TREVOR R HOWSE

DESIGN SPECIFICATION

ACCESSIBILITY

PREPARED FOR

Meridian Australia

REGARDING

Harbord Beach Hotel

BUILDING REGULATIONS • FIRE SAFETY ENGINEERING • LEGAL SERVICES

e admin@trevorhowse.com.au **w** www.trevorhowse.com.au **a** 27/16 Orchards Avenue, Breakfast Point, NSW, 2137

TREVOR R HOWSE PTY LIMITED ABN 76 160 779 000

Report Register

The following report register documents the development and issue of this report and project as undertaken by this office, in accordance with the *Quality Assurance* policy of Trevor R Howse Pty Limited.

Our Ref.	Issue No.	Remarks	Issue Date
J20073(e)	1	DA02 ï Accessibility Specification completed	31.3.2021
J20073(e)	2	DA02 ï Accessibility Specification updated to reflect updated architectural design	30.5.2021

Contents Page

Summary & Recommendations

1.1 General

This ñDesign Specification ï Accessibilityò has been prepared at the request of Meridian Australia.

It relates to the proposed **Works Package** associated with the undertaking of alterations and additions to the existing building known as the Harbord Beach Hotel, as is located at 29 Moore Road, Freshwater.

More specifically, the proposed works involve the construction of a new internal stairway connecting the ground, first and upper floors; the relocation of the ground floor freezer room; the demolition of the existing residence and provision of a new bar and performance area in the first floor; the provision of a new bar / lounge and recording studio in the upper floor; and associated works.

Figure 1.1.1 – existing aerial photo

1.2 Project Summary

The purpose of this Design Specification is to ï

- Identify those *primary* ***accessibility*** related requirements of the following, as applicable to the proposed building work ï

  (a) National Construction Code 2019, Volume 1 (NCC 2019 Vol. 1); and

  (b) The Disability (Access to premises ï building) Standard 2010 (Premises Standard),

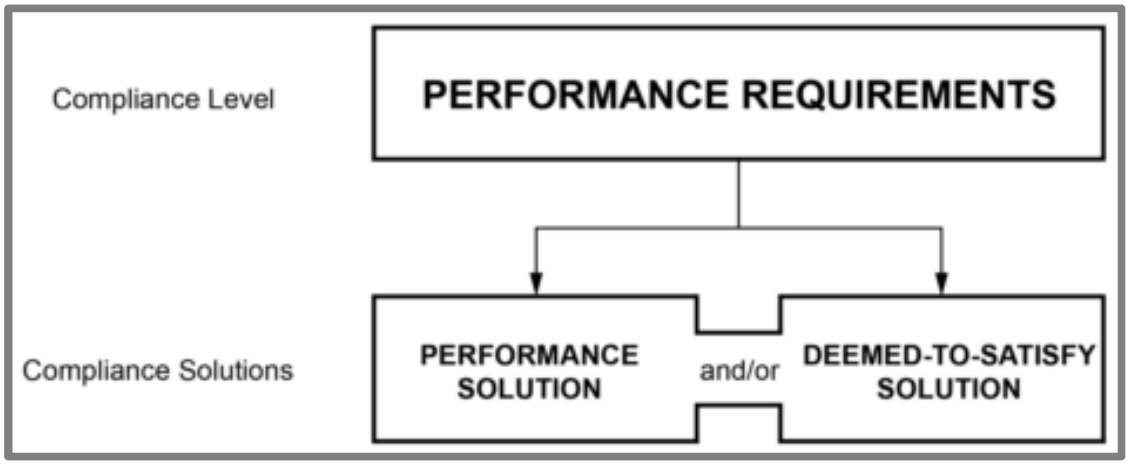
- Form part of the overall package of approved Building Permit documentation against which the works shall be undertaken, and inspected and certified at completion.

In reviewing the content of this report, it is highlighted that Compliance Structure of the NCC is as depicted in figure 1.1.2 below.

As this excerpt from the NCC 2019 Vol. 1 illustrates, a proposed design **must** comply with the applicable performance requirements.

It is a common misconception that a proposed design must comply with the deemed-to-satisfy provisions in the Code. The deemed-to-satisfy provisions are simply one method of complying with the applicable performance requirements.

Figure 1.1.2 – NCC Compliance Structure



1.3 Recommendations

The content of Section 4 of this report identifies the primary NCC 2019, Vol. 1 accessibility requirements applicable to the proposed design. Each of these requirements need be implemented within the proposed works.

Particular attention is drawn to the following prescriptive provisions ï

- Clause D2.17 ï handrails
- Clause D3.3 ï parts of buildings to be accessible
- Clause D3.8 ï tactile indicators
- Clause F2.4 ï accessible sanitary facilities

The commentary provided to each of these particular provisions in Section 4 of this report below identifies the nature of the design non-compliance, but also provides direction on how each item may be resolved.

For several of the items, it is recommended that a performance solution be pursued. This necessitates the preparation of a Performance Solution report for submission to the Certifying Authority for inclusion in their building permit.

Introduction

2.1 General

This ñDesign Specification ï Accessibilityò has been prepared at the request of Meridian Australia.

It relates to the proposed **Works Package** associated with the undertaking of alterations and additions to the existing building known as the Harbord Beach Hotel, as is located at 29 Moore Road, Freshwater.

Figure 2.1.1 – proposed ground floor plan

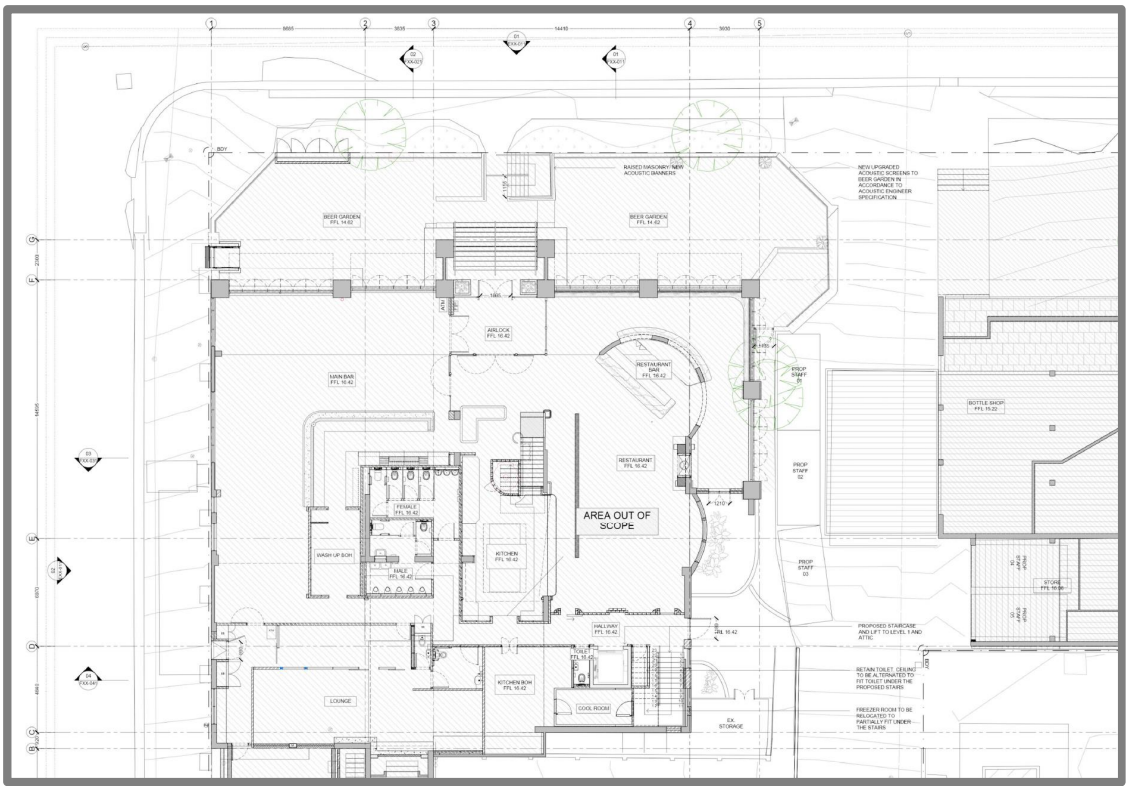


Figure 2.1.2 – proposed first floor plan

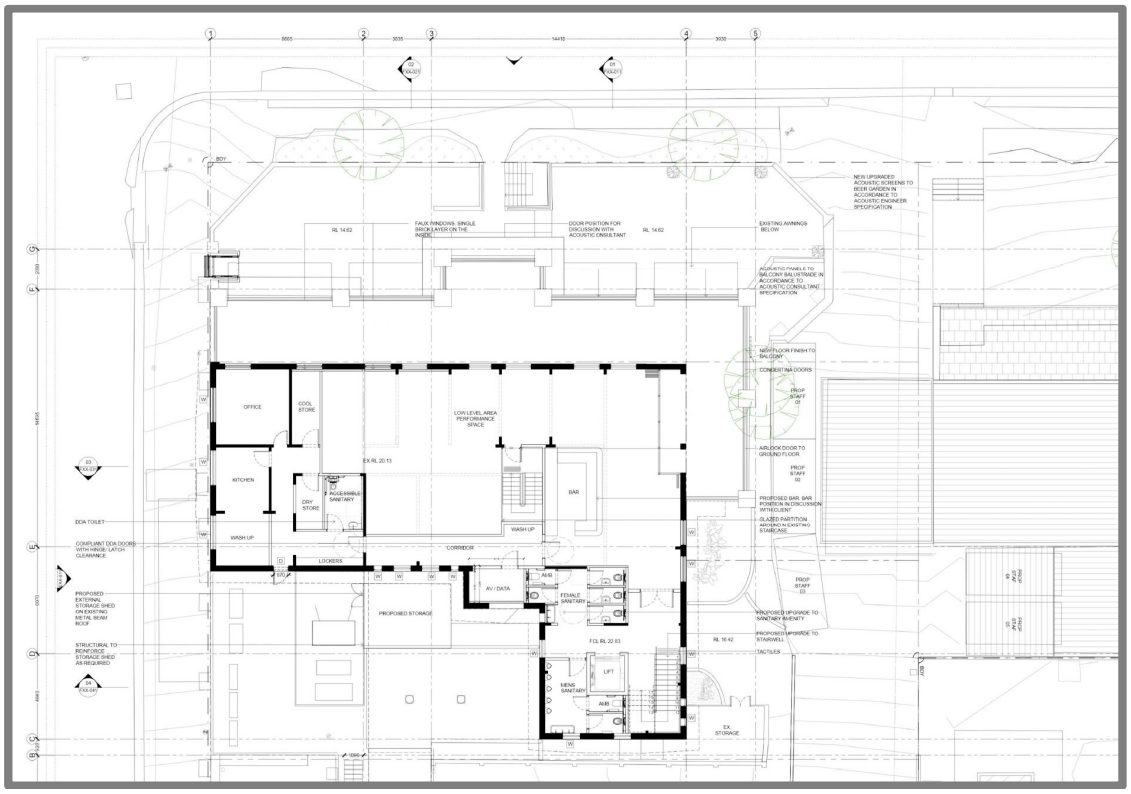
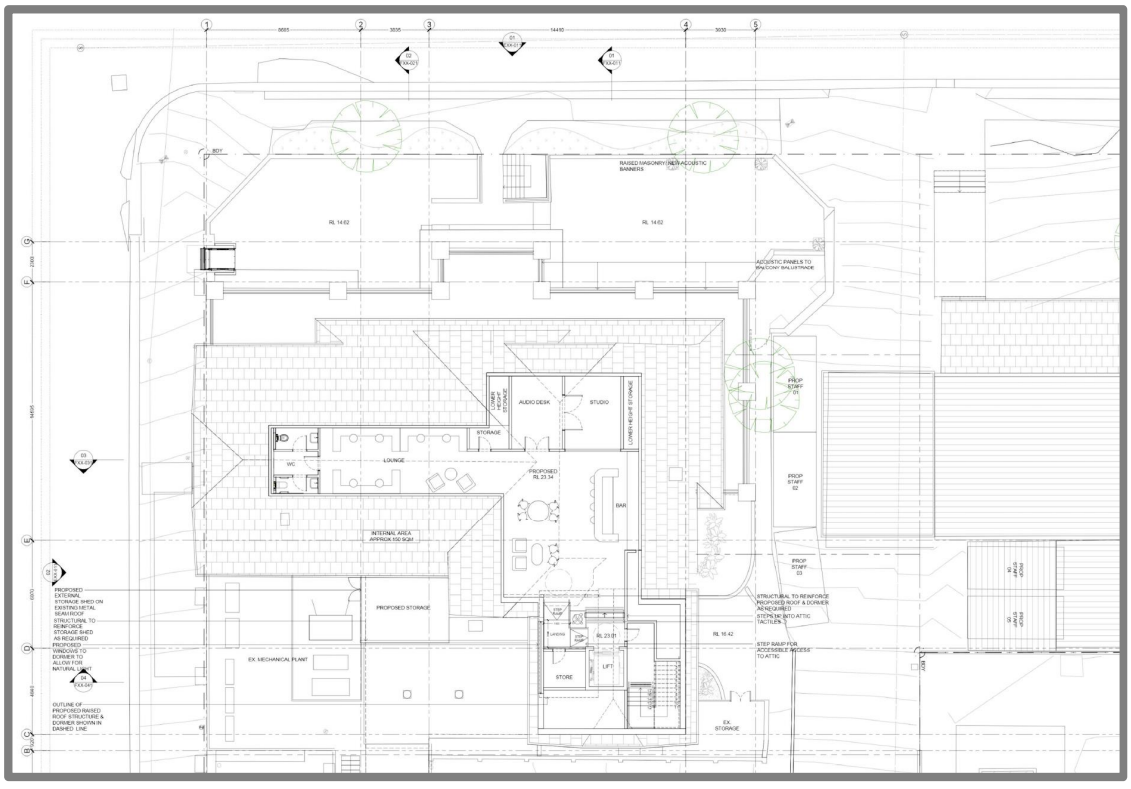


Figure 2.1.3 – proposed upper floor plan



2.2 Specification Purpose

The purpose of this Design Specification is to ï

- Identify those *primary* ***accessibility*** related requirements of the following, as applicable to the proposed building work ï

  (a) NCC 2019 Vol. 1; and

  (b) Premises Standard,

- Form part of the overall package of approved Building Permit documentation against which the works shall be undertaken, and inspected and certified at completion.

2.3 Specification Basis

The content of this Specification ONLY reflects and relies upon ï

- The accessibility provisions of Parts D2, D3 and F2 of NCC 2019 Vol. 1;

- The design detail depicted in the following architectural plans prepared by Alexander & Co Architects ï

D00-011	Ground floor ï GA plan	27.5.2021
D01-011	First floor ï GA plan	27.5.2021
D02-011	Upper floor ï GA plan	27.5.2021

2.4 Exclusions

This Specification should also not be construed to infer that an assessment for compliance with the following has been undertaken ï

- Structural design documentation;

- Mechanical, Hydraulic and Electrical services design documentation;

- The operational capacity / compliance of building services;

- The requirements of service providers (i.e. Telstra, Sydney Water, AGL);

- The requirements of the Work Cover Authority;

- The non-accessibility provisions of NCC 2019 Vol. 1 (refer separate NCC 2019 Vol. 1 Specification).

2.5 Limitations

It is conveyed that this Specification does not relieve any other party, including but not limited to architect, structural engineer, services consultant, authorities, and builder, from their responsibility to ensure the design and construction of the proposed works complies with the relevant Codes and Standards.

Additionally, while this Specification has been prepared to identify the *primary* accessibility prescriptive provisions of the NCC 2019 Vol. 1 applicable to the proposed design, it has NOT been compiled to document every individual detail (requirement) of those prescriptive provisions.

For more detailed information in respect of the design requirements of any prescriptive provisions listed (or not listed) in this Specification, project stakeholders must consult with our office or the relevant reference in the NCC 2019 Vol. 1.

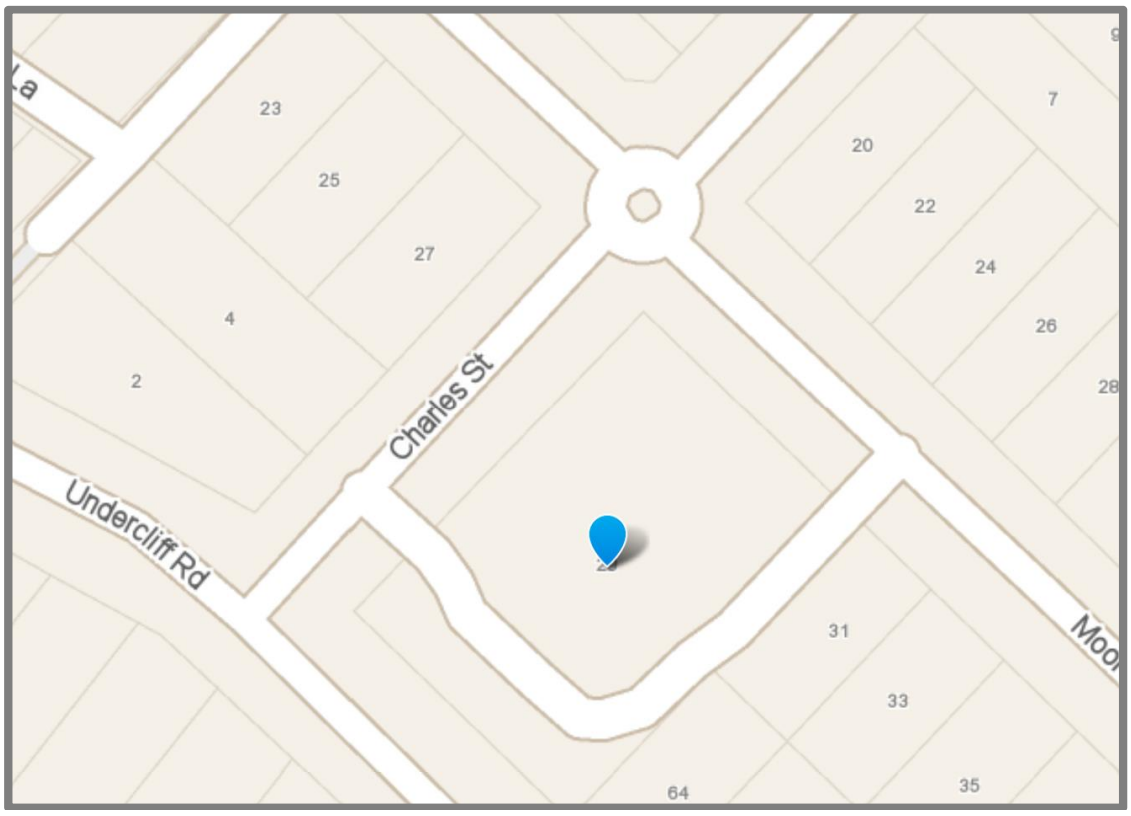
Building Description

3.1 General

The overall site is located at 29 Moore Road, Freshwater, and is bounded byï

- Moore Road (to the north)
- Charles Street (to the west)
- Undercliff Road (to the south)
- Adjoining properties (to the east)

Figure 3.2.1 – Locality plan



For the purposes of the NCC 2019 Vol. 1, the subject building is described within items 3.2 ï 3.6 below.

3.2 Rise in Storeys

The existing building has a rise in storeys of three (3).

- Lower ground floor ï cellar and storage
- Ground floor ï bar, restaurant, gaming room
- Level 1 ï residential

The proposed works will cause the building to have a rise in storeys of four (4).

- Lower ground floor ï cellar and storage
- Ground floor ï bar, restaurant, gaming room
- Level 1 ï bar, performance space
- Upper floor ï bar, lounge, recording studio

3.3 Building Classification

The existing building contains multiple classifications, namely ï

- Class 3 ï residential
- Class 6 ï retail
- Class 7b ï storage

The proposed works will amend these classifications as follows ï

- Class 6 ï retail
- Class 7b ï storage
- Class 9b ï assembly

3.4 Effective Height

The existing building has an effective height of less than 25-metres.

The proposed works will increase the effective height, but it shall remain less than 25-metres.

3.5 Type of Construction

Based upon the rise in storeys and building classification, the existing building and proposed works are subject to the fire rating requirements associated with Type A Construction.

3.6 General Floor Area Limitations

The existing building is restricted to the following floor area and volume limitations for individual fire compartments ï

- Class 9b ï Floor area ï 8,000 m^2
  ï Volume ï 48,000 m^3
- Class 6, 7b ï Floor area ï 5,000 m^2
  ï Volume ï 30,000 m^3

3.7 Fire Safety Schedule

Table 3.7.1 below provides a copy of the Fire Safety Schedule associated with the existing building (refer Annual Fire Safety Statement); the *proposed* building works; and the provisions / comments contained Section 4 of this report.

Table 3.7.1 – Fire safety schedule

Fire Safety System	Status (*)	Performance Standard
Automatic fire detection & alarm system	M	BCA Spec. E2.2a AS 1670.1 ï 2004 AS/NZS 1668.1 - 1998
Automatic fire suppression system	M	BCA Spec. E1.5 AS 2118.1 ï 2017 FER J20073(c)-4, 14.12.2020
Emergency lighting	M	BCA Clause E4.2, E4.4 AS/NZS 2293.1-2005
Emergency evacuation plan	M	AS 3745 ï 2010 FER J20073(c)-4, 14.12.2020
Exit signs	M	BCA Clauses E4.5, E4.6, E4.8 AS/NZS 2293.1 ï 2005
Fire blankets	E	AS 2444 ï 2001
Fire hydrant system (street)	E	BCA Clause E1.3 AS 2419.1 ï 2005
Mechanical air handling system	M	BCA Clause E2.2, AS/NZS 1668.1 ï 1998

Fire Safety System	Status (*)	Performance Standard
Paths of travel	M	EP&A Reg 2000 Clause 186
Portable fire extinguishers	M	BCA Clause E1.6 AS 2444 ï 2001 FER J20073(c)-4, 14.12.2020
Required exit doors (power operated)	E	BCA Clause D2.19
Fire engineer report / performance solution (J20073(c)-4a, 21.12.2020	E	**Performance Solution No. 1** Clause E1.4 ï Fire hose reels As proposed, portable fire extinguisher units are to be provided throughout the existing building in lieu of fire hose reels. The applicable NCC 2019 Vol. 1 performance requirement is **EP1.1.**
		Performance Solution No. 2 Clause D1.6 ï Dimensions of exits and paths of travel to exits As proposed, the unobstructed width of the landings to the stairway connecting the Moore Street footpath and the beer garden shall be reduced to under 1000-mm due to the installation of new handrails (950-mm). The applicable NCC 2019 Vol. 1 performance requirement is **DP6**.
		Performance Solution No. 3 Specification C1.1 ï fire resisting Construction Clause C2.9 ï separation of classifications in different storeys As proposed, the ground floor shall contain several steel beams and columns that shall not be encased in fire rated construction. The applicable NCC 2019 Vol. 1 performance requirements are **CP1** and **CP2**.

Fire Safety System	Status (*)	Performance Standard
		Performance Solution No. 4 Clause D1.6 ï Dimensions of exits and paths of travel to exits As proposed, as consequence of the installation of a new continuous handrail to one (1) side of the heritage stairway connecting the ground and first floors, the unobstructed width of the subject stair shall be reduced (810-842-mm).

(*) Fire safety measure is ñEXISTINGò(E), ñPROPOSEDò(P), or ñTO BE MODIFIEDò(M)

Accessibility Specification

4.1 General

The following prescriptive *accessibility* provisions of NCC 2019 Vol. 1 are applicable to the proposed building works AND the areas of the existing building in which the works are proposed (ñ*new part*ò and ñ*affected part*ò as defined by the Premises Standard)..

In each instance, the *primary* requirements of these prescriptive provisions are highlighted in the comments provided below.

As these comments are not necessarily exhaustive, for more detailed design information, the corresponding clause reference in NCC 2019 Vol. 1 and Premises Standard should be consulted by the project team / stakeholders.

4.2 Section / Part D – Access & Egress

- Clause D1.6 ï Dimensions of exits and paths of travel to exits

  The proposed works are to be designed and constructed in accordance with the following ï

  (a) The unobstructed height of doorway openings must not be less than 1980-mm

  (b) Accessways must have a minimum unobstructed width of 1000-mm.

  (c) Doorway openings accessible to people with a disability must have an unobstructed width not less than 850-mm (**NB:** for double leaf doorway opening openings, the active leaf must have a clear opening not less than 850-mm).

- Clause D2.13 ï Treads and risers

  The new stairways must have the following characteristics ï

  (a) Nosings that have a 30% reflective difference (in colour) to the adjoining surfaces;

  (b) Not have open risers (as required by AS 1428.1-2009).

- Clause D2.15 ï thresholds

  Where exiting from an area of the building accessible to people with a disability, the threshold of a doorway opening to a road or open space shall not contain a step or change in level unless it is provided with an AS 1428.1-2009 compliant threshold ramp or step ramp.

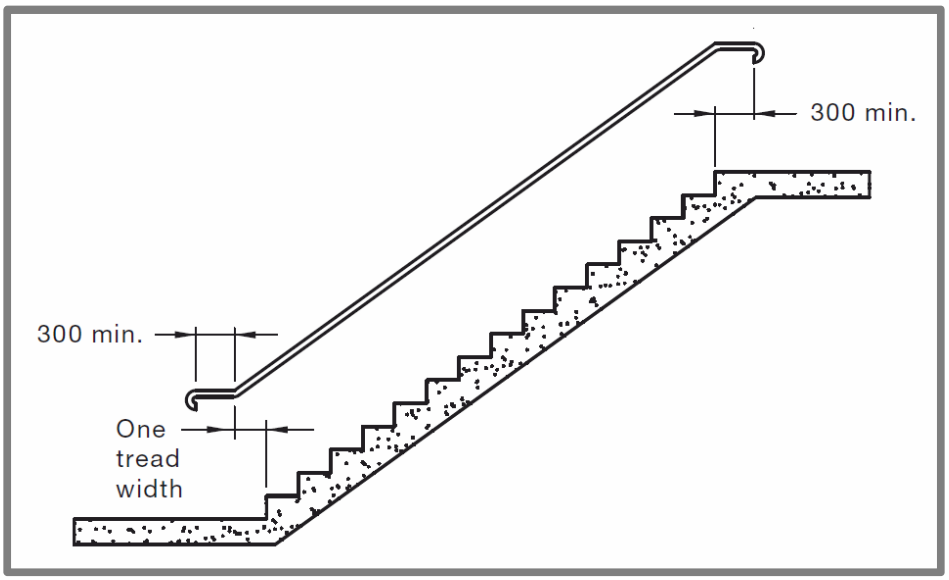
- Clause D2.17 ï Handrails

Proposed stairway handrails must be designed and constructed in accordance with clause 12 of AS 1428.1-2009.

This necessitates the provision of handrail extensions to the top and bottom of stair flights as per figure D2.17.1 below.

Particular attention is drawn to the base of the proposed stairway in the ground floor, as the handrails must extend one step + 300-mm (minimum 550-mm), and the new small stairway in the upper floor.

Figure D2.17.1 – AS 1428.1-2009 handrail extensions to stairways



- Clause D2.21 ï Latching devices

All new doorways accessible to the occupants are to be designed and constructed so that persons can evacuate there-through without the use of a key, using lever handle devices ï

(a) located 900-1100-mm above the floor;

(b) having a clearance between the door handle and the door leaf of between 35-45-mm;

(c) that would not cause the grip of a user to slip therefrom.

- Clause D3.1 ï general building access requirements

Access for people with a disability must be provided to and within all areas used by the occupants, except access need be provided to ï

(a) An area would be inappropriate because of the particular purpose for which the area is used;

(b) An area would pose a health or safety risk for people with a disability; and

(c) Any path of travel providing access to items (a) and (b) above.

Having regard to this, access must be provided to and within the first and upper floors.

- Clause D3.3 ï parts of buildings to be accessible

(a) The proposed new stairway must be designed and constructed in accordance with clause 11 of AS 1428.1-2009.

(b) All floor surfaces (including changes in level), must be AS 1428.1-2009 compliant (i.e. non-slip).

(c) All new doorways must have an unobstructed opening not less than 850-mm.

(**NB:** Where double door leafs are provided to a doorway opening, the active leaf must have an unobstructed opening not less than 850-mm).

(d) All doorways must have a minimum luminance contrast of 30% provided between either the ï

1. door leaf and door jamb;
2. door leaf and adjacent wall;
3. achitrave and wall;
4. door leaf and architrave; or
5. door jamb and adjacent wall.

The minimum width of the area of luminance contrast must not be less than 50-mm.

(e) Doorway openings need be provided with circulation space in accordance with figures 31 and 32 of AS 1428.1-2009.

Having regard to the above, particular attention is drawn to the following ï

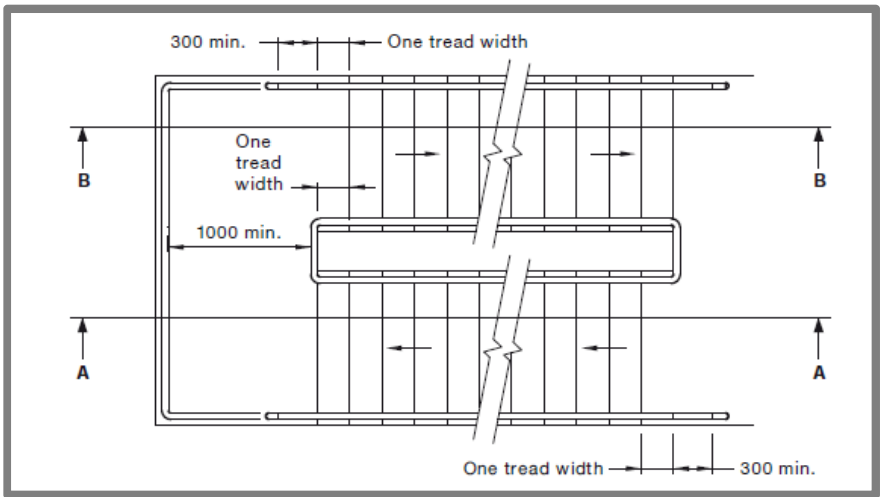
(a) Proposed stairway ï refer figure D3.3.1 below as relates to the setback requirements applicable to steps either side of a mid-landing. Such setback is not apparent in the current design of the new stairway.

(b) Existing office, first floor ï the doorway opening is not provided with AS 1428.1 compliant circulation space to the latch side of the door leaf, on the corridor side of the doorway opening (510-mm required).

(c) Lockers, first floor ï the position of the lockers appears to encroach on the 530-mm clear circulation space required to the latch side of the door leaf to the corridor, on the toilet side of the doorway opening.

(d) Doorway to corridor, first floor ï the doorway opening adjacent to the bar and providing access from the public space to the corridor leading to the accessible toilet need be provided with AS 1428.1 circulation space to the latch side of the door leaf, on both sides of the doorway opening (510-mm on corridor side, and 530-mm on public side).

Figure D3.3.1 – tread steback at mid-landings



- Clause D3.6 ï Signage

(a) The door leaf to an accessible sanitary facility must be provided with Specification D3.6 compliant tactile and Braille signage incorporating the International Symbol of Access (see below example).

(b) The door leaf to the ambulant sanitary cubicles must be provided with AS 1428.1-2009 compliant tactile and Braille signage (see below example).

(c) Exit doors provided with illuminated exit signs (refer Clause E4.5 below) must be provided with BCA Specification D3.6 compliant signage stating ñEXITò and ñLEVELò followed by the floor level number or floor level descriptor (see below example).

- Clause D3.7 ï Hearing augmentation

Where an in-built amplification system is to be provided to any room, a hearing augmentation system must be provided having either ï

(a) an induction loop to not less than 80% of the floor area of the room or space served by the inbuilt amplification system; or

(b) a system requiring the use of receivers or the like, to not less than 95% of the floor area of the room or space served by the inbuilt amplification system, with the number of receivers provided not less than 1 per 25 persons (with a minimum of 2)

- Clause D3.8 ï Tactile indicators

AS 1428.4.1-2009 compliant tactile indicators must be provided to the proposed stairway, at the top and bottom of each flight (except that tactiles need not be installed to mid-landings where the handrails are continuous there-through).

The current design does not depict the provision of tatciles ï

(a) The base of the new stairway in the ground floor;

(b) The first floor where the ascending stairway discharges into the floor.

NB: Tactiles need be setback 300-mm from stairways, and generally have a depth of 600-mm.

- Clause D3.12 ï Glazing on an accessway

  All frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1-2009.

  Markings must be solid, non-transparent and contrasting, and must extend the full width of the glazing panel(s).

  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.

- Clause D4.2 ï location of braille and tactile signs

  In respect of the signage described in BCA Clause D3.6 above, the symbols, numbering and lettering must be designed and installed as follows ï

  (a) braille and tactile components of a sign must be located not less than 1 200 mm and not higher than 1600 mm above the floor or ground surface;

  (b) signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not more than 1350 mm above the floor or ground surface;

  (c) signs identifying rooms containing features or facilities listed in clause D3.6 must be located:

  1. on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and

  2. where 1 above is not possible, the sign may be placed on the door itself.

- Clause D4.3 ï braille and tactile sign specification

(a) Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm.

(b) Sentence case (upper case for the first letter of each main word and lower case for all other letters) must be used for all tactile characters; and

1. upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm; and

2. lower case tactile characters must have a height of 50% of the related upper case characters.

(c) Tactile characters, symbols, and the like, must have rounded edges.

(d) The entire sign, including any frame, must have all edges rounded.

(e) The background, negative space or fill of signs must be of matt or low sheen finish.

(f) The characters, symbols, logos and other features on signs must be matt or low sheen finish.

(g) The minimum letter spacing of tactile characters on signs must be 2 mm.

(h) The minimum word spacing of tactile characters on signs must be 10mm.

(i) The thickness of letter strokes must be not less than 2 mm and not more than 7 mm.

(j) Tactile text must be left justified, except that single words may be centre justified.

(k) Tactile text must be Arial typeface.

- Clause D4.4 ï luminance contrast

The following apply to luminance contrast:

(a) the background, negative space, fill of a sign or border with a minimum width of 5 mm must have a luminance contrast with the surface on which it is mounted of not less than 30%;

(b) tactile characters, icons and symbols must have a minimum luminance contrast of 30% to the surface on which the characters are mounted;

(c) luminance contrasts must be met under the lighting conditions in which the sign is to be located.

- Clause D4.5 ï lighting

Braille and tactile signs must be illuminated to ensure *luminance contrast* requirements are met at all times during which the sign is required to be read.

- Clause D4.6 ï braille

  The following applies to braille ï

  (a) braille must be grade 1 braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority;

  (b) braille must be raised and domed;

  (c) braille must be located 8 mm below the bottom line of text (not including descenders);

  (d) braille must be left justified;

  (e) where an arrow is used in the tactile sign, a solid arrow must be provided for braille readers;

  (f) on signs with multiple lines of text and characters, a semicircular braille locator at the left margin must be horizontally aligned with the first line of braille text.

4.3 Section / Part E – Services & Equipment

- Clause E3.6 ï Passenger lifts

  The propsoed new lift must contain the following design features ï

  (a) AS 1735.12-1999 compliant handrails; and

  (b) Internal lift floor dimension not less than 1100-mm wide x 1400-mm deep; and

  (c) AS 1735.12-1999 compliant passenger protection system; and

  (d) AS 1735.12-1999 compliant control buttons; and

  (e) AS 1735.12-1999 compliant lighting; and

  (f) Emergency hands-free communication.

4.4 Section / Part F – Health & Amenity

- Clause F2.4 ï Accessible sanitary facilities

(a) The proposed accessible sanitary facility must be designed and constructed in accordance with AS 1428.1-2009 (see sample diagram in figure F2.4.1 below).

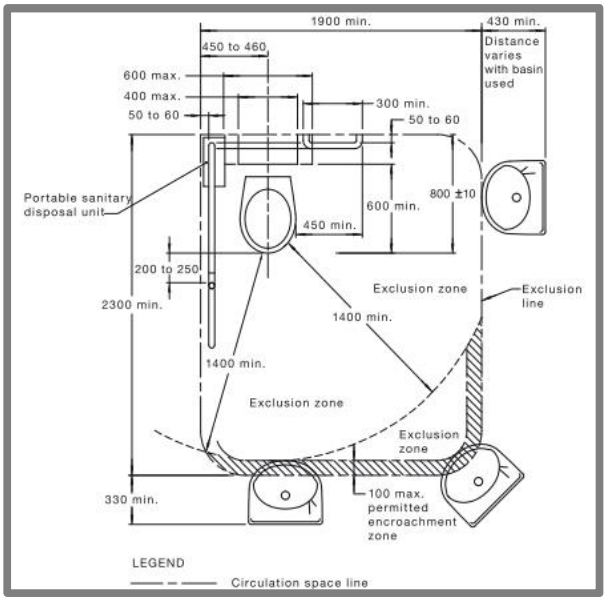
(b) Male and female cubicles must include AS 1428.1-2009 compliant ambulant cubicles (see sample diagram in figure F2.4.2 below).

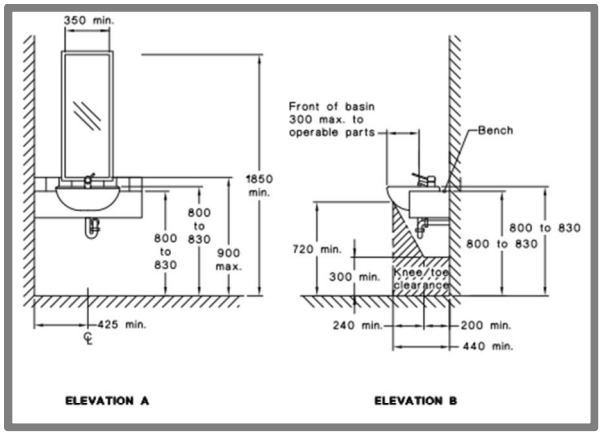
Having regard to the above, particular attention is drawn to the following ï

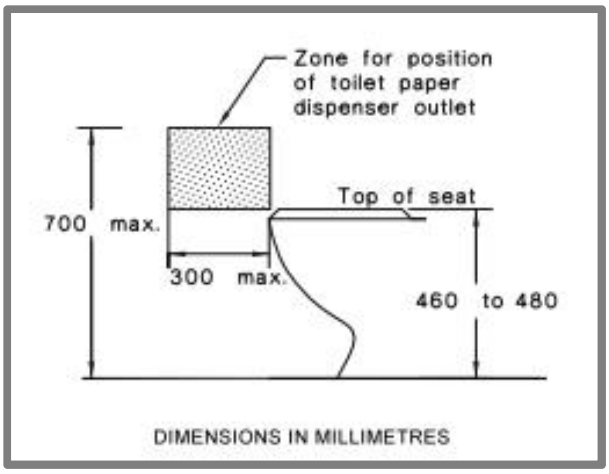
(a) The proposed design includes the provision of sanitary facilities in the upper floor, but does NOT include an accessible facility (**NB:** this provision of NCC 2019 requires the provision of an accessible toilet on each level provided with sanitary facilities).

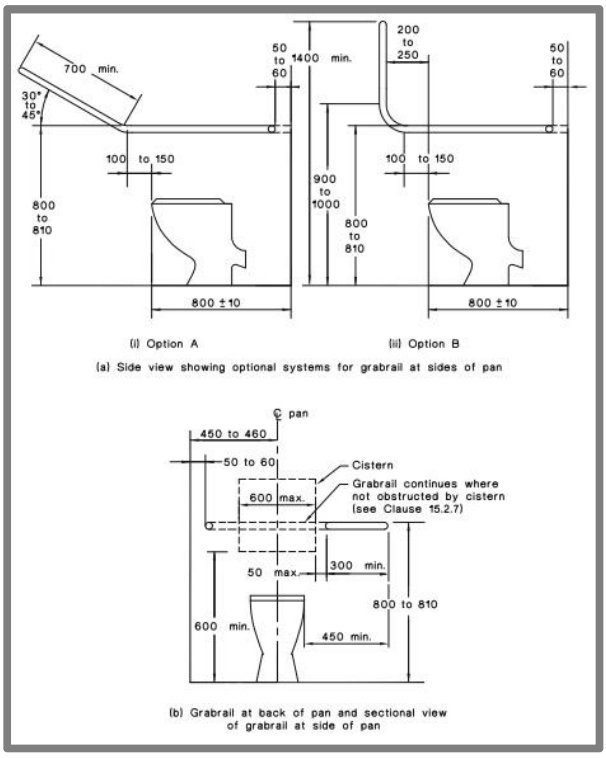
This design approach will necessitate the preparation of a performance solution report at the Construction Certificate stage of the approvals process.

Figure F2.4.1 – Accessible sanitary facilities




350 min.
1850 min.
800 to 830
800 to 830
900 max.
425 min.
℄
Front of basin 300 max. to operable parts
Bench
800 to 830
800 to 830
720 min.
300 min.
Knee/toe clearance
240 min.
200 min.
440 min.
ELEVATION A
ELEVATION B


Zone for position of toilet paper dispenser outlet
Top of seat
700 max.
300 max.
460 to 480
DIMENSIONS IN MILLIMETRES


700 min.
30° to 45°
50 to 60
1400 min.
200 to 250
50 to 60
100 to 150
100 to 150
900 to 1000
800 to 810
800 to 810
800 ±10
800 ±10
(i) Option A
(ii) Option B
(a) Side view showing optional systems for grabrail at sides of pan
℄ pan
450 to 460
50 to 60
Cistern
Grabrail continues where not obstructed by cistern (see Clause 15.2.7)
600 max.
300 min.
50 max.
800 to 810
600 min.
450 min.
(b) Grabrail at back of pan and sectional view of grabrail at side of pan

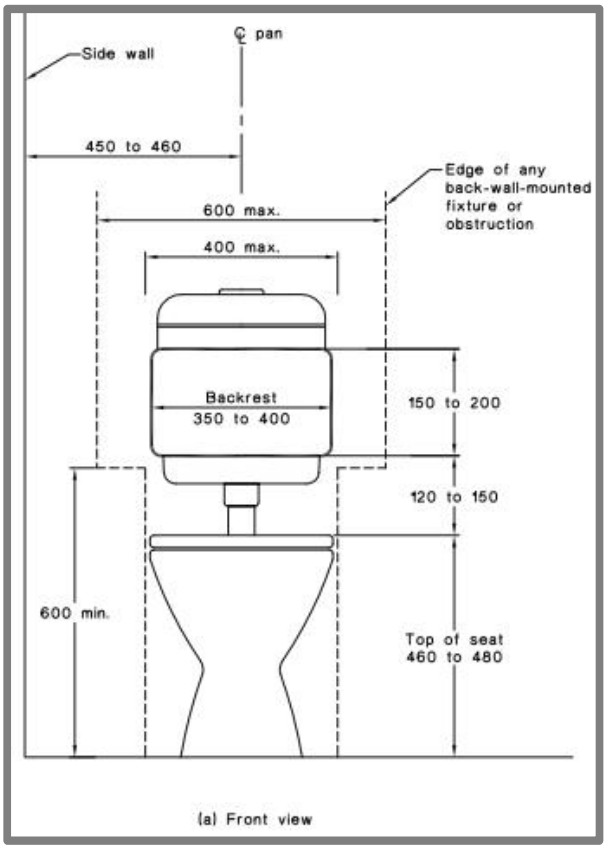

℄ pan
Side wall
450 to 460
Edge of any back-wall-mounted fixture or obstruction
600 max.
400 max.
Backrest
350 to 400
150 to 200
120 to 150
600 min.
Top of seat
460 to 480
(a) Front view

Figure F2.4.2 – Ambulant sanitary facilities