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STATE SIGNIFICANT DEVELOPMENT APPLICATION FIRE ENGINEERING STATEMENT

Subject:	Site R3, Macarthur Gardens North, Campbelltown, NSW	Project:	150025.00
Date:	7 August 2025	Version:	D

This letter is provided in support of the State Significant Development Application (SSDA) reference SSD-80482713, and to advise that Holmes has been engaged by Keylan Consulting to provide fire engineering services for the proposed residential development, to be located at Site R3, Macarthur Gardens North, Campbelltown, NSW.

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 substantial 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 substantially affect the building layout.

1 INTRODUCTION

The project relates to the proposed 10 storey affordable housing residential development to be located at Site R3, Macarthur Gardens North, Campbelltown, NSW.

The development is for two residential (Class 2) towers to be built over a basement carpark (Class 7a). The building will be over 25 m in effective height and more than 6,000 m^2 in floor area. It is proposed that the building is protected with an automatic fire sprinkler system installed in accordance with AS 2118.1-2017.

Non-compliances with the Deemed-to-Satisfy Provisions of the Building Code of Australia, 2022 Amendment 1 (BCA)[1] have been identified by Steve Watson & Partners in BCA Assessment Report reference 2024/3089 R1.1 dated 1 August 2025, and by Holmes based on a preliminary review of the Architectural Drawings (refer to Table 3-1).

2 PROPOSED PERFORMANCE SOLUTIONS

Holmes will address the identified non-compliances using performance-based fire engineering solutions. The performance-based solutions will comply with the relevant Performance Requirements of the BCA. The design approach will be in line with the Australian Fire Engineering Guidelines[2] 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 Amendment 1, 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 the Performance Solutions are listed below. Holmes understands that all other aspects of the building are intended to comply with the Deemed-to-Satisfy Provisions of the BCA. Additional non-compliances may be identified as the design is further developed, however it is considered that there are no significant issues that would substantially affect the building layout.

however additional Performance Solutions may be introduced during detailed design without requiring substantial design changes.

- BCA Clause C2D2 and S5C8 requires that shafts are constructed to have an FRL and must be enclosed at the top and bottom by construction having the same Fire Resistance Level (FRL) as the shaft walls. A Performance Solution using a comparative approach will be provided to address Performance Requirements C1P2 and C1P8 to allow for the base of the garbage shaft to remain open into the garbage room. It is proposed that a fire separation is to be provided around the garbage room at the base of the shaft.
- BCA Clause C3D15 requires residential public corridors exceeding 40 m in length to be divided into sections of 40 m or less by smoke proof construction. The residential public corridors on Level 1, Level 2 and Level 3 will be up to 50 m in length, however are not proposed to be divided into sections by smoke proof construction. A Performance Solution using a comparative approach is proposed to address Performance Requirement E2P2.
- BCA Clause C4D3 requires openings in fire rated external walls located within 3 m of a fire source feature (including a side or rear allotment boundary) to be protected in accordance with Clause C4D5. The car park entry ramp external wall opening is located within 3 m of the side boundary and is not proposed to be protected in accordance with Clause C4D5. A Performance Solution utilising an absolute approach is proposed to address Performance Requirements C1P2 and C1P8.
- BCA Clause C4D12 requires doorways between a room not within a SOU and a public corridor, to be self closing or automatic closing -/60/30 FRL fire rated doorsets. The Ground Floor public lobbies / internal public spaces are proposed to not be separated by fire rated doorsets from the public corridors. A Performance Solution using an absolute approach will be provided to address Performance Requirements C1P2 and E2P2.
- BCA Clause D2D5(1) requires that the travel distance from a Class 2 SOU entry door is no more than 6 m to a point of choice where at least two exits are provided. The travel distance will be up to 13 m. A Performance Solution using a comparative approach will be provided to address Performance Requirements D1P4 and E2P2.
- BCA Clause D2D5(1) requires that the travel distance from a Class 2 area that is not in an SOU to be no more than 20 m to a point of choice where at least two exits are provided. The travel distance will be up to 22 m from the Level 3 communal open spaces. A Performance Solution using a comparative approach will be provided to address Performance Requirements D1P4 and E2P2.
- BCA Clause D2D6 requires that the travel distance between alternative exits in the basement carpark does not exceed 60 m. A Performance Solution using a comparative approach will be provided to address Performance Requirements D1P4 and E2P4 to allow for a travel distance between alternative exits of up to 75 m via the point of choice in the carpark.
- BCA Clause D2D12(2) requires that fire isolated stairs must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway to open space or a covered area satisfying the criteria of D2D12. A Performance Solution using a comparative

approach will be provided to address Performance Requirements D1P5 and E2P2 to allow for one of the stairs to discharge via the residential lobby, utilising zoned automatic fire detection, dynamic exit signage, and fire doorset vision panels, to ensure occupants are directed to a safe egress path.

- BCA Clause D2D12(3) requires that fire isolated stairways discharge so that the egress path to a public road does not require travel within 6 m of unprotected openings measured horizontally at right angles to the path of travel. A Performance Solution using an absolute approach will be provided to address Performance Requirement D1P5 to allow for occupants to use an alternative means if escape where the presence of a fire would threaten their means of escape along the external egress route.
- BCA Clause D2D15 requires alternative exits to discharge as far apart as practical. The scissor stairways serve as alternative exits serving the same areas, and have their primary discharge adjacent to each other, not considered to be as far apart as practical. A Performance Solution using an absolute approach will be provided to address Performance Requirement D1P5 and E2P2, to mitigate the risks with the proposed fire stair discharge arrangement.
- BCA Clause D3D5 requires smoke proof construction to separate rising and descending flights of a fire-isolated stairways where they meet at the discharge level. As illustrated in the Guide to the BCA, two doors are required to achieve this. The flights rising from the basement and the stairway flights descending from the levels above are separated by a single smoke rated doorway in lieu of two separate smoke rated doorways. A Performance Solution utilising an absolute approach is proposed to address Performance Requirement D1P4.
- BCA Clause D3D25 requires doors in a required exit to swing in the direction of egress. The basement combined pump room exit door swings against the direction of egress. A Performance Solution using an absolute approach will be provided to address Performance Requirement D1P2.
- BCA Clause E1D4 requires that sprinklers are provided throughout the building in accordance with AS 2118.1-2017. A Performance Solution using an absolute approach will be provided to address Performance Requirements E1P4 to allow for the sprinklers to be omitted from the Main Switch Room.
- BCA Clause E1D2 requires that a hydrant and sprinkler booster assembly is installed in accordance with the requirements of AS 2419.1-2021, requiring the booster to be located within sight of the principal pedestrian entrance to the building. The building has two separate principal pedestrian entrances (one to each tower) on opposite sides of the site, and therefore technical compliance with AS 2419.1-2021 is not possible. A Performance Solution using an absolute approach will be provided to address Performance Requirement E1P3 to allow for the booster assembly to not be located within line of sight of all principal pedestrian entries to the building as required in Clause 7.3. of AS 2419.1-2021.

Additionally, special hazards assessments addressing compliance with BCA Clauses E1D17 and E2D21 will be provided in relation to potential installation of Electric Vehicle (EV) charging facilities within the carpark.

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 substantial 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 substantially affect the building layout.

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

Table 3-1: Referenced Architectural Drawings.

Dwg no.	Title	Date	Issue
DA102	Proposed Site Plan	25/07/2025	A
DA200	Basement 1	25/07/2025	A
DA201	Ground Floor	25/07/2025	A
DA202	Level 1	25/07/2025	A
DA203	Level 2	25/07/2025	A
DA204	Level 3	25/07/2025	A
DA205	Level 4 – Level 5	25/07/2025	A
DA206	Level 6	25/07/2025	A
DA207	Level 7 – Level 8	25/07/2025	A
DA208	Level 9	25/07/2025	A

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

Regards,

Erik Carlsson
Manager Fire / Project Director

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