

7 February 2022

Arncliffe Eden Property Pty Ltd
Locked Bag 1400
Meadowbank NSW 2114

Attention: Saul Moran

Dear Saul,

**RE: PROPOSED MIXED USE DEVELOPMENT – EDEN STREET & PRINCESS HIGHWAY, ARNCLIFFE
BCA COMPLIANCE STATEMENT FOR DA SUBMISSION R7**

INTRODUCTION

This BCA Compliance Statement for DA is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State Significant Development Application (SSDA-11429726) for the development of land identified at 26-42 Eden Street and 161-179 Princes Highway, Arncliffe (the site) for the purposes of a mixed-use precinct with open space, retail, and residential uses, comprising social and market housing as part of the NSW Land and Housing Corporation (LAHC)'s 'Communities Plus' program.

SSDA-11429726 seeks approval for the following development:

- *Demolition of all existing buildings and structures on the site;*
- *Site preparation works, excavation and tree removal;*
- *The construction of a mixed-use development comprising:*
 - *744 apartments across (4) buildings between 19-23 storeys in height, as follows:*
 - *186 market housing apartments in Building A;*
 - *202 market housing apartments in Building B;*
 - *180 social housing apartments in Building C; and*
 - *176 market housing apartments in Building D;*
 - *3,113m2 retail gross floor area;*
 - *240m2 for a future childcare centre;*
 - *3,706m2 of communal open space;*
 - *813 spaces of lower ground and basement car parking; and*

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the Development Application submission to Bayside Council for the proposed development which comprises of approximately 764 residential apartments (four residential towers), retail shopping centre, shared community facilities and surrounding public open space and infrastructure against the Building Code of Australia 2019, Amendment 1 (BCA).



Proposed Development (South East elevation – Rendered)



Proposed Development (North West elevation – Rendered)



COMPLIANCE STATEMENT OBJECTIVES

The objectives of this statement are to:

- Confirm that the DA architectural documentation has been reviewed by an appropriately qualified and Registered Building Surveyor.
- Confirm that the proposed new building works can readily achieve compliance with BCA 2019, Amendment 1 pursuant to Clause 145 of the *Environmental Planning & Assessment Regulation 2000*.
- Accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA can be achieved.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject further assessment following receipt of more detailed documentation at Construction Certificate stage.

Pursuant to clause 145(1)(b) of the Environmental Planning and Assessment Regulation 2000 the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time of the application for the Construction Certificate was made. The current version of the BCA is BCA 2019 Amendment 1, with the next revision of the BCA coming into effect 1 September 2022. If the Construction Certificate is likely to be lodged after September 2022, further assessment will need to be undertaken against BCA 2020. In particular, there are specific new provisions in relation to Class 9b Early Childcare Centre for compartmentation and separation, egress provisions and Sprinkler system that should be considered as part of the design.

REFERENCED DOCUMENTATION

This report has been prepared based on a review of the preliminary DA architectural plans prepared by Group GSA:

DRAWING No.	DRAWING TITLE.	REVISION	DATE
DA2001	Basement Level 3	C	07.12.2021
DA2002	Basement Level 2	C	07.12.2021
DA2003	Basement Level 1	C	07.12.2021
DA2004	Lower Ground Floor	C	07.12.2021
DA2005	Upper Ground Floor	C	07.12.2021
DA2006	Level 1	C	07.12.2021
DA2007	Level 2	C	07.12.2021
DA2008	Level 3	B	07.12.2021
DA2009	Level 4	B	07.12.2021
DA2010	Level 5	B	07.12.2021
DA2011	Level 6	B	07.12.2021
DA2012	Level 7	B	07.12.2021
DA2013	Level 8-12	B	07.12.2021
DA2018	Level 13-15	B	07.12.2021
DA2021	Level 16-17	B	07.12.2021
DA2023	Level 18	B	07.12.2021
DA2024	Level 19	B	07.12.2021
DA2025	Level 20	B	07.12.2021
DA2026	Level 21	B	07.12.2021

BUILDING CLASSIFICATION

The new building works have been classified as follows:

BCA Classification:

Class 2 (Residential)



	Class 6 (Retail) Class 7a (Car Park) Class 7b (Loading Dock) Class 9b (Early childcare Centre)
Rise in Storeys:	Twenty-three (23)
Storeys Contained: Storeys	Twenty-seven (27)
Type of Construction:	Type A Construction
Importance Level (Structural):	3
Sprinkler Protected Throughout:	Yes
Effective Height:	71.05m (L22 90.300 – LGF 19.250)
Max. Fire Compartment Size:	8,000m ² & 48,000m ³
Climate Zone:	Zone 5

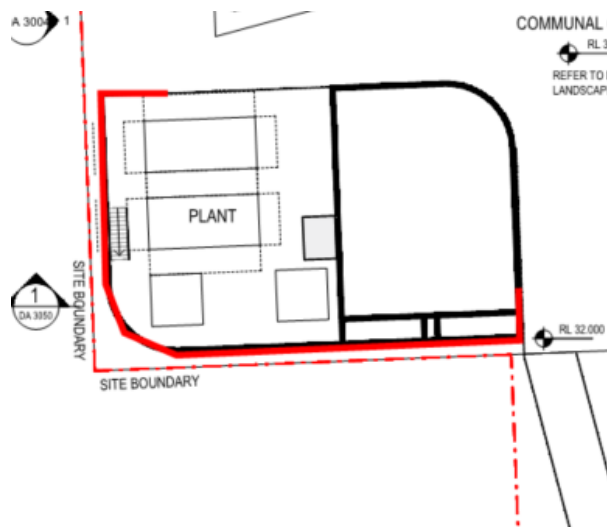
Note 1: Buildings A, B, C and D are connected via common basement carpark and have been assessed as a single building, therefore the effective height, rise in storeys and storeys contained will be taken to be the greatest measured from Building A, B, C and D.



BCA (DtS) CLAUSE	DESCRIPTION
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3. C1.1, C3.2

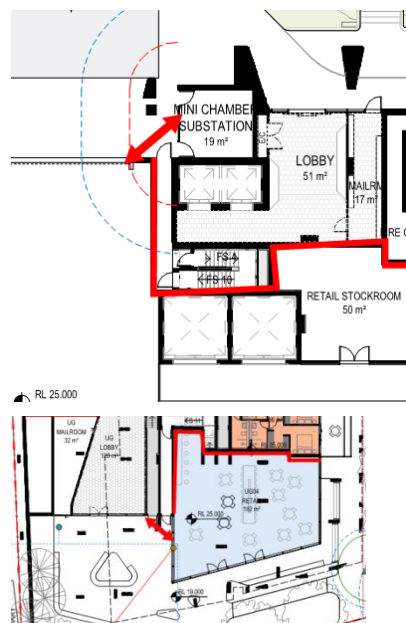
The external wall of the plant room on Level 2 between Building C and D is exposed to the southern boundary and will need to be fire rated and any openings protected;



Level 2 Southern plant room exposure to site boundary.

4. C3.3
Separation of external walls and associated openings in different fire compartments

There are openings in adjoining fire compartments between the Upper ground lobby and the adjoining retail compartment, and the mini chamber substation and loading dock. As such, protection of external wall and associated openings in different fire compartments is required in accordance with C3.4.



Openings in External Walls in Different Fire Compartments



BCA (DtS) CLAUSE	DESCRIPTION
5. D1.2 Number of exits required	<p>The residential lobbies on upper ground, and various plant rooms have access to only 1 exit, in lieu of required 2. This will be addressed as a fire engineered performance solution.</p> <p>Clarification is required as to whether the following fire-stairs comprise separate scissor stairs or whether they are the same fire-stair with two entry doors. In which case, they would be considered as the same exit in lieu of alternative exits.</p> <ul style="list-style-type: none"> + Fire stair 1 and 7 + Fire stair 2 + Fire stair 6 <p>Minimum of 2 exits are required for the early childcare centre.</p>
6. D1.4 Exit travel distances	<p>The following extended exit travel distances have been identified and will be subject to a fire engineered performance solution;</p> <ul style="list-style-type: none"> + Up to 28m to a point of choice from which travel in different directions to 2 exits is available, in lieu of 20m within Basement Levels and Lower Ground carpark + Up to 70m to one of two exits in lieu of 40m within Basement Levels and Lower Ground carpark + Up to 35 to point of choice from retail LG01 (<i>Note: An additional exit may be required to be added if excessive distance can not be supported</i>) + Up to 30m to point of choice from Centre management office of lower ground. + Up to 50m to one of two exits in lieu of 40m within Lower ground floor retail and BOH + Up to 35m to a point of choice from Communal Open Space in residential parts. + Up to 32m to a single exit from Building D lobby on upper ground floor + Up to 13 to a point of choice from which travel in different directions to 2 exits is available from residential corridors in lieu of 6m. <p>An additional exit door will be required from the Upper ground loading dock area on South East end to achieve access to 2 exits and address excessive travel distances.</p>
7. D1.5 Distance between alternative exits	<p>The following extended exit travel distances between exits have been identified and will be subject to a fire engineered performance solution:</p> <ul style="list-style-type: none"> + Up to 100m between alternative exits within the basement levels and Lower Ground carpark, when measured back through the point of choice, in lieu of 60m. <p><i>Note, this travel distance has been measured based on occupants travelling around the car spaces but through shared spaces of accessible parking spaces and other paths of travel where a minimum 1m clear width has been proposed), confirmation should be sought from Certifier that they agree with the approach to measuring travel distances.</i></p>
8. D1.7, D1.10 Fire Isolated Stairways and discharge from exits	<p>Fire isolated exits are generally capable of achieving compliance, noting discharge points for "Scissor stairs" will need to be further refined as the design develops and prior to issue of a Construction Certificate.</p>
9. D1.7 Fire Isolated Stairways	<p>As Fire-stairs 1, 4, 6, 7, 8, 10 and 11 discharge into locations which necessitate passing within 6m of the external wall of the building, those parts of the wall must have an FRL of 60/60/60 and opening protected.</p>
10. D3.2	<p>Clarification is required as to how equitable access is proposed to the residential lobby of building AB noting that no ramps have been proposed.</p>



BCA (DtS) CLAUSE	DESCRIPTION
11. E1.3 Fire Hydrants	<ul style="list-style-type: none"> + The location of the Hydrant and Sprinkler Booster to be addressed as a Fire Engineered performance solution. + The Fire Pumproom is proposed to be located on Basement 2 which does not comply with FRNSW operational requirements. + The Fire Hydrant/Sprinkler Booster shall be re-orientated to face the street on line with FRNSW requirements. + As per Clause 7.3 of AS 2419.1-2005, the hydrant booster assembly is to be located not less than 10m from liquified petroleum gas and other combustible storage (Gas regulator) . <p><i>Fire Hydrant and Sprinkler Booster location</i></p>

MATTERS REQUIRING FIRE SAFETY ENGINEERED PERFORMANCE SOLUTIONS: (TO BE REFINED AS THE DESIGN DEVELOPS)

BCA (DtS) CLAUSE	DESCRIPTION	PERFORMANCE REQUIREMENT
1. Clause C1.1 / Spec. C1.1 Fire resisting construction	<ul style="list-style-type: none"> + To reduce the Fire Resistance Level (FRL) of the building elements associated with the Class 6 retail tenancies from 180 minutes to 120 minutes. + To reduce the Fire Resistance Level (FRL) of the building elements associated with the Class 7b loading dock from 240 minutes to 120 minutes 	CP1, CP2
2. Clause C1.1 / Spec. C1.1 Fire resisting construction	The gap between the slab edge and the curtain wall construction will be sealed using a tested fire rated cavity barrier, however, the barrier will be installed between a fire rated slab edge and a non-fire rated external wall which has not been tested in this configuration.	CP1, CP2
3. Clause C3.3 – Protection of Opening	To have a performance-based approach to protected opening in external wall of different fire compartments	CP2
4. Clause D1.2 Number of exits required	To have a single exit from the following locations in lieu of 2 exits as required for buildings with an effective height of more than 25m: <ul style="list-style-type: none"> + Residential Lobbies on Upper ground + Various Plant rooms 	DP4



BCA (DtS) CLAUSE	DESCRIPTION	PERFORMANCE REQUIREMENT
5. Clause D1.4 Exit travel distances	To have the following extended exit travel distances: <ul style="list-style-type: none"> + Up to 28m to a point of choice from which travel in different directions to 2 exits is available, in lieu of 20m within Basement Levels and Lower Ground carpark + Up to 70m to one of two exits in lieu of 40m within Basement Levels and Lower Ground carpark + Up to 35 to point of choice from retail LG01 <i>(Note: An additional exit may be required to be added if excessive distance can not be supported)</i> + Up to 30m to point of choice from Centre management office of lower ground. + Up to 50m to one of two exits in lieu of 40m within Lower ground floor retail and BOH + Up to 35m to a point of choice from Communal Open Space in residential parts. + Up to 32m to a single exit from Building D lobby on upper ground floor + Up to 13 to a point of choice from which travel in different directions to 2 exits is available from residential corridors in lieu of 6m. Typical to all buildings. 	DP4 & EP2.2
6. Clause D1.5 Distance between alternative exits	To have the following extended exit travel distances between exits: <ul style="list-style-type: none"> + Up to 100m between alternative exits within the basement levels and Lower Ground carpark, when measured back through the point of choice, in lieu of 60m. 	DP4 & EP2.2
7. Clause E1.3. E1.5 Fire Hydrant and Sprinklers	To permit the Fire Hydrant and Sprinkler Booster to not be located within sight of the main entrance of the building, not adjacent to the principal vehicular access and within 10m of the building contrary to Clause 7.3(d) of AS 2419.1-2005	EP1.3
8. E1.8 Fire Control Room	Door to the fire control room does not have access from the front entrance of the building	EP1.6
9. Clause E2.2 / Spec. E2.2a Smoke hazard management	To rationalize/omit provide a zone smoke control system to retail tenancies	EP2.2
10. Clause E2.2 / Spec. E2.2a Smoke hazard management	To have a performance-based solution for the Class 6 retail smoke exhaust system	EP2.2
11. Clause E2.2 / Spec. E2.2a Occupant warning	To not evacuate the entire development in the event of a fire alarm. It is proposed to evacuate the fire affected buildings / areas of the development only.	EP2.1



MATTERS REQUIRING OTHER PERFORMANCE SOLUTIONS

BCA (DtS) CLAUSE	DESCRIPTION	PERFORMANCE REQUIREMENT
1. Performance Requirement FP1.4	<p>A Performance is required to be documented at the Construction Certificate stage which demonstrates that the weatherproofing of external walls (including openings around windows and doors) prevents the penetration of water that could cause—</p> <ul style="list-style-type: none">+ unhealthy or dangerous conditions, or loss of amenity for occupants; and+ undue dampness or deterioration of building elements.	FP1.4

FIRE SAFETY SCHEDULE

The following table is a list of the required fire safety measures within the building. These measures may be subject to further change pending the final design and the Fire Safety Engineering Report.

Statutory Fire Safety Measure	Design / Installation Standard
Access Panels, Doors & Hoppers	BCA Clause C3.13 & AS 1530.4 – 2014 and Manufacturer's specifications
Alarm Signalling Equipment	AS 1670.3 – 2018
Automatic Fail-Safe Devices	BCA Clause D2.21
Automatic Fire Detection & Alarm System	BCA Spec. E2.2a, AS 1670.1 – 2018



Statutory Fire Safety Measure	Design / Installation Standard
Automatic Fire Suppression Systems	BCA Spec. E1.5, AS 2118.1-2017, AS 2118.6 - 2012
Emergency Lifts	BCA Clause E3.4,
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 – 2018
Emergency Warning Intercom System (EWIS)	BCA E4.9, AS 1670.4 - 2018
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8; and AS 2293.1 – 2018
Fire Blankets	AS 3504 – 2006 & AS 2444 – 2001
Fire Control Rooms	BCA E1.8
Fire Dampers	BCA Clause C3.15, AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and manufacturer's specification
Fire Doors	BCA Clause C2.12, C2.13, C3.4, C3.5, C3.8 & C3.11; and AS 1905.1 – 2015 and manufacturer's specification
Fire Hydrant Systems	BCA Clause E1.3, AS 2419.1-2005, AS 2118.6
Fire Hose Reels	BCA Clause E1.4, AS 2441-2005
Fire Seals	BCA Clause C3.15, AS 1530.4 – 2014 & AS 4072.1 – 2014 and manufacturer's specification
Lightweight Construction	BCA Clause C1.8 & AS 1530.4 – 2014 and manufacturer's specification
Mechanical Air Handling System	BCA Clause E2.2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012
Smoke Hazard Management System; + Stair Pressurisation + Zone Smoke Control + Smoke Exhaust	BCA Clause E2.2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012
Paths of Travel	Clause 186 of the EP&A Regulation 2000
Portable Fire Extinguishers	BCA Clause E1.6, AS 2444 – 2001
Smoke Alarms	BCA Spec E2.2a and AS 3786-2014
Smoke Doors	BCA Clause C2.14
Warning & Operational Signs	Section 183 of the EP&A Regulation 2000, AS 1905.1 – 2015, BCA Clause D2.23, E3.3
Fire Engineered Performance Solutions	TBA



ONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed development which comprises the construction of a new twenty-seven (27) storey mixed use retail residential tower with three (3) levels of underground basement car park at the subject site against the Building Code of Australia 2019, Amendment 1.

In view of the above assessment, we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA can be achieved.

If you have any questions or require further information, please do not hesitate to contact us on 9211 7777.

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