



DESIGN CONFIDENCE

TKD Architects

Access Design Assessment Report

Curl Curl North Public School

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Project: Curl Curl North Public School
 Document Type: Access Design Assessment Report
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Revision History:

OUR REFERENCE	REMARKS	ISSUE DATE
P217_095-1 (ACCESS) LS	Report prepared and issued for submission as part of the SEARS development application.	22 April 2017
P217_095-2 (ACCESS) LS	Report update to reference the inclusions of a passenger lift.	10 May 2017

1.0 INTRODUCTION

1.1 General

This report has been prepared at the request of TKD Architects and relates to the proposed redevelopment of Curl Curl North Public School.

1.2 Purpose of Report

The purpose of this report is to identify the extent to which the architectural design documentation complies with the *accessibility provisions* of the Building Code of Australia 2016 (hereinafter referred to as the BCA), as are principally contained within Part D3, E3.6 & F2.4 of the BCA.

This report is based upon, and limited to, the information depicted in the documentation provided for assessment, and does not make any assumptions regarding 'design intention' or the like.

1.3 Documentation Provided for Assessment

This assessment is based upon the architectural documentation prepared by TKD Architects and listed within **Appendix 1**.

1.4 Report Exclusions

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

- (i) Work Health & Safety Act and Regulations; and
- (ii) WorkCover Authority requirements; and
- (iii) Structural and Services Design Documentation; and
- (iv) The Disability Discrimination Act (DDA) 1992; and
- (v) Any parts of the BCA or any standards other than those directly referenced in this report.
- (vi) An accessibility assessment of the existing building or building parts.

2.0 DEVELOPMENT DESCRIPTION

2.1 General

In accordance with the BCA, the assessment undertaken relates to the proposed redevelopment of Curl Curl North Public School.

2.2 Building Description

The subject works proposed relate to the redevelopment of Curl Curl North Public School, located on the corner of Playfair Road and Abbott Road, North Curl Curl. The works including for an expansion of the existing primary school to cater for a total of 1000 students and 69 staff, the current student and staff population are 920 and 66 respectively.

For the full description of the development, the reader is referred to the project documentation. The following brief description is provided to set this report in context.

For the purpose of the Building Code of Australia (BCA) the subject development may be described as contained below.

DESCRIPTION OR REQUIREMENT		
Building Classification	Primary School	Class 9b
Rise in Storeys	Primary School	Two (2)
Construction Type	Primary School	Type A
Effective Height	<25m	
Floor Area & Volume limitations	Ground Floor	4,819m ²
	Level 1	3,072m ²

2.3 BCA Assessment – Interpretation Notes

To provide the reader with additional context, the following information regarding assessment methodology used in this assessment is provided below-

- (i) The following rooms / areas have been afforded the concession under D3.4 and access for people with disabilities need not be provided to these areas –
 - Plant and equipment rooms (and associated accessways);
 - Storerooms;
 - Cleaners room, and
 - Service rooms.

3.0 BCA ACCESS DESIGN ASSESSMENT SUMMARY

3.1 General

The following table summarises the compliance status of the architectural design in terms of each *applicable* prescriptive provision of the BCA and indicates a capability for compliance with the BCA.

Although, it should be recognised that instances exist where 'Does not Comply' occurs, or 'Design Detail' is required.

Such instances should not necessarily be considered BCA deficiencies; but matters which need to be considered by the design team and any assessment authority at relevant stages of design and/or assessment.

For those instances of either 'Does not Comply' or 'Design Detail', a detailed analysis and commentary is provided within Part 4.0 of this report.

3.2 Part D3 – Access for People with Disabilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
D3.1	General building access requirements			✓
D3.2	Access to buildings			✓
D3.3	Parts of buildings to be accessible			✓
D3.5	Accessible carparking		N/A	
D3.6	Signage			✓
D3.7	Hearing augmentation			✓
D3.8	Tactile indicators			✓
D3.9	Wheelchair seating spaces in Class 9b assembly buildings			✓
D3.10	Swimming pools		N/A	
D3.11	Ramps			✓
D3.12	Glazing on an accessway			✓

3.3 Part E3 – Lift Installations

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
E3.6	Passenger lifts			✓

3.4 Part F2 – Sanitary and Other Facilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
F2.4	Accessible sanitary facilities			✓

4.0 BCA DETAILED ASSESSMENT

4.1 General

With reference to the 'Assessment Summary' contained within Part 3.0 of this report, 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 'accessibility provisions' of the BCA.

Access is required to and throughout the building to the extent nominated within the BCA and as identified below.

4.2 Part D3 – Access for People with Disabilities

D3.1 General building access requirements

Access has been provided to and within all areas normally used by occupants, as required to satisfy the requirements of this clause.

The following matters are raised, not as deficiencies, but items to be addressed during design progression.

❑ Floor or ground surfaces

- (i) A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with ambulant or sensory disability –
 - Abutment of surfaces shall have a smooth transition. Design transition shall be 0mm, however, construction tolerances are as follows –0 ±3mm vertical change in level;
 - 0 ±5mm change in level provided the edges have a bevelled or rounded edge to reduce the likelihood of tripping.
- (ii) Where carpets or any soft flexible materials are used on the ground or floor surface –
 - The pile height or pile thickness, shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm;
 - Exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge;
 - At the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3mm or a rounded bevelled edge no higher than 5mm or above that height a gradient of 1:8 up to a total maximum height of 10mm.
- (iii) Matting recessed within an accessible path of travel –
 - Where of metal and bristle type construction or similar, its surface shall be no more than 3mm if vertical or 5mm if

D3.1 General building access requirements

rounded or bevelled, above or below the surrounding surface; and

- Where of a mat or carpet type material, shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3mm if vertical or 5mm if rounded or bevelled.

(iv) Grates within an accessible path of travel –

- Circular openings shall be not greater than 13 mm in diameter; or
- Slotted openings shall be not greater than 13 mm wide and be oriented so that the long dimension is transverse to the dominant direction of travel; or
- Where slotted openings are less than 8 mm, the length of the slots may continue across the width of paths of travel.

☐ Doorways / doors

- (i) All doors to have a minimum 850mm clear width and appropriate latch side clearance compliant with AS1428.1-2009;
- (ii) Doors to be located on level landing areas with maximum 1:40 grade fall over a 1450mm depth clearance;
- (iii) Doors to have minimum 1450mm clearances between open doors swings within airlocks/vestibules;
- (iv) Door operational force to be lightweight in design to satisfy the operational requirements of AS1428.1-2009. Where this cannot be achieved, automatic or power-operated doors are required;
- (v) All doorways shall have a minimum luminance contrast of 30% between –
 - door leaf and door jamb;
 - door leaf and adjacent wall;
 - architrave and wall;
 - door leaf and architrave; or
 - door jamb and adjacent wall.

The minimum width of the area of luminance contrast shall be 50mm;

- (vi) Provide compliant door hardware located at a suitable location in accordance with AS1428.1-2009.

Detail shall be provided within future design progression for compliance assessment and comment by this office.

D3.2 Access to buildings

An accessway has been provided from the main points of pedestrian entry at the allotment boundary as well as between buildings required to be accessible via pedestrian link, as required.

D3.3 Parts of buildings to be accessible

The following matters are raised, not as discrepancies, but items to be addressed during design progression -

☐ Paths of travel

- (i) Accessways to have passing spaces of 1800mm wide x 2000mm length at maximum 20m intervals on those parts of an accessway where a direct line of sight is not available;
- (ii) Turning spaces for wheelchair 180° turns require 1540mm wide by 2070mm long within 2m of the ends of accessways and at maximum 20m intervals.

☐ Walkways

- (i) a maximum gradient of 1:20, the gradient shall be constant throughout its length;
- (ii) walkways with a gradient of 1:33 shall have landings at maximum 25 metre intervals;
- (iii) walkways with a gradient of 1:20 shall have landings at maximum 15 metre intervals;
- (iv) if no wall of minimum 450mm height, kerb or handrail and kerbrail is provided, the floor or ground surface abutting the sides of a walkway shall have a firm and level surface of a different material to that of the walkway at the same level of the walkway.

☐ Ramps

- (i) A maximum gradient of 1:14, the gradient shall be constant throughout its length, with a maximum allowable tolerance of 3% provided no section of the ramp is steeper than 1:14; and
- (ii) Provide top, bottom and mid-landings, suitable for wheelchair turning in accordance with clause 10.8 of AS1428.1-2009; and
- (iii) The ramp shall be provided with a handrail on each side complying with clause 12 of AS1428.1-2009; and
- (iv) Handrails shall extend a minimum of 300mm horizontally past the transition point at the top and bottom of the ramp; and
- (v) Ramps and intermediate landings shall have kerbs or kerb rails on both sides of the ramp, complying with clause 10.3 of AS1428.1-2009 –
 - Kerbing to be between 65-75mm height above FFL; or

D3.3 Parts of buildings to be accessible

- At least 150mm height above FFL.

☐ Threshold ramps

Threshold ramps at doorways shall –

- (i) Have a maximum rise of 35mm;
- (ii) Have a maximum length of 280mm;
- (iii) A maximum gradient of 1:8; and
- (iv) Be located within 20mm of the door leaf.

☐ Step ramps

Step ramps shall –

- (i) Have a maximum rise of 190mm;
- (ii) Have a maximum length of 1900mm;
- (iii) A maximum gradient of 1:10; and
- (iv) Have a suitable barrier of 450mm height or a kerb/kerb rail where there is an open balustrade.

☐ Kerb ramps

- (i) a maximum rise of 190 mm;
- (ii) a length not greater than 1520 mm; and
- (iii) a gradient not steeper than 1 in 8, located within or attached to a kerb.

☐ Stairway/s

- (i) Stair located at the site boundary to be recessed 900mm from the site boundary to allow handrail extensions and TGSIs to not protrude into the traverse path of travel;
- (ii) Stair located within internal corridors to be recessed 1 tread width and handrail extension with downturn to avoid protrusion into traverse path of travel;
- (iii) Any riser contained within a stairway must be opaque;
- (iv) Riser to have a maximum vertical splay of 25mm from the nosing;
- (v) Stair nosings shall not project beyond the face of the riser more than 10mm and can be setback 15mm from the tread;
- (vi) Stair nosing profiles shall
 - be chamfered up to 5 mm × 5 mm; or
 - have a sharp intersection; or

D3.3 Parts of buildings to be accessible

- be rounded up to 5 mm radius.
- (vii) At the nosing, each tread shall have a strip not less than 50 mm and not more than 75mm deep across the full width of the path of travel with 30% luminance contrast to the background.
- (viii) Stairway/s, except a fire-isolated stairway, must comply with clause 11 and 12 of AS1428.1-2009;

□ Controls, Switches and GPOs

- (i) Intercoms and door release devices to be located between 900-1250mm from FFL and no less than 500mm from an internal corner, compliant with AS1428.1-2009;
- (ii) Power-operated doors to have raised buttons of 25mm in diameter. Controls to be located between 1-2m of door in its open position and 900-1250mm from FFL, no less than 500mm from an internal corner in accordance with AS1428.1;
- (iii) All light switches located on the accessible path of travel and in accessible sanitary compartments shall be located at least 500mm from internal corners. The centreline of all light switches shall be horizontally with the centreline of all door handles;
- (iv) All general purpose outlets shall be located not less than 600mm and not more than 1100mm above the FFL and at least 500mm from internal corners;
- (v) Rocker action and toggle light switches in accessible sanitary compartments and in accessible sole occupancy units shall have a minimum dimension of 30mm x 30 mm;
- (vi) All push pad switches shall have a minimum diameter of 25mm.

Detail shall be provided within future design progression for compliance assessment and comment by this office.

D3.5 Accessible carparking

Not applicable. No accessible car parking spaces have been proposed on the same allotment as the buildings required to be accessible.

D3.6 Signage

Clear and legible Braille and tactile signage complying with Specification D3.6 of the BCA and incorporating the international symbol of access or deafness, in accordance with AS1428.1 and located between 1200-1600mm from the floor must identify each –

- (i) Accessible sanitary facilities identifying if the facility is left or right handed use, and
- (ii) Ambulatory accessible sanitary facilities; and
- (iii) Directional signage at sanitary facilities to indicate the location of nearest accessible sanitary facility where not evident; and
- (iv) Directional signage to indicate location of nearest accessible pedestrian entrance; and
- (v) Every 'exit' door in the building required to be provided with an exit sign indicating the level number; and
- (vi) Areas with a hearing augmentation system.

Signage detail and location is required during design progression to enable a thorough compliance assessment by this office.

D3.7 Hearing augmentation

If any room is provided with an inbuilt amplification system then it is to be provided with a hearing augmentation system complying with one of the following:-

- (i) An induction loop provided to not less than 80% of the floor area of the room/spaced served by the inbuilt amplification system; or
- (ii) A system requiring the use of receivers or the like available to not less than 95% of the floor area of the room or space served by the inbuilt amplification system. The number of receivers provided shall be calculated based on number of persons accommodated within the area.
- (iii) Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.

Detail shall be provided within future design progression for compliance assessment and comment by this office.

D3.8 Tactile indicators

Tactile ground surface indicators complying with sections 1 & 2 of AS1428.4.1 must be provided to warn people with a vision impairment that they are approaching –

- (i) A stairway (other than a fire isolated stairway), and
- (ii) Ramps, and

D3.8 Tactile indicators

- (iii) An overhead obstruction less than 2m above floor level (other than a doorway).

Detail shall be provided within future design progression for compliance assessment and comment by this office.

D3.9 Wheelchair seating spaces in Class 9b assembly buildings

Where fixed seating is provided within Class 9b buildings, wheelchair seating spaces compliant with AS1428.1-2009 must be provided.

Number and grouping of seating shall be provided within future design progression for compliance assessment and comment by this office.

D3.10 Swimming pools

No swimming pools has been proposed.

D3.11 Ramps

See section D3.3 above.

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.

Detail shall be provided within future design progression for compliance assessment and comment by this office.

4.3 Part E3 – Lift Installations

E3.6

Passenger lifts

The passenger lift provided must comply with the following –

- (i) Passenger lifts to be an approved type in accordance with the BCA, Table D3.6a.
- (ii) Passenger lift (travelling less than 12m) requires minimum internal dimensions of 1100mm x 1400mm;
- (iii) Low-rise platform lifts may not travel more than 1000mm in height variation;
- (iv) Low-rise, enclosed lifts travelling more than 4m or low-rise, unenclosed lifts travelling more than 2m may not be used in high traffic, public use areas;
- (v) Not rely on a constant pressure device for its operation if the lift car is fully enclosed;
- (vi) Be provided with a handrail complying with Clause 5.3 AS1735.12-1999 (i.e. not more than 500mm from any button or operating device and between 850-950mm above the floor); and
- (vii) Have minimum clear width of car door openings of 900mm in accordance with Section 2 of AS1735.12-1999; and
- (viii) Have a passenger protection system in accordance with Clause 4.2 of AS1735.12-1999; and
- (ix) Have lift call buttons at landings in accordance with Section 7 of AS1735.12-1999 (i.e. located between 900mm and 1200mm above the floor; and
- (x) Have internal lift car control buttons in accordance with Section 7 of AS1735.12-1999 (i.e. located between 700mm and 1250mm above the floor; and
- (xi) Have lighting to the lift car in accordance with Section 10 of AS1735.12-1999 (i.e. compliant with AS/NZS1680.0-2009); and
- (xii) Have automatic audible information within the lift car to identify level each time the car stops; and
- (xiii) Have audible and visual indication at each lift landing to indicate the arrival of the lift car; and
- (xiv) Have emergency hands-free communication, including a button to alert a call centre of a problem and a light to signal that the call has been received.

4.4 Part F2 – Accessible sanitary and other facilities

F2.4

□ Accessible Sanitary Facilities

An accessible unisex sanitary facility has been provided at each storey containing sanitary compartments, as required.

The accessible unisex sanitary facilities shall have circulation space, fittings and fixtures complying Clause 15 of AS1428.1-2009.

□ Ambulant Sanitary Facilities

A compartment suitable for people with ambulant disabilities has been proposed at each bank of sanitary facilities in addition to an accessible unisex sanitary facility, as required.

The ambulant compartments shall have internal dimensions and locations of fixtures and fittings shall with comply with Clause 16 of AS1428.1-2009.

Details for the sanitary facilities shall be provided within future design progression for compliance assessment and comment by this office.

Report By



-
Luke Sheehy
Principal
For Design Confidence

APPENDIX 1

This accessibility assessment was based upon the architectural documentation prepared by TKD Architects, namely –

PLAN TITLE	DRAWING NO	REVISION	DATE
Cover Sheet	DA0000	P1	17.02.2017
Ground Floor	SK2001	P3	18.04.2017
First Floor	SK2002	P3	18.04.2017

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