

21 September 2020

Gabrielian Holdings Pty Ltd  
C/- Ramsay Architects  
60 Gibbes Street  
Chatswood NSW 2067  
[lloyd@ramsayarchitects.com.au](mailto:lloyd@ramsayarchitects.com.au)

Attn: Lloyd Ramsay

Dear Lloyd,

**Re: 51 Arthur Street, Forestville  
Fire Engineering Development Application Advice**

We have perused the provided architectural general arrangement plans reference A089 dated 9 September 2020 and BCA report by BCA Logic dated 17 September 2020 and provide the following fire engineering advice for the development.

Based on our review and preliminary fire engineering assessments we propose that multiple Performance Solutions are available to support and benefit the project. These proposed solutions are presented in Table 1. We confirm that the proposed Performance Solutions are feasible to fulfil the relevant BCA Performance Requirements for the project on the understanding that the fire safety measures identified in Table 2 will be included in the design. We understand that all other fire safety related BCA requirements are to be fulfilled via DTS solutions and have not been advised to the contrary.

Note that Table 2 is not intended to be an exhaustive fire safety schedule for the development and that responsibility for determining the fire safety schedule lies with the project certifier.

*Table 1 Proposed Performance Solutions*

#	BCA DTS Clause	DTS Non-conformance to be fire engineered	Applicable BCA Performance Requirements
1.	Spec C1.1 Table 5	Rationalisation of ground floor FRLs to permit 90 minutes throughout in lieu of 180 minutes retail or 120 minutes office.  The entire ground floor is permitted to be a single fire compartment of 90 minutes.	CP1, CP2
2.	D1.2(c)	Permit single exit from the basement in lieu of two exits.	DP4, EP2.2
3.	D1.4, Spec E1.5a clause 3(b)(iii)	Permit distance to the exit from farthest residential SOU to be 21 m in lieu of 12m. Refer Figure 1.	DP4, EP2.2
4.	E1.3	Permit hydrant coverage from street hydrant less than 10m from the building, using three lengths of hose in lieu of two lengths of hose. Distance to 1m inside furthest room is approximately 70m from fire brigade hardstand.	EP1.3
5.	E1.5	Permit ground floor and basement to be protected by residential sprinkler system utilising OH heads (designed for four heads operating) in lieu of as AS2118.1 system.	EP1.4

Table 2 Fire safety measures required to support the Performance Solutions

Fire Safety Measure	Standard of Performance / Comment
Smoke alarms - residential	BCA Spec E2.2a clause 3, AS3786.
Automatic suppression system	BCA Spec E1.5a, AS2118.4-2012. Fast response ordinary hazard heads to be provided throughout retail and carpark areas. Residential heads in SOUs.
Exit lighting	BCA E4.5, AS2293.1-2005.
Emergency lighting	BCA E4.4, AS2293.1-2005.
Fire hydrant system	BCA E1.3, AS2419.1-2005. Coverage can likely be achieved from street hydrant coverage. This is reliant upon the town main exceeding the necessary minimum pressure and flow rate for a single feed hydrant, ie 10L/s @ 150kPa. In the event that the town main does not provide this then onsite hydrant pump and tank may be required. We recommend engaging a hydraulic designer to undertake a Sydney Water flow and pressure enquiry to confirm town main water supply to remove this project risk.
Portable fire extinguishers	BCA E1.6, AS2444-2001

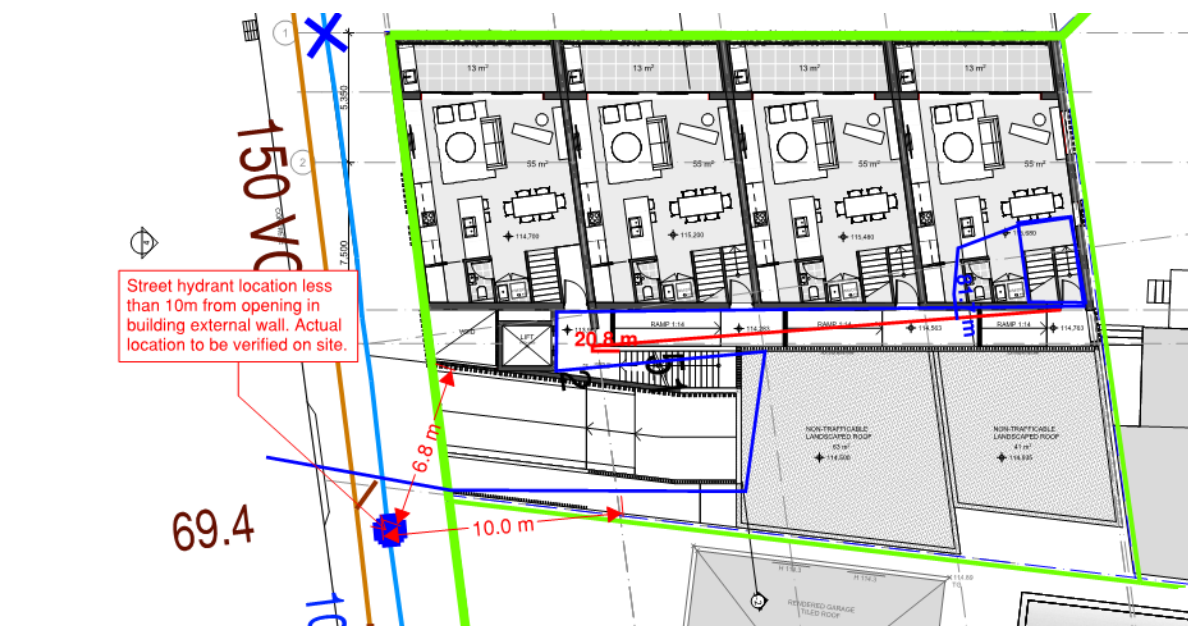


Figure 1 Residential extended egress distance and fire hydrant coverage

I trust the above fulfils your requirements for this stage. Please do not hesitate to contact me should you require any further information.

Yours faithfully,

Michael Mason  
Fire Engineering Manager  
BCA Logic Pty Ltd