

**SP**

**Sheridan Planning**

Rob's Cottage  
11 Woolcott Avenue  
Waverton NSW 2060  
Ph: 0408 655 088

Email:  
sheridan\_lynne@hotmail.com

abn: 11 071 549 561

## VOLUME 1

### PART 3A CONCEPT PLAN & DETAILED STAGE 1 PROJECT APPLICATION ENVIRONMENTAL ASSESSMENT REPORT



### PROPOSED RESIDENTIAL FLAT DEVELOPMENT AT 1, 1A AND 5 AVON ROAD, 4 AND 8 BEECHWORTH ROAD AND 1 ARILLA ROAD, PYMBLE

**SP**

**Sheridan Planning**

Rob's Cottage

11 Woolcott Avenue

Waverton NSW 2060

Ph: 0408 655 088

Email: sheridan\_lynne@hotmail.com

abn: 11 071 549 561

**PART 3A CONCEPT PLAN & DETAILED STAGE 1  
PROJECT APPLICATION  
ENVIRONMENTAL ASSESSMENT REPORT**

**PROPOSED RESIDENTIAL FLAT DEVELOPMENT  
AT  
1, 1A AND 5 AVON ROAD, 4 AND 8 BEECHWORTH  
ROAD AND 1 ARILLA ROAD, PYMBLE**

**SUBMITTED TO NSW DEPARTMENT OF PLANNING**

**ON BEHALF OF MR J. NEALE**

**SHERIDAN PLANNING  
NOVEMBER 2010**

### STATEMENT OF VALIDITY

This Environmental Assessment report has been prepared and submitted under Part 3A of the *Environmental Planning and Assessment Act 1979* (as amended) by:

**Name of Author:** Lynne Sheridan  
**Qualifications:** Town planner, Dip URP  
**Company:** Sheridan Planning  
**Address:** Rob's Cottage, 11 Woolcott Avenue  
Waverton, NSW 2060  
**Project Applicant:** Mr Jim Neale  
**Land to be developed:** No's 1, 1A & 5 Avon Road, No's 4 & 8 Beechworth Road  
and 1 Arilla Road, Pymble  
**Proposed Development:** Demolition of all existing buildings and structures and  
construction of a residential flat development comprising 5  
apartment buildings, associated basement parking and  
landscaping of the site.  
**Certificate:** I certify that I have prepared this Environmental  
Assessment report and, to the best of my knowledge, the  
content of this report is in accordance with the  
Environmental Planning and Assessment Act and  
Regulation.  
The content of this report is neither false in any material  
particulars nor is it intended to be misleading by virtue of  
the manner of the presentation of the information or any  
ommissions.

**Signature:**



**Name:** Lynne Sheridan  
**Date:** 30 November 2010



# Volume 1- Table of Contents

<b>1.0</b>	<b>Introduction.....</b>	<b>13</b>
1.1	Purpose of Report.....	13
1.2	Background to Project Application .....	13
<b>2.0</b>	<b>Site Analysis .....</b>	<b>16</b>
2.1	Local Context.....	16
2.2	Site Description.....	17
2.3	Surrounding Development .....	20
2.4	History of the Site.....	21
2.5	Response of Proposal to the Site Analysis.....	24
<b>3.0</b>	<b>The Proposal .....</b>	<b>26</b>
3.1	Options Analysis .....	26
3.2	Description of the Overall Concept Plan Proposal.....	26
3.3	Staging of Construction.....	27
3.4	Detailed Description of Stage 1 Proposal.....	28
3.5	Materials and Finishes .....	28
3.6	Landscape Design .....	29
3.7	Construction Management Plan .....	31
3.8	Energy Efficiency .....	31
3.9	Traffic Access and Parking .....	32
3.10	Solar Access.....	32
3.11	Acoustic Qualities .....	32
3.12	Accessibility .....	33
3.14	Flora and fauna.....	33
3.14	Heritage and Aboriginal Archaeology.....	33
3.15	Waste Management.....	34
<b>4.0</b>	<b>Relevant Environmental Planning Instruments &amp; Acts.....</b>	<b>36</b>
4.1	State Environmental Planning Policy No.53 - Metropolitan Residential Development (SEPP 53).....	36
4.2	State Environmental Planning Policy (Major Development) 2005.....	57
4.3	State Environmental Planning Policy (Infrastructure) 2007.....	58
4.4	State Environmental Planning Policy No.55 - Remediation of Land.....	58
4.5	State Environmental Planning Policy No.65 - Design Quality of Residential Flat Development .....	59
4.6	REP (Sydney Harbour Catchment) 2005 .....	59
4.7	Ku-ring-gai LEP (Town Centres) 2010 .....	59
4.8	Environmental Planning & Assessment Act, 1979.....	61
4.9	Water Management Act, 2000.....	62
<b>5.0</b>	<b>Relevant Strategies and Development Policies .....</b>	<b>64</b>
5.1	North Subregional Metropolitan Strategy .....	64
5.2	NSW State Plan (2009).....	65
5.3	Urban Transport Statement.....	65
5.4	Planning for Bushfire Protection 2006.....	66
5.5	Development Near Rail Corridors and Busy Roads Interim Guidelines .....	67
5.6	Ku-ring-gai DCP 2010.....	68

5.7	Local Development Contributions .....	76
<b>6.0</b>	<b>Director General's Requirements .....</b>	<b>78</b>
<b>7.0</b>	<b>Consultation .....</b>	<b>81</b>
7.1	NSW Department of Planning .....	81
7.2	Ku-ring-gai Council .....	81
7.3	Rail Corp.....	81
7.4	NSW Dept of Environment, Climate Change and Water.....	82
7.5	Neighbouring Residents.....	83
7.6	Consultation Strategy.....	83
<b>8.0</b>	<b>Environmental Assessment .....</b>	<b>84</b>
8.1	Planning and Policies.....	84
8.2	Built Form .....	84
8.3	Urban Design.....	85
8.4	Orphan Sites.....	87
8.5	Aboriginal Heritage and Archaeology .....	88
8.6	Transport, Parking and Access .....	89
8.7	Streetscape and Public Domain .....	90
8.8	Views .....	90
8.9	Overshadowing .....	90
8.10	Privacy .....	91
8.11	Heritage .....	91
8.12	Bushfire.....	93
8.13	Flora and Fauna.....	94
8.14	Landscape .....	95
8.15	Stormwater / Flooding / Hydrological Issues.....	97
8.16	ESD .....	97
8.17	Rail Impacts .....	98
8.18	Geotechnical Impacts.....	98
8.19	Construction Impacts .....	99
8.20	Utilities.....	99
<b>9.0</b>	<b>Draft Statement of Commitments.....</b>	<b>100</b>
<b>10.0</b>	<b>Conclusion.....</b>	<b>101</b>

## List of Figures

- Figure 1** Location Plan
- Figure 2** Aerial Photograph of the site (c.2008)
- Figure 3** Aerial Photograph of the site (May 1951)
- Figure 4** Building Envelope Control Drawings from Ku-ring-gai Sites Report



## List of Schedules

<b>Schedule 1</b>	<b>Schedule 1 Unit Mix</b>
<b>Schedule 2</b>	<b>Schedule 2 GFA</b>
<b>Schedule 3</b>	<b>Schedule 3 Carparking and Bicycle Provision</b>

## List of Tables

<b>Table 1</b>	Site Description and site areas
<b>Table 2</b>	Materials and Finishes Schedule for Stage 1
<b>Table 3</b>	SEPP 53 Compliance Table
<b>Table 4</b>	Ku-ring-gai Sites Report Compliance Table
<b>Table 5</b>	Section 94 Contributions
<b>Table 6</b>	Assessment against requirements of DGR's

## Appendices

<b>Appendix 1</b>	Director General's Requirements (DGR's)
<b>Appendix 2</b>	Survey Plan including railway infrastructure
<b>Appendix 3</b>	Photographs of the Site and Surrounds
<b>Appendix 4</b>	Site Analysis Plan
<b>Appendix 5</b>	Locality/Context Plan
<b>Appendix 6</b>	Options and Alternatives Analysis
<b>Appendix 7</b>	Design Statements for Concept Plan and Stage 1
<b>Appendix 8</b>	Overall Concept Plan Drawings
<b>Appendix 9</b>	Detailed Stage 1 Drawings
<b>Appendix 10</b>	Construction Management Plan
<b>Appendix 11</b>	Photomontages

## Volume 2

<b>Appendix 12</b>	Basix Assessment/ Certificate
<b>Appendix 13</b>	Stormwater Drainage and Flood Report and Stormwater Plans
<b>Appendix 14</b>	Erosion and Sedimentation Control Plans
<b>Appendix 15</b>	Geotechnical Report
<b>Appendix 16</b>	Utility Services Consultation
<b>Appendix 17</b>	Landscape Plans
<b>Appendix 18</b>	Vegetation Management Plan

<b>Appendix 19</b>	Shadow Diagrams for Overall Concept and Stage 1
<b>Appendix 20</b>	Elevational Shadow Diagrams
<b>Appendix 21</b>	Arborist's Report
<b>Appendix 22</b>	Statement of Heritage Impact
<b>Appendix 23</b>	Aboriginal Report

## **Volume 3**

<b>Appendix 24</b>	Flora and Fauna Assessment Report
<b>Appendix 25</b>	Bushfire Hazard Assessment Report
<b>Appendix 26</b>	Traffic and Parking Report
<b>Appendix 27</b>	Soil Contamination Report
<b>Appendix 28</b>	Acoustic Assessment Report
<b>Appendix 29</b>	Quantity Surveyor's Certificate
<b>Appendix 30</b>	History of Consultation with Ku-ring-gai Council
<b>Appendix 31</b>	Minutes of meeting with Railcorp
<b>Appendix 32</b>	Consultation Strategy
<b>Appendix 33</b>	Waste Management Plan
<b>Appendix 34</b>	Access Report
<b>Appendix 35</b>	Floor space Ratio Schedule and Diagrams
<b>Appendix 36</b>	Statutory Declarations from Mr Jim Neale
<b>Appendix 37</b>	Orphan Sites Analysis
<b>Appendix 38</b>	Statement of Commitments

## Preamble

### Part 3A – State Significant Development

On 9 June 2005 the NSW Parliament passed the Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Bill. This contained key elements of the NSW Government's planning system reforms through major changes to both plan-making and major development assessment. A key component of these amendments was the insertion of a new Part 3A (Major Projects). One of the aims of Part 3A is to facilitate major project and infrastructure delivery and encourage economic development, while strengthening environmental safeguards and community participation

On 1 August 2005 the Part 3A and related provisions commenced. Part 3A applies to major State government infrastructure projects and development previously classified as State significant.

The subject Project Application is submitted under the terms of Section 75E of the *Environmental Planning and Assessment Act 1979*, as amended (EPA Act).

**The proposed development of the subject site for residential flat housing is consistent with the objectives of Part 3A which are to encourage major projects considered to be of State Significance.**

### Environmental Planning and Assessment Act Objectives:

The subject application will '*promote the orderly and economic use and development of land*', which is consistent with the objects of the Environmental Planning and Assessment which are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,

(ii) the promotion and co-ordination of the orderly and economic use and development of land,

(iii) the protection, provision and co-ordination of communication and utility services,

(iv) the provision of land for public purposes,

(v) the provision and co-ordination of community services and facilities, and

(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and

(vii) ecologically sustainable development, and

(viii) the provision and maintenance of affordable housing, and

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and



*(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

**Urban Consolidation and the need for affordable housing in NSW:**

The NSW government has adopted planning policies and initiatives, to meet the current shortage in the supply of housing in NSW and to encourage/achieve urban consolidation. The government sees urban consolidation as a means of achieving a number of environmental objectives, these being: reduced competition for land; lower energy use; reduced greenhouse gas emissions from transport, reduction in waste generation and improved health of citizens through an increase in cycling and walking.

As acknowledged by the NSW State Government, there is a shortage in housing across the State. The report by the National Housing Supply Council estimates a shortfall of 178,400 properties across the country, a gap projected to grow to 308,000 within five years and 640,600 by 2028. This housing shortfall is predicted to grow. Using estimates from the Planning Department, the National Housing Supply Council report predicts about 237,400 properties will be built in Sydney in the next decade - the same number of properties likely to be built in Brisbane and the Gold Coast, and 120,000 fewer than in Melbourne.

A recently released State of Supply report, acknowledges government progress in attempting to increase construction of low-cost and social housing, but says these will be insufficient to fully help those struggling with high housing costs. It notes *"These actions will take time to be fully effective and will require significant additional capital and recurrent expenditure to address the full extent of the deficit at the lower end of the housing market"*.

The shortfall in housing supply is mainly the result of faster than expected population growth since the middle of 2005.

**The proposed residential flat development on the subject site will provide in the order of 355 units which will assist in meeting the current housing shortage in NSW, consistent with State government planning objectives to increase housing stock in the Sydney Metropolitan Region; and increase the affordability of housing.**

## Executive Summary

This Environmental Assessment report (EA) is submitted to the NSW Department of Planning in support of a Project Application (PA) under Part 3A of the Environmental Planning and Assessment Act, 1979, for the construction of a residential flat development at the subject site, which is comprised of No's 1, 1A & 5 Avon Road, No's 4 & 8 Beechworth Road and, No 1 Arilla Road (the site).

There are two distinct elements encompassed within this Project Application as follows:

- An overall Concept Plan for the development of the entire site, comprising five residential flat buildings;
- Detailed plans for the construction of Stage 1 of the development, comprising a 4-6 storey residential flat building over basement parking.

This Environmental assessment report addresses the Director General's Requirements issued in relation to the site.

### Subject Site

The site is made up of several parcels of land including the following:

- Lot 1, DP 583803 (1 Avon Road);
- Lot 2, DP 583803 (1A Avon Road);
- Lot 2, DP 205504 (5 Avon Road);
- Lot 7, DP 15541 (1 Arilla Road);
- Lot 1, DP 403072 (4 Beechworth Road);
- Lot 3, DP 403072 (8 Beechworth Road)

The site is located within the residential block bounded by the North Shore Railway, Avon Road, Arilla Road, Mayfield Avenue and Beechworth Road. It is located on the western side of Avon Road between Pymble Avenue and Arilla Road.

The site is extremely well located in close proximity to public transport (being 5 minutes walk to the Railway station) and also various shopping and recreation facilities.

### Proposal

Approval is sought to demolish all of the existing structures on the site and construct a residential flat housing development comprising of the following:

- Construct five (5) residential flat buildings in five separate stages on the subject site varying in height from a minimum of 2 storeys to a maximum of 11 storeys. The maximum RL of the tallest element of the development is RL 172.0. Further detail is illustrated in architectural plans prepared by Ancher Mortlock Woolley, dated 17 November 2009, reduced copies are attached in **Appendix 8 and 9**.
- Remove all weeds and noxious species from the site and establish a modified and managed "riparian zone" adjacent to a drainage corridor that bisects the site. Re-plant the drainage corridor with native riparian species; and other available deep soil planting areas with species consistent with the Blue Gum High Forest ecological



community. Details are included in the submitted Vegetation Management Plan (attached as **Appendix 18**) and landscape plans (attached as **Appendix 17**).

### **Consultation**

Consultation has been undertaken with various stakeholders, which has guided the process and the design of the development. During the preparation of the application, State and local agencies were contacted for comments and input into the proposal. Comments from those agencies who responded have been addressed in the EA or the design of the proposal.

Further consultation can take place as part of the formal exhibition of the Project Application under Part 3A of the Act, as detailed in the Consultation Strategy which is included in **Appendix 32**.

### **Design Considerations**

The proposed development will have positive social and economic impacts on the local and wider area. Careful design consideration has resulted in a development that is consistent with the other recently constructed residential flat housing developments in the near vicinity of the site.

The design of the development is consistent with the relevant provisions of SEPP 65 and the Kuring gai Town Centres LEP.

The key issues identified by the Director General have been addressed. In this respect:

- the proposed development is generally consistent with the planning controls for the site;
- Due consideration has been given the potential impacts caused by the railway line that is located adjacent to the subject site and recommendations made in that respect;
- The built form, bulk and urban design of the project has been carefully considered and assessed, particularly in the context of its relationship to the public domain and surrounding development;
- The provisions of the required services and facilities under Section 94 of the Environmental Planning and Assessment Act, 1979, has been acknowledged and considered.

### **Draft Statement of Commitments**

The draft Statement of Commitments contains all the necessary identification of issues and mitigation measures to be implemented during the construction phase. This has been prepared as a requirement by the Director General but also in recognition that such considerations need to be made to minimise any adverse impacts associated or arising from construction activities on the site.

### **Conclusion**

This Environmental Assessment concludes that the proposed development is well designed and a well conceived response to all relevant planning controls, constraints and opportunities presented by the site. The proposal is also in the public interest as it will provide for greater housing supply and choice in an area which has good proximity to a range of shops, facilities and public transport links.



In summary the proposed development results in a development that is in the public interest and is compliant with the requirements of the relevant planning controls for the site. The report addresses all the Director General's Requirements.

The EA concludes that proposed development should receive endorsement from the Department of Planning in the form of an approval.

# 1.0 Introduction

## 1.1 Purpose of Report

This Environmental Assessment report (EA) is submitted to the NSW Department of Planning in support of a Project Application (PA) for the construction of a residential flat development at the subject site, which is comprised of No's 1, 1A & 5 Avon Road, No's 4 & 8 Beechworth Road and, No 1 Arilla Road (the site).

There are two distinct elements encompassed within this Project Application as follows:

- An overall Concept Plan for the development of the entire site for residential flat housing, including five residential flat buildings;
- Detailed plans for the construction of Stage 1 of the development, comprising a 4-6 storey residential flat building over basement parking.

This EA has been prepared by Sheridan Planning on behalf of Mr Jim Neale, based on architectural plans provided by Ancher/Mortlock/Woolley Pty Ltd (AMW) and supporting technical documents.

The redevelopment of the site is identified as a Part 3A Project pursuant to Section 6(1)(a) of *State Environmental Planning Policy (Major Development) 2005*. This Project Application is submitted under the terms of Section 75E of the *Environmental Planning and Assessment Act 1979*, as amended (EPA Act).

The Director General of the Department of Planning issued environmental assessment requirements (DGR's) for the project on 11 February 2009. A copy of the DGR's is contained in **Appendix 1**.

For a full description of the proposal refer to **Section 3.0** of this report.

The purpose of this EA is to provide a detailed description of the proposal and to provide a detailed environmental assessment of this proposal in accordance with the DGR's.

This report should be read in conjunction with the documentation listed in the appendices.

## 1.2 Background to Project Application

There is a long history to the subject site and the lead up to this Project Application.

The original site, which was smaller than the current development site, was purchased as a residence by the current owner in 1978. At this time, the property was zoned Residential 2(c) under the Ku-ring-gai Planning Scheme Ordinance (KPSO). This zoning remains the current zoning of the property.

In 1979, a conventional subdivision was approved by Ku-ring-gai Council. Following detailed investigations of the works required to carry out the subdivision and preparation of building footprints and access, the owners decided not to proceed with this approved subdivision. This decision was made as it had become clear to the owners that the required subdivision works, including tree removal and impacts on the creek bisecting the site, would not be the most desirable environmental solution for the future of the site. Instead of carrying out this subdivision, the owners decided to



apply to have the property rezoned to permit medium density residential development. This manner of development was considered to be better suited to the site as it permitted more flexibility in design and would minimise the potential total building footprint of the future development, as well as allow for greater retention of significant native trees. This form of development would also create an opportunity for undertaking weed removal, native tree and understorey planting and re-establishment of the riparian zone adjacent to the creek.

During the early 1980's, ongoing discussions between the owners and Ku-ring-gai Council officers and various mayors continued, during which, a number of proposals for the redevelopment of the site were put forward. None of the options discussed progressed, largely because the floor space ratios (FSR's) being proposed were considered to be beyond FSR's of any developments being constructed within Ku-ring-gai at that time and beyond the permitted maximum FSR of the zoning.

Following the refusal by Ku-ring-gai Council of a development proposal applying to adjacent properties at 2-10 Beechworth Road under State Environmental Planning Policy No.5 - Housing for Aged or Disabled Persons (SEPP 5), No.10 Beechworth Road was subdivided under the conventional Council requirements for single dwellings. The resultant development has removed all of the existing trees from the site and provides a good illustration of the poor environmental outcomes that can result from this form of low density development. The problem arises from the need to provide separate access, parking, building footprints, and associated swimming pools and tennis courts, for a number of single dwellings on separate parcels of land. Tree retention is far more difficult under such circumstances.

In 1991, the Deputy Director of the Department of Urban Affairs and Planning chaired a meeting between the applicant and Ku-ring-gai Council officers. Council was advised to provide the applicant with its requirements for rezoning the land. The applicant received this advice from Council and undertook the necessary studies. During this time, an additional 4 adjacent sites were included into the development site. A rezoning application was submitted to Ku-ring-gai Council in 1995. The rezoning proposal was exhibited in May 1997 and public opposition was high. A mediation process was undertaken and an independent internal Council staff working party was set up in 1998 to consider the matter.

On 3 December 1998, a detailed report from the working party recommended rezoning to permit medium density housing of up to 6 storeys at a floor space ratio of 0.85:1. Heritage conservation incentives were also recommended to encourage the retention of existing heritage buildings. The floor space of the heritage buildings was not recommended to be counted in the permitted maximum 0.85:1 FSR, resulting in a higher actual FSR being possible. The preparation of a site specific development control plan was also considered by Council. In a split vote, the Council rejected the proposal. Council rejected the rezoning because it had followed a specific application and was not part of the Residential Strategy. The site had been excluded from the MDS study by the Chief Town Planner expressly because it was the subject of a specific application.

Following this decision, Council refused to give the rezoning of the site any further consideration on the grounds that it had already made its decision based on detailed advice and information. In 2002, the subject site was considered to be of such significance by the Minister for Urban Affairs and Planning that it was included as a targeted site for residential flat housing under SEPP 53.



In 2005, State Environmental Planning Policy (Major Projects) 2005 (Major Projects SEPP) was gazetted. This environmental planning instrument identified the subject site as a State significant site under Part 3A of the EPA Act, which had also been introduced in 2005.

In 2008, the applicant commissioned an architect to draft preliminary concept plans for a multi-unit housing development on the site. The concept plans included 2 options for the site including one option with 9 buildings to a maximum height of 8 storeys and another option with 5 buildings to a maximum height of 15 storeys. The views of the Ku-ring-gai Planning Panel and Ku-ring-gai planning staff were sought in relation to these schemes on 27 August 2008.

In September 2008, the architect for the applicant wrote to the Department of Planning requesting that Director General's Requirements (DGR's) be issued for the development. The DGR's were subsequently issued, after the relevant consultations were undertaken by the DOP, on 11 February 2009. The current proposal, the subject of this application, is the result of a new team of consultants commissioned in June 2009, as well as further consultation with the DOP.

In May 2010 the Ku-ring-gai Town Centres LEP 2010 was gazetted which applies to the subject site

## 2.0 Site Analysis

### 2.1 Local Context

Pymble is located at the centre of the Ku-ring-gai municipality and approximately 16km north-west of the Sydney CBD. It has a small town centre with retail and commercial buildings located on either side of Pymble Railway Station along Grandview Parade and Pacific Highway. The commercial uses extend south-east along Pacific Highway to link up with an industrial area along Ryde Road and also link up with the town centre at Gordon. Although there have been apartment buildings in Pymble since the 1960's, in recent years, there has been a significant increase in the construction of multi-storey apartment buildings in Pymble and adjacent suburbs, predominantly along or near Pacific Highway. The recently exhibited Ku-ring-gai Town Centres DCP includes provisions that will permit the Pymble town centre to be developed with mixed development buildings of 4-5 storeys in height.

Recently constructed apartment developments in Pymble and in reasonable proximity to the site include the "Ironbark" development at 2 Avon Road and the Clyde Gardens and Avondale developments in Clydesdale Place.

Pacific Highway follows the major ridgeline in the area. As a consequence of this, some of the land in Pymble adjacent to or near Pacific Highway is sufficiently elevated to allow for good views of the district and distant views of the Sydney CBD to the south-east.

Major landmarks near the subject site include the North Shore Railway to the north-east and Pymble Ladies College (PLC) school grounds to the east and south-east. Single dwelling houses of 1 and 2 storeys on larger single blocks of land typify development to the west and south of the site. This is a reflection of the Residential 2(c) zoning (under the KPSO) of the residential land in this area, which has applied to residential properties in this locality for the last 30 years. Due to more recent zoning changes and SEPP 53, recently constructed high density apartment buildings become more dominant to the east of the site along Avon Road, north of the railway and along Pacific Highway.

The major intersections with Pacific Highway in the locality are at Beechworth Road and Livingstone Avenue. Avon Road follows the northern and western boundaries of PLC and, along with other small local roads (ie Arilla Road, Mayfield Avenue and Everton Street), provides a link between Livingstone Avenue, Beechworth Road and the Pacific Highway.

The area is generally heavily treed with denser clusters of larger trees on larger residential blocks, on the subject site, within the road and railway reserves and on residual land in the PLC school grounds. Where land has been subdivided in accordance with the applicable provisions under the Residential 2(c) zoning, larger trees occur in more broken up pockets and are generally less numerous.

With the notable exceptions of PLC School and the 6 storey apartment development under construction at 2 Avon Road, the area is mainly characterised by generously proportioned residential blocks with single family dwellings of one and two storeys. Battle axe style subdivisions are common utilising the generous depth of these blocks by developing the rear. Arilla Road and Beechworth Road also have a similar single dwelling character with generally smaller allotment sizes than Avon Road.



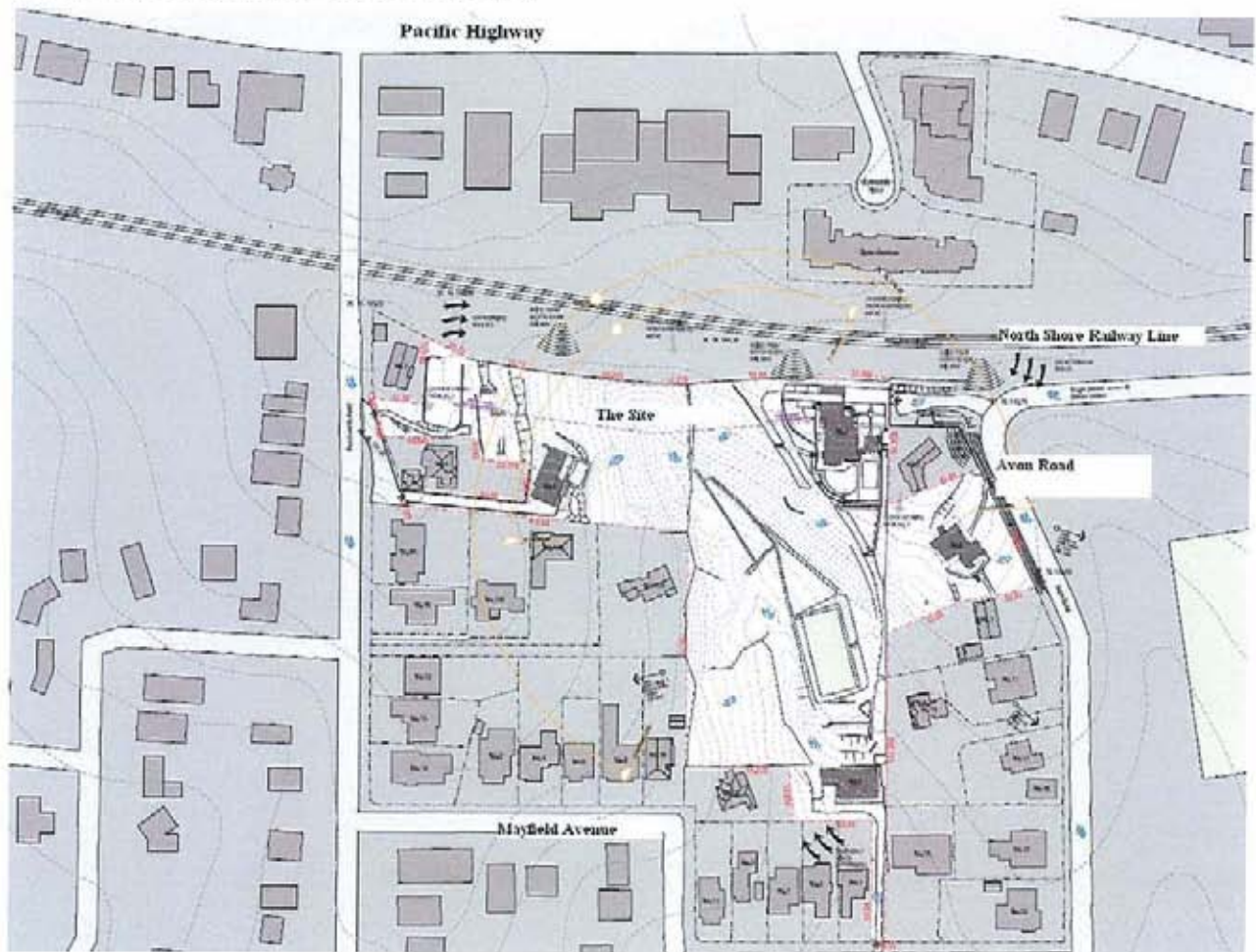
## 2.2 Site Description

The site is shown in the Site Analysis Plan, a reduced copy of this plan is attached to this report as **Appendix 4**. The site is made up of several allotments of land including the following:

**Table 1 Site Description and site area**

Lot/DP	Address	Site Area sq m
Lot 1 DP 583803	1 Avon Road	2356
Lot 2, DP 583803	1A Avon Road	11,934
Lot 2, DP 205504	5 Avon Road	2807
Lot 7 DP 15541	1 Arilla Road	1284
Lot 1, DP 403072	4 Beechworth Road	2067
Lot 3, DP 403072	8 Beechworth Road	4503
Total		<b>24,951</b>

The site is located within the residential block bounded by the North Shore Railway, Avon Road, Arilla Road, Mayfield Avenue and Beechworth Road. The site is located on the western side of Avon Road between Pymble Avenue and Arilla Road. The site location is shown in **Figure 1** below.



**Figure 1:** Location Plan



The site is irregular in shape, with frontages to Avon Road, Arilla Road and Beechworth Road. The primary frontage of the site is located on Avon Road. The site also shares a common boundary with the North Shore Railway reserve. It has a total area of 24,951 m<sup>2</sup>. A survey of the site is attached as **Appendix 2**.

The site is bisected by a small, drainage line and valley that runs in a north-south direction. The site has a variable slope with flatter areas toward Avon Road and Beechworth Road. The topography in the centre of the site is much steeper, falling from the east and west to the central valley. There is also a gradual fall in the topography generally to the south toward Arilla Road and beyond. The drainage corridor that originates in the site is conducted via a drainage channel, culvert and pipe, underneath Arilla Road and its course continues across the rear of several parcels of private land fronting Avon Road, Barclay Close and Lonsdale Avenue to eventually drain into a man-made dam in Avondale Golf Course and subsequently Lane Cove River. Part of this drainage line, downstream from the site has been piped underneath a residential subdivision of part of Avondale Golf Course carried out in the 1980's.

Although the site has previously been cleared it is currently very heavily vegetated and overgrown with a number of noxious weed species including Morning Glory, Lantana, Wandering Jew, Japanese Honeysuckle, Blackberry and Small & Large Leafed Privet. Native vegetation that still exists on the site includes mostly Sydney Blue Gum with some Blackbutt and Sydney Red Gum (Smooth-barked Apple). A number of the mature native trees on the site are between 35m and 50m in height. This height would be equivalent to 12-16 storey buildings. Some native fern species still exist in the understorey. The submitted Flora and Fauna Assessment prepared by Aquila Ecological Surveys has identified that the original native vegetation on the site is likely to have been Blue Gum High Forest (BGHF) although it has been previously cleared, is now highly modified and does not have characteristic native plant species present in all structural layers. Furthermore, it has been identified that, due to existing and likely continued weed infestation, the remnant BGHF is unlikely to be viable in the long term without significant intervention through continued weeding and ongoing management.

No's 1 & 1A Avon Road make up the major parcel in the site and are occupied by a painted brick and sandstone/ part 1 /part 2 storey residence that is divided into a number of separate domiciles. The roof is predominately slate and the building is generally in a dilapidated condition. There is also a painted brick and slate roofed garage with a gravel driveway connecting to Avon Road at the point at which it turns a 90 degree corner. The dwelling is listed as a heritage item under Schedule 7 of the KPSO. However, it has not been listed as a heritage item under the recently gazetted Town Centres LEP. Thus, when this planning instrument is gazetted, it will no longer have heritage item status. The front garden is bounded by a stone wall to the street frontage. There is an in-ground swimming pool to the rear of the dwelling. Behind the dwelling, the property falls down to a small intermittent creek that bisects the site. The only flat area on the site is an unused tennis court at the southern end of this property.

No.5 Avon Road has a frontage of 56.59m to Avon Road and contains a brick and weatherboard cottage.

No. 1 Arilla Road has limited frontage to Arilla Road via a 6.03m wide access handle. This property contains a 2 storey brick dwelling house with an iron roof. The path of the creek that bisects the development site ends at this property with a stone channel and culvert that conducts the path of the creek under Arilla Road to private land on



the southern side of Arilla Road. The existing house, garage and driveway are located immediately adjacent to the banks of the stone channel. The creek is not in what could be considered to be a "natural state" having been significantly altered to accommodate the existing dwelling and driveway at 1 Arilla Road.

No.4 Beechworth Road is occupied by a painted brick and tile dwelling house that was under demolition at the time of the writing of this report. This property has a frontage of 15.87m to Beechworth Road, widening out at the rear.

No.8 Beechworth Road has a frontage of 6.73m to Beechworth Road via an access handle that runs along the southern boundary to 6 Beechworth Road. It is occupied by a part 1 / part 2 storey brick and tile dwelling house.

An aerial photograph of the site and its surrounds is shown below in **Figure 2**.

**Figure 2** Aerial Photo of the subject site



With regard to the applicable planning provisions, the subject site is zoned High Density Residential R4 under the Ku-ring-gai LEP 2010. This zoning is the current zoning of the property. However, residential flat housing originally became permissible on the site in 2002 pursuant to the provisions of Amendment 7 to SEPP 53. The building envelopes for the development of the site with residential flat housing was first illustrated in the Ku-ring-gai Reference Plan and the document known as *"Development Controls and Design Guidelines - Six SEPP 53 Sites in Ku-ring-gai"* prepared by UDAS and dated January 2003 (Ku-ring-gai Sites Report) were developed at this time.



The density changes of properties located on Pacific Highway or near transport hubs that were brought about by Ku-ring-gai LEP 194 and the commencement of the operation of the Ku-ring-gai Planning Panel and their development of the recently gazetted Ku-ring-gai Local Environmental Plan (Town Centres) 2010 (Town Centres LEP) have influenced change in more recent times in the planning provisions governing the density and height of sites such as the subject site.

## **2.3 Surrounding Development**

Although the development site is contiguous, it surrounds and isolates two parcels of land that are not a part of the site and are not in the same ownership.

The property at 3 Avon Road is a single parcel of land that is bounded by Avon Road to the north and east and is bounded by the development site to the south and the west. 3 Avon Road contains a single storey brick and tile dwelling house and an in-ground swimming pool. The owner of this property refused to take part in investigations that were carried out by the Urban Design Advisory Service (UDAS) in developing the subject site for residential flat housing and listing the site as a targeted site under SEPP 53. Consequently, this property is not listed together with the proposed development site as part of "Site 2" identified under Schedule 4 of SEPP 53. It is also not listed under the Ku-ring-gai Sites Report. Notwithstanding, it is noted that the recently gazetted Town Centres LEP zones this property R4 High Density Residential. Under this zoning, residential flat housing is permissible on this site.

Another property that is not a part of the development site but is surrounded and isolated by the development site is No. 6 Beechworth Road. This property contains a 2 storey rendered masonry dwelling house with a slate and iron roof and a garage. No agreement has been reached between the developer and the owner of this property to incorporate this site into the development site. Unlike No.3 Avon Road, this property has been included within "Site 2" under Schedule 4 of SEPP 53. It is also included in the Ku-ring-gai Sites Report. Given this, the design of the current proposal has left curtilage area within the development site that is immediately adjacent to this property and could potentially be amalgamated with this property to allow for a potential residential flat housing development in the future. Due to this provision, it is not considered that the future development potential of 6 Beechworth Road is unreasonably inhibited by the subject proposal.

Adjoining the north-eastern boundary of the subject site is the North Shore Railway Reserve, which includes a number of trees planted adjacent to the common boundary between the railway land and the subject site. Also adjoining the north-eastern boundary of the site is No.2 Beechworth Road, containing a single storey brick dwelling house and free standing garage. This property has been included within "Site 2" under Schedule 4 of SEPP 53. It is also included in the Ku-ring-gai Sites Report. Given this, the design of the current proposal has left curtilage area within the development site that is immediately adjacent to this property and could potentially be amalgamated with this property to allow for a potential residential flat housing development in the future. Due to this provision, it is not considered that the future development potential of 2 Beechworth Road is unreasonably inhibited by the subject proposal. There may also be potential for 2 and 6 Beechworth Road to be developed together with a reconfiguration of the driveway to the Stage 5 apartment building in the subject site.



Adjoining the south-eastern boundaries of the subject site are a number of residential properties with single dwellings including 3 Avon Road, as discussed above, also the following properties:

- 7 Avon Road containing a 2 storey brick dwelling-house and garage;
- 15 Avon Road, a battle-axe block containing a part 1 / part 2 storey brick dwelling-house;
- 1A Arilla Road, containing a disused tennis court.

Adjoining the southern boundary of the subject site are the following properties:

- 3 Arilla Road, containing a single storey brick dwelling-house;
- 5 Arilla Road, containing a 2 storey rendered masonry dwelling-house;
- 7 Arilla Road, containing a dwelling house;
- 12 Mayfield Avenue, containing a 2 storey rendered masonry dwelling-house;
- 8A Beechworth Road, containing a 2 storey dwelling house;
- 10C Beechworth Road, containing a 2 storey dwelling house;
- 10B Beechworth Road, containing a 2 storey rendered masonry dwelling-house;
- 10A Beechworth Road, containing a 2 storey brick dwelling-house

Adjoining the western boundary of the subject site is No.10 Mayfield Avenue, containing a 2 storey brick dwelling-house and a free standing brick garage. Some of the adjoining properties share more than one common boundary with the subject site.

## 2.4 History of the Site

Much of the information in this section of the report is taken from the Statement of Heritage Impact prepared by Rappoport Pty Ltd and attached as **Appendix 22**.

From the early nineteenth century, the major industry in the area was timber getting and this continued until from c.1805 until the 1840's. The subject site is part of an 1821 grant to William Wright, which was eventually transferred to Richard Porter in 1855. Richard Porter planted an orange and apricot orchard on land including the subject site. In the 1870's and 1880's, Richard Porter divided his land equally between his five sons. His eldest son, Richard Joseph Porter, was granted the portion containing the 1 & 1A Avon Road, 1 Arilla Road and 12 Mayfield Avenue. Richard Porter's second son, Thomas Robert Porter received the parcel of land containing 5 Avon Road and most of the land fronting onto Avon Road. The cultivation of land in the Porter's property as orchards appears to have continued in this period. Anecdotal evidence from the current owner suggests that the Porters also operated a dairy in the area. A dairy operated in the area further south down Avon Road until as recently as the early 1970's.



Prior to European settlement, it is likely that the subject site was vegetated with Sydney Blue Gum High forest. It is likely that much of the BGHF vegetation was cleared by timber getters and by the Porters for orchards and grazing area in the nineteenth century. In 1890, the North Shore Railway was opened and extended from Hornsby to St Leonards. It required a significant cut in the land immediately to the north of the site.

In 1898, Thomas Porter sold the part of his land containing 5 Avon Road to Archibald Stobo, who built the cottage known as "Selcote" in c.1900. As described in the attached Statement of Heritage Impact in **Appendix 22**, this house has been significantly modified over the years and is in a structurally unsound and fire damaged condition.

In 1904, Edmund James Lamb acquired Richard Joseph Porter's share of his father's estate including the land on which the house at 1 Avon Road is now situated. Edmund Lamb built and occupied the house at 1 Avon Road from c.1901 until c.1920. He subdivided this land in c.1915. The house was transferred to Albert Newlands in 1920 and was sold to James Fraser, Chief Commissioner for Railways, in 1923. Fraser made additions to the house in 1923.

In the mid to late 1930's, 1 Avon Road was acquired by Arthur Ernest Dent. In 1938, Dent lodged a building application for alterations and additions incorporating brick walls and roof tiles. It is likely that Dent, who worked at the Northern Suburbs crematorium, constructed the stone retaining walls along the northern boundary of the property and the exotic gardens, remnants of which are still evident on the site. The style of the stonework and gardens on the site reflects the style found in the Northern Suburbs Crematorium. There is only 1 Sydney Blue Gum tree that would appear to pre-date the 1930's surviving on the site today. It is identified as Tree 110 in the arborist's report attached as **Appendix 21** and it is proposed to be retained. It is likely that more BGHF vegetation, if it had regrown from the time of the Porter's occupation and clearing or still existed on the site in the 1930's, would have been removed by Mr Dent to construct his exotic gardens and orchards. Anecdotal evidence from the current owner of the site suggests that Mr Dent planted a grove of Sydney Blue Gums along the northern boundary of his property in the 1930's to protect his orange orchard. The tennis court on the site is likely to have been constructed by the Dents in the period of their occupation. It involved a fair amount of earthworks including cut and fill in order to create the existing level area.

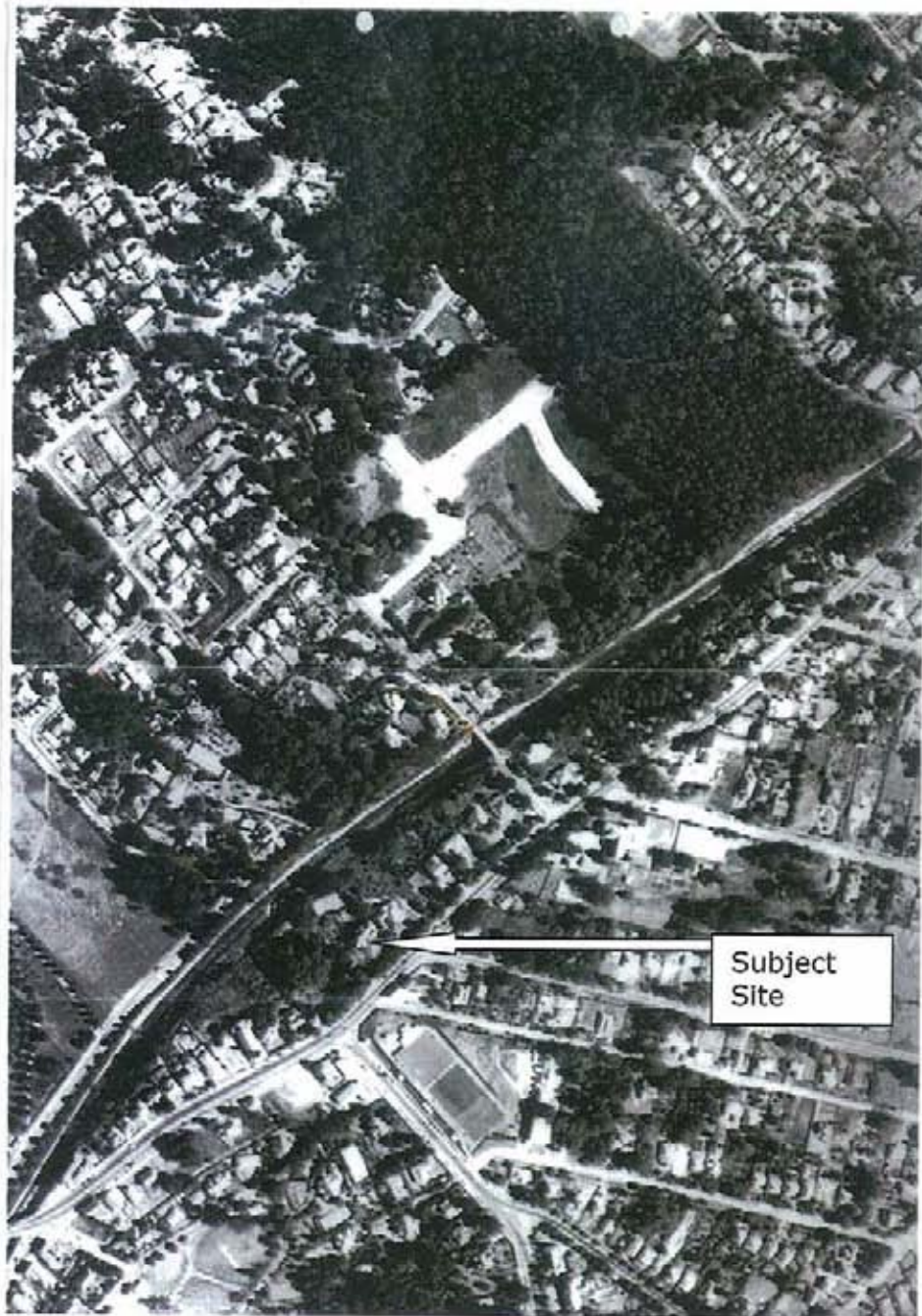
Further subdivisions and development for housing occurred in the following decades. Over this time, some regrowth of eucalypts occurred along the wetter areas of the site in the riparian zone. The exotic gardens, tennis court and the remains of the orange orchard can be seen in the aerial photo of the site and its surrounds in **Figure 3** below, dated May 1951. This photograph demonstrates the extent to which the site has been previously cleared. Note the small size of the trees adjacent to the common property boundary with the railway line at this time. Much of the vegetation on the site at this time appears to be on the western side of the intermittent creek bisecting the site.

It is evident from the above that the subject site and its surrounds have a history of more than 180 years of European settlement and occupation. In this time, the land has been used for timber getting and cultivation for orchards and pasture. It has been progressively subdivided and developed for housing. Earthworks have been carried out to establish exotic gardens on the site and also to construct the tennis court, long



disused but still evident on the site. Extensive earthworks occurred to construct the North Shore Railway in the late 1880's, just to the north of the site.

As noted in the Statement of Heritage Impact in **Appendix 22**, investigations were undertaken by a group of Council's on the North Shore into potential Aboriginal archaeological sites and this investigation included land affected by the Town Centres LEP and none of this affected land, including the subject site, was found to have potential Aboriginal relics. Given this and the outlined history of the site, it would be highly unlikely that the site would contain any Aboriginal Archaeological relics.



**Figure 3:** Aerial Photograph of the subject site and surrounds dated May 1951 (source: applicant)



## 2.5 Response of Proposal to the Site Analysis

The identification of the subject site originally in SEPP 53 and more recently in the Ku-ring-gai Town Centres 2010 as suitable for residential flat housing is reflective of its location near the Pymble town centre and railway station and the very large size of the site. It is also reflective of the transition currently occurring in the area around Pymble with the introduction of a number of new apartment developments adjacent to Pacific Highway and in Avon Road and Clydesdale Place, just to the north of the site.

The Site Analysis identifies the existence of remnant regrowth blue gums on the site, particularly adjacent to the small creek/drainage line bisecting the site. The proposed redevelopment of the site provides the opportunity to thoroughly weed this area and re-plant with species consistent with Blue Gum High Forest in order to ensure the continued survival of the blue gums on the site, as well as removing the spread of weeds both on-site and seeds of noxious species being carried to properties downstream and ultimately to the Lane Cove River. Given the significant extent of weed infestation and the size of the site, this will require significant funds to implement. The development of the site creates the opportunity to fund this work without creating an unreasonable financial imposition on the property owner.

Whilst the Building Envelope Control Drawings (BECD's) of the Ku-ring-gai Sites Report and the Ku-ring-gai Reference Plan drawings set out a well meaning solution to the question of how to develop the site with residential flat housing, this scheme is overly prescriptive and does not sufficiently take into account the steeper topography in the centre of the site identified in the Site Analysis. It also does not take into account the need to retain as many native trees on the site as possible to retain the heavily treed character of the locality discussed in the Site Analysis. In the BECD's, the objective of attempting to add to and link up the existing local road network has, somewhat inappropriately, taken priority over working with the natural topography of the site and also with the existing native vegetation. The low elevation and steepness of the centre of the site naturally lends itself to locating taller buildings than the 7 storey maximum allowed for in the BECD's in this area. The existence of a number of native trees that are between 35m and 50m (ie equivalent to 12-16 storey buildings) in height provides an excellent natural screening opportunity for apartment buildings from neighbouring low density properties surrounding the site. Provided the buildings are not taller than this existing canopy, the general dominance of landscaping over built form which is characteristic of Pymble will be preserved. Higher buildings require less buildings to achieve the same density whilst also allowing for a greater percentage of the site being retained for deep soil planting and allowing for a greater retention of existing significant trees on the site than would have been possible with strict compliance with the BECD's. In addition, the Avon Rd/Beechworth Rd through-site link road in the BECD's prevents buildings from being located where they would have the least impact adjacent to the railway and away from low density residential properties to the south and west of the site.

In effect, attempting to strictly comply with the BECD's of the Ku-ring-gai Sites Report and the Ku-ring-gai Reference Plan would have necessitated the architects for the applicant to design the development with almost total disregard for the information gathered in the detailed Site Analysis that has been undertaken for this site. In the designing of the proposal, the decision was taken to respond more directly to the natural and man-made constraints and opportunities of the site that have been identified in the Site Analysis rather than slavishly attempt to reproduce the BECD's. A carbon copy of the BECD's was not possible in any event as all of the required properties were not able to be obtained.

It is important to note the change that has taken place to the application of planning provisions to the site. As will be demonstrated later in this report, the Ku-ring-gai Reference Plan and the BECD's in the Ku-ring-gai Sites Report are flawed, overly prescriptive and contain inflexible planning provisions that do not necessarily encourage the best design for the site.. The proposed development responds to the detailed Site Analysis that has been undertaken by the project architects and results in a designs that is consistent with the objectives of the Town Centres LEP as well as respecting the amenity of neighbours and the general streetscape character of the locality, which is dominated by substantial native trees and a generous landscaped setting for buildings.



## 3.0 The Proposal

### 3.1 Options Analysis

During the design development phase of the project, the project architects (AMW) developed a number of alternative development schemes for the site, all of which were required to take into account various opportunities and constraints including the steeply sloping topography, existing mature trees and the infestation of weeds on the site, the drainage line through the site, the location of the railway line; the relationship to adjoining lower density residential development and other recently constructed high density residential development in the vicinity of the site.

The Options Analysis identified five different alternatives for the site, ranging from a 3 building option to an 8 building option. Ultimately, following consultation with the relevant authorities, the five building option was considered to be the preferred option for the development of the site. As demonstrated in this EA, the five building option has demonstrably minimal impacts on neighbours and results in a well conceived response to the site opportunities and constraints.

The Options Analysis prepared by AMW architects, which explores these various alternatives, is attached as **Appendix 6**.

### 3.2 Description of the Overall Concept Plan Proposal

Approval is now sought to demolish all of the existing structures on the site and construct a residential flat housing development comprising of the following:

- Construct five (5) residential flat buildings in five separate stages on the subject site varying in height from a minimum of 2 storeys to a maximum of 11 storeys. The maximum RL of the tallest element of the development is RL 172.0. The total number of units proposed is approximately 355. Further details are illustrated in architectural plans prepared by Ancher Mortlock Woolley, reduced A3 copies are attached in **Appendix 7**.
- Remove all weeds and noxious species from the site and establish a modified and managed "riparian zone" adjacent to the drainage corridor that presently bisects the site. Re-plant the drainage corridor with native riparian species; and other available deep soil planting areas with species consistent with the Blue Gum High Forest ecological community. Details are included in the submitted Vegetation Management Plan (attached as **Appendix 18**) and landscape plans (attached as **Appendix 17**).

A schedule of unit numbers and types for each stage of the development is provided below.

## Schedule 1 Unit Mix

Level	Stage 1			Stage 2			Stage 3			Stage 4			Stage 5		
	1 Bdr	2 Bdr	3 Bdr	1 Bdr	2 Bdr	3 Bdr	1 Bdr	2 Bdr	3 Bdr	1 Bdr	2 Bdr	3 Bdr	1 Bdr	2 Bdr	3 Bdr
B5									5						
B4							5	5	1			1			
B3							5	5	2	1	1	1			
B2							3	4	1	2	2	1			
B1							4	4	2	2	2	1			
0	3	3	1				6	6		6	6				3
1	5	5	1	2	2	1	6	6		6	6		3	3	
2	5	5	1	4	4		3	3	2	6	6		5	5	1
3	5	5	1	4	4		1	1	2	6	6		5	5	1
4	3	3	2	4	4				1	6	6		5	5	1
5			2	4	4					6	6		5	5	1
6						2				6	6		5	5	1
7										3	3	2	2	2	2
8										1	1	2			2
9												1			
	21	21	8	18	18	3	33	34	16	51	51	9	30	30	12
Total			50			39			83			111			72

1br	2br	3br	Total
153	154	48	355



As illustrated in **Schedule 2** and further detailed in the floor area schedule and diagrams prepared by the project architects included in **Appendix 35**, the proposed development will have an overall FSR of 1.38:1.

### 3.3 Staging of Construction

The development will be constructed in 5 separate stages, as shown by the numbering of the proposed buildings in the submitted Site Concept Plan (Drawing No.CP100), a reduced A3 version of this plan is attached in **Appendix 8**.

Stage 1 includes the proposed 4-6 storey residential flat building located adjacent to Avon Road and between No's 3 and 7 Avon Road.

Stage 2 includes the proposed 5-6 storey residential flat building located in the north-eastern corner of the site adjacent to the North Shore Railway and No.3 Avon Road.

Stage 3 includes the proposed 2-9 storey residential flat building located in the south-eastern corner of the site adjacent to No's 7 and 17 Avon Road.

Stage 4 includes the proposed 4-11 storey residential flat building located in the centre of the site and adjacent to the North Shore Railway.

Stage 5 includes the proposed 5-9 storey residential flat building located in the north-western corner of the site and adjacent to No's 6, 10A and 10B Beechworth Road.

### 3.4 Detailed Description of Stage 1 Proposal

Stage 1 of the proposed development incorporates the construction of a 4-6 storey residential flat building over basement levels containing parking for 86 cars, bicycle parking and storage. The proposal also involves demolition of the existing buildings/structures on the Stage 1 site and excavation to allow for the proposed basement carparking. A total of 50 units are proposed in Stage 1 with an apartment mix as follows:

- 21 x 1 bedroom units;
- 21 x 2 bedroom units;
- 8 x 3 bedroom units.

### 3.5 Materials and Finishes

The buildings will contain a mix of materials and finishes to express articulation and interest. The colours have been selected by picking up on the neutral tones within the locality. A schedule of the proposed colours and materials for the Stage 1 building are shown in **Table 2** below.

**Table 2: External Materials Schedule for Stage 1**

External Materials Schedule			
Code	Element	Type	Colour
BAS1	Base wall and structure	Stone cladding	Dry packed sandstone
BAS2	Base wall and structure	Masonry	Boral Blue
BAS3 (detail)	Base wall and structure	Concrete	Off form
SLA	Balcony slabs	Concrete – Rendered	Plaster of Paris
COL	Balcony columns	Concrete – Rendered	Plaster of Paris
WAL1	Wall elements	Precast - Stain finish	Deep Grey
FAC	Roof: fascia	Concrete – Rendered	Plaster of Paris
SOF	Roof: soffit	Concrete/FC Painted	Paint - Carmen Miranda
WIN1	Windows: fixed	Aluminium – Anodised	Clear 25µ
WIN2	Windows: sashes	Aluminium – Powdercoated	Charcoal
WIN3	Window shelf	Steel/FC	Charcoal/White (upper face)
DOR	Sliding Doors	Aluminium – Anodised	Clear 25µ
GAT	Gates and fixed screens	Steel	Micaeous Oxide - Natural Grey
SCR	Balcony screens	Aluminium – Powdercoated	Charcoal
BAL1	Balustrade	Steel – Painted	Micaeous Oxide - Natural Grey
BAL2	Balustrade	Glass	
LWA1	Landscape walls	Stone	Dry packed sandstone
LWA2	Landscape walls	Brickwork	Boral Blue
LWA3	Landscape walls	Precast	Aggregate

### 3.6 Landscape Design

#### Existing Vegetation

Much of the site is currently vegetated with a substantial percentage of the vegetation aligned with a natural drainage line that bisects the site. The vegetation consists of a substantially native tree canopy with extensive existing weed cover to the lower stratum.

#### Proposed Landscape Works

The proposal is for a series of residential apartment buildings, positioned in a landscape setting incorporating native and exotic plantings suitable to the locale. The landscape proposal retains the natural attributes of the site by retaining many of the existing indigenous trees, removing the weed growth and creating a new and sustainable environment. The natural drainage line bisects the site and provides a focus and form to the site. This natural drainage line creates an opportunity for the development of native ecosystems that mirror the natural vegetated values of the area, enhancing the canopy, mid storey, lower storey and ground cover layer into a complex and sustainable ecological stratum. This design approach offers an opportunity for the integration of the landscape design to the site so as to provide an amenity across the site, preserving and maintaining many existing trees on site, removing weed species and in the place of the weed species creating extensive native flora diversity and fauna habitat.



The landscape works will be facilitated through an integration of the various disciplines involving the hydraulic, engineering, vegetation management and architectural outputs in a coordinated approach. Through this approach, the landscape proposal seeks to retain the natural attributes of the site by retaining many of the existing indigenous trees, removing the weed growth and creating a new and sustainable environment.

Revegetation principles implemented through the installation of the revegetation areas will be based on a site specific approach including a detailed weed eradication program integrated with erosion control and sediment control methods in order to reduce the impact on the existing retained flora and native fauna of the area.

Maintenance of the drainage line and general open space revegetation areas will be structured with the objective of the revegetation areas becoming self sufficient within a 12 month period and include tasks such as watering, mulching, weeding as required, plant staking, plant replacement, fertilising, pest and disease control, remedial pruning and regular site inspections. At the completion of this initial establishment period maintenance of the revegetation areas will be on a needs only basis. Monitoring the progress of the revegetation areas will be conducted at regular intervals to address record weed regrowth apply suitable methods for removal, indigenous vegetation mapping and reporting.

Selected native trees are retained, with the proposed planting reflecting an increased ecological diversity that is currently not present on site. A mixture of native shrubs and small trees will be installed to provide localised screening to boundaries of neighbouring properties, these species will be extracted from recommendations made by in the Vegetation Management Plan. The majority of the existing vegetation on site is retained outside the footprints of the proposed buildings and additional cultural plantings are proposed to the surrounds of the new built form to provide suitable settings for use by residents that reflect the character of cultural plantings of the Pymble area.

Stage 1 landscape design develops the natural attributes of the site by retaining many of the existing cultural trees, which provide screening to neighbouring properties, removing the weed growth and creating a new and sustainable environment matching the character of Avon Road, Pymble. The installation of a mixture of native and low water use cultural plantings provides the development with a diverse range of public and private spaces for active and passive recreation. A decorative gravel border to the base of the building satisfies requirements of the bushfire report while creating a clean backdrop to avenue plantings of deciduous trees, native palms and climbers providing colour and texture to fence panels of the private courtyards. Apartments on levels 1-5 experience a vegetated outlook through the use of on slab plantings, which provide textural, fragrant and seasonal interest. On slab planting softens and reduces the visual bulk of the development from the street frontage and from neighbouring properties and includes low water use vegetation, which is predominantly native providing screening year round.

This design approach offers an opportunity for the integration of the landscape design to the site so as to provide an amenity across the site, vegetative corridor suitable for native flora and fauna, preserving and maintaining many existing trees on site, removing weed species and in the place of the weed species creating extensive native flora diversity and fauna habitat.

The landscape proposal will rehabilitate the site in accordance with the cultural and natural values that have been identified across the site and the locale. A small number of mature trees will be removed that are within the footprints of the proposed buildings and internal road.

The overall landscape will represent a substantial improvement on the current weed infested site and return the site to a sustainable environment suitable to the character of Pymble which may be appreciated by both the residents and general public alike. The increase in native biomass and the sustainable ecological principles employed of vegetation patterns of the area will provide a positive addition to the immediate environs of Pymble and the north shore area.

### 3.7 Construction Management Plan

A Construction Methodology Plan (CMP) has been prepared by Tamar Enterprises Pty Ltd, to address the impact of the demolition/excavation and construction works associated with the proposed development and the surrounding environment and community (See Attached as **Appendix 10**). The CMP outlines procedures to be implemented to manage construction activities ensuring impacts on the environment and community are minimised.

The stated objectives of the CMP are to:

- *Provide a methodology within which the Demolition, excavation and construction activities may be completed in a manner which will not cause environmental or community disturbances above agreed levels;*
- *Provide a framework for procedures to be adopted when undertaking the construction activities;*
- *Provide a framework for procedures to be adopted when monitoring the construction performance against agreed criteria;*
- *Implement statutory requirements with respect to environmental issues associated with the construction.*

### 3.8 Energy Efficiency

The buildings have been designed to ensure that all apartments achieve maximum energy efficiency. The development complies with the requirements of BASIX; and the BASIX Certificate, is included at **Appendix 12**.



### 3.9 Traffic Access and Parking

A traffic and parking report has been prepared by Gennaoui Consulting Pty Ltd and is included in **Appendix 26**.

The report notes that the proposed development is for the provision of approximately 350 residential flats within five (5) buildings; and that the traffic generated by the proposed residential development would have minimal impact on traffic conditions along the surrounding roads, and a negligible impact on the Pacific Highway which currently carries very high volume of traffic.

The report also states that traffic generated by the proposed residential development will not affect the operation of all nearby intersections which will continue to operate at their current levels of service.

The traffic report concludes that the provision of parking is in accordance with the Council's parking requirements.

The traffic report recommends the implementation of the following measures

- *Provision through line marking of a right turning bay at No5 Avon Road in conjunction with the Stage 1 development*
- *Provision of a roundabout at the bend near No1 Avon Road including a pedestrian refuge in conjunction with the Stage 2 development*
- *Provision of 'No Standing' signs in Arilla Rd adjacent to proposed driveway entrance to site.*

A schedule of carparking and bicycle provision for the development is included in **Schedule 3** below.

### 3.10 Solar Access

The buildings have been designed to maximise solar access to apartments and to minimise overshadowing of other apartments within the site and on adjoining sites. A Solar Access Analysis, including elevational shadows prepared by the project architects, are at **Appendix 19 and 20**.

### 3.11 Acoustic Qualities

The development has been designed with consideration to relevant acoustic standards, particularly given the sites proximity to the railway line. An Acoustic Report, prepared by Acoustic Logic Consultancy, is at **Appendix 28**. The Report provides recommendations on acoustic treatments that are necessary to the buildings.

In relation to acoustic privacy and train noise, the Acoustic Report concludes that:

*"a number of building facades will require sound-rated glazing in order to achieve indoor rail noise levels that satisfy the acoustic requirements of the Department of Planning Guideline document. Sound-rated windows have been recommended; each of these rooms will also require alternative fresh air ventilation. A number of possible systems for alternative ventilation were presented in the Report.*

*In conclusion it has been found that rail noise levels are not particularly high at the site and that the Director General Requirements can be met in a relatively straightforward manner."*

### **3.12 Accessibility**

The development has been designed to meet the objectives of the Disability Discrimination Act and other relevant considerations. The buildings have been designed with appropriate access for disabled persons. An access report, prepared by Accessibility Solutions, is at **Appendix 34**.

### **3.14 Flora and fauna**

A flora and fauna report has been prepared by Aquila Ecological Surveys. The report addresses biodiversity issues relating to the site. The flora and fauna report is at **Appendix 24**.

### **3.14 Heritage and Aboriginal Archaeology**

A Statement of Heritage Impact (SOHI) has been prepared by Rappaport Pty Ltd to assess the impact of the proposed residential flat development on the heritage items in the vicinity of the subject site (See **Appendix 22**). It also includes an assessment of two buildings on the subject site, which previously were listed as heritage items (No 1 and No 5 Avon Road). It should be noted that these two buildings are no longer listed as heritage items under the recently gazetted Town Centres LEP 2010. The SOHI concludes that the proposed development will have minimal impact on the surrounding heritage items or the Avon Road Urban Conservation Precinct.

An Aboriginal Heritage Advice Report has also been prepared in relation to the site, by Archaeological and Heritage Management Solutions (AHMS) in August 2010 (**Appendix 23**). This Report concluded that

*"there is little potential for Aboriginal objects to be identified within the proposed development area in their original depositional context, the development works have the potential to disturb or damage objects in this area."*



### 3.15 Waste Management

The development has been designed to include garbage chutes in each building and waste collection facilities in the basement level. The development has also been designed to enable waste collection, by Council and/or contractor, to occur fully entirely within the basement area. A Waste Management Plan has been prepared and is attached in **Appendix 33**.

Comparing

Requirements		Stage	
Min		1	2-4 5
1 bedro	0.5	1	30
2 bedro	0.8		39
3 bedro	1		39
visitors	10	53	85
		51	52
		53	28
		L0	40
		L1	33
			285
			101

[illegible]

### Schedule 3 - Carparking and Bicycle Provision