Our Ref: J130019

7 February 2013

Bluestone Property Solutions Pty Ltd
Suite 1, Level 6, 71 Macquarie Street
SYDNEY NSW 2000

Attn: Matt Crews

Dear Matt,

Re: Cronulla Sharks
461 Captain Cook Drive, Woolooware
BCA Capability Report

Further to our engagement in relation to the above project, please find attached a Capability Report relating to our assessment of the building against the applicable requirements of the Building Code of Australia.

Should you have any comments regarding the assessment or any matter raised in the report, please contact the undersigned.

Yours faithfully

Dean Morton
for Vic Lilli & Partners

Encl.

VIC LILLI
&PARTNERS

BCA CAPABILITY REPORT

FOR

BLUESTONE PROPERTY SOLUTIONS PTY LTD

PREMISES

CRONULLA SHARKS

461 CAPTAIN COOK DRIVE, WOOLOOWARE

Date: 7 FEBRUARY 2013

Ref. No.: J130019

VIC LILLI & PARTNERS - Accredited Building Certifiers

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A division of Mondan Management Pty Ltd ABN 60 119 432 094

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1.0 Executive Summary

1.1 – Report purpose

This report has been prepared to identify the extent of compliance achieved by the architectural documentation depicting the proposed stage 1 of the Cronulla Sharks redevelopment incorporating the shopping centre, car parking and club facilities against the relevant provisions of the Building Code of Australia (BCA) 2012.

It is noted that the BCA 2013 will be adopted in New South Wales on 1 May 2013, this document may be applicable based on the application date for a construction certificate. The design may have to be re-assessed as applicable against this version of the BCA however it is expect compliance can be readily achieved to the same extent as the BCA 2012 document.

1.2 – Report methodology

This report has been prepared on the basis of architectural documentation reflecting the proposed shopping centre as prepared by Scott Carver Pty Ltd

2.0 Property Description

2.1 – Location

The proposed development is located on the corner of Captain Cook Drive and Woolooware Road North, Woolooware, and bounded to the west by the existing Toyota Stadium playing field and the reserve lands to the north.

2.2 –Description of works

The proposed works are for the construction of a shopping centre incorporating the existing eastern grandstand building and containing major retail tenancies, mall areas, specialty tenancies, leisure centre uses, specialist commercial tenancies, a registered club portion and associated car parking

2.3 – Building Description

Use/Classification	The building area the subject of this report has been assessed as being classified as follows • Class 6 – Retail (supermarket/shops) • Class 5 – Commercial tenancies • Class 7a - Car parking • Class 9b- open grandstand, registered club, leisure facilities
Rise in Storeys	Rise of five (5) storeys (note that the determination of the RIS includes the top level of the grandstand building as part of this building as is considered a united building
Effective Height	The building has an effective height of 16.67m (note the design of the building including residential portions will exceed 25m)
Type of Construction	Type A construction required.
Floor Area and Volume Limitations	Maximum floor area of 5,000m^2 and volume of 30,000m^3 NB: The development will exceed the maximum compartment sizes and will be assessed under a performance based approach under a fire engineering report to be prepared by Arup. It is noted the building does not achieve compliance with the provisions of a large isolated building due to non compliant perimeter access provisions
Climate zone	The development is located in climate zone 5 for the purposes of Section J

Population	Total population approximately based on BCA Table D1.13 is as follows: • level 1- 1530 persons • level 2- 3500 persons • level 3- 2775 persons • level 4- 1380 persons Note the population will be assessed under a performance based approach under the fire engineering report to be prepared by Arup

3.0 Building Code of Australia Assessment

3.1 – Fire Resistance and Stability (Section C, BCA)

Item	Comment
Fire Resistance	The proposed building structure will achieve the necessary Fire Resistance Levels to achieve compliance with Table 3 of Specification C1.1 of the BCA deemed-to-satisfy provisions. The design of structure will be capable of achieving relevant fire resistance levels
Compartmentation and Separation	It is noted that the design cannot achieve compliance with the large isolated building provisions and exceeds the maximum compartment size permitted to a single fire compartments under Part C2 of the BCA The design of the building will be subject to an alternate solution to address fire compartment sizes by Arup at the construction certificate stage The existing grandstand building will be considered as a separate fire compartment and fire separated as applicable It is proposed to incorporate a Torrens Title separation of the commercial levels from the club levels, in this regard the form of separation will not alter the consideration of the building as a united building with common fuel loads. It is proposed to address this m lack of separation of buildings deemed to be otherwise exposed to a fire source feature via a performance based assessment by Arup
Fire hazard properties	The fire hazard properties of materials will need to comply with the provisions of Clause C1.10 and Specification C1.10 of the BCA.

3.2 – Access & Egress (Section D, BCA)

Item	Comment
Number of exits required	The number exits in the building complies with the provisions of BCA Clause D1.2 of the BCA, in this regard two exits from each storey is required due to the future design as a building over 25m in effective height
Exit travel distance	The proposed travel distances in the building will generally be exceeded and not comply with the maximum exit travel distances permitted under Clauses D1.4 & D1.5 of the BCA. The extended travel distances will be addressed under the fire engineering report to be prepared by Arup at the construction certificate stage
Aggregate Egress Width	The proposed aggregate egress width for an estimated populations identified in section 2.3 (utilising table D1.13 of the BCA) is less than required under the DTS provisions of the BCA will be addressed under the fire engineering report to be prepared by Arup.
Exit discharge	The positions of the exits serving the building are well distributed and as a result achieve compliance with BCA Clause D1.10. The discharge of some fire isolated stairs are non compliant as discharge internally and will be addressed under the fire engineering report to be prepared by Arup
Construction of exits	Exits are to be designed as fire isolated exits and the existing open stairs serving the grandstand and the future major retail tenancies and club parts are to be altered to be fully enclosed fire isolated stairs
Thresholds	All new thresholds to the external doorways will comply with the requirements of Clause D1.15 of the BCA.
Egress Doors	All exit doorways are swinging doors as required by BCA Clause D2.19 and swing in the direction of travel as required.
Latches	Latches to exit doors and doors in the path of travel to an exit are to be fitted with downward lever action or panic bar hardware in accordance with BCA Clause D2.21.

Balustrades	Balustrades to the proposed terraces and internal raised walkways and stairs are to be constructed in accordance with the provisions of Clause D2.16 of the BCA.
Handrails	Handrails in accordance with AS1428.1 are required to be provided to all internal external stairs and ramps
Disabled Access	The building will be capable of providing disabled access compliant with Part D3 of the BCA and Access to Premises Standards Access to the club levels 3 and 4 incorporates lift access from level 1 to the level 3 car park zone with travel through to the car park to the club entry

3.3 – Services and Equipment (Section E, BCA)

Item	**Comment**
Hydrant System.	The development will be protected with hydrant in accordance with the provisions of Clause E1.3 of the BCA and AS 2419.1-2005.
Hose Reel System.	The development will be protected with a hose reel system in accordance with the provisions of Clause E1.4 of the BCA and AS2441.
Sprinkler System	The development will protected with a sprinkler in accordance with the provisions of Clause E1.5 of the BCA and AS2118.1-1999. Access to the sprinkler valve room will be in accordance with Clause 6 of Specification E1.5 of the BCA.
Portable Fire Extinguisher.	The development will be provided with fire extinguishers in accordance the provisions of Clause E1.6 of the BCA and AS 2444-2001.
Smoke Hazard Management	The development with provided with a system of smoke exhaust to the supermarket and mall area in accordance with Table E2.2b, Specification E2.2b and AS1668.1 and will be addressed under the fire engineering report to be prepared by Arup a the construction certificate stage

Emergency Lighting	The development will be provided with a system of emergency lighting in accordance with Clauses E4.2 and E4.4 of the BCA and AS 2293.1-2005.
Exit Signs	The development will be provided with a system of illuminated exit signs and directional exit signs in accordance with Clauses E4.5, E4.6 and E4.8 of the BCA and AS 2293.1-2005.
Fire control centre	The development is to be provided with a fire control centre, the proposed location of the centre will be addressed under the fire engineering report to be prepared by Arup as will have the fire indicator panel not located in the principal public entrance
Sound System and Intercom System for Emergency Purposes	As the future design of the building will exceed 25m in effective height a SSISEP system will be installed compliant with AS 1670.4-2004 throughout the building
System Monitoring	The smoke detection system installed throughout will be monitored in accordance with clause 7 of Specification E2.2a and AS 1670.3-2004

3.4 – Health and Amenity (Section F, BCA)

Item	Comment
Sanitary & Other Facilities.	The development will be provided with sufficient sanitary facilities in accordance with Table F2.3 of the BCA The development will be provided with both ambulant & non-ambulant and accessible sanitary facilities in accordance with AS1428.1-2009 Minimum toilet numbers based on a population determined under table D1.13 are as follows: Levels 1 (bar) — Pans / Urinals / Basins Males: 1 / 2 / 2 Females: 2 / 2 Level 2 Males: 2 / 2 / 2 Females: 3 / 3 Level 3: Males: 8 / 17 / 8 Females: 18 / 9 Level 4: Males: 4 / 10 / 5 Females: 11 / 5
Lighting.	Artificial lighting is provided throughout the building in compliance with AS1680.1. The development will be provided with a system of artificial lighting in accordance with Clause F4.4 & AS1680.1.
Ventilation.	The development will be provided with a system of air-conditioning and ventilation system in accordance with Clause F4.5 of the BCA and AS1668.2.

3.5 – Ancillary Provisions (Section G, BCA)

Item	Comment
Refrigerated chambers	All refrigerated chambers are to be designed to ensure: 1. The door is capable of being opened by hand from the inside without a key; 2. Internal lighting is controlled by as witch located adjacent to the doorway within the chamber; 3. The chamber is provided with an alarm achieving a sound pressure level of not less than 90 dB(A).
Window cleaning	The building will be provided with a means of clearing windows compliant with OH&S provisions for window above 3 storey's above ground

3.6 – Energy Efficiency (Section J, BCA)

Item	Comment
Building Fabric	The envelope to a conditioned space within the development is to be designed to achieve the minimum construction requirements of Part J1 of the BCA, in general the roof is to achieve an R3.2 value, external walls R2.8, internal walls bounding non conditioned space R1.8 and suspended floors (level 1) R2.0
External Glazing	The glazing system forming an envelope to a conditioned space within the development is to comply Part J2 of the BCA.
Building Sealing	The envelope to a conditioned space to development is to be sealed against air leakage in accordance with Part J3 of the BCA.
Air-conditioning and Ventilation	The air-conditioning and ventilation systems to the development are to have maximum power inputs and control units in accordance with Part J5 of the BCA.
Artificial Lighting	All artificial lighting to the development is to maintain maximum lighting levels and control systems n accordance with Part J6 of the BCA.

Hot Water Supply	All hot water supply systems installed in the development is to be accordance with Part J7 of the BCA.
Access for Maintenance & Facilities for Monitoring	Access for maintenance for all plant and equipment is to be provided in accordance with Part I2 of the BCA. Facilities for monitoring the energy consumption services and equipment is to be provided in accordance with Clause J8.3 of the BCA.

4.0 Conclusion

4.0 – Conclusion

It is the opinion of this office, the proposed shopping centre can readily achieve compliance with the Building Code of Australia 2012, such that a modification will not be required to the Development Consent

Author,

Dean Morton
Grade A1 (BPB 0742)
For **Vic Lilli & Partners**

5.0 Fire safety and other measures

5.1 –Proposed Fire Safety Measures

Proposed Fire Safety Measures

Fire Safety Measure	Standard of performance
Access panels, Doors and Hoppers to Fire-resisting shaft	BCA Clause C3.13
Automatic door closers	BCA Clause C3.5, C3.8 and C3.11
Automatic fail safe devices	BCA Clause D2.19, D2.21, Spec C3.4 AS 1670.1-2004
Automatic fire detection and alarm system	BCA Spec E2.2a, AS 1670.1-2004
Automatic fire suppression system	BCA Spec E1.5, AS 2118.1-1999
Emergency lighting	BCA Clause E4.2 & E4.4, AS 2293.1-2005
Exit signs	BCA Clause E4.5 & E4.8, AS 2293.1-2005
Fire alarm monitoring	BCA Spec E2.2a, AS 1670.3-2004
Fire control centres	BCA Clause E1.8, BCA Spec E1.8
Fire dampers	AS 1668.1-1998
Fire doors	BCA Spec C3.4, AS 1905.1-2005
Fire hydrant systems	BCA Clause E1.3, AS 2419.1-2005
Fire Safety Engineering	Report to be prepared by Arup
Fire seals (protecting openings in fire resisting components of the building)	BCA Clause C3.15
Fire hose reel system	BCA Clause E1.4, AS 2441-2005
Mechanical air handling systems (car park exhaust, integrated shut down with smoke exhaust operation)	AS 1668.1-1998 and AS1668.2-1991
Sound System and Intercom System for Emergency Purposes	BCA Clause E4.9, AS 1670.4-2004
Portable fire extinguishers	BCA Clause E1.6, AS 2444-2001
Smoke control system	BCA Clause E2.2, Specification E2.2b, AS 1668.1-1998, fire safety engineering report (TBC)
System Monitoring	AS 1670.3-2004
Wall wetting sprinkler and drencher systems	AS 2118.2
Warning and operational signage (e.g. stairway notices)	BCA Clause D2.23 & E3.3, Clause 183 of EP&A Regulation

6.0 References

6.1 – Basis of Report

This BCA Capability report has been prepared on the basis of the following-

- Architectural Plans as prepared by Scott Carver Pty Ltd
- Building Code of Australia (BCA) 2012;
- Environmental Planning and Assessment Act, 1979, and Regulations;