

C2022001

BUILDING CODE OF AUSTRALIA 2019 (A1)
REPORT



615-617 WARRINGAH ROAD
FORESTVILLE NSW

Educational Establishment



06 January 2022

Revision 1

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1.0– Executive Summary

This BCA 2019 (A1) Report has been prepared to support the development application that seeks consent for the change of use of the rear building at 615-617 Warringah Road, Forestville, that is currently used as a '*place of public worship*' to an '*educational establishment*', for Yanginanook School. The application also seek consent for minor building works for disabled access and fire safety requirements.

The assessment of the documentation has revealed that the building is primarily capable of complying with Section D, E, G6 and H1 of the *Deemed-to-Satisfy* [herein 'DTS'] provisions of the *National Construction Code, Volume One, Building Code of Australia 2019 Amendment 1*, [herein 'BCA 2019 (A1)'], and where necessary the Performance Requirements, without modification that would require the development consent to be modified.

1.1 – Design Considerations

No.	Recommendation	DTS Clause
1	The dimensions of exits and paths of travel to exits generally complies with this clause, excluding the doorway from the kitchen to the second learning area, which is 680mm in width instead of 750mm. This door could be increased in sized or closed off as there is a second door from the kitchen area.	D1.6
2	Electrical distribution boards that are located within a path of travel to an exit must be contained within non-combustible construction (metal cabinet) and smoke sealed.	D2.7
3	The external eastern ramp must: (i)where the ramp is also serving as an accessible ramp under Part D3, be in accordance with AS 1428.1; or (ii)in any other case, have a gradient not steeper than 1:8. (c)The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586.	D1.10
4	The threshold of all internal doorways, must not include a step. The threshold of all internal and external doorways, that form part of the accessible path of travel, must comply with D3 and AS 1428.1-2009, which permits a change in floor level of 35mm with a 1:8 threshold ramp.	D2.15
5	The proposed new external ramp adjoining the eastern façade, which is also an accessible path of travel, must have two hand rails that comply with AS 1428.1-2009, and a third hand rail fixed at a height between 665 mm and 750 mm, measured above the nosings of stair treads and the floor surface of the ramp, as per cluse D2.17(a)(iii)(B).  The existing hand rail to the front concrete ramp appears to generally comply with this clause, except that the hand rail terminates slightly short of the ramp. No recommendation is made to upgrade this hand rial as the ramp is only proposed to be used for deliveries or the like, as all access and egress via the new eastern ramp.	D2.17, D3.3
6	The new external door to the external balcony is recommended to swing outwards as per this clause.	D2.20
7	The new door hardware must comply with this clause and AS 1428.1-2009. Door hardware throughout the building, must be single handle, downward action, located between 900mm-1100mm above the finished floor level, and comply with AS 1428.1-2009. Excluding the three storerooms, the existing door hardware is recommended to be upgraded to comply with this clause.	D2.21
8	The proposed external eastern ramp must comply with AS 1428.1-2009. In the event the ramp cannot comply with the prescriptive provisions, the proponent has indicated that they intend to seek a performance solution that complies with performance requirement DP1, at construction certificate stage.	D3.3
9	An accessible egress sign must be installed to the new external door opening to the rear deck.	D3.6

	<p>The sign must be located—</p> <p>(i) on the side that faces a person seeking egress; and</p> <p>(ii) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300mm from the architrave; and</p> <p>(iii) where (ii) is not possible, the sign may be placed on the door itself.</p>	
		
10	Tactiles will be required to the external eastern ramps in accordance with sections 1 and 2 of AS/NZS 1428.4.1	D3.8
11	An exit sign is required to be installed to the new external doorway from the main classroom to the rear timber deck as per Clause E4.5(a)(ii)&(iii). The existing external door from the secondary classroom is not considered an exit and therefore does not require an illuminated exit sign.	E4.5

1.2 – Fire Engineering

No.	Recommendation	DTS Clause	Performance Requirements
1	Nil	--	--

1.3 – Report Version

Revision	Date	Comments	Prepared & Approved
DRAFT 1	04 January 2021	DRAFT report.	Greg Evans, Registered Certifier BDC 1870.
Revision 1	06 January 2021	Final report.	Greg Evans, Registered Certifier BDC 1870.



Greg Evans
Director
Registered Certifier BDC 1870
360 Certification



2.0 – Property Description

2.1 – Building Location

The existing building is located on the subject site with three parcels of land, including Lot X DP 416724, Lot 1 DP 27363 and Lot 1 DP 406001. The irregular shaped site has an approximate area of 3,067m².

Image: Site plan 617 Warringah Road Forestville NSW. © Google maps. The site is marked in red. The subject building is marked in blue.



Image: Site plan 617 Warringah Road Forestville NSW.



2.2 – Basis of Assessment

This BCA 2019 (A1) Report has been prepared based of the following: -

- Sections D & E, of BCA 2019 (A1), as per the Building Assessment Referral Response to Development Application DA2021/2002, dated 13 December 2021. However, G6 and H1 have also been included as they also relate to fire safety matters.
- Were relevant, the *Performance Requirements* of BCA 2019 (A1);
- The *Environmental Planning & Assessment Act 1979*;
- *Clause 131 and 143 of the Environmental Planning & Assessment Regulations 2000*;
- *Disability (Access to Premises — Buildings) Standards 2010*;
- Plans prepared by Yanginanook School, dated January 2022.

2.2 – Report Purpose

The BCA 2019 (A1) Report will:

- compare the existing building against Section D, E, G6 and H1 of the *DTS* provisions of BCA 2019 (A1) including NSW Variations and relevant Australian Standards;
- Identify DTS breaches that can be altered to comply with the DTS provisions of BCA 2019 (A1);
- Identify DTS breaches and relevant performance requirements to be considered for Performance Solutions by the fire engineering and other consultants.

2.3 – Report Methodology

This BCA 2019 (A1) report initially relies upon the plans of the proposed building, and a review of the structure against Sections D, E, G6 and H1 of the DTS provisions of BCA 2019 (A1) and adopted Australian Standards.

Consideration can be given to the Performance Requirements of BCA 2019 (A1) where appropriate. Where relevant the assessment can include the following categories –

- Structural;
- Fire resistance and compartmentation;
- Occupant Access/Egress;
- Fire Safety/Protection Services
- Health & Amenity;
- Energy Efficiency.

2.4 – Exclusions, Assumptions and Limitations

- The report is limited to Sections D, E of BCA 2019 (A1), as per the Building Assessment Referral Response to Development Application DA2021/2002, dated 13 December 2021. However, G6 and H1 have also been included as they also relate to fire safety matters;
- The subject building is freestanding from the main church building, (albeit connected by a lightweight awning), and therefore the subject building is not considered to be united to the main church building as defined by BCA 2019 (A1);
- The review is limited to the subject building and therefore excludes the main church building;
- This report does not imply, nor refer to structural design or operating capability or design of any electrical, fire, hydraulic or mechanical services;
- Limited reference is made to the Disability (Access to Premises — Buildings) Standards 2010 and the *Disability Discrimination Act 1992 (Cth)*;
- It is assumed that a Sydney Water Pressure and flow test, of the 300mm CICL line servicing the property would provide 20 L/s @ 150 kPa;
- Property protection, asset protection, environment protection, business interruption, issues associated with insurance or community impact are specifically excluded in this report;
- No liability is accepted for the accuracy of any documents / drawings provided by others which may form the basis of the analysis in this report;
- This report is specifically limited to the project / building and all contents (including data, methodologies, calculations and conclusions) in this report shall not be used for any other projects / buildings or any other purposes. No liability is accepted for the use of findings of this report by others;
- Modifications, changes or future developments to the building and / or any fire safety systems may invalidate the findings of this report. A re-assessment should be sought if these changes happen.

2.5 – Building Description

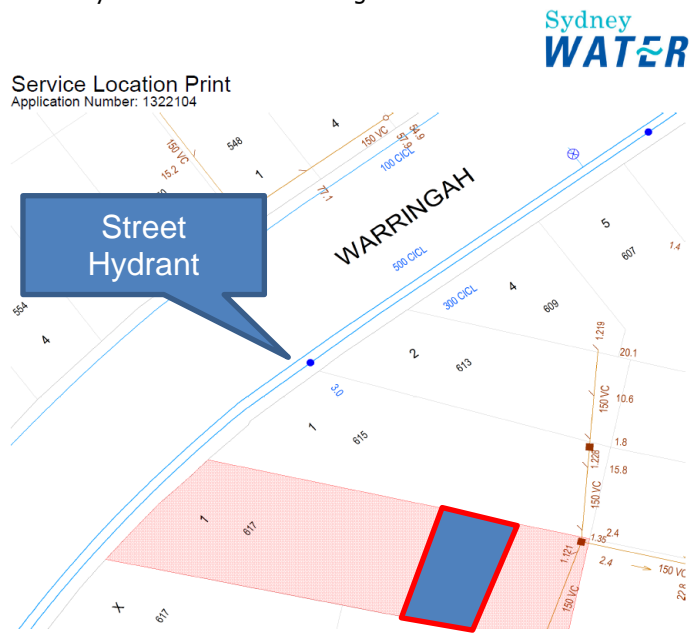
Building Use	<p>Standard Instrument—Principal Local Environmental Plan 2006 Educational establishment means a building or place used for education (including teaching), being— (a) a school, or (b) a tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act.</p> <p>BCA 2019 (A1) Assembly building means a building where people may assemble for— (a) ...; (b) educational purposes in a school, early childhood centre, preschool, or the like; or (c) ...; (i) ...; (ii) ...; (d)</p> <p>School includes a primary or secondary school, college, university, or similar educational establishment.</p>								
Use/Classifications	<table><tr><th>Storey</th><th>Description</th><th>Classification(s)</th></tr><tr><td>Ground floor</td><td><i>Educational establishment (WLEP)</i> <i>Assembly building, School (BCA 2019 (A1))</i></td><td>9b</td></tr></table>			Storey	Description	Classification(s)	Ground floor	<i>Educational establishment (WLEP)</i> <i>Assembly building, School (BCA 2019 (A1))</i>	9b
Storey	Description	Classification(s)							
Ground floor	<i>Educational establishment (WLEP)</i> <i>Assembly building, School (BCA 2019 (A1))</i>	9b							
United Building	The subject building is freestanding from the main church building, (albeit that they are connected by a lightweight awning), and therefore the subject building is not united with the main church building as defined by BCA 2019 (A1).								
Rise in Storeys	The existing building has a <i>rise in storeys</i> of one .								
Storeys contained	The building contains one storey.								
Type of Construction	The existing building requires Type 'C' Construction.								
Floor Area & Volume	The floor area and volume of the whole building, including the rear part, which is subject to this report, is less than 200m ² , and therefore less than the maximum permitted for 'C' construction, which permits a floor area of 2,000m ² and volume of 12,000m ³ .								
Primary FRL's	90 minutes.								
Fire Compartments	The building is one <i>fire compartment</i> .								
Effective Height	The building has an effective height of 0.00m .								
Population Loads	The subject building will have a maximum population load of 20 students and 5 staff, thereby having a total 25 occupants.								
Parking Spaces	External on-grade shared with the main church building.								
Flood Prone	No								
Bush Fire Prone	No								
Acid sulfate soils	No								
Zoning	R2 – Low Density Residential								
Heritage	Not a heritage item and not in a conservation area.								

2.6 - Category 1 Fire Safety Measures:

A *change of building use* is a change of BCA Classification under *Environmental Planning & Assessment Act 1979*. Pursuant to clause 131 (*Complying Development Certificate applications*) or clause 143 (*Construction Certificate applications*) of the *Environmental Planning & Assessment Regulations 2000*, a *change of building use* requires compliance with CATEGORY 1 Fire Safety Provisions. The proposed change results in a:

- change of land use from 'place of public worship' to an 'educational establishment' and,
- no change of building use, as both land uses are Class 9b.

Notwithstanding the above, the category 1 fire safety measures have briefly been reviewed below: -


CAT 1 Fire Safety Measure	Description	Compliance Yes/No	Notes
EP1.3	Hydrants	N/A	<p>The building is less than 500m². As such, fire hydrant coverage is not required. Nonetheless, the building is served by a 300mm CICL street hydrant located on the same side of Warringah Road, adjoining the boundary of 613 and 615 Warringah Road.</p>  <p>A FRNSW pumping appliance parked in the driveway of 615 Warringah Road, is within 20m of the above street hydrant detailed on the Sydney Water service location print. The subject building and main church building are provided with hydrant coverage from the FRNSW pumping appliance using two thirty metre hose lengths and a 10m spray (70m). It is assumed that a Sydney Water Pressure and flow test would provide 20 L/s @ 150 kPa.</p>
EP1.4	Sprinklers	N/A	The building does not require sprinklers due to its size or rise in storeys or use.
EP1.6	Fire brigade intervention facilities.	N/A	The building does not require a fire control centre as it is less than 18,000m ³ , is less than 25m in effective height.
EP2.1	Smoke Detection	N/A	Not applicable as the building does not contain sleeping accommodation.

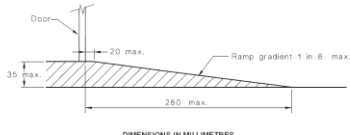
EP2.2	Untenable conditions	N/A	<u>Clause E2.2(a)(i):</u> Not applicable as the building has a rise in storeys of only two.
		N/A	<u>Clause E2.2(a)(ii), NSW Table E2.2b</u> Not applicable as the building is naturally ventilated or has non-ducted air conditioning less than 1000 l/s.
		N/A	<u>Clause E2.2(b) & (c)</u> Not applicable as the building is one <i>fire compartment</i> .
		N/A	<u>Clause E2.2(d):</u> Not applicable as no zone pressurisation and automatic air pressurisation for fire-isolated exits.
EP3.1	Stretcher facilities lifts	N/A	No lifts installed or proposed.
P2.3.2	Fire Detection and Early Waring	N/A	Not a Class 1 building.


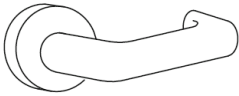
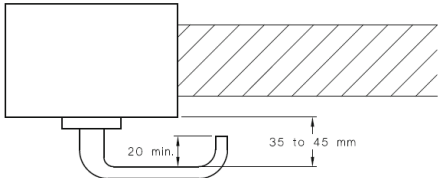
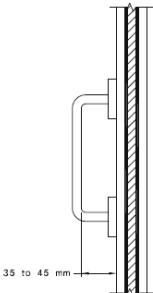
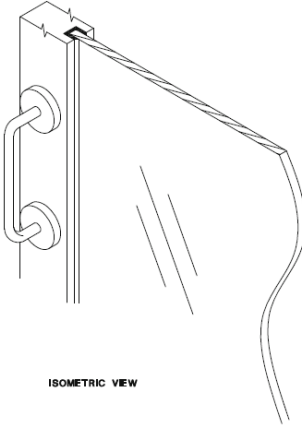
3.0 - BCA 2019 (A1) Assessment

3.1 – Access & Egress (Section D, BCA 2019 (A1))


Part D1	Provisions for Escape	Clause Requirements/Comments	Compliance
D1.0	DtS Provisions	Applicable <i>performance requirements</i> for <i>building solutions</i> .	Note only.
D1.1	Application of Part	Part applicable	Note only.
D1.2	Number of exits required NSW Variation NSW D1.2(d)(vii).	The building requires and is provided with at one exit as per this clause, which is the beginning of the external ramp attached to the eastern façade of the building.	Yes
D1.3	When fire-isolated stairways and ramps are required.	No fire isolated stair required or proposed.	N/A
D1.4	Exit travel distances	The exit travel distance complies with this clause as occupants are within 20m to the single eastern exit, subject to the middle eastern window of the main classroom to being converted to a sliding door or outward swinging door.	Yes
D1.5	Distance between alternative exits	Alternate exits not required.	N/A
D1.6	Dimensions of exits and paths of travel NSW Variations NSW D1.6(f)(vii) NSW D1.6(i)	<p>The dimensions of exits and paths of travel to exits generally complies with this clause, excluding the doorway from the kitchen to the second learning area, which is 680mm in width instead of 750mm. This door could be increased in sized or closed off as there is a second door from the kitchen area.</p> <p>The aggregate exit width permits 100 occupants. However, the building is proposed to have a maximum of 20 students and five staff – 25 occupant total.</p>	Design consideration
D1.7	Travel via fire-isolated exits.	No fire isolated exits.	N/A
D1.8	External stairways or ramps in lieu of fire-isolated exits	No external stair in lieu of a fire isolated stair.	N/A
D1.9	Travel by non-fire-isolated stairways or ramps.	No internal non fire isolated stairs as single storey building.	N/A
D1.10	Discharge from exits NSW Variation NSW D1.10(f).	<p>The external eastern ramp discharges to the enlarged undercover carparking space.</p> <p>The path to open space and then the road generally complies with this clause, assuming the concrete path has a gradient not less than 1:20 and crossfall no less than 1:40.</p>	Yes
D1.11	Horizontal exits.	No horizontal exits are provided / required.	N/A
D1.12	Non-required stairways, ramps or escalators.	No non-required stairways, ramps or escalators connecting storeys.	N/A
D1.13	Number of persons accommodated.	Pursuant to clause D1.13(c) the building is proposed to have a	Note only.

	NSW Variation NSW Table D1.13.	maximum 20 students and five staff – 25 occupant total.	
D1.14	Measurement of distances	Note only.	Note only.
D1.15	Method of measurement	Note only.	Note only.
D1.16	Plant rooms and lift machine rooms: Concession.	No plant concession required.	N/A
D1.17	Access to lift pits	No lifts required or proposed.	N/A
Part D2	Construction of Exits	Clause Requirements/Comments	Compliance
D2.0	DtS Provisions.	Applicable <i>performance requirements for building solutions</i> .	Note only.
D2.1	Application of part NSW Variation NSW D1.2(c).	Part applies.	Note only.
D2.2	Fire-isolated stairways and ramps.	No fire isolated stairways.	N/A
D2.3	Non-fire-isolated stairways and ramps.	Not applicable as the building does not have a rise in storeys of more than 2.	N/A
D2.4	Separation of rising and descending stair flights.	No rising and descending stair flights.	N/A
D2.5	Open access ramps and balconies.	No open access ramps or balconies used to comply with the requirements of Table E2.2a.	N/A
D2.6	Smoke lobbies.	No smoke lobbies utilised.	N/A
D2.7	Installations in exits and paths of travel.	<p>Electrical distribution boards that are located within a path of travel to an exit must be contained within non-combustible construction (metal cabinet) and smoke sealed.</p> <p>Image: Existing electrical distribution board.</p>  <p>Fibro and plasterboard, amongst other materials, are considered non-combustible as per clause C1.9 of BCA 2019 (A1).</p>	Design consideration
D2.8	Enclosure of space under stairs and ramps.	No cupboards proposed beneath the non-fire isolated ramp.	N/A
D2.9	Width of stairways.	No internal stairs more than 2m in width.	N/A
D2.10	Pedestrian ramps.	The external eastern ramp must: (i) where the ramp is also serving as an accessible ramp under Part D3, be in accordance with AS 1428.1; or (ii) in any other case, have a gradient not steeper than 1:8.	Design consideration

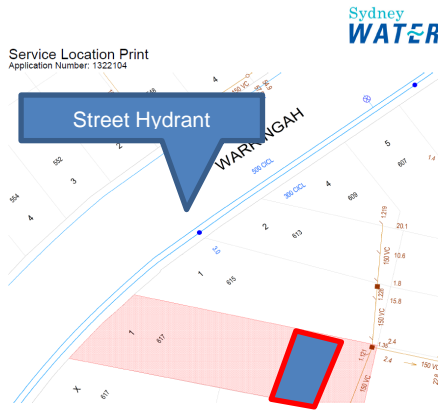
		(c)The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586.	
D2.11	Fire-isolated passageways.	No fire isolated passageways proposed or required.	N/A
D2.12	Roof as open space.	The roof is not utilised as open space for the purpose of this clause.	N/A
D2.13	Goings and risers. NSW Variation NSW 2.13(a)(ix), (x), xi	No stairs will serve the subject rear building.	N/A
D2.14	Landings.	No stairways serving the subject building.	N/A
D2.15	Thresholds. NSW Variation NSW D2.15(d)(e).	<p>The threshold of all internal doorways, must not include a step.</p> <p>The threshold of all internal and external doorways, that form part of the accessible path of travel, must comply with D3 and AS 1428.1-2009, which permits a change in floor level of 35mm with a 1:8 threshold ramp.</p>  <p style="text-align: center;">DIMENSIONS IN MILLIMETRES FIGURE 21 THRESHOLD RAMP</p>	Design consideration
D2.16	Balustrades or other barriers. NSW Variation D2.16(g)(iv) & (v).	<p>The existing front concrete ramp and rear deck are less than 1m in height and are therefore not subject to this clause.</p> <p>Notwithstanding the above, the existing timber balustrade serving the rear deck generally complies with this clause, and the existing steel balustrade serving the concrete ramp generally complies with AS 1657 for a service ramp.</p>	N/A
D2.17	Handrails.	The proposed new external ramp adjoining the eastern façade, which is also an accessible path of travel, must have two hand rails that comply with AS 1428.1-2009, and a third hand rail fixed at a height between 665 mm and 750 mm, measured above the nosings of stair treads and the floor surface of the ramp, as per cluse D2.17(a)(iii)(B).	Design consideration

		 <p>The existing hand rail to the front concrete ramp appears to generally comply with this clause, except that the hand rail terminates slightly short of the ramp. No recommendation is made to upgrade this hand rail as the ramp is only proposed to be used for deliveries or the like, as all access and egress via the new eastern ramp.</p>	
D2.18	Fixed platforms, walkways' stairways and ladders.	No fixed platforms, walkways and ladders proposed or required.	N/A
D2.19	Doorways and doors. NSW Variation NSW D2.19(b)(v).	No revolving, roller shutter, tilt-up, sliding door or power-operated door used as an exit.	N/A
D2.20	Swinging doors.	The new external door to the external balcony is recommended to swing outwards as per this clause.	Design consideration
D2.21	Operation of latch. NSW Variation NSW D2.21(c)& (d).	<p>The new door hardware must comply with this clause and AS 1428.1-2009. Door hardware throughout the building, must be single handle, downward action, located between 900mm-1100mm above the finished floor level, and comply with AS 1428.1-2009.</p> <p>Excluding the three storerooms, the existing door hardware is recommended to be upgraded to comply with this clause.</p>	Design consideration
<p align="center">Image: Door hardware requirements for hinged and sliding doors.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>(a) Isometric view</p> </div> <div style="text-align: center;">  <p>(b) Plan view</p> </div> </div> <p>FIGURE 35(A) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR HINGED DOORS</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>SECTIONAL ELEVATION</p> </div> <div style="text-align: center;">  <p>ISOMETRIC VIEW</p> </div> </div> <p>FIGURE 35(B) EXAMPLE OF ACCEPTABLE DOOR HARDWARE FOR SLIDING DOORS</p>			
D2.22	Re-entry from fire-isolated exits.	Building not >25m in effective height.	N/A
D2.23	Signs on doors.	No fire isolated stairs.	N/A

D2.24	Protection of openable windows. Class 2, 3, 4 or 9b building. http://www.legislation.nsw.gov.au/#/view/act/2015/50/part6/div3/sec118	Not a Class 2, 3, 4 or 9b building used as an <i>early childhood centre</i> .	N/A
D2.25	Timber stairways: Concession	Not applicable as timber stairs.	N/A
NSW D2.101	Doors in path of travel in an entertainment venue.	Not an ' <i>entertainment venue</i> ', as defined by the <i>EP & A Regs. 2000</i> .	N/A
Part D3	Access for People with Disabilities	Clause Requirements/Comments	Compliance
D3.0	DtS Provisions.	Applicable <i>performance requirements for building solutions</i> .	Note only.
D3.1	General building access requirements.	Disabled access is a requirement of BCA 2019 (A1) and Federal legislation. The building must be accessible to and within all areas normally used by the occupants.	Yes
D3.2	Access to buildings.	An accessway must be provided to a building required to be accessible— (i) from the main points of a pedestrian entry at the allotment boundary; and (ii) from another accessible building connected by a pedestrian link; and (iii) from any required accessible carparking space on the allotment. The existing concrete driveway is the accessway to the subject building from the main points of pedestrian access of the site and to the adjoining church building. The accessway continues via the new eastern external ramp to the new eastern door to the rear timber deck, which is the principal pedestrian entrance of the building. This doorway and the external doorway to the second learning room must be accessible, as 50% of all pedestrian entrances must be accessible, noting that the building will have three external doors. Currently there is no marked disabled carparking spaces on the subject property. However, if one was installed, an accessway could be provided from the space to the subject building.	Yes
D3.3	Parts of buildings to be accessible.	The proposed external eastern ramp must comply with AS 1428.1-2009. In the event the ramp cannot comply with the prescriptive provisions, the proponent has indicated that they intend to seek a performance solution that complies with performance requirement DP1, at construction certificate stage.	Design consideration

D3.4	Exemptions.	Disabled access need not be provided storerooms, service rooms, and the kitchen.	Yes
D3.5	Accessible car parking.	No carparking existing or proposed.	N/A
D3.6	Signage.	<p>An accessible egress sign must be installed to the new external door opening to the rear deck.</p> <p>The sign must be located— (i) on the side that faces a person seeking egress; and (ii) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300mm from the architrave; and (iii) where (ii) is not possible, the sign may be placed on the door itself.</p> 	Design consideration
D3.7	Hearing augmentation.	A inbuilt amplification system is not proposed. As such, a hearing loop is not required.	N/A
D3.8	Tactile indicators.	Tactiles will be required to the external eastern ramps in accordance with sections 1 and 2 of AS/NZS 1428.4.1	Design consideration
D3.9	Wheelchair seating in Class 9b assembly buildings.	No fixed seating proposed at this point in time. As such, the clause does not apply.	N/A
D3.10	Swimming Pools.	No swimming pool proposed.	N/A
D3.11	Ramps.	<p>On an accessway— (a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and (b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.</p>	Yes
D3.12	Glazing on an accessway.	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1-2009.	Yes

3.2 – Services and Equipment (Section E, BCA 2019 (A1))

Part E1	Fire Fighting Equipment	Clause Requirements/Comments	Compliance
E1.0	DtS Provisions	Applicable <i>performance requirements for building solutions</i>	Note only
E1.1	*****	Blank clause.	N/A
E1.2	*****	Blank clause.	N/A
E1.3	Fire hydrants.	<p>The building is less than 500m². As such, fire hydrant coverage is not required. Nonetheless, the building is served by a 300mm CICL street hydrant located on the same side of Warringah Road, adjoining the boundary of 613 and 615 Warringah Road.</p>  <p>A FRNSW pumping appliance parked in the driveway of 615 Warringah Road, is within 20m of the above street hydrant detailed on the Sydney Water service location print. The subject building and main church building are provided with hydrant coverage from the FRNSW pumping appliance using two thirty metre hose lengths and a 10m spray (70m). It is assumed that a Sydney Water Pressure and flow test would provide 20 L/s @ 150 kPa.</p>	N/A
E1.4	Fire hose reels.	Fire hose reels are not required to the rear building, as the building is less than 500m ² .	N/A
E1.5	Sprinklers NSW Variation NSW Table E1.5	The building does not require sprinklers due to its size or rise in storeys or use.	Yes
E1.6	Portable fire extinguisher.	Portable fire extinguishers are required as per Clause E1.6 and Table E1.6, in accordance with AS 2444. It is noted the building is already served by portable fire extinguishers.	Yes
E1.7	*****	Blank clause.	N/A
E1.8	Fire control centres and rooms.	Not required as less than 25m in effective height and the building is less than 18,000m ² .	N/A
E1.9	Fire precautions during construction.	Not less than one fire extinguisher to suit Class A, B and C fires and	Yes

		electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.	
E1.10	Provision for special hazards.	Building not considered to be subject to special hazards.	N/A
Part E2	Smoke Hazard Management	Clause Requirements/Comments	Compliance
E2.0	DtS Provisions	Applicable <i>performance requirements for building solutions</i>	Note only
E2.1	Application of Part.	Part applies.	Applicable
E2.2	General requirements.	<p><u>Clause E2.2(a)(i):</u> Not applicable as the building has a rise in storeys of only one, and it is not considered a large isolated building.</p> <p><u>Clause E2.2(a)(ii), NSW Table E2.2b</u> Not applicable as the building is naturally ventilated or has non-ducted air conditioning less than 1000 l/s.</p> <p><u>Clause E2.2(b) & (c)</u> Not applicable as the building is one <i>fire compartment</i>.</p> <p><u>Clause E2.2(d):</u> Not applicable as no zone pressurisation and automatic air pressurisation for fire-isolated exits. Not applicable as no smoke control or stair pressurisation in the building required or proposed.</p>	N/A
E2.3	Provision of special hazards. NSW variations NSW Table E2.2a NSW Table E2.2b	The building is not considered to be subject to the provision of special hazards.	N/A
Part E3	Lift Installations	Clause Requirements/Comments	Compliance
E3.0	DtS Provisions	Applicable <i>performance requirements for building solutions</i> .	Note only
E3.1	Lift installations.	No lift existing, required or proposed.	N/A
E3.2	Stretcher facility in lifts.	No lift existing, required or proposed.	N/A
E3.3	Warnings against the use of lifts in fire.	No lift existing, required or proposed.	N/A
E3.4	Emergency lifts.	No lift existing, required or proposed.	N/A
E3.5	Landings.	No lift existing, required or proposed.	N/A
E3.6	Passenger lifts.	No lift existing, required or proposed.	N/A
E3.7	Fire service controls.	No lift existing, required or proposed.	N/A
E3.8	Aged care buildings.	No lift existing, required or proposed.	N/A
E3.9	Fire service recall operation switch.	No lift existing, required or proposed.	N/A
E3.10	Lift car service drive control switch.	No lift existing, required or proposed.	N/A
Part E4	Emergency Lighting, Exit Signs and Warning Systems	Clause Requirements/Comments	Compliance
E4.0	DtS Provisions	Applicable <i>performance requirements for building solutions</i> .	Note only.
E4.1	*****	Blank clause.	N/A
E4.2	Emergency lighting requirements.	Emergency lighting is not required as the building is less than 300m ² .	N/A

E4.3	Measurement of distance.	Noted.	Note only.
E4.4	Design and operation of emergency lighting.	If installed, the emergency lighting must be installed in accordance with AS 2293.1-2018.	N/A
E4.5	Exit signs.	An exit sign is required to be installed to the new external doorway from the main classroom to the rear timber deck as per Clause E4.5(a)(ii)&(iii). The existing external door from the secondary classroom is not considered an exit and therefore does not require an illuminated exit sign.	Design consideration
E4.6	Direction signs. NSW Variation NSW E4.6	Directional exit signs are not required as the single exit is considered to be readily apparent to occupants.	N/A
E4.7	Class 2 & 3 buildings and Class 4 parts: Exemption.	Not a Class 2, 3 or 4 building.	N/A
E4.8	Design and operation of exit signs.	Exit signs must comply with— AS 2293.1; or for a photoluminescent exit sign, Specification E4.8; and be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.	Yes
E4.9	Sound systems and intercom systems for emergencies	Not a class 9b with a rise-in-storeys more than 2.	N/A

3.3 – Ancillary Provisions (Part G, BCA 2019 (A1))

Part G6	Occupiable outdoor areas	Clause Requirements/Comments	Compliance
G6.1	DtS Provisions	<i>Occupiable outdoor area means a space on a roof, balcony or similar part of a building—</i> <i>(a)that is open to the sky; and</i> <i>(b)to which access is provided, other than access only for maintenance; and</i> <i>(c)that is not open space or directly connected with open space.</i> The rear deck of the subject building is considered an <i>occupiable outdoor area</i> .	Applicable
G6.2	Fire hazard properties	A lining, material or assembly in an occupiable outdoor area must comply with C1.10 as for an internal element. However, the following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C1.10: (i)Average specific extinction area. (ii) Smoke-Developed Index. Smoke development rate. Smoke growth rate index (SMOGR _{ARC}). As such, the following is required: <u>Floor linings:</u> a critical radiant flux not less than 2.2 and a group number 1, 2 or 3 for any portion of the floor	Yes

		covering that is continued more than 150 mm up a wall. <u>Wall and ceiling linings:</u> a group number 1, 2 or 3. Note: The provisions of Clause C1.9, C1.14, C2.4 of Spec. C1.1 still apply.	
G6.3	Fire separation	Not applicable as single storey building.	N/A
G6.4	Provision for escape	Occupants are within 20m of the single exit, which is considered to be the beginning of the external ramp.	Yes
G6.5	Construction of exits	The proposed external ramp is capable of complying with Section D1 as previously detailed within this report, which therefore complies with this clause.	Yes
G6.6	Fire fighting equipment	The fire services must also serve the occupiable outdoor space.	Yes

3.4 – Class 9b Buildings (Part H1, BCA 2019 (A1))

Section H	Special use buildings	Clause Requirements/Comments	Compliance
NSW H1.1	Application of part	Not applicable as the subject rear building has no stage.	Note only
H1.4	Seating Area	<p>The subject building complies with this clause as there is no sloping floor or fixed seating area.</p> <p><i>In a seating area—</i> <i>(a)the gradient of the floor surface must not be steeper than 1 in 8, or the floor must be stepped so that—</i> <i>(i)a line joining the nosings of consecutive steps does not exceed an angle of 30° to the horizontal; and</i> <i>(ii)the height of each step in the stepped floor is not more than 600 mm; and</i> <i>(iii)the height of any opening in such a step is not more than 125 mm; and</i></p> <p><i>(b)if an aisle divides the stepped floor and the difference in level between any 2 consecutive steps—</i> <i>(i)exceeds 230 mm but not 400 mm — an intermediate step must be provided in the aisle; and</i> <i>(ii)exceeds 400 mm — 2 equally spaced intermediate steps must be provided in the aisle; and</i> <i>(iii)the going of intermediate steps must be not less than 270 mm and such as to provide as nearly as practicable equal treads throughout the length of the aisle; and</i></p>	Yes

		<p><i>(c) the clearance between rows of fixed seats used for viewing performing arts, sport or recreational activities must be not less than—</i></p> <p><i>(i) 300 mm if the distance to an aisle is not more than 3.5 m; or</i></p> <p><i>(ii) 500 mm if the distance to an aisle is more than 3.5 m.</i></p>	
H1.7		Not applicable as not auditorium.	N/A

4.0 – Proposed Fire Safety Schedule

Measure	E / M / N	Standard of Performance
Exit signs	Modified	BCA Clause E4.5, E4.8, AS 2293.1-2018.
Portable fire extinguishers	Modified	BCA Clause E1.6, AS 2444-1995.
Warning and operational signage	New	BCA Clause D3.6.

5.0 – Conclusion

This BCA 2019 (A1) Report has been prepared to support the development application that seeks consent for the change of use of the rear building at 615-617 Warringah Road, Forestville, that is currently used as a '*place of public worship*' to an '*educational establishment*', for Yanginanook School. The application also seek consent for minor building works for disabled access and fire safety requirements.

The assessment of the documentation has revealed that the building is primarily capable of complying with Section D, E, G6 and H1 of the DTS provisions of BCA 2019 (A1), and where necessary the Performance Requirements, without modification that would require the development consent to be modified.

Prepared by:



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Director
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360 Certification



6.0 – References Documents & Plans

See attached plans.