Date: 29 November 2019
Our Ref: P19233 (2)

TAFE Infrastructure NSW
Level 2, Building A, Mary Ann St,
Ultimo NSW 2007

Dear Sir/Madam,

RE: Bega TAFE Stage 2
199 Auckland St, Bega
BCA DESIGN COMPLIANCEASSESSMENT

Please find enclosed our National Construction Code (NCC) Design Compliance Report prepared in respect of the proposed design contained within the architectural documentation provided.

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

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

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

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

Yours faithfully

Kieran Tobin
Director

BCA DESIGN COMPLIANCEASSESSMENT

PREPARED FOR
TAFE Infrastructure NSW

REGARDING

Bega TAFE Stage 2
199 Auckland St, Bega

Prepared By

BCA vision

REPORT REGISTER

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

Our Reference	Issue No.	Remarks	Issue Date
P19233	2	BCA Design ComplianceAssessment	29 November 2019

CONTENTS PAGE

1.0 INTRODUCTION

1.1 GENERAL

This "BCA Compliance Assessment" report has been prepared at the request TAFE NSW, and relates to Bega TAFE Stage 2, 199 Auckland St, Bega.

The project proposal includes construction of a new two storey Education building.

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

1.2 REPORT BASIS

The content of this report reflects –

(a) The principles and provisions of NCC 2019 Parts C, D, E & F

(b) Plans prepared by Gardner Wetherill & Associates:-

Numbered	Titled	Issue
DA003	Site Plan	2019
DA004	Lower Ground Floor	2019
DA005	Ground Floor	2019
DA006	Elevations	2019

1.3 EXCLUSIONS

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

(a) Structural and services design documentation;

(b) General building services (i.e. passenger lifts)

(c) The individual requirements of service providers (i.e. Telstra, Water Supply, Energy Australia);

(d) The individual requirements of the Workcover Authority;

(e) Disability Discrimination Act (DDA)

1.4 REPORT PURPOSE

The purpose of this report is to identify the extent to which the architectural design documentation complies with the relevant prescriptive provisions of the NCC 2019, Parts C, D, E & F.

Assessment of the proposed design considers each prescriptive BCA provision, and identifies such as either: –

(a) Being complied with; or

(b) Not being complied with; or

(c) Requiring the provision further detail with the future Building Permit or other application or

(d) Not being relevant to the particular building works proposal.

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

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

.

2.0 BUILDING DESCRIPTION

2.1 GENERAL

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

2.2 RISE IN STOREYS (CLAUSE C1.2)

The building has a proposed RIS of 2 (two)

2.2 BUILDING DESCRIPTION AND CLASSIFICATION (CLAUSE A3.2)

The entire building incorporates the following classifications: -

RIS	2
Class	Class 8 Workshop Class 7b Storage 9b – Educational Assembly Building
Floor Area	Approximately 2,545m2
Type of Construction	B

2.3 EFFECTIVE HEIGHT (CLAUSE A1.1)

The building has an effective height Not exceeding 12 metres.

2.3 TYPE OF CONSTRUCTION (TABLE C1.1)

Type B Construction.

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

Table 4 TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes)			
	Structural adequacy*/ *Integrity*/ *Insulation			
	2, 3 or 4 part	**5, 7a or 9**	**6**	**7b or 8**
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any *fire-source feature* to which it is exposed is—				
For *loadbearing* parts—				
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 30	120/ 90/ 60	180/120/ 90	240/180/120
3 to less than 9 m	90/ 30/ 30	120/ 30/ 30	180/ 90/ 60	240/ 90/ 60
9 to less than 18 m	90/ 30/–	120/ 30/–	180/ 60/–	240/ 60/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
For non- *loadbearing* parts—				
less than 1.5 m	–/ 90/ 90	–/120/120	–/180/180	–/240/240
1.5 to less than 3 m	–/ 60/ 30	–/ 90/ 60	–/120/ 90	–/180/120
3 m or more	–/–/–	–/–/–	–/–/–	–/–/–
EXTERNAL COLUMN not incorporated in an *external wall*, where the distance from any *fire-source feature* to which it is exposed is—				
For *loadbearing* columns—				
less than 18 m	90/–/–	120/–/–	180/–/–	240/–/–
18 m or more	–/–/–	–/–/–	–/–/–	–/–/–
For non- *loadbearing* columns—				
	–/–/–	–/–/–	–/–/–	–/–/–
COMMON WALLS and FIRE WALLS—	90/ 90 / 90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS—				
Fire-resisting lift and stair *shafts*—				
Loadbearing	90/ 90/ 90	120/120/120	180/120/120	240/120/120
Fire-resisting stair *shafts*—				
Non- *loadbearing*	–/ 90/ 90	–/120/120	–/120/120	–/120/120
Bounding *public corridors*, public lobbies and the like—				
Loadbearing	60/ 60/ 60	120/–/–	180/–/–	240/–/–
Non- *loadbearing*	–/ 60/ 60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*—				
Loadbearing	60/ 60/ 60	120/–/–	180/–/–	240/–/–
Non- *loadbearing*	–/ 60/ 60	–/–/–	–/–/–	–/–/–
OTHER LOADBEARING INTERNAL WALLS and COLUMNS—	60/–/–	120/–/–	180/–/–	240/–/–
ROOFS	–/–/–	–/–/–	–/–/–	–/–/–

2.5 GENERAL FLOOR AREA LIMITATIONS (TABLE C2.2)

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

Table C2.2 – Maximum size of Fire Compartments

Building Class		Type A	**Type B**	Type C
5, 9b, 9c	Max Floor area Max Volume	8000 m^2 48,000 m^3	**5,500 m^2** **33,000 m^3**	3000 m^2 18,000 m^3
6, 7, 8, 9a	Max Floor area Max Volume	5000 m^2 30,000 m^3	3500 m^2 21,000 m^3	2000 m^2 12,000 m^3

3.0 BCA ASSESSMENT – SUMMARY

3.1. GENERAL

The tables contained within items 3.2 – 3.9 below summarise the compliance status of the proposed architectural design in terms of each prescriptive provision of the Building Code of Australia.

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

3.2. SECTION C – FIRE RESISTANCE

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

3.3. SECTION D – ACCESS AND EGRESS

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

3.4. SECTION E – SERVICES AND EQUIPMENT

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

3.5. SECTION F – HEALTH AND AMENITY

BCA reference	Complies	Does not comply	Detail required	Not relevant
F1.0 – Application			✓	
F1.1 – stormwater drainage			✓	
F1.5 – roof coverings			✓	
F1.6 – sarking			✓	
F1.7 – water proofing of wet areas			✓	
F1.9 – damp proofing			✓	
F1.10 – damp proofing of floors on ground			✓	
F1.11 – floor wastes				✓
F1.12 – sub-floor ventilation				✓
F1.13 – glazed assemblies			✓	
F2.1 – facilities in residential buildings				✓
F2.3 – facilities in Class 3 to 9 buildings			✓	
F2.4 – facilities for people with disabilities			✓	
F2.5 – construction of sanitary compartments			✓	
F2.7 – microbial (legionella) control				✓
F2.8 – waste management				✓
F3.1 – height of rooms			✓	
F4.1 – provision of natural light			✓	
F4.2 – methods and extent of natural lighting			✓	
F4.3 – natural lighting borrowed from adjoining room				✓
F4.4 – artificial lighting			✓	
F4.5 – ventilation of rooms			✓	
F4.6 – natural ventilation			✓	
F4.7 – ventilation borrowed from an adjoining room				✓
F4.8 – restriction on position of water closets and urinals	✓			
F4.9 – airlocks				✓
F4.11 – car parks				✓
F4.12 – kitchen local exhaust ventilation				✓
F5.2 – sound transmission class: interpretation				✓
F5.3 – sound transmission of floors between units				✓
F5.4 – sound insulation of walls between units				✓
F5.5 – sound insulation rating of walls				✓
F5.6 – sound insulation rating of services				✓
F5.7 – sound insulation of pumps				✓

4.0 BCA ASSESSMENT – DETAILED ANALYSIS

4.1 GENERAL

With reference to the "BCA Assessment Summary" contained within Part 3 above, the following detailed analysis and commentary is provided. This commentary is formulated to enable the design documentation to be further progressed, for the purpose of evidencing the attainment of compliance with the relevant provisions of the BCA.

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

4.2 SECTION C – FIRE RESISTANCE

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. C1.1	Type of construction required (a) The minimum Type of fire-resisting construction of a building must be determined in accordance with Table C1.1	The Building is required to be of Type B Construction. FRLs required are detailed with Part 2 pages 4 and 5 Verification will be required with the Construction Documentation
Cl. C1.3	Buildings of multiple classification (a) In a building of multiple classifications, the Type of construction required for the building is the most fire-resisting Type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.	Verification will be required with the Construction Documentation
Cl. C1.9	Non-combustible building elements	Verification will be required with the

	(a) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: (i) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation. (ii) The flooring and floor framing of lift pits. (iii) Non-loadbearing internal walls where they are required to be fire-resisting. (b) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in— (i) a building required to be of Type A construction; and (ii) a building required to be of Type B construction, subject to C2.10, in— (A) a Class 2, 3 or 9 building; and (B) a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys. (c) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification C1.1. (d) The requirements of (a) and (b) do not apply to the following: (i) Gaskets. (ii) Caulking. (iii) Sealants. (iv) Termite management systems. (v) Glass, including laminated glass. (vi) Thermal breaks associated with glazing systems. (vii) Damp-proof courses. (e) The following materials may be used wherever a non-combustible material is required: (i) Plasterboard. (ii) Perforated gypsum lath with a normal paper finish. (iii) Fibrous-plaster sheet. (iv) Fibre-reinforced cement sheeting. (v) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm	Construction Documentation

	thickness and where the Spread-of-Flame Index of the product is not greater than 0. (vi) Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5. (vii) Bonded laminated materials where— (A) each lamina, including any core, is non-combustible; and (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (C) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively.	
Cl. C1.10	Fire Hazard Properties (a) The *fire hazard properties* of the following linings, materials and assemblies in a Class 2 to 9 building must comply with Specification C1.10	Verification will be required with the Construction Documentation
Cl. C1.11	Performance of external walls in fire Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification C1.11.	Verification will be required with the Construction Documentation
Cl. C2.8	Separation of classifications in the same storey If a building has parts of different classifications located alongside one another in the same storey— (a) each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned; or (b) the parts must be separated in that storey by a fire wall having— (i) the higher FRL prescribed in Table 3 or 4; or (ii) the FRL prescribed in Table 5, of Specification C1.1 as applicable, for that element for the Type of construction and the classifications concerned; or (c) where one part is a carpark complying with Table 3.9, 4.2 or 5.2 of Specification C1.1, the	Verification will be required with the Construction Documentation

	parts may be separated by a fire wall complying with the appropriate Table.	
Cl. C3.12	Service openings through any floors in the building must be either fire sealed or enclosed in a fire rated shaft, using materials having an FRL not less than the floor concerned.	Verification will be required with the Construction Documentation
Cl. C3.13	Openings to shafts must be self-closing and 1-hour fire rated (i.e. access panels, doors, hoppers).	Verification will be required with the Construction Documentation
Cl. C3.15	Openings for service installations Where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an *external wall* or roof) that is *required* to have an FRL with respect to *integrity* or *insulation* or a *resistance to the incipient spread of fire*, that installation must comply with any one of the following: (a) **Tested systems** (i) The service, building element and any protection method at the penetration are identical with a prototype assembly of the service, building element and protection method which has been tested in accordance with AS 4072.1 and AS 1530.4 and has achieved the *required* FRL or *resistance to the incipient spread of fire*. (ii) It complies with (i) except for the *insulation* criteria relating to the service if— (A) the service is a pipe system comprised entirely of metal (excluding pipe seals or the like); and (B) any *combustible* building element is not located within 100 mm of the service for a distance of 2 m from the penetration; and (C) *combustible* material is not able to be located within 100 mm of the service for a distance of 2 m from the penetration; and (D) it is not located in a *required exit*. (b) **Ventilation and air-conditioning** — In the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS/NZS 1668.1. (c) **Compliance with Specification C3.15** (i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification C3.15 and it—	Verification will be required with the Construction Documentation

	(A) penetrates a wall, floor or ceiling, but not a ceiling *required* to have a *resistance to the incipient spread of fire*; and (B) connects not more than 2 *fire compartments* in addition to any *fire-resisting* service *shafts*; and (C) does not contain a flammable or *combustible* liquid or gas. (ii) The service is sanitary plumbing installed in accordance with Specification C3.15 and it— (A) is of metal or UPVC pipe; and (B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and (C) is in a *sanitary compartment* separated from other parts of the building by walls with the FRL *required* by Specification C1.1 for a stair *shaft* in the building and a *self-closing* –/60/30 fire door. (iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification C3.15 and it— (A) penetrates a wall, floor or ceiling, but not a ceiling *required* to have a *resistance to the incipient spread of fire*; and (B) connects not more than 2 *fire compartments* in addition to any *fire-resisting* service *shafts*. (iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification C3.15.	
Cl. C3.16	Construction joints between fire resistant elements must be fire sealed with a material having a fire resistance level not less than the elements being joined.	Verification will be required with the Construction Documentation
Cl. C3.17	Columns protected with lightweight construction to achieve an FRL A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.	Verification will be required with the Construction Documentation

4.4 SECTION D – ACCESS AND EGRESS

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. D1.4	Exit travel distances Class 5, 6, 7, 8 or 9 buildings — (i) no point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m; and (ii) in a Class 5 or 6 building, the distance to a single exit serving a storey at the level of access to a road or open space may be increased to 30 m.	Verification will be required with the Construction Documentation
Cl. D1.5	Distance between alternative exits Exits that are required as alternative means of egress must be— (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6 m apart.	Verification will be required with the Construction Documentation
Cl. D1.6	Dimensions of exits and paths of travel to exits In a required exit or path of travel to an exit— (a) the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; and (b) the unobstructed width of each exit or path of travel to an exit, except for doorways, must be not less than— (i) 1 m; or (ii) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in	Each stair requires hand rails to each side in accordance with clauses 11 and 12 of AS 1428.1 – 2009 in addition to a minimum 1m clear width between handrails

	beds within a treatment area or ward area; and (iii) in a public corridor in a Class 9c aged care building, notwithstanding (c) and (d)— (A) 1.5 m; and (B) 1.8 m for the full width of the doorway, providing access into a sole-occupancy unit or communal bathroom; and (c) if the storey, mezzanine or open spectator stand accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width, except for doorways, must be not less than— (i) 1 m plus 250 mm for each 25 persons (or part) in excess of 100; or (ii) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a treatment area or ward area; and (d) if the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width, except for doorways, must be increased to— (i) 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons if egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12; or (ii) in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200	
Cl, D1.17	Access to lift pits Access to lift pits must— (a) where the pit depth is not more than 3 m, be through the lowest landing doors; or (b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following: (i) In lieu of D1.6, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii). (ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer. (iii) Access to the doorway must be by a stairway complying with AS 1657. (iv) In lieu of D2.21, doors fitted to the doorway must be— (A) of the horizontal sliding or outwards opening hinged type; and	Verification will be required with the Construction Documentation

	(B) self-closing and self-locking from the outside; and (C) marked on the landing side with the letters not less than 35 mm high: "DANGER LIFTWELL − ENTRY OF UNAUTHORIZED PERSONS PROHIBITED − KEEP CLEAR AT ALL TIMES"	
Cl. D2.7	Electrical ducts, meter or distribution boards, and communication boards or equipment, and electrical motors, must be separated from an exit or path of travel by smoke sealed non-combustible construction.	Verification will be required with the Construction Documentation
Cl. D2.8	Enclosure of Space under Stairs or Ramps ▪ Areas under non-fire-isolated stairs must not be enclosed to form a cupboard unless entire cupboard is 60/60/60 fire rated with a U/60/30 self-closing fire door. ▪ Areas below a fire-isolated stair inside the stair shaft must not be enclosed at all.	Verification will be required with the Construction Documentation
Cl. D2.13	Goings and risers (a) A stairway must have— (i) not more than 18 nor less than 2 risers in each ***flight***; and (ii) except as permitted by (b) and (c), going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13; and (iii) except as permitted by (b) and (c), goings and risers that are constant throughout in one ***flight***; and (iv) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (v) treads which have— (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or	Verification will be required with the Construction Documentation

	(B) a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; and (vi) treads of solid construction (not mesh or other perforated material) if the stairway is more than 10 m high or connects more than 3 *storeys*; and (vii) in a Class 9b building, not more than 36 risers in consecutive *flights* without a change in direction of at least 30°; and (viii) in the case of a *required* stairway, no winders in lieu of a landing. **Table D2.13 RISER AND GOING DIMENSIONS (mm)**	

	Riser (R)		Going (G)(2)		Quantity (2R+G)	
	Max	**Min**	**Max**	**Min**	**Max**	**Min**
Public stairways	190	115	355	250	700	550
Private stairways(1)	190	115	355	240	700	550

Cl. D2.14	Landings In a stairway— (a) landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each *flight* and each landing must— (i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and (ii) have— (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or	Verification will be required with the Construction Documentation

	(B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a *flight* below; and **Table D2.14 SLIP-RESISTANCE CLASSIFICATION** **Application** / **Surface conditions** / **Dry** Ramp steeper than 1:14 — P4 or R11 — P5 or R12 Ramp steeper than 1:20 but not steeper than 1:14 — P3 or R10 — P4 or R11 Tread or landing surface — P3 or R10 — P4 or R11 Nosing or landing edge strip — P3 — P4	
Cl. D2.15	A doorway may not incorporate a step at a point closer to the doorway than the width of the door leaf, unless the door opens to a road, open space, external balcony, or stair landing, and the step does not exceed 190-mm.	Verification will be required with the Construction Documentation
Cl. D2.16	Balustrades or other barriers (a) A continuous balustrade or other barrier must be provided along the side of any roof to which public access is provided, any stairway or ramp, any floor, corridor, hallway, balcony, deck, verandah, *mezzanine*, access bridge or the like and along the side of any delineated path of access to a building, if— (i) it is not bounded by a wall; and (ii) its level above the surface beneath, is more than— (A) 4 m where it is possible for a person to fall through an openable *window*; or (B) 1 m in any other case. (c) A balustrade or other barrier in—	Verification will be required with the Construction Documentation

	(i) *fire-isolated stairways*, *fire-isolated ramps* and other areas used primarily for emergency purposes, excluding external stairways and external ramps; and (ii) Class 7 (other than *carparks*) and Class 8 buildings and parts of buildings containing those classes, must comply with (g) and (h)(i). (d) A balustrade or other barrier in stairways and ramps, other than those covered in (c), must comply with (g) and (h)(ii). (e) A balustrade or other barrier along the side of a horizontal or near horizontal surface such as a— (i) roof to which public access is provided and any path of access to a building; and (ii) floor, corridor, hallway, balcony, verandah, *mezzanine*, access bridge or the like, must comply with (g) and (h)(ii). (g) The height of a balustrade or other barrier must be constructed in accordance with the following: (i) The height is not less than 865 mm above the nosings of the stair treads or the floor of a ramp or other path of travel with a gradient not less than 1:20. (ii) The height is not less than— (A) 1 m above the floor of any access path, balcony, landing or the like where the path of travel has a gradient less than 1:20; or (B) 865 mm above the floor of a landing to a stair or ramp where the balustrade or other barrier is provided along the inside edge of the landing and does not exceed a length of 500 mm; or (C) 865 mm above the floor beneath an openable *window*. (iii) A transition zone may be incorporated where the balustrade or other barrier height changes from 865 mm on the stair *flight* or ramp to 1 m at the landing. (iv) For a balustrade or other barrier provided under (f), the height above the floor must be	

	not less than— (A) 1 m; or (B) 700 mm and a horizontal projection extends not less than 1 m outwards from the top of the balustrade. (h) Openings in a balustrade or other barrier must be constructed in accordance with the following: (i) For a balustrade or other barrier provided under (c)— (A) the space between balusters or the width of any opening (including any openable *window* or panel) must not be more than 300 mm; or (B) where rails are used, a rail must be provided at a height of not more than 150 mm above the nosings of the stair treads or the floor of the landing, balcony or the like and the space between rails must not be more than 460 mm. (ii) For a balustrade or other barrier other than those provided under (c)— (A) any opening does not permit a 125 mm sphere to pass through it and for stairs, the space is measured above the nosings; and (B) for floors more than 4 m above the surface beneath, any horizontal or near horizontal elements between 150 mm and 760 mm above the floor must not facilitate climbing.	
Cl. D2.17	Handrails must be provided to at least one side of all stairways and ramps less than 2-metres in width, and to both sides where more than 2-metres in width, and must: – ❑ Be continuous between stair flight landings ❑ Have no obstruction that would cause a break in the hand hold ❑ Have one rail fixed at a height not less than 865-mm ❑ Hand rails within the building must comply with Part D3 of the BCA and AS 1428.1 - 2009	Verification will be required with the Construction Documentation
Cl. D2.18	Fixed platforms, walkways, stairways and ladders A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or	Verification will be required with the Construction Documentation

	barrier attached thereto may comply with AS 1657 in lieu of D2.13, D2.14, D2.16 and D2.17 if it only serves: (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building or Class 4 part of a building.	
Cl. D2.19	Doorways and doors (a) A doorway in a resident use area of a Class 9c building must not be fitted with— (i) a sliding fire door; or (ii) a sliding smoke door; or (iii) a revolving door; or (iv) a roller shutter door; or (v) a tilt-up door. (b) A doorway serving as a required exit or forming part of a required exit, or a doorway in a patient care area of a Class 9a health-care building— (i) must not be fitted with a revolving door; and (ii) must not be fitted with a roller shutter or tilt-up door unless— (A) it serves a Class 6, 7 or 8 building or part with a floor area not more than 200 m2; and (B) the doorway is the only required exit from the building or part; and (C) it is held in the open position while the building or part is lawfully occupied; and (iii) must not be fitted with a sliding door unless— (A) it leads directly to a road or open space; and (B) the door is able to be opened manually under a force of not more than 110 N; and (iv) if fitted with a door which is power-operated— (A) it must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and (B) if it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door.	Verification will be required with the Construction Documentation

	(c) A power-operated door in a path of travel to a required exit, except for a door in a patient care area of a Class 9a health-care building as provided in (b), must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source.	
Cl. D2.20	Swinging doors A swinging door in a required exit or forming part of a required exit— (a) must not encroach— (i) at any part of its swing by more than 500 mm on the required width (including any landings) of a required— (A) stairway; or (B) ramp; or (C) passageway, if it is likely to impede the path of travel of the people already using the exit; and (ii) when fully open, by more than 100 mm on the required width of the required exit, and the measurement of encroachment in each case is to include door handles or other furniture or attachments to the door; and (b) must swing in the direction of egress	Verification will be required with the Construction Documentation
Cl. D2.21	All doors in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily provided with door hardware located between 900-1100-mm above floor level and be readily openable without a key from the side facing a person seeking egress by a single downward action.	Verification will be required with the Construction Documentation
Cl. D3.1	General building access requirements Buildings and parts of buildings must be *accessible* as *required* by Table D3.1, unless exempted by D3.4.	Generally Compliance with the AS 1428.1 Clauses following must be demonstrated within the construction documentation:- General Compliance Requirements BCA Clause E3.6 - LIFT DIMENSIONS AND FIT OUT – where deemed necessary to negotiate levels between buildings

		Clause 6 – CONTINUOUS ACCESSIBLE PATHS OF TRAVEL Clause 7 - FLOOR OR GROUND SURFACES ON CONTINUOUS ACCESSIBLE PATHS OF TRAVEL AND CIRCULATION SPACES Clause 8 - SIGNAGE Clause 9 - TACTILE GROUND SURFACE INDICATORS Clause 10 - WALKWAYS, RAMPS AND LANDINGS Clause 11 - STAIRWAYS Clause 12 - HANDRAILS Clause 13 - DOORWAYS, DOORS AND CIRCULATION SPACE AT DOORWAYS Clause 14 - SWITCHES AND GENERAL PURPOSE OUTLETS (POWER POINTS) Clause15 and 16 - SANITARY FACILITIES
Cl. D3.2	Access to Buildings ▪ Must be provided by an AS 1428.1 complying path of travel from – (i) a entry point from the road at the allotment boundary to the entrance doorway. (ii) any disabled car parking space on the allotment. (iii) any other accessible building on the allotment. (iv) through the principal public entrance. ▪ Parts of buildings required to be accessible must comply with AS 1428.1	As Above

Cl. D3.3	Parts of buildings to be accessible In a building *required* to be *accessible*: (a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with: (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; (b) every passenger lift must comply with clause E3.6; (c) *access ways* must have: (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an *access way* where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1: (A) within 2 m of the end of *access ways* where it is not possible to continue travelling along the *access way*; and (B) at maximum 20 m intervals along the *access way*; (d) an intersection of *access ways* satisfies the spatial requirements for a passing and turning space; (e) a passing space may serve as a turning space; (f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a *storey* or level other than the entrance *storey* in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 *storeys*; and (ii) with a *floor area* for each *storey*, excluding the entrance *storey*, of not more than 200 m^2.	As Above
Cl. D3.5	Accessible car parking spaces: (a) subject to (b), must be provided in accordance with Table D3.5 in:	Verification will be required with the Construction Documentation

	(i) a Class 7a building required to be accessible; and (ii) a car parking area on the same allotment as a building required to be accessible; and (b) need not be provided in a Class 7a building or a car parking area where a parking service is provided and direct access to any of the car parking spaces is not available to the public; and (c) subject to (d), must comply with AS 2890.6; and (d) need not be designated where there is a total of not more than 5 car parking spaces, so as to restrict the use of the car parking space only for people with a disability.	
Cl. D3.6	Signage In a building *required* to be *accessible*: (a) braille and tactile signage complying with Part D4 and incorporating the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must identify each: (i) sanitary facility, except a sanitary facility within a *sole-occupancy unit* in a Class 1b or Class 3 building; and (i) space with a hearing augmentation system; and b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying: (i) the type of hearing augmentation; and (ii) the area covered within the room; and (iii) if receivers are being used and where the receivers can be obtained; and (c) signage in accordance with AS 1428.1 must be provided for *accessible* unisex sanitary facilities to identify if the facility is suitable for left or right handed use; and (d) signage to identify an ambulant *accessible* sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and (e) where a pedestrian entrance is not *accessible*, directional signage	Verification will be required with the Construction Documentation

	incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest *accessible* pedestrian entrance; and (f) where a bank of sanitary facilities is not provided with an *accessible* unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not *accessible*, to direct a person to the location of the nearest *accessible* unisex sanitary facility.	
Cl. D3.8	Hearing augmentation (a) A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed— (i) in a room in a Class 9b building; or (ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or (iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. (b) If a hearing augmentation system required by (a) is— (i) an induction loop, it must be provided to not less than 80% of the floor area of the room or space served by the inbuilt amplification system; or (ii) a system requiring the use of receivers or the like, it must be available to not less than 95% of the floor area of the room or space served by the inbuilt amplification system, and the number of receivers provided must not be less than— (A) if the room or space accommodates up to 500 persons, 1 receiver for every 25 persons or part thereof, or 2 receivers, whichever is the greater; and (B) if the room or space accommodates more than 500 persons but not more than 1000 persons, 20 receivers plus 1 receiver for every 33 persons or part thereof in excess of 500 persons; and (C) if the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons or part thereof in excess of 1000 persons; and	Verification will be required with the Construction Documentation

	(D) if the room or space accommodates more than 2000 persons, 55 receivers plus 1 receiver for every 100 persons or part thereof in excess of 2000 persons. (c) The number of persons accommodated in the room or space served by an inbuilt amplification system must be calculated according to D1.13. (d) Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address	
Cl. D3.8	Tactile indicators (1) For a building *required* to be *accessible*, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching: (a) a stairway, other than a *fire-isolated stairway*; (b) an escalator; (c) a passenger conveyor or moving walk; (d) a ramp other than a *fire-isolated ramp*, a step ramp, a kerb ramp or a *swimming pool* ramp; and (e) in the absence of a suitable barrier: (i) an overhead obstruction less than 2 m above floor level, other than a doorway; and (ii) an *access way* meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in clause D3.4, if there is no kerb or kerb ramp at that point; except for areas exempted by clause D3.4. (2) Tactile ground surface indicators *required* by subclause (1) must comply with sections 1 and 2 of AS/NZS 1428.4.1. (3) A hostel for the aged, nursing home for the aged, a *residential aged care building*, Class 3 accommodation for the aged, Class 9a *health-care building* or a Class 9c *aged care building* need not comply with paragraphs (1) (a) and (d) if handrails incorporating a raised dome button in accordance with the requirements for stairway handrails in AS 1428.1 are provided	Verification will be required with the Construction Documentation

	to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp.	
Cl. D3.11	Ramps - On an *accessway*— (a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and (b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.	Verification will be required with the Construction Documentation
Cl. D3.12	Glazing on an access way On an *access way*, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	Verification will be required with the Construction Documentation

4.5 SECTION E – SERVICES AND EQUIPMENT

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. E1.3	Fire Hydrants ▪ Be provided to a building more than 500 m² and where fire brigades can attend. ▪ Be AS 2419.1 installed, meet the operational requirements of the Brigades for flows and pressures, and when internal, serve only the storey on which they are located except a – (i) Class 2, 3, 4 sole-occupancy unit may be served by a single hydrant at the level of egress from that unit (ii) Class 5, 6, 7, 8, 9 sole-occupancy unit 2 or less storeys may be served by a single hydrant at the level of egress from that unit provided the hydrant can cover the whole unit ▪ On-site pumpsets provided to achieve the AS 2419.1 performance requirements must comprise – (i) two pumps, at least one driven by a compression ignition engine or electric motor supplied from an emergency power generator; or (ii) two electric motor pumps connected to independent power sources; or (iii) if connected to a reticulated water supply and in a building not greater than 25 m, one pump driven by – (a) a compression ignition engine; or (b) an electric motor supplied from an emergency power generator; or (c) an electric motor connected to two independent power sources through an automatic change-over facility ▪ Internal fixed on-site pumpsets must be in a clearly indicated room having direct egress to a road or open space and, if the building is not sprinkled, separated by construction having an FRL of that required for a fire wall for the classification occupied. ▪ External fixed on-site pumpsets are to be in clearly indicated weatherproof	Verification will be required with the Construction Documentation

	enclosures with direct egress to a road or open space, and if within 6 m of the building – (i) each wall of the enclosure exposed to the building; or (ii) that part of the building external wall 2 m each side and 3 m above the enclosure; or (iii) a wall between the building and enclosure extending 2 m each side and 3 m above the enclosure, has an FRL of that required for a fire wall for the classification occupied Where the supply system is from a static source, suitable connections and vehicular access must permit Brigade personnel to draw water, and a fire-service booster connection is provided adjacent to allow boosting of the system	
Cl. E1.4	Fire hose reels A fire hose reel system must be provided— (i) to serve the whole building where one or more internal fire hydrants are installed; or (ii) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m2 (c) The fire hose reel system must— (i) have fire hose reels installed in accordance with AS 2441; and (ii) provide fire hose reels to serve only the storey at which they are located, except a sole-occupancy unit of not more than 2 storeys in a Class 5, 6, 7, 8 or 9 building may be served by a single fire hose reel located at the level of egress from that sole-occupancy unit provided the fire hose reel can provide coverage to the whole of the sole-occupancy unit. (d) Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441. (e) In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system:	Verification will be required with the Construction Documentation

	(i) Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated exit), except that a fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved. (ii) Fire hose reels must be located within 4 m of an exit, except that a fire hose reel need not be located adjacent to every exit, provided system coverage can be achieved. (iii) Where system coverage is not achieved by compliance with (i) and (ii), additional fire hose reels may be located in paths of travel to an exit to achieve the required coverage. (f) Fire hose reels must be located so that the fire hose will not need to pass through doorways fitted with fire or smoke doors, except— (i) doorways in walls referred to in C2.5(a)(v) in a Class 9a building and C2.5(b)(iv) in a Class 9c building, separating ancillary use areas of high potential fire hazard; and (ii) doorways in walls referred to in C2.12 or C2.13 separating equipment or electrical supply systems; and (iii) doorway openings to shafts referred to in C3.13.	
Cl. E1.6	Portable Fire Extinguishers must be selected, located, and installed under AS 2444	Verification will be required with the Construction Documentation
Cl. E3.3	Warning against use of lifts in fire A warning sign must— (a) be displayed where it can be readily seen— (i) near every call button for a passenger lift or group of lifts throughout a building; except (ii) a small lift such as a dumb-waiter or the like that is for the transport of goods only; and (b) comply with the details and dimensions of Figure E3.3 and consist of— (i) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or (ii) letters incised or inlaid directly into the surface of the material forming the wall.	Verification will be required with the Construction Documentation

Cl. E3.5	Landings Access and egress to and from lift well landings must comply with the *Deemed-to-Satisfy Provisions* of Section D.	Verification will be required with the Construction Documentation
Cl. E3.6	Passenger lifts In an *accessible* building, every passenger lift must— (a) be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and (b) have *accessible* features in accordance with Table E3.6b; and (c) not rely on a constant pressure device for its operation if the lift car is fully enclosed.	Verification will be required with the Construction Documentation
Cl. E4.2	AS 2293.1 compliant emergency lighting must be provided throughout the building.	Verification will be required with the Construction Documentation
Cl. E4.4 **Cl. E4.5**	Refer Clause E4.2 above for emergency lighting requirements	Verification will be required with the Construction Documentation
Cl. E4.5 **Cl. E4.8**	AS 2293.1 compliant Exit signage is required at each stair landing, above ground floor Exit Doors and above Exit Stairs	Verification will be required with the Construction Documentation
Cl. E4.6 **Cl. E4.8**	AS 2293.1 compliant Directional signage must be provided where Exit signage is not directly visible	Verification will be required with the Construction Documentation

4.6 SECTION F – HEALTH AND AMENITY

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. F1.0	Deemed-to-Satisfy Provisions (a) Performance Requirement FP1.4, for the prevention of the penetration of water through external walls, must be complied with. There are no Deemed-to-Satisfy Provisions for this Performance Requirement in respect of external walls. (b) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements FP1.1 to FP1.3 and FP1.5 to FP1.7 are satisfied by complying with F1.1 to F1.13. (c) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2.2(3) and A2.4(3) as applicable.	Verification will be required with the Construction Documentation
Cl. F1.1	Stormwater drainage must be AS/NZS 3500.3.2 compliant.	Verification will be required with the Construction Documentation
Cl. F1.7	Wet areas must be water proofed in accordance with AS 3740	Verification will be required with the Construction Documentation
Cl. F1.10	Damp-proofing of floors on the ground If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870, except damp-proofing need not be provided if— (a) weatherproofing is not *required*; or (b) the floor is the base of a stair, lift or similar *shaft* which is adequately drained by gravitation or mechanical means.	Verification will be required with the Construction Documentation
Cl. F1.11	The floor of each bathroom and laundry must be graded to permit drainage to a floor waste.	Verification will be required with the Construction Documentation
Cl. F1.13	**Glazed assemblies** (a) Subject to (b) and (c), the following glazed assemblies in an *external wall*, must comply	Verification will be required with the Construction Documentation

	with AS 2047 requirements for resistance to water penetration: (i) Windows. (ii) Sliding doors with a frame. (iii) Adjustable louvres. (iv) Shopfronts. (v) Window walls with one piece framing. (b) The following buildings need not comply with (a): (i) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (ii) A garage, tool shed, *sanitary compartment*, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, *sanitary compartment* or the like contributes to the weatherproofing of the other part of the building. (iii) An *open spectator stand* or *open-deck carpark*. (c) The following glazed assemblies need not comply with (a): (i) All glazed assemblies not in an *external wall*. (ii) Hinged doors, including French doors and bi-fold doors. (iii) Revolving doors. (iv) Fixed louvres. (v) Skylights, roof lights and windows in other than the vertical plane. (vi) Sliding doors without a frame. (vii) Shopfront doors. (viii) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (ix) Second-hand windows, re-used windows, recycled windows and replacement	

	windows. (x) Heritage windows.	
Cl. F2.3	Facilities in Class 3 to 9 buildings (a) Except where permitted by (b), (c), (f), F2.4(a) and F2.4(b), separate sanitary facilities for males and females must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Table F2.3. (b) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex. (c) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy. (d) Employees and the public may share the same facilities in a Class 6 and 9b building (other than a school or early childhood centre) provided the number of facilities provided is not less than the total number of facilities required for employees plus those required for the public. (e) Adequate means of disposal of sanitary towels must be provided in sanitary facilities for use by females. (f) Separate sanitary facilities for males and females need not be provided for patients in a ward area of a Class 9a building.	Verification will be required with the Construction Documentation
Cl. F2.4	Accessible Sanitary facilities must comply with As 1428.1 - 2009	Verification will be required with the Construction Documentation
Cl. F2.5	Construction of sanitary compartments (b) The door to a fully enclosed *sanitary compartment* must— (i) open outwards; or (ii) slide; or (iii) be readily removable from the outside of the *sanitary compartment*, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F2.5,	Verification will be required with the Construction Documentation

	between the closet pan within the *sanitary compartment* and the doorway.	
Cl. F3.1	Clearance Heights General requirements (i) bath/shower room, sanitary compartment, airlock, pantry, storeroom, garage, parking area, or the like – 2.1 m (ii) a commercial kitchen – 2.4 m Class 2, 3, 4 (i) kitchen, laundry, or the like – 2.1 m (ii) corridor, passageway, or the like – 2.1 m habitable room (except a kitchen) – 2.4 m	Verification will be required with the Construction Documentation
Cl. F4.1	Provision of natural light Natural light must be provided in: Class 9b buildings — to all general purpose classrooms in primary or secondary schools and all playrooms or the like for the use of children in an early childhood centre.	Verification will be required with the Construction Documentation
Cl. F4.2	Methods and extent of natural light (a) Required natural light must be provided by— (i) windows, excluding roof lights, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) roof lights, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (B) are open to the sky; or (iii) a proportional combination of windows and roof lights required by (i) and (ii). (b) Except in a Class 9c building, in a Class 2, 3 or 9 building or Class 4 part of a building a required window that faces a boundary of an adjoining allotment or a wall of the	Verification will be required with the Construction Documentation

	same building or another building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of— (i) generally — 1 m; and (ii) in a patient care area or other room used for sleeping purposes in a Class 9a building — 3 m; and (iii) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill.	
Cl. F4.4	Artificial lighting must be AS 1680 compliant.	Verification will be required with the Construction Documentation
Cl. F4.5	Ventilation of rooms A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have— (a) natural ventilation complying with F4.6; or (b) a mechanical ventilation or air-conditioning system complying with AS 1668.2.	Verification will be required with the Construction Documentation
Cl. F4.6	Natural ventilation (a) Natural ventilation provided in accordance with F4.5(a) must consist of openings, windows, doors or other devices which can be opened— (i) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and (ii) open to— (A) a suitably sized court, or space open to the sky; or (B) an open verandah, carport, or the like; or (C) an adjoining room in accordance with F4.7.	Verification will be required with the Construction Documentation

Author:

Kieran Tobin,
Senior Consultant