

Job No: IAC-1589

Thursday, 13 February 2025

**RAPISARDA INVESTMENTS
PTI ARCHITECTURE
LEVEL 2
68 SOPHIA STREET
SYDNEY NSW 2010**

Reference: **Student Accommodation Project
183 MACQUARIE STREET, PARRAMATTA NSW**

Attention: Mr Peter Israel
Email: Peter@ptiarch.com.au
Phone No: + 61 419 467 472

Dear Peter,

Thank you for inviting iAccess Consultants to undertake this access assessment of the proposed student accommodation development located at 183 Macquarie Street, Parramatta.

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 Construction Certificate documentation.

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

Yours sincerely,

**Richard Seidman**

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ACCESS REPORT – LEC SUBMISSION

STUDENT ACCOMODATION 183 MACQUARIE STREET PARRAMATTA NSW 2150



Prepared by

iAccess Consultants

A division of iAccess Group Pty Ltd

ABN 37 002 648 615

Revision **[B]**

13 February 2025

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183 Macquarie Street
PARRAMATTA, NSW 2150

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

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Rev	Remarks	Issue Date
-	Access report prepared and issued to client	7 October 2022
A	Access report updated. Report revised to NCC 2022 and issued to client	20 June 2023
B	Access report updated. Report revised to reflect updated architectural documentation and issued to client	13 February 2025



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Summary of Actions to be undertaken

The following table summarises the actions yet to be undertaken as part of the detailed construction documentation to be prepared for this project. The following schedule indicates the report number and report page number.

3.02.4. Height and Width of Continual Accessible Paths of Travel - The detailed construction documentation to be prepared for this project will need document the paths of travel with a minimum 1m clear width and a minimum clear height of 2m. The room height requirements of NCC Part F5 need to be complied with.	20
3.03.1. Visual Indicators The detailed construction documentation be prepared for this project will need to detail the application of visual Indicators where full-height glazing is proposed to any glazed wall or door associated with the accessible path of travel within this development. The visual indicators are to be solid and opaque. The width of the visual indicators is to be 75mm wide. The bottom of the visual indicators is to be located between 900-1000mm AFFL. The visual indicator is to achieve 30% luminance contrast with the background. Lighting conditions and glass reflectance will need to be considered in the luminance contrast assessment.	24
3.04.1. Slip Resistance - floor and ground surfaces – The detailed construction documentation to be prepared for this project will need to detail the various floor finishes and the respective slip-resistance ratings. A schedule of the materials and the associated slip resistance rating will need to be prepared.....	25
3.04.3. Floor transitions – The construction documentation to be prepared for this project will need to detail the various floor finishes and their respective junctions and transitions.	27
3.04.4. Recessed Matting - The construction documentation to be prepared for this project will need to detail any recessed floor mats to be installed as part of this project.	28
3.04.5. Grated drains – The future construction documentation to be prepared for this project will need to specify the heel guard grate to be installed.....	28
3.05.4. Statutory Braille Tactile Exit Signage – The detailed construction documentation will need to document the braille tactile exit signage to be installed.	30
3.05.5. Statutory Braille Tactile WC Signage – The detailed construction documentation will need to document the braille tactile WC signage to be installed.	31
3.05.6. Hearing Augmentation Signage - Details of the braille tactile hearing augmentation signage is to be provided for review as part of the detailed Construction documentation to be prepared for this project.....	32
3.05.7 Lift Signage - Details of the braille tactile lift door signage to be installed will need to be provided for review as part of the detailed construction documentation to be prepared for this project.	32
3.05.9 Braille Tactile Press to Exit Signage - Details of the braille tactile 'Press to Exit' signage to be installed will need to be provided for review as part of the detailed construction documentation to be prepared for this project. Specific attention is directed to the font type, size of lettering and the selection of a field colour of the sign which will achieve a 30% luminance contrast with the wall or door the sign is installed on.	34
3.05.9 Luminance & Colour Contrast - Details of the braille tactile WC signage is to be provided for review as part of the detailed Construction documentation to be prepared for this project. Please note that aluminium signs on a white wall will not achieve compliance	33
3.06.2 TGSIs Luminous Contrast – The detailed construction documentation will need to specify TGSIs which will achieve the required luminous contrast to the background floor surface.	36
3.06.5. Setout of TGSIs associated with Stairs – Detailed TGSi setout plans will need to be prepared as part of the detailed construction documentation to be prepared for this project. The details will need to indicate the setout of the TGSIs from the face of risers and the nominated depth of TGSIs depending on the landing length.....	38
3.06.6. Setout of TGSIs associated with Ramps – Detailed TGSi setout plans will need to be prepared as part of the detailed construction documentation to be prepared for this project. The details will need to indicate the setout of the TGSIs from the edge of the ramp and the nominated depth of TGSIs depending on the landing length.....	38

3.08.2. Fire Stairs - Stair details and handrail drawings will need to be provided as part of the detailed construction documentation to be prepared for this project. Shop drawings of the proposed stairs and associated handrails will need to be prepared and submitted for review.	43
3.08.3. Stair Nosing – The stair nosing will need to be provided as part of the detailed construction documentation to be prepared for this project. Certification of compliance with the luminous contrast requirements between the nosing and the going will need to be provided.	44
3.09 Handrails - The detailed construction documentation will need to demonstrate compliance with these requirements.	45
3.10.1. Clear Door Width - The detailed documentation to be prepared for this project will need to confirm 850mm min clear openable door widths. Attention is directed to the detailing of hardware associated with sliding doors.	46
3.10.2 Luminance Contrast - A table indicating wall colour and door colour with the associated luminance contrast level achieved will need to be prepared and provided to demonstrate compliance with the requirements of Clause 13.1 of AS1428.1:2009.	47
3.10.3. Door Controls – The selection of door hardware will need to be provided as part of the detailed Construction Certificate and construction documentation to be prepared for this project.	48
3.10.5. Circulation at Doorways – The detailed construction documentation to be prepared for this project will need to indicate compliance with the circulation at doorway provisions of Clause 13.3 of AS1428.1:2009.	51
3.10.6. Door Closers – Confirmation that the proposed door closer(s) can satisfy this requirement will need to be provided as part of the detailed construction documentation to be prepared for this project. Certification of compliance will be required for the issue of the Occupation Certificate.	52
3.10.7. Doorway Thresholds Level and smooth transitions are required between internal and external doorways. The detailed construction documentation will need to detail this junction.	52
3.11. Switches – Details of the setout of switches will need to be provided as part of the detailed construction documentation to be prepared for this project.	55
3.12 Accessible WCs – The documentation to be prepared as part of the detailed construction documentation will need to indicate compliance with the requirements for accessible WCs as nominated at Clause 15 of AS1428.1:2009.	61
3.13.2 Vertical transport - A design certificate will need to be provided from the lift supplier indicating compliance with AS1735.12:2020.	65
3.13.2 Vertical transport - Detailed lift drawings will need to be prepared and provided for review.	65
3.14. Furniture and Fitment – The documentation to be prepared as part of the detailed construction documentation will need to indicate compliance with the above requirements for accessible SOUs.	67
3.16 Hearing augmentation Detailed documentation will need to be provided as part of the further documentation to be prepared for this project.	70
 OC - 3.10.6. Door Closers – Certification of compliance that the doors installed with a door closer (other than fore rated doors) satisfy the provisions of Clause 13.5(e) of AS1428.1:2009 (20N Force) will be required for the issue of the Occupation Certificate.	52
OC 3.03.1. Visual Indicators On completion of the works luminance contrast certification will need to be provided certifying the installed visual indicators achieves the required 30% luminous contrast when viewed from 2m from the surface of the glazing.	24
OC 3.04.1. Slip Resistance - floor and ground surfaces – On completion of the works certification is to be provided by the contractors indicating the slip resistance of the flooring materials installed This information is required for the issue of the access installation certificate required for the issue of the Occupation Certificate.	25
OC 3.04.2. Carpet – On completion of the works certification is to be provided by the carpet contractor that the specified carpet has been installed and that the provisions of NCC Clauses D4D4 (g) & (h) have been satisfied.	26

OC 3.06.2 TGSIs Luminous Contrast – On completion of the project, certification of the luminous contrast of the TGSIs against the surrounding floor finish will need to be provided for the issue of the Access Installation Certificate – OC.	36
OC 3.08.3. Stair Nosing – On completion of the works certification of compliance with the luminous contrast requirements between the nosing and the going will need to be provided.	44
OC 3.13.2 Vertical transport - A lift installation certificate referencing the NCC performance requirement of EP4, NCC Clause E3.6 and AS1735.12:2020 will need to be provided for the issue of the OC Access Installation Certificate.	65
OC 3.15 Lighting Levels – On completion of the works certification of lighting levels achieved indicating compliance with these requirements will need to be provided for the issue of the Access Installation Certificate at OC.	68
OC 3.16 Hearing augmentation On completion of the works certification is to be provided indicating the installed hearing augmentation system satisfies the requirements of NCC Clause D4D8 and the provisions of AS1428.5.	70
 PBDS 3.10.5. Circulation at Doorways – A performance based design solution will need to be prepared to address circulation to and within the Study rooms. This performance solution will be required for the issue of the Construction Certificate.	51
PBDS 3.10.6. Door Closers – A Performance Based Design Solution may be required to be prepared to address doors installed with a door closer (other than fire rated doors) satisfy the provisions of Clause 13.5(e) of AS1428.1:2009 (20N Force) will be required for the issue of the Construction Certificate.	52
PBDS 3.12.6 Accessible WCs – Performance Based Design Solutions will need to be prepared to address the removal of the fold down seat to the shower recess and the encroachment of the handbasin in Type D into the door circulation zone.	60






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
	Information to be provided for the issue of the OC Access Installation Certificate
	Issue to addressed by way of a Performance Based Design Solution

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 to provide commentary on the Development Application documentation for the proposed works for the proposed student accommodation located at 183 Macquarie Street, Parramatta NSW 2150.

The purpose of this access report is to identify and review key access topics as they relate to design elements of the proposed tenancy fitout.

The key accessible areas are mainly in relation to the requirements of the NCC Part D4, Access and Egress, Parts E3D7 and E3D8 Lifts, Parts F4D5 and F4D6 Sanitary Facilities and AS1428.1:2009 Design for access and mobility.

In addition to the commercial areas and communal facilities provided the design proposes a total of 66 student accommodation rooms. Seven of these rooms are designed as accessible rooms. The provision of these eight rooms exceeds the requirements nominated at NCC Table D4D2b.

There is generally a high level of compliance throughout the project, however there are several access requirements where additional information will need to be provided as part of the detailed construction documentation to be prepared for this project.

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 proposed by this Development Application.

1.2. Scope of Works

The development works include the following:

Basement

- Back of House storage
- Plant rooms
- Garbage room
- Laundry
- Bicycle store
- Communications and Main Switch room

Ground Floor

- Retail/ Commercial Area
- Reception
- Sanitary facilities
- Indoor Communal Area
- External Communal Area
- Storage Area
- Kitchen and Café Area

Level 1

- Retail Commercial

Level 2

- SOU's
- Indoor communal area
- Reception
- Office
- Study Rooms
- Mail Room

Level 3-5

- SOU's
- Back of House Room

Level 6

- SOU's
- Indoor communal area
- Outdoor communal area
- Study Rooms

Level 7-10

- SOU's

Roof/ Terrace

- Communal Open Space

There are two passenger lifts and two sets of fire stairs within the building that connect all levels of the building.

A 1:14 ramp connects the change in levels on the ground floor.

1.3. Building Classification

The NCC building classification for this development is NCC Building Class A6G4 – *a residential building providing long-term or transient accommodation for a number of unrelated persons.*

1.4. Report Exclusions

The assessment discussed in this report is limited to the Scope of Works identified in the Executive Summary.

1.5. Performance Based Design Solutions

The Codes and Standards nominate prescriptive criteria to achieve accessibility. The project teams have applied those criteria to arrive at a design solution where accessibility is achieved. In some limited instances, the ability to satisfy the accessibility criterion requires a Performance Solution equal or equivalent to the Deemed to Satisfy approach.

This access report relies on Performance Based Design Solutions addressing:

- Topic 1. The omission of a fold down shower seat to the accessible WCs provided within the accessible SOUs.
- Topic 2. Encroachment of the handbasin into the door circulation zone SOU Type D
- Topic 3. Force to operate doors fitted with door closers (other than fire rated doors) where the force to operate the door is greater than 20N Force.
- Topic 4. Circulation to and within Study Rooms

1.6. Equitable Egress Strategy - NCC Clauses D1P4 & D1P6

An NCC Deemed to Satisfy solution addressing egress from a building satisfies the provisions of D1P4 and D1P6.

1.7. NCC Clause D4D5 Concession

The NCC Clause **D4D5** notes 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 tenancy has several rooms where the NCC **D4D5** concession applies:

- Plant rooms
- Storerooms
- Cleaners' areas

1.8. Architectural Documentation

This Access Report references the following architectural documentation for Project No. P567.

Dwg No	Title	Revision
DA05	Site Plan	T
DA06	Basement Floor Plan	T
DA07	Ground Floor Plan	T
DA08	Level 1 Floor Plan	T
DA09	Level 2 Floor Plan	T
DA10	Level 3-5 Typical Floor Plan	T
DA11	Level 6 Floor Plan	U
DA12	Level 7-10 Typical Floor Plan	U
DA13	Roof Terrace Floor Plan	T
DA14	Roof Plan	T
DA36	Adaptable Rooms	T

1.9. Occupation Certificate Checklist – NCC Part D4, Access and Egress, Parts E3D7 and E3D8 Lifts, Parts F4D5 and F4D6 Sanitary Facilities

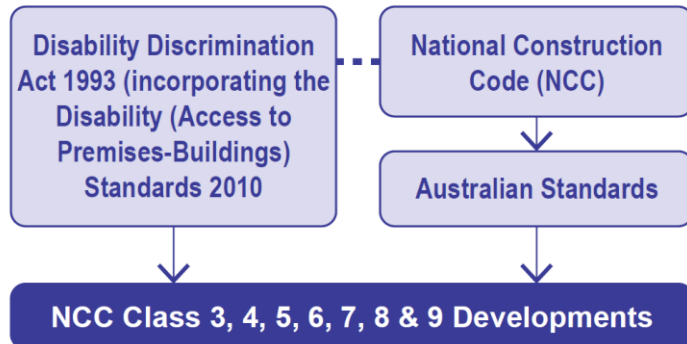
The following requirements and certifications are to be provided for the issue of the Access Installation Certificate required for the issue of the Occupation Certificate.

- Lift installation certificate for each lift nominating compliance with NCC Clause E3D7 & E3D8 and AS1735.12:1999.
- Gradients of ramps to be between 1:14 and 1:20
- Slip resistance rating for external pavements
- Slip resistance rating for internal floor finishes to corridors and wet areas of rooms required to be accessible
- Slip resistance rating of stair nosing
- Slip resistance rating of stair going
- Slip resistance rating of TGSIs
- Luminous contrast of stair nosing to going.
- Luminous contrast of TGSIs to background floor finish
- Luminous contrast of Visual Indicators installed to full height glazing.
- Luminous contrast at doorways
- Installation of wall strengthening to locations where grabrails are installed.
- Setout of Accessible WCs to the requirements of Clause 15 of AS1428.1:2009
- Certification of hearing augmentation systems installed to the provisions of NCC Clause D4D8 and AS1428.5:2021
- Certification that the Statutory Braille Tactile signage is designed and installed to NCC Clause D4D7, NCC Specification 15 and AS1428.5:2021 where hearing augmentation is installed.
- Detailing of handrails to ramps and stairs to the provisions of Clauses 10, 11 & 12 of AS1428.1:2009,
- Certification of force to operate doors other than fire or smoke doors fitted with door closers to be not more than 20N force,

- Setout of door release buttons
- Location of switches to be not closer than 500mm to an internal corner

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 referenced by the NCC

The following Acts, Codes and Australian Standards have been considered in the preparation of this access report for this project.

- Disability Discrimination Act 1992
- Disability (Access to Premises - Buildings) Standards 2010 (DDA 1992) as modified 23 November 2024
- National Construction Code 2022
- AS1428.1:2009 Design for access and mobility - General requirements for access - New building work
- AS1428.4.1:2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- 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

2.3. Legislative Framework not referenced by the NCC

The following Australian Standards not referenced by NCC Schedule have been considered in this access report.

- AS1428.1:2021 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
- AS1428.4.2:2018 Design for access and mobility – Wayfinding
- AS1428.5:2021 Design for access and mobility - Communication for people who are deaf or hearing impaired
- AS1735.12:2020 Lifts, escalators and moving walks - Facilities for persons with disabilities
- HB198:2014 Guide to the specification and testing of slip resistance of pedestrian surfaces

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

3.1.1. Accessible SOUs

The design proposes 66 student accommodation units to be provided as part of this development.

Accessible access is provided to the common areas of this development.

NCC Table D4D2b nominates the number of accessible sole occupancy units to be provided within this development. Compliance with the provisions of Table D4D2b requires the provision of 4 accessible SOUs.

ACCOMODATION SCHEDULE		
NUMBER OF ROOMS	G	0
	LEVEL 1	0
	LEVEL 2	5
	LEVEL 3 - 5	24 (8 PER LEVEL)
	LEVEL 6	5
	LEVEL 7 - 10	32 (8 PER LEVEL)
TOTAL OF SINGLE ROOMS		53
TOTAL OF DOUBLE ROOMS		6
ACCESSIBLE ROOMS		7
TOTAL NUMBER OF ROOMS		66
COMMUNAL AREAS		2 (AT LEVEL 2 & 6)

Extract of Accommodation Schedule from Drawing No. DA16 Rev T.

Compliance: The design as proposed satisfies the provisions of NCC Table D4D2b with the provision of seven (7) accessible SOUs.

The documentation provides plan layouts for the accessible room types as follows. The construction documentation will detail the accessible features to be incorporated into these rooms including:

- Luminance contrast to internal doors
- Level thresholds at doorways
- Large format rocker switches
- Provisions for power activated blinds
- Provisions for future door automation

3.2. Continuous Accessible Paths of Travel

NCC 2022	D1P1 Access for people with a disability
	D4D3 Access to buildings
	D4D4 Parts of buildings to be accessible
AS 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 all areas of the development works.

The requirements for Continuous Accessible Paths of Travel are noted in the National Construction Code at Clauses D1P1 and D4D3:

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 **D1P1** of the National Construction Code 2019.

Accessible access is provided to the common areas as per the provisions of NCC Table D4D2(5)(a).

Pedestrian access to the site is from Macquarie Street.

3.2.2. CAPT – Requirements to be satisfied

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 **D1P1** of the National Construction Code 2022

The NCC Clause **D4D3(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 design as proposed indicates the design is capable of compliance with the provisions of NCC Clause D4D3(a).
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3.2.3. Site

The development is located at 183 Macquarie Street, Parramatta NSW 2150.

3.2.4. 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.*

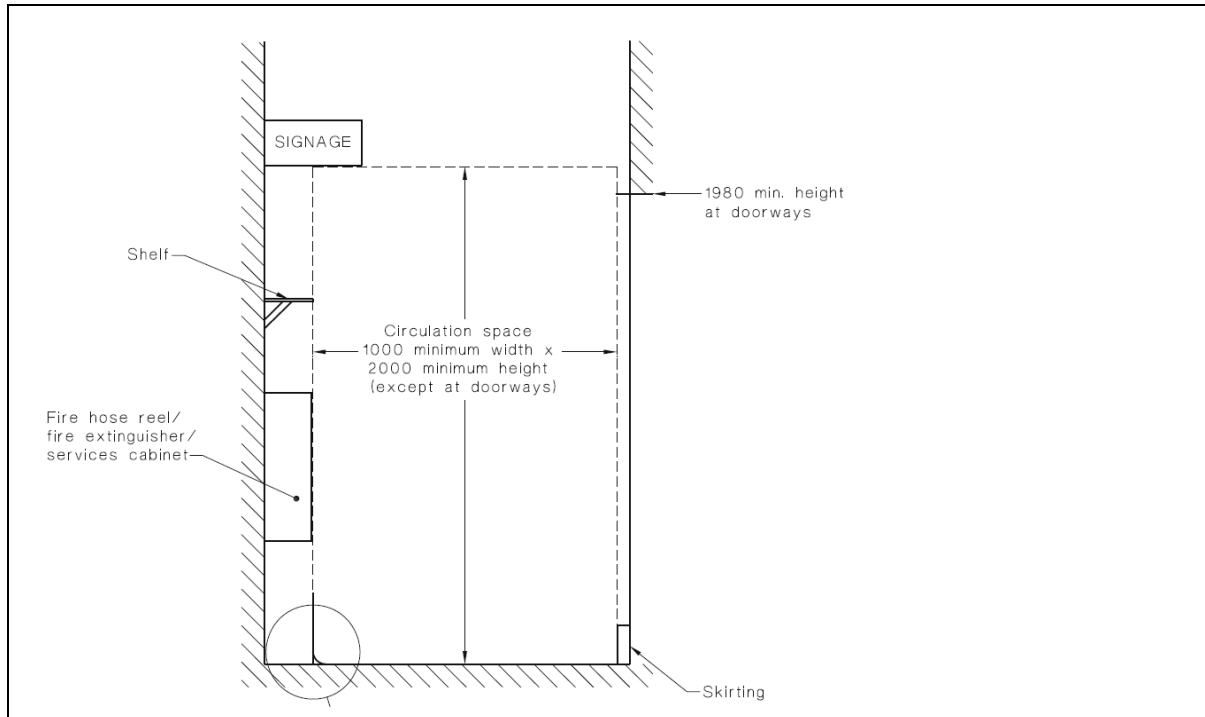


Figure 1 – Fig. 2 of Section 6, AS1428.1:2009

3.2.4. Height and Width of Continual Accessible Paths of Travel - The detailed construction documentation to be prepared for this project will need document the paths of travel with a minimum 1m clear width. The room height requirements of NCC Part F5 need to be complied with.

3.2.5. Wheelchair Circulation Zones

The design 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 6.5 of AS1428.1 2009 as well as 1500x1500 circulation zones where the path of travel changes direction.

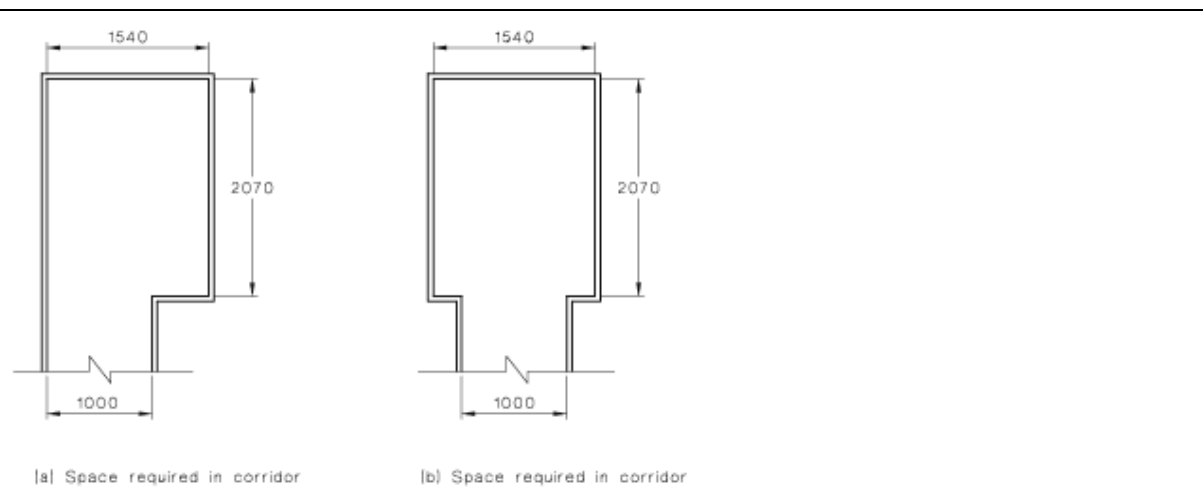


Figure 2 – Fig.3 Section 6.5 AS1428.1 2009

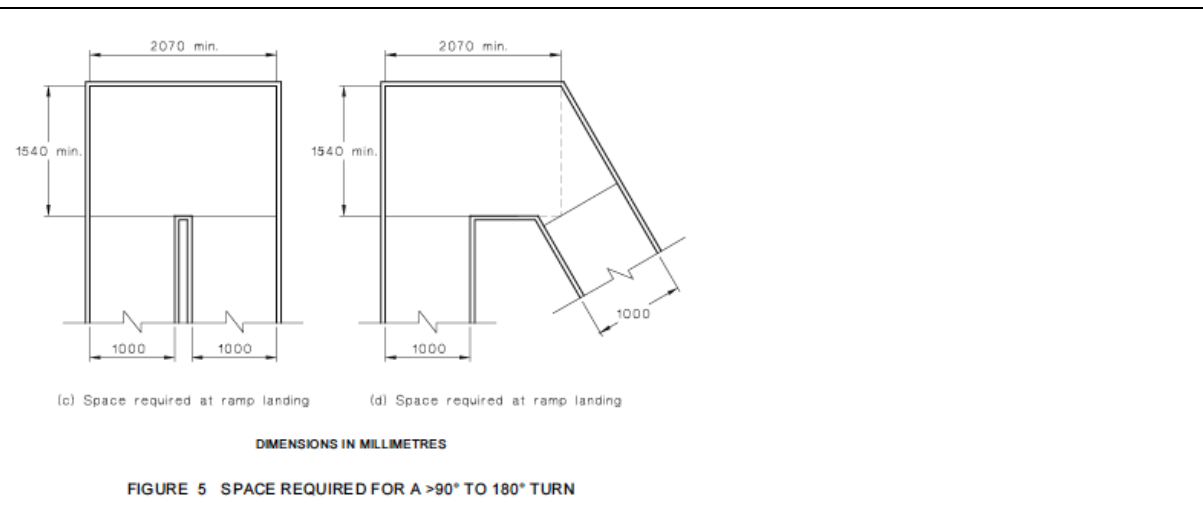


Figure 3 – Fig.5 Section 6.5 AS1428.1 2009

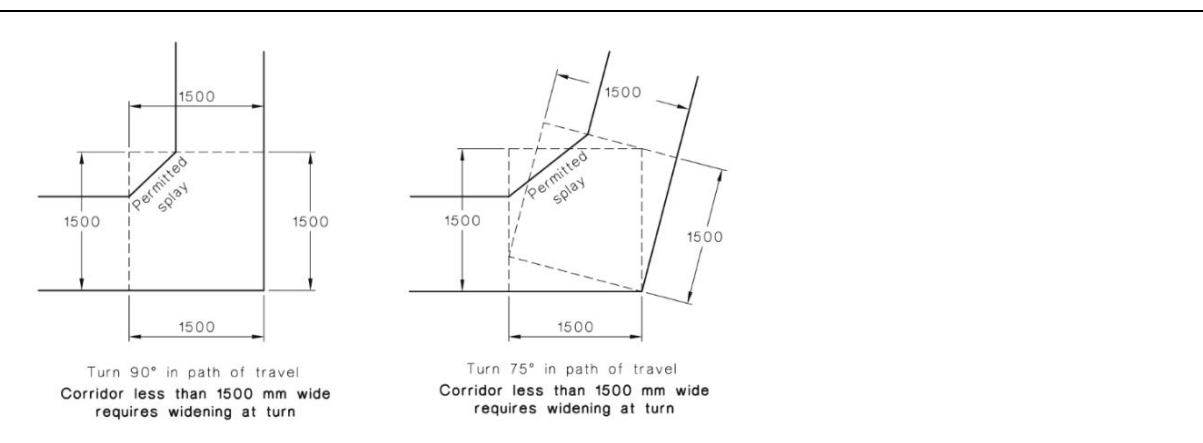


Figure 4 – Fig.4 Section 6.5 AS1428.1 2009

Compliance: The design as proposed indicates the design is capable of compliance with the provisions of Clause 6.5 of AS1428.1:2009.

3.3. Visual Indicators on Glazing

NCC 2022 D1P1(a)(iii) Access for people with a disability

D4D13 Glazing on an accessway

AS Reference: Clause 6.6 (Visual Indicators on Glazing) of AS1428.1 2009

3.3.1. Visual Indicators on glazing

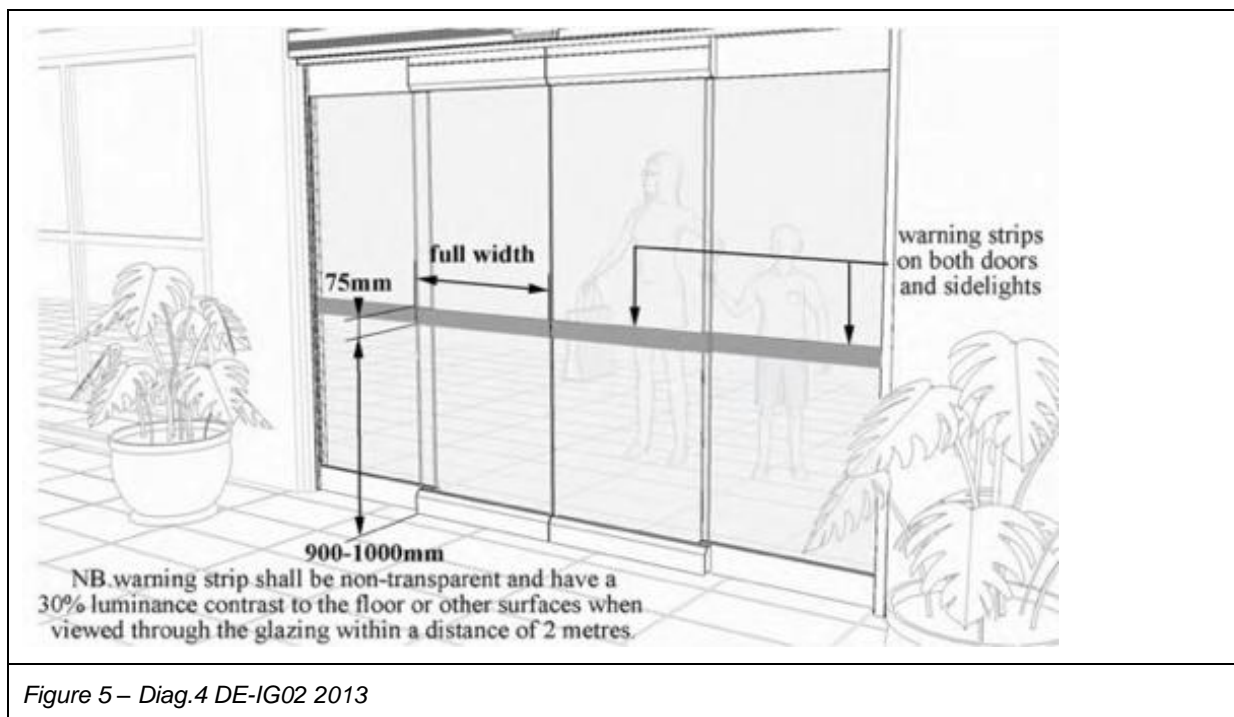
The design proposes full height glazing.

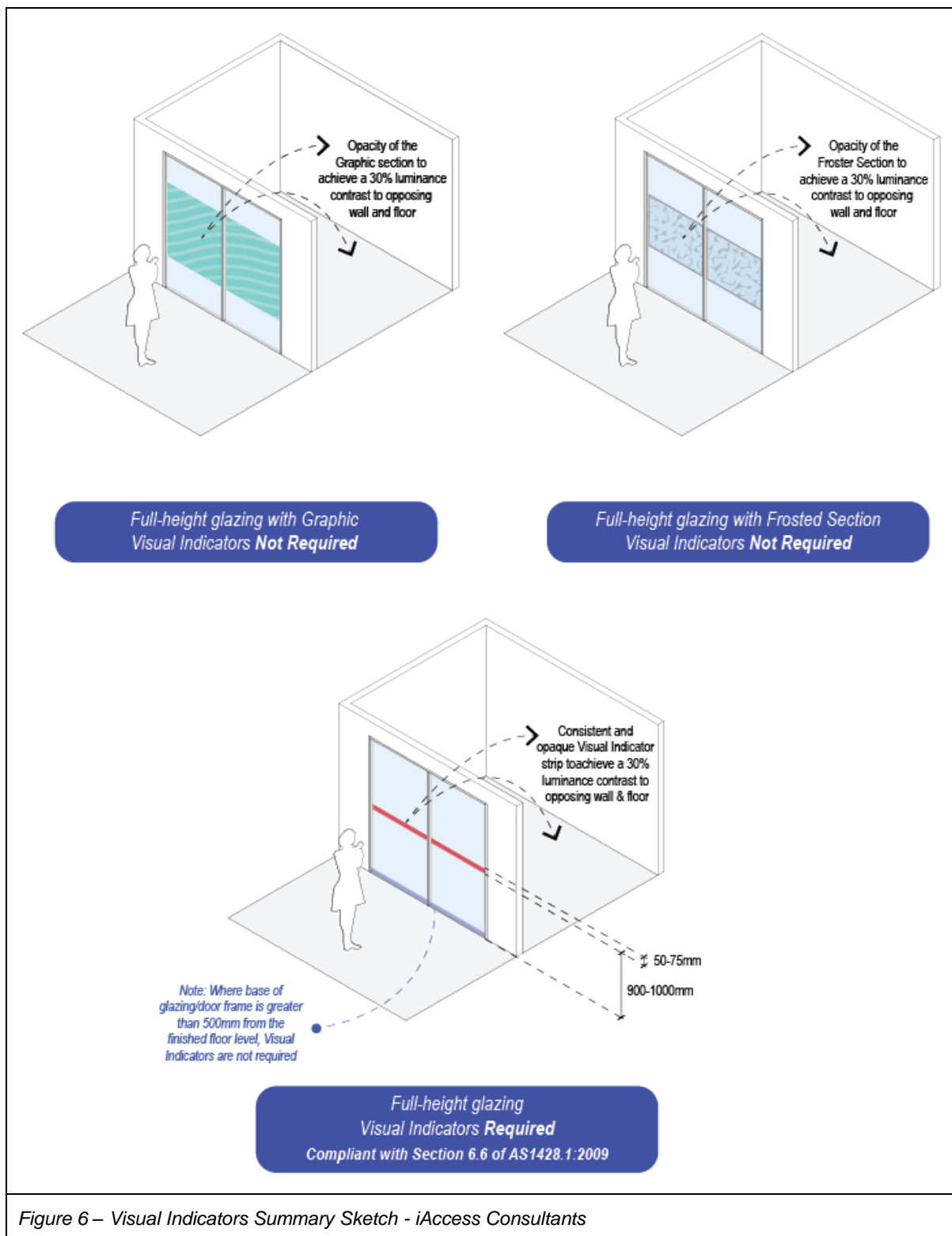
3.3.2. Visual Indicators – Requirements to be satisfied

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:

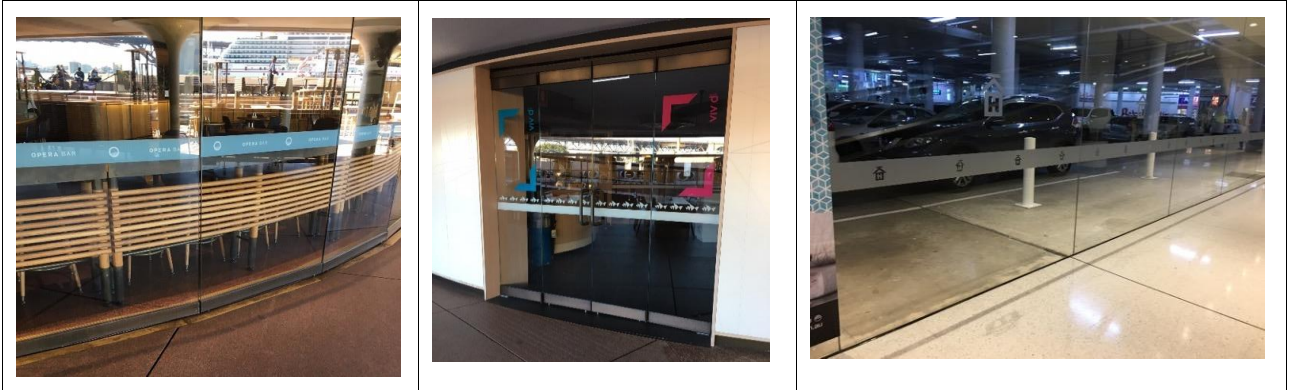
Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid and non-transparent contrasting line. The contrasting line shall be not 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.



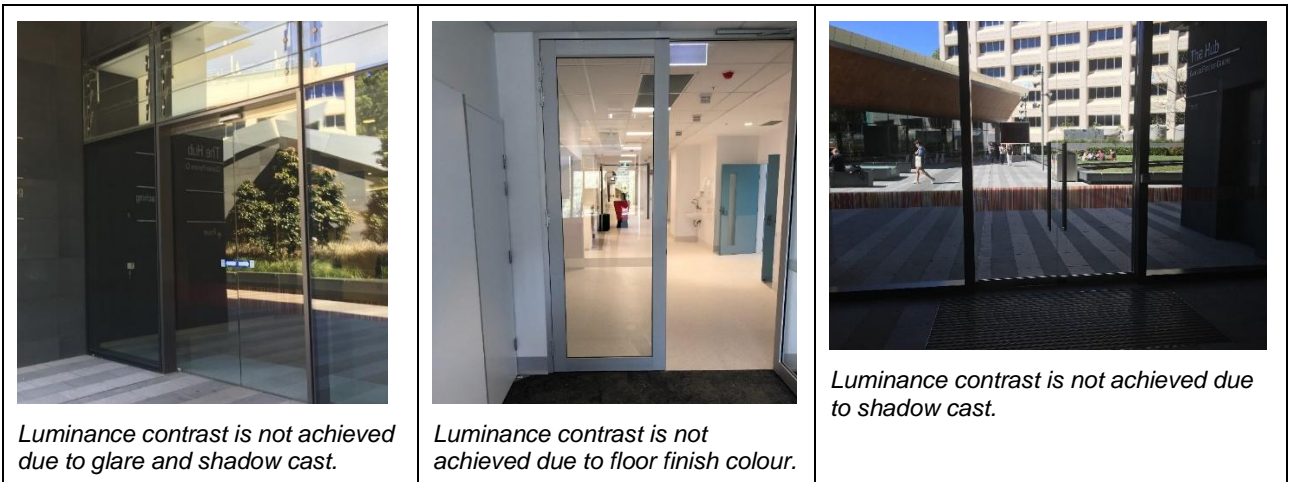


The following are some compliant examples of the application of Visual Indicators on glazing.



In considering the statutory requirements for Visual Indicators on glazing, it is important to note other contextual factors; such as glare, lighting, floor finishes, furniture placement and casted shadows from building lines.

The following are some non-compliant examples of the application of Visual Indicators on glazing as a result of these contextual factors.



Luminance contrast is not achieved due to glare and shadow cast.

Luminance contrast is not achieved due to floor finish colour.

Luminance contrast is not achieved due to shadow cast.

3.3.1. Visual Indicators The detailed construction documentation be prepared for this project will need to detail the application of visual Indicators where full-height glazing is proposed to any glazed wall or door associated with the accessible path of travel within this development. The visual indicators are to be solid and opaque. The width of the visual indicators is to be 75mm wide. The bottom of the visual indicators is to be located between 900-1000mm AFFL. The visual indicator is to achieve 30% luminance contrast with the background. Lighting conditions and glass reflectance will need to be considered in the luminance contrast assessment.

3.3.1. Visual Indicators On completion of the works luminance contrast certification will need to be provided certifying the installed visual indicators achieves the required 30% luminous contrast when viewed from 2m from the surface of the glazing.

3.4. Floor or Ground Surfaces

NCC 2022	D1P1(a)(iii) Access for people with a disability D1P2 Safe movement to and within a building NCC Table D3D15 Slip-resistance classification
AS Reference:	Clause 7 of AS1428.1:2009 HB198:2014 (slip resistance)

3.4.1. Slip Resistance - floor and ground surfaces

The slip resistance of the floor finishes associated with stairs and ramps will need to satisfy the minimum requirements of NCC Table D3D15 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 D3D15	HB198	Criterion Satisfied
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
Wet area / sanitary facilities		P3/R10	Additional Information to be provided

3.4.1. Slip Resistance - floor and ground surfaces – The detailed construction documentation to be prepared for this project will need to detail the various floor finishes and the respective slip-resistance ratings. A schedule of the materials and the associated slip resistance rating will need to be prepared.

3.4.1. Slip Resistance - floor and ground surfaces – On completion of the works certification is to be provided by the contractors indicating the slip resistance of the flooring materials installed. This information is required for the issue of the access installation certificate required for the issue of the Occupation Certificate.

3.4.2. Carpet

The finishes schedule may propose carpet finishes within this development.

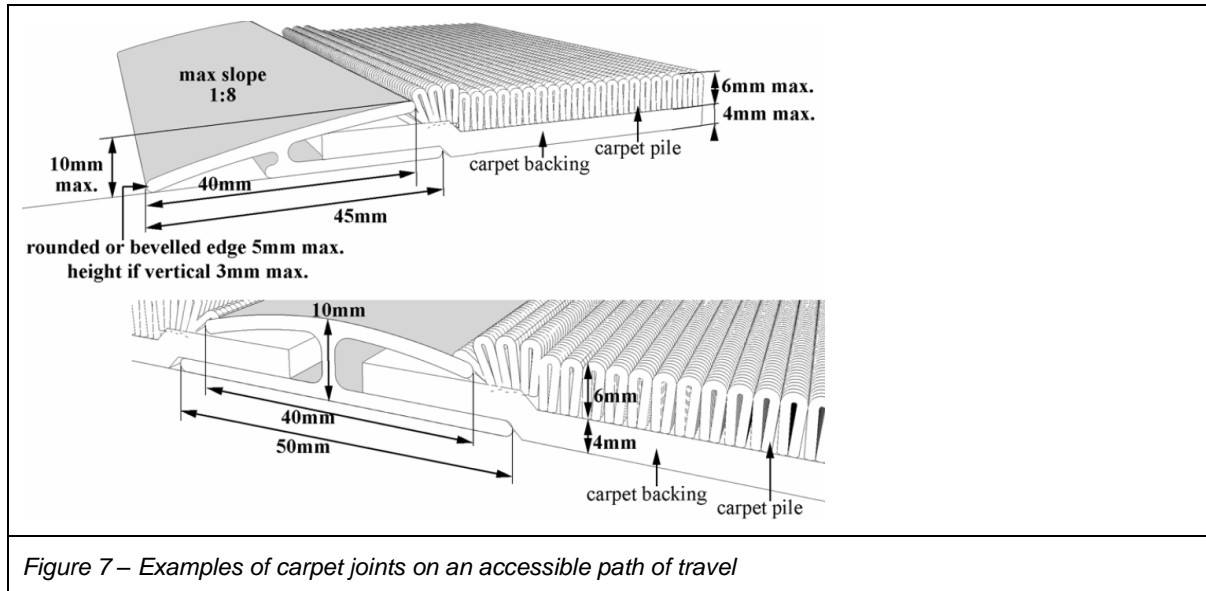
It will be necessary that the specification and application of the carpet satisfy the provisions of:

- NCC Clause D4D4 (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—

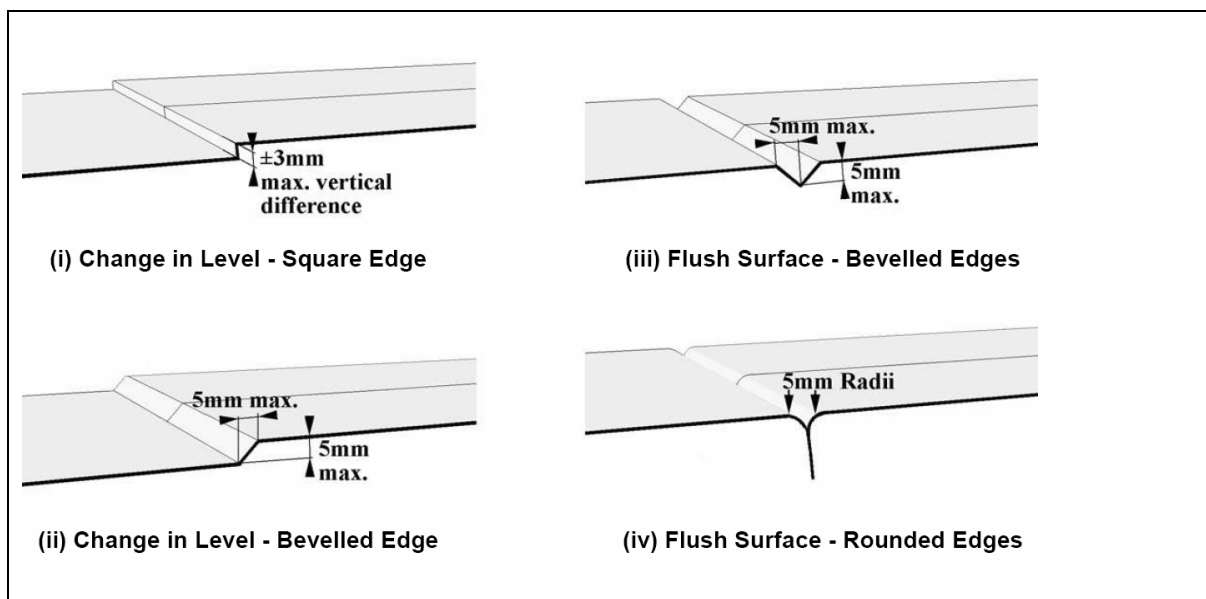
- (a) the pile height or pile thickness shall not exceed 6 mm and the carpet backing thickness shall not exceed 4mm
- (b) exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge; and
- (c) at the leading edges, carpet trims 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

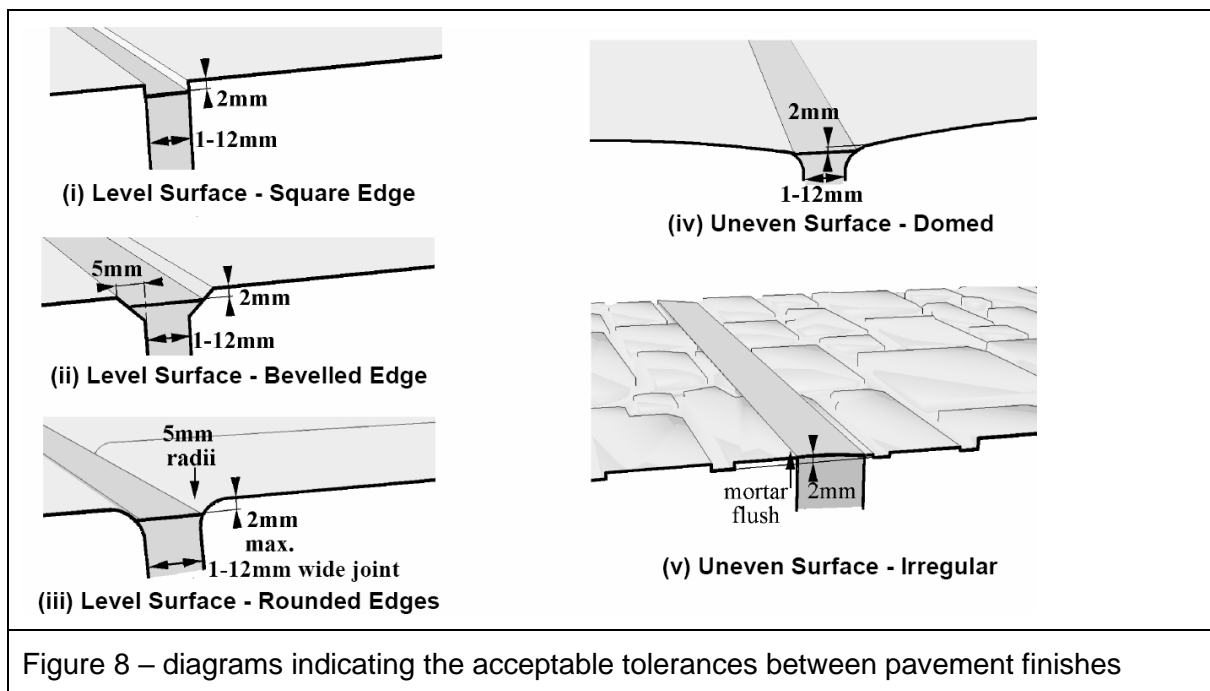


3.4.2. Carpet – On completion of the works certification is to be provided by the carpet contractor that the specified carpet has been installed and that the provisions of NCC Clauses D4D4 (g) & (h) have been satisfied.

3.4.3. Floor transitions

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





3.4.3. Floor transitions – The construction documentation to be prepared for this project will need to detail the various floor finishes and their respective junctions and transitions.

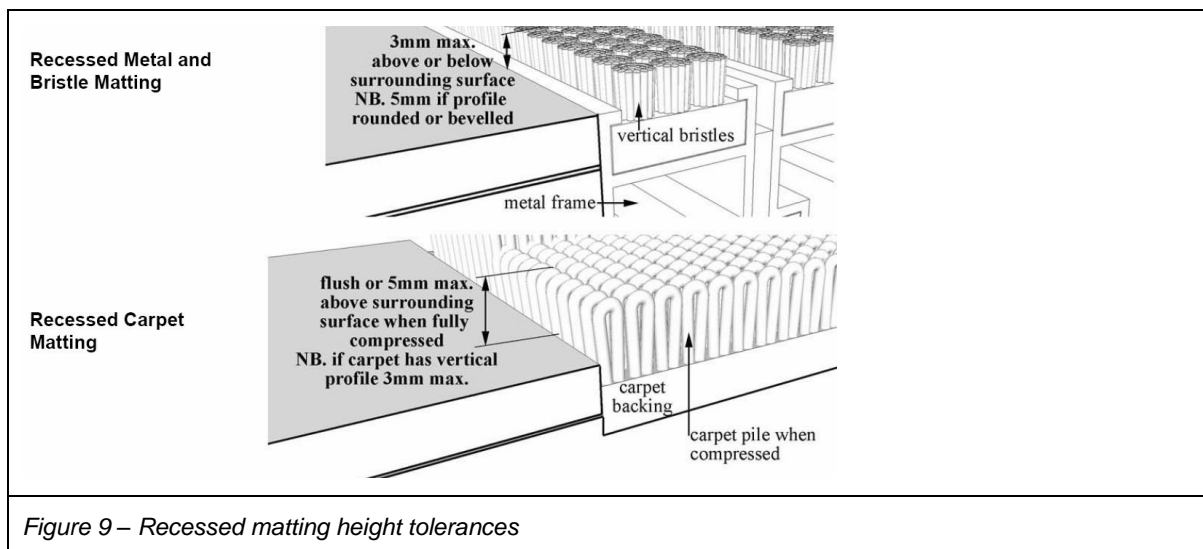
3.4.4. Recessed Matting

The design may propose the installation of recessed matting.

The installation will need to satisfy the following requirements from Clause 7.4.2 of AS1428.1:2009,

Matting recessed within a continuous accessible path of travel—

- (a) where of metal and bristle type construction or similar, its surface shall be no more 3 mm if vertical or 5 mm if rounded or bevelled, above or below the surrounding surface; and
- (b) where of a mat or carpet type material, shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3 mm if vertical or 5 mm if rounded or bevelled.



3.4.4. Recessed Matting - The construction documentation to be prepared for this project will need to detail any recessed floor mats to be installed as part of this project.

3.4.5. 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.

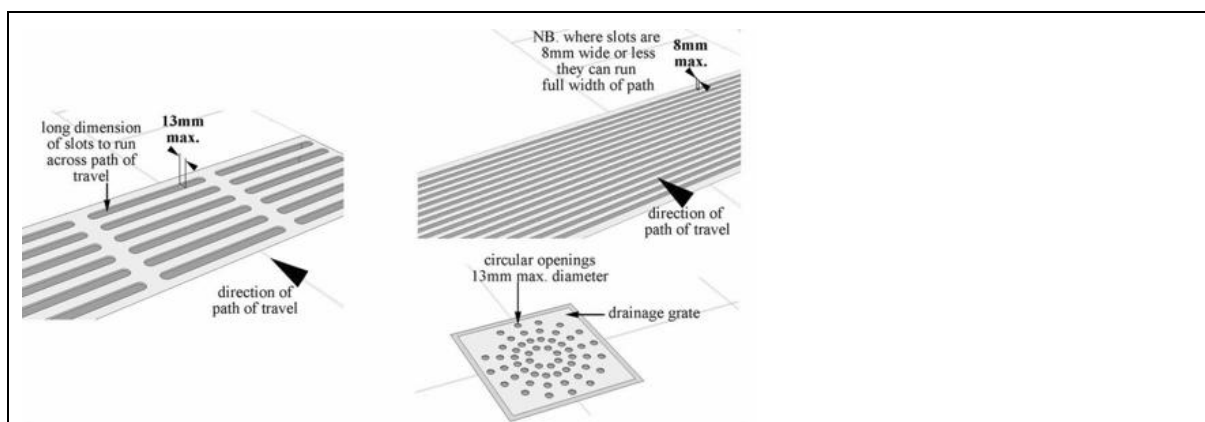


Figure 10 – Diag.7 DE-IG02 2013 – example of heel guard grates

3.4.5. Grated drains – The future construction documentation to be prepared for this project will need to specify the heel guard grate to be installed.

3.5. Statutory Braille Tactile Signage

The requirements are referenced in the following legislation:

NCC 2022	D1P1(a)(iii) Access for people with a disability D4D7 Signage Specification 15 D3D26(2)(b) Operation of latch
AS 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, AS1428.2 1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities AS1428.4.2:2018 Design for access and mobility – Wayfinding

3.5.1. Preamble

The NCC nominates the statutory requirements for Braille Tactile signage. Braille Tactile signs are to be provided in the following locations:

- WC locations
- Exits
- Locations where hearing augmentation is provided
- Directional information to accessible entrances.

3.5.2. Statutory Signage Requirements

NCC Section **D4D7 Signage** states:

In a building required to be accessible—

- (a) *braille and tactile signage complying with **Specification 15** 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 E4D5 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.

3.5.3. Wayfinding (Not referenced by the NCC)

AS 1428.4.2-2018 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.

3.5.4. Braille Tactile Exit Signage

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

Examples of Braille Tactile Signage include:



(Figure 11 – Examples of Braille Tactile Signage from www.brailletactilesigns.com.au)

3.5.4. Statutory Braille Tactile Exit Signage – The detailed construction documentation will need to document the braille tactile exit signage to be installed.

3.5.5. WC Signage

Braille tactile WC signage will need to be provided at the accessible WC located on Ground Floor and Level 2 of this development.

Examples of Braille Tactile Signage to be provided in this project 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.

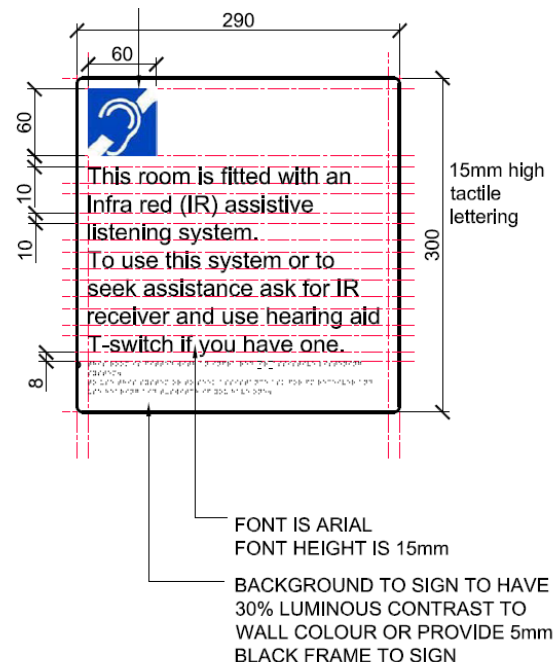
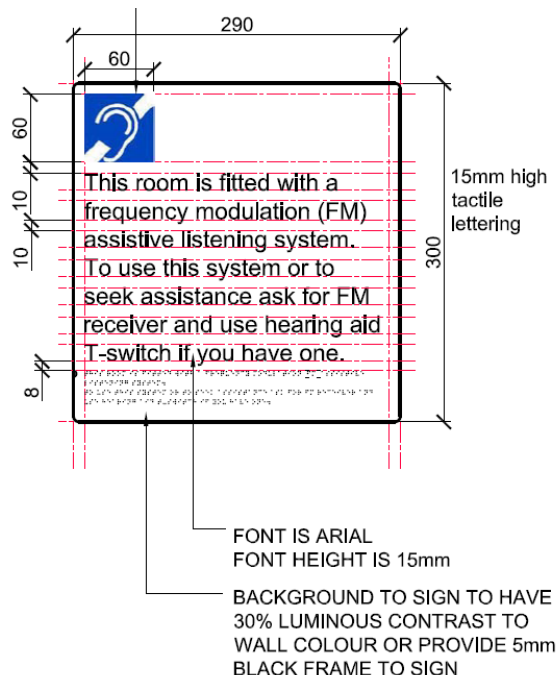
3.5.5. Statutory Braille Tactile WC Signage – The detailed construction documentation will need to document the braille tactile WC signage to be installed.

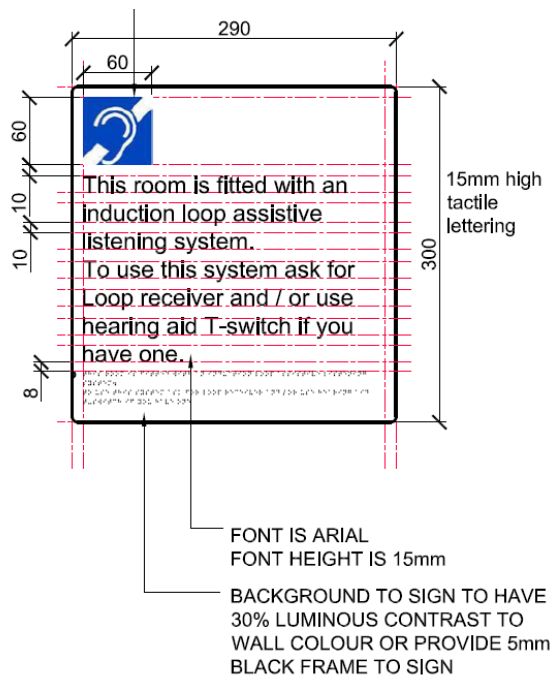
3.5.6. Hearing Augmentation Signage

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

If hearing augmentation is provided, Braille Tactile Hearing Augmentation signage will need to be provided to the 3 Study rooms located on Level 2 of this development.

The text on the hearing augmentation signage will need to satisfy the requirements of Section 5 of AS1428.5:2010.



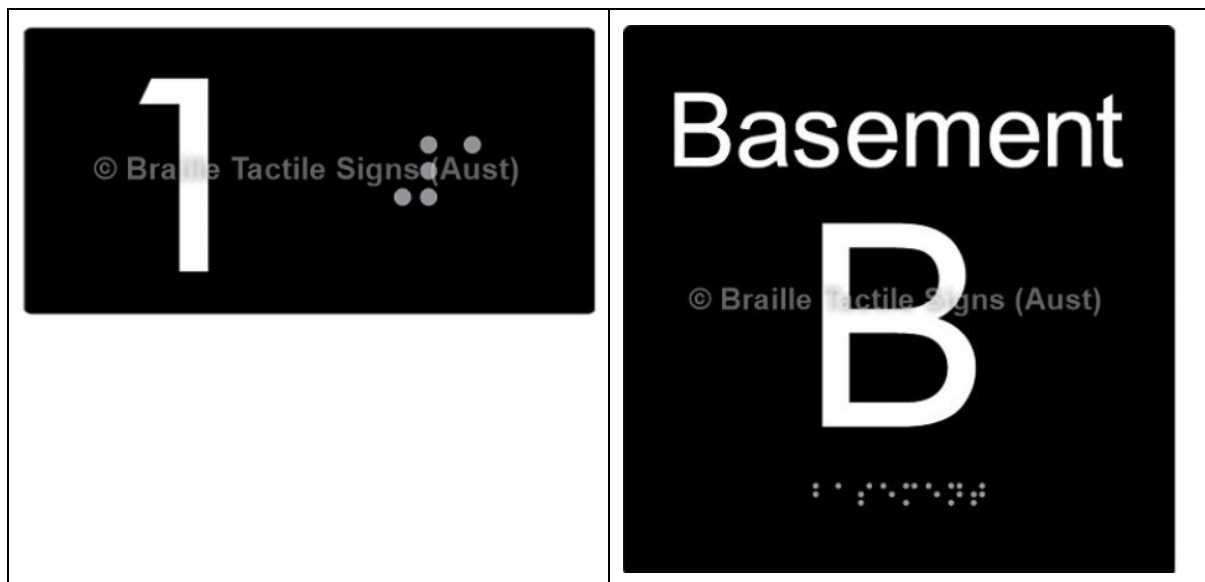


3.5.6. Hearing Augmentation Signage - Details of the braille tactile hearing augmentation signage is to be provided for review as part of the detailed Construction documentation to be prepared for this project.

3.5.7. Lift Signage (Not referenced by the NCC)

Clause ZA5.2 of AS1735.12:2020 requires the provision of Braille, tactile level identification signs to be installed on the lift door jambs.

Examples of lift door signage include:



3.5.7 Lift Signage - Details of the braille tactile lift door signage to be installed will need to be provided for review as part of the detailed construction documentation to be prepared for this project.

3.5.8. 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%.

This can be achieved by the sign field colour achieving a 30% luminous contrast with the wall surface the sign is mounted on or by providing a 5mm black border to the sign as per the following examples.



3.5.9 Luminance & Colour Contrast - Details of the braille tactile WC signage is to be provided for review as part of the detailed Construction documentation to be prepared for this project. *Please note that aluminium signs on a white wall will not achieve compliance.*

3.5.9. Push to release door locations

The design may include door release by way of push buttons.

NCC Clause D3D26(2)(b) states:

Where the latch operation device referred to in (1)(b) is not located on the door leaf itself braille and tactile signage complying with S15C3 and S15C6 must identify the latch operation device.

The following are examples of sign types for this instance.

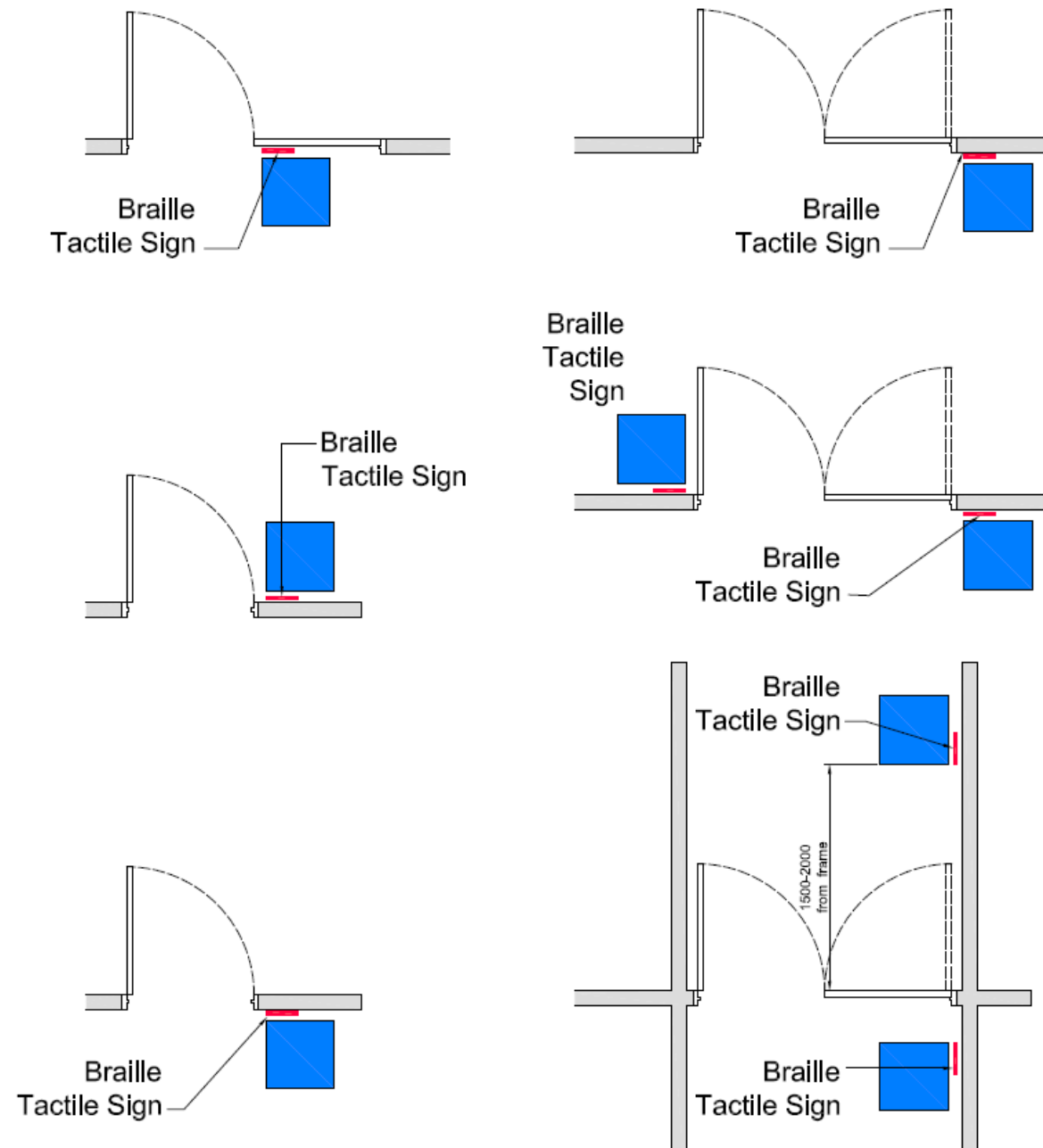


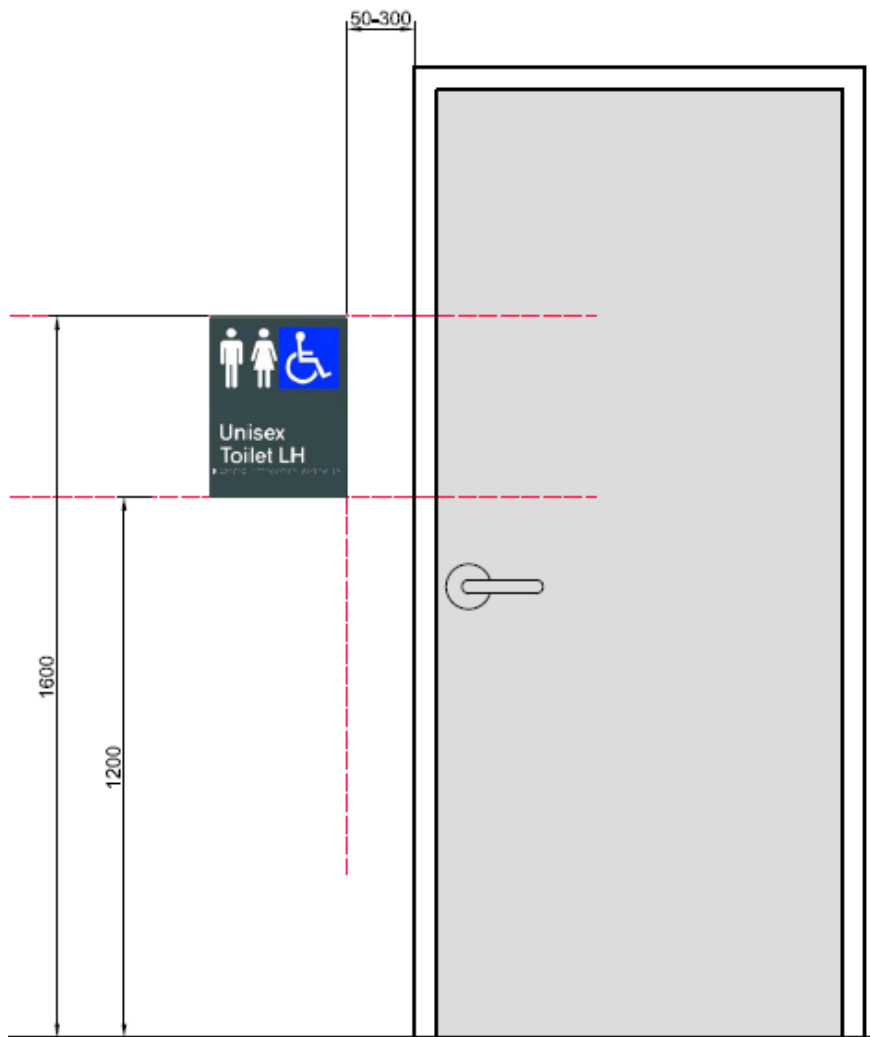
3.5.9 Braille Tactile Press to Exit Signage - Details of the braille tactile 'Press to Exit' signage to be installed will need to be provided for review as part of the detailed construction documentation to be prepared for this project. Specific attention is directed to the font type,

size of lettering and the selection of a field colour of the sign which will achieve a 30% luminance contrast with the wall or door the sign is installed on.

3.5.10. Locations of Braille Tactile door signs

The following sketches have been prepared to indicate the preferred installation locations for the placement of Braille Tactile signs.





3.6. Tactile Indicators (TGSIs)

NCC 2022	D1P1(a)(iii) Access for people with a disability NCC Clause D4D9 Tactile Indicators
AS 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 AS 1428.4.2 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators

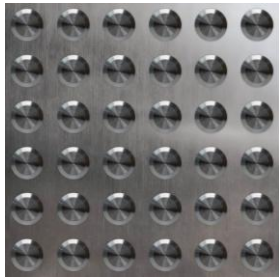
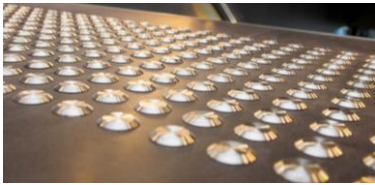

3.6.1. TGSIs – Overview

The design proposes stair and 1:14 ramp locations which will require the installation of TGSIs in accordance with NCC Clause D4D9.

3.6.2. TGSIs – Luminance Contrast – Requirements to be satisfied

Clause 2.2 of AS1428.4.1:2009 requires that luminance contrast be provided between the TGSIs 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 TGSIs format requires 30% luminous contrast to adjacent floor finish	The above discrete TGSIs format requires 45% luminous contrast to adjacent floor finish	The above two colour/material discrete TGSIs format requires 60% luminous contrast to adjacent floor finish

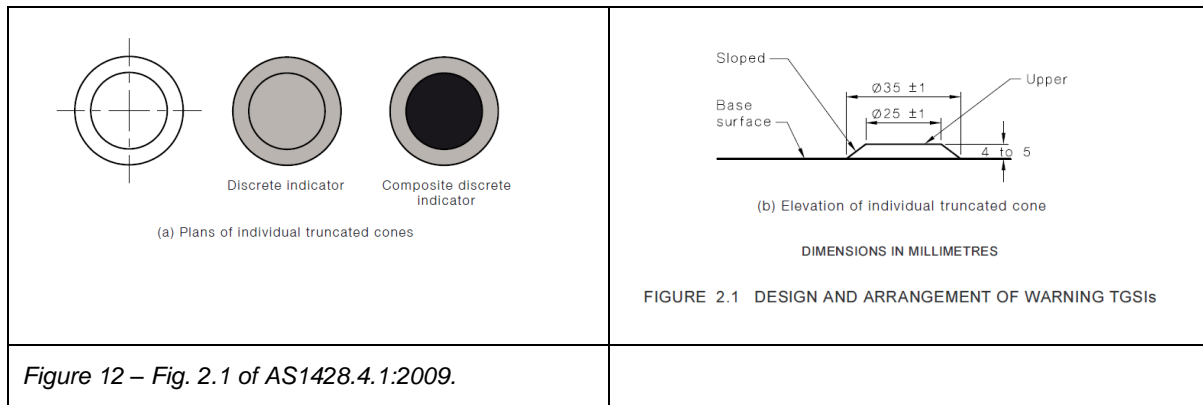
3.6.2 TGSIs Luminous Contrast – The detailed construction documentation will need to specify TGSIs which will achieve the required luminous contrast to the background floor surface.

3.6.2 TGSIs Luminous Contrast – On completion of the project, certification of the luminous contrast of the TGSIs against the surrounding floor finish will need to be provided for the issue of the Access Installation Certificate – OC.

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.



3.6.4. Warning TGSIs – 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.

3.6.5. Setout of TGSIs associated with Stairs

TGSIs to warn people of hazards shall comply with AS/NZS 1428.4.1. TGSIs are to be provided to stairways which are not fire isolated stairways. These stairways are general access stairs and are available for use by all. TGSIs are not required to be installed within fire isolated stairs unless the fire isolated stair also functions as a general circulation stair

TGSIs are setout from the face of the riser at the top and bottom of the stair. The first row of TGSIs is located 300mm from the face of the riser. The depth of the TGSIs is generally 600-800mm where length of the landing is greater than 3m. Where the length of the landing is less than 3m the depth of the TGSIs is reduced to 300mm.

TGSIs are not located at mid landings where no additional population is address to the stair system.

3.6.5. Setout of TGSIs associated with Stairs – Detailed TGSi setout plans will need to be prepared as part of the detailed construction documentation to be prepared for this project.

The details will need to indicate the setout of the TGSIs from the face of risers and the nominated depth of TGSIs depending on the landing length.

3.6.6. Setout of TGSIs associated with 1:14 Ramps

TGSIs to warn people of hazards shall comply with AS/NZS 1428.4.1. TGSIs are to be provided to ramps where the gradient of the ramp is between 1:20 and 1:14.

TGSIs are setout from the ends of the ramp. The first row of TGSIs is located 300mm from the end of the ramp. The depth of the TGSIs is generally 600-800mm where length of the landing is greater than 3m. Where the length of the landing is less than 3m the depth of the TGSIs is reduced to 300mm.

TGSIs are not located at mid landings where no additional population is address to the ramp system.

3.6.6. Setout of TGSIs associated with Ramps– *Detailed TGSIs setout plans will need to be prepared as part of the detailed construction documentation to be prepared for this project. The details will need to indicate the setout of the TGSIs from the edge of the ramp and the nominated depth of TGSIs depending on the landing length.*

3.7. Walkways, Ramps and Landings

3.7.1. Legislative references

NCC 2022	D1P1(a)(iii) Access for people with a disability
	D1P2(c) Safe movement to and within a building
	D4D4(a)(i) Parts of buildings to be accessible.
AS Reference:	Clause 10 of AS 1428.1:2009
	Clause 12 of AS1428.1:2009

3.7.2. Preamble

The design includes ramps and walkways as part of these works. The detailed documentation will need to nominate the locations of ramps and walkways connecting these buildings to the surrounding ground surface.

The maximum length of any ramp with a gradient between 1:20 and 1:14 is to be not more than 6m in length to comply with the Education facility Guidelines.

3.7.3. 1:14 Ramps

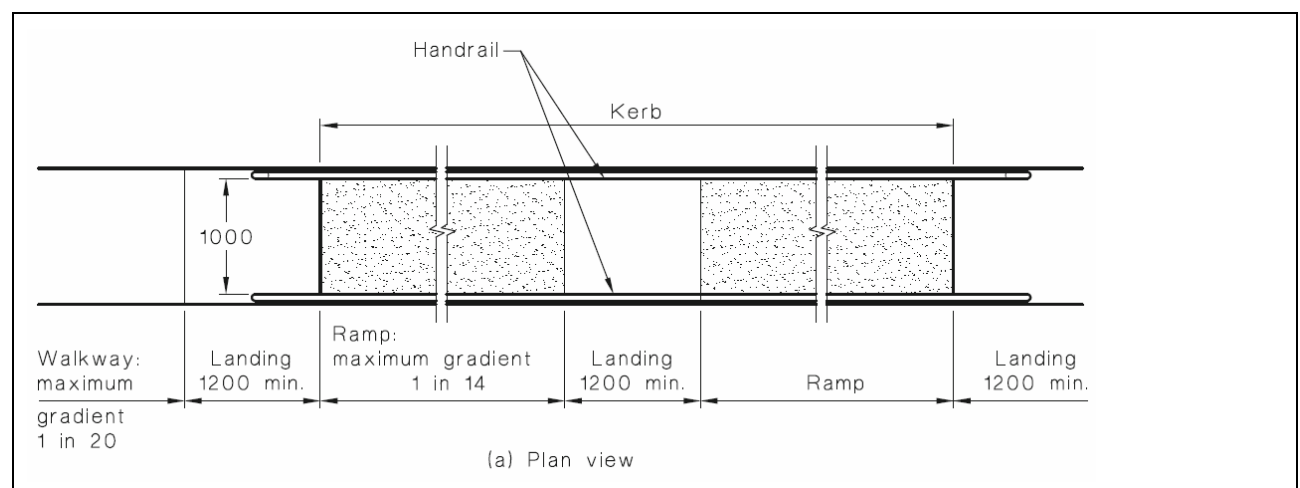
The NCC Clause D4D4(a)(i) identifies that:

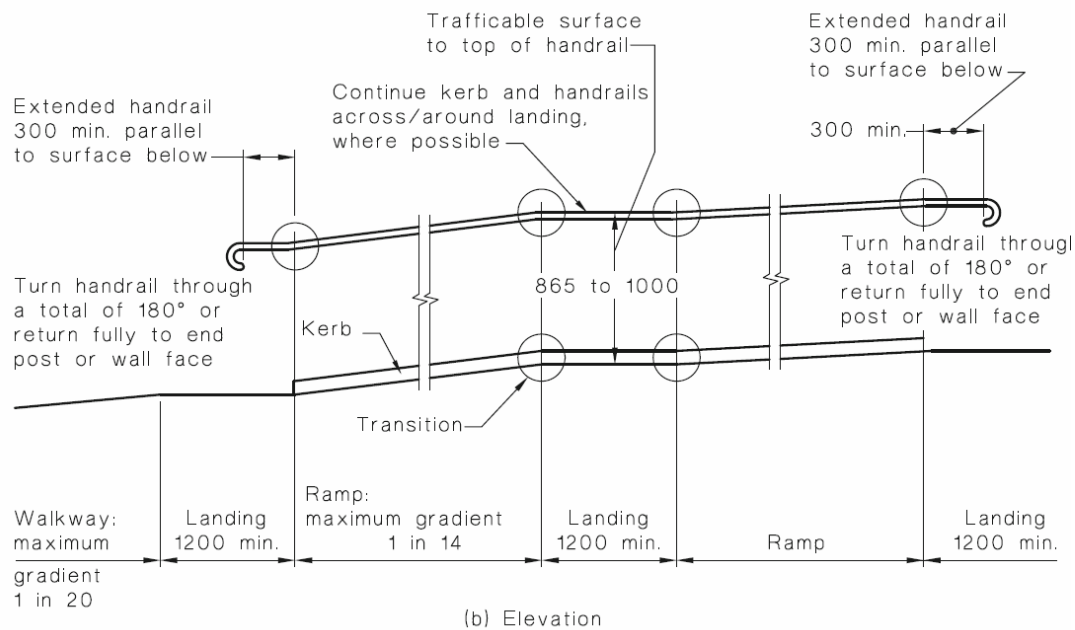
In a building required to be accessible—

- (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

The following extracts have been provided by way of information for the detailing of ramps with gradients of 1:20-1:14.

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



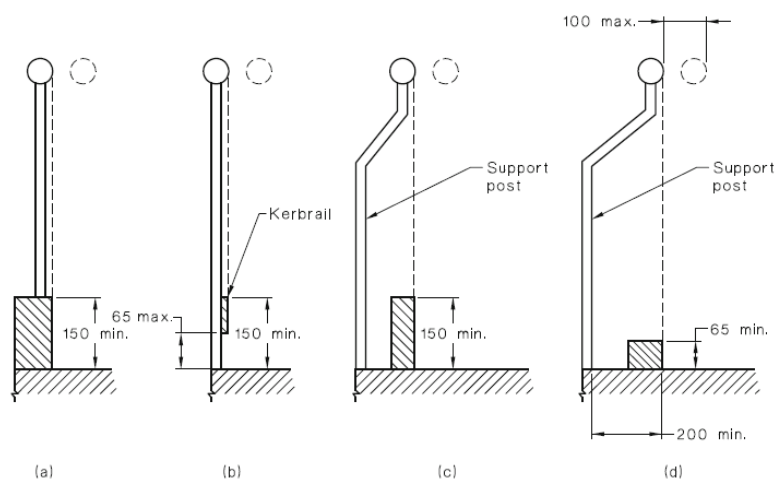


DIMENSIONS IN MILLIMETRES

FIGURE 14 RAMP HANDRAILS

Figure 13 – Figure 14 of AS1428.1:2009

The sectional details for handrails associated with ramps is as follows:



NOTE: See Appendix A for further clarification.

DIMENSIONS IN MILLIMETRES

FIGURE 19 SECTION SHOWING LOCATION OF KERB OR KERB RAIL IN RELATION TO HANDRAIL WITH VERTICAL SUPPORT

3.8. Stairways

NCC 2022 D1P1(a)(iii) Access for people with a disability
D1P2 Safe movement to and within a building
Table D3D15 Slip Resistance Classification
D4D4(a)(ii) Parts of buildings to be accessible
AS Reference: Clause 11 Stairways AS1428.1:2009

3.8.1. Circulation Stairs

The design proposes circulation stairs within the building foyer at ground floor level. The following extract from the ground floor plan locates the circulation stairs.

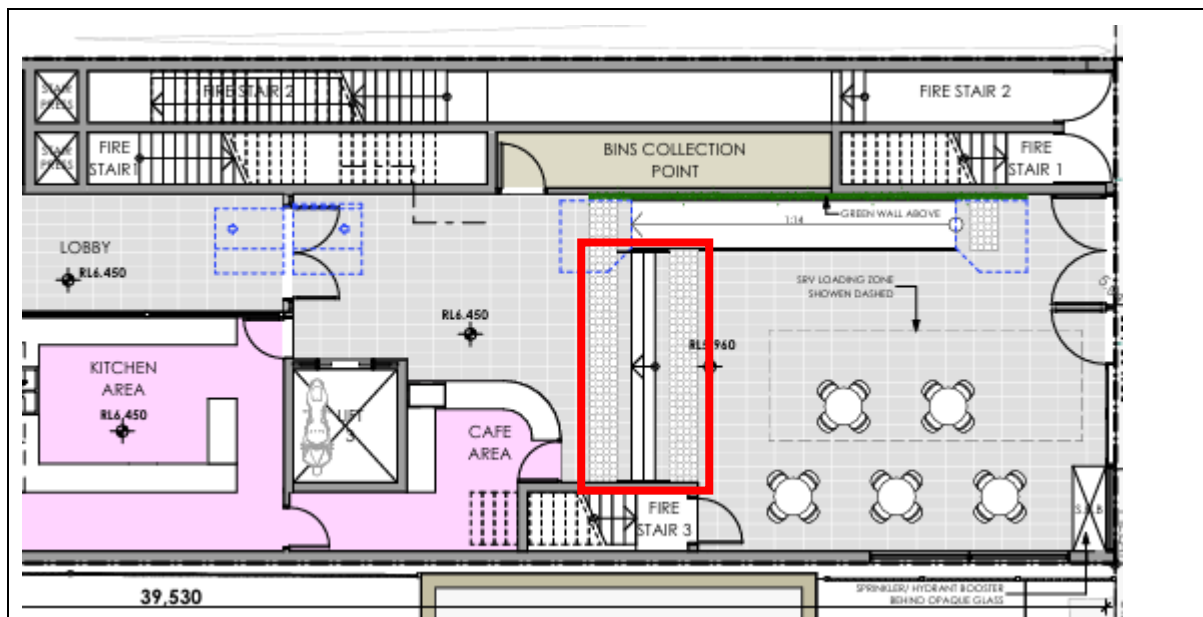


Figure 14 – Location of circulation stairs at ground floor level.

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:

- Compliant handrail designs
- Compliant handrail extensions to the top and bottom of each flight
- Non-slip finish to going (Refer to NCC Table D2.14)
- Non-slip 50-75 nosing fixed to each going
- Opaque risers
- 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.)

- Minimum lighting level of 150 lx to be achieved

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

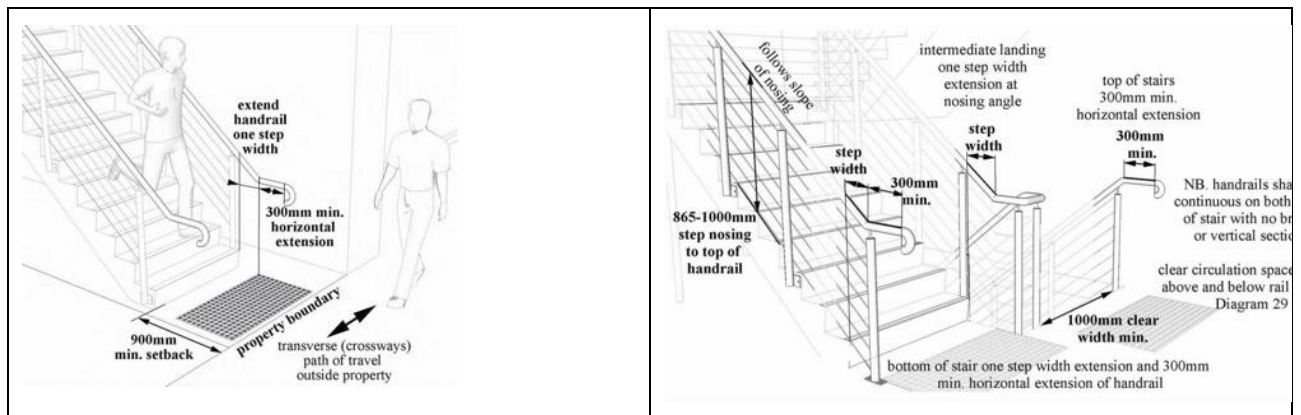


Figure 15 – Diag.25A DE-IG02 2013

Figure 16 – Diag.25C DE-IG02 2013

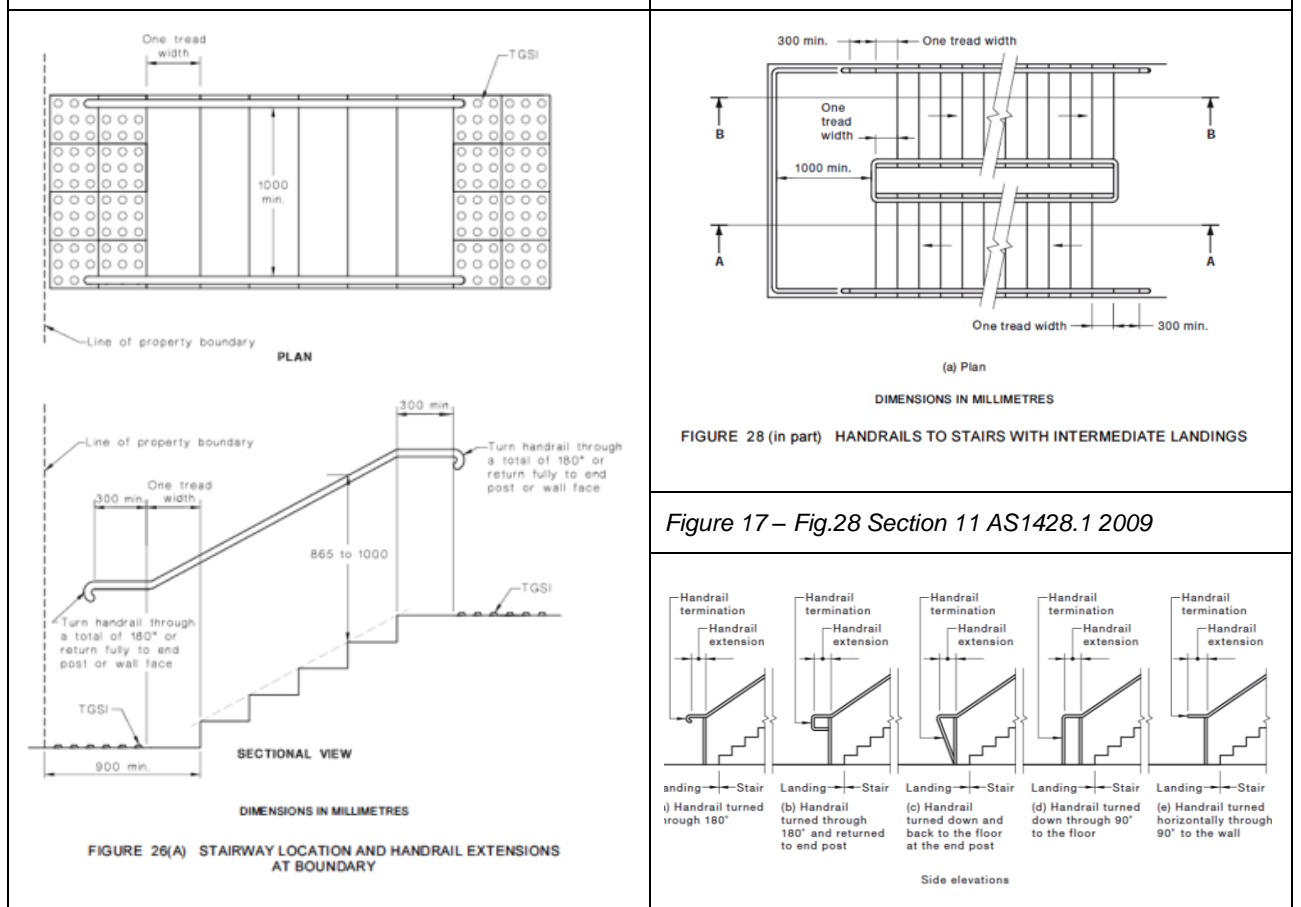


Figure 18 – Fig.26A Section 11 AS1428.1 2009

Figure 19 – Fig.26C Section 11 AS1428.1 2009

3.8.2. Fire Stairs

The design proposes fire stairs. The detailing of fire stairs will need to satisfy the requirements of Clauses 11.1 (f) & (g) of AS1428.1:2009.

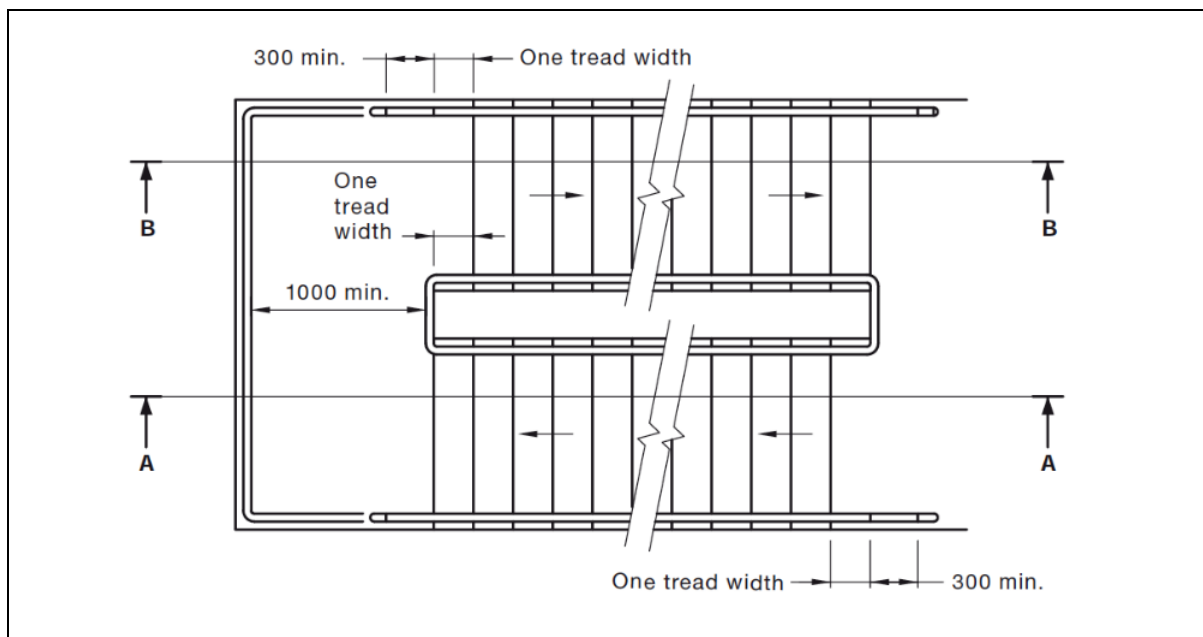


Figure 20 – Fig. 28 of AS1428.1:2009

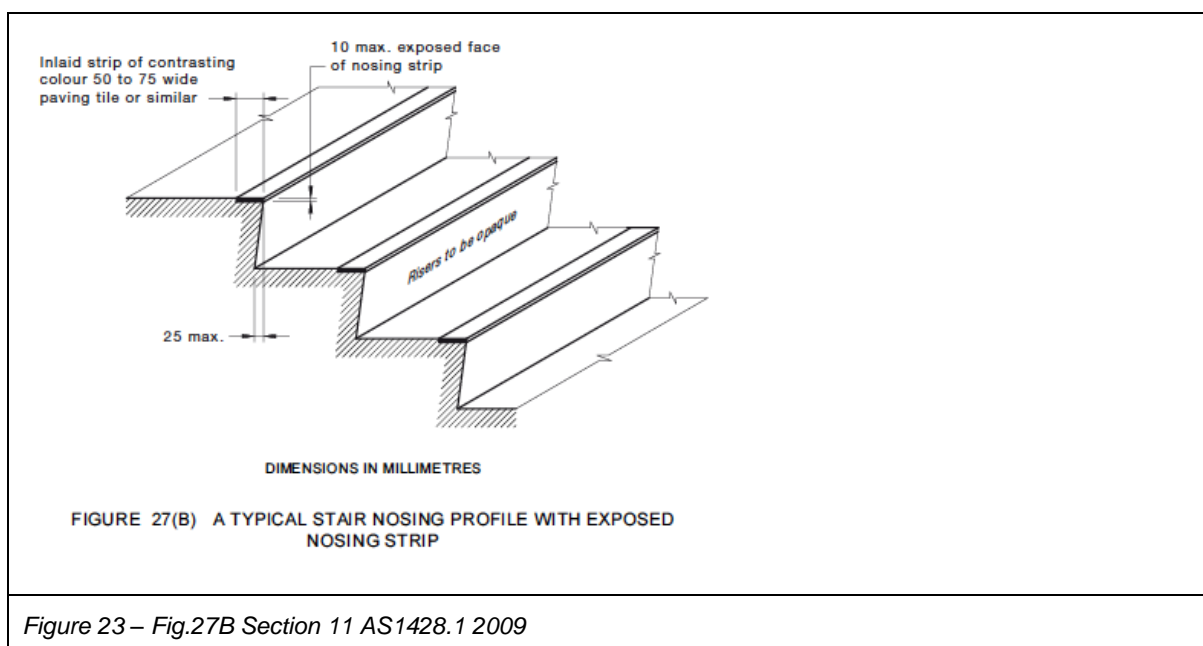
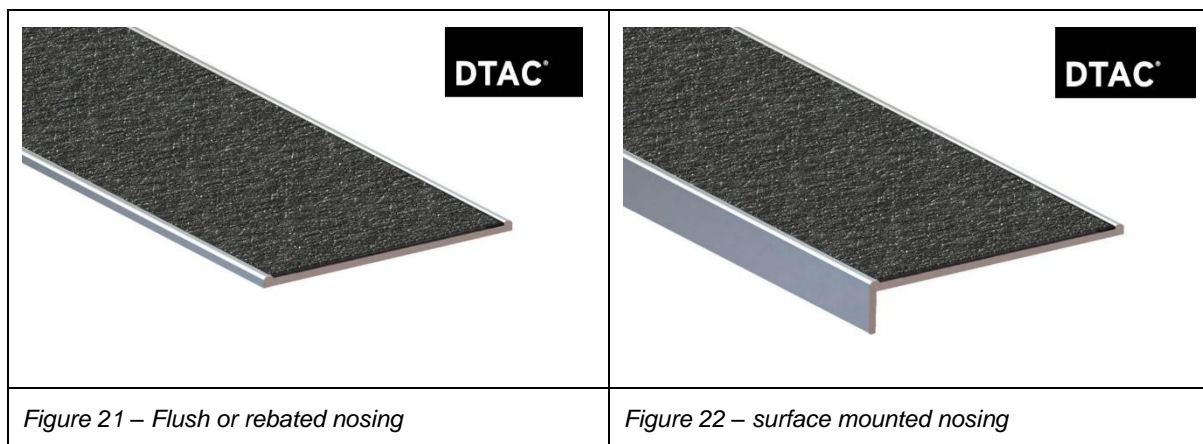
3.8.2. Fire Stairs - Stair details and handrail drawings will need to be provided as part of the detailed construction documentation to be prepared for this project. Shop drawings of the proposed stairs and associated handrails will need to be prepared and submitted for review.

3.8.3. Stair Nosing

The fire stairs and circulation stairs provided within this development will need to include for the provision of nosing to each going. The details of the stair nosing will need to satisfy the following:

1. Stair nosing shall not project beyond the face of the riser
2. Stair nosing profiles shall—
 - a. have a sharp intersection
 - b. be rounded up to 5 mm radius; or
 - c. be chamfered up to 5 mm x 5 mm
3. At the nosing, each tread shall have a strip not less than 50 mm and not more than 75 mm deep across the full width of the path of travel.
4. The strip may be set back a maximum of 15 mm from the front of the nosing.
5. The strip shall have a minimum luminance contrast of 30% to the background.
6. Where the luminous contrasting strip is affixed to the surface of the tread, any change in level shall comply with Clause 7.2 and Clause 7.3 of AS1428.1:2009.
7. Where the luminance contrasting strip is not set back from the front of the nosing then any area of luminance contrast shall not extend down the riser more than 10 mm.

Examples of compliant stair nosing include the following products:



3.8.3. Stair Nosing – The stair nosing will need to be provided as part of the detailed construction documentation to be prepared for this project. Certification of compliance with the luminous contrast requirements between the nosing and the going will need to be provided.

3.8.3. Stair Nosing – On completion of the works certification of compliance with the luminous contrast requirements between the nosing and the going will need to be provided.

3.8.4. Braille Tactile 'Exit' signage associated with fire stairs

Braille Tactile 'Exit' Signage is required at each level of the building associated with entry to the fire stair systems.

Refer to the 'Signage' section of this access report.

3.9. Handrails

NCC 2022 D1P1(a)(iii) Access for people with a disability
 D1P2 Safe movement to and within a building
 D4D4 Parts of buildings to be accessible

AS 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).*

3.9 Handrails - The detailed construction documentation will need to demonstrate compliance with these requirements.

3.10. Doorways

NCC 2022 D1P1(a)(iii) Access for people with a disability

D4D3 Access to buildings

D4D4 Parts of buildings to be accessible

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

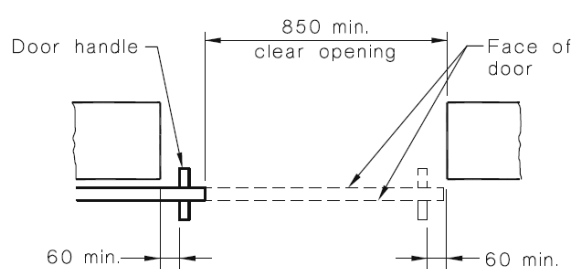
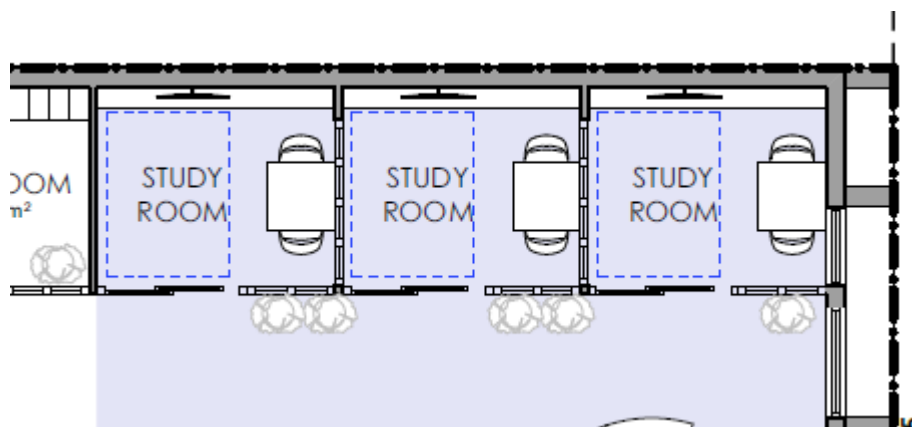
3.10.1. Clear Door Width

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.

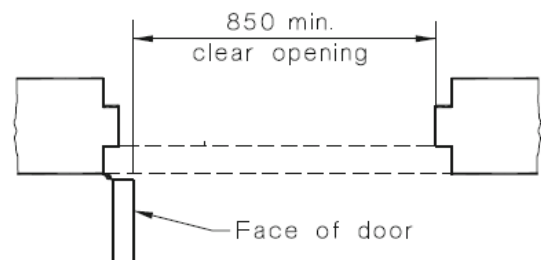
Where double doors are proposed, the active leaf is to have a minimum clear width of 850mm.

Provide confirmation of all door clear open widths.

The sliding doors to the study rooms are to be detailed to achieve 850mm min clear.



(c) Surface-mounted sliding door



(a) Swing door

3.10.1. Clear Door Width - The detailed documentation to be prepared for this project will need to confirm 850mm min clear openable door widths. Attention is directed to the detailing of hardware associated with sliding doors.

3.10.2. Luminance Contrast

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

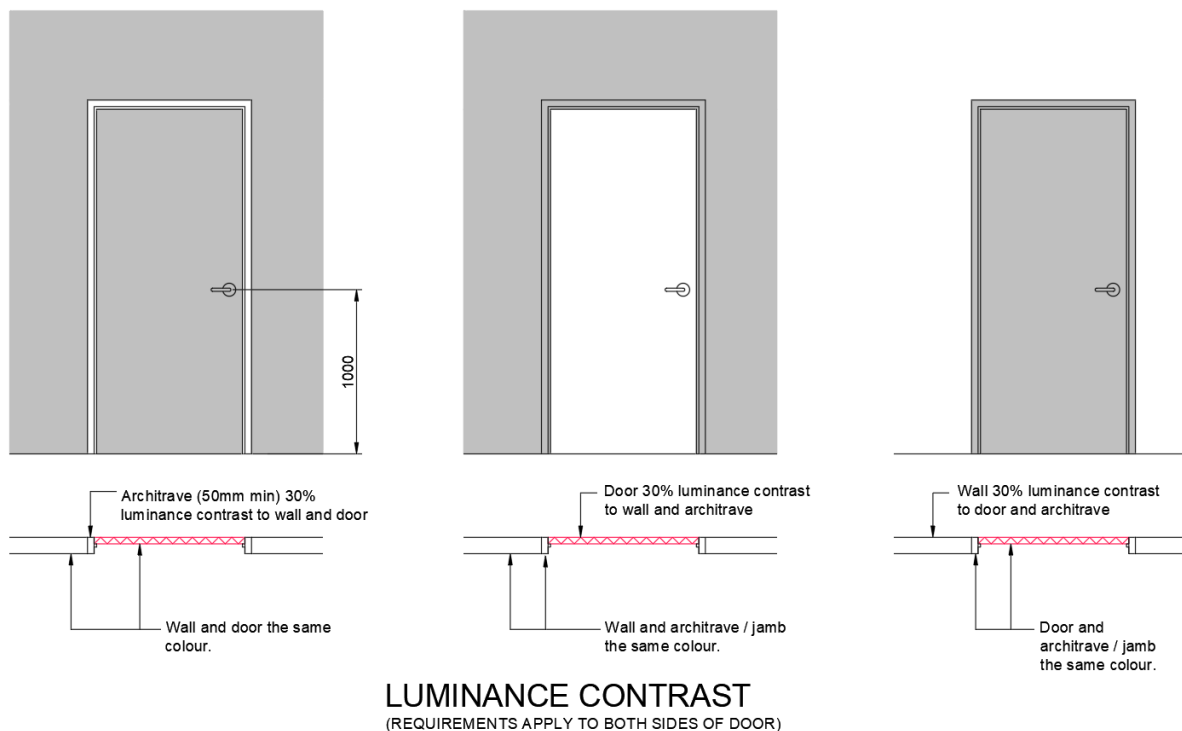
All other rooms required to be accessible require compliance with doorway luminance contrast requirements noted at Clause 13.1 of AS1428.1:2009:

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.

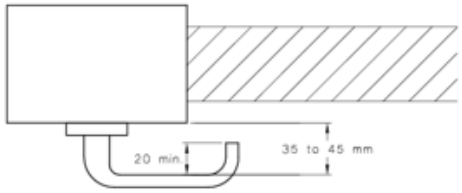









3.10.2 Luminance Contrast - A table indicating wall colour and door colour with the associated luminance contrast level achieved will need to be prepared and provided to demonstrate compliance with the requirements of Clause 13.1 of AS1428.1:2009.

3.10.3. 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.

 <p>(b) Plan view</p> <p>FIGURE 35(A) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR HINGED DOORS</p>	
<p>Figure 24 – Fig. 35 Section 13 AS1428.1:2009</p>	
 <p>Lockwood Lever 80</p>	 <p>Lockwood Lever 70</p>
 <p>Lockwood Lever 96</p>	 <p>Lockwood Lever 77</p>
 <p>The above image indicates a privacy latch set provided to accessible WC facilities as viewed from within the facility</p>	 <p>The above image indicates a privacy latch set provided to accessible WC facilities as viewed from the outside</p>
<p>Figure 25 – The above images are examples of compliant hardware</p>	

3.10.3. Door Controls – The selection of door hardware will need to be provided as part of the detailed Construction Certificate and construction documentation to be prepared for this project.

3.10.4. Hardware to sliding doors

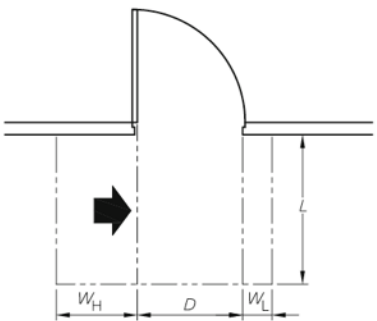
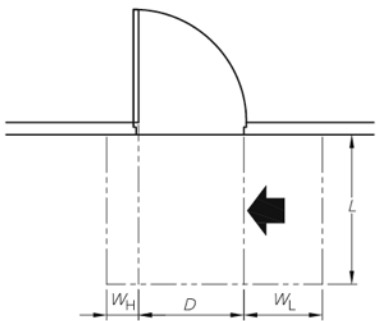
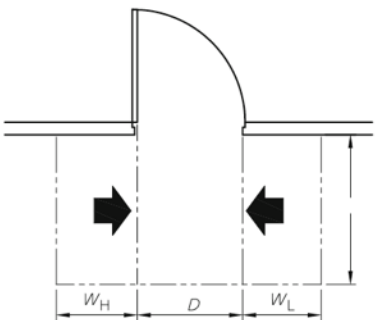
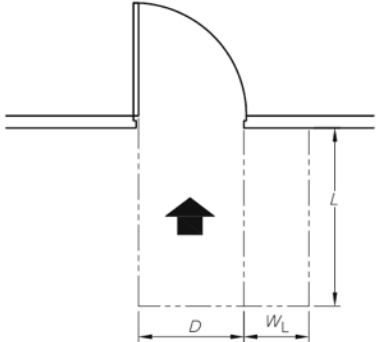
The hardware to sliding doors will need to be a “D” handle style fixed to both sides of the door assembly as required by Clause 13.5.2(c) of AS1428.1:2009.

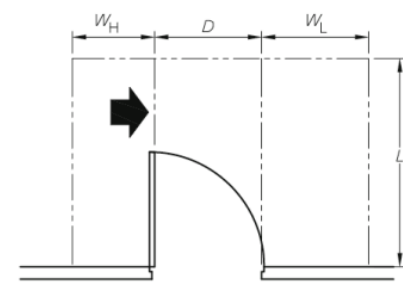
3.10.5. Circulation at Doorways

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.

We have reviewed the drawings provided and based on the information contained within the drawings it appears that the circulation at doorway provisions noted at Clause 13.3 of AS1428.1:2009 are able to be achieved.

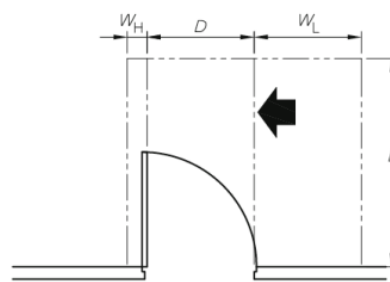
The following extracts from the Standard is provided by way of information.

							
Dimension D	Dimension L	Dimension W_H	Dimension W_L	Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1220	560	340	850	1240	240	660
900	1185	510	340	900	1210	190	660
950	1160	460	340	950	1175	140	660
1000	1140	410	340	1000	1155	90	660
(a) Hinge-side approach, door opens away from user				(b) Latch-side approach, door opens away from user			
							
Dimension D	Dimension L	Dimension W_H	Dimension W_L	Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1240	560	660	850	1450	0	510
900	1210	510	660	900	1450	0	510
950	1175	460	660	950	1450	0	510
1000	1155	410	660	1000	1450	0	510
(c) Either side approach, door opens away from user				(d) Front approach, door opens away from user			



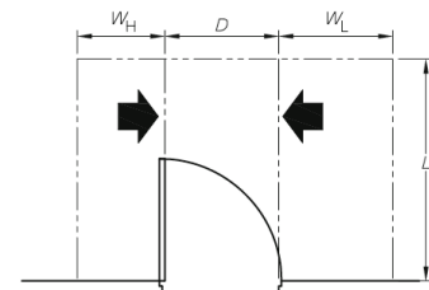
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

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



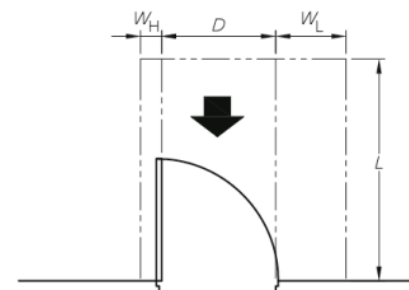
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	110	900
900	1670	110	900
950	1670	110	900
1000	1670	110	900

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



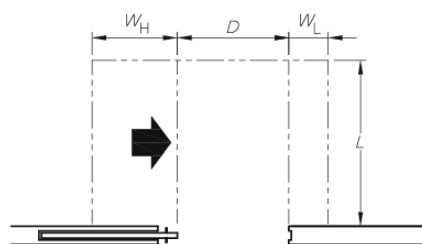
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1670	660	900
900	1670	610	900
950	1670	560	900
1000	1670	510	900

(g) Either side approach,
door opens towards user



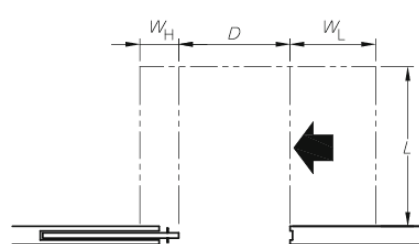
Dimension D	Dimension L	Dimension W_H	Dimension W_L
850	1450	110	530
900	1450	110	530
950	1450	110	530
1000	1450	110	530

(h) Front approach,
door opens towards user



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

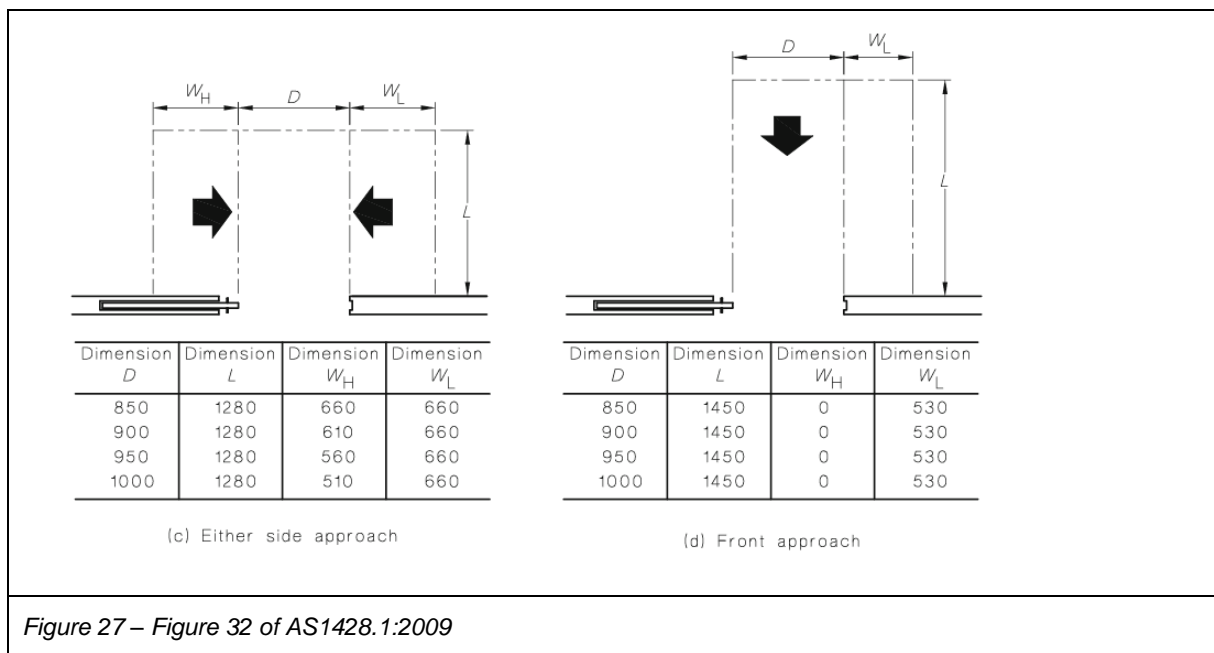
(a) Slide-side approach



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

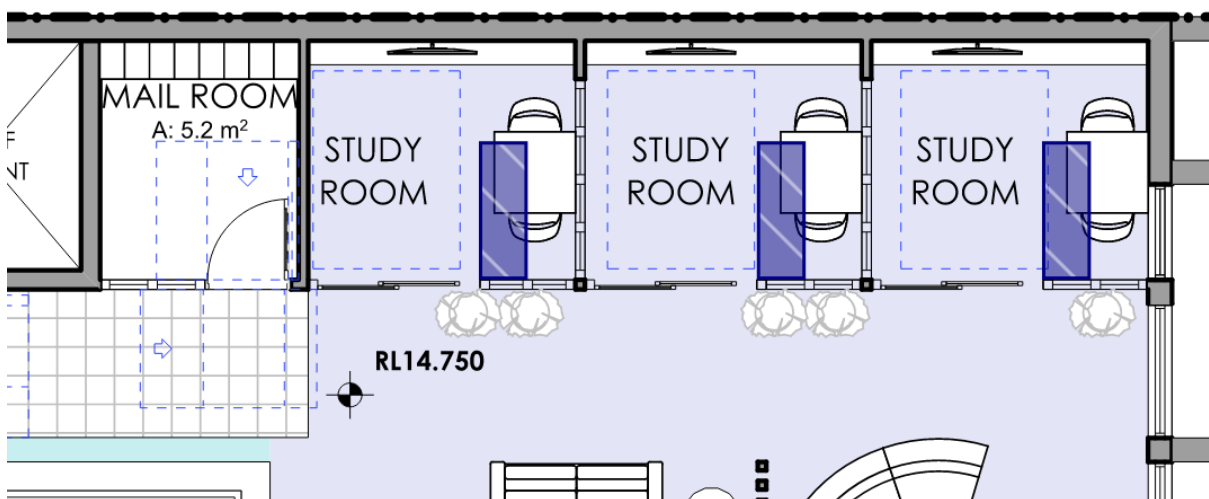
(b) Latch-side approach

Figure 26 – Figure 31 of AS1428.1:2009



3.10.5. Circulation at Doorways – The detailed construction documentation to be prepared for this project will need to indicate compliance with the circulation at doorway provisions of Clause 13.3 of AS1428.1:2009.

The door details to the 3 Study Rooms will need to be revised to achieve the required 530mm latchside clearance. Alternatively, a Performance Based Design Solution will need to be prepared to address circulation to and within these study areas. The hatch on the extract from the plan indicate the required 530mm latchside clearance associated with sliding doors.



3.10.5. Circulation at Doorways – A performance based design solution will need to be prepared to address circulation to and within the Study rooms. This performance solution will be required for the issue of the Construction Certificate.

3.10.6. Door Closers (20N Force)

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).

3.10.6. Door Closers – Confirmation that the proposed door closer(s) can satisfy this requirement will need to be provided as part of the detailed construction documentation to be prepared for this project. Certification of compliance will be required for the issue of the Occupation Certificate.

3.10.6. Door Closers – A Performance Based Design Solution may be required to be prepared to address doors installed with a door closer (other than fire rated doors) satisfy the provisions of Clause 13.5(e) of AS1428.1:2009 (20N Force) will be required for the issue of the Construction Certificate.

3.10.6. Door Closers – Certification of compliance that the doors installed with a door closer (other than fire rated doors) satisfy the provisions of Clause 13.5(e) of AS1428.1:2009 (20N Force) will be required for the issue of the Occupation Certificate.

3.10.7. Doorway Thresholds

Doors to all accessible rooms require a level threshold whereby the maximum lip shall be 3mm high for a straight edge or 5mm high for a bevelled edge. Specific attention is drawn to the doorways leading to outdoor areas. The following photograph is an example of a level threshold transition.



Figure 28 – Photograph of door threshold

3.10.7. Doorway Thresholds Level and smooth transitions are required between internal and external doorways. The detailed construction documentation will need to detail this junction.

3.11. Switches

NCC 2022 D1P1(a)(iii) Access for people with a disability

AS Reference: D1P1(a)(iii) Access for people with a disability

Clause 14 (Switches and General Purpose Outlets) of AS1428.1 2009

3.11.1. General

The operation of some of the doors within this building may be connected to the building access control system.

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.

3.11.2. Lights switches and GPOs to accessible SOUs and accessible WCs

The following features apply to light switches and GPOs located in accessible SOUs and the Public accessible sanitary compartments:

- Light switches and GPO switches are to be the large format rocker switch type
- Light switches are to be located between 900-1100mm AFFL and in alignment with the door hardware
- Switches are to be located not closer than 500mm to an internal corner
- GPOs are to be located between 600-1100mm AFFL

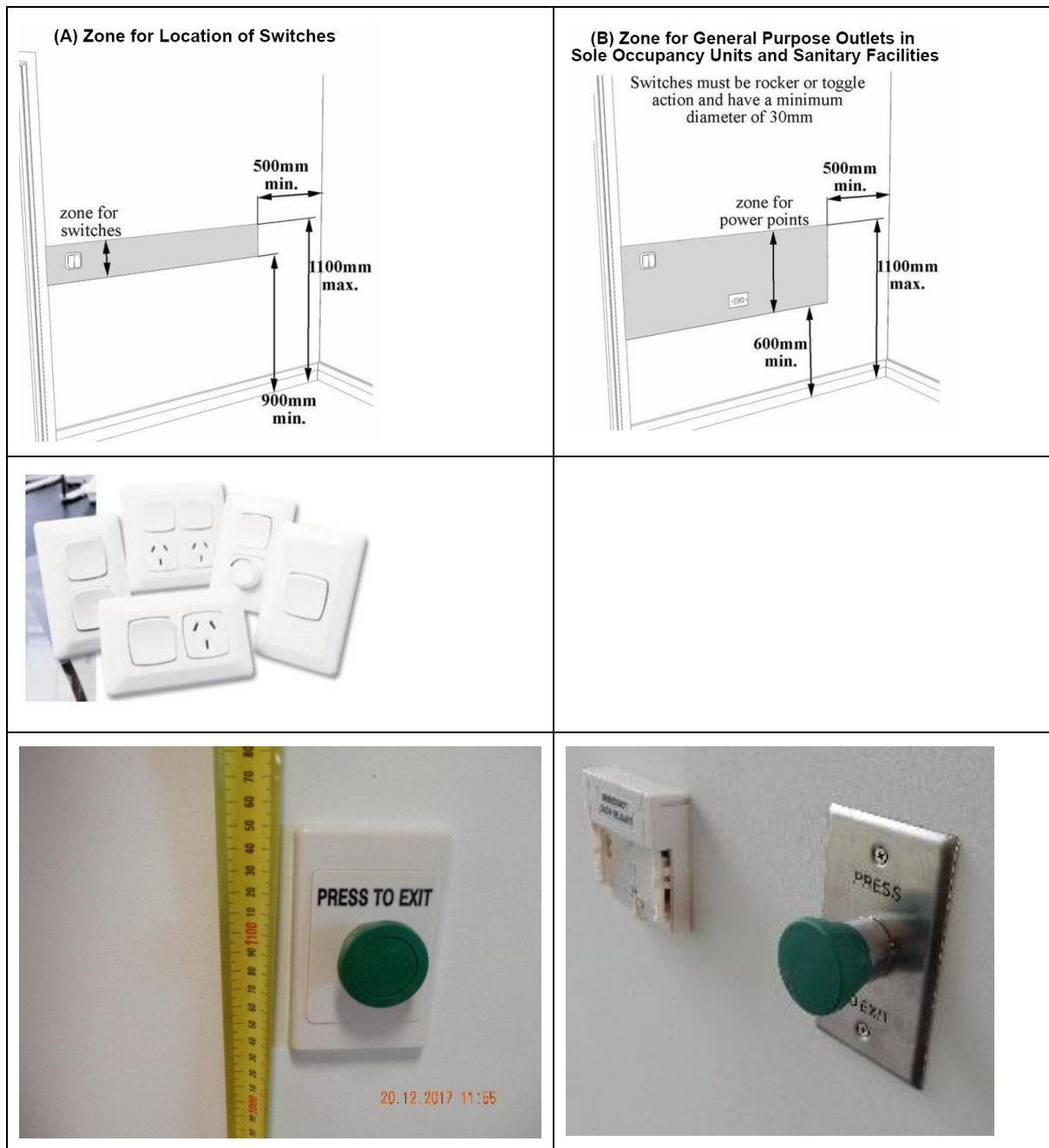
3.11.3. Video Intercoms

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 500mm to an internal corner.

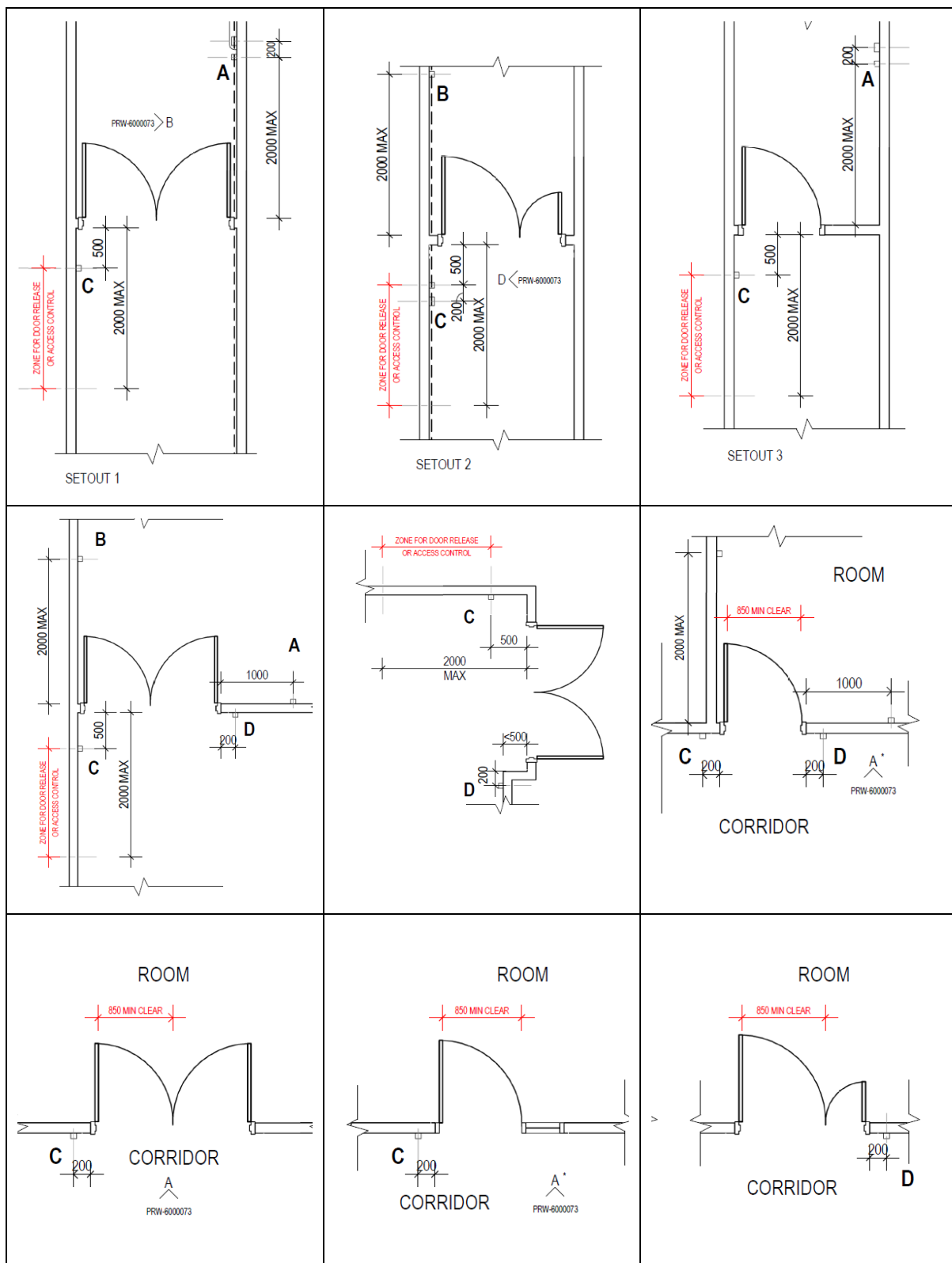
3.11.4. Access Control

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.



The following diagrams have been prepared to indicate the location of Light switches card readers, push to exit buttons and the like in relation to doorways.



3.11 Switches – Details of the setout of switches will need to be provided as part of the detailed construction documentation to be prepared for this project.

3.12. Accessible Sanitary Facilities

NCC 2022 D1P1(a)(iii) Access for people with a disability
 F4P2.1 Personal hygiene facilities
 NCC Clause F4D5 Accessible Sanitary Facilities
 NCC Clause D4D7
 NCC Specification 15

AS Reference: Clause 15 of AS1428.1:2009

Unisex accessible sanitary facilities (USAT) are located on the ground floor and Level 2 of the building. Accessible sanitary facilities (USATs) are proposed within the seven (7) accessible SOUs provide within the development.

The table following summarises the NCC requirements to be satisfied.

Accessible WC requirements as nominated at NCC Clause F4D5	Additional criteria to be satisfied	Criteria satisfied by the proposed design
(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and	Accessible WC facilities are to be provided (a) 1 on every storey containing sanitary compartments; and (b) where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks.	Satisfied
(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and	Where 1 or more showers are provided, not less than 1 for every 10 showers or part thereof.	Satisfied
(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; and		Not Applicable
(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and		Satisfied
(e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and		Satisfied

Accessible WC requirements as nominated at NCC Clause F4D5	Additional criteria to be satisfied	Criteria satisfied by the proposed design
(f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and		Satisfied
(g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and		Satisfied
(h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and		Not Applicable
(i) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D4D4(f) to be provided with a passenger lift or ramp complying with AS 1428.1.		Not applicable

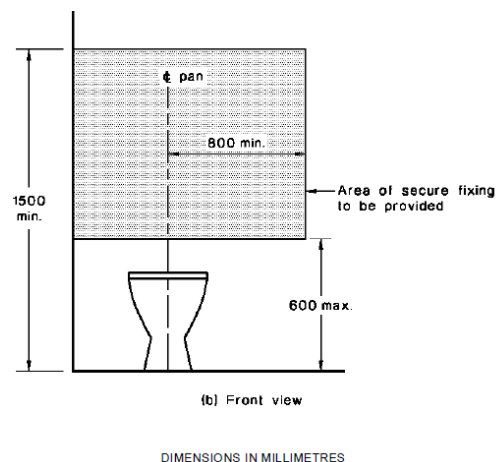
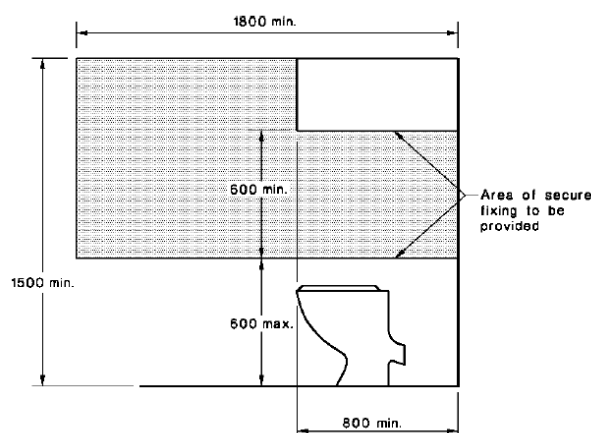
Details of the non-slip floor finish to the bathrooms will need to be provided.

Locations of TMVs are to be provided as part of the Construction Certificate documentation.

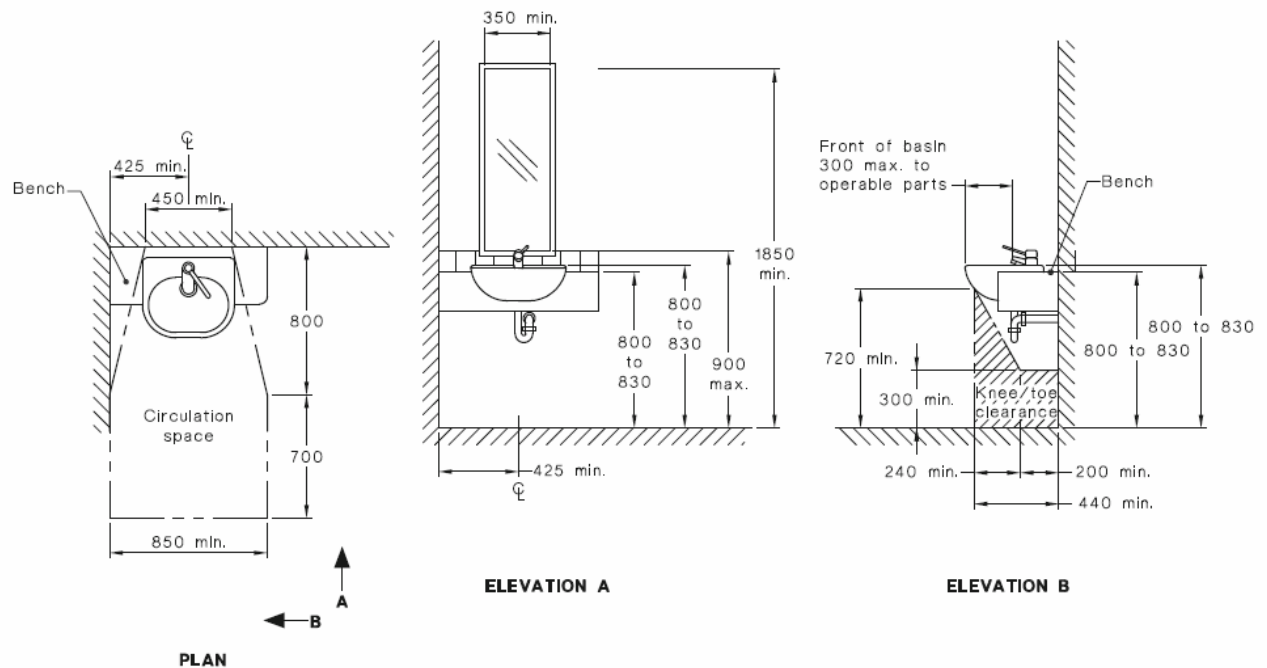
Tap sets will need to be specified with lever or capstan handles.

3.12.1. Wall Reinforcement

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



3.12.3. 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.

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

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

3.12.4. Toilet Roll Dispensers

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

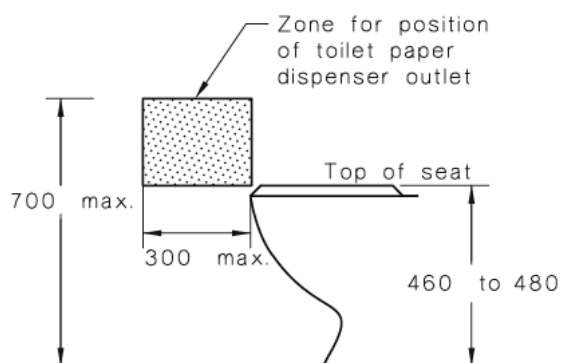


Figure 29 – Fig.41 AS1428.1 2009

3.12.5. Grabrails

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

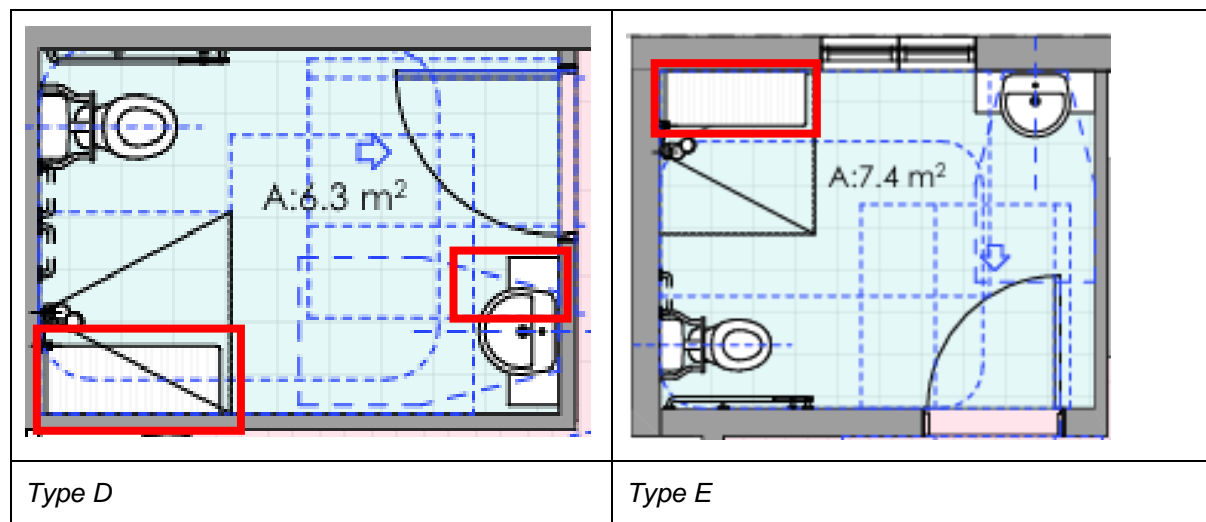
The clearance between a grabrail and the adjacent wall surface or other obstruction shall be not less than 50 mm and not more than 60 mm. The clearance above a horizontal grabrail shall extend above the top of the grabrail by not less than 600 mm. The clearance below a horizontal or angled rail shall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

3.12.6. Accessible SOUs - WCs

The design proposes the following arrangements for the sanitary compartments provided within each accessible SOU.



The areas where an alternative approach to the dts approach proposed has been identified by a red box.

3.12.6 Accessible WCs – Performance Based Design Solutions will need to be prepared to address the removal of the fold down seat to the shower recess and the encroachment of the handbasin in Type D into the door circulation zone.

3.12.7. 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	1900x2300mm
• hand basin circulation	850x1500mm, the basin may encroach a maximum of 100 mm into the circulation space of the adjacent WC pan circulation
• WC pan offset from side wall	450/460 mm
• WC pan offset from rear wall	800±10 mm
• WC pan backrest	to code requirements
• WC pan toilet seat	The toilet seat will need to be the full round type, securely fixed in position, be rated 250 KG and have a minimum limits contrast of 30% with the background pan, wall or floor against which it is viewed.
• WC pan grab rails	Grab rail to be mounted 800 mm above finish floor level, length of grab rail to be 1050 mm from rear wall, install 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 D4D7 and NCC Specification 15 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.

3.12 Accessible WCs – The documentation to be prepared as part of the detailed construction documentation will need to indicate compliance with the requirements for accessible WCs as nominated at Clause 15 of AS1428.1:2009.

3.13. Vertical Transport

NCC 2022	D1P1 Access for people with a disability
	E3P4 Lift access for people with a disability
	D4D4 Parts of buildings to be accessible
	E3D7 Passenger lift types and their limitations
	E3D8 Accessible features required for passenger lifts
AS Reference:	AS1735.12:2020 Lifts, Escalators and Moving Walks
	AS1735.14:1998 Lifts, Escalators And Moving Walks Lifts, Escalators And Moving Walks - Low-rise Platforms For Passengers Low Rise Platforms For Passengers
	AS1735.15:2002 Lifts, Escalators, And Moving Walks - Low-rise Passenger Lifts - Non-automatically Controlled

3.13.1. Lifts - Overview

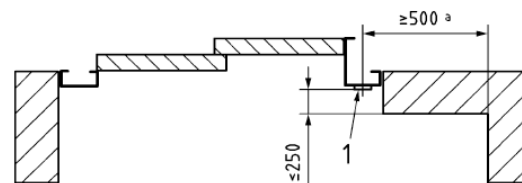
Two passenger lifts will be provided as part of this development connecting all levels of these buildings.

The detailing of the lift cars will need to satisfy the requirements of NCC Clauses E3D7 and E3D8 and the provisions of AS1735.12:1999.

This service is not intended to be a Destination Control System.

3.13.2. Lifts -Lobby call buttons

Many lift suppliers are locating lift call buttons on door jambs as per the following sketch. This is not a dts installation and will require the preparation of a Performance Based Design Solution if adopted.



Key

1 landing button

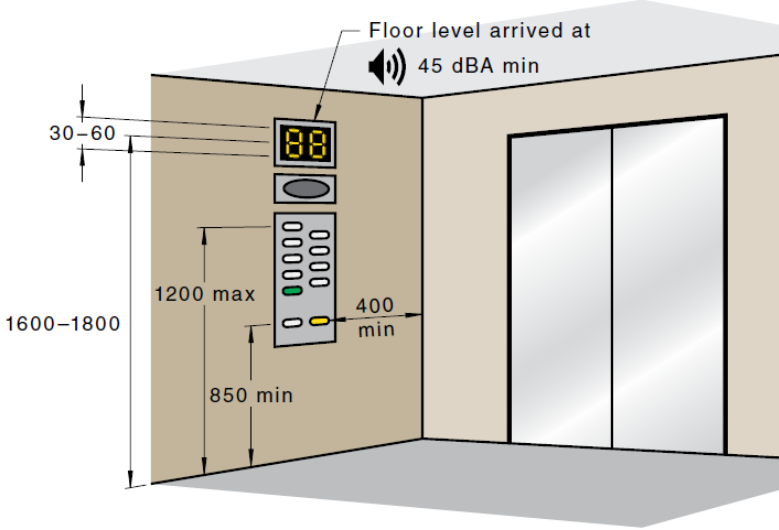
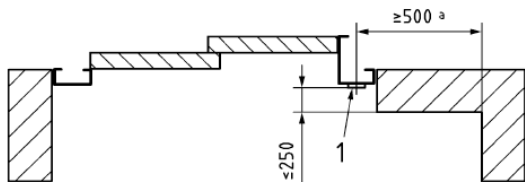
a preferably 700


Figure 3 — Arrangement of landing buttons

3.13.3. AS1735.12:2020 Assessment (Informational)

The lift design will need to satisfy the provisions of AS1735.12:2020. The following table identifies the accessible features to be provided.

CI	Requirement	Status																																		
5.1.2	<p>Luminance Contrast (comply with Table 2)</p> <p>Table 2 — Minimum difference of light reflectance value (LRV)</p> <table><tr><th rowspan="2">Clause</th><th rowspan="2">Item</th><th colspan="2">At landings</th><th colspan="2">In the car</th></tr><tr><th>Minimum LRV point difference</th><th>Viewing angle</th><th>Minimum LRV point difference</th><th>Viewing angle</th></tr><tr><td>Table 4, item c)</td><td>Active part of push buttons to their surrounding</td><td>30</td><td>45° above horizontal</td><td>30</td><td>45° above horizontal</td></tr><tr><td>Table 4, item d)</td><td>Face plate to its surrounding</td><td>30</td><td>Perpendicular</td><td>30</td><td>Perpendicular</td></tr><tr><td>Table 4, item j)</td><td>Symbols on push buttons to active areas</td><td>30 (60 recommended)</td><td>45° above horizontal</td><td>30 (60 recommended)</td><td>45° above horizontal</td></tr><tr><td>5.4.3.3 c)</td><td>Lift identification to background</td><td>30 (60 recommended)</td><td>Perpendicular</td><td>-</td><td>-</td></tr></table>	Clause	Item	At landings		In the car		Minimum LRV point difference	Viewing angle	Minimum LRV point difference	Viewing angle	Table 4, item c)	Active part of push buttons to their surrounding	30	45° above horizontal	30	45° above horizontal	Table 4, item d)	Face plate to its surrounding	30	Perpendicular	30	Perpendicular	Table 4, item j)	Symbols on push buttons to active areas	30 (60 recommended)	45° above horizontal	30 (60 recommended)	45° above horizontal	5.4.3.3 c)	Lift identification to background	30 (60 recommended)	Perpendicular	-	-	Additional Information to be provided
Clause	Item			At landings		In the car																														
		Minimum LRV point difference	Viewing angle	Minimum LRV point difference	Viewing angle																															
Table 4, item c)	Active part of push buttons to their surrounding	30	45° above horizontal	30	45° above horizontal																															
Table 4, item d)	Face plate to its surrounding	30	Perpendicular	30	Perpendicular																															
Table 4, item j)	Symbols on push buttons to active areas	30 (60 recommended)	45° above horizontal	30 (60 recommended)	45° above horizontal																															
5.4.3.3 c)	Lift identification to background	30 (60 recommended)	Perpendicular	-	-																															
5.1.3	When an audible signal or voice announcement is required, the sound shall be adjustable between 35dB(A) and at least 65dB(A) to suit the site conditions.	Additional Information to be provided																																		
5.2.1	The clear opening door width shall be at least 900mm for Type 2 cars	Additional Information to be provided																																		
5.2.2	Minimum door dwell time – 6s	Additional Information to be provided																																		
5.3.1	Table 3 Minimum car dimensions - Type 2 lift car - 1100 x 1400mm (630kg) Car decorations that reduce the minimum car dimensions shall not exceed 15mm in thickness. Any protruding decorations shall not extend below 800mm AFFL.	Additional Information to be provided																																		
5.3.2.1	A handrail shall be installed on the side wall where the car operating panel is located.	Additional Information to be provided																																		
	(a) The handrail shall be interrupted where the car operating panel is located	Additional Information to be provided																																		
	(b) Handrail length to be a minimum of 400mm	Additional Information to be provided																																		
	(c) The cross section of the handrail is to be between 30-45mm with a minimum radius of 10mm	Additional Information to be provided																																		
	(d) The distance between the wall and the gripping part of the handrail shall be at least 35mm	Additional Information to be provided																																		
	(e) The top of the rail shall be 900+/-25mm AFFL	Additional Information to be provided																																		
	(f) The ends of the rail shall be closed.	Additional Information to be provided																																		
5.3.2.3	For Type 2 cars a device shall be installed to enable passengers to observe obstacles behind them when moving backwards out of the car	Additional Information to be provided																																		
5.3.2.4	The car floor shall be slip resistant (P3/R10)	Additional Information to be provided																																		

CI	Requirement	Status
5.4.2	<p>Control devices and signals for collective control systems (Refer to Table 4 of AS1735.12:2020)</p>  <p>Figure ZA.1 — In car control station</p>	Additional Information to be provided
5.4.2.2	<p>Landing control devices</p> <p>The minimum setout of landing control devices is to be as follows:</p>  <p>Key</p> <p>1 landing button</p> <p>a preferably 700</p> <p>Figure 3 — Arrangement of landing buttons</p>	Additional Information to be provided

CI	Requirement	Status
ZA.5.2	<p>Raised tactile and braille signs identifying both the lift car and building level shall be provided on both sides of every lift landing door frame. Signs shall be visible from inside the lift car.</p> 	Additional Information to be provided
ZA.6	Lift identification sign content shall be in accordance with AS1428.4.2.	Additional Information to be provided

3.13.2 Vertical transport - Detailed lift drawings will need to be prepared and provided for review.

3.13.2 Vertical transport - A design certificate will need to be provided from the lift supplier indicating compliance with AS1735.12:2020.

3.13.2 Vertical transport - A lift installation certificate referencing the NCC performance requirement of E4P4, NCC Clause E3.6 and AS1735.12:2020 will need to be provided for the issue of the OC Access Installation Certificate.

3.14. Furniture and Fitments (Not Referenced by the NCC)

NCC 2022 D4D4 Parts of buildings to be accessible

AS Reference: AS1428.2:1992 Clause 24 (Furniture and Fitments) of AS1428.2 1992

3.14.1. Counters

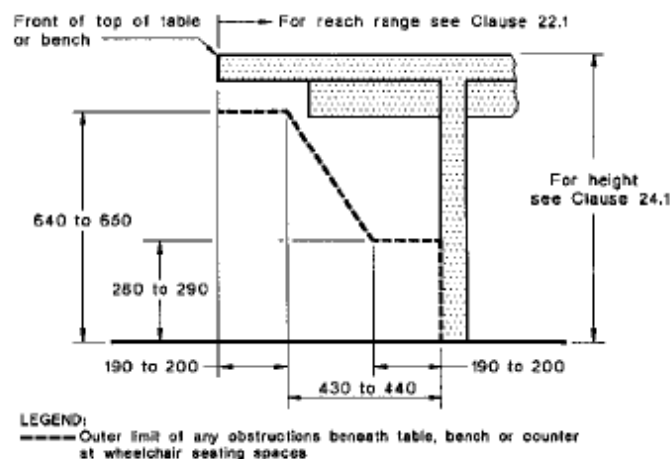
All reception counters associated are to include a portion of the counter that is accessible.

3.14.2. Kitchenette

The design proposes kitchenettes within accessible SOUs from Level 5-11.

The accessible kitchenette/ benchtop 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.



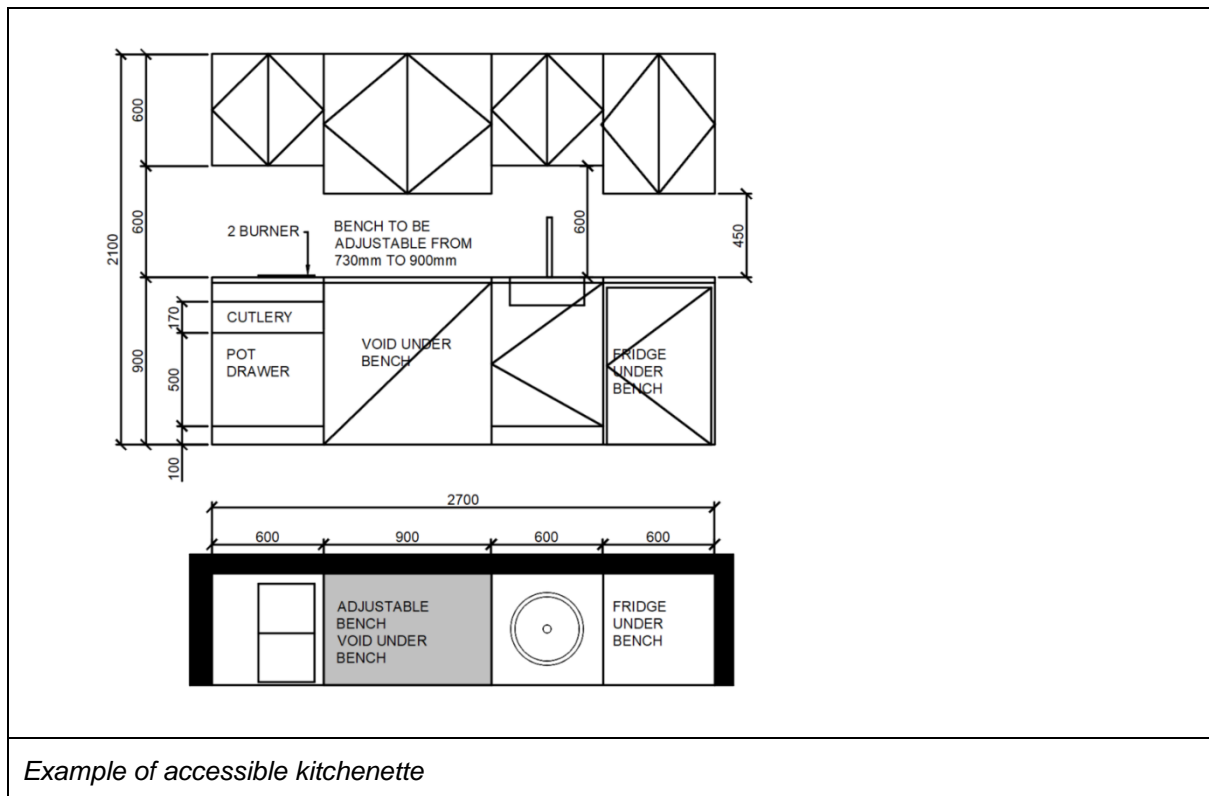
NOTE: For width of seating spaces see Clause 24.1.3.

DIMENSIONS IN MILLIMETRES

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

Figure 30 – Fig.25 AS1428.2:1992

The following sketch prepared by iAccess Consultants indicates accessible features to be incorporated into the detailing of the kitchenettes in the accessible SOUs.



Example of accessible kitchenette

3.14. Furniture and Fitment – The documentation to be prepared as part of the detailed construction documentation will need to indicate compliance with the above requirements for accessible SOUs.

3.15. Lighting

AS Reference: D1P1(a)(iii) Access for people with a disability

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	80lx
Counter tops	250lx	320lx

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

3.15. Lighting Levels – On completion of the works certification of lighting levels achieved indicating compliance with these requirements will need to be provided for the issue of the Access Installation Certificate at OC.

3.16. Hearing augmentation

NCC 2022	D1P1(a)(iii) Access for people with a disability
	NCC Clause D4D8
	NCC Clause D4D7
	NCC Specification 15
AS Reference:	AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired
	AS1428.4.1:2009

3.16.1. Hearing augmentation - Preamble

Hearing Augmentation systems will need to be provided to the study rooms located within the development if built in amplification is provided.

Requirement to be Satisfied:	NCC D4D8 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.

3.16.2. Hearing augmentation - requirements

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 either speaker is installed within a room or the wall mounted monitor has built-in speakers. Such installations are typically found in meeting rooms, training rooms and waiting areas.

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 highlights 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.

3.16.3. Hearing augmentation – Braille Tactile signs

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

NCC D4D7 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.

3.16 Hearing augmentation Detailed documentation will need to be provided as part of the further documentation to be prepared for this project.

3.16 Hearing augmentation On completion of the works certification is to be provided indicating the installed hearing augmentation system satisfies the requirements of NCC Clause D4D8 and the provisions of AS1428.5.

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

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
A4.1	Classifications Class 3 – Student accommodation Class 5 – Offices Class 6 – Retail	Note	
DP1	Performance requirement Access must be provided, to the degree necessary, to enable: a) people to:	Satisfied	
	i. approach the building from the road boundary and from any <i>accessible</i> carparking spaces associated with the building; and		
	ii. approach the building from any accessible associated building; and	Not Applicable	
	iii. access work and public spaces, accommodation and facilities for personal hygiene; and	Satisfied	
	b) Identification of accessways at appropriate locations which are easy to find.	Satisfied	
DP4	Performance requirement <i>Exits</i> must be provided from a building to allow occupants to evacuate safely, with their number, location and dimensions being appropriate to: <ul style="list-style-type: none"> 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 <i>exit</i> is from above or below ground level. 	Satisfied	
DP6	Performance requirement So that occupants can safely evacuate the building, <i>accessways</i> to <i>exits</i> must have dimensions appropriate to: <ul style="list-style-type: none"> a) the number, mobility and other characteristics of occupants; and b) the function or use of the building. 	Satisfied	

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
DP8	Performance requirement Carparking spaces for use by people with a disability must be: <ol style="list-style-type: none"> provided, to the degree necessary, to give equitable access for carparking; and designated and easy to find. 	Not Applicable	
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 3 — student accommodation,		
Table D3.1	To and within all areas normally used by the occupants	Satisfied	
	Common areas: From a pedestrian entrance required to be accessible to at least one floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level. To and within not less than one of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunchroom, lounge room, or the like. Where a ramp complying with AS 1428.1 or a passenger lift is installed: <ol style="list-style-type: none"> to the entrance doorway of each sole-occupancy unit; and to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp 	Satisfied	
D3.1	General Building Access Requirements Class 5 — Offices		
Table D3.1	To and within all areas normally used by the occupants	Satisfied	

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
D3.1	General Building Access Requirements Class 6 — Retail		
Table D3.1	To and within all areas normally used by the occupants	Satisfied	
D3.2	Access to Buildings		
	(1) An <i>accessway</i> must be provided:	Satisfied	
	(a) to a building <i>required</i> to be <i>accessible</i> ;		
	(b) from the main points of a pedestrian entry at the allotment boundary; and	Satisfied	
	I. from another <i>accessible</i> building connected by a pedestrian link; and	Not Applicable	
	II. from any required accessible carparking space on the allotment.	Not Applicable	
	(2) In a building <i>required</i> to be <i>accessible</i> , an <i>accessway</i> must be provided through the principal pedestrian entrance, and:	Satisfied	
	a. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and		
	b. in a building with a total <i>floor area</i> more than 500sqm, a pedestrian entrance which is not <i>accessible</i> must not be located more than 50 m from an <i>accessible</i> pedestrian entrance;		
	Except for pedestrian entrances serving only areas exempted by clause D4D5.		
D3.3	Parts of buildings to be accessible		
	In a building <i>required</i> to be <i>accessible</i> :		
	a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D4D5, must comply with:		
	i. for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and	Additional Information to be provided	
	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;	Additional Information to be provided	

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
	b) every passenger lift must comply with clause E3.6;	Additional Information to be provided	
	c) accessways must have: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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; 	Satisfied	
	d) an intersection of accessways satisfies the spatial requirements for a passing and turning space;	Satisfied	
	e) a passing space may serve as a turning space;	Satisfied	
	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- <ul style="list-style-type: none"> (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	Not Applicable	
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	Not Applicable	
D3.10	Swimming pool	Not Applicable	
D3.11	Ramps (Connecting Ramps)	Not Applicable	

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE	ACTION / COMMENT
D3.12	Glazing on an accessway On an <i>accessway</i> , 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 D4D7 and Specification 15 of the NCC 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	

5. STATEMENT OF EXPERTISE



Name	Richard Seidman
Qualifications	<ul style="list-style-type: none"> • 2019 Diploma in Access (Access Institute) • 2018 Accredited Access Consultant • 2014 Accredited assessor Livable Housing Australia • 2011 Certificate IV Access Consulting (IATA) • 2008 Accredited Green Star Professional (GBCA) • 2007 Graduate Diploma in Building Surveying (Fire Engineering) University of Western Sydney • 2005 Masters in Property Development University of Technology (Graduating 1st in year) • 1999 Graduate Diploma in Architectural Design Science (Facilities Management) University of Sydney • 1983 Bachelor of Architecture (Hons) University of NSW
Memberships	<ul style="list-style-type: none"> • Royal Australian Institute of Architects (No. 4700) • NSW Architects Registration Board (No. 4829) • Association of Consultants in Access Australia (Accredited Access Consultant No 330) • Livable Housing Australia (10041)
Experience	<p>Richard Seidman has practised for more than 35 years in the built environment and has developed extensive skills and expertise in the residential, commercial, industrial, health, retail, education and transport industries.</p> <p>Richard has extensive expertise in all aspects of AS1428, AS4299 and AS2890.6 which has been honed as part of the plan check role undertaken as part of the NBESP Social Housing Initiative undertaken for the Department of Human Services – Housing NSW and 10 years' experience with Westfield Design and Construction in the capacity of Project Design Manager.</p> <p>In 2010 Richard established iAccess Consultants a division of iAccess Group Pty Ltd.</p> <p>Since 2010 Richard has undertaken a wide range of consultancies</p>