

Job No: IAC-817

15 August 2018

**ROOT PARTNERSHIPS
LEVEL 2
14 MARTIN PLACE
SYDNEY NSW 2000**Reference: Access Consultancy – Stages 3 and 4
CAMPBELLTOWN HOSPITAL REDEVELOPMENT STAGE 2

Attention: Ms Tina Zheng

Dear Ms Zheng,

In accordance with your instructions we have prepared this access report assessing the EIS/SSD documentation provided to us concerning this project for this SEARS Access Report. This report has been revised to incorporate the architectural documentation issued on 25 May 2018 and the revised site plan issued 19 June 2018.

This access report has been structured in accordance with the provisions of the Disability (Access to Premises) Standard 2010 and Australian Standards AS1428.

Detailed documentation addressing the specific details and requirements of the access legislation, codes and standards will need to be incorporated into the Construction Certificate documentation.

Please feel free to contact us should you wish to discuss any aspect of this SEARS Access Report.

Yours sincerely,

**RICHARD SEIDMAN**

M.PropDev (UTS),
BArch (Hons) (UNSW),
ARB Reg No 4700,
ACAA Accredited Access Consultant (No 330)



iAccess Consultants is a division of Seidman & Associates Pty Ltd ABN 37 002 648 615

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SEARS ACCESS REPORT EIS/SSD DOCUMENTATION REVIEW

CAMPBELLTOWN HOSPITAL REDEVELOPMENT STAGE 2 CAMPBELLTOWN



Prepared by

iAccess Consultants

A division of Seidman & Associates Pty Ltd

ABN 37 002 648 615

15 August 2018

Revision [D]

Document Control

Project: Campbelltown Hospital Redevelopment Stage 2
EIS/SSD Documentation Review

Document Type: Access Report

Report Number: IAC-817

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

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

Revision History:

| Revision | Remarks | Issue Date |
|----------|--|----------------|
| - | Access report revised and issued to client | 4 June 2018 |
| C | Access report revised and issued to client | 19 June 2018 |
| D | Access report revised and issued to client | 15 August 2018 |

Authorisation and review provided by:



Richard Seidman
M.PropDev, BArch (Hons),
ARB Reg No 4700,
ACAA (Accredited Access Consultant No 330)
Livable Housing Registered Assessor 10041



iAccess Consultants is a division of Seidman & Associates Pty Ltd ABN 37 002 648 615

Contents

| | |
|---|-----------|
| 1. EXECUTIVE SUMMARY | 8 |
| 2. INTRODUCTION..... | 9 |
| 2.1. Background | 9 |
| 2.2. Key legislation and technical guidance | 10 |
| 2.3. Disability Discrimination Act 1992 | 11 |
| 2.4. Methodology..... | 11 |
| 2.5. Reviewed documentation..... | 12 |
| 3. ACCESSIBILITY PROVISIONS | 13 |
| 3.1. Introduction..... | 13 |
| 3.2. Class of building | 13 |
| 3.3. Extent of the works..... | 13 |
| 3.4. Areas required to be accessible..... | 13 |
| 4. AREAS WHERE ACCESS MAY BE EXCLUDED | 15 |
| 5. Compliance with the NCC DP4 & DP6..... | 16 |
| 5.1. Emergency evacuation..... | 16 |
| 5.2. Access Declaration | 16 |
| 6. External access to the site | 17 |
| 6.1. Accessible Path of Travel..... | 17 |
| 6.2. Path of travel information to be developed | 17 |
| 6.3. Accessible Paths of Travel - transitions | 18 |
| 6.4. Setdown Areas | 19 |
| 6.5. Luminance Contrast of Pavement Finishes | 20 |
| 6.6. Grates within the path of travel | 20 |
| 7. Visual Indicators on Glazing | 21 |
| 8. Building entrances and internal doors | 24 |
| 9. Internal paths of travel..... | 25 |
| 10. Slip Resistance..... | 26 |
| 11. Carpet | 27 |
| 12. Floor transitions | 28 |
| 13. Recessed Matting..... | 28 |
| 14. Doorways | 29 |
| 14.1. Clear Door Width..... | 29 |
| 14.2. Luminance Contrast | 29 |
| 14.3. Successive Doorways | 30 |
| 14.4. Door Controls | 30 |
| 14.5. Circulation at Doorways | 30 |
| 14.6. Door Closers | 33 |
| 14.7. Doorway Thresholds | 33 |
| 15. Switches..... | 35 |
| 15.1. General..... | 35 |
| 15.2. Video Intercoms | 35 |
| 15.3. Access Control | 35 |
| 16. Fire Stairs and Circulation Stairs | 37 |
| 16.1. Stairs - Overview | 37 |
| 16.2. Fire Stairs | 37 |
| 16.3. Circulation Stairs | 38 |
| 17. Ramps | 41 |
| 17.1. Design intent | 41 |
| 18. Lifts..... | 42 |

| | |
|--|-----------|
| 19. Accessible sanitary and shower facilities | 43 |
| 19.1. Wall Reinforcement | 44 |
| 19.2. Shower Compartment | 44 |
| 19.3. Handbasin | 45 |
| 19.4. Checklist of Accessible WCs | 46 |
| 20. Ambulant toilet cubicles | 48 |
| 20.1. Ambulant toilet cubicles – Toilet bank | 48 |
| 20.2. Ambulant toilet cubicles – Freestanding facility | 49 |
| 21. WC Facilities - Patient areas | 50 |
| 22. Treatment consulting and waiting areas | 51 |
| 23. Hearing augmentation | 52 |
| 24. Signage | 54 |
| 24.1. Statutory Signage Requirements | 55 |
| 24.2. Entrances | 56 |
| 24.3. Exit Signage | 56 |
| 24.4. WC Signage | 56 |
| 24.5. Hearing Augmentation Signage | 57 |
| 24.6. General Signage Information – Maintenance | 57 |
| 24.7. General Signage Information – Sizing | 57 |
| 24.8. Mounting Heights | 60 |
| 24.9. Luminance & Colour Contrast | 60 |
| 24.10. Relevant information | 60 |
| 25. Lighting | 61 |
| 26. Furniture and Fitments | 62 |
| 26.1. Counters | 62 |
| 26.2. Tables / workstations | 62 |
| 26.3. Seating | 63 |
| 26.4. Waiting Areas | 63 |
| 26.5. Lockers | 63 |
| 26.6. Beverage Bays | 63 |
| 26.7. Work Stations | 64 |
| 26.8. Rest Seating | 64 |
| 26.9. Drinking Fountain (if provided) | 65 |
| 26.10. Vending Machine (if provided) | 65 |
| 27. ACCESSIBILITY CONSIDERATIONS | 66 |
| 27.1. Internal paths of travel – surface finishes | 66 |
| 27.2. Parenting facilities | 66 |
| 27.3. Changing Places Facility | 66 |
| 27.4. Customer service areas | 66 |
| 27.5. Kitchen / beverage bay facilities | 66 |
| 27.6. Ancillary fixtures | 67 |
| 27.7. Way finding strategy | 67 |
| 28. CONCLUSION | 68 |

Table of Figures

| | |
|---|----|
| Figure 1- Site plan indicating extent of these works | 13 |
| Figure 1 Extract from AS1428.1:2009 indicating the requirements for kerb ramps..... | 18 |
| Figure 2 Extract from Appendix C of AS1428.4.1:2009 addressing the detailing of kerb ramps. | 18 |
| Figure 3 Extract from AS2890.6 outlining accessible requirements for parallel parking. | 19 |
| Figure 4 Extract from AS1428.4.1:2009..... | 20 |
| Figure 5 Extract from AS1428.4.1:2009..... | 20 |
| Figure 6 Diagrams indicating the various type of compliant heel guard grates..... | 20 |
| Figure 7 – Diag.4 DE-IG02 2013..... | 21 |
| Figure 8 Examples of carpet joints on an accessible path of travel..... | 27 |
| Figure 9 diagrams indicating the acceptable tolerances between pavement finishes..... | 28 |
| Figure 10 diagrams indicating the acceptable tolerances between finishes | 28 |
| Figure 11 – Figure 34 of AS1428.1:2009 | 30 |
| Figure 12 – Fig. 35 Section 13 AS1428.1:2009..... | 30 |
| Figure 13 – The above image is an example of compliant hardware to be installed to accessible WCs | 30 |
| Figure 14 – Examples of compliant sliding doors | 31 |
| Figure 15 – Figure 31 of AS1428.1:2009 | 32 |
| Figure 16 – Figure 32 of AS1428.1:2009 | 33 |
| Figure 17 – Photograph of door threshold | 34 |
| Figure 18 – Fig. 28 of AS1428.1:2009 | 38 |
| Figure 19 – Diag.25A DE-IG02 2013 | 39 |
| Figure 20 – Diag.25C DE-IG02 2013 | 39 |
| Figure 21 – Fig.26A Section 11 AS1428.1 2009..... | 39 |
| Figure 22 – Fig.28 Section 11 AS1428.1 2009 | 39 |
| Figure 23 – Fig.27B Section 11 AS1428.1 2009..... | 40 |
| Figure 24 – Fig.26C Section 11 AS1428.1 2009..... | 40 |
| Figure 25 diagrams indicating the wall strengthening zones to locations where grabrails are installed..... | 44 |
| Figure 26 extract from the Australian standards indicating the dimensional set out for accessible shower installations..... | 45 |
| Figure 27 extract from the Australian standards indicating the dimensional set out for handbasin installations..... | 45 |
| Figure 28 extract from AS1428.2:10992 | 48 |
| Figure 29 extract from AS1428.2:10992 | 48 |
| Figure 30 – Examples of Braille Tactile Signage from www.brailletactilesigns.com.au | 56 |
| Figure 31 – View range and lettering height (Source City of Sydney signage manual)..... | 58 |
| Figure 32 – Fig. D1 of AS1319:2994..... | 59 |
| Figure 33 – Sketch of recommended signage icon size and spacing..... | 59 |
| Figure 34 – Extract from Australian Standard indicating acceptable view range for signage..... | 60 |
| Figure 35 – Fig.25 AS1428.2:1992 | 62 |
| Figure 36 – Sketch by iAccess Consultants..... | 63 |

1. EXECUTIVE SUMMARY

The Campbelltown Hospital Redevelopment project is at a point where further review and feedback is to be provided.

Ongoing dialogue with the design team and hospital management is required to define the extent and degree of accessibility to be achieved throughout the new hospital and the refurbishment of areas of the existing hospital.

This report provides information about how accessibility issues can be integrated into the design of the hospital and highlights minimum features to maximise access for people with a disability throughout the development, offer compliance with the National Construction Code 2016 (NCC) and meet the intent of the DDA.

The plans presently indicate the spatial and blocking arrangements for the departments to be included within the new facility and the areas nominated for refurbishment within the existing hospital buildings.

The detailing and internal arrangements will need to be carefully considered with regards to accessibility.

The accessibility ACT, Codes and Standards will need to be incorporated into the detailed design in conjunction with the specific details nominated within the Australian Health Facility Guidelines.

Following review of the plans, the proposal is capable of complying with the relevant access legislation

2. INTRODUCTION

This report is intended to provide a record of progress with regard to matters relating to disability access. This main report provides key performance guidance on issues of technical compliance.

2.1. Background

The Development Application (DA) seeks approval for the following development as identified on the Site Works drawing SSD-01-003 PLAN - SITE PLAN PROPOSED WORKS K:

- Demolition of existing structures;
- Partial excavation of the site (due to the sloping topography);
- The construction of a new 13 storey (two of these levels are partially below ground) Clinical Services Building containing:
 - An Emergency Department;
 - Operating Theatres;
 - Intensive Care Unit;
 - Mental Health;
 - Birthing and Speciality Care Nursery;
 - Surgical and Medical Beds;
 - Helipad facilities; and
 - An Ambulance Bay.
- Construction of a new Hospital Spine and connections to existing hospital buildings;
- Construction of augmented and new internal hospital access roads and links, including a connection to Appin Road and Therry Road;
- Construction of an at-grade car park;
- Tree removal; and
- Associated building services.

The design presently does not indicate any refurbishment of existing areas of the existing hospital.

2.2. Key legislation and technical guidance

The accessibility assessment process covers all aspects of the infrastructure (premises), to the extent required to meet the objectives of the Disability Discrimination Act 1992 (Cth), including, however not limited to, Section 23 which relates to access to premises and facilities which the public may enter or use.

In this report, IAccess Consultants will comment on compliance with best practice guidelines in support of the scheme, including the NCC 2016 (the applicable NCC for the project), with reference to the Disability (Access to Premises - Buildings) and additional Accessibility Standards in draft and current Australian Standards, to meet the spirit and intent of the DDA and to ensure best practice principles are applied for this project. The technical guidance utilised as part of the assessment process includes:

- Disability Discrimination Act 1992
- Disability (Access to Premises - Buildings) Standards 2010 (DDA 1992)
- National Construction Code (BCA 2016)
- AS1428.1:2009 Design for access and mobility - General requirements for access - New building work
- AS1428.2:1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
- AS1428.4.1:2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired
- AS1680.2.1:2008 Interior and workplace lighting - Specific applications - Circulation spaces and other general areas
- AS1735.12:1999 Lifts, escalators and moving walks - Facilities for persons with disabilities
- AS2890.6:2009 Parking facilities - Off-street parking for people with disabilities
- HB198:2014 Guide to the specification and testing of slip resistance of pedestrian surfaces
- Australasian Health Facility Guidelines

2.3. 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.

2.4. Methodology

iAccess Consultants Access seeks to provide positive and proactive support to all stakeholders to provide achievable recommendations relating to access based on current and prospective disability and access legislation and best practice to enable independent, equitable and functional access for all. This approach is taken on the basis that the DDA provides flexibility in respect of meeting the objectives of equitable access.

The application of the recommended actions provided throughout the design process, may be inappropriate or impractical because of:

- (a) The design philosophy being pursued by the design team;
- (b) The characteristics of the building use including existing constraints and characteristics and of the building occupants.

The DDA requires reasonable adjustments to accommodate the needs of people with disabilities. This allows for adequate management of access and enables implementation of future modifications to ensure that a person with a disability does not experience discrimination. Adjustments may include:

- (a) Modifications to premises and/or equipment;
- (b) Changes to job design and work practices;

2.5. Reviewed documentation

The following documentation forms the basis of this access review.

| Drawing No | Title | Revision |
|------------|--|----------|
| SSD-01-000 | COVER SHEET/ DRAWING REGISTER | L |
| SSD-01-001 | PLAN - SITE SURVEY PLAN - EXISTING | D |
| SSD-01-002 | PLAN - SITE PLAN - DEMOLITION | E |
| SSD-01-003 | PLAN - SITE PLAN PROPOSED WORKS | K |
| SSD-02-001 | PLAN - SITE CONTEXT | D |
| SSD-02-002 | PLAN - SITE ACCESS EXISTING | E |
| SSD-02-003 | PLAN - SITE ACCESS PROPOSED | F |
| SSD-02-004 | PLAN - SITE ANALYSIS - EXISTING | C |
| SSD-03-000 | PLAN - PROPOSED - L00 | G |
| SSD-03-001 | PLAN - PROPOSED - L01 | G |
| SSD-03-002 | PLAN - PROPOSED - L02 | H |
| SSD-03-003 | PLAN - PROPOSED - L03 | G |
| SSD-03-004 | PLAN - PROPOSED - L04 | G |
| SSD-03-005 | PLAN - PROPOSED - L05 | G |
| SSD-03-006 | PLAN - PROPOSED - L06 | G |
| SSD-03-007 | PLAN - PROPOSED - L07 | G |
| SSD-03-008 | PLAN - PROPOSED - L08 | G |
| SSD-03-009 | PLAN - PROPOSED - L09 | G |
| SSD-03-010 | PLAN - PROPOSED - L10 | G |
| SSD-03-011 | PLAN - PROPOSED - L11 | H |
| SSD-03-012 | PLAN - PROPOSED - L12 (ROOF) | H |
| SSD-03-020 | PLAN - PROPOSED - L03 - ROADWORKS -SHEET 1 | F |
| SSD-03-021 | PLAN - PROPOSED - L03 - ROADWORKS -SHEET 2 | D |
| SSD-04-001 | SECTIONS - SHEET 1 | G |
| SSD-04-002 | SECTIONS - SHEET 2 | G |
| SSD-04-003 | SECTIONS - SHEET 3 | F |
| SSD-04-006 | ELEVATIONS - NORTH & WEST | G |
| SSD-04-007 | ELEVATIONS - SOUTH & EAST | G |
| SSD-04-009 | 3D VIEWS 01 + 02 | G |
| SSD-04-010 | 3D VIEWS 03 + 04 | E |
| SSD-04-013 | MATERIAL SCHEDULE | B |
| SSD-04-014 | PLAN - SITE CONTEXT - SHADOW DIAGRAMS | B |
| SSD-05-000 | GROSS FLOOR AREAS - SHEET 01 | C |
| SSD-05-001 | GROSS FLOOR AREAS - SHEET 02 | C |

3. ACCESSIBILITY PROVISIONS

3.1. Introduction

This Section has been provided as a key technical reference point for all stakeholders in respect of formal compliance required with the NCC and Premises Standards.

3.2. Class of building

The primary classification of the new Hospital is 9a, but ancillary areas would cover other building classifications, including Class 5 (Office areas) and Class 8 (Laboratories).

3.3. Extent of the works

The following extract from drawing SSD-01-003 indicates the scope and extent of the site the subject of these works.



Figure 1- Site plan indicating extent of these works

3.4. Areas required to be accessible

Part D3 of the NCC and Premises Standards prescribes the minimum requirement for access to a building. Access for people with disabilities is required through the principal pedestrian entrance and throughout the building in accordance with Table D3.1.

The following tables outline the general building access requirements that IAccess Consultants Access have applied for this project:

Table 1: NCC 2016 / Premises Standards Access Requirements

| Class of building | Access requirements |
|-------------------|--|
| Class 5 | To and within all areas normally used by the occupants |
| Class 8 | To and within all areas normally used by the occupants |
| Class 9a | To and within all areas normally used by the occupants |

Further to the above, we strongly recommend additional considerations to meet the objectives of the DDA. These recommendations enhance the minimum requirements of the NCC 2016 and the Premises Standards.

4. AREAS WHERE ACCESS MAY BE EXCLUDED

With consideration to the needs of prospective employees, patients and visitors, there are likely to be areas of the new building where people with disabilities would not be expected to access, due to health and safety or other related reasons. D3.4 of the NCC does provide scope to exclude areas from access and reference should be made to this Clause at an early stage of the design.

This element should be considered by client as soon as practical, with areas clearly highlighted as being inappropriate for access by people with disabilities.

It is understood that hospital management will facilitate the broad and individual needs of employees on an as needs basis, which may include temporary reassignment of tasks, buddying arrangements, further environmental modifications, or implementation of a suitable management plan to ensure direct assistance is available as required.

In order to verify the suitability of an exemption for access, consideration should be made to identify any potential future changes that may be required, with the aim of maintaining the optimum level of flexibility in the building layout to provide scope for any adaptation that may be required in the future.

The NCC Clause D3.4 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 building has several rooms of which the NCC D3.4 concession applies including the following types of rooms:

- Plant rooms
- Store rooms
- Clean and dirty utility rooms
- Equipment stores
- Cleaners areas
- Rooms where access is only permitted by specialist technicians.

5. Compliance with the NCC DP4 & DP6

The strategies for equitable egress to address compliance with the provisions of NCC Clauses DP4 & DP6 will need to be developed as part of an equitable egress strategy. This report would be best prepared by the fire engineers for this project.

5.1. Emergency evacuation

Emergency evacuation of people with disabilities should be considered as part of management procedures.

Further discussion with the project fire engineer and building surveyor / certifier is required to ensure safe and efficient evacuation of people with disabilities.

We are reliant on the emergency egress provisions developed and proposed within the FEB.

5.2. 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 Schematic Design Application.

6. External access to the site

The existing road network is modified by these works. Entrances to the site are provided from Parkside Crescent, Therry Road and Appin Road.

The internal road network is adjusted by these works.

Access to this site will be via private vehicle, taxi, community transport and public bus service. The site includes a number of parking areas. Accessible access will need to be provided from the parking areas.

A new entry to the emergency department is provided at Level L00 of the new CSB Building.

A new general entry to the hospital is provided at Level L02 of the new CSB Building.

If the drop-off area is at the same grade as the pavement, TGSIs and bollards will need to be provided along this alignment. Attention is directed to the provision of at least a 30% luminance contrast between the pavement finish and the roadway finish.

If a kerb and gutter is provided, then a pram ramp will need to be provided adjacent to the accessible set-down location transitioning between the roadway and the pavement.

The detailing of any ramps system will need to satisfy the requirements of Clause 10 of AS1428.1:2009. No section of any ramp is to be steeper than 1:14.

The RLs have not been indicated on the drawing. Further details of any ramp design will need to be provided.

6.1. Accessible Path of Travel

A continuous accessible path of travel is to be provided from the allotment boundary to the principal public entrances of the building, and from any adjacent buildings (NCC D3.2).

Widths of not less than 1000mm must be maintained to paths of travel and crossfall must not exceed 1:40. External paths should be designed and constructed in accordance with AS1428.1:2009, with consideration to AS1428.2:1992 and other accessibility guidelines relating to surface finish, slip resistance and path delineation.

All pedestrian crossing points to be identified with the installation of warning tactile ground surface indicators, as required by AS1428.4.1:2009.

Way-finding, by means of directional tactile ground surface indicators may be considered throughout subsequent phases of the project, which may include however not be limited to, identification of the principal public entrance, mid-block crossing points, and other pedestrian crossings which are greater than 3 metres from the building line, to aid independent and dignified travel for people who are blind or have low vision.

All bicycle parking and external furniture, such as seating and rubbish bins, to be located not less than 1200mm clear of the building line, or suitable protection provided to ensure uninterrupted movement of a pedestrian with vision impairment, who may use the building line as a means of orientation.

Additionally, the use of effective luminance contrast to assist in clearly demarking pedestrian routes will assist all users.

6.2. Path of travel information to be developed

- (a) Details of external pedestrian routes demonstrating AS 1428.1 (and AS 1428.2 - DDA) compliant accessible routes of travel from the allotment boundary through to key entry points into the building.

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

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

6.4. Setdown Areas

The plan proposes the following 2 public set down areas:

If a kerb is provided separating the parking area from the pavement, then a compliant kerb ramp will need to be provided. The detailing of the parallel setdown zone will need to satisfy the provisions of AS2890.6:2009.

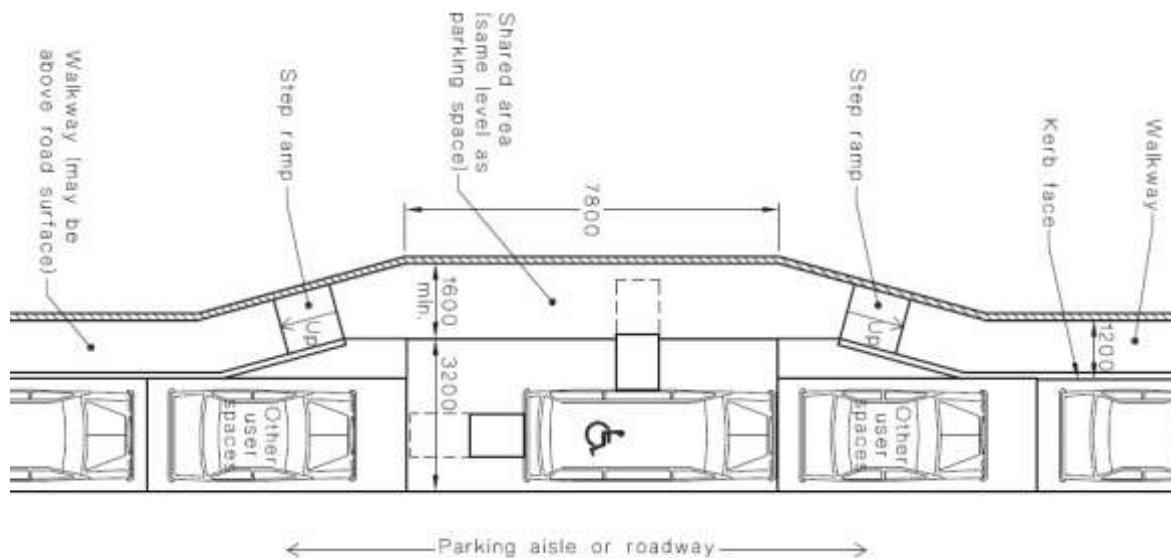


Figure 4 Extract from AS2890.6 outlining accessible requirements for parallel parking.

If a kerb is not provided to separate the pavement from the roadways, then bollards and TGSIs will need to be provided along the alignment of the pathways and roadways to satisfy the requirements of Clause 2.5 of AS428.4.1:2009. The luminance Contrast of the TGSIs will need to achieve a 30% luminance contrast to the background pavement finish.

The slip resistance of the external paving materials will need to achieve the slip resistance rating level of P4/R11.

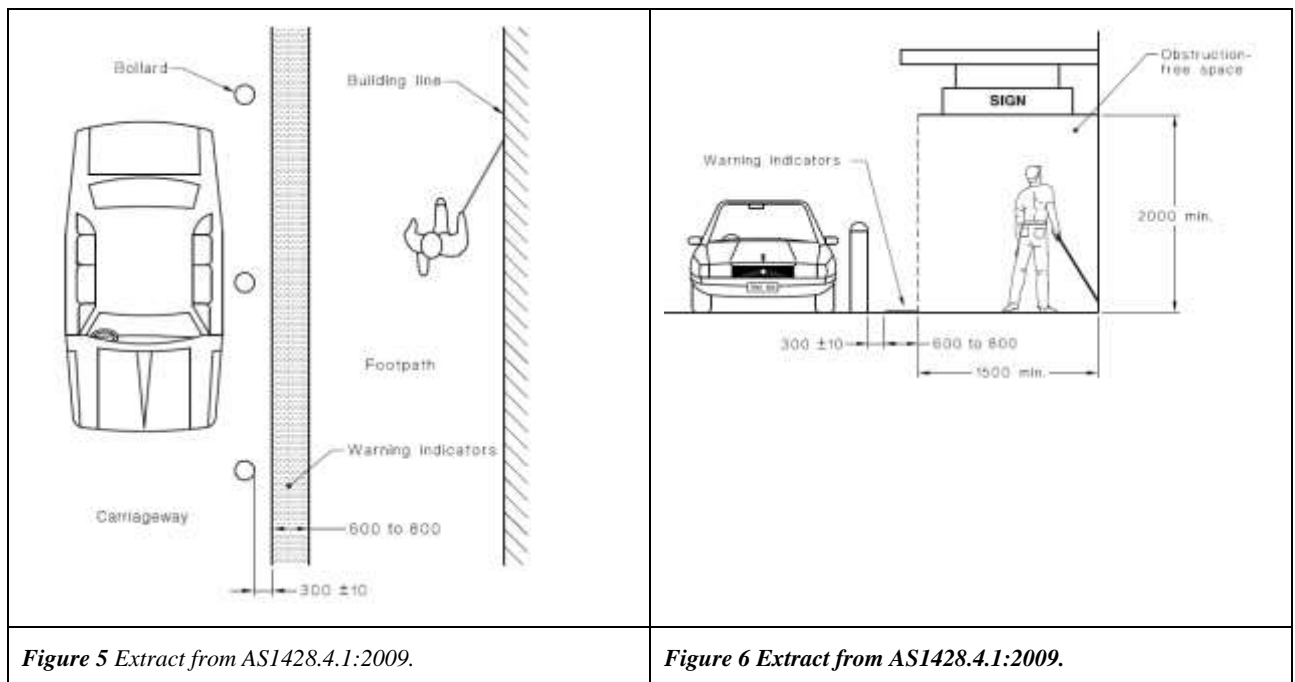


Figure 5 Extract from AS1428.4.1:2009.

Figure 6 Extract from AS1428.4.1:2009.

6.5. Luminance Contrast of Pavement Finishes

If the pavement and the drive to the drop off area are at the same grade bollards of not less than 1200mm in height with luminance contrast of not less than 30% to the adjacent surfaces, should be installed along the length of the designated drop-off area, providing further protection to pedestrians by demarking vehicle-free zones.

6.6. Grates within the path of travel

Any grates drains located within the paths of travel will need to be the heel guard type to satisfy the provisions of Clause 7.5 of AS1428.1:2009.

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.

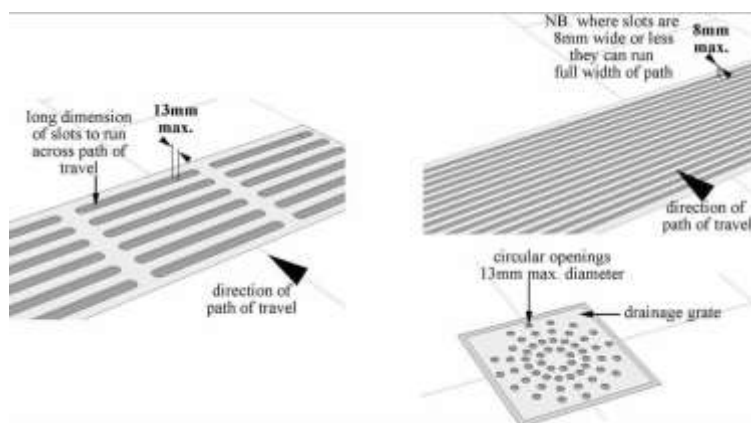


Figure 7 Diagrams indicating the various type of compliant heel guard grates.

7. Visual Indicators on Glazing

NCC Reference: D3.2 Access to buildings

D3.3 Parts of buildings to be accessible

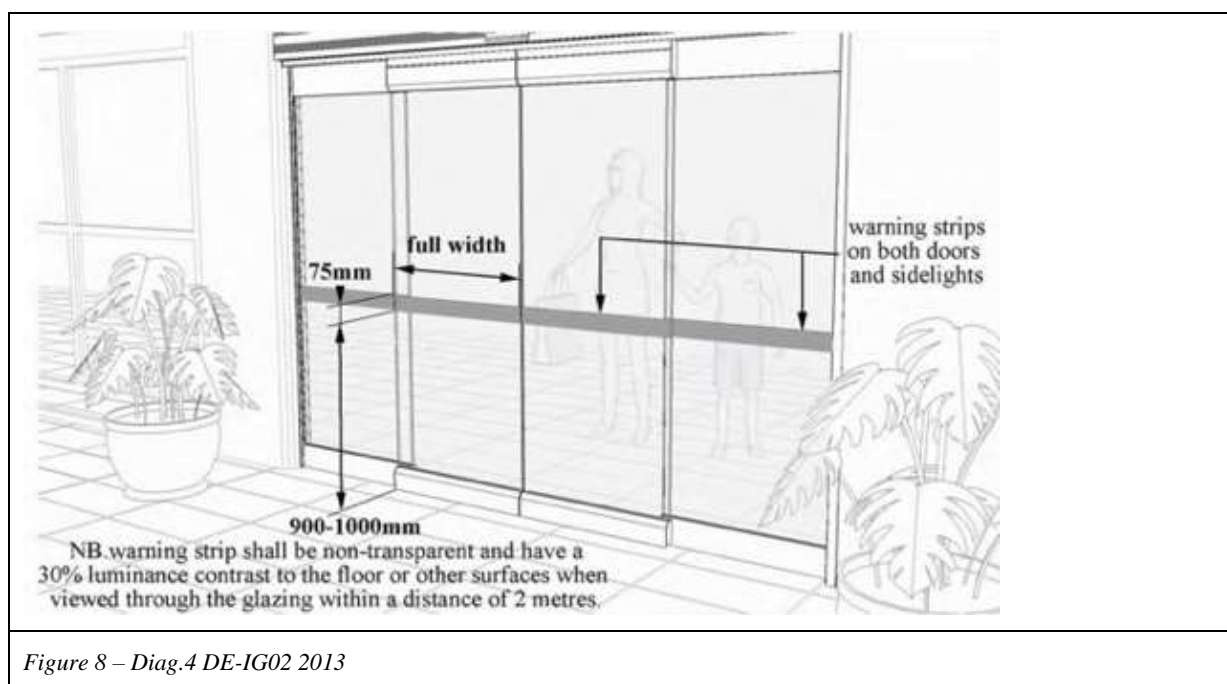
Australian Standard Reference: Clause 6.6 (Visual Indicators on Glazing) of AS1428.1 2009

AS 1428.4.1 2009 Design for access and mobility - Means to assist the orientation of people with vision impairment

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.

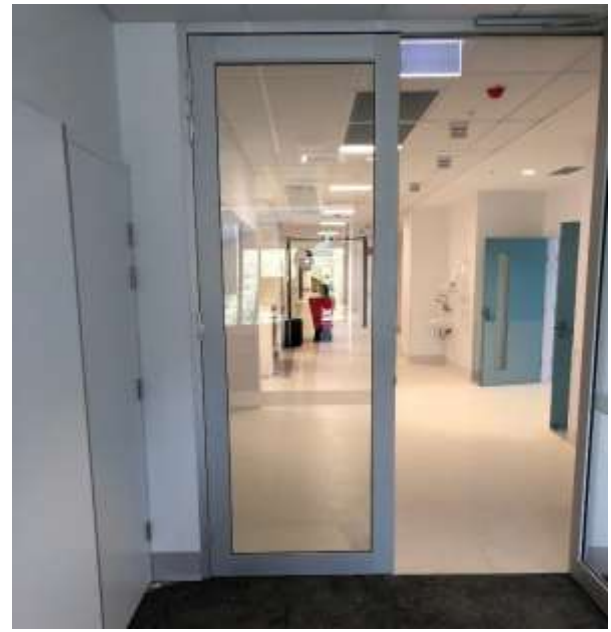


In considering the statutory requirements for Visual Indicators on glazing, it is important to note other contextual factors; such as glare, lighting, floor finishes, furniture placement and casted shadows from building lines.

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



Luminance contrast is not achieved due to glare and shadow cast as well as the reflective nature of the selected glass.



Luminance contrast is not achieved due to floor finish colour. The required 30% luminance contrast is not achieved



Luminance contrast is not achieved due to shadow cast.

Future documentation will need to be provided detailing the application of Visual Indicators if full-height glazing is proposed to any wall or doorway.

8. Building entrances and internal doors

The entrances to the building appear capable of complying with NCC requirements; a detailed review can be undertaken as the scheme further develops.

Access complying with AS1428.1:2009 must be provided at all building entrances for staff and public (NCC D3.2).

Similarly, internal doors to all areas required to be accessible must achieve the following to satisfy the requirements of the NCC and AS1428.1:2009:

- All pedestrian entrances are recommended to be fully accessible (although the NCC seeks 50% of entrances to be accessible and an entrance which is not accessible must be no further than 50m from an accessible entrance)
- All doors to have a minimum clear opening width of 850mm
- A level landing of 1:40 gradient on either side of the door with appropriate circulation space per Clause 13 of AS 1428.1:2009 or provision of an automated door
- Manual doors with lever door handles installed at 900-1100mm above finished floor level (FFL) and 35-45mm clearance to the back of the handle
- Manual doors with no door closer, or low strength closers which do not require greater than 20N to open
- Visual indication of a continuous contrasting band design (of 75mm width) installed at 900-1000mm above FFL to all fully glazed doors and panels (NCC D3.12)
- All doors, excluding fully glazed doors, will possess minimum 30% luminance contrast for a minimum width of 50mm between door leaf / door frame and adjacent walls
- Any security measures, including manual controls to automated doors will be selected and installed to comply with the requirements of AS 1428.1:2009
- Full height glazing on approaches to the building should be suitably marked, to meet Clause 6.6 of AS 1428.1:2009
- To assist people with a vision impairment all public entrance door should be designed to be clearly apparent on approach
- A minimum distance of 1450mm will need to be provided between successive doorways.
- Signage meeting D3.6 of the NCC is required to any entrance which is not accessible, identifying the location of an accessible entry point into the building.

Further to this, all internal and external spaces to be provided at grade with no lip or step. Where waterproofing is a concern, a maximum threshold step of 35mm with a threshold ramp of maximum 1:8 gradient and 280mm length can be installed to permit access by all (NCC D3.3).

Where recessed matting is located within a continuous accessible path of travel, the difference in level must be no more than 3mm if vertical or 5mm if rounded or bevelled, in

9. Internal paths of travel

Both the NCC and AS 1428.1 have specific requirements in respect of access and circulation for wheelchair users and these should be followed as the scheme develops.

Internal paths of travel should be designed to enable safe and dignified travel by all.

Continuous accessible paths of travel need to be provided throughout all areas normally used by the occupants, including public, patient and staff areas required to be accessible, in accordance with

AS 1428.1:2009 (NCC D3.1), including:

- Minimum corridor widths of 1000mm
- 1m minimum paths of travel within staff rooms, meeting rooms etc to circulate within rooms.
- Passing areas of 1800mm (width) x 2000mm (length) at intervals of 20 metres
- Turning spaces of 1540mm (width) x 2070mm (length) where corridors terminate at a doorway
- Increased corridor widths, where necessary, to meet door circulation space requirements to adjacent doors (NCC D3.3)
- The NCC also seeks the provision of suitable handrails to corridors used by patients, as noted in Clause D2.17(b).

10. Slip Resistance

The proposed pavement and internal tile finishes proposed for this development have yet to be finalised.

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

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

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

| LOCATION | NCC TABLE D2.14 | HB198 |
|--|-------------------------|-------------------------|
| Ramp steeper than 1:14 | Dry P4/R11 – Wet P5/R12 | P5/R12 |
| Ramp steeper than 1:20 but not steeper than 1:14 | Dry P3/R10 – Wet P4/R11 | |
| Tread or landing surface | Dry P3/R10 – Wet P4/R11 | Dry P3/R10 – Wet P4/R11 |
| Nosing | Dry P3 – Wet P4 | Dry P3 – Wet P4 |
| External ramps including sloping driveways, footpaths, etc., under 1:14, external sales areas (e.g. markets), external carpark areas, external colonnades, walkways, pedestrian crossings, balconies, verandas, carports, driveways, courtyards and roof decks | | P4/R11 |
| Wet area | | P3/R10 |
| Toilet facilities in offices, hotels and shopping centres | | P3/R10 |
| Loading docks under cover | | P5/R12 |
| Cold stores and freezers | | P4/R11 |

11. Carpet

If carpet finishes are to be provided within this development, it will be necessary that the specification and application of the carpet satisfy the provisions of:

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

Clause 7.4.1 of AS1428.1:2009 states:

Where carpets or any soft flexible materials are used on the ground or floor surface—

- the pile height or pile thickness shall not exceed 6 mm and the carpet backing thickness shall not exceed 4 mm;*
- 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*
- at the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3 mm or a rounded bevelled edge no higher than 5 mm or above that height a gradient of 1 in 8 up to a total maximum height of 10 mm*

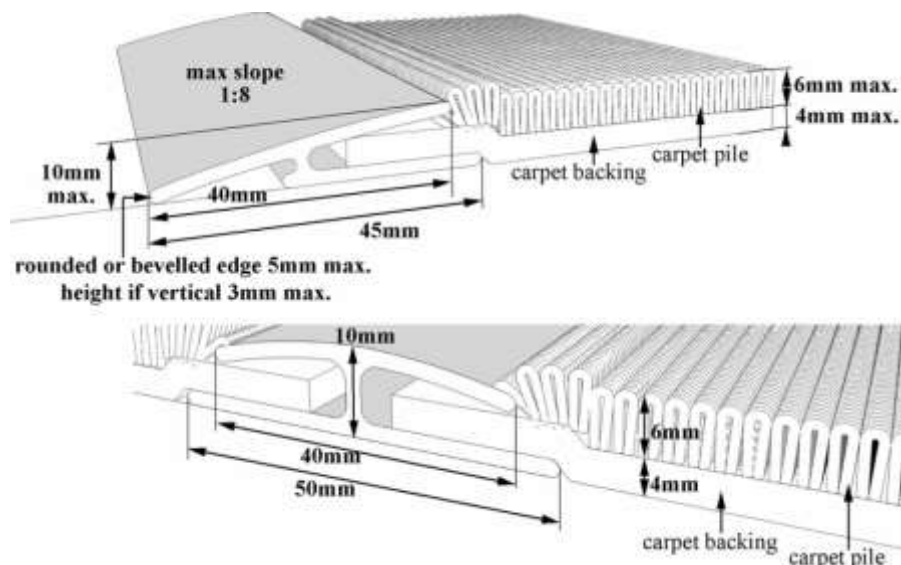


Figure 9 Examples of carpet joints on an accessible path of travel

12. Floor transitions

Transitions between floor finishes will need to comply with Clause 7.2 of AS1428.1:2009. The images following indicate the maximum tolerances between floor transitions according to floor finish type.

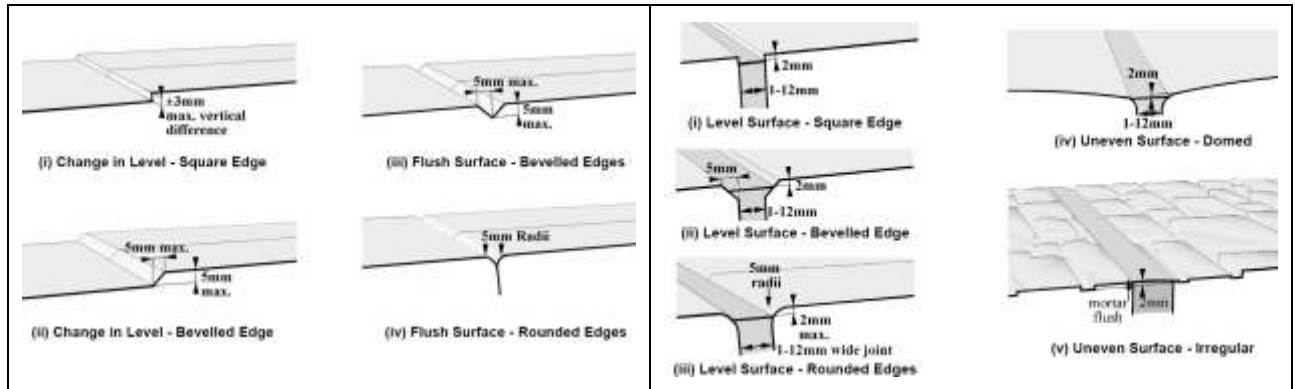


Figure 10 diagrams indicating the acceptable tolerances between pavement finishes

13. Recessed Matting

The plan proposes 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.*

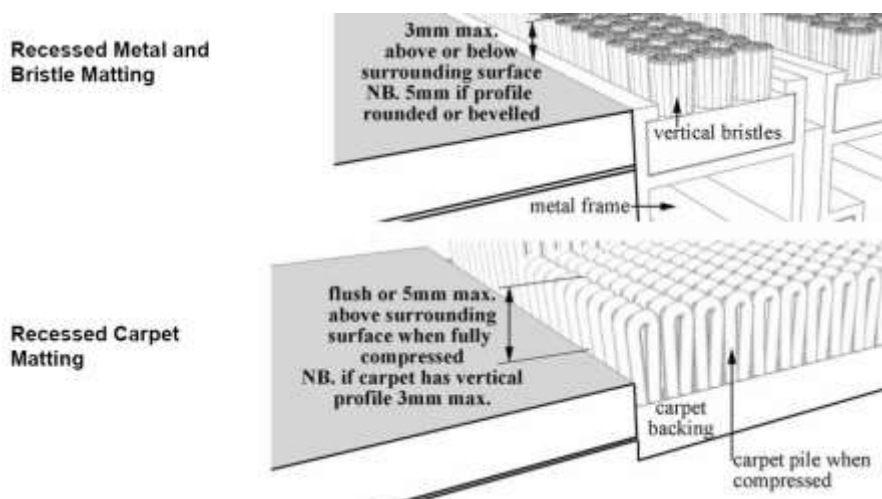


Figure 11 diagrams indicating the acceptable tolerances between finishes

14. Doorways

NCC Reference: D3.2 Access to buildings

D3.3 Parts of buildings to be accessible

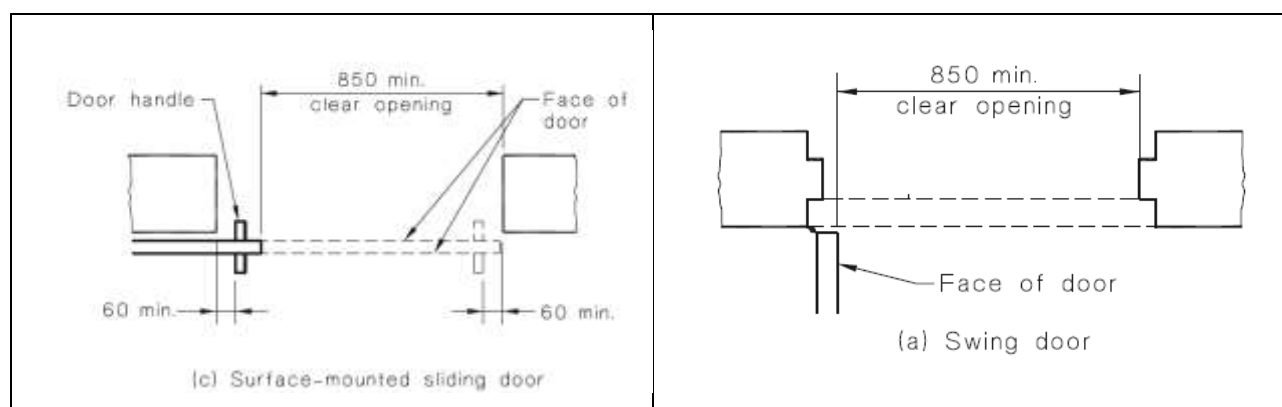
Australian Standard Reference: Clause 13 (Doorways, Doors and Circulation Spaces at Doorways) of AS1428.1 2009

14.1. 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.



14.2. 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, such as nursing stations, offices etc. 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.*

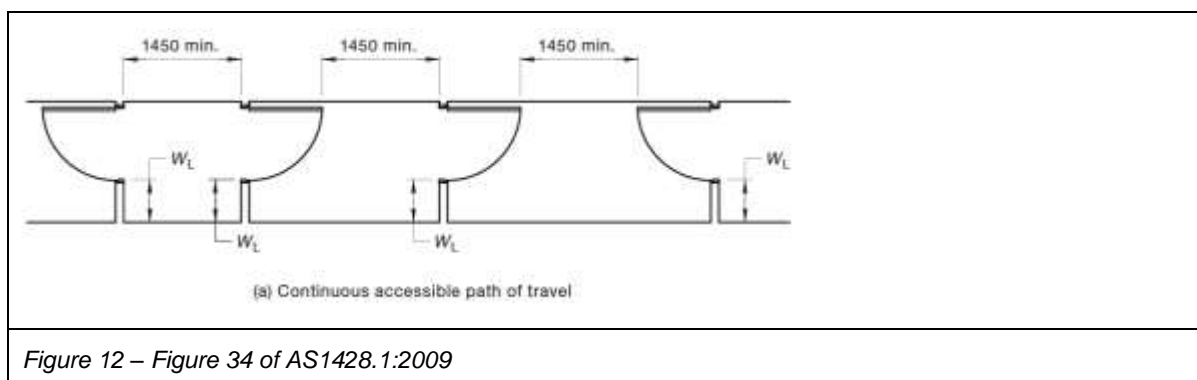
The minimum width of the area of luminance contrast shall be 50 mm

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

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.

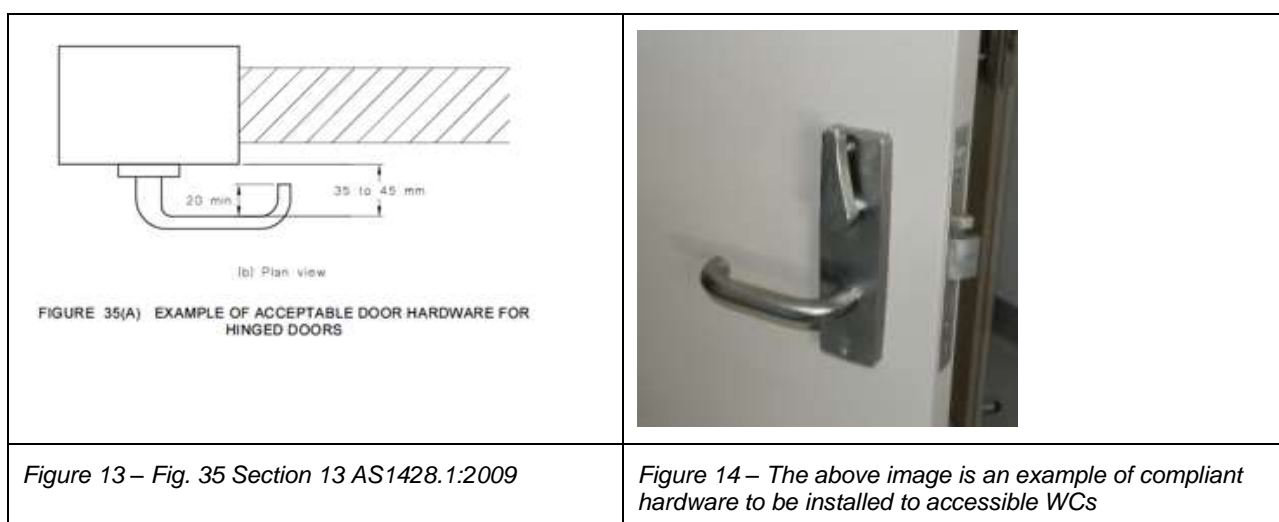
14.3. Successive Doorways

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



14.4. 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.



The hardware 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.

14.5. 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.

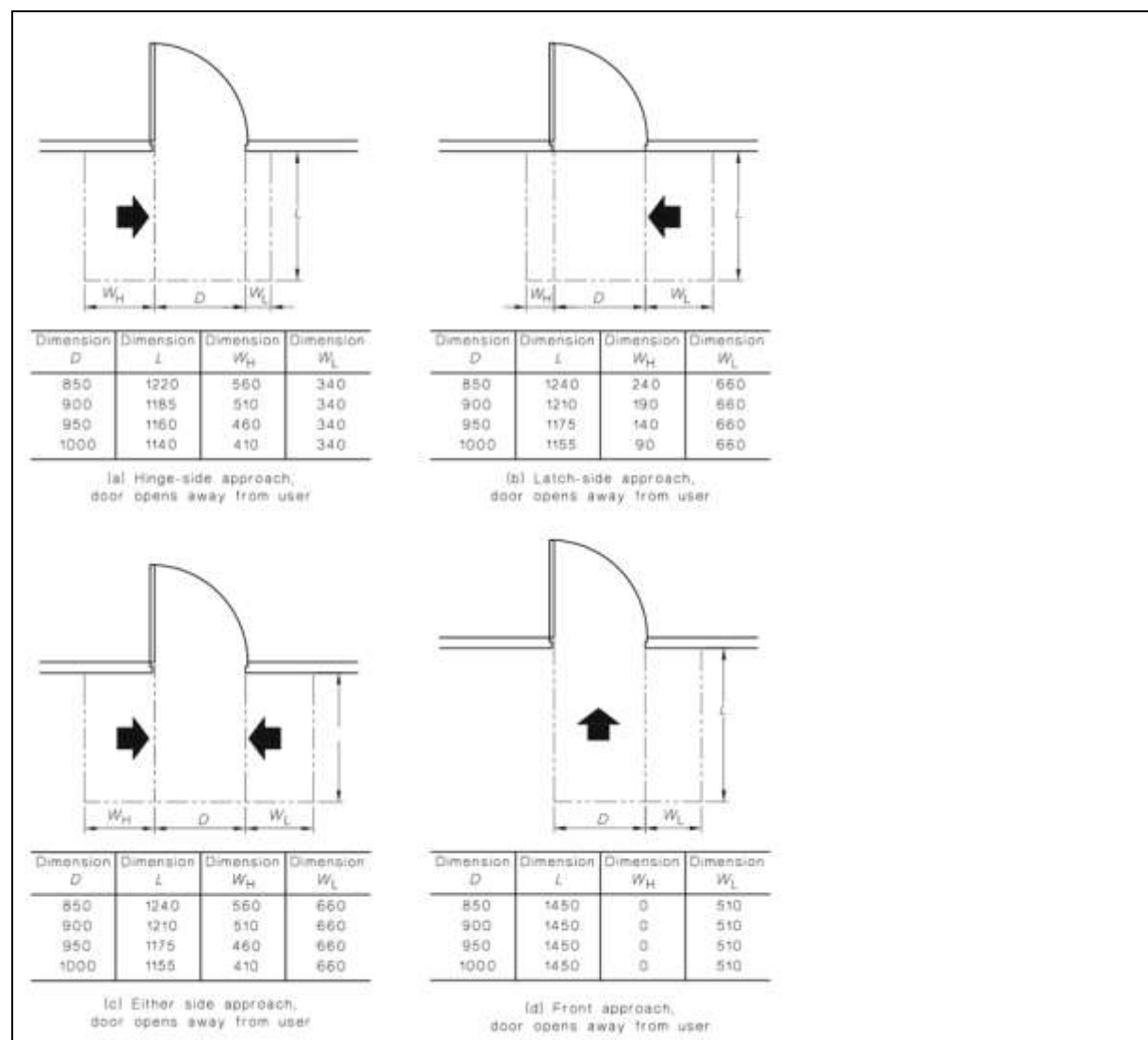
If the furniture arrangement of the rooms precludes compliant circulation from being achieved, the commitment by the hospital will be to modify the work space to meet the specific needs of the employee. The work-place policy statement will need to be provided to substantiate this approach.

Once a furniture layout plan is provided we will be able to assess the circulation at doorways more thoroughly.



Figure 15 – Examples of compliant sliding doors

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



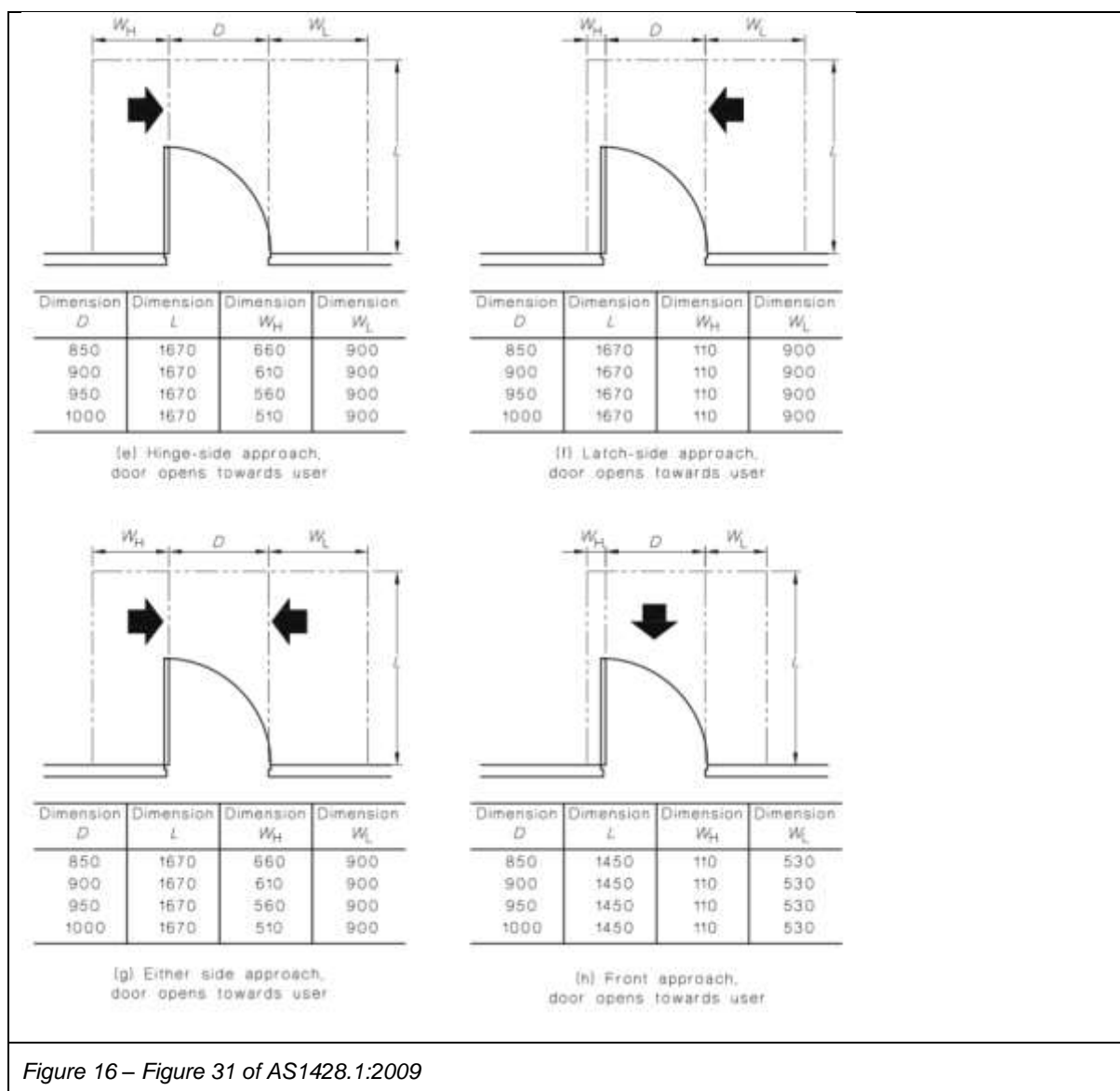


Figure 16 – Figure 31 of AS1428.1:2009

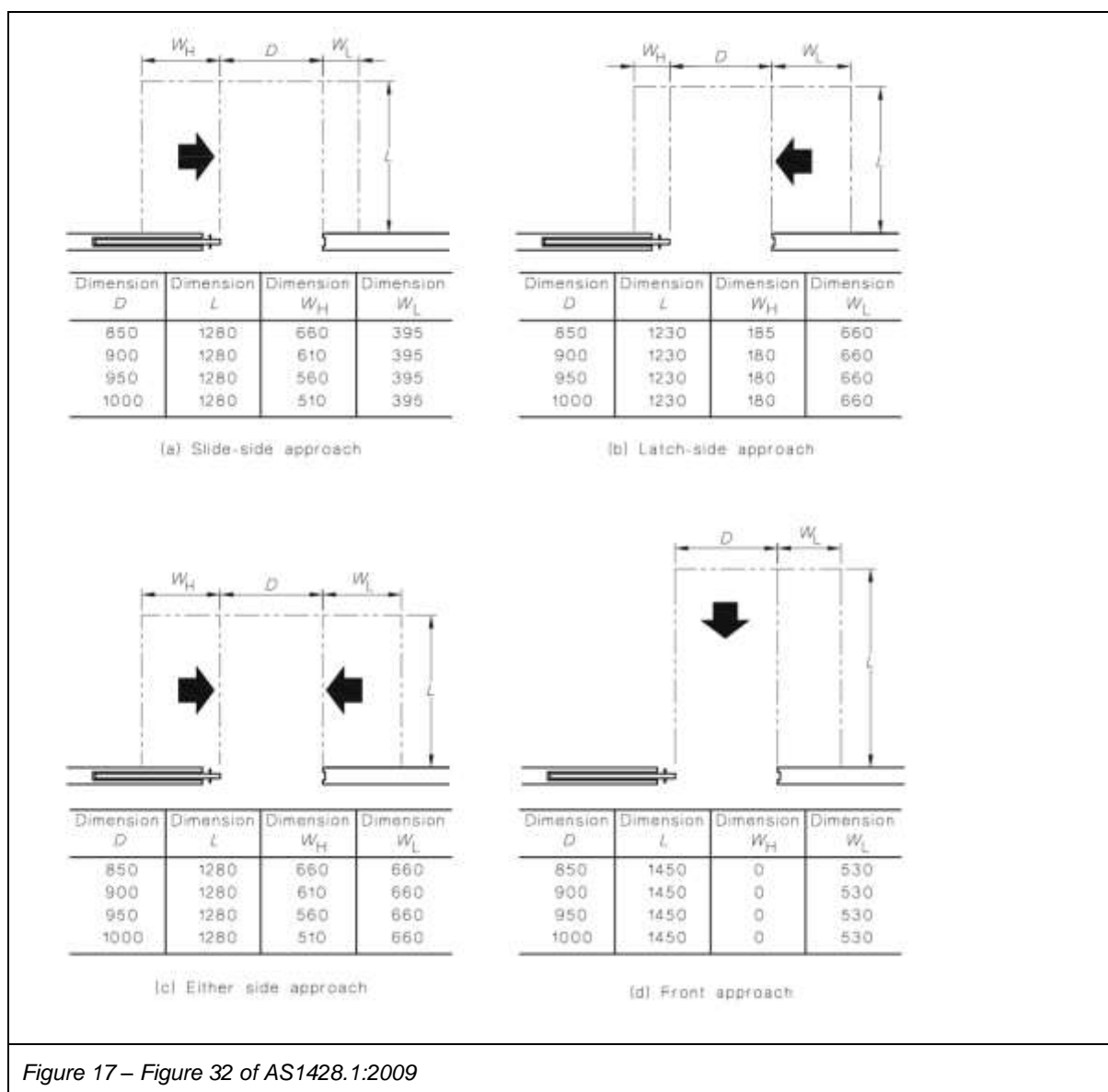


Figure 17 – Figure 32 of AS1428.1:2009

14.6. Door Closers

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

14.7. 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 18 – Photograph of door threshold

15. Switches

Australian Standard Reference: Clause 14 (Switches and General Purpose Outlets) of AS1428.1 2009

Requirement to be Satisfied: All switches and controls on an accessible path of travel, other than general purpose outlets, shall be located not less than 900 mm nor more than 1100 mm above the plane of the finished floor and not less than 500 mm from internal corners.

15.1. General

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

The nature of the activities undertaken within the Hospital will necessitate the application of restricted access to some areas.

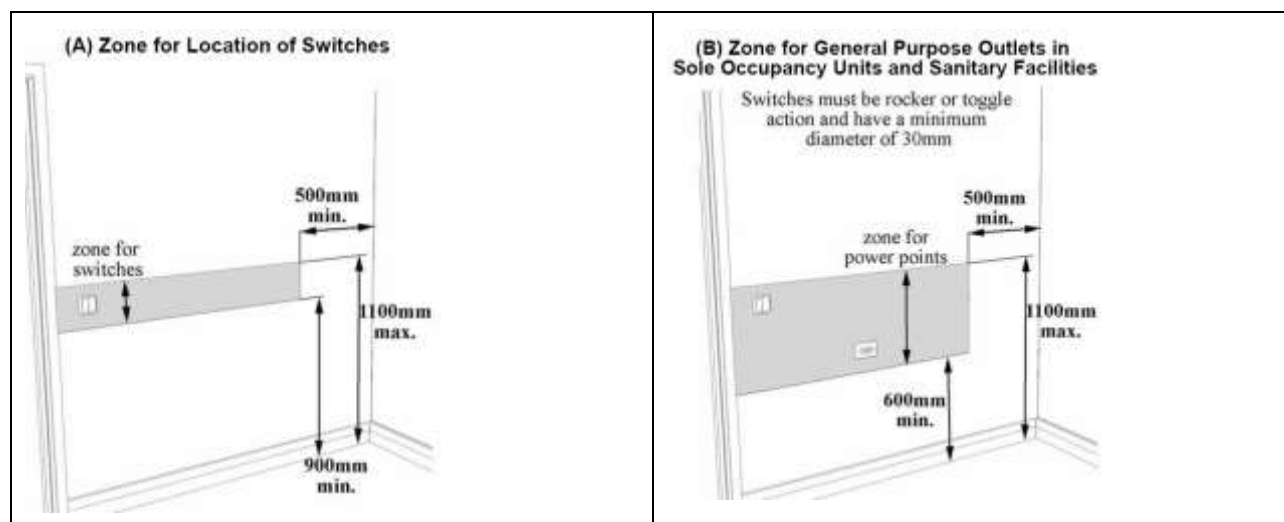
15.2. Video Intercoms

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

15.3. Access Control

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

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





16. Fire Stairs and Circulation Stairs

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

16.1. Stairs - Overview

The plans provided indicate fire stairs and circulation stair locations.

The detailing of the Fire Stairs and Circulation Stairways will need to satisfy the NCC requirements for accessibility.

Details can be reviewed when available as part of further design detailing. At this stage, it is assumed that many stairways will be used for egress only, which can be confirmed as part of the further assessment process.

All external stairways must possess a minimum clear width of 1000mm and will be designed to meet AS 1428.1:2009 (NCC D3.3), including:

- handrails both sides with appropriate profile and extensions
- tread and riser dimensions per NCC Table D2.13
- opaque risers with no over-hanging treads or angled risers exceeding 25mm setback
- visual nosing strips
- warning tactile ground surface indicators per AS1428.4.1:2009 (NCC D3.8).

Stairways must be set back 900mm from transverse paths of travel to allow for installation of handrail extensions without protrusion into the adjacent pathway (NCC D3.3). This also applies to internal stairs and is an important design element to ensure sufficient space to allow handrail extensions to the top and bottom of stairs.

TGSIs compliant to the provisions of NCC Clause D3.8 and AS1428.4.1:2009 will need to be provided to external stairways.

TGSIs need not be provided to internal circulation stairs if a dome head button is installed on the handrails applying the concessional provisions of NCC Clause D3.8(c) for NCC Class 9a buildings.

The detailing of the fire stairs will need to satisfy the provisions of NCC Clause D3.3(a0)(iii).

Lifts complying with E3.6 and AS 1735.12 must also be provided in close proximity to stairways (and be suitably signed).

16.2. Fire Stairs

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

Specific attention is directed to the following:

- f) 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. The strip may be set back a maximum of 15 mm from the front of the nosing. The strip shall have a minimum*

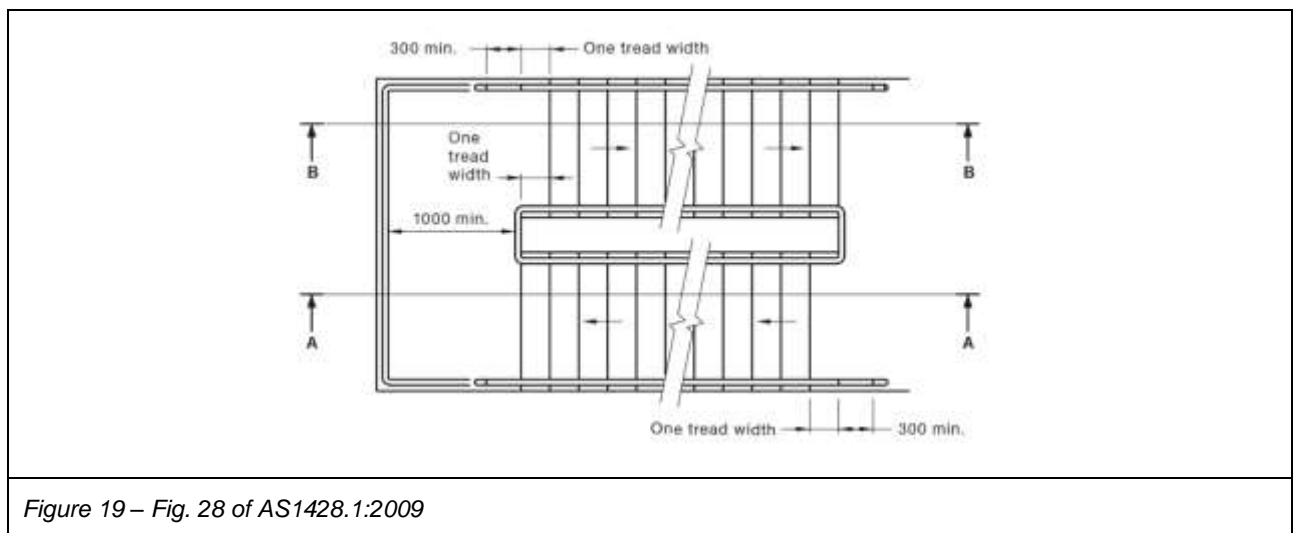
luminance contrast of 30% to the background. Where the luminous contrasting strip is affixed to the surface of the tread, any change in level shall comply with Clause 7.2 and Clause 7.3.

- g) *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*

The provision of the nosing strip may be an applied paint finish. An example of a suitable product is the Berger Jet Dry Non-Slip Product. ([Link to Berger Jet Dry Product](#))

The detailing of the handrail provided within the fire stairs will need to satisfy the provisions of Clause 11.2(c) which requires that there be no vertical sections in the handrail design and that the handrail follow the angle of the stairway nosing.

The details of the handrail design will need to be provided as part of the Construction Certificate documentation.



Appropriate exit Braille Tactile Signage is required. Refer to the 'Signage' section of this report.

A detailed plan for fire emergency exit is required, including the provision of stair sleds or the like.

16.3. Circulation Stairs

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

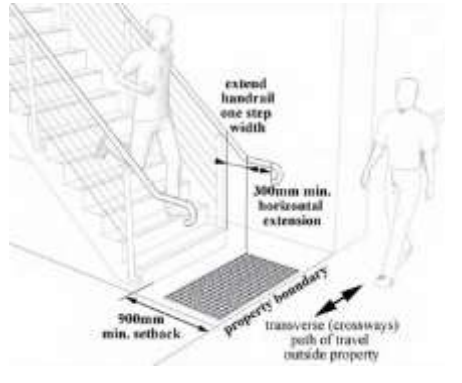
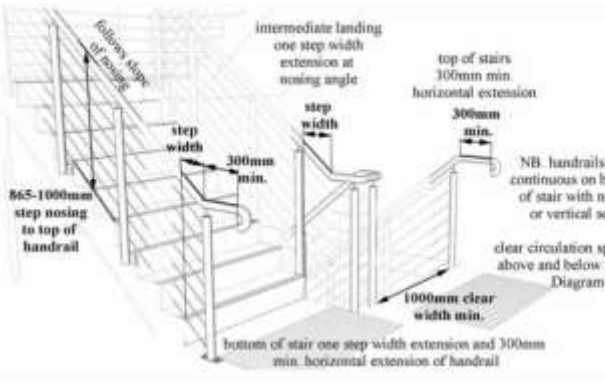
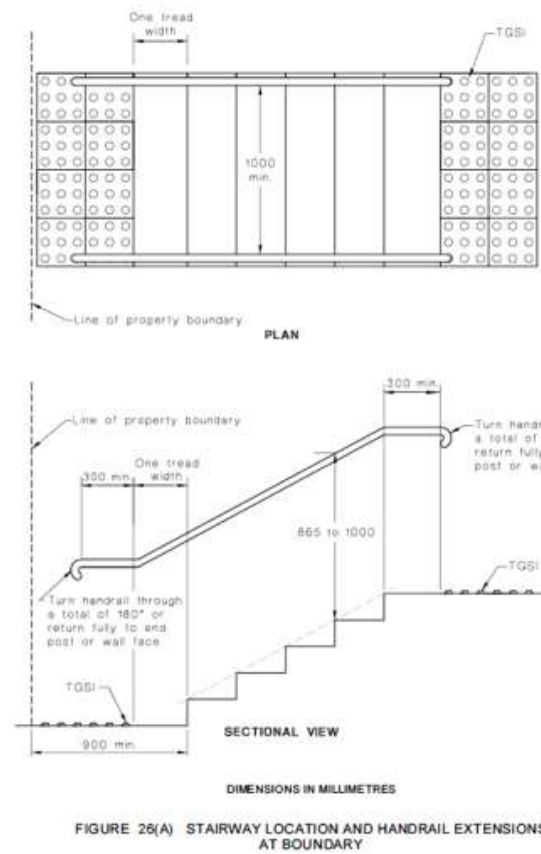
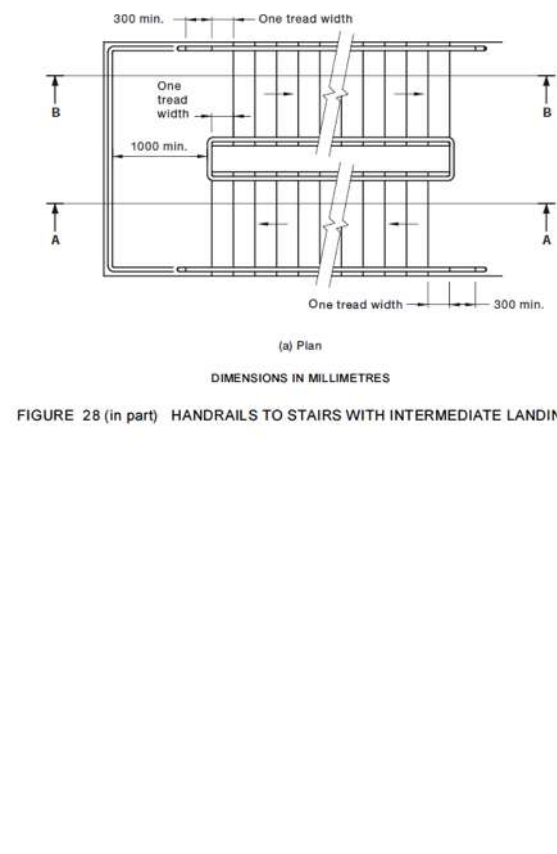
Specific attention is directed to the following:

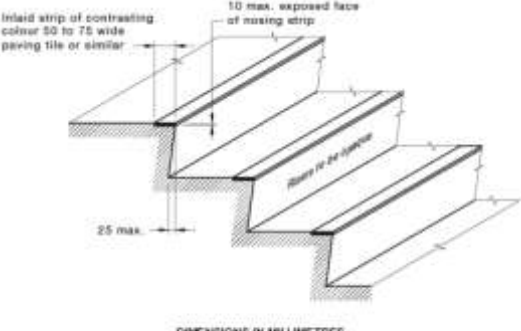
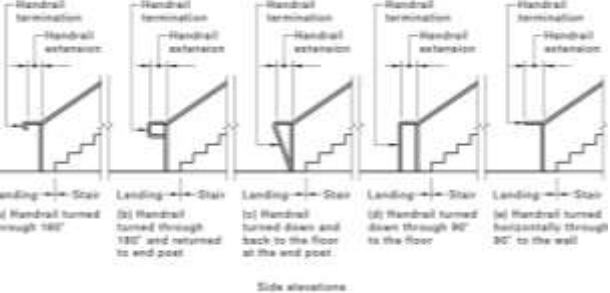
- Compliant handrail designs
- Compliant handrail extensions to the top and bottom of each flight
- Non-slip finish to going (Refer to NCC Table D2.14)
- Non-slip 50-75 nosing fixed to each going
- Opaque risers
- Compliant TGSIs located at the top and bottom of each flight. TGSIs are not required at 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.)

g) Minimum lighting level of 150 lx to be achieved

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

| | |
|--|---|
|  |  |
| <p>Figure 20 – Diag.25A DE-IG02 2013</p> | <p>Figure 21 – Diag.25C DE-IG02 2013</p> |
|  |  |
| <p>Figure 22 – Fig.26A Section 11 AS1428.1 2009</p> | <p>Figure 23 – Fig.28 Section 11 AS1428.1 2009</p> |

| | |
|--|---|
|  <p>FIGURE 27(B) A TYPICAL STAIR NOSING PROFILE WITH EXPOSED NOSING STRIP</p> |  <p>Side elevations</p> |
| <p>Figure 24 – Fig.27B Section 11 AS1428.1 2009</p> | <p>Figure 25 – Fig.26C Section 11 AS1428.1 2009</p> |

17. Ramps

Where ramps are being considered, they must comply with the requirements of AS1428.1:2009 Clause 10.3.

Design details of any ramps to be provided in the building to be reviewed, when available.

17.1. Design intent

Ramps must meet the requirements of NCC Clause D3.3 and Clause 10 of AS1428.1:2009, including:

- Minimum clear width of 1m
- Maximum gradient of 1:14, being consistent throughout its length
- Provision of suitably located and sized landings
- Continuous handrails to both sides of the ramp, meeting Clause 12 in AS 1428.1, extending 300mm beyond the top and bottom of the ramp
- Provision of suitable kerb rails to either side of the ramp
- The concessional provisions of NCC Clause D3.8(c) apply to the use of a dome head button fixed to the top of the handrails in lieu of providing TGSIs.

As for stairs (above) ramps must be set back from transverse paths of travel to allow for installation of warning tactile ground surface indicators and handrail extensions without protrusion into the adjacent pathway (NCC D3.3).

18. Lifts

NCC Reference: E3.6 Passenger Lifts

Australian Standard Reference: AS1735.12 1999 Lifts, Escalators and Moving Walks

Vertical circulation throughout the hospital will be via lift and as such the requirements of the lifts are likely to exceed the minimum requirements for accessibility under E3.6 of the NCC.

All passenger lifts to possess appropriate internal dimensions of not less than 1400mm (width) x 1600mm (depth) (NCC E3.6) to meet the minimum accessibility requirements.

The sizing of the lift cars will be nominated by the lift consultant.

All lifts must be provided with minimum components to meet NCC E3.6, including handrails, tactile and Braille control buttons, and further enhanced features for people with disabilities to meet the parameters of AS 1735.12:1999, including however not limited to, delayed door closing device, visual and audible indication upon lift arrival and arrival at each landing.

Specific attention is directed to the following accessibility requirements for lift installations:

- Any carpet shall have a pile length above the carpet substrate of not more than 6 mm.
- The minimum clear width of car door openings shall be not less than 900 mm.
- A handrail shall be provided, which shall have a length of not less than 600 mm. The cross-section of handrails shall be circular for not less than 270° around the uppermost surface, with a diameter of not less than 30 mm or more than 50 mm.
- Control buttons shall contrast with their surrounding surface by one of the following means:
 - (a) Continuous illumination from within the button.
 - (b) A coloured border on or around the button. Such coloured identification shall be at least 3 mm wide around the button, or the button shall be in contrast to the surrounding area, with a luminance factor of not less than 0.3, in contrast to that of the background.
- Control buttons except the stop button and the communication button, shall be identified by—
 - (a) contrasting characters not less than 10 mm high and Braille equivalent, adjacent to or on the button; and
 - (b) tactile characters not less than 12 mm high adjacent to or on the button.
- Security or access control buttons will need to be located between 700-1250mm AFFL
- Audible, Visible and Tactile information will need to satisfy the requirements of Section 8 of AS1735.12
- Communication systems will need to be provided in accordance with the requirements of Section 9 of AS1735.12.
- Lighting levels will need to satisfy the requirements of AS1680. A minimum lighting level of 100lx will need to be achieved at the floor level of the lift car.
- The light level on the lift car buttons/controls will need to achieve a minimum 50lx.

19. Accessible sanitary and shower facilities

Schematic locations of WC facilities have been nominated on the 100% SD plans. The nature of provision and location of facilities will require finalising and review to ensure compliance and that the client is satisfied that the provision and location of facilities will meet their requirements under the broader obligations of the DDA.

The NCC states that accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a).

Table 2: Accessible Sanitary Compartments

| <i>Class of building</i> | <i>Minimum accessible unisex sanitary compartments to be provided</i> |
|---|--|
| <i>Class 9a</i> | <i>except for within a ward area of a Class 9a health-care building</i> |
| <i>Where clause F2.3 of the NCC requires closet pans:</i> | |
| <i>(a)</i> | <i>1 on every storey containing sanitary compartments; and</i> |
| <i>(b)</i> | <i>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</i> |

Table 3: Accessible Showers

| <i>Class of building</i> | <i>Minimum accessible unisex showers to be provided</i> |
|---|---|
| <i>Class 9a</i> | <i>except for within a ward area of a Class 9a health-care building</i> |
| <i>Where clause F2.3 of the NCC requires 1 or more showers, not less than 1 for every 10 showers or part thereof.</i> | |

Based on the above, accessible sanitary and shower facilities are not formally required within ward areas for patient and staff under the NCC (although the DDA would continue to require suitable equitable access to facilities). However, such facilities are required within treatment, non-patient care areas, and all other areas.

Further discussion with the client will be required to determine the suitability for these facilities to be designed for people with disabilities, as noted above and to meet the requirements of the tables above.

As noted above, the location of accessible facilities will need to be rationalised and reviewed to ensure they are capable of both compliance with the NCC and the broader objectives of the DDA. In addition, due to the spread nature of the accessible facilities (which will assist in reducing travel times for potential users), clear and consistent directional signage will be

At a minimum, accessible sanitary and shower facilities for patients, public and staff must be provided within treatment and non-patient care areas, and all other areas (NCC F2.4). However, in order to meet the DDA, an accessible sanitary and shower facility for public, visitors and staff with disabilities should be provided wherever gender facilities are proposed.

The internal dimensions and layout of these facilities must be appropriate to ensure circulation of not less than 1900mm x 2300mm to the pan and 1600mm x 2350mm to the shower, in accordance with AS 1428.1:2009. The washbasin may not encroach greater than 100mm into these spaces.

All accessible facilities to be designed and constructed with appropriate selection and placement of fixtures and fittings which enable access by all users and meet the compliance requirements of AS 1428.1:2009 (NCC F2.4).

Facility doors must be openable and/or removable from the outside in an emergency situation, specifically where there is less than 1200mm between the pan and the nearest part of the doorway (NCC F2.5).

Provision of alternate left and right-handed facilities should be included in the scheme, which should be provided with suitable signage.

19.1. Wall Reinforcement

Provision of wall strengthening for grabrails will need to be provided adjacent to the WC, shower and bath of the adaptable bathroom.

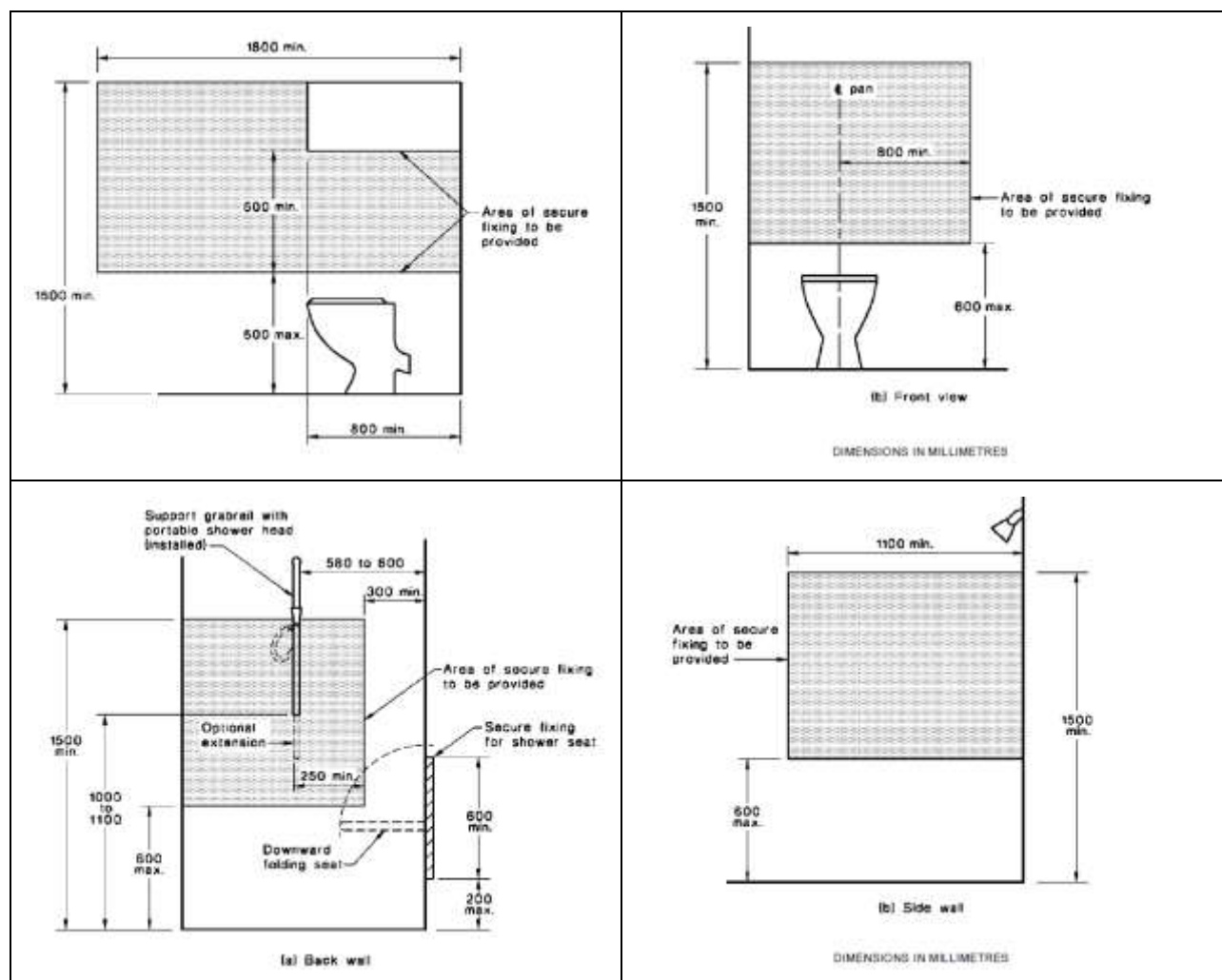


Figure 26 diagrams indicating the wall strengthening zones to locations where grabrails are installed

19.2. Shower Compartment

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

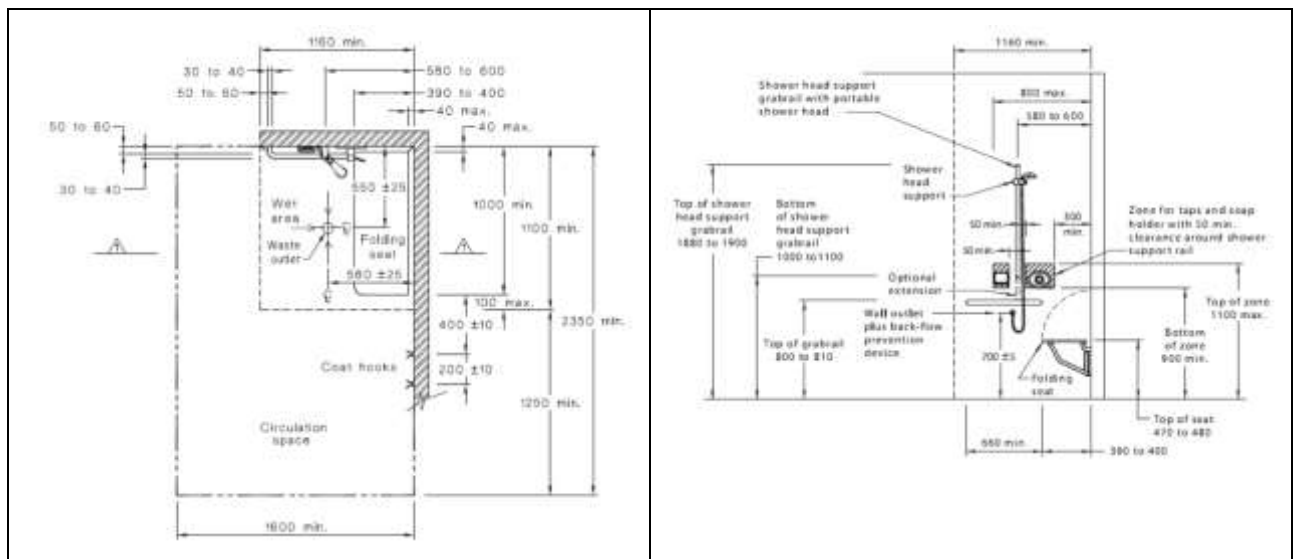


Figure 27 extract from the Australian standards indicating the dimensional set out for accessible shower installations

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

19.3. Handbasin

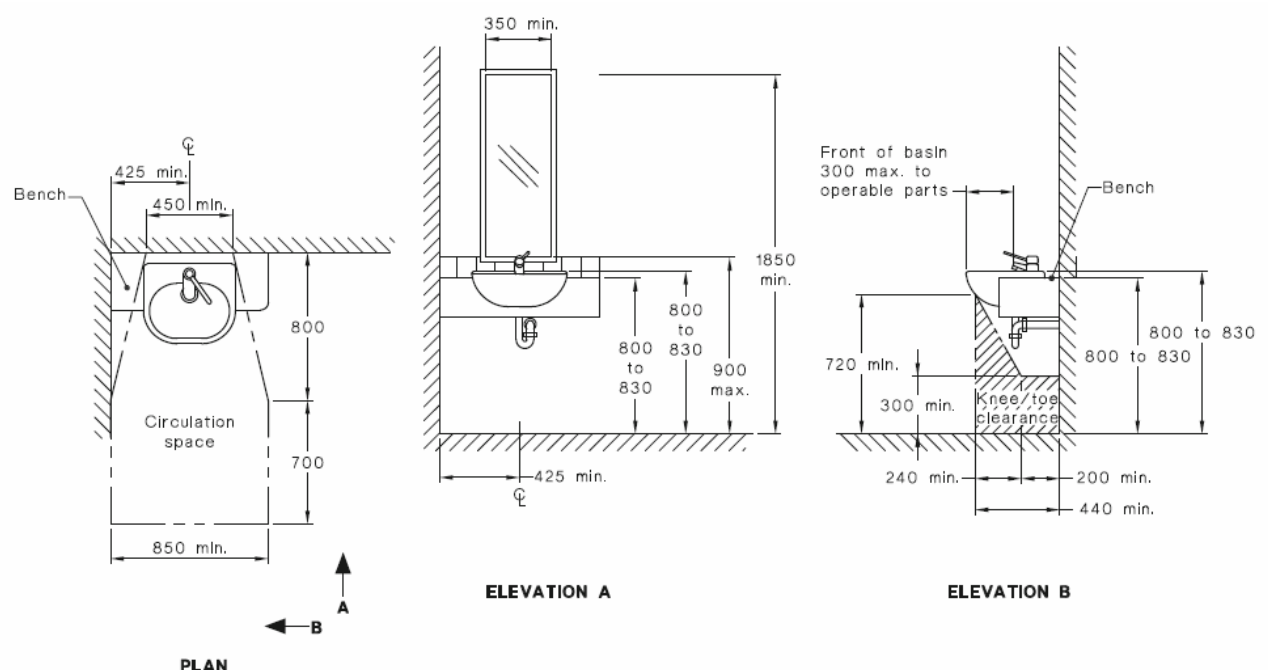


Figure 28 extract from the Australian standards indicating the dimensional set out for handbasin installations

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

19.4. Checklist of Accessible WCs

A checklist of the spatial arrangements to be satisfied for the design of the accessible bathroom is attached to this access report.

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.
- Baby change facility The plan does not indicate if there is a baby change facility located within this USAT. If a baby change table is installed within this facility, then the unit will need to be installed outside of the WC circulation zone
- Ambulant It is assumed that the existing WC facilities will not be modified to include the ambulant WC cubicle required by NCC Clause F2.4(c). To comply with requirement of the NCC it is proposed that a fold down grab rail be provided as part of the accessible WC installation
- Braille Tactile Signage The detailing of the Braille Tactile Signage will need to comply with the provision of NCC Clause D3.6 and NCC Specification D3.6. The location of the Braille Tactile sign is to be mounted on the latchside wall. The sign is to indicate the handing of the grabrails to the WC Pan. The following is an example of the type of information to be provided in the Braille Tactile Sign.



20. Ambulant toilet cubicles

NCC Reference: NCC Clause F2.4 Accessible Sanitary Facilities

NCC Clause D3.6

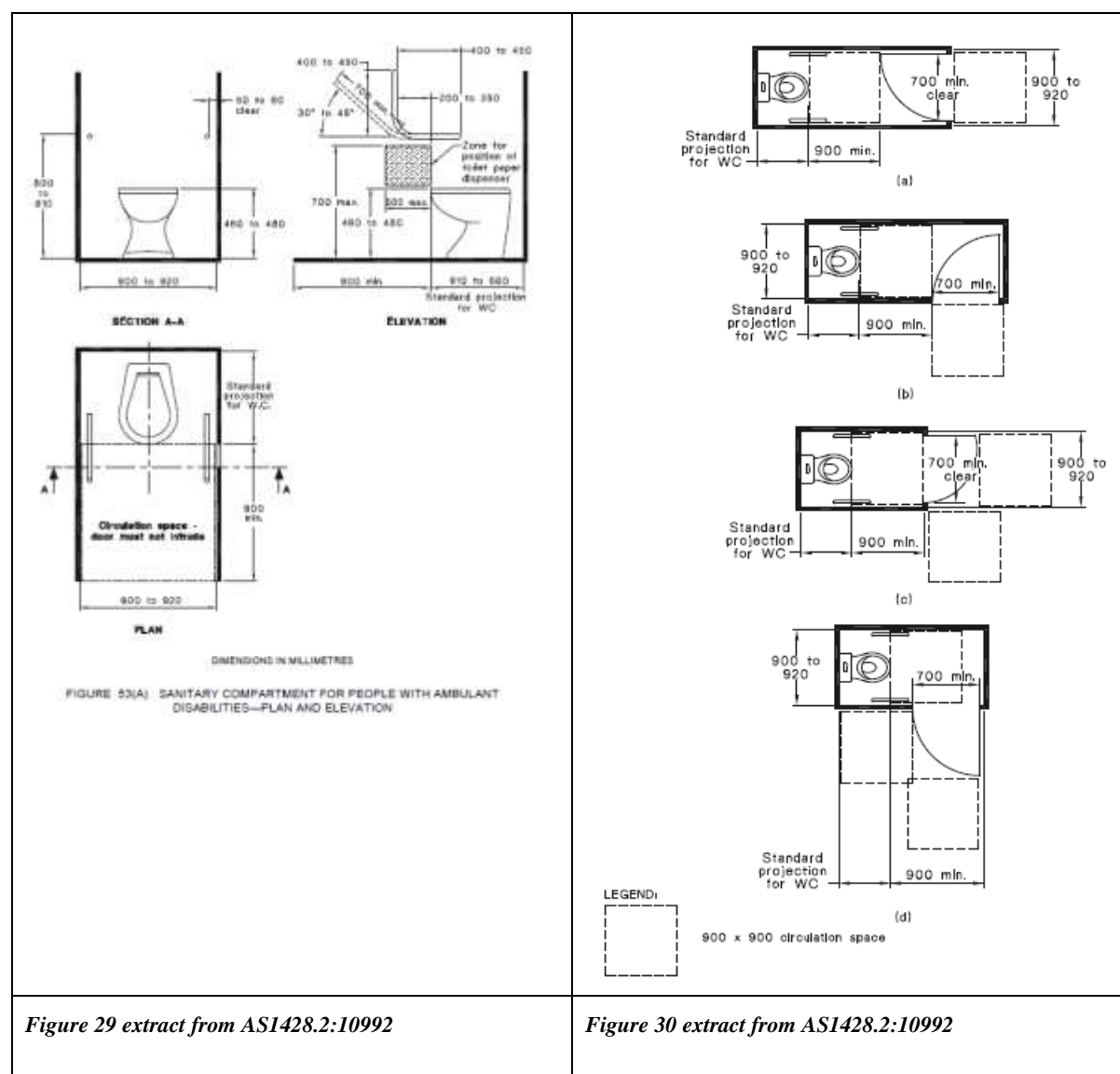
NCC Specification D3.6

Australian Standard Reference: Clause 16 of AS1428.1:2009

Cubicles for use by a person with an ambulant disability should be included in the scheme, in accordance with Clause 16 of AS 1428.1:2009 and (NCC F2.4).

20.1. Ambulant toilet cubicles – Toilet bank

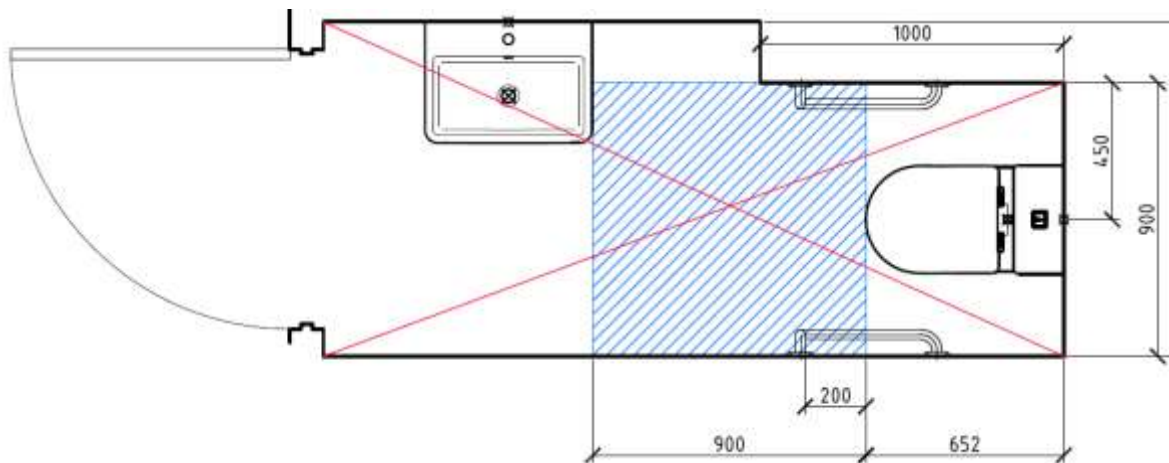
Where a bank of WC facilities is provided, one (1) ambulant WC cubicle is to be provided. The spatial arrangements of the ambulant cubicle are to accommodate the following features:



20.2. Ambulant toilet cubicles – Freestanding facility

Where freestanding ambulant cubicles incorporating a handbasin the spatial requirements associated with the WC pan will need to satisfy the requirements noted at Clause 16 of AS1428.2:1992.

The sketch following indicates the layout for a free standing ambulant WC facility noting the clearances to be achieved.



21. WC Facilities - Patient areas

Within patient areas, specifically the inpatient units, not less than one bedroom and ensuite in each ward and of each type should be designed to permit access for all, in order to facilitate access to and within all areas normally used by the occupants.

All patient rooms will need to be accessible for use by the patient as well as visitors. Further discussion with the client is required to determine the suitability for these facilities to be designed for people with disabilities.

Within patient areas, specifically the inpatient units, not less than one bedroom and ensuite in each ward and of each type should be designed to permit access for all, including appropriate internal doors, internal paths of travel to and within suites and sufficient circulation space to permit independent and dignified movement by people with disabilities (DDA). Whilst the NCC does provide an exemption to accessible sanitary accommodation in ward areas, it is recommended for inclusion to meet the spirit and intent of the DDA as well as providing flexible facilities for patients who may be admitted who also have a disability, particularly a mobility disability (DDA).

All areas of a Class 9a ward should be accessible for the patients as well as staff and visitors (except the sanitary accommodation noted above). Note: Whilst accessible sanitary facilities are not required in ward areas, provision for equitable access remains relevant under the DDA.

Accessible rooms should be representative of the range of amenity available, e.g. not less than one standard room, and not less than one room with access to a balcony, in each ward, where a ward benefits from such a feature (DDA).

Any accessible rooms should incorporate an accessible ensuite, designed and constructed with appropriate selection and placement of fixtures and fittings which enable access by all users and meet the compliance requirements of AS 1428.1:2009 (DDA). The facility may exclude installation of a shower seat and backrest at the pan and incorporate increased setout of the pan from the adjacent wall and drop-down grabrails to either side of the pan to facilitate occupational health and safety requirements for the provision of patient support by staff, as detailed below.

General arrangement layouts of typical inpatient rooms and accessible rooms should be provided and reviewed to establish level of compliance, when available.

All corridors in hospitals should be provided with suitable handrails to meet D2.17 of the NCC.

22. Treatment consulting and waiting areas

All non-patient care areas, including consulting suites and treatment spaces, such as medical imaging must be designed to permit access by all (unless considered for exemption under D3.4 of the NCC. Further discussion with the client is required to determine the suitability for these facilities to be designed for people with disabilities.

In regard to waiting areas, limited information has been provided at this stage regarding the range of seating provided. There will need to be designated wheelchair seating spaces proposed within waiting areas. Provide details of proposed seating, when available, for IAccess Consultants review and comment.

All non-patient care areas, including consulting suites and treatment spaces and therapy areas must be designed to permit access by all, including appropriate internal doors, internal paths of travel to and within suites and sufficient circulation space to permit independent and dignified movement by people with disabilities (NCC D3.1).

Waiting areas should be designed with sufficient circulation space to permit movement of people with disabilities between furniture items. A range of seating, including seats at 450 - 520mm height with armrests and backrests will be provided, including designated wheelchair seating spaces

23. Hearing augmentation

| | |
|--------------------------------|--|
| NCC Reference: | NCC Clause D3.7 NCC Clause D3.6 NCC Specification D3.6 |
| Australian Standard Reference: | AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired AS1428.4.1:2009 |
| Requirement to be Satisfied: | NCC D3.7 Hearing Augmentation A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed— <ul style="list-style-type: none"> 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. |

Where an inbuilt amplification system (other than one used for emergency purposes only) is installed in a meeting / conference or teaching room, an appropriate assistive listening system must be provided.

If Reception counters are screened between the patients and staff, a hearing augmentation listening system must be provided (per D3.7 of NCC).

It is unclear from the documentation if any hearing augmentation listening systems are proposed. Provide details of any proposed hearing augmentation listening systems for IAccess Consultants review and comment.

Hearing augmentation listening systems are essential to enable the vast majority of people with varying degrees of hearing loss.

An assistive listening system, inclusive of statutory signage with appropriate tactile and Braille features, incorporating the international symbol for deafness, will be provided at any place where a service provider deals with a client or patient, and is screened from the public (NCC D3.7). Where multiple counters are provided, including one accessible counter for people with disabilities, an assistive listening system which services the accessible counter and one high counter should be provided.

Further to this, where an inbuilt amplification system is installed within a meeting or training room, an appropriate assistive listening system must be provided, inclusive of statutory signage with tactile and Braille features, incorporating the international symbol for deafness (NCC D3.7). Where an inbuilt system is not installed, hospital management may consider the provision of a portable assistive listening system.

Where installed, assistive listening systems should be designed and installed to meet the design specifications of AS 1428.5 (2010), where practicable, as determined by the electrical engineer in consultation with the client and the project team (DDA). As confidentiality may be an issue with the hospital, careful selection of any hearing augmentation system will be important (Note: Induction loop systems can “overspill” into adjoining areas).

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.

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

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

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

- (i) the type of hearing augmentation; and*
- (ii) the area covered within the room; and*
- (iii) if receivers are being used and where the receivers can be obtained*

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

24. Signage

The requirements are referenced in the following legislation:

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

Information will need to be provided on the signage package. Statutory signage will be required under D3.6 of the NCC but there will also need to be consideration of a broader strategy for wayfinding and signage to assist people with vision and cognitive impairment and visitors unfamiliar with the building, with a view to meeting the broader obligations under the DDA.

Key signage relating to accessibility that will require inclusion into the scheme (under D3.6) includes:

- Sanitary accommodation (including wheelchair and ambulant accessible facilities)
- Areas where hearing augmentation is provided
- Directional signage, where an entrance is not accessible (directing to nearest accessible entrance)
- Fire exit signage

Hospitals have a high turnover of visitors who will not have prior knowledge of the building. Wayfinding and signage therefore becomes critical as a means of suitable access for all users.

Braille and tactile signage incorporating the international symbol for access or deafness, in accordance with NCC Specification D3.6 and AS 1428.1:2009 must identify each:

- Sanitary facility, including gender and accessible facilities (and directional signage to identify accessible sanitary accommodation)
- Space or counter with a hearing augmentation system
- Directional signage to an accessible entrance, where an entrance is not accessible.

Generally, signage must be designed and installed to meet the applicable standards (NCC D3.6 and NCC Specification D3.6). A comprehensive signage and wayfinding strategy should be developed for the whole hospital site, integrating with the broader hospital campus. It is challenging to achieve clarity and simplicity with signage in such a complex environment, however as noted above this is considered a key element to assist all users to find their way around the new complex (DDA).

24.1. Statutory Signage Requirements

The statutory requirements for signage apply to entrances, toilets, hearing augmentation and exits.

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

In a building required to be accessible—

- (a) *braille and tactile signage complying with **Specification D3.6** must—*
 - (i) *incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each—*
 - (A) *sanitary facility, except a sanitary facility within a sole-occupancy unit in a Class 1b or Class 3 building; and*
 - (B) *space with a hearing augmentation system; and*
 - (ii) *identify each door required by E4.5 to be provided with an exit sign and state—*
 - (A) **"Exit"**; and
 - (B) **"Level"** ; and either
 - (aa) *the floor level number; or*
 - (bb) *a floor level descriptor; or*
 - (cc) *a combination of (aa) and (bb); and*
- (b) *signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—*
 - (i) *the type of hearing augmentation; and*
 - (ii) *the area covered within the room; and*
 - (iii) *if receivers are being used and where the receivers can be obtained; and*
- (c) *signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right-handed use; and*
- (d) *signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and*
- (e) *where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance; and*
- (f) *where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.*

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

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

24.2. Entrances

In a building required to be accessible, the accessible entrance shall be not more than 50m from the main pedestrian entrance (NCC D3.2 (b)(ii)).

24.3. Exit Signage

AS2293.1:2005 outlines details for illuminated exit signs.

6.6 SIZE OF PICTORIAL ELEMENT

The minimum allowable size of any pictorial element on an exit sign shall be determined by the maximum viewing distance intended under the design as follows:

- (a) For viewing distances not greater than 32 m, in accordance with Table 6.1.

TABLE 6.1
MINIMUM PICTORIAL ELEMENT HEIGHTS

| Maximum viewing distance (m) | Minimum pictorial element height (mm) |
|---------------------------------|--|
| 16 | 100 |
| 24 | 150 |
| 32 | 200 |

- (b) For viewing distances greater than 32 m, in accordance with the following equation:

$$\text{Minimum element height} = \frac{\text{Maximum viewing distance}}{160}$$

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

Examples of Braille Tactile Signage include:

Figure 31 – Examples of Braille Tactile Signage from www.brailletactilesigns.com.au



24.4. WC Signage

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

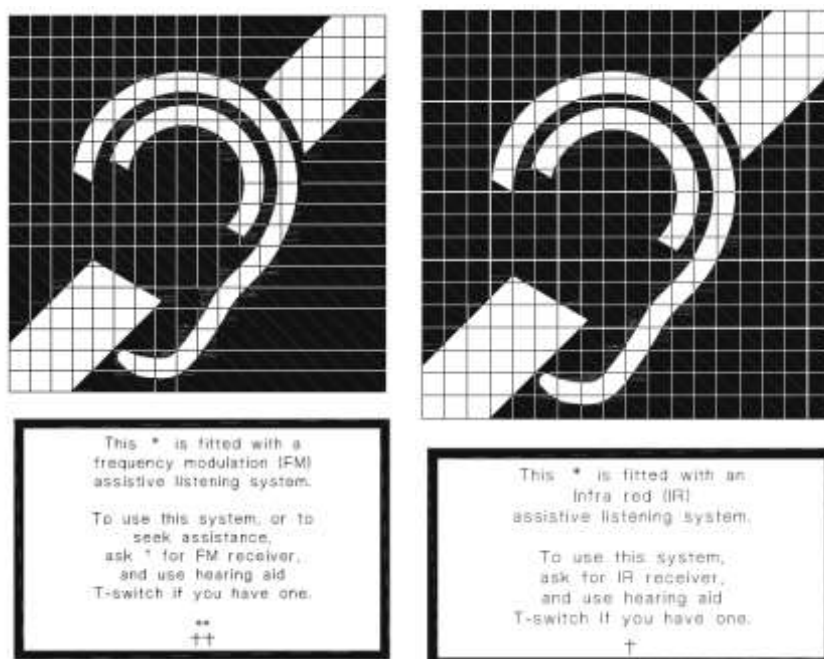
Examples of Braille Tactile Signage include:



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

24.5. Hearing Augmentation Signage

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



Examples of Braille Tactile Signage include:



The documentation provided indicates compliance with the above requirements (as per review of drawings A-6200-A6202)

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

24.6. General Signage Information – Maintenance

The maintenance of signage is vital. All signage should have a maintenance plan, including:

- Prohibiting of sticking posters/flyers up over permanent signage
- Incorporating a cleaning schedule
- Incorporating a maintenance schedule to review condition of signage

Where signage is located externally vegetation adjacent to the signage should be continually trimmed and upkeep is to be reviewed as part of the cemetery's landscape maintenance to ensure signage is not hidden behind vegetation.

24.7. General Signage Information – Sizing

The recommended size of signage is dependent on the distance by which it is aiming to be identified. The following summary is a recommended guideline:

| Type | User | Distance | Letter Size (ref. Table 2 of AS1428.2:1992) |
|----------------|----------------|----------|---|
| Gate/ Building | Ped. & Drivers | 50m | 150mm |
| Building | Pedestrians | 25m | 80mm |
| Building | Pedestrians | 12m | 40mm |
| Building | Pedestrians | 6m | 20mm |

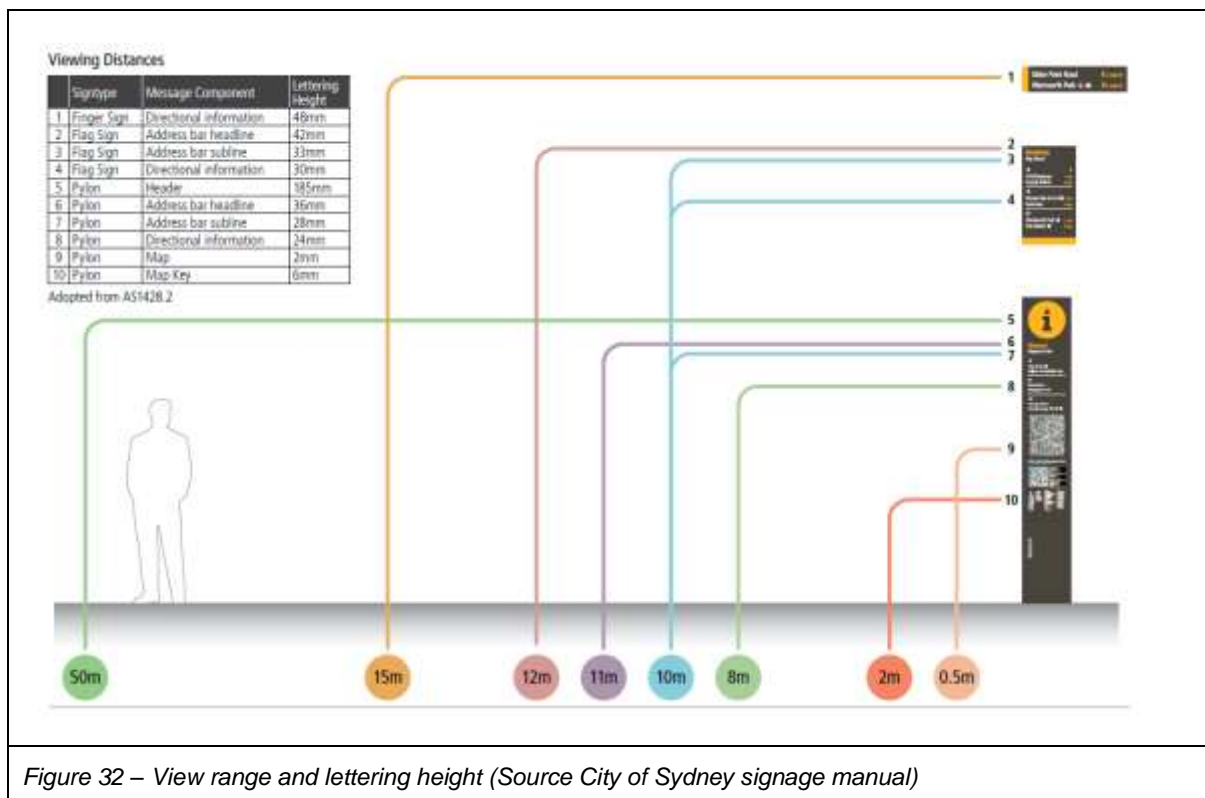


Figure 32 – View range and lettering height (Source City of Sydney signage manual)

The size of target boards shall be relative to the icon size.

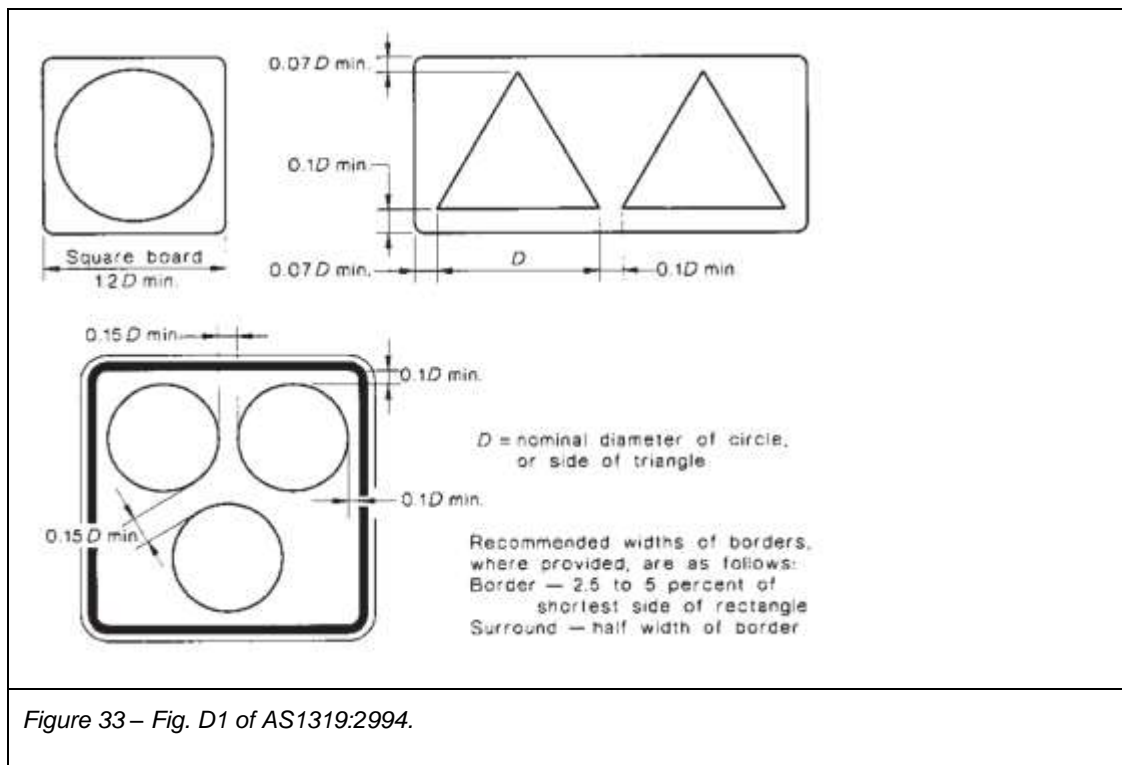
Appendix D of AS1319:1994 (Safety Signs for the Occupational Environment) indicates the sizing of icons relative to their target board:-

Appendix D

(b) Single and multiple signs with target board.

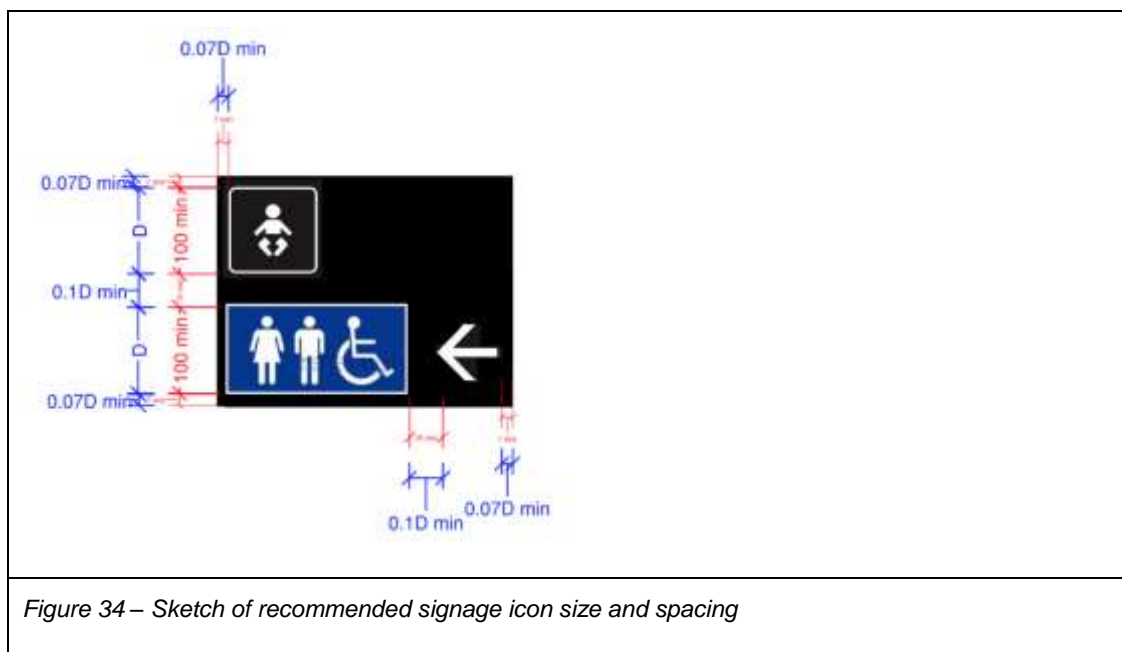
The dimensions of the target board relative to the size of the symbolic sign(s) is shown in Figure D1.

The target board should be white or yellow for warning signs, and white only for other signs. Black may also be used for warning signs (see Clause 2.3.3(b)).



As appropriated from AS1319:1994 (Safety Signs for the Occupational Environment) Appendix D, the size of the sign (target board) shall be 1.2 x Diameter of the icon, with a minimum boarder of 0.07 x Diameter of the icon.

The following Sketch indicated the minimum sizing of icons and relative target board size surrounding the icons.



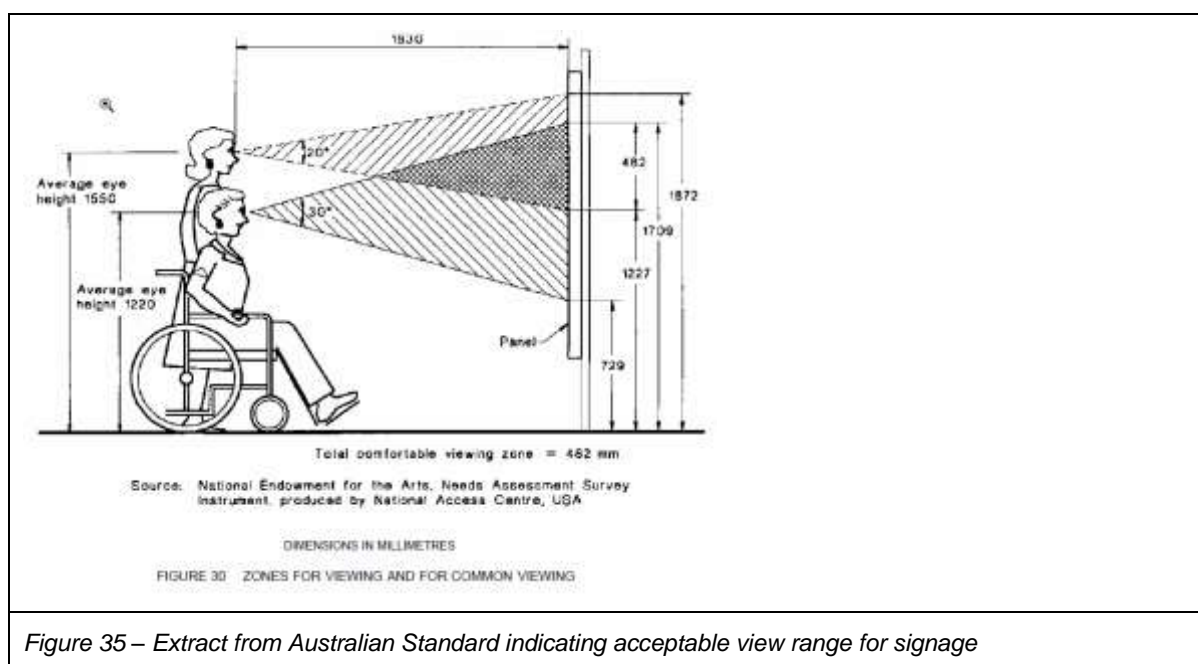
The minimum size of an icon should be 100mm for overhead signage in accordance with Exit Sign requirements.

The size of icons should be in proportion to the size of the sign itself, as per the following recommendations:

| Sign Size (appropriated from AS1319:1994) | Icon Size |
|---|---------------|
| 60mm x 60mm (with boarder of 3.5mm) | 50mm x 50mm |
| 90mm x 90mm (with boarder of 5.2mm) | 75mm x 75mm |
| 120mm x 120mm (with boarder of 7mm) | 100mm x 100mm |

24.8. Mounting Heights

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



24.9. 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%.

24.10. Relevant information

- When finalised, provide a copy of the signage package for final review.
- Consideration should be given to the integration of signage and wayfinding with the remainder of the broader hospital site, to provide clear and consistent information for the public wishing to access other buildings and facilities (DDA).

25. Lighting

Further information should be provided, when available regarding lighting, particularly to key public areas and circulation areas (such as stairs and ramps).

It is recommended that lighting levels be consistent with minimum levels noted at AS 1428.2:1992 and AS1680.2.12:2008 (Appendix D).

The draft provisions of DRAS1680.5.2 Interior and workplace lighting Part 2.5: Hospital and medical tasks (Revision of AS/NZS 1680.2.5:1997) should also be taken into consideration when determining the lighting levels of this facility.

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

In addition to the minimum lighting levels identified at Clause 19 of AS1428.2:1992 the provisions of Table D1 of AS1680.2.1:2008 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 |
| Waiting rooms | - | 160lx |
| Corridors Passageways | - | 40lx |
| Ramps | 150lx | 40lx |
| Toilets and locker Rooms | 200lx | |
| Counter tops | 250lx | 320lx |
| General displays | 200-300lx | |
| Telephones | 200lx | |
| Accessible parking spaces | - | 40lx |

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

26. Furniture and Fitments

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

26.1. Counters

All reception counters associated with the building entrance and triage areas are to include a portion of the counter that is accessible.

26.2. Tables / workstations

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

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

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

- (a) *Height from the finished floor to the top of the unit:*
 - (i) 1st unit: 750 ± 20 mm.
 - (ii) 2nd unit: 850 ± 20 mm.
- (b) *Height of clearance beneath unit, from the finished floor:*
 - (i) 1st unit: 730 ± 20 mm.
 - (ii) 2nd unit: 820 ± 20 mm.

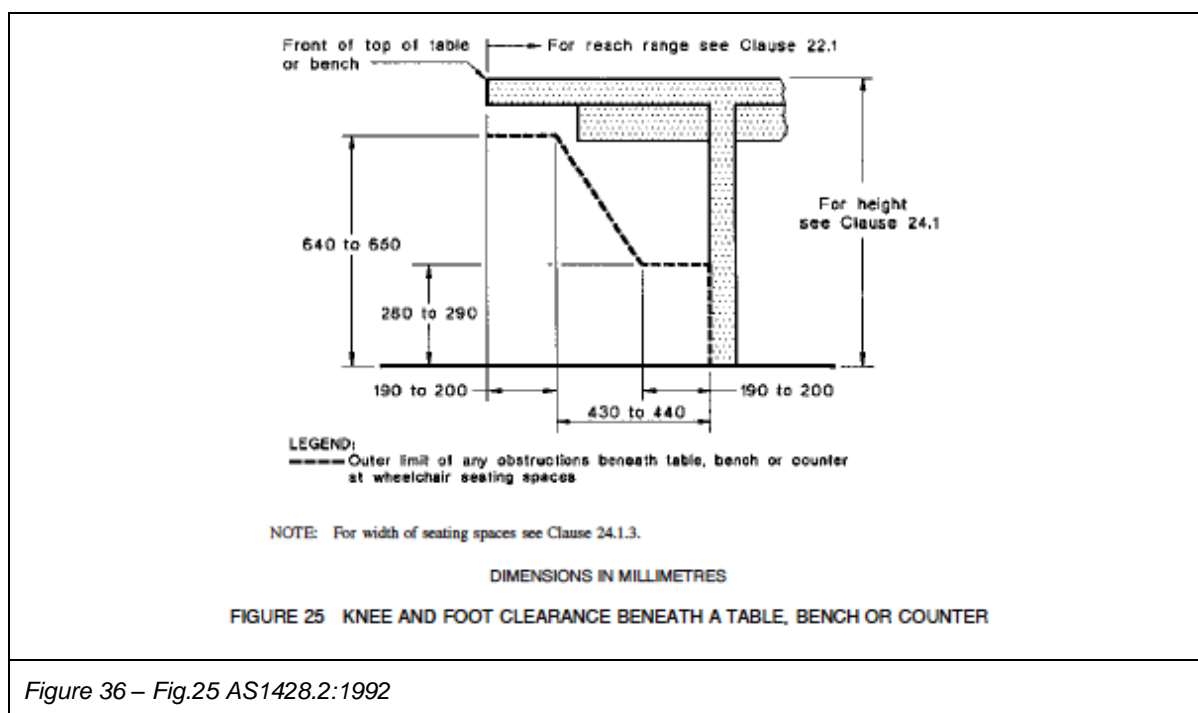


Figure 36 – Fig.25 AS1428.2:1992

26.3. Seating

If a staff member has mobility requirements, the hospital policy of modifying the work environment will be implemented.

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

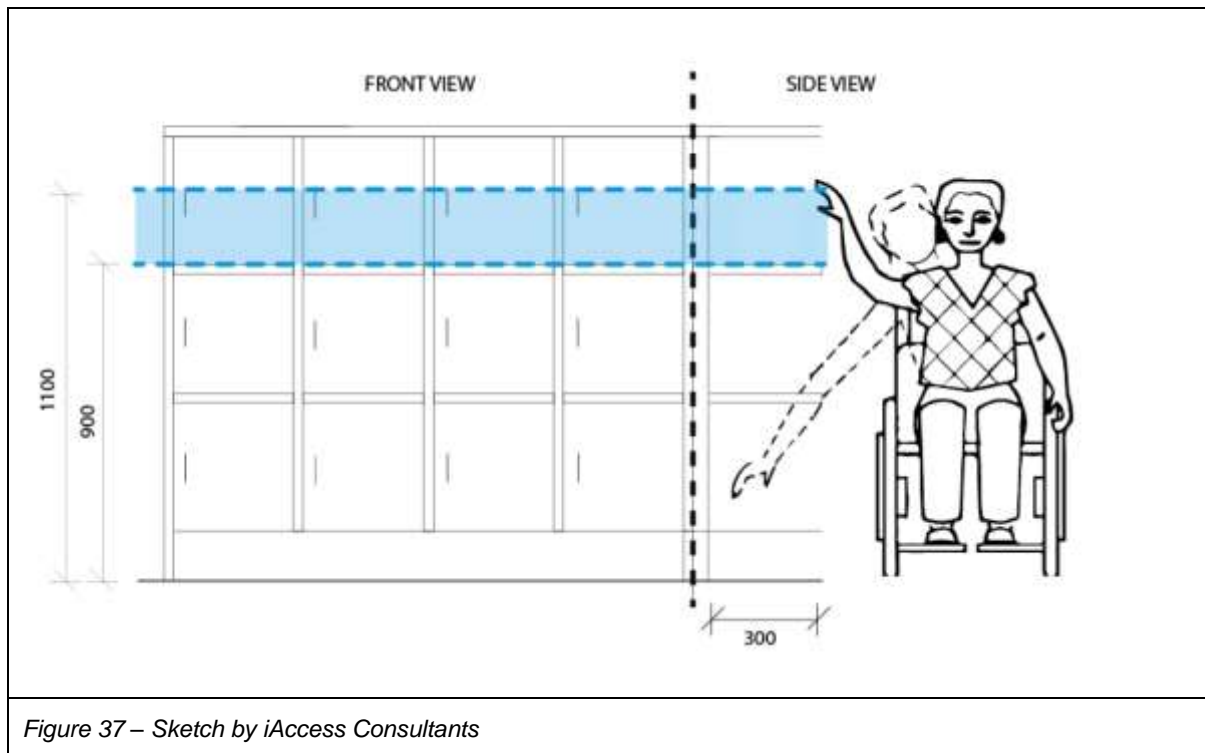
26.4. Waiting Areas

All waiting areas require a location for a wheelchair of minimum 1300 x 800mm.

26.5. Lockers

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

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



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

26.6. Beverage Bays

If beverage bays are located within a room, the circulation space within the room will need to comply with the provisions noted in section 3.14.18 of this report, with zones of 1500 x 1500mm to ensure the ability to make a 180deg turn is provided.

The distance between the beverage bay counter and any adjacent wall shall be not less than 1540mm.

Where the beverage bay is located adjacent to a doorway, door circulation requirements apply which are noted in the Doorways section report.

Water ZIP taps shall be located not closer than 500mm from an internal corner.

The following photograph is an example of a ZIP tap that is not 500mm from an internal corner (i.e. is not compliant).



26.7. Work Stations

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

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

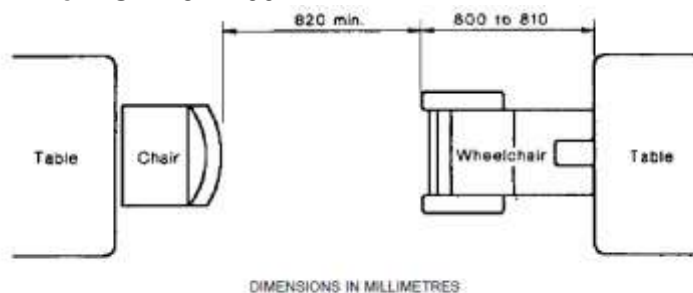


FIGURE 27 DISTANCE BETWEEN TABLES AND CHAIRS

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

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

26.8. Rest Seating

Wheelchair seating spaces are to be provided within waiting/seating areas

The size of the wheelchair space is to be 1300 x 800 mm to satisfy the wheelchair sizing for the 90th percentiles of wheelchairs. The minimum overall space for wheelchairs inclusive of circulation area is to be 2450 x 800 mm.

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

26.9. Drinking Fountain (if provided)

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

27.3 Drinking fountains and water coolers

27.3.1 General

At each location where drinking fountains or water coolers are provided, at least one of these shall be in accordance with Figure 33 of AS1428.2:1992.

27.3.2 Water outlet

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

27.3.3 Controls

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

27.3.4 Recessed drinking fountains

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

27.3.5 Cup dispensers

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

26.10. Vending Machine (if provided)

Whilst vending machines are proprietary items it is recommended that confirmation be sought from the supplier that the vending machine complies with the requirements of Clause 29 of AS1428.2:1992.

Specifically, the following items will need to be confirmed:

- The height of the operative components to be located between 500-1200mm AFFL
- The force required to operate any control should be less than 19.5N
- Controls should be clearly identifiable by touch and sight and should have a tactile surface
- Appropriate lighting levels

27. ACCESSIBILITY CONSIDERATIONS

It is understood that the client is committed to meeting the needs of the public, patients and their employees and will consider the implementation of the following accessibility provisions, exceeding minimum NCC requirements and the scope of the Premises Standard. Further discussion with the client is required to determine the suitability for incorporation of these requirements into the design to meet the spirit and intent of the DDA:

27.1. Internal paths of travel – surface finishes

The hospital should consider their obligation to meet the objectives of the Disability Discrimination Act 1992 (Cth) (DDA) with respect finished surfaces, including wall, floor and door finishes, which should be selected to ensure adequate definition for people with varying degrees of vision impairment.

27.2. Parenting facilities

Parenting facilities, including baby-change tables should be considered within general public areas. Where provided, parenting facilities must be designed to enable access by people with disabilities, including provision of an accessible baby change facility with appropriate knee and foot clearance to meet AS 1428.1:2009 requirements of not less than 720mm to the underside of the bench and maximum 820mm to the bench / counter top.

All fittings and ancillary fixtures to be installed with consideration to accessible reach ranges, including maximum reach of 300mm from the front of the bench to tapware, and installation of items, such as paper towel and soap dispensers at an accessible height of 900-1100mm above FFL.

27.3. Changing Places Facility

The planning should consider the provision of a “changing places” facility, which allows adult amenities and change facilities for people with a disability have been developed for inclusion in high profile public buildings and is advocated for review and potential inclusion.

27.4. Customer service areas

Customer service counters should be designed and constructed to facilitate access by a person with a disability. This may be achieved by a lower section of counter with appropriate knee and foot clearance.

Finished surfaces, including counter face and top, and the background to which each is viewed will be selected to ensure adequate definition for people with varying degrees of vision impairment, such as minimum 30% luminance contrast between counter top and counter face.

Design detailing can follow the guidance in AS 1428.2:1992.

27.5. Kitchen / beverage bay facilities

Kitchen / beverage bay facilities are indicated throughout the hospital, however limited detail has been provided to confirm the accessibility of these facilities:

At a minimum, accessible kitchen / beverage facilities should be provided where accessible by the public and staff, including:

- Counter heights of 870mm;
- Knee and foot clearance to the underside of the sink;

- Maximum reach of 300mm from the front of the bench to tapware and other fittings; and
- Ancillary fixtures such as paper towel dispensers at an accessible height of 900-1100mm above FFL.

Appropriate circulation to and within the facility should be achieved, including access with widths of not less than 1000mm and circulation of not less than 1540mm x 2070mm to the front of the bench and fixtures, which will facilitate completion of a 180 degree turn by a wheelchair user.

Throughout staff areas, to ensure access may be accommodated on an as needs basis to each kitchen facility, tea point and beverage bay, such in the instance that a person with a disability is employed, or a current employee acquires a disability, the design should give consideration to ease of modification in the future, including the location of plumbing and provision of modular joinery units.

27.6. Ancillary fixtures

Where provided, publicly accessible telephones, drinking fountains and other such features should be designed and installed to enable access by all, in accordance with the respective sections of AS 1428.2:1992.

27.7. Way finding strategy

Statutory signage with tactile and Braille features will be required to meet NCC D3.6.

Further consideration is recommended to determine the direction for the provision of Braille and tactile features to way-finding and directional signage, such as directory boards and the replication of suspended directional signage at lower heights.

The use of interactive technology may also be beneficial to assist those unfamiliar with the hospital complex. Further discussion and detailing is recommended.

28. CONCLUSION

We have assessed the architectural documentation available to date and have reviewed the proposed building works with respect to the National Construction Code 2016 and Premises Standards. The design is at a point where a review and feedback have been provided.

However, ongoing dialogue with the design team and hospital management is required to define the extent and degree of accessibility to be achieved throughout the new hospital.

In the context of the broader obligations of the DDA which will apply to the hospital once operational, it is recommended that an accessibility policy for the hospital be developed which defines the function of each space and the degree of accessibility to be achieved to and within that space. Development of an access policy will require further consultation with hospital management and user groups.

The objective of an accessibility policy is to confirm commitment to achieving the intent of the Disability Discrimination Act 1992 (Cth) (DDA), primarily the provision of an equitable and accessible environment for all, regardless of disability or impairment (mainly Sections 22 and 23 of the DDA). It is understood that in special-use buildings, particularly within hospitals and other health care facilities, there may be some specialist functions, which by the nature of the tasks required to be undertaken, may be unsuitable by people with disabilities.

It is the purpose of the accessibility policy to define the use and function of identified, specialist areas and determine the suitability for full, partial or managed accessibility. Where full access is unachievable due to the required functions of the space, the policy may detail or include reference to the proposed management plan to be implemented, to ensure accessibility is not compromised.

Access and security to individual areas and likelihood of access by people with disabilities may be defined in accordance with the following:

- Area accessible by public, contractors, patients and visitors, including those who may have a disability; Access by people with disabilities is highly likely and full compliance with AS 1428.1, AS 1428.2, NCC and additional DDA recommendations to be provided.
- Area secured, all visitors accompanied;
- Access by people with disabilities is likely, however may be managed on a case by case basis.
- Area secured and accessible by employees only;
- Environmental modifications and staff facilitation to be reviewed and undertaken as required.
- Function and tasks likely to be undertaken by ambulant personnel only;

This accessibility report has been provided to determine the suitability for access features and facilities of the documentation provided at the SD stage of the design process.

Following review of the plans, the proposal is capable of complying with the relevant legislation