/180	
Lower ground floor	180/180/180	180/180/180	
Ground floor over retail		180/180/180	
Ground floor over residential	90/90/90	180/180/180	
Level 01 over retail	180/180/180		
Level 01 over residential	90/90/90		
Roof	Non-combustible*		

<sup>\*</sup>Refer concessions under C2D2



# 4. FIRE SAFETY MEASURES SUMMARY

Required fire safety measure	Standard of performance		
Automatic fire detection & alarm system – smoke alarm system	BCA E2D8, E2D9, Spec 20, S20C3 and S20C4, AS 3786-2014, AS1670.1:2018		
Automatic fire suppression system	BCA E1D4, E1D6,		
	AS2118.1-2017 or		
	FPAA 101D-2018 or		
	FPAA 101H-2018		
Automatic fire suppression system – Class 7a	BCA E1D4, E1D9, AS2118.1-2017 or AS2118.6-2012		
Alarm monitoring system	BCA E1D4, E1D6, S17C2, S18C3, AS1670.3:2018		
Building occupant warning system	BCA E2D8, E2D9, Spec 20, S20C3 and S20C4, S20C7, AS 3786-2014, AS1670.1:2018		
Emergency lighting	BCA E4D2, E4D4, AS/NZS 2293.1:2018		
Exit signs	BCA E4D5, NSW E4D6, E4D8, AS/NZS 2293.1:2018		
Fire doors	BCA C4D5, C4D8, C4D9, C4D11, C4D12, BCA Spec 12, AS 1905.1-2015		
Fire hose reel systems	BCA E1D3, AS 2441-2005		
Fire hydrant systems	BCA E1D2, AS 2419.1-2021		
Fire seals protecting openings in fire resisting components in buildings	BCA C4D13 & C4D15, BCA Spec 13, AS4072.1-2005, AS1530.4-2014		
Mechanical air handling systems – carpark ventilation	BCA E2D12, AS 1668.1-2015		
Portable fire extinguishers	BCA E1D14, AS 2444 – 2001		

# Note:

Other fire safety measures may be required after detailed design is completed



#### 5. BCA ASSESSMENT

### **SECTION C - FIRE RESISTANCE**

# Part C2 Fire Resistance and Stability

### C2D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part C2 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part C2.

# C2D2 Type of construction required

Return to summary

Purpose:

To establish the minimum fire-resisting construction required for the building.

#### Comments:

The building is a 6 contained storey building comprising a retail premises at the ground floor (on drawings as basement 02), as well three residential stories with a retail part at level 01. The required type of construction is Type A construction. Details of wall systems are required to be shown with FRL requirements in accordance with the tables under S5C11 and Section 3 of this report to determine if the building complies with requirements.

Concession that applies to this building:

S5C15: Roof Concession

A roof need not comply with Table S5C11g if its covering is non-combustible and the building—

- (a) has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or
- (b) has a rise in storeys of 3 or less; or
- (c) is of Class 2 or 3; or
- (d) (not applicable)

As a result of this concession the roof is permitted not to have FRL when the roof covering is of non-combustible material.

Shafts required to achieve FRL need to be enclosed at top and bottom by construction achieving the same FRL. Garbage shafts need to be enclosed at top and bottom by construction achieving the FRL required for the shaft.



# C2D3 Calculation of rise in storeys

Return to summary

Purpose:

To establish a method for the calculation of the rise in storeys of the building, as a means of helping determine the building's required type of construction.

Comments:

The building has 4 above ground storeys and a two underground basement storeys. The building has a rise of storeys - 4.

# C2D4 Buildings of multiple classification

Return to summary

Purpose:

To establish the type of construction required for a building that contains more than one Class.

Comments:

The building comprises the following areas of different classification:

- Class 2 a building containing two or more sole occupancy units each being a separate dwelling
- Class 6 –a shop or other building used for the sale of goods by retail or the supply of services direct to the public.
- Class 7a carpark

### C2D5 Mixed types of construction

Return to summary

Purpose:

To specify the circumstances in which the building may be of more than one type of construction.

Comments: This clause is not applicable to the building.

### C2D6 Two storey Class 2, 3 or 9c buildings

Return to summary

Purpose:

This clause provides concessions for

- low-rise Class 2 and Class 3 buildings provided with a good means of egress; and
- sprinkler protected Class 9c buildings

Comments: This clause is not applicable to the building.

# C2D7 Class 4 parts of buildings

Return to summary

Purpose:

To specify that Class 4 parts of buildings are subject to the same requirements for fire resistance levels (FRLs) and separation as would apply to Class 2 parts in similar circumstances.

Comments: This clause is not applicable to the building.



Return to summary

# C2D8 Open spectator stands and indoor sports stadiums

### Purpose:

To grant a concession for open spectator stands and indoor sports stadiums

Comments: This clause is not applicable to the building.

# C2D9 Lightweight construction

Return to summary

### Purpose:

To specify the requirements for the use of lightweight construction in:

- circumstances which require walls with a fire-resistance level (FRL);
- certain high use buildings; and
- fire-resisting covering of steel columns or the like

#### Comments:

Lightweight construction must comply with Specification 6 if used in a wall system required to achieve FRL. Evidence for compliance needs to be provided by the supplier.

# C2D10 Non-combustible building elements

Return to summary

# Purpose:

To specify the non-combustibility for building elements and to permit the use of certain materials that are known to provide acceptable levels of fire safety where an element is required to be non-combustible.

# Comments:

In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible:

- i) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation.
- ii) The flooring and floor framing of lift pits.
- iii) Non-loadbearing internal walls where they are required to be fire-resisting.

A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification 5.

Details of construction for walls listed above needs to be provided.

### NSW C2D11 Fire hazard properties

Return to summary

### Purpose:

To stipulate the minimum fire hazard properties of materials susceptible to the effects of flame or heat.

# Comments:



Where floor covering and wall linings are used, materials must comply with the requirements of BCA Specification 7. Where a building is not fitted with a sprinkler system, the floor covering must have a critical radiant flux of not less than 2.2 kW/m², and may be reduced to 1.2 kW/m² where sprinklers have been provided. Any wall or ceiling linings must comply with the material requirements under AS 5637.1.

#### C2D12 Performance of external walls in fire

Return to summary

# Purpose:

To minimise the risk of any concrete external wall collapsing outwards as a complete panel during a

Comments: This clause is not applicable to the building.

### C2D13 Fire-protected timber: Concession

Purpose:

Return to summary

To permit fire-protected timber to be used where an element is required to be non-combustible.

Comments: This clause is not applicable to the building.

# C2D14 Ancillary elements

Return to summary

### Purpose:

To permit certain building components that may contain a limited amount of combustible material to be attached to an external wall required to be non-combustible

### Comments:

Finishes do not show use of combustible materials as ancillary elements. Providing non-combustible materials are used the building will comply with this clause.

Plans show use of louvres and awnings. Details of materials need to be provided.

# C2D15 Fixing of bonded laminated cladding panels

Return to summary

# Purpose:

To specify the types of cladding panels that may be attached to an external wall.

### Comments:

Where bonded laminate cladding is used, details need to be provided on drawings demonstrating compliance with this clause.



# Part C3 Compartmentation and Separation

Return to summary

# C3D1 Deemed-to-Satisfy Provisions

Purpose:

To clarify the application of Performance Solutions to Part C3 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part C3.

# C3D2 Application of Part

Return to summary

Purpose:

To clarify that the floor area limitations of Part C2 do not apply to certain buildings.

Comments: Defines application of part C3.

#### C3D3 General floor area and volume limitations

Return to summary

Purpose:

To limit the size of any fire in a building by limiting the size of the floor area and volume of a fire compartment.

Comments: The building complies with this clause.

# C3D4 Large isolated buildings

Purpose:

Return to summary

To grant concessions for large isolated buildings from the floor area and volume limitation.

Comments:

A building is permitted to exceed the area of a fire compartment specified in C3D4Where the building is provided throughout with a sprinkler system complying with Specification 17 (AS 2118.1 or AS2118.6 system in this case) and perimeter access in accordance with C3D5. Perimeter access is not provided for this building.

### C3D5 Requirements for open spaces and vehicular access

Return to summary

Purpose:

To set the minimum requirements for open space around a building and the provision of vehicular access for the fire brigade.

Comments: This clause is not applicable to the building.

### C3D6 Class 9 buildings

Purpose:

Return to summary



To protect patients in a health-care building and residents in an aged care building from the spread of fire and smoke.

Comments: This clause is not applicable to the building.

### C3D7 Vertical separation of openings in external walls

Return to summary

# Purpose:

To minimise the risk of fire spreading from one floor to another via openings in external walls in buildings of Type A construction.

#### Comments:

Details of elevations need to be provided to confirm whether the building complies with this clause.

# C3D8 Separation by fire walls

Return to summary

#### Purpose:

To explain that buildings separated by a fire wall may be considered as fire compartments or be regarded as separate buildings.

### Comments:

Refer to Clause C3D13 and Clause C3D14 below. Residential part of the ground floor and lower ground floor, needs to be separated from the retail part with construction achieving 180/180/180 unless the entire ground and/or lower ground floor meets the FRL requirements of Class 6 construction.

# C3D9 Separation of classifications in the same storey

Return to summary

# Purpose:

To minimise the risk of a fire in one classification on a storey causing the failure of building elements in another classification on the same storey.

#### Comments:

Residential part of the Ground Floor and Lower Ground Floor, needs to be separated from the retail part with construction achieving 180/180/180 unless the entire ground and/or lower ground floor meets the FRL requirements of Class 6 construction.

Return to summary

# C3D10 Separation of classifications in different storeys

### Purpose:

To minimise the risk of a fire in one classification causing the failure of building elements in another classification in a different storey.

# Comments:

Basement 03 needs to be separated from Basement 02 with construction achieving FRL of 180/180/180. Basement 02 and Lower Ground Floor need to be separated with construction



achieving 180/180/180 below the residential part of the Lower Ground Floor. Parts of units LG04 and LG03 are located under retail areas on Ground floor. Floor under the retail areas of ground floor needs to achieve FRL of 180/180/180. Certification by structural engineer that the slabs are designed to achieve FRL in accordance with AS 3600 is required to support the construction certificate. FRL requirements need to be shown on sections in addition to engineer's certification.

### C3D11 Separation of lift shafts

Return to summary

### Purpose:

To minimise the risk of a fire spreading from one floor to another floor of a building by way of a lift opening.

#### Comments:

Lift shaft needs to be separated with construction achieving FRL of not less than 120/120/120 for the basement, 180/180/180 for retail parts at the ground floor, and 90/90/90 for residential floors, in accordance with Specification 5. Certification by structural engineer that lift shaft is designed to achieve FRL in accordance with AS 3600 is required to support the construction certificate (BCA Schedule 5 clause 2(d)(ii)). FRL requirements need to be shown on plans.

# C3D12 Stairways and lifts in one shaft

Return to summary

# Purpose:

To maintain a safe evacuation route for people using a fire-isolated stairway, by separating the stairway shaft from the lift shaft.

Comments: This clause is not applicable to the building.

### C3D13 Separation of equipment

### Purpose:

Return to summary

To limit the spread of fire from service equipment having a high fire hazard or potential for explosion and to ensure emergency equipment continues to operate during a fire.

#### Comments:

Services rooms are required to be separated from the rest of the building by construction achieving FRL of 120/120/120 if rooms accommodate lift equipment, smoke control plant, emergency generators, batteries or boilers. Doorways must be self-closing and achieve FRL of not less than -/120/30. Pump rooms need to be separated in accordance with AS2419.1.

# C3D14 Electricity supply system

### Purpose:

Return to summary

To limit the spread of fire from electrical equipment and to enable the uninterrupted operation of emergency equipment during a fire.

#### Comments:



An electrical room containing the main switchboard is required to be separated from the rest of the building if the main switchboard supports equipment required to operate in an emergency mode. Doorways much achieve FRL of -/120/30, self-closing. Details need to be shown on plans.

# C3D15 Public corridors in Class 2 and 3 buildings

Return to summary

### Purpose:

To minimise the risk of long public corridors in Class 2 and Class 3 buildings becoming smoke logged.

Comments: Corridors in the class 2 part exceed 40 m: Lower Ground Floor Building A Lobby 1; Ground Floor Building B Lobby; Level 1 Building A Lobby 1. Corridors need to be separated by smoke walls and doors. Details need to be provided on door schedules.

# **Part C4 Protection of Openings**

# C4D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part C4 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part C4.

# Return to summary

### C4D2 Application of Part

Purpose:

To clarify which openings must comply with the Deemed-to-Satisfy Provisions of Part C4.

Comments: Defines application of part C4.

# Return to summary

### C4D3 Protection of openings in external walls

#### Purpose:

To require any opening in external walls to be protected, only where the wall is required to have an FRL, to prevent the spread of fire from the boundary of an adjoining allotment, or one building to another building on the same allotment

#### Comments:

As there are no walls closer than 3 m to the side boundaries, this clause in not applicable to the building.

# C4D4 Separation of external walls and associated openings in different fire compartments

Return to summary

Purpose:

To limit the spread of fire between fire compartments through external walls and the openings in them.



Comments: This clause in not applicable to the building.

### C4D5 Acceptable methods of protection

Return to summary

Purpose:

To set out acceptable methods of protection required for different types of openings in a building.

#### Comments:

A modification of the design or performance solution is required where the openings identified at clause D2D12 below, are not permanently closed and achieving FRL -/60- or protected with fire shutters achieving this FRL or protected with internal or external drenchers. In order to comply with this clause doors in affected openings need be self-closing, achieving FRL of -/60/30.

# C4D6 Doorways in fire walls

Return to summary

Purpose:

To maintain the integrity of walls required to have FRL by limiting the spread of fire through doorways.

#### Comments:

Plans shows doorways will be required from the fire wall at the Class 6 part of the building on Ground and Lower Ground floors. Details need to be provided on door schedules confirming compliance with this clause.

# C4D7 Sliding fire doors

Return to summary

Purpose:

To avoid danger to occupants caused by the automatic closing of a sliding fire door.

Comments: Plans do not show sliding fire doors, the clause is not applicable to the building.

#### C4D8 Protection of doorways in horizontal exits

Return to summary

Purpose:

To provide occupants using a horizontal exit with the same protection as those using a fire isolated exit.

### Comments:

Horizontal exits are in place for retail tenancies 12 and 13 as two exits are required from these tenancies. Doorways into the class 2 corridors need to be self-closing, achieving FRL of -/180/30.

# C4D9 Openings in fire-isolated exits

Return to summary

Purpose:

To maintain the integrity of a fire-isolated exit and to protect people using fire-isolated exits by providing adequately protected door and window openings.



#### Comments:

Doorways into fire isolated exits need to achieve FRL of -/60/30, self-closing. Details need to be provided on door schedules. FRL may be reduced where AS 2118.1 sprinkler system is installed.

### C4D10 Service penetrations in fire-isolated exits

Return to summary

# Purpose:

To maintain the integrity of a fire-isolated exit and to protect the people using them by providing protection to service penetrations.

#### Comments:

Fire isolated exits must not be penetrated by any services other than electrical wiring for fire services and security, stair pressurization system and water supply pipes for fire services. Where such penetrations occur, these need to be protected in accordance with clause C4D15. Details are required to be shown on plans or building specifications. Passive fire services report may also be provided to address requirements.

# C4D11 Openings in fire-isolated lift shafts

Return to summary

### Purpose:

To maintain the integrity of a fire-isolated lift shaft and to limit the spread of fire from one floor of a building to another floor by way of a lift shaft.

#### Comments:

Details need to be provided on plans or building specifications to show that compliance will be achieved.

# C4D12 Bounding construction: Class 2 and 3 buildings and Class 4 parts

Return to summary

# Purpose:

To maintain the performance of a wall bounding any sole-occupancy unit or public corridor in Class 2 or Class 3 buildings; and any sole-occupancy unit (SOU) in a Class 4 part.

#### Comments:

Plans need show FRL for SOU entry doors -/60/30 or provide door schedule with details. FRLs may be reduced where AS 2118.1 sprinkler system is installed. Passive fire services report may be provided to illustrate walls required to achieve FRL.

### C4D13 Openings in floors and ceilings for services

Return to summary

#### Purpose:

To limit the spread of fire through service openings in floors and ceilings required to resist the spread of fire.

#### Comments:



Services penetrating fire resisting construction in a building construction Type A need to be enclosed in a shaft complying with Specification 5 or be protected in accordance with C4D15. Details need to be provided on plans or in building specifications. Passive fire services report may also be provided to address requirements.

### C4D14 Openings in shafts

Return to summary

Purpose:

To maintain the fire performance of the floor by limiting the spread of fire through openings in shafts.

#### Comments:

Doors to shafts need to achieve the FRLs specified by this clause or be non-combustible in the case of a garbage shaft. Details need to be provided on plans or in building specifications. Passive fire services report may also be provided to address requirements.

# C4D15 Openings for service installations

Purpose:

Return to summary

To maintain the fire performance of building elements by limiting fire spread by way of service penetrations.

#### Comments:

Where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to have an FRL or resistance to incipient spread of fire, that installation must comply with Specification 13. Details need to be provided on plans or in building specifications. Passive fire services report may also be provided to address requirements.

### C4D16 Construction joints

Return to summary

Purpose:

To limit the spread of fire between building elements required to be fire-resisting.

# Comments:

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 AS1530.4 to achieve the required FRL. Details need to be provided on plans or in building specifications. Passive fire services report may also be provided to address requirements.

# C4D17 Columns protected with lightweight construction to achieve an FRL

Return to summary

Purpose:

To prohibit columns with lightweight fire protection from lowering the fire-resistance levels (FRLs) of other building elements.

Comments: This clause is not applicable to the development.



### **SECTION D - ACCESS AND EGRESS**

# Part D2 Provision for Escape

# D2D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part D2 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part D2.

# **D2D2** Application of Part

Return to summary

Purpose:

To exempt internal parts of sole-occupancy units in Class 2 and Class 3 buildings and Class 4 parts from the Part D1 Deemed-to-Satisfy Provisions.

Comments: Defines application of part D2.

### D2D3 Number of exits required

Return to summary

Purpose:

To require the provision of sufficient exits to enable safe egress in case of an emergency.

Comments:

Egress from Basement 03 and 04 as well as Retail 12 and 13 require two exits due to vertical rise within the building exceeding 1.5 m. The roof level contains services equipment. Plans need to either show a stairway or another method of reaching this storey in accordance with clause D2D21. A modification of the design or performance solution is required to address this deviation.

### D2D4 When fire-isolated stairs and ramps are required

Return to summary

Purpose:

To indicate when fire-isolated stairways and ramps are required to enable safe egress in case of a fire.

Comments:

Drawings show fire isolated exits have been provided. Providing FRLs in accordance with specification 5 for the stair shafts are met, the building will comply with this clause.

#### D2D5 Exit travel distances

Return to summary

Purpose:

To maximise the safety of occupants by enabling them to be close enough to an exit to safely evacuate.



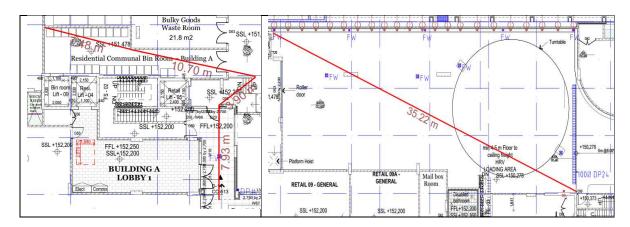
# Comments:

Plans indicate exit travel distances are exceeded at each storey as follows:

# Basement 02

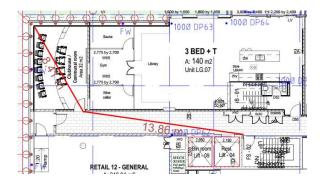
Providing that stairs connecting the central courtyard with Glen Street are not covered, the central courtyard is an open space connected to the road.

- Travel distance in the residential bin room is more than 20 m to an exit (open space), 30.5 m
- Retail waste room travel distance is more 20 m to an exit (35.5 m).

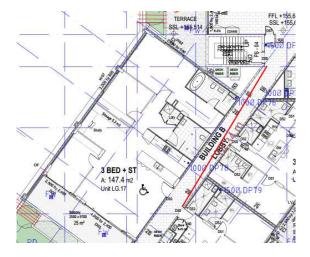


# Lower Ground Level

Communal room - over 20 m to the nearest exit, up to 22.5 m.



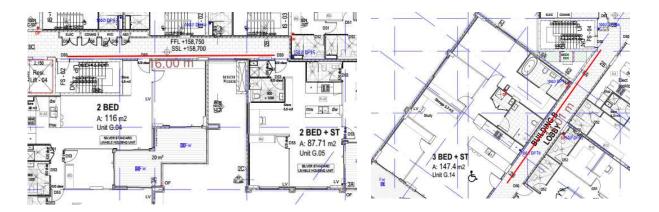
Travel distance from doorways of units LG 16 and LG 17 to the single exit exceeds 12 m (15.0 m)





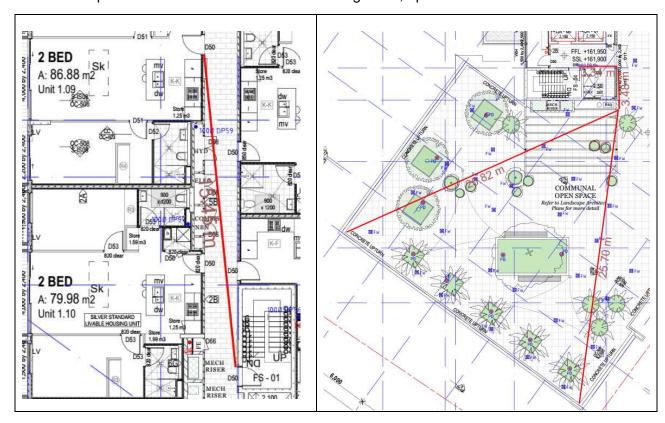
# **Ground Level**

- Building A lobby 1, Unit G05 over 12 m to a single exit, up to 15.5 m.
- Building B lobby, Unit G14 over 12 m to the point where travel towards two exits is available, up to 14 m.



# Level 01

- Building A lobby 2 over 12 m to a single exit, up to 15.5 m.
- Occupiable outdoor area over 20 m to a single exit, up to 33 m.



A modification of the design or performance solution is required to address these deviations.



#### D2D6 Distance between alternative exits

Return to summary

### Purpose:

To require that if an exit is inaccessible, access to any required alternative exit must be available within a reasonable distance and the access to an alternative exit is unaffected.

Comments: The building complies with this clause.

# D2D7 Height of exits, paths of travel to exits and doorways

Return to summary

#### Purpose:

To require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate safely within a reasonable time.

#### Comments:

Room heights indicate that the building will comply with this clause. Height throughout exits must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.

### D2D8 Width of exits and paths of travel to exits

Return to summary

# Purpose:

To require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate safely within a reasonable time.

### Comments:

Corridors and passageways or stairways serving as exits or path of travel to exits need to be at least 1 m wide. Details are required to be shown on plans.

# NSW D2D9 Width of doorways in exits or paths of travel to exits

Return to summary

# Purpose:

To require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate safely within a reasonable time.

#### Comments:

The building is capable of complying with this clause. Details of doorways need to be provided on door schedules.

#### D2D10 Exit width not to diminish in direction of travel

Return to summary

# Purpose:

To require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate safely within a reasonable time.

Comments: The building complies with this clause.



# D2D11 Determination and measurement of exits and paths of travel to exits

Return to summary

### Purpose:

To require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate safely within a reasonable time.

Comments: Provides method for determining required widths.

### D2D12 Travel via fire-isolated exits

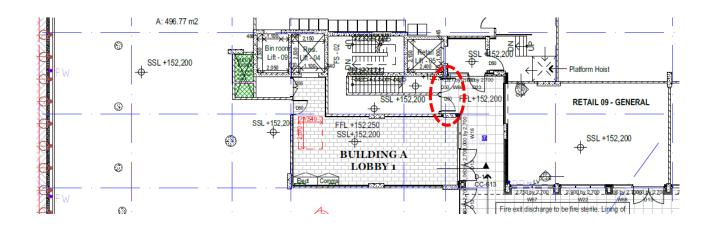
Return to summary

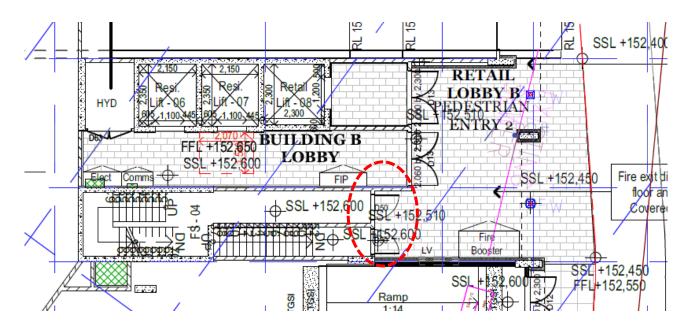
# Purpose:

To enable occupants to safely enter a fire-isolated exit which discharges to a safe location.

#### Comments:

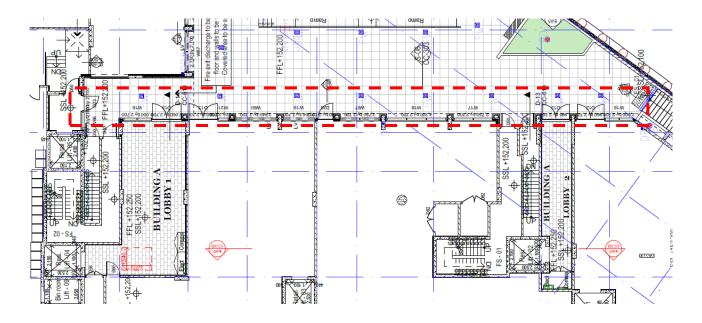
Plans show the fire isolated exits next to Building A lobby 1, and also the Building B lobby, discharge within the confines of the building,, an area not open to 2/3 of its perimeter as shown below. A modification of the design or performance solution is required to address these deviations.







The path of travel from the fire isolated stairs at Building A lobby 1 & 2 also passes within 6 m of openings in an external wall, shown below. A modification of the design or performance solution is required to address this deviation.



## D2D13 External stairways or ramps in lieu of fire-isolated exits

Return to summary

## Purpose:

To detail the circumstances in which an external stairway or ramp can be provided instead of a fire-isolated stairway or fire-isolated ramp.

Comments: This clause is not applicable to the building.

## D2D14 Travel by non-fire-isolated stairways or ramps

Return to summary

## Purpose:

To require that a person using a non-fire-isolated stairway or ramp be provided with a safe evacuation path.

Comments: The building complies with this clause.

## D2D15 Discharge from exits

Return to summary

## Purpose:

To require the safe discharge from an exit to a road or open space.

#### Comments:

Width of paths of travel to the road from the exits, including ramps and stairs, need needs to be at least 1000 mm to be shown on drawings.



### D2D16 Horizontal exits

Return to summary

Purpose:

To detail how the installation of horizontal exits in a building is permitted as an alternative to a conventional exit.

Comments:

Retail units 12 and 13 require two exits one of which being a horizontal exit. The building complies with this clause.

## D2D17 Non-required stairways, ramps or escalators

Return to summary

Purpose:

To limit the spread of fire and smoke through unprotected openings for stairways, ramps, escalators and moving walkways.

Comments: This clause is not applicable to the building.

## D2D18 Number of persons accommodated

Return to summary

Purpose:

To establish a methodology for calculating Deemed-to-Satisfy building populations which are deemed acceptable for use in the design and checking of applications when more accurate figures are not available.

Comments: Provides a methodology for establishing number of occupants.

## D2D19 Measurement of distances

Return to summary

Purpose:

To identify the nearest part of an exit for the purposes of measuring travel distance.

Comments: Provides requirements for determining distance between building elements.

## D2D20 Method of measurement

Return to summary

Purpose:

To specify the method of measuring the distance of travel to an exit in various situations.

Comments: Provides methodology for determining distance between building elements.

## D2D21 Plant rooms, lift machine rooms and electricity network substations: Concession

Return to summary

Purpose:



To provide concessions for small plant rooms, lift motor rooms and Class 8 electricity network substations.

#### Comments:

It is noted that this clause may apply to the roof where access is required for services equipment.

## D2D22 Access to lift pits

Return to summary

Purpose:

To provide requirements for lift pits and means for accessing lift pits.

Comments:

Access to lift pit needs to comply with these requirements, compliance can be achieved during construction. Compliance is achievable during construction, lift installer to certify installation.

## D2D23 Egress from primary schools

Return to summary

Purpose:

To provide requirements for egress of primary schools.

Comments: This clause is not applicable to the building.

## **Part D3 Construction of Exits**

### D3D1 Deemed-to-Satisfy Provisions

Purpose:

To clarify the application of Performance Solutions to Part D3 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part D3.

### **NSW D3D2** Application of Part

Return to summary

Purpose:

To clarify that Part D2 does not apply within a sole-occupancy unit in a Class 3 building (except for D3D14, D3D15(a), D3D17, D3D18, D3D19, D3D20, D3D22(5), D3D22(6), D3D26 and D3D29) nor within a sole occupancy unit in a Class 2 building or Class 4 part (except for D15(a), D3D17, D3D18, D3D19, D3D20, D3D22(5), D3D22(6), D3D23 and D3D29)

Comments: Defines application of part D3.

### D3D3 Fire-isolated stairways and ramps

Return to summary

Purpose:

To maintain a sufficient level of fire safety to enable the use of fire-isolated stairways and ramps during an emergency.



#### Comments:

A stairway (including any landings) that is required to be within a fire-resisting shaft must be constructed of non-combustible materials and so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.

## D3D4 Non-fire-isolated stairways and ramps

Return to summary

Purpose:

To maintain a sufficient level of safety for the use of stairways and ramps during an emergency.

#### Comments:

In a building having a rise of storeys more than 2, any non-fire isolated stairs used as required exits must be constructed of reinforced prestressed concrete or steel in no part less than 6 mm thick or timber that: has finished thickness not less than 44 mm; average density of not less than 800 kg/m3 at a moisture content of 12% and has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.

## D3D5 Separation of rising and descending stair flights

Return to summary

Purpose:

To minimise the risk that an occupant mistakenly passes the lowest storey providing escape when evacuating.

Comments: This clause is not applicable to the building.

## D3D6 Open access ramps and balconies

Return to summary

Purpose:

To specify the requirements for natural ventilation of smoke from an open access ramp or balcony which forms part of a required exit system.

Comments: This clause is not applicable to the building.

## D3D7 Smoke lobbies

Return to summary

Purpose:

To prevent smoke entering a fire-isolated exit.

Comments: This clause is not applicable to the building.

## D3D8 Installations in exits and paths of travel

Return to summary

Purpose:

To maximise the safety of occupants evacuating to or within exits by limiting the types of services which may be located in exits and paths of travel.

## Comments:



Services must not be installed or accessed from fire isolated exits unless these are firefighting or detection equipment. Electrical and telecommunication services may be installed in corridors and lobbies leading to exits providing that these are located under a fire-protective covering or within a non-combustible enclosure with doors smoke sealed. Requirements need to be included in building specifications.

## D3D9 Enclosure of space under stairs and ramps

Return to summary

Purpose:

To minimise the risk of a fire starting under a stairway and endangering the safe evacuation of the building occupants.

## Comments:

Fire isolated stairs must not contain enclosures underneath. Where enclosures are formed underneath non-fire isolated stairs details of FRLs need to be provided. Plans do not show enclosures under stairs.

## D3D10 Width of required stairways and ramps

Return to summary

Purpose:

To establish requirements for the safe use of wide stairways and ramps.

Comments: This clause is not applicable to the building.

## D3D11 Pedestrian ramps

Return to summary

Purpose:

To allow the use of a ramp as a required exit, instead of a stairway.

Comments: This clause is not applicable to the building.

## Return to summary

### D3D12 Fire-isolated passageways

Purpose:

To make a fire-isolated passageway safe from a fire outside.

Comments:

Details of FRLs for the walls enclosing the fire isolated passageway at the ground floor need to be shown on plans.

### D3D13 Roof as open space

Return to summary

Purpose:

To allow a roof of a building (or part of a building) to be used as a point of discharge from an exit.

Comments:



Exits at Basement 02 discharge over Basement 03. The roof of the basement 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. Certification by structural engineer that the slab is designed to achieve FRL in accordance with AS 3600 is required to support the construction certificate. Details need to be shown on plans.

## D3D14 Goings and risers

Return to summary

Purpose:

To enable the safe movement of people using stairways.

Comments: Compliance is achievable during normal construction practice.

## D3D15 Landings

Return to summary

Purpose:

To enable the safe movement of people using stairways.

Comments Compliance is achievable during normal construction practice.

#### NSW D3D16 Thresholds

Return to summary

Purpose:

To reduce the risk of a person tripping on an unseen step in a doorway.

Comments: Compliance is achievable during normal construction practice.

## D3D17 Barriers to prevent falls

Return to summary

Purpose:

To minimise the risk of a person falling from a roof, stairway, raised floor level or the like.

Comments: Compliance is achievable during normal construction practice.

## D3D18 Height of barriers

Return to summary

Purpose:

To minimise the risk of a person falling from a roof, stairway, raised floor level or the like.

Comments: Compliance is achievable during normal construction practice.

## D3D19 Openings in barriers

Return to summary

Purpose:

To minimise the risk of a person falling from a roof, stairway, raised floor level or the like.

Comments: Compliance is achievable during normal construction practice.



## D3D20 Barrier climbability

Return to summary

Purpose:

To minimise the risk of a person falling from a roof, stairway, raised floor level or the like.

Comments: Compliance is achievable during normal construction practice.

#### D3D21 Wire barriers

Return to summary

Purpose:

To minimise the risk of a person falling from a roof, stairway, raised floor level or the like.

Comments: Compliance is achievable during normal construction practice.

#### D3D22 Handrails

Return to summary

Purpose:

To provide handrails to a stairway or ramp, in corridors in Class 9a and 9c buildings and in corridors required to be accessible by people with a disability.

Comments:

At least one handrail needs to be provided at all stairs. Non fire isolated exits must be provided with two handrails. Handrails need to be shown on plans. Compliance with remaining requirements is achievable during normal construction practice.

## D3D23 Fixed platforms, walkways, stairways and ladders

Return to summary

Purpose:

To provide appropriate access and egress from infrequently used areas.

Comments: This clause is not applicable to the building.

## NSW D3D24 Doorways and doors

Return to summary

Purpose:

To minimise the risk that a door may obstruct a person evacuating the building.

Comments:

Where a sliding door is used at a required exit or in the path of travel to a fire isolated exit, the door must be able to be opened manually under a force of not more than 110 N, including power operated doors in case there is a malfunction or failure of the power source. Compliance is achievable during normal construction practice.

Return to summary

### D3D25 Swinging doors

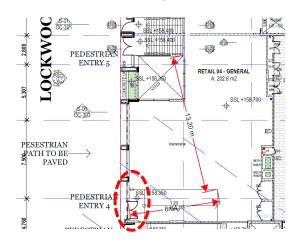
Purpose:



To minimise the risk that a door may obstruct a person evacuating the building.

#### Comments:

Plans show doors at several retail tenancies 2, 3 and 4 and retail lobby that swing against egress and it is noted that compliance is achievable at these parts where the door is held open by a device. A modification of the design or performance solution is required to address these deviations.



D3D26 Operation of latch

Purpose:

To minimise the risk that evacuation will be delayed by the operation of a door latch.

Comments: Compliance is achievable during normal construction practice.

Return to summary

Return to summary

## D3D27 Re-entry from fire-isolated exits

Purpose:

To minimise the risk that a person becomes trapped in a fire-isolated exit.

Comments: This clause is not applicable to the building.

## D3D28 Signs on doors

Purpose:

To require the use of signs warning against impairing certain doors.

Comments: Compliance is achievable during normal construction practice.

## D3D29 Protection of openable windows

Purpose:

To limit the risk of a person (especially a young child) falling through an openable window.

Comments:



Return to summary

Return to summary

Window opening limiting devices must be provided to bedroom windows where possible fall exceeds 2 metres. Compliance is achievable during normal construction practice.

## D3D30 Timber stairways: Concession

Return to summary

Purpose:

To provide a concession to D3.3 for timber stairways to be used in fire isolated exits.

Comments: This clause is not applicable to the building.

## NSW D3D31 Doorways in paths of travel to an entertainment venue

Return to summary

Purpose: To minimise the risk that a door may obstruct a person evacuating the building.

Comments: This clause is not applicable to the building.

## Part D3 Access for People with a Disability

## **D4D1** Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part D4 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part D4.

## D4D2 General building access requirements

Return to summary

Purpose:

To specify when access for people with a disability must be provided to buildings and parts of buildings.

### Comments:

The class 2 part of the building is required to be accessible at common areas and to the doorway of each sole occupancy units on floors provided with a lift. The class 6 and 7a parts are required to be accessible at all areas normally used by occupants. Compliance is achievable when the provisions of D4D3 to D4D13 are achieved.

### D4D3 Access to buildings

Return to summary

Purpose:

To specify the extent of access for people with a disability that must be provided.

Comments:



An accessway needs to be provided to a building required to be accessible. Requirements for accessway (continuous accessible path of travel) are defined in AS 1428.1-2009. Assessment by an access consultant is recommended.

Return to summary

## D4D4 Parts of buildings to be accessible

## Purpose:

To specify the requirements for accessways within buildings which must be accessible.

#### Comments:

In a building required to be accessible, accessways, ramps and stairways need to comply with requirements listed in AS 1428.1-2009. Assessment by an access consultant is recommended.

## **D4D5** Exemptions

Return to summary

Purpose:

To provide exemptions to the Deemed-to-Satisfy Provisions for access by people with a disability.

Comments: This clause is not applicable to the building.

## D4D6 Accessible carparking

Return to summary

Purpose:

To clarify the minimum Deemed-to-Satisfy Provisions for accessible carparking.

#### Comments:

Accessible carparking spaces marked on plans are required to comply with AS2890.6-2009. Assessment by an access consultant is recommended.

Return to summary

### D4D7 Signage

#### Purpose:

To assist people with a disability to easily identify the facilities, services, exits and features provided in a building.

## Comments:

Braille and tactile signage must indicate each doorway required to be provided with exit signs. Compliance is achievable during construction.

### **D4D8** Hearing augmentation

Return to summary

## Purpose:

To assist people with a hearing impairment to be made aware of communications associated with a building's use.

Comments: This clause is not applicable to the building.



Return to summary

#### **D4D9** Tactile indicators

Purpose:

To assist blind or vision impaired people to avoid hazardous situations.

Comments:

Tactile Ground Surface Indicators (TGSI) are required at all non-fire isolated stairs and ramps and need to comply with AS/NZS 1428.4.1:2009. Assessment by an access consultant is recommended.

Return to summary

## D4D10 Wheelchair seating spaces in Class 9b assembly buildings

Purpose:

To specify the requirements for wheelchair seating spaces in Class 9b assembly buildings.

Comments: This clause is not applicable to the building.

## **D4D11 Swimming pools**

Return to summary

Purpose:

To specify the requirements for accessible swimming pools.

Comments: This clause is not applicable to the building.

## D4D12 Ramps

Return to summary

Purpose:

To specify the requirements for ramps forming part of an accessway.

Comments: This clause is not applicable to the building.

Return to summary

## D4D13 Glazing on an accessway

Purpose:

To specify the requirements for glazing within an accessway.

Comments:

Fully glazed doors that may be mistaken for doorways or openings need to be provided with marking in accordance with AS 1428.1-2009. Compliance is achievable during construction.

## **SECTION E - SERVICES AND EQUIPMENT**

## PART E1 Fire Fighting Equipment

**E1D1** Deemed-to-Satisfy Provisions

Purpose:

Return to summary



To clarify the application of Performance Solutions to Part E1 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part E1.

## E1D2 Fire hydrants

Return to summary

## Purpose:

To require the installation of suitable fire hydrant systems to facilitate the fire brigade's firefighting operations [2]

#### Comments:

Total floor area of the building is over 500 m<sup>2</sup>. The building needs to be provided with fire hydrant coverage. Location of fire hydrant booster assembly, pump room, and outlets needs to be shown on plans. Compliance is achievable providing that the fire hydrant design is certified by a registered fire safety practitioner for compliance with AS 2419.1:2021.

#### E1D3 Fire hose reels

Return to summary

## Purpose:

To require the installation of suitable fire hose reel systems to enable, where appropriate, a building's occupants to undertake initial attack on a fire.

#### Comments:

Total floor area of the carpark and ground floor is over 500 m<sup>2</sup> and fire hose reels need to be provided within this part.

Fire hose reels need to be provided to the retail part where internal hydrants are installed in the building.

Location of fire hose reels needs to be shown on plans. Compliance is achievable providing that the fire hose reel design is certified by a registered fire safety practitioner for compliance with AS 2441-2005.

## E1D4 Sprinklers

Return to summary

## Purpose:

Defines general sprinkler requirements in buildings and general standard of performance for sprinkler systems.

## Comments:

The building will comply with this clause when compliance when compliance with E1D5 to E1D13 is achieved.

## E1D5 Where sprinklers are required: all classifications

Return to summary

Purpose:



To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building.

## E1D6 Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings

Return to summary

#### Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

#### Comments:

In a Class 2 or 3 building, or any multi-classified building containing a Class 2 or 3 part, sprinklers are required throughout the whole building if any part of the building has a rise in storeys of 4 or more. Compliance is achievable providing that the sprinkler system is certified by a registered fire safety practitioner.

## E1D7 Where sprinklers are required: Class 3 building used as a residential care building

Return to summary

## Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building.

## E1D8 Where sprinklers are required: Class 6 building

Return to summary

## Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

## Comments:

This clause is not applicable to the building. It is noted that the sprinklers are required throughout the building by clause E1D6 above.

## E1D9 Where sprinklers are required: Class 7a building, other than an opendeck carpark

Return to summary

### Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

#### Comments:



Carpark needs to be provided with sprinkler system complying with AS 2118.1-2017 due to basement accommodating more than 40 vehicles. Compliance is achievable providing that the sprinkler system is certified by a registered fire safety practitioner.

# E1D10 Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings

Return to summary

Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building

## E1D11 Where sprinklers are required: Class 9b buildings

Return to summary

Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building

## E1D12 Where sprinklers are required: additional requirements

Return to summary

Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building

## E1D13 Where sprinklers are required: occupancies of excessive hazard

Return to summary

Purpose:

To require the installation of suitable fire sprinkler systems where necessary to address specific hazards.

Comments: This clause is not applicable to the building

## E1D14 Portable fire extinguishers

Return to summary

Purpose:

To require the installation of suitable portable fire extinguishers, where necessary, to address specific hazards.

#### Comments:

Portable fire extinguishers need to be provided through the class 2 part. Portable fire extinguishers for hazards other than type A are required if such are present in the building. Location of fire



extinguishers needs to be shown on plans. It is recommended design to be endorsed by a registered fire safety practitioner.

#### E1D15 Fire control centres

Return to summary

Purpose:

To require the provision of suitable fire control centres to facilitate fire brigade operations.

Comments: This clause is not applicable to the building.

## E1D16 Fire precautions during construction

Return to summary

Purpose:

To require adequate firefighting equipment within a building during its construction.

Comments:

Not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided on each storey at all times during construction. After building has reached 12 m of effective height fire hydrant system needs to be operational. Compliance can be achieved during construction.

## E1D17 Provision for special hazards

Return to summary

Purpose:

To require the installation of additional fire safety measures where special hazards exist.

Comments: This clause is not applicable to the building.

## **PART E2** Smoke Hazard Management

## **E2D1** Deemed-to-Satisfy Provisions

Purpose:

To clarify the application of Performance Solutions to Part E2 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part E2.

## **E2D2** Application of requirements

Return to summary

Purpose: To specify when E2.2 and E2.3 do not apply.

Comments: Defines application of part E2

### **E2D3** General requirements

Return to summary

Purpose: To specify the requirements for minimising the smoke risks.

Comments:



An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must, subject to (2), be designed and installed—

- to operate as a smoke control system in accordance with AS 1668.1:2015; or
- such that it incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served and is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1:2018.

Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1:2015 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with the requirements of the standard.

A smoke detection system must be installed in accordance with clause S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.

This clause needs to be considered together with any other relevant clauses of Part E2. Compliance is achievable providing that the smoke hazard management system is endorsed by a registered fire safety practitioner.

#### E2D4 Fire-isolated exits

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building as the effective height is less than 25 m.

# E2D5 Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

# E2D6 Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

## E2D7 Buildings more than 25 m in effective height: Class 9a buildings

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

# E2D8 Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building

Return to summary



Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

#### Comments:

Automatic fire detection and alarm system – smoke alarm system must be installed throughout the Class 2 part. Compliance is achievable providing that the fire detection and alarm system is designed by a registered fire safety practitioner.

## E2D9 Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

#### Comments:

The building needs to be provided with automatic fire detection system complying with Specification 20 or a sprinkler system other than FPAA 1010H and 101D systems complying with Specification 17, throughout the building. Alternatively, a fire isolated stairway pressurization system or zone pressurization system needs to be provided to the Class 6 part.

## E2D10 Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

# E2D11 Buildings not more than 25 m in effective height: Class 9a and 9c buildings

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

## E2D12 Class 7a buildings

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

#### Comments:

Mechanical ventilation system within carpark must comply with AS1668.1:2015. The building is capable of complying with requirements providing that the ventilation system design is endorsed by a registered fire safety practitioner.

## **E2D13** Basements (other than Class 7a buildings)

Return to summary

## Purpose:

To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.



Return to summary

## **E2D13** Basements (other than Class 7a buildings)

Purpose:

To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

E2D14 Class 6 buildings – in fire compartments more than 2000 m<sup>2</sup>: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

E2D15 Class 6 buildings – in fire compartments more than 2000 m<sup>2</sup>: Class 6 building (containing an enclosed common walkway or mall)

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

NSW E2D16 Class 9b – assembly buildings: all

Return to summary

Purpose:

To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

NSW E2D17 Class 9b – assembly buildings: night clubs, discotheques and the like

Return to summary

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

Return to summary

NSW E2D18 Class 9b – assembly buildings: exhibition halls, museums and art galleries

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

Return to summary

NSW E2D19 Class 9b – assembly buildings: other assembly buildings (not listed in NSW E2D16 to E2D19)

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.



Comments: This clause is not applicable to the building.

Return to summary

## E2D20 Class 9b assembly buildings: other assembly buildings (not listed in E2D16 to E2D19)

Purpose: To specify the requirements for minimising the smoke risks for certain buildings.

Comments: This clause is not applicable to the building.

## **E2D21** Provision for special hazards

Return to summary

Purpose:

To state that some special hazards may require additional smoke hazard management measures.

Comments: This clause is not applicable to the building.

## **PART E3 Lift Installations**

## E3D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part E3 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part E3.

## E3D2 Lift installations

Return to summary

Purpose:

To specify general requirements for electric passenger lift and an electrohydraulic passenger lift installations.

Comments:

An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. Lift installer to certify for compliance at installation.

## E3D3 Stretcher facility in lifts

Return to summary

Purpose: To require lifts to be able to accommodate a stretcher.

Comments: This clause is not applicable to the building.

Return to summary

### E3D4 Warning against the use of lifts in fire

Purpose: To alert people to the dangers of using lifts during afire.

Comments:



Warning against the use of lift in fire must be displayed. Compliance is achievable during construction.

## E3D5 Emergency lifts

Return to summary

Purpose:

To require that lifts be suitable for their purpose and also be available for emergency services personnel.

Comments: This clause is not applicable to the building.

## E3D6 Landings

Return to summary

Purpose: To require that safe movement be available to and from lift landings.

Comments:

Access and egress from liftwell landings must comply with Part D3. Compliance is achievable during construction.

## E3D7 Passenger lift types and their limitations

Return to summary

Purpose: To require that lifts necessary for use by people with a disability are suitable.

Comments: Lift supplier to provide evidence for compliance.

Return to summary

## E3D8 Accessible features required for passenger lifts

Purpose: To require that lifts necessary for use by people with a disability are suitable.

Comments:

Lifts travels more than 12 metres, lift car dimensions need to be provided on drawings of at least 1400 mm wide x 1600 mm deep. Details need to be provided on drawings. Lift supplier to provide evidence for compliance with all additional requirements listed in AS 1735.12.

#### E3D9 Fire service controls

Return to summary

Purpose:

To require fire service controls for lifts serving any storey above an effective height of 12 m.

Comments: Fire service controls are required, lift installer to provide evidence for compliance.

## E3D10 Residential care buildings

Return to summary

Purpose:



To require the installation of a lift where residents of a Class 9c building are on levels not having access to a road.

Comments: This clause is not applicable to the building.

#### E3D11 Fire services recall control switch

Return to summary

Purpose:

To specify the fire service recall control switch required for passenger lifts.

Comments: Fire service controls are required, lift installer to provide evidence for compliance.

#### E3.12 Lift car fire service drive control switch

Return to summary

Purpose: To specify the fire service drive control switch required in all passenger lifts.

Comments: Fire service controls are required, lift installer to provide evidence for compliance.

## Part E4 Visibility in an Emergency, Exit Signs and Warning Systems

## **E4D1** Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part E4 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part E4.

## **E4D2** Emergency lighting requirements

Return to summary

Purpose:

To minimise the risk of death or injury to occupants during an emergency because of an inability to see their way along an exit path of travel.

## Comments:

Emergency lights needs to be provided in the basement, class 6 parts, corridors of the class 2 part and in each stairway. Location needs to be shown on plans. It is recommended design to be endorsed by a registered fire safety practitioner.

## E4D3 Measurement of distance

Return to summary

Purpose:

To clarify how distance must be measured for the purposes of emergency lighting required under E4.2.

Comments: Defines the method for measuring distance.



## E4D4 Design and operation of emergency lighting

Return to summary

## Purpose:

To specify how an emergency lighting system must operate, to minimise the risk of death or injury to occupants during an emergency because of an inability to see their way along an exit path of travel.

#### Comments:

Emergency lights must comply with AS/NZS 2293.1:2018. Compliance is achievable during construction. Requirements to be included in building specifications.

## E4D5 Exit signs

Return to summary

### Purpose:

To minimise the risk of death or injury to occupants during an emergency because of an inability to find an exit.

#### Comments:

Exit sign into enclosed stairways, doorways at level of egress from enclosed stairways and doorways used as exits need to be shown on plans. It is recommended design to be endorsed by a registered fire safety practitioner.

#### Return to summary

## NSW E4D6 Direction signs

## Purpose:

To minimise the risk of death or injury to occupants during an emergency because of an inability to find their way along an exit path of travel.

#### Comments:

Exit / direction signs need to be provided where location of exit is not apparent from parts of the floor (no direct sight). Location needs to be shown on plans. It is recommended design to be endorsed by a registered fire safety practitioner.

## E4D7 Class 2 and 3 buildings and Class 4 parts: Exemptions

Return to summary

#### Purpose:

To specify some circumstances where risk levels do not warrant compliance with E4D5.

Comments: Provides a concession for Class 2 and 3 buildings, not applied to this building.

## E4D8 Design and operation of exit signs

Return to summary

#### Purpose:

To specify how exit signs must be designed and operate, to minimise the risk of death or injury to occupants during an emergency because of an inability to find an exit.

#### Comments:



Exit signs must comply with AS/NZS 2293.1:2018. Compliance is achievable during construction. Requirements to be included in building specifications.

## E4D9 Emergency warning and intercom systems

Return to summary

Purpose:

To minimise the risk of death or injury to occupants through lack of knowledge that an emergency exists or an evacuation is required.

Comments: This clause is not applicable to the building.

### SECTION F - HEALTH AND AMENITY

## Part F1 Surface water management, rising damp and external weatherproofing

## F1D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part F1 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F1.

## F1D2 Application of Part

Return to summary

Purpose:

To clarify the application of this part in relation to ground floor installations and certain roof.

Comments: Defines application of part F1.

### F1D3 Stormwater drainage

Return to summary

Purpose:

Requires compliance with AS/NZS 3500.3:2021 to achieve compliance with the Performance Requirements

Comments: Stormwater design to be provided by registered engineer.

## F1D4 Exposed Joints

Return to summary

Purpose:

Requires compliance with AS 4654.2-2012 to achieve compliance with the Performance Requirements

Comments: Details to be provided in building specifications.



## F1D5 External waterproofing membranes

Return to summary

## Purpose:

A roof, balcony, podium or similar horizontal surface part of a building must be provided with a waterproofing membrane—

- a) consisting of materials complying with AS 4654.1-2012; and
- b) designed and installed in accordance with AS 4654.2-2012.

Comments: Diagrams of waterproofing demonstrating compliance need to be provided on plans.

## F1D6 Damp-proofing

Return to summary

#### Purpose:

To prevent moisture from ground penetrating the building which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

Comments: Details to be provided in building specifications.

## F1D7 Damp-proofing of floors on the ground

Return to summary

## Purpose:

To prevent moisture from ground penetrating the building which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

Comments: Details to be provided in building specifications.

### F1D8 Subfloor ventilation

Return to summary

#### Purpose:

To prevent raising dampness which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

Comments: This clause is not applicable to the building

## Part F2 Wet areas and overflow protection

## F2D1 Deemed-to-Satisfy Provisions

Return to summary

#### Purpose:

To clarify the application of Performance Solutions to Part F2 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F2.

#### F2D2 Wet area construction

Return to summary



## Purpose:

To prevent water from any bathroom or laundry in Class 2 and Class 3 buildings or Class 4 parts, as well as showers in other building classifications, by requiring areas to be water resistant or waterproof in accordance with Specification 26 and comply with AS 3740:2021.

Comments: Details demonstrating compliance need to be provided on plans.

## F2D3 Rooms containing urinals

Return to summary

Purpose:

Provides requirements when urinals are installed.

Comments: This clause is not applicable to the building.

#### F2D4 Floor wastes

Return to summary

Purpose:

To prevent water from any bathroom or laundry in Class 2 and Class 3 buildings or Class 4 parts from penetrating any sole-occupancy unit or public space, which is in a level below, which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

Comments: Details demonstrating compliance need to be provided on plans.

## Part F3 Roof and wall cladding

## F3D1 Deemed-to-Satisfy Provisions

Purpose:

Return to summary

To clarify the application of Performance Solutions to Part F3 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F3.

Return to summary

## F3D2 Roof coverings

Purpose:

To prevent water penetration of roofs which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

### Comments:

Compliance is achievable during normal construction practice. Details need to be provided in building specifications.

## F3D3 Sarking

Purpose:

Return to summary



To prevent water penetration of roofs which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

#### Comments:

Compliance is achievable during normal construction practice. Details need to be provided in building specifications.

### F3D4 Glazed assemblies

Return to summary

## Purpose:

To prevent water penetration through windows, which could cause:

- unhealthy and dangerous conditions or loss of amenity for occupants or;
- dampness and deterioration of building elements.

#### Comments:

Compliance is achievable during normal construction practice. Details need to be provided in building specifications.

## F3D5 Wall cladding

Return to summary

#### Purpose:

Specifies the materials that must be used for wall construction when external cladding is present.

## Comments:

Compliance is achievable during normal construction practice. Details need to be provided in building specifications.

## Part F4 Sanitary and Other Facilities

## F4D1 Deemed-to-Satisfy Provisions

Return to summary

## Purpose:

To clarify the application of Performance Solutions to Part F4 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F4.

## F4D2 Facilities in residential buildings

Return to summary

#### Purpose:

To specify the minimum acceptable sanitary, bathing, laundry and cooking facilities required in Class 2 buildings, Class 3 buildings (for residents only), Class 9c buildings (for residents only) and Class 4 parts of a building.

Comments: Plans show compliance is achievable during construction.



Return to summary

## F4D3 Calculation of number of occupants and facilities

## Purpose:

To provide a method for calculating the number of occupants and facilities for the purposes of Part F2.

Comments: Provides a method for determining the number of occupant and facilities

## F4D4 Facilities in Class 3 to 9 buildings

Return to summary

## Purpose:

To specify the minimum acceptable sanitary, bathing, laundry and cooking facilities required in Class 3 buildings (for employees only) and in Class 5-9 buildings.

#### Comments:

Plans show a single sanitary facility at Basement 02, as well as a bank of sanitary facilities at Basement 04. Details of building use need to be confirmed. Plans indicate that the sanitary facilities will be sufficient to accommodate staff and patrons under a shared shopping centre arrangement, however additional facilities are required if the use of one or more tenancies requires, or is calculated on the basis of requiring, additional facilities per sgm.

## F4D5 Accessible sanitary facilities

Return to summary

#### Purpose:

To specify the construction of acceptable sanitary and bathing facilities required for people with a disability in Class 1b, Class 2, Class 3, Class 5-9 and Class 10a buildings.

### Comments:

The accessible sanitary facility shown has sufficient dimensions to comply with the general layout required under AS1428.1-2009. Plans indicate that a single unisex sanitary facility will not be sufficient to accommodate occupants of the class 6 part and separate ambulant sanitary facilities may be required. Assessment by an access consultant is recommended.

## **F4D6** Accessible unisex sanitary compartments Purpose:

Return to summary

To specify the minimum number of accessible unisex sanitary **compartments** required for people with a disability in Class 1b, Class 2, Class 3, Class 5-9 and Class 10a buildings.

### Comments:

A unisex accessible sanitary facility has been provided at each storey with a bank of sanitary facilities. The building complies with this clause. Assessment by an access consultant is recommended.

## F4D7 Accessible unisex showers

Return to summary

Purpose:



To specify the minimum number of accessible unisex showers required for people with a disability in Class 1b, Class 2, Class 3, Class 5-9 and Class 10a buildings.

Comments: This clause is not applicable to the building.

## F4D8 Construction of sanitary compartments

Return to summary

Purpose:

To specify the construction expected to provide an acceptable level of privacy in toilets while facilitating assistance in an emergency.

Comments: Compliance is achievable during construction.

Return to summary

F4D9 Interpretation: Urinals and washbasins

Purpose:

To clarify what is meant by the expressions 'urinal' and 'washbasin'.

Comments: Note

## F4D10 Microbial (legionella) control

Return to summary

Purpose:

To make sure that hot water, warm water and cooling water systems in certain facilities minimises the risk of a major disease outbreak.

Comments: This clause is not applicable to the building.

Return to summary

## F4D11 Waste management

Purpose:

To require adequate devices in Class 9a and 9c buildings containing ward areas or bedrooms for the emptying of containers of sewage and dirty water.

Comments: This clause is not applicable to the building.

## F4D12 Accessible adult change facilities

Return to summary

Purpose:

To specify the minimum number of accessible adult change facilities required for people with a disability in Class 1b, Class 2, Class 3, Class 5-9 and Class 10a buildings.

Comments: This clause is not applicable to the building.

## Part F5 Room Heights

Return to summary

F5D1 Deemed-to-Satisfy Provisions

Purpose:



To clarify the application of Performance Solutions to Part F5 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F5.

## F5D2 Height of rooms and other spaces

Return to summary

Purpose:

To establish a range of reasonable ceiling heights suitable for particular rooms and spaces.

Comments:

Details of elevations need to be provided to confirm compliance with this clause. It is noted that some areas within residential SOUs that are marked as storage note low clearance and heights need to be confirmed.

## Part F6 Light and Ventilation

## F6D1 Deemed-to-Satisfy Provisions

Return to summary

Purpose:

To clarify the application of Performance Solutions to Part F6 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F6.

## F6D2 Provision of natural light

Purpose:

Return to summary

To specify the rooms in Classes of buildings where natural light is required.

Comments:

Plans show that the study within LG.04, gym area within LG0.07, as well as the communal room, is not provided with natural light. Natural light is also not provided to the study at LG.07, LG.08 and LG.09 at Level 01. A modification of the design or performance solution is required to address this deviation.

Return to summary

## F6D3 Methods and extent of natural lighting

Purpose:

To specify the requirements for the size and location of windows, including roof lights to provide required natural light.

Comments:

Window dimensions have not been shown at all windows on the ground level. It is recommended that a window schedule is provided on plans. In particular plans indicate the study rooms at G.06 and G.13 may not be provided with sufficient natural light.



## F6D4 Natural light borrowed from adjoining room

Return to summary

Purpose:

To allow natural light to be "borrowed" from an adjoining room.

#### Comments:

Plans show several study rooms within residential units throughout the development are not provided with natural light. It is noted that natural light may be borrowed from an adjoining room as doors are not shown, however where this is intended the light provided is sufficient for the combined floor area of both rooms, and also the opening to each study is not less than 1000 mm. In particular window dimensions are not shown at units G.05. and G.15, where one window provides light for the living area, kitchen and study.

Return to summary

## F6D5 Artificial lighting

Purpose:

To specify the location and other requirements for required artificial lighting.

Comments:

Artificial lighting must comply with AS1680.0. Compliance is achievable during construction.

#### NSW F6D6 Ventilation of rooms

Return to summary

Purpose:

To state the natural and mechanical ventilation requirements for rooms and buildings.

## Comments:

Where natural ventilation in accordance with F6D7 is not possible, a mechanical ventilation or air conditioning system complying with AS 1668.2-2012 is required.

## **F6D7** Natural ventilation

Return to summary

Purpose:

To specify the requirements for the size and location of windows providing required natural ventilation.

Comments: Window schedule is required to confirm compliance with this clause.

## F6D8 Ventilation borrowed from adjoining room

Return to summary

Purpose:

To allow natural ventilation to be "borrowed" from adjoining rooms.

Comments: See clause F6D4 above regarding natural ventilation for the study areas.



## F6D9 Restriction on location of sanitary compartments

Return to summary

Purpose:

To minimise the impact of unpleasant smells.

Comments:

A sanitary compartment must not open directly into a kitchen or pantry, public dining room or restaurant, dormitory in a class 3 building, a room used for public assembly or a workplace normally occupied by more than one person. Refer to F6D10.

Return to summary

#### F6D10 Airlocks

Purpose:

To specify requirements for airlocks or mechanical ventilation where toilets open directly into other rooms.

Comments:

Where compliance with F6D9 is not achieved, access to the sanitary facilities must be by an airlock, hallway or other room with a floor area of not less than 1.1 m<sup>2</sup> and fitted with self-closing doors at all access doorways; or the sanitary compartment must be provided with mechanical exhaust ventilation Details need to be provided on specifications.

## F6D11 Carparks

Return to summary

Purpose:

To specify ventilation requirements for carparks, to ensure car fumes are adequately removed.

Comments:

Mechanical ventilation in carpark needs to comply with AS 1668.2-2012. Details of carpark ventilation need to be provided to demonstrate compliance.

#### F6D12 Kitchen local exhaust ventilation

Return to summary

Purpose:

To minimise the spread of cooking odours and fire from commercial kitchens.

Comments: This clause is not applicable to the building.

## Part F7 Sound Transmission and Insulation

## F7D1 Deemed-to-Satisfy Provisions

Purpose:

Return to summary

To clarify the application of Performance Solutions to Part F7 when DTS provisions are not met.



Comments: Defines how Performance Requirements are met for part F7.

## F7D2 Application of Part

Purpose:

To clarify that Part F7 only applies to Class 2, Class 3 and Class 9c buildings.

Comments: Note.

## F7D3 Determination of airborne sound insulation ratings

Return to summary

Return to summary

Purpose:

To clarify the means of determining the airborne sound insulation rating ( $R_w$ ,  $R_w + C_{tr}$ ).

Comments:

A construction must have the required values for  $R_w$  and  $R_w$  +  $C_{tr}$  determined in accordance with AS/NZS ISO 717.1 or comply with Specification 28. Discussed further under F7D5 and F7D6.

## F7D4 Determination of impact sound insulation ratings

Return to summary

Purpose:

To clarify the means of determining the impact sound insulation ratings.

Comments:

A floor must have the required value for weighted normalised impact sound pressure level ( $L_{n,w}$ ) determined in accordance with AS/NZS ISO 717.2 or comply with Specification 28. Discussed further under F7D5 and F7D6.

A wall required to have impact sound insulation must be of discontinuous construction for Class 2 or 3 building, refer F7D6.

## F7D5 Sound insulation rating of floors

Return to summary

Purpose:

To minimise the transmission of sound through floors separating sole-occupancy units, and floors separating sole-occupancy units and certain types of space.

## Comments:

A floor separating a sole occupancy unit (SOU) from another SOU or public area, lift shaft, plant room or different classification must have  $R_w$  +  $C_{tr}$  (airborne) not less than 50 and  $L_{n,w}$  (impact) not more than 62. Details showing compliance with Specification 28 need to be shown on plans. Alternatively, certification by an acoustic consultant confirming that the proposed construction will achieve compliance is required.

## F7D6 Sound insulation rating of walls

Return to summary



## Purpose:

To minimise the transmission of sound through walls separating sole-occupancy units and walls separating sole-occupancy units and certain types of spaces.

#### Comments:

A wall separating a sole occupancy unit (SOU) from another must have  $R_w + C_{tr}$  (airborne) not less than 50 and  $R_w$  (airborne) not less than 50 if it separates an SOU from public area including stairway and lift shaft, plant room or different classification.

A wall in a Class 2 building required to have impact sound insulation rating must be of discontinuous construction when required to have impact sound insulation rating, i.e. separates:

- a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit;
- a sole-occupancy unit from a plant room or lift shaft

A door assembly in a wall that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, must have an  $R_w$  rating of not less than 30.

Details showing compliance with Specification 28 need to be shown on plans. Alternatively, certification by an acoustic consultant confirming that the proposed construction will achieve compliance is required.

#### F7D7 Services

Return to summary

## Purpose:

To minimise the transmission of sound that may arise from services that pass through more than one sole-occupancy unit.

#### Comments:

A duct, waste or a water supply pipe must be separated from the rooms of a SOU by construction must have  $R_w$  +  $C_{tr}$  not less than 40 if the room is a habitable room and not less than 25 if the room is a kitchen or a non-habitable room. Compliance can be achieved during construction. Requirements need to be shown in building specifications.

### F7D8 Isolation of pumps

Return to summary

### Purpose:

To minimise transmission of sound from a pump [2]

## Comments:

Flexible couplings must be used at the point of connection between service pipes and pumps. Compliance can be achieved during construction. Requirements need to be shown in building specifications.



## Part F8 Condensation management

## F8D1 Deemed-to-Satisfy Provisions

Purpose:

Return to summary

To clarify the application of Performance Solutions to Part F8 when DTS provisions are not met.

Comments: Defines how Performance Requirements are met for part F8.

## F8D2 Application of Part

Return to summary

Purpose:

To clarify that Part F8 only applies to Class 2 buildings and Class 4 part of a building.

Comments: Note.

#### F8D3 External wall construction

Return to summary

Purpose:

To set out the requirements relating to pliable building membranes that are installed as a sarking.

## Comments:

Pliable building membrane in an external wall must comply with AS/NZS 4200.1 and be installed in accordance with AS4200.2. The membrane must be located on the exterior side of the primary insulation layer and must be separated from water sensitive materials by a drained cavity. Details to be provided in building specifications to show that compliance will be achieved.

### F8D4 Flow rate and discharge of exhaust fans

Return to summary

Purpose: To reduce risk of condensation associated with mechanical ventilation [2]

#### Comments:

An exhaust system installed in a kitchen or a bathroom must have a minimum flowrate of 25 l/s for a bathroom or a sanitary compartment and 40 l/s for a kitchen or laundry. Exhaust must be discharged via shaft or duct to outdoor air. Exhaust from a bathroom or a sanitary compartment may be discharged to a ventilated roof space.

Details need to be provided on mechanical plans to address these requirements.

## F8D5 Ventilation of roof spaces

Return to summary

Purpose: To set out the ventilation requirements relating to roof spaces [2]

Comments: This clause applies when exhaust is discharged into a roof space.



### **SECTION G – ANCILLARY PROVISIONS**

## **Part G1 Minor Structures and Components**

## NSW G1D5 Provision for cleaning windows

Return to summary

Purpose: To set out requirements for window cleaning in buildings of 3 storeys or more [2]

Comments:

A building of 3 storeys or more is required to provide for the safe manner of window cleaning from within the building or in accordance with the Work Health and Safety Act 2011. Details need to be provided in building specifications.

## Part G2 Boilers, Pressure Vessels, Heating Appliances, Fireplaces, Chimneys and Flues

This part is not applicable to the building

## Part G3 Atrium Construction

This part is not applicable to the building

## Part G4 Construction in Alpine Areas

This part is not applicable to the building

## Part G5 Construction in Bushfire Prone Areas

This part is excluded from the scope of services

## Part G6 Occupiable Outdoor Areas

### **G6D1** Application of Part

Return to summary

Purpose:

To clarify that Part G6 applies only to buildings containing an occupiable outdoor area and its provisions override Sections C, D, E, F and G of the BCA if there is a difference.

Comments: Note.

### G6D2 Fire hazard properties

Purpose:

Return to summary

To specify fire hazard property requirements for an occupiable outdoor area.



#### Comments:

Fire hazard properties of lining materials need to Comply with Specification 7, except as excluded. Details need to be included in building specifications to demonstrate compliance.

## **G6D3** Fire Separation

Return to summary

## Purpose:

To specify fire-resistance and separation requirements for an occupiable outdoor area.

## Comments:

The building will comply with this clause when the relevant requirements of Part C3 are satisfied.

## G6D4 Provision for escape

Return to summary

## Purpose:

To specify requirements to allow occupants to escape from an occupiable outdoor area in the event of an emergency.

#### Comments:

Exits from occupiable outdoor spaces need to comply with Part D2. Refer to comments in part D2 – a performance solution required for egress from this part of the building as exit travel distances are exceeded.

## **G6D5** Construction of exits

Return to summary

#### Purpose:

To specify requirements for the construction of exits in an occupiable outdoor area in the event of an emergency.

#### Comments:

Exits from occupiable outdoor spaces need to comply with Part D3. Refer to comments in part D3, the building is capable of complying with the requirements.

## G6D6 Fire fighting equipment

Return to summary

## Purpose:

To specify requirements for fire fighting equipment in an occupiable outdoor area in the event of an emergency.

#### Comments:

The building needs to comply with the requirements of part E1 except for E1.5 (sprinkler system). Refer to comments in part E1 – Providing that fire fighting systems are designed by a registered practitioner, the building will comply with requirements.



#### **G6D7** Lift installations

Purpose:

Return to summary

To specify requirements for lift installations in an occupiable outdoor area in the event of an emergency.

Comments:

The building needs to comply with the requirements of part E3. Refer to comments in part E3.

## G6D8 Visibility in an emergency, exit signs and warning systems

Return to summary

Purpose:

To specify requirements to minimise the risk of death or injury to occupants during an emergency because of

- an inability to see their way along an exit path of travel; and
- an inability to find an exit; and
- a lack of knowledge that an emergency exists or an evacuation is required. .

#### Comments:

The building needs to comply with the requirements of part E4. Refer to comments in part E4.

## G6D9 Light and ventilation

Return to summary

Purpose:

To specify requirements for light and ventilation in an occupiable outdoor area in the event of an emergency.

Comments: The building complies with this clause.

#### G6D10 Fire orders

Return to summary

Purpose:

To enable occupants to evacuate an occupiable outdoor area in an alpine area in an emergency without being impeded by lack of knowledge of the fire safety system, egress routes or evacuation procedures.

Comments: This clause is not applicable to the building.



### 6. CONCLUSION

A review of the status of BCA compliance for the proposed development at 28 Lockwood Ave, Belrose NSW 2085 was provided in this report.

The majority of the works, with minor exceptions, can be carried out in accordance with BCA Deemed-to-Satisfy DTS requirements. It is recommended that a modification of the design or performance solutions are considered to address deviations from DTS requirements C4D5, D2D3, D2D5, D2D12, D3D25, F6D2 and G6D4.

It is recommended an access report is obtained to clarify details regarding compliance with Part D4, clauses F4D5, F4D6 and also Part E3 where applicable. The review also identified several occasions where additional details or specifications need to be provided on architectural, electrical, hydraulic or fire services plans to ensure full compliance with the Deemed-to-Satisfy requirements of the BCA.



### 7. REFERENCES

Volume 1 of the National Construction Code 2022 (NCC 2022) has been referenced throughout this Report. References to NCC 2022 are not listed within the body of the Report, however the Report is substantially based upon the requirements of that document and citations of NCC 2022 may appear in multiple occasions within the Report.

List of referenced and relevant documents:

- [1] National Construction Code Series 2022 Vol 1 Building code of Australia 2022 Vol 1
- [2] (This line remains blank)
- [3] Disability (Access to premises Buildings) Standards 2010
- [4] NSW Environmental Planning and Assessment Regulation 2021
- [5] NSW Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021

