



BLACKETT  
MAGUIRE+  
GOLDSMITH

**BCA & DDA ASSESSMENT REPORT**

*Design Development*

**Blayney MPS**

**PREPARED FOR:**



**Health  
Infrastructure**

Revision: 5

Date: 19 September 2023

Reference: 220216



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## EXECUTIVE SUMMARY

This report comprises a review of the Design Development for Blayney MPS. The development comprises.

<b>BCA Classification:</b>	Class 9a (healthcare including administration, ambulatory care and back of house) Class 10a (outbuildings – main switchboard and generator room, garden shed, dirty workshop and 3x fleet vehicle parking)
<b>Rise in Storeys:</b>	1 (one)
<b>Storeys Contained:</b>	1 (one)
<b>Type of Construction:</b>	Type C Construction
<b>Importance Level (Structural):</b>	4
<b>Sprinkler Protected Throughout:</b>	Yes
<b>Effective Height:</b>	Single storey
<b>Floor Area:</b>	2,700m <sup>2</sup>
<b>Max. Fire Compartment Size:</b>	Non-patient care - 5,000m <sup>2</sup> & 30,000m <sup>3</sup> Patient care - 2,000m <sup>2</sup> (they will generally be 1,000m <sup>2</sup> to suit egress)
<b>Climate Zone:</b>	Zone 7

The following comprises a summary of the key compliance issues identified under the clause-by-clause assessment in APPENDIX 1 & APPENDIX 2 of this report that will be addressed prior to the BCA Certification for the project.

### A. BCA MATTERS REQUIRING REDESIGN OR ADDITIONAL INFORMATION AT CROWN STAGE:

BCA (DtS) CLAUSE		DESCRIPTION
1.	<b>Spec 12 &amp; D3D25 (C3.4 &amp; D2.20)</b>	The smoke door in the residential aged care wing does not swing in the direction of egress. The door needs to swing east towards the lounge -resident.
2.	<b>D2D21 (D1.16)</b>	Provide details for any locations where an AS 1657 access is proposed.
3.	<b>E1D3 (E1.4)</b>	The fire services plans need to show FHR's within 4m of the exits from the IPU and RAC wings.
4.	<b>F2D4</b>	BCA 2022 introduces a new requirement under this clause to provide falls to all floor wastes. Previously, falls were only required to be provided to BCA required floor wastes. Architect to confirm this can be accommodated in the design for all floor wastes, regardless of whether the BCA requires the floor waste or not.
5.	<b>F4D2</b>	Confirm if the Aged Care wing will be provided with a bath (fixed or mobile) or you wish for this to be omitted through a performance solution with reliance on a letter of support from the LHD.
6.	<b>F4D4 (F2.3)</b>	If the staff population is a ratio of 50:50 male to female then the maximum population the facilities can serve is 40. If the ratio is 60:40 female to male, then the maximum population the facilities can serve is 50. Please confirm that the staff population ration is at least 60:40 female to male.

### B. MATTERS REQUIRING FIRE SAFETY ENGINEERED PERFORMANCE SOLUTIONS:

BCA (DtS) CLAUSE		DESCRIPTION
1.	<b>C4D4 (C3.3)</b>	Rationalise the protection of openings in adjacent fire compartments. We understand this will generally be achieved utilising a 90min fire wall (with 90min fire rated windows) on one compartment in lieu of a 60min fire wall to both compartments.



BCA (DTS) CLAUSE		DESCRIPTION
2.	<b>C3D8 (C2.7)</b>	To rationalise roof structure passing through the fire walls. We understand there is two or three details required to be assessed: 1. Purlins passing through the fire wall above the blade wall between RAC and IPU. 2. The common detail where purlins do not pass through but the a structure does passing through to connect to columns within the fire wall. Jacobs structural engineer has confirmed that 'failure of the structure on one side of the wall will not impact the performance of the fire wall, or the integrity of the structure on the other side. This is as the fire wall can be supported independently by structure either side (e.g. if structure on one side fails, the intact structure on the other side provides support and vice versa).' – Aconex corro JACOBS-GCOR-000358 dated 24/08/23.
3.	<b>Spec 5 (C1.1)</b>	To rationalise the method of fire protection between the fire walls and the external wall.
4.	<b>Spec 12 &amp; D3D25 (C3.4 &amp; D2.20)</b>	To permit fire and smoke doors to the BOH corridor to swing against the direction of egress.
5.	<b>D3D24 (D2.19)</b>	To allow sliding doors in a patient care area of the building, which includes the front entry airlock and ambulance area airlock.
6.	<b>E1D3 (E1.4)</b>	Omission of fire hose reel coverage to small fire separating spaces, including UPS, comms room and any other fire separated plant room.
7.	<b>E1D4 (E1.5)</b>	To omit sprinklers to fire separated comms room and UPS room.

#### C. ACCESS MATTERS REQUIRING REDESIGN OR ADDITIONAL INFORMATION AT CROWN STAGE:

BCA (DTS) CLAUSE		DESCRIPTION
1.	<b>D3D4 – access to buildings</b>	The civil and landscaping drawings do not show if there is a kerb between the pedestrian area in front of the main entry and the vehicular way. Is there a kerb or a level transition? If it is a level transition then TGSi's are required along the entire length separation pedestrian area from vehicular way.
2.	<b>D3D5 doorways</b>	- Include dimensions on the plans to verify if the latch side clearance into the Staff Room 4002 is >510mm.
3.	<b>D4D5 concessions</b>	- A full mark-up of all required D3.4 exempt areas is required at detailed design stage for review. Some examples include: + Cleaner's rooms used by cleaning staff only + Plantrooms and specialty equipment rooms (e.g. comms, UPS, distribution boards, hot water, BMS, MSSB etc.) + Loading Docks + Kitchen + Servery Kitchen + Clean and dirty utility rooms + Storerooms – equipment, linen and bulk stores The LHD will need to provide a letter confirming what areas are subject to a concession
4.	<b>D4D6 carparking</b>	- There is no detailed drawing of the accessible carparking area.
5.	<b>D4D6 carparking</b>	- Detail all gradients around accessible carparking areas for the on-grade carpark. This is not shown on the landscape or civil plans.
6.	<b>D4D8 - hearing augmentation</b>	Hearing Augmentation is required to be provided at reception desks where there is dividing glass and is recommended to be provided at all reception desks. It will also be necessary to provide it within any meeting room.
7.	<b>D4D9 – TGSi's</b>	TGSi's are not detailed on the landscaping plans. TGSi's need to be provided at: + Between pedestrian areas around the main entry and vehicular way + At pedestrian crossings + At ramps and stairs (none appear to be proposed)
8.	<b>External areas</b>	Detail all paths and accessible carparking area features and gradients in accordance with AS 1428.1-2009.



BCA (DTS) CLAUSE		DESCRIPTION
9.	<b>D4D12</b> - kerb ramps	In lieu of kerb ramps between pedestrian walkways and vehicular way TGSIs must be nominated.
10.	<b>F4D5</b> – ambulant WC	The staff WC adjacent to the accessible WC needs to be labelled as a staff ambulant WC. Also, the circulation space inside the WC does not comply – for this layout to work the door must swing out and not into the room.
11.	<b>Sunshine Coast DDA Judgement</b>	It is recommended that all matters identified are incorporated in the design and installed as part of the works.  Items 6, 7, and 8 can be mitigated via compliance with AS 1428.4.2 – 2018 as recommended. However the additional items noted fall outside the scope of Australian Standards and form good practice.  Confirmation to be provided that these measures are being incorporated into the design.

#### D. OTHER MATTERS REQUIRING PERFORMANCE SOLUTIONS:

BCA (DTS) CLAUSE		DESCRIPTION
12.	<b>F3P1 (FP1.4)</b>	A performance solution report is required to be prepared to Performance Requirement F3P1 in relation to weatherproofing of external walls. This may be through Verification Method F3V1, or an alternative suitable method. This will be required from the Façade Engineer.
13.	<b>F3D5</b>	Façade engineer to address as a performance solution if there is any wall cladding not specified in this clause.
14.	<b>F4D4 (F2.3)</b>	To permit unisex sanitary compartments (single fully enclosed WCs within a dedicated room) for staff and public WC's.
15.	<b>F4D4 (F2.3)</b>	To omit the requirement for an island-type plunge bath in each storey containing a ward area.



## TABLE OF CONTENTS

<b>1.</b>	<b>INTRODUCTION</b>	<b>6</b>
1.1.	PROPOSAL	6
1.2.	AIM:	6
1.3.	PROJECT TEAM	6
1.4.	REFERENCED DOCUMENTATION	6
1.5.	RELEVANT VERSION OF THE NCC BUILDING CODE OF AUSTRALIA	6
1.6.	COMPLIANCE WITH THE NATIONAL CONSTRUCTION CODE	6
1.7.	LIMITATIONS AND EXCLUSIONS	7
1.8.	REPORT TERMINOLOGY	7
<b>2.</b>	<b>PROJECT OVERVIEW</b>	<b>10</b>
2.1.	BUILDING CHARACTERISTICS	10
2.2.	OVERVIEW OF ACCESS REQUIREMENTS	10
2.3.	ACCESSIBILITY EXEMPTIONS	10
2.4.	PERFORMANCE SOLUTIONS	10
<b>3.</b>	<b>CONCLUSION</b>	<b>11</b>
<b>APPENDIX 1 - BCA ASSESSMENT</b>		<b>12</b>
<b>APPENDIX 2 - DDA ASSESSMENT</b>		<b>33</b>
<b>APPENDIX 3- FIRE SAFETY SCHEDULE</b>		<b>53</b>
<b>APPENDIX 4- FRL OF BUILDING ELEMENTS – TYPE C CONSTRUCTION</b>		<b>54</b>

## REPORT STATUS

DATE	REVISION	STATUS	AUTHOR	REVIEWED
19.09.22	1	Concept Design	AR	MP
3.03.23	2	Schematic Design	MP	MP
17.08.23	3	Design Development	PC & MP	MP
28.08.23	4	Design Development – incorporate design team comments	PC & MP	MP
19.09.23	5	Design Development – minor amendments	PC & MP	MP

Prepared by:

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**Blackett Maguire + Goldsmith**

NSW Registered Certifier – Building Surveyor (unrestricted) – BDC No. 2516

Association of Consultants in Access Australia – Member No. 618



## 1. INTRODUCTION

### 1.1. PROPOSAL

Blackett Maguire + Goldsmith Pty Ltd have been commissioned by NSW Government, Health Infrastructure to undertake an assessment of Blayney MPS at 1 Osman Street Blayney 2799 (Lot 2 DP1097082) against the relevant provisions of the Building Code of Australia 2022 (BCA).

### 1.2. AIM:

The aim of this report is to:

- + Confirm that the referenced Design Development has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- + Outline the BCA Compliance Strategy for the building and certification pathway for the project.
- + Undertake an assessment of the proposed development against the deemed-to-satisfy provisions of the BCA;
- + Identify matters that require plan amendments in order to achieve compliance with the BCA;
- + Identify matters that are to be required to be addressed by Performance Solutions;
- + Enable the certifying authority to satisfy its statutory obligations under Clause 19(1) of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.
- + Enable the Public Authority to satisfy its statutory obligations under Section 6.28 of the Environmental Planning and Assessment Act, 1979.

### 1.3. PROJECT TEAM

The following BM+G Team Members have contributed to this Report:

- + Priyanshu Chibber – Assistance (Cadet Building Surveyor)
- + Michael Potts – Team Leader & Report Preparation (Associate Director) | Building Surveyor-Unrestricted
- + David Blackett – Project Director (Director) | Building Surveyor-Unrestricted

### 1.4. REFERENCED DOCUMENTATION

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- + Building Code of Australia 2022
- + The Guide to the Building Code of Australia 2022
- + Architectural Plans, 100% Design Development, prepared by NBRS & Partners
- + Landscape Plans, 100% Design Development, prepared by NBRS & Partners

### 1.5. RELEVANT VERSION OF THE NCC BUILDING CODE OF AUSTRALIA

Pursuant to S6.28 of the Environmental Planning and Assessment Act 1979, the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time of the date of invitation for tenders to carry out the Crown building work. We understand the project issue an invitation to tender between 1 May 2022 and 1 October 2022 which means that BCA 2022 will apply and can utilise the transitional period for Section J to comply with BCA 2019 Amendment 1.

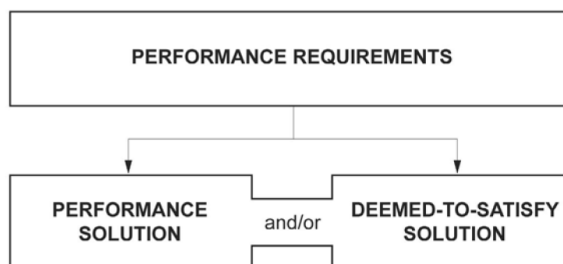
### 1.6. COMPLIANCE WITH THE NATIONAL CONSTRUCTION CODE

Compliance with the NCC is achieved by complying with—

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

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

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





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

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

## 1.7. LIMITATIONS AND EXCLUSIONS

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The limitations and exclusions of this report are as follows:

- + Please note that whilst the BCA specifies a minimum standard of compliance with AS1428 (Parts 1-3) and Part D4 of the BCA for access and facilities for people with disabilities, compliance with such requirements may not necessarily preclude the possibility of a future complaint made under the DDA 1992. The DDA is a complaint based legislation and is presently not identified by the State Building Codes and Regulations. In this regard the building owner should be satisfied that their obligations under the DDA have been addressed.
- + This report does not consider BCA Part G5 (Volume 1) which makes provision for construction of buildings in bushfire-prone areas, therefore no assessment has been undertaken in consideration of RFS, Planning for Bushfire Protection and AS 3959. Where Part G is applicable to the site, then it is required that assessment / due diligence is undertaken by a specialist consultant to verify compliance.
- + This report does not constitute a detailed assessment of the architectural documentation against the requirements of Section J. It is understood that a suitably qualified consultant will be engaged to determine compliance in this regard.
- + BM+G has not undertaken an assessment of any Performance Solution Reports at the time of the preparation of this report.
- + The Report does not address matters in relation to the following Local Government Act and Regulations:
  - i. Work Health and Safety Act and Regulations.
  - ii. Work Cover Authority requirements.
  - iii. Water, drainage, gas, telecommunications and electricity supply authority requirements.
  - iv. Disability Discrimination Act 1992.
- + Blackett Maguire + Goldsmith Pty Ltd cannot guarantee acceptance of this report by Local Council, Fire & Rescue NSW or other approval authorities.
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## 1.8. REPORT TERMINOLOGY

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**BCA Completion Certificate** – A certificate issued at the completion of works which confirms the building is suitable for occupation in accordance with its classification under the BCA.

**BCA Crown Certificate** – A certificate issued against building works carried out by or on behalf of the Crown which verifies that the works comply with the requirements of the BCA prior to works commencing, subject to S6.28 of the Environmental Planning and Assessment Act 1979.

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

**Climatic Zone** – Means an area defined in Figure 2 and in Table 2 (of BCA Schedule 3) for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.



**Construction Type** – The construction type is a measure of a building's ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C2D2 and Specification 5, except as allowed for—

- (i) certain Class 2, 3 or 9c buildings in C2D6; and
- (ii) a Class 4 part of a building located on the top storey in C2D4(2); and
- (iii) open spectator stands and indoor sports stadiums in C2D8.

Note: Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.

**Deemed-to-Satisfy (DTS) Provisions of the BCA** – Means the prescriptive provisions of the BCA which are deemed to satisfy the performance requirements.

**Effective Height** – The vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift, or other equipment, water tanks or similar service units).

**Exit** – Any, or any combination of the following if they provide egress to a road or open space;

- + An internal or external stairway.
- + A ramp.
- + A fire-isolated passageway.
- + A doorway opening to a road or open space.

**Fire Compartment** – The total space of the building; or when referred to in

- + The Performance Requirements – any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
- + The Deemed-to-Satisfy Provisions – any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to-Satisfy Provisions of the relevant part.

**Fire Resistance Level (FRL)** – The grading periods in minutes for the following criteria-

- (a) structural adequacy; and
- (b) integrity; and
- (c) insulation,

and expressed in that order

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

**National Construction Code Series (NCC)** – The NCC was introduced 1 May 2011 by the Council of Australian Governments (COAG). The BCA Volume One (Class 2 to 9 Buildings) is now referenced as the National Construction Code Series Volume One — BCA.

**Occupiable outdoor area** means a space on a roof, balcony or similar part of a building—

- + that is open to the sky; and
- + to which access is provided, other than access only for maintenance; and
- + that is not open space or directly connected with open space.

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

**Performance-based Design Brief** - Means the process and the associated report that defines the scope of work for the performance-based analysis, the technical basis for analysis, and the criteria for acceptance of any relevant Performance Solution as agreed by stakeholders.

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

Compliance with the Performance Requirements can only be achieved by-

- (a) complying with the Deemed-to-Satisfy Provisions; or
- (b) formulating an Alternative Solution which-





- (i) complies with the Performance Requirements; or
- (ii) is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
- (c) a combination of (a) and (b).

**Performance Solution** – Means a method of complying with the performance requirements other than by a *Deemed-To-Satisfy Solution*.

**Professional Engineer** means a person who is—

- + if legislation is applicable — a registered professional engineer in the relevant discipline who has appropriate experience and competence in the relevant field; or
- + if legislation is not applicable—
  - *registered in the relevant discipline on the National Engineering Register (NER) of the Institution of Engineers Australia (which trades as 'Engineers Australia');* or
  - *eligible to become registered on the Institution of Engineers Australia's NER and has appropriate experience and competence in the relevant field.*

**Rise in Storeys** – The greatest number of storeys calculated in accordance with C2D3.

**Sole Occupancy Unit** – means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and can include a dwelling and/or office suite

**Treatment area** - means an area within a patient care area such as an operating theatre and rooms used for recovery, minor procedures, resuscitation, intensive care and coronary care from which a patient may not be readily moved.

**Ward Area** - means that part of a patient care area for resident patients and may contain areas for accommodation, sleeping, associated living and nursing facilities.



## 2. PROJECT OVERVIEW

### 2.1. BUILDING CHARACTERISTICS

The proposed development consists of new single storey multi-purpose health building. It is proposed to be built in stages to completely replace an existing building.

The building is classified as follows:

<b>BCA Classification:</b>	Class 9a (healthcare including administration, ambulatory care and back of house) Class 10a (outbuildings – main switchboard and generator room, garden shed, dirty workshop and 3x fleet vehicle parking)
<b>Rise in Storeys:</b>	1 (one)
<b>Storeys Contained:</b>	1 (one)
<b>Type of Construction:</b>	Type C Construction
<b>Importance Level (Structural):</b>	4
<b>Sprinkler Protected Throughout:</b>	Yes
<b>Effective Height:</b>	Single storey
<b>Floor Area:</b>	Approx. 2,700m <sup>2</sup>
<b>Max. Fire Compartment Size:</b>	Non-patient care - 5,000m <sup>2</sup> & 30,000m <sup>3</sup> Patient care - 2,000m <sup>2</sup> (they will generally be 1,000m <sup>2</sup> to suit egress)
<b>Climate Zone:</b>	Zone 7

### 2.2. OVERVIEW OF ACCESS REQUIREMENTS

<b><u>Requirements for Accessibility</u></b>	
<b>Class 9a (Hospital)</b>	To and within all areas normally used by occupants

### 2.3. ACCESSIBILITY EXEMPTIONS

The use of certain parts of the building are not required to be accessible in the following instances:

- + An area where access would be inappropriate because of the particular purpose for which the area is used.
- + An area that would pose a health or safety risk for people with a disability.
- + Any path of travel providing access only to an area exempted by the above two items

Some examples of the above include:

- + Cleaner's rooms used by cleaning staff only
- + Plantrooms and specialty equipment rooms (e.g. comms, UPS, distribution boards, hot water, BMS, MSSB etc.)
- + Loading Docks
- + Kitchen
- + Servery Kitchen
- + Clean and dirty utility rooms
- + Storerooms – equipment, linen and bulk stores
- +

### 2.4. PERFORMANCE SOLUTIONS

Where there are any departures from achieving compliance with the BCA, there is an opportunity to address the compliance issue by the development of a Performance Solution.

This report currently only identifies zero (0) related performance solution, however, more are likely to be developed during the Construction Documentation Phase.



### 3. CONCLUSION

This report contains an assessment of the referenced architectural documentation for Blayney MPS at 1 Osman Street Blayney 2799 (lot 2 DP1097082) against the deemed-to-satisfy provisions of the Building Code of Australia 2022.

Arising from the assessment, key compliance issues have been identified that require further resolution, either by way of fire engineered Performance Solutions or plan amendments prior to the S6.28 BCA Crown Certificate stage.

Notwithstanding the above, it is considered that the proposed development can readily achieve compliance with the BCA subject to resolution of the matters identified in the **EXECUTIVE SUMMARY & APPENDIX 1** of this report.

We understand the works will be subject to a S6.28 BCA Crown Certificate and BCA Completion Certificate.



## APPENDIX 1 - BCA ASSESSMENT

### LEGEND:

+ <b>Complies:</b>	The referenced plans show compliance with this clause
+ <b>Compliance Readily Achievable:</b>	The referenced plans do not show sufficient information to establish compliance with this clause. Design certification, should be submitted with the application for the BCA Completion Certificate.
+ <b>Further Information Required:</b>	The referenced plans do not show sufficient information to establish compliance with this clause. Further details, should be submitted with the application for the S6.28 BCA Crown Certificate
+ <b>Performance Solution:</b>	The referenced plans do not comply with this clause and an Performance Solution is required/proposed to demonstrate compliance with the Performance Requirements
+ <b>Does Not Comply:</b>	The proposal does not comply with this clause and redesign is required.
+ <b>Noted:</b>	Provisions contained within this BCA clause are provided for guidance, or are to be read in conjunction with other BCA clauses
+ <b>Not applicable/ Not critical information:</b>	This clause is not applicable or not critical to the proposed development. <u>These clauses have been removed from the assessment table below.</u>

CLAUSE	REFERENCE	COMMENT
<b>SECTION B</b>	<b>STRUCTURE</b>	
<b>Part B1</b>	<b>Structural Provisions</b>	
<b>B1D3</b> <b>(Previously B1.2)</b> Determination of Individual Actions	Structural engineering details prepared by an appropriately qualified structural engineer to be provided to demonstrate compliance with Part B1 in relation to the new structural elements of the building.	<b>Compliance Readily Achievable:</b> Design Statement from a Professional Engineer to be provided confirming that the design achieves compliance with the following is required at the time of S6.28 BCA Crown Certificate application, inclusive of reference to the following Australian Standards (where relevant): AS 1170.0 – 2002 General Principles AS 1170.1 – 2002, including certification for balustrading (dead and live loads) AS 1170.2 – 2021, Wind loads AS 1170.4 – 2007, Earthquake loads AS 3700 – 2018, Masonry code AS 3600 – 2018, Concrete code AS 4100 – 2021, Steel Structures AS 4600 – 2018, Cold formed steel. AS 2047 – 2014, Windows in buildings AS 1288 – 2021, Glass in buildings  A compliance certificate from a Professional Engineer is required for all structural works at the completion of building works and prior to the issuance of an BCA Completion Certificate-
<b>B1D4</b> <b>(Previously B1.4)</b> Determination of Structural Resistance of Materials	Materials & Forms of Construction	<b>Compliance Readily Achievable:</b> Detail and design certification to be provided at the S6.28 BCA Crown Certificate stage.
<b>B1D6</b> <b>(Previously B1.6)</b>	A Class 2 or 3 building, Class 9a health-care building, in a flood hazard area must comply with the ABCB Standard for Construction of Buildings in Flood Hazard Areas.	<b>Compliance Readily Achievable:</b> Detail to be included in the design.



CLAUSE	REFERENCE	COMMENT
Construction of Buildings Flood Hazard Areas		
<b>SECTION C FIRE RESISTANCE</b>		
<b>Part C2 Fire Resistance and Stability</b>		
<b>C2D2</b> <b>(Previously C1.1)</b> Type of Construction Required	The minimum type of fire-resisting construction of a building must be that specified in Table C1.1 and Specification 5 except as allowed for in this clause.	Type C Construction applies to the building. <b>Refer to Spec 5 &amp; APPENDIX 4 for the table of FRL's</b>
<b>C2D4</b> <b>(Previously C1.3)</b> Buildings of Multiple Classification	In a building of multiple classifications, the type of construction required for the building is the most fire-resisting type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.	<b>Noted:</b> Higher FRL of each classification to apply or be fire separated.
<b>C2D9</b> <b>(Previously C1.8)</b> Lightweight Construction	Lightweight construction must comply with Specification 6 if used in a wall system in accordance with sub-clauses (a) & (b).	<b>Compliance Readily Achievable:</b> Detail to be included in the design to ensure compliance with this clause.
<b>C2D11</b> <b>(Previously C1.10)</b> Early Fire Hazard Properties	<p>The fire hazard properties of the outlined linings, materials and assemblies in a Class 2 to 9 building must comply with Specification 7.</p> <p>Refer below to extracts from Tables S7C3 and S7C4 of Spec 7. as relevant to wall, floor, an ceiling linings.</p> <p>For additional detailed requirements relating to additional building elements, refer to the relevant clause of Spec 7. as outlined below:</p> <ul style="list-style-type: none"> <li>+ Floor linings and coverings – S7C3</li> <li>+ Wall linings and ceiling linings – S7C4</li> <li>+ Air-handling ductwork – S7C5.</li> <li>+ Lift Cars – S7C6.</li> <li>+ Fire control rooms and fire-isolated exits – S7C7</li> <li>+ Escalators, moving walkways, and non-required non-fire-isolated stairways and ramps – S7C7.</li> <li>+ Sarking-type materials – S7C7.</li> <li>+ Attachments to internal floors, walls, and ceilings – S7C7.</li> <li>+ Other materials – S7C7</li> </ul>	<p><b>Further Information Required:</b></p> <p>A schedule of all wall, floor, and ceiling linings along with associated test reports are to be provided for review to ensure compliance with the fire hazard property requirements of the BCA. Noting:</p> <ul style="list-style-type: none"> <li>+ Minimum Group Numbers apply to wall and ceiling linings. AS 5637 test reports must be provided to determine compliance.</li> <li>+ Minimum Critical Radiant Flux values apply to floor linings. AS ISO 9239.1 test reports must be provided to determine compliance.</li> </ul>



CLAUSE	REFERENCE	COMMENT
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**TABLE S7C3 OF SPECIFICATION 7– CRITICAL RADIANT FLUX OF FLOOR LININGS AND FLOOR COVERINGS**

Class of building	Building not fitted with a sprinkler system	Building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system)	Fire-isolated exits and fire control rooms
Class 9a - Patient care areas	4.5 kW/m <sup>2</sup>	2.2 kW/m <sup>2</sup>	4.5 kW/m <sup>2</sup>
Class 9a - Areas other than patient care areas	2.2 kW/m <sup>2</sup>	1.2 kW/m <sup>2</sup>	4.5 kW/m <sup>2</sup>

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

Class of building	Fire-isolated exits and fire control rooms	Public corridors	Specific areas	Other areas
Class 9a, Sprinklered Accommodation for the aged, people with a disability, children and health-care buildings	Walls: 1 Ceilings: 1	Walls: 1, 2 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2, 3	Walls: 1, 2, 3 Ceilings: 1, 2, 3

**Part C3 Fire Compartmentation and Separation**

**C3D6**

**(Previously C2.5)**

**Class 9 Buildings**

Class 9a health care building must comply with the following:

- + Patient care areas must be divided into fire compartments not exceeding 2000 m<sup>2</sup>.
- + A fire compartment must be separated from the remainder of the building by fire walls and:
  - Type A Construction – Floors and roof or ceiling as required in Spec 5.
- + Ward areas—
  - where the floor area exceeds 1000 m<sup>2</sup>, must be divided into floor areas not more than 1000 m<sup>2</sup> by walls with an FRL of not less than 60/60/60; and
  - where the floor area exceeds 500 m<sup>2</sup>, must be divided into areas not more than 500 m<sup>2</sup> by smoke proof walls complying with Specification 11; and
  - where the floor area is not more than 500m<sup>2</sup>, must be separated from the remainder of the patient care area by smoke-proof walls complying with Spec 11.
  - where division of ward areas by fire-resisting walls is not required (i.e. if the patient care area was less than 1,000m<sup>2</sup>), any smoke-proof wall required under (B) above must have an FRL of not less than 60/60/60.
- + Treatment areas –
  - Must be divided into floor areas not more than 1000 m<sup>2</sup> by smoke-proof walls complying with Specification 11.
  - Where the floor area is not more than 1,000m<sup>2</sup>, must be separated from the remainder of the patient care area by smoke-proof walls complying with Spec 11.

Ancillary use areas located within a patient care area and containing equipment or materials that are a high potential fire hazard, must be separated from the remainder of the patient care area by walls with an FRL of not less than 60/60/60. These areas include, but are not limited to, the following:

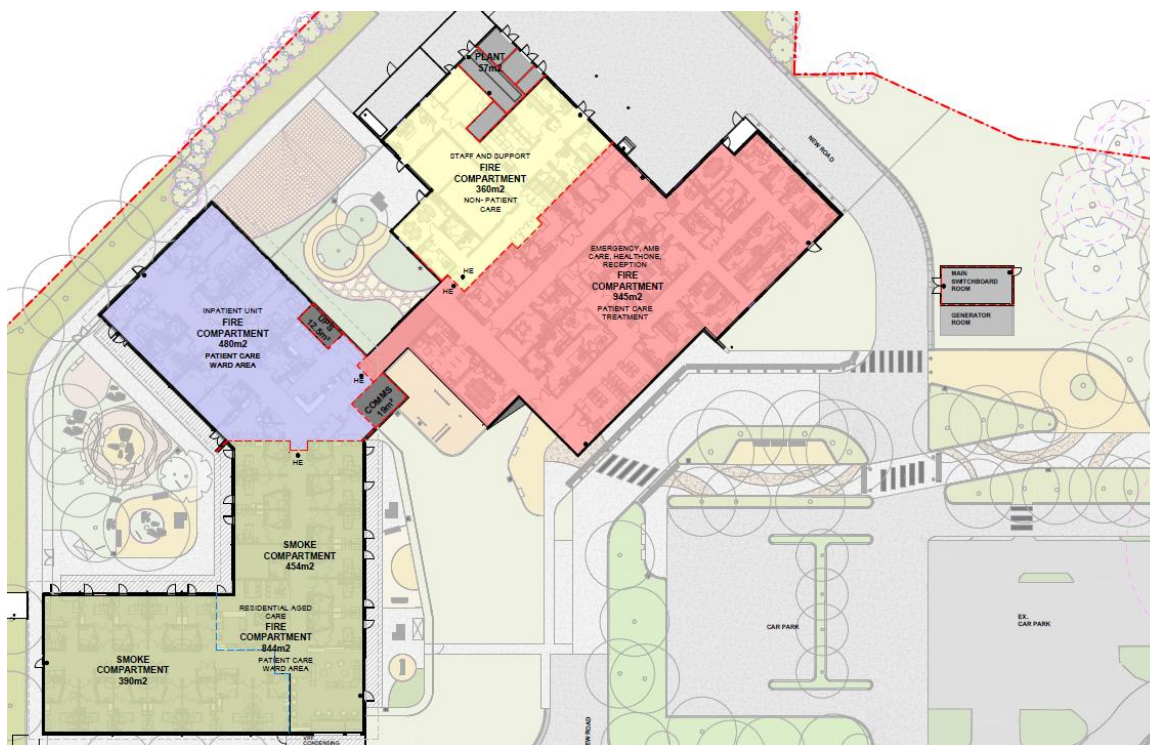
- A kitchen and related food preparation areas having a combined floor area of more than 30 m<sup>2</sup>.
- A room containing a hyperbaric facility.
- A room used predominantly for the storage of medical records having a floor area of more than 10 m<sup>2</sup>.

**Complies:**

The plans show compartmentation sizes within the limitations of this clause.



CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"><li>A laundry, where items of equipment are of the type that is potential fire sources (e.g. gas fire dryers).</li></ul>	



### C3D8 (Previously C2.7) Separation by Fire Walls

**Construction-** A fire wall must be in accordance with the following:

- + The fire wall has the relevant FRL prescribed by Spec 5.
- + Unless permitted by Part C4, must not reduce the FRL prescribed by 5.
- + Building elements (other than roof battens of 75x50 or sarking-type material) must not pass through a fire wall unless the FRL of the wall can be maintained.

**Separation of buildings-** A part of a building may be considered separate from the remainder of the building if separated by a fire wall in accordance with the following:

- + The fire wall extends through all storeys and is carried through to the underside of the roof covering.
- + Where roofs of separate buildings are at different heights, the fire wall must extend to the underside of:
  - The higher roof, or >6m above the lower roof.
  - The lower roof if it has an FRL not less than that of the fire wall and no openings closer than 3m to any wall above the lower roof.
  - The lower roof if its covering is non-combustible and the lower part is sprinkler protected.

**Separation of fire compartments-** A part of a building, separated from the remainder by a fire wall, may be treated as a separate fire compartment if the fire wall extends to the underside of:

- + A floor having an FRL required for a fire wall; or
- + The roof covering.

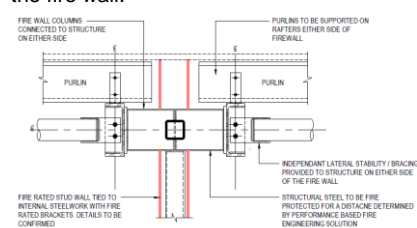
### C3D13 (Previously C2.12)

Equipment as listed below must be separated from the remainder of the building with construction that achieves an FRL of 120/120/120 (or that required by Spec 5, whichever

### Performance Solution

To rationalise roof structure passing through the fire walls. We understand there is two or three details required to be assessed:

1. Purlins passing through the fire wall above the blade wall between RAC and IPU.
2. The common detail (below) where purlins do not pass through but the a structure does passing through to connect to columns within the fire wall.



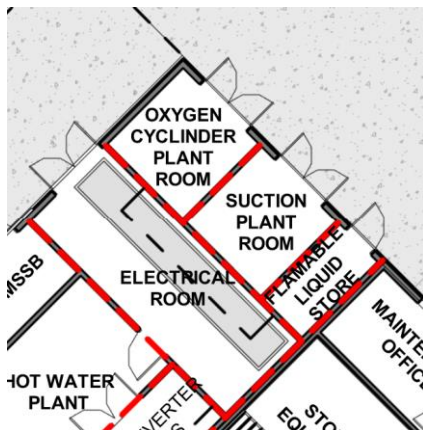
Jacobs structural engineer has confirmed that 'failure of the structure on one side of the wall will not impact the performance of the fire wall, or the integrity of the structure on the other side. This is as the fire wall can be supported independently by structure either side (e.g. if structure on one side fails, the intact structure on the other side provides support and vice versa).' – Aconex corro JACOBS-GCOR-000358 dated 24/08/23.

### Compliance Readily Achievable:

It is our understanding that the service engineers have determined the following rooms require fire separation – solar inverter





CLAUSE	REFERENCE	COMMENT
Separation of Equipment	<p>is greater) and doorways being self-closing -/120/30 fire doors:</p> <ul style="list-style-type: none"> <li>+ Lift motors and lift control panels; or</li> <li>+ Emergency generators used to sustain emergency equipment operating in the emergency mode; or</li> <li>+ Central smoke control plant; or</li> <li>+ Boilers; or</li> <li>+ A battery or batteries installed in the building that have a voltage exceeding 12 volts and a capacity exceeding 200kWh.</li> </ul> <p>Separation of on-site fire pumps must comply with the requirements of AS 2419.1.</p>	panels, oxygen cylinder plant, suction plant, flammable liquid store, comms and UPS room.
<b>C3D14</b> <b>(Previously C2.13)</b> Electricity Supply System	<p>An electrical substation located within a building or a main switchroom which sustains emergency equipment, must:</p> <ul style="list-style-type: none"> <li>+ Be separated from the building by construction achieving an FRL of 120/120/120; and</li> <li>+ Have any doorway protected with a self-closing fire door achieving an FRL of -/120/30.</li> </ul> <p>Electrical conductors within a building must be protected in accordance with sub-clause (3).</p>	<p><b>Complies:</b></p> <p>The electrical room is shown to separated from the building by construction achieving 120/120/120.</p> 

#### Part C4 Protection of Openings

<b>C4D4</b> <b>(Previously C3.3)</b> Separation of External Walls and Associated Openings in Different Fire Compartments	<p>The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must be at least that set out in Table C4D4 unless-</p> <ul style="list-style-type: none"><li>+ Those parts of each wall have an FRL of at least 60/60/60; and</li><li>+ Any openings protected in accordance with C4D5.</li></ul> <p>Method of measurement between adjoining fire compartments is set out below: -</p> <table><tr><th>Angle between walls</th><th>Min. Distance</th></tr><tr><td>0° (walls opposite)</td><td>6m</td></tr><tr><td>More than 0° to 45°</td><td>5m</td></tr><tr><td>More than 45° to 90°</td><td>4m</td></tr><tr><td>More than 90° to 135°</td><td>3m</td></tr><tr><td>More than 135° to 180°</td><td>2m</td></tr><tr><td>0° or more</td><td>Nil</td></tr></table>	Angle between walls	Min. Distance	0° (walls opposite)	6m	More than 0° to 45°	5m	More than 45° to 90°	4m	More than 90° to 135°	3m	More than 135° to 180°	2m	0° or more	Nil	<p><b>Performance Solution:</b></p> <p>Rationalise the protection of openings in adjacent fire compartments.</p> <p>We understand this will generally be achieved utilising a 90min fire wall (with 90min fire rated windows) on one compartment in lieu of a 60min fire wall to both compartments.</p>
Angle between walls	Min. Distance															
0° (walls opposite)	6m															
More than 0° to 45°	5m															
More than 45° to 90°	4m															
More than 90° to 135°	3m															
More than 135° to 180°	2m															
0° or more	Nil															
<b>C4D5</b> <b>(Previously C3.4)</b> Acceptable Methods of Protection	<p>Where protection is required, doorways, windows and other openings must be protected as follows:</p> <ul style="list-style-type: none"><li>+ Doorways –<ul style="list-style-type: none"><li>▪ Internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or</li><li>▪ -/60/30 fire doors that are self-closing or automatic closing.</li></ul></li><li>+ Windows –</li></ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Detail to be included in the design where applicable.</p>														





CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>Internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or</li> <li>-/60/- automatic closing fire shutters.</li> </ul> <p>+ Other openings –</p> <ul style="list-style-type: none"> <li>Excluding voids – internal or external wall-wetting sprinklers, as appropriate; or</li> <li>Construction having FRL not less than -/60/-.</li> </ul>	
<b>C4D6</b> <b>(Previously C3.5)</b> Doorways in Fire Walls	<p>Openings in fire walls, that are not part of a horizontal exit, must be protected in accordance with one of the methods set out in this clause.</p> <p>Doorways in fire walls, that are not part of a horizontal exit, must:</p> <ul style="list-style-type: none"> <li>+ In aggregate door width, not exceed ½ of the length of the fire wall.</li> <li>+ Be protected by fire doors achieving the FRL required for the wall in accordance with Spec 5 for Type A Construction.</li> <li>+ Be self-closing or automatically close on the activation of a smoke detector and applicable sprinkler system.</li> </ul>	<p><b>Compliance Readily Achievable:</b> Details to be included into the design where applicable.</p>
<b>C4D8</b> <b>(Previously C3.7)</b> Protection of Doorways in Horizontal Exits	<p>A doorway that is part of a horizontal exit must be protected by:</p> <ul style="list-style-type: none"> <li>+ A fire door with an FRL as required for the wall under Spec 5, except that the door must have an insulation level of at least 30; or;</li> <li>+ Be self-closing, or automatic-closing activated by heat or smoke detector activation and the activation of an applicable sprinkler system.</li> </ul>	<p><b>Compliance Readily Achievable:</b> Details to be included into the design where applicable.</p>
<b>C4D15</b> <b>(Previously C3.15)</b> Openings for Service Installations	<p>When a service penetrates a building element that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, that penetration must:</p> <ul style="list-style-type: none"> <li>+ Be identical to a tested prototype assembly, tested in accordance with AS4072.1 and AS1530.4.</li> <li>+ In the case of ventilating or air-conditioning ducts/equipment, the installation must comply with AS1668.1.</li> </ul>	<p><b>Compliance Readily Achievable:</b> Certification to be provided at the BCA Completion Certificate stage.</p>
<b>C4D16</b> <b>(Previously C3.16)</b> Construction Joints	<p>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-</p> <ul style="list-style-type: none"> <li>+ identical with a prototype tested in accordance with AS 1530.4 and AS 4072.1 to achieve the required FRL, or</li> <li>+ that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL.</li> </ul>	<p><b>Compliance Readily Achievable:</b> Details to be included into the design. Certification to be provided at the BCA Completion Certificate stage.</p>
<b>C4D17</b> <b>(Previously C3.17)</b> Columns Protected with Lightweight Construction to Achieve an FRL	<p>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.</p> <p>The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2.</p> <p>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.</p>	<p><b>Compliance Readily Achievable:</b> Certification to be provided at the BCA Completion Certificate stage.</p>



CLAUSE	REFERENCE	COMMENT
<b>Spec.</b>	<b>Part C Specifications</b>	
<b>Spec 5</b> <b>(Previously Spec C1.1)</b> Fire-Resisting Construction	The new building works are required to comply with the requirements detailed within Specification 5 for Type C Construction.	<b>Performance Solution:</b> To rationalise the method of fire protection between the fire walls and the external wall. The fire wall separating fire compartment does not extend all the way to the external wall of the building, and hence the 90/90/90 FRL is not achieved along the entire fire walls.
<b>Spec 11</b> <b>(Previously Spec C2.5)</b> Smoke-Proof Walls in Health-Care and Aged Care Buildings.	<u>Class 9a health-care buildings</u> Smoke-proof walls required by C3D6 must- <ul style="list-style-type: none"> <li>+ Be non-combustible and extend to the underside of the floor above, or a non-combustible roof lining, or a ceiling with a resistance to the incipient spread of fire of 60 minutes.</li> <li>+ Have all openings around penetrations and junctions of the smoke-proof wall and the remainder of the building stopped with a non-combustible material.</li> <li>+ Incorporate smoke dampers where air-handling ducts penetrate smoke walls unless pertaining to a smoke hazard management system.</li> </ul>	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>Spec 12</b> <b>(Previously Spec C3.4)</b> Fire Doors and Smoke Doors	<p><u>Fire doors</u> must comply with AS1905.1 and not fail the period specified for integrity in the required FRL due to glazed parts.</p> <p><u>Smoke doors</u> must be constructed to prevent the free passage of smoke from one side of the doorway to the other. If they are glazed, there must be minimal danger of a person being injured by walking into them. A smoke door must be constructed as follows-</p> <ul style="list-style-type: none"> <li>+ The door must swing in direction of egress, or both directions.</li> <li>+ The leaves are capable of resisting smoke at 200°C for 30 minutes. Solid core leaves of minimum 35mm thick satisfy.</li> <li>+ The leaves are fitted with smoke seals.</li> <li>+ The leaves are normally in the closed position, or the leaves are closed automatically through interface with smoke detectors present on each side of the doorway no more than 1.5m horizontal distance from the doorway. In the event of a power failure, the leaves must fail-safe to the closed position.</li> <li>+ The leaves return to the fully closed position after each manual opening.</li> <li>+ Any glazing part complies with AS1288. If a glazed panel may be mistake for an unobstructed exit, identification via opaque construction must be present.</li> </ul> <p>A required fire shutter or fire window must be identical with a tested prototype that has met the required FRL as well as installed in the same manner. If a metallic fire shutter is not prohibited by C4D6, a required fire shutter must be a steel shutter complying with AS1905.2.</p>	<p><b>Performance Solution:</b>            To permit fire and smoke doors to the BOH corridor to swing against the direction of egress.</p> <p><b>Does Not Comply:</b>            The smoke door in the residential aged care wing does not swing in the direction of egress. The door needs to swing east towards the lounge -resident.</p>
<b>SECTION D ACCESS AND EGRESS</b>		
<b>Part D2</b>	<b>Provisions for Escape</b>	
<b>D2D3</b> <b>(Previously D1.2)</b> Number of Exits Required	In addition to horizontal exits, following buildings/areas are required to be provided with two exits- <ul style="list-style-type: none"> <li>+ Class 5 / 6 Each storey if the building has an effective height &gt;25m.</li> </ul>	<b>Complies:</b> All building has not less than 2 exits



CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>+ Basements that require a vertical rise of &gt;1.5m to egress, unless the basement comprises &lt;50m<sup>2</sup> and the exit can be reached in &lt;20m.</li> <li>+ Class 9- <ul style="list-style-type: none"> <li>Each storey if the building has a rise in storeys of 6 or an effective height of 25m.</li> <li>Any storey which includes a patient care area in a Class 9a health-care building.</li> <li>Any storey or mezzanine that accommodates more than 50 persons, calculated under D2D18.</li> <li>In a Class 9 building, the above requirements do not apply to a part of a storey that- <ul style="list-style-type: none"> <li>Is a plant room, machinery room, storeroom, lift-machine room or the like; and</li> <li>Is provided with direct egress to a road or open space or a fire-isolated exit complying with D2D12(2); and</li> <li>Satisfies D2D5 by the provision of 1 exit.</li> </ul> </li> </ul> </li> </ul> <p>In a patient-care areas in a Class 9a at least one exit must be provided from every fire compartment.</p>	
<b>D2D5</b> <b>(Previously D1.4)</b> Exit Travel Distances	<p>For Class 5, 6, buildings:</p> <ul style="list-style-type: none"> <li>+ Maximum 20m to an exit or to a point of choice between alternative exits.</li> <li>+ 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 30m.</li> <li>+ Maximum distance to one of those exits is 40m.</li> </ul> <p>For Class 9a building the following applies:</p> <ul style="list-style-type: none"> <li>+ In a <u>non-patient care area</u>: <ul style="list-style-type: none"> <li>No point on the floor must be more than 20m to 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 40m.</li> </ul> <p><i>Note: Non patient care areas include staff areas, public circulation areas, lift lobbies, plant rooms and the like.</i></p> </li> <li>+ In a <u>patient care area</u>: <ul style="list-style-type: none"> <li>No point on the floor must be more than 12m from a point from which travel in different directions to 2 of the required exits is available; and</li> <li>The maximum distance to one of those exits must not be more than 30m from the starting point.</li> </ul> </li> </ul>	<p><b>Complies:</b> Travel distances comply.</p>
<b>D2D6</b> <b>(Previously D1.5)</b> Distances Between Alternative Exits	<p>Exits that are required as alternative means of egress must be-</p> <ul style="list-style-type: none"> <li>+ Distributed as uniformly as practical within the storey served.</li> <li>+ Located so that unobstructed access to 2 exits is available from all points.</li> <li>+ Not less than 9m apart</li> <li>+ Not more than <ol style="list-style-type: none"> <li>Class 9a patient care: 45m</li> <li>In all other cases – 60m.</li> </ol> </li> <li>+ Located so that alternative paths of travel do not converge &lt;6m.</li> </ul>	<p><b>Complies:</b> Travel distances comply.</p>
<b>D2D7</b> <b>(Previously D1.6(a))</b>	<p>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.</p>	<p><b>Complies:</b> All unobstructed heights throughout the path of travel to an exit are not less than 2 m.</p>



CLAUSE	REFERENCE	COMMENT
Dimensions of Exits		
<b>D2D8</b> <b>(Previously D1.6(b), (c), (d) and (e))</b> Width of exits, paths of travel to exits and doorways	<p>The unobstructed width of each required exit or path of travel to an exit, except for ladders provided in accordance with D2D21, D3D23 or I3D5, and doorways, must be not less than—</p> <ul style="list-style-type: none"> <li>+ 1m; or</li> <li>+ 1.8m in a passageway corridor or ramp normally used for the transportation of patients in beds within a treatment area or ward area; and</li> </ul> <p>If the storey, mezzanine or open spectator stand accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than—</p> <ul style="list-style-type: none"> <li>+ 1 m plus 250 mm for each 25 persons (or part) in excess of 100; or</li> <li>+ 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.</li> </ul> <p>If the storey, mezzanine or open spectator stand accommodates more than 200 persons, the aggregate unobstructed width of each required exit or path of travel to an exit, except for doorways, must be not less than—</p> <ul style="list-style-type: none"> <li>+ 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</li> <li>+ in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200.</li> </ul>	<p><b>Complies:</b></p> <p>All unobstructed widths of each required exit or path of travel to an exit is &gt;1000mm.</p>
<b>D2D9</b> <b>(Previously D1.6(f))</b> Width of doorway in exits or paths of travel to exits	<p>In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than—</p> <ul style="list-style-type: none"> <li>+ in patient care areas through which patients would normally be transported in beds—               <ul style="list-style-type: none"> <li>▪ if the doorway provides access to, or from, a corridor of width—                   <ul style="list-style-type: none"> <li>○ less than 2.2 m — 1200 mm; or</li> <li>○ 2.2 m or greater — 1070 mm; and</li> </ul> </li> </ul> </li> <li>+ where the doorway referred to in (i) is fitted with two leaves and one leaf is secured in the closed position in accordance with D3D26(3)(e), the other leaf must permit an unobstructed opening not less than 800 mm wide; or</li> <li>+ in patient care areas in a horizontal exit — 1250 mm; or</li> <li>+ the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or</li> </ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Details to be included in the design.</p> <p>Door schedules were not provided at 100% DD.</p>
<b>D2D10</b> <b>(Previously D1.6(g))</b> Exit width not to diminish in direction of travel	<p>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).</p>	<p><b>Complies:</b></p> <p>All unobstructed widths do not diminish in the direction of travel to a road or open space.</p>
<b>D2D11</b> <b>(Previously D1.6(h) and (i))</b> Determination and measurement of exits and paths of travel to exits	<p>For the purposes of D2D7 to D2D10 the following apply:</p> <ul style="list-style-type: none"> <li>+ The required width of a stairway or ramp in a required exit or path of travel to an exit must—               <ul style="list-style-type: none"> <li>▪ be measured clear of all obstructions such as handrails, projecting parts of barriers and the like; and</li> </ul> </li> </ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Detail to be included in the design.</p>



CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>+ 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.</li> <li>+ To determine the aggregate unobstructed width, the number of persons accommodated must be calculated according to D2D18.</li> </ul>	
<b>D2D15</b> <b>(Previously D1.10)</b> Discharge From Exits	<p>The path of travel to the road from a required exit leading to open space must have an unobstructed exit width of that of the required exit, or if larger, 1m.</p> <p>If the discharge point of the exit is at a different level from the road, a stairway or ramp achieving no more than 1:14 must be provided, except for a Class 9a where a ramp must be provided.</p> <p>The discharge point of alternative exits must be located as far apart as practical and be suitably protected from vehicles potentially blocking the exit.</p>	<b>Compliance Readily Achievable:</b> Paths of travel are required between all exits and the roadway with no intervening steps.
<b>D2D16</b> <b>(Previously D1.11)</b> Horizontal Exits	<p>In a Class 9a building, a horizontal exit may only be counted as a required exit if path of travel from a fire compartment leads by one or more horizontal exits into another fire compartment which has a vertical or final exit.</p> <p>In other cases, horizontal exits must not comprise more than half of the required exits from any part of a storey divided by a fire wall.</p> <p>Horizontal exits must have a clear area on the side of the fire wall to which occupants evacuate no less than:</p> <ul style="list-style-type: none"> <li>+ 2.5m<sup>2</sup> per patient/resident in a Class 9a.</li> <li>+ 0.5m<sup>2</sup> per person in any other case.</li> </ul>	<b>Complies:</b> Adequate space is provided at each horizontal exit.
<b>D2D18</b> <b>(Previously D1.13)</b> Number of Persons Accommodated	<p>Outlines the number of persons accommodated in a storey as per Table D2D18 of BCA 2022.</p>	<b>Noted.</b>
<b>D2D21</b> <b>(Previously D1.16)</b> Plant Rooms & Lift Motor Rooms Concession	<p>A ladder may be used in lieu of a stairway to provide egress from a plant room with a floor area of not more than 100m<sup>2</sup> or all but one point of egress from a plant room or a lift machine room with a floor area not more than 200m<sup>2</sup>.</p> <p>Sub-clause (2) sets out the parameters for the ladders permitted to be used in this circumstance.</p>	<b>Further Information Required:</b> Provide details for any locations where an AS 1657 access is proposed.
<b>PART D2 Construction of Exits</b>		
<b>D3D8</b> <b>(Previously D2.7)</b> Installations in Exits and Paths of Travel	<p>If installed in a path of travel to an exit, electrical distribution boards, communication cupboards and the like containing motors, etc. are to be enclosed with non-combustible construction (or a fire protective covering), and doors are to be provided with smoke seals to the perimeter.</p>	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>D3D16</b> <b>(Previously D2.15)</b> Thresholds	<p>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 –</p> <ul style="list-style-type: none"> <li>+ In patient care areas in a Class 9a – the door sill is not more than 25mm above the finished floor level to which the door opens.</li> <li>+ In a building required to be accessible –               <ul style="list-style-type: none"> <li>▪ The doorway opens to a road or open space; and</li> <li>▪ Is provided with a threshold ramp or step ramp in accordance with AS 1428.1.</li> </ul> </li> <li>+ In other cases –</li> </ul>	<b>Compliance Readily Achievable:</b> Details to be included into the design.



CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>the doorway opens to a road or open space, external stair landing or external balcony; and</li> <li>the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</li> </ul>	
<b>D3D22</b> <b>(Previously D2.17)</b> Handrails	<p>Handrails must be located along at least one side of a ramp or flight unless the width is 2m or more requiring handrails on both sides.</p> <p>Handrails must be fixed at a minimum height of 865mm and be continuous between stair flight landings and have no on or above them that may break the hand hold. If in a required exit serving an accessible area, must comply with AS 1428.1.</p> <p>Handrails in a Class 9a must be provided along at least one side of every passageway used by patients and must be fixed a minimum of 50mm clear of the wall and continuous for their full length.</p> <p>These requirements do not apply to handrails referred to in D3D23, a stairway or ramp providing a change in elevation of less than 1m, a land or a winder where a newel post is installed to provide a handhold.</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Details to be included into the design and compliance to be achieved with AS 1428.1-2009.</p>
<b>D3D23</b> <b>(Previously D2.18)</b> Fixed Platforms, Walkways Stairways and Ladders	<p>A fixed platform, walkway, stairway, ladder, any going and riser, any balustrade or other barrier attached thereto may comply with AS1657 if it only serves a machinery or plant room.</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Details to be included into the design.</p>
<b>D3D24</b> <b>(Previously D2.19)</b> Doorways and Doors	<p>A doorway forming part of a required exit – or a doorway in a patient care area of a Class 9a health-care building must not be fitted with a revolving door and must not be fitted with a roller shutter or tilt-up door unless it serves a part with a floor area not more than 200m<sup>2</sup> and the doorway is the only required exit from the building or part; and it is held in the open position while the building or part is lawfully occupied.</p> <p>Must not be fitted with a sliding door unless it leads directly to a road or open space; and the door is able to be opened manually under a force of not more than 110 N. Except for a door in a patient care area of a Class 9a health-care building, if fitted with a door which is power-operated 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 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.</p> <p>A power-operated door in a path of travel to a required exit must be able to be opened manually under a maximum force of 110 N if there is a malfunction.</p>	<p><b>Performance Solution:</b></p> <p>To allow sliding doors in a patient care area of the building, which includes the front entry airlock and ambulance area airlock.</p>
<b>D3D25</b> <b>(Previously D2.20)</b> Swinging Doors	<p>A swinging door forming part of a required exit must not encroach the required width of a required exit by way of the swing of the door, or the door itself including associated hardware whilst in the open position.</p> <p>A swinging door must not swing against the direction of egress unless</p> <ul style="list-style-type: none"> <li>+ it serves a building or part with a floor area not more than 200m<sup>2</sup>, it is the only <i>required exit</i> from the building or part and it is fitted with a device for holding it in the open position; or</li> <li>+ it serves a <i>sanitary compartment</i> or airlock (in which case it may swing in either direction);</li> </ul> <p>Also, it must not impede the path or direction of egress.</p>	<p><b>Performance Solution:</b></p> <p>To permit the horizontal exit from the BOH corridor to swing against the direction of egress.</p> <p><b>Compliance Readily Achievable:</b></p> <p>All exit doorways (to open space or horizontal exits) must open in the direction of egress.</p>





CLAUSE	REFERENCE	COMMENT
<b>D3D26</b> <b>(Previously D2.21)</b> Operation of Latch	A door forming part of a required exit must be readily openable via the provision of single downward lever action hardware located between 900mm and 1.1m from FFL in area required to be accessible, otherwise single pushing action hardware between 900mm and 1.2m from FFL is permitted.  Concessions to these requirements are provided to a number of areas.	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>D3D28</b> <b>(Previously D2.23)</b> Signs on Doors	It is a requirement that signs to alert persons that the operation of smoke doors, fire doors, and doors discharging from fire isolated exits, must not be impaired must be installed where they can be readily seen.	<b>Compliance Readily Achievable:</b> Details to be included into the design.

- a) 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—
- (i) A required fire door providing direct access to a fire-isolated exit; and
  - (ii) A required smoke door, 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, on either the wall adjacent to the doorway or both sides of the door; and
  - (iii) Fire door forming part of a *horizontal exit*; and
  - (iv) Smoke door that swings in both directions; and
  - (v) Door leading from a fire isolated *exit* to a road or *open space*, on each side of the door.
- b) A sign referred to in (a) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state—

Any new self-closing fire and/or smoke doors leading into the fire stair or forming part of a Horizontal Exit or smoke compartment are to be provided with signage as follows:

**FIRE SAFETY DOOR**  
DO NOT OBSTRUCT  
DO NOT KEEP OPEN

Any new automatic closing fire and/or smoke doors which are held on hold open devices that leads into the fire stair or forming part of a Horizontal Exit or smoke compartment are to be provided with signage as follows:

**FIRE SAFETY DOOR**  
DO NOT OBSTRUCT

In addition to the above, the doors which provide access to the fire isolated exits and also the Horizontal Exits must have signage provided adjacent to the entry doorway which states the following (ref Clause 183 of EP&A Reg 2000):

**OFFENCES  
RELATING TO  
FIRE EXITS**

By virtue of the regulations under the  
Environmental Planning And Assessment  
Act 1979, it is an offence:

- (a) to place anything in this exit that may impede the free passage of persons, or
- (b) to interfere with or cause obstruction or impediment to, the operation of the doors providing access to this exit, or
- (c) to remove, damage or otherwise interfere with this notice.

## SECTION E SERVICES AND EQUIPMENT

### Part E1 Fire Fighting Equipment

<b>E1D2</b> <b>(Previously E1.3)</b> Fire Hydrants	A Hydrant system is required to be installed in accordance with AS 2419.1 – 2021 given the total floor area of the building exceeding 500msq. Any required Fire Hydrant Booster assembly that is required must be affixed to the external wall and protected by a radiant heat shield that has	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
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CLAUSE	REFERENCE	COMMENT
	<p>an FRL of 90/90/90 located 2 metres either side and 3 metres above the outlets. Alternatively, the booster needs to be located at least 10m away from the building and any high voltage power supply.</p> <p><i>Note: The requirement to separate a fire hydrant booster assembly from a building does not apply where that building is protected with a sprinkler system in accordance with Spec E1.5.</i></p> <p>Any Internal Hydrants are to be located within the fire isolated exits or within 4m of the top riser of the non-fire isolated exits (external stairs in lieu of fire stairs). In addition, if floor coverage cannot be achieved supplementary fire hydrants may be provided to suit the operational requirements of the NSW Fire Brigades.</p> <p>External attack hydrants are required to be located not less than 10 metres from a non-sprinkler protected building or protected by construction having an FRL of not less than 90/90/90 and extending 2 metres each side of the hydrant outlets and extending 3 metres above ground level. In addition, Hydrants must be located not less than 10 metres from high voltage main electrical distribution equipment or liquefied petroleum gas.</p> <p>Where required, a hydrant pump room is required to have a door opening to a road or open space, or a door opening direct into a fire isolated airlock connected to a fire stair.</p>	<p>Note: The fire services designer has not nominated any required performance solutions at this stage of the design.</p> <p>Note: The hydrant booster assembly is proposed to be located at the principal vehicular entry on Osman St.</p> <p>Note: The hydrant and sprinkler system are a combined system. The fire services designer has verified that this is compliant with clause 4.13.2 of AS 2118.1-2017 and the system is provided with a ring main and the building has a rise in storeys of less than 2.</p> <p>Note: The fire services designer has verified that all external hydrants are within 50m or 100m of a hardstand in accordance with AS 2419.1-2021</p>
<b>E1D3</b> (Previously E1.4) Fire Hose Reels	<p>A fire hose reel system must be provided to serve a building where one or more internal fire hydrants are installed or in a building with a floor area greater than 500m<sup>2</sup>.</p> <p>Fire Hose Reels are to be located within 4m of an exit, or located adjacent to an internal hydrant (other than one within a fire isolated exit). Where system coverage is not achieved by the above, additional FHR may be located in paths of travel to an exit. Fire hose reels must be located internally, externally or in any combination to achieve the system coverage specified in AS 2441.</p> <p>Fire hose reels must not pass through any fire or smoke doors except if it is a doorway referred to in BCA Clause C3D6 (1)(e), C3D6(5)(d), C3D13, C3D14 or C4D14.</p> <p>Fire hose reels must only serve the storey on which they are located except for an SOU or not more than 2 storeys for a Class 5-9 may be served by a single fire hose reel located at the level of egress.</p>	<p><b>Performance Solution:</b></p> <p>Omission of fire hose reel coverage to small fire separating spaces, including UPS, comms room and any other fire separated plant room.</p> <p><b>Further Information Required:</b></p> <p>The fire services plans need to show FHR's within 4m of the exits from the IPU and RAC wings.</p> <p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>
<b>E1D4</b> (Previously E1.5) Sprinklers	<p>A sprinkler system must be installed in a building or part of a building where required by Clause E1D5 – E1D12 as applicable.</p> <p>Sprinkler alarm valves must be located in a secure room or enclosure which has direct egress to a road or open space.</p> <p>Table E1.5 sets out which types of building occupancies and Classes which require having sprinkler systems installed in them.</p> <p>A sprinkler system must comply with Specification 17 and Specification 18 as applicable.</p>	<p><b>Performance Solution:</b></p> <p>To omit sprinklers to fire separated comms room and UPS room.</p> <p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>
<b>E1D14</b> (Previously E1.6 and table E1.6) Portable Fire Extinguishers	<p>Portable fire extinguishers must be provided as listed in this clause and must be selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444.</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>
<b>E1D16</b> (Previously E1.9) Fire Precautions	<p>In buildings under construction at least 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 a required exit and if the building has reached an effective height of 12m the required hydrant and hose reel systems must be</p>	<p><b>Contactor to note.</b></p>





CLAUSE	REFERENCE	COMMENT
During Construction	installed, as set out in this clause and be operational and any required booster connections must be installed	
<b>E1D17</b> <b>(Previously E1.10)</b> Provisions for Special Hazards	<p>Suitable additional provisions must be made for fire-fighting if unique problems could arise due to;</p> <ul style="list-style-type: none"> <li>+ The nature or quantity of materials stored, displayed or used in a building on the allotment; or</li> <li>+ The location of the building in relation to a water supply for firefighting purposed.</li> </ul>	<p><b>Further Information Required</b></p> <p>Designers to confirm if provisions are required for any special hazards such as the solar inverters, battery storage or flammable liquid store.</p>
<b>Part E2 Smoke Hazard Management</b>		
<b>E2D3</b> <b>(Previously E2.2)</b> General Requirements	<p><u>Smoke Hazard Management:</u> The following provisions are required:</p> <ul style="list-style-type: none"> <li>+ The mechanical ventilation systems in the building are required to be designed in accordance with AS/NZS 1668.2 (A/C systems) incorporating fire/smoke dampers where air handling ducts penetrate any building elements separating fire/smoke compartments served.</li> <li>+ A smoke detection and alarm system is required throughout the building as per Clause 4 of Specification 20 of the BCA and the relevant provisions of AS 1670.1 – 2015. Automatic Shutdown of any air handling system upon activation of the Automatic Smoke Detection System and Sprinkler System will also be required.</li> <li>+ Manual call points are required to be installed in paths of travel so that no point on the floor is more than 30m from a manual call point.</li> </ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>
<b>E2D21</b> <b>(Previously E2.3)</b>	Additional smoke hazard management measures may be necessary due to the nature of a buildings special characteristic, its use, the nature of materials being stored in them and special mix of classifications.	<b>Noted</b>
<b>Part E4 Emergency Lighting, Exit Signage and Warning Systems</b>		
<b>E4D2</b> <b>(Previously E4.2)</b> Emergency Lighting	This clause details when emergency lighting must be installed in Class 2 to 9 buildings. The requirements for buildings and parts of buildings are detailed in sub-clauses (a) to (i) and each sub-clause must be considered as more than one may apply to any single building.	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage</p>
<b>E4D3</b> <b>(Previously E4.3)</b> Measurement of Distances	Distance, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.	<b>Noted</b>
<b>E4D4</b> <b>(Previously E4.4)</b> Design and Operation of Emergency Lighting	Every required emergency lighting system must comply with AS2293.1 - 2018	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage</p>
<b>E4D5</b> <b>(Previously E4.5)</b> Exit Signs	An exit sign must be clearly visible to persons approaching the exit and must be installed on, above or adjacent to each door providing egress from a building. Sub-clauses (a) to (d) set out the situations where exit signs are required to be installed.	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage</p>
<b>E4D6</b> <b>(Previously E4.6)</b> Direction Signs	If an exit is not readily apparent to persons occupying or visiting the building then exit signs must be installed in appropriate positions in corridors, hallways, lobbies, and the like, indicating the direction to a required exit.	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage</p>
<b>E4D8</b>	Every required exit sign must comply with AS/NZS 2293.1 - 2018 and be clearly visible at all times when the building is	<b>Compliance Readily Achievable:</b>



CLAUSE	REFERENCE	COMMENT
<b>(Previously E4.8)</b> Design and Operation of Exit Signs	occupied by any person having the legal right of entry into the building.	Design statement to be provided at S6.28 BCA Crown Certificate stage
<b>E4D9</b> <b>(Previously E4.9)</b> Emergency Warning Intercom System (EWIS)	Emergency Warning Intercom System (EWIS) complying with AS 1670.4 - 2018 must be installed— + In a Class 9a building having a floor area of more than 1000m <sup>2</sup> or a rise in storeys of more than 2. The system must be arranged to provide a warning for occupants. In a ward area, may have its alarm adjusted in volume and content to minimise trauma.	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
<b>SECTION F HEALTH AND AMENITY</b>		
<b>Part F1 Surface water management, rising damp and external waterproofing</b>		
<b>F1D3</b> <b>(Previously F1.1)</b> Stormwater Drainage	Stormwater drainage must comply with AS/NZ 3500.3 – 2021 <b>Note:</b> The requirements of this clause do not apply to a balcony, podium or similar horizontal surface part of a building— + where the flooring is of timber decking or other perforated flooring; or + which is located directly above ground.	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
<b>F1D4</b> Exposed joints	Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must— + be protected in accordance with Section 2.9 of AS 4654.2; and + not be located beneath or run through a planter box, water feature or similar part of the building. <b>Note:</b> The requirements of this clause do not apply to— + a balcony, podium or similar horizontal surface part of a building— ▪ where the flooring is of timber decking or other perforated flooring; or ▪ which is located directly above ground. + A roof with a covering complying with F3D2(a) to (d).	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
<b>F1D5</b> <b>(Previously F1.4)</b> External waterproofing membranes	A roof, balcony, podium or similar horizontal surface part of a building must be provided with a waterproofing membrane— + consisting of materials complying with AS 4654.1; and + designed and installed in accordance with AS 4654.2. <b>Note:</b> The requirements of this clause do not apply to— + a balcony, podium or similar horizontal surface part of a building— ▪ where the flooring is of timber decking or other perforated flooring; or ▪ which is located directly above ground. + A roof with a covering complying with F3D2(a) to (d).	<b>Compliance Readily Achievable:</b> Certification to be provided at the S6.28 BCA Crown Certificate stage.
<b>F1D6</b> <b>(Previously F1.9)</b> Damp-proofing	Moisture from the ground must be prevented from reaching— + the lowest floor timbers and the walls above the lowest floor joists; and + the walls above the damp-proof course; and + the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders.	<b>Compliance Readily Achievable:</b> Certification to be provided at the S6.28 BCA Crown Certificate stage.



CLAUSE	REFERENCE	COMMENT
	<p>The following buildings need not comply with the above:</p> <ul style="list-style-type: none"> <li>+ A Class 7 or 8 building where in the particular case there is no necessity for compliance.</li> <li>+ A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes. An open spectator stand or open-deck carpark.</li> </ul> <p>Where a damp-proof course is provided, it must consist of—</p> <ul style="list-style-type: none"> <li>+ a material that complies with AS/NZS 2904; or</li> <li>+ impervious sheet material in accordance with AS 3660.1.</li> </ul>	
<b>F1D7</b> <b>(Previously F1.10)</b> Damp-proofing of floors on the ground	<p>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.</p> <p>The above requirements of do not apply where—</p> <ul style="list-style-type: none"> <li>+ weatherproofing is not <i>required</i>; or the floor is the base of a stair, lift or similar <i>shaft</i> which is adequately drained by gravitation or mechanical means.</li> </ul>	<p><b>Compliance Readily Achievable:</b>  Details to be included into the design.</p>
<b>Part F2</b>	<b>Wet areas and overflow protection</b>	
<b>F2D2</b> <b>(Previously F1.7)</b> Wet area construction	<p>This clause requires that wet areas in Class 2 to 9 buildings must be waterproofed. It prescribes the standards to which the work must be carried on the construction of rooms containing urinals and their installation.</p>	<p><b>Compliance Readily Achievable:</b>  Certification to be provided at the S6.28 BCA Crown Certificate stage.</p>
<b>F2D3</b> <b>(Previously F1.7(b) and (c))</b> Rooms containing urinals	<p>Where a urinal is installed within a building, this clause contains design requirements around the requirements for floor wastes and impervious wall and floor surfaces.</p>	<p><b>Compliance Readily Achievable:</b>  Details to be included into the design.</p>
<b>F2D4</b> Floor wastes	<p>For <u>all building classifications</u>, where a floor waste is installed—</p> <ul style="list-style-type: none"> <li>+ the minimum continuous fall of a floor plane to the waste must be 1:80; and</li> <li>+ the maximum continuous fall of a floor plane to the waste must be 1:50.</li> </ul>	<p><b>Further Information Required:</b>  BCA 2022 introduces a new requirement under this clause to provide falls to all floor wastes. Previously, falls were only required to be provided to BCA <b>required</b> floor wastes. Architect to confirm this can be accommodated in the design for <b>all</b> floor wastes, regardless of whether the BCA requires the floor waste or not.</p> <p>Provide drawings that illustrate the floor waste (with gradients) to all wet areas including kitchens.</p>
<b>Part F3</b>	<b>Roof and wall cladding</b>	
<b>F3P1</b> <b>(Previously FP1.4)</b> Weatherproofing	<p>A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause—</p> <ul style="list-style-type: none"> <li>+ unhealthy or dangerous conditions, or loss of amenity for occupants; and</li> <li>+ undue dampness or deterioration of building elements.</li> </ul> <p><u>Note: There are <b>limited</b> Deemed-to-Satisfy Provisions for this Performance Requirement in respect of external walls.</u></p>	<p><b>Performance Solution:</b>  A performance solution report is required to be prepared to Performance Requirement F3P1 in relation to weatherproofing of external walls. This may be through Verification Method F3V1, or an alternative suitable method. This will be required from the Façade Engineer.</p>
<b>F3D2</b> <b>(Previously F1.5)</b> Roof coverings	<p>A roof must be covered with—</p> <ul style="list-style-type: none"> <li>+ roof tiles complying with AS 2049, fixed in accordance with AS 2050; or</li> <li>+ metal sheet roofing complying with AS 1562.1; or</li> </ul>	<p><b>Compliance Readily Achievable:</b>  Certification to be provided at the S6.28 BCA Crown Certificate stage.</p>



CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>+ plastic sheet roofing designed and installed in accordance with AS 1562.3; or</li> <li>+ terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or</li> <li>+ an external waterproofing membrane complying with F1D5.</li> </ul>	
<b>F3D3</b> <b>(Previously F1.6)</b> Sarking	Sarking-type materials used for weatherproofing of roofs must comply with AS/NZS 4200 parts 1 and 2	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>F3D4</b> <b>(Previously F1.13)</b> Glazed assemblies	<p>The following glazed assemblies in an <i>external wall</i>, must comply with AS 2047 requirements for resistance to water penetration:</p> <ul style="list-style-type: none"> <li>+ Windows.</li> <li>+ Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame.</li> <li>+ Adjustable louvres.</li> <li>+ Shopfronts.</li> <li>+ Window walls with one piece framing.</li> </ul> <p>The following buildings need not comply with:</p> <ul style="list-style-type: none"> <li>+ A Class 7 or 8 building where in the particular case there is no necessity for compliance.</li> <li>+ A garage, tool shed, <i>sanitary compartment</i>, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, <i>sanitary compartment</i> or the like contributes to the weatherproofing of the other part of the building.</li> <li>+ An <i>open spectator stand</i> or <i>open-deck carpark</i>.</li> </ul> <p>The following glazed assemblies need not comply:</p> <ul style="list-style-type: none"> <li>+ All glazed assemblies not in an <i>external wall</i>.</li> <li>+ Revolving doors.</li> <li>+ Fixed louvres.</li> <li>+ Skylights, roof lights and windows in other than the vertical plane.</li> <li>+ Sliding and swinging glazed doors without a frame.</li> <li>+ Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047.</li> <li>+ Second-hand windows, re-used windows and recycled windows. Heritage windows.</li> </ul>	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>F3D5</b> Wall cladding	<p>External wall cladding must comply with one or a combination of the following:</p> <ul style="list-style-type: none"> <li>+ Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700.</li> <li>+ Autoclaved aerated concrete: AS 5146.3.</li> <li>+ Metal wall cladding: AS 1562.1.</li> </ul> <p>The following buildings need not comply:</p> <ul style="list-style-type: none"> <li>+ A Class 7 or 8 building where in the particular case there is no necessity for compliance.</li> <li>+ A garage, tool shed, <i>sanitary compartment</i>, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, <i>sanitary compartment</i> or the like contributed to the</li> </ul>	<b>Performance Solution:</b> Façade engineer to address as a performance solution if there is any wall cladding not specified in this clause.



CLAUSE	REFERENCE	COMMENT
	<p>weatherproofing of another part of the building that is required to be weatherproofed.</p> <p>+ An open spectator stand or open deck carpark.</p>	

#### Part F4 Sanitary & Other Facilities

<b>F4D3</b> <b>(Previously F2.2)</b> Calculation of Number of Occupants and Fixtures	<p>This clause sets out the requirements for the calculation of the number of occupants and the number of sanitary facilities required to be installed in Class 2 to 9 buildings.</p>	<p><b>Noted.</b></p>
<b>F4D4</b> <b>(Previously F2.3)</b> Facilities in Class 3 to 9 buildings	<p>This clause provides the requirements for sanitary facilities to be installed in Class 5, 6, buildings.</p> <p>When accessible sanitary facilities are provided, they account once for each sex.</p> <p>Unisex sanitary compartments (other than strictly unisex accessible sanitary facilities) are not permitted for use, other than solely by staff in circumstances where not more than 10 persons are employed.</p>	<p><b>Complies:</b></p> <p><b>Emergency Patients:</b> We understand there will be 6 patients. The single ED ensuite with pan, washbasin, and shower complies.</p> <p><b>IPU Patients:</b> Sanitary facilities comply.</p> <p><b>Aged Care Patients:</b> Sanitary facilities comply.</p> <p><b>Public + Health One Outpatients/Visitors:</b>            It is noted that there is 2x accessible WC's for visitors and outpatients. One is located towards the front entry and the other is at the entry to Health One.</p> <p><b>Further Information Required:</b>            If the staff population is a ratio of 50:50 male to female, then the maximum population the facilities can serve is 40. If the ratio is 60:40 female to male, then the maximum population the facilities can serve is 50.            Please confirm that the staff population ration is at least 60:40 female to male.</p> <p><b>Performance Solution:</b></p> <p>+ To permit unisex sanitary compartments (single fully enclosed WCs within a dedicated room) for staff and public WC's.</p> <p>+ To omit the requirement for an island-type plunge bath in each storey containing a ward area.</p>

Staff Facilities							
We understand the population will be 45 for the whole building							
	Closet Pans		Urinals		Washbasins		Complies
	Proposed	Pop Served	Proposed	Pop Served	Proposed	Pop Served	Yes/No
Male	1	20	1	20	2	20	TBA
Female	2	30	-	-	2	30	TBA

Note 1: The accessible toilet facilities have been counted once for each sex in accordance with BCA clause F4D3.

Note 2: We acknowledge the staff facilities will be unisex, however, we cannot counted these facilities once for each sex. We designate each facility to either male or female for the purposes of calculating sanitary facilities.

Note 3: Staff sanitary facilities include 1x WC in IPU, 1x WC in staff area, 1x accessible WC in staff area, and 1x WC in Health One

<b>F4D8</b> <b>(Previously F2.5)</b> Construction of Sanitary Compartments	<p>Other than in an early childhood centre, sanitary compartments must have doors and partitions that separate adjacent compartments and extend –</p> <p>+ from floor level to the ceiling in the case of a unisex facility; or</p>	<p><b>Compliance Readily Achievable:</b>            Details to be included into the design.</p>
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CLAUSE	REFERENCE	COMMENT
	<ul style="list-style-type: none"> <li>+ a height of not less than 1.5m above the floor if primary school children are the principal users; or</li> <li>+ 1.8m above the floor in all other cases.</li> </ul> <p>The door to a fully enclosed sanitary compartment must open outwards; or slide: or be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2m, measured in accordance with Figure F4D8 between the closet pan within the sanitary compartment and the doorway.</p>	
<b>F4D9</b> <b>(Previously F2.6)</b> Interpretation: Urinals and Wash Basins	<p>A urinal may be an individual stall or wall-hung urinal, each 600mm length of a continuous urinal trough or a closet pan used in place of a urinal.</p> <p>A washbasin may be an individual basin or a part of a hand washing trough served by a single water tap</p>	<b>Noted</b>
<b>F4D11</b> <b>(Previously F2.8)</b> Waste Management	<p>In a Class 9a health-care building facilities must be provided with the following to facilitate the emptying of containers of sewage and dirty water.</p> <ul style="list-style-type: none"> <li>+ At least one slop hopper or other device, other than a WC pan or urinal, must be provided on any storey containing ward areas or bedrooms to facilitate emptying of containers of sewage or dirty water; and</li> <li>+ With a flushing apparatus, tap and grating.</li> </ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Slop hoppers are shown in dirty utility rooms</p>
<b>Part F5 Room heights</b>		
<b>F5D2</b> <b>(Previously F3.2)</b> Height of Rooms and Other Spaces.	<p>The ceiling heights are prescribed and should be checked for all classes and parts during assessment or the design process.</p> <p>The minimum ceiling heights in a Class 9a building are as follows -</p> <ul style="list-style-type: none"> <li>+ a patient care area -2.4 m;</li> <li>+ an operating theatre or delivery room - 3 m; and</li> <li>+ a treatment room, clinic, waiting room, passageway, corridor, or the like - 2.4 m.</li> </ul> <p>In any building:</p> <ul style="list-style-type: none"> <li>+ Bathrooms, sanitary compartments, tea preparations rooms, pantries, store rooms or the like – 2.1m,</li> <li>+ A commercial kitchen – 2.4m,</li> <li>+ Above a stairway, ramp, landing or the like – 2m.</li> </ul>	<p><b>Complies:</b></p> <p>All the ceiling heights shown on the reflected ceiling plans are compliant.</p>
<b>Part F6 Light &amp; Ventilation</b>		
<b>F6D1</b> <b>(Previously F4.1)</b> Natural Lighting	<p>Natural lighting must be provided in:</p> <ul style="list-style-type: none"> <li>+ Class 9a buildings – all rooms used for sleeping purposes</li> </ul>	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>
<b>F6D3/F6D4</b> <b>(Previously F4.2/F4.3)</b> Method and Extent of Achieving Natural Lighting	<p>Windows or the like are to have an aggregate light transmitting area of not less than 10% of the floor area of the room.</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Details to be included in the design.</p>
<b>F6D5</b> <b>(Previously F4.4)</b> Artificial Lighting	<p>Artificial lighting must be provided in required stairways, passageways, and ramps and where natural light is insufficient. The artificial lighting system must comply with AS/NZS 1680.0.</p> <p>Windows or the like are to have an aggregate light transmitting area of not less than 10% of the floor area of the room.</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Design statement to be provided at S6.28 BCA Crown Certificate stage.</p>





CLAUSE	REFERENCE	COMMENT
	Artificial lighting must be provided where occupants seeking egress in an emergency, in— + Class 5, 6 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.	
<b>F6D6</b> <b>(Previously F4.5)</b> 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 natural ventilation complying with F6D7 or a mechanical or air-conditioning system complying with AS1668.2 and AS/NZS 3666.1. <u>Note:</u> NSW F6D6 - a mechanical ventilation or air-conditioning system complying with AS 1668.2 – the reference to AS/NZS 2666.1 is deleted from the BCA in NSW as the need to comply with this standard is regulated under the relevant section of the Public Health Act 1991.	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
<b>F6D7</b> <b>(Previously F4.6)</b> Natural Ventilation	Natural ventilation must consist of openings, windows, doors or other devices which can be opened— with a ventilating area not less than 5% of the floor area of the room required to be ventilated. Additionally, open to a suitably sized space open to the sky or an adjoining room in accordance with F6D8.	<b>Compliance Readily Achievable:</b> Design statement to be provided at S6.28 BCA Crown Certificate stage.
<b>F6D8</b> <b>(Previously F4.7)</b> Ventilation Borrowed From Adjoining Rooms	Natural ventilation to a room may come through a window, opening ventilating door or other device from an adjoining room (including an enclosed verandah) if both rooms are within a sole-occupancy unit or the enclosed verandah is common property and be carried out in accordance with the requirements of sub-clauses (a), (b) & (c).	<b>Noted</b>
<b>F6D9</b> <b>(Previously F4.8)</b> Restriction on Position of Water Closets and Urinals	A room containing a water closet pan or urinal must not open directly into a kitchen or pantry, public dining room or restaurant, a dormitory in a Class 3 building, a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand) or a workplace normally occupied by more than 1 person.	<b>Complies</b> All sanitary facility areas do not open into a kitchen, public dining room or a workplace occupied by more than one person.  It is noted that there is a WC which opens into a private dining area in the residential aged care wing.
<b>F6D10</b> <b>(Previously F4.9)</b> Airlocks	If a room containing a closet pan or urinal is prohibited under F6D9 from opening directly into another room then the provisions of sub-clauses (a) & (b) apply relating to the requirements of airlocks and mechanical ventilation standards.	N/A based on the current design
<b>SECTION G ANCILLARY PROVISIONS</b>		
<b>Part G1 Minor Structures and Components</b>		
<b>G1D3</b> <b>(Previously G1.2)</b> Refrigerated Chambers, Strong Rooms and Vaults	A refrigerated or cooling chamber, strongroom or vault which is of sufficient size for a person to enter must be capable of being opened from the inside by hand without a key. This clause also sets out the acceptable safety standards for a cooling chamber or strongroom by installation of dedicated controls within the chamber and the external lights that indicate that the space is in use. Additionally, a door in a cooling chamber must have a doorway with a clear width of at least 600 mm and a clear height of at least 1.5 m.	<b>Compliance Readily Achievable:</b> Details to be included into the design.
<b>SECTION J ENERGY EFFICIENCY</b>		
	Pursuant to S6.28 of the Environmental Planning and Assessment Act 1979, the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time of the date of invitation for tenders to carry out the Crown building work. We understand the project issue an invitation to tender between 1 May 2022 and 1 October 2022 which means that BCA 2022 will apply and can utilise the transitional period for Section J to comply with BCA 2019 Amendment 1.	



CLAUSE	REFERENCE	COMMENT
<b>J1V3</b> <b>(Previously JV3)</b>	Verification using referenced building.	<b>Compliance Readily Achievable:</b> We understand that a JV3 report may be provided to achieve compliance in accordance with Section J.
<b>J3</b> <b>(Previously J1)</b> Building Fabric	The provision of insulation of the building envelope will be required in the proposed building, in accordance with Clauses J3D1 to J3D7, and the Tables therein, including Thermal Construction General, Roof and Ceiling Construction, Rooflights, Walls, Glazing and Floors. Design details and/or certification of design will be required to be provided in this regard.	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.
<b>J4</b> <b>(Previously J3)</b> Building Sealing	The proposed building envelope will be required to be sealed to prevent air infiltration in accordance with the requirements of Clauses J4D1 to J4D7. Details or certification that the proposed building design complies with the requirements of Part J4 is required to be provided	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.
<b>(Previously J4)</b> Air Movement	Details and/or design certification which confirm that air movement within the proposed building achieves compliance with the relevant requirements of Clauses J4.0 to J4.4 and the Table therein will be required to be provided from the mechanical engineer.	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.
<b>J5</b> <b>(Previously J5)</b> Air-Conditioning & Ventilation Systems	Details and/or design certification which confirm that any proposed air-conditioning system or unit within the proposed building achieves compliance with the relevant requirements of Part J5 will be required to be provided from the mechanical engineer.	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.
<b>J6</b> <b>(Previously J6)</b> Artificial Lighting & Power	Details and/or design certification which confirm that all artificial lighting, power control, and boiling/chilled water units within the proposed building achieves compliance with the relevant requirements of Part J6 will be required to be provided from the electrical engineer	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage..
<b>J7</b> <b>(Previously J7)</b> Hot Water Supply & Swimming Pool & Spa Pool Plant	Details and/or design certification which confirm that any proposed hot water supply system within the proposed building achieves compliance with the relevant requirements of Part J7 (Section 8 of AS 3500.4) will be required to be provided from the hydraulic engineer	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.
<b>J8</b> <b>(Previously J8)</b> Access for Maintenance & Facilities for Monitoring	See NSW Subsection J8 for access to maintenance. Access must be provided to all plant, equipment and components that require maintenance in accordance with Part I2.	<b>Compliance Readily Achievable:</b> Design statement and Section J Report to be provided at S6.28 BCA Crown Certificate stage.





## APPENDIX 2 - DDA ASSESSMENT

### LEGEND:

+ <b>Complies:</b>	The referenced plans show compliance with this clause
+ <b>Compliance Readily Achievable:</b>	The referenced plans do not show sufficient information to establish compliance with this clause. Design certification, should be submitted with the application for the BCA Completion Certificate.
+ <b>Further Information Required:</b>	The referenced plans do not show sufficient information to establish compliance with this clause. Further details, should be submitted with the application for the S6.28 BCA Crown Certificate
+ <b>Performance Solution:</b>	The referenced plans do not comply with this clause and an Performance Solution is required/proposed to demonstrate compliance with the Performance Requirements
+ <b>Does Not Comply:</b>	The proposal does not comply with this clause and redesign is required.
+ <b>Noted:</b>	Provisions contained within this BCA clause are provided for guidance, or are to be read in conjunction with other BCA clauses
+ <b>Not applicable/ Not critical information:</b>	This clause is not applicable or not critical to the proposed development. <u>These clauses have been removed from the assessment table below.</u>

### PART D3 Access for People with Disabilities

<b>D4D2</b> <b>(Previously D3.1)</b> General Building Access Requirements	<p>The extent of access required depends on the classification of the building. Buildings and parts of buildings must be accessible as set out in this clause.</p> <p><u>Class 6 parts.</u> To and within all areas normally used by occupants.</p> <p><u>Commercial parts.</u> Access is required to and within all areas normally used by the occupants, including the ancillary class 7a part.</p> <p>A building, or part thereof, must comply with the requirements of BCA Part 4 if accessibility is deemed to be applicable under D4D2, unless otherwise exempted under Clause D4D5.</p>	All areas normally used by occupants, unless exempted by BCA Clause D3.4, is required to be accessible.
<b>D4D3</b> <b>(Previously D3.2)</b> Access to Buildings	<p>Accessways must be provided to accessible buildings from the main points of pedestrian entry at the allotment boundary and any accessible car parking space or accessible associated buildings connected by a pedestrian link.</p> <p>An accessway must be provided to a building required to be accessible-</p> <ul style="list-style-type: none"> <li>+ From the main points of a pedestrian entry at the allotment boundary; and</li> <li>+ From another accessible building connected by a pedestrian link; and</li> <li>+ From any required accessible car parking space on the allotment.</li> </ul> <p>In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances including the principal pedestrian entry.</p>	<b>Complies</b> An accessible path is provided between the carparking area and the front entry and Osman St and the front entry.
<b>AS1428.4.1</b> <b>Cl.2.5</b> Pedestrians and Carriageway at same grade	Where a pedestrian area joins a carriageway at grade (same level) or to delineate the pedestrian area from the carriageway, TFSI's shall be provided in accordance with Figures 2.5(A) and 2.5(B)B	<b>Further Information Required</b> The civil and landscaping drawings do not show if there is a kerb between the pedestrian area in front of the main entry and the vehicular way. Is there a kerb or a level transition? If it is a level transition then TFSI's are required along the entire length separation pedestrian area from vehicular way.

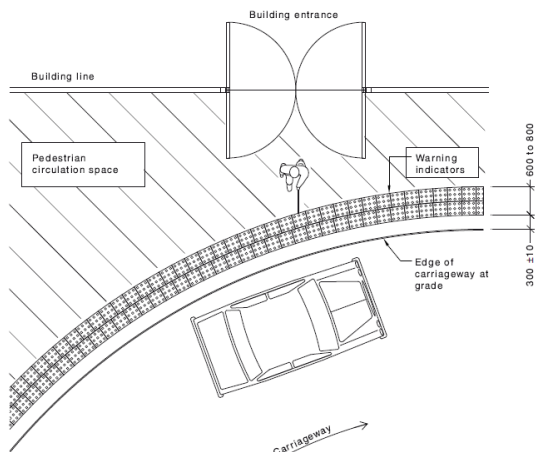
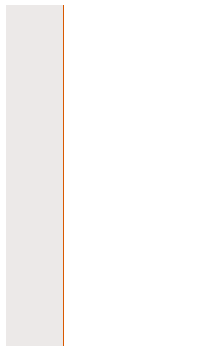


Figure 25(A)

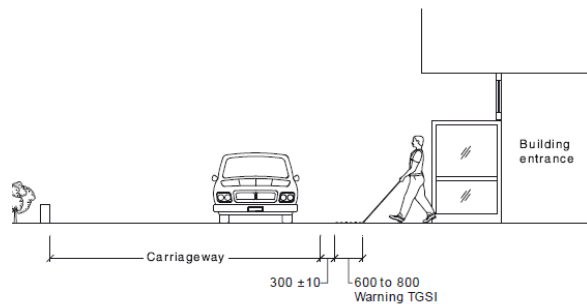
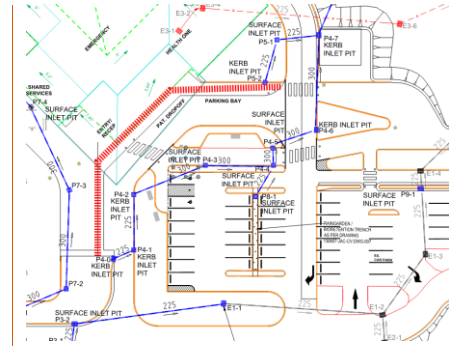


Figure 25(A)

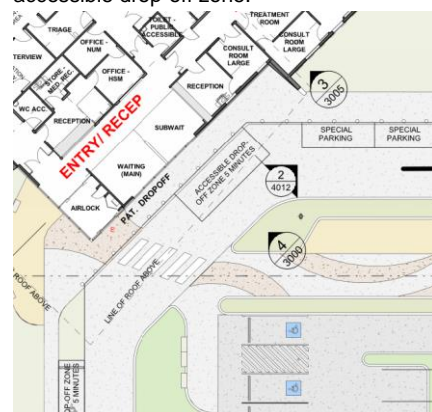
**AS1428.4.1**  
**Cl.2.5**  
Set Down  
Areas:

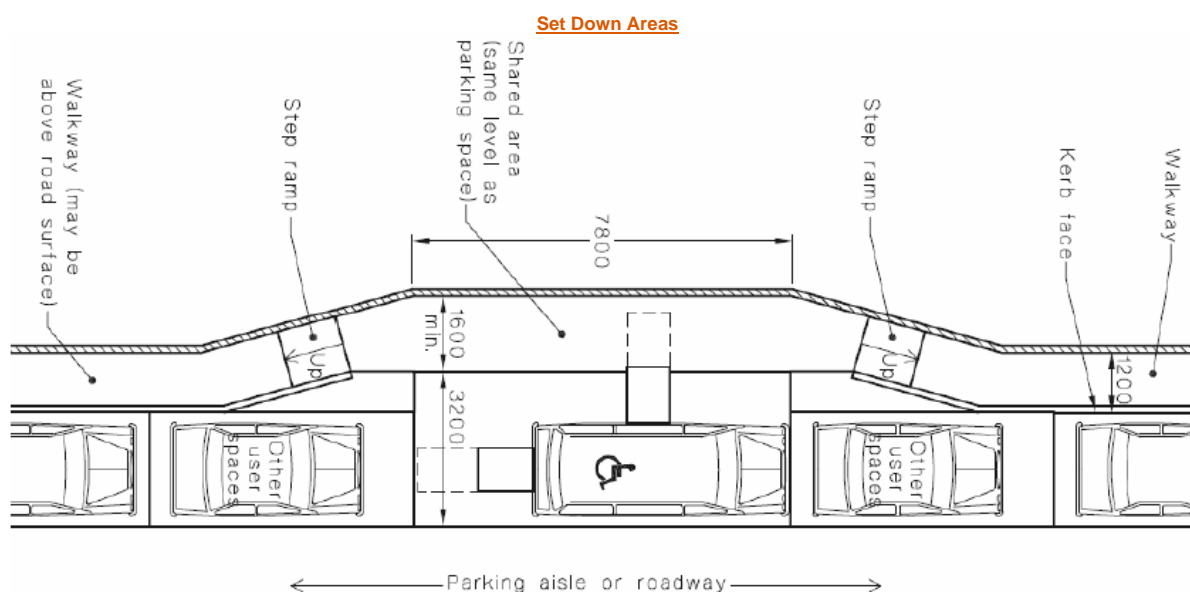
For public drop off / setdown areas, if a kerb is provided separating the drop-off area from the pavement, a compliant kerb ramp will need to be provided. The detailing of the parallel set down will need to satisfy the provisions of AS 2890.6 – 2006.

Where the pedestrian pathway and the driveway is at the same grade it will be necessary to achieve a 30% luminous contrast between the walkway and the driveway. Details of the materials, colour and texture will need to be provided as part of the detailed Design Development / Construction Issue Architectural Documentation.

**Complies:**

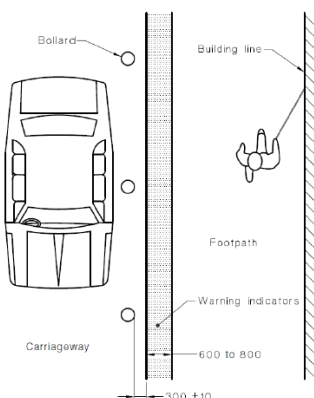
The architectural plans designate the accessible drop-off zone.





**Requirements for parallel parking**

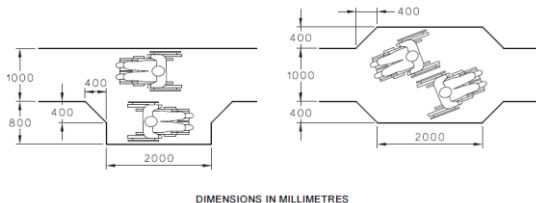
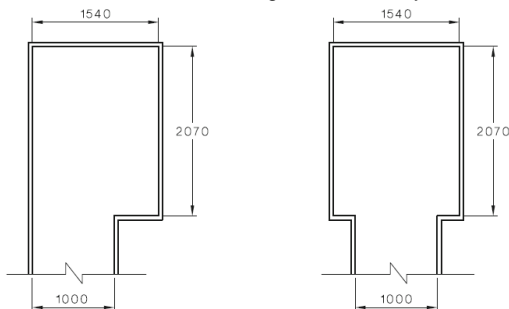
If the set down area is level with the pavement, tactile indicators and bollards are required to be provided as required by AS 1428.4.1 – 2009.



**Requirements tactile / bollards**

<b>D4D4</b> <b>(Previously D3.3)</b> Parts of buildings to be accessible	The works are required to comply with the requirements of AS 1428.1-2009.	<b>Compliance Readily Achievable:</b> Details to be developed at detailed design stage
<b>AS1428.1</b> <b>Cl. 6.1</b> General	A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediment.	<b>Compliance Readily Achievable:</b> No impediments are noted in the design at this stage
<b>AS1428.1</b> <b>Cl. 6.2</b> Height of paths	The minimum unobstructed height of a continuous accessible path of travel shall be 2000 mm or 1980 mm at doorways	<b>Complies</b> All paths of travel are >2000mm high.
<b>AS1428.1</b> <b>Cl. 6.3</b> Widths of paths	Unless otherwise specified (such as at doors, curved ramps and similar), the minimum unobstructed width of a continuous accessible path of travel shall be 1000 mm and the following shall not intrude into the minimum unobstructed width of a continuous accessible path of travel: + Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings and similar objects.	<b>Complies</b> All paths of travel are >1000mm wide.



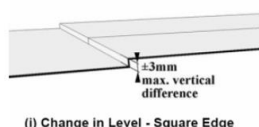
	<ul style="list-style-type: none"> <li>+ Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards.</li> <li>+ Door handles less than 900 mm above the finished floor level.</li> </ul>	
<b>AS1428.1</b> <b>Cl. 6.4</b> Passing Space	<p>Accessways must have passing spaces complying with AS 1428.1 at maximum 20m intervals on those parts of an accessway where a direct line of sight is not available.</p>  <p style="text-align: center;">DIMENSIONS IN MILLIMETRES</p>	<p><b>Complies</b></p> <p>Corridors are generally &gt;1800mm except for short corridors in Health One where a passing space is not required.</p>
<b>AS1428.1</b> <b>Cl. 6.5</b> Turning Space	<p>Turning spaces must comply with AS1428.1 and located within 2m of the end of accessways where it is not possible to continue travelling along the accessway, and at maximum 20m intervals along the accessway.</p>  <p style="text-align: center;">(a) Space required in corridor      (b) Space required in corridor</p>	<p><b>Complies:</b></p> <p>Dead end corridors are generally documented at 1550mm wide.</p>
<b>AS1428.1</b> <b>Cl. 7.1</b> Floor General	<p>A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability.</p> <p>Slip resistance of surfaces should be in accordance with the requirements of HB 198-2014 and where not clearly defined in HB 198 it should be in accordance with HB 197-1999.</p>	<p>Drawing NBRS-LD-DWG-ST0-0002 nominates multiple finished external surfaces. All surface types are nominated as needing to achieve P5.</p>
<b>AS1428.1</b> <b>Cl. 7.2-7.5</b> Floor Transition/s	<p><u>Tolerances for Abutment of Surfaces:</u></p> <p>Transitions between floor finishes will need to comply with Clause 7.2 of AS1428.1-2009.</p> <p><u>Recessed / Soft Floor Coverings:</u></p> <ul style="list-style-type: none"> <li>+ Pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm.</li> <li>+ Exposed edges of floor coverings be fastened to the floor with a trim along any exposed edges.</li> <li>+ At leading edges, carpet or other soft materials shall have a vertical face no higher than 3mm or a rounded bevelled edge no higher than 5mm. Up to 10mm is permitted at a 1:8 gradient.</li> <li>+ Recessed matting must be no more than a 3mm vertical, or 5mm rounded, proud of the adjacent floor surface. This also applies when the matting is depressed below surface level.</li> </ul> <p><u>Grates:</u></p> <p>Grates shall comply with the following:</p>	<p><b>Compliance Readily Achievable:</b></p> <p>Details to be included in the design at construction documentation stage</p>



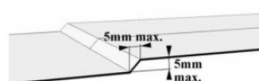
- + Circular openings shall be not greater than 13 mm in diameter.
- + Slotted openings shall be not greater than 13 mm wide and be oriented so that the long dimension is transverse to the dominant direction of travel.

*NOTE: Where slotted openings are less than 8 mm, the length of the slots may continue across the width of paths of travel.*

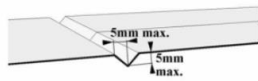
#### Tolerances for Abutment of Surfaces:



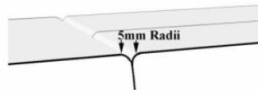
(i) Change in Level - Square Edge



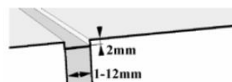
(ii) Change in Level - Bevelled Edge



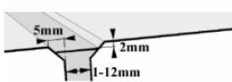
(iii) Flush Surface - Bevelled Edges



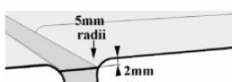
(iv) Flush Surface - Rounded Edges



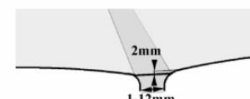
(i) Level Surface - Square Edge



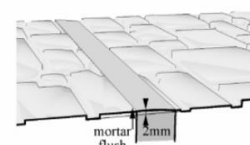
(ii) Level Surface - Bevelled Edge



(iii) Level Surface - Rounded Edges



(iv) Uneven Surface - Domed



(v) Uneven Surface - Irregular

#### **AS1428.1** **Cl. 13.1** **Luminance** **Contrast**

All doorways shall have a minimum luminance contrast of 30% provided between—

- + door leaf and door jamb;
- + door leaf and adjacent wall;
- + architrave and wall;
- + door leaf and architrave; or
- + door jamb and adjacent wall.

The minimum width of the area of luminance contrast shall be 50 mm.

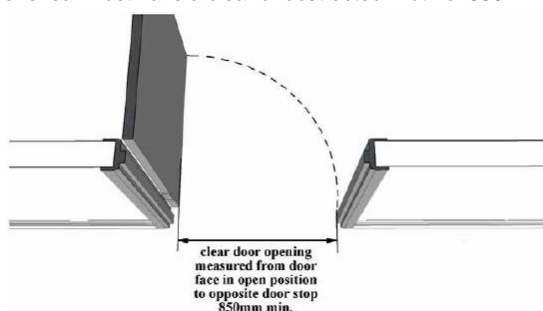
#### **Compliance Readily Achievable:**

Details to be included in the design at construction documentation stage.

**NOTE:** framed glazed doors must achieve luminance contrast to any adjoining framed glazed walls

#### **AS1428.1** **Cl. 13.2 / 13.3** **Doorways**

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

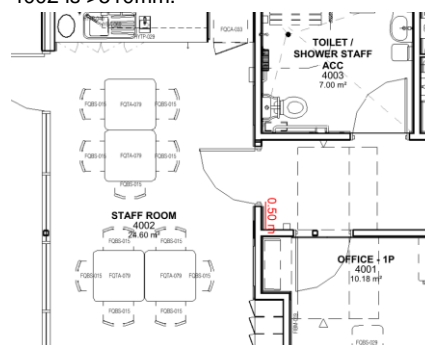


**Clear Unobstructed Width of Doorway**

Circulation space is required to all doorways throughout the building that are required to be accessible in accordance with Section 13 of AS 1428.1 – 2009 (see diagrams below). Circulation space is not required to be provided to rooms where access for a person with a disability is not required i.e. dirty utility / clean utility rooms, plant rooms, comms rooms etc. See below required doorway circulation space for swinging and sliding doors.

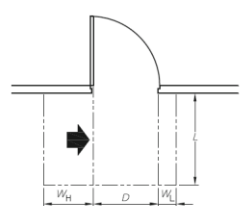
#### **Further Information Required:**

Include dimensions on the plans to verify if the latch side clearance into the Staff Room 4002 is >510mm.



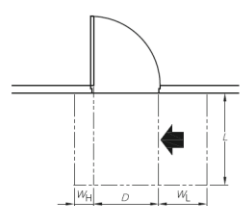
#### **Complies:**

All other doorway circulations are compliant as shown on the FF&E and general arrangement plans (except for exempt rooms).



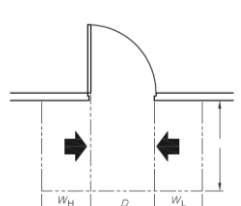
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1220	560	340
900	1185	510	340
950	1150	460	340
1000	1114	410	340

(a) Hinge-side approach, door opens away from user



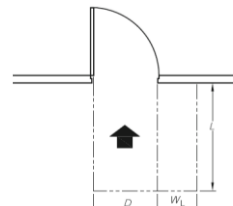
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1240	240	660
900	1210	190	660
950	1175	140	660
1000	1155	90	660

(b) Latch-side approach, door opens away from user



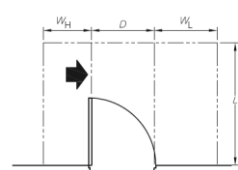
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1240	560	660
900	1210	510	660
950	1175	460	660
1000	1155	410	660

(c) Either side approach, door opens away from user



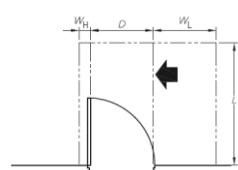
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1450	0	510
900	1450	0	510
950	1450	0	510
1000	1450	0	510

(d) Front approach, door opens away from user



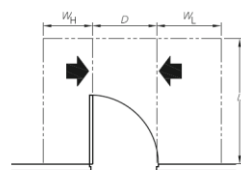
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

(e) Hinge-side approach, door opens towards user



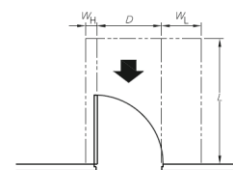
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1670	110	900
900	1670	110	900
950	1670	110	900
1000	1670	110	900

(f) Latch-side approach, door opens towards user



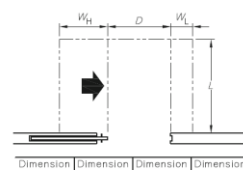
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

(g) Either side approach, door opens towards user



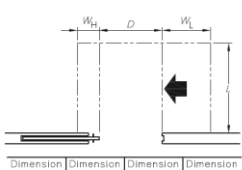
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1450	110	530
900	1450	110	530
950	1450	110	530
1000	1450	110	530

(h) Front approach, door opens towards user



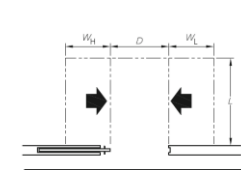
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1280	660	395
900	1280	610	395
950	1280	560	395
1000	1280	510	395

(a) Slide-side approach



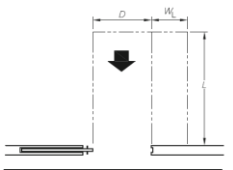
Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1230	165	660
900	1230	180	660
950	1230	180	660
1000	1230	180	660

(b) Latch-side approach



Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1280	660	660
900	1280	610	660
950	1280	560	660
1000	1280	510	660

(c) Either side approach



Dimension D	Dimension L	Dimension W <sub>H</sub>	Dimension W <sub>L</sub>
850	1450	0	530
900	1450	0	530
950	1450	0	530
1000	1450	0	530

(d) Front approach

#### AS1428.1 Cl. 13.4

##### Successive Doorways in Passages

The distance between doorways in vestibules, air locks and other similarly enclosed spaces shall be not less than 1450 mm. Where the doors encroach into space, the distance shall be not less than 1450 mm plus the door leaf width.

~ 7 ~

There is no passageway with consecutive doorways

#### AS1428.1 Cl.13.5 Door Controls

Door handles and hardware to rooms required to be accessible must comply with the requirements of Clause 13.5 of AS 1428.1 – 2009.

#### Compliance Readily Achievable:

Details to be included in the design at construction documentation stage

#### AS1428.1 Cl.14.1

##### Switches and GPO's

All switches and controls shall be positioned at a height of 900-1000mm above the FFL and be no closer than 500mm to any corner

#### Compliance Readily Achievable:

Details to be included in the design at construction documentation stage

#### AS1428.1 Cl.14.12

##### Switches

Accessible SOU's and accessible WC's are required to be provided with 30mm x 30mm toggle switches

#### Compliance Readily Achievable:

Details to be included in the design at construction documentation stage

Where push button switches are located associated with the security system of the entry doors, then the push button will need to be the mushroom type.

#### D4D5

##### (Previously D3.4) Concessions

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

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

#### Further Information Required:

A full mark-up of all required D3.4 exempt areas is required at detailed design stage for review.

Some examples include:

- + Cleaner's rooms used by cleaning staff only



**D4D6**  
**(Previously D3.5)**  
Accessible  
carparking

- Accessible carparking spaces –
- + Must be provided in accordance with the below.
  - + Must comply with AS 2890.6-2009

Class of building carpark is associated with	Number of accessible spaces required
Class 9a with up to 1000 carparking spaces	1 accessible space for every 50 carparking spaces
Class 9a – more than 100 carparking spaces	For each additional 100 carparking spaces or part thereof in excess of 1000 carparking spaces

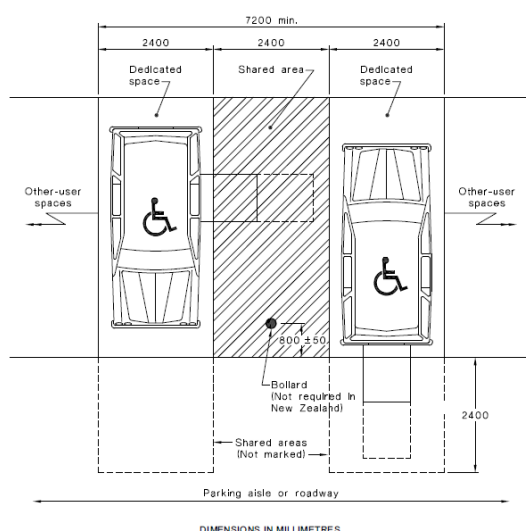
- + Plantrooms and specialty equipment rooms (e.g. comms, UPS, distribution boards, hot water, BMS, MSSB etc.)
- + Loading Docks
- + Kitchen
- + Servery Kitchen
- + Clean and dirty utility rooms
- + Storerooms – equipment, linen and bulk stores

The LHD will need to provide a letter confirming what areas are subject to a concession during the Construction Documentation stage.

**Complies**

2 accessible carparking spaces have been nominated for what appears to be <50 carparking spaces.

**AS1428.6**  
**Cl.2.2**  
Parking  
Spaces



**Further Information Required**

There is no detailed drawing of the accessible carparking area.

**AS1428.6**  
**Cl.2.2**  
Pavement

Each accessible parking space and shared area must have a maximum crossfall of 1:40 (or 1:33 for bitumen) and have a slip resistance surface

**Further Information Required**

Detail all gradients around accessible carparking areas for the on-grade carpark. This is not shown on the landscape or civil plans.

**D4D7**  
**(Previously D3.6)**  
Signage

- In a building required to be accessible, braille and tactile signage must be provided to all:
- + Required accessible sanitary facilities
  - + Spaces with hearing augmentation
  - + Ambulant sanitary facilities
  - + Non-accessible pedestrian entrances
  - + Each door required to be provided with an exit sign

**Compliance Readily Achievable:**

Details to be included in the design at construction documentation stage





Braille and tactile signage is to comply with sub-clause (a) and Specification 15.

#### Signage Specification: -

The signage is to be: -

- (a) Located between 1200-1600mm above FFL
- (b) Signs with single lines of characters are to have the line of the tactile characters between 1250mm-1350mm above FFL
- (c) Signage tactile characters must be raised or embossed to a height between 1mm-1.5mm
- (d) Upper case letter to be between 20mm-55mm
- (e) Signage is to be contrasting & is to comply with BCA Specification E3.6.

#### Signage Locations

The Braille & tactile egress signage is to be located adjacent or on (see above) each door that:-

- (a) Provides direct egress into a fire isolated stairway
- (b) Provides direct discharge from the storey into a passageway or lobby (airlock) associated with the fire isolated stairway
- (c) Provide direct discharge from a fire isolated stairway to open space (discharge door)
- (d) Forms part of a horizontal exit (---/120/30 fire doors in the fire compartment walls)

The below signage is an *example* of what is required –



**AS1428.1**  
**Cl.8.1**  
Forms of  
Signage

The below signs are examples of required sanitary facility signage.  
The signs shall be positioned so that the raised braille is between 1200-1600mm above FFL.

#### **Compliance Readily Achievable:**

Details to be included in the design at construction documentation stage



**D4D8**  
**(Previously D3.7)**  
Hearing  
Augmentation

A hearing augmentation system must be provided where an inbuilt amplification system (excluding emergency warning systems) is present in the following areas:

- + In a room in a Class 9b
- + In an auditorium, conference room, meeting room, or judicatory room,
- + In a ticket office, teller's booth, reception area of the like where the public is screened by the service provider.

A hearing augmentation system is required to comply in the following way:

#### **Further Information Required:**

Hearing Augmentation is required to be provided at reception desks where there is dividing glass and is recommended to be provided at all reception desks.

It will also be necessary to provide it within any meeting room.

Details to be included in the design and to be reviewed at Construction Documentation stage.





- + An induction loop – it must serve >80% of the floor area of the space served by the inbuilt amplification system; or
- + A system requiring the use of receivers or the like. It must be available to not less than 95% of the floor of the space served and provide the applicable number of receivers;
  - a) 500 people – 1 receiver for every 25 persons and a minimum of 2 receivers; and
  - b) 500-1000 people – 20 receivers plus 1 receiver for every 33 people in excess of 500; and
  - c) 1000-2000 people – 35 receivers plus 1 receiver for every 50 people in excess of 1000; and
  - d) >2000 people – 55 receivers plus 1 receiver for every 100 people in excess of 2000.

Any screen or scoreboard capable of displaying public announcements must be capable of supplementing any public address system.

The below symbol shall be provided on a sign in ultramarine blue in accordance with clause 5.1 of AS 1428.5-2010



**D4D9**  
**(Previously D3.8)**  
Tactile Indicators

Tactile ground surface indicators must be provided to:

- + A stairway, other than a fire-isolated stairway; and
- + An escalator or passenger conveyor; and
- + A ramp other than a fire-isolated ramp; and
- + In the absence of a suitable barrier-
  - a) An overhead obstruction <2m above floor level; and
  - b) An accessway meeting a vehicular way adjacent to any pedestrian entrance to a building including a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point.

Tactile indicators are required to be designed in accordance with AS 1428.4.1-2009.

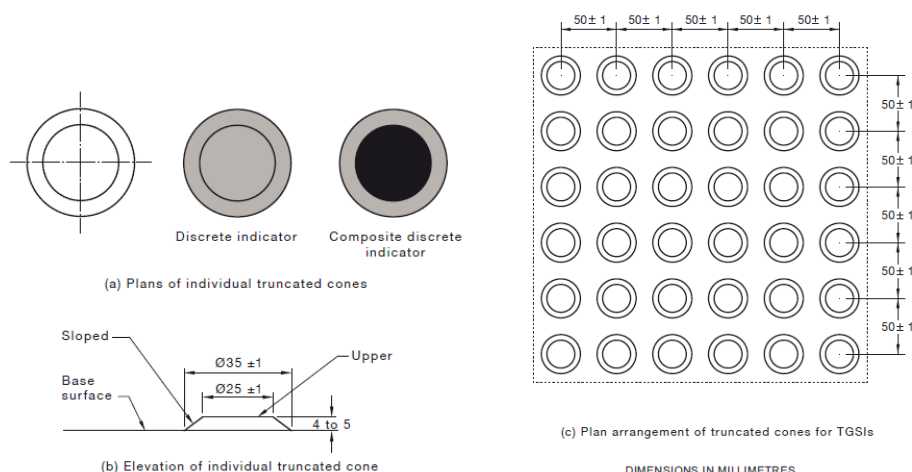
**Further Information Required:**

TGSI's are not detailed on the landscaping plans. TGSI's need to be provided at:

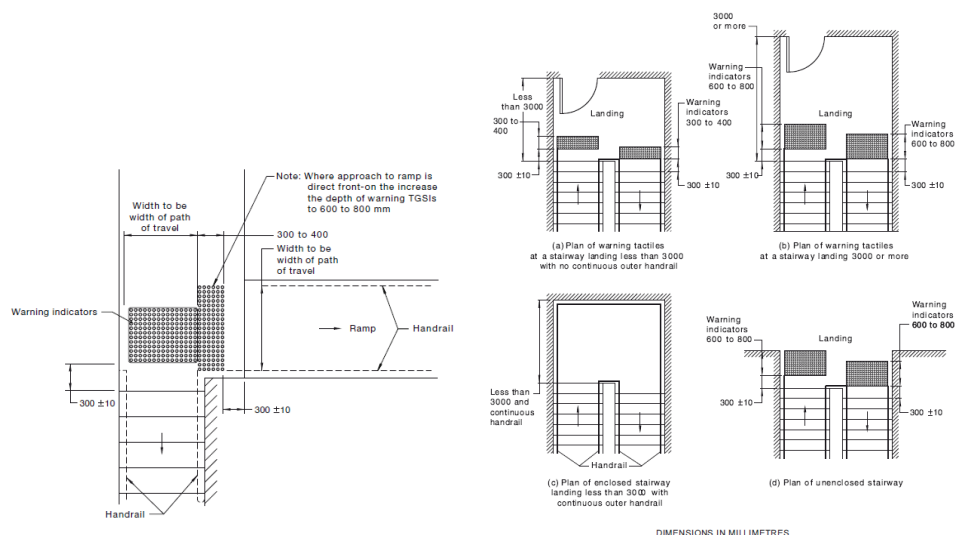
- + Between pedestrian areas around the main entry and vehicular way
- + At pedestrian crossings
- + At ramps and stairs (none appear to be proposed)



#### AS1428.4.1 Cl.2.2.3 Placement



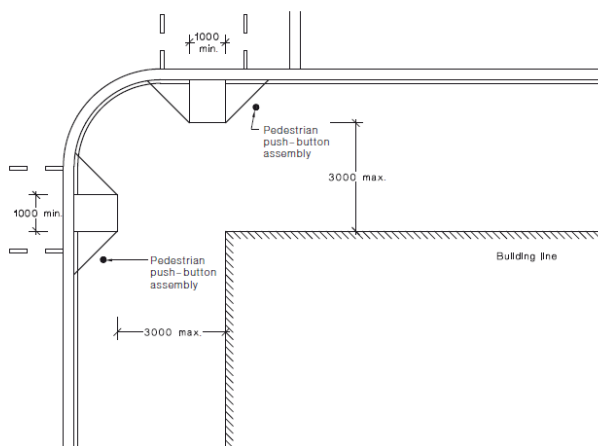
#### AS1428.4.1 Cl.2.4 Stairways



#### AS1428.4.1 C3 Kerb Ramps

TGSI's are not required on kerb ramps if –

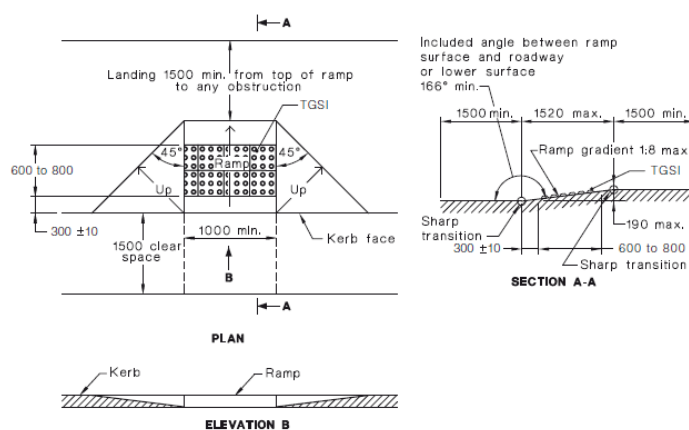
- + the distance between the building line/boundary and the top of the kerb ramp is less than 3 m;
- + the change in gradient between that of the pedestrian surface at the top of the kerb ramp and the gradient of the kerb ramp surface lies between 1 in 8 to 1 in 8.5; and
- + the kerb ramp is aligned with the building line and



Note: When the kerb ramp is the only crossing entry point, and the top of the ramp is within 3000 of the building line, and the kerb ramp is aligned with the building line and in the direction of travel across the carriageway, and the gradient of the kerb ramp is between 1 in 8 and 1 in 5, TGSIs are not required on the face of kerb ramp.

DIMENSIONS IN MILLIMETRES

Tactiles are required when a kerb ramp where the gradient is shallower than 1 in 8.5.



DIMENSIONS IN MILLIMETRES

FIGURE C1 DESIGN CRITERIA FOR KERB RAMPs

**D4D12**  
(Previously  
D3.11)  
Ramps

Ramps may be used as part of an accessway where there is a change of level and must comply with the requirements set out in AS1428.1

**Further Information Required:**

No gradients of paths are shown on the landscape or civil plans. This detail needs to be included so we can verify compliance.

**AS1428.1**  
**C1 10.1**  
Walkways,  
Ramps, and  
Landings -  
Generally

Walkways, ramps and landings that are provided on a continuous accessible path of travel shall be as follows:

- + Sharp transitions shall be provided between the planes of landings and ramps.
- + Landings shall be provided at all changes in direction in accordance with Clause 10.8.
- + Landing or circulation space shall be provided at every doorway, gate, or similar opening.
- + For walkways and landings having gradients in the direction of travel shallower than 1 in 33, a camber or crossfall shall be provided for shedding of water and shall be no steeper than 1 in 40, except that bitumen surfaces shall have a camber or crossfall no steeper than 1 in 33.



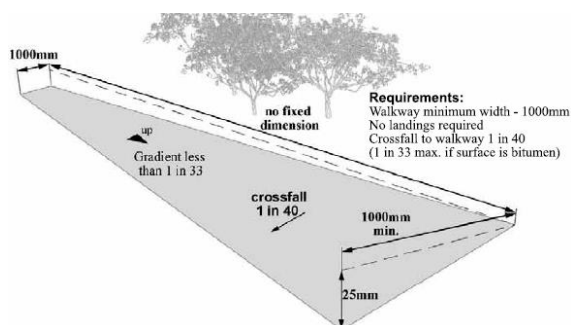
NOTE: For requirements for ground surfaces, see Clause 7.

**AS1428.1**  
**Cl. 10.2**  
Walkways

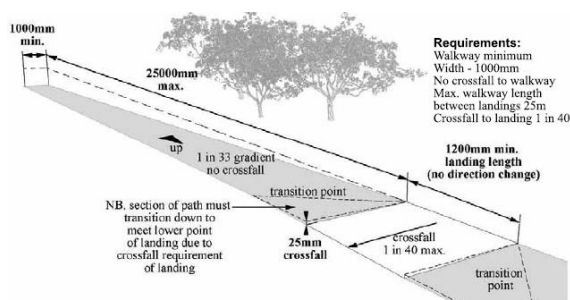
The requirements for walkways are as follows:

- + Walkways can have a gradient up to 1:20. Anything steeper is a ramp and requires kerbs or kerb rails plus handrails to both sides.
- + A walkway with a gradient less than 1 in 33 does not require landings but does require a crossfall of maximum 1 in 40 (maximum cross fall of 1 in 33 if the surface is bitumen).

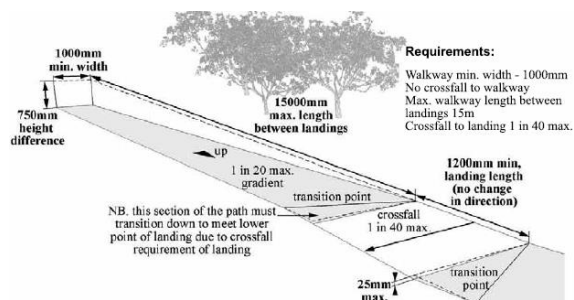
Walkways steeper than 1 in 33 do not require a crossfall to the main walkway but do require a crossfall of 1 in 40 to landings



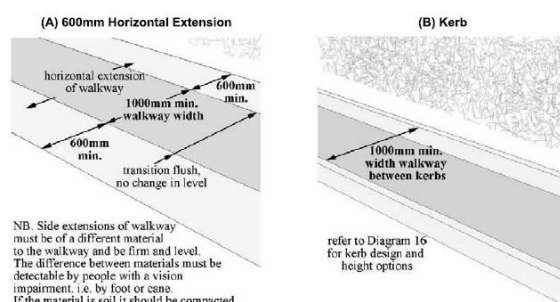
Requirements for a Walkway with a Gradient Less Than 1 in 33



Requirements for a Walkway with a 1 in 33 Gradient



Requirements for a Walkway with a 1 in 20 Gradient



#### Requirements for Edges of Walkways

#### AS1428.1 Cl. 10.3 Ramps

Ramps to comply with the following:

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

Ramps and intermediate landings shall have kerbs or kerb rails on either side.

#### AS1428.1 Cl. 10.4 Curved Walkways, Ramps, and Landings

Curved ramps, walkways, and landings shall comply with the following:

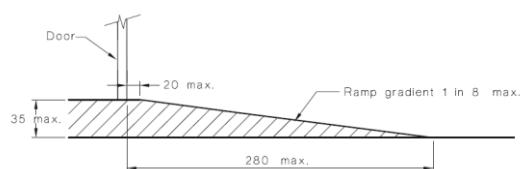
- + Curved walkways shall have a width not less than 1500mm.
- + Any cross-fall shall be towards the centre of curvature.

The gradient of curved ramps and walkways shall comply with the graph in Figure 20 within AS 1428.1 – 2009.

#### AS1428.1 Cl. 10.5 Threshold Ramps

Threshold ramps at doorways on a continuous path of travel shall have—

- + a maximum rise of 35 mm;
- + a maximum length of 280 mm;
- + a maximum gradient of 1:8; and
- + be located within 20 mm of the door leaf which it serves.



No threshold ramps have been identified on the plans

#### AS1428.1 Cl. 10.6 Step Ramps

Step ramps shall have—

- + a maximum rise of 190 mm;
- + a length not greater than 1900 mm; and
- + a gradient not steeper than 1 in 10.

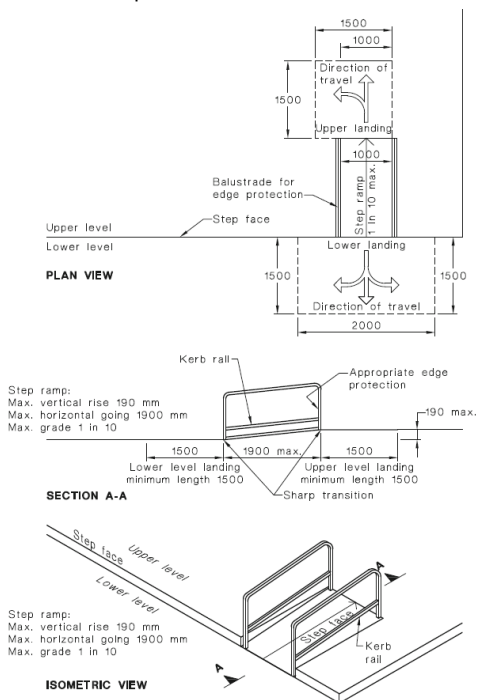
No step ramps have been identified on the plans



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

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

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



#### AS1428.1

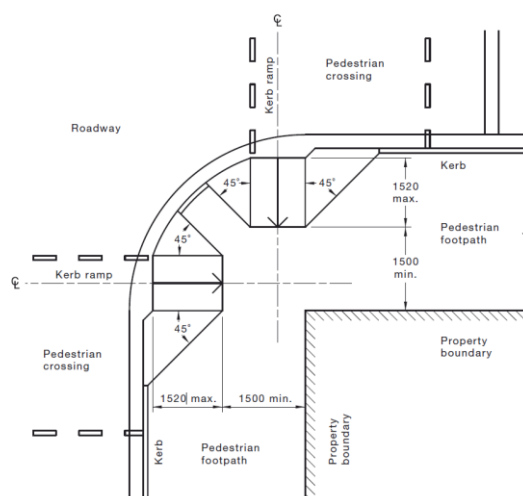
#### Cl. 10.7

#### Kerb Ramps

Kerb ramps shall have

- + a maximum rise of 190 mm; and
- + a length not greater than 1520 mm; and
- + a gradient not steeper than 1 in 8, located within or attached to a kerb; and

be aligned in the direction of travel as shown below.



Refer to Clause 10.7 of AS 1428.1 - 2009 for the full requirements for Kerb Ramps.

No kerb ramps have been identified on the plans.

#### Further Information Required:

In lieu of kerb ramps between pedestrian walkways and vehicular way TGSI's must be nominated.



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

Walkways and ramps

The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following:

- + Where there is no change in direction, the length shall be not less than 1200 mm, as shown in **Figure 25(A)**.
- + Where there is a change of direction not exceeding 90°, the landing shall be not less than 1500 mm. The internal corner shall be truncated for a minimum of 500 mm in both directions, as shown in **Figure 25(B)**.
- + For a 180° turn, the landing shall be as shown in **Figure 25(C)**.

Step ramps

- + The length of landings at step ramps shall be not less than 1200 mm in the direction of travel, as shown in **Figures 22(A) and 22(B)**.
- + Where a change in direction is required, the length of step ramp landings shall be a minimum of 1500 mm, as shown in **Figure 22(A)**.
- + Where doorways are at landings, the dimensions of the landings shall be in accordance with the requirements of Clause 13.3 for circulation spaces at doorways shown in **Figure 25(D)**.

Kerb ramps

The length of landings at kerb ramps shall be not less than 1200 mm in the direction of travel.

Where a 'T' junction occurs, the kerb ramp landing shall be a minimum of 1500 x 2000 mm, as shown in Figure 24(B).

Where a single change in direction is required, the ramp landings shall be a minimum of 1500 mm x 1500 mm.

**See Below for Figures**

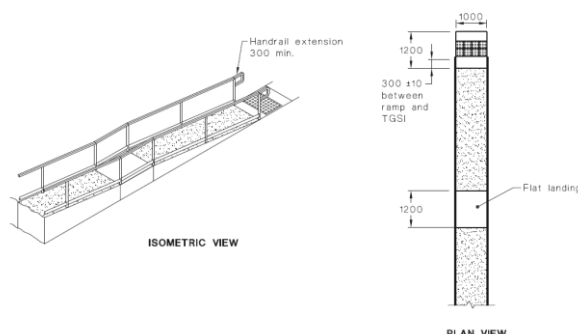


Figure 25A

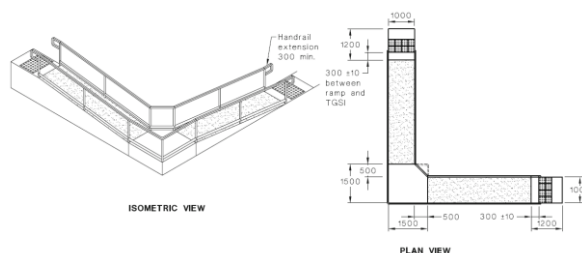


Figure 25B



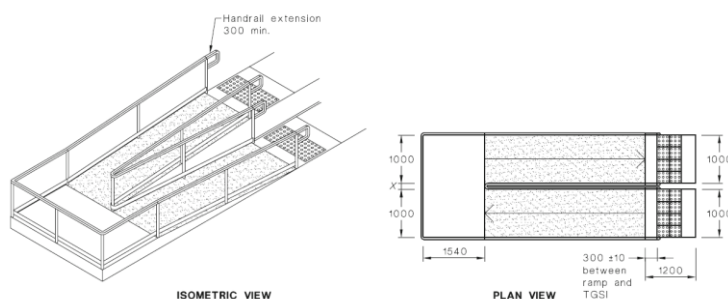


Figure 25C

#### D4D13

(Previously D3.12)

Glazing on an Accessway

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

#### Compliance Readily Achievable:

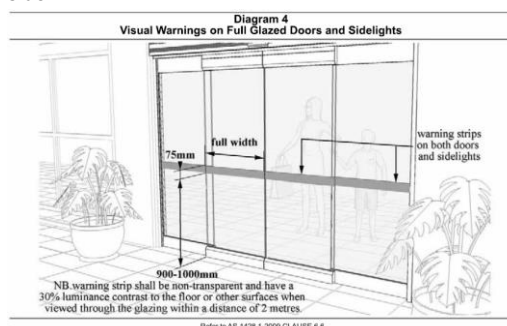
Details to be included in the design at construction documentation stage

#### AS1428.1 Cl. 6.6

Visual  
Indicators on  
Glazing

The contrasting line shall be not less than 75 mm wide and shall extend across the full width of the glazing panel. The lower edge of the contrasting line shall be located between 900 mm and 1000 mm above the plane of the finished floor level.

Any contrasting line on the glazing shall provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2 m of the glazing on the opposite side.



#### F4D5

(Previously F2.4)

Accessible  
Sanitary Facilities

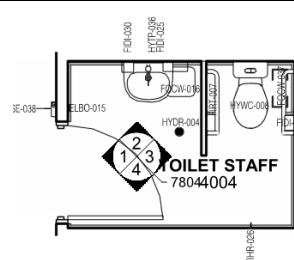
Accessible unisex sanitary compartments must be provided, in accordance with F4D6 and unisex showers must be provided in accordance with Table F4D7, in buildings or parts that are required to be accessible.

#### Compliance Readily Achievable

The RLS plans of accessible WC's show the set-out of fixtures and fittings. Specific dimensions should be included to ensure compliance is met.

#### Does Not Comply:

The staff WC adjacent to the accessible WC needs to be labelled as a staff ambulant WC. Also, the circulation space inside the WC does not comply – for this layout to work the door must swing out and not into the room.



**P RLS - TOILET STAFF PLAN**  
1 : 50

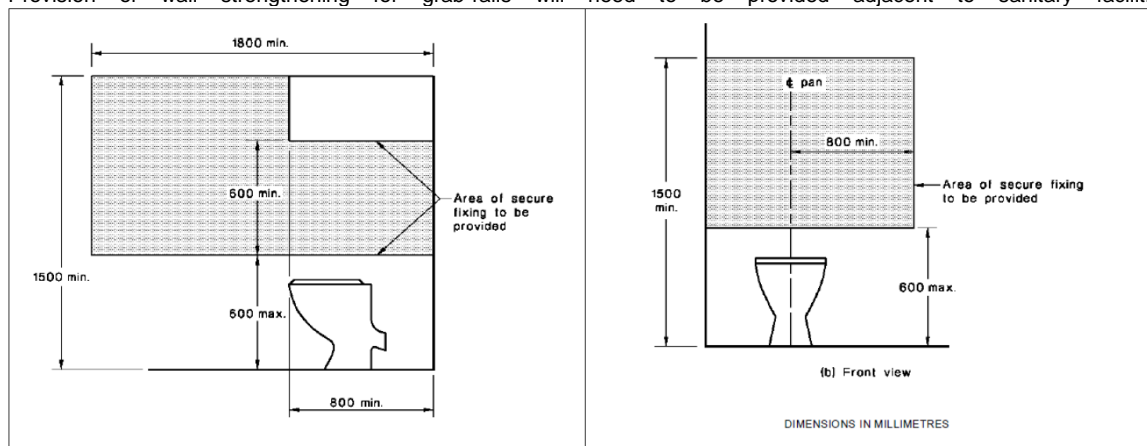


**Compliance Readily Achievable:**

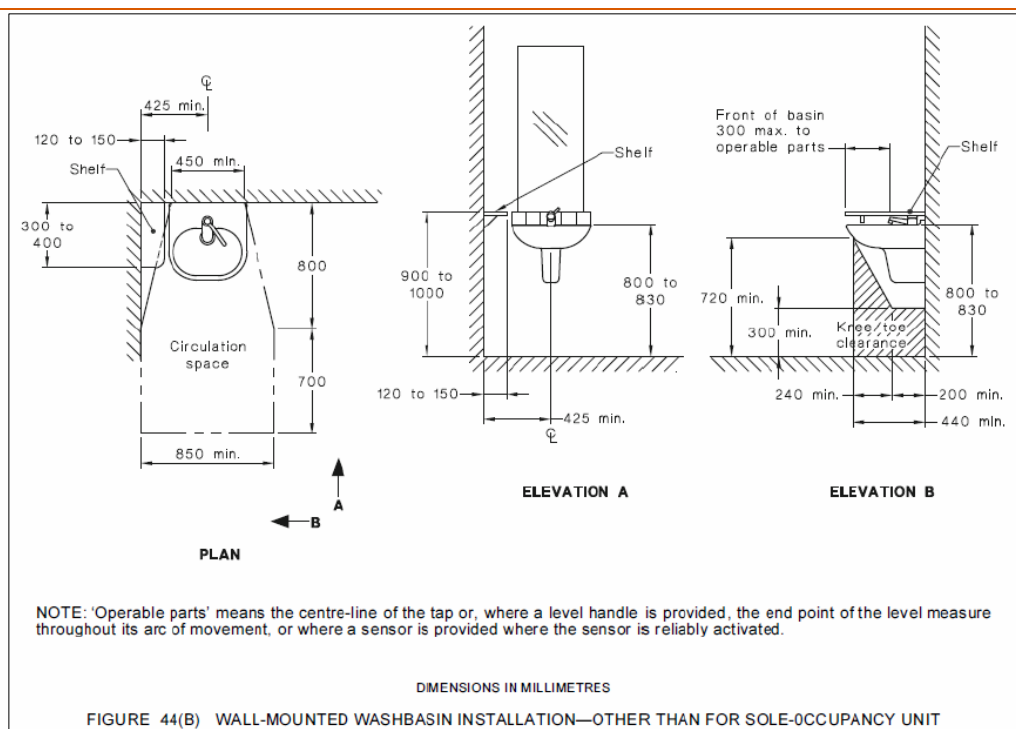
Details to be included in the design at detailed design stage

**Unisex Accessible WCs**

- + Tap sets will need to be specified with lever of capstan handles in the accessible sanitary facilities.
- + Provision of wall strengthening for grab-rails will need to be provided adjacent to sanitary facilities.



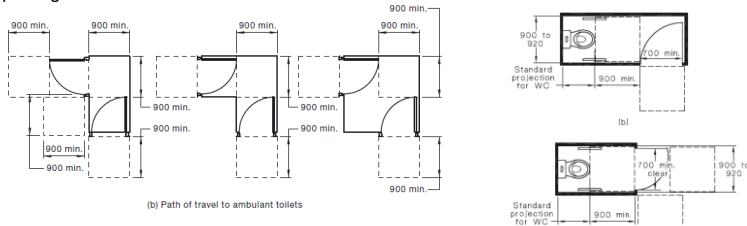
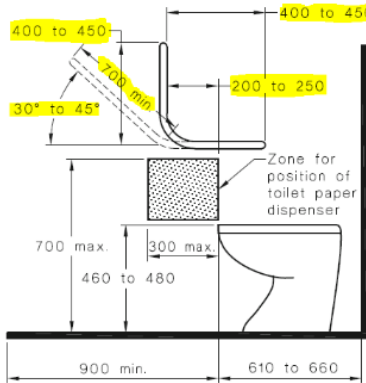
- + The location and installation of washbasins must comply with the requirements of AS 1428.1-2009.



Checklist for Accessible WCs	
Entry Door	The detailing of the circulation at doorways shall comply with the provisions of Clause 13 of AS1428.1:2009
Entry Door	The luminance contrast provisions at the doorway shall comply with the provisions of Clause 13.1 of AS1428.1:2009
Force Required to Operate Door	The force required to operate the door if fitted with a door closer is a maximum of 20N. It is assumed that auto-doors will not be installed
Door Hardware	The position of door hardware is to be located between 900-1100mm AFFL.
WC Pan Circulation	1900x2300mm
Hand Basin Circulation	850x1500mm, the basin may encroach a maximum of 100 mm into the circulation space of the adjacent WC pan circulation
WC Pan Offset From Side Wall	450/460 mm
WC Pan Offset From Rear Wall	800±10 mm
WC Pan Backrest	To code requirements
WC Pan Toilet Seat	The toilet seat will need to be the full round type, securely fixed in position, be rated 250 KG and have a minimum limits contrast of 30% with the background pan, wall or floor against which it is viewed.
WC Pan Grab Rails	Grab rail to be mounted 800 mm above finish floor level, length of grab rail to be 1050 mm from rear wall, install 300mm grab rail to left-hand side of the WC pan. It is assumed that the walls to which the grab rails are fixed will have the required 1100N force rating wall reinforcement required by the standard
Hand Basin Mounting Height	Top of hand basin to be 800/830 mm above finish floor level
Hand Basin Clearances	The clearances around and under the hand basin need to comply with the provisions of clause 15.3 of AES 1428.1:2009. Specific attention is drawn to the plumbing installation where the required clearances under the hand basin necessitate special consideration of the bottle trap associated with the hand basin
Hand Basin Selection	The detailing of the hand basin requires the installation of a shelf unit. It may be possible to specify a hand basin that incorporates a shelf section thereby eliminating an additional component to be installed in the USAT
Hand Basin Mirror	The mirror is to be flush mounted on the wall above the sink the bottom of the mirror is to be no more than 900 mm above the finish floor level and the top of the mirror is to be a minimum of 1850 mm above the finish floor level
Hand Basin Tap	It is recommended that a lever hand basin tap be installed in lieu of the capstan type
Toilet Roll Holder	The position of the toilet roll holder is to be in accordance with code requirements
Coat Hooks	Coat hooks are to be installed 1200 to 1350 mm above finish floor level and not closer than 500 mm from an internal corner. The coat hook can be installed on the wall or on the back of the door
Soap Dispensers/Hand Towel	These items are to be able to be operated by one hand and shall be installed so that the tap or dispenser is not less than 900 and not more than 1100 mm above the finish floor level.



Braille Tactile Signage	The detailing of the Braille Tactile Signage will need to comply with the provision of NCC Clause D3.6 and NCC Specification D3.6. The location of the Braille Tactile sign is to be mounted on the latchside wall. The sign is to indicate the handing of the grabrails to the WC Pan. The following is an example of the type of information to be provided in the Braille Tactile Sign.
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Ambulant WCs	
Checklist for Ambulant WCs	
Entry Door	The entry doorway is to achieve a clear width of no less than 750mm.
Door Hardware	<ul style="list-style-type: none"> <li>+ Shall be provided with an in-use indicator and a bolt or catch.</li> <li>+ Where a snip catch is used, the snib-handle shall have a minimum length of 45mm from the centre of the spindle.</li> <li>+ In an emergency, the latch mechanism shall be openable from the outside.</li> </ul>
Internal Dimensions	<p>Width between internal walls is to achieve between 900 – 920mm. A 900x900 clear area must be provided in front of the toilet pan, fixtures (including door swing) cannot encroach on this distance, except for grab rails.</p>  <p>(a) Path of travel to ambulant toilets</p> <p>(b) Standard projection for WC</p> <p>DIMENSIONS IN MILLIMETRES</p>
Grab Rails	<p>Grab rails are to be located on either side of the toilet pan and must be located between 800 – 810mm above finished floor level.</p> <ul style="list-style-type: none"> <li>+ Grab rail length and up-turn to be in accordance with Figure 53(A) of AS 1428.1 – 2009.</li> <li>+ Grab rails shall have an outside diameter of 30 – 40mm.</li> <li>+ Exposed edges and corners of grab rails shall have a radius of not less than 5mm.</li> <li>+ The fastenings and the materials and construction of grab rails shall be able to withstand a force of 1100 N applied at any position.</li> <li>+ Clearance between the grab rail and the adjacent wall shall be between 50 – 60mm.</li> </ul> 
Toilet Roll Holder	The position of the toilet roll holder is to be in accordance with code requirements
Coat Hook	A coat hook shall be provided within the sanitary compartment at a height between 1350mm to 1500mm from the floor.
Braille Tactile Signage	The detailing of the Braille Tactile Signage will need to comply with the provision of NCC Clause D3.6 and NCC Specification D3.6. The location of the Braille Tactile sign is to be mounted on the latch-side wall. Signage content is to comply with the requirements of Clause 8 of AS 1428.1 – 2009.

#### ADDITIONAL Items Referred for Upgrade in the Sunshine Coast Hospital DDA Claim Judgement

Generally	<p>The following matters form part of the accessibility matters raised in the Sunshine Coast Hospital DDA Claim lawsuit that were order to be rectified as part of the judgement:</p> <ol style="list-style-type: none"> <li>1. Refinish all bollards within the forecourt area to have a minimum 30% luminance contrast with the surface they are viewed against.</li> <li>2. Refinish all seats and columns within the forecourt area to have 30% luminance contrast with the ground surface.</li> <li>3. Provide luminance contrast of 30% at the base of all free standing signs within the building when measured against the floor.</li> <li>4. Remove wall surfaces within the lift lobbies to remove all polished surfaces.</li> </ol>	<p><b>Further Information Required:</b></p> <p>It is recommended that all matters identified are incorporated in the design and installed as part of the works.</p> <p>Items 6, 7, and 8 can be mitigated via compliance with AS 1428.4.2 – 2018 as recommended. However the additional items noted fall outside the scope of Australian Standards and form good practice.</p> <p>Confirmation to be provided that these measures are being incorporated into the design.</p>
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5. Relocate couches from shorelines to ensure a continuous accessible path of travel where these do not provide a minimum 30% luminance contrast against the floor/wall
6. Replace all directory, directional signs within lift lobbies with raised tactile and Braille signs
7. Replace all information, directory, directional (including maps), ward identification, ward signs, and all room signs within the entire hospital with raised tactile and Braille signs which have a minimum cap height of 15mm (12mm for maps) and which have all information beings of 30% luminance contrast with the background surface apart from the Braille
8. Replace all external wayfinding signs with raised tactile and Braille signs including maps
9. Paint all walls and columns in all corridors throughout the entire hospital so that they have a minimum 30% luminance contrast with the floor
10. Refinish all vinyl floor surfaces to remove the polished surface finish and to return the surface to its original matte finish



### APPENDIX 3- FIRE SAFETY SCHEDULE

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

Statutory Fire Safety Measure	Design / Installation Standard	Proposed
Alarm Signalling Equipment	AS 1670.3 – 2018	✓
Automatic Fail-Safe Devices	BCA Clause D3D26	✓
Automatic Fire Detection & Alarm System	BCA Spec. 20 & BCA Spec 23 AS 1670.1 – 2018	✓
Automatic Fire Suppression Systems	BCA Spec. 17 AS 2118.1 – 2017 or AS 2118.6 – 2012	✓
Emergency Lighting	BCA Clause E4D2 & E4D4 AS 2293.1 – 2018	✓
Emergency Evacuation Plan	AS 3745 - 2010	✓
Emergency Warning Intercom System (EWIS)	BCA E4D9, S31C19 of BCA Spec G3.8 AS1670.4 - 2018	✓
Exit Signs	BCA Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018	✓
Fire Blankets	AS 3504 – 1995 & AS2444 – 2001	✓
Fire Dampers	BCA Clause C4D15 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification	✓
Fire Doors	BCA Clause C3D13, C3D14, C4D5, C4D6, C4D8 & C4D12 AS 1905.1 – 2015 and Manufacturer's Specification	✓
Fire Hose Reels	BCA Clause E1D3 AS 2441 – 2005	✓
Fire Hydrant Systems	BCA Clause E1D2 AS 2419.1 – 2021	✓
Fire Seals	BCA Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2014 and Manufacturer's Specification	✓
Fire Windows	BCA Clause C4D5, AS 1530.4 – 2014 & AS 1288 - 2021	✓
Lightweight Construction	BCA Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification	✓
Paths of Travel	EP&A Regulation Clause 109	✓
Portable Fire Extinguishers	BCA Clause E1D14 AS 2444 – 2001	✓
Required Exit Doors (Power Operated)	BCA Clause D3D24(2)	✓
Smoke Dampers	BCA Spec 11 AS/NZS 1668.1 – 2015	✓
Smoke Doors	BCA Spec 11 & 12	✓
Warning & Operational Signs	BCA Clause C4D7, D3D28, D4D7, D4D4 & I4D14. AS 1905.1 – 2015 & Section 108 of the EP&A Regulation 2000	✓
Fire Engineered Performance Solutions relating to...	<i>To be developed</i>	✓



## APPENDIX 4- FRL OF BUILDING ELEMENTS – TYPE C CONSTRUCTION

Building element	Class of building—FRL: (in minutes)			
	Structural adequacy / Integrity / Insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
<b>EXTERNAL WALL</b> (including any column and other building element incorporated within it) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—				
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	—/—/—	—/—/—	—/—/—	—/—/—
<b>EXTERNAL COLUMN</b> not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—				
Less than 1.5 m	90/—/—	90/—/—	90/—/—	90/—/—
1.5 to less than 3 m	—/—/—	60/—/—	60/—/—	60/—/—
3 m or more	—/—/—	—/—/—	—/—/—	—/—/—
<b>COMMON WALLS and FIRE WALLS—</b>	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90	90/ 90/ 90
<b>INTERNAL WALLS—</b>				
Bounding <i>public corridors</i> , public lobbies and the like—	60/60/ 60	—/—/—	—/—/—	—/—/—
Between or bounding <i>sole-occupancy units</i> —	60/60/ 60	—/—/—	—/—/—	—/—/—
Bounding a stair if <i>required</i> to be rated—	60/60/ 60	60/60/60	60/ 60/ 60	60/ 60/ 60
<b>ROOFS</b>	—/—/—	—/—/—	—/—/—	—/—/—

### Notes:

1. New external walls that are located 1.5m or more from an allotment boundary / fire source feature require no FRL's.
2. An external wall required to have an FRL is only required from the outside.
3. Any lightweight construction in a fire wall or an internal wall required to have an FRL is to comply with Specification 6.
4. Any insulation installed in the cavity of the wall is required to be non-combustible.
5. The method of attaching or installing a finish, lining, ancillary element, or service installation to a building must not reduce the fire-resistance of that element to below that required.
6. Any internal loadbearing wall or column is required to achieve an FRL of not less than 90/90/90.
7. The floor separating the two storeys is required to achieve an FRL of not less than 90/90/90 to achieve separate fire compartments.
8. No structural elements are permitted to pass through fire-rated walls.
9. Fire rated shafts are required to be enclosed at the top and bottom by construction having an FRL of not less than what the shaft requires.