

BUSHFIRE CONSTRAINTS REPORT FOR THE PLANNING PROPOSAL

**No. 93 – 145 HOXTON PARK ROAD, No. 20 DALE AVENUE,
No. 48 DALE AVENUE, No. 49 – 51 MARYVALE AVENUE
&
No. 260 MEMORIAL AVENUE
LIVERPOOL**

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1.0 EXECUTIVE SUMMARY

Australian Bushfire Protection Planners Pty Limited has been commissioned by Tony Owen Partners, on behalf of ABA Pty Ltd, to undertake a study to determine the bushfire constraints to future development of the land within No. 93 – 145 Hoxton Park Road, No. 20 Dale Avenue, No. 48 Dale Avenue, No. 49 – 51 Maryvale Avenue and No. 260 Memorial Avenue, Liverpool.

The site contains vacant land within No. 93 – 145 Hoxton Park Road and existing dwelling houses on No. 20 7 48 Dale Avenue and No 49 – 51 Maryvale Avenue and No. 260 Memorial Avenue.

The site is referenced under the Liverpool LEP 2008. This allows for 4 – 5 storey residential flat buildings with a maximum FSR of 1:1.



Figure 1 – Existing Zoning



Figure 2 – Existing Building Height

Planning Proposal is seeking a modest increase of height from 4 storeys to 6 storeys and an increase to 1.5:1 FSR.



Figure 3 – Proposed Zoning



Figure 4 – Proposed Building Height

In response to a request from the Department of Planning, Housing & Infrastructure the NSW Rural Fire Service provided advice that the riparian corridor to the northwest of the site is mapped as containing Category 1 Bushfire Prone Vegetation and the only lot mapped within the bushfire buffer zone is 260 Memorial Avenue Liverpool.

The advice states that a Bushfire Assessment Report of the extent to which the proposed development conforms with or deviates from the specifications set out in *Planning for Bush Fire Protection 2019* is to be provided. This shall include a classification of the vegetation on and surrounding the development (out to a distance of 140 metres from the boundaries of the property) and an assessment of the slope of the land on and surrounding the development (out to a distance of 100 metres).

- The future residential development will need to address Chapter 5 and demonstrate compliance with 29kW/m² radiant heat exposure as per the provisions of Table 5.3a. The medium to high density residential areas will also need to address the provisions section 8.2.2 Multi-storey residential development of *Planning for Bushfire Protection 2019*.

- Reticulated water supply, hydrant systems, and other utilities including electricity and gas services will need to be provided throughout the development in accordance with Table 5.3b of *Planning for Bushfire Protection 2019* to facilitate firefighting operations.
- The residential zoning R4 permits with consent certain special fire protection purpose developments (SFPP) uses identified under the *Rural Fires Act 1997* like Bed and breakfast accommodation; Boarding houses; Centre-based childcare facilities; Educational establishments; Hostels; Hotel or motel accommodation; Places of public worship. The uses on bush fire prone land permitted with consent will need to demonstrate compliance with Chapter 6 of *Planning for Bushfire Protection 2019*.

This report has identified that the proposed rezoning does not contain Special Fire Protection Purpose Developments (Bed and breakfast accommodation; Boarding houses; Centre-based childcare facilities; Educational establishments; Hostels; Hotel or motel accommodation; Places of public worship) and therefore the requirements of Chapter 6 of *Planning for Bushfire Protection 2019* are not assessed in this report

This report therefore provides recommendations on the provision of setbacks to the bushfire hazard areas, access and water supplies for fire-fighting operations and construction standards to the buildings.

2.0 SITE ASSESSMENT.

An inspection of the site was undertaken by Graham Swain, Managing Director, *Australian Bushfire Protection Planners Pty Limited* on the 20th February 2025.

3.0 DESCRIPTION OF THE SITE.

The site is located on the northern side of Hoxton Park Road, extending to the east from Maryvale Road to Memorial Avenue. No. 20 & 48 Dale Avenue extend to the north from the land fronting Hoxton Park Road.

The vegetation within the site consists of landscaped gardens on the residential lots and grassland with scattered trees on the vacant land.

Figure 5 on Page 8 provides a plan of the location of the site.

Figure 6 – Cadastre & Contour Plan showing the lot boundaries, contours within the site is provided on Page 9.

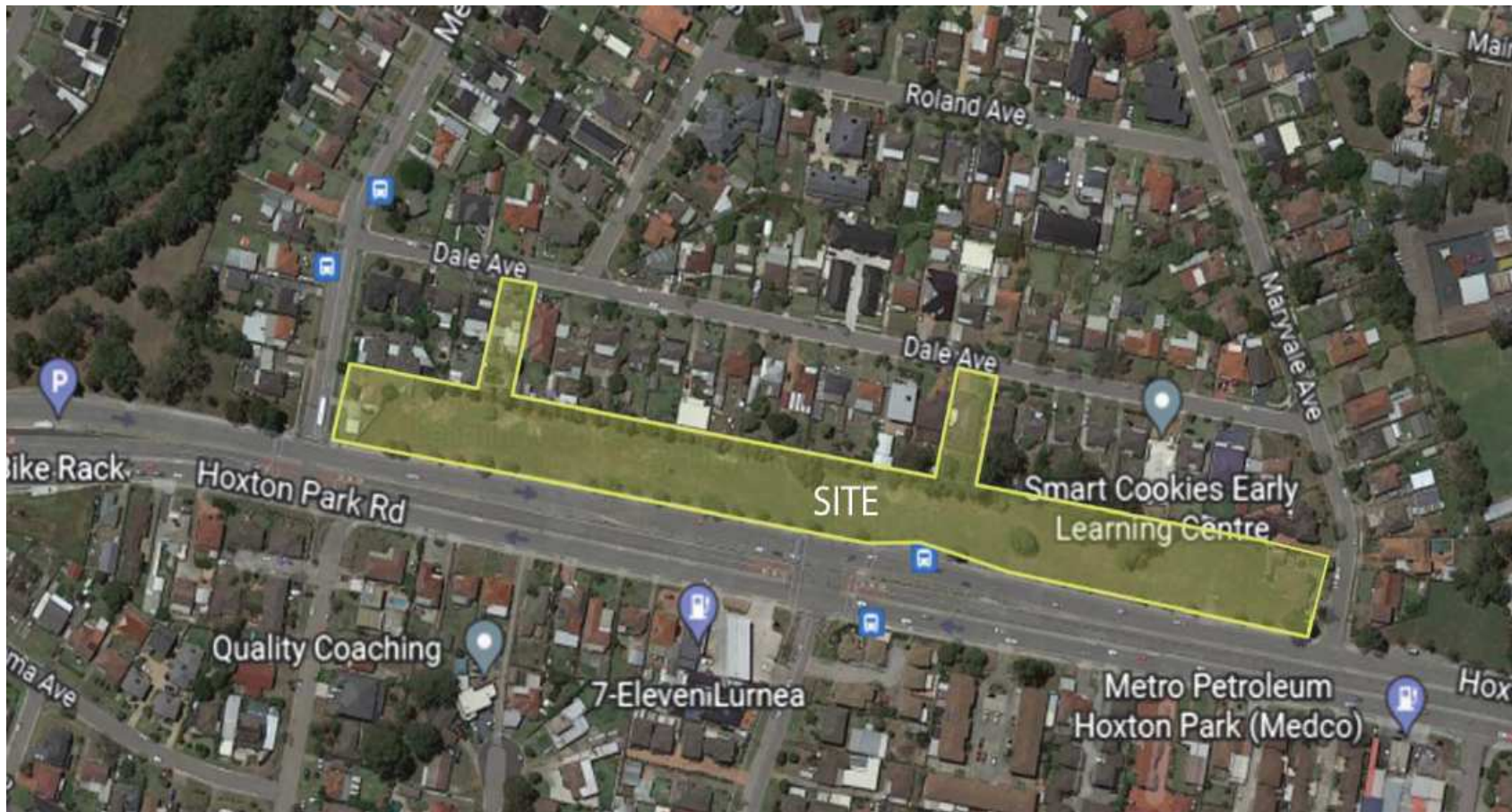


Figure 5 – Site Location Plan.



Figure 6 – Cadastre & Contour Plan showing the lot boundaries and contours.



Site Photograph 1 – Taken looking east from Hoxton Park Road



Site Photograph 2 – Taken looking west from Hoxton Park Road

4.0 BUSHFIRE PRONE LAND MAP.

The Liverpool Bushfire Prone Land Map records the bushland vegetation within the creek corridor to the northwest of the site as a narrow band of Category 1 Bushfire Prone Vegetation.

The buffer zone to the Category 1 Bushfire Prone Vegetation extends five (5) metres into the north-western corner of the site.

Figure 7 – Extract from the Liverpool Bushfire Prone Land Map





Photograph taken from Hoxton Park Road showing managed vegetation in reserve.



Photograph taken from Hoxton Park Road showing managed vegetation in reserve.

5.0 LEGISLATION.

The site is recorded on the Liverpool Bushfire Prone Land Map as containing the buffer zone Category 1 Bushfire Prone Vegetation within the reserve located to the northwest of the adjoining residential development. As the future development on the site will create the strata subdivision of the completed buildings, the Bushfire Prone Land Map affection triggers the requirements of the following Legislation:

1. Section 4.47 [Integrated Development] of the *Environmental Planning & Assessment Act 1979*;
2. Section 100B of the *NSW Rural Fires Act 1997*.

Section 4.47 of the *Environmental Planning & Assessment Act 1979* requires the issue of a 'Bushfire Safety Authority' from the Commissioner of the NSW Rural Fire Service, pursuant to Section 100B of the *Rural Fires Act 1997*.

The Commissioner of the NSW Rural Fire Service will not issue a *Bushfire Safety Authority* under Section 100B of the *Rural Fires Act 1997* unless the development complies with the bushfire protection measures identified within *Planning for Bushfire Protection 2019*.

These measures include the provision of:

1. Complying Asset Protection Zones – setback from unmanaged bushfire prone vegetation;
2. Complying access for fire-fighting operations;
3. Complying water supplies for fire-fighting operations;
4. Bushfire construction standards to buildings;
5. Landscape management – management of Asset Protection Zones; and
6. Emergency management – evacuation planning/management.

An examination of these bushfire protection measures for the site is provided in Section 7.0 of this report.

6.0 CONCEPT DESIGN

The Concept Design includes six (6), six storey mixed use towers with frontage to Hoxton Park Road. Vehicular access is via Dale Road – Refer to Figures 8 - 14.



Figure 8 – Concept Plan.



Figure 9 – Massing Diagrams.

7.0 EXAMINATION OF BUSHFIRE PROTECTION MEASURES.

7.1 Asset Protection Zones:

Asset Protection Zones are determined using the methodology provided in *Planning for Bushfire Protection 2019* which includes:

1. Determination of predominant bushfire prone vegetation within 140 metres of a development site;
2. The effective slope [defined as the slope which will create the most significant bushfire behaviour] of the land within 100 metres of the development.

The vegetation which creates the hazard to the site consists of the unmanaged vegetation within the riparian corridor to Maxwells Creek. This vegetation consists of remnant Riverine Forest and land that falls to the creek at less than five (5) degrees.

Table A1.12.5 of *Planning for Bushfire Protection 2019* identifies that the required width of Asset Protection Zone for Riverine Forest vegetation on land that falls to the creek at 0-5 degrees is 29 metres to achieve a construction standard of BAL 29.

Note: The vegetation within the riparian corridor has a width of less than 50 metres and is therefore deemed to be low hazard vegetation. For the purpose of determining the width of Asset Protection Zones the 50 metre wide vegetation in the riparian corridor can be reclassified as 'rainforest'

Table A1.12.5 of *Planning for Bushfire Protection 2019* identifies that the required width of Asset Protection Zone for Rainforest vegetation on land that falls to the creek at 0-5 degrees is 14 metres to achieve a construction standard of BAL 29.

The actual width of the Asset Protection Zone between the narrow corridor of unmanaged in the riparian corridor to Maxwells Creek and the northwest corner of the site is 95 metres – refer to Figure 10.

The Concept Plan locates the future residential flat buildings beyond the 100 metre wide buffer zone to the Category 1 Bushfire Prone vegetation.

Therefore, no bushfire construction standards apply to the future buildings.



Figure 10 – Extract from the Liverpool Bushfire Prone Land Map showing the 95 metre wide separation distance from the unmanaged vegetation in the Maxwells Creek riparian corridor and the northwest corner of the site.

Chapter 8.2.2 of *Planning for Bushfire Protection 2019* defines residential buildings which exceed three storeys in height as multi-storey buildings.

Whilst multi-storey buildings are required to comply with the performance criteria of Chapter 5 of *Planning for Bushfire Protection 2019*, the Rural Fire Service have identified the following issues that must be considered:

- Population – higher residential densities can pose issues for emergency management;
- Location – buildings located on ridgetops;
- Egress – increased demand on road infrastructure;
- Construction – higher external façade surface area that may be expected to bushfire attack. Balconies and external features can trap embers; and
- Height – can result in increased exposure to convective heat.

The future residential tower building located in the western portion of the site will be located more than 100 metres from the remnant vegetation in the unmanaged section of Maxwells Creek.

This separation lowers the radiant heat loading on the western elevation to less than 12.5 kW/m² and removes the chance of increased exposure to convective heat.

7.2 Access for fire-fighting operations:

Vehicular access to the tower blocks will be provided from Dale Avenue to basement carparking.

Pedestrian access will also be available via Dale Avenue and Hoxton Park Road.

Fire-fighting operational access is also available from Hoxton Park Road.

7.3 Water supply for fire-fighting operations:

A reticulated fire-fighting water supply will be installed, in accordance with the performance standards of AS 2419 .1 – 2005, complete with hydrant booster valves located at the driveway entries off Dale Avenue.

7.4 Construction Standards for Buildings:

As the future residential flat buildings will be located more than 100 metres from the unmanaged vegetation in the Maxwells Creek riparian corridor there is no requirement for the application of Bushfire Construction Standards as required by A.S. 3959 – 2018 – ‘Construction of Buildings in Bushfire Prone Areas’.

7.5 Landscape Management:

The creation and ongoing management of the landscaped gardens within the residential flat complex will be required to address the criteria of Appendix 4 of *Planning for Bushfire Protection 2018* and the NSW Rural Fire Service’s *Standards for Asset Protection Zones*.



Graham Swain,
Managing Director,

Australian Bushfire Protection Planners Pty Limited

25.02.2025

Fire Protection Association Australia Member No. 48781