lindsay perry access

Disability Access Report

St Michaels Nelson Bay

12 Sproule Street
NELSON BAY NSW

For: Catholic Schools Office
Diocese of Maitland-Newcastle
Ref: LP_20094

Document Control

This report has been prepared based on the documentation available and time allocated to conduct the review. All reasonable attempts have been made to identify key compliance matters.

Revision Summary:

prepared by:		
Lindsay Perry	Draft Revision 1 Revision 2	31 May 2020 4 August 2020 17 January 2022

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Clarifications:

This report is limited to items within drawings listed in this report only.

Any dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry Access Pty Ltd. This may differ from that of other consultants.

Definitions:

The following terminology has been used throughout this report:

Capable of compliance | compliance is achievable through detailed design
Compliant | compliance with current accessibility legislation has been achieved
Compliant Configuration | circulation and spatial planning requirements are compliant
Not Yet Complaint | circulation and spatial planning requirements have not yet been met
To be addressed during detailed design stage |details not available at DA stage
To be confirmed | inadequate information is provided to determine compliance

Executive Summary

Development application documentation for St Michaels Nelson Bay, has been reviewed against the requirements of the Building Code of Australia 2019 and The Disability Discrimination Act 1992 regarding access for people with a disability. The requirements of the Disability (Access to Premises) Standards 2010 have also been addressed.

We consider that the drawings presented for assessment, for the purposes of a development application, generally comply with the above-mentioned statutory requirements.

The key design principle of connectivity will enable equitable access for all occupants through the provision of accessible links between all buildings and facilities within St Michaels while responding to the topography and existing conditions.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry. This may differ from that of other consultants. We aim to provide practical, performance-based advice based on project specifics that will maximize access for persons with a disability to the built environment.

Lindsay Perry is a qualified Access Advisor, being an accredited within Australia (ACAA No. 136) and at the international level (GAATES No. BE-02-106-18). Lindsay Perry Access Pty Ltd carries public liability insurance, professional indemnity insurance and workers compensation insurance.

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1. Project Background

This Access Report considers St Michaels Nelson Bay, against the requirements of the Building Code of Australia 2019 and The Disability Discrimination Act 1992 regarding access for people with a disability. The requirements of the Disability (Access to Premises) Standards 2010 have also been addressed.

The project is a masterplan for the St Michaels site involving upgrades to the existing school buildings, relocation of the administration building, and a new Early Learning Centre.

The site currently accommodates the St Michaels Catholic Church and Parish offices in the north east corner of the site with a car park located adjacent to the church accessed via Sproule Street. The school entry and administration office are located within Block A located to the western side of the car park. The original school buildings were four (4) classroom blocks (Blocks A, B, C & D) located around a quadrangle.

The Library building (Block E) was a later addition to the north of Block D. In 2010, additional classrooms (Block F) and new school hall (Block G) were built which created a new school presence to Wahgunyah Road.

The proposed development will unify buildings within the site and connect them through the provision of accessible pathways, promoting inclusive an equity.

2. Reviewed Documentation

Documentation prepared by CKDS Architecture has been reviewed as follows:

- A-0001 02 DCP Controls
- A-0002 06 Site Location
- A-0003 06 Site Analysis
- A-0101 02 Key Principles
- A-0102 02 Existing Connectivity
- A-0103 02 Existing Response to Site
- A-0104 02 Existing Identity
- A-0105 02 Site Strategy Connectivity
- A-0106 04 Site Strategy Response to Site
- A-0107 03 Site Strategy Identity
- A-0201 08 Site Plan
- A-0202 07 Site Elevations
- A-0203 06 Site Sections
- A-0204 02 Site Perspective
- A-1001 09 Block I Floor Plan
- A-1002 08 Block I Roof Plan
- A-1101 09 Block I Elevations
- A-1201 09 Block I Floor Sections
- A-1301 02 Block I Floor Perspectives
- A-2001 02 Block B Lower Plan
- A-2101 02 Block B Elevations & Section

- A-2201 02 Block B Perspectives
- A-3001 02 Block J Lower Floor Plan
- A-3101 02 Block J Elevation and Section
- A-4001 07 Block A-D Floor Plan
- A-4002 06 Block A-D Roof Plan
- A-410106 Block A-D Elevations
- A-4102 06 Block A-D Elevations
- A-4103 04 Block A-D Elevations
- A-4104 04 Block A-D Elevations
- A-4201 06 Block A-D Sections
- A-4202 04 Block A-D Sections
- A-4301 02 Block A-D Perspective
- A-5001 06 Block E Floor Plan
- A-5002 06 Block E Roof Plan
- A-5101 06 Block E Elevations
- A-6001 05 EEC/OOSH Summary
- A-6002 01 Signage
- A-6101 08 Block J Upper Floor Plan
- A-6103 06 Block J Roof Plan
- A-6201 08 Block J Elevations
- A-6202 08 Block J Sections
- A-6203 07 Block J Elevations
- A-6301 07 Block J Sections
- A-6302 01 Block J Sections
- A-6401 02 EEC Perspective

3. Legislation

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The Building Code of Australia 2019 (BCA) Section D2.14 / D2.15 / D2.17 – landings, thresholds and slip resistance
- The Building Code of Australia 2019 (BCA) Section D3 – Access for People with Disabilities
- The Building Code of Australia 2019 (BCA) Section E3.6 – Passenger Lifts
- The Building Code of Australia 2019 (BCA) Section F2.4 – Accessible Sanitary Facilities
- Australian Standards AS1428.1(2009) Amendment 1, AS1428.2(1992), AS1428.4(2009) – Design for Access and Mobility
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability
- Australian Standard AS2890.6 (2009) – Parking Facilities – Off street carparking For People with Disabilities.
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability

The accessibility of the proposed development has been considered in regard to the relevant access legislation. A summary of the requirements of relevant legislation follows.

- The DDA requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability.

- The Disability (Access to Premises - buildings) Standards 2010 (the Premises Standards) commenced on 1 May 2011. Any application for a building approval for a new building or upgrade of an existing building on or after that date triggers the application of the Premises Standards.

  The Premises Standards include an Access Code written in the same style as the Building Code of Australia. It has a number of Performance Requirements that are expressed in broad terms and references a number of technical Deemed-to-Satisfy Provisions.

- The Building Code of Australia (BCA) is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. the BCA is a performance based code and compliance can be met through satisfying the deemed-to-satisfy provisions or by meeting the prescribed performance requirements. Performance Solutions offer a means of compliance with the Building Code of Australia (BCA) by demonstrating that the performance requirements of the BCA, rather than the deemed-to-satisfy provisions, have been met. This can be done through methods such as a comparative analysis or expert judgement.

- The BCA 2019 for Class 9b School / Childcare buildings requires access for people with disabilities to and within all areas usually used by the occupants.

- AS1428 – Design for Access and Mobility
  - Part 1 (2009) of this standard contains access requirements that are mandatory for the provision of access for persons with a disability and is referred by the BCA.
  - Part 2 (1992) provides enhanced and best practice requirements.
  - Requirements for tactile indicators are included in Part 4.1 (2009) of this standard.

- AS2890.6 applies to the carparking areas generally.

- AS1735.12 contains requirements for passenger lifts for persons with a disability.

4. Access and Approach | External Areas

The approach to the buildings within the St Michaels site needs to be considered when considering access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability.

An accessible path of travel is required to the building entrance from the allotment boundary at the main points of pedestrian entry, from accessible carparking areas and from any adjacent and associated accessible building.

In this instance, the approach to the building has been considered as follows:

- from the allotment boundary at the pedestrian entrance along Wahgunyah Road to the building entrances;
- from the accessible carparking area to the building entrances;
- between the buildings on the site – new and existing.

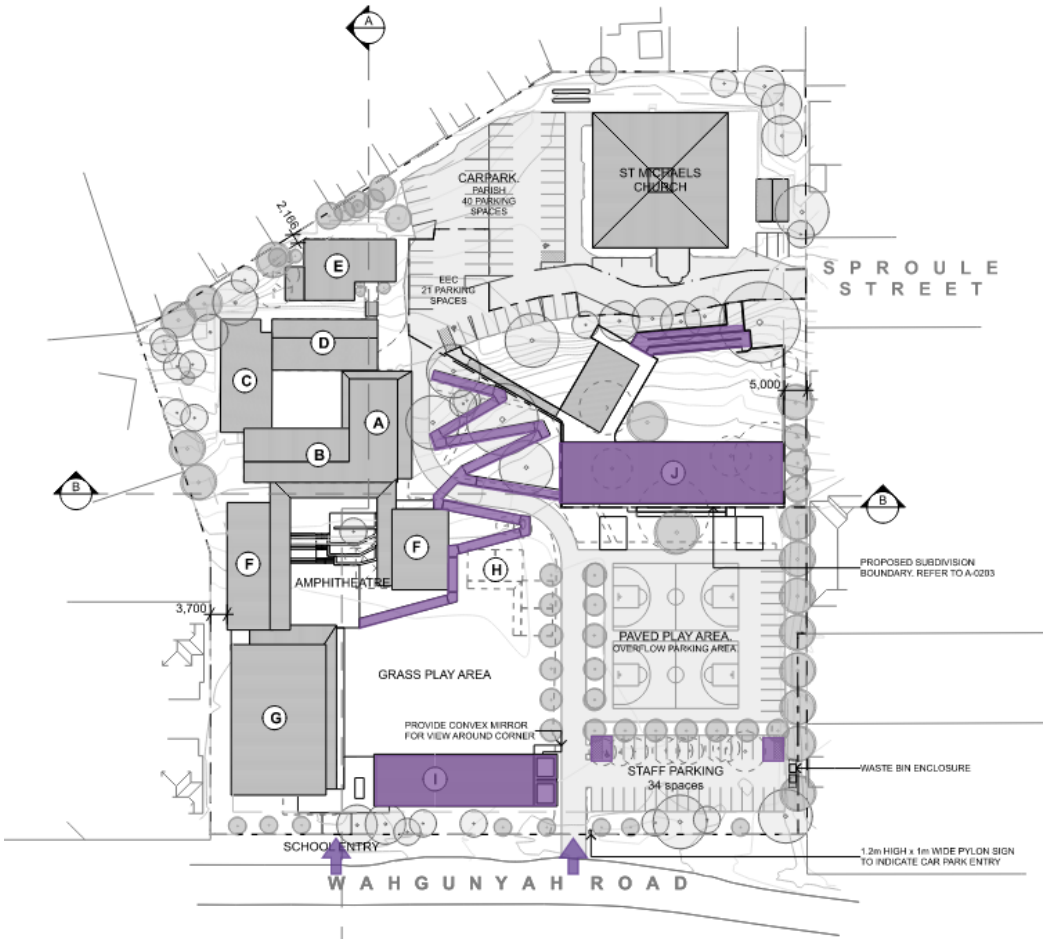

Figure 1 | Overall Site Plan

One of the proposed site strategies is that of connectivity through the provision of clear lines of access between all buildings on the site, this includes the provision of landscape ramping and pathways to achieve equitable access on desire lines.

4.1 Approach from Allotment Boundary

The BCA requires that a continuous accessible path of travel be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

Compliance Summary:

Capable of compliance

The pedestrian entrance to the site is from Wahgunyah Road. A covered entry is to be created on the western side of the new administration building. From this point, there is a proposed accessible link to other buildings within the site.

4.2 Approach from Accessible Carparking

The BCA requires that a continuous accessible path of travel be provided from the accessible carparking areas to the main entrance.

Compliance Summary:

Capable of compliance

Accessible carparking will be provided within both the staff carpark and the carpark for the Early Education Centre. There is a proposed accessible link from the carparking areas to buildings within the site.

4.3 Approach between Associated Buildings

The BCA requires that a continuous accessible path of travel be provided between associated accessible buildings.

Compliance Summary:

Capable of compliance

A system of walkways / ramps has been designed centrally within site to create accessible links between buildings and facilities with the St Michaels site.

4.4 Pathways Generally

The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

Compliance Summary:

Capable of compliance

Recommendations:

For compliance with AS1428.1, the following access requirements apply and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. The minimum unobstructed width of all pathways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.

b. All pathways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, or 5mm for bevelling edges).

c. The maximum allowable crossfall of pathways is to be 1:40.

d. The ground abutting the sides of the pathways should follow the grade of the pathway and extend horizontally for 600mm. We note that this is not required where there is a kerb or handrail provided to the side of the pathway.

e. Pathways to have passing bays complying with AS1428.1 at maximum 20m intervals where a direct line of site is not available. They are required within 2m of the end of the pathway where it is not possible to continue travelling along the pathway.
A passing space shall have a minimum width of 1800 for a minimum length of 2000mm. Refer to AS1428.1, Clause 6.4.

4.5 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development.

There are two (2) carparking areas within site. A designated staff carpark along Wahgunya Road and one adjacent to St Michaels church at the rear of the site that caters to the Parish and early education centre. Each carpark includes two (2) accessible carparking spaces.

Compliance Summary:

Capable of compliance
Overall configuration of accessible car parking spaces as shown on the site plan is conducive to compliance.

Recommendations:

Access requirements for the accessible carparking are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks.

b. Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.

c. The maximum allowable crossfall of accessible carparking area to be, 1:33 (for outdoor spaces). This crossfall applies both parallel and perpendicular to the angle of parking.

d. For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7.

e. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) –ground and vertical signage is required. Signage is to comply with AS1428.1.

4.6 Accessible Ramps

Accessible ramps form a part of the pedestrian network throughout the St Michaels site and are located centrally to facilitate equitable access to all buildings / facilities.

Compliance Summary:

Capable of compliance
Landings are provided at regular intervals along the ramp system.

Recommendations:

Access requirements for the accessible ramp are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Ramps to comply with AS1428.1, Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient).

b. Accessible ramps to have a maximum rise of 3.6m (BCA Clause 3.11).

c. Provide handrails, with extensions, to both sides of the ramps to comply with AS1428.1, Clause 12. Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the ramp to cater for left and right-handed disabilities.

d. Where ramps are not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.

e. Provide tactile indicators at the top and bottom of the ramps to comply with BCA Clause D3.8 and AS1428.4. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).

4.7 Stairs

Stairs are provided as a part of the pedestrian network throughout the site. AS1428.1 has access requirements for all public access stairs and is applicable in this instance.

Compliance Summary:

Capable of compliance

Recommendations:
Access requirements for stairs are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Stairs to comply with AS1428.1(2009), Clause 11.2.

b. Where a stair intersects the property boundary, the stair shall be set back a minimum of 900mm so that handrail extensions and tactile indicators do not protrude into the traverse path of travel.

c. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open riser.

d. Provide handrails, with extensions, to both sides of the stair (AS1428.1 (2009), Clause 11.2 & 12). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis.

   Handrails are required on both sides of the stair to cater for left and right-handed disabilities. A central handrail is also an acceptable solution where adequate width is available. In this instance, the use of a double handrail is encouraged so that two users can travel in opposite directions and maintain their grip on the handrail.

e. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.

f. Stair nosings shall not project beyond the face of the riser.

g. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.

   Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).

   Tactile indicators at the top and bottom of the stair are usually required to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

4.8 Walkways

Walkways are provided within the site and offer an accessible path of travel to between buildings and facilities. AS1428.1 defines a walkway as having a gradient of 1: 20. The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

Compliance Summary:

Capable of compliance

Recommendations:

For compliance with AS1428.1, the following access requirements apply to the pedestrian areas and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. The minimum unobstructed width of walkways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.

b. Walkways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, 5mm for bevelled edges -refer to Figure 6 of AS1428.1).

c. The maximum allowable crossfall of a walkway is to be 1:40.

d. Surface of the walkway to be slip-resistant.

e. The ground abutting the sides of the walkway should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided (refer to AS1428.1 Clause 10.2).

f. Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180º, landings to be 1540mm in length – refer to AS1428.1(2009), Clause 10.8.

4.9 Pedestrian Crossings

As there are both vehicular and pedestrian traffic areas throughout the site, there may be a requirement for marked pedestrian crossings.

Recommendations:

Where kerb ramps are to be provided at the roadway to provide an accessible path of travel for persons with a disability within, they are to offer compliance with AS1428.1 (2009), clause 10.6.

Where the pedestrian crossing is at the same level as the roadway, provide tactile indicators to both sides of the roadway to alert persons with a vision impairment of the hazard. Tactile indicators to be 600-800mm deep across the width pedestrian crossing. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

5. Building Specific Commentary

The following provides an overview of the accessibility status of the new buildings and buildings to be upgraded / refurbished. The intent of the design is to maximise accessibility generally and offer an inclusive environment for all users.

5.2 Block I – Administration

The Administration building is a new building to be provided along Wahgunyah Road and will part of the main pedestrian entrance to the site. Provided over a single level, the administration building offers distinct public and staff areas. Simple circulation provides direct and defined access to all areas of the building that are reception and office / staff areas. Sanitary facilities are located centrally within the building along the main corridor area.

Figure 2 | Administration Block

Compliance Summary:

Block I – Administration is generally considered capable of compliance with current accessibility legislation as follows:

- Access is provided to and within all areas normally used by the occupants.
- Doorways, including the entrance, achieve circulation areas that will facilitate independent access for people with disabilities.
- Corridor areas are of a width that enables wheelchair turning areas.
- Unisex accessible sanitary compartment is provided within the building.

Recommendations:

a. Ensure the unisex accessible sanitary compartment achieves adequate room dimensions for compliance. As currently documented, the depth of the room will not achieve minimum requirements.

b. Provide ambulant toilets within the building for male and female use per BCA.

5.3 Block B (Lower Level) – Classrooms

The lower level of Block B will accommodate two classrooms and sanitary facilities. The classrooms feature an operable wall to maximise flexibility of use. There is an amphitheatre to be provided in association with Block B that provides tiered seating for outdoor teaching.

Wheelchair seating spaces are available along the top and bottom platforms of the tiered seating areas. The central walkway / ramp system is available for access between levels of the amphitheatre.

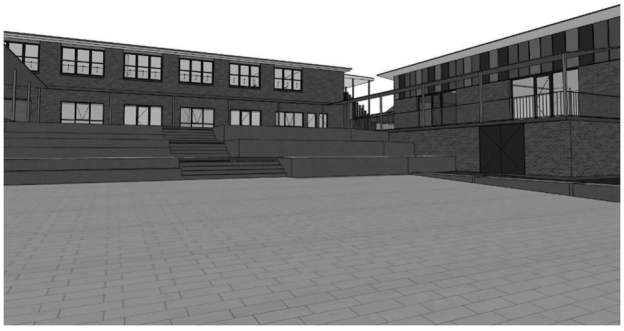

Figure 3 | Block B

Compliance Summary:

Block B (Lower Level) – Classrooms is generally considered capable of compliance with current accessibility legislation as follows:

- Access is provided to and within all areas normally used by the occupants.
- Doorways, including the entrance, achieve circulation areas that will facilitate independent access for people with disabilities.
- Unisex accessible sanitary compartment is provided within the building.

Recommendations:

a. Provide ambulant toilets within the building for male and female use per BCA.

5.4 Block J – OOSH & Early Childhood Education Centre

Block J accommodates classrooms and OOSH Facility at the lower level with the early education centre at the upper level. These areas are to be used independently of each other – there is no internal access between levels / facilities. Sanitary facilities, including accessible facilities, are provided at each level of the building.

A performance-based approach to accessibility has been adopted for accessibility of the early education centre based on the typical position description for a childcare worker. The physical nature of this role would preclude people with limited mobility form fulfilling the required tasks. Therefore, we do not see the provision of an accessible path of travel to staff only ancillary areas such as store rooms; cot rooms; nappy change rooms; bottle prep rooms, laundry; kitchen; bin stores; arts and craft rooms as critical.

Figure 4 | Block J

Compliance Summary:

Block J – OOSH & Early Childhood Education Centre is generally considered capable of compliance with current accessibility legislation as follows:

- Access is provided to and within all areas normally used by the occupants (performance-based approach adopted to staff only ancillary areas).
- Doorways, including the entrance, generally achieve circulation areas that will facilitate independent access for people with disabilities.
- Corridor areas are of a width that enables wheelchair turning areas.
- Unisex accessible sanitary compartment is provided at each level of the building.

Recommendations:

a. Provide ambulant toilets within the building for male and female use per BCA.

5.5 Block A-D – Classrooms and Library

Blocks A, B, and D provide general classroom spaces and withdrawal spaces with Block C accommodating the library and learning hub. The buildings surround a central courtyard area.

Classrooms within Block A, B and D feature operable walls to maximise flexibility of use.

There is provision for a future lift within Block B to facilitate access between levels. Sanitary facilities are provided within Block B (western end).

Figure 5 | Block A-D

Compliance Summary:

Blocks A-D – Classrooms and Library are generally considered capable of compliance with current accessibility legislation as follows:

- Access is provided to and within all areas normally used by the occupants.
- Doorways, including the entrance, achieve circulation areas that will facilitate independent access for people with disabilities.
- Unisex accessible sanitary compartment is provided within the building.
- An ambulant toilet is provided in association with the unisex accessible sanitary compartment.

5.6 Block E – Classrooms

Block E accommodates general classroom areas with a shared space. A courtyard is provided to the northern side of the building. Classrooms feature operable walls to maximise flexibility of use.

There are no sanitary facilities located within Block E.

Figure 6 | Block E

Compliance Summary:

Block E is generally considered capable of compliance with current accessibility legislation as follows:

- Access is provided to and within all areas normally used by the occupants.
- Doorways, including the entrances, achieve circulation areas that will facilitate independent access for people with disabilities.

6. General Accessibility Features | Interior Areas

The following generally accessibility features apply throughout the proposed development to ensure an inclusive and equitable environment is created for all building occupants. They should be addressed during detailed design stages to ensure compliance of the built form.

6.1 Extent of Access Generally – BCA

Access for people with disabilities is required to and within all areas normally used by the occupants. This is achieved throughout the proposed building works as outline in the preceding section of this report.

6.2 Affected Part

As parts of the proposed development is the modification of an existing building, only the "new work" and "affected part" is subject to current BCA requirements.

The Disability (Access to Premises – Buildings) Standards apply to ...a new part, and any affected part, of a building, to the extent that the part of the building is...a Class 3, 5, 6, 7, 8, 9 or 10 building (Clause 2.1).

New work is defined as follows (Clause 2.1 (4)):

> An extension to the building or a modified part of the building.

An affected part is defined as follows (Clause 2.1 (5)):

> The principle pedestrian entrance of an existing building that contains a new part;
>
> and
>
> Any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.

Within the St Michaels Nelson Bay development, the extent of refurbishment works intended will meet the requirements of the Disability (Access to Premises – Buildings) Standards with respect to accessibility to and within the buildings. Full access is achieved to all areas.

6.3 Entrances

In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and not less than 50% of all pedestrian entrances including the principal pedestrian entrance.

Compliance Summary:
Capable of compliance Building entrances achieve adequate circulation areas for compliance.

Recommendations:
The following access requirements apply to the entrance and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.

b. Doors are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Where double door sets are provided, one door leaf is to be capable of being held in the closed position to provide door opening widths and circulation to comply with AS 1428.1.

c. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.

d. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)

e. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid per AS1428.1, Clause 6.6.

6.4 Circulation Areas

BCA (Clause D3.3) requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 90° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

6.5 Doorways Generally

AS1428 has requirements for doorways within the accessible path of travel to enable independent access for people using a wheelchair.

Access requirements for doorways within the accessible path of travel are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Doorways within the accessible path of travel to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2). We recommend the use of a 920 leaf door as a minimum to achieve adequate clear width.
For double doors, the operable leaf must achieve this clear opening width.

b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.

c. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.

d. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5). Note that this is not applicable to childcare centres.

   Door handles and related hardware shall be able to be unlocked and opened with one hand per AS1428.1 (2009), Clause 13.5.1. The handles shall enable a person who cannot grip to operate the door without their hand slipping from the handle. We recommend the use of lever handles.

e. Doorways to have operational forces per AS1428.1 (2009), Clause 13.5.2. A maximum allowable force of 20N is required to operate the door.

6.6 Doorways within Vestibules and Air-locks

AS1428 has requirements for circulation areas between doorways within vestibules / airlocks to enable independent access for people using a wheelchair. Clause 13.4 requires a minimum dimension of 1450mm between doors. Where a doorway encroaches into the space, 1450mm plus the door leaf width is required.

6.7 Doorways within Vestibules and Air-locks to Ambulant Toilet Cubicles

AS1428 has requirements for circulation areas between doorways within vestibules / airlocks as part of the path of travel to ambulant toilet cubicles to enable independent access for people using a mobility aid. Figure 34(b) requires a minimum dimension of 900mm between doors. Where a doorway encroaches into the space, 900mm plus the door leaf width is required.

6.8 Accessible Service Counters (Best-practice recommendation)

The provision of an accessible section of counter at serv ice areas will benefit people using wheelchairs.

AS1428.2 contains access requirements for service counters which is an enhanced requirement for accessibility but is not mandatory. Compliance with this clause will offer protection from a complaint made under the DDA but is not required by the BCA.

Access requirements for the accessible reception counter, if provided, are as follows.

a. Accessible counters to comply with AS1428.2, Clause 24.1. Height of the counter is to be between 750mm(±20) and 850mm (±20) above the finished floor level and have foot and knee clearance under the counter as outlines in Figure 25. The minimum width of the accessible counter and clearance below is 900mm.

6.9 Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems at service counters **where the user is screened from the service provider**. We note that this may not be relevant to this project.

Requirements for hearing augmentation are contained in AS1428.5: Communication for People who are deaf or Hearing impaired. This standard is not referenced by BCA however, we recommend that the requirements of AS1428.5 be adopted in the provision of hearing augmentation.

Access requirements hearing augmentation at service counters are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Hearing augmentation at service counters to comply with AS1428.5, Clause 3.4 which recommend that provision of an assisted listening system (ALS). Specifications for the ALS are provided in AS1428.5, Clause 4.3.

b. The hearing augmentation system is to be identified using the International Symbol for Deafness – refer to AS1428.5, Clause 5.1 – and displayed at the reception counters.

6.10 Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems within auditoriums, meeting rooms and the like **where an inbuilt amplification system, other than the one used for emergency warning is installed**. The following systems can be used:

- An induction loop to at least 80% of the floor area;
- A system requiring the use of receivers (infrared or the like) to not less than 95%.

The hearing augmentation system is to be identified using the International Symbol for Deafness.

6.11 Exempt Areas

BCA Clause D3.4 does not require access for people with disabilities to areas that would be inappropriate due to the particular use of the area or would pose a health and safety risk. This includes the path of travel to these areas.

6.12 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for bevelled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details. This should be implemented during construction to ensure compliance.

6.13 Carpet

AS1428.1 has access requirements for carpet. Where carpet is used as the floor surface, pile height should not exceed 4mm. Exposed edges will be fastened to the floor surface. Carpet trims shall have a vertical face not more than 3mm high.

BCA states that clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.

6.14 Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14. This should be implemented during construction to ensure compliance.

6.15 Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.

6.16 Tactile Indicators

For a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching a stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway ,meeting a vehicular way if there is no kerb or kerb ramp (BCA D3.8).

Tactile indicators are generally required to be 600-800mm deep across the width of the hazard and set back 300mm from the edge of the hazard (refer AS1428.4.1, Figure A1). Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

6.17 Signage

Signage to identify sanitary facilities, hearing augmentation and required exits are to be provided in accordance with BCA Clause D3.6. This includes provision of the International Symbol for Access or International Symbol for Deafness as appropriate. Signage to comply with AS1428.1 (2009), Clause 8.

Signage to include information in Braille and tactile signage formats as outlined within BCA Specification D3.6.

a. Braille and tactile components of the sign to be located not less than 1200mm and not higher than 1600mm affl.

b. Signage identifying rooms with accessible features or facilities nominated in Clause D3.6 to be located at the latch side of the doorway with the leading edge of the sign 50-300mm from the architrave. Where this is not possible, the sign can be located on the door. This is to allow use of the Braille without obstructing pedestrian traffic through the doorway.

c. For signage identifying an exit, “exit” and the level must be stated on the sign. It must be located at the latch side of the doorway with the leading edge of the sign 50-300mm from the architrave. Where this is not possible, the sign can be located on the door.

6.18 Thresholds

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless in a building required to be accessible by Part D3, the doorway opens to a road or open space; and is provided with a threshold ramp or step ramp in accordance with AS 1428.1.

6.19 Slip Resistance

The BCA defines the following slip resistance requirements for stairs and ramps:

Application	Surface Conditions	
	Dry	Wet
Ramp steeper than 1:14	P4 or R11	P5 or R12
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Tread or Landing surface	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

6.20 Luminance Contrast (Best-practice recommendation)

Luminance contrast assists people with a vision impairment to navigate the built environment. Mandatory items that require luminance contrast are tactile indicators, accessible toilet seats and doorways as outlined in other sections of this report. The following can also be provided as a best practice measure to ensure ease of use:

- Minimum 30% luminance contrast between floors and walls;
- Minimum 30% luminance contrast between the ground surface and obstructions such as columns, bollards and street furniture;
- Minimum 30% luminance contrast between the floor and the entrance mat (this allows people with vision impairment to locate the entrance;
- Minimum 30% luminance contrast between walls and handrails.

6.21 Workstations and Desks (Best-practice recommendation)

Consideration should be given to the provision of accessible workstations within the building. Adjustable height workstations and desks promote an inclusive environment for all users.

6.22 Seating (Best-practice recommendation)

A proportion of accessible seating should be provided that offers compliance with AS1428.2:1992 Clause 27.

Provide a seat height of 450mm; with side arms that extend a further 260mm +/- 40mm in height. Seating to have a back height of 750mm-790mm (AS 1428.2:1992 Clause 27.2). · Armrests must not extend beyond the perimeter of the base or legs of the seat to ensure stability of the chair when rising with use of only one armrest.· Heel space of at least 150mm with a minimum width of 350mm should be provided under seats to assist in rearward adjustments of feet when rising.

Seats located adjacent to pathways to set back at least 600mm to allow leg room without obstructing the adjacent path (AS 1428.2:1992 Clause 27.1(a)).

6.23 Furniture Hardware (Best-practice recommendation)

The use of D-type pull handles to furniture which provide a minimum 35mm clearance between the rear face of the handle and the face of the drawer is generally recommended to promote accessibility and inclusion.

6.24 Wayfinding (Best-practice recommendation)

Signs and symbols should be provided to inform all users. A signage system which informs all users is encouraged. The use of pictograms is recommended as is the use of luminance contrast to ensure the message is clear and legible.

Signs including symbols, numbering and lettering shall be located where they are clearly visible to people in both a seated and standing position. That is, they should be placed within a zone at a height not less than 1400 mm and not more than 1600 mm above the plane of the finished floor. Where space in this zone is used up, the zone for placement of signs may be extended downward to not less than 1000 mm from the plane of the finished floor. This height assists people to read from either a seated or a standing position, and also assists people with low vision to read the information on the sign. Letters and symbols in relief assist people with severe visual disabilities.

The use of the International Symbol for Access (ISA) is encouraged to represent facilities for persons with a disability.

6.25 Terminology (Best-practice recommendation)

The use of positive terminology such as “accessible” should be used when referring to accessible facilities such as toilets and carparking. This term is preferable to “disabled” which is commonly used. This principle is to be adopted through the design and documentation of a project and on signage throughout the completed building.

7 Sanitary Facilities

The BCA / Access Code for Buildings (Clause F2.4) require the provision of sanitary facilities catering for persons with a disability.

7.1 Distribution of Accessible Sanitary Facilities

The following is required to satisfy BCA requirements, noting that not all are applicable to all developments:

- A unisex accessible toilet at each level. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.

- A unisex accessible shower is required where showers are required by F2.3. In this regard, BCA only requires accessible showers within hospitals, early childhood centres, theatres and sporting venues. Showers are not r*equired* within commercial, retail or industrial premises. If ***required by Clause F2.3****,* where one or more showers are provided, 1 accessible shower for every 10 or part thereof must be provided.

- To minimize the risk of a complaint made under the DDA, we recommend that where showers are provided for general use, an accessible shower should be provided.

- At each bank of toilets where there is one or more toilets in additional to an unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS1428.1 must be provided for use by males and females

- One unisex accessible adult change facility must be provided in certain buildings.

7.2 Unisex Accessible Toilets

Access requirements for the accessible toilet facilities are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance. For compliance with AS1428.1(2009), the minimum room dimensions of the accessible toilet are to be 1900x2300mm plus additional area for the handbasin. These are CLEAR dimensions. Provision for wall linings needs to be considered.

Where more than one accessible toilet is provided, a mirrored arrangement should be adopted to allow for the option of left and right handed use.

a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.

b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.

   Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.

A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).

For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.

Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

c. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.

d. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.

e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

f. Accessible toilet to be identified using the International Symbol for Access. Pictograms / lettering to have a minimum 30% luminance contrast to the background colour. Signage is to comply with AS1428.1, Clause 8 and include information in tactile and Braille formats (as required by the BCA).

g. Doorways to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.

h. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

i. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1(2009), Clause 14. Controls should be located not less than 500mm to a corner.

j. Where more than one unisex accessible toilet is provided within the building, they should be in a mirrored configuration to allow for both left and right handed use.

7.3 Cubicles for People with an Ambulant Disability

Ambulant cubicles are required in addition to the unisex accessible sanitary compartment.

The following should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Options for the configuration of the ambulant cubicles are illustrated in AS1428.1, Figure 53.

b. Provide an ambulant cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.

c. Minimum width of ambulant cubicles to be 900-920mm.

d. Provide grabrails to ambulant cubicles to comply with AS1428.1, Clause 17 and Figure 53A.

e. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.

f. Provide signage to the ambulant cubicles to comply with AS1428.1, Clause 16.4.

8 Vertical Circulation

8.1 Stairs

AS1428.1 has access requirements for all stairs other than fire isolated egress stairs and is applicable in this instance.

Access requirements for public access stairs are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

a. Stair construction to comply with AS1428.1, Clause 11.1.

b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open risers.

c. Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS2418.1 Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.

d. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails should be continuous around the landings where possible.

   Handrails are required on both sides of the stair to cater for left and right-handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

e. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.

f. Stair nosings shall not project beyond the face of the riser.

g. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.1.

   Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).

   Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

9 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within St Michaels Nelson Bay. Spatial planning and general arrangements of facilities will offer inclusion for all building users.

Disability is often defined as any limitation, restriction or impairment which restricts everyday activities and has lasted or is likely to last for at least 6 months. Disabilities can be very varied. They can be physical, cognitive, intellectual, mental, sensory, or developmental. They can be present at birth or can occur during a person's lifetime. They can also be permanent or temporary. In Australia, almost one in five people – 4.3 million – have a disability with one in three having severe or profound core activity limitation.

Equity and dignity are important aspects in the provision of access to buildings for all users. With respect to people with a disability, equity and dignity are sometimes overlooked in the construction of new buildings por refurbishment works. The design approach needs to maintain a high level of equity for people with disabilities and meet the performance requirements of the BCA. The performance requirements adopt two main concepts in the provision of access for people with a disability being to the degree necessary and safe movement. Both of these concepts need to be achieved within the context of equitable and dignified access.

In this respect, a wide range of disabilities needs consideration and a compromise reached between requirements of different disability groups. Measures need to be implemented to ensure inclusion of all users, not a particular disability group in isolation.

This report is limited to items within drawings listed in this report only. Future alterations and additions to the building will render the recommendations in this report null and void as we cannot guarantee continued compliance where changes to the building fabric are made.

All dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered in the preparation of the construction certificate documentation to account for wall linings and the like.

Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

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