Date: 19 December 2019
Our Ref: P19256

Bluegum Community School
1 Rosemead Rd,
Hornsby NSW 2077
Att: Ms Jill McLachlan

Dear Jill,

RE: 1 Rosemead Rd, Hornsby
BCA COMPLIANCE ASSESSMENT

Please find enclosed our BCA Compliance Report prepared in respect of the proposed design contained within the architectural documentation provided.

In reviewing the content of this Report, particular attention is drawn to the content of Parts 3 and 4, as: –

- Part 3 summarizes the compliance status of the proposed design in terms of each prescriptive provision of the BCA.

  The inclusion of this summary enables an immediate understanding of the compliance status of the proposed design to be obtained.

- Part 4 contains a detailed analysis of the proposed design, and provides informative commentary & recommendation in respect of each instance of prescriptive non-compliance and area of preliminary only (design) detail, as applicable.

  This commentary enables the project team to readily identify and understand the nature and extent of information required within the Construction Certificate application to demonstrate the attainment of BCA compliance.

Should you require any further information, please do not hesitate to contact me on the number provided.

Yours faithfully

Kieran Tobin
Director

BCA COMPLIANCE ASSESSMENT

PREPARED FOR

Bluegum Community School

REGARDING
1 Rosemead Rd, Hornsby

Prepared By

BCA vision

REPORT REGISTER

The following report register documents the development and issue of this report and project as undertaken by this office, in accordance with the *Quality Assurance* policy of BCA Vision Pty Ltd.

Our Reference	Issue No.	Remarks	Issue Date
P19256	1	Design Compliance Report	19 December 2019

CONTENTS PAGE

1.0 INTRODUCTION

1.1 GENERAL

This "BCA Compliance Assessment" report has been prepared at the request of Bluegum Community School, and relates to the premises located at 1 Rosemead Rd, Hornsby.

The project proposal is for alterations and additions and change of use within an existing building to provide for Preschool and Primary School aged services.
The existing building is a 2-storey masonry structure with timber floors and a slate roof.
The buildings previous use is as a residential dwelling and it is understood that the building "Mt Errington House" holds some heritage significance.

1.2 REPORT BASIS

The content of this report reflects –

(a) The principles and provisions of BCA 2019, Parts C, D, E & F;
(b) A site inspection of the existing premises on Tuesday the 17th of December 2019;
(c) Access Report 17284 – R1.0 prepared by Code Performance and dated 03/12/19;
(d) Bushfire Assessment Report prepared by Australian Bushfire Consulting and dated 27/11/19;
(e) Architectural documentation provided by Architecture, Master planning and Design Agency –

Numbered	Titled	Dated
A100	Site and Roof Plan	09/12/19
A200	Floor Plans and Sections	09/12/19
A210	Elevations	09/12/19
A220	Elevations	09/12/19

1.3 EXCLUSIONS

It is conveyed that this report should not construed to infer that an assessment for compliance with the following has been undertaken –

(a) Structural and services design documentation;
(b) General building services;
(c) The individual requirements of service providers (i.e. Telstra, Water Supply, Energy Australia);
(d) The individual requirements of the Workcover Authority;
(e) Disability Discrimination Act (DDA);
(f) Assessment of any structural elements or geotechnical matters relating to the building, including any;
(g) Consideration of any fire services operations (including hydraulic, electrical or other systems);
(h) Assessment of plumbing and drainage installations, including stormwater;
(i) Assessment of mechanical plant operations, electrical systems or security systems;
(j) Heritage significance;

(k) Consideration of energy or water authority requirements;
(l) Consideration of Council's local planning policies;
(m) Environmental or planning issues;
(n) Requirements of statutory authorities;
(o) Sections B, G, H, J or I of the BCA are not considered.

1.4 REPORT PURPOSE

The purpose of this report is to identify the extent to which the change of use within the existing building may comply with the relevant prescriptive provisions of BCA 2019, Parts C, D, E & F

Assessment of the proposed design considers each prescriptive BCA provision, and identifies such as either: –

(a) Being complied with; or
(b) Not being complied with; or
(c) Requiring the provision further detail with the future Building Permit or other application or
(d) Not being relevant to the particular building works proposal.

The status of the design, in terms of these four (4) categories, is summarised within Part 3 of this report.

Where prescriptive non-compliance is identified, suitable recommendations to remedy the non-compliance shall be detailed in Part 4.

In instances where preliminary only detail exists, summary of the information required from the project team for inclusion within future applications (i.e. Construction Certificate) shall also be outlined in Part 4.

2.0 BUILDING DESCRIPTION

2.1 GENERAL

In the context of the Building Code of Australia (BCA), the subject development is described within items 2.2 – 2.7 below.

2.2 RISE IN STOREYS (CLAUSE C1.2)

The building has a rise in storeys of two (2).

2.3 BUILDING CLASSIFICATION (CLAUSE A3.2)

The Building currently contains the following classifications

Class	Description
Class 9b	an assembly building, including a trade workshop, laboratory or the like in a primary or secondary school, but excluding any other parts of the building that are of another Class
Class 10	A Private garage

2.4 Effective Height (Clause A1.1)

The buildings have an effective height of less than 12m.

2.5 TYPE OF CONSTRUCTION (TABLE C1.1)

Required to be of Type B Construction.

External walls, common walls flooring and floor framing of lift pits must be non-combustible.
Any internal wall having an FRL must extend to –
(i) the underside of the floor above; or
(ii) the underside of a complying roof; or
(iii) if the roof is not required to comply, the underside of the non-combustible roof covering and must not be crossed by combustible building elements (except 75 x 50 mm roof battens); or
(iv) a ceiling immediately below the roof having a resistance to the incipient spread of fire to the roof space of not less than 60 minutes.
A loadbearing internal wall and fire wall (including part of a loadbearing shaft) must be of concrete or masonry.
Non-loadbearing fire-resisting internal walls, fire and non-fire rated lift, ventilating, pipe, garbage, or similar shaft not for the discharge of hot products of combustion, must be of non-combustible construction.
External column FRL's apply to any internal columns that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature.

Spec C1.1 Clause 2.4 Attachments not to impair fire-resistance

(a) A *combustible* material may be used as a finish or lining to a wall or roof, or in a sign, sunscreen or blind, awning, or other attachment to a building element which has the *required* FRL if—
(i) the material is exempted under **C1.10** or complies with the *fire hazard properties* prescribed in **Specification C1.10**; and
(ii) it is not located near or directly above a *required exit* so as to make the *exit* unusable in a fire; and
(iii) it does not otherwise constitute an undue risk of fire spread via the facade of the building.
(b) The attachment of a facing or finish, or the installation of ducting or any other service, to a part of a building *required* to have an FRL must not impair the *required* FRL of that part.

Table 4 TYPE B CONSTRUCTION: FRL OF BUILDING ELEMENTS

Building element	Class of building—FRL: (in minutes)
	Structural adequacy*/ *Integrity*/ *Insulation
	5, 7a or 9
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any *fire-source feature* to which it is exposed is—	
For *loadbearing* parts—	
less than 1.5 m	120/120/120
1.5 to less than 3 m	120/ 90/ 60
3 to less than 9 m	120/ 30/ 30
9 to less than 18 m	120/ 30/–
18 m or more	–/–/–
For non- *loadbearing* parts—	
less than 1.5 m	–/120/120
1.5 to less than 3 m	–/ 90/ 60
3 m or more	–/–/–
EXTERNAL COLUMN not incorporated in an *external wall*, where the distance from any *fire-source feature* to which it is exposed is—	
For *loadbearing* columns—	
less than 18 m	120/–/–
18 m or more	–/–/–
For non- *loadbearing* columns—	
	–/–/–
COMMON WALLS and FIRE WALLS—	120/120/120
INTERNAL WALLS—	
Fire-resisting lift and stair *shafts*—	
Loadbearing	120/120/120
Fire-resisting stair *shafts*—	
Non- *loadbearing*	–/120/120
Bounding *public corridors*, public lobbies and the like—	
Loadbearing	120/–/–
Non- *loadbearing*	–/–/–
Between or bounding *sole-occupancy units*—	
Loadbearing	120/–/–
Non- *loadbearing*	–/–/–
OTHER LOADBEARING INTERNAL WALLS and COLUMNS—	120/–/–
ROOFS	–/–/–

2.6 GENERAL FLOOR AREA LIMITATIONS (TABLE C2.2)

The building has a floor area of approximately 490m2

The building is considerably less than the maximum fire compartment floor area and volume limits.

Table C2.2 – Maximum size of Fire Compartments				
Building Class		Type A	**Type B**	Type C
5, 9b, 9c	Max Floor area Max Volume	8000 m^2 48,000 m^3	**5,500 m^2** **33,000 m^3**	3000 m^2 18,000 m^3

2.7 FIRE SAFETY UPGRADES TO EXISTING BUILDINGS (EP & A REGS)

Subject to the following maximum fire compartment floor area and volume limits for Construction: –

93 FIRE SAFETY AND OTHER CONSIDERATIONS

Sub clause	**Requirement**	**Comment/Advice**
1	This clause applies to a development application for a change of building use for an existing building where the applicant does not seek the rebuilding, alteration, enlargement or extension of a building.	A Change of use is proposed. The building is currently a class 1a residence and is proposed to be a Class 9b assembly building
2	In determining the development application, the consent authority is to take into consideration whether the fire protection and structural capacity of the building will be appropriate to the building's proposed use.	For reference
3	Consent to the change of building use sought by a development application to which this clause applies must not be granted unless the consent authority is satisfied that the building complies (or will, when completed, comply) with such of the Category 1 fire safety provisions as are applicable to the building's proposed use. **Note:** The obligation to comply with the Category 1 fire safety provisions may require building work to be carried out even though none is proposed or required in relation to the relevant development consent.	For reference

94 CONSENT AUTHORITY MAY REQUIRE BUILDINGS TO BE UPGRADED

Sub clause	**Requirement**	**Comment/Advice**
1	This clause applies to a development application for development involving the rebuilding, alteration, enlargement or extension of an existing building where:	Minor works are proposed which are less than 50% of the building floor area

	(a) the proposed building work, together with any other building work completed or authorised within the previous 3 years, represents more than half the total volume of the building, as it was before any such work was commenced, measured over its roof and external walls, or does not apply (b) the measures contained in the building are inadequate: (i) to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or (ii) to restrict the spread of fire from the building to other buildings nearby.	
2	In determining a development application to which this clause applies, a consent authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the *Building Code of Australia*.	does not apply

Category 1 fire safety provision *Means the following provisions of the* Building Code of Australia		
Performance Ref	**Performance Requirement**	**Compliance Comments**
EP1.3	A fire hydrant system must be provided to the degree necessary to facilitate the needs of the *fire brigade* appropriate to a) Fire-fighting operations; and b) The floor area of the building; and c) The fire hazard	The building is less than 500m2 in floor area and in this regard a Fire Hydrant system is not required It is noted however that compliant coverage is provided from the street Hydrant system
EP1.4	An *automatic* fire suppression system must be installed to the degree necessary to control the development and spread of fire appropriate to a) The size of the Fire Compartment; and b) The function or use of the building; and c) The Fire Hazard; and d) The Height of the Building	Due to its size the building does not require a fire suppression system.
EP1.6	Suitable facilities must be provided to the degree necessary in a building to co-ordinate *fire brigade* intervention during an emergency appropriate to a) The function or use of the building and b) The Floor area of the building; and c) The height of the building.	A Fire Control room is not required within the subject building
EP2.1	In a building providing sleeping accommodation, occupants must be provided with *automatic* warning on the	The building does not provide sleeping accommodation

	detection of smoke so they may evacuate in the event of a fire to a *safe place*.	
EP2.2	In the event of a fire in a building the conditions in any evacuation route must be maintained for the period of time occupants take to evacuate the part of the building so that i) the temperature will not endanger human life; and ii) the level of visibility will enable the evacuation route to be determined and iii) the level of toxicity will not endanger human life.	Generally, the masonry external walls provide a compliant Fire Resistance Level (FRL); Floors and internal walls within the building are not required to provide a Fire resistance level. It is noted that a) Activity rooms 1 and 2 are less than 18m from the property boundary fire source feature but are not currently provided with an FRL. We noted that the external walls are non-load bearing but the posts are load bearing and technically do require an FRL b) Fire hazard properties of floor wall and ceiling linings:- - Wall and ceiling linings are considered to be compliant - The fire hazard properties of the carpet to the ground floor entry lobby and stair cannot be determined from a visual inspection
EP3.2	The period of time occupants take to evacuate referred to in (a) must be appropriate to i) the number, mobility and other characteristics of the occupants; and ii) the function or use of the building; and iii) the travel distance and other characteristics of the building; and iv) the *fire load*; and v) the potential *fire intensity*; and vi) the *fire hazard*; and vii) any active *fire safety systems* installed in the building; and viii) *fire brigade* intervention.	An additional egress stair is proposed to accommodate the Clause D1.2 requirements for a class 9b childcare centre. It is noted that the existing internal stair does not achieve compliance for a) Clause D1.6 unobstructed egress width of 1000mm (existing width = approx. 835mm wide at narrowest) In our opinion there may be merit in a Performance based Assessment of this Fire related issue. b) Clause D2.16 and D2.17 – the balustrade and handrail do not currently achieve compliant heights; however in our opinion compliance can be achieved with guidance from the Heritage Consultant.

3.0 BCA ASSESSMENT – SUMMARY

3.1 GENERAL

The tables contained within items 3.2 – 3.5 below summarise the compliance status of the proposed architectural design in terms of each prescriptive provision of the Building Code of Australia.

For those instances of either "prescriptive non-compliance" or "preliminary only detail", a detailed analysis and commentary is provided within Part 4.

3.2 SECTION C – FIRE RESISTANCE

BCA reference	Complies	Does not comply	Detail Required	Not relevant
Spec. C1.1 – fire resisting construction			✓	
C1.3 – buildings of multiple classification				✓
C1.4 – mixed types of construction				✓
C1.5 – two storey Class 2 or 3 buildings				✓
C1.6 – Class 4 parts of a building				✓
C1.7 – open spectator stands & indoor sports stadiums				✓
C1.8 – lightweight construction				✓
C1.9– non-combustible materials	✓			
C1.10 – fire hazard properties			✓	
C1.11 – performance of external walls				✓
C2.2 – general floor area & volume limits	✓			
C2.3 – large isolated buildings				✓
C2.4 – requirements for open spaces & vehicular access				✓
C2.5 – Class 9a and 9c buildings				✓
C2.6 – vertical separation of openings in external walls	✓			
C2.7 – separation of firewalls				✓
C2.8 – separation of classifications in same storey				✓
C2.9 – separation of classifications in different storeys				✓
C2.10 – separation of lift shafts				✓
C2.11 – stairways and lifts in one shaft				✓
C2.12 – separation of equipment				✓
C2.13 – electricity supply system				✓
C2.14 – public corridors in Class 2 and 3 buildings				✓
C3.1 – application of part				✓
C3.2 – openings in external walls	✓			
C3.3 – separation of external walls & associated openings				✓
C3.4 – acceptable methods of protection				✓
C3.5 – doorways in firewalls				✓
C3.6 – sliding fire doors				✓
C3.7 – doorways in horizontal exits				✓
C3.8 – openings in fire-isolated exits				✓
C3.9 – service penetrations in fire-isolated exits				✓
C3.10 – openings in fire-isolated lift shafts				✓
C3.11 – bounding construction: Class 2, 3, 4 buildings				✓
C3.12 – openings in floors & ceilings for services				✓
C3.13 – openings in shafts				✓
C3.15 – openings for service installations				✓
C3.16 – construction joints				✓
C3.17 – columns protected with f/r lightweight construction				✓

3.3 SECTION D – ACCESS AND EGRESS

BCA reference	Complies	Does not comply	Detail Required	Not relevant
D1.2 – number of exits required	✓			
D1.3 – when fire-isolated exits are required				✓
D1.4 – exit travel distances	✓			
D1.5 – distance between alternative exits				✓
D1.6 – dimensions of exits and paths of travel to exits		✓		
D1.7 – travel via fire-isolated exits				✓
D1.8 – external stairways or ramps in lieu of fire-isolated exits				✓
D1.9 – travel via non-fire isolated stairways or ramps	✓			
D1.10 – discharge from exits	✓			
D1.11 – horizontal exits				✓
D1.12 – non-required stairways or ramps				✓
D1.16 – plant rooms and lift motor rooms: concession				✓
D1.17 – access to lift pits				✓
D2.2 – fire-isolated stairways and ramps				✓
D2.3 – non-fire isolated stairways and ramps				✓
D2.4 – separation of rising and descending stair flights				✓
D2.5 – open access ramps and balconies				✓
D2.6 – smoke lobbies				✓
D2.7 – installations in exits and paths of travel			✓	
D2.8 – enclosure of space under stairs and ramps				✓
D2.9 – width of stairways				✓
D2.10 – pedestrian ramps				✓
D2.11 – fire-isolated passageways				✓
D2.12 – roof as open space				✓
D2.13 – goings and risers			✓	
D2.14 – landings			✓	
D2.15 – thresholds			✓	
D2.16 – balustrades		✓		
D2.17 – handrails		✓		
D2.18 – fixed platforms, walkways, stairways and ladders				✓
D2.19 – doorways and doors				✓
D2.20 – swinging doors			✓	
D2.21 – operation of latch			✓	
D2.22 – re-entry from fire-isolated exits				✓
D2.23 – signs on doors				✓
D2.24 – Protection of Openable windows			✓	
D3.1 – General Building Access Requirements		✓		
D3.2 – Access to Buildings			✓	
D3.3 – parts of buildings to be accessible			✓	
D3.4 – concessions			✓	
D3.5 – car parking	✓			
D3.6 – signage			✓	
D3.7 – hearing augmentation services and features				✓
D3.8 – tactile indicators			✓	
D3.9 – Wheelchair Seating				✓
D3.10 – Swimming Pools				✓
D3.11 - Ramps				✓
D3.12 – Glazing on Access ways				✓

3.4 SECTION E – SERVICES AND EQUIPMENT

BCA reference	Complies	Does not comply	Detail Required	Not relevant
E1.3 – fire hydrants				✓
E1.4 – fire hose reels				✓
E1.5 – sprinklers				✓
E1.6 – portable fire extinguishers			✓	
E1.8 – fire control centres				✓
E1.9 – fire precautions during construction				✓
E1.10 – provision for special hazards				✓
E2.2a – general provisions				✓
E2.2b – specific provisions				✓
E2.3 – provision for special hazards				✓
E3.2 – stretcher facility in lifts				✓
E3.3 – warning against use of lifts in fire				✓
E3.4 – emergency lifts				✓
E3.5 – landings				✓
E3.6 – facilities for people with disabilities				✓
E3.7 – fire service controls				✓
E3.8 – aged care buildings				✓
E3.9 – Fire Service Recall Switch				✓
E3.10 – Lift Car Fire Service Drive Control Switch				✓
E4.2 – emergency lighting			✓	
E4.4 – design and operation of emergency lighting			✓	
E4.5 – exit signs			✓	
E4.6 – direction signs			✓	
E4.7 – Class 2 and 3 buildings and Class 4 parts: exemptions				✓
E4.8 – design and operation of exit signs			✓	
E4.9 – Sound Systems & Intercom Systems for Emergencies				✓

3.5 SECTION F – HEALTH AND AMENITY

BCA reference	Complies	Does not comply	Can Readily Comply	Not relevant
F1.1 – stormwater drainage				✓*
F1.5 – roof coverings				✓*
F1.6 – sarking				✓*
F1.7 – water proofing of wet areas			✓	
F1.9 – damp proofing				✓*
F1.10 – damp proofing of floors on ground				✓*
F1.11 – floor wastes			✓	
F1.12 – sub-floor ventilation				✓
F1.13 – glazed assemblies			✓	
F2.1 – facilities in residential buildings				✓
F2.3 – facilities in Class 3 to 9 buildings			✓	
F2.4 – facilities for people with disabilities			✓	
F2.5 – construction of sanitary compartments	✓			
F2.7 – microbial (legionella) control				✓
F2.8 – waste management				✓
F3.1 – height of rooms	✓			
F4.1 – provision of natural light			✓	
F4.2 – methods and extent of natural lighting			✓	
F4.3 – natural lighting borrowed from adjoining room				✓
F4.4 – artificial lighting	✓			
F4.5 – ventilation of rooms	✓			
F4.6 – natural ventilation	✓			
F4.7 – ventilation borrowed from an adjoining room				✓
F4.8 – restriction on position of water closets and urinals				✓
F4.9 – airlocks				✓
F4.11 – car parks				✓
F4.12 – kitchen local exhaust ventilation				✓
F5.2 – sound transmission class: interpretation				✓
F5.3 – sound transmission of floors between units				✓
F5.4 – sound insulation of walls between units				✓
F5.5 – sound insulation rating of walls				✓
F5.6 – sound insulation rating of services				✓
F5.7 – sound insulation of pumps				✓
✓* = Existing building element – unable to determine compliance from a visual inspection				

4.0 BCA ASSESSMENT – DETAILED ANALYSIS

4.1 GENERAL

With reference to the "BCA Assessment Summary" contained within Part 3 above, the following detailed analysis and commentary is provided. This commentary is formulated to enable the design documentation to be further progressed, for the purpose of evidencing the attainment of compliance with the relevant provisions of the BCA.

4.2 SECTION C – FIRE RESISTANCE

Clause Ref	Clause Requirements	Recommendation
C1.1	Fire resistance Levels Are required to comply with Table 3 of Specification C1.1 A loadbearing internal wall and fire wall (including part of a loadbearing shaft) must be of concrete or masonry. Non-loadbearing internal walls must be of non-combustible construction.	The required Fire-Resistant Levels (FRLs) are detailed on page 4 of this report. Generally: - External walls are generally between 9 and 18m from a property boundary fire source feature: - Walls at 9 – 18m require an FRL of 120/ 30/– if load bearing -/-/- if non load bearing External columns require an FRL of 120/–/– Generally, the masonry external walls provide a compliant Fire Resistance Level (FRL);

		The floors and internal walls are not required to provide a Fire resistance level. It is noted that Activity rooms 1 and 2 are less than 18m from the property boundary fire source feature but are not currently provided with an FRL. We noted that the external walls are non-load bearing but the posts are load bearing and technically do require an FRL
Cl. C1.8	Lightweight construction **(a** *Lightweight construction* must comply with Specification C1.8 if it is used in a wall system— (i) that is *required* to have an FRL; or (ii) for a lift *shaft*, stair *shaft* or service *shaft* or an *external wall* bounding a *public corridor* including a non *fire-isolated passageway* or non *fire-isolated ramp*, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal. **(b)** If *lightweight construction* is used for the *fire-resisting* covering of a steel column or the like, and if— (i) the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and (ii) the column is liable to be damaged from the movement of vehicles, materials or equipment, then the covering must be protected by steel or other suitable material.	For Reference
Cl. C1.10	Fire Hazard Properties (a) The *fire hazard properties* of the following linings, materials and assemblies in a Class 2	Fire hazard properties of floor wall and ceiling linings:- - Wall and ceiling linings are

	to 9 building must comply with Specification C1.10:	considered to be compliant - The fire hazard properties of the carpet to the ground floor entry lobby and stair cannot be determined from a visual inspection

4.3 SECTION D – ACCESS AND EGRESS

Cl. D1.6	Dimensions of exits and paths of travel to exits In a *required exit* or path of travel to an *exit*— (a) the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm; and (b) the unobstructed width of each *exit* or path of travel to an *exit*, except for doorways, must be not less than— (i) 1m; or (ii) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a *treatment area* or *ward area*; and (iii) in a *public corridor* in a Class 9c *aged care building*, notwithstanding (c) and (d)— (A) 1.5 m; and (B) 1.8 m for the full width of the doorway, providing access into a *sole-occupancy unit* or communal bathroom; and (c) if the *storey* or *mezzanine* accommodates more than 100 persons but not more than 200 persons, the aggregate unobstructed width, except for	It is noted that the existing internal stair does not achieve compliance for Clause D1.6 unobstructed egress width of 1000mm (existing width = approx. 835mm wide at narrowest) In our opinion there may be merit in a Performance based Assessment of this Fire related issue.

	doorways, must be not less than— (i) 1 m plus 250 mm for each 25 persons (or part) in excess of 100; or (ii) 1.8 m in a passageway, corridor or ramp normally used for the transportation of patients in beds within a *treatment area* or *ward area*; and (d) if the *storey* or *mezzanine* accommodates more than 200 persons, the aggregate unobstructed width, except for doorways, must be increased to— (i) 2 m plus 500 mm for every 60 persons (or part) in excess of 200 persons if egress involves a change in floor level by a stairway or ramp with a gradient steeper than 1 in 12; or (ii) in any other case, 2 m plus 500 mm for every 75 persons (or part) in excess of 200	
Cl. D2.7	Electrical ducts, meter or distribution boards, and communication boards or equipment, and electrical motors, must be separated from an exit or path of travel by smoke sealed non-combustible construction.	A distribution board is located within the proposed Admin room The board must be provided with a non combustible smoke sealed enclosure Verification on how this may be achieved will be required with the Construction Documentation

Cl.D2.8	Enclosure of space under stairs and ramps **Non fire-isolated stairways and ramps** — The space below a *required* non *fire-isolated stairway* (including an external stairway) or non *fire-isolated ramp* must not be enclosed to form a cupboard or other enclosed space unless— (i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and (ii) any access doorway to the enclosed space is fitted with a *self-closing* –/60/30 fire door.	For Reference
Cl. D2.13	Goings and risers (a) A stairway must have— (i) not more than 18 nor less than 2 risers in each ***flight***; and (ii) except as permitted by (b) and (c), going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13; and (iii) except as permitted by (b) and (c), goings and risers that are constant throughout in one ***flight***; and (iv) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and (v) treads which have— (A) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or (B) a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; and (vi) treads of solid construction (not mesh or other perforated material) if the stairway is more than 10 m high or connects more than 3 ***storeys***; and (viii) in the case of a ***required*** stairway, no winders in lieu of a landing.	The existing internal stair riser and going dimensions are compliant We recommend providing contrasting non slip nosings to these stair The new stairs are required to comply in full. Verification on how this may be achieved will be required with the Construction Documentation

<table>
<tr>
<td>Cl. D2.14</td>
<td>Landings
In a stairway must have:-
1. a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or
2. a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below
Table D2.14 SLIP-RESISTANCE CLASSIFICATION
<table>
<tr><td rowspan="2">Application</td><td colspan="2">Surface conditions</td></tr>
<tr><td>Dry</td><td>Wet</td></tr>
<tr><td>Ramp steeper than 1:14</td><td>P4 or R11</td><td>P5 or R12</td></tr>
<tr><td>Ramp steeper than 1:20 but not steeper than 1:14</td><td>P3 or R10</td><td>P4 or R11</td></tr>
<tr><td>Tread or landing surface</td><td>P3 or R10</td><td>P4 or R11</td></tr>
<tr><td>Nosing or landing edge strip</td><td>P3</td><td>P4</td></tr>
</table>
</td>
<td>Verification on how this may be achieved will be required with the Construction Documentation</td>
</tr>
<tr>
<td>Cl. D2.15</td>
<td>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—
(a) in patient care areas in a Class 9a health-care building, the door sill is not more than 25 mm above the finished floor level to which the doorway opens; or
(b) in a Class 9c building, a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or
(c) in a building required to be accessible by Part D3, the doorway—
(i) opens to a road or open space; and
(ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or</td>
<td>The North side entry point to the building contains a threshold step and in this regard cannot comply as an Accessible entry point
The west side entry can be made compliant however compliant signage directing people to the west side entry will be required.
Verification on how this may be achieved will be required with the Construction Documentation</td>
</tr>
</table>

	(d) in other cases— (i) the doorway opens to a road or *open space*, external stair landing or external balcony; and (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens	
Cl. D2.16	Barriers to prevent falls (a) A continuous barrier must be provided along the side of— (i) a roof to which general access is provided; and (ii) a stairway or ramp; and (iii) a floor, corridor, hallway, balcony, deck, verandah, *mezzanine*, access bridge or the like; and (iv) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath.	Clause D2.16 and D2.17 – the balustrade and handrail do not currently achieve compliant heights; however in our opinion compliance can be achieved with guidance from the Heritage Consultant. Balustrade height is approximately 800mm above floor level at the mid landing and at the first floor rather than the 1000mm required Verification on how this may be achieved will be required with the Construction Documentation
Cl. D2.17	Handrails must be provided to at least one side of all stairways and ramps less than 2-metres in width, and to both sides where more than 2-metres in width, and must: – ❑ Be continuous between stair flight landings ❑ Have no obstruction that would cause a break in the hand hold ❑ Have one rail fixed at a height not less than 865-mm Hand rails within the building must comply with Part D3 of the BCA and AS 1428.1 - 2009	Clause D2.16 and D2.17 – the balustrade and handrail do not currently achieve compliant heights; however in our opinion compliance can be achieved with guidance from the Heritage Consultant. The hand rail has a height above stair nosings of 780mm rather than the 865mm required. Hand rails to the internal stair cannot

		be made consistent with AS 1428.1 – 2009 (the access requirements) due to the stair width and configuration. Verification on how this may be achieved will be required with the Construction Documentation
Cl. D2.21	All doors in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily provided with door hardware located between 900-1100-mm above floor level and be readily openable without a key from the side facing a person seeking egress by a single downward action.	The south side exit/entry door is compliant in that it swings outward in the direction of egress. Travel distance from each part of the building is compliant with clause D1.4 and in this regard this should be the nominated Exit. Exit and directional signage within the building in accordance with Clause E4 must guide occupants to this Exit point. Verification on how this may be achieved will be required with the Construction Documentation
Cl. D2.24	**Protection of openable windows** (a) A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in— (i) a bedroom in a Class 2 or 3 building or Class 4 part of a building; or (ii) a Class 9b *early childhood centre*. (b) Where the lowest level of the window opening is less than 1.7 m above the floor, a window opening covered by **(a)** must comply with the following:	The first floor windows must be modified to comply Verification on how this may be achieved will be required with the Construction Documentation

	(i) The openable portion of the window must be protected with— (A) a device capable of restricting the window opening; or (B) a screen with secure fittings. (ii) A device or screen *required* by **(i)** must— (A) not permit a 125 mm sphere to pass through the window opening or screen; and (B) resist an outward horizontal action of 250 N against the— (aa) window restrained by a device; or (bb) screen protecting the opening; and (C) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. (c) A barrier with a height not less than 865 mm above the floor is *required* to an openable window— (i) in addition to window protection, when a child resistant release mechanism is *required* by **(b)(ii)(C)**; and (ii) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by **(a)**. (d) A barrier covered by **(c)** except for **(e)** must not— (i) permit a 125 mm sphere to pass through it; and (ii) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing. (e) A barrier *required* by **(c)** to an openable window in— (i) *fire-isolated stairways*, *fire-isolated ramps* and other areas used primarily for emergency purposes, excluding external stairways and external ramps; and (ii) Class 7 (other than *carparks*) and Class 8 buildings and parts of buildings containing those classes; must not permit a 300mm sphere to pass through it.	
Cl. D3.1	General building access requirements	We refer to the Access Report 17284 – R1.0 prepared by Code

	Buildings and parts of buildings must be *accessible* as *required* by Table D3.1, unless exempted by D3.4.	Performance and dated 03/12/19; within which it has been identified that the building can be made partially compliant with the prescriptive requirements of the Deemed to Satisfy provisions and AS 1428.1 – 2009. Key Compliance issues which will require development within a Performance Assessment are as follows:- Contrary to BCA Part D3 – Lift access to the first floor is not proposed. Contrary to BCA Clause D3.2 thresholds are present at:- - The North side building entry - Within the Admin room - Into and from Activity rooms 1 and 2. Access via a clause 7 and 10 compliant pathway from the street cannot be achieved. The Internal stair to the first floor cannot be altered to comply with the requirements of clause 11 Door widths do not achieve the required 850mm unobstructed width.

		We recommend pursuing a Performance Report in relation to these issues. Generally Compliance with the AS 1428.1 Clauses following must be demonstrated within the construction documentation:- Clause 7 - Floor Or Ground Surfaces On Continuous Accessible Clause 8 - Signage Clause 10 – Ramps and Walkways Clauses 11 and 12 – Stairs and Hand rails Clause 13 - Doorways, Doors And Circulation Space At Doorways Clause 14 - Switches And General Purpose Outlets (Power Points) Clause15 and 16 - Sanitary Facilities
Cl. D3.2	Access to Buildings ▪ Must be provided by an AS 1428.1 complying path of travel from – (i) a entry point from the road at the allotment boundary to the entrance doorway. (ii) any disabled car parking space on the allotment. (iii) any other accessible building on the allotment. (iv) through the principal public entrance. Parts of buildings required to be accessible must comply with AS 1428.1	Verification on how this may be achieved will be required with the Construction Documentation
Cl. D3.3	Parts of buildings to be accessible	Verification on how this may be

	In a building *required* to be *accessible*: (a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with: (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; (b) every passenger lift must comply with clause E3.6; (c) *access ways* must have: (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an *access way* where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1: (A) within 2 m of the end of *access ways* where it is not possible to continue travelling along the *access way*; and (B) at maximum 20 m intervals along the *access way*; (d) an intersection of *access ways* satisfies the spatial requirements for a passing and turning space; (e) a passing space may serve as a turning space; (f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a *storey* or level other than the entrance *storey* in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 *storeys*; and (ii) with a *floor area* for each *storey*, excluding the entrance *storey*, of not more than 200 m^2.	achieved will be required with the Construction Documentation
Cl. D3.4	Exemptions The following areas are not *required* to be *accessible*:	An Exemption is assumed for:- Kitchen

	(a) An area where access would be inappropriate because of the particular purpose for which the area is used. **(b)** An area that would pose a health or safety risk for people with a disability. **(c)** Any path of travel providing access only to an area exempted by (a) or (b).	Laundry Store rooms
Cl. D3.6	Signage In a building *required* to be *accessible*— (a) braille and tactile signage complying with Specification D3.6 must— (i) incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each— (A) sanitary facility, except a sanitary facility within a *sole-occupancy unit* in a Class 1b or Class 3 building; and (B) space with a hearing augmentation system; and (ii) identify each door *required* by E4.5 to be provided with an *exit* sign and state— (A) "Exit"; and (B) "Level" ; and either (aa) the floor level number; or (bb) a floor level descriptor; or (cc) a combination of (aa) and (bb); and (b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying— (i) the type of hearing augmentation; and (ii) the area covered within the room; and (iii) if receivers are being used and where the receivers can be obtained; and (c) signage in accordance with AS 1428.1 must be provided for *accessible* unisex sanitary facilities to identify if the facility is suitable for left or right handed use; and (d) signage to identify an ambulant *accessible* sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and (e) where a pedestrian entrance is not *accessible*, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest *accessible* pedestrian entrance; and (f) where a bank of sanitary facilities is not provided with an *accessible* unisex sanitary	Verification on how this may be achieved will be required with the Construction Documentation

	facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not *accessible*, to direct a person to the location of the nearest *accessible* unisex sanitary facility.	
Cl. D3.7	Hearing augmentation (a) A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed— (i) in a room in a Class 9b building; or (ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or (iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. (b) If a hearing augmentation system *required* by (a) is— (i) an induction loop, it must be provided to not less than 80% of the *floor area* of the room or space served by the inbuilt amplification system; or (ii) a system requiring the use of receivers or the like, it must be available to not less than 95% of the *floor area* of the room or space served by the inbuilt amplification system, and the number of receivers provided must not be less than— (A) if the room or space accommodates up to 500 persons, 1 receiver for every 25 persons or part thereof, or 2 receivers, whichever is the greater; and (B) if the room or space accommodates more than 500 persons but not more than 1000 persons, 20 receivers plus 1 receiver for every 33 persons or part thereof in excess of 500 persons; and (C) if the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons or part thereof in excess of 1000 persons; and (D) if the room or space accommodates more than 2000 persons, 55 receivers plus 1 receiver for every 100 persons or part thereof in excess of 2000 persons. (c) The number of persons accommodated in the room or space served by an inbuilt amplification system must be calculated according to D1.13. (d) Any screen or scoreboard associated with a Class 9b building and capable of displaying	Verification on how this may be achieved will be required with the Construction Documentation

	public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.	
Cl. D3.8	Tactile indicators (a) For a building *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— (i) a stairway, other than a *fire-isolated stairway*; and (ii) an escalator; and (iii) a passenger conveyor or moving walk; and (iv) a ramp other than a *fire-isolated ramp*, step ramp, kerb ramp or *swimming pool* ramp; and (v) in the absence of a suitable barrier— (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and (B) an *accessway* meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to inD3.4, if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4. (b) Tactile ground surface indicators *required* by (a) must comply with sections 1 and 2 of AS/NZS 1428.4.1. (c) A hostel for the aged, nursing home for the aged, a *residential aged care building* Class 3 accommodation for the aged, Class 9a *health-care building* or a Class 9c building need not comply with (a)(i) and (iv) if handrails incorporating a raised dome button in accordance with the requirements for stairway handrails in AS 1428.1 are provided to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp.	Verification on how this may be achieved will be required with the Construction Documentation

4.5 SECTION E – SERVICES AND EQUIPMENT

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. E1.6	Portable Fire Extinguishers must be selected, located, and installed under AS 2444	Verification will be required with the Construction Documentation
Cl. E4.2	AS 2293.1 compliant emergency lighting must be provided throughout the building.	Verification will be required with the Construction Documentation
Cl. E4.4 **Cl. E4.5**	Refer Clause E4.2 above for emergency lighting requirements	Verification will be required with the Construction Documentation
Cl. E4.5 **Cl. E4.8**	AS 2293.1 compliant Exit signage is required at each stair landing, Exit Doors and egress stairs	Exit and Directional signage must guide occupants toward the south side Exit door Verification will be required with the Construction Documentation
Cl. E4.6 **Cl. E4.8**	AS 2293.1 compliant Directional signage must be provided where Exit signage is not directly visible	Verification will be required with the Construction Documentation

4.6 SECTION F – HEALTH AND AMENITY

CLAUSE	CLAUSE REQUIREMENT	ACTION/RECOMENDATION
Cl. F1.7	Wet areas must be water proofed in accordance with AS 3740	Verification will be required with the Construction Documentation
Cl. F1.11	The floor of each bathroom and laundry must be graded to permit drainage to a floor waste.	Verification will be required with the Construction Documentation
Cl. F1.13	Glazed assemblies (a) Subject to (b) and (c), the following glazed assemblies in an *external wall*, must comply with AS 2047 requirements for resistance to water penetration: (i) Windows. (ii) Sliding doors with a frame. (iii) Adjustable louvres. (iv) Shopfronts. (v) Window walls with one piece framing. (b) The following buildings need not comply with (a): (i) A Class 7 or 8 building where in the particular case there is no necessity for compliance. (ii) A garage, tool shed, *sanitary compartment*, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, *sanitary compartment* or the like contributes to the weatherproofing of the other part of the building. (iii) An *open spectator stand* or *open-deck car park*. (c) The following glazed assemblies need not comply with (a): (i) All glazed assemblies not in an *external wall*. (ii) Hinged doors, including French doors and bi-fold doors. (iii) Revolving doors. (iv) Fixed louvres. (v) Skylights, roof lights and windows in other than the vertical plane.	Verification will be required with the Construction Documentation

	(vi) Sliding doors without a frame. (vii) Shopfront doors. (viii) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047. (ix) Second-hand windows, re-used windows, recycled windows and replacement windows. (x) Heritage windows.	
Cl. F2.3	Facilities in Class 3 to 9 buildings (a) Sanitary facilities must be provided for Class 3, 5, 6, 7, 8 or 9 buildings in accordance with Table F2.3. (b) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex. (c) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy. (d) Employees and the public may share the same facilities in a Class 6 and 9b building (other than a *school* or *early childhood centre*) provided the number of facilities provided is not less than the total number of facilities *required* for employees plus those *required* for the public. (e) Adequate means of disposal of sanitary towels must be provided in sanitary facilities for use by females.	The quantity of Water Closets (WCs) and basins allow for the proposed (max) population of 80 children and 6 staff In addition to the sanitary facilities documented:- • the kitchen facilities must be protected by a door or gate with child proof latches to prevent unsupervised access to the facilities by children younger than 5 years old; Further details of compliance will be required within the Construction Documentation

(g) A Class 9b *early childhood centre* must be provided with—

(i) a kitchen or food preparation area with a kitchen sink, separate hand washing facilities, space for a refrigerator and space for cooking facilities, with—

(A) the facilities protected by a door or gate with child proof latches to prevent unsupervised access to the facilities by children younger than 5 years old; and

(B) the ability to facilitate supervision of children from the facilities if the *early childhood centre* accommodates children younger than 2 years old; and

(ii) one bath, shower or shower-bath; and

(iii) if the centre accommodates children younger than 3 years old—

(A) a laundry facility comprising a washtub and space in the same room for a washing machine; and

(B) a bench type baby bath, which is within 1 m of the nappy

change bench; and

(C) a nappy changing bench which—

(aa) is within 1 m of separate adult hand washing facilities and bench type baby bath; and

(bb) must be not less than 0.9 m^2 in area and at a height of not less than 850 mm, but not more than 900 mm above the finished floor level; and

(cc) must have a space not less than 800 mm high, 500 mm wide and 800 mm deep for the storage of steps; and

(dd) is positioned to permit a staff member changing a nappy to have visibility of the play area at all times.

(h) Class 9b theatres and sporting venues must be provided with one shower for each 10 participants or part thereof.

(i) Not less than one washbasin must be provided

	where closet pans or urinals are provided.	
Cl. F2.5	Construction of sanitary compartments (b) The door to a fully enclosed *sanitary compartment* must— (i) open outwards; or (ii) slide; or (iii) be readily removable from the outside of the *sanitary compartment*, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F2.5, between the closet pan within the *sanitary compartment* and the doorway.	Verification will be required with the Construction Documentation
Cl. F4.1	Provision of natural light Natural light must be provided in: Class 9b buildings — to all general purpose classrooms in primary or secondary schools and all playrooms or the like for the use of children in an early childhood centre.	For Reference
Cl. F4.2	Methods and extent of natural light (a) *Required* natural light must be provided by— (i) *windows*, excluding *roof lights*, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the *floor area* of the room; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) *roof lights*, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the *floor area* of the room; and (B) are open to the sky; or (iii) a proportional combination of *windows* and *roof lights required* by (i) and (ii). *Vic F4.2(b)* (b) Except in a Class 9c building, in a Class 2, 3 or 9 building or Class 4 part of a building a *required window* that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal distance from	It is noted that - The sills of 50% of *windows* in children's rooms are located more than 500 mm above the floor level. - Altering the building to comply with this requirement would significantly impact the Heritage value of the building. The Performance requirement FP4.1 in regard to Ventilation states:- The level of natural light must be appropriate to the function of each part of the building

	that boundary or wall that is the greater of— (d) In a Class 9b *early childhood centre*, the sills of 50% of *windows* in children's rooms must be located not more than 500 mm above the floor level.	The guide to the BCA qualifies the sill height requirement further in saying:- The well-being of children in class 9b buildings is enhanced through improved interaction with the outdoor environment by the provision of 50% of window sills in children's. BCA Vision Commentary:- The room layout has been provided in such a way that these rooms naturally flow out to the expansive gardens within the site. In our opinion the absence of lower sill heights does not impede the interaction with the outside environment. In our opinion the intent of Performance requirement FP4.1 have ben met within this building.
Cl. F4.3	Methods and extent of natural lighting (a) *Required* natural lighting must be provided by— (i) *windows*, excluding *roof lights*, that— (A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the *floor area* of the room; and (B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (ii) *roof lights*, that—	For Reference

	(A) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the *floor area* of the room; and (B) are open to the sky; or (iii) a proportional combination of *windows* and *roof lights* *required* by (i) and (ii).	

Author

Kieran Tobin
Senior NCC Consultant (GD BS UWS),
Accredited BPB

BCA Performance Solution

Project –

1 Rosemead St, Hornsby NSW

Proposed Community Preschool and Primary School

Matters Addressed -

1. Non-accessible door hardware and reduced clear opening width and/or circulation space to a series of doors (D3.1)
2. Nil continuous accessible path of travel to Ground Level balconies and to Level 1 (D3.1)
3. Nil continuous accessible path of travel provided through northern pedestrian entrance (D3.2)
4. Nil accessible sanitary facilities to Level 1 (F2.4)
5. Reduced compartment size to Ground Level accessible unisex sanitary facility (F2.4)
6. Nil 300mm horizontal handrail extension at base of central stair handrail (D3.3)

Date - 10th February 2020
For - Blue Gum Community School
Ref - 19284 – R1.2

Code Performance Pty Ltd
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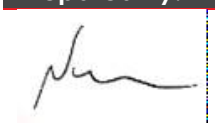
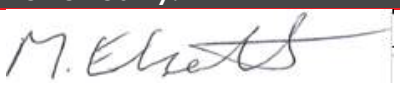
TABLE OF CONTENTS

Amendment Schedule

Prepared By:	Reviewed By:	Comments
		Final report issued to client.
Nick Cribb **Access Consultant** B. Construction Mgmt (Hons) (UON) Diploma Access (IATA) Cert IV Access (IATA) Associate Member – ACAA Associate Member – AAC	Michael Eisenhuth **Director** Grad Dip Build Surv. (UWS) Dip. Health & Bld. Surv. (TAFE) Cert IV Access (IATA) Associate Member – ACAA Associate Member – AAC	

Version	Date
R1.0 Draft	06.02.2020
R1.1	10.02.2020
R1.2	10.02.2020

1 EXECUTIVE SUMMARY

1.1 General Summary

Code Performance has been engaged by Blue Gum Community School to prepare a BCA Performance Solution Report for a proposed Community Preschool and Primary School located at 1 Rosemead Street, Hornsby NSW.

This report details the BCA Performance Solution assessment and reporting to verify compliance with the relevant Performance Requirements of the National Construction Code Series Volume 1, Building Code of Australia for Class 2 to 9 Buildings, and abbreviated to be referred to as the BCA[1] in this report.

This performance based assessment provides a Performance Solution, as defined by the BCA to permit performance based variations to the Deemed-to-Satisfy (DTS) provisions of the BCA. This report has assessed the subject compliance matter(s) and proposes suitable solutions considered appropriate for the building. The assessment verifies that the relevant BCA Performance Requirements have been addressed, specifically, the following DTS compliance departure(s) as detailed below have been addressed with a Performance Solution –

Sol. No.	Performance Solution	DTS Clause	Performance Requirement Determined in accordance with BCA Clause A0.7	Methodology
PS1	**General building access requirements** BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009. Clause 13.2 of AS 1428.1-2009 requires minimum clear door opening widths to all doors on a continuous accessible path of travel. Clause 13.3 of AS 1428.1 2009 requires circulation spaces be provided to all doors on a continuous accessible path of travel. Clause 13.5 of AS 1428.1 2009 requires doors on a continuous accessible path of travel be provided with accessible door hardware (ie. lever style hardware). A number of doors throughout the building are provided with reduced clear door opening width and/or reduced circulation spaces. In addition, doors are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility. This causes a DtS compliance departure with D3.1. See Figure 1 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the	Clause D3.1	DP1	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative

[1] Australian Building Codes Board. National construction Code 2019, Volume 1, Building Code of Australia for Class 2 to 9 Buildings.

Sol. No.	Performance Solution	DTS Clause	Performance Requirement Determined in accordance with BCA Clause A0.7	Methodology
	relevant Performance Requirement of the BCA; being DP1.			
PS2	**General building access requirements** BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009. Nil continuous accessible path of travel is provided to the Ground Level activity room / balconies or to Level 1. This causes a DtS compliance departure with D3.1. See Figure 2 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the relevant Performance Requirement of the BCA; being DP1.	Clause D3.1	DP1	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative
PS3	**General building access requirements** BCA Clause D3.2 requires an accessway be provided to the building from the main points of pedestrian entry at the allotment boundary. Nil continuous accessible path of travel is provided from the easternmost entrance on the northern allotment boundary to the building. This causes a DtS compliance departure with D3.1. See Figure 3 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the relevant Performance Requirement of the BCA; being DP1.	Clause D3.2	DP1	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative
PS4	**Accessible sanitary facilities** BCA Table F2.4(a) requires an accessible unisex sanitary facility be provided on every story containing sanitary compartments. In addition, at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment, a sanitary compartment suitable for a person with an ambulant disability must be provided for use by males and females. Nil accessible sanitary facilities are proposed (accessible unisex or ambulant) to Level 1 of the subject building.	Clause F2.4	FP2.1 DP1	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative

Sol. No.	Performance Solution	DTS Clause	Performance Requirement Determined in accordance with BCA Clause A0.7	Methodology
	This causes a DtS compliance departure with Clause F2.4. See Figure 4 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the relevant Performance Requirement of the BCA; being DP1 and FP2.1.			
PS5	**Accessible sanitary facilities** BCA Clause F2.4 requires the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) to comply with the requirements of AS 1428.1. AS 1428.1-2009 Clause 15 requires a toilet pan within an accessible sanitary facility to be provided with a 1900mm x 2300mm circulation space. AS 1428.1-2009 Figure 43 permits a 100mm encroachment into the pan circulation space depth via a basin. The subject Ground Level accessible unisex sanitary facility basin encroaches 200mm into the pan circulation space (100mm encroachment). This causes a DtS compliance departure with Clause F2.4. See Figure 5 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the relevant Performance Requirement of the BCA; being DP1 & FP2.1.	Clause F2.4	FP2.1 DP1	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative
PS6	**Part of a building required to be accessible** BCA Clause D3.3 requires stairs (except a fire-isolated stairway) to be afforded with accessibility features to accord with Clause 11 of AS1428.1. Subsequently, AS 1428.1-2009 Clause 11.2 requires stairs be provided with horizontal handrail extensions at top and base landings. The proposed handrail to the central stair is not provided with a 300mm horizontal handrail extension at the base landing.	Clause D3.3	DP1 DP2	BCA Clause A2.2 (1)(a) A2.2 (2)(b)(ii) & (d) Method of Approach Comparative & Qualitative

Sol. No.	Performance Solution	DTS Clause	Performance Requirement Determined in accordance with BCA Clause A0.7	Methodology
	This causes a DtS compliance departure with Clause D3.3. See Figure 6 for compliance departure illustration. A qualitative discussion using comparative assessment and other verification methods will be used to demonstrate compliance with the relevant Performance Requirement of the BCA; being DP1 & DP2.			

This report seeks to demonstrate BCA compliance for the DTS compliance departure via a Performance Solution to comply with the relevant Performance Requirements of the BCA.

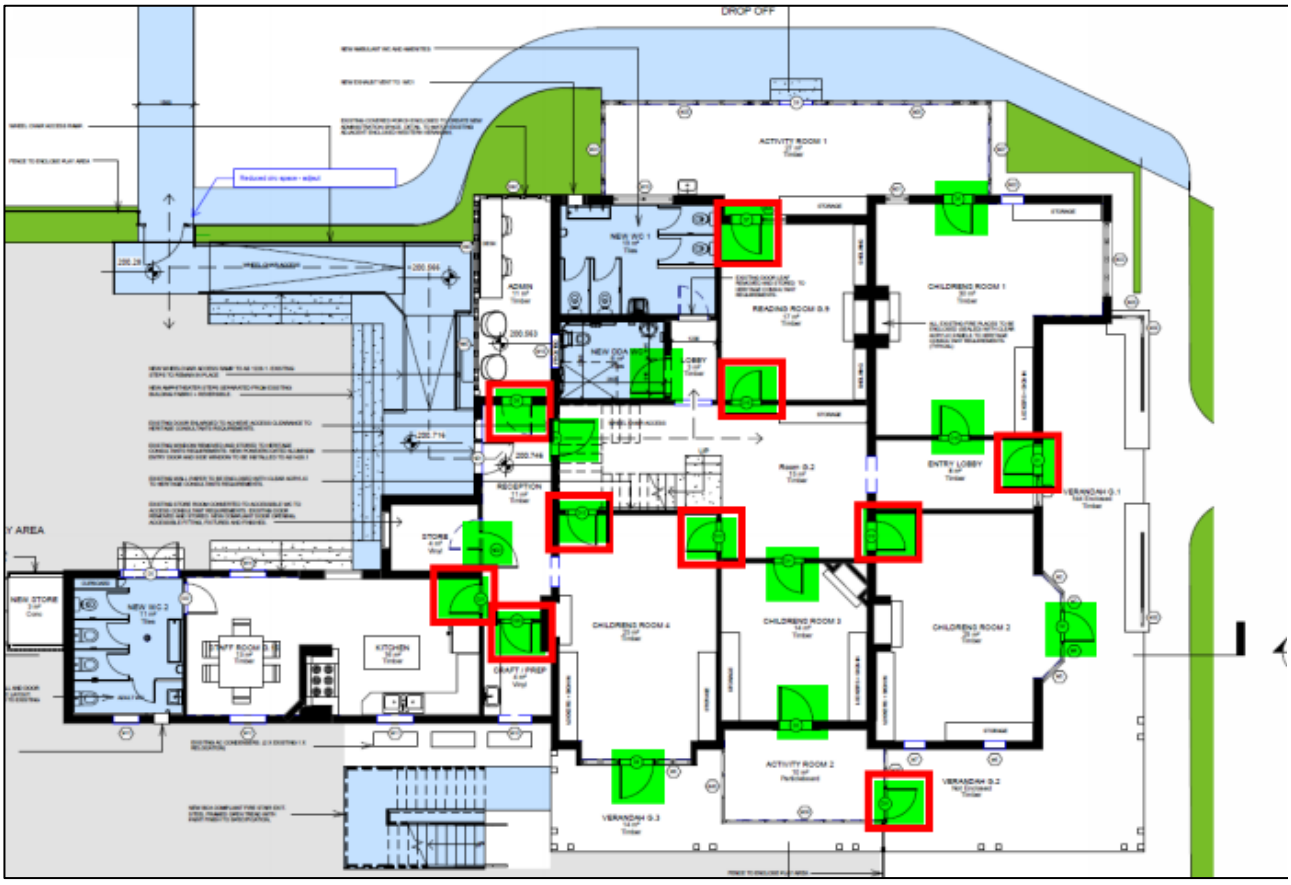


Figure 1 – Reduced access features to doors.

Doors with reduced circulation space shown in RED.

Doors with clear door opening width between 800-850mm shown in GREEN.

All doors identified above are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility.

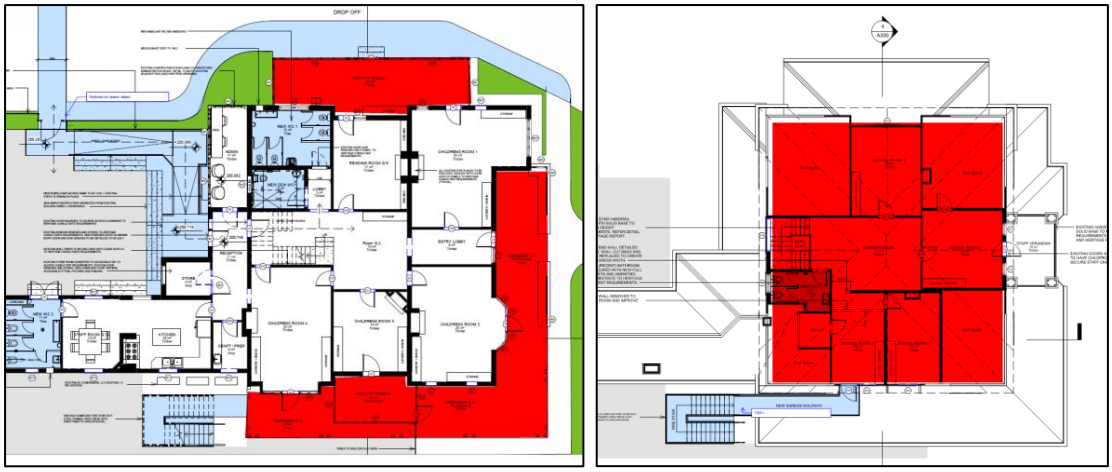


Figure 2 – Reduced extent of access to Level 1 and Ground Level balconies (highlighted RED)

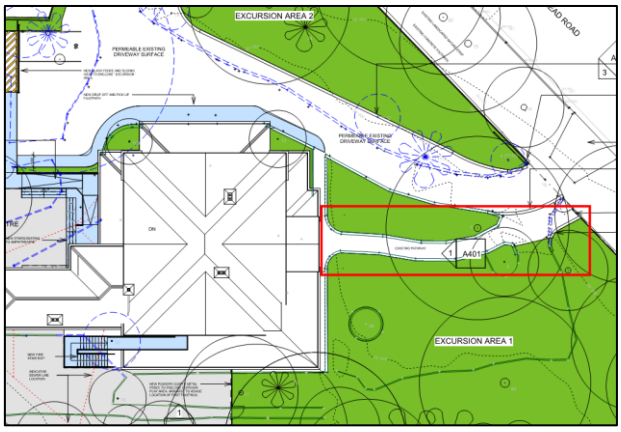


Figure 3 – Nil continuous accessible path of travel from allotment boundary (easternmost entrance)

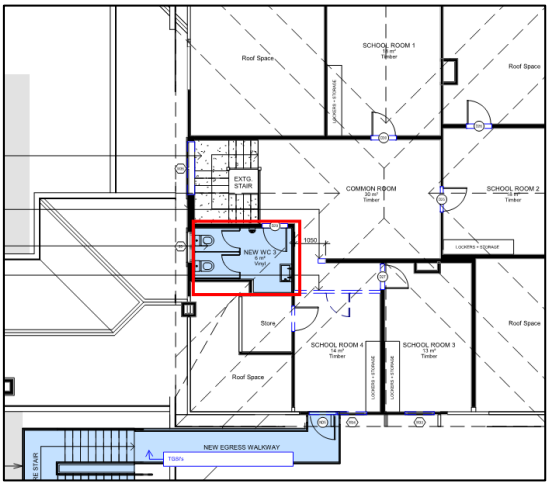


Figure 4 – Nil accessible sanitary facilities to Level 1

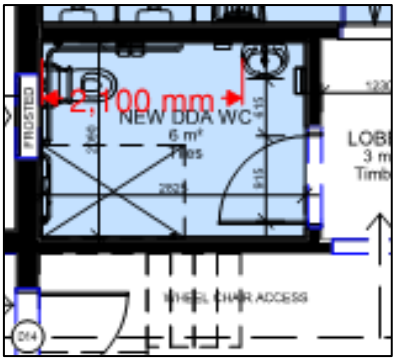


Figure 5 – Reduced pan circulation space to accessible unisex sanitary facility

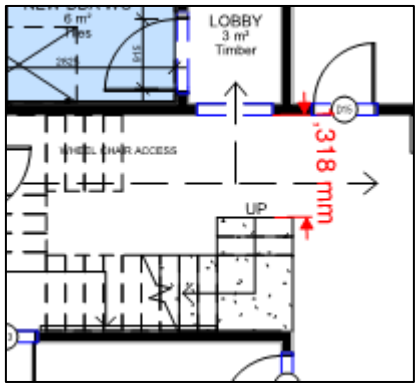


Figure 6 – Reduced clearance at base of central stairs – nil space for handrail extension

1.2 Requirements

The following table contains the requirements of this report for implementation into the building to allow the Performance Solution to achieve compliance with the relevant Performance Requirements of the BCA –

Sol No	Requirements
PS 1	Internal doors (with the exception of bathroom doors) are to be maintained in the full open position during business hours.
PS 2	An outer handrail is to be installed to the central stair and is to comply with AS 1428.1-2009 Clause 11 & 12 (with the exception of the base landing horizontal handrail extension – refer to PS6).
PS 3	Way-finding signage shall be provided in prominent positions to indicate the direction to the accessible building entrance. Signage is to comply with BCA Specification D3.6 and AS1428.1-2009. See **Figure 8** below (example only – to be designed to comply with BCA Specification D3.6 and AS1428.1-2009 Clause 8 

Sol No	Requirements
	Directional signage to be located at the non-accessible boundary entrance and at two locations along the path to the accessible entrance.
PS 4	Way-finding signage shall be provided in a prominent position at the Level 1 banks of toilets to indicate that accessible sanitary facility is available on Ground level. Signage is to comply with BCA Specification D3.6 and AS1428.1-2009. See figure below (example only – to be designed to comply with BCA Specification D3.6 and AS1428.1-2009 Clause 8):  Example of wayfinding signage
PS 5	Nil additional requirements as a result of PS1.
PS 6	a) Enhanced / consistent lighting to be distributed evenly across the stair and landings to a minimum of 100 lux in accordance with AS1680.0-2009; b) The handrail is to have a 30% luminance contrast to surrounding surfaces; c) Handrail is to have a raised tactile warning, in the form of a domed button 4 mm to 5 mm in height and 10 mm to 12 mm in diameter, and shall be provided on the top of the handrail, 150 ±10 mm from the end of the handrail

1.3 Conclusion

It is deemed from the assessment carried out and based on implementation of the above requirements, the Performance Solution(s) have shown compliance with the relevant Performance Requirements of the BCA and are suitable for application into the subject building.

2 INTRODUCTION

2.1 General

Compliance with the performance provisions of the National Construction Code Series Volume 1, Building Code of Australia for Class 2 to 9 Buildings, referred to as the BCA[2] in this report, is a statutory obligation of building developments. The relevant Performance Requirements of the BCA can be satisfied by a:

- Deemed-to-satisfy (DTS) solution; or
- Performance Solution; or
- A combination of these.

This report has been prepared at the request of Blue Gum Community School to prepare a BCA Performance Solution Report for a proposed Community Preschool and Primary School located at 1 Rosemead Street, Hornsby NSW; specifically, to address the DTS compliance departure(s) detailed in the executive summary.

2.2 Report Basis

This report is based on:

1. Access Report 19284 R1.1 prepared by Code Performance Pty Ltd.
2. The Disability (Access to Premises – Building) Standards 2010 *(Premises Standards)*.
3. National Construction Code Series 2019, Volume 1, Building Code of Australia or Class 2 to 9 Buildings, published by the Australian Building Codes Board (ABCB).
4. The Guide to the National Construction Code Series 2019, Volume 1, Building Code of Australia or Class 2 to 9 Buildings, published by the Australian Building Codes Board (ABCB).

2.3 Limitations

The content of this report relates only to the BCA compliance matters and circumstances nominated at Section 1.1.

This BCA Performance Solution is based on the information made available by the stakeholders (see section 2.5). No liability is accepted on the accuracy of the information provided.

Any change in the above information to suit future re-organisation or planning will require further assessment to confirm compliance with the intent of the design objectives.

2.4 Assumptions

All remaining work, with exception of the DTS compliance departures identified at Section 1.1 of this report, shall comply with the BCA.

2.5 Stakeholders

Role	Organisation	Representative(s)
Client	Blue Gum Community School	Jill McLachlan
Certifier	TBA	TBA
Author of this BCA Performance Solution Report	Code Performance	Nick Cribb / Michael Eisenhuth

[2] Australian Building Codes Board. National construction Code 2019, Volume 1, Building Code of Australia for Class 2 to 9 Buildings.

3 BCA ASSESSMENT DATA

3.1 Building Classification(s)

BCA assessment data in relation to the project and relevant building / part.

Below classification(s) is our understanding of the relevant BCA classification(s) to the area under review under this report.

BCA Building Classification(s): Class 9b - Community Preschool and Primary School

Note 1 - BCA Consultant / Certifier shall have the final call in determining BCA classification(s).

Note 2 - The remainder of the building may contain additional building classifications however details are not provided, nor is the remainder of the building assessed as part of this report and building part.

3.2 Occupant Characteristics

Characteristics	Assessment
Type & Number	The building occupants will vary throughout the day, depending on the time of day / night.
Occupant mobility	Building occupants are expected to be of a varying level of mobility. Staff may have a range of mobility issues including but not limited to, physical disabilities of a nature requiring the use of a wheelchair or the use of walking aids, or persons with vision impairments. However, staff will typically have a higher level of physical mobility due to the nature/demands of their employment. Visitors and children may have a range of mobility issues, including but not limited to, physical disabilities of a nature requiring the use of a wheelchair or the use of walking aids, or persons with vision impairments.
Familiarity	All staff will be familiar with building layouts and access / egress methods. Visitors and children may or may not be familiar with building layouts and access / egress methods.

4 PERFORMANCE SOLUTION 1 (PS1) – Clause D3.1

4.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009. Clause 13.2 of AS 1428.1-2009 requires minimum clear door opening widths to all doors on a continuous accessible path of travel. Clause 13.3 of AS 1428.1 2009 requires circulation spaces be provided to all doors on a continuous accessible path of travel. Clause 13.5 of AS 1428.1 2009 requires doors on a continuous accessible path of travel be provided with accessible door hardware (ie. lever style hardware).
DTS Compliance Departure(s)	A number of doors throughout the building are provided with reduced clear door opening width and/or reduced circulation spaces. In addition, doors are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility. This causes a DtS compliance departure with D3.1.
Relevant Performance Requirement(s)	**DP1** Access must be provided, to the degree necessary, to enable— a) People to- (i) …….; and (ii) …….; and (iii) Access work and public spaces, accommodation and facilities for personal hygiene; and b) …….
Indirectly Relevant Performance Requirement	No indirectly relevant performance requirements were identified.

4.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

4.3 Acceptance Criteria

It will be demonstrated that access is provided, 'to the degree necessary' and 'as far as reasonable' through the subject doors under the circumstances of this project, to enable people to access work and public spaces and facilities for personal hygiene.

4.4 Assessment

BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009.

Clause 13.2 of AS 1428.1-2009 requires minimum clear door opening widths to all doors on a continuous accessible path of travel.

Clause 13.3 of AS 1428.1 2009 requires circulation spaces be provided to all doors on a continuous accessible path of travel.

Clause 13.5 of AS 1428.1 2009 requires doors on a continuous accessible path of travel be provided with accessible door hardware (ie. lever style hardware).

A number of doors throughout the building are provided with reduced clear door opening width and/or reduced circulation spaces.

In addition, doors are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility.

This causes a DtS compliance departure with D3.1.

See **Figure 7** Below:

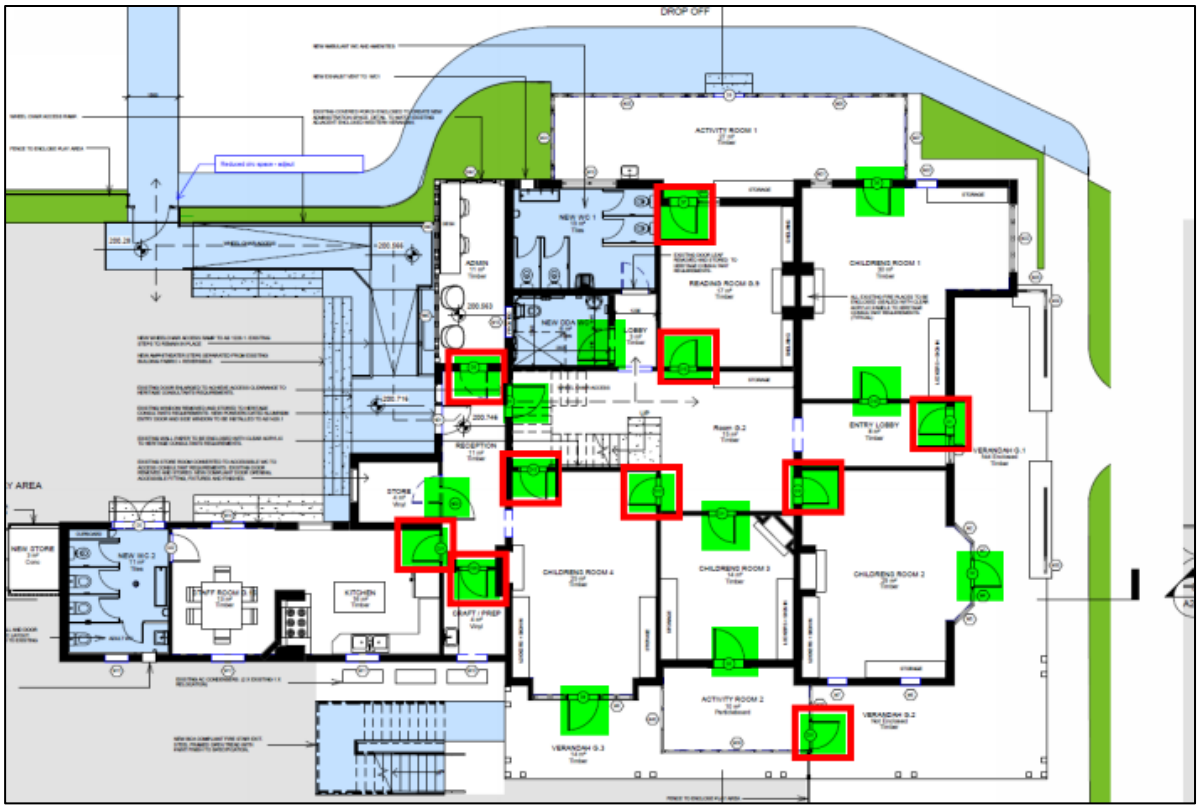


Figure 1 – Reduced access features to doors.

Doors with reduced circulation space shown in RED.

Doors with clear door opening width between 800-850mm shown in GREEN.

All doors identified above are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility.

To evidence the suitability of the subject compliance variations identified above, we shall review the situation in the context of the applicable BCA Performance Requirements.

The identified relevant Performance Requirement is DP1 which requires access be provided *to the degree necessary* to enable people to access work and public spaces, accommodation and facilities for personal hygiene.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide to the BCA, Objective D01, Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "as far as is reasonable" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However, if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered –

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. The subject building is a Community Preschool and Primary School that caters for pre/primary school aged children.

iii. Staff within a Community Preschool and Primary School are required to care for and supervise children. Employment in a Community Preschool and Primary School involves various tasks (including but not limited to); supervision of children and maintaining of order in classes, assisting children to use toilets, serving meals and other general childcare tasks.

Due to the often physical requirements of carrying out tasks associated working within a Community Preschool and Primary School, staff will *typically* have a higher level of mobility.

Notwithstanding, a person with disabilities could certainly be a staff member within a Community Preschool and Primary School, however, the incidence rate of such is conveyed as being significantly lower than otherwise catered for by the BCA.

The needs of any staff member with a disability (including such that requires use of a wheelchair) are able to be catered for within accessible areas of the building.

Should a staff member have a disability, specific and planned provisions are to be made to accommodate their specific needs. It is an employer responsibility to provide a safe and suitable workplace.

The client has noted that teachers within the building work in pairs - hence, a staff member with a disability is able to be provided with assistance, if required, by their partner.

iv. Children in wheelchairs are capable of being assisted throughout the building by ambulant staff members. If required, staff will be able to operate door hardware and hold open doors to allow a wheelchair user to pass through. All doors are provided with sufficient clear door opening width (see detailed discussion further below) and adjacent turning spaces to allow a wheelchair to pass through unimpeded.

v. Visitors must present themselves to staff / reception at the main entry lobby prior to access any part of the building. Staff will be present at all times of business operation and are responsible for greeting, monitoring and assisting people through the centre. This is an operational, insurance and management necessity.

   Hence, staff will be always be available to assist visitors through the building and the subject doors with identified compliance departures.

vi. Attention is drawn to a concession available at clause 13.5.3 of AS1428.1- 2009, which specifically negates the need for an early childcare centre to comply with AS1428.1-2009 door hardware location requirements.

   The aforementioned AS1428.1-2009 concession highlights that the code / standards accept that for early childcare centres, door hardware requirements are not to be enforced in a typical manner. Thereby, a wheelchair user or person with limited mobility is not likely to have typical access to door hardware necessary for their self-passage; importantly, such being acceptable in the context of AS1428.1-2009 and the nature of the building.

   Although not directly applicable in this instance (building being a Community Preschool and Primary school), a comparable scenario exists, and similar safety concerns are considered valid.

The risk profile of persons being affected by the identified compliance departures is reduced in this instance, based on the aforementioned points. Subsequently, 'to the degree necessary' application on this project would allow consideration of a reduced risk profile.

The following commentary is offered in regards to the specific compliance departures:

<u>Reduced latch-side door circulation space and knob style door hardware</u>

vii. As discussed above, due to the often physical requirements of carrying out tasks associated working within a Community Preschool and Primary School, staff will *typically* have a higher level of mobility and will not be caused concern with the identified compliance variations.

   The client has noted that teachers within the building work in pairs - hence, a staff member with a disability is able to be provided with assistance if required, by their partner.

viii. As this is a highly managed building scenario, staff will be available at all times to assist children/visitors throughout the building if required.

ix. During business hours, internal doors throughout the building will be left in the full open position (with the exception of bathroom doors). For doors in the full open position, the requirement for circulation space/door hardware is negated as there is no need to operate the door hardware (for which latch-side circulation space is required to permit operation).

<u>Reduced clear door opening width</u>

x. The purpose of an 850mm clear door opening width is to allow a 90th percentile wheelchair user to pass through the doorway with ease and allows suitable tolerances on either side of the wheelchair to accommodate the user passing through the doorway at angles other than straight on (as a result of a side on or diagonal approach).

xi. The diagram below taken from AS1428.1-2009 shows the required footprint for a 90th percentile wheelchair user and shows a footprint width of 800mm which includes slight tolerances on either side for the users arms.

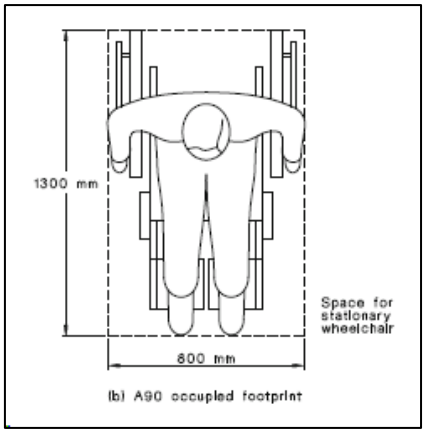


Figure 6 – A90 wheelchair footprint

xii. From the above figure it is clear that the requirements for 850mm clear opening doors is in excess of the physical dimensions (width) of an A90 occupied wheelchair to allow for sufficient tolerances to accommodate comfortable clear movement through a doorway.

xiii. The Anthropometry of Wheeled Mobility Project carried out by the Centre for Inclusive Design and Environmental Access (USA) is a research project that analysed data from a sample of almost 500 users of wheeled mobility devices, the data was compared to studies in three other countries (UK, AUS, CAN) and to the access standards in all four countries. The comparison showed that the 95th percentile unoccupied wheeled mobility device width ranged from 662mm - 740mm wide – see Figure 7 below:

Data Source	Sample Size	Min	5%ile	Mean	80%ile	90%ile	95%ile	Max
Seeger et al., AUS								
All Device Types*	240	-	-	650	-	-	715	880
UDI, Canada								
Power chairs and scooters*	50	560	-	613	-	-	697	810
DfT, U.K.								
Self-Propelled Wheelchair	458	393	572	635	-	-	707	992
Attendant-Propelled Wheelchair	106	505	538	595	-	-	662	719
Electric Wheelchair	294	399	536	605	-	-	670	745
Electric Scooter	240	426	478	579	-	-	669	840
All Device Types*	1098	393	531	612	-	-	692	992
IDeA Center, U.S.								
Manual chairs	276	508	575	654	688	710	740	967
Power chairs	189	539	562	635	665	701	738	845
Scooters	30	488	492	610	660	695	730	759
All Device Types*	495	488	563	644	675	705	739	967

* Indicates data plotted in the graph.

Figure 3-1. Unoccupied WhMD width: research findings versus the standards.

Figure 7 – Unoccupied WhMD widths

xiv. Based on this data, it is considered that a clear door width as low as 800mm will provide sufficient clearance to allow 95th percentile wheelchair users to pass through the doorway, albeit by potentially requiring a slightly more complex movement pattern and momentarily tucking extremities inboard the wheelchair.

Verification from International Standards

xv. Notwithstanding the above, and to assist in verifying the suitability of the identified compliance variations we refer to the following international standards:

(a) The Building Regulations 2000 – Approved Document M – This standard provides practical guidance with respect to the requirements of Schedule 1 and Regulation 7 of the Building Regulations 2000 for England and Wales.

(b) NZS 4121-2001 - This standard is cited in subsection (3) of section 47A of the New Zealand Building Act 1991, as a means of compliance with the NZ Building Code

xvi. The above documents are considered to be suitable for use as verification as the demographic and anthropometric profile of the population of the UK and NZ are directly comparable to that of the Australian population.

xvii. In relation to required clear door opening widths, the above documents provide the following guidance / requirements:

- Approved Document M
  - New building – 800mm clear door opening width (straight on approach)
  - New building – 825mm clear door opening width (right angle approach with corridor 1200-1500mm wide)
  - Existing building – 750mm clear door opening width (straight on approach)
  - Existing building – 775mm clear door opening width (right angle approach with corridor 1200-1500mm wide)
- NZS 4121-2001
  - New/existing building – 760mm clear door opening width (all approach angles).

xviii. The above documents indicate that a clear door width of ~800mm is suitable to allow the provision of access for persons with a disability.

xix. It is noted that AS1428.1-2009 does not include allowance/consideration for existing building scenarios and constraints, whereas Approved Document M allows for clear door opening widths as low as 750mm in existing building scenarios. The reduced width allowance for existing buildings is in line with the A95 WhMD dimensions discussed in the above research data by the Centre for Inclusive Design and Environmental Access (USA).

xx. Although not directly applicable in this instance, the above international standards provide valuable data to assist in verifying the suitability of a clear door opening width of 800mm.

Additional Commentary

xxi. AS1428.1-2001 (now superseded by AS 1428.1-2009) required a clear door opening width of a minimum 800mm - the subject doors are likely to have been constructed under this superseded standard. AS1428.1-2001 deemed an 800mm clear door opening width suitable to cater for the needs of at least A80 wheelchair users. Hence, the subject doors will cater for at least an A80 wheelchair user.

xxii. The Disability (Access to Premises – Buildings) Standards 2010 includes a concession that allows a unisex accessible sanitary facility in an existing building to remain as is, so long as it achieves compliance with AS 1428.1-2001 – including the clear door opening width of the entrance door. This concession recognises the significant cost of upgrading/enlarging existing spaces.

Although not directly applicable in this instance, the Premises Standards recognises the suitability of a reduced clear door opening width as low as 800mm in some existing building scenario.

In this instance, on the basis of points (i) – (xxii) above, "equitable" and "dignified" access is considered to be achieved in the context of this scenario.

It is not considered unfair or inequitable to provide reduced access features to the subject doors.

4.5 Summary / Conclusion

It has been demonstrated that that access is provided, 'to the degree necessary' and 'as far as reasonable' through the subject doors under the circumstances of this project, to enable people to access work and public spaces and facilities for personal hygiene.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 4.3 is satisfied.

5 PERFORMANCE SOLUTION 2 (PS2) – Clause D3.1

5.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009.
DTS Compliance Departure(s)	Nil continuous accessible path of travel is provided to the Ground Level activity rooms / balconies or to Level 1.
Relevant Performance Requirement(s)	**DP1** Access must be provided, to the degree necessary, to enable— a) People to - (i) …….; and (ii) …….; and (iii) Access work and public spaces, accommodation and facilities for personal hygiene; and b) …….
Indirectly Relevant Performance Requirement	No indirectly relevant performance requirements were identified.

5.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

5.3 Acceptance Criteria

Demonstration shall be provided that access to and within Level 1 and the Ground Level activity rooms / balconies is provided 'to the degree necessary' and 'as far as reasonable' without the provision of a continuous accessible path of travel under the circumstances of this project.

5.4 Assessment

BCA Clause D3.1 requires a school building be provided with access to and within all areas normally used by the occupants in accordance with AS 1428.1-2009.

Nil continuous accessible path of travel is provided to the Ground Level activity rooms / balconies or to Level 1 of the subject building.

This causes a DtS compliance departure with D3.1.

To evidence the suitability of the subject compliance variations identified above, we shall review the situation in the context of the applicable BCA Performance Requirements.

The identified relevant Performance Requirement is DP1 which requires access be provided *to the degree necessary* to enable people to access work and public spaces, accommodation and facilities for personal hygiene.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome

appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide to the BCA, Objective D01, Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "as far as is reasonable" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However, if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered –

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. The proposed works to Level 1 are limited to minor internal configuration changes and redecoration works throughout. No significant works are proposed to the Ground level activity rooms / balcony areas. No new Level 1 or Ground Level activity room / balcony area is being created. We convey that it would be 'unreasonable' to expect a passenger lift provision to the upper floor / level access to the activity rooms / balconies in the context of the proposed extent of works.

iii. The proposed works do not cause a reduction to the existing extent of access to / within the building. In-fact the proposed work results in a significant increase in building access compliance.

iv. The building will be occupied by a single tenant.

v. The subject building is a Community Preschool and Primary School building that caters for pre/primary school aged children.

vi. Staff within a Community Preschool and Primary School are required to care for and supervise children. Employment in a Community Preschool and Primary School involves various tasks (including but not limited to); supervision of children and maintaining of order in classes, assisting children to use toilets, serving meals and other general childcare tasks.

    Due to the often physical requirements of carrying out tasks associated working within a Community Preschool and Primary School, staff will *typically* have a higher level of mobility.

    Notwithstanding, a person with disabilities could certainly be a staff member within a Community Preschool and Primary School, however, the incidence rate of such is conveyed as being significantly lower than otherwise catered for by the BCA.

    The needs of any staff member with a disability (including such that required use of a wheelchair) are able to be catered for within accessible areas of the building.

    Should a staff member have a disability, specific and planned provisions are to be made to accommodate their specific needs. It is an employer responsibility to provide a safe and suitable workplace.

vii. Staff are not transient and their needs (including access needs), are generally known.

viii. Staff will be available at all times of operation to assist children/visitors within the building.

ix. Level 1 contains: school rooms, storage, bathroom and a common room. These function/uses are capable of being provided on the ground level if required to suit the access needs of a child/visitor/staff member.

x. The functions/uses provided on the Ground Level balconies are capable of being provided within accessible parts of the building. Staff/visitors/children with enhanced access needs can be suitability catered for within the internal spaces of the building.

xi. The client has confirmed that 'Parent Events' will not be held in inaccessible parts of the building.

xii. Visitors must present themselves to staff / reception at the main entry lobby prior to access any part of the building. Staff will be present at all times of business operation and are responsible for greeting, monitoring and assisting people through the centre. This is an operational, insurance and management necessity and an effective way or ameliorating any concern with the reduced extent of access.

The risk profile of persons being affected by the omission of a continuous accessible path of travel to and within Level 1 and to the Ground Level balcony areas is reduced in this instance, based on the aforementioned points. Subsequently, 'to the degree necessary' application on this project would allow consideration of a reduced risk profile.

Notwithstanding the above the following comparison to the DtS provision of the BCA is offered:

xiii. BCA Clause D3.3(f) negates the necessity for the provision of access to levels other than the entrance storey in a Class 5, 6, 7b or 8 building if it contains not more than 3 storeys and each storey, excluding the entrance storey, is not more than 200m^2. Hence, in a 3 storey building scenario with a floor plate of 200m^2, 400m^2 of floor area would not be required to be provided with lift access.

Although this exception does not extend specifically to this building scenario (class 9b building), the BCA exception recognises (amongst other things) the cost and practicality concern associated with the provision of access to a small floor plate in a small building.

xiv. Level 1 has a floor area of ~121m^2, the Ground Level activity room / balcony areas have a floor area of ~101m^2. A Class 5 building with 3 storeys of 200m^2 each would be exempt from providing lift access to the upper two levels (400m^2 total floor area). Hence, if this building where a Class 5/6/7/8 building, a concession would be afforded under Clause D3.3(f).

Subsequently, in this instance, having regard to those matters addressed above, the same concerns are considered valid when assessing the subject building.

As a means to ameliorate any remnant concern associated with the nominated compliance variation(s) and as a requirement of this report, the following upgrades are required:

a) An outer handrail is to be installed to the central stair and is to comply with AS 1428.1-2009 Clause 11 & 12 (with the exception of the base landing horizontal handrail extension – refer to PS6).

In this instance, on the basis of points (i) – (xiv) above, "equitable" and "dignified" access is considered to be achieved in the context of this scenario.

5.5 Summary / Conclusion

It has been demonstrated that access to and within Level 1 and the Ground Level activity room / balconies is provided 'to the degree necessary' and 'as far as reasonable' without the provision of a continuous accessible path of travel under the circumstances of this project.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 5.3 is satisfied.

6 PERFORMANCE SOLUTION 3 (PS3) – Clause D3.2

6.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Clause D3.2 requires an accessway be provided to the building from the main points of pedestrian entry at the allotment boundary.
DTS Compliance Departure(s)	Nil continuous accessible path of travel is provided from the easternmost entrance on the northern allotment boundary to the building. This causes a DtS compliance departure with D3.1.
Relevant Performance Requirement(s)	**DP1** Access must be provided, to the degree necessary, to enable— a) People to- (i) approach the building from the road boundary and from any accessible carparking spaces associated with the building; and (ii) …….; and (iii) access work and public spaces, accommodation and facilities for personal hygiene; and b) …….
Indirectly Relevant Performance Requirement	No indirectly relevant performance requirements were identified.

6.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

6.3 Acceptance Criteria

Demonstration shall be provided that the proposed configuration of access from the allotment boundary offers access 'to the degree necessary' and '*as far as reasonable*' under the circumstances of this project.

6.4 Assessment

BCA Clause D3.2 requires an accessway be provided to the building from the main points of pedestrian entry at the allotment boundary.

Nil continuous accessible path of travel is provided from the easternmost entrance on the northern allotment boundary to the building.

This causes a DtS compliance departure with D3.1.

To evidence the suitability of the subject compliance variations identified above, we shall review the situation in the context of the applicable BCA Performance Requirements.

The identified relevant Performance Requirement is DP1 which requires access 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 and access work and public spaces, accommodation and facilities for personal hygiene.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide to the BCA, Objective D01, Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "as far as is reasonable" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However, if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered –

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. The proposed works do not cause a reduction to the existing extent of access to / within the building. In-fact the proposed work results in a significant increase in building access compliance including an accessible entrance to the southern side of the building.

iii. The building will be occupied by a single tenant.

iv. The subject building is a Community Preschool and Primary School building that caters for pre/primary school aged children.

v. Staff within a Community Preschool and Primary School are required to care for and supervise children. Employment in a Community Preschool and Primary School involves various tasks (including but not limited to); supervision of children and maintaining of order in classes, assisting children to use toilets, serving meals and other general childcare tasks.

   Due to the often physical requirements of carrying out tasks associated working within a Community Preschool and Primary School, staff will *typically* have a higher level of mobility.

   Notwithstanding, a person with disabilities could certainly be a staff member within a Community Preschool and Primary School, however, the incidence rate of such is conveyed as being significantly lower than otherwise catered for by the BCA.

   The needs of any staff member with a disability (including such that required use of a wheelchair) are able to be catered for within accessible areas of the building.

vi. Staff are not transient and their needs (including access needs), are generally known.

vii. Staff will be available at all times of operation to assist children/visitors within the building.

viii. 1 of 2 entries to the building from the allotment boundary is accessible. The pedestrian entrances at the allotment boundary are adjacent each-other.

   The *reasonableness* of requiring a second accessible path of travel to be provided from the boundary when a direct and convenient path to the building is provided, is questionable.

ix. To avoid visitors (who may be unaware of the location of the accessible entrance) from being caused hardship upon entry to the tenancy, way-finding signage shall be provided in prominent positions to indicate the direction to the accessible building entrance. Signage is to comply with

BCA Specification D3.6 and AS1428.1-2009. See **Figure 8** below (example only – to be designed to comply with BCA Specification D3.6 and AS1428.1-2009 Clause 8

Figure 8 – Directional signage to be located at the non-accessible boundary entrance and at two locations along the path to the accessible entrance**.**

From the above, the setup of entries, as detailed, is considered to provide provision for entry *'to the degree necessary'* for equitable and dignified access and 'as far as is reasonable' under the circumstances of this project.

The aforementioned access scenario is considered to address the need for safe, equitable and dignified access.

"Dignity" - To reduce any loss of 'dignity', visual cues will be provided to avoid visitors from hardship upon arrival. Signage shall be strategically located to ensure visual cues, in the form of the international symbol for access including clear and legible braille and tactile signage. This signage shall avoid any loss of dignity in this instance.

"Equitable" - Fairness and equality is achieved in this building scenario by provision of 1 accessible entrance from 2 possible entries. This 50% accessible entry ratio complies with BCA Clause D3.2(b)(i). This demonstrates that fairness and equality is achieved in the subject building scenario.

Consequently, fairness and equality in terms of building access exists to a suitable level.

In this instance, on the basis of points (i) – (ix) above, "equitable" and "dignified" access is considered to be achieved in the context of this scenario.

6.5 Summary / Conclusion

It has been demonstrated that the proposed configuration of access from the allotment boundary offers access 'to the degree necessary' and 'as far as reasonable' under the circumstances of this project.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 6.3 is satisfied.

7 PERFORMANCE SOLUTION 4 (PS4) – Clause F2.4

7.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Table F2.4(a) requires an accessible unisex sanitary facility be provided on every story containing sanitary compartments. In addition, at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment, a sanitary compartment suitable for a person with an ambulant disability must be provided for use by males and females.
DTS Compliance Departure(s)	Nil accessible sanitary facilities are proposed (accessible unisex or ambulant) to Level 1 of the subject building. This causes a DtS compliance departure with Clause F2.4.
Relevant Performance Requirement(s)	**FP2.1 -** Suitable sanitary facilities for personal hygiene must be provided in a convenient location within or associated with a building, to the degree necessary, appropriate to – a) The function or use of the building; and b) The number and gender of the occupants; and c) The disability of other particular needs of the occupants.
Indirectly Relevant Performance Requirement	**DP1 -** Access must be provided, to the degree necessary, to enable – a) people to – (i) ….. ; (ii) ….. ; (iii) access work and public spaces, accommodation and facilities for personal hygiene ….. ,

7.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

7.3 Acceptance Criteria

It will be demonstrated that suitable sanitary facilities are provided 'to the degree necessary' appropriate to the function and use of the building and the disability or other particular needs of the occupants.

7.4 Assessment

The purpose of this BCA Performance Solution and the deficiency identified in this instance relates to whether suitable sanitary facilities are provided 'to the degree necessary' appropriate to the function and use of the building and the disability or other particular needs of the occupants without the provision of a unisex accessible sanitary facility or ambulant compartments to Level 1.

BCA Table F2.4(a) requires an accessible unisex sanitary facility be provided on every story containing sanitary compartments.

In addition, at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment, a sanitary compartment suitable for a person with an ambulant disability must be provided for use by males and females.

Nil accessible sanitary facilities are proposed (accessible unisex or ambulant) to Level 1 of the subject building.

This causes a DtS compliance departure with Clause F2.4.

In order to determine the suitability of the aforementioned building scenario, we look to the relevant BCA objective/s and performance requirements:

The identified relevant Performance Requirement is FP2.1, requires that suitable sanitary facilities for personal hygiene must be provided in a convenient location within the building, "*to the degree necessary*", appropriate to the function and use of the building, the number of occupants and the particular needs of the occupants.

The identified indirectly relevant Performance Requirement DP1, requires access to the degree necessary to enable people to access work and public spaces.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide, the objective of Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "*as far as is reasonable*" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered –

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. Nil continuous accessible path of travel is provided to Level 1 – ie. no passenger lift is provided (refer to PS2 for further details). Hence, the likelihood of a person on the first floor requiring the use of an accessible sanitary facility is significantly reduced.

iii. The subject building is a Community Preschool and Primary School building that caters for pre/primary school aged children.

Accessible sanitary facilities are provided on Ground Level. Staff/visitor/children with disabilities who may require use of an accessible sanitary facility will be catered for through provision of these ground level facilities.

iv. Staff will be present at all times of business operation and are able to assist / manage children & visitors. In the case that a person requires the use of an accessible sanitary facility, the accessible sanitary facility on Ground is provided in a convenient location.

v. The Guide to the Premises Standards explains that a 'bank of toilets' is not defined, however, it should be considered to be a set of sanitary compartments for use by males and females. The following extract from the Guide to the Premises Standards is offered:

"If a multi-storey building provided alternating male and female sanitary compartments on each floor the male on one floor and the female on the next floor together constitute a bank of toilets. In this situation …. an accessible unisex sanitary compartment would only be required on one of the floors …… "

The above conveys that in some instances, prescriptive compliance with the BCA can include travel between floors to achieve access to an accessible sanitary facility. Thereby, the proposed scenario which requires travel between levels to achieve access to an accessible sanitary facility is not considered unusual nor unreasonable, particularly for an existing building scenario.

Ease of access to the Ground level unisex accessible sanitary facility shall be enhanced as a condition of this BCA Performance Solution report to ensure 'equitable' and 'dignified' access is available; as follows:

a) Way-finding signage shall be provided in a prominent position at the Level 1 banks of toilets to indicate that accessible sanitary facility is available on Ground level. Signage is to comply with BCA Specification D3.6 and AS1428.1-2009. See **Figure 9** below (example only – to be designed to comply with BCA Specification D3.6 and AS1428.1-2009 Clause 8):

Figure 9 – Example of wayfinding signage

The risk profile of persons being affected by a reduced extent of accessible sanitary facilities to Level 1 of the building is significantly reduced in this instance, based on the aforementioned points. Subsequently, 'to the degree necessary' application on this project would allow consideration of a reduced risk profile.

In this instance, on the basis of points (i) – (vi) above, "equitable" and "dignified" access is considered to be achieved.

7.5 Summary / Conclusion

The assessment undertaken above demonstrates that suitable sanitary facilities are provided 'to the degree necessary' appropriate to the function and use of the building and the disability or other particular needs of the occupants.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 7.3 is satisfied.

8 PERFORMANCE SOLUTION 5 (PS5) – Clause F2.4

8.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Clause F2.4 requires the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) to comply with the requirements of AS 1428.1. AS 1428.1-2009 Clause 15 requires a toilet pan within an accessible sanitary facility to be provided with a 1900mm x 2300mm circulation space. AS 1428.1-2009 Figure 43 permits a 100mm encroachment into the pan circulation space depth via a basin.
DTS Compliance Departure(s)	The subject Ground Level accessible unisex sanitary facility basin encroaches 200mm into the pan circulation space (100mm encroachment). This causes a DtS compliance departure with Clause F2.4.
Relevant Performance Requirement(s)	**FP2.1 -** Suitable sanitary facilities for personal hygiene must be provided in a convenient location within or associated with a building, to the degree necessary, appropriate to – a) The function or use of the building; and b) The number and gender of the occupants; and c) The disability of other particular needs of the occupants.
Indirectly Relevant Performance Requirement	**DP1 -** Access must be provided, to the degree necessary, to enable – a) people to – (i) ….. ; (ii) ….. ; (iii) access work and public spaces, accommodation and facilities for personal hygiene ….. ,

8.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

8.3 Acceptance Criteria

It will be demonstrated that the minor compliance variation to the subject accessible sanitary facility will not cause a barrier to access for persons with a disability and that suitable sanitary facilities for personal hygiene are provided in a convenient location within the building, to the degree necessary, appropriate to the function and use of the building and the particular needs of the occupants.

8.4 Assessment

BCA Clause F2.4 requires the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) to comply with the requirements of AS 1428.1.

AS 1428.1-2009 Clause 15 requires a toilet pan within an accessible sanitary facility to be provided with a 1900mm x 2300mm circulation space.

AS 1428.1-2009 Figure 43 permits a 100mm encroachment into the pan circulation space depth via a basin.

The subject Ground Level accessible unisex sanitary facility basin encroaches 200mm into the pan circulation space (100mm encroachment).

This causes a DtS compliance departure with Clause F2.4.

To evidence the suitability of the subject compliance variation identified above, we shall review the situation in the context of the applicable BCA Performance Requirements.

The identified relevant Performance Requirement is FP2.1, requires that suitable sanitary facilities for personal hygiene must be provided in a convenient location within the building, "*to the degree necessary*", appropriate to the function and use of the building, the number of occupants and the particular needs of the occupants.

The identified indirectly relevant Performance Requirement DP1, requires access to the degree necessary to enable people to access work and public spaces.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide, the objective of Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "*as far as is reasonable*" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered:

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. The internal dimensions of the subject accessible sanitary facility is slightly undersized in comparison to the current requirements of AS 1428.1-2009.

Major structural works would be required to enlarge the size of the sanitary facility and rectify the minor dimensional compliance variation. It would be unreasonable to require significant cost and upgrade of the existing building to accommodate a DtS compliant facility, when it is evidenced that the minor compliance variation will not impact on the useability.

iii. The fixtures and fittings to the subject accessible sanitary facilities will accord with AS 1428.1-2009.

iv. The Disability (Access to Premises - Buildings) Standards 2010 contain a concession that allows the retention of an existing unisex accessible sanitary facility in a new part if it complies with AS 1428.1 2001.

AS 1428.1-2001 included the following requirements/allowances:

- Pan circulation space of 2000mm x 1600mm (the washbasin is also allowed to encroach into the pan circulation space by 100mm so long as 1100mm is maintained between the pan and the basin.

Although this does not directly apply to this project (new unisex accessible sanitary facility proposed), the Premises Standards recognises the suitability of a smaller, AS 1428.1-2001 compliant sanitary facility in some instances.

It is noted that the circulation space to the subject pans exceed the circulation space requirements of AS 1428.1-2001. The level of accessibility is significantly greater than an AS 1428.1-2001 compliant facility that would otherwise be afforded an upgrade concession.

v. To demonstrate the suitability of the reduced circulation space to the accessible sanitary facilities, we look to international access standards for verification.

A number of international standards (including USA and UK) incorporate a general wheelchair circulation space within accessible sanitary facilities of 1500-1525mm diameter as shown in **Figure 10** below.

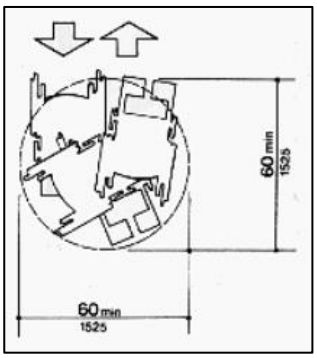


Figure 10 – 1525mm wheelchair circulation space dimeter

The 2010 ADA Standards for Accessible Design are the current standards in the USA for accessible building design. These standards require the above circulation space to be provided within an accessible sanitary facility to allow an occupant to access and utilise all sanitary facility fixtures and fittings.

As the demographic of the USA is directly comparable to that of the Australian public, the proposed accessible sanitary facility has been assessed incorporating the circulation space requirements of the 2010 ADA Standards for Accessible Design. We confirm that the subject accessible sanitary facility has sufficient space to incorporate the 1525mm circulation space – allowing the opportunity for a wheelchair user to rotate 360 degrees in the sanitary facility to access and operate all fixtures and fittings.

In this instance, on the basis of the above, it is considered that the minor compliance variation to the subject accessible sanitary facility will not cause an access barrier for persons with a disability.

8.5 Summary / Conclusion

It has been demonstrated that the minor compliance variations to the unisex accessible sanitary facility will not cause a barrier to access for persons with a disability and that suitable sanitary facilities for personal hygiene are provided in a convenient location within the building, to the degree necessary, appropriate to the function and use of the building and the particular needs of the occupants.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 6.3 is satisfied.

9 PERFORMANCE SOLUTION 6 (PS6) – Clause D3.3

9.1 Compliance Departure Particulars

Relevant DTS Provision	BCA Clause D3.3 requires stairs (except a fire-isolated stairway) to be afforded with accessibility features to accord with Clause 11 of AS1428.1. Subsequently, AS 1428.1-2009 Clause 11.2 requires stairs be provided with horizontal handrail extensions at top and base landings.
DTS Compliance Departure(s)	The proposed handrail to the central stair is not provided with a 300mm horizontal handrail extension at the base landing. This causes a DtS compliance departure with Clause D3.3.
Relevant Performance Requirement(s)	**DP2** So that people can move safely to and within a building, it must have- a) … b) … c) Any stairways and ramps with – (i) … (ii) Suitable handrails where necessary to assist and provide stability to people using the stairway or ramp; and (iii) … (iv) … (v) In the case of a stairway, suitable safe passage in relation to the nature, volume and frequency of likely usage.
Indirectly Relevant Performance Requirement	**DP1 -** Access must be provided, to the degree necessary, to enable – a) people to – (i) ….. ; (ii) ….. ; (iii) access work and public spaces, accommodation and facilities for personal hygiene ….. ,

9.2 Assessment Methodology

To show compliance with the relevant Performance Requirements of the BCA the assessment methodology that has been used is shown in the table below.

Compliance Solution (A2.2(1))	Assessment Method (A2.2 (2))	Approach
A2.2 (1) (a)	A2.2 (2) (b) (ii) & (d)	Qualitative discussion using a comparative assessment in conjunction with other verification methods

9.3 Acceptance Criteria

Demonstration shall be provided that the handrail to the subject stairs is suitable to assist and provide stability to users, in relation to the nature, volume and frequency of likely usage.

9.4 Assessment

BCA Clause D3.3 requires stairs (except a fire-isolated stairway) to be afforded with accessibility features to accord with Clause 11 of AS1428.1.

Subsequently, AS 1428.1-2009 Clause 11.2 requires stairs be provided with horizontal handrail extensions at top and base landings.

The proposed handrail to the central stair is not provided with a 300mm horizontal handrail extension at the base landing.

This causes a DtS compliance departure with Clause D3.3.

To evidence the suitability of the subject compliance variation identified above, we shall review the situation in the context of the applicable BCA Performance Requirements.

The identified relevant Performance Requirement is DP2, requires that, so that people can move safely to and within a building. stairs must have suitable handrails where necessary to assist and provide stability to people using the stairway or ramp.

The identified indirectly relevant Performance Requirement DP1, requires access to the degree necessary to enable people to access work and public spaces.

Clause A1.0 (3)(c) of the BCA states that the term "to the degree necessary" means that consideration of all criteria referred to in the Performance Requirement will determine the outcome appropriate to the circumstances. In certain situations, it may not be necessary to incorporate any specific measures to meet the Performance Requirements.

As stated in the Guide, the objective of Section D of the BCA provides, as far as reasonable, people with safe, equitable and dignified access to a building and the services and facilities within. The Guide to the BCA goes on to explain these terms, as reproduced below:

"*As far as is reasonable*" – there may be occasions when the application of a rule is "unreasonable". Use of the phrase "*as far as is reasonable*" indicates that the BCA provisions are not absolute. This is consistent with the intent of the DDA.

"*Equitable*" – one of the primary intentions of the DDA is to provide people with disabilities with the same rights as the rest of the community. The word "equitable" combines concepts of fairness and equality. It does not mean that all people must be able to do precisely the same thing in the same way. However if some people can use a building for a particular purpose, then most people should be able to use the building for that purpose. The concept of "equitable" does not necessarily mean that everybody should be able to access all parts of a building.

"*Dignified*" – a person with a disability should be able to gain access to and within a building, and to the services and facilities of buildings, in a manner which is not devaluing or demeaning.

From the above, the following commentary is offered:

i. The subject building is an existing building and is subject to existing building, structural and heritage constraints.

ii. The prescribed handrail extensions are intended to serve two functions;

   (a) to assist persons with ambulatory disabilities or vision impairment in negotiating a stairway by allowing the ability to grasp and use the handrail before passing up / down the stair; and

   (b) the change in angle at the horizontal extensions alerts an ambulant or visually impaired person that they are reaching a landing.

iii. In regards to (a), on the basis that handrails extend the full length of the stair to the base landing and are terminated appropriately, the ability to grasp and use the handrail before passing up / down the stairs does exist. The ability for a stair user to grasp a handrail is of significant importance to achieve stability and user comfort prior to proceeding up / down the stair.

iv. To assist in verifying the suitability of nil 300mm horizontal handrail extension, we refer to international standard ICC/ANSI A117.1-2009 (American National Standard) which is referenced by the International Building Code and the National Fire Protection Association (NFPA) Life Safety Code 101 (2009 edition).

ICC/ANSI A117.1-2009, Clause 505.10.3 (Bottom extension at stairs), refers to the need for a handrail extension at the base of the stairs which is equal to the stair tread depth, but no need exists for a 300mm horizontal handrail projection. Refer to **Figure 11** below for illustration of necessary handrail detailing in this instance.

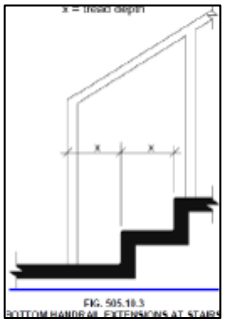


Figure 11 - ICC / ANSI A117.1-2009 Fig. 505.10.3 – Bottom handrail extension at stairs

Further, Clause 505.10 EXCEPTIONS (3), allows an exemption for full handrail extensions to top and bottom landing of stairways in the case of alterations to an existing building were the inclusion of extensions would be hazardous.

In summary, ICC / ANSI A117.1-2009 allows for nil horizontal handrail extensions to base landings. Although not directly applicable in this scenario, the provisions of ICC / ANSI A117.1-2009 are a suitable verification to demonstrate suitability of nil handrail extensions.

v. In regards to (b), in order to ameliorate any potential safety / usability concerns in relation to the lack of 300mm horizontal extension, a raised dome button is to be installed 150mm from the handrail terminations.

The raised dome button is noted to have the effect of alerting a person with a vision impairment to the end of a handrail and the subsequent change in surfaces between the stair and the top and bottom landing, and as such is considered to have the equivalent effect to a horizontal handrail extension.

As a means to ameliorate any remnant concern associated with the nominated compliance variation(s) and as a requirement of this report, the subject handrail shall incorporate the following (non-BCA required) treatments–

a) Enhanced / consistent lighting to be distributed evenly across the stair and landings to a minimum of 100 lux in accordance with AS1680.0-2009;

b) The handrail is to have a 30% luminance contrast to surrounding surfaces;

c) Handrail is to have a raised tactile warning, in the form of a domed button 4 mm to 5 mm in height and 10 mm to 12 mm in diameter, and shall be provided on the top of the handrail, 150 ±10 mm from the end of the handrail.

9.5 Summary / Conclusion

The assessment undertaken above demonstrates that the subject stairway provides suitable safe passage in relation to the nature, volume and frequency of likely usage.

It is therefore considered that the acceptance criteria nominated for this assessment in Section 6.3 is satisfied.

10 CONCLUSION

This Performance Solution has been formulated to demonstrate compliance with the Performance Requirements by comparison with the DtS provisions and such other Verification Methods as the appropriate authority accepts for determining compliance with the Performance Requirements, which is an acceptable method of determination in accordance with BCA Clause A2.2.

Accordingly, based on the above, it is considered that the directly related Performance Requirements have been met, considering –

- The Performance Solution requirements listed within this report; and
- Performance Requirement DP1, DP2 & FP2.1; and
- The intent as stated in the Guide to the BCA 2019.

CODE PERFORMANCE

CURRICULUM VITAE *FOR*

NICK CRIBB

PROFILE

Nick is a specialist accessibility consultant within the private sector.

Nick has extensive knowledge of the Building Code of Australia, The Disability (Access to Premises – Buildings) Standards 2010 and related standards.

Nick prides himself on providing accurate and detailed advice and finding pragmatic and cost-effective solutions to compliance matters.

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QUALIFICATIONS

- **DIPLOMA OF ACCESS CONSULTING – INSTITUTE OF ACCESS TRAINING AUSTRALIA**
  2017-2019
- **LIVABLE HOUSING AUSTRALIA DESIGN GUIDELINE ASSESSOR – INSTITUTE OF ACCESS TRAINING AUSTRALIA**
  2018
- **BACHELOR OF CONSTRUCTION MANAGEMENT (HONS) – UNIVERSITY OF NEWCASTLE**
  2013-2016
- **BACHELOR OF ARTS – UNIVERSITY OF NEW SOUTH WALES**
  2009-2012

MEMBERSHIPS

- **ASSOCIATION OF ACCREDITED CERTIFIERS (AAC)**
  Associate Member
- **ASSOCIATION OF CONSULTANTS IN ACCESS AUSTRALIA (ACAA)**
  Associate Member #657

EMPLOYMENT HISTORY

- **ACCESS CONSULTANT @ CODE PERFORMANCE PTY LTD**
  2018-Present
- **BUILDING COMPLIANCE CONSULTANT @ KPMG SGA PROPERTY CONSULTANCY PTY LTD**
  2014-2017
- **OWNER @ TIM & NICKS MAINTENANCE NEWCASTLE**
  2013-2014

AREA OF EXPERTISE

- **ACCESS RELATED COMPLIANCE – REPORTING / DESIGN REVIEWS / AUDITS / INSPECTIONS**
  - *All building classes, size, and complexity.*
- **BCA PERFORMANCE SOLUTIONS**
- **TECHNICAL DUE DILIGENCE AND CAPEX REPORTING – BCA AND ACCESS COMPLIANCE**

PROJECTS

- **A TAILORED LIST OF PROJECT EXPERIENCE IS READILY AVAILABLE UPON REQUEST**

CODE PERFORMANCE

CURRICULUM VITAE *FOR*

MICHAEL EISENHUTH

PROFILE

Michael holds over 18 years' experience in the Building Regulations industry, with early experience as an Accredited Certifier / Building Regulations Consultant and over the past 8-years, specialising as an Access Consultant.

Michael possesses a comprehensive knowledge of the Building Code, Premises Standards & related standards and prides himself on his ability to work collaboratively with certifiers and clients to deliver pragmatic access compliance outcomes.

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QUALIFICATIONS

- **CERTIFICATE IV IN ACCESS CONSULTING – INSTITUTE OF ACCESS TRAINING AUSTRALIA**
  2012
- **NATIONAL FIRE PROTECTION ASSOCIATION – LIFE SAFETY CODE TRAINING USA**
  2008
- **GRADUATE DIPLOMA – BUILDING SURVEYING – UNIVERSITY OF WESTERN SYDNEY**
  2003-2005
- **DIPLOMA – ENVIRON. HEALTH & BUILD. SURV. – SYD. INSTITUTE OF TECHNOLOGY**
  1998-2000

MEMBERSHIPS

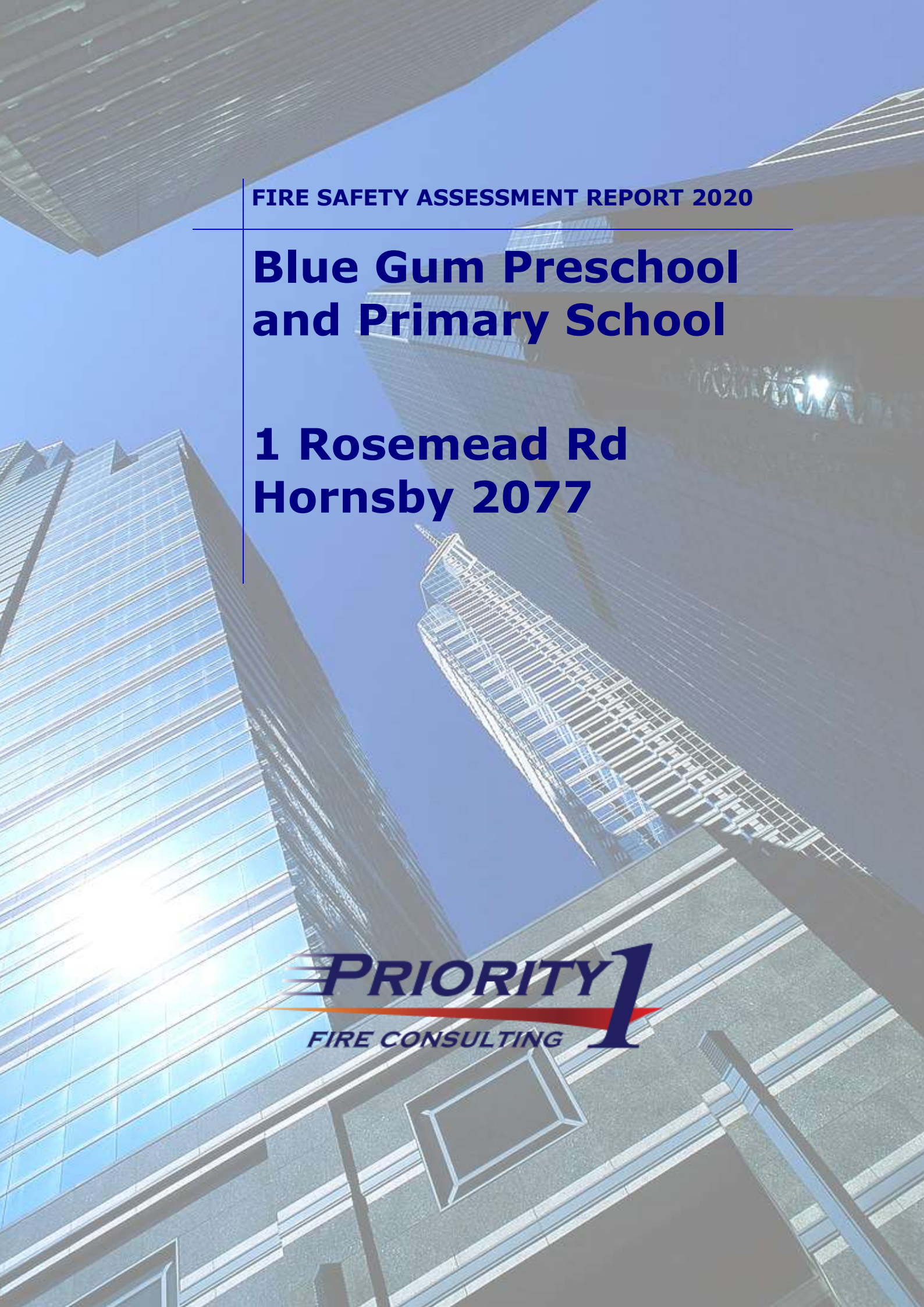
- **ASSOCIATION OF CONSULTANTS IN ACCESS AUSTRALIA (ACAA)**
  Associate member
- **ASSOCIATION OF ACCREDITED CERTIFIERS (AAC)**
  Member / past board member
- **BUILDING PROFESSIONALS BOARD – ACCESS COMMITTEE**
  Member

EMPLOYMENT HISTORY

- **DIRECTOR & FOUNDING PARTNER @ CODE PERFORMANCE PTY LTD**
  2016-Present
- **DIRECTOR @ AED ACCESS PTY LTD**
  2013-2016
- **DIRECTOR & FOUNDING PARTNER @ DESIGN CONFIDENCE (SYDNEY) PTY LTD**
  2009-2013
- **MANAGER @ IMPACT BUILDING COMPLIANCE SERVICES PTY LTD**
  2008-2009
- **SENIOR BUILDING SURVEYOR @ TREVOR R. HOWSE & ASSOCIATES PTY LTD**
  2007-2008
- **TECHNICAL DIRECTOR @ NSW DEPARTMENT OF HOUSING**
  2005-2007
- **VARIOUS COUNCIL'S AS AN ACCREDITED BUILDING CERTIFIER / BUILDING SURVEYOR @ CIVIC APPROVALS, ASHFIELD & BURWOOD COUNCIL**
  1999-2005

PROJECTS

- **A TAILORED LIST OF PROJECT EXPERIENCE IS READILY AVAILABLE UPON REQUEST**



FIRE SAFETY ASSESSMENT REPORT 2020

Blue Gum Preschool and Primary School

1 Rosemead Rd Hornsby 2077

PRIORITY 1 FIRE CONSULTING

FIRE SAFETY ASSESSMENT REPORT 2020

Blue Gum Preschool and Primary School
1 Rosemead Rd Hornsby 2077

3rd February 2020

Job No BG01/2020

Report prepared by: David Bunning

Priority 1 Fire Consulting
PO Box 77
Berowra Heights NSW 2082

Mobile: 0405 019 176

ABN: 82 120 816 024

CONTENTS

1.0 INTRODUCTION

1.1 General

Priority 1 Fire Consulting has been commissioned to prepare a fire services assessment report of the redevelopment at 1 Rosemead Rd Hornsby and provides advice in respect to the level of compliance for each essential fire safety measure listed.

This report is confidential and is prepared for your assistance only, it is not required to be submitted to Council or any other persons or companies.

1.2 Purpose

To conduct a visual inspection of each essential fire safety measure listed and report on the following areas:

- Determine the existing standard of performance based on site documentation made available, type and location of equipment, and previous experience.
- Evaluate the level of compliance for each fire safety measure and provide an outline of non-compliance issues that require rectification works in order to comply with the listed standard of performance.
- Examine all available maintenance records for each fire safety measure to determine if the equipment is being routinely inspected or tested, and identify any service requirements that are necessary to ensure continued reliable operation.

1.3 Limitations and exclusions

The information detailed in this report has been obtained based on 'walk-through' visual examination of system components. The examination of system components was limited to those areas of the building that were readily available at the time of assessment and did not include concealed or inaccessible parts of the system within ceilings, sub-floor voids, internal parts of plant equipment, and similar.

Structural elements of the building have not been assessed as part of this report. Similarly, the report is not intended to identify all BCA non-compliance issues relating to access, egress, compartmentation, health and amenity.

Priority 1 Fire Consulting can not ensure that all defective items will be identified during this fire services assessment report. To facilitate this, an assessment lasting an indefinite time would be required to be carried out by several individuals, covering areas of various expertise. The costs associated with this type of assessment would be prohibitive for the client and unreasonable to maintain on an on-going annual basis.

Therefore, it is the aim of Priority 1 Fire Consulting to identify the major non-compliant and life threatening issues found within the building during the initial inspection. Subsequent assessments would then identify other minor, on-going or recently occurring non-compliance issues to ensure the fire safety measures continue to be maintained to an acceptable level.

2.0 SITE INFORMATION

2.1 Site details

Site name:	Blue Gum Community School	**Inspection date:**	3rd February 2020
Site address:	1 Rosemead Rd Hornsby		
Cross street:	William St		
Site contact:	Jill McLachlan	**Phone:**	
Rise in storeys:	2	**Number of levels contained:**	2
Floor area:	< 500 m^2		
Use of building:	Proposed preschool	**Building classification/s:**	Class 9b

2.2 Schedule of fire safety measures required by the PCA

Measure	Standard of Performance
Emergency lighting	BCA Parts E4.2 - E4.4 / AS2293.1 (2018)
Exit signs	BCA Parts E4.5, E4.6, E4.8 / AS2293.1 (2018)
Portable fire extinguishers and Fire	BCA Part E1.6 / AS2444 (2001)
Emergency evacuation procedures and evacuation plans	AS3745 (2010)

2.3 Limitations

This report is based on a walkthrough inspection of the building and information provided.

3.0 FIRE SERVICES ASSESSMENT

3.1 Emergency Lighting

Extent of installation: ☒ All occupied areas ☐ Fire stairs ☐ Tenancies
☐ Common areas ☐ Basement area ☐ Carpark
☒ Other: External fire stairs from the first floor

Automatic test facilities: ☒ Required ☐ No ☐ Partial:

Standard of performance required: BCA E4.2, E4.4 / AS2293.1 (2018)

Other information:

At present there is no emergency lighting installed. A diagram attached in section 4 indicates the proposed location of the emergency lights to comply with the BCA 2019 and AS2293.1.

The locations proposed are to try and keep the impact on the heritage of the building to a minimum and be sympathetic to the buildings design.

The type of emergency lights and actual locations to be discuss with the installation contractor.

Comment

The main electrical switch board will most likely need to be upgraded or replaced along with a dedicated circuit for the emergency evacuation lighting.

3.2 Exit signs

Extent of installation: ☒ Fire exits ☒ Directional ☐ Tenancies
☐ Common areas ☐ Basement area ☐ Carpark
☒ Other: Fire stairs from the first floor

Automatic test facilities: ☒ Required

Standard of performance required: BCA E4.5, E4.6, E4.8 / AS2293.1 (2018)

Other information:

At present there are no exit signs installed. A diagram attached in section 4 indicates the proposed location of the exit signs to comply with the BCA 2019 and AS2293.1.

The locations proposed are to try and keep the impact on the heritage of the building to a minimum and be sympathetic to the buildings design.

The type of exit signs to be discuss with the installation contractor.

Comment

The writer has been informed the building is only to be used between 08:00 and 18:00 so it is proposed if accepted by the fire engineer and PCA that the correct type of emergency light and or exit signs will provide adequate illumination in the small class rooms.

3.0 FIRE SERVICES ASSESSMENT

3.3 Portable fire extinguishers

Extent of installation: ☒ All areas ☐ Part

Year of installation: Not installed

Standard of performance required: BCA Part E1.6 / AS2444 (2001)

Other information:

At present there are no portable fire extinguishers installed in the building. A diagram attached in section 4 indicates the proposed location of the portable fire extinguishers to comply with the BCA 2019 and AS2444.

The locations proposed are to try and keep the impact on the heritage of the building to a minimum. The proposal is to have as follows:

Ground floor = Kitchen, 4.5kg ABE and 1.8m x 1.2m fire blanket

Ground floor = Proposed new entrance, 3.5kg CO2 and 9ltr air water

Ground floor = G2 centre area, 3.5kg CO2

Ground floor = Side exit, 3.5kg CO2 and 9ltr air water

First floor = main stairs, 3.5kg CO2 and a 9ltr air water

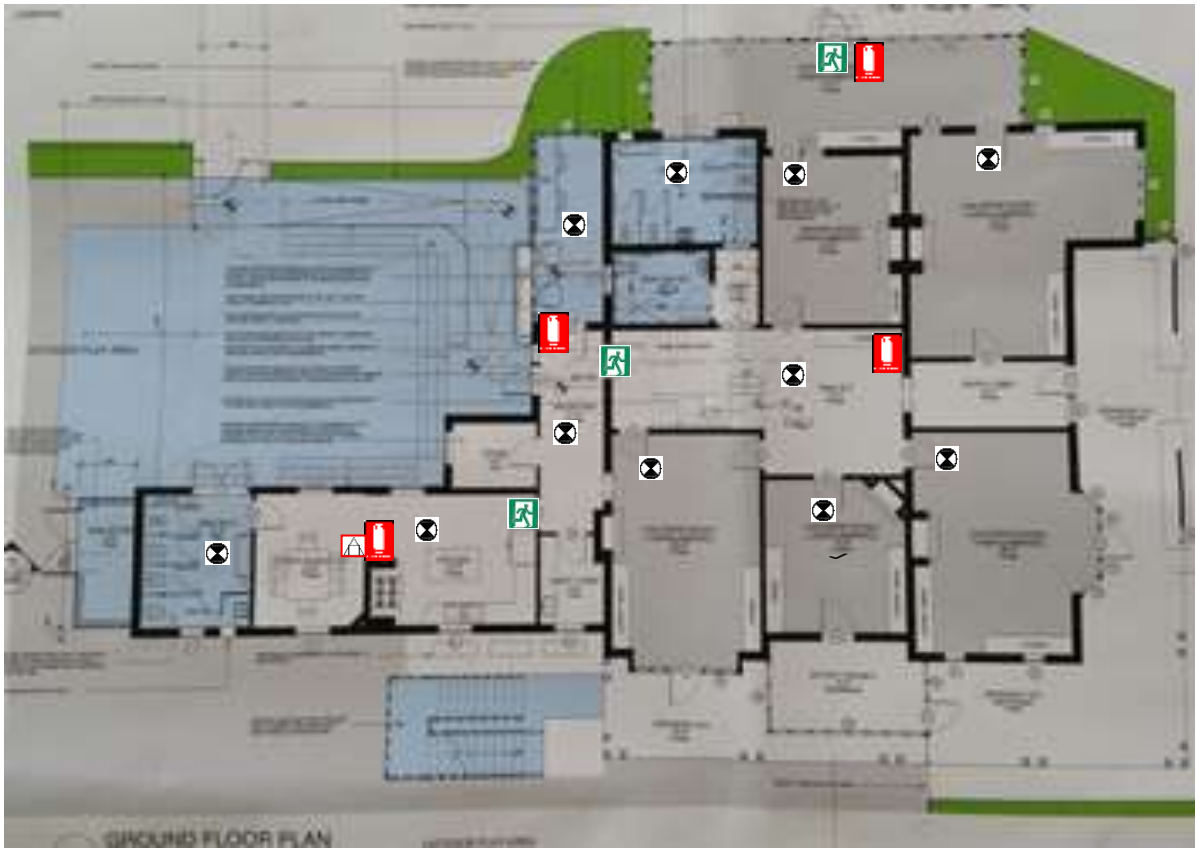
First floor = External fire stairs, a 9ltr air water

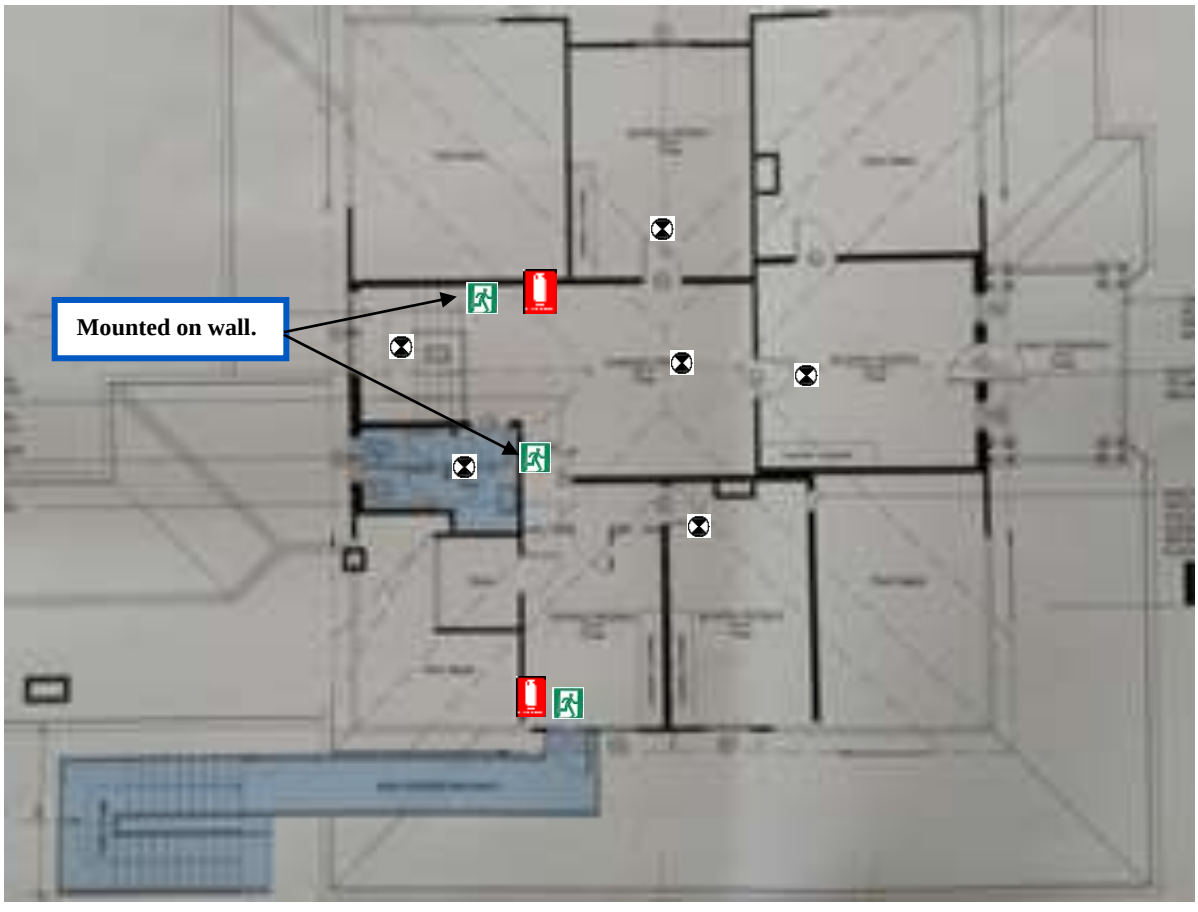
3.4 Evacuation plans

Evacuation plans may be required to comply with AS3745 (2010) to show the locations of the fire exits and fire equipment installed.

4.0 ADDITIONAL INFORMATION

4.1 Drawings & Extracts





4.2

Legend	
	EMERGENCY LIGHT
	EXIT SIGNS
	EXTINGUISHER
	FIRE BLANKET

5.0 CONCLUSIONS

5.1 Action required

This report contains a detailed review of each listed essential fire safety measure against the applicable standard/s of performance and provides a list of essential actions that will need to be conducted in order to comply with each standard of performance.

Any rectifications that are undertaken will need to be carried and/or installed in compliance with the standards of performance listed against each measure. Once all identified defects have been rectified, a fire report may be submitted (see below).

Priority 1 Fire Consulting recommends that the building owner obtains some form of certificate from the installation contractors, which should state that any works conducted have been carried out in accordance with the applicable standard/s of performance.

5.2 Attachment Certificate

The Attachment Certificate (located at the end of this report) has been prepared to assist the building owner or agent when completing a Fire Survey report for the premises. The attachment certificate is a supporting document only and is NOT intended for submission to regulatory authorities.

6.0 ATTACHMENT CERTIFICATE

Building Identification

Street	Rosemead Rd
Suburb	Hornsby
House/Unit No. & Name	1,
Nearest Cross Street	William St
Building Use	Proposed Preschool and small Primary School
Assessment Date	3rd February 2020

FIRE SAFETY MEASURES Nominated fire safety measures	**STANDARD OF PERFORMANCE REQUIRED** Applicable Australian Standard or Local Government Standard of performance
Emergency lighting	BCA Parts E4.2 - E4.4 / AS2293.1 (2018)
Exit signs	BCA Parts E4.5, E4.6, E4.8 / AS2293.1 (2018)
Portable fire extinguishers and Fire	BCA Part E1.6 / AS2444 (2001)
Emergency evacuation procedures and evacuation plans	AS3745 (2010)

Statement

I, David Bunning of Priority 1 Fire Consulting

Certify that:

The above fire safety measures have been assessed by me to the standard of performance listed above.

The attached assessment report (Job No: BG01/2020) details deficiencies relating to each measure that should be rectified prior to submission of an annual fire safety statement.

The information contained in this certificate should be read in conjunction with the attached report dated 8 February 2020 and is to the best of my knowledge and belief, true and accurate.

Assessor  Date 7th February 2020

Note: Priority 1 Fire Consulting does not endorse submission of a fire safety statement or a fire survey report based on the information provided above, until such time as the defects/deficiencies listed in the attached Fire Services Assessment Report have been rectified.

Statement of Design Intent

Project Address	-	1 Rosemead Road, Hornsby
Date	-	7 February 2020
Prepared For	-	Blue Gum Community School
Ref	-	19186F SODI R1.1
FRNSW Ref	-	NA

1.1 Overview

Code Performance has been engaged Blue Gum Community School to carry out a fire safety engineering analysis and assessment on the building located at 1 Rosemead Road, Hornsby.

This Statement of Design Intent identifies Deemed-to-Satisfy non-compliances in relation to the design that are proposed to be resolved with Fire Engineered Performance Solutions. This statement outlines the proposed methods of assessment and the possible trial design is likely to result from the detailed fire engineering assessment.

This document is a preliminary document to accompany the Development Application to provide council with the knowledge that the Deemed-to-Satisfy compliance issues detailed in the table below are able to be resolved with Fire Engineering.

1.2 Building and Occupant Characteristics Overview

Summary table for the building and occupant characteristics. The building characteristics have been adopted from the BCA report by BCA Vision, Report ID P19256 dated 19 December 2019.

Characteristic	Description
Building Class:	Class 9b
If more than one class:	Class 10.
Type / use of premises:	Extended hours Preschool and Primary School. Private garage/carport.
Rise in Storeys:	2.
Type of construction:	Type B required.
Effective Height:	Less than 12m.
Occupant Type:	Staff in the building and children aged from Preschool to primary school age.
Occupant Number:	Assumed as per D1.13 of the BCA for the type of occupancy or per any DA conditions. Based on provided information this is expected to be in the order of 32 preschool and 48 primary students (total 80 children) and suitable staff that will be trained in emergency procedures.
Design Occupant Group:	Staff and children.

1.3 Performance Solutions, Methodologies and Trial Design

The Performance Solutions, methodologies, acceptance criteria and trial; design for implementation are proposed as follows:

Sol. No.	Performance Solution	DTS Clause	Performance Requirements	Methodology
PS1	**Construction Issues** The building is required to be constructed to Type B construction; however, the fire ratings that are required to be achieved to the loadbearing posts in Activity Rooms 1 & 2 are not achieved in the building design. A Performance Solution will be developed to address this issue and is to be based on the proximity of the building from the boundary and a comparison between the building and a Deemed-to-Satisfy compliant building design that is located 18m from the boundary.	C1.1 & Spec C1.1	CP1 CP2	A2.2(2)(b)(ii)&(d) and A2.2(1)(a).
	Proposed Acceptance Criteria The acceptance criteria for the building design is that the lack of an FRL to the loadbearing elements in Activity Rooms 1 & 2 will perform in an equivalent manner to a Deemed-to-Satisfy compliant design and that the possibility of fire spread to or from the allotment boundary will also be shown to be unlikely to occur. **Proposed Methodology Overview** The methodology for the Performance Solution will be through a comparison to a Deemed-to-Satisfy compliant design that would be permitted to be constructed to Type B construction with the loadbearing elements being 18m from the fire source feature. Various fire scenarios will be assessed during the Fire Engineering process to show that the design should provide an equivalent level of safety for the occupants in the building to a similar Type B design and minimise the risk of fire spread both to and from the boundary. The top level of the building is also provided with multiple evacuation routes. The collapse of the building will also be reviewed and shown that the collapse would be unlikely to cause the building to fall to the boundary areas and risk fire spread to the adjoining properties. It will also be shown that providing a fire rating to loadbearing elements in one part of the building is unlikely to result in any increase in the level of safety in the building and will be of little benefit.			
PS2	**Reduced Egress Widths** The egress widths are reduced from the D1.6 allowed widths in the areas as detailed in the BCA report. A Performance Solution will be developed to address this issue and is to be based on the areas with the reduced widths, the use of the areas and anthropometric data on the required widths for the evacuation of the occupants.	D1.6	DP4	A2.2(2)(b)(ii)&(d) and A2.2(1)(a).
	Proposed Acceptance Criteria The acceptance criteria for the Performance Solution is that the occupants in the building will be provided with suitable egress width for evacuation provided by the existing stairs when the occupant type and number are considered. **Proposed Methodology Overview** The methodology will be through a qualitative assessment using the NFPA 101 Life Safety Code for anthropometric data and recommend widths for paths of travel, as well as an analysis of the type of occupants that will be present in the subject building, and the number of occupants that will be using the stairs with reduced clear widths.			

Sol. No.	Performance Solution	DTS Clause	Performance Requirements	Methodology

The evacuation of the occupants would only be relevant for the stairway for those occupants on the first floor, and this level is provided with an external stairway that is to be used as the main exit from the first-floor as this exit pathway will be to the outside of the building and compliant with the BCA for design.

The small number of occupants that have to pass through this reduced width area will support the Performance Solution as it will be shown that with the 2 exits from the first-floor and the trained staff in an evacuation, the number of occupants (staff and children) that have to use the central stairway should be low.

The measures that are proposed as a part of the trial design for implementation into the building is provided in the table below.

Proposed Trial Design for Implementation

Sub-system C - Fire Spread, Impact and Control

1) To be determined based on the Fire Engineering assessment and design, however, the measures are expected to be minimal.

Sub-system D - Fire Detection, Warning and Suppression

2) Any additional fire safety measures are to be determined in the Fire Engineering assessment and report.

Sub-system E - Occupant Evacuation and Control

3) The central stairway shall provide in the order of 800mm for the evacuation of the occupants and the resultant width will be based on the maximum possible width after the installation of the safety features required for the stair (handrails, nosings, etc).
4) Occupants from the first-floor of the building shall be provided with a second exit that is to be considered to be the main egress stair. This will be in the form of an external stair that will fully comply with the Deemed-to-Satisfy provisions of the BCA.
5) Enhanced general and emergency lighting shall be provided to the internal central stairway to provide at least 80 lx at the centreline of the stairs.
6) An emergency plan shall be developed for the building and comply with the requirements of AS3745-2010. The plan shall include that the preferred fire exit for the first-floor of the building is the external stairway and the main stairway should be used as a secondary exit (i.e. if the external stair is not accessible etc). The staff in the building shall be trained in the emergency plan and the requirement for the main egress stair in the fire scenario from the first-floor to be the external stairway.
7) Other than the reduced width to the stair the general features of the stair shall comply with the Deemed-to-Satisfy provisions of the BCA or be addressed with a BCA/access Performance Solution. Balustrade heights, handrail heights are assumed in this Fire Engineering assessment to be at least the height required by the Deemed-to-Satisfy provisions of the BCA.

Management in Use Plans, Fire Safety Schedule and Maintenance Requirements

Management in Use (MIU)

The following are the general requirements and specific requirements for the management in use for the building:

General MIU

- Ensure exits and paths of travel to exits remain unobstructed (stairways).
- Avoid storage of materials in unoccupied areas.
- Limit storage of flammable/combustible materials to designated and approved areas.
- Prevent storage of materials that could hinder access to firefighting equipment.

Specific MIU

Proposed Trial Design for Implementation

- TBC.

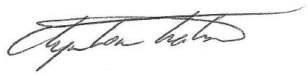
1.4 Conclusion and Acceptance of Fire Engineering Brief

It is likely that once the assessments are performed and the trial design implemented that the Performance Solutions should show compliance with the relevant Performance Requirements of the BCA and be suitable for application into the subject building. It is noted that the trial design is a preliminary trial design that will be finalised during the full analysis and reporting phase.

Amendment Schedule

This document has been prepared and reviewed by:

Prepared By:



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Revision	Status	Date
19186F SODI R1.1	Draft Issue of Report	6 February 2020
19186F SODI R1.1	Final Version of Report	7 February 2020

CODE PERFORMANCE

Access Report

Project –

Proposed Change of Use for use as a
Community Preschool and Primary School
1 Rosemead Road, Hornsby

Design Phase –

Development Application Phase

Date - 12 December 2019
For - Blue Gum Community School
Ref - 17284 – R1.2

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TABLE OF CONTENTS

Amendment Schedule

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Version	Date
R1.0	3.12.2019
R1.1	6.02.2020
R1.2	12.02.2020

1.0 INTRODUCTION

1.1 General

This Access Report has been prepared at the request of Blue Gum Community School and for the purpose of completing an assessment of the Development Application (DA) architectural design associated with the change of use from a residential premises to a Community Preschool and Primary School at 1 Rosemead Road, Hornsby.

1.2 Purpose

The purpose of this report is to identify the compliance status of the architectural design documentation against the following –

- Relevant accessibility related 'deemed-to-satisfy' (DTS) requirements of Building Code of Australia (BCA) 2019, as are generally contained within Part D3 and Clause(s) E3.6 & F2.4 of the code.
- Accessibility related Australian Standards as referenced by BCA 2019, as relevant to this project and as directly nominated in the report.
- The Disability (Access to Premises – Building) Standards 2010 *(Premises Standards)*.

1.3 Documentation Relied Upon

Architectural plans prepared by ARMADA, as follows –

Drawing No.	Revision	Date	Drawing Title
A100	D	26.11.2019	Site and Roof Plan
A200	D	26.11.2019	Floor Plan & Sections

1.4 Exclusions

The content of this report relates only to the matters directly nominated in this report and does not assess / include the following –

- Existing residential dwelling not subject to proposed works.
- Any parts of the BCA / standards not directly referenced in this report.
- Disability Discrimination Act 1992 (*DDA focuses on results. Does not offer prescriptive compliance options)*.
- Work Health & Safety considerations.
- Services / equipment operating capacity / design.
- Local planning policies and/or guidelines, other than those directly identified.
- Does not constitute construction approval nor a Part 4A Certificate under the EP&A Act / Regulations.

1.5 BCA Assessment Data

Listed below are our understanding of relevant BCA classification(s) in relation to the subject building / part.

BCA Building Classification(s): Class 9b - Preschool and Primary School

Note 1 - The classification/s above is our understanding of the relevant BCA classification(s). BCA Consultant / Certifier shall have the final call in determining BCA classifications.

Note 2 - The remainder of the building may contain additional building classifications however details are not provided, nor is the remainder of the building assessed as part of this report and building part.

2.0 ASSESSMENT & COMMENTARY – PREMISES STANDARDS

2.1 Disability (Access to Premises – Buildings) Standards 2010

The Disability (Access to Premises – Buildings) Standards 2010 commenced operation 1 May 2011, in line with the adoption of the BCA 2011 which was revised to align with the Access Code in the Premises Standards.

The overall aim of the Premises Standards is twofold. First it is to provide the building and design industry with detailed information about how they can design and construct their buildings in a way that meets their responsibilities under the DDA. Second it is to improve access to buildings for people with a disability to ensure the greatest possible participation in the social, economic, cultural and political life of the community.

2.2 Premises Standards 'Affected Part' – Background

In general, the Premises Standards / Access Code tells those responsible for buildings when and where access is required and then refers to technical specification documents such as Australian Standard 1428.1-2009 to describe how to design and build in an accessible manner.

When new building work takes place in an existing building and a building approval is required for that new work (Clause 2.1(4) as shown below defines a new part of a building), the requirements for upgrading access are limited to the area of new work and the 'affected part'.

2.1 Buildings to which Standards apply

*(4) 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:*

(a) 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; or

(b) all of the following apply:

(i) the building work is carried out for or on behalf of the Crown;

(ii) the building work commences on or after 1 May 2011;

(iii) no application for approval for the building work is submitted, before 1 May 2011, to the competent authority in the State or Territory where the building is located.

*(5) An **affected part** is:*

(a) the principal pedestrian entrance of an existing building that contains a new part; and

(b) 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.

The concept of an 'affected part' of an existing building is a new concept brought about by Clause 2.1(5) of the Premises Standard as reproduced above. The introduction of this defined area reflects the desire to improve general accessibility of existing buildings over time where full upgrades of a building are not taking place.

Subsection 2.1(5) defines the term 'affected part' of a building. An 'affected part' means the path of travel between (and including) the principal pedestrian entrance of an existing building to the 'new part' or modified part of the building. This path of travel must provide a continuous accessible path of travel from the principal pedestrian entrance to the new part or modified part of the building. The requirement for upgrading of the 'affected part' of buildings recognises that there is little value in improving access in new parts of existing buildings if people with disability cannot get to those new parts. Refer to the below extract indicating the extent of an "affected part" of a building.

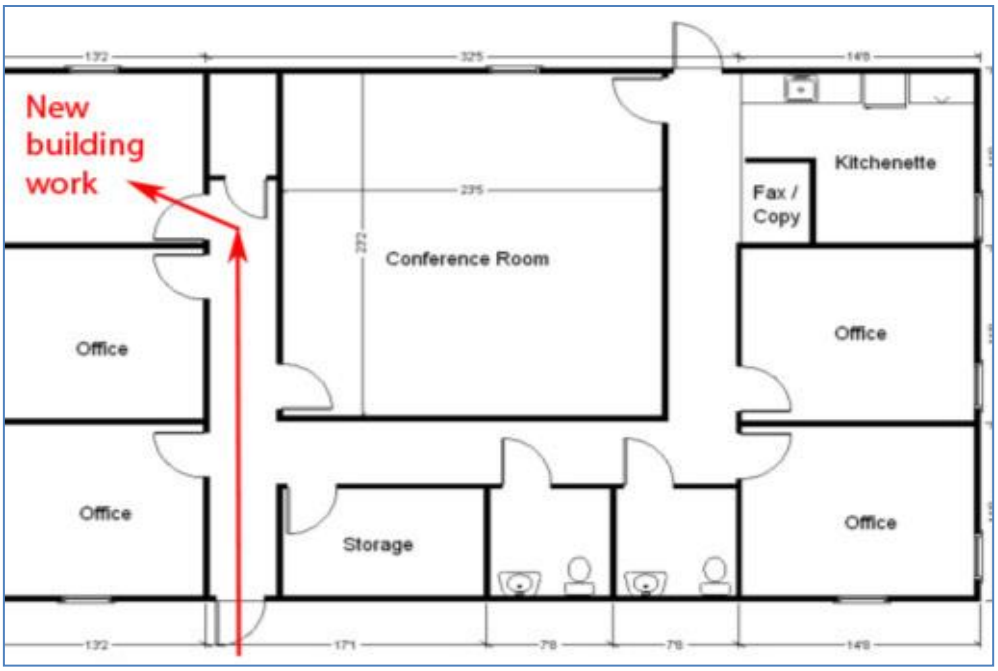


Figure 2.2(a): Diagram illustrating extent of affected part (Extract from Guide to Premises Standard)

2.3 Premises Standards 'Affected Part' – Summary

An existing building upgrade provision at Part 2.1(5) of the *Premises Standards*, known as the 'affected part' is triggered in this project.

This causes the need for a compliant *continuous accessible path of travel* from the building principal pedestrian entrance to new work. This applies to and throughout the entire building.

Refer to Part 3.0 of this report as includes a 'Technical Review and Summary' which details all relevant access compliance matters relevant to the abovementioned 'new works' & 'Affected Part'.

3.0 TECHNICAL ASSESSMENT & COMMENTARY

3.1 General

The following summarises the compliance status of the architectural design in terms of the DTS accessibility provisions of BCA 2019, as are principally contained within Part D3 and Clauses E3.6 & F2.4 of the code.

Alongside each clause heading; one of four compliance categories is provided, as follows –

Complies:	BCA design compliance is achieved.
Does not comply:	A BCA DTS compliance departure is noted. Resolution options are provided.
N/A:	Not Applicable or not directly relevant. Detail offered for application if / as relevant.
Design Detail:	Compliance commentary is provided. Such should not be considered deficiencies, but matters for consideration by the design team / assessment authority at relevant / nominated stages of design.

BCA Interpretation Note(s) –

i. Readily moveable furniture has been treated as indicative. The person/s responsible for furnishing the building (parts) should ensure their furnishing layout/s do not cause AS1428.1 circulation deficiencies.

ii. *Slip-resistant floor surface/s* - BCA 2016 does not directly specify slip-resistance classification(s) for all accessible paths of travel; however, we highlight the need under AS1428.1-2009 for all accessible paths of travel to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

iii. There is nothing to compel upgrade of existing GPO / light switch locations in this instance.

3.2 SECTION D – ACCESS & EGRESS

Part D3 – Access For People With Disabilities

BCA Clause D3.1 - General building access requirements

Buildings and parts of buildings must be accessible as required by Table D3.1 and as summarised below:

Class 9b

Access must be provided to and within all areas normally used by the occupants.

Design Detail	Access is required to and throughout all areas of the Preschool and Primary School building in accordance with AS 1428.1-2009 (except where exempted under clause D3.4). The doors throughout the Preschool and Primary School shall comply with AS 1428.1 and as follows: i. Nil change in level shall occur across doorway thresholds or otherwise must accord with AS 1428.1. ii. All doors required to be accessible shall achieve a clear opening of not less than 850mm (i.e. 920mm door leaf required). Where double doors are to be provided, these must incorporate at least one door leaf with a clear door width of at least 850mm. iii. Door hardware to entry doors must be located between 900-1100mm from the floor and be of lever type with a clearance between the handle and the door face at the centre of the handle being not less than 35mm and not more than 45mm in accordance with Clause 13 of AS 1428.1-2009.

Door handles and related hardware shall be of the type that allows the door to be unlocked and opened with one hand. The handle shall be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch.

iv. Doors shall have a minimum luminance contrast of 30% between –

- door leaf and door jamb; *or*
- door leaf and adjacent wall; *or*
- architrave and wall; *or*
- door leaf and architrave; *or*
- door jamb and adjacent wall.

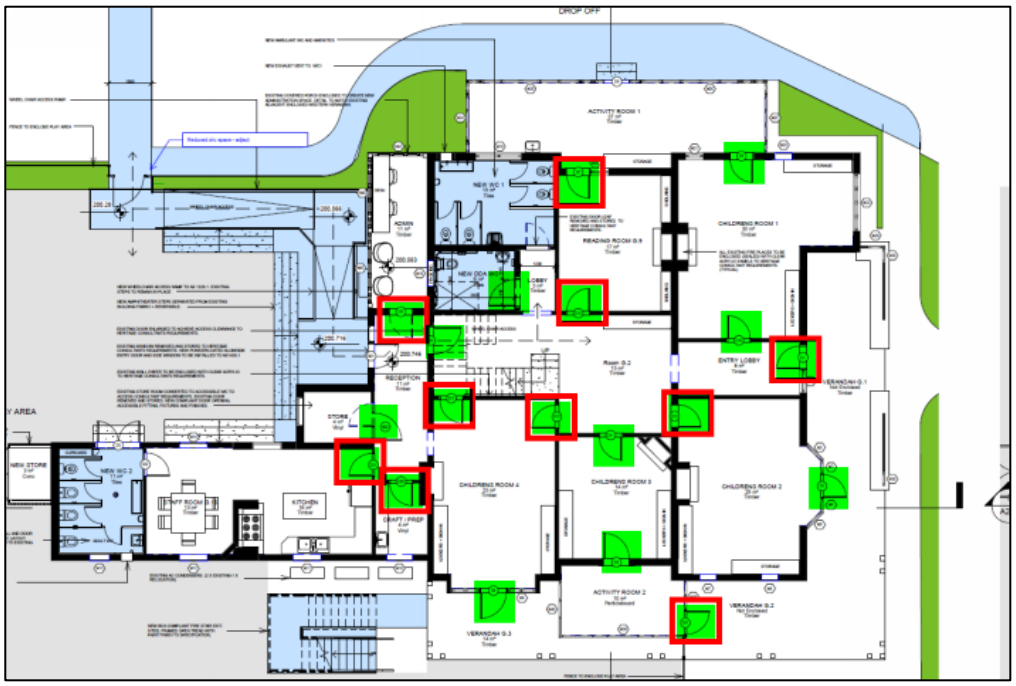
Compliance is readily achievable at the Construction Certificate design phase &/or during construction.

Does not comply

DTS Compliance Departure 1

Numerous doors throughout the Preschool and Primary School centre incorporate reduced door clearance and/or reduced clear door opening width (to 800mm) and non-compliant door hardware.

See below illustrating the location and nature of the subject doors incorporating a reduced extent of access.



Doors with reduced circulation space shown in RED.

Doors with clear door opening width between 800-850mm shown in GREEN.

All doors identified above are provided with existing non-accessible door hardware with the exception of the door to the accessible unisex sanitary facility.

Resolution option 1

A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary).

Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd.

DTS Compliance Departure 2

Nil continuous accessible path of travel is provided to Ground Level activity rooms / balconies or to Level 1 (stepped access only).

Resolution option 2

	A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary). Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd.

BCA Clause D3.2 – Access to Buildings

An accessway must be provided to a building required to be accessible:

- From the main points of pedestrian entry at the allotment boundary; and
- From another accessible building connected by a pedestrian link; and
- From any required accessible carparking space on the allotment.

An accessway must be provided through the principal pedestrian entrance, and:

- through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and
- in a building with a floor area more than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

Doors on an accessway having multiple leaves must have a clear opening width of not less than 850mm for a single leaf.

Design Detail	An accessway is required between the allotment boundary and the Preschool and Primary School. Also, from the Accessible carspace to the western building entry. Details to be provided at CC stage however we convey compliance is readily capable of being achieved.

Does not comply	*DTS Compliance Departure 4* The main pedestrian entry from the street connects with the Northern building entry via a stepping stone path and a step up to the verandah, hence, is not accessible. *Resolution option(s) 4* A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary). Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd.

BCA Clause D3.3 – Parts of Buildings to be Accessible

In a building required to be accessible:

- every ramp & walkway *(except fire-isolated)* must comply with Clause 10 of AS1428.1-2009;
- every stairway *(except fire-isolated)* must comply with Clause 11 of AS1428.1-2009;
- All fire-isolated stairways are required to comply with Clause 11.1(f) and (g) of AS 1428.1-2009.
- accessways must have passing spaces complying with AS1428.1 at max 20m intervals where a direct line of sight is not available; and
- turning spaces complying with AS1428.1 within 2m of the end of accessways where it is not possible to continue travelling along the accessway, and at max. 20m intervals along the accessway.
- Ramp or passenger lift access need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6,7b or 8 building containing not more than 3 storeys and with a floor area for each storey of not more than 200m².
- Carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shall be 11mm, 4mm & 15mm respectively.

Design Detail	Stairs and ramps have been indicated to be suitable in size and location. Stair access features shall comply with Cl. 11 (& subsequently Cl.12) of AS 1428.1-2009. Ramp access features shall comply with Cl. 10 of AS 1428.1-2009.

	Compliance is readily achievable at the Construction Certificate design phase.
Does not comply	*DTS Compliance Departure 5* The central stair is provided with insufficient space at the base landing to accommodate a 300mm horizontal extension to the proposed handrail without causing a reduction in egress with and encroaching into the transverse path of travel. *Resolution option(s) 5* A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary). Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd.

BCA Clause D3.4 – Exemptions

An area where access would be inappropriate because of the particular purpose for which the area is used, or would pose a health or safety risk for people with a disability; is not required to be fully accessible.

Info	The following parts of the building have been offered access exemption: ▪ Plant and equipment rooms ▪ Store room

BCA Clause D3.5 – Accessible Carparking

Accessible carparking spaces complying with AS2890.6-2009 must be provided in accordance with Table D3.5 in a Class 7a building required to be accessible and on the same allotment as a building required to be accessible.

Design Detail	The proposed accessible carspace is provided in suitable number, size and location to comply with BCA Table D3.5 and AS 2890.6. Accessible features are required to be provided to the accessible car space and shared area per AS 2890.6-2009, including but not limited to: ▪ Bollard to the shared area; ▪ Line marking; ▪ Symbol of access to the accessible car space; ▪ Minimum headroom clearance; ▪ The accessible parking space and shared zone shall comprise a firm plane surface with a fall not exceeding 1:40 in any direction (1:33 if the surface is a bituminous seal and the parking space is out of doors). ▪ Slip-resistant surface. Compliance is readily achievable at the Construction Certificate design phase.

BCA Clause D3.6 – Signage

Accessible buildings must have signage to comply with AS1428.1-2009 and as follows –

- braille and tactile signage incorporating the international symbol of access or deafness, must identify each sanitary facility and space with hearing augmentation system; and
- identify each door required by Clause E4.5 to be provided with an exit sign and state "Exit" and "Level" followed by the floor number;
- signage incorporating the international symbol of access or deafness, must be provided within a room containing a hearing augmentation system identifying the hearing augmentation type, area covered and location of receivers;
- signage in accordance with AS1428.1 must be provided for accessible unisex sanitary facilities to identify left or right handed use;
- signage to ambulant accessible facility must be on the door of the facility;
- directional signage where a pedestrian entrance is not accessible.

Design Detail	Signage to be design detailed to comply with the relevant requirements of Specification D3.6, as includes; ▪ signage in accordance with AS1428.1 must be provided to the new accessible unisex sanitary facilities to identify left or right-handed use; and ▪ identify all exit doors (which contain an exit sign required by Cl. E4.5) with a braille sign to state "Exit" and "Level" followed by the floor number. Compliance is readily achievable during construction certificate design phase.

BCA Clause D3.7 – Hearing Augmentation

Hearing augmentation system must be provided where an inbuilt amplification system (other than emergency warning) is installed:

- In a room in a Class 9b building; or
- Meeting room, conference room, auditorium, or room for judicatory purposes; or
- At any ticket office, teller booth, reception area or the like, where the public is screened from the service provider.

If provided in the form of an induction loop, it must cover no less than 80% of the floor of the room served.

If in the form of receivers, it must cover no less than 95% of the floor of the room served with a minimum of two (2) in any case, but depending on number of people accommodated.

N/A	No inbuilt amplification systems to be proposed in this building.

BCA Clause D3.8 – Tactile Ground Surface Indicators (TGSI)

Accessible buildings must have TGSI's complying with Sections 1 & 2 of AS/NZS1428.4.1-2009 to warn blind or vision impaired people of approaching stairways (other than fire-isolated), escalators, ramps (other than fire-isolated, step or kerb ramp), any overhead obstruction less than 2m above floor level and an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building. Any screen or scoreboard in a Class 9b capable of displaying public announcements must be capable of supplementing any public address system, other than one used for emergency warning purposes only.

Design Detail	TGSI's complying with AS/NZS 1428.4.1-2009 shall be installed in this project as necessary, but shall include to areas as follows – ▪ any overhead obstruction less than 2m above floor level. ▪ any ramp or stairway; ▪ any accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, if there is no kerb or kerb ramp at that point. Compliance is readily achievable at the Construction Certificate design phase.

BCA Clause D3.9 – Wheelchair seating spaces in Class 9b assembly buildings

Where fixed seating is provided in a Class 9b assembly building, wheelchair seating spaces complying with AS 1428.1 must be provided in accordance with Table D3.9.

N/A	No wheelchair seating spaces required in this building.

BCA Clause D3.10 – Swimming Pools

Where fixed seating is provided in a Class 9b assembly building, wheelchair seating spaces complying with AS 1428.1 must be provided in accordance with Table D3.9.

N/A	No swimming pools proposed.

BCA Clause D3.11 – Ramps

On an accessway; a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and a landing for a step ramp must not overlap a landing for another step ramp or ramp.

Complies	The proposed series of connected ramps do not exceed a rise of more than 3.6m. No step ramps proposed.

BCA Clause D3.12 – Glazing on an Accessway

Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid contrasting line.

The contrasting line shall be not less than 75mm wide and shall extend across the full width the glazing panel. The lower edge of the contrasting line shall be located between 900mm and 1000mm above the plane of the finished floor level.

Any contrasting line on the glazing shall provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side.

Design Detail	All full height glazing (i.e. doors, walls and sidelights) on an accessway must be clearly marked in accordance with AS 1428.1-2009. Compliance is readily achievable during construction phase.

3.3 SECTION E – SERVICES & EQUIPMENT

Part E3 – Lift Installations

BCA Clause E3.6 – Passenger Lifts

Not applicable – No passenger lift/s proposed.

3.4 SECTION F – HEALTH & AMENITY

Part F2 – Sanitary & Other Facilities

BCA Clause F2.4 – Accessible Sanitary Facilities

In a building required to be accessible:

- Accessible unisex sanitary compartments must be provided as per Table F2.4(a),
- Accessible unisex showers must be provided as per Table F2.4(b),
- At each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females.
- Circulation spaces, fixtures and fittings of all accessible sanitary facilities must comply with AS1428.1.

Design Detail	A ground floor Accessible toilet is proposed. Ambulant compartments are required to the ground floor banks of toilets. The required accessible fittings and fixtures to the accessible toilets shall comply with Cl. 15 & 16 of AS 1428.1-2009. Compliance is readily achievable during the Construction Certificate design phase.

Does not comply	*DTS Compliance Departure 6* The ground floor Accessible Sanitary facility is provided with insufficient space to accommodate a basin without encroaching into the pan circulation space. *Resolution option(s) 6* A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary). Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd. *DTS Compliance Departure 7* No Accessible or ambulant sanitary facility are proposed to level 1. *Resolution option(s) 7* A *BCA Performance Solution* has been prepared to permit the proposed design (i.e. no design adjustment will be necessary). Refer the BCA Performance Solution report 19284 prepared by Code Performance Pty Ltd.

4.0 CONCLUSION

This report identifies the compliance status of the architectural design with the relevant accessibility related DTS requirements of BCA 2019.

The outcome of this report highlights that the current design is readily capable of compliance with the BCA Performance Requirements subject to compliance with the requirements highlighted under Section 3.0 of this report.