

10 April 2024

Anne Ng
Mirvac Office Developments Pty Limited
Level 28/200 George Street
SYDNEY NSW 2000

**Re: Mirvac Harbourside, 2 – 10 Darling Drive, Sydney New South Wales
Preliminary Feasibility Fire Engineering Review**

Dear Anne,

This letter supports a modification to State Significant Development Application (SSD 49295711 MOD 2) submitted to the Minister for Planning and Home pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

We confirm that Omnii (NSW) Pty Ltd (Omnii) has been appointed as Fire Engineer for this project and that Peter Glodic, Executive Chairman of Omnii, is a Registered Certifier – Fire Safety.

1. INTRODUCTION

Mirvac is planning the redevelopment of the Harbourside Shopping Centre at Darling Harbour, transforming an existing tired and outdated asset and delivering a world-class mixed-use precinct.

The Harbourside redevelopment project is a timely urban intervention that has the potential to connect a series of developments that are revitalising the Western Harbour Corridor of Sydney, spanning from the Central Station Renewal and Tech Precinct, through Central Park, UTS, the Goods Line, Darling Square and the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP), and Star Casino and along Darling Harbour. Refer to for a rendered image of the new development.

Sitting at the junction of Pyrmont Bridge and Darling Harbour, the site will act as a key mixed-use precinct, connector and destination. This role will only grow in importance as further renewal of the Pyrmont Peninsula occurs with the delivery of Sydney Metro West and the implementation of the Pyrmont Peninsula Place Strategy. The Harbourside site is identified as a catalyst and key site under the Pyrmont Peninsula Place Strategy.

A development consent SSD 49295711 has been previously obtained with the support of performance solutions which are documented in a Fire Engineering Report (Rev. B dated 21 December 2023). Modification relating to the detailed design, construction, and operation of the new Harbourside mixed-use podium and tower building is now proposed. The proposed Modification Application (SSD 49295711 MOD 2) relates to the following:

- ▶ Expansion of permissible uses on level 1 to include Commercial/Events and Conference uses;
- ▶ Amendments to the design of the ground floor residential and southern commercial lobbies;
- ▶ Amendments to Level 4 office layout;
- ▶ Amendments to Level 5 internal pool, external amenities and communal open space;
- ▶ Amendments to the general layout of Levels 6-8;
- ▶ Amendments to Levels 46-49 penthouse and rooftop plant;
- ▶ Various amendments to building services, plant, podium rooftop and facades following further design development and coordination; and



- Inclusion of design changes to the Bunn Street through site link as required by the consent.

This letter offers an overview of the proposed Performance Solutions intended to achieve a level of fire and life safety that meets the relevant Performance Requirements of the Building Code of Australia 2022. The Performance Solutions are to be addressed at a later date and prior to issue of a Construction Certificate.

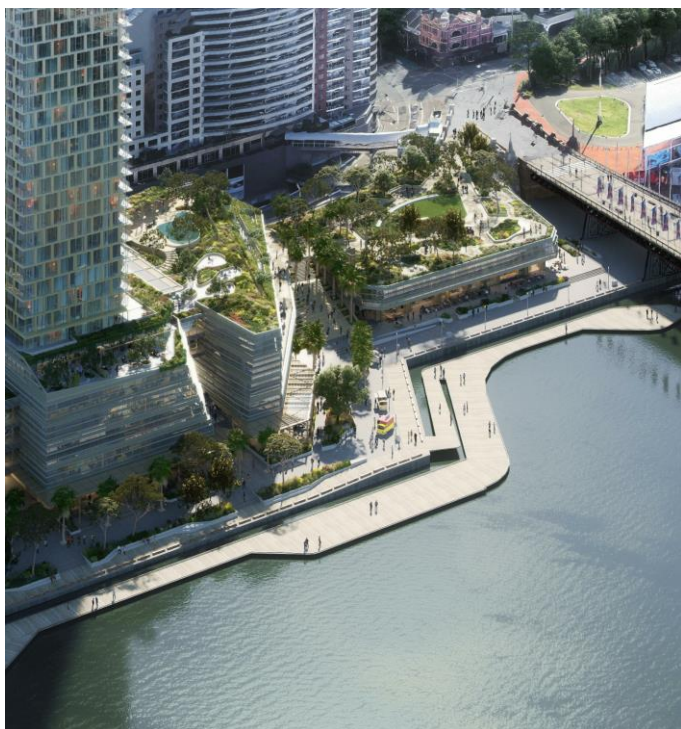


Figure 1.1 – Rendered Image of Proposed Development

2. SITE DESCRIPTION

The Harbourside redevelopment site is located within the Darling Harbour Precinct inside the City of Sydney Local Government Area (LGA). The Darling Harbour Precinct remains Sydney's premier tourist and entertainment destination and accommodates varied recreation, tourism, entertainment, retail, residential apartments, and business land uses.

Specifically, the Harbourside redevelopment site occupies an area of approximately 2.05 hectares within the north western portion of Darling Harbour, in between Cockle Bay and the Pyrmont Peninsula. It is irregularly shaped and existing site improvements include the two to three storey Harbourside Shopping Centre – noting approval has already been granted for Stage 1 demolition works.

The boundaries of the overall Harbourside redevelopment site are shown in Figure 2.1.



Figure 2.1 – Harbourside Shopping Centre Redevelopment Site

3. GENERAL BCA CHARACTERISTICS

Table 3.1 details the relevant BCA, type of construction and BCA Classifications. The BCA classifications are based on the Capability Statement by Philip Chun.

Table 3.1 – General Building Characteristics

BCA CHARACTERISTIC		DESCRIPTION
	NCC Document	Building Code of Australia 2022
Part A6	Classifications	BCA Class 2 ancillary (Ground Floor and Level 5)
		BCA Class 2 apartments (Level 6 – Level 48)
		BCA Class 5 commercial office tenancies (Ground Floor – Level 4)
		BCA Class 6 retail tenancies (Ground Floor and Level 2)
		BCA Class 7a car parking (Basement 4 to Basement 1)
		BCA Class 7b storage (ancillary) (Basement 4 to Basement 1)
		BCA Class 8 loading dock and plant (Ground Floor, Level 47 – Level 49)
		BCA Class 10 garden areas, Bunn St Bridge (Level 2, Level 3 and Level 5)
C1.1	Type of construction	Type A

Table 3.2 details the general floor areas of the retail, commercial and residential portions of the development.

Table 3.2 – General Floor Area of Each Major Classifications

DESCRIPTION	BCA CLASSIFICATION	APPROXIMATE GFA
Retail	Class 6	10,000 m ²
Commercial	Class 5	33,500 m ²



DESCRIPTION	BOA CLASSIFICATION	APPROXIMATE GFA
Residential	Class 2	42,000 m ²
Total		85,500 m²

4. SUMMARY OF PROPOSED PERFORMANCE SOLUTIONS

Table 4.1 summarises the Proposed Performance Solutions in accordance with the National Construction Code (NCC) Building Code of Australia (BCA) 2022. Some of the Performance Solutions are included in Omnii's existing FER Rev B dated 21 Dec 2023; a description of whether a Performance Solution will need to be re-assessed following the application of SSD 49295711 MOD 2 is included.

Table 4.1 – Summary of Proposed Performance Solutions

2022 BOA DTS PROVISION	DESCRIPTION OF PERFORMANCE SOLUTION	PERFORMANCE REQUIREMENT(S)	RE-ASSESSMENT REQUIRED IN SSDA 2?
C2D2, Spec 5, C3D9, C3D10 and C4D15	The Fire Resistance Levels (FRLs) associated with Class 6 (Retail) parts on Level 2 are to be not less than (120)/120/120, in lieu of (180)/180/180.	C1P1 and C1P2	No
C2D2, Spec 5, C3D3	The internal fire-rated walls and floor slabs are to terminate at the inside face of the curtain wall, in lieu of extending to the inside face of the glazing.	C1P2 and C1P8	No
C3D4 and C3D5	Due to site restrictions, perimeter vehicular access complying with C3D5(2) will not be provided.	C1P9	No
C3D15	The public corridor length on Level 6 to Level 48 be permitted to be up to 46 m in lieu of 40 m without being separated by smoke proof construction.	D1P4 and E2P2	No Relevant figures in the FER are to be updated
C4D4	The external wall of the Level 1 residential lobby fire compartment within 4 m of the office fire compartment not be protected in accordance with BCA DTS Provision C4D5.	C1P2 and C1P8	No
D2D3	The following areas are provided with a single exit, in lieu of at least two exits: - Basement 5 lift pit - Plant Rooms on the Ground Level - Plant Room on Level 4 - Level 48 Mezzanine plant.	D1P4 and E2P2	No
S5C16, D2D4, D2D14, G3D4, G3D5 and G3D8	The Bunn Street Steps is non-fire-isolated stair resulting non-compliance of S5C16, D2D4, D2D4, D2D14, G3D4, G3D5 and G3D8 on the podium floors.	C1P2, D1P4, D1P5 and E2P2	No longer applicable as the Alternative Bunn Street Steps design achieves BCA DTS compliance
D2D5	Travel distance to a point of choice exceeds 20 m and travel distance to the nearest exit exceeds 40 m.	D1P4 and E2P2	Yes Extended travel distances on Podium floors will be reassessed
D2D6	Travel distance between exits exceeds 60 m and alternative paths of travel converge less than 6 m.	D1P4 and E2P2	Yes Extended travel distances on Podium floors will be reassessed
D2D12	The Back of House (BoH) rooms on Basement 1 to open directly into the fire isolated passageways without airlocks.	D1P5 and E2P2	No



2022 BCA DTS PROVISION	DESCRIPTION OF PERFORMANCE SOLUTION	PERFORMANCE REQUIREMENT(S)	RE-ASSESSMENT REQUIRED IN SSDA 2?
D2D12	Fire Stairs (Fire-Isolated Stairs 04, 05, 06, 07, 10 and 11) to discharge into covered areas open for less than 1/3 of its perimeter.	D1P5 and E2P2	No
D3D27	Re-entry to the building from a fire isolated stairway on every 4th floor to be via a green break glass alarm which unlocks the door in lieu of being a free handle access.	D1P2, D1P4, E2P2	No
E1D2	AS 2419.1-2021 is utilised to design the fire hydrant system serving the building which exceeds the 135 m effective height.	E1P3	No
E1D2	The fire hydrant booster will not be located within sight of the main entrance since multiple entrances are provided to the building.	E1P3	No
E1D2	The Level 48 Penthouse fire hydrant coverage is achieved by utilising up to a 70 m hose run length from the Level 47 Fire-Isolated Stair 04 and 05 fire hydrants, per an external fire hydrant coverage in accordance with AS 2419.1-2021.	E1P3	No
E1D3	Portable fire extinguishers to be provided in lieu of fire hose reels in several locations.	E1P1	Retail tenancies not larger than 200 m ² will be included in the assessment
E1D2, E1D4, E1D15, Spec 17 and AS 2118.1	A combined sprinkler and hydrant system is provided as per AS 2118.6-2012, with the exception of the sprinkler design being provided as per the 2017 edition of AS 2118.1 in lieu of AS 2118.1-1999 as referenced in AS 2118.6-2012.	E1P1 and E1P4	No
E1D4	BCA DtS concessions to be applied to the building portions despite not being provided with a sprinkler system strictly in accordance with Specification 17	E1P4	No
E1D4	minimum fire sprinkler clearance of 300 mm in lieu of 500 mm above residential storage cages located in the Basement Carpark.	E1P4	New issue to be addressed
E1D5, Spec. 17 and AS 2118.1	Fire sprinkler coverage to not be provided to the following locations: - Revolving door vestibules in the Ground Level commercial lobbies - SWITCH rooms - Canopies on Level 6.	E1P4	Assessment to be updated to include Locations 2 and 3
E1D15	The location of the Fire Control Room is not accessible from the front entrance of the building due to the provision of multiple building entrances.	E1P6 and E2P2	No
E2D6	A zone pressurisation system is not provided to the Retail on Ground Level and the commercial podium from Level 1 to Level 4.	E2P2	No
E1D17 and E2D21	Electric Vehicle charging stations within the basement carpark, which presents a Special Hazard to the attending Fire Brigade.	E1P4 and E2P2	No
E3D5	Emergency lift access is not provided to Basement 5 lift pit or Level 4 Rooftop Plant.	E3P2	No
E4D9	Speaker to be omitted from the balconies and bathrooms on residential floor.	E4P3	New issue to be addressed



This Preliminary Feasibility Fire Engineering Review document has been prepared to confirm that we have reviewed the SSDA2 MOD2 drawings dated 1 May 2024 (refer to Annexure A).

We confirm that we are of the opinion that the building is capable of achieving compliance with the Building Code of Australia 2022.

Yours faithfully,

Peter Glodic
Executive Chairman
BDC0140



ANNEXURE A SSDA2 MOD2 DRAWINGS

Annexure Table A.1 – SSDA Drawings

DRAWING NUMBER	REVISION	DATE	DRAWING NUMBER	REVISION	DATE
AR-SSDA2-1095_B5	C	1 May 2024	AR-SSDA2-2001_00	C	1 May 2024
AR-SSDA2- 1096_B4	C	1 May 2024	AR-SSDA2-2001_01	C	1 May 2024
AR-SSDA2- 1097_B3	C	1 May 2024	AR-SSDA2-2001_02	C	1 May 2024
AR-SSDA2- 1098_B2	C	1 May 2024	AR-SSDA2-2002_00	C	1 May 2024
AR-SSDA2-1099_B1	C	1 May 2024	AR-SSDA2-2002_01	C	1 May 2024
AR-SSDA2-1100_00	D	1 May 2024	AR-SSDA2-2002_02	C	1 May 2024
AR-SSDA2-1101_00	C	1 May 2024	AR-SSDA2-2002_03	C	1 May 2024
AR-SSDA2-1102_00	C	1 May 2024	AR-SSDA2-2003_00	C	1 May 2024
AR-SSDA2-1103_00	C	1 May 2024	AR-SSDA2-2003_01	C	1 May 2024
AR-SSDA2-1104_00	C	1 May 2024	AR-SSDA2-2003_02	C	1 May 2024
AR-SSDA2-1105_00	C	1 May 2024	AR-SSDA2-3000_00	C	1 May 2024
AR-SSDA2-1106_00	D	1 May 2024	AR-SSDA2-3001_00	C	1 May 2024
AR-SSDA2- 1106_01	C	1 May 2024	AR-SSDA2-3001_01	C	1 May 2024
AR-SSDA2- 1107_00	D	1 May 2024	AR-SSDA2-3001_02	C	1 May 2024
AR-SSDA2- 1107_01	C	1 May 2024	AR-SSDA2-3002_00	C	1 May 2024
AR-SSDA2- 1108_00	D	1 May 2024	AR-SSDA2-3003_00	C	1 May 2024
AR-SSDA2- 1108_01	C	1 May 2024	AR-SSDA2-3004_00	C	1 May 2024
AR-SSDA2- 1146_00	D	1 May 2024	LA-SSDA2-MOD-0051_01	C	1 May 2024
AR-SSDA2- 1146_01	C	1 May 2024	LA-SSDA2-MOD-1051_01	C	1 May 2024
AR-SSDA2- 1147_00	D	1 May 2024	LA-SSDA2-MOD-1151_01	C	1 May 2024
AR-SSDA2- 1147_01	C	1 May 2024	LA-SSDA2-MOD-1152_01	C	1 May 2024
AR-SSDA2-1148_00	D	1 May 2024	LA-SSDA2-MOD-1153_01	C	1 May 2024
AR-SSDA2- 1148_01	C	1 May 2024	LA-SSDA2-MOD-1154_02	C	1 May 2024
AR-SSDA2- 1148M_00	D	1 May 2024	LA-SSDA2-MOD- 1501_03	C	1 May 2024
AR-SSDA2- 1148M_01	C	1 May 2024	LA-SSDA2-MOD- 1501_04	C	1 May 2024
AR-SSDA2- 1149_00	D	1 May 2024	AR-SSDA2-2001_00	C	1 May 2024
AR-SSDA2- 1149_01	C	1 May 2024	AR-SSDA2-2001_01	C	1 May 2024
AR-SSDA2-2000_00	C	1 May 2024	AR-SSDA2-2001_02	C	1 May 2024
AR-SSDA2-2000_01	C	1 May 2024	AR-SSDA2-2002_00	C	1 May 2024
AR-SSDA2-2000_02	C	1 May 2024	AR-SSDA2-2002_01	C	1 May 2024