



# PRE-CONSTRUCTION CERTIFICATE BCA 2015 REVIEW FOR DA SUBMISSION

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**Hunter Sports High School  
Pacific Highway, Gateshead**

**MAIN BUILDING,  
MOVEMENT COMPLEX, &  
STAGE 2 (Library)**

**Prepared for:** EJE Architecture

**Project No.:** 15-137


**Date:** 27 January 2016

**Issue:** 1

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### Report Revision History

Issue	Date	Prepared by	Accreditation #	Signed
1	27.01.2016	Antony Ridgway	BPB 0344	

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## 1.0 Introduction and Documentation

### Introduction

This report contains a design philosophy review of the proposed redevelopment of Hunter Sports High School. This review has found that the fundamental design is capable of meeting the requirements of BCA 2015 as well as the Disability (Access to Premises – Buildings) Standards 2010. Areas of the design are still being refined so that resolution will be possible prior to the issue of a Construction Certificate.

### Documentation

This report is based on the review of the following documents:

- Building Code of Australia 2015
- Guide to the Building Code of Australia 2015
- Environmental Planning & Assessment Act 1979
- Environmental Planning & Assessment Regulation 2000
- Disability (Access to Premises – Buildings) Standards 2010
- Architectural drawings prepared by EJE Architecture as follows:

<b>Project No: 11029</b>		<b>Phase: SK</b>	
<b>Drawing No.</b>	<b>Revision</b>		
A010	J		
A100	P		
A101	I		
A102	J		
A103	K		
A104	F		
A105	A		
A106	A		
A110	A		
A111	A		
A112	A		
A113	A		
A114	A		
A200	Q		
A201	H		
A202	I		
A203	D		
A204	D		
A210	A		
A211	A		

<b>Project No: 11029</b>		<b>Phase: SK</b>	
<b>Drawing No.</b>		<b>Revision</b>	
A212		A	
A213		A	
A214		A	
A300		M	
A301		K	
A310		A	
A311		A	
A311		A	
A400		A	
A500		G	
A501		G	
A502		A	
A600		C	
A601		A	

## 2.0 Building Characteristics

### Main Building – Stage 1

BCA Classification:	Class 9b high school Class 5 administration
Rise in Storeys:	3
Floor Area:	Ground floor – 1,802m <sup>2</sup> First floor – 2,457m <sup>2</sup> Second floor – 1,729m <sup>2</sup> <b>Total – 5,988m<sup>2</sup></b>
Volume (approx):	18,000m <sup>3</sup>
Type of Construction:	Type A
Effective height:	7.2m
Climate zone:	5
Conditioned spaces:	Whole building

### Movement Complex – Stage 1

BCA Classification:	Class 9b high school (multi-purpose hall / weights / canteen)
Rise in Storeys:	1
Floor Area:	1,192m <sup>2</sup>
Volume (approx):	5,000m <sup>3</sup>
Type of Construction:	Type C
Effective height:	0m
Climate zone:	5
Conditioned spaces:	Whole building

### Library and Associated Areas – Stage 2

BCA Classification:	Class 9b high school
Rise in Storeys:	2
Floor Area:	Ground floor – 185m <sup>2</sup> First floor – 1,811m <sup>2</sup> <b>Total – 1,996m<sup>2</sup></b>
Volume (approx):	6,000m <sup>3</sup>
Type of Construction:	Type B
Effective height:	3.2m
Climate zone:	5
Conditioned spaces:	First floor

Note: The existing COLA is to be retained and is assessed as a class 10a building.

### 3.0 BCA Section C – Fire resistance

- i. Each of the buildings listed in Section 2.0 have been assessed as separate buildings. All are at least 6m apart from each other and no protection of openings are required.
- ii. The Main Building has been assessed as Type A construction, and must comply with the fire rating requirements of BCA Spec C1.1, Table 3. Spandrel separation will be required in accordance with C2.6.
- iii. The Movement Complex and Library Building have been assessed as Type C construction, and must comply with the fire rating requirements of BCA Spec C1.1, Table 5.

### 4.0 BCA Section D – Access and Egress

- i. Exit travel distances are capable of complying with D1.4 and D1.5 based on the available exits.
- ii. Aggregate egress width is capable of complying for the estimated populations and available exits.
- iii. The main internal exit stair in the Main Building must be fire separated from the ground floor.
- iv. Disability (Access to Premises – Buildings) Standards 2010, Part D3 & AS1428.1-2009
  - a. Access for people with a disability complying with AS1428.1-2009 will be provided from the property boundary and from the designated accessible car parking space to and throughout all areas of the proposed development.
  - b. Details of the fitout are yet to be reviewed in detail, and compliance with Part D3 and AS1428.1-2009 will be required to be demonstrated at CC stage.
  - c. External ramps which will comply with AS1428.1-2009 will provide a compliant external pathway between the different levels.
  - d. The proposed lifts provide access within the main building and between the different buildings. The lifts must comply with the E3.6.

### 5.0 BCA Section E – Services and Equipment

- i. Hydrant coverage is required in accordance with E1.3 & AS 2419.1-2005.
- ii. Hose reel coverage is required to those buildings or parts of buildings that are not classrooms and associated corridors.
- iii. Portable fire extinguishers are required in accordance with Table E1.6.
- iv. The buildings are not required to be provided with a fire detection and alarm system. This is based on there being no ducted air-handling systems being installed as part of the development (kitchen exhaust excluded).
- v. An automatic smoke exhaust system complying with Specification E2.2b is required over the stage of the Movement Complex, due to the floor area of the stage exceeding 50m<sup>2</sup>.
- vi. Emergency lighting and exit signage is required throughout all buildings in accordance with Part E4 & AS 2293.1-2005.
- vii. All proposed lifts must comply with the relevant requirements of Part E3.

## 6.0 BCA Section F – Health and Amenity

- i. The number of sanitary facilities proposed complies for the estimated population.
- ii. Full compliance with AS1428.1-2009 with regard to the new accessible facilities and ambulant facilities will need to be confirmed prior to issue of the CC.
- iii. Lighting and ventilation throughout the building must be provided in accordance with Part F4. Natural light is required to all general purpose classrooms. The hospitality training kitchen will be required to be provided with kitchen exhaust. Ventilation of workshop training areas must be provided for specific areas as necessary and comply with AS1668.2-2012.

## 7.0 BCA Section J – Energy Efficiency

- i. Climate zone 5.
- ii. The general purpose classrooms, staff areas, movement complex, administration, library are deemed to be a conditioned spaces.
- iii. J1 – new external walls to conditioned spaces require R2.8; new internal walls bounding conditioned spaces require R1.8; new roof / ceiling over conditioned space R3.2 – 4.2
- iv. J2 – glazing calculator required for new glazed parts of building envelope
- v. J3 – new doors in building envelope to be sealed, doors to conditioned space to be self-closing; windows in building envelope must comply with AS2047
- vi. J5 – new air-conditioning must comply
- vii. J6 – new lighting must comply
- viii. J8 – The Main Building must have the facility to record individually the energy consumption of each category of power usage (meters).

## 8.0 Conclusion

We have assessed the referenced architectural documentation with respect to the Building Code of Australia 2015 as well as the Disability (Access to Premises – Buildings) Standards 2010. The design is at a point where the inherent BCA philosophies have been checked and development consent can be sought. The finer details with respect to BCA 2015 (or 2016) compliance can be finalised prior to the issue of a Construction Certificate.



Signed: \_\_\_\_\_

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Date: 27 January 2016

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