

Access Review

St Anthony of Padua Catholic
School Austral, Masterplan

Report Issue 2

05/06/19



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Introduction

Background

The redevelopment of St Anthony of Padua Catholic School in Austral is proposed to include:

- (i) staged redevelopment of the school comprising envelopes for educational buildings and associated facilities including a church, trade training centre, multi-purpose hall, child care centre, library, indoor and outdoor sports facilities for 2,500 students (Pre-school to Year 12) and 200 staff members; and
- (ii) Stage 1 works for the construction and fitout of educational buildings for years 1 – 12, specialist buildings with rooms for arts, woodwork, computer labs, administration building, a multi-purpose hall and a child care centre.

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 refurbishment to the existing buildings and addition of new buildings on the school premises.

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 2016 (BCA) and Australian Standards on Access and Mobility.

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

- (iii) from the main points of a pedestrian entry at the allotment boundary;
- (iv) from another accessible building connected by a pedestrian link;
- (v) from accessible visitor parking to principal building entrances; and
- (vi) 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 2016 (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 2016 and Premises Standards table D3.1 Requirements for access for people with a disability, access to the new and refurbished buildings (class 9b) is required to and within all areas normally used by staff, students and visitors.



Introduction

Proposed Work

The proposed redeveloped school campus will consist of:

Lower Ground Level

- Theatre – 250 seats
- Engineering Hub – including Learning Spaces, Workshops, and Stores
- Toilets

Ground Level

- Reception + Administration
- Sacred Space
- Resource + Wellness Hub
- The Forum – informal learning and social spaces
- Café + Hospitality
- Theatre
- Performing Arts Hub – including Learning Spaces, Drama, Dance and Music
- Kindergarten, Year 1, Year 2 and Year 6 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Year 7 Learning Spaces
- Primary Hall in Hub Building
- Gymnasium + Hall – Reception and Office, Two Indoor Playing Courts, Stores, Stage, Change rooms + Amenities, Retractable seating. Hall to accommodate up to 2000 pax.
- Indoor Recreation Centre
- Childcare Centre

Level 1

- Executive Offices and Administration
- Staff Hub
- Year 3, Year 4 and Year 5 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Year 8 and 9 Learning Spaces, Resource Node + Student Amenities;
- Visual Arts Hub – including Learning Spaces, Arts Studios, Media and Stores
- Science Hub – including Learning Spaces, Laboratories, Preparation Room and Storage
- Food and Technology Hub - including Learning Spaces, Kitchen, Preparation Room and Storage
- Link to hall



Introduction

Proposed Work

Level 2

- Year 10, Year 11 and Year 12 Learning Spaces, Resource Node, Student Amenities, Staff Study + Staff Amenities;
- Learning Commons – Study Centre and Training Spaces
- Staff Training Centre
- Special Education Unit

Site Facilities

- The Piazza – Public spaces, including entrances to School, Church and Hall, Café Seating, Public Plaza spaces, Stage and Loggia, and landscape area of lawns, shrubs and trees;
- Fourth Avenue Carpark – 102 spaces for Visitors + Staff, plus 25 Drop Off Spaces
- Eleventh Avenue Carpark – 33 spaces for Visitors + Staff
- Tenth Avenue Carpark – 105 spaces for Staff + Student, plus 38 Drop Off Spaces
- Trade Training Centre Carpark - 32 spaces for Visitors + Staff
- Childcare Centre Carpark – 40 Spaces for Visitors + Staff
- Market Garden – approx.400m2 (2 Tennis Courts)
- Playing Courts – 4no. Basketball Courts + 2no. Tennis Courts
- Playing Field – Football Field



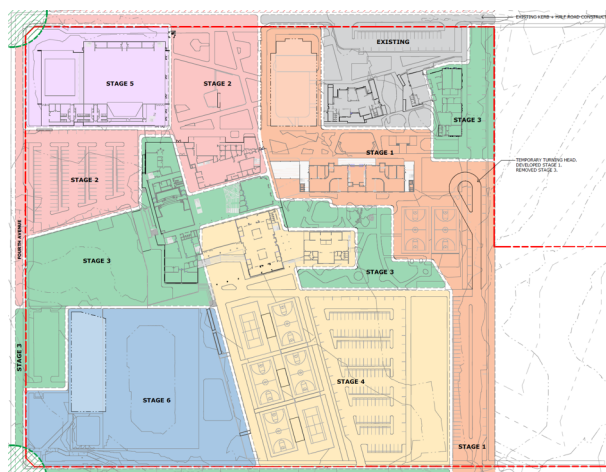
Introduction

Proposed Work

Proposed Site Plan (source: Munns Sly Moore Architects)



Proposed Staging (source: Munns Sly Moore Architects)





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) 2016 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 (2016) to ensure that access provisions for people with disabilities more fully meet the intent of the DDA. Meeting the Premises Standards ensures fulfilment of obligations under the Disability Discrimination Act in relation to physical access within the buildings. Schedule 1 of the Premises Standards contains the Access Code for Buildings and is equivalent to the BCA provisions for access.

BCA

The Building Code of Australia (BCA)(2016) 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 and H2.

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

Documentation

This assessment is based on discussion with the design team and review of the following architectural documentation prepared by Munns Sly Moore Architects, issued to funktion on 29/05/19:

DETAILED PROPOSAL - DRAWING REGISTER		
Sheet Number	Sheet Name	Revision
DA001	TITLE SHEET + DRAWING REGISTER	11
DA002	SITE PLAN EXISTING - AERIAL PHOTO	8
DA003	SITE PLAN - EXISTING	8
DA005	SITE PLAN	7
DA051	STAGING	5
DA052	STAGING PLANS	10
DA101	SITE DEMOLITION PLAN	8
DA102	SITE PLAN - LOWER GROUND	13
DA103	SITE PLAN - GROUND	12
DA104	SITE PLAN - LEVEL 1	13
DA105	SITE PLAN - LEVEL 2	13
DA106	SITE PLAN - ROOF PLAN	11
DA111	HUB BUILDING - FLOOR PLAN - LOWER GROUND	10
DA112	HUB BUILDING - FLOOR PLAN - GROUND	10
DA113	HUB BUILDING - FLOOR PLAN - LEVEL 1	10
DA114	HUB BUILDING - FLOOR PLAN - LEVEL 2	10
DA115	HUB BUILDING - ROOF PLAN	9
DA116	HALL - FLOOR PLAN	9

DETAILED PROPOSAL - DRAWING REGISTER		
Sheet Number	Sheet Name	Revision
DA117	HALL - ROOF PLAN	5
DA118	CHILDCARE CENTRE - FLOOR PLAN	6
DA131	GFA - LOWER GROUND AND GROUND	8
DA132	GFA - LEVEL 1 + 2	8
DA201	SITE ELEVATIONS	10
DA211	HUB BUILDING - ELEVATIONS	8
DA212	HALL BUILDING - ELEVATIONS	7
DA213	CHILDCARE CENTRE - ELEVATIONS	5
DA301	SITE SECTIONS	10
DA311	HUB BUILDING - SECTIONS	5
DA312	HALL BUILDING - SECTIONS	4
DA313	CHILDCARE CENTRE - SECTIONS	4
DA401	PERSPECTIVE - PIAZZA_WIDE	5
DA402	PERSPECTIVE - PIAZZA_HALL + BELL TOWER	5
DA404	PERSPECTIVE - PIAZZA_CHAPEL	5
DA405	PERSPECTIVE - JR. SCHOOL	5
DA901	EXTERNAL FINISHES SCHEDULE	8



Design Review

Accessibility Assessment

Accessible Paths of Travel To and Through the School

Overview

To meet the Access to Premises Standards Part 2.1 and BCA D3.2, accessible paths of travel are proposed to be provided from the allotment boundary to the principal pedestrian entrance of the school and linking to all areas and buildings within the school. The following pathways provide accessible links to and within the school:

- An accessible pedestrian entrance at the Eleventh Avenue allotment boundary linking to the admin building
- Accessible pedestrian entrances at the Fourth Avenue allotment boundary and Tenth Avenue allotment boundary
- Accessible pedestrian entrance from the junior drop off area on the eastern side of the school
- Level access from the proposed carparks to the principal school entrance
- Pathways through the school that have the potential to meet the requirements of AS1428.1 linking all buildings and facilities – see plan on page 13 of this report
- One lift in the Reception / Administration building linking and one lift in the entry foyer adjacent sacred space, linking ground level to level 2
- One lift in the Performing Arts / engineering / science linking lower ground level to level 2
- One lift in Year 1 / year 2 area linking ground level to level 1

Parking

Parking is proposed as follows:

- Fourth Avenue Carpark – 102 spaces for Visitors + Staff, plus 25 Drop Off Spaces
- Eleventh Avenue Carpark – 33 spaces for Visitors + Staff
- Tenth Avenue Carpark – 105 spaces for Staff + Student, plus 38 Drop Off Spaces
- Trade Training Centre Carpark - 32 spaces for Visitors + Staff
- Childcare Centre Carpark – 40 Spaces for Visitors + Staff

To meet the Premises Standards clause D3.2 and BCA 2016 D3.2, provision has been made for designated accessible car parking for staff and visitors, with layout and features to meet AS2890.6.

Accessible pedestrian paths are indicated to link parking areas with the principal school entrance and other key visitor destinations such as the hall, indoor recreational centre and church.

Internal Accessways

To meet the requirements of the Premises Standards and BCA part D3.1, provision for continuous accessible paths of travel meeting the functional requirements of AS1428.1 (2009) has been made throughout the buildings via the provision of lift access linking all levels of the buildings and circulation space at corridors, lift lobbies and new doors.



Design Review

Accessibility Assessment

Vertical Links & Sanitary Facilities

Stairways

External and internal stairways are proposed within the site. To meet the BCA (2016) part D3.3 (a) stairways, (except for stairways in exempted areas and fire isolated stairs) are required to comply with AS1428.1 clause 11 and BCA D3 and fire isolated stairs are required to comply with AS1428.1 clause 11 (f) and (g). Lift or ramp access in close proximity to the stairs is proposed to be provided as an alternative to the stairs.

Lifts

Four lifts are proposed and a platform lift is indicated in the hall to provide access to the stage.

The lifts are required to have dimensions 1100mm x 1400mm for lifts travelling less than 12m and 1400mm x 1600mm for lifts travelling more than 12m. In addition, door clearance that complies with BCA D3.3 (b) and E3.6 and features in accordance with AS1735.12.

Sanitary Facilities

To meet the Premises Standards and BCA (2016) part F2.4 the buildings are proposed to include sanitary facilities on every floor, including accessible facilities.

Landscaped / Outdoor Areas

Outdoor and landscaped areas are proposed to include:

- The Piazza – Public spaces, including entrances to School, Church and Hall, Café Seating, Public Plaza spaces, Stage and Loggia, and landscape area of lawns, shrubs and trees;
- Market Garden
- Playing Courts – 4 x Basketball Courts + 2 x Tennis Courts
- Playing Field – Soccer Field



Design Review

Accessibility Assessment

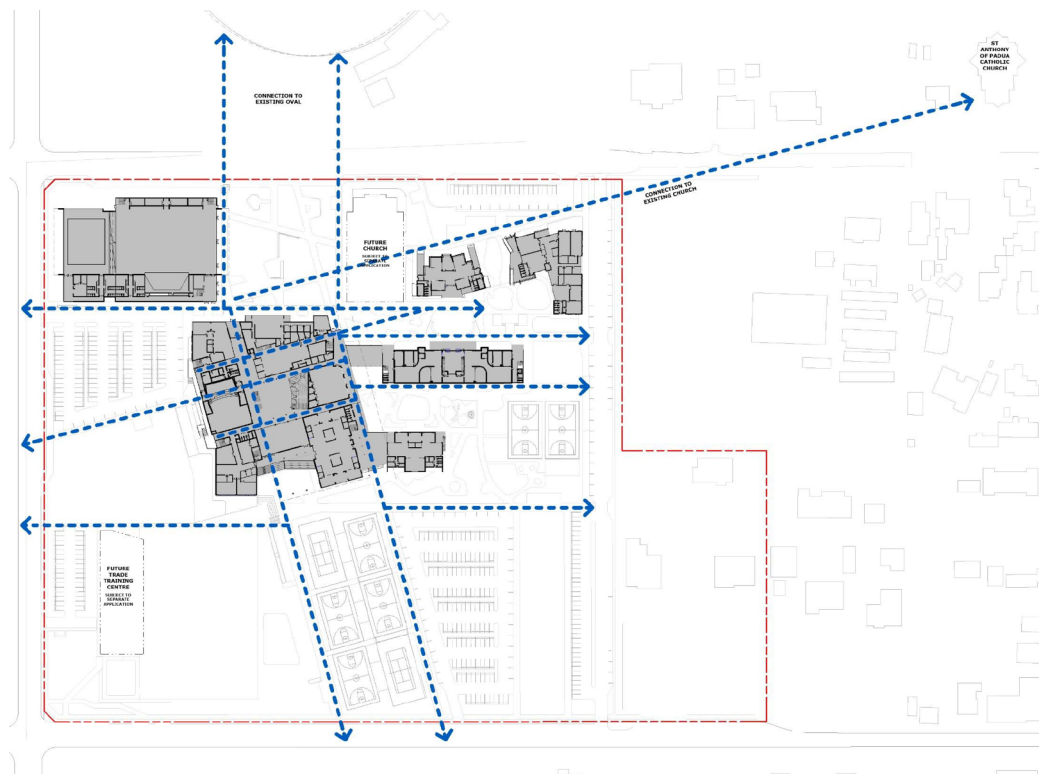
Accessible Paths of Travel

The following diagram shows the proposed provision of continuous accessible paths of travel through the school and linking all facilities and buildings. Four lifts are proposed in the hub building in the following areas:

- performing arts / engineering / science
- reception and administration
- entry foyer adjacent sacred space
- year 1 / year 2

A continuous accessible path of travel is an uninterrupted route to and within premises providing access to all features, services and facilities. It is any step free and safe. A continuous accessible path of travel should extend to all amenities and areas to which the public (including employees) is entitled or allowed to enter or use.

A continuous accessible path of travel should be the most commonly used and direct path of travel. If for any reason this is not possible, clear signage of the alternative route should be provided.





Design Review

Recommendations

Accessible Paths of Travel to the School

In ongoing design, to comply with the BCA and AS1428.1 2009 clause 7.1 and 10.2, include the following for new walkways:

- i. A series of connected ramps must not have a combined vertical rise of more than 3.6 m.
- ii. A minimum 1000mm unobstructed path width and 2m vertical clearance (AS1428.1 clause 6.2 and 6.3)
- iii. 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).
- iv. A slip resistant surface that is traversable by people who use a wheelchair and those with an ambulant or sensory disability.
- v. The ground surface abutting the sides of the walkway to provide a firm and level surface of a different material to that of the walkway at the same level of the walkway; follow the grade of the walkway and extend horizontally for a minimum of 600mm unless one of the following is provided:
 - a kerb
 - a kerb rail and handrail
 - a wall not less than 450mm high
 - Landings at intervals not exceeding 15m (1:20 gradient); 25m (1:33 gradient)
 - A constant gradient between level landings.
 - A crossfall no steeper than 1:40; bitumen surfaces may include a camber or crossfall no steeper than 1:33.
- vi. Kerb ramps to provide a maximum rise of 190mm, length no greater than 1520mm and gradient not steeper than 1:8, with a 1500mm landing at the top where there is a change of direction required (clause 10.7).
- vii. Step ramps to meet AS1428.1 clause 10.6.1 to include:
 - a maximum rise of 190 mm;
 - a length not greater than 1900 mm; and
 - a gradient not steeper than 1 in 10.
 - edges of step ramp to have a 45° splay where there is pedestrian crosstraffic, or protected by a suitable barrier such as a wall or suitable barrier with a minimum height of 450 mm; or where an open balustrade is provided a kerb or kerb rail is to be provided.
- viii. To meet the intent of the DDA, provide an accessible height section of counter at the reception desk – 850mm AFFL, to meet AS1428.2 clause 24.1.1.



Design Review

Recommendations

Accessible Parking

- i. Accessible parking is to be located in close proximity to school entrance points with a continuous accessible path of travel linking to the principal entrance.
- ii. In ongoing design, 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.
- iii. In ongoing design 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.



Design Review

Recommendations

Accessible Paths of Travel Through the School

- i. To meet the Access to Premises Standards, the principal pedestrian entrance and not less than 50% of all entrances must be accessible and located on a continuous accessible path of travel. In a building with a total floor area of more than 500 sqm, a pedestrian entrance which is not accessible must not be located further than 50m from an accessible pedestrian entrance.
- ii. All doorways for public 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.
- iii. To meet the BCA part D3.12 (2016), unframed glazed doors and walls are to be provided with visual indicators to fully comply with AS1428.1 clause 6.6 (2009) and doorways provided with luminance contrast to meet the requirements of AS1428.1 (2009) clause 13.1.
- iv. 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).
- v. 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.
- vi. 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; in particular the corridor outside the general office in the admin building.
- vii. 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 maximum slope of 1:14
 - A constant gradient between level landings
 - An unobstructed/clear width minimum 1000mm
 - Minimum landing length of 1200mm where there is no change in direction; 1540mm x 2070mm at the change in direction
 - 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
- viii. Provide pathways compliant with AS1428.1 linking to each type of outdoor area.



Design Review

Recommendations

Vertical Links

- i. To meet BCA D3.3 and AS1428.1 clause 11, in ongoing design new internal and external stairs are 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. In ongoing design, to comply with BCA D3.3 (b) and E3.6 the new lifts are to be one of the types identified in Table E3.6a, and include 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



Design Review

Recommendations

Sanitary Facilities

- i. In ongoing design, new unisex accessible sanitary facilities are to be provided on every floor where toilets are provided and include a layout, circulation space (door, WC pan, basin) and fittings to meet the requirements of AS1428.1 clause 15.
- ii. Where change facilities and showers are provided, accessible facilities must also be provided (1 accessible shower for every 10 showers provided).
- iii. At each bank of toilets where there is an accessible sanitary compartment, provide a sanitary compartment suitable for a person with an ambulant disability for use by males and females that complies with AS1428.1 clause 16.
- iv. Provide left and right-handed layout accessible sanitary facilities as evenly as possible.
- v. Adequate provision of accessible sanitary facilities includes the possible inclusion of a change facility suitable for students / community members who may require a change table and hoist as proposed in the Draft NCC 2019.



Design Review

Recommendations

Wayfinding, Emergency Egress, Hearing Augmentation

- i. Development of individual evacuation plans for staff or students with a disability is recommended as part of the school 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 the stairwell.
- iii. In ongoing design, if an inbuilt amplification system is to be installed in the multipurpose hall, BCA (2016) 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 an auditorium, conference room or meeting room in Class 9B Building. If required, an induction loop must be provided to not less than 80% of the floor area of the room.
- iv. If provided, fixed seating in the hall and church must include wheelchair seating spaces in accordance with the Premises Standards and BCA D3.9. The wheelchair seating spaces are required to have dimensions and manoeuvring space in accordance with AS1428.1 clause 18.



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 (2016) sections D3, E3.6 and F2.4; AS1428.1, AS2890.6, 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 refurbished and new school facilities at St Anthony of Padua Catholic School can provide continuous accessible paths of travel and the equitable provision of accessible facilities to provide inclusive design to meet the anticipated requirements of staff, students 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.

Jen Barling | Access + Inclusion Consultant

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