



12 The Strand, Dee Why

Fire Safety Strategy

SYD000901-FSS01

Issued to The Trustee for 12 The Strand Unit Trust by Performance Based
Consulting on 13 May 2025

Report Information

Client	The Trustee for 12 The Strand Unit Trust
Client ABN	95 508 122 540
Title	Fire Safety Strategy
Reference	SYD000901-FSS01
Date	13 May 2025

Table 1: Revision history

Revision	Revision Date	Details	AUTHOR	AUTHORISER SIGNATURE & REGISTRATION #
			CHECKER	
			REVIEWER	
A	18/03/2025	First Issue	Penny Yang	
			Anson Lo	
			Penny Yang	
B	15/04/2025	Updated as per stakeholders' comments	Anson Lo	
			Penny Yang	
			Penny Yang	
C	13/05/2025	Updated to reflect updated design	Anson Lo	
			Penny Yang	
			Penny Yang	

For and on behalf of Performance Based Consulting Pty Ltd, this Fire Engineering Report has been reviewed by a Certifier - Fire Safety (formerly C10) in accordance with the relevant legislation.

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1 Overview

This report relates to 12 The Strand, Dee Why. This development is a proposed six-storey residential development comprising of three storey of sole occupancy units with retail on the ground floor and two levels of basement carparking spaces. The site location is shown in Figure 1.

Performance Based Consulting has been appointed by The Trustee for 12 The Strand Unit Trust to investigate the Fire Safety issues of this project and suggest Fire Engineering Performance Solutions where the design deviates from BCA DfS provisions. This is to demonstrate the building meets the Performance Requirements in the BCA.



Figure 1: Site location

2 Proposed Performance Solutions

Based on our preliminary assessment of the proposed works, and the fire safety measures identified in Section 3 the following Performance Solution can be developed:

Table 2: Summary of Performance Solution

Item	BCA DfS Provision	Description	Mitigation Measure
1.	D2D3(2)(a)(ii)	The rear exit discharges into a lane which is a right of carriageway and then connects to an open road (Howard Ave).	Qualitative assessment to be carried out based on an easement for evacuating via a right of carriageway to outside.

3 Fire Safety Design

3.1 Philosophy and Assumptions

The following Fire Safety Design has been developed on the basis of a preliminary assessment of the subject development.

The fire safety measures specified within this section are mainly those essential to the key performance based design aspect of this project, however they do not necessarily reflect all the required fire-safety measures for the whole building. New works are to comply with the DtS provisions of the BCA including the referenced Australian Standards, except where they are varied as outlined below.

The trial Fire Safety Design measures that form the basis of the fire engineering strategy are as follows:

3.2 Fire Resistance and Compartmentation

Table 3: Fire resistance and compartmentation measures

ID	Fire Safety System	Fire Safety Measure	Owner	Origin
1.	Structural Fire Resistance	The building must be constructed in accordance with Type A construction as per BCA S5C11.	Architect / Structural Engineer	DtS

3.3 Access and Egress

Table 4: Access and egress

ID	Fire Safety System	Fire Safety Measure	Owner	Origin
2.	Emergency Lighting	Emergency lighting must be installed throughout the building in accordance with BCA Clauses E4D2 and E4D4 and AS/NZS 2293.1:2018.	Fir Services (dry)	DtS
3.	Exit Signage	Exit signage must be installed throughout the building in accordance with BCA Clauses E4D5, E4D6, E4D8 and AS/NZS 2293.1:2018.	Fir Services (dry)	DtS
4.	Path of Travel	Occupants discharging from the rear exit are permitted to travel over an adjoining property to reach a road or an open space, subject to a valid easement between the subject building and the adjoining property. This item must be revisited should any change be proposed to the current right of carriageway. [further information of the right of carriageway TBC]	Architect	PS

3.4 Fire Services Equipment

Table 5: Fire fighting equipment and suppression

ID	Fire Safety System	Fire Safety Measure	Owner	Origin
5.	Automatic Fire Suppression	An automatic sprinkler system must be installed throughout the building in accordance with	Fire Services Engineer	DtS

		BCA E1D4, Specification 18 and AS 2118.1:2017.		
6.	Fire Detection System	The fire detection system serving the building must be installed in accordance with BCA 2022 Part E2 Clause E2D8 and Specification 20 and comply with the requirements of AS 3786:2014 (amendment 1 & 2) and AS 1670.1:2018 (amendment 1).	Fire Services Engineer	DtS
7.	Building Occupant Warning System	A building occupant warning system must be installed throughout the building in accordance with BCA S20C7 and comply with the requirements of AS 1670.1:2018.	Fire Services Engineer	DtS
8.	Portable Fire Extinguishers	Portable fire extinguishers must be provided throughout the building in accordance with BCA Clause E1D14 and installed in accordance with AS 2444:2001.	Fire Services Engineer	DtS
9.	Fire Hose Reels	Fire hose reels must be provided in accordance with BCA E1D3. Note: FHR is not required in Class 2 areas.	Fire Services Engineer	DtS

3.5 Fire Brigade Intervention

Table 6: Fire brigade intervention

ID	Fire Safety System	Fire Safety Measure	Owner	Origin
10.	Fire Hydrant System	A fire hydrant system must be provided in accordance with BCA Clause E1D2 and must comply with the requirements of AS 2419.1:2021.	Fire Services Engineer	DtS

4 Conclusion

Based on our preliminary review of the design, the proposed Performance Solutions can be supported by performance-based assessments on the basis of the above fire safety measures identified. Detailed analysis and preparation of a Fire Engineering Report documenting the Performance Solutions will need to be prepared prior to construction.

5 Validity and Limitations

- a. This report is consistent with the fire safety provisions, objectives and limitations of the BCA:
 - i. We have assumed or have been informed that building features not part of a Performance Solution will comply with the DTS provisions of the BCA.
 - ii. This report excludes the analysis and design of fires including incendiary ones involving accelerants, explosives and/or multiple ignition sources, or acts of terrorism.
 - iii. Egress and fire safety provisions for persons with disabilities including compliance with the Disability Discrimination Act (DDA) were considered to the same degree as the BCA.
 - iv. Unless stated otherwise, protection of property (other than adjoining property), business interruption or losses, personal or moral obligations of the owner/occupier, reputation, environmental impacts, broader community issues, amenity or non-fire related matters in the building such as health, security, energy efficiency, and occupational health & safety are specifically excluded from this analysis.
- b. This report is not a compliance or conformance audit for any fire safety system. For example, operational checks of fire safety equipment, verification of construction techniques, fire resistance levels or the witnessing of fire drills or exercises are specifically excluded from the scope of this report.
- c. The recommendations in this report are based on information provided by others. Performance Based Consulting has not verified the accuracy and/or completeness of this information.

The recommendations, data and methodology apply to the subject building and must not be utilised for any other purpose. Any modifications or changes to the building, fire safety management system, or building usage from that described may invalidate the findings of this report necessitating a re-assessment.