



DEVELOPMENT APPLICATION

To:	Northern Beaches Council	Project:	145842.00
Email:	council@northernbeaches.nsw.gov.au	Version:	C
Date:	10 December 2024		
Subject:	10-28 Lawrence Street, Freshwater NSW		

To whom it may concern,

This Fire Engineering Letter of Intent has been prepared to accompany a Development Application (DA) for the proposed mixed-use development to be located at 10-28 Lawrence Street, Freshwater, NSW.

1 INTRODUCTION

The proposed mixed-use development is an eight-storey building (5 above ground + 3 below ground). The development will contain four blocks (A-D) on a sloping site, where block A is at the high end.

There will be Class 6 Retail tenancies and Class 7b Residential Storage on the Lower / Upper Ground Level. The First Floor to Third Floor comprises Class 2 residential use. The rooftop is counted in the rise in storeys and will be communal open space, considered as part of the Class 2 occupancy. Basement 1 and 2 will be used as Class 7a car parks.

A Building Code of Australia, 2022 (BCA)¹ assessment has been undertaken by Philip Chun BC, dated 6 November 2024. The report identified a number of non-compliances with the Deemed-to-Satisfy Provisions of the BCA that will be addressed by Holmes through Performance Solutions.

2 PROPOSED PERFORMANCE SOLUTIONS

Holmes will provide fire engineering performance solutions for the issues listed below. The performance solutions will comply with the relevant Performance Requirements of the BCA. The design approach will be in line with the Australian Fire Engineering Guidelines² and other acceptable guideline documents.

The Performance Solution designs will be developed in line with BCA Clause A2G2, as applicable, i.e. complying with the relevant Performance Requirements or by equivalence comparison with the Deemed-to-Satisfy Provisions.

¹ Australian Building Codes Board, National Construction Code Series 2022, Volume 1, Building Code of Australia, Class 2 to Class 9 Buildings. Australian Building Codes Board, CAN, Australia, 2022.

² Australian Building Codes Board, "Australian Fire Engineering Guidelines," Australian Building Codes Board, Canberra, 2021.

The proposed approach of each Performance Solutions is listed below. Holmes understands that all other aspects of the building will comply with the Deemed-to-Satisfy Provisions of the BCA for fire safety.

- BCA Clause C2D2, C3D9, and Spec S5C11 requires separating the retail areas with an FRL of no less than (180)/180/180 generally. It is proposed to provide a reduced FRL in the retail areas to (120)/120/120 generally. A Performance Solution using an absolute approach will be provided to address Performance Requirements C1P1 and C1P2 in relation to this issue.
- BCA Clause C4D3 and C4D5 requires openings in external walls that are required to be fire rated, to be protected in accordance with Clause C4D5 if they are located within 3 m of an allotment boundary. The building contains openings in external walls in the northern, southern, and eastern facing facades on First Floor, Second Floor, and Third Floor, that are located within 3 m of the neighbouring east allotment boundary. A Performance Solution using an absolute approach will be provided to address Performance Requirements C1P2 and C1P8. A radiant heat assessment is to be undertaken as part of the performance solution, that may involve the use of radiant heat attenuation screens or fixed closed toughened glass.
- BCA Clause D2D3 requires basement levels where egress involves a vertical rise within the building of more than 1.5 m be provided with at least two exits unless the floor area of the storey is less than 50 m². The Lower Ground Floor services / plant areas have a combined floor area of more than 50 m² and are provided with a single exit. A Performance Solution using a comparative approach will be provided to address Performance Requirements D1P4 and E2P2 in relation to this issue.
- BCA Clause D2D5 requires travel distances to be a maximum of 20 m to a single exit. Performance Solutions using a comparative approach will be provided to address Performance Requirements D1P4 and E2P2 to allow for the following travel distances on Lower Ground Floor:
 - The Cold Water Pump Room will have extended travel distances of up to 25 m to a single exit; and
 - The Grease Arrestor Room will have extended travel distances of up to 26 m to a single exit.
- BCA Clause D2D6 requires that alternative exits within a building to be separated by a minimum distance of 9 m. Lower Ground Floor is proposed to have alternative exits that are separated by approximately 8 m. A performance solution using an absolute approach will be provided to address Performance Requirements D1P4 and E2P2, likely requiring fire separation between the retail tenancy and the lift lobby on Lower Ground Floor.
- BCA Clause D2D12 states that where the path of travel from the point of discharge of a fire-isolated exit requires occupants to pass within 6 m of openings in the external wall of the building, those openings are required to be protected in accordance with Clause C4D5. The path of travel from both of the fire-isolated stairs to the road requires occupants to pass within 6 m of openings in the external wall, however these openings are not proposed to be protected in accordance with Clause C4D5. Furthermore, fire-isolated stairs are required to discharge to a road, open space, or a covered area satisfying particular requirements. Both of the fire-isolated stairs discharge into covered areas that do not satisfy the requirements of Clause D2D12(2). A Performance Solution using an absolute approach will be provided to address Performance Requirements D1P4, D1P5

and E2P2. Dynamic exit signs that will be connected to the smoke detectors in the Ground Floor areas in close proximity to the discharge areas are expected to be provided as a part of the Performance Solution.

- BCA Clause D3D5 requires where fire-isolated stairs have rising and descending flights meeting at the discharge level, these flights are required to be separated by smoke proof construction. Both of the fire-isolated stairs contains rising and descending flights, however these are not proposed to be separated in accordance with the BCA. A Performance Solution will be provided to address Performance Requirement D1P4 in relation to this issue.
- BCA Clause D3D25 requires exit doors and doors forming part of an exit to swing in the direction of egress. Ground Floor doors from the fire stairs that serve as alternative egress paths (through the abovementioned fire stair discharge performance solution) will swing against the direction of egress when occupants are directed to use these by the dynamic exit signage. An absolute Performance Solution will be provided to address Performance Requirements D1P2 and D1P4.
- BCA Clause E2D3 requires the carpark exhaust system to comply with AS 1668.1-2015 and AS 1668.2-2012 which do not permit jet fans to be used in series. The Basement carpark exhaust system is proposed to utilize jet fans in series. A Performance Solution using an absolute approach will be provided to address Performance Requirement E2P2 in relation to this issue.
- The presence of EV chargers presents a special hazard for the subject building. A special hazard assessment will be provided in addition to the previously mentioned performance solutions to demonstrate that adequate provisions have been provided for the EV chargers.

3 SUMMARY

Based on Holmes's review of the project documentation, it is considered that performance based fire engineering can be utilised to demonstrate compliance with the Performance Requirements of the BCA without major changes to the current design. Additional non-compliances may be identified as the design is further developed, however it is considered that there are no significant issues that would affect the building layout.

The information contained within this letter is based on the architectural drawings prepared by CHROFI, as listed below.

Dwg no.	Title	Date	Issue
A-DA-000	Cover Page	28 November 2024	04
A-DA-001	Survey	28 November 2024	04
A-DA-097	Basement 2	28 November 2024	04
A-DA-098	Basement 1	28 November 2024	04
A-DA-099	Lower Ground Floor Plan	28 November 2024	04
A-DA-100	Upper Ground Floor Plan	28 November 2024	04

Dwg no.	Title	Date	Issue
A-DA-101	First Floor Plan	28 November 2024	04
A-DA-102	Second Floor Plan	28 November 2024	04
A-DA-103	Third Floor Plan	28 November 2024	04
A-DA-104	Roof Plan	28 November 2024	04
A-DA-201	Elevations	28 November 2024	04
A-DA-301	Sections	28 November 2024	04
A-DA-302	Sections Enlarged	28 November 2024	04
A-DA-401	GFA	28 November 2024	04
A-DA-402	ADG – Solar & Cross Ventilation	28 November 2024	04
A-DA-501	Shadow Diagrams	28 November 2024	04
A-DA-502	Sun-Eyed View Diagrams	28 November 2024	04
A-DA-503	Height Plane Diagram (Bettar)	28 November 2024	04
A-DA-504	Height Plane Diagram (Merman)	28 November 2024	04

Please do not hesitate to contact Holmes, should there be any queries about the above.

Regards,



Erik Carlsson
 Manager Fire / Project Director
 Registered Certifier – Fire Safety (BDC3174)

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