

22 April 2020

Catholic Education Diocese of Bathurst
C/- North Constructions

Attention: Krsitie Jones
Email: kristie.jones@north.com.au

**RE: ST MATTHEW'S CATHOLIC SCHOOL, BROADHEAD & BRUCE RD, MUDGEE
BCA COMPLIANCE STATEMENT FOR DA SUBMISSION**

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the State Significant Development Application to the Consent Authority for the proposed St Matthew's Secondary School against the Building Code of Australia 2019 (BCA).

1.0 PROPOSED DEVELOPMENT

The proposed development comprises the construction of a new multi-purpose secondary education facility within the Mudgee Region that meets future demands for the developing region.

The new secondary school to be known as St Matthews Catholic High School Mudgee School will cater for 680 secondary school students (4-Stream Year 7-12) and will comprise of a cluster of five low-rise school buildings (1-2 storeys) including;

- + Block A - Professional Hub (office and administration)
- + Block B - Spiritual Hub (Chapel)
- + Block C - Community Hub (Multi purpose hall, Music/Dance Studio and canteen)
- + Block D – STEM Research Hub (teaching spaces)
- + Block E - Knowledge and Learning Hubs (General Teaching spaces)
- + Yarning Circle (Outdoor learning area)
- + Outdoor Student Assembly Area and COLA
- + Student free play area
- + Staff and student amenities
- + Associated site landscaping and public domain improvements
- + On-site parking and access arrangements off Bruce Road, including:
 - o On-grade car park for staff, students and visitors (75 spaces – including 2 accessible spaces)
 - o A 12 bay student drop-off and pick-up area
 - o A 3-bay bus drop-off and layover area
 - o Bus turning area and servicing access
 - o Dedicated separate driveway for service vehicles
 - o Bicycle parking for 30 bicycles
- + Associated earthworks, civil works, perimeter roadworks, fencing, services and utilities connections and augmentation, including:
 - o Roadworks to Broadhead Road and Bruce Road to the full extent of the site frontages
 - o Roadworks to the Broadhead Road and Bruce Road intersection to cater for bus movements
 - o Footpath along the site frontage of Broadhead Road and suitable pedestrian crossing to connect to existing footpath.
 - o Stormwater infrastructure upgrades adjacent to and within the site, including new culverts and drains, levee, and bioswale.
 - o Connection to existing sewer line within the site
 - o Electrical and water connections into the site



2.0 COMPLIANCE STATEMENT OBJECTIVES

The objectives of this statement are to:

- a) Confirm that the SSSA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.
- b) Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to clause 145 of the *Environmental Planning & Assessment Regulation 2000*.
- c) Accompany the SSSA submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject to further assessment following receipt of more detailed documentation at Construction Certificate stage.

This statement has been prepared pursuant to clause 18 of the *Building Professionals Regulation 2007*.

3.0 REFERENCED DOCUMENTATION

This report has been prepared based on a review of the preliminary DA architectural plans prepared by Alleanza Architecture:

<u>DRAWING</u>	<u>REVISION</u>	<u>DATE</u>
DA001	8	21.04.20
DA008	15	21.04.20
DA009	22	21.04.20
DA010	8	21.04.20
DA011	8	21.04.20
DA012	7	21.04.20
DA101	17	21.04.20
DA102	7	21.04.20
DA103	8	21.04.20
DA104	16	21.04.20
DA105	11	21.04.20
DA106	10	21.04.20
DA108	13	21.04.20
DA109	7	21.04.20
DA110	10	21.04.20
DA111	7	21.04.20
DA112	10	21.04.20
DA113	11	21.04.20
DA114	8	21.04.20
DA115	6	21.04.20
DA116	12	21.04.20
DA117	6	21.04.20
DA118	7	21.04.20
DA119	9	21.04.20
DA120	6	21.04.20
DA121	7	21.04.20
DA122	10	21.04.20
DA123	7	21.04.20
DA124	7	21.04.20
DA125	9	21.04.20



DA126	6	21.04.20
DA127	6	21.04.20

4.0 BUILDING CLASSIFICATION

The new buildings have been classified as follows:

	<u>BLOCK A – ADMIN</u>	<u>BLOCK B - CHAPEL</u>	<u>BLOCK C - HALL</u>	<u>BLOCK D – D&T</u>	<u>BLOCK E – LEARNING & RESOURCE</u>
BCA CLASS:	9b	9b	9b	9b	9b
RISE IN STOREYS:	One (1)	One (1)	One (1)	One (1)	Two (2)
TYPE OF CONSTRUCTION:	C	C	C	C	B
SPRINKLERS:	No	No	No	No	No
EFFECTIVE HEIGHT:	<12m	<12m	<12m	<12m	<12m
FLOOR AREA:	700m ²	180m ²	1,200m ²	1,650m ²	3,400m ²
MAX. FIRE COMPARTMENT SIZE:	3,000m ²	3,000m ²	3,000m ²	3,000m ²	5,500m ²
CLIMATE ZONE:	Zone 6	Zone 6	Zone 6	Zone 6	Zone 6
IMPORTANCE LEVEL (STRUCTURE):	3	3	3	3	3

	<u>FIRE SOURCE FEATURE SETBACK</u>
<u>BLOCK A – ADMIN</u>	<i>No external walls require an FRL</i>
<u>BLOCK B - RESOURCE</u>	<i>No external walls require an FRL</i>
<u>BLOCK C - HALL</u>	<i>No external walls require an FRL</i>
<u>BLOCK D – D&T</u>	<i>No external walls require an FRL</i>
<u>BLOCK E - LEARNING</u>	<i>No external walls require an FRL</i>
	The Admin building is currently measured as being 18.5m from the Learning building. As the external walls of the building are proposed to be >18m apart there is no FRL requirement.



5.0 BCA ASSESSMENT – KEY ISSUES

The following comprises a summary of the key compliance issues that will need to be addressed prior to issue of the Construction Certificate:

B1	<p>New building works are to comply with the structural provisions of the BCA and referenced standards including AS 1170.</p> <p>In addition to the above, the loadbearing capacity of existing balustrades (where retained) should be reviewed, particularly with respect to loadings under AS 1170.</p> <p>The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.</p> <p>New building works to the existing building must be compliant with earthquake provisions of AS1170.4 – Earthquake Actions in Australia.</p>
B1.4	<p>Termite protection measures to be implemented where appropriate in accordance with AS 3660.1-2000 – Termite Management.</p>
C1.9	<p><u>Non-Combustible Building Elements:</u> Documentation is required to be provided as relevant to:</p> <ul style="list-style-type: none">+ Any external wall claddings.+ Any framing or integral formwork systems. I.e. timber framing, dintel formwork, etc.+ Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc.+ Any sarking or insulation contained within the wall assembly. <p>This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and provided for review. Any departures from non-combustibility or deemed non-combustible materials under this clause (C1.9[e]) will require consideration under a fire engineered performance solution, or alternatively, through compliance demonstrated under CV3.</p>
D1.2	<p><u>Number of exits required:</u> Each building is provided with not less than 1 exit.</p>
D1.4	<p><u>Exit travel distances:</u> Exit travel distances within the subject part are required to be not more than 20m to a point of choice between alternative exits and 40m to the nearest one -</p>
D1.5	<p><u>Distance between alternative exits:</u> Distances between alternative exits must be not greater than 60m - <i>Travel distances as shown on plan comply with the requirements of this clause.</i></p>
D1.6	<p><u>Dimensions of paths of travel to an exit:</u> The minimum clear height through all egress paths is required to be no less than 2m, and a minimum of 1m wide (this width dimension is measured clear of any obstructions such as handrails and joinery). In a required exit or path of travel to an exit there is concession for the unobstructed width of a doorway to be reduced to 850mm min in lieu of 1m, and the unobstructed height for an exit doorway can be reduced to 1,980mm min.</p> <p>The Hall has an aggregate exit width of 9m which will comply for the proposed population of up to 800 people.</p>
D1.9	<p><u>Travel by Non-Fire-Isolated Stairways or Ramps:</u> Block A (Staff) and Block E (Learning) are provided with a number of non-fire-isolated stairways with compliant travel distances.</p>
D1.10	<p><u>Discharge from Exits:</u> All exits discharged to open space with access to a road.</p> <p>It is noted that a number of egress paths from a building pass under a covered walkway/awning area. This will need to be addressed through a <u>fire engineered performance solution</u>.</p>
D1.13	<p>We understand the student population is up to 680 and the staff population is 60 for the site.</p>
D2.13 / D2.14 / D2.16 / D2.17	<p><u>Stairways, Balustrades, and Handrails:</u> Stairways, balustrades and handrails to achieve the minimum requirements of the BCA.</p> <p>Floor finishes will be required to achieve the correct slip resistance in accordance with AS 4586-2013. This will need to be confirmed compliant at Completion stage and as such, the selection of materials will need to be considered in relation to these requirements.</p>



**D2.19 /
D2.20 /
D2.21**

Doors and latching: All egress doorways must swing in the direction of egress and must be readily openable without a key from the side that faces a person seeking egress, by a single handed downward or pushing action on a single device which is located between 900mm and 1100mm from the floor.

Where exit doors serve rooms that are <200m², the exit doors to open space may swing in the direction of egress if the doors are fitted with a device for holding it in the open position.

Part D3

Access for People with a Disability: All access is required to comply with AS 1428.1-2009. We understand an access consultant has been engaged to determine compliance with Part D3, Clause F2.4 and AS1428.1-2009 in this regard.

E1.3

Fire hydrants: Fire hydrant coverage is required to be provided to the building in accordance with AS2419.1-2005.

In the event that the booster assembly is not within sight of the main entry of the buildings a fire engineered performance solution will be required to justify the departure.

E1.4

Fire hose reels: Fire hose reel coverage is required to be provided in Block A, B & C in accordance with AS2441-2005.

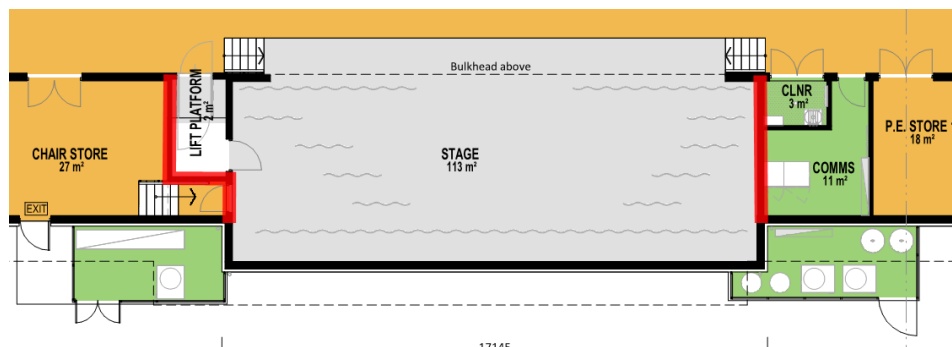
E1.6

Fire extinguishers: To be provided and designed in accordance with AS 2444-2001.

E2.2a

Smoke hazard management: Automatic shutdown or any air-handling system (other than miscellaneous exhaust air systems and non-ducted individual room units with a capacity of not more than 1000L/s) are required to be shut-down by smoke detectors in accordance with clause 6 of Spec E2.2a **for all buildings.**

The stage area is required to be provided with either an automatic smoke exhaust system or roof mounted automatic smoke and heat vents. Additionally, the stage must be separated by an FRL of 60/60/60 from other spaces (otherwise they will be included in the floor area calculation).



E4.2-E4.8

Emergency lighting and exits signs: Fire services design consultant to confirm compliance with AS 2293.1-2018.

5.1 SECTION F – HEALTH AND AMENITY

F2.3

Sanitary facilities:

We understand the school wishes to utilise unisex facilities in lieu of separate male and female facilities. Accordingly, the sanitary facility calculation has been undertaken in line with the requirement for female sanitary facilities and a performance solution will need to be provided at the Construction Certificate stage to justify the arrangement.

Block A – staff population of 60

Block A – 60 staff							
	Closet Pans		Urinals		Washbasins		Complies
	Required	Proposed	Required	Proposed	Required	Proposed	Yes/No
Unisex	5	7	-	-	3	7	Yes

Block B population of 150 students – We understand that toilets will be relied upon in Block C.

Block C – for short periods of time the population may increase up to 800 people. In such instances, it is acceptable to rely upon sanitary facilities across the school campus.

For any special after-hours use it is expected that the reliance of additional sanitary facilities in other buildings be addressed as a performance solution.



During non-assembly times and during school hours we understand the building will not accommodate more than 120 people.

Block D – we understand the building will not accommodate more than 150 people at any time.

The combined population of Block B, C and D should not exceed more than 350 people (except for assemblies or similar) at any single time in order for the sanitary facilities numbers to comply.

Block B, C & D – 350 students							
	Closet Pans		Urinals		Washbasins		Complies
	Required	Proposed	Required	Proposed	Required	Proposed	Yes/No
Unisex	9	9	-	-	7	9	Yes

Block E – we understand that this building has a utilisation factor of 60% of the total student population, meaning that no more than 410 students will be in the Block at any one time.

Block E – 410 students (60% utilisation factor)							
	Closet Pans		Urinals		Washbasins		Complies
	Required	Proposed	Required	Proposed	Required	Proposed	Yes/No
Unisex	12	12	-	-	8	12	Yes

F2.4 Accessible Sanitary Facilities: Accessible WC's are shown to be provided in each building.

Part F3 The floor to ceiling heights must not be less than:

- + 2.7m in corridors serving more than 100 persons, otherwise 2.4m; and
- + 2.4m in class rooms; and
- + 2.1m in bathrooms, storage rooms, tea rooms, etc.

Part F4 Part F4 – Light and Ventilation: Any installations or modifications to the existing artificial lighting system are required to comply with Clause F4.4 and AS 1680. All mechanical or air-conditioning installations must be undertaken in accordance with Clauses F4.5(b) and AS 1668.2.-2012.

5.2 SECTION H – SPECIAL USE BUILDINGS

Part H1 Theatres, Stages and Public Halls: The proposed stage is noted as being 113m² and we understand that there will be no rigging loft.

No requirements from Part H1 apply for the Stage and hall.

Part H101 Entertainment Venues: We have been advised that the Hall will not be used as an entertainment venue (theatre, concert hall or indoor sports stadium). This include leasing the Hall to external parties to use it for theatre or concert purpose.

5.3 SECTION J – ENERGY EFFICIENCY

Section J Energy Efficiency: The new building works subject to compliance with the Energy Efficiency Provisions of Section J relating to:

- + J1: Building Fabric
- + J2: External Glazing
- + J3: Building Sealing
- + J5: Air-conditioning and ventilation systems
- + J6: Artificial lighting and power
- + J7: Hot water supply
- + J8: Access for maintenance



6.0 FIRE SAFETY SCHEDULE

The following table is a list of the required fire safety measures within the building. These measures may be subject to further change pending the outcomes of the final Fire Safety Engineering Review to confirm the works are permissible and do not contradict the base building Performance Solutions.

Statutory Fire Safety Measure	Design / Installation Standard	Proposed
Automatic Fail Safe Devices	BCA Clause D2.21	✓
Automatic Fire Detection & Alarm System – <i>potentially</i>	BCA Spec. E2.2a & AS 1670.1 – 2018	✓
Building Occupant Warning System activated by the Sprinkler System	Clause 3.22 of AS 1670.1 – 2015	✓
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 – 2018	✓
Emergency Evacuation Plan	AS 3745-2010	✓
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8; and AS 2293.1 – 2018	✓
Fire Blankets	AS 3504 – 1995 & AS2444 – 2001	✓
Fire Dampers	BCA Clause C3.15, AS 1668.1 – 2015 & AS 1682.1 & 2 – 1990 and manufacturer's specification	✓
Fire Doors	BCA Clause C2.12, C2.13, C3.2, C3.4, C3.5, C3.6, C3.7, C3.8 & C3.11; and AS 1905.1 – 2015 and manufacturer's specification	✓
Fire Hose Reels	BCA Clause E1.4 & AS 2441 – 2005	✓
Fire Hydrant Systems	BCA Clause E1.3 & AS 2419.1 – 2005	✓
Fire Seals	BCA Clause C3.15, AS 1530.4 – 2014 & AS 4072.1 – 2005 and manufacturer's specification	✓
Lightweight Construction	BCA Clause C1.8 & AS 1530.4 – 2014 and manufacturer's specification	✓
Mechanical Air Handling Systems (Shutdown)	BCA Clause E2.2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012	✓
Paths of Travel	EP&A Regulation Clause 186	✓
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444 – 2001	✓
Smoke Hazard Management (smoke exhaust or smoke and heat vents)	BCA Part E2 & AS/NZS 1668.1 –2015	✓
Smoke Heat Detectors (auto shutdown)	Clause 5(b) of BCA Spec E2.2a and AS 1668.1 - 2015	✓
Warning & Operational Signs	Section 183 of the EP&A Regulation 2000, AS 1905.1 – 2015, BCA Clause C3.6, D2.23, D3.6, E3.3 & H101.8	✓
Fire engineered Alternative Solutions relating to: + + +	BCA Performance Requirements ... Fire Safety Engineering Report prepared by Report No. Revision dated	✓



7.0 CONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed development located at Broadhead and Bruce Road Mudgee, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2019.

In view of the above assessment we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable.

In addition, it is considered that such matters can adequately be addressed in the preparation of the Construction Certificate documentation without giving rise to any inconsistencies with the Development Approval.

If you have any questions or require further information, please do not hesitate to contact me on 0400 819 326.
Regards

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