



Postal
PO Box 3080,
Brighton VIC 3186
✉: contact@redfireengineers.com.au
W: www.redfireengineers.com.au

Offices
Victoria
Suite 306, 22 St Kilda Rd
St Kilda VIC 3182
T: +61 3 9079 4143

New South Wales
Suite 704, 250 Pitt St
Sydney NSW 2000
T: +61 2 8096 2220

Queensland
Suite 79, 101 Wickham Terrace
Spring Hill QLD 4000
T: +61 7 3832 0660

Ref: 170404_JN16-00182_UNSW_CliffbrookCampus_DA_Draft.docx

4 April 2017

FJMT studio
Level 5
70 King Street
Sydney NSW 2000

Attention: Elizabeth Carpenter

Re: Fire Engineering Letter in support of Development Application
Project: JN16-00182
Address: 45 Beach St, Coogee NSW 2034

This letter has been prepared by RED Fire Engineers for FJMT studio to support the Development Application to the proposed development of UNSW Cliffbrook Campus at 45 Beach St, Coogee NSW 2034.

The proposed building is a five storey residential Class 3 boarding house of Type A construction. The building has an effective height of 17 m.

A detailed fire engineering review of the proposed design has been undertaken by RED Fire Engineers based on the architectural drawings prepared by FJMT and the Draft BCA report prepared by Group DLA (dated 09th August 2016). It is our understanding that the proposed development is anticipated to consist of the following BCA Deemed-to-Satisfy (DtS) departures, which would be required to be addressed as a Performance Solution:

RED FIRE ENGINEERS PTY LTD

FIRE SAFETY ENGINEERING
RISK MANAGEMENT

ABN 52 164 239 212

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Item	Description of Deemed-to-Satisfy departures	DtS Provisions	Relevant Performance Requirements
1	Loadbearing columns to the ground floor level are proposed to have reduced FRL's from 90/90/90 to 60/60/60.	Spec C1.1	CP1, CP2
2	Public corridors to levels 1 & 2 exceed 40 m in length without smoke compartmentations.	C2.14	DP4, EP2.2
3	Extended travel distances to a point of choice to two exits of up to 8 m instead of 6 m on levels 1, 2 & 3.	D1.4	DP4, EP2.2
4	The Fire-isolated stairs on Lower ground & ground levels discharge internally to the building..	D1.7	DP5, EP2.2
5	Fire isolated stair 3 has rising and descending flights connecting basement level and lower ground floor.	D2.4	DP4 EP2.2
6	Fire hydrant booster assembly is not located in accordance with AS 2419.1. Water supply will not comply with AS 2419.1	E1.3, AS 2419.1	EP1.3

The intent of the fire engineering review was to determine whether RED Fire Engineers believe it is feasible to undertake a fire engineering assessment to develop Performance Solutions for the above DtS departures.

As part of the fire engineering process, relevant stakeholders will be approached for comment and calculations/assessments will be carried out before the fire engineering assessment can be completed. However, based on our experience, RED Fire Engineers is of the opinion that the above DtS departures are able to be addressed as Performance Solutions, which would demonstrate compliance with the relevant Performance Requirements of the BCA without major changes to the proposed design. This is based on the provision of an automatic sprinkler system throughout the building.

Specific details of the Required Fire Safety Measures for the above Performance Solutions will be listed after a comprehensive fire engineering assessment is completed. The Alternative Solutions will be developed as part of the on-going design and development process.

If you have any queries in regard to the above, please do not hesitate to contact the undersigned.

Yours sincerely,

Eric Swainson
MEng (Hons),

Tobias Salomonsson
MSc (Risk) BSc (Fire)



AMIChemE

Risk Engineer

RED Fire Engineers Pty Ltd

Phone +61 2 8096 2220

MIEAust, MSFPE

RBP EF 34486, C10 BPB 1790

Managing Director

RED Fire Engineers Pty Ltd

Mobile +61 402 029 600