ABN 37 002 648 615

2/20 Balfour Road
Rose Bay NSW 2029
[p] 0408 627 908
[e] r.seidman@iaccessconsultants.com

Job No: IAC-1113

Tuesday, 25 February 2020

RICHARD CROOKES CONSTRUCTIONS
LEVEL 3
BROADCAST WAY
ARTARMON NSW 2064

Reference: **Alex Avenue Public School**

Farmland Drive, Schofields NSW 2762

Attention: Mr Isaac Pinkerton

Dear Mr Pinkerton

Thank you for inviting iAccess Consultants to undertake this revised access assessment of the SSD documentation prepared for the Alex Avenue Public School development incorporating the RCC Responses noted on the DDA Register.

This access report has been structured in accordance with the provisions of the Disability (Access to Premises) Standard 2010 as well as the provisions of the relevant Australian Standards.

Detailed documentation addressing the specific details and requirements of the access legislation, codes and standards will need to be documented in the future stages of the project delivery process.

This report identifies the access design issued which will need to be addressed by the project team as the design for this project progress.

Please do not hesitate to contact us should you wish to discuss any aspect of this Access Report.

Yours sincerely,

RICHARD SEIDMAN

M.PropDev, BArch (Hons), Diploma in Access
ARB Reg No 4829
ACAA (Accredited Access Consultant No 330),
Livable Housing Registered Assessor 10041

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ACCESS REPORT – SSD

ALEX AVENUE PUBLIC SCHOOL
FARMLAND DRIVE
SCHOFIELDS NSW 2762

Prepared by

iAccess Consultants

A division of iAccess Group Pty Ltd

ABN 37 002 648 615

Revision **[D]**

25 February 2020

Document Control

Project:	Alex Avenue Public School
	Farmland Drive
	Schofields NSW 2762
Document Type:	Access Report
Report Number:	IAC-1113

The following report register documents the development and issue of this and each subsequent report(s) undertaken by iAccess Consultants.

The technical and intellectual content contained herein remain the property of iAccess Consultants and have been prepared and may only be used for the development / buildings being the subject of this report.

Revision History:

Rev	Remarks	Issue Date
-	Access report prepared and issued to client	5 March 2019
A	Access report prepared and issued to client - DD	23 April 2019
B	Access report prepared and issued to client	30 August 2019
C	Access report revised and issued to client	13 September 2019
D	Access report revised and issued to client - SSD	25 February 2020

Document Prepared by:

Jenna Fivelman
BArchDes, MArch

Authorisation and Review Provided By:

Richard Seidman
M.PropDev, BArch (Hons), Diploma in Access
ARB Reg No 4829,
ACAA (Accredited Access Consultant No 330)
Livable Housing Registered Assessor 10041

CONTENTS

Abbreviations

The following abbreviations are employed in this Checklist:

ACAA	Association of Consultants in Access Australia
AS	Australian Standard
BCA	Building Code of Australia
NCC	National Construction Code
Dts	Deemed to satisfy
CAPT	Continuous Accessible Path of Travel
GPO	General Power Outlet
USAT	Unisex Accessible Sanitary Toilet
AFFL	Above Finished Floor Level
TGSI	Tactile Ground Surface Indicator
PPE	Principal Pedestrian Entrance
DAPB	Designated Accessible Parking Bay

Legend

The following list of differing colour toning are indicators of access compliance throughout this report:

Compliant

Not Compliant

Information to be provided

Examples of these compliance summaries include:

Compliance:	An accessible path of travel is provided from the set-down point to the Principal Pedestrian Entry to the event.

Compliance:	Door circulation zones are not compliant. Ensure door latch-side clearance achieves a minimum of 530mm.

Compliance:	The doorways luminance contrast levels is not able to be assessed. Information is to be provided.

Lines that are written in red and highlighted in yellow (like this line of text) indicate an item that may require action by the project team, impacting on the overall design.

1. EXECUTIVE SUMMARY

This access report has been prepared at the request of Richard Crookes Constructions to provide commentary on the SSD documentation for the new development of Alex Avenue Primary School in Schofields, New South Wales.

The purpose of this access report is to highlight and review key accessible topics as they relate to design elements of the proposed development. The key accessible areas are mainly in relation to the requirements of the NCC Section D, Access and Egress and AS1428.1:2009 Design for access and mobility.

There is generally a high level of compliance throughout the project, however there are many items that require more information.

The proposed development includes six (6) blocks over two levels with a variety of teaching spaces and amenities. The following plans indicate the overall layout of the two levels of this development.

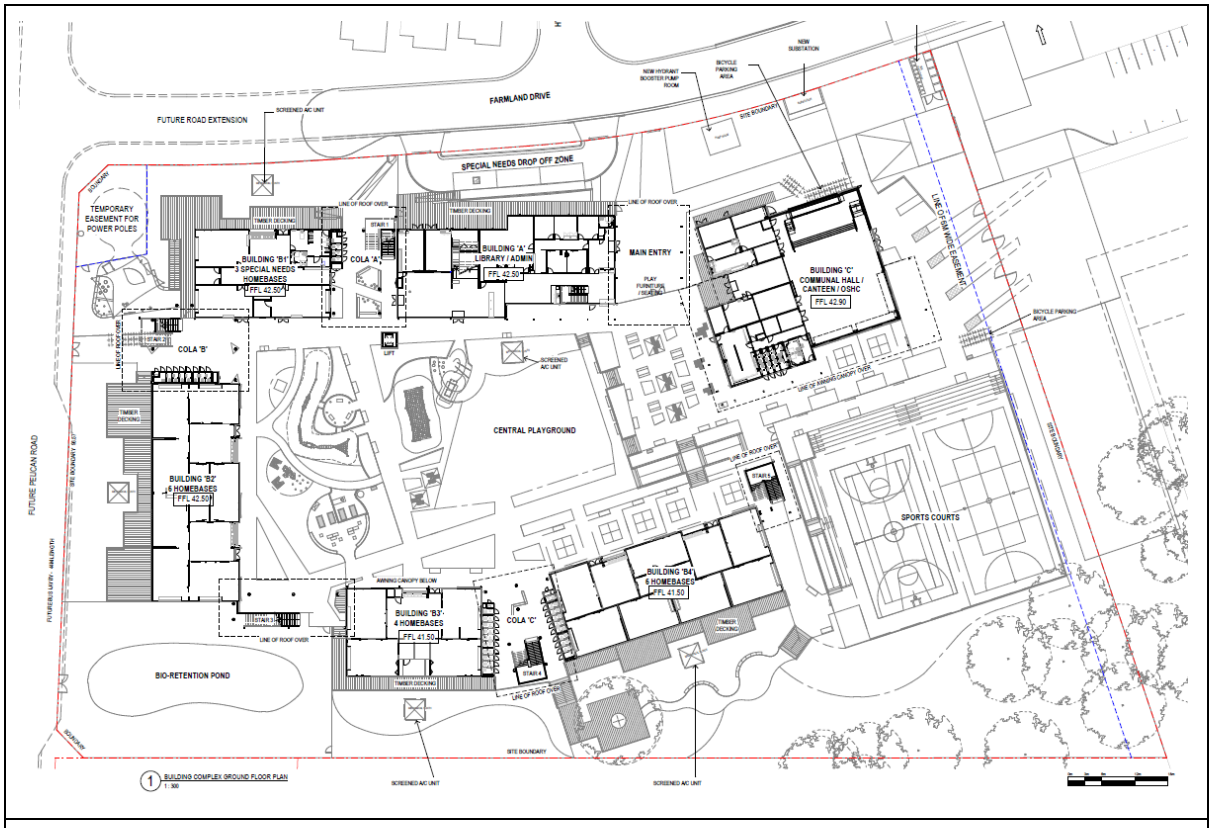


Figure 1 –Extract from Site Ground Floor Plan

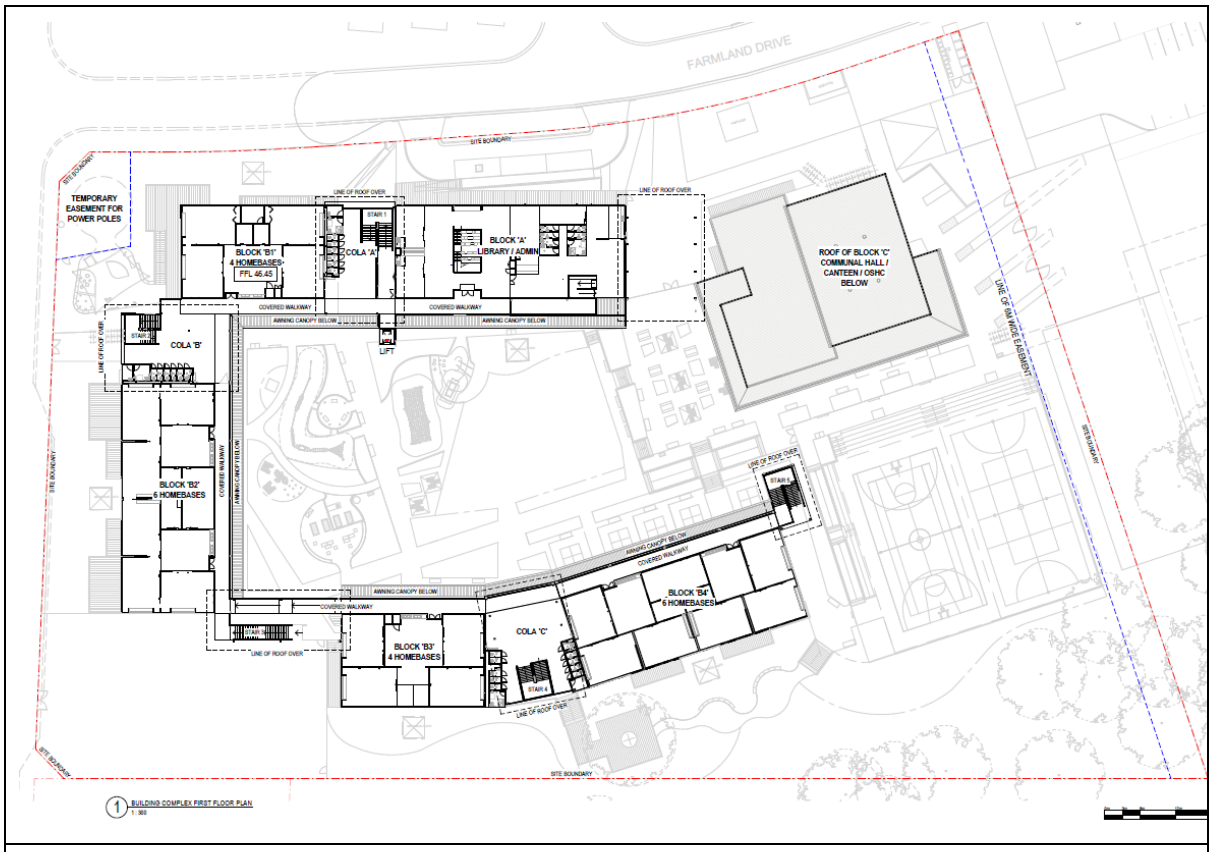


Figure 2 –Extract from Site Level 1 Floor Plan

1.1. Access Declaration

This report confirms that the provisions for compliance with the accessible requirements nominated in the Disability (Access to Premises – Building) Standard 2010 where possible have been incorporated into the design provided.

1.2. Building Classification

The NCC classification for this Development is *Class 9b - An assembly building*

1.3. Report Exclusions

The assessment discussed in this report is limited to the scope of works nominated in the above Executive Summary.

1.4. Performance Solutions

The design will rely on the following Performance Solutions yet to be prepared:

- The provision of a single handrail to the giant stairway provided with in the library area

- Detailing of sliding doors between GLAs
- Unisex signage to ambulant WC facilities
- Set out of floor wastes to accessible showers
- unisex signage approach to ambulant WCs

1.5. Equitable Egress Strategy - NCC Clauses DP4 & DP6

An NCC Deemed to Satisfy solution addressing egress from a building satisfies the provisions of NCC Performance Requirements DP4 and DP6.

1.6. NCC Clause D3.4 Concession

The NCC Clause **D3.4** provides a concession for accessibility to particular areas/rooms:

(a) *An area where access would be inappropriate because of the particular purpose for which the area is used.*

(b) *An area that would pose a health or safety risk for people with a disability.*

(c) *Any path of travel providing access only to an area exempted by (a) or (b).*

The building will have several rooms where the NCC **D3.4** concession applies:

- Plant/mech. rooms
- Storerooms
- Equipment stores
- Cleaners areas

1.7. Architecture Documentation

This SSD Access Report references the following documentation.

AA-AR-1100[5]

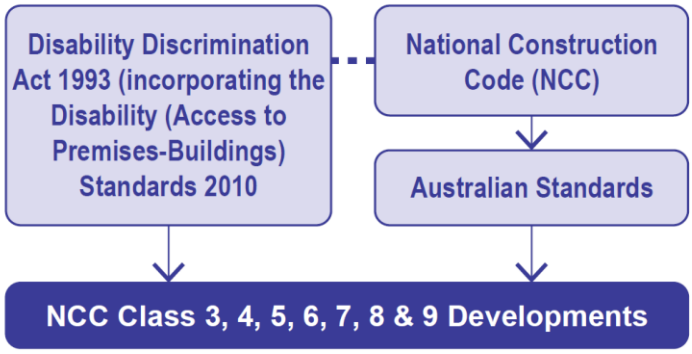
AA-AR-1110[4]

AA-AR-1111[4]

AA-AR-1112[4]

2. STATUTORY FRAMEWORK

The legislation addressing accessibility is documented in the following Act, Code and Standards:



2.1. Disability Discrimination Act 1992

Section 23 of the Disability Discrimination Act 1992 states:

> *It is unlawful for a person to discriminate against another person on the ground of the other person's disability:*
>
> *a) by refusing to allow the other person access to, or the use of, any premises that the public or a section of the public is entitled or allowed to enter or use (whether for payment or not); or*
>
> *b) in the terms or conditions on which the first-mentioned person is prepared to allow the other person access to, or the use of, any such premises; or*
>
> *c) in relation to the provision of means of access to such premises; or*
>
> *d) by refusing to allow the other person the use of any facilities in such premises that the public or a section of the public is entitled or allowed to use (whether for payment or not); or*
>
> *e) in the terms or conditions on which the first-mentioned person is prepared to allow the other person the use of any such facilities; or*
>
> *f) by requiring the other person to leave such premises or cease to use such facilities.*

The Disability Discrimination Act 1992 is complaints-based legislation and the Commissioner once having heard and assessed the level of discrimination may issue orders to rectify.

2.2. Legislative Framework

- Disability Discrimination Act 1992
- Disability (Access to Premises - Buildings) Standards 2010 (DDA 1992)
- National Construction Code (BCA 2016)
- AS1428.1:2009 Design for access and mobility - General requirements for access - New building work

- AS1428.2:1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
- AS1428.4.1:2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired
- AS1680.2.1:2008 Interior and workplace lighting - Specific applications - Circulation spaces and other general areas
- AS1735.12:1999 Lifts, escalators and moving walks - Facilities for persons with disabilities
- AS2890.6:2009 Parking facilities - Off-street parking for people with disabilities
- HB198:2014 Guide to the specification and testing of slip resistance of pedestrian surfaces

Disability Standards for Education 2005

3. ACCESS REPORT

3.1. Access Report Preamble

The Access Report following has adopted the headings of the Disability (Access to Premises) Standard 2010. The Standard provides a framework for analysis and when coupled with the technical provisions of the Building Code of Australia and the provisions of Australian Standards AS1428

Australian Standards provide certainty and direction to address accessibility compliance.

3.2. Continuous Accessible Paths of Travel

NCC Reference:	D3.2 Access to buildings
	D3.3 Parts of buildings to be accessible
Australian Standard Reference:	Clause 6 (Continuous Accessible Paths of Travel) of AS1428.1 2009
	AS 1428.4.1 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment

3.2.1. Preamble

This section discusses Continuous Accessible Paths of Travel (CAPT) throughout the external and internal areas of the proposed development.

The school premises have multiple functions which require the provision of accessible access to the site at different times of the day and at different locations across the site.

Compliance:	The architectural, civil and landscape documents nominate the scope of the external site works. The landscape plan indicates the RLs to be achieved for the pavements within the school. Generally, compliance is capable of being achieved. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

Compliance:	A dimensional setout plan of the external pavement on landscape drawings L-1001, L-4002 and L4003 has been provided. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.2. CAPT – Requirements to be satisfied

The requirements for Continuous Accessible Paths of Travel is noted in the National Construction Code at Clauses DP1 and D3.2:

A continuous accessible path of travel to accessible facilities will need to be provided to enable people to *'approach the building from the road boundary'* so that they can *'access work and public spaces, accommodation and facilities for personal* hygiene' in accordance with the requirements of ***DP1*** of the National Construction Code 2016.

The NCC Clause **D3.2(a)** identifies that

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

i. from the main points of a pedestrian entry at the allotment boundary; and

ii. from another accessible building connected by a pedestrian link; and

iii. from any required accessible carparking space on the allotment.

Compliance:	The plans provided indicate that compliance with these requirements is capable of being satisfied. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.3. Site

The proposed development is located on Farmland Drive:

Figure 3 –Google Maps Extract

The site has multiple access points. The access points are identified by the red arrows on the extract from the site plan.

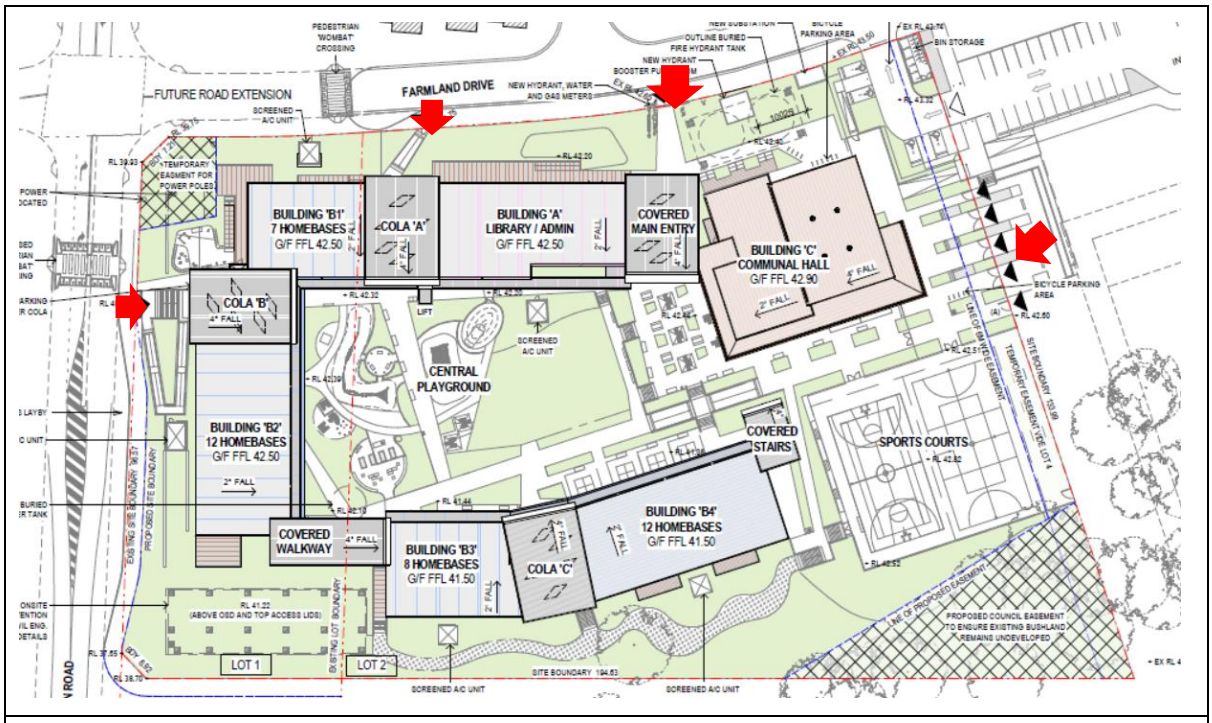


Figure 4 –Extract from Site Ground Floor Plan

Parking is proposed at grade. Details are not yet provided.

3.2.4. Pavement Luminance Contrast

Where there is alignment between the pavement and driveway, as a minimum, the luminance contrast between the finishes will need to be 30%.

Compliance:	The civil plans indicate the driveway finish is pavement type 1 (bitumen) and the walkway is pavement type 2 (colour concrete). It has been assumed that 30% luminance contrast between pavement finishes will be able to be achieved. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.5. Lighting Levels

The lighting level along paths of travel will need to achieve a minimum level of 150lx as noted at Clause 19 of AS1428.2:1992 or the minimum lighting levels noted at AS1680.

Compliance:	Confirmation of the lighting levels nominated in the Australian Standards AS1428.2:1992 and AS16870.2.1:2008 will be required to be provided as part of the certification requested for the issue of the Access Installation Certificate at OC stage.

3.2.6. Height and Width of Continual Accessible Paths of Travel

The minimum unobstructed height of a continuous accessible path of travel shall be 2000mm or 1980mm at doorways.

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:

(a) Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings and similar objects.

(b) Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards.

(c) Door handles less than 900 mm above the finished floor level.

If possible, the paths of travel should have a minimum width of 1800mm tom accommodate the number of students transitioning between areas at the various times of the day.

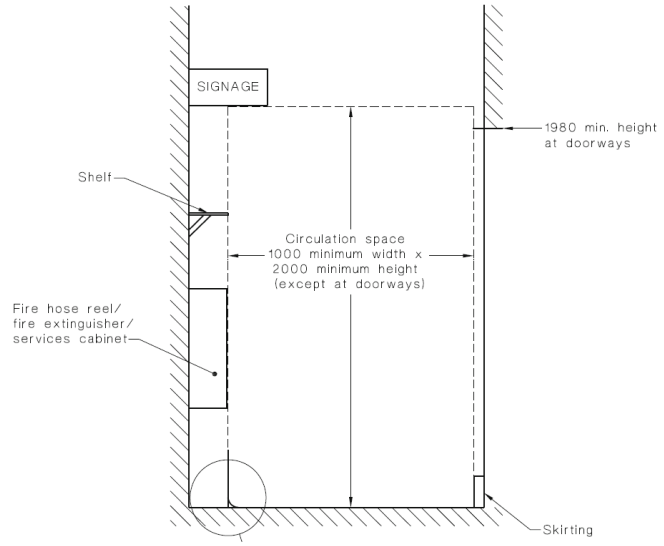


Figure 5 – Fig. 2 of Section 6, AS1428.1:2009

Compliance: It has been assumed that this requirement is satisfied by this design.

Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.7. Passing Spaces

Where the length of the Paths of Travel is longer than 20m, an 1800 x 2000mm passing bay is required to be provided in accordance with the provisions of Clause 6.4 of AS1428.1:2009.

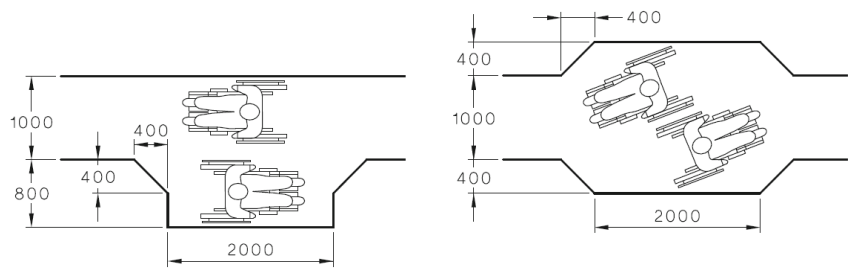


Figure 6 – Extract from Clause 6.4 of AS1428.1:2009

Compliance: The plans provided indicate that this requirement is capable of being satisfied. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.8. Circulation Zones

A minimum pathway of 1m width is required throughout all accessible areas.

The design also requires locations where a wheelchair user can make a 180deg turn (1540 x 2070mm) at corridor/pathway ends in accordance with the provisions of Fig. 5, Clause 6 of AS1428.1 2009 as well as 1500x1500 circulation zones where the path of travel changes direction.

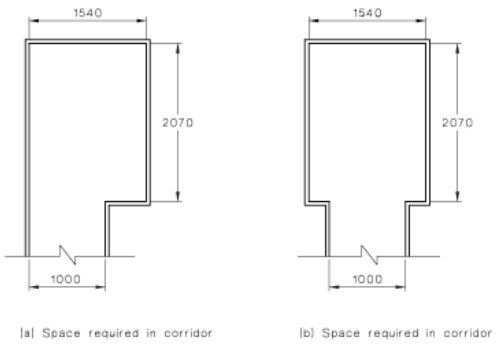


Figure 7 – Fig.3 Section 6 AS1428.1 2009

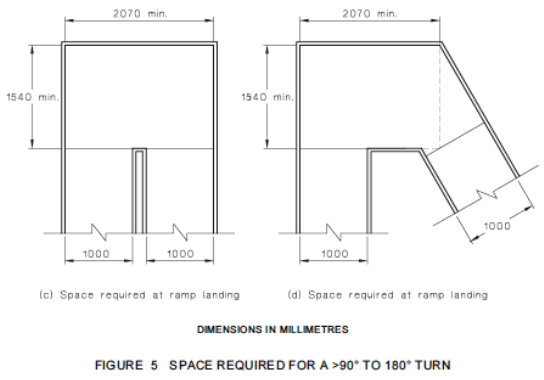


Figure 8 – Fig.5 Section 6 AS1428.1 2009

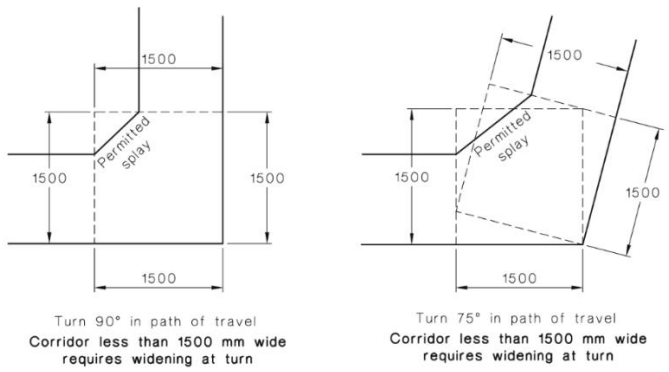


Figure 9 – Fig.4 Section 6 AS1428.1 2009

Compliance:	The 2400 series of architectural drawings indicate the furniture fitout of each building. The furniture arrangement indicates that these requirements are capable of being achieved. If required loose furniture can be repositioned to increase accessible access through these spaces. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.2.9. Path of travel within playground area

The site slopes slightly. The landscape design will need to detail an accessible path of travel at ground level which will allow students with accessible needs to access the various areas of the playground.

Special attention is directed to the length of 1:20 walkways and the detailing required for walkways.

Compliance:	Civil and landscape drawings have been provided. There is insufficient information detailing the edge treatment of walkways with gradients shallower than 1:20. Compliance with the requirement of Clause 10.2 of AS1428.1:2009 will need to be provided. A kerb with a minimum height of 65mm is to be provided to both sides of walkway to delineate the walkway. The kerb may be a landscape element such as a timber sleeper or concrete kerb. Landscape drawing L-7001 will need to be amended to address this requirement.

3.3. Visual Indicators on Glazing

NCC Reference:	D3.2 Access to buildings
	D3.3 Parts of buildings to be accessible
	D3.12 Glazing to accessways
Australian Standard Reference:	Clause 6.6 (Visual Indicators on Glazing) of AS1428.1 2009
	AS 1428.4.1 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment

3.3.1. Visual Indicators to glazing

The elevations indicate the locations where full height glass doors and side lights are located. The plans do not indicate the application of visual indicators to locations where full height glazing is located.

3.3.2. Visual Indicators on Glazing – Requirements to be satisfied

Where full height glazing is proposed, visual indicators will need to be fixed to the glazing in accordance with Clause 6.6 of AS1428.1:2009:

> *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. 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.*

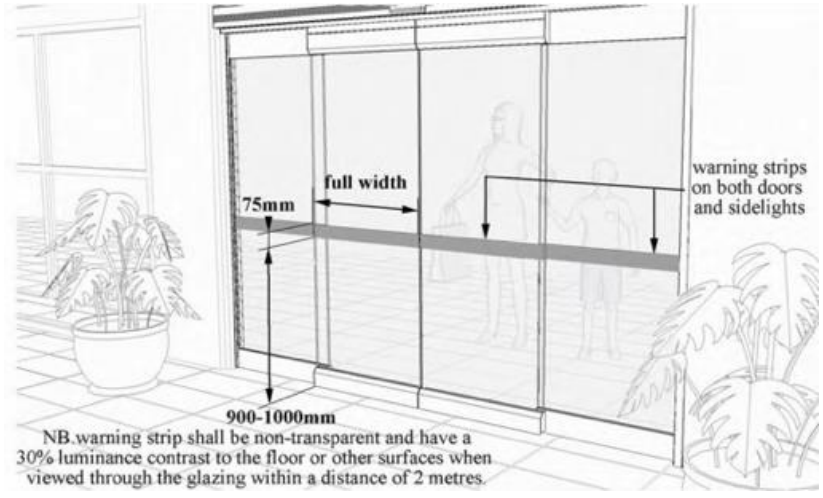


Figure 10 – Diag.4 DE-IG02 2013

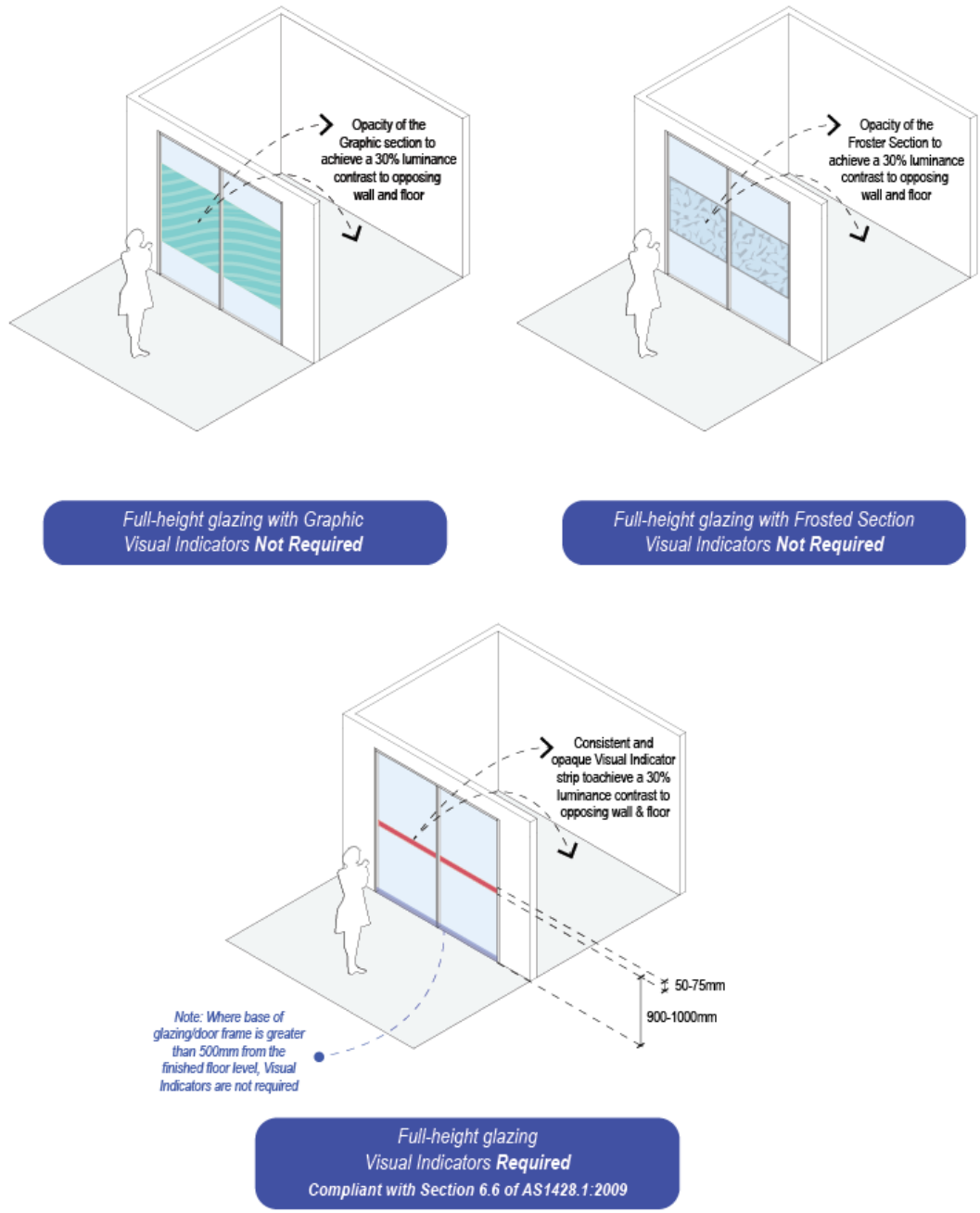


Figure 11 – Visual Indicators Summary Sketch - iAccess Consultants

Compliance:	Visual indicators will need to be applied to full height glazing. Certification of compliance will need to be provided for the issue of the OC Access Installation Certificate

3.4. Floor or Ground Surfaces

NCC Reference: NCC Table D2.14

Australian Standard Reference: Clause 7 of AS1428.1:2009

HB198:2014 (slip resistance)

3.4.1. Slip Resistance

The slip resistance of the floor finishes will need to satisfy the minimum requirements of NCC Table 2.14 and the slip resistance ratings noted within HB198.

Certification indicating compliance with the slip resistance provisions will need to be provided from the respective flooring suppliers.

The table following summarises the minimum slip resistance levels of flooring materials to be achieved within this development.

Location	NCC Table D2.14	HB198	Criterion Satisfied
Ramp steeper than 1:14	Dry P4/R11 – Wet P5/R12	P5/R12	Additional Information to be provided
Ramp steeper than 1:20 but not steeper than 1:14	Dry P3/R10 – Wet P4/R11		Additional Information to be provided
Tread or landing surface	Dry P3/R10 – Wet P4/R11	Dry P3/R10 – Wet P4/R11	Additional Information to be provided
Nosing	Dry P3 – Wet P4	Dry P3 – Wet P4	Additional Information to be provided
Transition Areas		P2/R9	Additional Information to be provided
External ramps including sloping driveways, footpaths, etc., under 1:14, external sales areas (e.g. markets), external carpark areas, external colonnades, walkways, pedestrian crossings, balconies, verandas, carports, driveways, courtyards and roof decks		P4/R11	Additional Information to be provided
Slip resistance of line marking to parking areas.		P4/R11	Additional Information to be provided
External Ramps (including sloping driveways, footpaths etc.) steeper than 1 in 14		P5/R12	Additional Information to be provided
Wet area / sanitary facilities		P3/R10	Additional Information to be provided

Compliance: Certification of the slip resistance of pavement finishes will need to be provided for the issue of the OC Access Installation certificate.

3.4.2. Carpet

The finishes schedule proposes carpet tiles within this development.

It will be necessary that the specification and application of the carpet satisfy the provisions of:

- NCC Clause D3.3 (g) & (h) and
- AS1428.1:2009 Clause 7.4

Clause 7.4.1 of AS1428.1:2009 states:

> *Where carpets or any soft flexible materials are used on the ground or floor surface—*
>
> *(a) the pile height or pile thickness shall not exceed 6 mm and the carpet backing thickness shall not exceed 4 mm;*
>
> *(b) exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge; and*
>
> *(c) at the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3 mm or a rounded bevelled edge no higher than 5 mm or above that height a gradient of 1 in 8 up to a total maximum height of 10 mm*

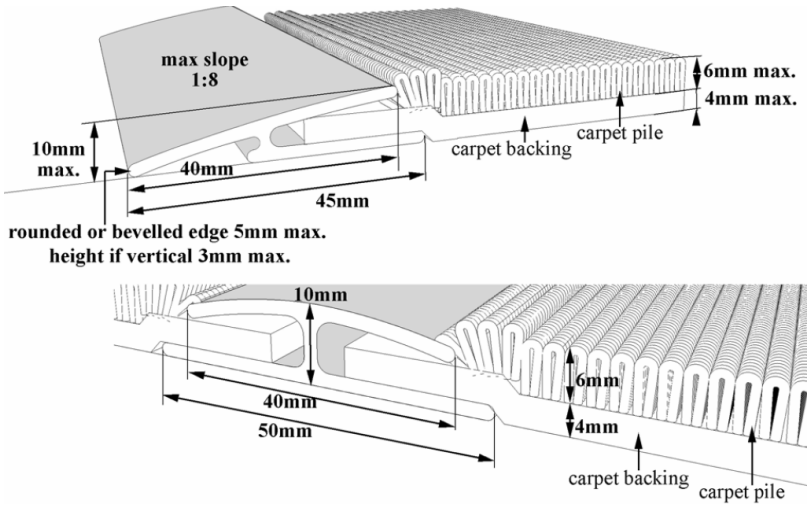


Figure 12 – Examples of carpet joints on an accessible path of travel

Compliance:	The selected carpet tiles satisfy this requirement. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.4.3. Floor transitions

Transitions between floor finishes will need to comply with Clause 7.2 of AS1428.1:2009.

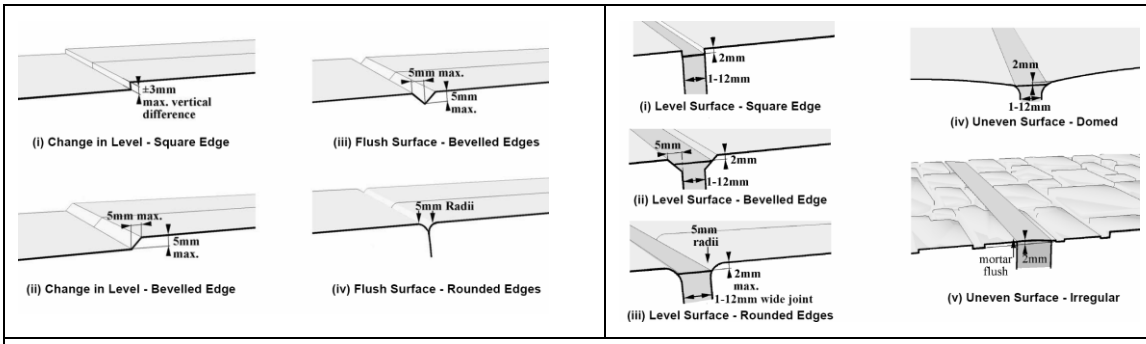


Figure 13 – diagrams indicating the acceptable tolerances between pavement finishes

Compliance: The landscape documentation indicates that this requirement is capable of being satisfied.

Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.4.4. Grated Drains

Any grated drains located on any paths of travel will need to be fitted with compliant heel guard grates (Clause 7.5).

> ***7.5 Grates***
>
> *Grates shall comply with the following:*
>
> *(a) Circular openings shall be not greater than 13 mm in diameter.*
>
> *(b) 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.*

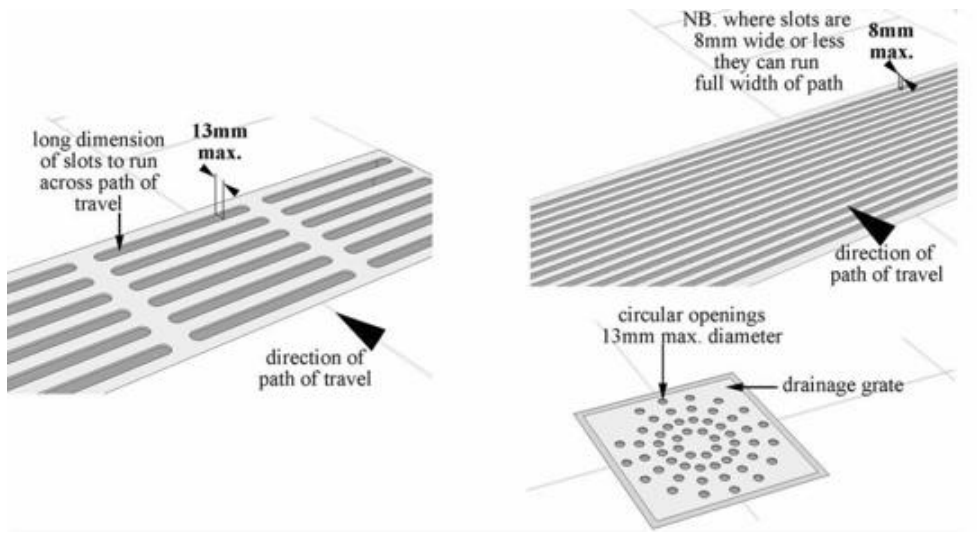


Figure 14 –Diag.7 DE-IG02 2013 – example of heel guard grates

Compliance:	The grated drains requirements has been documented on drawings AA-AR-2600 THROUGH TO AA-AR-2615 ANDCOM-AR-9700 (Technical Schedule) Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.5. Signage

The requirements are referenced in the following legislation:

NCC Reference:	D3.2 Access to buildings
	D3.6 Signage
	Specification D3.6
	D2.23 Signs on Doors
Australian Standard Reference:	Clause 8 – Signage, AS1428.4.1 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment
	Clause 16 – Symbols, AS1428.4.2 1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
	Clause 17 – Signs, AS1428.4.2 1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
	AS1428.4.2-2017 Design for access and mobility – Wayfinding

3.5.1. Preamble

The statutory requirements for braille tactile signage apply to:

- Directional information to accessible entrances to buildings
- Toilet identification
- Exit locations and
- Locations where hearing augmentation is provided.

This section will reference the statutory signage requirements as well as general signage information.

The signage package for this project is documented on drawings

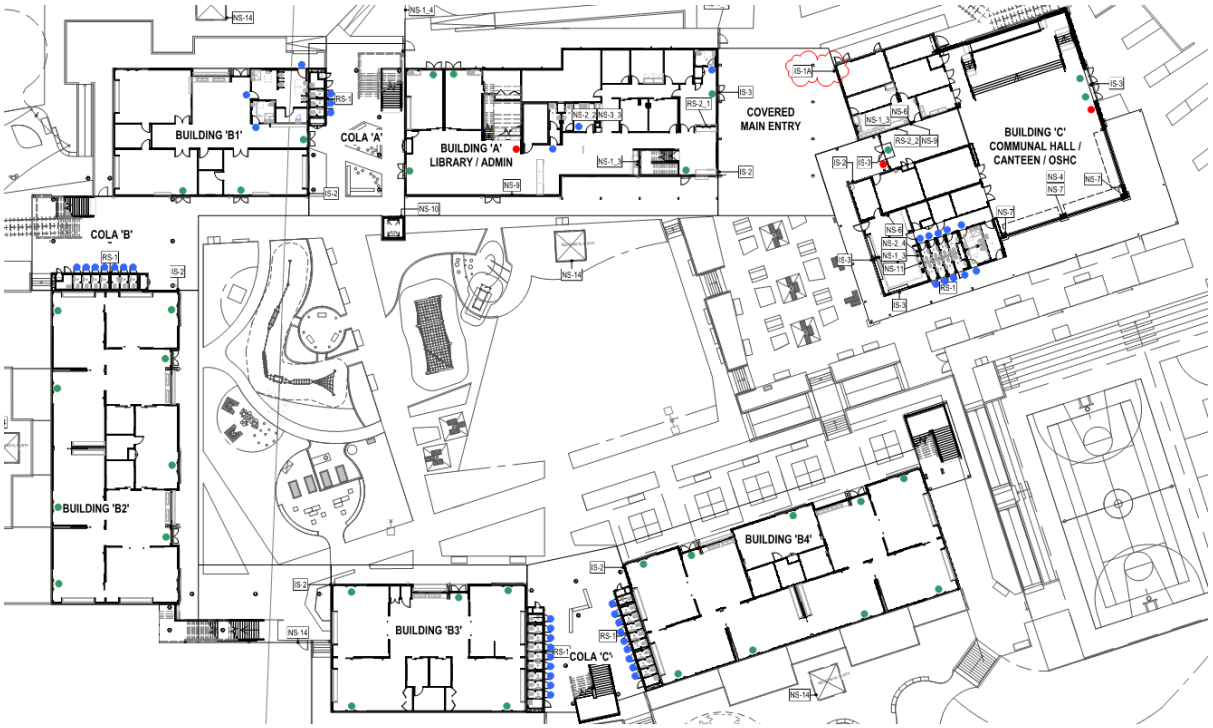
- AA-AR-1930[1]
- AA-AR-1931[1]
- COM-AR-9600[C]
- COM-AR-9602[C]
- COM-AR-9603[C]
- COM-AR-9604[B]
- COM-AR-9605[A]
- COM-AR-9606[B]
- COM-AR-9607[A]

These documents do not locate the locations of the statutory signage associated with WC, Exits or locations where hearing augmentation is provided.

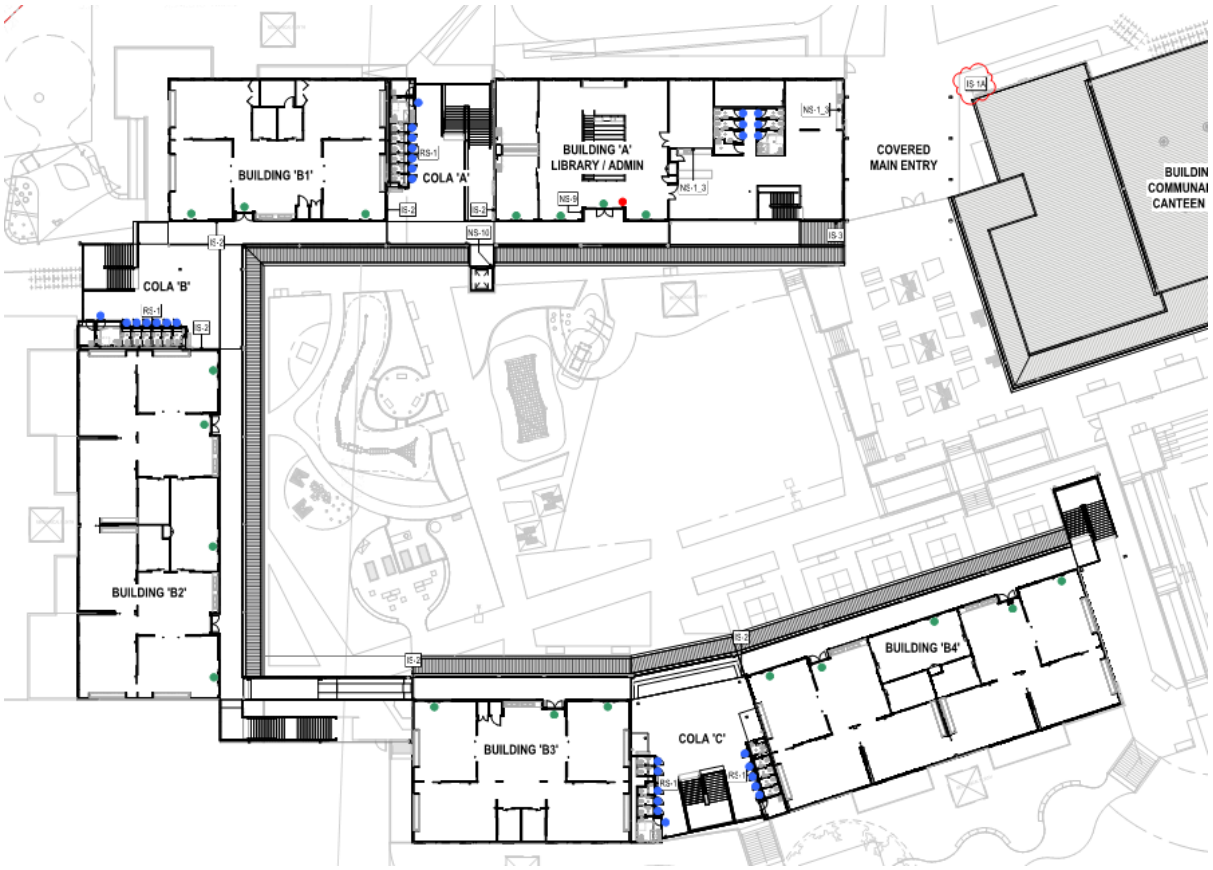
The plans have been marked up indicating the locations of statutory signage.

The legend is:

- Blue dot Accessible WC sign
- Green dot Exit sign
- Red dot Hearing augmentation sign



Ground floor plan



First floor plan

3.5.2. Statutory Signage – Requirements to be satisfied

The applicable clauses to the topic of entrances of the NCC Section **D3.6 Signage** states:

In a building required to be accessible—

*(a) braille and tactile signage complying with **Specification D3.6** must—*

(i) incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each—

(A) sanitary facility, except a sanitary facility within a sole-occupancy unit in a Class 1b or Class 3 building; and

(B) space with a hearing augmentation system; and

(ii) identify each door required by E4.5 to be provided with an exit sign and state—

*(A) **"Exit"**; and*

*(B) **"Level"**; and either*

(aa) the floor level number; or

(bb) a floor level descriptor; or

(cc) a combination of (aa) and (bb); and

(b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—

(i) the type of hearing augmentation; and

(ii) the area covered within the room; and

(iii) if receivers are being used and where the receivers can be obtained; and

(c) signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right-handed use; and

(d) signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and

(e) where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance; and

(f) where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.

DR AS 1428.4.2-2017, The Australian Standard for design for access and mobility – Wayfinding, specifies the minimum wayfinding sign requirements to enable pedestrians, particularly those who are blind, deafblind or have low vision, to enter and to navigate within buildings and/or sites, including a return route, in a safe and independent manner.

This Standard will also be of use to people with other disabilities who require enhanced information to communicate wayfinding information within buildings.

3.5.3. Exit Signage

Braille tactile Exit signage will need to be provided at each level of the building associated with the fire egress door.

Examples of Braille Tactile Signage include:

(*Figure 15 – Examples of Braille Tactile Signage from [www.brailletactilesigns.com.au)](www.brailletactilesigns.com.au)*

3.5.4. WC Signage

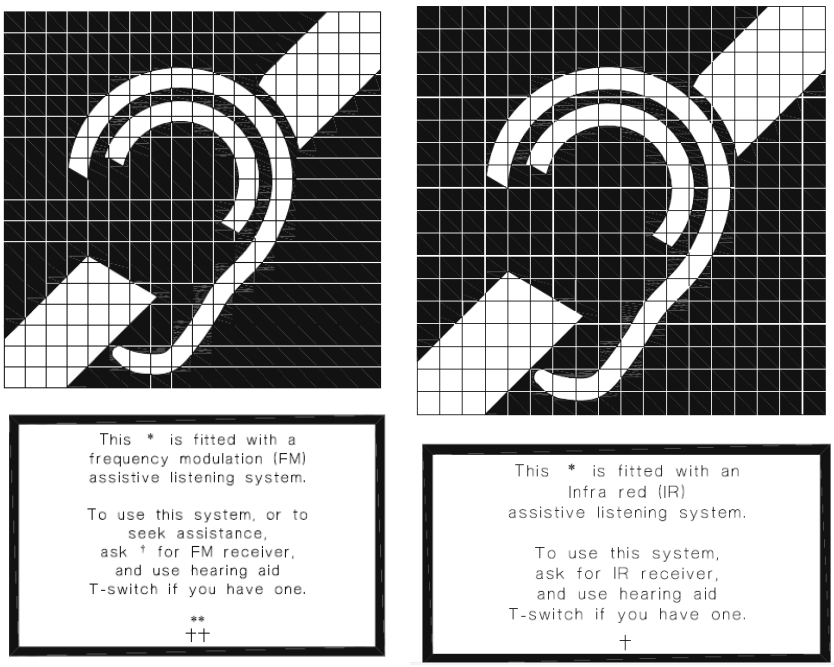
Braille tactile WC signage will need to be provided at each sanitary facility entrance.

Examples of Braille Tactile Signage include:

NB: Text "Unisex Toilet RH" to be used where the toilet is configured adjacent to a wall on the right, and similarly text "Unisex Toilet LH" is to be used where the toilet is adjacent to a wall on the left of the toilet pan.

3.5.5. Hearing Augmentation Signage

Braille tactile hearing augmentation signage will need to be provided in a room or area in which an inbuilt communication system is installed.



Clause 8 of AS128.4.1:2009 and Clause 16 & Clause 17 AS1428.4.2 1992 specify the requirements of the Braille Tactile Signage.

3.5.6. Mounting Heights

The mounting heights of signage will need to incorporate the viewing zones as identified in AS1428.2:1992.

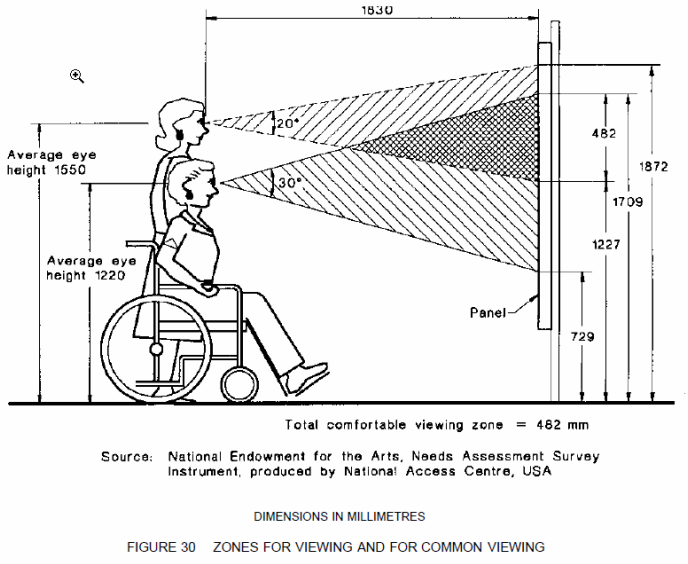


Figure 16 – Extract from Australian Standard indicating acceptable view range for signage

3.5.7. Luminance & Colour Contrast

Signs should be matt in colour, instead of a gloss finish to avoid any glare.

The minimum recommended luminance contrast for lettering on signage to the sign background is 30%.

The minimum recommended luminance contrast of a sign to its context is 30%.

Compliance:	The signage package addresses the requirements for sign type SS-3 and SS-4 (amenities). Compliance is capable of being achieved.

Performance Solution

A Performance Solution is to be prepared to address the unisex signage approach to ambulant WCs

3.6. Tactile Indicators (TGSIs)

NCC Reference:	D3.2 Access to buildings
	D3.3 Parts of buildings to be accessible
Australian Standard Reference:	Clause 9 (Tactile Ground Surface Indicators (TGSIs) of AS1428.1 2009
	AS 1428.4.1 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment

3.6.1. TGSIs – Overview

If the design proposes locations where the driveway/set-down zone and the pavement are at the same grade, TGSIs are required.

The design will require the application of TGSIs at any ramp or circulation stairway.

TGSIs will need to be provided in these locations in accordance with the requirements of AS1428.4.1:2009.

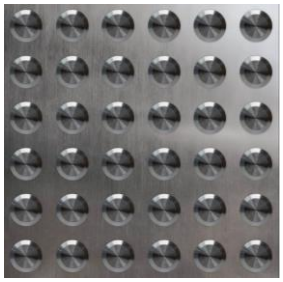
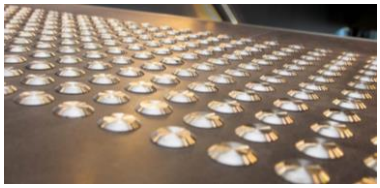
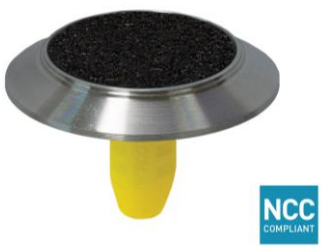
3.6.2. TGSIs – Luminance Contrast

Clause 2.2 of AS1428.4.1:2009 requires that luminance contrast be provided between the TGSI and the adjacent base as follows:

(i) Where the integrated TGSIs are of the same colour as the underlying surface—not less than 30% across its entire area.

(ii) Where discrete TGSIs—not less than 45%.

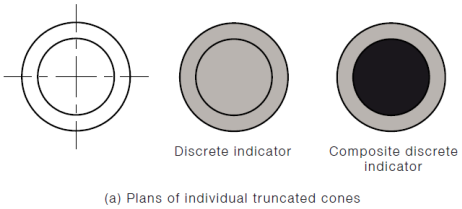
(iii) Where discrete TGSIs are constructed using two colours or materials, the raised surface shall have a section that has 60% luminance contrast for a diameter of 25 ±1 mm.

		
The above integrated TGSI format requires 30% luminous contrast to adjacent floor finish	The above discrete TGSI format requires 45% luminous contrast to adjacent floor finish	The above two colour/material discrete TGSI format requires 60% luminous contrast to adjacent floor finish

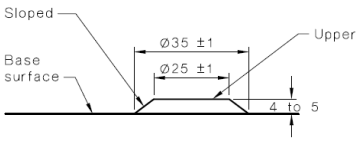
3.6.3. TGSIs – Requirements to be satisfied

TGSIs to warn people of hazards shall comply with AS/NZS 1428.4.1.

The design and arrangement of warning tactile ground surface indicators (TGSIs) shall comply with Figure 2.1 of AS1428.4.1:2009.



(a) Plans of individual truncated cones



(b) Elevation of individual truncated cone

DIMENSIONS IN MILLIMETRES

FIGURE 2.1 DESIGN AND ARRANGEMENT OF WARNING TGSIs

Figure 17 – Fig. 2.1 of AS1428.4.1:2009.

3.6.4. Warning indicators – Requirements to be satisfied

Warning indicators shall be installed as follows:

(a) For the full width of the path of travel.

(b) Perpendicular to the direction of travel when approaching the hazard.

(c) Set back 300 +/- 10 mm from the edge of the hazard

(d) Where integrated warning TGSIs are used, they shall be arranged according to Figures 2.1(c), over the required area [see Figures 2.2(A), 2.2(B), 2.3(A), 2.3(B), 2.4, 2.5(A), 2.5(B), 2.6(A) and 2.6(B].

(e) Where integrated warning TGSIs need to be detected by a person approaching at an angle to the continuous accessible path of travel, the TGSIs shall be arranged as shown in Figure 2.1, over a minimum depth of 600 mm to 800 mm from the direction of approach.

(f) Where discrete warning TGSIs are used over a depth of 300 mm to 400 mm, the arrangement shall be as shown in Figure 2.1 with a minimum of 6 discrete truncated cones in the direction of travel.

(g) Where discrete warning TGSIs need to be detected by a person approaching at an angle to the continuous accessible path of travel, the TGSIs shall be arranged as shown in Figure 2.1 with a minimum of 12 discrete truncated cones in the direction of travel.

Refer to AS1428.4.1:2009 for detailed information as to the specific placement of TGSIs for varying stairway and ramp configurations.

Compliance: The TGSIs are not able to be assessed. Information is to be provided.

3.7. Walkways, Ramps and Landings

NCC Reference: NCC Clause D3.3(a)(i)

Australian Standard Reference: Clause 10 of AS 1428.1:2009

3.7.1. Preamble

The documentation nominates the locations of ramps and walkways within the playground areas. 1:8 threshold ramps are proposed for the entrances to many of the external doorways in this project.

3.7.2. Walkways

Clause 10.2 of AS1428.1:2009 states:

Walkways shall comply with the following:

(a) The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following is provided:

(i) Kerb in accordance with Figure 18.

(ii) Kerb rail and handrail in accordance with Figure 19.

(iii) A wall not less than 450 mm in height.

(b) Walkways shall be provided with landings, as specified in Clause 10.8, at intervals not exceeding the following:

(i) For walkway gradients of 1 in 33, at intervals no greater than 25 m.

(ii) For walkway gradients of 1 in 20, at intervals no greater than 15 m.

(iii) For walkway gradients between 1 in 20 to 1 in 33, at intervals that shall be obtained by linear interpolation.

For walkways shallower than 1 in 33, no landings are required.

The intervals specified above may be increased by 30% where at least one side of a walkway is bounded by—

(A) a kerb or kerb rail as specified in Clause 10.3(j) and a handrail as specified in Clause 12; or

(B) a wall and a handrail as specified in Clause 12.

Clause 10.8 of AS1428.1:2009 states:

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

(a) Where there is no change in direction, the length shall be not less than 1200 mm, as shown in Figure 25(A).

(b) 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).

(c) For a 180° turn, the landing shall be as shown in Figure 25(C),

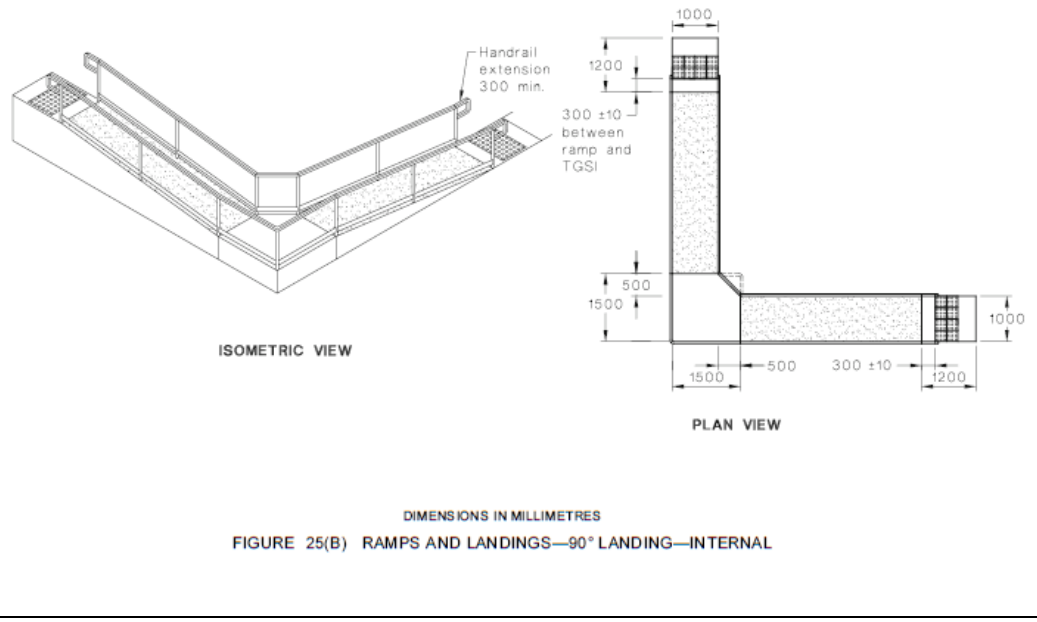


Figure 18 – Figure 25(B) of AS1428.1:2009

3.7.3. 1:14 Ramps

The NCC Clause D3.3(a)(i) identifies that:

In a building required to be accessible—

(a) every ramp and stairway, except for ramps and stairways in areas exempted by D3.4, must comply with—

(i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1

Ramp setout specifications for ramps of gradient 1:14 are provided at Figure 14 of AS1428.1:2009.

Compliance:	The handrail detail for the ramp nominated on Landscape drawing L-7006 will need to be revised to shorten the handrail length to comply with the provisions of the Australian Standard. The detail will need to include a kerb rail where the handrail is not fixed to a wall.

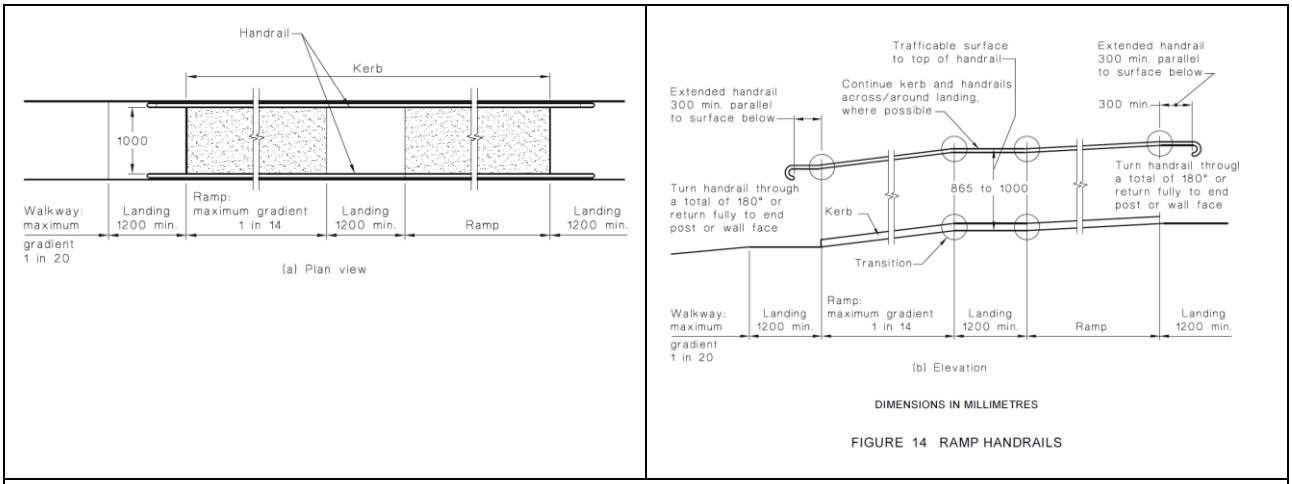


Figure 19 – Figure 14 of AS1428.1:2009

3.7.4. Kerb Ramps

Details of the landscaping and parking will need to be provided at a later stage.

The following information on Kerbs is provided for reference:

The requirements for kerb ramps are identified at Clause 10.7 of AS1428.1:2009:

Kerb ramps shall have—

(a) a maximum rise of 190 mm;

(b) a length not greater than 1520 mm; and

(c) a gradient not steeper than 1 in 8, located within or attached to a kerb.

The profile of ramps shall comply with the following:

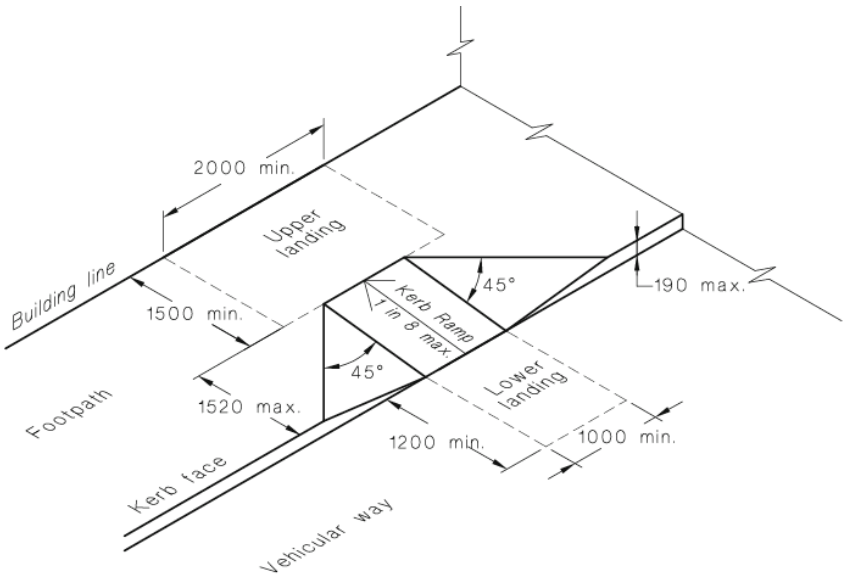
(i) The design and construction of kerb ramps shall be as shown in Figures 24(A), 24(B) and 24(C).

(ii) The sloping sides of a kerb ramp shall be tapered or splayed as indicated in Figures 24(A) and (24(B).

(iii) The angle at the base of the kerb ramp shall be a minimum of 166° as shown in Figures 24(A) and 24(B).

The slip resistance of the ramps shall be in accordance with Table 3B of HB198:2014, which identifies a rating of P5/R10 for a ramp steeper than 1:14.

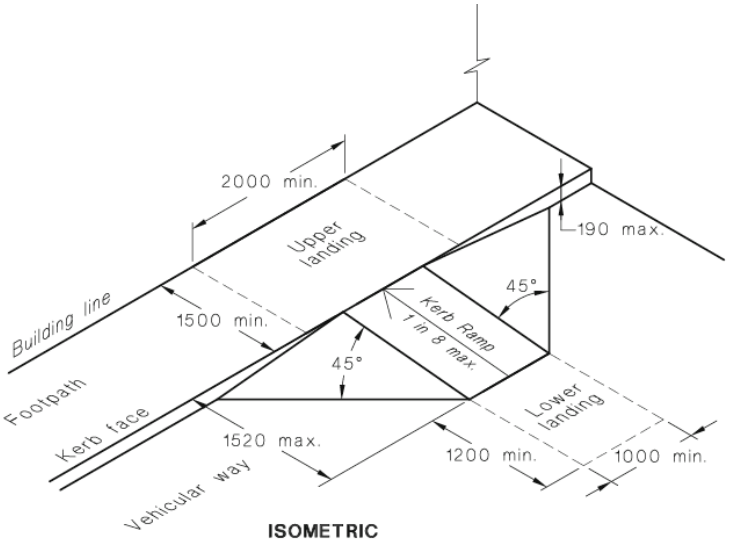
The following relevant extracts from the Standard are referenced below.



ISOMETRIC VIEW

NOTE: Where there is no turn involved, top landing may be reduced to 1200 mm min. in length.

Figure 20 – Fig. 24A of AS1428.1:2009



ISOMETRIC

NOTE: Where there is no turn involved, top landing may be reduced to 1200 mm min. in length.

Figure 21 – Fig. 24B of AS1428.1:2009

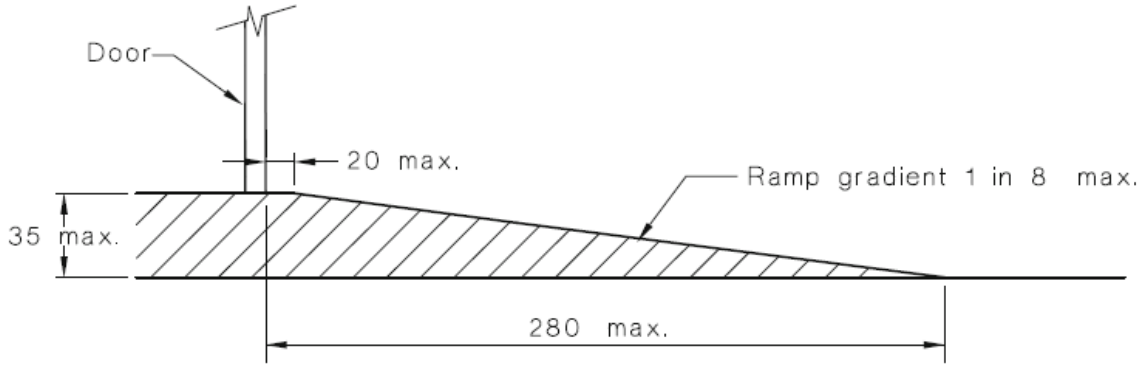
The slip resistance of the surface of the kerb ramps will need to be P5 or R12 to satisfy the requirements of NCC Clause D2.14.

Compliance: Information of all ramp and walkway details to be provided.

3.7.5. Threshold Ramps

The design proposes threshold ramps at doorways. The detailing of the threshold ramps will need to be a maximum rise of 35mm over 280mm. The maximum gradient is to be 1:8.

The setout of the threshold ramp is to be as per the requirements of Clause 10.5 of AS1428.1:2009. The edges of the threshold ramp will need to be splayed at 45deg.



3.8. Stairways

NCC Reference:	Table D2.14 Slip Resistance Classification
	D3.3 Parts of buildings to be accessible
	(a)(ii) for a stairway
Australian Standard Reference:	Clause 11 Stairways AS1428.1:2009

3.8.1. Overview

The design includes several circulation stairways.

Compliance:	The detailing of the stairways is nominated on the 4200 series of the architectural documentation. The documentation provided indicates that the stairway requirements of Clauses 11 and 12 of AS1428.1:2009 are capable of being satisfied.

Performance Solution

A Performance Solution is to be prepared to address the provision of a single handrails to the internal circulation stair located within the library.

3.8.2. Circulation Stairs – Requirements to be satisfied

The circulation stairs will need to comply with the provisions noted at Clause 11 and 12 of AS1428.1:2009.

Specific attention is directed to the following:

a) Compliant handrail designs
b) Compliant handrail extensions to the top and bottom of each flight
c) Non-slip finish to going (Refer to NCC Table D2.14)
d) Non-slip 50-75 nosing fixed to each going
e) Opaque risers
f) Compliant TGSIs located at the top and bottom of each flight. TGSIs are not required at mid-landings where no additional pedestrians are added to the stair system

   Note: TGSIs shall be 600mm in width (or 300mm wide where the stair is closer than 3m to an adjacent wall.)
g) Minimum lighting level of 150 lx to be achieved

The following extract Figures below highlight the main features of a compliant stair design.

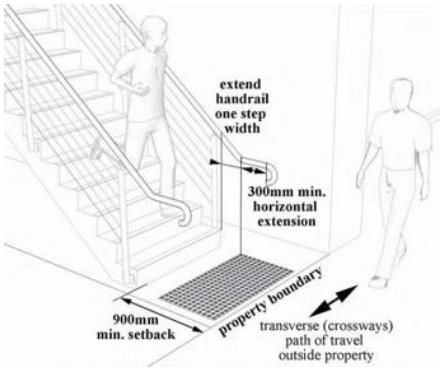


Figure 22 – Diag.25A DE-IG02 2013

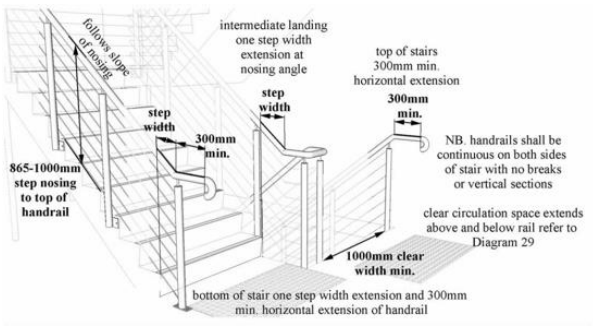


Figure 23 – Diag.25C DE-IG02 2013

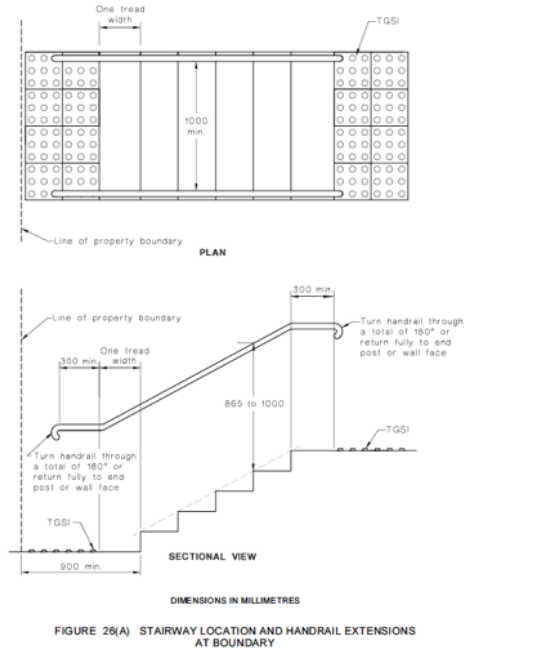


FIGURE 26(A) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT BOUNDARY

Figure 24 – Fig.26A Section 11 AS1428.1 2009

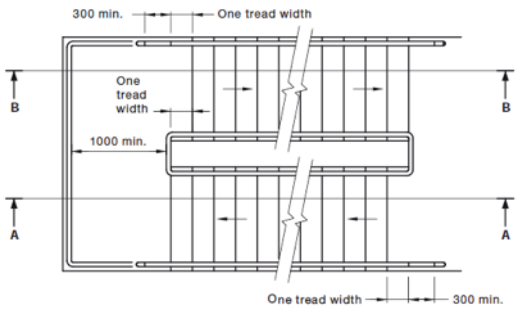


FIGURE 28 (in part) HANDRAILS TO STAIRS WITH INTERMEDIATE LANDINGS

Figure 25 – Fig.28 Section 11 AS1428.1 2009

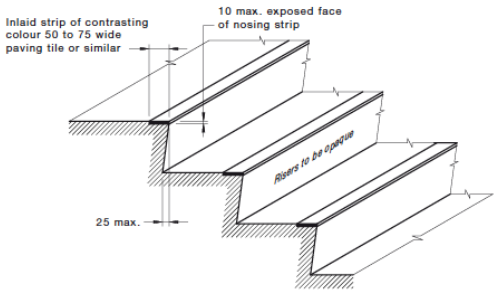


FIGURE 27(B) A TYPICAL STAIR NOSING PROFILE WITH EXPOSED NOSING STRIP

Figure 26 – Fig.27B Section 11 AS1428.1 2009

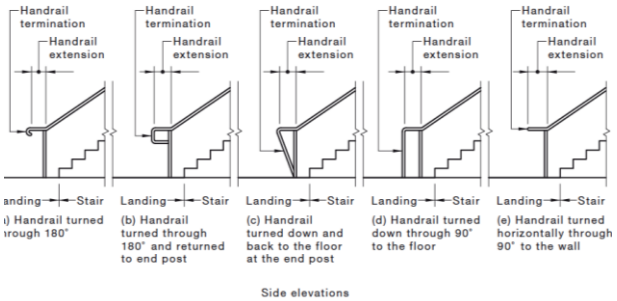


Figure 27 – Fig.26C Section 11 AS1428.1 2009

3.9. Handrails

NCC Reference:	D3.3 Parts of buildings to be accessible
Australian Standard Reference:	Clause 12 Handrails AS1428.1:2009

The design and construction of handrails shall comply with the following:

(a) Handrails and balustrades shall not encroach into required circulation spaces.

(b) The cross-section of handrails shall be circular or elliptical, not less than 30 mm or greater than 50 mm in height or width for not less than 270° around the uppermost surface as shown in Figures 29(a) and 29(b). Elliptical handrails shall have the greater dimension in the horizontal axis as shown in Figure 29(b).

(c) Exposed edges at ends and corners of handrails shall have a radius of not less than 5 mm.

(d) The top of handrails shall be not less than 865 mm nor more than 1000 mm above the nosing of stairway tread or the plane of the finished floor of the walkway, ramp or landing.

(e) The height of the top of the handrail, measured in accordance with Item (d), shall be consistent through the ramp (or stairs) and any landings.

(f) If a balustrade is required at a height greater than the handrail, both shall be provided.

(g) Handrails shall be securely fixed and rigid, and their ends shall be turned through a total of 180°, or to the ground, or returned fully to end post or wall face, as shown in Figures 26(C) and 26(D).

(h) The clearance between a handrail and an adjacent wall surface or other obstruction shall be not less than 50 mm. This clearance shall extend above the top of the handrail by not less than 600 mm.

(i) Handrails shall have no obstruction to the passage of a hand along the rail, as shown in Figures 29(a) and 29(b).

(j) The inside handrail at landings shall always be continuous, as shown in Figure 28(a).

Compliance:	The detailing of the stairways is nominated on the 4200 series of the architectural documentation. The documentation provided indicates that the stairway requirements of Clauses 11 and 12 of AS1428.1:2009 are capable of being satisfied.

3.10. Doorways

NCC Reference: D3.2 Access to buildings

D3.3 Parts of buildings to be accessible

Australian Standard Reference: Clause 13 (Doorways, Doors and Circulation Spaces at Doorways) of AS1428.1 2009

3.10.1. Clear Door Width – Single leaf doorways

The minimum clear width of all doorways (including swing and sliding doorways) to rooms required to be accessible is to be not less than 850mm clear.

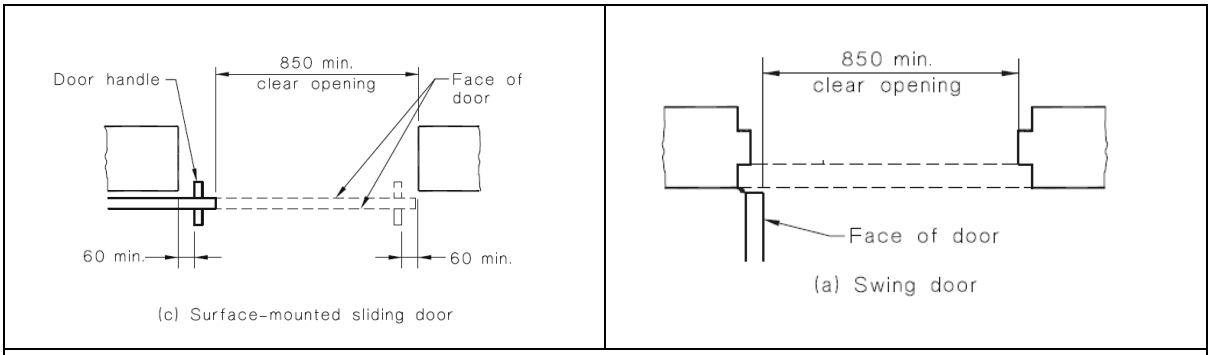


Figure 28 – Figure 30 of AS1428.1:2009

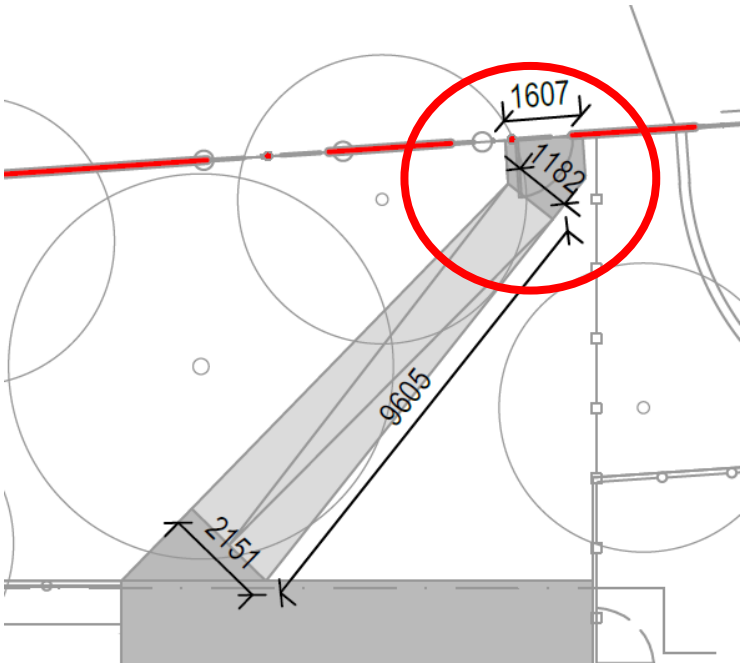
Compliance: Information of all doorway clear open widths are to be provided for the issue of the Occupation Certificate

3.10.2. Clear Door Width – Double leaf doorways

Where double doors are proposed, the active leaf is to have a minimum clear width of 850mm.

3.10.3. Entry gate

The detailing of the entry gate will need to be revised to provide a minimum 530mm latchside clearance and a 1450mm deep landing zone associated with the gate. Perhaps the handing of the gate could be reversed so that the swing of the gate does not clash with the handrail details of the 1:20 ramp.



3.10.4. Luminance Contrast

Rooms that are not required to be accessible do not need to satisfy the requirements for doorway luminance contrast.

All other rooms required to be accessible require compliance with doorway luminance contrast requirements noted at Clause 13.1 of AS1428.1:2009:

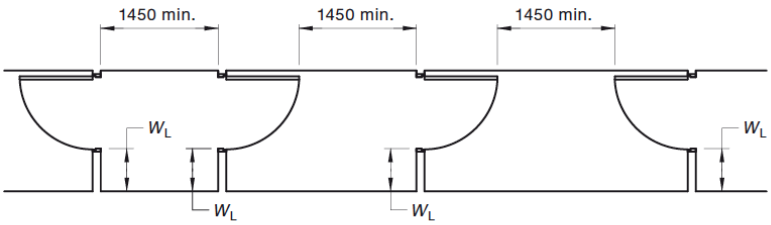
> *All doorways shall have a minimum luminance contrast of 30% provided between—*
>
> *(a) door leaf and door jamb;*
>
> *(b) door leaf and adjacent wall;*
>
> *(c) architrave and wall;*
>
> *(d) door leaf and architrave; or*
>
> *(e) door jamb and adjacent wall.*
>
> *The minimum width of the area of luminance contrast shall be 50 mm*

The prevailing view is that option (b) – indicating luminance contrast between the *door leaf and adjacent wall* is the preferred option.

Compliance:	The finishes schedule indicates that the proposed wall and door colour combinations will achieve the required 30% luminance contrast at doorways.

3.10.5. Successive Doorways

Where there are successive doorways, a clear distance of 1450mm minimum is required between each doorway, in accordance with Figure 34 of AS1428.1:2009.



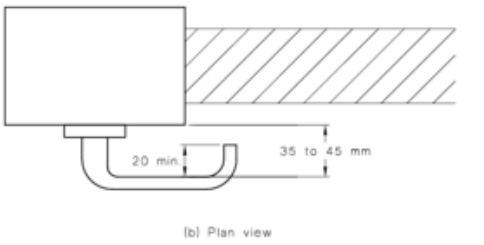
(a) Continuous accessible path of travel

Figure 29 – Figure 34 of AS1428.1:2009

3.10.6. Door Controls

The Australian Standard requires that door hardware be located within 900-1100mm AFFL.

If lever hardware is proposed to be utilised it will be necessary for the design of the lever to comply with the provisions of Clause 13.5 of AS1428.1:2009.



(b) Plan view

FIGURE 35(A) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR HINGED DOORS

Figure 30 – Fig. 35 Section 13 AS1428.1:2009

The above image indicates a privacy latch set provided to accessible WC facilities as viewed from within the facility

Lockwood Lever 80

Lockwood Lever 70

Lockwood Lever 96

Lockwood Lever 77

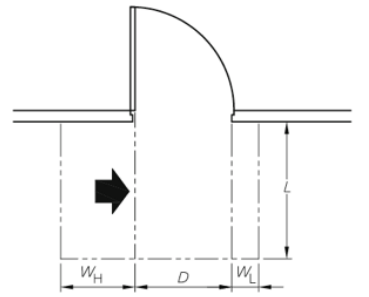
Figure 31 – The above images are examples of compliant hardware

The hardware to sliding door assemblies will need to be a “D” handle style fixed to both sides of the door assembly as required by Clause 13.5.2(c) of AS1428.1:2009.

Compliance: The door schedule specifies compliant hardware

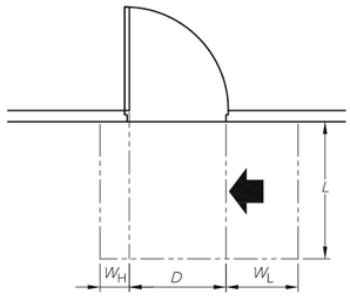
3.10.7. Circulation at Doorways

Clause 13.3 of AS1428.1:2009 provides direction as to the required circulation space to approach and enter rooms required to be accessible. Doorways to rooms that are not required to be accessible do not need to comply with the requirements for circulation at doorways.



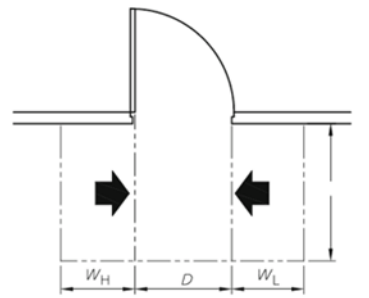
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1220	560	340
900	1185	510	340
950	1160	460	340
1000	1140	410	340

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



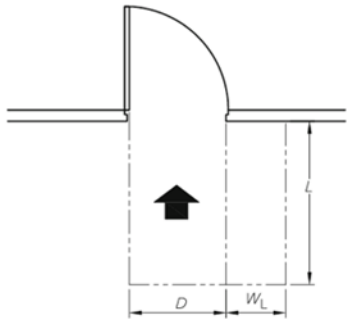
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1240	240	660
900	1210	190	660
950	1175	140	660
1000	1155	90	660

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



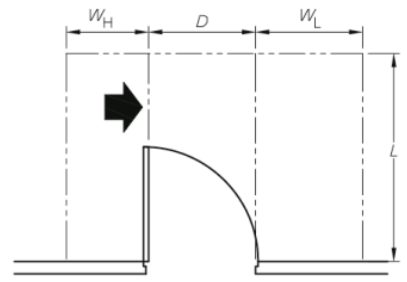
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1240	560	660
900	1210	510	660
950	1175	460	660
1000	1155	410	660

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



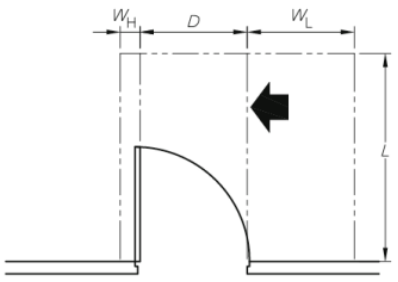
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	0	510
900	1450	0	510
950	1450	0	510
1000	1450	0	510

(d) Front approach, door opens away from user



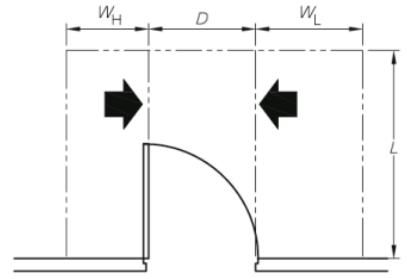
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

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



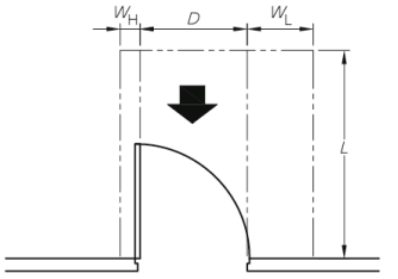
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	110	900
900	1670	110	900
950	1670	110	900
1000	1670	110	900

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



Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

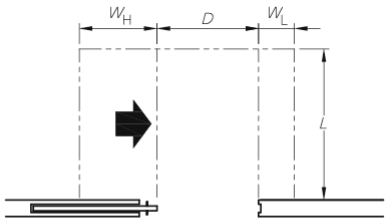
(g) Either side approach, door opens towards user



Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	110	530
900	1450	110	530
950	1450	110	530
1000	1450	110	530

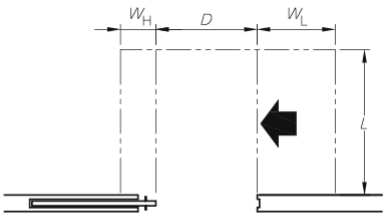
(h) Front approach, door opens towards user

Figure 32 – Figure 31 of AS1428.1:2009



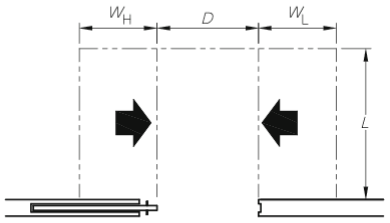
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1280	660	395
900	1280	610	395
950	1280	560	395
1000	1280	510	395

(a) Slide-side approach



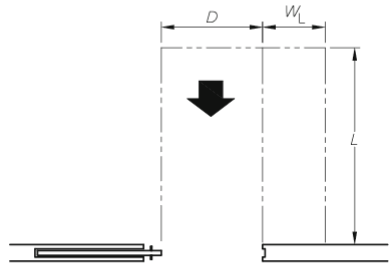
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1230	185	660
900	1230	180	660
950	1230	180	660
1000	1230	180	660

(b) Latch-side approach



Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1280	660	660
900	1280	610	660
950	1280	560	660
1000	1280	510	660

(c) Either side approach



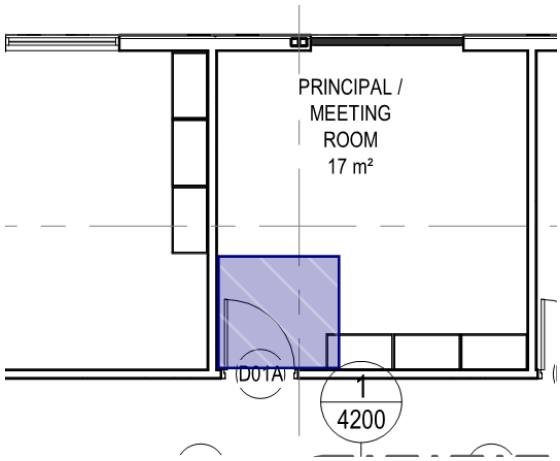
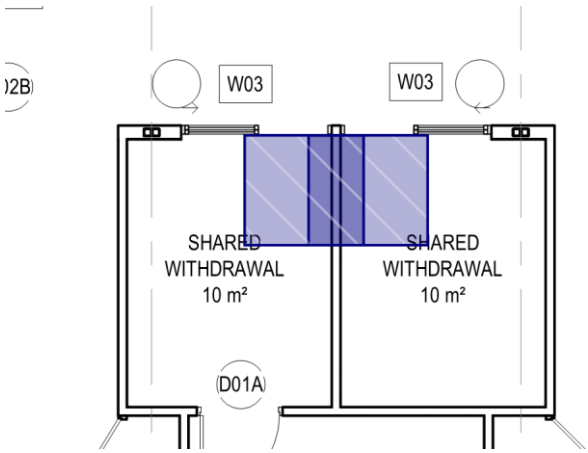
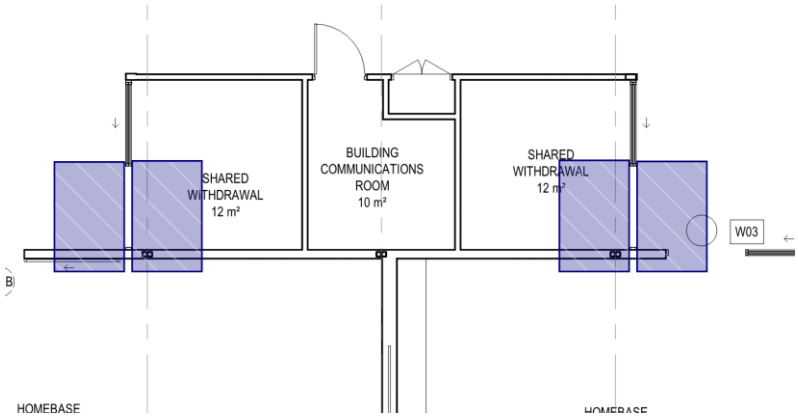
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	0	530
900	1450	0	530
950	1450	0	530
1000	1450	0	530

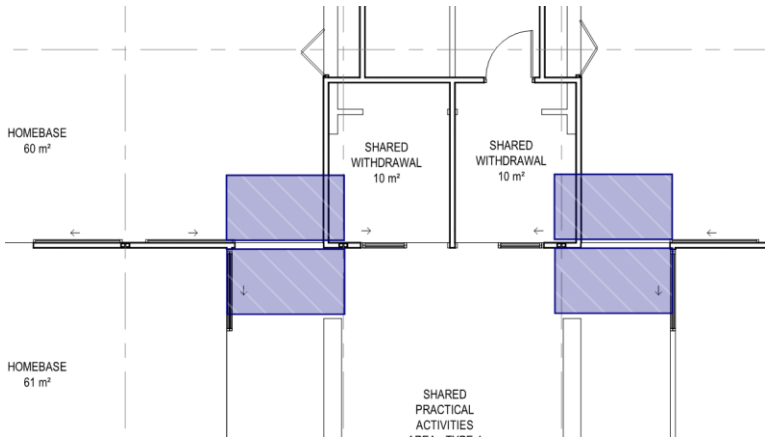
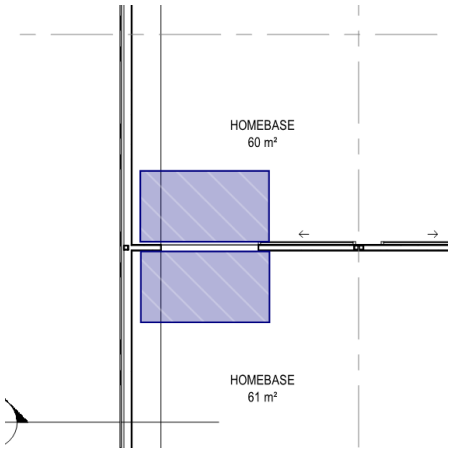
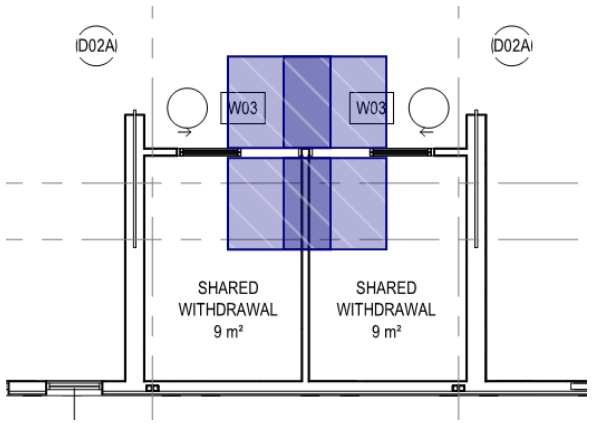
(d) Front approach

Figure 33 – Figure 32 of AS1428.1:2009

Performance Solution

A Performance Solution is to be prepared to address to address the circulation at doorway requirements of the sliding doors between GLAs

Doorway Location	Plan Extract
Ground Floor Block A Principal/Meeting Room	
Ground Floor Block B3 Shared Withdrawal rooms	
Ground Floor Block B4 Shared Withdrawal rooms	

Level 1 Block B1 Shared Withdrawal rooms	
Level 1 Block B1 Shared Withdrawal rooms	
Level 1 Block B3 Shared Withdrawal rooms	

3.10.8. Door Closers

Where door closers are fitted to doors, other than fire doors associated with the fire stairs, the maximum force required to be applied to the door to open the door is not to be greater than 20N force. (Clause 13.5.2(e) AS1428.1:2009).

Compliance:	Certification of compliance will be required to be provided for the issue of the access installation Certificate at OC.

3.11. Switches

Australian Standard Reference:	Clause 14 (Switches and General Purpose Outlets) of AS1428.1 2009
Requirement to be Satisfied:	All switches and controls on an accessible path of travel, other than general purpose outlets, shall be located not less than 900 mm nor more than 1100 mm above the plane of the finished floor and not less than 500 mm from internal corners.

3.11.1. General

The operation of many of the doors within this building will be connected to the building access control system.

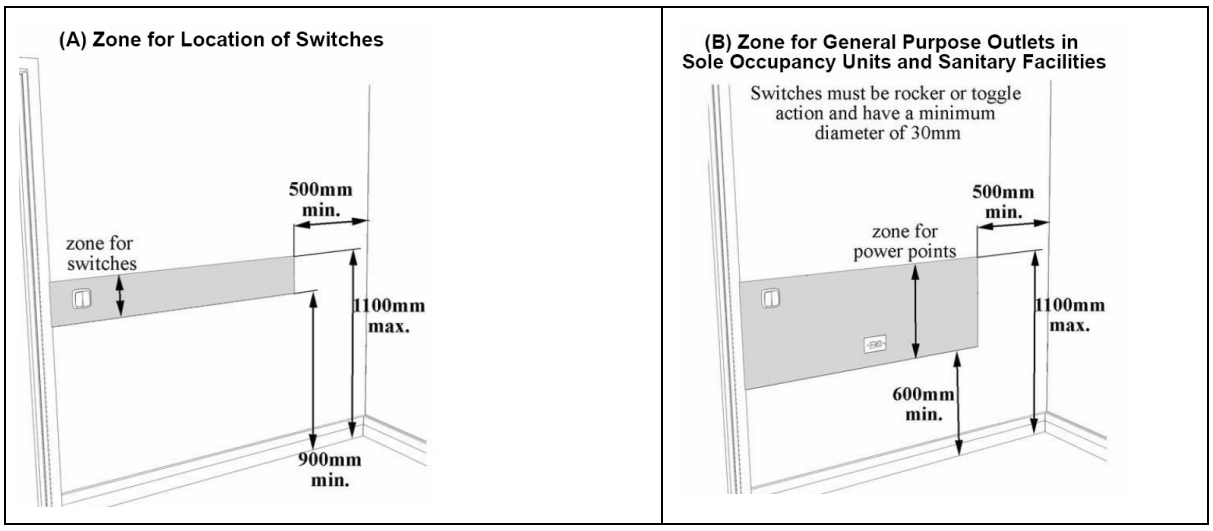
3.11.2. Video Intercoms

Any video intercom units will need to be installed in accordance with the manufacturer's instructions. The video intercom unit will need to be installed not closer than 5000mm to an internal corner.

3.11.3. Access Control

Access control swipe or fob readers will need to be installed between 900-1100mm AFFL and not closer than 500mm to an internal corner.

Door release buttons will need to be located between 900-1100mm AFFL and not closer than 500mm to an internal corner. The door release button will need to be the large format switches (35 x 35mm rocker switch) or the "mushroom" push button type.



Compliance:	This information has been detailed on the architectural package. Relevant documents are: ALL ARCHITECTURAL GENERAL ARRANGEMENT DRAWINGSAA-AR-8001 THROUGH TO AA-AR-8032 (Door Schedules) AA-AR-8095 (Door hardware schedule). Compliance is capable of being achieved

3.12. Accessible Sanitary Facilities

NCC Reference:	NCC Clause F2.4 Accessible Sanitary Facilities
	NCC Clause D3.6
	NCC Specification D3.6
Australian Standard Reference:	Clauses 15 of AS1428.1:2009

3.12.1. Sanitary facilities - Preamble

The locations of the sanitary facilities have been nominated on the plans.

Where banks of WCs are provided, ambulant WC cubicles have been provided.

Accessible WCs are only required to be provided on each level where WC facilities are provided.

The following plan extract identifies sanitary facility locations that have ambulant sanitary facilities (in aqua) and accessible sanitary facilities (in navy):

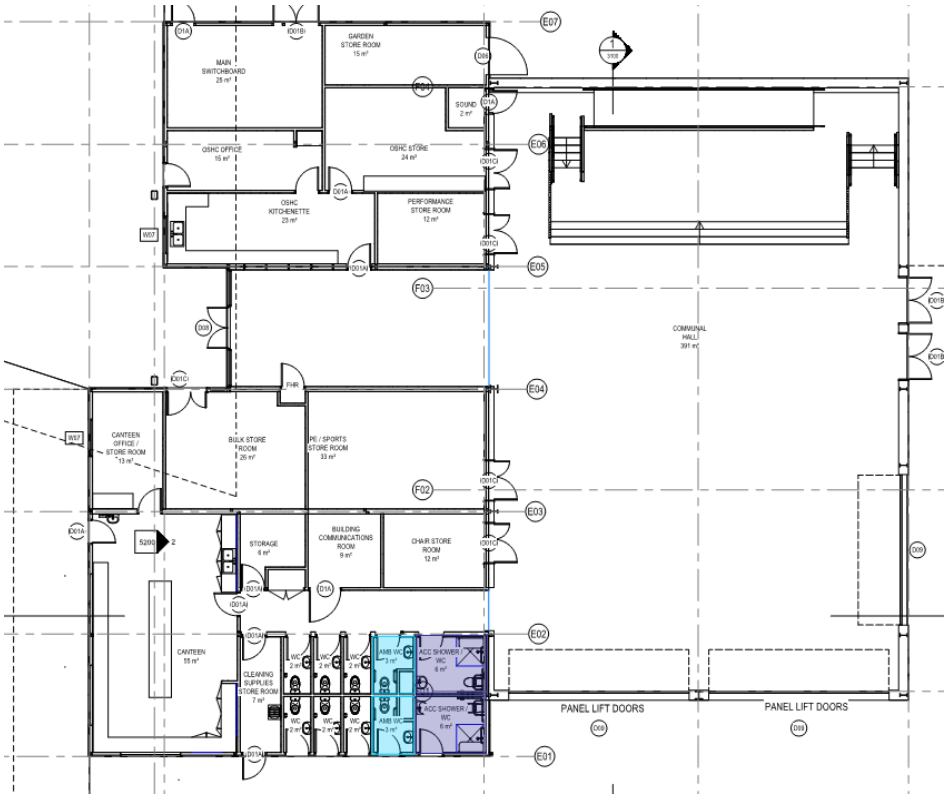


Figure 34 – Extract from Ground Level Block C

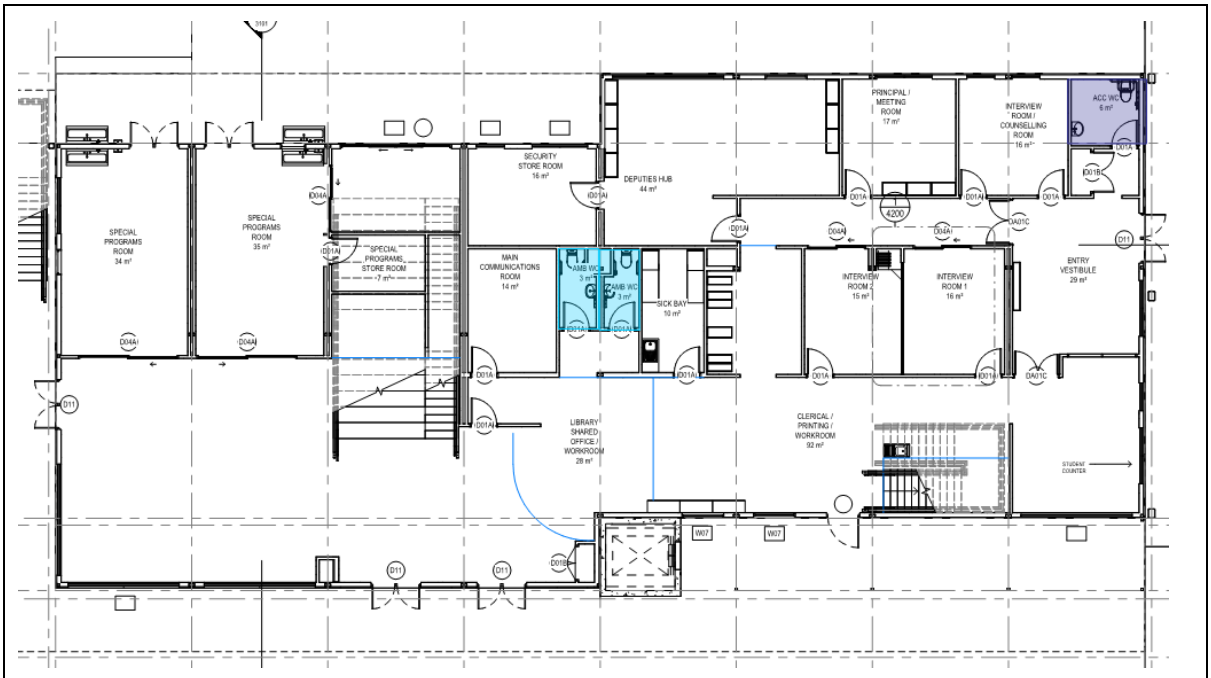


Figure 35 – Extract from Ground Level Block A

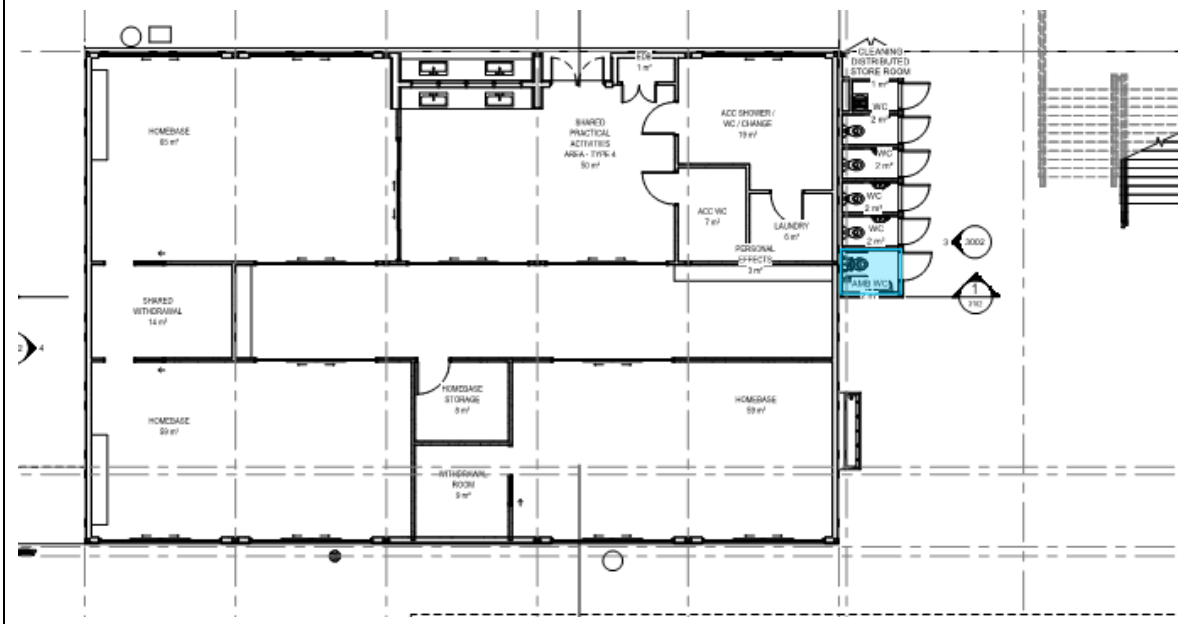


Figure 36 – Extract from Ground Level Block B1

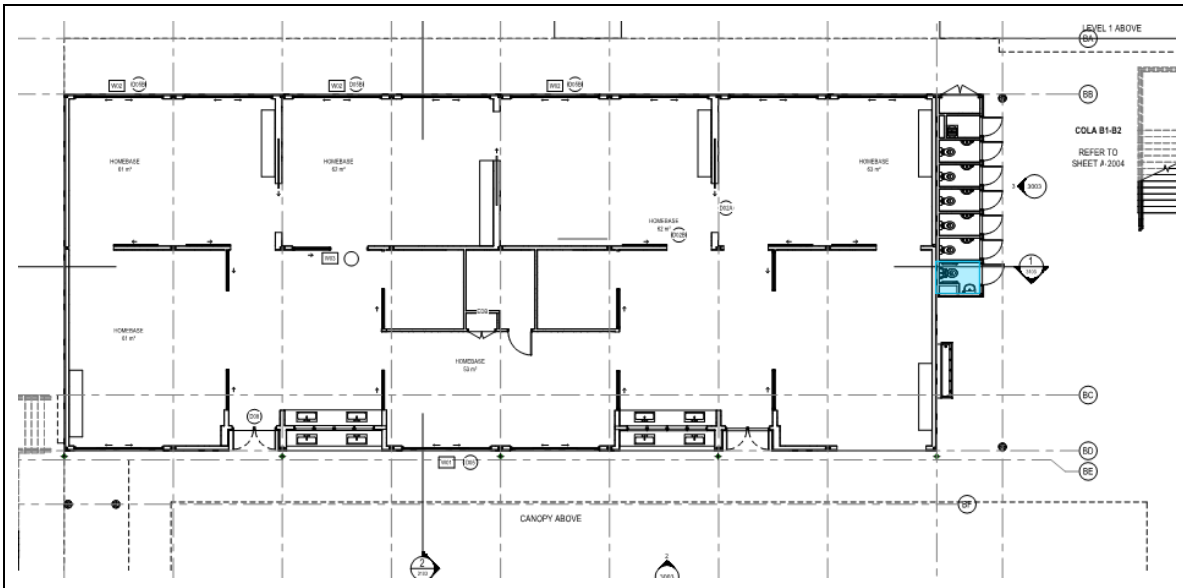


Figure 37 – Extract from Ground Level Block B2

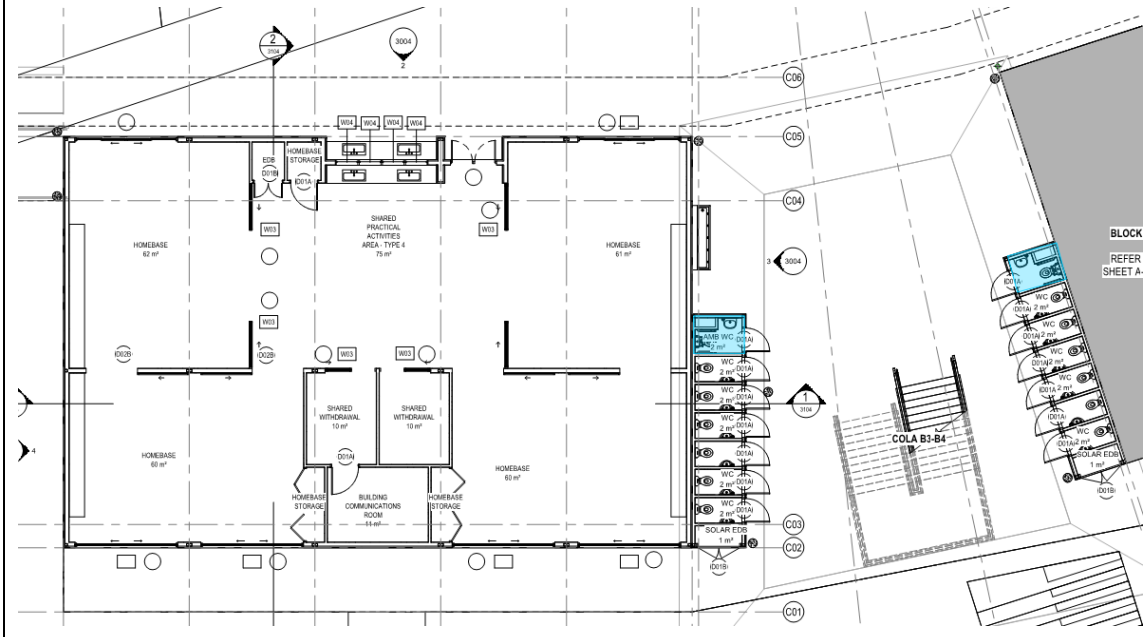


Figure 38 – Extract from Ground Level Block B3

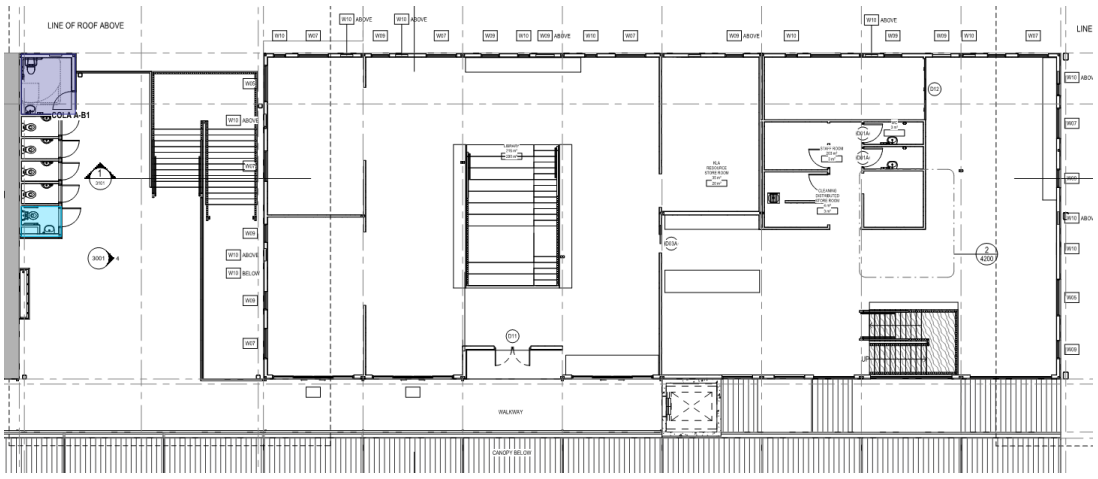


Figure 39 – Extract from Level 1 Block A

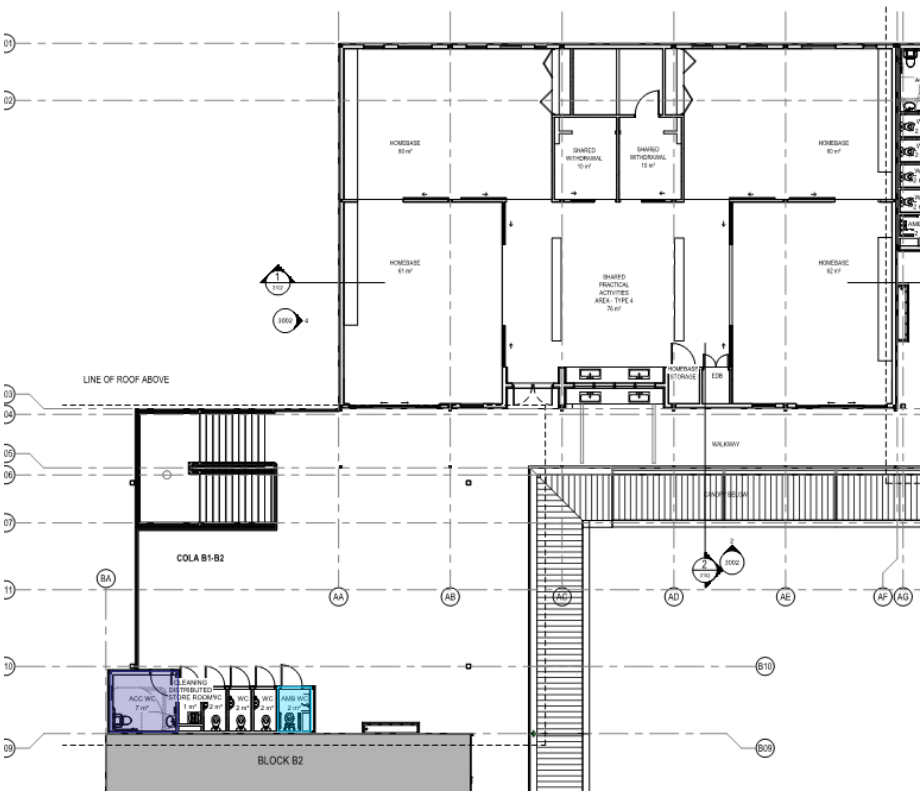


Figure 40 – Extract from Level 1 Block B1

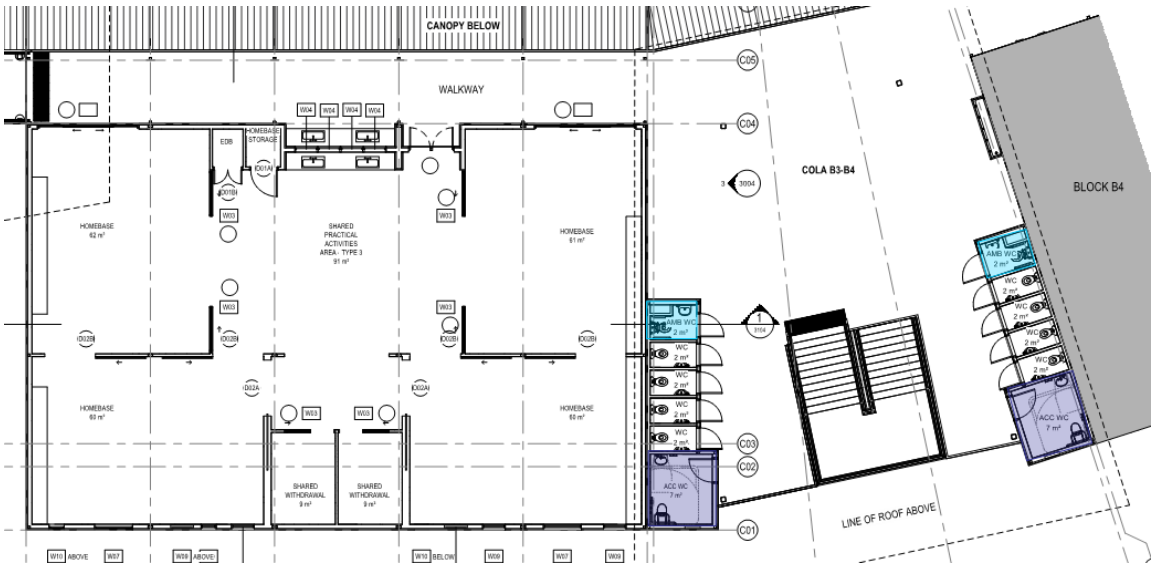


Figure 41 – Extract from Level 1 Block B3

3.12.2. Information to be provided

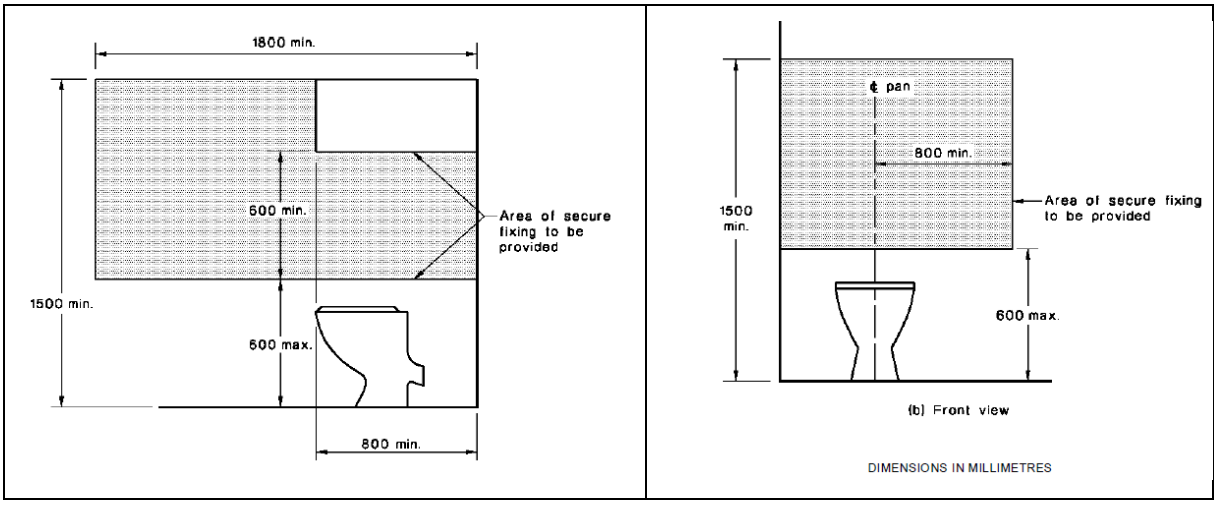
Details of the non-slip floor finish to the bathrooms will need to be provided.

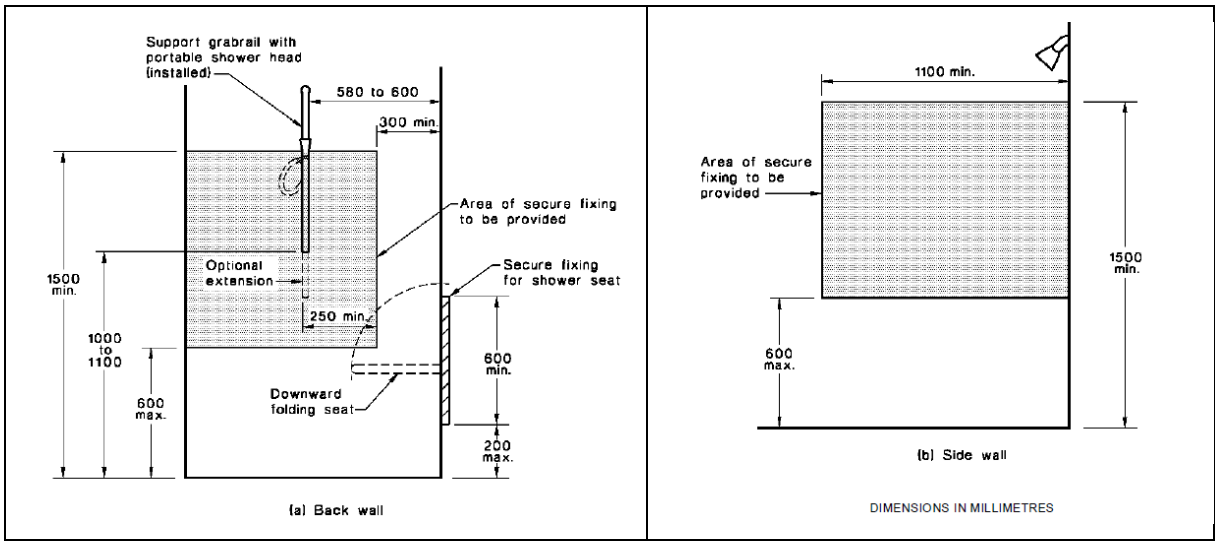
Position of TMV details are to be provided as part of the Construction Certificate documentation.

Tap sets will need to be specified with lever or capstan handles.

3.12.3. Wall Reinforcement

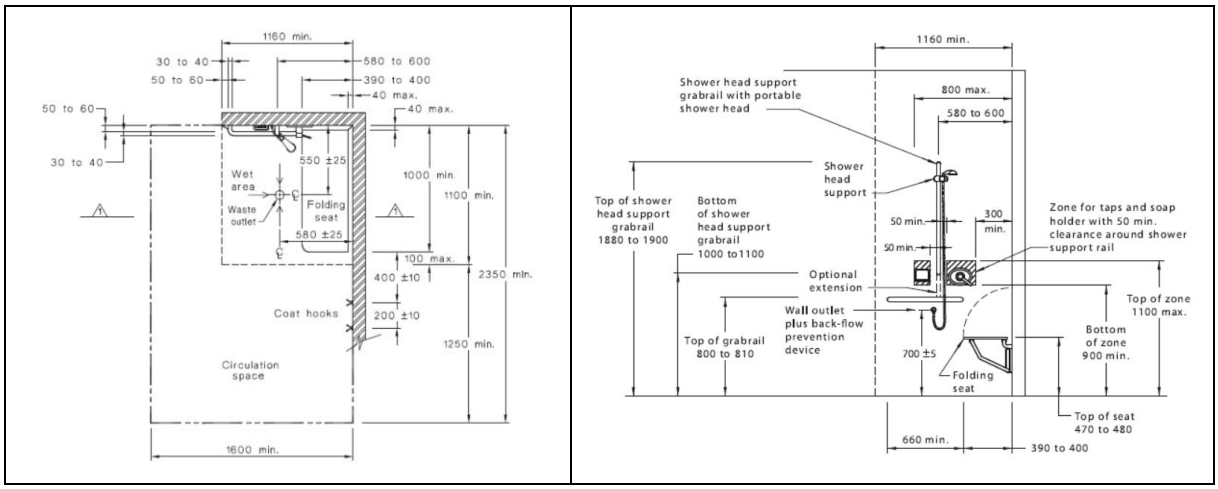
Provision of wall strengthening for grabrails will need to be provided adjacent to the WC and shower of all accessible sanitary facilities.





3.12.4. Shower Compartment

The shower compartment will need to have an area of 1160 x 1100mm. The position of the shower rose, tapware and the soap holder recess will need to be compliant to the provisions of Clause 15 of AS1428.1.

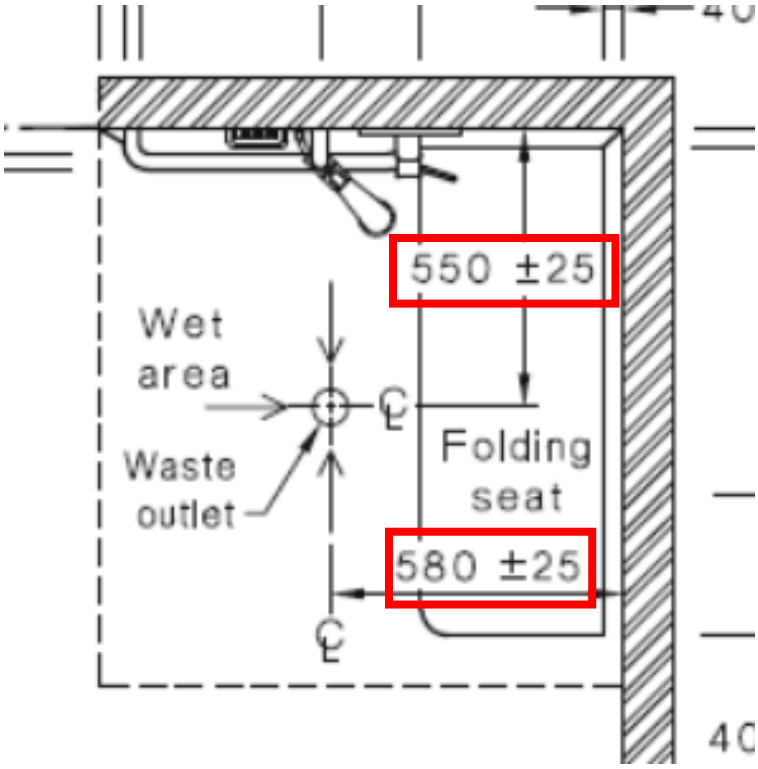


Specific attention is directed to the requirement of the length of the hose associated with the shower rose. The Standard requires the length of the hose to be 1500mm. The placement of the hose connection point results in the possibility of the shower head reaching the WC bowl which is prohibited by the Australian Standards. The detailing of this configuration will need to be resolved as part of the detailed documentation of detailed construction documentation.

3.12.5. Shower Compartment - FW

The setout of the floor waste to the accessible shower will need to satisfy the requirements of Clause 15.5 of AS1428.1:2009.

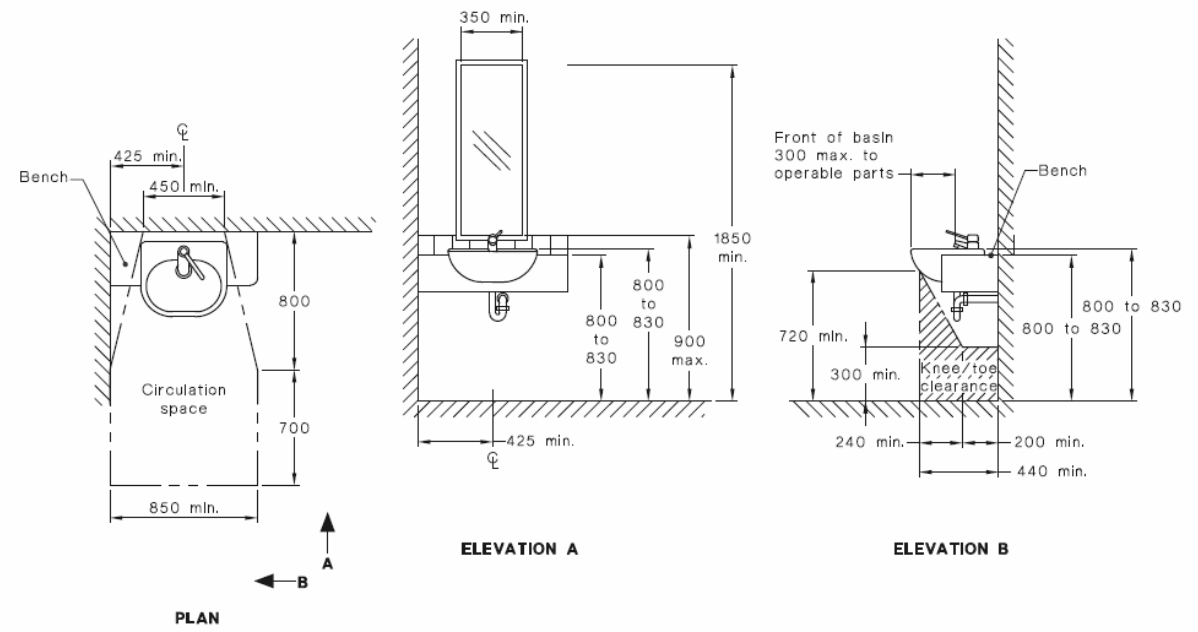
The required location of the floor waste is to be as follows:



Performance Solution

A Performance Solution may need to be prepared to address to address the setout of the FW to the accessible showers.

3.12.6. Hand-basins



NOTE: 'Operable parts' means the centre-line of the tap, or where a level handle is provided, the end point of the level measure throughout its arc of movement, or where a sensor is provided where the sensor is reliably activated.

DIMENSIONS IN MILLIMETRES

FIGURE 44(A) SEMI-RECESSED WASHBASIN INSTALLATION —OTHER THAN FOR SOLE-0CCUPANCY UNIT

A wash basin with compliant circulation to AS1428.1 will need to be provided.

3.12.7. Toilet Roll Dispensers

The location of toilet roll dispensers shall be fixed within the zone specified in Figure 41 of AS1428.1:2009.

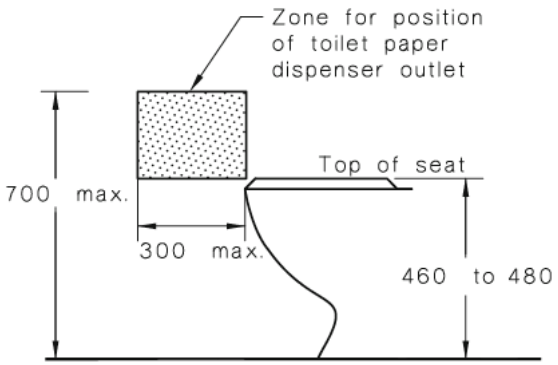


Figure 42 – Fig.41 AS1428.1 2009

3.12.8. Handrails

Clause 17-Handrails of AS1428.1:2009 specifies the clearance requirement for grabrails.

The clearance between a grabrail and the adjacent wall surface or other obstruction shall be not less than 50 mm and not more than 60 mm. The clearance above a horizontal grabrail shall extend above the top of the grabrail by not less than 600 mm. The clearance below a horizontal or angled rail shall be a minimum of 50 mm except at fixing points.

Grabrails shall be fixed so that there is no obstruction to the passage of the hand along the top 270° arc of horizontal and angled grabrails. There shall be no obstruction to the passage of the hand for the full length of vertical grabrails.

The toilet roll dispenser shall therefore not be installed less than 50mm from underneath the grabrail.

3.12.9. Summary

The following is a summary of requirements to satisfy the WC provisions of AS1428.1:2009:

• 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 autodoors will not be installed
• Door hardware	The position of door hardware is to be located between 900-1100mm AFFL.
• WC pan circulation	1900×2300mm
• hand basin circulation	850×1500mm, 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 300 mm 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 can 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. Details of Braille tactile signage are highlighted in the above Signage section of this report.

Compliance:	The drawing set will need to include detailed documentation of all ambulant and accessible sanitary facilities to indicate compliance with the provisions of AS1428.1:2009.

3.13. Ambulant Sanitary Facilities

NCC Reference:	NCC Clause F2.4 Accessible Sanitary Facilities
	NCC Clause D3.6
	NCC Specification D3.6
Australian Standard Reference:	Clauses 16 of AS1428.1:2009

3.13.1. Provision

The drawing set indicated several ambulant sanitary facilities. Plan extracts highlighting their locations are noted in the above section, Accessible Sanitary Facilities.

3.13.2. Ambulant WCs – Requirements to be satisfied

The NCC, F2.4 specifies:

(c) at each bank of toilets where there are one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females

The following extracts from the Australian Standards are provided for information.

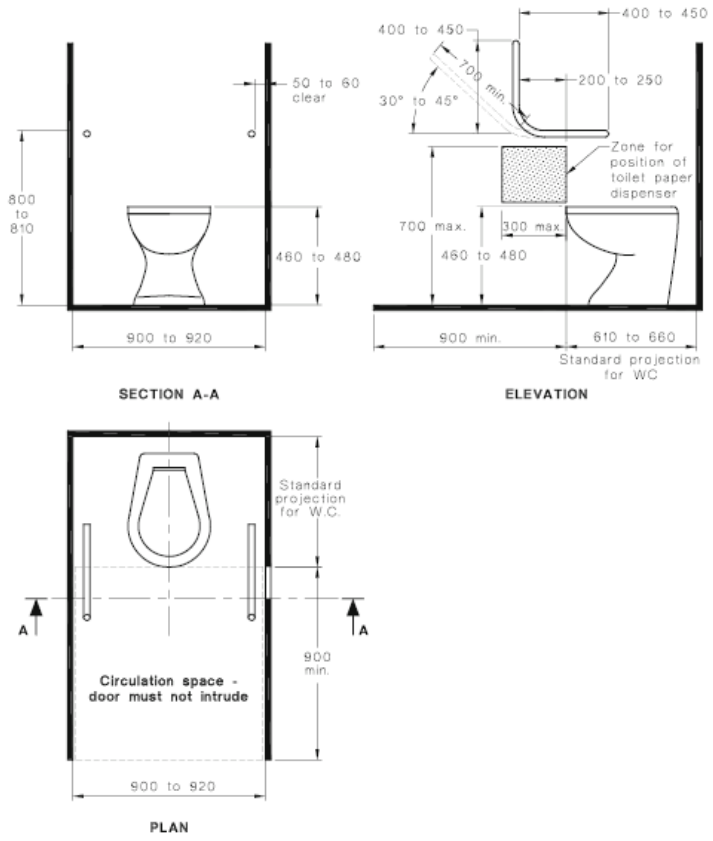


FIGURE 53(A) SANITARY COMPARTMENT FOR PEOPLE WITH AMBULANT DISABILITIES—PLAN AND ELEVATION

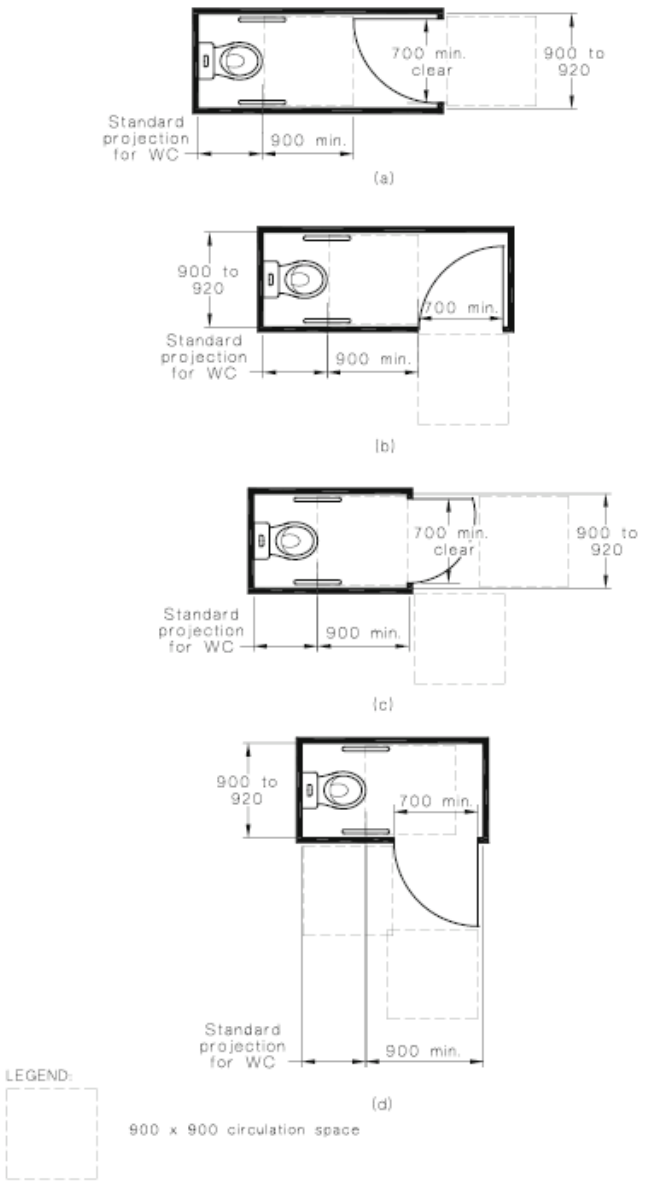


FIGURE 53(B) SANITARY COMPARTMENT FOR PEOPLE WITH AMBULANT DISABILITIES—DOORWAY OPTIONS

Figure 43 – Fig.53 AS1428.1 2009

Compliance:	The drawings will need to be completed to indicate compliance with the provisions of AS1428.1:2009

3.14. Vertical transport

NCC Reference:	D3.3 Parts of buildings to be accessible
	E3.6 Passenger Lifts
Australian Standard Reference:	AS1735.12 1999 Lifts, Escalators and Moving Walks

3.14.1. Lifts

The design indicates the provision of a single lift located within Block A to provide connectivity and accessible access between the levels of this site.

The detailing of the lift car will need to satisfy the requirements of NCC Clause E3.6, the provisions of AS1735.12 and the placement of call buttons to comply with Clause 14 of AS1428.1:2009.

The minimum clear open width of the lift door shall be 900mm.

The minimum lift car dimension to satisfy the requirements of NCC Part E is as follows:

- Passenger Lifts 1100 x 1400mm (Lift travel less than 12m)

Attention is directed to the placement of the lift call button at each level. Many lift suppliers are locating the call button for single lift car installations in the jamb of the lift door assembly. If this surface is not flush with the adjoining wall the position of the button is not complainant with the provisions of Clause 14 of AS14281:2009. This clause requires switches not to be located within 500mm of an internal corner.

The lift call button in this case should be located next to the lift door as indicated in the plan extract below:

Figure 44 - Image of non-compliant lift call button installation

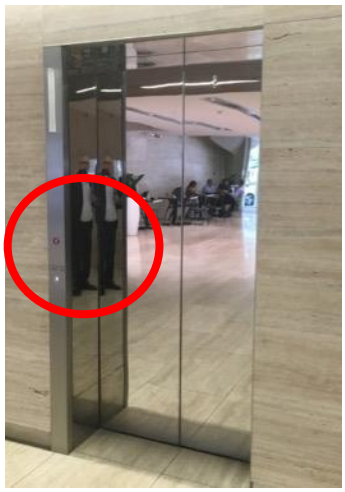
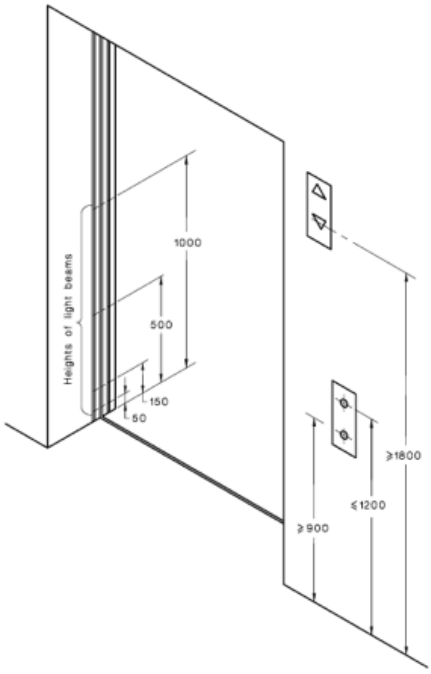


Figure 45 -Image of compliant lift call button installation

 FIGURE A1 TYPICAL ARRANGEMENT OF A LIFT ENTRANCE	
Figure 46 – Fig.A1 AS35.12 1999	

For placement of buttons, handrails and the like, we rely upon verification of compliance with AS1735.12 from the lift manufacturer.

Compliance: Information of the lift-layouts are to be provided.

3.15. Carparking

NCC Reference:	DP1(a)(i)
	DP8(a) and (b)
	D3.5 Accessible Parking
Australian Standard Reference:	AS 2890.6:2009 Carparking

3.15.1. Carparking – Preamble

The existing adjacent council parking is planned to service the new school development.

The only new onsite parking provided is associated with the special needs drop off / parking zone, clouded on the plan below.

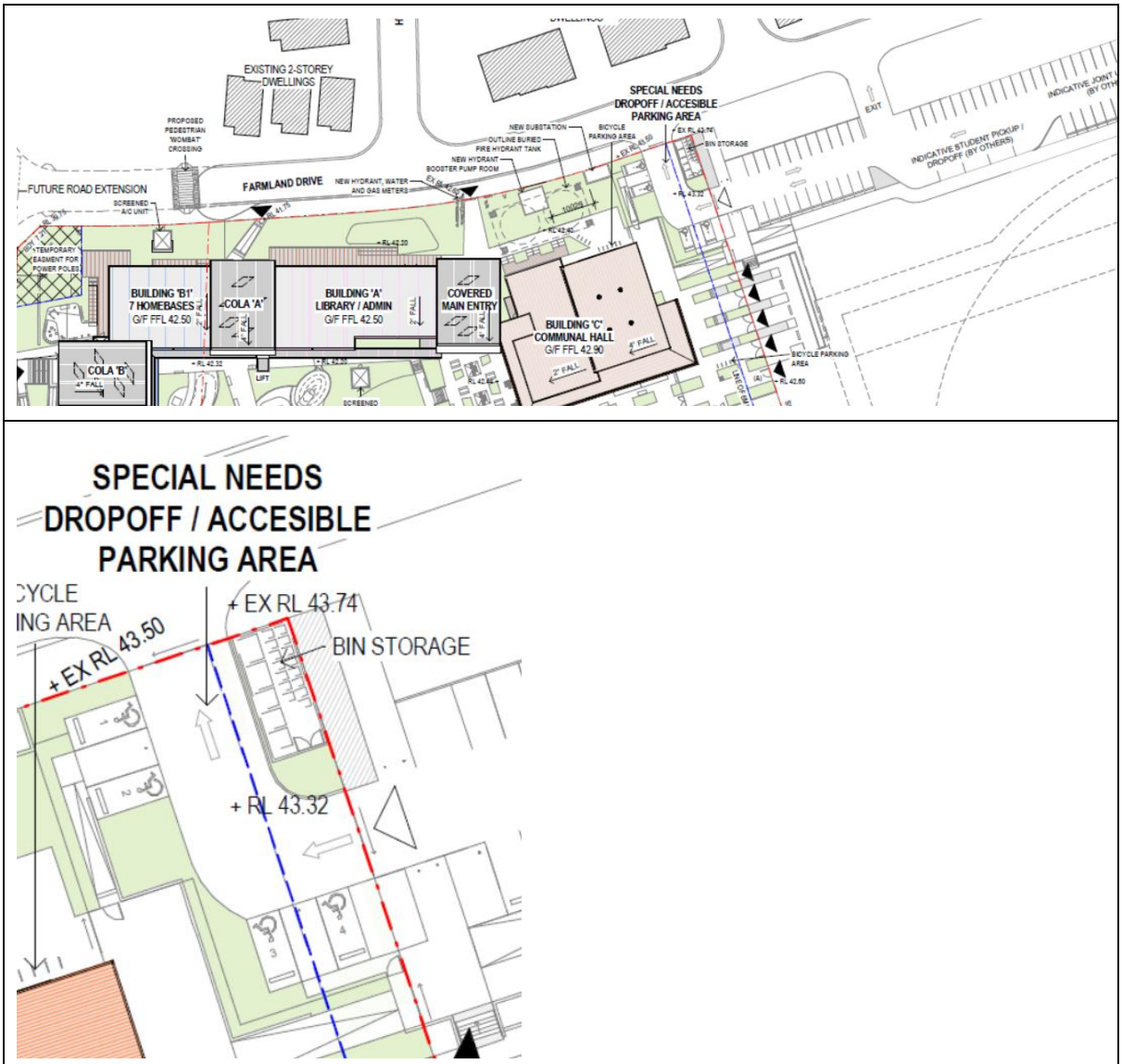


Figure 47 – Extract from Building Complex Ground Floor Plan

A total of 4 parking spaces are provided, all of which are nominated as accessible parking spaces.

3.15.2. Specifications

The spatial requirements for an accessible parking space is as per the figure below, which details a 2.4m wide parking space with a 2.4m wide shared zone.

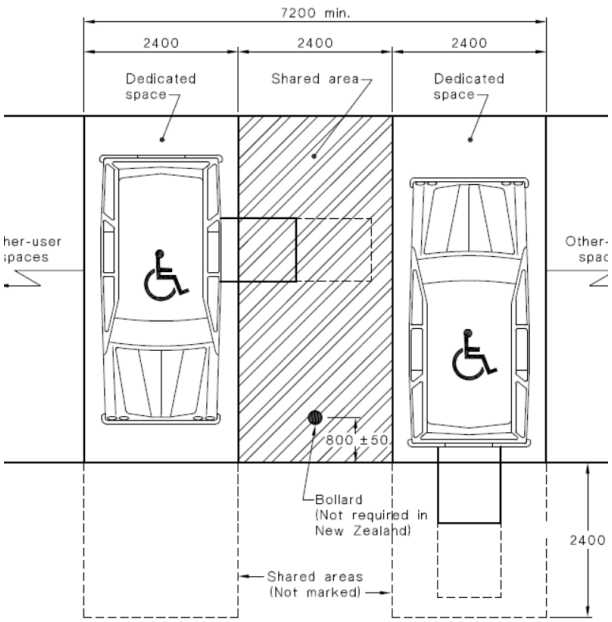


Figure 48 – Extract AS2890.6 2009

3.15.3. Carparking – linemarking

The line marking associated with the accessible parking spaces will need to satisfy the provisions of Section 3 of AS2890.6:2009. The international symbol for access shall be marked in accordance with Figure 3.1 of AS2890.6:2009. Refer to the extracts from the Standard below.

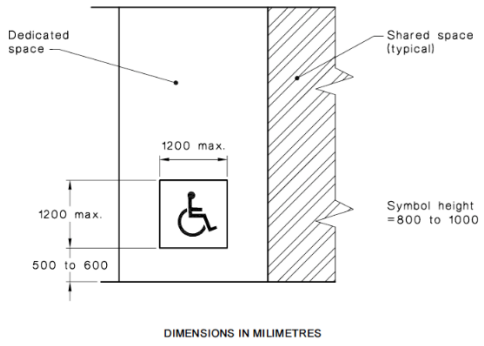


Figure 49 – Fig. 3.1 of AS2890.6 2009

3.15.4. Carparking – Height clearances

If a shade structure is proposed above the accessible parking area the clearances above the parking bays and aisleways will need to be as per the requirements noted at Clause 2.4 of AS2890.6:2009.

A 2200mm high clear path of travel is to be provided within the traffic aisle ways of the carpark. A clear zone of 2500mm will need to be provided above the accessible parking space.

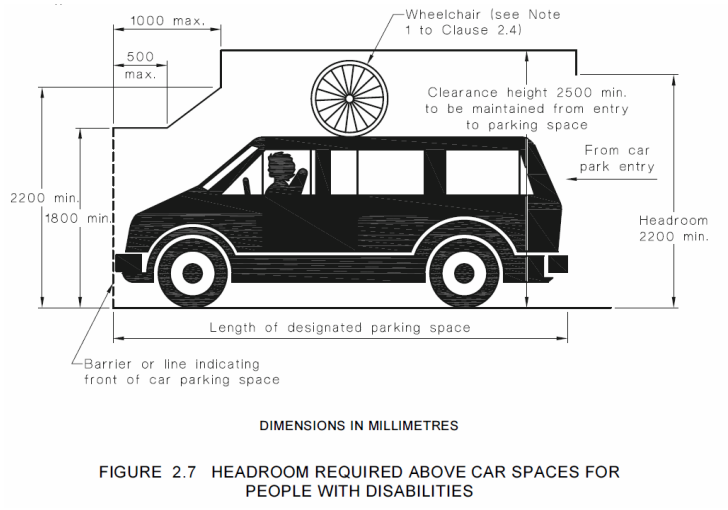


FIGURE 2.7 HEADROOM REQUIRED ABOVE CAR SPACES FOR PEOPLE WITH DISABILITIES

Figure 50 – Fig. 2.7 of Section 2 AS2890.6 2009

There are noted ramps associated with this parking zone. For details on kerb ramp requirements refer to section Walkways, Ramps & Landings in this report.

Compliance:	Accessible access has been provided from the special needs parking area to this site. Note: Compliance is subject to iAccess review and approval of the detailed construction certificate documentation.

3.16. Furniture and Fitments

NCC Reference:	D3.3 Parts of buildings to be accessible
Australian Standard Reference:	24 (Furniture and Fitments) of AS1428.2 1992

3.16.1. Counters

The reception counter associated with the school reception are to include a portion of the counter that is accessible.

3.16.2. Tables

The tables located in each classroom will need to include accessible desks.

The accessible desks will need to be adjustable to meet the needs of the student. The preferred range of adjustability is 750-850mm AFFL.

The height of clearance beneath the unit from the finished floor should be 820 ±20 mm.

Where there are two tables/counters provided, the following dimensions apply:

(a) Height from the finished floor to the top of the unit:

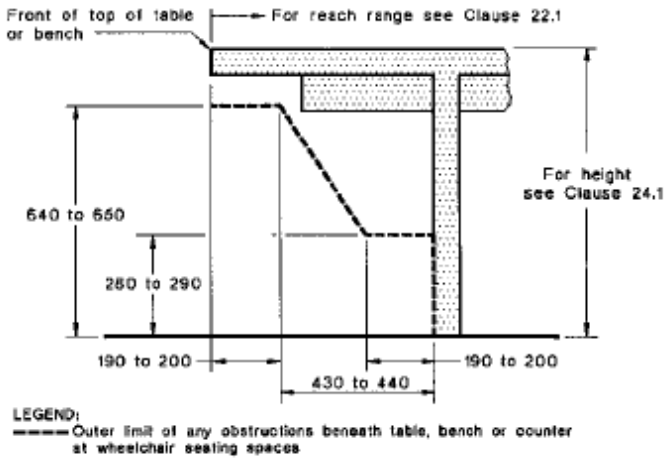
(i) 1st unit: 750 ± 20 mm.

(ii) 2nd unit: 850 ± 20 mm.

(b) Height of clearance beneath unit, from the finished floor:

(i) 1st unit: 730 ± 20 mm.

(ii) 2nd unit: 820 ± 20 mm.



NOTE: For width of seating spaces see Clause 24.1.3.

DIMENSIONS IN MILLIMETRES

FIGURE 25 KNEE AND FOOT CLEARANCE BENEATH A TABLE, BENCH OR COUNTER

Figure 51 – Fig.25 AS1428.2:1992

3.16.3. Lockers

At least one or two lockers in each bank of lockers should be designated for someone with a mobility impairment.

The designated accessible lockers are to be reflected in drawings, with the key opening, locks and handle between 900 – 1100mm AFFL. Refer to the following Sketch that illustrates this zone in blue.

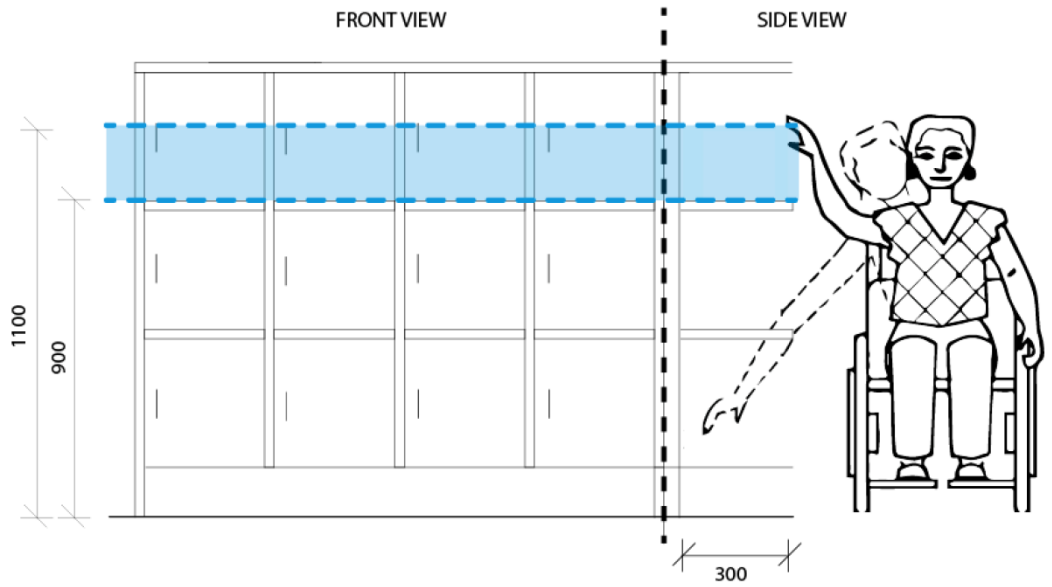


Figure 52 – Sketch by iAccess Consultants

If a staff member requires a locker within a certain reach range, they should be allocated an appropriate locker that best meets their needs.

3.16.4. Workstations

The distance between tables within workstations is to be a minimum of 1650mm.

The positioning of furniture in the staff room will need to comply with the provisions of Clause 24.1.7 of AS1428.2:1992.

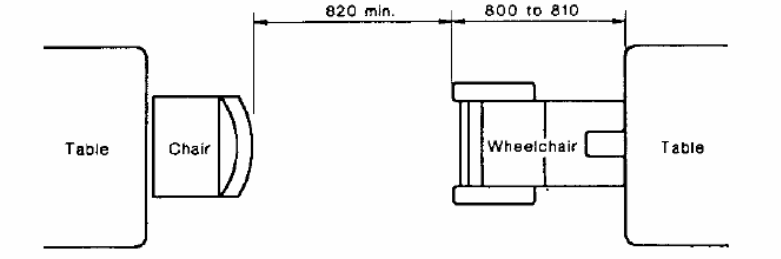


FIGURE 27 DISTANCE BETWEEN TABLES AND CHAIRS

Where possible, the furniture should not be built in to allow for accommodation of different seating opportunities and spatial allowances for any users who may require enhanced circulation space.

A 1m-wide (minimum) pathway should be provided throughout accessible areas, with 1500 x 1500mm turning zones for 90deg turns.

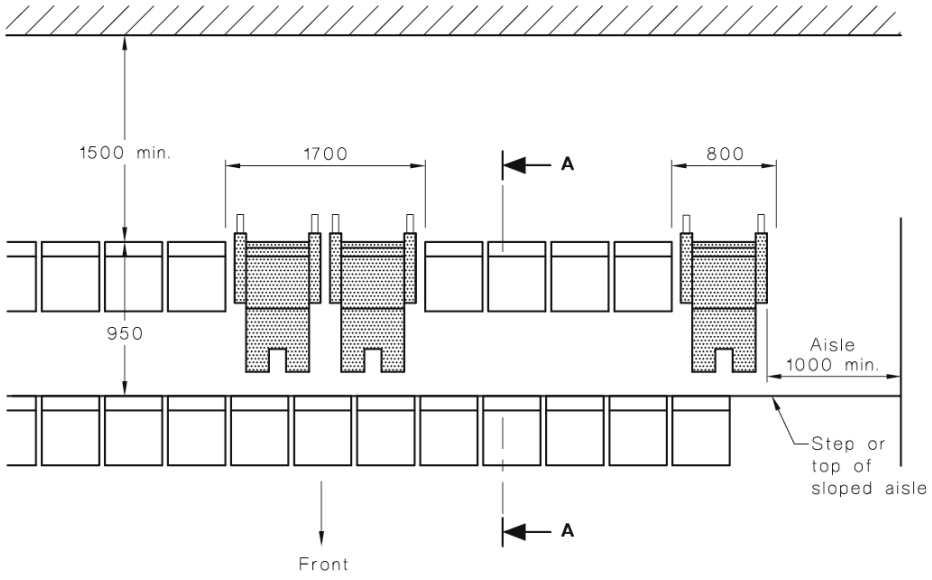
3.16.5. External and auditorium Seating (Class 9b)

Where fixed seating is provided to auditorium and external amphitheatre areas associated with the basketball courts locations for wheelchairs will need to be provided.

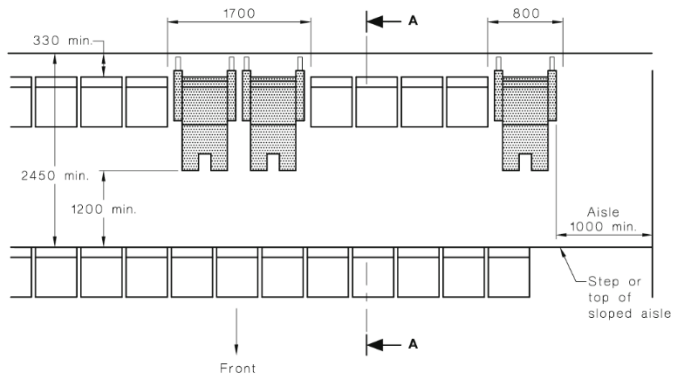
The number of accessible locations to be provided at identified at NCC Table D3.9

Figure 54 of Clause 18, AS1428.1:2009 indicates the required specifications for wheelchair seating circulation space.

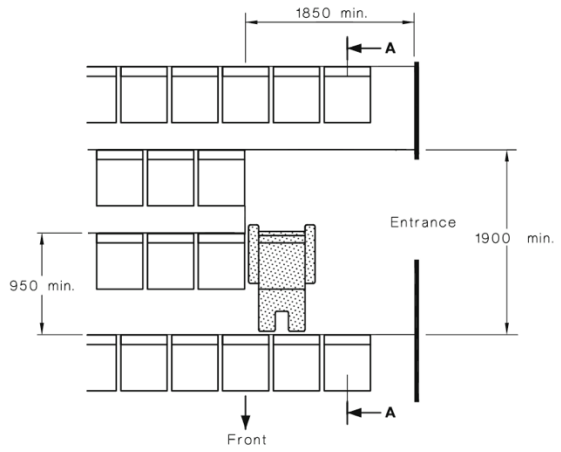
The following extracts from the Australian Standards indicates the spatial arrangements to be provided for wheelchair locations.



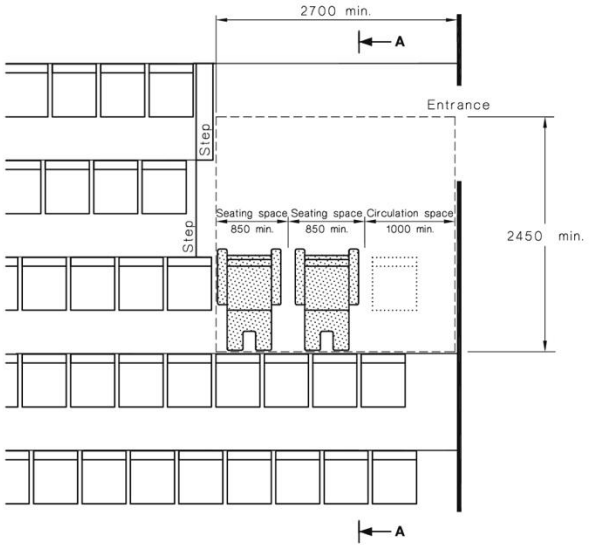
Approach from the rear - in an auditorium with aisles and crossovers



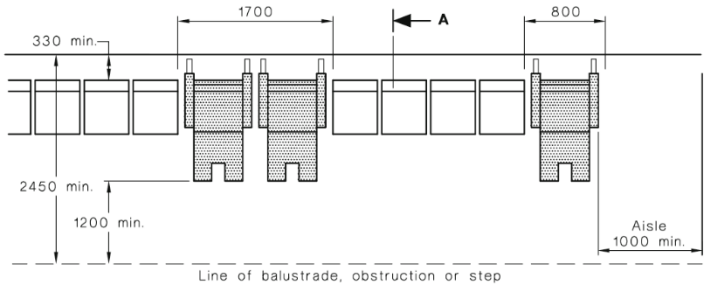
Approach from the front - in an auditorium with aisles and crossovers



Approach in an auditorium with continental seating i.e. no aisles and crossovers



Paired seating in an auditorium with continental seating i.e. no aisles and crossovers



Approach from the front - in an auditorium front row

Figure 53 – Fig.54 AS1428.1:2009

3.16.6. Drinking Fountain (if provided)

If a drinking fountain is proposed to be installed the design of the drinking will need to comply with the provisions of Clause 27.3 of AS1428.2:1992. (Extract follows)

27.3 Drinking fountains and water coolers

27.3.1 General

At each location where drinking fountains or water coolers are provided, at least one of these shall be in accordance with Figure 33.

27.3.2 Water outlet

The water outlet shall be as close as possible to the front of the unit. It shall direct the water flow to a height of 80 mm to 100 mm in a trajectory that is parallel or nearly parallel to the front of the unit (see Figure 33).

27.3.3 Controls

Controls shall either be centrally positioned at the front of the unit or if positioned at the side, be on both sides and not more than 180 mm from the front of the unit. Controls operable by one hand shall require an operating force of not more than 19.5 N.

27.3.4 Recessed drinking fountains

Where a drinking fountain is recessed, a clear width of space underneath the unit not less than 800 mm shall be provided.

27.3.5 Cup dispensers

The height of the operative components of cup dispensers shall be not more than 1100 mm above the trafficable surface.

3.17. Lighting

Australian Standard Reference: Clause 19 of AS1428.2:1992
Appendix D of AS1680.2.1:2008

The plans presently do not indicate the minimum lighting levels to be achieved. It will be necessary that the Construction Certificate documentation confirm that the minimum lighting levels nominated by the Australian Standards are achieved.

In additional to the minimum lighting levels identified at Clause 19 of AS1428.2:1992 the provisions of Table D1 of AS168.2.1:2008 which nominates interior light levels to be achieved must be considered.

The following table schedules the lighting levels nominated within the Australian Standards for accessibility:

LOCATION	CLAUSE 19 AS1428.2:1992	APPENDIX D AS1680.2.1:2008
Entrances, passages & walkways	150lx	160lx
Corridors Passageways	-	40lx
Ramps	150lx	40lx
Toilets and locker Rooms	200lx	

The electrical documentation will need to indicate compliance with these minimum lighting levels.

Compliance: Information to be provided as part of the documentation to be issued for the OC.

3.18. Hearing augmentation

NCC Reference:	NCC Clause D3.7
	NCC Clause D3.6
	NCC Specification D3.6
Australian Standard Reference:	AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired
	AS1428.4.1:2009
Requirement to be Satisfied:	NCC D3.7 Hearing Augmentation
	A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed—
	ii. in an auditorium, conference room, meeting room or room for judicatory purposes; or
	iii. at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider.

3.18.1. Hearing Augmentation – Preamble

The plans nominate the provision of hearing augmentation to the library. Details of the approach for hearing augmentation within the school will need to be provided for the issue of the Occupation Certificate.

3.18.2. Hearing Augmentation – Requirements to be satisfied

A hearing augmentation system is to be provided in locations where a built-in amplification system is provided and to rooms provided for judicatory purposes.

A built-in amplification system is a system where speakers are either installed within a room or the wall mounted monitor has built-in speakers.

Where the wall mounted screen is not capable of broadcasting sound and any audio is provided by way of the speakers attached to a laptop or that are portable, the hearing augmentation provisions will not need to be applied.

Rooms with inbuilt communication systems will need to provide a hearing augmentation system.

Section 2.3 of AS1428.1:2010 identifies the types of hearing augmentation system:

Persons with a hearing loss may or may not have a personal hearing aid or a cochlear implant fitted. When choosing an ALS the outcome should enable communication by all people with hearing impairment whether they wear hearing aids, or have hearing aids or cochlear implants without a telecoil (T-switch), or have hearing aids or cochlear implants with a telecoil (T-switch).

ALS types include—

(a) audio frequency induction loop systems (AFILSs);

(b) modulated radio systems (commonly referred to as FM systems); and

(c) infra-red (IR) systems.

Details of the proposed method of hearing augmentation to be installed will need to be provided as part of the detailed documentation provided for this project.

Where hearing Augmentation systems are installed, a Braille Tactile Sign incorporating the international symbol of deafness will need to be provided.

NCC D3.6 identifies the requirement for Braille Tactile Signage to be implemented where a hearing augmentation system is installed.

(b) signage including the international symbol for deafness in accordance with AS1428.1 must be provided within a room containing a hearing augmentation system identifying –

(i) the type of hearing augmentation; and

(ii) the area covered within the room; and

(iii) if receivers are being used and where the receivers can be obtained

Refer to the 'Signage' section of this report for details of Braille Tactile Signage requirements.

4. Disability (Access to Premises – Building) Standard 2010 – Compliance Summary

PART / CLAUSE	CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
A4.1	**Classifications** **Class 9b** — Assembly Building	Note	
DP1	**Performance requirement** Access must be provided, to the degree necessary, to enable: a) people to: i . approach the building from the road boundary and from any *accessible* carparking spaces associated with the building; and	Additional Information to be provided	
	ii. approach the building from any accessible associated building; and	Additional Information to be provided	
	iii. access work and public spaces, accommodation and facilities for personal hygiene; and	Additional Information to be provided	
	b) Identification of accessways at appropriate locations which are easy to find.	Additional Information to be provided	
DP4	**Performance requirement** *Exits* must be provided from a building to allow occupants to evacuate safely, with their number, location and dimensions being appropriate to: a) the travel distance; and b) the number, mobility and other characteristics of occupants; and c) the function or use of the building; and d) the height of the building; and e) Whether the *exit* is from above or below ground level.	Satisfied	
DP6	**Performance requirement** So that occupants can safely evacuate the building, *accessways* to *exits* must have dimensions appropriate to: a) the number, mobility and other characteristics of occupants; and b) the function or use of the building.	Satisfied	

PART / CLAUSE	CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
DP8	**Performance requirement** Carparking spaces for use by people with a disability must be: 1. provided, to the degree necessary, to give equitable access for carparking; and 2. designated and easy to find.	Additional Information to be provided	
DP9	**Performance requirement** An inbuilt communication system for entry, information, entertainment, or for the provision of a service, must be suitable for occupants who are deaf or hearing impaired.	Additional Information to be provided	
D3.1	**General Building Access Requirements Class 9b Assembly Building**		
Table D3.1	To and within all areas normally used by the occupants.	Satisfied	
D3.2	**Access to Buildings**		
	(1) An *accessway* must be provided: (a) to a building *required* to be *accessible*;	Satisfied	
	(b) from the main points of a pedestrian entry at the allotment boundary; and	Additional Information to be provided	
	I. from another *accessible* building connected by a pedestrian link; and	Additional Information to be provided	
	II. from any required accessible carparking space on the allotment.	Additional Information to be provided	
	(2) In a building *required* to be *accessible,* an *accessway* must be provided through the principal pedestrian entrance, and: a. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and b. in a building with a total *floor area* more than 500sqm, a pedestrian entrance which is not *accessible* must not be located more than 50 m from an *accessible* pedestrian entrance; Except for pedestrian entrances serving only areas exempted by clause D3.4.	Additional Information to be provided	
D3.3	**Parts of buildings to be accessible**		
	In a building *required* to be *accessible*: a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with:		
	i. for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and	Additional Information to be provided	

PART / CLAUSE	CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
	ii. for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1;	Additional Information to be provided	
	iii. for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1;	Not Applicable	
	b) every passenger lift must comply with clause E3.6;	Additional Information to be provided	
	c) *accessways* must have: i. passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and ii. turning spaces complying with AS 1428.1: A. within 2m of the end of *accessways where* it is not possible to continue travelling along the *accessway*; and B. at maximum 20 m intervals along the *accessway*;	Additional Information to be provided	
	d) an intersection of *accessways* satisfies the spatial requirements for a passing and turning space;	Additional Information to be provided	
	e) a passing space may serve as a turning space;	Additional Information to be provided	
	f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a *storey* or level other than the entrance *storey* in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 *storeys*; and (ii) with a *floor area* for each *storey*, excluding the entrance *storey*, of not more than 200sqm.	Not Applicable	
D3.5	**Carparking**	Additional Information to be provided	
D3.6	**Signage**	Additional Information to be provided	
D3.7	**Hearing Augmentation**	Additional Information to be provided	
D3.8	**Tactile Indicators**	Additional Information to be provided	
D3.9	**Wheelchair seating**	Additional Information to be provided	
D3.10	**Swimming pool**	Not Applicable	

PART / CLAUSE	CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
D3.11	**Ramps (Connecting Ramps)**	Additional Information to be provided	
D3.12	**Glazing on an accessway** On an *accessway*, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with Clause 6.6 of AS 1428.1.	Additional Information to be provided	If full-height glazing is provided, visual indicators are required.
Part D4	**Braille & Tactile Signs**	Additional Information to be provided	The signage detailing will need to comply with the provisions of Clause D3.6 and Specification D3.6 of the BCA as well as Clauses 16.3 and 17 of AS1428.2 which addresses the size of the pictogram as well as the height of lettering.
Part E3	**Lift Installation**	Additional Information to be provided	
Part F2	**Sanitary and other facilities**	Additional Information to be provided	