BUILDING CODE OF AUSTRALIA (BCA) REVIEW FOR

Proposed shop top housing including 2 flat premises and motel units

at 37 Ogilvie St, Denman 2328 (Lot: 102/-/1178581)

Prepared by Perception Planning Pty Ltd on behalf of Vanessa Green

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EXECUTIVE SUMMARY

The following items should be noted, however do not constitute a full and comprehensive BCA assessment of the building;

The subject of this BCA review is based largely on the subject of the proposed use *[based on a review of the architectural plans]* and their relation to proposed layout and facilities. The review is based off the provided DA plans noted in the introduction section of this report.

The key matters for BCA consideration and upgrades or changes are referenced below. The items listed below do not constitute all items however attempts to provide a snapshot of the main issues noted.

i. The building with a single exit from the upper floor requires the building to be of Type B construction. Types of construction are determined in relation to the use of a building and its relative construction parameters. Type A being the most fire resiting and Type C being the least fire resisting.

   With addition from an additional exit from the upper floor *(2 stairways),* the building can be reduced to Type C construction. The differences relate to the required fire rating of components [Type B is generally higher than Type C) and the distances required from a fire source feature for Type B is generally greater than Type C construction.

   A good example here is with Type B construction, any wall within 18m of a fire source feature (a boundary in this case) requires a level of fire protection to the wall; with Type C construction it is 3m.

   Fire resisting requirements of Type B and Type C have been provided in Part C for comparison.

   While it is a construction choice, generally the addition of a staircase can reduce a substantial amount of fire protection and end up more cost effective. *See Part C for more information.*

ii. The building will require fire rated floors and walls between all residential rooms and a fire wall is required between the shops and the residential component. *Regardless of Type of construction.*

iii. The current room layout with bathrooms adjoining general floor space of the adjacent unit requires discontinuous construction of the adjoining wall. This means effectively a cavity type wall be constructed. If bathrooms are adjoining bathrooms this type of wall construction can be avoided. *See Part F7 for more information*

iv. Regardless of that noted above, all intertenancy walls require sound insulation (airborne) to attenuate noise transmission. Most plasterboard manufacturers provide tested systems that comply with the relevant provisions of Part F7.

TERMS & ABBREVIATIONS

Ambulatory Disability	an impairment that prevents, or impedes walking
Accessible	means having features to enable use by people with a disability.
Accessway	means a continuous *accessible* path of travel (as defined by AS1428.1) to, into or within a building
AS	Australian Standard
BCA	Building Code of Australia
Building Works	means any physical activity involved in the erection of a building. *(S 6.1 EP and A Act 1979)*
Critical flux index	is an index tabling the lowest thermal load per unit area capable of initiating a combustion reaction on a given material (either flame or smoulder ignition).
DTS	Deemed to satisfy (prescriptive provisions of the BCA)
EP and A	Environmental Planning and Assessment Act and Regulations
Fire Source Feature	the far side of a boundary of a **road**; the rear or side boundary of an allotment or the external wall of another building on the same allotment.
FRL	Fire Resistance Level
Fire Isolated Stairs (FI)	A stairway within a fire-resisting shaft and includes the floor and roof or top enclosing structure.
Lightweight Construction	construction that incorporates, sheet or board material, concrete containing pumice, perlite, vermiculite or the like and masonry less than 70mm thick
Mezzanine	An intermediate floor within a room
NCC	National Construction Code
Photoluminescent	the light produced by the absorption of infrared radiation, visible light, or ultraviolet radiation *("glow in the dark")*
Smoke-Developed Index	means the index number for smoke as determined by AS/NZS 1530.3.
Spread-of-Flame Index	means the index number for spread of flame as determined by AS/NZS 1530.3.
Waterproof	Does not allow moisture to penetrate through it *(when tested in accordance with AS4858)*
Water Resistant	Restricts moisture movement and will not degrade under conditions of moisture.

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1.0 INTRODUCTION

This report is an review of the associated plans for the proposed use of the structure as a Class 2, 3 and 6 building as noted within this report to determine how the design generally complies with Volume One of the Building Code of Australia 2022 (BCA). The building and its proposed uses are considered, being assessed against the Deemed-to-Satisfy (DTS) Provisions of the BCA as applicable.

The sections of the BCA addressed are generally limited to the items required to be addressed by this class of building and is based off a review of the noted plans only.

The assessment predominantly relates to the BCA 2022 and NSW Environmental Planning and Assessment legislation current at the time as applicable and noted. The assessment relates specifically to the building as identified on the supplied plans (the subject of this report) and therefore should not be construed to apply to any other building.

The assessment is based on a plan review only. The assessment generally relates to the specific use noted and should not be considered to be an assessment of any existing structures unless noted otherwise. No demolition of any existing on site structures was considered as part of this review.

The review does not review or consider any specific structural parameters nor does it consider, or allow for, any specific on-site parameters that may exist on the site. The review is based of what can be determined off the plans noted below and is intended to provide BCA compliance assistance in the development design and concept stages. It is not intended to be a certificate of compliance or part of a BCA design signoff.

Plans used to determine compliance are noted as, proposed mixed use development at 37 Ogilvie St Denman NSW 2328; Lot 102 DP1178581 Project No. 23-024 prepared by CAD Design and Draft; Sheets numbered A04 to A09 and dated February 23 and noted as issue C 22-11-23.

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1.1 SITE DETAILS AND ANALYSIS

The site is located at 37 Ogilvie St, Denman 2328; and is legally identified as Lot: 102/-/DP1178581 (the site) (FIGURE 1). The site has an area of approx. 746m^2 and is accessible from Ogilvie and Paxton Streets. The site is zoned RU5: Village.

1.2 PROPERTY ZONING

The site of the proposed development is zoned RU5: Village.

1.3 DESCRIPTION OF BUILDING

Location:	37 Ogilvie St, Denman 2328
Proposed Use of Building:	Motel
NCC/ BCA Use Classification:	***2*** *[A6G3] - A Class 2 building is a building containing two or more sole-occupancy units.* ***3*** [A6G4] - *A Class 3 building is a residential building providing long-term or transient accommodation for a number of unrelated persons.* - *A residential part of a hotel or motel.* ***6*** *[A6G7] - A Class 6 building is a shop or other building used for the sale of goods by retail or the supply of services direct to the public.* *Class 6 buildings include the following:* *(a) An eating room, cafe, restaurant, milk or soft-drink bar.* *(b) A dining room, bar area that is not an assembly building, shop or kiosk part of a hotel or motel.* *(c) A hairdresser's or barber's shop, public laundry, or undertaker's establishment.* *(d) A supermarket or sale room, showroom, or service station.*
Rise in Storeys:	2 (C2D3)
Type of Construction:	Type B [Table C2D2] *[Can be a Type C construction; See recommendations in C2D6]*
Effective Height:	Under 12m
Floor Area/s:	*Shop 1- 33m^2* *Shop 2- 34.2m^2* *Flat 1 and 2- 39.62m^2* *U1–3 - 39.62m^2* *U4-6 – 32.2m^2* *U7 – 33.7m^2*
Known previous uses:	Nil, new structure

FIGURE 1 – Locality Map *(Source: NSW Planning Portal Spatial Viewer)*

2.0 NCC/BCA REVIEW

The following table provides a review of the building against the relevant parts of the (NCC/BCA) Building Code of Australia 2022;

Table 1 – NCC/BCA Review

BCA CLAUSE	DESCRIPTION	REVIEW COMMENTS	
A GOVERNING REQUIREMENTS			
Part A6 Building Classification			
A6G9	Building Classification	The building in its current form is a multi-classed building and consists of Class 2, 3 and Class 6 components. *Class 2- Residential Flats.* *Class 3- A residential part of a hotel or motel.* *Class 6- Shops*	*Note*
B STRUCTURE			
Part B1 Structural provisions			
Part B1	Structural Provisions	The structural provisions have not been assessed. It is understood these will be addressed under separate cover through an engineer's assessment and design, addressing the structural provisions as identified below through the various manufacturer's specifications and plans. The performance requirement B1P1 and B1P2 can be satisfied through DTS provisions B1D1 through B1D5 and assessment (certification) against AS1170.1; AS1170.2; AS1170.3; AS1170.4 as appropriate.	*Note*

C FIRE RESISTANCE

Part C2 Fire resistance and stability			
C2D2	Type of construction required	Type B construction is required, based on the current design. See Specification 5 ***Note 1****: Read in conjunction with C2D6* ***Note 2:*** *Types of construction relate to the inherent fire resistance a building has. Type A is the most fire resisting and Type C is the least. Construction requirements and costs increase accordingly with the increase in the construction type.*	*Note*
C2D3	Calculation of rise of storeys	The building has a rise in stories of 2. (1) The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space- (a) above the finished ground next to that part; or (b) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary.	*Note*
C2D4	Buildings of multiple classification	The building carries multiple classifications. (1) 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 C2D2 on the basis that the classification applying to the top storey applies to all storeys. (2) N/A to this Class of building	*Note*
C2D5	Mixed types of construction	N/A – The building is of singular Type B construction. ***Note 1:*** *Can be reduced to Type C construction by following the recommendations in C2D6*	*Note*
C2D6	Two storey Class 2, 3 or 9c buildings	A building having a rise in storeys of 2 may be of Type C construction if- (a) it is a Class 2 or 3 building or a mixture of these classes and each sole-occupancy unit has- (i) access to at least 2 exits; or (ii) its own direct access to a road or open space; or (b) N/A applies to Class 9c buildings	*See Note 1*

		Note 1: *the type of construction can be reduced with an additional exit from the upper floor.*	
C2D9	Lightweight construction	Where installed, Lightweight construction must comply with Specification 6 if it is used in a wall system that is required to have an FRL. ***Note 1:*** *Lightweight construction will be required between units and for separation of building classes. Most plasterboard manufacturers have tested systems that have been tested for fire resistance and where applicable noise attenuation. Where these tested systems are chosen and constructed strictly in accordance with the tested system, the lightweight construction complies with this clause and specification 6.*	*See Note 1* *LW construction is considered to be required.*
C2D10	Non-combustible building elements	(1) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible: (a) **External walls and common walls, including all components incorporated in them including the fa-cade covering, framing and insulation.** (b) The flooring and floor framing of lift pits. (c) **Non-loadbearing internal walls where they are required to be fire-resisting.** (2) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of com-bustion, that is non-loadbearing, must be of non-combus-tible construction in- (a) a building required to be of Type A construction; and (b) *a building required to be of Type B construction, subject to C3D11, in-* *(i) a Class 2, 3 or 9 building; and* *(ii) a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys.* (3) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification 5. (4) The requirements of (1) and (2) do not apply to the fol-lowing: (a) Gaskets. (b) Caulking. (c) Sealants. (d) Termite management systems. (e) Glass, including laminated glass, and associated adhesives, including tapes.	*Note, applicable to design choices and construction* *Current design requires building to be of Type B construction. All applicable items for Type B construction apply.* *Note not required for Type C construction. See recommendation in Note 1 C2D6*

		(f) Thermal breaks associated with- (i) glazing systems; or (ii) external wall systems, where the thermal breaks- (A) are no larger than necessary to achieve thermal objectives; and (B) do not extend beyond one storey; and (C) do not extend beyond one fire compartment. (g) Damp-proof courses. (h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm. (i) Isolated- (i) construction packers and shims; or (ii) blocking for fixing fixtures; or (iii) fixings, including fixing accessories; or (iv) acoustic mounts. (j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level. (k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm. (l) Weather sealing materials, applied to gaps not wider than 50 mm, used within and between concrete elements. (m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as appropriate, and associated with masonry wall construction. (n) Reinforcing bars and associated minor elements that are wholly or predominately encased in concrete or grout. (o) A paint, lacquer or a similar finish or coating. (p) Adhesives, including tapes, associated with stiffeners for cladding systems. (q) Fire-protective materials and components required for the protection of penetrations. (5) The following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required: (a) Concrete. (b) Steel, including metallic coated steel. (c) Masonry, including mortar. (d) Aluminium, including aluminium alloy. (e) Autoclaved aerated concrete, including mortar. (f) Iron. (g) Terracotta.	

		(h) Porcelain. (i) Ceramic. (j) Natural stone. (k) Copper. (l) Zinc. (m) Lead. (n) Bronze. (o) Brass. (6) The following materials may be used wherever a non-combustible material is required: (a) Plasterboard. (b) Perforated gypsum lath with a normal paper finish. (c) Fibrous-plaster sheet. (d) Fibre-reinforced cement sheeting. (e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0. (f) Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5. (g) Bonded laminated materials where- (i) each lamina, including any core, is non-combustible; and (ii) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and (iii) 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; and (iv) when located externally, are fixed in accordance with C2D15.	
C2D11	Fire hazard properties	(1) Materials used will require compliance with spec. 7; materials noted below (where used) should comply with Spec. 7 The fire hazard properties of the following internal linings, materials and assemblies within a Class 2 to 9 building must comply with Specification 7: (a) Floor linings and floor coverings. (b) Wall linings and ceiling linings. (c) Air-handling ductwork. (d) Lift cars. (e) In Class 9b buildings used as a theatre, public hall or the like-	*This building in its current form is Type B construction and is predominately a Class 2, with 3, and 6 elements.* *Note that building can be of Type C construction with an additional exit.*

(i) fixed seating in the audience area or auditorium; and

(ii) a proscenium curtain required by Specification 32

(f) Escalators, moving walkways and non-required non fire-isolated stairways or pedestrian ramps subject to Specification 14.

(g) Sarking-type materials.

(h) Attachments to floors, ceilings, internal walls, common walls, fire walls and to internal linings of external walls.

(i) Other materials including insulation materials other than sarking-type materials.

(2) Paint or fire-retardant coatings must not be used to achieve compliance with the required fire hazard properties

(3) The requirements of (1) do not apply to a material or assembly if it is-

(a) plaster, cement render, concrete, terrazzo, ceramic tile or the like; or

(b) a fire-protective covering; or

(c) a timber-framed window; or

(d) a solid timber handrail or skirting; or

(e) a timber-faced door; or

(f) an electrical switch, socket-outlet, cover plate or the like; or

(g) a material used for-

(i) a roof insulating material applied in continuous contact with a substrate; or

(ii) an adhesive; or

(iii) a damp-proof course, flashing, caulking, sealing, ground moisture barrier, or the like; or

(h) a paint, varnish, lacquer or similar finish, other than nitro-cellulose lacquer; or

(i) a clear or translucent roof light of glass fibre-reinforced polyester if-

(i) the roof in which it is installed forms part of a single storey building required to be Type C construction; and

(ii) the material is used as part of the roof covering; and

(iii) it is not closer than 1.5 m from another roof light of the same type; and

each roof light is not more than 14 m2 (iv) in area; and

the area of the roof lights per 70 m2 of roof surface is not more than 14 m2 (v); or

(j) a face plate or neck adaptor of supply and return air outlets of an air handling system; or

		(k) a face plate or diffuser plate of light fitting and emergency exit signs and associated electrical wiring and electrical components; or (l) a joinery unit, cupboard, shelving, or the like; or (m) an attached non-building fixture and fitting such as- (i) a curtain, blind, or similar decor, other than a proscenium curtain required by Specification 32; and (ii) a whiteboard, window treatment or the like; or (n) timber treads, risers, landings and associated supporting framework installed in accordance with D3D30 where the Spread-of-Flame Index and the Smoke-Developed Index of the timber does not exceed 9 and 8 respectively; or (o) any other material that does not significantly increase the hazards of fire.	
C2D12	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 8.	*Note design and construction where precast panel walls are used. No pre-cast panels indicated in the current design.*
C2D13	Fire-protected timber: Concessions	Fire-protected timber may be used wherever an element is required to be non-combustible, provided- (a) the building is- (i) a separate building; or (ii) a part of a building- (A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or (B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and (b) the building has an effective height of not more than 25 m; and (c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and (d) any insulation installed in the cavity of the timber building element to have an FRL is non-combustible; and (e) cavity barriers are provided in accordance with Specification 9.	*Note for construction*
C2D14	Ancillary elements	An ancillary element must not be fixed, installed, attached to or supported by the concealed internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following: (a) An ancillary element that is non-combustible.	*Note for construction and installation of ancillary elements listed adjacent, on any external walls.*

		(b) A gutter, downpipe or other plumbing fixture or fitting. (c) A flashing. (d) A grate, grille or similar cover not more than 2 m2 in area associated with a building service. (e) An electrical switch, socket-outlet, cover plate or the like. (f) A light fitting. (g) A required sign. (h) A sign other than one provided under (a) or (g) that- (i) achieves a group number of 1 or 2; and (ii) does not extend beyond one storey; and (iii) does not extend beyond one fire compartment; and (iv) is separated vertically from other signs permitted under (h) by at least 2 storeys. (i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that- (i) meets the relevant requirements of Table S7C7 as for an internal element; and (ii) serves a storey- (A) at ground level; or (B) immediately above a storey at ground level; and (iii) does not serve an exit, where it would render the exit unusable in a fire. (j) A part of a security, intercom or announcement system. (k) Wiring. (l) Waterproofing material installed in accordance with AS 4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface. (m) Collars, sleeves and insulation associated with service installations. (n) Screens applied to vents, weepholes and gaps complying with AS 3959.	
C2D15	Fixing of bonded laminated cladding panels	(1) In a building required to be of Type A or B construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame. (2) An externally located bonded laminated cladding panel need not comply with (1) if it is one of the following: (a) A laminated glass system. (b) Layered plasterboard product. (c) Perforated gypsum lath with a normal paper finish. (d) Fibrous-plaster sheet. (e) Fibre-reinforced cement sheeting. (f) A component of a garage door.	***This building in its current form is Type B construction.*** ***Building can be of Type C construction with an additional exit to the upper floors where this clause would then not apply.***

Specification 5 Fire-resisting construction			
S5C2	Exposure to fire-source features	(1) A part of a building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that- (a) has an FRL of not less than 30/–/–; and (b) is neither transparent nor translucent. (2) A part of a building element is not exposed to a fire-source feature if the fire-source feature is- (a) an external wall of another building that stands on the allotment and the part concerned is more than 15 m above the highest part of that external wall; or (b) a side or rear boundary of the allotment and the part concerned is below the level of the finished ground at every relevant part of the boundary concerned. (3) If various distances apply for different parts of a building element- (a) the entire element must have the FRL applicable to that part having the least distance between itself and the relevant fire-source feature; or (b) each part of the element must have the FRL applicable according to its individual distance from the relevant fire-source feature. (4) The requirements of (3) do not override or permit any exemption from S5C3.	*Note*
S5C3	Fire protection for a support of another part	(1) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (2), must- (a) have an FRL not less than that required by other provisions of this Specification; and (b) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required- (i) for the supporting part itself; and (ii) for the part it supports; and (c) be non-combustible- (i) if required by other provisions of this Specification; or (ii) if the part it supports is required to be non-combustible. (2) The following building elements need not comply with (1)(b) and (1)(c)(ii):	*Note*

		(a) An element providing lateral support to an external wall complying with S5C24(1)(b) or C2D12. (b) An element providing support within a carpark and complying with S5C19, S5C22 or S5C25. (c) A roof providing lateral support in a building- (i) of Type A construction if it complies with S5C15(a), (b) or (d); and (ii) of Type B and **C** construction. (d) A column providing lateral support to a wall where the column complies with S5C6(1) and (2). (e) An element providing lateral support to a fire wall or fire-resisting wall, provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall.	
S5C4	Lintels	(1) A lintel must have the FRL required for the part of the building in which it is situated. (2) A lintel need not comply with (1) if it does not contribute to the support of a fire door, fire window or fire shutter, and- (a) it spans an opening in- (i) a wall of a building containing only one storey; or (ii) a non-loadbearing wall of a Class 2 or 3 building; or (b) it spans an opening in masonry which is not more than 150 mm thick and- (i) not more than 3 m wide if the masonry is non-loadbearing; or (ii) not more than 1.8 m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall.	*Note*
S5C5	Method of attachment not to reduce the fire-resistance of building elements	The method of attaching or installing a finish, lining, ancillary element or service installation to the building element must not reduce the fire-resistance of that element to below that required.	*Note*
S5C6	General concessions	(1) Steel columns - A steel column, other than one in a *fire wall* or *common wall*, need not have an FRL in a building that contains- (a) only 1 storey; or (b) 2 storeys in some of its parts and 1 storey only in its remaining parts if the sum of the floor areas of the upper storeys of its 2 storey parts does not exceed the lesser of- (i) 1/8 of the sum of the floor areas of the 1 storey parts; or	*Note*

		(ii) in the case of a building to which one of the maximum floor areas specified in Table C3D3 is applicable - 1/10 of that area; or (iii) in the case of a building to which two or more of the maximum floor area specified in Table C3D3 is applicable - 1/10 of the lesser of those areas.	
	Table S5C7: Increased FRLs — Construction surrounding mezzanines Level otherwise *required* for any FRL criterion (mins) / Increase in level to not less than (mins) 30 / 60 60 / 90 90 / 120 120 / 180 180 / 240 **Table Notes** The increase in level applies to each FRL criterion (*structural adequacy*, *integrity* or *insulation*) relevant to the building element concerned.		
S5C10	Residential care building: Concession	N/A not a residential care building	*N/A*
S5C21	Type B fire-resisting construction - fire-resistance of building elements	(1) In a building required to be of Type B construction- (a) each building element listed in Tables S5C21a, S5C21b, S5C21c, S5C21d, S5C21e, S5C21f and S5C21g, and any beam or column incorporated in it, must have an FRL not less than that listed in the Tables for the particular class of building concerned; and (b) if a stair shaft supports any floor or a structural part of it- (i) the floor or part must have an FRL of 60/–/– or more; or (ii) the junction of the stair shaft must be constructed so that the floor or part will be free to sag or fall in a fire without causing structural damage to the shaft; and (c) any internal wall which is required to have an FRL with respect to integrity and insulation, except a wall that bounds a sole-occupancy unit in the topmost (or only) storey and there is only one unit in that storey, must extend to- (i) the underside of the floor next above if that floor has an FRL of at least 30/30/30; or (ii) the underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or (iii) the underside of the roof covering if it is non-combustible and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type	*Note that if an additional exit to the upper floor is provided the requirements of this specification will be subject to Type C (less fire resisting) requirements.* *There are a number of building elements listed in the tables mentioned in this clause.* *The main issues here is the differing parameters between Type B and Type C construction.* *With Type B construction the western wall will require 180/180/180FRL to the Class 6 part [shop] and 90/90/90 to the Class 2 or 3 part (residential)* *With Type C construction that same western wall (closest to the boundary)*

		material, must not be crossed by timber or other combustible building elements; or (iv) 450 mm above the roof covering if it is combustible; and (d) a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from- (i) concrete; or (ii) masonry; or (iii) subject to (2), fire-protected timber; or (iv) any combination of (i) to (iii); and (e) in a Class 5, 6, 7, 8 or 9 building, in the storey immediately below the roof, internal columns and internal walls other than fire walls and shaft walls, need not comply with Tables S5C21e, S5C21f and S5C21g; and (f) in a Class 2 or 3 building, except where within the one sole-occupancy units, or a Class 9a health-care building or a Class 9b building, a floor separating storeys or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, must- (i) be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or (ii) have an FRL of at least 30/30/30; or (iii) have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal; and (g) in a Class 9c building a floor above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, and any column supporting the floor must- (i) be constructed so that it is at least of the standard achieved by a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or (ii) have an FRL of at least 30/30/30; or (iii) have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal. (2) For the purposes of (1)(d)(iii), fire-protected timber may be used, provided that- (a) the building is- (i) a separate building; or	*will require 90/90/90 to both residential and commercial building classes. [note that for Type C construction, additional stair egress is required from the upper levels in accordance with C2D6]* *The western wall of units of units 1,2 and 3 will require an FRL of 90/30/- with Type B construction and no protection with Type C construction.* *Note the southern walls of unit 7, store and guest laundry and plat room and the walls above in Flat 1 and 2 will also require protection under the current design in varying degrees depending on its relative distance from the boundary.* ** if any walls adjacent roads are within 18m of the building across the street then those walls will require protection under the provisions of Type B construction.*

(ii) a part of a building-

(A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or

(B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and

(b) the building has an effective height of not more than 25 m; and

(c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and

(d) any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and

(e) cavity barriers are provided in accordance with Specification 9.

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

In reading the below tables, note that the residential levels are Class 2, the hotel rooms are Class 3 and the shops are Class 6.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

S5C23	Type B fire-resisting construction - Class 2 and 3 buildings: Concession	(1) In a Class 2 or 3 building with a rise in storeys of not more than 2- (a) notwithstanding C2D10(1) and (2), timber framing may be used for- (i) external walls; and (ii) common walls; and (iii) the floor framing of lifts pits; and (iv) non-loadbearing internal walls which are required to be fire-resisting; and (v) non-loadbearing shafts, except shafts used for the discharge of hot products of combustion; and (b) notwithstanding S5C21(1)(d), for loadbearing internal walls and loadbearing fire walls- (i) timber framing may be used; and (ii) non-combustible materials may be used; and (c) notwithstanding S5C3(1)(c), timber framing may be used for a part of a building that provides support to a part of a building constructed of timber framing or non-combustible material in accordance with (a) and (b). (2) A Class 2 or 3 building having a rise in storeys of not more than 2 may have the top storey constructed in accordance with (1) provided- (a) the lowest storey is used solely for the purpose of parking motor vehicles or for some other ancillary purpose; and (b) the lowest storey is constructed of concrete or masonry including the floor between it and the Class 2 or 3 part of the building above; and (c) the lowest storey and the storey above are separated by construction having an FRL of not less than 90/90/90 with no openings or penetrations that would reduce the fire-resisting performance of that construction except that a doorway in that construction may be protected by a –/60/30 self-closing fire door. (3) In a Class 2 or 3 building complying with (1) or (2) and fitted with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17, any FRL criterion prescribed in Tables S5C21a, S5C21d, S5C21e, S5C21f and S5C21g; and - (a) for any loadbearing wall, may be reduced to 60, except any FRL criterion of 90 for an external wall must be maintained when tested from the outside; and (b) for any non-loadbearing internal wall, need not apply, if-	

		(i) it is lined on both sides with 13 mm standard grade plasterboard or similar non-combustible material; and (ii) it extends- (A) to the underside of the floor next above if that floor has an FRL of at least 30/30/30 or is lined on the underside with a fire-protective covering; or (B) to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes; or (C) to the underside of a non-combustible roof covering; and (iii) any insulation installed in the cavity of the wall is non-combustible; and (iv) any construction joints, spaces and the like between the top of the wall and the floor, ceiling or roof is smoke sealed with intumescent putty or other suitable material.	
Type C Fire-resisting construction ***[Note that current construction is Type B; the following is provided as a comparison of reduced fire resisting requirements for Type C construction]***			
S5C24	*Type C fire-resisting construction - fire-resistance of building elements*	*(1) In a building required to be of Type C construction-* *(a) a building element listed in Tables S5C24a, S5C24b, S5C24c, S5C24d and S5C24e and any beam or column incorporated in it, must have an FRL not less than that listed in those Tables for the particular Class of building concerned; and* *(b) an external wall that is required by Table S5C24a to have an FRL need only be tested from the outside to satisfy the requirement; and* *(c) a fire wall or an internal wall bounding a sole-occupancy unit or separating adjoining units must comply with Specification 6 if it is of lightweight construction and is required to have an FRL; and* *(d) in a Class 2 or 3 building, an internal wall which is required by Table 5C24c or S5C24d to have an FRL must extend-* *(i) to the underside of the floor next above if that floor has an FRL of at least 30/30/30 or a fire-protective covering on the underside of the floor; or* *(ii) to the underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or* *(iii) to the underside of the roof covering if it is non-combustible, and except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or*	

(iv) 450 mm above the roof covering if it is combustible; and

(e) in a Class 2 or 3 building, except where within the one sole-occupancy unit, or a Class 9a health-care building, or a Class 9b building, a floor separating storeys, or above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, and any column supporting the floor, must-

(i) have an FRL of at least 30/30/30; or

(ii) have a fire-protective covering on the underside of the floor including beams incorporated in it and around the column, if the floor or column is combustible or of metal; and

(f) in a Class 9c building a floor above a space for the accommodation of motor vehicles or used for storage or any other ancillary purpose, and any column supporting the floor, must-

(i) have an FRL of at least 30/30/30; or

(ii) have a fire-protective covering on the underside of the floor including beams incorporated in it and around the column, if the floor or column is combustible or of metal.

(2) For the purposes of Table S5C24a and Table S5C24b, external wall includes any column and other building element incorporated within it or other external building element.

Table S5C24a: Type C construction: FRL of parts of external walls

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

Table S5C24b: Type C construction: FRL of external columns not incorporated into an external wall

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

Table S5C24c: Type C construction: FRL of common walls and fire walls

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

Table S5C24d: Type C construction: FRL of internal walls

Location	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Bounding *public corridors*, public lobbies and the like	60/60/60	–/–/–	–/–/–	–/–/–
Between or bounding *sole-occupancy units*	60/60/60	–/–/–	–/–/–	–/–/–
Bounding a stair if *required* to be rated	60/60/60	60/60/60	60/60/60	60/60/60

Table S5C24e: Type C construction: FRL of roof

Location	FRL (in minutes): *Structural adequacy* / *Integrity* / *Insulation*			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Roofs	–/–/–	–/–/–	–/–/–	–/–/–

Part C3 Compartmentation and separation

C3D3	General floor area and volume limitations	The size of fire compartments must not exceed the maximum floor area nor volume set out in table C3D3.	*N/A to this class of building*

Table C3D3: Maximum size of fire compartments or atria

Classification	Type A construction	Type B construction	Type C construction
5, 9b or 9c	Max *floor area*—8000 m^2	Max *floor area*—5500 m^2	Max *floor area*—3000 m^2
	Max *volume*—48000 m^3	Max *volume*—33000 m^3	max *volume*—18000 m^3
Classification	**Type A construction**	**Type B construction**	**Type C construction**
6, 7, 8 or 9a (except for *patient care areas*)	Max *floor area*—5000 m^2	Max *floor area*—3500 m^2	Max *floor area*—2000 m^2
	Max *volume*—30000 m^3	Max *volume*—21000 m^3	Max *volume*—12000 m^3

Table Notes

See C3D6 for maximum size of compartments in *patient care areas* in Class 9a *health-care buildings*.

C3D4	Large isolated buildings	N/A – Buildings are below the thresholds in C3D3 and as such do not require the exemptions of this clause.	*N/A*
C3D5	Requirements for open spaces and vehicular access	N/A – Only applies to spaces required by C3D4 Large Isolated Buildings.	*N/A*

C3D7	Vertical separation of openings in external walls	(1) If in a building of Type A construction, any part of a window or other opening in an external wall is above another opening in the storey next below and its vertical projection falls no further than 450 mm outside the lower opening (measured horizontally), the openings must be separated by- (a) a spandrel which- (i) is not less than 900 mm in height; and (ii) extends not less than 600 mm above the upper surface of the intervening floor; and (iii) is of non-combustible material having an FRL of not less than 60/60/60; or (b) part of a curtain wall or panel wall that complies with (a); or (c) construction that complies with (a) behind a curtain wall or panel wall and has any gaps packed with a non-combustible material that will withstand thermal expansion and structural movement of the walling without the loss of seal against fire and smoke; or (d) a slab or other horizontal construction that- (i) projects outwards from the external face of the wall not less than 1100 mm; and (ii) extends along the wall not less than 450 mm beyond the openings concerned; and (iii) is non-combustible and has an FRL of not less than 60/60/60. (2) The requirements of (1) do not apply to- (a) an open-deck carpark; or (b) an open spectator stand; or (c) a building which has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or (d) openings within the same stairway; or (e) openings in external walls where the floor separating the storeys does not require an FRL with respect to integrity and insulation. (3) For the purposes of C3D7, window or other opening means that part of the external wall of a building that does not have an FRL of 60/60/60 or greater	*N/A to Type B construction*
C3D8	Separation by fire walls	(1) Construction - A fire wall must be constructed in accordance with the following: (a) The fire wall has the relevant FRL prescribed by Specification 5 for each of the adjoining parts, and if these are different, the greater FRL, except where S5C19(3)(c)(i), S5C22(3)(c)(i) and S5C25(3)(c)(i) permit a lower FRL on the carpark side.	*Note for fire wall FRL* *This is the wall between the residential and commercial spaces.* *Table S5C21d Type B 180/180/180;*

		(b) Any openings in a fire wall must not reduce the FRL required by Specification 5 for the fire wall, except where permitted by the Deemed-to-Satisfy Provisions of Part C4. (c) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not pass through or cross the fire wall unless the required fire-resisting performance of the fire wall is maintained. (2) Separation of buildings - A part of a building separated from the remainder of the building by a fire wall may be treated as a separate building for the purposes of the Deemed-to-Satisfy Provisions of Sections C, D and E if it is constructed in accordance with (1) and the following: (a) The fire wall extends through all storeys and spaces in the nature of storeys that are common to that part and any adjoining part of the building. (b) The fire wall is carried through to the underside of the roof covering. (c) Where the roof of one of the adjoining parts is lower than the roof of the other part, the fire wall extends to the underside of- (i) the covering of the higher roof, or not less than 6 m above the covering of the lower roof; or (ii) the lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3 m to any wall above the lower roof; or (iii) the lower roof if its covering is non-combustible and the lower part has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (3) Separation of fire compartments - A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with (a) and the fire wall extends to the underside of- (a) a floor having an FRL required for a fire wall; or (b) the roof covering.	*[Type C 90/90/90 Table S5C24c]* *Common walls between units are determined by Spec. 5, Type B Table S5C21e 60/60/60* *[Type C Table S5CS24d (60/60/60)]* *Same for both Type B and Type C construction.*
C3D9	Separation of classifications in the same storey	(1) 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 5 for that element for the classifications concerned; or (b) the parts must be separated in that storey by a fire wall. (2) A fire wall required by (1)(b) must have the FRL prescribed in accordance with Specification 5 as applicable	*This is the wall between the residential and commercial spaces.* *Table S5C21d Type B 180/180/180;* *[Type C 90/90/90 Table S5C24c]*

		for that element for the Type of construction and the classifications concerned. (3) For the purposes of (2), the FRL in Specification 5 must be either- (a) the higher FRL prescribed in Table S5C11d or S5C21d; or (b) the FRL prescribed in Table S5C24c. (4) For the purposes of (1), where one part is a carpark complying with S5C19, S5C22 or S5C25, the parts may be separated by a fire wall complying with S5C19(3)(c), S5C22(3)(c) or S5C25(3)(c) as appropriate. ***Note 1:*** *the only area that has adjacent different classifications is the roof space. For connectivity, that entire space (including the occupiable outdoor area will be treated as a 9b component.)*	
C3D10	Separation of classifications in different storeys	If parts of different classification are situated one above the other in adjoining storeys they must be separated as follows: (a) Type A construction - The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification 5 for the classification of the lower storey. (b) **Type B or C construction** - If one of the adjoining parts is of Class 2, 3 or 4, the floor separating the part from the storey below must- (i) be a floor/ceiling system incorporating a ceiling which has a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or (ii) have an FRL of at least 30/30/30; or (iii) have a fire-protective covering on the underside of the floor, including beams incorporated in it, if the floor is combustible or of metal.	See Note 1 The building is a Class 2, 3 and 6 Type B construction with a rise of stories of 2 Requirements of this clause requires all floor/ ceiling systems *(where a residential unit is above)* in the current design to meet the requirements of C3D10 (b)
C3D11	Separation of lift shafts	(1) Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the remainder of the building by enclosure in a shaft in which- (a) in a building required to be of Type A construction - the walls have the relevant FRL prescribed by Specification 5; and *(b) in a building required to be of **Type B** construction - the walls-* *(i) if loadbearing, have the relevant FRL prescribed by Table S5C21e; or* *(ii) if non-loadbearing, be of non-combustible construction.* *(2) Any lift in a patient care area in a Class 9a health-care building or a resident use area in Class 9c building must*	*N/A no lift*

		be separated from the remainder of the building by a shaft having an FRL of not less than- *(a) in a building of Type A or B construction - 120/120/120; or* *(b) in a building of Type C construction - 60/60/60.* (3) An emergency lift must be contained within a fire-resisting shaft having an FRL of not less than 120/120/120. (4) Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4.	
C3D12	Stairways and lifts in one shaft	A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.	*N/A no lift shaft*
C3D13	Separation of equipment	(1) Equipment other than that described in (2) and (3) must be separated from the remainder of the building with construction complying with (4), if that equipment comprises- (a) lift motors and lift control panels; or (b) emergency generators used to sustain emergency equipment operating in the emergency mode; or (c) central smoke control plant; or (d) boilers; or (e) a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more. (2) Equipment need not be separated in accordance with (1) if the equipment comprises- (a) smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification 21; or (b) stair pressurising equipment installed in compliance with the relevant provisions of AS 1668.1; or (c) a lift installation without a machine-room; or (d) equipment otherwise adequately separated from the remainder of the building. (3) Separation of on-site fire pumps must comply with the requirements of AS 2419.1. (4) Separating construction must have- (a) except as provided by (b)- (i) an FRL as required by Specification 5, but not less than 120/120/120; and (ii) any doorway protected with a self-closing fire door having an FRL of not less than –/120/30; or (b) when separating a lift shaft and lift motor room, an FRL not less than 120/–/–.	*Construction FRL Note*

C3D15	Public corridors in Class 2 and 3 buildings	In a Class 2 or 3 building, a public corridor, if more than 40 m in length, must be divided at intervals of not more than 40m with smoke-proof walls complying with S11C2.	*N/A corridors under 40m*
Part C4 Protection of openings			
C4D3	Protection of openings in external walls	(1) Subject to (2), openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used, they must be located externally. (2) The requirements of (1) only apply if the distance between the opening and the fire-source feature to which it is exposed is less than- (a) 3 m from a side or rear boundary of the allotment; or (b) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or (c) 6 m from another building on the allotment that is not Class 10. (3) Openings required to be protected under (1), must not occupy more than 1/3 of the area of the external wall of the storey in which they are located unless they are in a Class 9b building used as an open spectator stand.	*Note that all walls within 18m of a fire source feature in Type B construction require an FRL.* *Openings in the western and southern walls will require protection in accordance with this clause.* *Note that any other walls if within 18m from buildings across the street/s will also require protection.*
C4D4	Separation of external walls and associated openings in different fire compartments	The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C4D4, unless- (a) those parts of each wall have an FRL not less than 60/60/60; and (b) any openings are protected in accordance with C4D5.	*This would apply to openings within proximity to the fire wall dividing the residential class from the commercial class. It would also apply to the openings in the breezeway.*

Table C4D4: Distance between external walls and associated openings in different fire compartments

Angle between walls	Minimum distance (m)
0° (walls opposite)	6
more than 0° to 45°	5
more than 45° to 90°	4
more than 90° to 135°	3
more than 135° to less than 180°	2
180° or more	Nil

C4D5	Acceptable methods of protection	Where protection is required, doorways, windows, and other openings must be protected as follows: (a) Doorways- (i) Internal or external wall-wetting sprinklers as appropriate, used with doors that are self-closing or automatic closing; or (ii) -/60/30 Fire doors that are self-closing or automatic closing.	In recognition of Type B construction, windows and doors will require protection in accordance with this clause.

		(b) Windows (i) Internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or (ii) -/60/- fire windows that are automatic closing or permanently fixed in the closed position; or (iii) -/60/- automatic closing fire shutters. (c) Other openings- (i) Excluding voids – internal or external wall-wetting sprinklers, as appropriate; or (ii) Construction having an FRL of not less than -/60/-.	Type C construction will require less on the current design.
C4D6	Doorways in fire walls	(1) The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed ½ of the length of the fire wall, and each doorway must be protected by- (a) 2 fire doors or fire shutters, one on each side of the doorway, each of which has an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30; or (b) a fire door on one side and a fire shutter on the other side of the doorway, each of which complies with (a); or (c) a single fire door or fire shutter which has an FRL of not less than that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30. (2) A fire door or fire shutter required by (1)(a), (b) or (c) must be self-closing, or automatic closing in accordance with (3) and (4). (3) The automatic closing operation required by (2) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5m horizontal distance from the opening. (4) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system in either fire compartment separated by the fire wall must also initiate the automatic closing operation.	*Note requirements for doors in fire walls/ common walls however, no doors in firewalls noted.*
C4D9	Openings in fire-isolated exits	**(1) Doorways that open to fire-isolated stairways, fire-isolated passageways or fire-isolated ramps, and are not doorways opening to a road or open space, must**	*N/A no fire isolated exits*

		be protected by –/60/30 fire doors that are self-closing, or automatic closing in accordance with (2) and (3). (2) The automatic-closing operation required by (1) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (3) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system must also initiate the automaticclosing operation. (4) A window in an external wall of a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp must be protected in accordance with C4D5 if it is within 6 m of, and exposed to, a window or other opening in a wall of the same building, other than in the same fire-isolated enclosure.	
C4D10	Service penetrations in fire-isolated exits	Fire-isolated exits must not be penetrated by any services other than- (a) electrical wiring permitted by D3D8(6) to be installed within the exit; or (b) ducting associated with a pressurisation system if it- (i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and (ii) does not open into any other part of the building; or (c) for fire services, water supply and test drain pipes.	*N/A not FI stairways*
C4D11	Openings in fire-isolated lift shafts	(1) Doorways - If a lift shaft is required to be fire-isolated, an entrance doorway to that shaft must be protected by –/60/– fire doors that- (a) comply with AS 1735.11; and (b) are set to remain closed except when discharging or receiving passengers, goods or vehicles. (2) Lift indicator panels - A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35000mm^2 in area.	*N/A not FI lift shafts*
C4D12	Bounding construction: Class 2 and 3 buildings and Class 4 parts	(1) A doorway in a Class 2 or 3 building must be protected if it provides access from a sole-occupancy unit to- (a) a public corridor, public lobby, or the like; or (b) a room not within a sole-occupancy unit; or (c) the landing of an internal non fire-isolated stairway that serves as a required exit; or (d) another sole-occupancy unit.	*Note door requirements entering onto the public corridors and spaces* *Note requirements of C4D12 (8) and (9) for upper floor units.*

		(2) A doorway in a Class 2 or 3 building must be protected if it provides access from a room not within a sole-occupancy unit to- (a) a public corridor, public lobby, or the like; or (b) the landing of an internal non fire-isolated stairway that serves as a required exit. (3) A doorway in a Class 4 part of a building must be protected if it provides access to any other internal part of the building. *NSW variation (4)* (4) Except as provided for in NSW C4D12(5), protection for a doorway required under (1), (2) or (3) must be at least- (a) in a building of Type A construction - a self-closing –/60/30 fire door; and (b) **in a building of Type B or C construction** — a self-closing, tight fitting, solid core door not less than 35 mm thick. *NSW variation (5)* (5) In a Class 3 building used as a residential care building protected with a sprinkler system complying with Specification 17, protection for a doorway must be at least a tight fitting solid core door not less than 35 mm thick that is- (a) self-closing; or (b) fitted with a free-arm action closing device which closes the door or causes the door to remain closed (without preventing manual re-opening), upon the detection of smoke caused by a smoke detector located within the room. (6) Other openings in internal walls which are required to have an FRL with respect to integrity and insulation must not reduce the fire-resisting performance of the wall. (7) A door required by (4) or (5) may be automatic-closing in accordance with the following: (a) The automatic-closing operation must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway. (b) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic-closing operation. (8) The requirements of (9) apply in a Class 2 or 3 building where a path of travel to an exit-	*Note that walls bounding public corridors and other common, public rooms and spaces is determined via Spec. 5 Table S5C21e for Type B construction*

		(a) does not provide a person seeking egress with a choice of travel in different directions to alternative exits; and (b) is along an open balcony, landing or the like; and (c) passes an external wall of- (i) another sole-occupancy unit; or (ii) a room not within a sole-occupancy unit. (9) The external wall mentioned in (8)(c) must- (a) be constructed of concrete or masonry, or be lined internally with a fire-protective covering; and (b) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (c) have any windows or other openings- (i) protected internally in accordance with C4D5; or (ii) located at least 1.5 m above the floor of the balcony, landing or the like. *NSW variation (10)* (10) In a Class 9b building used as an entertainment venue, openings in construction required to separate one space from another must be protected in accordance with C4D5. ***Note 1: entertainment venue** means a building used as a cinema, theatre or concert hall or an indoor sports stadium.*	
C4D13	Openings in floors and ceilings for services	(1) Where a service passes through- (a) a floor that is required to have an FRL with respect to integrity and insulation; or (b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (2). (2) A service must be protected- (a) in a building of **Type A** construction, by a shaft complying with Specification 5; or (b) in a building of Type B or C construction, by a shaft that will not reduce the fire performance of the building elements it penetrates; or (c) in accordance with C4D15. (3) Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering.	*Note requirement for any floor penetrations*
C4D14	Openings in shafts	In a building of **Type A** construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be protected by-	*None noted*

		(a) if it is in a sanitary compartment - a door or panel which, together with its frame, is non-combustible or has an FRL of not less than –/30/30; or (b) a self-closing –/60/30 fire door or hopper; or (c) an access panel having an FRL of not less than –/60/30; or (d) if the shaft is a garbage shaft - a door or hopper of non-combustible construction.	
C4D15	Openings for service installations	(1) The requirements of (2) apply 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. (2) An installation mentioned in (1) must comply with any one of the following: (a) Tested systems - the following applies: (i) The service, building element and any protection method at the penetration- (A) 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; or (B) differ from a prototype assembly of the service, building element and protection method in accordance with Section 4 of AS 4072.1. (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. (iii) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. (b) Ventilation and air-conditioning - in the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS 1668.1.	*Note for service penetrations through walls requiring an FRL (other than external walls and roofs)*

		(c) Compliance with Specification 13 - the following applies: (i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification 13 and it- (A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and (B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts; and (C) does not contain a flammable or combustible liquid or gas. (ii) The service is sanitary plumbing installed in accordance with Specification 13 and it- (A) is of metal or UPVC pipe; and (B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and (C) is in a sanitary compartment separated from other parts of the building by walls with the FRL required by Specification 5 for a stair shaft in the building and a self-closing –/60/30 fire door. (iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification 13 and it- (A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and (B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts. (iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification 13.	
C4D16	Construction joints	(1) Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner- (a) identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or (b) that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL. (2) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2. (3) The requirements of (1) do not apply where joints, spaces and the like between fire-protected timber elements are provided with cavity barriers in accordance with Specification 9.	*Note*

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

D ACCESS AND EGRESS

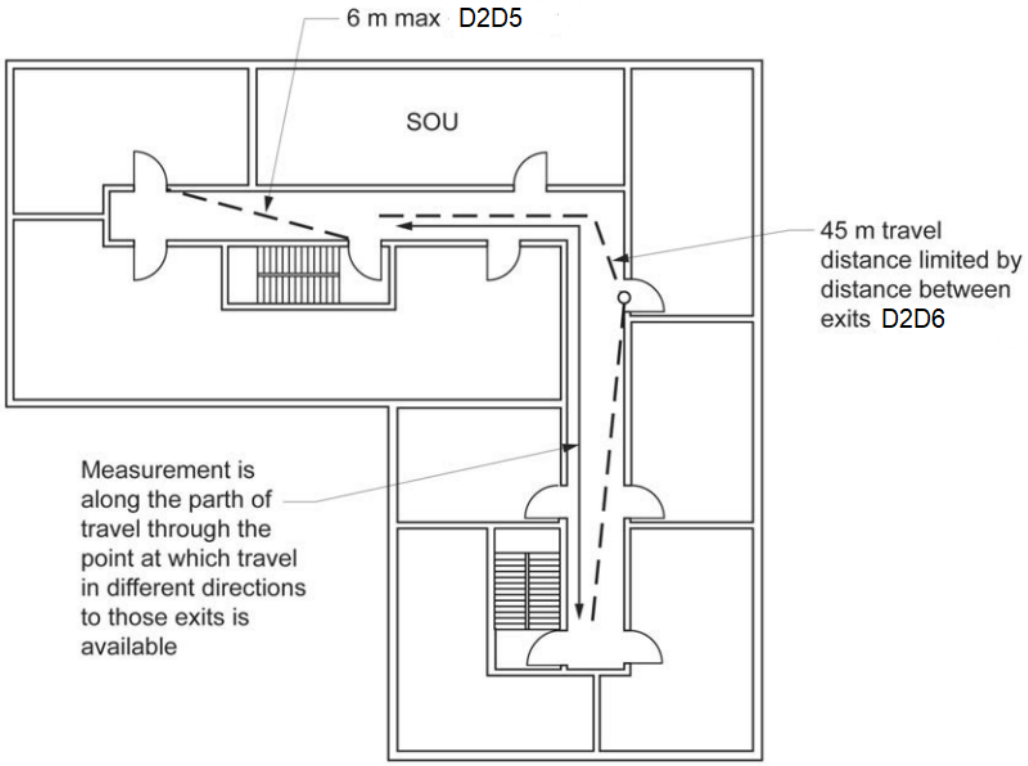
Part D2 Provision for escape

D2D3	Number of exits required	(1) All buildings - Every building must have at least one exit from each storey. (2) Class 2 to 8 buildings - (a) In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has an effective height of more than 25 m. (ii) A Class 2 or 3 building subject to C2D6. (b) The requirements of (a)(i) do not apply to a part of a storey that- (i) is provided with direct egress to a road or open space; and (ii) satisfies D2D5 by the provision of 1 exit. (3) Basements - In addition to any horizontal exit, not less than 2 exits must be provided from any storey if egress from that storey involves a vertical rise within the building of more than 1.5 m, unless- (a) the floor area of the storey is not more than 50 m²; and (b) the distance of travel from any point on the floor to a single exit is not more than 20 m. *NSW variation D2D3(4)* (4) Class 9 buildings- (a) In addition to any horizontal exit, not less than 2 exits must be provided from the following: (i) Each storey if the building has a rise in storeys of more than 6 or an effective height of more than 25 m. (ii) Any storey which includes a patient care area in a Class 9a health-care building. (iii) Any storey that contains sleeping areas in a Class 9c building.	Note (2)(ii) For Type B construction 1 exit complies, for the building to be of Type C construction and reduced fire protection an additional exit from the upper level would be required in accordance with this clause.

		(iv) Any storey used as a Class 9b early childhood centre, or any Class 9b early childhood centre which forms part of a storey. (v) Each storey in a primary or secondary school with a rise in storeys of 2 or more. (vi) Any storey or mezzanine that accommodates more than 50 persons, calculated under D2D18. (vii) Any storey or mezzanine within an auditorium in an entertainment venue. (b) The requirements of (a) do not apply to a part of a storey that- (i) is a plant room, machinery room, storeroom, lift-machine room or the like; and (ii) is provided with direct egress to a road, open space or a fire-isolated exit complying with D2D12(2); and (iii) satisfies D2D5 by the provision of 1 exit. (5) Exits from Class 9c buildings and patient care areas in Class 9a health-care buildings - In a Class 9a health-care building and a Class 9c building, at least one exit must be provided from every part of a storey which has been divided into fire compartments in accordance with C3D3 or C3D6. (6) Exits in open spectator stands - In an open spectator stand containing more than one tier of seating, every tier must have not less than 2 stairways or ramps, each forming part of the path of travel to not less than 2 exits. (7) Access to exits - Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to- (a) an exit; or (b) at least 2 exits if 2 or more exits are required.	
D2D4	When fire-isolated stairways and ramps and required	(1) **Class 2 and 3 buildings -** The following applies: (a) Subject to (b), every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than- (i) 3 consecutive storeys in a Class 2 building; or (ii) 2 consecutive storeys in a Class 3 building. (b) Notwithstanding (a), one extra storey of any classification may be included if- (i) it is only for the accommodation of motor vehicles or for other ancillary purposes; or	*Complies no FI stairs required.*

		(ii) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (iii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having- (A) an FRL of –/60/60, if non-loadbearing; and (B) an FRL of 90/90/90, if loadbearing; and (C) no opening that could permit the passage of fire or smoke. (2) Class 5, 6, 7, 8 or 9 buildings - Every stairway or ramp serving as a required exit must be fire-isolated unless- (a) in a Class 9a health-care building - it connects, or passes through or passes by not more than 2 consecutive storeys in areas other than patient care areas; or (b) it is part of an open spectator stand; or (c) in any other case, **except** in a Class 9b early childhood centre or a Class 9c building**,** it connects, passes through or passes by not more than 2 consecutive storeys and one extra storey of any classification may be included if- (i) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (ii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having- (A) an FRL of –/60/60, if non-loadbearing; and (B) an FRL of 90/90/90 for Type A construction or 60/60/60 for Type B or C construction, if loadbearing; and (C) no opening that could permit the passage of fire or smoke	
D2D5	Exit travel distances	(1) **Class** 2 and **3** buildings - **(a) The entrance doorway of any sole-occupancy unit must be not more than-** **(i) 6 m from an exit or from a point from which travel in different directions to 2 exits is available; or** **(ii) 20 m from a single exit serving the storey at the level of egress to a road or open space;** and (b) no point on the floor of a room which is not in a sole-occupancy unit must be more than 20m from an exit or from a point at which travel in different directions to 2 exits is available. (2) Class 4 parts of a building - The entrance doorway to any Class 4 part of a building must be not more than 6 m	While no specific travel distances are provided it appears compliant *(for Type B construction)* of 20m to a single exit.

		from an exit or a point from which travel in different directions to 2 exits is available. (3) Class 5, 6, 7, 8 or 9 buildings - Subject to (4), (5) and (6)- (a) 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 (b) 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. (3) Class 5, 6, 7, 8 or 9 buildings - Subject to (4), (5) and (6)- *(note that clauses 4 and 5 as noted at left are not applicable to this classification of building)* **(a) 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 (b) 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. (4) N/A (5) N/A (6) Assembly buildings - In a Class 9b building other than a school or early childhood centre, the distance to one of the exits may be 60 m if- (a) the path of travel from the room concerned to that exit is through another area which is a corridor, hallway, lobby, ramp or other circulation space; and (b) the room is smoke-separated from the circulation space by construction having an FRL of not less than 60/60/60 with every doorway in that construction protected by a tight fitting, self-closing, solid-core door not less than 35 mm thick; and (c) the maximum distance of travel does not exceed 40 m within the room and 20 m from the doorway to the room through the circulation space to the exit. ***Note 1:*** *Where the term 'exit' is used it refers to the definition below.* *Exit: Means-* *(a) Any, or any combination of the following if they provide egress to a road or open space:* *(i) An internal or external stairway.* *(ii) A ramp.* *(iii) A fire-isolated passageway.*	

		(iv) A doorway opening to a road or open space; or *(b) A horizontal exit or a fire-isolated passageway leading to a horizontal exit.*	
	Plan showing one method of compliance with Section D for Class 2 and Class 3 buildings  		
D2D6	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-** (i) in a **Class** 2 or **3** building - 45 m apart; or (ii) N/A (iii) in all other cases - 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6 m apart.	*Note*
D2D7	Height of exits, paths of travel to exits and	In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.	*Note*

D2D8	Width of exits and paths of travel exits	(1) Widths of each exit and path of travel to exits are 1m at a minimum. (2) If the storey, mezzanine or open spectator stand accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width of required exits or paths of travel to an exit, except for doorways, must be not less than- (a) 1 m plus 250 mm for each 25 persons (or part) in excess of 100; or (b) 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. (3) If the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width of required exits or paths of travel to an exit, except for doorways, must be not less than- (a) 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 (b) in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200. (4) In an open spectator stand which accommodates more than 2000 persons, the aggregate unobstructed width of required exits or paths of travel to an exit, except for doorways, must be not less than 17 m plus a width (in metres) equal to the number in excess of 2000 divided by 600. *[NSW variation]* (5) In a Class 9b building used as an entertainment venue- *(See Note 1 for definition of an entertainment venue)* (a) the aggregate width must be not less than 2 m plus 500 mm for every 50 persons or part in excess of 200; and (b) D2D8(1), (2) and (3) do not apply; and (c) where one or more paths of travel merge, the width of the combined path of travel must be not less than the sum of the required widths of those paths of travel; and (d) the required widths of those paths of travel connecting the exits from the building to a public road or open space must comply with (c); ***Note 1:*** *entertainment venue means a building used as a cinema, theatre or concert hall or an indoor sports stadium.* ***Note 2: The width of the evacuation pathways must be minimum 1m (including stairs and corridors) and must***	*See Note 2 adjacent*

		be measured in accordance with D2D11 (measured clear of handrails, balustrades and the like). Widths throughout the entire egress path is required to be no less than 1m (The egress pathway is considered to be the most logical exit taken to the exit points.) Note this requirement in relation to stair width as overall width is reliant on handrail placements, stringer placements etc and a stairway shaft opening will need to cater for these variances.	
***NSW* D2D9**	Width of doorways in exits or paths of travel to exits	*[NSW variation]* In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than- (a) N/A Applies to patient care areas (b) N/A Applies to patient care areas **(c) the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or** (d) N/A applies to Class 9c buildings (e) in a Class 9b building used as an entertainment venue- (i) in parts of the building used by the public, the width of the required exit or path of travel, and the unobstructed width of each doorway must not be less than 1 m and not more than 3 m; and (ii) in other parts of the building, doorways must comply with NSW D2D9; **or** **(f) in any other case except where it opens to a sanitary compartment or bathroom - 750 mm wide.**	*Note see NSW **D2D8 Note 1** for definition of an entertainment venue.*
D2D10	Exit width not to diminish in direction of travel	The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i).	*Note*
D2D11	Determination and measurement of exits and paths of travel to exits	For the purposes of D2D7 to D2D10 the following apply: (a) The required width of a stairway or ramp in a required exit or path of travel to an exit must- (i) be measured clear of all obstructions such as handrails, projecting parts of barriers and the like; and (ii) extend without interruption, except for ceiling cornices, to a height not less than 2 m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing. (b) To determine the aggregate unobstructed width, the number of persons accommodated must be calculated according to D2D18.	
D2D12	Travel via fire-isolated exits	(1) A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from- (a) a public corridor, public lobby or the like; or	*N/A*

(b) a sole-occupancy unit occupying all of a storey; or

(c) a sanitary compartment, airlock or the like.

(2) Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway-

(a) to a road or open space; or

(b) to a point-

(i) in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least ⅔ of its perimeter; and

(ii) from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or

(c) into a covered area that-

(i) adjoins a road or open space; and

(ii) is open for at least ⅓ of its perimeter; and

(iii) has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and

(iv) provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m.

(3) Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies:

(a) That part of the wall must have-

(i) an FRL of not less than 60/60/60; and

(ii) any openings protected internally in accordance with C4D5; and

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

(4) If more than 2 access doorways, not from a sanitary compartment or the like, open to a required fire-isolated exit in the same storey-

(a) a smoke lobby in accordance with D3D7 must be provided; or

(b) the exit must be pressurised in accordance with AS 1668.1.

(5) A ramp must be provided at any change in level less than 600 mm in a fire-isolated passageway in a Class 9 building

D2D14	Travel by non-fire-isolated stairways or ramps	(1) A non-fire-isolated stairway or non-fire-isolated ramp serving as a required exit must provide a continuous means of travel by its own flights and landings from every storey served to the level at which egress to a road or open space is provided. (2) In a Class 2, 3 or 4 building, the distance between the doorway of a room or sole-occupancy unit and the point of egress to a road or open space by way of a stairway or ramp that is not fire-isolated and is required to serve that room or sole-occupancy unit must not exceed- (a) 30 m in a building of Type C construction; or (b) 60 m in all other cases. (3) In a Class 5, 6, 7, 8 or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire-isolated stairway or non-fire-isolated ramp must not exceed 80 m. (4) In a Class 2, 3 or 9a building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than- (a) 15 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 30 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (5) In a Class 5 to 8 or 9b building, a required non-fire-isolated stairway or non-fire-isolated ramp must discharge at a point not more than- (a) 20 m from a doorway providing egress to a road or open space or from a fire-isolated passageway leading to a road or open space; or (b) 40 m from one of 2 such doorways or passageways if travel to each of them from the non-fire-isolated stairway or non-fire-isolated ramp is in opposite or approximately opposite directions. (6) In a Class 2 or 3 building, if 2 or more exits are required and are provided by means of internal non-fire-isolated stairways or non-fire-isolated ramps each exit must- (a) provide separate egress to a road or open space; and (b) be suitably smoke-separated from each other at the level of discharge.	*Note only* *No stairs are required to be fire isolated*
D2D15	Discharge from exits	(1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.	*Note that bollards or similar will be required if any egress doors can be blocked by vehicles. This would mean lower-level*

		(2) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than- (a) the minimum width of the required exit; or (b) 1 m, whichever is the greater. (3) If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by- (a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed-to-Satisfy Provisions of Part D4; or (b) except if the exit is from a Class 9a building, a stairway complying with the Deemed-to-Satisfy Provisions of the NCC. (4) The discharge point of alternative exits must be located as far apart as practical. (5) N/A *[NSW variation]* (6) In a Class 9b building used as an entertainment venue, at least half of the required number of exits from each storey or mezzanine, and at least half of the aggregate width of such exits must discharge otherwise than through the main entrance, or the area immediately adjacent to the main entrance to the building. (7) The number of persons accommodated must be calculated according to D2D18.	*unit doors and stair egress point.*
D2D17	Non-required stairways, ramps or escalators	An escalator, moving walkway or non-required non fire-isolated stairway or pedestrian ramp- (a) must not be used between storeys in- (i) N/A (ii) N/A; and (b) may connect any number of storeys if it is- (i) N/A; or (ii) in a carpark or an atrium; or (iii) outside a building; or (iv) in a Class 5 or 6 building that is sprinklered throughout, where the escalator, walkway, stairway or ramp complies with Specification 14; and (c) except where permitted in (b) must not connect more than- (i) 3 storeys if- (A) each of those storeys is provided with a sprinkler system (other than a FPAA101D system) complying with Specification 17 throughout; and (B) at least one of those storeys is situated at a level at which there is a direct egress to a road or open	*Note only*

		space; or (ii) 2 storeys, provided that those storeys are consecutive, and one of the storeys is situated at a level at which there is direct egress to a road or open space; and (d) except where permitted in (b) or (c), must not connect, directly or indirectly, more than 2 storeys at any level in a Class 5, 6, 7, 8 or 9 building and those storeys must be consecutive.	
D2D18	Number of persons accommodated	For the purposes of the Deemed-to-Satisfy Provisions, the number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it is used and the layout of the floor area by- (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D2D18 according to the use of that part, excluding spaces set aside for- (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like; and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (b) reference to the seating capacity in an assembly building or room; or (c) any other suitable means of assessing its capacity.	*Note*
D2D19	Measurement of distances	The nearest part of an exit means in the case of- (a) a fire-isolated stairway, fire-isolated passageway, or fire-isolated ramp, the nearest part of the doorway providing access to them; and (b) a non-fire-isolated stairway, the nearest part of the nearest riser; and (c) a non-fire-isolated ramp, the nearest part of the junction of the floor of the ramp and the floor of the storey; and (d) a doorway opening to a road or open space, the nearest part of the doorway; and (e) a horizontal exit, the nearest part of the doorway.	*Note*
D2D20	Method of measurement	The following rules apply: (a) In the case of a room that is not a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building, the distance includes the straight-line measurement from any point on the floor of the room to the nearest part of a doorway leading from it, together with the distance from that part of the doorway to the single required exit or point from which travel in different directions to 2 required exits is available. **(b) Subject to (d), the distance from the doorway of a sole-occupancy unit in a Class 2 or 3 building or a**	*Note*

		Class 4 part of a building is measured in a straight line to the nearest part of the required single exit or point from which travel in different directions to 2 required exits is available. (c) Subject to (d), the distance between exits is measured in a straight line between the nearest parts of those exits. **(d) Only the shortest distance is taken along a corridor, hallway, external balcony or other path of travel that curves or changes direction.** (e) If more than one corridor, hallway, or other internal path of travel connects required exits, for the purposes of D2D6(c) the measurement is along the path of travel through the point at which travel in different directions to those exits is available, as determined in accordance with D2D5. (f) If a wall (including a demountable internal wall) that does not bound a room, corridor, hallway or the like causes a change of direction in proceeding to a required exit, the distance is measured along the path of travel past that wall. (g) If permanent fixed seating is provided, the distance is measured along the path of travel between the rows of seats. (h) In the case of a non-fire-isolated stairway or non-fire-isolated ramp, the distance is measured along a line connecting the nosings of the treads, or along the slope of the ramp, together with the distance connecting those lines across any intermediate landings.	
D2D21	Plant rooms, lift machine rooms and electricity network sub-stations: Concession	(1) A ladder may be used in lieu of a stairway to provide egress from- (a) a plant room with a floor area of not more than 100 m^2; or (b) all but one point of egress from a plant room, a lift machine room or a Class 8 electricity network substation with a floor area of not more than 200 m^2. (2) A ladder permitted under (1)- (a) may- (i) form part of an exit provided that in the case of a fire-isolated stairway it is contained within the shaft; or (ii) discharge within a storey in which case it must be considered as forming part of the path of travel; and (b) for a plant room or a Class 8 electricity network substation, must comply with AS 1657; and (c) for a lift machine room, where access is provided from within a machine room to a secondary floor, a	*None noted*

		fixed rung type ladder complying with AS 1657 may be used, provided that- (i) the height between the floors is not more than 2800 mm; and (ii) the ladder is inclined at an angle to the horizontal not less than 65 degrees nor more than 75 degrees; and (iii) the distance between the front face of the ladder and any adjacent obstruction is not less than- (A) 960 mm, where the ladder is inclined 65 degrees to the horizontal; or (B) 760 mm, where the ladder is inclined 75 degrees to the horizontal; or (C) a distance that is determined by interpolating the values in (A) and (B), where the ladder is inclined at any angle between 65 degrees and 75 degrees to the horizontal; and (iv) a clear space not less than 600 mm exists between the foot of the ladder and any equipment.	
Part D3 Construction of exits			
D3D4	Non-fire-isolated stairways and ramps	In a building having a rise in storeys of more than 2, required stairs and ramps (including landings and any supporting building elements) which are not required to be within a fire-resisting shaft, must be constructed according to D3D3, or only of- (a) reinforced or prestressed concrete; or (b) steel in no part less than 6 mm thick; or (c) timber that- (i) has a finished thickness of not less than 44 mm; and has an average density of not less than 800 kg/m3 (ii) at a moisture content of 12%; and (iii) has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.	*N/A applies to over 2 stories*
D3D5	Separation of rising and descending stair flights	If a stairway serving as an exit is required to be fire-isolated- (a) there must be no direct connection between- (i) a flight rising from a storey below the lowest level of access to a road or open space; and (ii) a flight descending from a storey above that level; and (b) any construction that separates or is common to the rising and descending flights must be- (i) non-combustible; and (ii) smoke proof in accordance with S11C2.	*Complies levels lower than the point of egress*

D3D5	Open access ramps and balconies	Where an open access ramp or balcony is provided to meet the smoke hazard management requirements of E2D4 to E2D13, it must- (a) have ventilation openings to the outside air which- (i) have a total unobstructed area not less than the floor area of the ramp or balcony; and (ii) are evenly distributed along the open sides of the ramp or balcony; and (b) not be enclosed on its open sides above a height of 1 m except by an open grille or the like having a free air space of not less than 75% of its area.	*Note only*
D3D7	Smoke lobbies	A smoke lobby required by D2D12 must- (a) have a floor area not less than 6 m2; and (b) be separated from the occupied areas in the storey by walls which are impervious to smoke, and- (i) have an FRL of not less than 60/60/– (which may be fire-protective grade plasterboard, gypsum block with set plaster, face brickwork, glass blocks or glazing); and (ii) extend from slab to slab, or to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes which covers the lobby; and (iii) any construction joints between the top of the walls and the floor slab, roof or ceiling must be smoke sealed with intumescent putty or other suitable material; and (c) at any opening from the occupied areas, have smoke doors complying with S12C3 and S12C4 except that the smoke sensing device need only be located on the approach side of the opening; and (d) be pressurised as part of the exit if the exit is required to be pressurised under E2D3.	*Note only where a smoke lobby is required. Current design does not require a smoke lobby. See D2D12(4); D2D14(6); D3D5(b)(ii) where smoke lobby requirements apply*
D3D8	Installations in exits and paths of travel	(1) Access to service shafts and services other than to fire-fighting or detection equipment as permitted in the Deemed to-Satisfy Provisions of Section E, must not be provided from a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp. (2) An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway, lobby or the like leading to a required exit. (3) Gas or other fuel services must not be installed in a required exit.	*Note- requirements for stairs and hallway*

		(4) Except for in a fire-isolated exit specified in (1), services or equipment enclosed in accordance with (5) may be installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit, where that service or equipment comprises- (a) electricity meters, distribution boards or ducts; or (b) central telecommunications distribution boards or equipment; or (c) electrical motors or other motors serving equipment in the building. (5) An enclosure for the purposes of (4) must be suitably sealed against smoke spreading from the enclosure and be- (a) non-combustible construction; or (b) a fire-protective covering. (6) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with- (a) a lighting, detection, or pressurisation system serving the exit; or (b) a security, surveillance or management system serving the exit; or (c) an intercommunication system or an audible or visual alarm system in accordance with D3D27; or (d) the monitoring of hydrant or sprinkler isolating valves.	
D3D9	Enclosure of space under stairs and ramps	(1) Fire-isolated stairways and ramps - If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space. (2) Non fire-isolated stairways and ramps - The space below a required non fire-isolated stairway (including an external stairway) or non fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless- (a) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and (b) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door.	*No such enclosures noted*
D3D10	Width of required stairways and ramps	A required stairway or ramp that exceeds 2 m in width is counted as having a width of only 2 m unless it is divided by a handrail or barrier continuous between landings and each division has a width of not more than 2 m.	*N/A*
D3D11	Pedestrian ramps	(1) A fire-isolated ramp may be substituted for a fire-isolated stairway if the construction enclosing the ramp and the width and ceiling height comply with the requirements for a fire-isolated stairway.	*Note only*

		(2) A ramp serving as a required exit must- (a) where the ramp is also serving as an accessible ramp under Part D4, be in accordance with AS 1428.1; or (b) in any other case, have a gradient not steeper than 1:8. (3) The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586.	
D3D12	Fire-isolated passageways	(1) The enclosing construction of a fire-isolated passageway must have an FRL when tested for a fire outside the passageway in another part of the building of- (a) if the passageway discharges from a fire-isolated stairway or ramp - not less than that required for the stairway or ramp shaft; or (b) in any other case - not less than 60/60/60. (2) Notwithstanding (1)(b), the top construction of a fire-isolated passageway need not have an FRL if the walls of the fire-isolated passageway extend to the underside of- (a) a non-combustible roof covering; or (b) a ceiling having a resistance to the incipient spread of fire of not less than 60 minutes separating the roof space or ceiling space in all areas surrounding the passageway within the fire compartment.	*N/A no FI passages*
D3D13	Roof as open space	If an exit discharges to a roof of a building, the roof must- (a) have an FRL of not less than 120/120/120; and (b) 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.	*Note this is not applicable to this design*
D3D14	Goings and risers	(a) The goings of all straight treads must be constant throughout the same flight. The dimensions of goings is considered constant if the variation between adjacent goings, is no greater than 5 mm and the largest and smallest going within a flight, does not exceed 10 mm. (b) The risers must not have any openings that would allow a 125 mm sphere to pass through between the treads. (c) The treads must have a surface with a slip resistance classification not less than P3 or R10 when tested in accordance with AS 4586 or a nosing strip with a slip-resistance classification not less than P3 when tested in accordance with AS 4586.	*Note for stair construction*

Table D3D14: Riser and going dimensions

Stairway location	Riser (R)		Going (G)[Note 3]		Quantity (2R + G)	
	Max	Min	Max	Min	Max	Min
Public	190	115	355	250	700	550
Private [Note 1]	190	115	355	240	700	550

Table Notes

(1) Private stairways are—

(a) stairways in a *sole-occupancy unit* in a Class 2 building or Class 4 part of a building; and

(b) in any building, stairways which are not part of a *required exit* and to which the public do not normally have access.

(2) *Going* and *riser* dimensions must be measured in accordance with Figure D3D14.

(3) The *going* in tapered treads (except *winders* in lieu of a quarter or half *landing*) in a curved or spiral stairway is measured—

(a) 270 mm in from the outer side of the unobstructed width of the stairway if the stairway is less than 1 m wide (applicable to a non-*required* stairway only); and

(b) 270 mm from each side of the unobstructed width of the stairway if the stairway is 1 m wide or more.

D3D15	Landings	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 750mm long, and where this involves a change in direction, the length is measured 500mm from the inside edge of the landing. (ii) Have- a. A surface with a slip-resistance classification not less than that listed in table D2.14 when tested in accordance with AS 4586; or b. A strip at the edge of the landing with a slip-resistance classification not less than that listed in table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below.	*Note*

Table D3D15: Slip-resistance classification

Application	Dry surface conditions	Wet surface conditions
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

D3D16	Thresholds	The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless, in a building required to be accessible by part D4, the doorway opens to a road or open space, and is provided with a threshold ramp or step ramp in accordance with AS 1428.1.	*Note*
D3D17	Barriers to prevent falls	(1) A continuous barrier must be provided along the side of- (a) a roof to which general access is provided; and (b) a stairway or ramp; and	*Note*

		(c) a floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and (d) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath. (2) The requirements of (1) do not apply to- (a) the perimeter of a stage, rigging loft, loading dock or the like; or (b) areas referred to in D3D23; or (c) a retaining wall, unless the retaining wall forms part of, or is directly associated with a delineated path of access to a building from the road, or a delineated path of access between buildings; or (d) a barrier provided to an openable window covered by D3D29. (3) A barrier required by (1) must be constructed in accordance with D3D18, D3D19, D3D20 and, if a wire barrier is used, D3D21. The barriers should be confirmed to be at least the height stipulated by D3D18 (below).	
D3D18	Height of barriers	A barrier required by D3D17 must not be less than the following: (a) For stairways or ramps with a gradient of 1:20 or steeper – 865mm. (b) For landings to a stair or ramp where the barrier is provided along the inside of the landing and does not exceed 500mm in length – 865mm. (c) For all other locations – 1m. For a barrier provided under this clause: (a) Barrier heights are measured vertically from the surface beneath, except that for stairways, the height must be measured above the nosing line of the stair treads; and (b) A transition zone may be incorporated where the barrier height changes from 865mm on a stair flight or ramp to 1m at a landing or floor.	*Note*
D3D19	Openings in barriers	Openings in a required barrier must not allow for a 125mm sphere to pass through.	*Note*
D3D20	Barrier climbability	(1) A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor. (2) The requirements of (1) do not apply to-	*Note for upper level units*

		(a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, other than- (i) external stairways; and (ii) external ramps; and (b) Class 7 (other than carparks) and Class 8 buildings.	
D3D21	Wire Barriers	Note there are requirements under this clause for wire balustrades in relation to diameters, tensions and spacings. For the majority of this building the use of wire balustrades would not comply with D3D20 above and for this reason information for this clause has not been included in this report.	
D3D22	Handrails	Handrails along stairs must be at least 865mm height from the nosing of the tread and have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like.	Note
D3D24	Doorways and doors	(1) N/A applies to Class 9c buildings *[NSW variation D3D24(2)]* (2) 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- (a) must not be fitted with a revolving door; and (b) must not be fitted with a roller shutter or tilt-up door unless- (i) it serves a Class 6, 7 or 8 building or part with a floor area not more than 200 m^2; and (ii) the doorway is the only required exit from the building or part; and (iii) it is held in the open position while the building or part is lawfully occupied; and (c) must not be fitted with a sliding door unless- (i) it leads directly to a road or open space; and (ii) the door is able to be opened manually under a force of not more than 110 N; and (d) if fitted with a door which is power-operated- (i) 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 (ii) 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; and (e) in a Class 9b building used as an entertainment venue-	*Note exit door/ doors in path of exit requirements*

		(i) must not be fitted with a collapsible gate, accordion door, turnstile or rigid barrier; and (ii) if fitted with a door, must be- (A) a swing door which opens in the direction of egress; and (B) doors hung in two folds where the unobstructed width of the doorway is more than 1 m; and (iii) a doorway or opening within sight of the audience but not intended for egress must have a notice displayed clearly indicating its purpose and such a notice must not be internally illuminated; and (iv) notwithstanding (2)(c), a sliding door may be fitted where- (A) it leads directly to a road or open space and forms a main entrance; and (B) it is capable of swinging in the direction of egress when pressure is applied to the inside face of the door; and (C) the door is provided with signage that clearly indicates to persons seeking egress, the potential for swinging the door open in an emergency (3) 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 (2), 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.	
D3D25	Swinging doors	(1) 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 stairway, ramp or 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 (b) must swing in the direction of egress unless- (i) it serves a building or part with a floor area not more than 200 m², it is the only required exit from the building or part and it is fitted with a device for holding it in the open position; or (ii) it serves a sanitary compartment or airlock (in which case it may swing in either direction); and	*Complies*

		(c) must not otherwise impede the path or direction of egress. (2) The measurement of encroachment referred to in (1)(a) in each case is to include door handles or other furniture or attachments to the door.	
D3D26	Operation of latch	(1) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by- (a) a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D4- (i) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and (ii) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35 mm and not more than 45 mm; or (b) a single hand pushing action on a single device which is located between 900 mm and 1.2 m from the floor. (2) Where the latch operation device referred to in (1)(b) is not located on the door leaf itself- (a) manual controls to power-operated doors must be at least 25 mm wide, proud of the surrounding surface and located- (i) not less than 500 mm from an internal corner; and (ii) for a hinged door, between 1 m and 2 m from the door leaf in any position; and (iii) for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position; and (b) braille and tactile signage complying with S15C3 and S15C6 must identify the latch operation device. (3) The requirements of (1) and (2) do not apply to a door that- (a) serves a vault, strong-room, sanitary compartment, or the like; or (b) serves only, or is within- (i) a sole-occupancy unit in a Class 2 building or a Class 4 part of a building; or (ii) a sole-occupancy unit in a Class 3 building (other than an entry door to a sole-occupancy unit of a	*While compliance with latches is recommended, it does not apply to the residential parts of this development and the floor areas of the commercial parts are exempted due to their size.*

boarding house, guest house, hostel, lodging house or backpacker accommodation); or

(iii) a sole-occupancy unit with a floor area not more than 200 m^2 (iii) in a Class 5, 6, 7 or 8 building; or

(iv) a space which is otherwise inaccessible to persons at all times when the door is locked; or

(c) complies with (4) and serves-

(i) Australian Government Security Zones 4 or 5; or

(ii) the secure parts of a bank, detention centre, mental health facility, early childhood centre or the like; or

(d) is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system (other than a FPAA101D system) complying with Specification 17 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building, and is readily openable when unlocked; or

(e) is in a Class 9a or 9c building and-

(i) is one leaf of a two-leaf door complying with D2D9(a) or D2D9(d) provided that it is not held closed by a locking mechanism and is readily openable; and with D2D9(a) or D2D9(d) provided that it is not held closed by a locking mechanism and is readily openable; and

(ii) the door is not required to be a fire door or smoke door

(4) A door referred to in (3)(c) must be able to be immediately unlocked-

(a) by operating a fail-safe control switch, not contained within a protective enclosure, to actuate a device to unlock the door; or

(b) by hand by a person or persons, specifically nominated by the owner, properly instructed as to the duties and responsibilities involved and available at all times when the building is lawfully occupied so that persons in the building or part may immediately escape if there is a fire.

[NSW variation D3D26(5)]

(5) The requirements of (1) and (2) do not apply in a Class 9b building (other than a school, an early childhood centre or a building used for religious purposes) to a door in a required exit, forming part of a required exit or in the path of travel to a required exit serving a storey or room accommodating more than 100 persons, determined in accordance with D2D18, in which case it must be readily openable-

		(a) without a key from the side that faces a person seeking egress; and (b) by a single hand pushing action on a single device such as a panic bar located between 900 mm and 1.2 m from the floor; and (c) where a two-leaf door is fitted, the provisions of (a) and (b) need only apply to one door leaf if the appropriate requirements of D2D9 are satisfied by the opening of that one leaf; and (d) where the door is a door in a path of travel providing re-entry to the building from a balcony, terrace or the like, it may be fitted with key-operated fastenings only, the tongues of which must be locked in the retracted position whenever the building is occupied by the public, so the door can yield to pressure. *[NSW variation D3D26(6)]* (6) The requirements of (1), (2) and (5) do not apply to a door serving a Class 9b building used as an entertainment venue where the following provisions apply to a door or gate used by the public- (a) on a door, the single device operating the latch or bolts must be a panic bar if those doors are to be secured; or (b) an exit door or gate used by the public as the main entrance may be fitted with key-operated fastenings only, the tongues of which must be locked in the retracted position whenever the building is occupied by the public so the door or gate can yield to pressure from within; or (c) a door from a balcony, terrace or the like, being a door in a path of travel providing re-entry to the building, may comply with the locking provision of (b) above. ***Note 1:*** *Latches must operate by a single hand downward action on a single device which is located between 900mm and 1100mm from the floor (where required to be accessible by D3 1.2m in other circumstances). The requirements of subclause (5) of this clause apply to this building*	
D3D28	Signs on doors	(1) A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to- (a) a required- (i) fire door providing direct access to a fire-isolated exit, except a door providing direct egress from a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building; and (ii) smoke door; and	*No requirements*

		(b) any door which is a- (i) fire door forming part of a horizontal exit; and (ii) smoke door that swings in both directions; and (iii) door leading from a fire isolated exit to a road or open space. (2) A sign required by (1)(a) must be fixed on the side of the door that faces a person seeking egress and, if the door is fitted with a device for holding it in the open position, either a sign must be fixed on the wall adjacent to the doorway, or signs must be fixed to both sides of the door. (3) A sign required by (1)(b) must be fixed on each side of the door. (4) A sign referred to in (1) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state the following: (a) For an automatic door held open by an automatic hold-open device— **FIRE SAFETY DOOR — DO NOT OBSTRUCT** (b) For a self-closing door- **DO NOT OBSTRUCT** **DO NOT KEEP OPEN** **FIRE SAFETY DOOR** (c) For a door discharging from a fire-isolated exit- **FIRE SAFETY DOOR — DO NOT OBSTRUCT**	
D3D30	Timber stairways: Concession	(1) Notwithstanding D3D3(a), timber treads, risers, landings and associated supporting framework within a required fire-isolated stairway or fire-isolated passageway may be constructed from fire-protected timber in accordance with C2D13- (a) if the timber- (i) has a finished thickness of not less than 44 mm; and (ii) has an average density of not less than 800 kg/m3 (ii) at a moisture content of 12%; and (b) subject to- (i) the building being protected throughout by a sprinkler system (other than a FPAA101D system) complying with Specification 17 which extends to within the fire-isolated enclosure; and (ii) fire protection being provided to the underside of stair flights and landings located immediately above a landing level which- (A) is at or near the level of egress; or (B) provides direct access to a carpark. (2) Fire protection required by (1) must be not less than one layer of 13 mm fire-protective grade plasterboard fixed	*Note only for stair construction*

		in accordance with the system requirements for a fire-protective covering.	
NSW D3D31	Doors in paths of travel to an entertainment venue	In a Class 9b building used as an entertainment venue, a doorway in a path of travel must comply with NSW D3D24(2)(e). ***Note 1:*** *entertainment venue means a building used as a cinema, theatre or concert hall or an indoor sports stadium.*	
Part D4 Access for people with a disability			
D4D2	General building access requirements	For a Class 3 building, access requirements are as follows: (a) Common areas: (i) From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level. (ii) To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like. (iii) Where a ramp complying with AS 1428.1 or a passenger lift is installed- (A) to the entrance doorway of each sole-occupancy unit; and (B) to and within rooms or spaces for use in common by the residents. (iv) The requirements of (iii) only apply where the space referred to in (A) and (B) are located on the levels served by the lift or ramp. (b) To and within sole-occupancy units - in accordance with Table D4D2b.	***Note requirements in Table D4D2b (and Table notes) for required accessible units in a Class 3 building [Unit 7].***

Table D4D2b: Requirements for access for people with a disability – sole-occupancy units in a Class 3 or 9c building

Total number of *sole-occupancy units*	Number *required* to be *accessible*
1 to 10	1
11 to 40	2
41 to 60	3
61 to 80	4
81 to 100	5
101 to 200	5 *sole-occupancy units* plus 1 additional *sole-occupancy unit* for each additional 25 units or part thereof in excess of 100.
201 to 500	9 *sole-occupancy units* plus 1 additional *sole-occupancy unit* for each additional 30 units or part thereof in excess of 200.
More than 500	19 *sole-occupancy units* plus 1 additional *sole-occupancy unit* for each additional 50 units or part thereof in excess of 500.

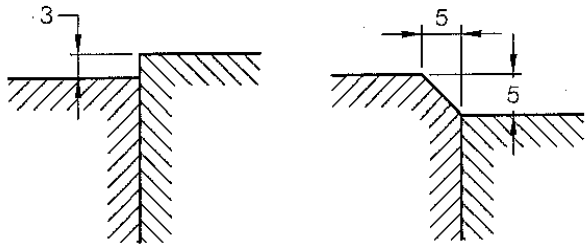
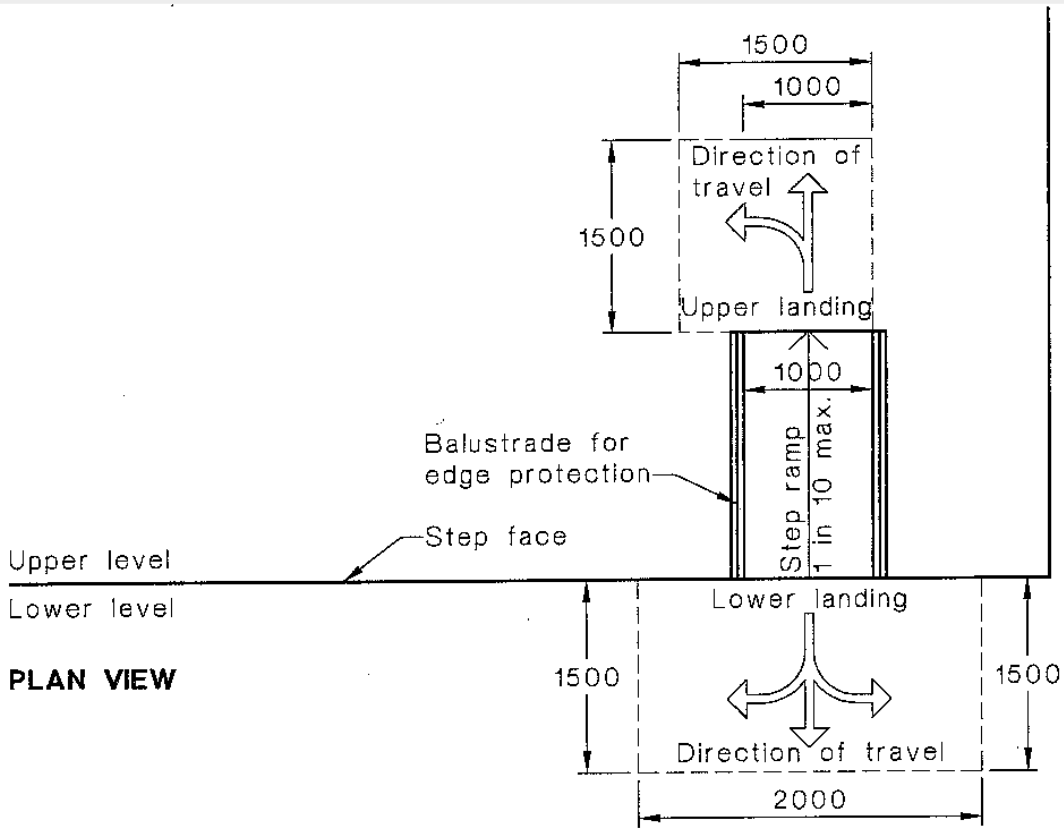
Table Notes

(1) In a Class 3 building, not more than 2 *required accessible sole-occupancy units* may be located adjacent to each other.

(2) In a Class 3 or 9c building where more than 2 *accessible sole-occupancy units* are *required*, they must be representative of the range of rooms available.

	General building access requirements *(continued)*	(4) For a Class 2 building, common areas are to be accessible as follows: (a) From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level. (b) To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like. (c) Where a ramp complying with AS 1428.1 or a passenger lift is installed- (i) to the entrance doorway of each sole-occupancy unit; and (ii) to and within rooms or spaces for use in common by the residents. (d) The requirements of (c) only apply where the space referred to in (c)(i) or (ii) is located on the levels served by the lift or ramp. (5) For a Class 3 building, access requirements are as follows: (a) Common areas: (i) From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.	*Note that units 1-7 are Class 2; Flat 1 and 2 are Class 3 and the commercial shops are Class 6.*

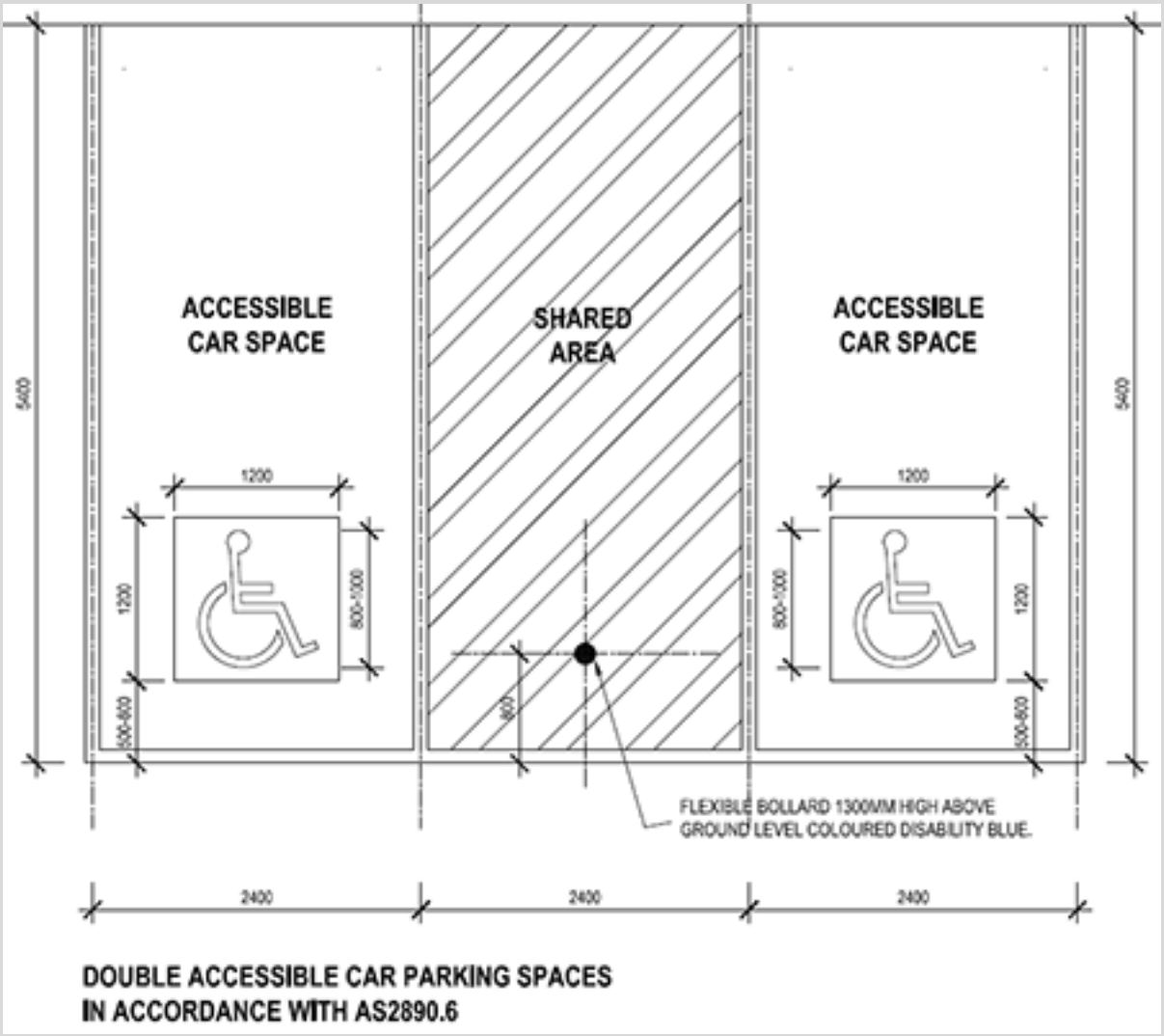
		(ii) To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like. (iii) Where a ramp complying with AS 1428.1 or a passenger lift is installed- (A) to the entrance doorway of each sole-occupancy unit; and (B) to and within rooms or spaces for use in common by the residents. (iv) The requirements of (iii) only apply where the space referred to in (A) and (B) are located on the levels served by the lift or ramp. (b) To and within sole-occupancy units - in accordance with Table D4D2b. (6) For Class 5, 6, 7b, 8 and 9a buildings, access must be provided to and within all areas normally used by the occupants.	
D4D3	Access to buildings	An accessway must be provided to the building- (i) From the main points of a pedestrian entry at the allotment boundary; and (ii) From another accessible building connected by a pedestrian link; and (iii) From any required accessible carparking space on the allotment. (iv) Where a doorway on an accessway has multiple leaves, one of those leaves must have a clear opening width of not less than 850mm in accordance with AS1428.1. ***Note 1:*** *Entrance and path of travel from any accessible carpark needs to be graded to comply with AS1428 the path is required to be no less than 1m wide. Transitions between surfaces should have step of no more than 5mm if edges are chamfered at 45°. See below detail.* ***Note 2:*** *a continuous path of travel requires a slip resistant surface. The texture of the surface needs to be able to be easily used by people who use a wheelchair and those with an ambulant or sensory disability. Also note that slip resistance is determined via testing of the surface in accordance with AS4586 and there is no direct DTS surface or coating listed for compliance. All flooring surfaces must have data showing compliance with this standard.*	*Note*

		The images below from AS1428.1 demonstrates how a step ramp can be constructed if required	
	Tolerances for raked joint pavers shall be as shown in Figure 7.  (a) Change in level		
	 		
D4D4	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 D4D5, 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; and (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and	*Note*

		(b) every passenger lift must comply with E3D7 and E3D8; and (c) accessways must have- (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway 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 accessways where it is not possible to continue travelling along the accessway; and (B) at maximum 20 m intervals along the accessway; and (d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and (e) a passing space may serve as a turning space; and (f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 storeys; and (ii) with a floor area for each storey, excluding the entrance storey, of not more than 200 m2 (ii) ; and (g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and (h) the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively ***Note 1:*** *Stairways must comply with clause 11.1(f) (Stairways) of AS 1428.1. While compliance with AS1428.1 should be consulted, the requirements are- at the nosing, each tread shall have a strip not less than 50mm and not more than 75mm deep across the full width of the path of travel. The strip may be set back a maximum of 15mm from the front of the nosing. The strip must have a luminance contrast of 30% to the background. Where the luminous contrasting strip is affixed to the surface of the tread, any change in; level should comply with Clause 7.2 and Clause 7.3 of AS1428.1*	
D4D5	Exemptions	The following areas are not required to be accessible: (a) An area where access would be inappropriate because of the particular purpose for which the area is used. (b) An area that would pose a health of safety risk for people with a disability.	*Note – provided for information only.* *Exemptions cannot be confirmed prior to the confirmation of the use of the buildings; however,*

		(c) Any path of travel providing access only to an area exempted by (a) or (b). ***Note 1:*** *any legitimate exemption would usually only be considered in relation to a certain disability type however, may be considered safe in relation to another disability. For example, an unsafe situation for a person with a visual impairment may be considered safe for someone with a hearing impairment.*	*this clause should be noted.*
D4D6	Accessible carparking	*(1) Accessible carparking spaces-* *(a) subject to (b), must be provided in accordance with (2) in-* *(i) a Class 7a building required to be accessible; and* *(ii) a carparking 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 carparking area where a parking service is provided and direct access to any of the carparking spaces is not available to the public; and* *(c) subject to (d), must comply with AS/NZS 2890.6; and* *(d) need not be identified with signage where there is a total of not more than 5 carparking spaces, so as to restrict the use of the carparking space only for people with a disability.* *(2) For each class of building to which the carpark or carparking area is associated, the number of accessible carparking spaces required is as follows:* *(a) Class 1b and 3 buildings:* *(i) For a boarding house, guest house, hostel, lodging house, backpackers' accommodation or the residential part of a hotel or motel, the number of accessible carparking spaces required is to be calculated by multiplying the total number of carparking spaces by the percentage of -* *(A) accessible sole-occupancy units to the total number of sole-occupancy units; or* *(B) accessible bedrooms to the total number of bedrooms.* *(ii) For the purposes of (i), the calculated number is taken to the next whole figure.* *(iii) For a residential part of a school, accommodation for the aged, disabled or children, residential part of a health-care building which accommodates members of staff or the residential part of a detention centre -*	*Note the calculation of car parking spaces is considered appropriate to apply Class 3 and 6 requirements only* *1 accessible carpark required for the Class 3 component and if carparking is required for the Class 6 components 1 accessible carpark [Note subclause (2) for each 'Class of building']*

		1 accessible space for every 100 carparking spaces or part thereof. (b) Class 5, 7, 8 or 9c buildings - 1 accessible space for every 100 carparking spaces or part thereof. (c) Class 6 buildings- (i) with up to 1000 carparking spaces - 1 accessible space for every 50 carparking spaces or part thereof; and (ii) for each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces – 1 accessible space. *(d) Class 9a buildings:* *(i) For a hospital (non-outpatient area) - 1 accessible space for every 100 carparking spaces or part thereof.* *(ii) For a hospital (outpatient area)-* *(A) with up to 1000 carparking spaces - 1 accessible space for every 50 carparking spaces or part thereof; and* *(B) for each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces – 1 accessible space.* *(iii) For a nursing home - 1 accessible space for every 100 carparking spaces or part thereof.* *(iv) For a clinic or day surgery not forming part of a hospital - 1 accessible space for every 50 carparking spaces or part thereof.* *(e) Class 9b buildings:* *(i) For a school - 1 accessible space for every 100 carparking spaces or part thereof.* *(ii) For other assembly buildings-* *(A) with up to 1000 carparking spaces - 1 accessible space for every 50 carparking spaces or part thereof; and* *(B) for each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces – 1 accessible space.* ***Note 1:*** *An accessible carparking space is required to have an area the size of the space itself to one side, to allow for circulation of the vehicle. The required dedicated areas for accessible carparks can be utilised between 2 adjacent carparking spaces, so as to save area on site. See figure below for reference.*	



Double Accessible Car Parking Spaces – Image Courtesy of Equal Access Group

D4D7	Signage	Braille and tactile signage complying with Specification 15 must – (a) Incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each – a. Sanitary facility, except a sanitary facility associated with a bedroom in a class 1b building or a sole-occupancy unit in a class 3 or class 9c building; and b. Space with a hearing augmentation system; and (b) Identify each door required by E4D5 to be provided with an exit sign and state – a. "Exit"; and b. "Level"; and c. The floor level number of floor level descriptor, or a combination of the two.	*Note*

		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. Signage to identify ambulant accessible sanitary facility in accordance with AS1428.1 must be located on the door of the facility.	
D4D9	Tactile indicators	TGSIs must be located at the top and bottom of the internal mezzanine stairs of each unit. (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; and (b) an escalator; and (c) a passenger conveyor or moving walk; and (d) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or 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 accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point, except for areas exempted by D4D5. (2) Tactile ground surface indicators required by (1) must comply with sections 1 and 2 of AS/NZS 1428.4.1. *(3) N/A for this Class of building*	*Note* *Complies where installed in accordance with AS1428.4*
D4D12	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	
D4D13	Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	*Note*

E SERVICES AND EQUIPMENT

Part E1 Firefighting equipment

E1D2	Fire hydrants	(1) A fire hydrant system must be provided to serve a building- (a) having a total floor area greater than 500 m^2; and (b) where a fire brigade station is- (i) no more than 50 km from the building as measured along roads; and (ii) equipped with equipment capable of utilising a fire hydrant. (2) The fire hydrant system must be installed in accordance with AS 2419.1. (3) N/A to this Class of building (4) Where internal fire hydrants are provided, they must serve only the storey on which they are located except that a sole-occupancy unit- (a) in a Class 2 or 3 building or Class 4 part of a building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit; or (b) of not more than 2 storeys in a Class 5, 6, 7, 8 or 9 building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit provided the fire hydrant can provide coverage to the whole of the sole-occupancy unit.	*No installation is required* *Approx floors areas [including verandahs and stairs]* *GF- 307.62m^2* *FF- 251.34m^2* *Total building area- 558.96m^2* *Class 6 components 34.3m^2 and 33m^2 fire separated by way of a fire wall reducing the compartments size to 67.3m^2 and 491.66m^2* *The Class 6 is required to be separated from the Class 2 and 3 by way of a fire wall thereby reducing the fire compartments to under 500m^2* *Note that any change to floor plans may alter the requirement for hydrants*

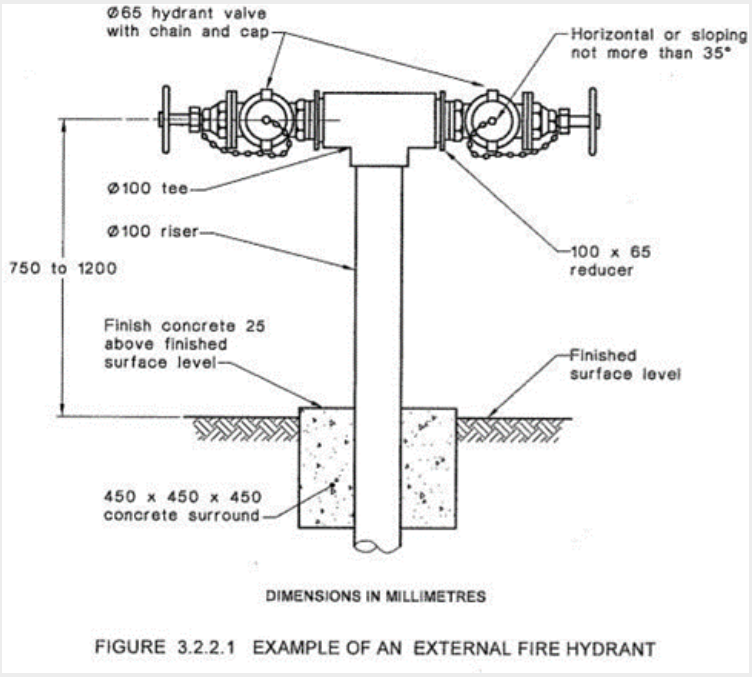
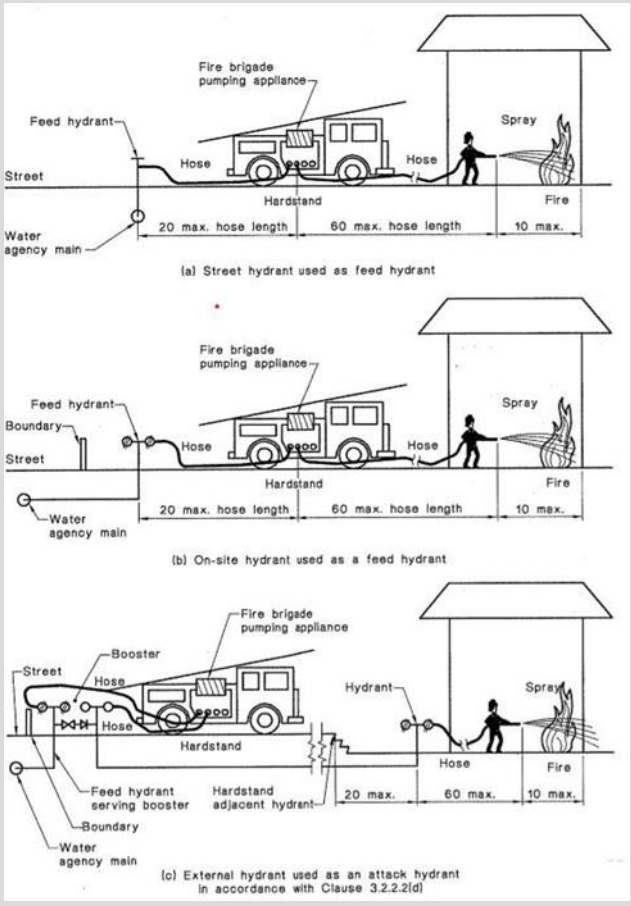


FIGURE 3.2.2.1 EXAMPLE OF AN EXTERNAL FIRE HYDRANT



	Hydrant pressures to be achieved are highlighted below TABLE 2.2 MINIMUM FIRE HYDRANT OUTLET FLOW RATES AND PRESSURES 	Fire hydrant type	Minimum required flow rate (L/s)	Minimum required residual pressure (kPa)	
		NSW	All other states and territories
Feed fire hydrant, unassisted	10	150	200
Attack fire hydrant, unassisted	10	250	350
Internal and external fire hydrants when boosted by a fire brigade pumping appliance	10	700	700 | NOTES: 1 'Unassisted' specifies the system performance characteristics achieved by a water agency's system or other elevated reservoir, before a fire brigade pumping appliance is connected to the system. On-site pumps must not be used to achieve this performance. If pumps are required, then fire hydrants will need to have attack fire hydrant performance and be located in accordance with Clause 3.2.2.2(c). 2 In a system that incorporates a fire brigade booster assembly, external above-ground fire hydrants, accessible by a fire brigade pumping appliance, if located as attack fire hydrants, need only have feed fire hydrant unassisted performance (see Clause 3.2.2.2(d)). TABLE 2.3 FIRE HYDRANT OUTLET FLOW RATES AND PRESSURES | Fire hydrant type	Minimum required flow rate (L/s)	Minimum required residual pressure (kPa)
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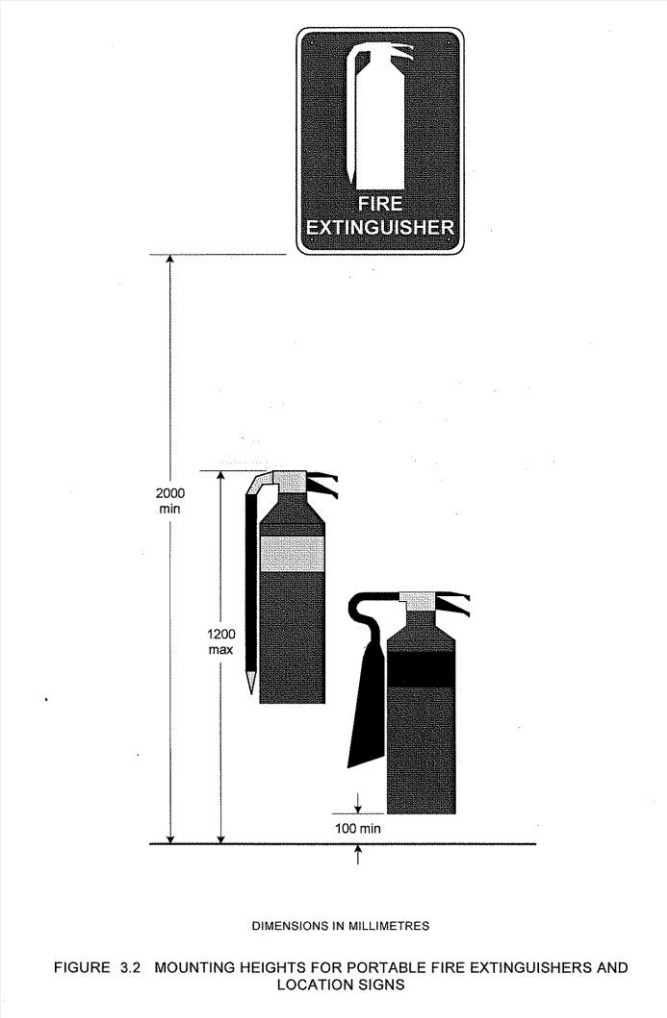
Attack fire hydrant performance achieved without the use of a fire brigade pumping appliance	5	700
Internal and external fire hydrants when boosted by a fire brigade pumping appliance	10	700 | NOTE: Where the supply from a water agency's reticulated water system does not meet the requirements of this Standard and tanks and pumps are installed, the performance requirements for feed fire hydrants at a booster assembly fed by that water supply may be waived. *Source AS2419-2005*	
E1D3	Fire hose reels	Fire hose reels are required where the floor area exceeds 500m² This part does not apply to Class 2 and 3 areas (1) E1D3 does not apply to (a) a Class 2, 3 or 5 building or Class 4 part of a building; or (b) a Class 8 electricity network substation; or (c) a Class 9c building; or (d) classrooms and associated corridors in a primary or secondary school. (2) A fire hose reel system must be provided- (a) to serve the whole building where one or more internal fire hydrants are installed; or (b) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m^2. (3) The fire hose reel system must- (a) have fire hose reels installed in accordance with AS 2441; and (b) provide fire hose reels to serve only the storey at which they are located, except a sole-occupancy unit of not more than 2 storeys in a Class 6, 7, 8 or 9 building may be served by a single fire hose reel located at the level of egress from that sole-occupancy unit provided the fire hose reel can provide coverage to the whole of the sole-occupancy unit.	*This clause does not apply to the Class 2 and 3 residential areas. The Class 6 components do not have a sufficient floor area to require fire hose reels.* *No installation required.*

		(4) Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441. (5) 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: (a) 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. (b) 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. (c) 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. (6) 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- (a) 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 (b) doorways in walls referred to in C2.12 or C2.13 separating equipment or electrical supply systems; and (c) doorway openings to shafts referred to in C3.13. (7) Where the normal water supply cannot achieve the flow and pressures required by AS 2441, or is unreliable- (a) a pump; or (b) water storage facility; or (c) both a pump and water storage facility, must be installed to provide the minimum flow and pressures required by clause 6.1 of AS 2441	
E1D4	Sprinklers	A sprinkler system must- (a) be installed in a building or part of a building when required by E1D5 to E1D13 as applicable; and (b) comply with Specification 17 and Specification 18 as applicable.	*N/A*
E1D5	Where sprinklers are required: all classifications	Sprinklers are required throughout the whole building if any part of the building has an effective height of more than 25m- (a) including an open-deck carpark within a multi-classified building; but	*N/A*

		(b) excluding- (i) an open-deck carpark being a separate building; and (ii) a Class 8 electricity network substation, with a floor area not more than 200m^2, located within a multi-classified building.	
E1D6	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	(1) 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) a rise in storeys of 4 or more; and (b) an effective height of not more than 25 m. (2) The requirements of (1) do not apply to a residential care building.	*No sprinkler installation required*
E1D8	Where sprinklers are required: Class 6 building	In a Class 6 building, sprinklers are required in fire compartments where either of the following apply: (a) A floors area of more than 3,500m^2. (b) A volume of more than 21000 m^3.	*No sprinklers required for the Class 6 part*
E1D13	Where sprinklers are required: occupancies of excessive hazard	N/A – Sprinklers are required in buildings which contain hazardous processes where they have a floor area of more than 2000 m^2 or a volume of more than 12,000 m^3.	*N/A*
E1D14	Portable fire extinguishers	(1) Portable fire extinguishers must be- (a) provided as listed in (3) and (4); and (b) **for a Class 2, 3** or 5 building or Class 4 part of a building, provided- (i) to serve the whole Class 2, 3 or 5 building or Class 4 part of a 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 500m^2, and for the purposes of this clause, **a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment**; and (c) subject to (2), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444. **(2) Portable fire extinguishers provided in a Class 2 or 3 building or Class 4 part of a building must be-** **(a) an ABE type fire extinguisher; and** **(b) a minimum size of 2.5 kg; and** **(c) distributed outside a sole-occupancy unit-** **(i) to serve only the storey at which they are located; and**	*Installation recommended but not required.* *The Class 6 is required to be separated from the Class 2 and 3 by way of a fire wall thereby reducing the fire compartments to under 500m^2*

		(ii) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m. (3) In Class 2 to 9 buildings (except within sole-occupancy units of a Class 9c building), portable fire extinguishers must be provided as follows: (a) To cover Class AE or E fire risks associated with emergency services switchboards. (b) To cover Class F fire risks involving cooking oils and fats in kitchens. (c) To cover Class B fire risks in locations where flammable liquids in excess of 50 litres are stored or used (not including that held in fuel tanks of vehicles). To cover Class A fire risks in normally occupied fire compartments less than 500 m2 (d) not provided with fire hose reels (excluding open-deck carparks). (e) To cover Class A fire risks in classrooms and associated corridors in primary and secondary schools not provided with fire hose reels. (f) To cover Class A fire risks associated with a **Class 2, 3** or 5 building or Class 4 part of a building. (4) In addition to the requirements of (3), portable fire extinguishers must be provided to cover Class A and E fire risks in the following occupancies in buildings, or parts of a building: (a) A Class 9a health-care building, including a Class 9a building used as a residential care building. (b) Class 3 parts of detention and correctional occupancies. (c) Class 3 accommodation for children, aged persons and people with disabilities, including a Class 3 building used as a residential care building. (d) A Class 9c building. (5) For the purposes of (3) and (4): (a) Fire risks are defined in accordance with AS 2444. (b) An emergency services switchboard is one which sustains emergency equipment operating in the emergency mode. (c) Additional extinguishers may be required to cover fire risks in relation to special hazards provided for in E1D17. **(d) The fire risks in a Class 2 or 3 building or Class 4 part of a building must include risks within any sole-occupancy units, however portable fire extinguishers are not required to be located within a sole-occupancy unit unless the sole-occupancy unit has a floor area greater than 500m^2.**	

		(6) For the purposes of (4), where applicable, a Class E fire extinguisher need only be located at each nurses' station, supervisors' station or the like. **AS2444- 2001** For Class A fire risks, a fire extinguisher should not be more than 15m from any point and should have a 2A rating (covers up to 300m²) to cover the 'ordinary fire hazard' and the floor area limitations. ***Note 1:*** *In areas, which are less than 150m², and are not within the 15m coverage required by Portable Fire Extinguishers, multiple 1A extinguishers (covers up to 150m² each) may be used instead, so long as both the floor area and distance coverage criteria are satisfied.*	
		General location and height of fire extinguishers and signs Source: AS2444  DIMENSIONS IN MILLIMETRES FIGURE 3.2 MOUNTING HEIGHTS FOR PORTABLE FIRE EXTINGUISHERS AND LOCATION SIGNS	

E1D15	Fire control centres	N/A applicable to building over 25m effective height.	
E1D16	Fire precautions during construction	During construction not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.	*Note*
E1D17	Provision for special hazards	It is considered that no special hazards exist. This assumes no particularly hazardous chemicals or equipment are intended to be stored in the building.	*Note*
Part E2 Smoke hazard management			
E2D2	Application of part	(1) N/A (2) In addition to the Deemed-to-Satisfy Provisions of E2D3 to E2D13, the following specific Deemed-to-Satisfy Provisions apply to the following Class 6 and Class 9b buildings: (a) For Class 6 buildings, in fire compartments more than 2000 m²- (i) not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit - must comply with E2D14; or (ii) containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit - must comply with E2D15. (b) For Class 9b assembly buildings- (i) nightclubs, discotheques and the like - must comply with E2D16; and (ii) exhibition halls - must comply with E2D17; and (iii) theatres and public halls - must comply with E2D18; and (iv) theatres and public halls (not covered by E2D18) including lecture theatres and cinema/auditorium complexes - must comply with E2D19; and (v) other assembly buildings (not listed in (i) to (iv)) excluding schools - must comply with E2D20. (3) The smoke exhaust and smoke-and-heat vent provisions of this Part do not apply to any area not used by occupants for an extended period of time such as a storeroom with a floor area less than 30 m², sanitary compartment, plant room or the like.	*N/A Class 6*
E2D3	General Requirements	(1) 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	*Note for air handling/air conditioning systems*

		from one fire compartment to another fire compartment must, subject to (2), be designed and installed- (a) to operate as a smoke control system in accordance with AS 1668.1; or (b) such that it- (i) incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and (ii) 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. (2) For the purposes of (1), each sole-occupancy unit in a Class 2 or 3 building is treated as a separate fire compartment. (3) Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 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 these Sections of the Standard. (4) A smoke detection system must be installed in accordance with S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.	*It is anticipated that the all units will be served by separate split system type air conditioning units.*
E2D4	Fire-isolated exits	(1) A part of a building listed in (2) must be provided with- (a) an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (b) open access ramps or balconies in accordance with D3D6. (2) The requirements of (1) apply to- (a) a required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp serving- (i) any storey above an effective height of 25 m; or (ii) more than 2 below ground storeys, not counted in the rise in storeys in accordance with C2D3; or (iii) an atrium to which Part G3 applies; or (iv) a Class 9a building with a rise in storeys of more than 2; or (v) a Class 9c building with a rise in storeys of more than 2; or (vi) a Class 3 building used as a residential care building with a rise in storeys of more than 2; and (b) a required fire-isolated passageway or fire-isolated ramp with a length of travel more than 60 m to a road or open space.	*N/A*

		(3) An automatic air pressurisation system for a fire-isolated exit must serve the entire exit.	
E2D8	Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	**In a Class 2 and 3 building** or part of a building, or Class 4 part of a building, if the building is not more than 25 m in effective height- **(a) it must be provided with an automatic smoke detection and alarm system complying with Specification 20; and** (b) where a required fire-isolated stairway serving the Class 2 or 3 parts also serves one or more storeys of Class 5, 6, 7 (other than an open-deck carpark), 8 or 9b parts- (i) the fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp, must be provided with an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (ii) the Class 5, 6, 7 (other than an open-deck carpark), 8 and 9b parts must be provided with- (A) an automatic smoke detection and alarm system complying with Specification 20; or (B) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17; and (c) where a required fire-isolated stairway serving the Class 4 part also serves one or more storeys of Class 5, 6, 7 (other than an open-deck carpark), 8 or 9b parts- (i) a system complying with (b)(i) or (b)(ii) must be installed; or (ii) a smoke alarm or detector system complying with Specification 20 must be provided except that alarms or detectors need only be installed adjacent to each doorway into each fire-isolated stairway (set back horizontally from the doorway by a distance of not more than 1.5 m) to initiate a building occupant warning system for the Class 4 part.	Note requirement for smoke detection and alarm system for the Class 2 and 3 (residential components)
E2D9	Buildings not more than 25m in effective height: Class 5, 6, 7b, 8, and 9b buildings	(1) A building not more than 25 m in effective height that- (a) is a Class 5 or 9b school building or part of a building having a rise in storeys of more than 3; or (b) is a Class 6, 7b, 8 or 9b building (other than a school) or part of a building having a rise in storeys of more than 2; or (c) has a rise in storeys of more than 2 and contains- (i) a Class 5 or 9b school part; and (ii) a Class 6, 7b, 8 or 9b (other than a school) part, must meet the requirements of (2). (2) A building referred to in (1) must be provided with- (a) in each required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated	*N/A* *Applies to Class 6 over 2 stories.*

		ramp, an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or (b) a zone pressurisation system between vertically separated fire compartments in accordance with AS 1668.1, if the building has more than one fire compartment; or (c) an automatic smoke detection and alarm system complying with Specification 20; or (d) a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17. (3) For the purposes of (2), vertically separated fire compartments are fire compartments above and below each other, and not fire compartments within the same storey.	
NSW E2D10	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4	N/A not a large isolated building	
E2D14	Class 6 buildings – in fire compartments more than 2000 m^2: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	*N/A applies to Class 6 parts over 2000m^2*	
	Note that E2D15 and NSWE2D16 through ED2D20 do not apply to this class of building		
E2D21	Provision for special hazards	It is not considered that any special functions or uses exist in any unit.	*Note*
Part E3 Lift Installations			
	Note that Part E3 does not apply- No Lift installation		

Part E4 Visibility in an emergency, exit signs and warning systems			
E4D2	Emergency lighting requirements	**An emergency lighting system must be installed-** (a) in every fire-isolated stairway, fire-isolated passageway or fire-isolated ramp**;** and (b) in every storey of a Class 5, 6, 7, 8 or 9 building where the storey has an area more than 300m^2- (i) in every passageway, corridor, hallway, or the like, that is part of the path of travel to an exit; and in any room having a floor area more than 100m^2 (ii) that does not open to a corridor or space that has emergency lighting or to a road or open space; and (iii) in any room having a floor area more than 300m^2; and **(c) in every passageway, corridor, hallway, or the like, having a length of more than 6 m from the entrance doorway of any sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building to the nearest doorway opening directly to-** (i) a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or (ii) an external stairway serving instead of a fire-isolated stairway under D2D13; or (iii) an external balcony leading to a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or **(iv) a road or open space; and** **(d) in every required non-fire-isolated stairway; and** (e) in a sole-occupancy unit in a Class 5, 6 or 9 building if- (i) the floor area of the unit is more than 300m^2; and **(ii) an exit from the unit does not open to a road or open space or to an external stairway, passageway, balcony or ramp, leading directly to a road or open space; and** *(f) in every room or space to which there is public access in every storey in a Class 6 or 9b building if-* *(i) the floor area in that storey is more than 300m^2; or* *(ii) any point on the floor of that storey is more than 20m from the nearest doorway leading directly to a stairway, ramp, passageway, road or open space; or* *(iii) egress from that storey involves a vertical rise within the building of more than 1.5 m, or any vertical rise if the storey concerned does not admit sufficient light; or* *(iv) the storey provides a path of travel from any other storey required by (i), (ii) or (iii) to have emergency lighting; and* *(g) in a Class 9a health-care building-*	*Note emergency lighting requirements for Class 2 and 3 [in bold]*

		(i) in every passageway, corridor, hallway, or the like, serving a treatment area or a ward area; and in every room having a floor area of more than 120 m2 (ii) in a patient care area; and *(h) in every Class 9c building excluding within sole-occupancy units; and* *(i) in every required fire control centre.*	
E4D4	Design and operation of emergency lighting	Every required emergency lighting system must comply with AS2293.1	*Note*
E4D5	Exit signs	Exit signs must be clearly visible to persons approaching the exit, and must be installed on, above, or adjacent to each door serving as a required exit where emergency lighting is required/installed.	*Note*
NSW E4D6	Direction signs	If an exit is not readily apparent to persons occupying or visiting the building, then exit signs must be installed- (a) in appropriate positions in corridors, hallways, lobbies, foyers, auditoria, and the like, indicating the direction to a required exit; and (b) in a Class 9b building used as an entertainment venue - in any external egress path to a road where the exit does not open directly onto a road. **Note 1:** All exits should be readily apparent to expected visitors.	*Note installation required*
E4D8	Design and operation of exit signs	Every required exit sign must comply with- (a) AS/NZS 2293.1; or (b) for a photoluminescent exit sign, Specification E4.8; and be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.	*Note*

F HEALTH AND AMENITY

Part F1 Surface water management, rising damp

F1D3	Stormwater drainage	Stormwater drainage must comply with AS 3500.3	Note for construction and stormwater installation. Final stormwater disposal must be in accordance with any development consent condition

F1D4	Exposed joints	Exposed joints in the drainage surface on a roof, balcony, podium, or similar horizontal surface part of a building must – (a) be protected in accordance with section 2.9 of AS 4654.2; and (b) not be located beneath or run through a planter box, water feature, or similar part of the building.	*Note.*
F1D5	External waterproofing membranes	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 AS4654.1; and (b) Designed and installed in accordance with AS4654.2.	*Note*
F1D6	Damp-proofing	Moisture from the ground must be prevented from reaching- (a) the lowest floor timbers and the walls above the lowest floor joists; and (b) the walls above the damp-proof course; and (c) The underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders.	*Note*
F1D7	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.	*Note*
Part F2 Wet areas and overflow protection			
F2D2	Wet area construction	(1) In a Class 2 and 3 building and a Class 4 part of a building, building elements in wet areas must- (a) be water resistant or waterproof in accordance with Specification 26; and (b) comply with AS 3740. (2) In a class 5, 6, 7, 8, or 9 building, building elements in a bathroom or shower room must – (a) Be water resistant or waterproof in accordance with Spec. 26; and (b) Comply with AS3740, as if they were in a Class 2 or 3 building.	*Note requirements for Class 2 and 3 parts*
F2D4	Floor Wastes	(1) In a Class 2 or 3 building or Class 4 part of a building, a bathroom or laundry located at any level above a sole-occupancy unit or public space must have a floor waste. (2) Where a floor waste is installed- (a) the minimum continuous fall of a floor plane to the waste must be 1:80; and	*Note requirements for Class 2 and 3 parts*

		(b) the maximum continuous fall of a floor plane to the waste must be 1:50.	
Part F3 Roof and wall cladding			
F3D2	Roof Coverings	A roof must be covered with- (a) roof tiles complying with AS 2049, fixed in accordance with AS 2050; or (b) metal sheet roofing complying with AS 1562.1; or (c) plastic sheet roofing designed and installed in accordance with AS 1562.3; or (d) terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or (e) an external waterproofing membrane complying with F1D5.	Note for construction
F3D3	Sarking	Sarking-type material used for weatherproofing of roofs and walls must comply with AS4200.1 and AS4200.2	*Note for construction*
F3D4	Glazed Assemblies	(1) Subject to (2) and (3), the following glazed assemblies in an external wall, must comply with AS 2047 requirements for resistance to water penetration: (a) Windows. (b) Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame. (c) Adjustable louvres. (d) Shopfronts. (e) Window walls with one piece framing. (2) The following buildings need not comply with (1): (a) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the like contributes to the weatherproofing of the other part of the building. (c) An open spectator stand or open-deck carpark. (3) The following glazed assemblies need not comply with (1): (a) All glazed assemblies not in an external wall. (b) Revolving doors. (c) Fixed louvres. (d) Skylights, roof lights and windows in other than the vertical plane. (e) Sliding and swinging glazed doors without a frame.	*Note*

		(f) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (g) Second-hand windows, re-used windows and recycled windows. (h) Heritage windows.	
F3D5	Wall Cladding	External wall cladding must comply with one or a combination of the following: (a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700. (b) Autoclaved aerated concrete: AS 5146.3. (c) Metal wall cladding: AS 1562.1.	Note
Part F4 Sanitary and other facilities			
F4D2	Facilities in residential buildings	(1) For facilities in Class 2 buildings, the following applies: (a) Within each sole-occupancy unit, provide- (i) a kitchen sink and facilities for the preparation and cooking of food; and (ii) a bath or shower; and (iii) a closet pan; and (iv) a washbasin. (b) For laundry facilities, provide either- (i) in each sole-occupancy unit- (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and (B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line, or space for one heat operated drying cabinet or appliance in the same room as the clothes washing facilities; or (ii) a separate laundry for each 4 sole-occupancy units, or part thereof, that must comprise- (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and (B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line per sole-occupancy unit, or space for one heat operated drying cabinet or appliance. (c) For the purposes of (a) and (b), a kitchen sink or washbasin must not be counted as a laundry washtub. **(2) For facilities in Class 3 buildings other than residential care buildings, the following applies:**	*Note requirement for Class 2 and 3 parts.* *Note no requirements for laundry facilities for Class 3 parts.* *Read in conjunction with F2D4 and requirements for toilet facilities for employees (of the Class 2/3 parts)*

		(a) For residents in each building or group of buildings, for each 10 residents for whom private facilities are not provided, provide- (i) a bath or shower; and (ii) a closet pan; and (iii) a washbasin. (b) Notwithstanding (a), if one urinal is provided for each 25 males up to 50 and one additional urinal for each additional 50 males or part thereof, one closet pan for each 12 males may be provided. **(c) Facilities for employees must be provided in accordance with F4D4.** (d) Facilities required by (a), (b) or (c) need not be situated in the same building. (3) N/A facilities in Class 3 residential care buildings (4) N/A facilities in a Class 4 part of a building (5) N/A facilities in Class 9c buildings	
F4D3	Calculation of number of occupants and facilities	(1) The number of persons accommodated must be calculated according to D2D18 if it cannot be more accurately determined by other means. (2) Unless the premises are used by predominantly one sex, sanitary facilities must be provided on the basis of equal numbers of males and females. (3) In calculating the number of sanitary facilities to be provided under F4D2 and F4D4, a unisex facility required for people with a disability (other than a facility provided under F4D12) may be counted once for each sex. (4) For the purposes of this Part, a unisex facility comprises one closet pan, one washbasin and means for the disposal of sanitary products.	*Note*
F4D4	Facilities in Class 3 to 9 buildings	(1) Except where permitted by (3), (4), (7), F4D5(a), F4D5(b) and F4D12(1), separate sanitary facilities for males and females must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Tables F4D4a, F4D4b, F4D4c, F4D4d, F4D4e, F4D4f, F4D4g, F4D4h, F4D4i, F4D4j, F4D4k and F4D4l, as appropriate. (2) In Tables F4D4a, F4D4b, F4D4c, F4D4d, F4D4e, F4D4f, F4D4g, F4D4h, F4D4i, F4D4j, F4D4k and F4D4l- (a) 'Number' means the number of facilities required; and (b) '>' means greater than; and (c) a hyphen means no data (refer to the row above for the highest value applicable); and	Note requirements for employee facilities

		(d) 'N/A' means not applicable; and (e) a reference to- (i) 'employees' includes owners and managers using the building; and (ii) 'add 1 per 100 or 150, 250, 500, etc.' includes any part thereof of that number. **(3) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex.** (4) 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. (5) 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. (6) Adequate means of disposal of sanitary products must be provided in sanitary facilities for use by females. (7) N/A applies to a Class 9a building. (8) N/A applies to a Class 9a health-care building (9) N/A applies to Class 9b early childhood centre	
F4D5	Accessible sanitary facilities	In a building required to be accessible- (a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with F4D6; and (b) accessible unisex showers must be provided in accordance with F4D7; and (c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, not less than one sanitary compartment suitable for a person with an ambulant disability for use by males and not less than one sanitary compartment suitable for a person with an ambulant disability for use by females, each in accordance with AS 1428.1, must be provided; and (d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary products; and (e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with F4D6 and F4D7 must comply with the requirements of AS 1428.1- 2009; and (f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and	See Note 1

		(g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right-handed mirror image facilities must be provided as evenly as possible; and (h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and (i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D4D4(f) to be provided with a passenger lift or ramp complying with AS 1428.1- 2009. ***Note 1:*** *The minimum size noted in AS1428.1-2009 for a unisex sanitary compartment is 1900mm wide and 2300 deep with additional space required for wash basins noted in Figure 43 of AS1428.1- 2009.*	
F4D6	Accessible unisex sanitary compartments	(1) Where required by F4D5(a), the minimum number of accessible unisex sanitary compartments for each class of building is as follows: (a) N/A applies to a Class 1b building (b) **For a Class 2 building**, where sanitary compartments are provided in common areas, not less than 1. (c) **For Class 3** and Class 9c buildings- (i) in every accessible sole-occupancy unit provided with sanitary compartments within the accessible sole-occupancy unit, not less than 1; and (ii) at each bank of sanitary compartments containing male and female sanitary compartments provided in common areas, not less than 1. (d) **For Class** 5, **6**, 7, 8 or 9 buildings, where F4D4 requires closet pans- (i) 1 on every storey containing sanitary compartments; and (ii) where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. (e) N/A applies to a Class 10a building (2) The requirements of (1)(d) do not apply within a ward area of a Class 9a health-care building. (3) The requirements of (1)(e) do not apply to- (a) a Class 10a appurtenant to another class of building; or (b) a sanitary compartment dedicated to a single caravan/camping site.	*See F4D5 Note 1*

		Note 1: *Facilities are required to cater for employees. It is anticipated that less than 10 employees will be employed on site at any one time. As the building is required to be accessible to cater for employees a single unisex accessible facility is recommended.*	

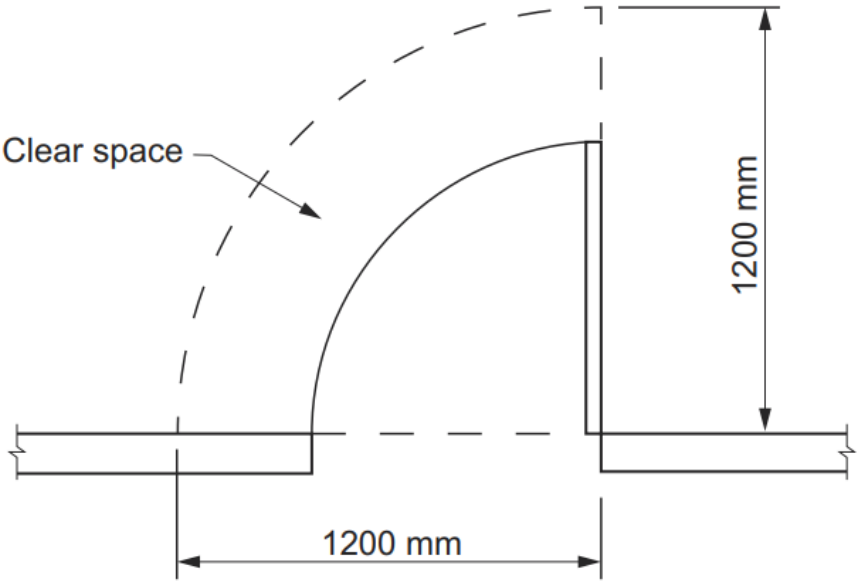
Table F4D4a: Sanitary facilities in Class 3, 5, 6 and 9 buildings other than schools

User group	Facility type	Design occupancy	Number
Male employees	Closet pans	1 - 20	1
		>20	Add 1 per 20
	Urinals	1 - 10	0
		11 - 25	1
		26 - 50	2
		>50	Add 1 per 50
	Washbasins	1 - 30	1
		>30	Add 1 per 30
Female employees	Closet pans	1 - 15	1
		>15	Add 1 per 15
	Washbasins	1 - 30	1
		>30	Add 1 per 30

F4D5	Accessible sanitary facilities	In a building required to be accessible- (a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with F4D6; and (b) accessible unisex showers must be provided in accordance with F4D7; and (c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, not less than one sanitary compartment suitable for a person with an ambulant disability for use by males and not less than one sanitary compartment suitable for a person with an ambulant disability for use by females, each in accordance with AS 1428.1, must be provided; and (d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary products; and (e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with F4D6 and F4D7 must comply with the requirements of AS 1428.1; and (f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and (g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right-	Note

		handed mirror image facilities must be provided as evenly as possible; and (h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and (i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D4D4(f) to be provided with a passenger lift or ramp complying with AS 1428.1.	
F4D6	Accessible unisex sanitary compartments	(1) Where required by F4D5(a), the minimum number of accessible unisex sanitary compartments for each class of building is as follows: (a) N/A applies to a Class 1b building- (b) N/A applies to a Class 2 building, (c) For Class 3 and Class 9c buildings- (i) in every accessible sole-occupancy unit provided with sanitary compartments within the accessible sole occupancy unit, not less than 1; and (ii) at each bank of sanitary compartments containing male and female sanitary compartments provided in common areas, not less than 1. (d) For Class 5, 6, **7**, 8 or 9 buildings, where F4D4 requires closet pans- (i) 1 on every storey containing sanitary compartments; and (ii) where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. (e) For a Class 10a building, at each bank of sanitary compartments containing male and female sanitary compartments, not less than 1. (2) The requirements of (1)(d) do not apply within a ward area of a Class 9a health-care building. (3) The requirements of (1)(e) do not apply to- (a) a Class 10a appurtenant to another class of building; or (b) a sanitary compartment dedicated to a single caravan/camping site.	Note
F4D7	Accessible unisex showers	(1) Where required by F4D5(b), the minimum number of accessible unisex showers for each class of building is as follows: (a) N/A applies to a Class 1b building (b) **For a Class 2 building**, where showers are provided in common areas, not less than 1. **(c) For Class 3** and 9c buildings-	Note for accessible units

		(i) in every accessible sole-occupancy unit provided with showers within the accessible sole-occupancy unit, not less than 1; and (ii) 1 for every 10 showers or part thereof provided in common areas. (d) For Class 5, 6, 7, 8 or 9 buildings, where F4D4 requires 1 or more showers, not less than 1 for every 10 showers or part thereof. (e) For a Class 10a building, where showers are provided, 1 for every 10 showers or part thereof. (2) The requirements of (1)(d) do not apply within a ward area of a Class 9a health-care building. (3) The requirements of (1)(e) do not apply to- (a) a Class 10a appurtenant to another class of building; and (b) a sanitary compartment dedicated to a single caravan/camping site	
F4D8	Construction of sanitary compartments	(1) Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend- (a) from floor level to the ceiling in the case of a unisex facility; or (b) to a height of not less than 1.5 m above the floor if primary school children are the principal users; or (c) 1.8 m above the floor in all other cases. (2) Unless there is a clear space of at least 1.2 m, measured in accordance with Figure F4D8, between the closet pan within the sanitary compartment and the doorway, the door to a fully enclosed sanitary compartment must- (a) open outwards; or (b) slide; or (c) be readily removable from the outside of the sanitary compartment. (3) N/A	*F4D8 (1) Note only* *Plans do not indicate multiple stall type facilities.* *F4D8 (2) applies to all sanitary compartments.*

	Figure F4D8: Construction of sanitary compartments  		
F4D9	Interpretation: urinals and washbasins	(1) A urinal may be- (a) an individual stall or wall-hung urinal; or (b) each 600 mm length of a continuous urinal trough; or (c) a closet pan used in place of a urinal. (2) A washbasin may be- (a) an individual basin; or (b) a part of a hand washing trough served by a single water tap.	
Part F5 Room heights			
F5D2	Height of rooms and other spaces	*(1)* ***The height of rooms and other spaces in a Class 2 or 3 building or Class 4 part of a building must be not less than-*** *(a) for a kitchen, laundry, or the like - 2.1 m; and* *(b) for a corridor, passageway or the like - 2.1 m; and* *(c) for a habitable room excluding a kitchen - 2.4 m; and* *(d) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line-* *(i) in an attic - a height of not less than 2.2 m for not less than two-thirds of the floor area of the room or space; and* *(ii) in other rooms - a height of not less than 2.4 m for not less than two-thirds of the floor area of the room or space; and*	Note height requirements for various parts of the building. Note that the residential areas are Class 2 and 3, The shops are Class 6 *Plans indicate 2.7m high ceilings*

(e) in a non-habitable room, or space within a non-habitable room, with a sloping ceiling or projections below the ceiling line - a height of not less than 2.1 m for not less than two-thirds of the floor area of the room or space.

(2) For the purposes of (1), when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included.

(3) **The height of rooms and other spaces in a Class** 5, **6**, 7 or 8 **building must be not less than-**

(a) except as allowed in (b) and (8) - 2.4 m; and

(b) for a corridor, passageway, or the like - 2.1 m.

(4) N/A applies to Class 9a health-care buildings

(5) The height of rooms and other spaces in a Class 9b building must be not be less than-

(a) for a school classroom or other assembly building or part that accommodates not more than 100 persons - 2.4m; and

(b) for a theatre, public hall or other assembly building or part that accommodates more than 100 persons - 2.7 m; and

(c) for a corridor-

(i) that serves an assembly building or part that accommodates not more than 100 persons - 2.4 m; or

(ii) that serves an assembly building or part that accommodates more than 100 persons - 2.7 m.

(6) For the purposes of (5) the number of persons accommodated must be calculated according to D2D18.

(7) N/A applies to Class 9c buildings

(8) The height of rooms and other spaces in any building must be not be less than-

(a) for a bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like - 2.1 m; and

(b) for a commercial kitchen - 2.4 m; and

(c) above a stairway, ramp, landing or the like - 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like; and

(d) for a required accessible adult change facility - 2.4 m.

Part F6 Light and ventilation			
F6D2	Provision of natural light	Natural light must be provided in: (a) A Class 2 building and a Class 4 part of a building - to all habitable rooms. (b) A Class 3 building - to all bedrooms and dormitories. (c) N/A applies to Class 9a and 9c buildings (d) A Class 9b building - 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.	*Applies to all Class 2 and 3 components*
F6D3	Methods and extent of natural light	(1) Required natural light must be provided by- (a) windows, excluding roof lights, that- (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (ii) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (b) roof lights, that- (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and (ii) are open to the sky; or (c) a proportional combination of windows and roof lights required by (a) and (b). (2) Except in a Class 9c aged care building, in a Class 2, 3 or 9 building or Class 4 part of a building, a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of- (a) generally - 1 m; and (b) in a patient care area or other room used for sleeping purposes in a Class 9a building - 3 m; and (c) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill. (3) In a Class 9c aged care building, a required window must be transparent and located- (a) in an external wall with the window sill not more than 1 m above the floor level; and (b) where the window faces an adjoining allotment, another building or another wall of the same building, it must not be less than a horizontal distance of 3 m from the adjoining allotment, other building or wall.	*Note requirements for Class 2 and 3 window/ light provisions.* *Complies for Class 2,3 and 6 parts.*

		(4) In a Class 9b early childhood centre, the sills of 50% of windows in children's rooms must be located not more than 500 mm above the floor level.	
F6D4	Natural light borrowed from adjoining room	(1) Natural light to a room in a Class 2 building or Class 4 part of a building or in a sole-occupancy unit of a Class 3 building, may come through one or more glazed panels or openings from an adjoining room (including an enclosed verandah) if- (a) both rooms are within the same sole-occupancy unit or the enclosed verandah is on common property; and (b) the glazed panels or openings have an aggregate light transmitting area of not less than 10% of the floor area of the room to which it provides light; and (c) the adjoining room has- (i) windows, excluding roof lights, that- (A) have an aggregate light transmitting area of not less than 10% of the combined floor areas of both rooms; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) roof lights, that- (A) have an aggregate light transmitting area of not less than 3% of the combined floor areas of both rooms; and (B) are open to the sky; or (iii) a proportional combination of windows and roof lights required by (i) and (ii). (2) The areas specified in (1)(b) and (c) may be reduced as appropriate if direct natural light is provided from another source.	*Note*
F6D5	Artificial lighting	**(1) Artificial lighting must be provided-** **(a) in required stairways, passageways, and ramps; and** (b) if natural light of a standard equivalent to that required by F6D3 is not available, and the periods of occupation or use of the room or space will create undue hazard to occupants seeking egress in an emergency, in- (i) a Class 4 part of a building - to sanitary compartments, bathrooms, shower rooms, airlocks and laundries; and (ii) a Class 2 building - to sanitary compartments, bathrooms, shower rooms, airlocks, laundries, common stairways and other spaces used in common by the occupants of the building; and	Note

		(iii) Class 3, 5, 6, 7, 8 and 9 buildings - to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress. (2) The artificial lighting system must comply with AS/NZS 1680.0. (3) The system may provide a lesser level of illumination to the following spaces during times when the level of lighting would be inappropriate for the use: A discotheque, nightclub or the like, where to create an ambience and character for the space, low lighting levels are used.	
F6D6	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 F6D7; or (b) A mechanical ventilation or air-conditioning system complying with AS1668.2 and AS3666.1	*Note*
F6D7	Natural ventilation	(1) Natural ventilation provided in accordance with F6D6(a) must consist of openings, windows, doors or other devices which can be opened- (a) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and (b) open to- (i) a suitably sized court, or space open to the sky; or (ii) an open verandah, carport, or the like; or (iii) an adjoining room in accordance with F6D8.	*Note* *It is assumed that windows will be 50% openable and as such will comply with this clause.*
F6D8	Ventilation borrowed from adjoining room	Natural ventilation to a room may come through a window, opening, door or other device from an adjoining room (including an enclosed verandah) if both rooms are within the same sole-occupancy unit or the enclosed verandah is common property, and- (a) in a Class 2 building, a sole-occupancy unit of a Class 3 building or Class 4 part of a building- (i) the room to be ventilated is not a sanitary compartment; and (ii) the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and (iii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms; and (b) in a Class 5, 6, 7, 8 (except a Class 8 electricity network substation) or 9 building-	*Note only*

		(i) the window, opening, door or other device has a ventilating area of not less than 10% of the floor area of the room to be ventilated, measured not more than 3.6 m above the floor; and (ii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 10% of the combined floor areas of both rooms; and (c) the ventilating areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source.	
F6D9	Restriction on location of sanitary compartments	A sanitary compartment must not open directly into – (a) A kitchen or pantry; or (b) A public dining room or restaurant; or (c) A dormitory in a class 3 building; or (d) A room used for public assembly; or (e) A workplace normally occupied by more than one person.	*Note*
F6D10	Airlocks	If a sanitary compartment is prohibited under F6D9 from opening directly to another room- (a) in a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building- (i) access must be by an airlock, hallway or other room; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation; and (b) in a Class 5, 6, 7, 8 or 9 building (which is not an early childhood centre, primary school or open spectator stand)- (i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1 m2 (i) and fitted with self-closing doors at all access doorways; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view.	*Note*
F6D12	Kitchen local exhaust ventilation	A commercial kitchen must be provided with a kitchen exhaust hood complying with AS 1668.1 and AS 1668.2 where- (a) any cooking apparatus has- (i) a total maximum electrical power input exceeding 8 kW; or (ii) a total gas power input exceeding 29 MJ/hour; or (b) the total maximum power input to more than one apparatus exceeds, per m2 (b) of floor area of the room or enclosure- (i) 0.5 kW electrical power; or (ii) 1.8 MJ/hour gas.	

Part F7 Sound transmission and insulation			
F7D2	Application of Part	The Deemed-to-Satisfy Provisions of this Part apply to Class 2 and 3 buildings and Class 9c buildings.	
F7D3	Determination of airborne sound insulation ratings	A form of construction required to have an airborne sound insulation rating must- (a) have the required value for weighted sound reduction index (Rw) or weighted sound reduction index with spectrum adaptation term (Rw + Ctr) determined in accordance with AS/NZS ISO 717.1 using results from laboratory measurements; or (b) comply with Specification 28.	*Construction note*
F7D4	Determination of impact sound insulation ratings	(1) A floor in a building required to have an impact sound insulation rating must- (a) have the required value for weighted normalised impact sound pressure level (Ln,w) determined in accordance with AS ISO 717.2 using results from laboratory measurements; or (b) comply with Specification 28. (2) A wall in a building required to have an impact sound insulation rating must- (a) for a Class 2 or 3 building be of discontinuous construction and (b) for a Class 9c building, must- (i) for other than masonry, be two or more separate leaves without rigid mechanical connection except at the periphery; or (ii) be identical with a prototype that is no less resistant to the transmission of impact sound when tested in accordance with Specification 29 than a wall listed in S28C4 to S28C7. (3) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and- (a) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and (b) for other than masonry, there is no mechanical linkage between leaves except at the periphery.	*Construction note* *Current design will require impact ratings to walls between unit where bathrooms are adjacent other areas. See F7D6 (1)(c)*
F7D5	Sound insulation rating of floors	(1) A floor in a Class 2 or 3 building must have an Rw + Ctr (airborne) not less than 50 and an Ln,w (impact) not more than 62 if it separates- (a) sole-occupancy units; or (b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification. (2) A floor in a Class 9c building separating sole-occupancy units must have an Rw not less than 45.	*Construction note* *Airborne and impact resistant construction of floors required between units*

F7D6	Sound insulation rating of walls	(1) A wall in a Class 2 or 3 building must- (a) have an Rw + Ctr (airborne) not less than 50, if it separates sole-occupancy units; and (b) have an Rw (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and (c) comply with F7D4(2) if it separates- (i) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or (ii) a sole-occupancy unit from a plant room or lift shaft. (2) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an Rw not less than 30. (3) A wall in a Class 9c building must have an Rw not less than 45 if it separates- (a) sole-occupancy units; or (b) a sole-occupancy unit from a kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room. (4) In addition to (3), a wall separating a sole-occupancy unit in a Class 9c building from a kitchen or laundry must comply with F7D4(2). (5) Where a wall required to have sound insulation has a floor above, the wall must continue to- (a) the underside of the floor above; or (b) a ceiling that provides the sound insulation required for the wall. (6) Where a wall required to have sound insulation has a roof above, the wall must continue to- (a) the underside of the roof above; or (b) a ceiling that provides the sound insulation required for the wall.	*Construction note* *Current design will require impact ratings to walls between unit where bathrooms are adjacent other areas. See F7D4 (2)*
F7D7	Sound insulation rating of internal services	(1) If a duct or soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an Rw + Ctr (airborne) not less than- (a) 40 if the adjacent room is a habitable room (other than a kitchen); or (b) 25 if the adjacent room is a kitchen or non-habitable room.	*Construction note*

		(2) If a stormwater pipe passes through a sole-occupancy unit, it must be separated in accordance with (1)(a) and (b).	
F7D8	Sound insulation rating of internal services	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.	*Construction note*
Part F8 Condensation management			
F8D2	Application of Part	The Deemed-to-Satisfy Provisions of this Part only apply to a sole-occupancy unit of a Class 2 building and a Class 4 part of a building.	*Note*
F8D3	External wall construction	(1) Where a pliable building membrane is installed in an external wall, it must- (a) comply with AS 4200.1; and (b) be installed in accordance with AS 4200.2; and (c) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. (2) Where a pliable building membrane, sarking-type material or insulation layer is installed on the exterior side of the primary insulation layer of an external wall it must have a vapour permeance of not less than- (a) in climate zones 4 and 5, 0.143 µg/N.s; and (b) in climate zones 6, 7 and 8, 1.14 µg/N.s. (3) Except for single skin masonry and single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity.	*The greater Newcastle area is Climate Zone 5* ***Walls must be provided with a cavity or alternatively have installed a Class 3 vapour permeant membrane installed.***
F8D4	Exhaust systems	(1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of- (a) 25 L/s for a bathroom or sanitary compartment; and (b) 40 L/s for a kitchen or laundry. (2) Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air. (3) Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air. (4) (3) does not apply if a condensing-type clothes drying appliance is installed. (5) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with F6D7 must-	*Note for electrical fitout*

		(a) be interlocked with the room's light switch; and (b) include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off. (6) Except for rooms that are ventilated in accordance with F6D7, a room with space for ducting a clothes drying appliance to outdoor air in accordance with (3) must be provided with make-up air in accordance with AS 1668.2	
	Explanatory Information A range hood installed in a kitchen must comply with F8D4(2). Part F6 includes other ventilation requirements which must be met, including a requirement for make-up air to be provided to mechanically ventilated rooms in accordance with AS 1668.2.		
F8D5	Ventilation of roof spaces	N/A Applies to climate zones 6, 7 and 8	*Greater Newcastle are is Climate Zone 5*

G Ancillary provisions

Part G5 Construction in bushfire prone areas

NSW G5D2	Application of Part	The Deemed-to-Satisfy Provisions of this Part apply in a designated bushfire prone area to- (a) a Class 2 or 3 building; or (b) a Class 4 part of a building; or (c) a Class 9 building that is a special fire protection purpose located in an area subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection; or (d) a Class 10a building or deck immediately adjacent or connected to a building or part of a type in (a), (b) or (c).	
	Notes (1) If a building of a type listed in (c) or (d) where associated with a building listed in (c) is subject to a BAL exceeding BAL—12.5, the building would need to comply with *Performance Requirement* NSW G5P2 by means of a *Performance Solution*. (2) There are no *Deemed-to-Satisfy Provisions* for these buildings.		
NSW G5D3	Protection	In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a Class 10a building or deck immediately adjacent or connected to such a building or part, must comply with the following- (a) AS 3959 except- (i) as amended by Planning for Bush Fire Protection; and (ii) for Section 9 Construction for Bushfire Attack Level FZ (BAL-FZ), buildings subject to BAL-FZ must comply with specific conditions of development consent for construction at this level; or	

		(b) the requirements of (a) above as modified by the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or (c) the requirements of (a) above as modified by development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development.	

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