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DEVELOPMENT APPLICATION

To:	Shellharbour City Council	Project:	148658.00
Email:	council@shellharbour.nsw.gov.au	Version:	A
Date:	23 July 2024		
Subject:	27 Addison Street, Shellharbour, NSW		

To Whom it May Concern,

This letter is to advise that Holmes has been engaged by Indiegre Pty Ltd to provide fire engineering services for the proposed mixed-use development to be located at 27 Addison Street, Shellharbour, NSW.

1 INTRODUCTION

The building will be eight storeys (5 above ground + 3 basement) and comprise two levels of Class 7a basement carpark, a Ground Level Class 6 retail with Class 7a carpark, and three storeys of Class 2 residential sole occupancy units (SOUs). Due to the sloping site and split levels within in the carpark, each intermediate carpark level is considered a storey. The building will be sprinkler protected. It is assumed that the sprinkler system will be an AS 2118.1-2017 system as compliant spandrels are not proposed.

A Building Code of Australia, 2022 (BCA)[1] assessment has been undertaken by Steve Watson & Partners , dated 2 July 2024. This report identified a number of non-compliances with the Deemed-to-Satisfy Provisions of the BCA that will be addressed by Holmes.

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 A2.2, 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 2022, Volume 1, Building Code of Australia, Class 2 to Class 9 Buildings. Australian Building Codes Board, ACT, Australia, 2022.

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

The identified non-compliances and proposed approach of the Performance Solution for each issue are listed below. Holmes understands that all other aspects of the building will comply with the Deemed-to-Satisfy Provisions of the BCA.

- BCA Clause C2D14 requires ancillary elements attached to the external wall to be non-combustible. It is proposed to incorporate a greenwall attachment to the external wall to the south, which is not considered non-combustible. A Performance Solution using an absolute approach will be provided to address Performance Requirements C1P2 & C1P4 to allow the greenwall instalment.
- BCA Clause C4D3 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 a side or rear allotment boundary. It is proposed to have window openings on Level 1-3 that are within 3 m of the northern and southern allotment boundaries that are not proposed to be protected in accordance with Clause C4D5. A Performance Solution using an absolute approach will be provided to address Performance Requirements C1P2 & C1P8 to allow for these openings to have a rationalised method of protection.
- BCA Clause D2D3 requires that basements where egress requires a vertical rise of more than 1.5 m to have no less than two exits. In the subject building, Basement Level C is proposed to have a single exit. A Performance Solution using an absolute approach will be provided to address Performance Requirements D1P4 & E2P2 to allow the single exit.
- BCA Clause D2D5 and Specification 18 requires that the travel distance to an exit in a Class 2 building be not more than 12 m in a sprinkler protected building. The Level 1 space in the subject building is proposed to have an exit with travel distance that is 16 m from the furthest point. A Performance Solution using a comparative approach will be provided to address Performance Requirements D1P4 & E2P2 to allow this travel distance.
- BCA Clause D2D12 requires that a covered discharge area of a fire isolated stair to be open for at least 1/3 of its perimeter. The stair serving the basement level discharges into a space that is only open for approximately 20% of the perimeter. A Performance Solution using comparative approach will be provided to address Performance Requirements D1P5 & E2P2 to allow this exit discharge space.
- BCA Clause D2D14 requires that a non-fire-isolated stair provide continuous means of travel by its own flights and landings and discharge to road or open space within 15 m from the doorway providing egress. It is proposed to have the non-fire isolated stair serving Level 2 and 3 discharge at Level 1 at a point that is 23 m from the road. A Performance Solution using an absolute approach will be provided to address Performance Requirements D1P4 & E2P2 to allow for the stairs to discharge at Level 1.
- BCA Clause E2D4 requires a fire-isolated stair to be pressurised where it is serving more than two storeys below ground. It is proposed to not provide stair pressurisation to the basement fire-isolated stair. A Performance Solution using a comparative approach will be provided to address Performance Requirement E2P2 to rationalise the omission of stair pressurisation to this basement stair.

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 Couvaras Architects, as listed below.

Dwg no.	Title	Date	Issue
DA00	Cover Sheet	19/07/2024	I
DA01	Notes	19/07/2024	I
DA10	Site Plan	19/07/2024	I
DA20	Floor Plan - Basement Levels	19/07/2024	I
DA21	Ground Floor	19/07/2024	I
DA22	Floor Plan - Level 1	19/07/2024	I
DA23	Floor Plan - Level 2	19/07/2024	I
DA24	Floor Plan - Level 3	19/07/2024	I
DA26	Adaptable Housing Plan	19/07/2024	I
DA30	Elevations	19/07/2024	I
DA31	Elevations	19/07/2024	I
DA32	Internal Elevations	19/07/2024	I
DA33	Streetscape and Context Analysis	19/07/2024	I
DA40	Sections	19/07/2024	I
DA41	Sections	19/07/2024	I
DA45	Detailed Facade Section	19/07/2024	I
DA51	Waste Management Plan	19/07/2024	I
DA52	Area Plans	19/07/2024	I
DA53	ADG Compliance	19/07/2024	I
DA61	3D Views	19/07/2024	I
DA62	3D Views	19/07/2024	I

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

Regards,

Sean Takahashi
Fire Engineer

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