



File Ref. No: BFS15/1678 (8988)
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 Contact: Mark Castelli

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The Department of Planning & Environment
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Dear Sir

**Taronga Institute of Science and Learning Building
 Bradleys Head Road, Mosman (SSD 15_7311)**

I refer to the above development proposal which was exhibited on your website from the 27 October 2015 to the 29 January 2016.

Fire & Rescue NSW (FRNSW) have reviewed the documents displayed during the exhibition period, in particular the Building Code of Australia (BCA) Assessment Report submitted with the Development Application.

FRNSW note that the intended use of part of the building was assessed as being Class 3 (i.e. as detailed in Clause A3.2 of the BCA). Specifically, itinerant overnight sleeping accommodation for up to 42 people (composed primarily of school age children).

In addition, it is proposed to configure the building design so that travel distances of 45 metres to an exit from the Learning and Training rooms on Level 2 will occur (which is the part of the building incorporating overnight accommodation for school children). FRNSW notes that the maximum allowable travel distance to an exit permitted by the deemed to satisfy provisions of the BCA is 40 metres (i.e. Clause D1.4 of the BCA).

Within the context of the above intended building use and extended travel distance the following recommendations are submitted for consideration:

1. The BCA Assessment Report does not specifically detail the smoke hazard management requirements as applicable by virtue of the DtS of the BCA.

The building will be used for a purpose consistent with that of Class 3 (as specified in the BCA) and will have a capacity to accommodate persons in excess of twenty. It is therefore FRNSW opinion that the building must be served by a smoke detection system that complies with Clause E2.2 of the BCA and Clause 4 of Specification E2.2a of the BCA.



In addition, FRNSW advises that Clause 7 of Specification E2.2a (a) is also considered to be applicable and therefore the smoke detection system must be monitored in accordance with Australian Standard (AS) 1670.3.

2. FRNSW notes that Clause E2.2 and NSW Table E2.2a of the BCA [N.b. NSW Table E2.2a, Section: "Buildings not more than 25 metres in effective height" (a), (b) (i) (ii) (A) (B)] detail specific options in relation to fire isolated stairs that serves both a Class 3 part of a building and Class 5, 6, 7, 8 and 9b parts of a building.

One of the options [Option (b) (ii) (B)] is the provision of a sprinkler system throughout complying with Specification Clause E1.5.

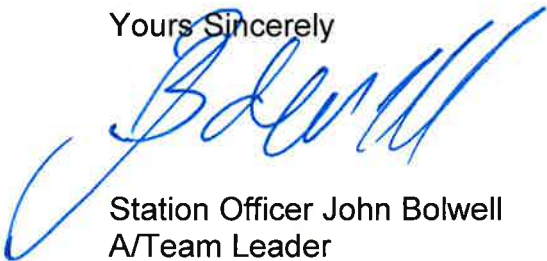
The BCA Assessment Report identifies that the building is not proposed to be sprinkler protected and therefore consecutive storeys will be required to be fire separated in accordance with Clause D1.3 (b) of the BCA.

It is FRNSW experience that the installation of an appropriate designed sprinkler system in combination with smoke detection and warning systems provides a superior level of occupant life safety when compared to a building served by smoke detection/warning systems and passive fire separation. In addition to enhanced occupant life safety, the installation of a sprinkler system throughout would provide an enhanced degree of flexibility to the building design.

FRNSW therefore recommends that, in addition to smoke detection and warning systems, the proponent give consideration to installing a sprinkler system throughout that complies with Specification E1.5 of the BCA.

FRNSW apologises for the delay in our response. For further information please contact the Fire Safety Assessment Unit, referencing FRNSW file number BFS15/1678 (8988). Please ensure that all correspondence in relation to this matter is submitted electronically to bfs@fire.nsw.gov.au.

Yours Sincerely



Station Officer John Bolwell
A/Team Leader
Fire safety Assessment Unit
FRNSW

Copies to:

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