



Access Review

St Edmunds College, Wahroonga
60 Burns Road, Wahroonga

Report Issue 1

06/12/19



Contents

Contents

3	Introduction
6	Context for Planning & Design
9	Design Review & Recommendations
14	Conclusion

Document Author: J Barling

Reviewed by: M Jack

Document History:

Issue 1: 05/12/19 [draft]

Issue 2: 06/12/19 [final]



Introduction

Background

This review of the design documents for DA submission addresses the requirements for access by staff, students and visitors with a disability or who are older, to the proposed new work at St Edmund's College, 60 Burns Road, Wahroonga.

Established in 1951, St Edmund's College is an independent co-educational secondary college for students Years 7 to 12 with a wide range of disabilities including sensory disabilities, mild to moderate intellectual disabilities and autism.

St Edmund's is currently preparing a DA for proposed alterations and additions to existing buildings on the school's campus.

The proposed development includes:

- Demolition of existing structures
- Retention of key school facilities (ie pool, hospitality area, existing heritage listed building)
- Refurbishment of existing buildings
- Additions to the rear of the existing buildings to be retained, including new hall, new library, administration areas, amenities and classrooms

The review addresses compliance with the Disability (Access to Premises - Buildings) Standards 2010, Parts D3, E3.6 and F2.4 of the Building Code of Australia 2019 (BCA) and Australian Standards on Access and Mobility.

The key issue in the provision of appropriate access to and within the new building is the provision of a continuous accessible path of travel:

- (i) from the main points of a pedestrian entry at the allotment boundary;
- (ii) from another accessible building connected by a pedestrian link;
- (iii) from accessible visitor parking to principal building entrances; and
- (iv) to and within areas normally used by the occupants.

We have reviewed the drawings listed to assess the level of accessibility and compliance with the relevant codes, standards and legislation. The designs have been assessed to ensure that equitable and dignified access for people with disabilities can be provided.

In carrying out an accessibility assessment, the main objective is to ensure access is provided through the provision of accessible facilities and continuous paths of travel to and within all appropriate areas of the buildings.



Introduction

Accessibility Requirements

The Building Code of Australia 2019 (BCA) in conjunction with the Disability (Access to Premises - Buildings) Standards 2010 (Premises Standards) apply to new buildings and existing buildings that undergo refurbishment.

The Premises Standards apply to any new part, and any affected part, of an existing building. A part of a building is a new part of the building if it is an extension to the building or a modified part of the building about which an application for approval for the building work is submitted to the competent authority in the State or Territory where the building is located. The definition of 'affected part' of a building is limited to the path of travel between (and including) the principal pedestrian entrance and the new work.

Under the Premises Standards, access must be provided, to the degree necessary, to enable people to approach the building from the road boundary and from any accessible carparking spaces associated with the building; approach the building from any accessible associated building; access work and public spaces, accommodation and facilities for personal hygiene; and to enable identification of access ways at appropriate locations which are easy to find.

Under the BCA 2019 and Premises Standards table D3.1 Requirements for access for people with a disability, access to this new building work (class 9b) is required to and within all areas normally used by staff, students and visitors.



Introduction

Proposed Work

The existing heritage building is proposed to be retained, new work is not proposed in this building, it therefore does not form part of the “affected part” path of travel.

The proposed new building work includes:

Ground Floor:

- New staff carpark
- Foyer and Lobby
- Reception, office and staff area
- Library
- Canteen
- Hall
- Shared space
- Music
- Multi-purpose space
- Art
- Science Labs (refurbishment)
- Toilets

First Floor:

- GLAs
- Shared zone
- Staff study
- Offices
- Meeting room
- Toilets



Context for Planning & Design

Legislation & Standards

The new work is subject to access provisions in the following documents:

- Disability (Access to Premises - Buildings) Standards 2010
- The Building Code of Australia (BCA) 2019 parts D3, F2.4 and E3.6
- AS1428.1 (2009) (Incorporating Amendment No 1): Design for access and mobility Part 1: General requirements for access – New building work.
- AS1428.2 (1992) Design for access and mobility Part 2: Enhanced and Additional requirements - Buildings and facilities
- AS1428.4 (2009) (Incorporating Amendment No 1): Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment -tactile ground surface indicators
- AS1735.12 (1999) Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities
- AS1428.4 (1992) Design for access and mobility. Part 4: Tactile ground surface indicators for the orientation of people with vision impairment
- AS2890.6 (2009) Parking Facilities - Off-street parking for people with disabilities
- AS3745 (2009) Planning for Emergencies in Facilities (referenced)
- AS1428.5 (2010) Design for access and mobility Part 5: Communications for people who are deaf or hearing impaired (referenced)
- Australian Human Rights Commission Guideline on the Application of the Premises Standards (2013)
- The Disability Discrimination Act 1992 (DDA)
- Disability Standards for Education 2005



Context for Planning & Design

Legislation & Standards

DDA

The objectives of the Disability Discrimination Act 1992 (DDA) – section 23, focus on the provision of equitable, independent and dignified access to services and facilities for people with mobility, sensory and cognitive disabilities. The DDA covers existing premises, including heritage buildings, those under construction and future premises. It extends beyond the building itself to include outdoor spaces and within, to address furniture, fittings and practices.

Premises Standards

Disability (Access to Premises - Buildings) Standards (Premises Standards) 2010 which commenced on 01 May 2011, has been incorporated into the BCA (2019) to ensure that access provisions for people with disabilities more fully meet the intent of the DDA.

The Premises Standards apply to any new part, and any affected part, of an existing building. A part of a building is a new part of the building if it is an extension to the building or a modified part of the building about which an application for approval for the building work is submitted, on or after 1 May 2011, to the competent authority in the State or Territory where the building is located.

BCA

The Building Code of Australia (BCA)(2019) applies to new buildings and existing buildings that undergo refurbishment. In this report the description of the level of accessibility throughout the new work is generally measured against the Deemed-to-Satisfy Provisions of the BCA, in particular Parts D3, E3.6 and F2.4.

AS1428 – Standards for Access

The Australian Standards design for access and mobility are a suite of standards relating to the inclusion of features in the built environment that improve access and mobility for people with a disability.

AS1428.1 (2009) sets out minimum requirements for design of buildings and facilities, while AS1428.2 includes enhanced and additional requirements that are not covered in AS1428.1, such as street furniture and reach ranges.

AS1428.4.1 (2009) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment primarily details the requirements for the application of tactile ground surface indicators (TGSIs).

Disability Standards for Education 2005

The objects of these standards are:

- to eliminate, as far as possible, discrimination against persons on the ground of disability in the area of education and training; and
- to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law in the area of education and training as the rest of the community; and
- to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.

Reasonable adjustment is an adjustment, measure or action (or a group of measures or actions) taken by an education provider that has the effect of assisting a student with a disability.



Context for Planning & Design

Management Strategies

In the existing facilities and proposed new building work it is important, within the limitations of the existing structures, to provide general paths of travel, circulation spaces and accessible facilities, within areas not exempt by the BCA part D3.4, to meet the intent of the Disability Discrimination Act.

In addition to accessible paths of travel, accessible parking and accessible sanitary facilities, it will be necessary to develop operational management strategies that meet the proposed intention to provide equipment and adapt areas within the building to meet the requirements of specific individuals with a disability.

Operational management strategies are required to meet the specific requirements of visitors, students and staff with a disability whose individual requirements cannot be addressed within the base buildings and existing building facilities. An operational management strategy acknowledges the need to meet full accessibility compliance through the provision of policy strategies. A design that has the potential to be modified as required to suit individuals with a disability is desirable.

Ongoing development of operational management strategies are recommended for the following:

- emergency egress for people with sensory and mobility impairment
- modification of individual work areas to meet individual staff and student requirements

Documentation

This assessment is based on discussion with the design team and review of the following architectural documentation (Revision 2) prepared by Glendenning Szoboszlay Architects, issued to funktion on 06/12/19:

A-0000 COVER SHEET
A-0100 SITE LOCATION PLAN
A-0200 EXISTING GROUND FLOOR PLAN
A-0201 EXISTING FIRST FLOOR PLAN
A-0202 EXISTING ROOF PLAN
A-0300 GROUND FLOOR DEMOLITION PLAN
A-0301 FIRST FLOOR DEMOLITION PLAN
A-302 ROOF DEMOLITION PLAN
A-0400 SITE ANALYSIS PLAN
A-0401 PROPOSED SITE PLAN
A-0500 STAGE 1 ENVIRONMENTAL SITE MANAGEMENT PLAN
A-0501 STAGE 2 ENVIRONMENTAL SITE MANAGEMENT PLAN
A-0502 STAGE 3 ENVIRONMENTAL SITE MANAGEMENT PLAN
A-1100 OVERALL GROUND FLOOR GA PLAN
A-1101 OVERALL FIRST FLOOR GA PLAN
A-1102 GROUND FLOOR GA PLAN 1
A-1103 GROUND FLOOR GA PLAN 2
A-1104 FIRST FLOOR GA PLAN 1
A-1105 FIRST FLOOR GA PLAN 2
A-1106 ROOF GA PLAN
A-1200 GA SECTIONS 1
A-1201 GA SECTIONS 2
A-1202 GA SECTIONS 3
A-1203 GA SECTIONS 4
A-1300 5 GA ELEVATIONS 1
A-1301 GA ELEVATIONS 2
A-1302 GA ELEVATIONS 3
A-9000 SHADOW DIAGRAMS JUNE 21
A-9001 SHADOW DIAGRAMS DECEMBER 21
A-9002 VERTICAL SHADOW ANALYSIS
A-9300 MATERIALS BOARD
A-9301 PERSPECTIVES 1
A-9302 PERSPECTIVES 2
A-9303 PERSPECTIVES 3



Design Review

Accessibility Assessment

Accessible Paths of Travel

Overview

To meet the Access to Premises Standards Part D3.2 and BCA D3.2, accessible paths of travel are provided from the allotment boundary on Wahroonga Avenue to the new principal pedestrian entrance of the building and from the existing parking and drop off zone.

The new eastern (staff) entrance is proposed to be linked to the new staff carpark via a new footpath which is proposed to provide an accessible path of travel with cross falls and gradients that meet the requirements of AS1428.1.

Parking

Parking / drop off is proposed as follows:

- Existing parking / drop off area at principal school entrance
- New staff carpark at the northeast corner of the site

To meet the Premises Standards clause D3.2 and BCA 2019 D3.2, provision has been made for a designated accessible car parking for staff, with layout and features to meet AS2890.6. The existing carpark has a designated accessible parking space.

Accessways Throughout Areas of New Work

To meet the requirements of the Premises Standards and BCA part D3.1 and D3.3(c), continuous accessible paths of travel meeting the functional requirements of AS1428.1 (2009) are proposed to and throughout the new building work via the provision of lift access linking all levels of the new work within the building and circulation space at corridors, lift lobbies and doors that meets AS1428.1 clause 6.5, with the exception of the following:

- The door to the work area adjacent reception does not provide latch side clearance to meet AS1428.1. Due to the constraints of matching the existing levels, the location of the new ramp linking the new building work to the existing heritage building prevents the achievement of the required latch side clearance. A performance solution to meet DP1 is proposed, through provision of an additional door into the work area via reception. This door is proposed to provide circulation space and clearances that comply with AS1428.1.

Stairways

New stairways are proposed as follows:

- Stair 1
- Stair 2
- Stair 3
- Courtyard stair

To meet the BCA (2019) part D3.3 (a), new stairways, (except for stairways in exempted areas and fire isolated stairs) are required to comply with AS1428.1 clause 11 and BCA D3 to include handrails, highlighting on step nosing and tactile ground surface indicators. To meet the requirements of the BCA (2019) part D3.8 tactile ground surface indicators (tgsi) complying with AS1428.4.1 (2009) are required to be provided at new stairways.



Design Review

Accessibility Assessment

Accessible Paths of Travel

Lifts

Two new lifts are proposed to link all levels of the new work. The lifts are required to have dimensions of 1100mm x 1400mm and door width of 900mm clear that complies with BCA D3.3 (b), E3.6 and AS1735.12.

Ramps

New ramps are proposed as follows:

- Linking from the staff area to the lift
- In the passage east of hospitality

To meet the BCA (2019) part D3.3 (a), new ramps, (except for ramps in exempted areas and fire isolated ramps) are required to comply with AS1428.1 clause 10 and BCA D3 to include handrails on both sides and tactile ground surface indicators.

Sanitary Facilities

To meet the Premises Standards and BCA (2019) part F2.4 the new building work is proposed to include sanitary facilities on every floor, including accessible facilities and cubicles suitable for a person with an ambulant disability:

Ground Floor:

- New male toilets near the pool
- Unisex accessible sanitary facility with shower near the pool (RH)
- New bank of toilets near the courtyard, including accessible sanitary facility (LH)
- New toilets adjacent sick bay (2 cubicles)
- New toilet opposite work area (1 cubicle)
- New unisex accessible sanitary facility in the parents' kitchen (RH)
- New WC adjacent deputy principal's office

First Floor:

- Centrally located male and female toilets with adjacent unisex accessible toilet
- Staff male and female toilets with adjacent unisex accessible sanitary facility



Design Review

Recommendations

Accessible Paths of Travel

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. The designated accessible parking spaces are to include dimensions and a layout to meet the requirements of AS2890.6 (2009) and identification signage. This includes a dedicated (non-shared) space with dimensions 2.4m wide x 5.4m long; a shared area on one side of the dedicated space 2.4m wide x 5.4m long; a shared area at the end of each space 2.4m x 2.4m and a 1200mm high bollard located in the centre and 800mm from the front edge of the shared space.
- ii. The parking space related walking and wheelchair unloading areas are to comprise a slip-resistant, firm plane surface with a fall not exceeding 1:40 in any direction or 1:33 if the surface is a bituminous seal.
- iii. A minimum 1000mm unobstructed path width on accessible paths of travel and 2m vertical clearance (AS1428.1 clause 6.2 and 6.3) or provision of a suitable barrier.
- iv. Maintain circulation space for a wheelchair to turn - 90° turn minimum 1500mm width x 1500mm length; 180° turn minimum 1540mm width x 2070mm length (clause 6.5 and figures 4 and 5).
- v. Slip resistant surfaces on access ways that are traversable by people who use a wheelchair and those with an ambulant or sensory disability.
- vi. All new doorways for public, student and staff areas (excluding any exempt areas meeting the BCA part D3.4) are to include a clear opening at the active leaf (minimum 850mm) and circulation spaces to meet the requirements of AS1428.1 (2009) clauses 13.2 and 13.3 and figures 31 – 34 – double doors to studios and door to STEM room require amendment in ongoing design.
- vii. To meet the BCA part D3.12 (2019), unframed glazed doors and walls are to be provided with visual indicators to fully comply with AS1428.1 clause 6.6 (2009)
- viii. Doorways are required to be provided with luminance contrast to meet the requirements of AS1428.1 (2009) clause 13.1.
- ix. The force required to activate door closers, glazed or pivot action doors meet as closely as possible the requirements of AS1428.1 (2009) clause 13.5.2(e).
- x. All door handles and related hardware shall allow the door to be unlocked and opened with one hand and be such that a hand of a person who cannot grip will not slip from the handle during the operation of the latch as per AS1428.1 (2009) clauses 13.5.1 - 3 and figures 35 – 37.
- xi. To meet the BCA part D3.3 (c), corridors include circulation space for a wheelchair to turn within 2m of the end of a passage way where it is not possible to continue traveling along the accessway (90° minimum 1500mm width x 1500mm length; 180° minimum 1540mm width x 2070mm length) to comply with AS1428.1 (2009) clause 6.5 and figures 4 and 5.
- xii. Tactile ground surface indicators are required at the principal entrance at the flush transition between the pedestrian area and the carpark, to meet AS1428.4.1.



Design Review

Recommendations

Vertical Links

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. To meet BCA D3.3 and AS1428.1 clause 11, ensure in ongoing design the stairs include handrails on both sides that include a 300mm horizontal extension at the top and bottom set back by a minimum of 600mm so that the handrail does not protrude into the transverse path of travel as per AS1428.1 (2009) figure 26(A); nosing profiles which include 50-75mm wide solid slip resistant highlighting strips on the tread at the nosing that includes a minimum luminance contrast of 30% with the tread to comply with AS1428.1 figures 27(a) and (b); tactile ground surface indicators (tgsi) in a band 600mm deep set back 300mm from the top and bottom tread and opaque risers.
- ii. Ensure in ongoing design, to comply with BCA D3.3 (b) and E3.6 the lifts are one of the types identified in Table E3.6a, and includes the following features in accordance with AS1735.12:
 - a. A handrail complying with the provisions for a mandatory handrail in AS 1735.12 clause 5.3
 - b. Minimum clear door opening of 900mm as in AS 1735.12 section 2
 - c. Passenger protection system complying with AS 1735.12 clause 4.2
 - d. Lift car and landing control buttons complying with AS 1735.12 section 7 for Braille, tactile and luminance contrast
 - e. Lighting complying with AS 1735.12 section 10
 - f. Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received
- iii. Ramps to include gradients, handrails, kerbs and tactile ground surface indicators to meet the requirements of AS1428.1 clause 10.3 and figures 13-19:
 - a. A maximum slope of 1:14
 - b. A constant gradient between level landings
 - c. An unobstructed/clear width minimum 1000mm
 - d. Minimum landing length of 1200mm where there is no change in direction; 1500mm x 1500mm at the change in direction
 - e. Handrails on both sides that include a 300mm horizontal extension at the top and bottom and set back by a minimum of 300mm so that the handrail does not protrude into the transverse path of travel



Design Review

Recommendations

Amenities

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. Development of individual evacuation plans for staff or students with a disability is recommended as part of the building operational management strategy.
- ii. To meet AS3745 (2009) Planning for Emergencies in Facilities we recommend in ongoing design that consideration be given to the inclusion of suitable emergency evacuation devices for people to be carried down stairs.
- iii. Braille and tactual signage compliant with the BCA Part D3.6 at required exits.
- iv. In ongoing design, if an inbuilt amplification system is to be installed, BCA (2019) part D3.7 requires a hearing augmentation system to be provided where an inbuilt amplification system, other than one used for emergency warning is installed in a room in a Class 9B Building. If required, an induction loop must be provided to not less than 80% of the floor area of the room.
- v. In ongoing design, new unisex accessible sanitary facilities are to include a layout, circulation space (door, WC pan, basin) and fittings to meet the requirements of AS1428.1 clause 15.
- vi. Sanitary compartments suitable for a person with an ambulant disability are required to comply with AS1428.1 clause 16.
- vii. Provide left and right-handed layout accessible sanitary facilities as evenly as possible.



Conclusion

Conclusion

Having reviewed the listed drawings, it is our opinion that at this stage of the design, the access provisions for people with physical and sensory disabilities in the proposed new work can comply with the functional accessibility requirements of BCA (2019) sections D3, E3.6, F2.4; AS1428.1, AS1735.12 and the Disability (Access to Premises - Buildings) Standards 2010 for accessibility and equity.

With the development and implementation of the recommendations, the provision of access for people with a disability in the proposed new work and refurbishment at St Edmunds College Wahroonga can provide continuous accessible paths of travel and the equitable provision of accessible facilities to provide inclusive design to meet the anticipated requirements of students, staff and visitors.

I certify that I am an appropriately qualified and competent person practising in the relevant area of work. I have recognised relevant experience in the area of work being reviewed. My company is holding appropriate current insurance policies.

A handwritten signature in dark ink, appearing to read 'Jen Barling', located below the certification text.

Jen Barling | Access + Inclusion Consultant

Qualifications: Bachelor of Applied Science (Occupational Therapy) (1999)

Affiliations: Accredited with Association of Consultants in Access, Australia (No.300)

Registered Occupational Therapist (no: OCC0001724072)