

18 June 2020

Kambala
c/- CTPG
Level 13, 333 George Street
SYDNEY 2000

RE: **KAMBALA SCHOOL, ROSE BAY**
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 (SSDA) for the proposed construction of a new Multi-Purpose Sports building and additions to an existing Music Building at Kambala School, New South Head Road, Rose Bay against the National Construction Codes Series Volume 1 Building Code of Australia 2019 (BCA).

Kambala is located at 794-796 New South Head Road, Rose Bay and is within the Woollahra Council local government area. The campus is bound by New South Head (to the east), Bayview Hill Road (to the north) and Tivoli Avenue (to the west). Fernbank Boarding House is located at 1A-3 Bayview Hill Road opposite the Kambala School grounds. No works are proposed to this part of the campus in this DA.

1.0 PROPOSED DEVELOPMENT

The SSDA includes detailed plans for the new sport, wellbeing and senior learning precinct and accordingly the proposed development consists of:

- + The excavation of part of the existing sports field to facilitate the construction of the following:
 - o Sports facilities including weights room and dance rooms;
 - o Indoor multipurpose sports courts for use by up to 1500 people;
 - o Innovative and flexible teaching and learning spaces;
 - o Amenities, store rooms, plant, circulation and ancillary spaces;
 - o Reinstatement of the sports field surface on the roof (sports field and perimeter fencing);
 - o Spectator seating / bleachers;
- + The removal of the tennis courts (currently on the roof of the music building), and the construction of:
 - o A wellbeing centre, called the SHINE centre, to accommodate the Kambala SHINE Program;
 - o A new staff centre, called the KITE centre, to accommodate staff workstations, meeting area and amenities;
 - o Reinstatement of the tennis courts, lighting and perimeter fencing on the new roof.
- + A new eastern forecourt for the school, new external landscape areas and new courtyards;
- + Minor works to the existing music building and the construction of a new façade, roof and landscaping; and
- + The demolition of the Arts building and the construction of new facades to adjacent affected building, and new landscaping to the footprint of the demolished building.

1.1 COMPLIANCE STATEMENT OBJECTIVES

The objectives of this statement are to:

- a) confirm that the DA 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 Development Application 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 96 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 further assessment following receipt of more detailed documentation at Construction Certificate stage.

This statement has been prepared having regard to *Clause 18 of the Building Professionals Regulation 2007 / Part 5 of the Building and Development Certifiers Regulation*.

1.2 RELEVANT VERSION OF THE BCA

Pursuant to clause 145(1)(b) the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time the application for the Construction Certificate was made. The current version of the BCA is the BCA 2019, with the BCA 2019 Amendment 1 coming into effect in July 2020. Amendment 1 is currently in draft form and does not have a significant impact on this type of development. For the purpose of this compliance statement, it is assumed that the Construction Certificate Application will be lodged prior May 2022 (the advent of BCA 2022), and accordingly the proposed development will be subject to compliance with the BCA 2019 Amendment 1, albeit this report is assessed against BCA 2019 given this is the relevant legislation at the time of preparing this report.

1.3 REFERENCED DOCUMENTATION

This report has been prepared based on a review of the architectural plans prepared by AJ+C Architects:

<u>Drawing</u>	<u>Revision</u>	<u>Date</u>
DA1001	1	9 June 2020
DA1002	1	9 June 2020
DA1003	3	9 June 2020
DA1004	2	9 June 2020
DA1005	1	9 June 2020
DA1101	1	9 June 2020
DA1102	1	9 June 2020
DA1103	1	9 June 2020
DA2101	4	9 June 2020
DA2102	4	9 June 2020
DA2103	4	9 June 2020
DA3101	4	9 June 2020
DA3102	4	9 June 2020
DA3201	4	9 June 2020
DA3201	4	9 June 2020
DA3203	4	9 June 2020
DA3204	1	9 June 2020
DA4101	2	9 June 2020
DA4102	3	9 June 2020

1.4 BUILDING CLASSIFICATION

The new building works have been classified as follows:

BCA CLASSIFICATION:	Class 5 (Administration); Class 9b (Educational Facility)
RISE IN STOREYS:	Three (3)*
TYPE OF CONSTRUCTION:	Music Building: Type A New Multi-Purpose Sports facility and learning spaces building: Type A**
IMPORTANCE LEVEL (STRUCTURAL):	3
SPRINKLER PROTECTED THROUGHOUT:	No
EFFECTIVE HEIGHT:	<12m
MAX. FIRE COMPARTMENT SIZE:	Class 5, 9b: 8,000m ² & 48,000m ³
CLIMATE ZONE:	Zone 5

*The trafficable roof does not constitute a storey or an occupiable outdoor area.

*The Connecting bridge renders the Music Building and the New MPS facility to be a United Building.

**Assumed due to the proposed floor area limitations exceeding those of Type B Construction



2.0 BCA ASSESSMENT – KEY ISSUES

We note the following compliance matters with relation to proposed building works are capable of complying with the BCA. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work and the below should be read in conjunction with the BCA.

2.1 SECTION B - STRUCTURE

Part B1

- + New building works are to comply with the structural provisions of the BCA 2019 and referenced standards including, however not exclusively:
 - o AS 1170.0 – 2002 General Principles
 - o AS 1170.1 – 2002, including certification for balustrading (dead and live loads)
 - o AS 1170.2 – 2011, Wind loads
 - o AS 1170.4 – 2007, Earthquake loads
 - o AS 3700 – 2018, Masonry code
 - o AS 3600 – 2018, Concrete code
 - o AS 4100 – 1998, Steel Structures and/or
 - o AS 4600 – 2018, Cold formed steel.
 - o AS 2159 – 2009, Piling
 - o AS 1720.1 – 2010, Design of timber structure
 - o AS/NZS 1664.1 and 2 – 1997, Aluminium construction
 - o AS 2047 – 2014, Windows in buildings.
 - o AS 1288 – 2006, Glass in buildings.
- + The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary.
- + The Music Building will include an additional storey and a concrete roof over. The existing structure is to be assessed for compliance with the current structural standards as listed above and upgrades to the current standard will be required to the degree necessary to ensure the new work can comply with the current state building laws at the time of application of the construction certificate.

2.2 SECTION C – FIRE RESISTANCE

Part C1

Non-Combustible Building Elements: All materials and or components incorporated in an external wall must be non-combustible. This includes but not limited to:

- + Any external wall claddings.
- + Any framing or integral formwork systems. I.e. timber framing, sacrificial formwork, etc.
- + Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc.
- + Any insulation contained within the wall assembly.

Multiple Classifications: In a building of multiple classifications, the type of construction required for the building is the most fire-resisting type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.

Fire Hazard properties of all floor and wall linings is to be addressed. Refer also to Section G6 below with respect to floor / roof linings.

The new external façade will be designed to address the fire rating and non-combustibility requirements of Clause C1.9 and C1.14 inclusive of where part demolition of existing buildings is proposed.

This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and approved prior to the issue of a Construction Certificate.

Part C2

General Floor Area and Volume Limitations: The following maximum fire compartment sizes apply to the building:

- + Class 5: 8,000m² & 48,000m³

The floor area and volume size of the building will comply with this, subject to a Performance Based Solution to permit a modified fire compartment line between the new MPS and the Music Building.

Fire Separation: It is proposed to formulate a Performance Based Solution for the method of controlling fire spread between the MPS facility and the existing Music Building (in order to ensure the fire compartments are contained to the degree necessary) and also addressing the proposed bridge link from the Hawthorne Building to the Roof of the MPS so as to control fire spread between the new and the existing buildings.



The Music building will ensure its new structure will achieve the required FRLs for structural adequacy, and also for protection of exposure from the adjoining Massie building. The protection of Massie may be the subject of a Performance Based Solution justifying the fire protection in one of the buildings only.

The proposed staging plan will ensure that the minimum number and width of exits is maintained at all times of occupation for those respective parts.

Separation between storeys: Spandrels will need to be provided in the external walls of the new development to the degree necessary to address Performance requirement CP1 and CP2.

Separation of lifts: The lift shaft is to be fire rated to the degree necessary to address connecting more than 2 storeys of the Music Building.

Separation of Equipment: Equipment as listed below must be separated from the remainder of the building with construction that achieves an FRL of 120/120/120 and doorways being self-closing -/120/30 fire doors:

- + Lift motors and lift control panels; or
- + Emergency generators used to sustain emergency equipment operating in the emergency mode; or
- + Central smoke control plant; or
- + Boilers; or
- + A battery or batteries installed in the building that have a voltage greater than 12 or a storage capacity greater than 200kWh.
- + An electricity substation located within a building.
- + A main switchboard which sustains emergency equipment operating in the emergency mode

Part C3

Protection of Openings in External Walls: Windows and doors that are exposed to a fire source feature are required to be protected externally either by way of wall wetting drenchers, fire shutters or other means to the degree necessary to avoid fire spread between buildings. See above for proposed Performance Based Solutions.

Floors are to be fire rated to the degree necessary for Type A Construction. Service and other penetrations in fire rated construction such as fire rated floors are to be addressed as per BCA Clause C3.12 and C3.15.

2.3 PARTS D – PROVISION FOR ESCAPE AND CONSTRUCTION OF EXITS

Part D1

Number of exits required: The building is a Class 9b use and exceeds 50m² in floor area. A minimum of 2 exits are required from each storey. Compliance is achieved.

When fire isolated exits are required: The stairs serving the MPs and the Music Building, and the external stair located between the Music Building and the MPS connect only 2 storeys (the roof does not constitute a storey). Fire isolation of exits is not required.

Distance to exits / Distance between alternative exits.

Distances to a point on the floor from which travel in 2 different directions are available does not exceed the maximum 20m. Note: this is subject to the introduction of additional doors and/or paths of travel, in particular for the enclosed area south of the indoor courts on ground floor of the MPS; and also a re-arrangement of the “Bleacher sets” to enable an alternative stairway that leads to the southern stairs of the indoor courts.

Any seating arrangement (temporary or permanent) will ensure aisles are provided for suitable paths of travel to be created to a point where a choice between alternative exits is available.

A Performance Based Solution will be formulated for areas that exceed the maximum 40m to an exit, namely the MPS courts; the sanitary facilities on Level 1 adjacent to the MPS court; the rooms on Level to at the rear of the Courts.

A Performance Based Solution is proposed to address distances measured between alternative exits that exceed the maximum 60m, namely the MPS court space; the southern end of Level 2.

The Plant and Store on Level 2 will address the distance to a point where a choice between alternative exits occurs by ensuring an additional passage door is provided in its external walls, rather than simply a roller shutter door, and/or it will permit the roller shutter door to be used as a door in a path of travel to an exit via a Fire Engineered Performance Solution.

Note: The Music Building is to be assessed for egress from Level 1 accounting for the proposed roof courts over the southernmost exits.

Exit width: The minimum aggregate exit width for each floor is 3m, based on the design of three (3) stairs for each of the Music Building upper level and the MPS building.

The MPS courts can potentially include up to 1500 occupants (as BMG have been advised) and accordingly the subject floor is required to have a total of 13m in aggregate exit width. Compliance is readily achievable in this regard



however a Performance Solution may be formulated to justify a lesser extent of exit width determined to the degree necessary via a Fire Engineering assessment, prior to the issue of a Construction Certificate.

Discharge from Exits: The south eastern are of the MPS courts discharges to a covered area that does not constitute open space. See above for proposed Performance Based solutions.

Exits will be kept clear to the degree necessary to those buildings undergoing partial demolition and reconstruction of the facades.

Part D2

Non-Fire Isolated exits: Compliance is readily achievable with respect to stair geometry, handrails (noting that handrails are to be located no further apart than 2m in every flight to ensure exit widths are maintained), barriers, enclosures under stairs.

Protection of exit: EDBs, central communications, motors or the like shall be protected from the paths of travel via smoke seals and non-combustible construction as per Clause D2.7.

Door Swing: Doors in a required exit are to swing in the direction of egress.

Door Hardware: compliance is readily achievable, noting that panic bars are recommended to the doors of the MPS courts area.

Part D3

Access for People with a Disability: The extent of access required depends on the classification of the building. Buildings and parts of buildings must be accessible as set out in Table D3.1 unless exempted by Clause D3.4. The building is required to comply with AS1428.1-2009.

Comment: We understand an access consultant has been engaged to provide advice in this regard.

2.4 SECTION E – SERVICES AND EQUIPMENT

Part E1

Fire Hydrants: Fire hydrant coverage is required to be provided to the building in accordance with AS2419.1 – 2005, to the degree necessary to comply with Performance Requirement EP1.3. Design consultant to confirm compliance at the Construction Certificate stage.

Fire Hose Reels: Fire hose reel coverage is required to be provided to the 'non-classroom' areas of the building. Where required to be provided, fire hose reels are to comply with AS 2441 – 2005. Design consultant to confirm compliance at the Construction Certificate stage.

Fire Extinguishers: To be provided and designed in accordance with AS 2444-2001. Portable fire extinguishers are to be located so travel to an extinguisher from any part of the floor does not exceed 15m.

Part E2

Smoke Hazard Management. The building is required to include the following fire services (respectively in association with AS170.1-2018, AS1670.4-2018 and AS1168.1-2015):

- + Smoke detection and alarm (to address NSW E2.2b "Other assembly buildings" for fire compartments less than 5,000m² – this will be part of a Performance Based Solution due to the MPS being 2 storeys however the United Building inclusive of the Music Building is a rise of storeys of 3);
- + Automatic shutdown of air handling systems;
- + Any stage that exceeds 50m² in floor area will require smoke exhaust.

Part E3

Passenger Lifts: The building is less than 12m in effective height and therefore compliance with the Fire Service Controls, or compliance with the stretcher facility requirements is not required. Disability access is to be assessed by the Access Consultant.

Part E4

Emergency Lighting and Exit Signage: with the exception of inside the residential accommodation Sole Occupancy units, Emergency lighting, exit signs and directional exits signs are required throughout the building in accordance with Clause E4.2, E4.3, E4.5, E4.6 and E4.8

2.5 SECTION F – HEALTH AND AMENITY

F1

Performance Requirement FP1.4: A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause:

- + *Unhealthy or dangerous conditions, or loss of amenity for occupants; and*
- + *Undue dampness or deterioration of building elements.*

Note 1: *There are no Deemed-to-Satisfy provisions for this Performance Requirement in respect to External Walls, and therefore this matter is required to be addressed via the formulation of a Performance Solution.*



	<u>Damp and Weatherproofing:</u> Damp and weatherproofing to comply with the prescriptive requirements of clauses F1.1-F1.13.
F2.3/F2.4	<u>Sanitary Facilities:</u> Sanitary facilities must be provided to comply with the requirements of Table F2.3 for the building's population noting however that the whole school population is catered for by existing sanitary facilities in addition to these new facilities in the MPS and the Music Building. Compliance is readily achievable. Sanitary facilities for people with disabilities will be provided to the degree necessary to address the minimum requirement for Ambulant facilities as per F2.4 and AS1428.1-2009.
Part F3	<u>Ceiling Heights:</u> The floor to ceiling heights must be as follows: <ul style="list-style-type: none">+ <i>Storerooms, sanitary facilities:</i> 2.1m minimum;+ <i>Habitable Rooms, including classrooms with a population less than 100 occupants:</i> 2.4m minimum;+ <i>Class 9b building with a population of more than 100 occupants:</i> 2.7m, including the corridor leading to those spaces. Compliance is readily achievable.
Part F4	<u>Light and Ventilation:</u> Artificial lighting systems 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. Natural light is required to be provided to all bedrooms in Class 3 SOUs.
Part F5	<u>Sound Transmission and Insulation:</u> Floors and walls bounding Class 3 parts are required to comply with the prescriptive provisions of Part F5 as related to sound transmission and insulation.

2.6 SECTION G – ANCILLARY PROVISIONS

NSW G1.101	A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level. This is satisfied where the windows can be cleaned wholly from the inside, or alternatively, provision is made for cleaning of the windows by a method complying with the WHS Act 2011 and Regulation.
Part G3	<u>Atrium Provisions:</u> Not applicable to this building. No spaces connect more than 2 storeys.
Part G6	<u>Occupiable Outdoor Areas:</u> This part does not apply to an occupiable outdoor area of a sole-occupancy unit in the Class 3 building part (with the exception of the requirements for Fire Hazard Properties), nor does it apply to an occupiable outdoor area with an area less than 10m ² . A lining, material or assembly in an occupiable outdoor area must comply with C1.10 as for an internal element. The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C1.10: <ul style="list-style-type: none">(i) <i>Average specific extinction area.</i>(ii) <i>Smoke-Developed Index.</i>(iii) <i>Smoke development rate.</i>(iv) <i>Smoke growth rate index (SMOGR_{RC}).</i> Note 1: For the purposes of the Deemed-to-Satisfy Provisions of C2.7, C2.8 and C2.9, a reference to a storey includes an <i>occupiable outdoor area</i> , however a fire wall cannot be used to separate an occupiable outdoor area into different fire compartments. Note 2: A reference to a storey or room in Part D1, Part D2, Part E1 (<i>except for cl 7(b)(i) of Spec E1.5</i>), Part E3, Part E4 includes an occupiable <i>outdoor area</i> . Note 3: An occupiable outdoor area is not a storey for the purposes of Schedule 3 of the NCC and therefore is not included in the determination of <i>rise in storeys</i> . Note 4: For the purposes of the Deemed-to-Satisfy Provisions of F4.4, F4.8 and F4.9, a reference to a room includes an occupiable <i>outdoor area</i> . <u>Comment:</u> Not applicable to this building as a result of the roof area being provides with direct access to the public road.



2.7 SECTION H – SPECIAL USE BUILDINGS

Part H1 – Class 9b Buildings	<p>The DTS provisions of this part apply to an enclosed Class 9b school (or church or community hall) that has a stage in excess of 300m².</p> <p><u>Comment:</u> the MPS is not proposed to have a stage, however see comments in E2.2 above with respect to further requirements pertaining to stage areas.</p> <p>Further, Clause H1.4 applies to every open or enclosed Class 9b Building and Clause H1.7 applies to all enclosed Class 9b buildings</p>
H1.4	<p>This clause relates to seating areas in a Class 9b building:</p> <ul style="list-style-type: none">+ The gradient of the floor surface must not be steeper than 1:8, or the floor must be stepped so that:<ul style="list-style-type: none">o A line joining the nosings of consecutive steps does not exceed an angle of 30 degrees to the horizontal; ando The height of each step in the stepped floor is not more than 600mm; ando The height of any opening in such a step is not more than 125mm; and+ If an aisle divides a stepped floor and the difference in level between any 2 consecutive steps:<ul style="list-style-type: none">o Exceeds 230mm but not 400mm – an intermediate step must be provided in the aisle; ando Exceeds 400mm – 2 equally spaced intermediate steps must be provided in the aisle; ando The going of intermediate steps must be not less than 270mm and such as to provide as nearly as practicable equal treads throughout the length of the aisle; and+ The clearance between rows of fixed seats used for viewing performance arts, sport or recreational activities must not be less than:<ul style="list-style-type: none">o 300mm if the distance to an aisle is not more than 3.5m; oro 500mm if the distance to an aisle is more than 3.5m.
H1.7	<p>In every enclosed Class 9b building, where in any part of the auditorium, the general lighting is dimmed or extinguished during public occupation and the floor is stepped or inclined at a slope of more than 1:12, aisle lights must be provided to illuminate the full length of the aisle and tread of each step.</p>

2.8 SECTION J – ENERGY EFFICIENCY

Sect. J	<p><u>Energy Efficiency:</u> The <u>new</u> building works subject to compliance with the Energy Efficiency Provisions of BCA 2019 Section J relating to:</p> <ul style="list-style-type: none">+ J1: Building Fabric, including glazing calculations+ J3: Building Sealing+ J5: Air-conditioning and ventilation systems+ J6: Artificial lighting and power+ J7: Hot water supply+ J8: Access for maintenance <p>The Construction Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).</p>
----------------	--



3.0 PRELIMINARY FIRE ENGINEERING BRIEF

1. **C2.7, C3.2, Spec C1.1** Addressing exposure between buildings.
2. **D1.4** Distance to an exit exceeds the maximum 40m in some areas of the new building.
3. **D1.5** Distances measured between alternative exits exceeds the maximum 60m (when measured back through the point of choice).
4. **D1.6** Aggregate exit width will be provided from the MPS facility to the degree necessary.



4.0 PRELIMINARY 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 compliance review.

Statutory Fire Safety Measure	Design / Installation Standard
Access Panels, Doors & Hoppers	BCA Clause C3.13 & AS 1530.4 – 2014 and Manufacturer's specifications
Alarm Signalling Equipment	AS 1670.3 – 2018
Automatic Fail Safe Devices	BCA Clause D2.21
Automatic Fire Detection & Alarm System	BCA Spec. E2.2a & AS 1670.1 – 2018
Building Occupant Warning System	BCA Spec. E1.5, Clause 8 and Clause 3.22 of AS 1670.1 – 2015
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 – 2018
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8; and AS 2293.1 – 2018
Fire Dampers	BCA Clause C3.15, AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and manufacturer's specification
Fire Doors	BCA Clause C2.12, C2.13 and AS 1905.1 – 2015 and manufacturer's specification
Fire Hose Reels + Except Classrooms	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
Mechanical Air Handling Systems, including automatic shutdown of air handling	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
Warning & Operational Signs	Section 183 of the EP&A Regulation 2000, AS 1905.1 – 2015, BCA Clause D3.6, E3.3.
Fire engineered Alternative Solutions relating to: <i>To be developed with the design.</i>	BCA Performance Requirements ...

Please note that the above schedule will need to be revised prior to issue of the Construction Certificate to reference any proposed Fire Engineering Report and incorporate any additional measures required by the proposed Performance Solutions.



5.0 CONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed development at Kambala School, 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.

Prepared by:



Brian Maguire
Director

Blackett Maguire + Goldsmith

Reviewed by:



Tony Heaslip
Director

Blackett Maguire + Goldsmith