

ENVIRONMENTAL IMPACT STATEMENT

STAGED DEVELOPMENT PROPOSAL

**PYMBLE LADIES COLLEGE
20 AVON RD, PYMBLE**

**On behalf of
(Uniting Church in Australia (NSW & ACT Synod))**

December 2012

NOTE: This document is Copyright. Apart from any fair dealings for the purposes of private study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced in whole or in part, without the written permission of Glendinning Minto & Associates Pty Ltd, Suite 14, 265-271 Pennant Hills Road, Thornleigh, NSW 2120.

www.glendinningminto.com.au

address: 14/265-271 pennant hills road, thornleigh postal address: po box 225 thornleigh 2120

telephone: 9875 4788 facsimile: 9875 4799 e-mail: planning@glendinningminto.com.au

ENVIRONMENTAL IMPACT STATEMENT

Pymble Ladies College

Staged Development Consent

Stage 1: Aquatic & Fitness Centre

Stage 2: Redevelop Playing Field & Carpark

Stage 3: New Dining Facility

Stage 4: New Health Care Centre

20 AVON ROAD, PYMBLE

Prepared under instructions from

(Uniting Church in Australia (NSW & ACT, Synod))

Glendinning Minto & Associates Pty Ltd ABN 68 091 465 271

Planning & Development Control Consultants

14/265-271 Pennant Hills Road

Thornleigh NSW 2120

Tel: (02) 9875 4788

Email: planning@glendinningminto.com.au

STATEMENT OF VALIDITY

Submission of Environment Impact Statement (EIS)
Prepared under Part 4 of the Environmental Planning Assessment Act
(EP&A Act)

ENVIRONMENTAL ASSESSMENT PREPARED BY

Name: Ian Glendinning

Qualifications: B. Applied Science - Environmental Planning
CM - PIA
LM - AIBS

Address: Glendinning Minto & Associates Pty Ltd
265-271 Pennant Hills Road
Thornleigh NSW 2120

APPLICANT & LAND DETAILS

Applicant: Uniting Church in Australia (NSW & ACT Synod)
Pymble Ladies College - Pymble Campus
20 Avon Rd, Pymble NSW

Lot & DP No: Lot 1 DP 69451 & Lots 1-26 DP 7131

Address: 20 Avon Road, Pymble

CERTIFICATE

PROJECT SUMMARY

For development consent of Stage 1 of a staged development being the proposed new aquatic and fitness centre and concept approval for -

Stage 2: Redevelop the playing field (Mollie Dive Field) with 230 space car park below;

Stage 3: New dining facility, north of Mollie Dive field landscaped works and improvement to courtyard and service areas to boarding college;

Stage 4: New health care facility.

ENVIRONMENTAL ASSESSMENT

The Environment Impact Statement is attached.

Declaration

I certify that I have prepared the content of this EIS and to the best of my knowledge:

- It is in accordance with Part 4 of the *Environmental Planning & Assessment Act 1979* and Schedule 2 of the *Environmental Planning & Assessment Regulation 2000*.
- It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Signature:

Name: Ian Glendinning

Date:

TABLE OF CONTENTS

00.	Executive Summary	7
1.	Introduction	11
1.1	Overview	11
1.2	Application Background	12
1.3	Proponent and Consultant Team	13
1.4	Director General's Requirements (DGR'S)	14
1.5.	Analysis of Feasible Alternatives	15
1.6	Objectives of the Proposal	
1.7	Approval Process	
2.	Site Content and Analysis	16
2.1	Site Description	16
2.2	Site Characteristics	16
2.3	Topography & Stormwater Management	16
2.4	Existing Development and Use	17
2.5	Traffic & Access	19
2.6	Metropolitan & Regional Context	21
2.7	Local Content	22
2.8	Local Accessibility	22
2.9	Land Use	23
2.10	Built Form	25
2.11	Topography	26
2.12	Heritage	26
2.13	Aesthetic Appearance	28
2.14	Vegetation & Open Space	28
2.15	Services & Infrastructure	30
3.	The Proposed Development	31
3.1	Pymble Masterplan Phase 2 Development Summary	31
3.2	Urban Design Principles	37
3.3	Tree Removal	37
3.4	Traffic & Circulation & Car Parking	38
3.5	Staging	41
3.6	Application History	41
4.	Director-General's Environmental Assessment Requirements	
5.	Environmental Assessment	49
5.1	Application of Part 4	49
5.2	Objects of EPA Act	50
5.3	Environmental Planning Instruments (EPI's)	51
5.4	Ku-ring-gai Council's DCP's	59
5.5	Key Issues	60
5.6	Other Issues	74
5.7	Consultation	77
6	Conclusion & Justification of the Proposal	80
7	Mitigation Measures	81

**APPENDIX LIST
(Separate Document)**

Volume 1

Appendix	Document	Prepared by	Date
A	Director Generals Requirements (DGR's)	Department of Planning & Infrastructure	25 September 2012
B	Architects Design Statement	PMDL	January 2012
C	Draft Plan of Management	Glendinning Minto & Associates	August 2012
D	Details of Community Consultation Meeting	Pymble Ladies College	May 2012
E	Architectural Plans of proposed Aquatic & Fitness Centre & Concept plans for stages 2,3,& 4	PMDL Architects	Issue A August 2012
F	Flora & Fauna Assessment	Footprint Green	15 November 2012
G	Preliminary Geotechnical Investigation	JK Geotechnics	August 2012
H	Stage 2 Preliminary Environmental Site Assessment	Environmental Investigation Services	October 2012
I	Disability Access Report	Cheung Access	August 2012

**Volume 2
(Separate Document)**

J	Detailed Site Survey	Lockley Solutions	March 2012
K	Transport And Accessibility Impact Assessment	Coulston Budd Hunt & Kafes	August 2012
L	Stormwater & Integrated Water Management Plan	Sydney All Services P/L	July 2012
M	Landscape Plan	Taylor Brammer	December 2011
N	Arboricultural Report	Raintree Consulting	August 2012
O	Bushfire Report	BC&BHC	August 2012
P	Acoustic Report	VIPAC	August 2012
Q	Site Specific Construction Management and Traffic Management Plan	Grindley Constructions	June 2012
R	BCA Compliance Report	BCA Vision	August 2012
S	Vegetation Management Plan	Footprint Green	August 2012
T	Waste Management Plan	PMDL Architects	September 2012

00. EXECUTIVE SUMMARY

Purpose of this report

This Environmental Impact Statement (EIS) in relation to development at Pymble Ladies College (PLC) is submitted to the Minister for Planning and Infrastructure for approval of a State Significant Development Application pursuant to Part 4 of the *Environmental Planning and Assessment Act, 1979* (EP & A Act). The proponent is The Uniting Church in Australia.

The proposal is identified as Pymble Ladies College Masterplan Phase 2.

Preliminary external and internal road works have been approved by Council under DA 507/11 and these works are aimed to reduce traffic congestion and improve vehicular and pedestrian access. These works are now substantially completed.

Phase 1 comprised the School Masterplan (Campus Vision 1998-2007) and Phase 2 comprises Stages 1 -4 as a staged development proposal including a detailed proposal (Stage 1) - a new Aquatic and Fitness Centre and conceptual plans for Stages 2, 3 & 4. The staged works are summarised as follows:

- **Stage 1**
New Aquatic and Fitness Centre, relocation of Mollie Dive field west of the existing location (to accommodate the aquatic centre facilities), associated landscaping, provision of service paths and upgrade of the existing Jeanette Buckham PE Centre.

The works involve replacing the existing outdoor pool facility. The new indoor aquatic and fitness centre includes a 52m pool with intermediate boom and diving boards, a Learn to Swim pool, grandstand seating, administration and staff areas and new fitness studio.

The school proposes to continue its current learn to swim and other pool activities available to the school and wider community over the summer months and extend this same program over the winter months, over which it currently operates at a reduced program.

- **Stage 2**
Raise the Mollie Dive Field to provide car parking under for 230 car parking spaces, provision of terrace to aquatic and fitness centre, new piazza and connecting avenue between the existing Lang House and Goodlet House.

The car parking area is intended to connect with road works approved under DA 507/11. The existing at-grade parking area located on the western side of the playing field will be retained, albeit reduced in capacity to accommodate the entry to and exit from the new car park.

- **Stage 3**

New dining facility (north of the Mollie Dive Field), associated landscaping works and upgrade of boarding courtyards and service areas.

The dining and function centre will accommodate boarding students and staff dining and will also cater for 600 seat functions for college and community events. The new facility is intended to replace existing facilities within the College. The function centre will provide for functions which are currently held in the College hall.

- **Stage 4**

New Health Care Centre associated landscaping and pavement works. This centre is intended to consolidate the College's counselling and supporting services into one area.

The proposed development works have a total Capital Investment Value (CIV) of approximately \$39 million and is therefore classified as State Significant Development (SSD) pursuant to Schedule 1 of the SEPP SRD

A request for the issue of the Director-General's Environmental Assessment Requirements (DGRs) was sought. Accordingly, the modified Director General's Requirements were provided on 25 September 2012.

This report had been prepared by Glendinning Minto & Associates on behalf of the Uniting Church in Australia to assist the Department of Planning and Infrastructure's (The Department's) consideration of the development as State Significant Development under the Environmental Planning and Assessment Act 1979 (The EP & A Act).

Background

Pymble Ladies College is located at Pymble NSW within the Local Government Area of Ku-ring-gai. It occupies an area of about 20 hectares. It is owned by the Uniting Church in Australia and has been used and occupied as a School campus for girls from Kindergarten to Senior School since 1916.

The College site features significant vegetation and landscaping which has been managed and developed to incorporate large areas of both active and passive open space and preservation of riparian zones and remnant bushland.

This project maintains the Schools continuous progress in providing up-to-date facilities for its students. This development - Masterplan Phase 2 is the remaining part of Campus Vision 2008 - 2016 which includes a new indoor Aquatic and Fitness Centre to replace the existing outdoor pool, a new raised Hockey Field with parking below, a new Boarder's Dining Room and Function Centre and a new Well being and Health Centre all located within the southern precinct of the College Campus.

The new facilities will replace existing facilities on Campus. The new facilities will allow the School to better accommodate the future needs of the College.

This application does not seek to increase student numbers above existing levels.

The Site

The subject property is legally identified as Lot 1, DP 69451 and Lots 1-26 DP 7131, known as No. 20 Avon Road Pymble. It has an area of about 20 hectare. It is owned by the Uniting Church in Australia and is occupied by Pymble Ladies College, an institution that educates girls from Kindergarten to Senior School.

The site is bounded by Avon Road to the north and west. The main entry is via Avon Road, north, with secondary entries via Avon Road, west. The School has been in continuous operation on the site since 1916.

Planning Context

Section 4 of this EIS considers all applicable legislation in detail. The proposal complies with all relevant current planning controls.

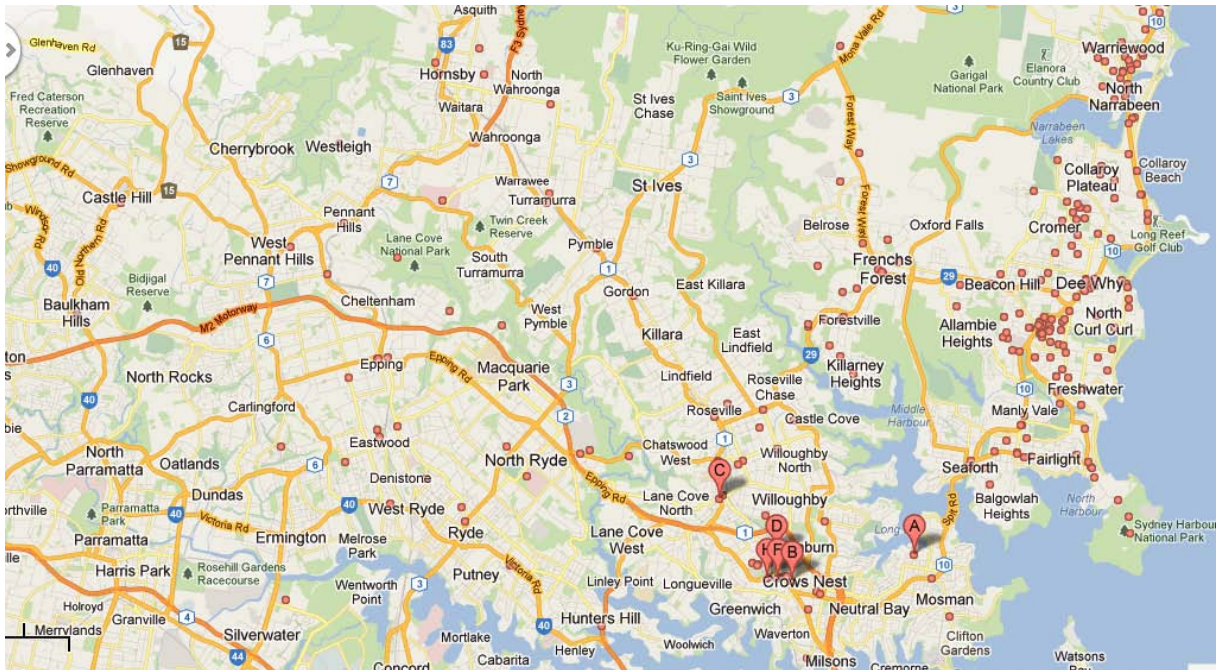
The site is currently zoned Special Uses 5(c) - School Zone under the Ku-ring-gai Planning Scheme Ordinance. The proposal is permissible with consent and meets the objectives of the subject zone.

Environmental Impacts

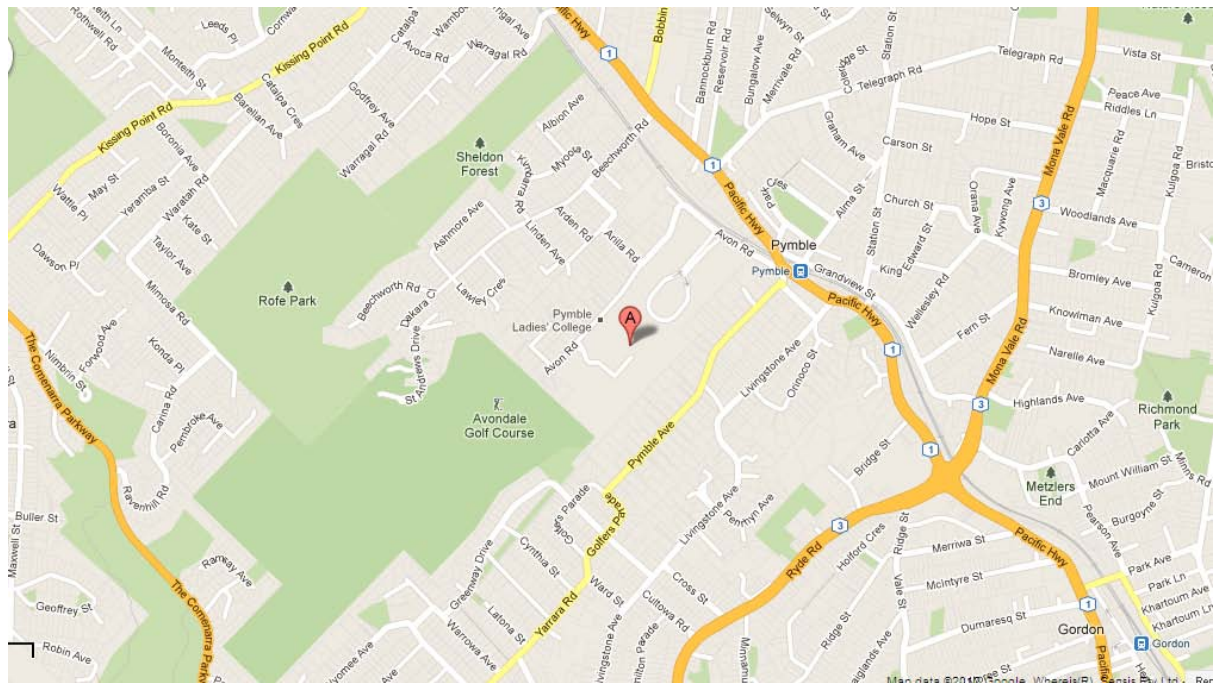
This EIS provides an assessment of the environmental impacts of the project in accordance with the Director-General's Environmental Assessment Requirements and sets out the undertakings made by PLC and The Uniting Church in Australia to manage and minimise potential impacts arising from the development.

Conclusion

The proposal provides for an upgrade of facilities for PLC to satisfy the requirements and needs of the School. The potential impacts of the development are able to be managed through proposed mitigation measures outlined in Section 7. Given the planning merits of the proposal, the proposed development warrants approval by the Minister for Planning and Infrastructure.



Regional Context



Location of Pymble Ladies College

1. INTRODUCTION

1.1 Overview

The Uniting Church has continued the operation of a Girls School at its Pymble site from 1916. The college is an independent, non-selective day and boarding school for girls located in Pymble, a suburb in the North Shore of Sydney. The college provides education to girls from kindergarten to Year 12. The school enrolment are currently 2,120 students.

The **Vision** of Pymble Ladies College is *“to provide an education universally acknowledged for its outstanding quality and exceptional opportunities”*.

The **Mission** is *“to foster in each student a passion for learning and scholarship, a quiet but unshakable self-confidence and the values and skills to make a worthwhile contribution to the community”*.

Planning for the school future is continuous. As part of this process the School has developed a Masterplan. This project labelled Masterplan Phase 2 is the remaining part of the campus vision 2008 - 2016. The plan provides for the continuous improvement of facilities within the school campus to meet contemporary needs and a State of the Art Learning environment.

Overall the aim of the Phase 2 Masterplan is to:

- Create a State of the Art Learning environment
- Provide a new Aquatic & Fitness Centre that is available for use all year
- To provide facilities that are available for College and community use
- To improve site access, parking and traffic functions through improved internal roads and rationalisation of car parking and significant works to the existing public road network
- To continue to manage and conserve the natural environment including threatened ecological communities and riparian zones that are within the campus
- Develop the college as a green site, confirming its commitments to environmental awareness, sustainably, recycling and carbon emission reduction.

1.2 Application Background

As the proposed development is calculated to have a Capital Investment Value (C.I.V) of \$39 million and is represented as a category of development described in Clause 8 of Schedule 1 of SEPP (State and Regional Development) being an educational establishment it is identified as a Part 4 development.

The application seeks actual approval of the proposed Aquatic & Fitness Centre as described and concept approval for stages 2 - 4 as described herein.

The NSW Department of Planning & Infrastructure issued Director Generals requirements (DGR's) for the project - SSD 5314 on the 2 July 2012. As a result of further consultation with the NSW Department of Planning & Infrastructure final DGRS were issued on 25 September 2012 and are included in **Appendix A** of this report. In summary the DGRS required that the Environmental Impact Statement address the following issues:

- Environmental Planning Instruments & Policies
- Built form and urban design
- Land uses
- Amenity
- Ecological Sustainable Development (ESD)
- Noise Impacts
- Transport and Accessibility
- Flora & Fauna
- Bushfire
- Sediment, erosion and dust controls (construction and excavation)
- Utilities and integrated water management plan
- Staging
- Contributions
- Flooding
- Drainage
- Waste
- Heritage
- Aboriginal Heritage

As part of the preparation of this application, consultation has been held with the following agencies and groups:-

- NSW Department of Planning & Infrastructure
- Ku-ring-gai Council
- Pymble Ladies College

- Surrounding community
 - Office of Environment and Heritage
 - Rural Fire Service
 - Sydney Water
 - Aboriginal Heritage

1.3 Proponent & Consultant Team

The Uniting Church in Australia (NSW & ACT Synod) is the proponent of this application. The site is owned by the Uniting Church in Australia (NSW & ACT Synod).

The following is a list of specialist consultants that have contributed to the preparation of this application.

- PMDL - Architect & Project Managers
- Glendinning Minto & Associates Pty Ltd - Town Planners
- Coulston Budd Hunt & Kafes - Transport & Accessibility Impact Assessment
- Sydney All Services Pty Ltd - Stormwater & Integrated Water Management Plan
- Taylor Brammer - Landscape Design
- Raintree Consulting - Aboricultural Report
- Footprint Green - Flora & Fauna report & Vegetation Management Plan
- Building Code & Bushfire Hazard Consultants - Bushfire Management
- VIPAC - Acoustic Impact
- J K Geotechnics - Geotechnical Report
- Environmental Investigation Services - Stage 2 Preliminary Environmental Site Assessment
- Holmesfire - Alterative Solution
- Haron Robson - Utilities & Power
- Lockley Land Title Solutions - Survey
- Grindley Construction - Construction Management
- Cheung Access - Disability Access Report
- BCA Vision - BCA Compliance Report

1.4 Director Generals Requirements

The Director General's requirements are provided at **Appendix A** of this report.

1.5 Analysis of Feasible Alternatives

The alternatives considered include:

- Retention of existing facilities – the existing facilities have reached the end of their useful life and do not satisfy the schools requirements, and therefore this option was not further considered.
- Site options: other locations within the campus locations for the proposed buildings were considered however no other location was considered a viable option in view of the spatial location of the existing facilities and connectivity between the various buildings and there functions.
- Alternative Sites: It is not feasible to consider any alternatives sites as this would be unfeasible as it would require travel to and from the facilities

Accordingly the location of the proposal is considered appropriate for the following reasons:

- The development will improve facilities for students and staff of the campus and provide a much needed upgrade of existing facilities.
- The development has been appropriately staged to ensure minimal disruption to the operation of the campus.
- The proposal does not have any detrimental impact on any heritage buildings and items in the nearby locality.
- The location of the proposed facilities and the area and shape of the site allows for new facilities that meets the design requirements of the School whilst not resulting in any significant adverse impacts on the surrounding properties.

1.6 Objectives of the Proposal

The overall objective of the proposal is to provide an upgrade of existing facilities and provide additional facilities to meet the needs of PLC by:

- The demolition of an existing outdoor swimming pool complex and its replacement with a new indoor aquatic & fitness centre.
- The building will occupy an area of 2868m² within a building envelope of 73.6m² + 67.4m² and 8.6m in height.
- The relocation and raising the level of the existing sports field and creating a basement car park comprising of 230 car parking spaces
- Providing a new dining hall and function centre – to accommodate boarding students and staff and will also cater for 600 seat functions for College events.
- Replace the existing demountables used as a health centre by a new purpose built health centre building.

1.7 Approval Process

Under the *State Environmental Planning Policy State and Regional Development 2011* (SEPP SRD), a project will be a State Significant Development (SSD) if it falls into one of the classes of development listed in Schedule 1 of SEPP SRD.

Educational Establishments with a capital investment value of more than \$30 million are identified as SSD under SEPP SRD, and are considered to be development of State Significance.

This project has a CIV of \$39 million, and therefore is considered to be State Significant Development.

This application will be assessed under the relevant provisions of Part 4 of the EP&A Act. A copy of the Director-General's Environmental Assessment Requirements is included in **Appendix A**.

2. SITE CONTEXT AND ANALYSIS

2.1 Site Description

The subject property is legally identified as Lot 1, DP 69451 and Lots 1-26 DP 7131, known as No. 20 Avon Road Pymble. It has an area of about 20 hectare. It is owned by the Uniting Church in Australia and is occupied by Pymble Ladies College, an institution that educates girls from Kindergarten to Senior School.

The site is bounded by Avon Road to the north and west. The main entry is via Avon Road, north, with secondary entries via Avon Road, west. The School has been in continuous operation on the site since 1916.



Aerial view of site & surroundings

Further to the north/east is the railway corridor, to the north/west opposite the site are residential properties.

To the south/east of the site are residential properties with access from Pymble Avenue. To the south/west the site is adjacent to the Avondale Golf Course.

The site is within a Bushfire Prone Vegetation Buffer Zone, however, the proposed buildings on the site are not within the identified bushfire prone area. A water course is located along the northern boundary of the site adjacent to Avon Road. The landscape works will continue to improve and enhance the riparian zone.

Whilst the site is also identified as supporting Blue Gum High Forest - a Critically Endangered Ecological Community listed under the Threatened Species Conservation Act, as no areas of Blue Gum High Forest are to be removed or adversely impacted, Council has advised that 7 Part Test (Impact Assessment) will not be required.

2.2 Site Characteristics

The site is within the original distribution of the critically endangered Blue Gum High Forest Ecological Community. There are also a number of threatened flora and fauna species that may use the sites natural habitats.

The site is predominantly developed with buildings, open lawn area, garden areas with exotic and native trees planted to create avenues.

There is a gully depression running along the site's north western boundary. The site adjoins at its southern boundary the Avondale Golf Club.

2.3 Topography and Stormwater Management

The site falls from north to south with a cross fall from east to west. There is a natural gully/depression running along the site's north/western boundary.

Stormwater is collected and stored for re-use and discharged over the property by way of controlled discharge.

2.4 Existing Developments and Use

The site is used as a School to educate girls from Kindergarten to Senior School

The School Campus has been in continuous improvement with recent improvements including:

- Senior Learning Centre
- New carparking areas and internal roads
- Performing Arts Centre
- Vegetation Management and upgrade of Riparian Zones

The existing outdoor swimming pool which has been assessed as being near the end of its useful life, is to be demolished and the new Aquatic & Fitness Centre to be constructed in its place.



Existing Outdoor Swimming Pool - to be demolished
& replaced by new indoor facility



Edge of Mollie Dive Field in proximity to existing pool

2.5 Traffic & Access

Approval pursuant to DA 507/11 to undertake road widening and improvements works within Avon Road and works within the School is designed to improve traffic circulation and to better manage traffic flows during peak periods.

This proposal is supported by a Transport And Accessibility Impact Assessment (**Appendix K**) and the overall proposal is to provide improved and safer traffic circulation and a consolidated location for on-site parking.

The Transport and Accessibility Impact Assessment notes that:-

- No increase in the existing student numbers being 2,120 students and no increase in staff levels of 300 are proposed in association with the development.
- The College is within easy walking distance to Pymble railway station.
- The College has introduced a college bus service during the morning and afternoon peak periods to reduce traffic flow.
- The College has undertaken road widening and traffic improvement works to Avon Road, north to improve vehicular manoeuvrability .
- The DGR's in relation to traffic and parking are addressed.
- Existing Avon Rd - South - entry - main entry to proposed aquatic centre.
- Existing - Avon Rd, North - main campus entry - upgrade works as approved to be completed over summer break.



Main entry gate Avon Rd - North



Exit gate Avon Rd - North



Entry gate to Sporting Complex Aveon Rd, South

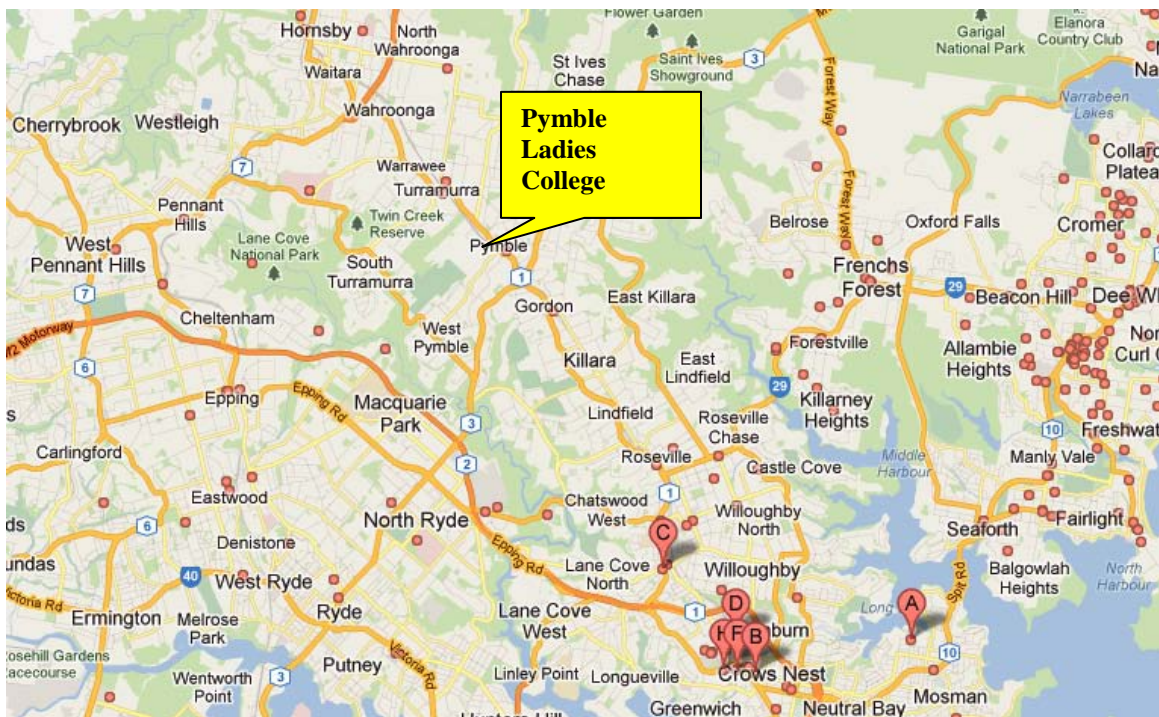


Exit gate to Sporting Complex Avon Rd, South

2.6 Metropolitan & Regional Context

The Pymble Ladies College campus is located within the Ku-ring-gai Local Government Area (LGA). The site is about 20km from the Sydney CBD and 20kms from the Parramatta CBD and approximately 2.7kms from the Gordon commercial Centre.

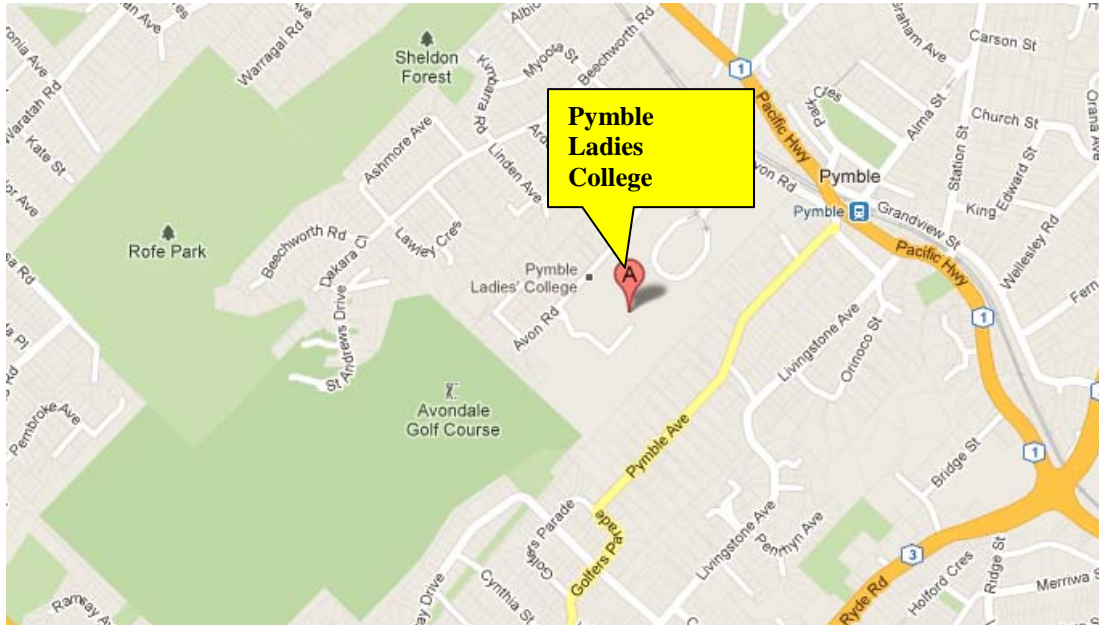
The site benefits from its proximity to both the Pymble railway station on the North Shore line and local private and school provided bus services. It is also in close proximity to Ryde Road and the access ramps to the M2 motorway.



Regional Context

This network ensures good accessibility and connectivity to the broader Sydney Region.

2.7 Local Content



Location of Pymble Ladies College

The school is located within a natural landscape area comprising some 20 hectares. It is bounded by the Avondale Golf course and residential single lot housing to south, residential development comprising generally large dwellings on large battle axe allotments in Pymble Ave to the south/east and more recent high density residential development at the Avon Rd, Pymble Ave precinct, with moderately scaled commercial development to the north with the great northern railway line between the school and the Pacific Highway.

2.8 Local Accessibility

The campus is located within 400m walking distance or about 5 minutes of Pymble railway station. This station is on the North Shore line which connects south to the city and north to Hornsby. Local bus services are provided by Shorelink and in addition the college operates a college bus service on school days during the am and pm peak periods. The site is well located to public transport services.

The campus has three main access and parking areas:-

- The main college entrance of Avon Road (north), this driveway provides access to the formalised set-down and pick up areas within the site as well as on site parking for staff and visitors.

A secondary access via Avon Road (south) in proximity to the Avondale Golf Course entry. This access is accessible for staff, delivery vehicles and for parents/carers setting down and picking-up students at the Mollie Dive Sports Ground and Aquatic Centre.

- At the north-west access gate to the at grade car park and on site. Coach set-down and pick-up area adjacent to the James Kelso pavilion.

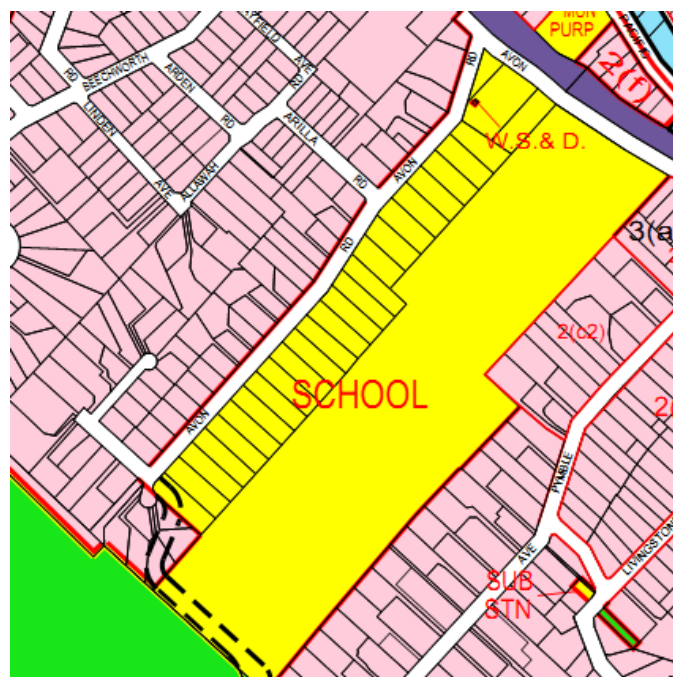
Under the Ku-ring-gai Council's Policy DCP, 335 on site parking spaces are required. The site currently provides 275 spaces. The proposed works, including a new car park below the rebuilt Mollie Dive sports field will provide for 470 car parking spaces over the college campus.

The proposed access and on site parking provisions for the new development proposed will satisfy the Council's controls and provide more than adequate levels of on site parking, to the extent that no kerb side parking by either staff, students or visitors will be required.

2.9 Land Use

The Pymble Ladies College is located within an established educational precinct over 20 hectares of land surrounded mostly by low density residential, comprising large dwellings on large allotments, interspersed with high density residential development within close proximity to the railway line and some commercial/retail development with the Pymble Town Centre.

The Pymble site is zoned special uses 5(a) scheduled under the provisions of the Ku-ring-gai Planning Scheme Ordinance as amended.



Extract from Ku-ring-gai Zoning Map

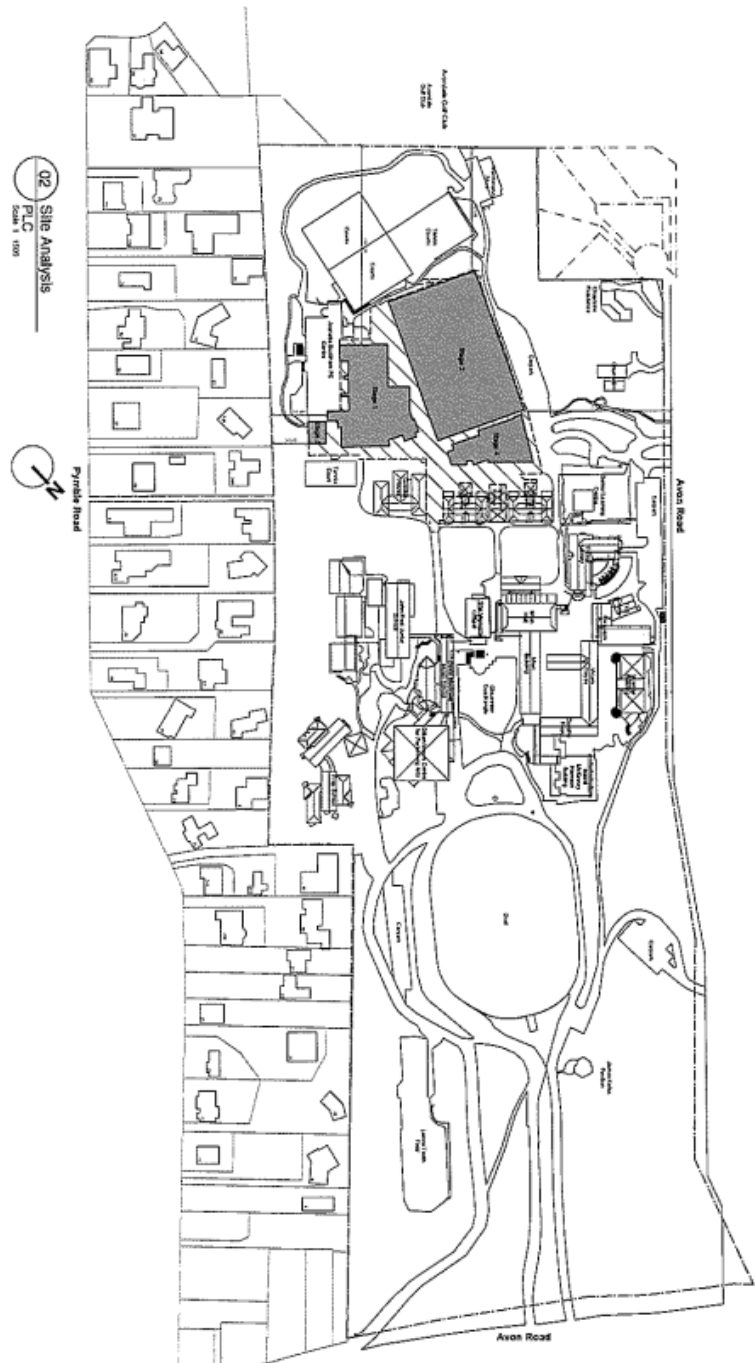
The site is identified as bushfire prone land - buffer zone on Council's bush fire prone land map. The site contains remnant Blue Gum High Forest, a critically endangered ecological community.



Bushfire Prone Land Map

2.10 Built Form

A ground figure analysis of the Pymble campus shows the extent and pattern of buildings on and around the site and the surrounding space.



Site Analysis - relationship with adjoining properties to the south-east

The pattern of buildings on the campus is discernible from those on the immediate surrounding area. The estate is dominated by large architectural designed dwellings on large lots in a variety of styles accommodating large areas of landscaped gardens and large mature street trees and on site canopy's, mostly Eucalypts which create a canopy cover and obscure the views of dwellings from the street.

This environment has recently undergone change by the development of Multi-Unit high density housing at the north-eastern end of Livingston Ave, Avon Road and Pymble Ave, in proximity to the Pymble Railway Station.

The campus buildings are set well back from the adjoining property boundaries, thus creating the impression of large open space areas as a backyard to the Pymble Avenue dwellings.

Except for the various residences within the campus, the buildings are generally 2-3 storeys in height and in a variety of forms and styles and when considered having regard to the site topography, existing perimeter, canopy tree planting and building setbacks, are considered acceptable for the school campus.

2.11 Topography

The site falls from north to south with a cross fall from east to west. The fall is graded but significant, about 12m from north to south. There is a gully/depression/riparian zone running generally along the sites north/western boundary.

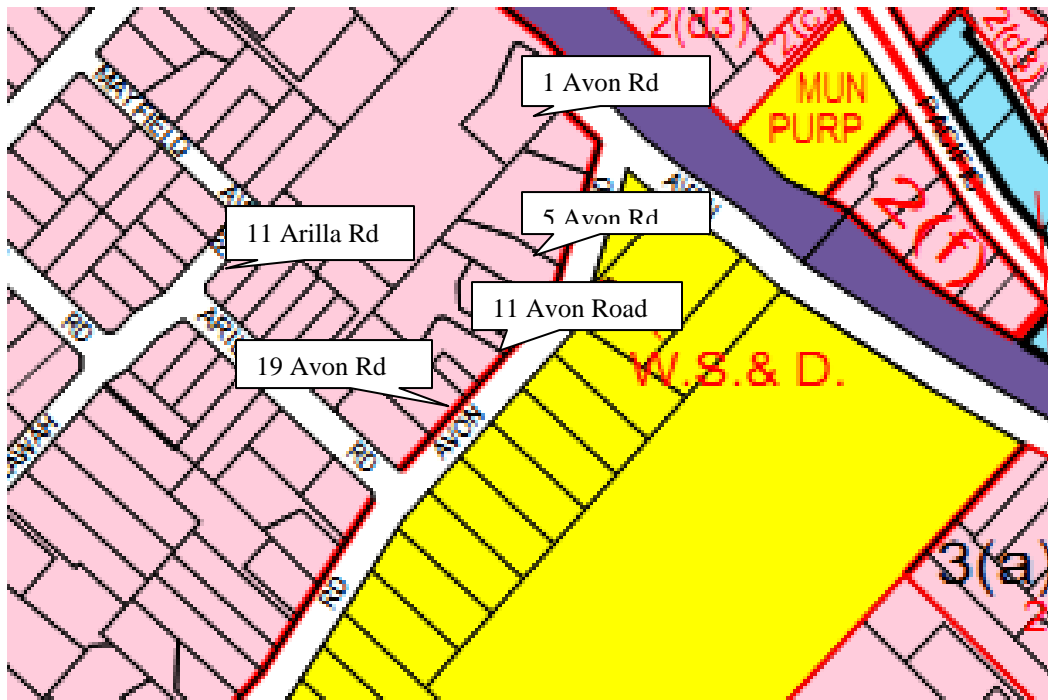
2.12 Heritage

There are no heritage listed buildings or spaces within the college campus and the site is not identified as being within a Heritage Conservation area or draft heritage conservation area.

Clause 61E (heritage provisions) of the Ku-ring-gai Planning Scheme Ordinance requires that the consent authority must undertake an assessment of the proposal to determine if it will have any impact on a heritage item in the vicinity of the development site. Properties 1,5,11 and 19 Avon Road and No. 11 Arilla Road are all identified as Local Heritage Items in Schedule 7 of the Ku-ring-gai Planning Scheme Ordinance.

No 19 Avon Road is the closest of the listed sites to the subject site. It is located opposite the School and some distance from the proposed new building. There will be no visual connection between any listed item and the building works.

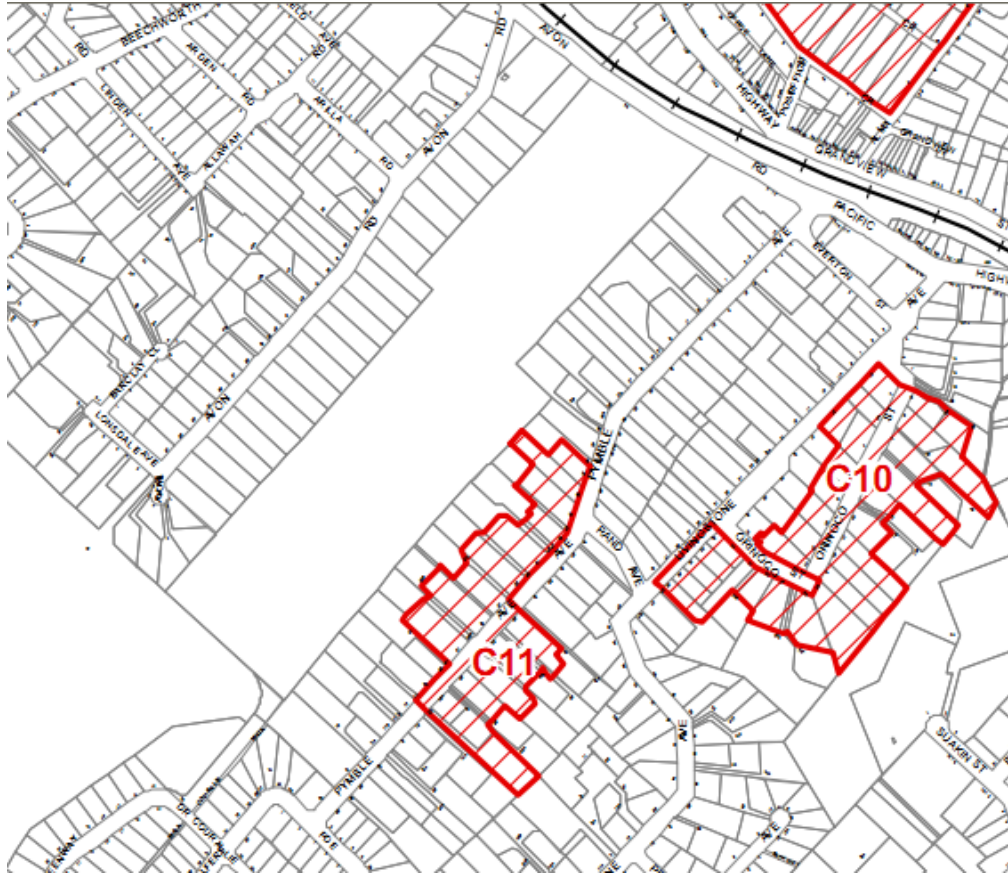
The existing service entry, which is to be improved, will be visible, however, it is submitted that no detrimental impact will arise to the heritage listed buildings as a consequence of this work (a) because of site separation and (b) because of the new works will not be visible from any of the heritage listed properties.



No. 19 Avon Road - Heritage Listed Item - diagonally opposite proposed carpark entrance



No. 19 Avon Road - Heritage Listed Item - diagonally opposite proposed carpark entrance



Extract from Council's Draft Heritage Conservation Map

2.13 Aesthetic Appearance

Clause 33(a) of the Ku-ring-gai Planning Scheme Ordinance requires the consent authority to take into consideration the probably aesthetic appearance of the proposed development when viewed from the adjoining railway and private open space.

With respect to the railway impact, the development is adjacent to the Great Northern Railway at its northern boundary. No works are proposed at this location that can be viewed from the railway line.

In relation to the likely impacts to the adjoining private open space - Avondale Golf Course, again due to site topography and separation distance, no visible impact will arise from the buildings by patrons of the Avondale Golf Course.

2.14 Vegetation & Open Space

The site retains large areas of both passive and active open space, with scattered vegetation throughout the site. Part of the site contains remnant vegetation including the critically endangered ecological community known as Blue Gum High

Forest (BGHF). The application is supported by an Arboricultural Assessment and Development Impact Report prepared by Rain Tree Consulting (**Appendix N**) and a Flora & Fauna report prepared by Footprint Green (**Appendix F**).

Most of the campus buildings are clustered in the southern end of the site below the large playing field that frames the main entry to the school campus.

There are approximately 850 trees on the site comprising both mature native trees and a mixture of small and large exotic trees and around the perimeter of the site. There is an open gully and identified riparian zone adjacent to the sites western boundary with Avon Road. Continuous improvement works to this area is being undertaken. The maintenance of the existing vegetation creates an environment of buildings being framed by the large canopy trees and large areas of open space through the site.



Pymble Ladies College – Aerial View – Existing Vegetation & Open Space

2.15 Services and Infrastructure

The site is presently serviced by all necessary urban infrastructure.

Water supply to the campus is provided from existing water mains . Water supply will be augmented by the additional water storage and note re-use facilities to be provided.

Sewer connection to the campus is provided by existing sewer mains and no augmentation is required as no additional population of the site is involved.

An analysis of the likely power requirements for the project has been undertaken and a new substation will be required to satisfy the power demand. The location of this substation within the school campus is subject to negotiations with Energy Australia.

The campus is connected to existing gas service

3. THE PROPOSED DEVELOPMENT

The Uniting Church in Australia (NSW & ACT Synod) seeks consent to the provision of new facilities for the Pymble Ladies College campus.

The design and concepts for the proposal identified as Masterplan - Phase 2 are shown in the attached plans - Appendix A

The elements of the proposal are outlined in Table 3.1.

The description of the proposed development is provided to allow the Department of Planning & Infrastructure to assess the proposal as it is identified as State Significant Development (SSD) under the EPA Act.

3.1 Pymble Masterplan Phase 2 Development Summary

Stage 1

- Demolition of existing swimming pool
- Construction of new indoor Aquatic & Fitness Centre in same location as existing swimming pool, associated landscaping, provision of service paths and upgrading of the existing Jeanette Buckham PE Centre. The new indoor Aquatic & Fitness Centre includes a new 52m pool with intermediate boom and diving boards, a learn to swim pool, grandstand seating, administration and staff areas and new fitness centre.
- Relocation of the existing Mollie Dive Hockey/Sports Field west of the existing location (to accommodate the new Aquatic Centre).
- The facilities are intended to be utilised by the School, as well its continued but not increased use as a facility for community use outside normal School hours.
- The area's and building dimensions are as follows:
 - Ground area: 2868m²
 - Mezzanine Area 676m²
 - Basement Area 540m²
 - Dimensions 73.6m x 67.4m

Stage 2

- Raise the Mollie Dive Field to provide carparking under for 230 carparking spaces, provision of terrace to Aquatic & Fitness Centre, new piazza and connecting avenue between the existing Lang House and Goodlet House.
- The carparking area is intended to connect with the road works approved under DA 507/11. The existing at-grade parking area located on the western side of the playing field will be retained.
- The area and dimension are as follows:
 - Basement area 6,660m²
 - Dimensions 100m x 64.2m

Stage 3

- New dining facility (north of the Mollie Dive Field), associated landscaping works and upgrade of boarding courtyards and service areas.
- The dining and function centre will accommodate boarding and staff dining and will also cater for 600 seat functions for college and community events. The new facility is intended to replace existing facilities within the College. The Function Centre will provide for functions which are currently held in the College hall.
- The area and dimension are as follows:
 - Ground floor area: 1270m²
 - Dimensions 33.8m x 57.5m

Stage 4

- New Health Care Centre, associated landscaping and pavement works. This centre is intended to consolidate the College's counselling and support services into one area.

It is anticipated these works will be progressively undertaken over the next 5-10 years.

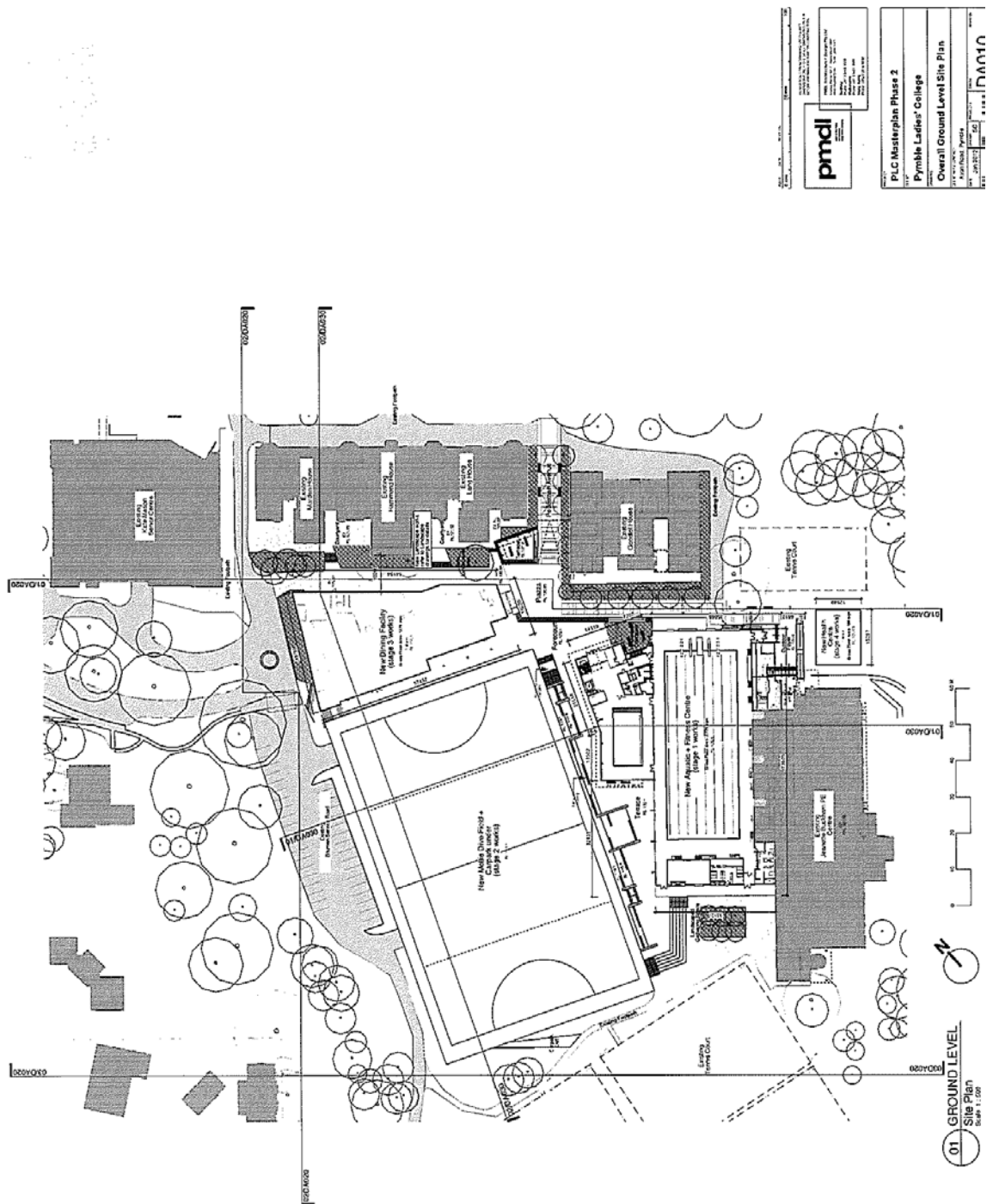
No additional students or staff is proposed as part of the development. It is intended that the works will provide for new and improved facilities for existing students and improved vehicular access arrangements.

- The area and dimension are:
 - Ground floor 188m²
 - First floor 188m²
 - Dimensions 15.3m x 12.5m

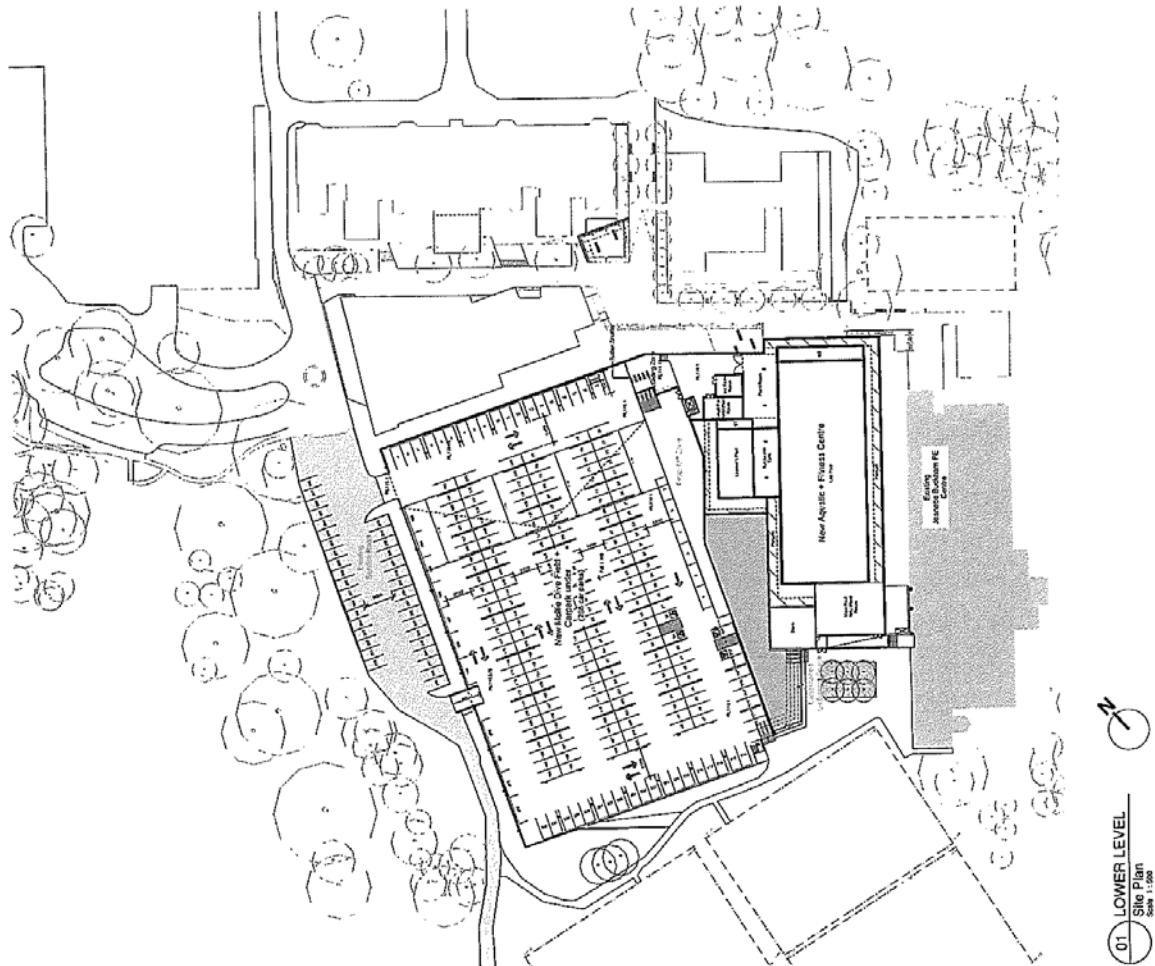
Table 3.1

Development Summary - Progressive Redevelopment of the Pymble Ladies College	
Proposed Use	Educational purposes and community use of facilities
Demolition	Demolition of the existing outdoor swimming pool and part demolition of existing PE Centre as detailed on the submitted Demolition Plan - Refer DA 003
Earthworks	Detailed earthworks associated with construction of Aquatic Centre and relocated sports field
Landscaping	Implementation of landscape works as detailed on the submitted Landscape Plans
Staging	The development is to be undertaken in 4 stages as detailed in the submission

Capital Investment Value	\$39m
Employment	115 persons during building phase/
Infrastructure and Services	
Roads	Existing road network in place - improvement work to Avon Road (North) to be undertaken by Pymble Ladies College for Council
Electricity	Existing services maintained & upgraded
Potable Water	Existing services provided and available
Sewer	The sewer is available and connected
Telecoms	Existing telecom services available to site
Gas	Existing gas supplies are available
Stormwater Management	Designed to be in compliance with Ku ring gai Council's Water Management DCP No. 47.
Bushfire	The site is identified as being Bushfire Prone Land on Council's Bushfire Prone Land Map. The application is supported by a Bushfire Hazard Assessment Report which confirms that the proposal is outside of the hazard area.
Traffic Management	The proposal will not generate additional need for parking as there is no increase in student or teacher numbers, however, improvement in internal circulation and allocated parking area is proposed.
Ecology	<p>A watercourse is located along the northern boundary of the site adjacent to Avon Road. Improvements to the area have been ongoing. The remnant vegetation within the water course and the School grounds comprise Blue Gum High Forest - a Critically Endangered Ecological Community.</p> <p>Ku ring gai Council (see Pre-Lodgement Meeting Minutes) advised that as the remnant forest areas are clear of the proposed development, a 7 Part Test (Impact Assessment) is not required.</p>

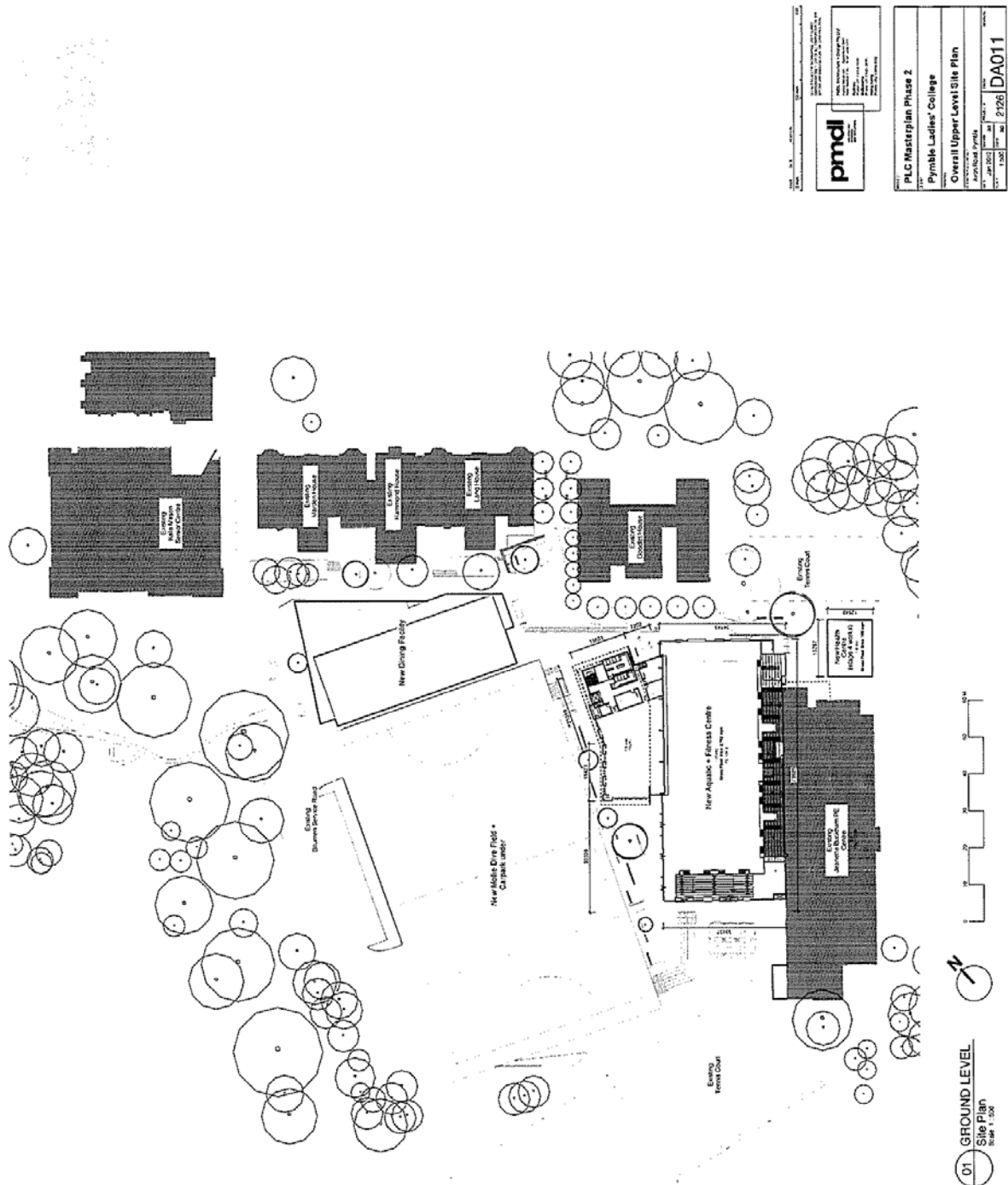


Ground Level Site Plan - Stage 2
Aquatic & Fitness Centre



Ground Level Site Plan
Mollie Dive Field & Carpark Under

<p>pmdl</p> <p>Project Management & Design 100/100 Mollie Dive Field Pymble NSW 2107 Tel: 02 9371 1500 Fax: 02 9371 1501 Email: info@pmdl.com.au</p>	
<p>Project: Pymble Ladies' College</p>	<p>Client: Pymble Ladies' College</p>
<p>Phase: Overall Lower Level Site Plan</p>	<p>Scale: 1:1000</p>
<p>Date: 21/06/2012</p>	<p>Drawn: DA012</p>



Overall Upper Level Site Plan

3.2 Urban Design Principle

The principle Architect has articulated the design criteria as follows-

As a major facility “anchoring” the sporting precinct, and lying to the South of the main built zone of the campus, the centre has been identified as requiring iconic qualities, separating it from the “fabric” buildings of the campus as such, a contemporary expression has been pursued whilst using materials familiar to the College, particularly at ground level, to provide continuity.

The proposal comprises a building of two main forms - the main pool hall and the smaller LTS/fitness element. The pool hall is a large single volume, with a steel structure and significant proportion of glazed facades. Shading and solid facade elements are provided in prefinished cladding materials, and are complimented by brickwork features and base elements which tie the palette to the traditional materials of the College campus.

The main pool deck level has been lowered approximately 1.5m from the existing level so as to marry the roof heights with the existing PE Centre, and to provide better connection to the Mollie Dive Field, which is currently some 5m lower than the existing pool deck. This provides the opportunity to create an outdoor plaza area at the gateway to the precinct, allowing College members and visitors to orient and navigate this part of the Campus.

The proposed levels also allow for terracing to the edge of the field which also provides a through site link to the courts to the South of the development.

The aquatic centre has been designed to include a range of energy saving measures, particularly in relation to the pool and air handling plant. Heat recovery, gas fired and solar boosted systems are envisioned to work in concert to minimise energy use. Significant roof area also allows for solar power and heating systems, consistent with the College’s ESD targets and policies. (Appendix B)

3.3 Tree Removal

Stage 1 (The Aquatic & Fitness Centre) will require the removal of 21 trees. There are a further 10 trees in proximity to the proposed works that will require protection during construction and are to be retained.

The Arboricultural Assessment and Development Impact Report also identifies trees that will require removal for each of the next stages of the development. Details of trees identified for removal or protection are included on the Arboricultural Assessment and Development Impact report - **(Appendix N)**

Overall the proposal will result in the removal of 62 trees of which:

- 19 trees are planted indigenous species including Sydney Blue Gums (Eucalyptus Saligna), Blueberry Ash (Elaeocarpus Reticulatus) and Red Bloodwoods (Corymbia Gummifera)
- 22 trees are non-indigenous native species including Mountain Cedar Wattles (Acacia Elata), Illawarra Flame Trees (Brachychilon Acerifolius) and Tallowwoods (Eucalyptus Microcorys) and
- 21 trees are exotic species including Jacarandas (Jacarandas Mimosifolia) and Peppercorn Trees (Schinus Molle).

3.4 Traffic & Circulation & Car Parking

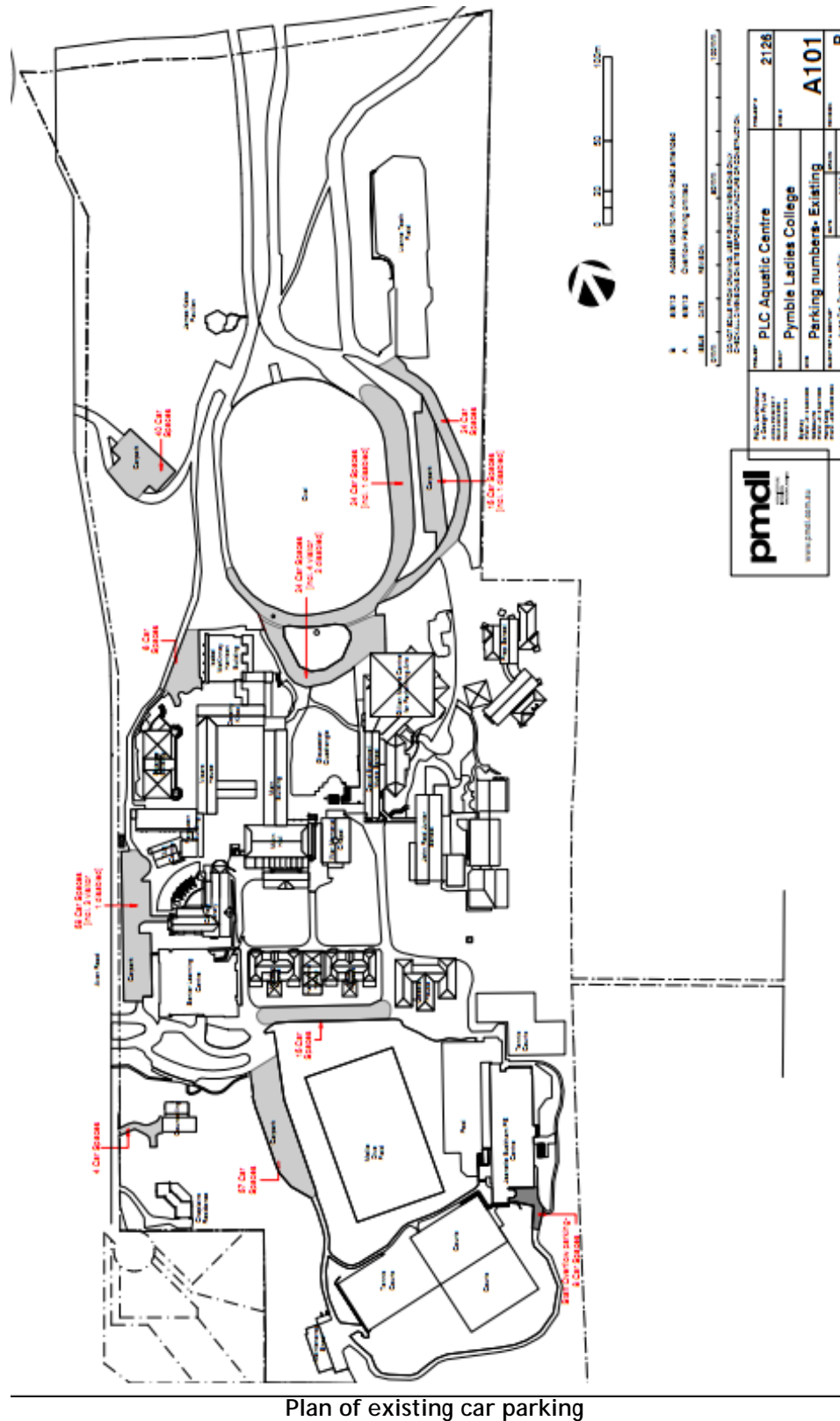
The campus is located within 400m walking distance or about 5 minutes of Pymble railway station. This station is on the North Shore line which connects south to the city and north to Hornsby. Local bus services are provided by Shorelink and in addition the college operates a college bus service on school days during the am and pm peak periods. The site is well located to public transport services.

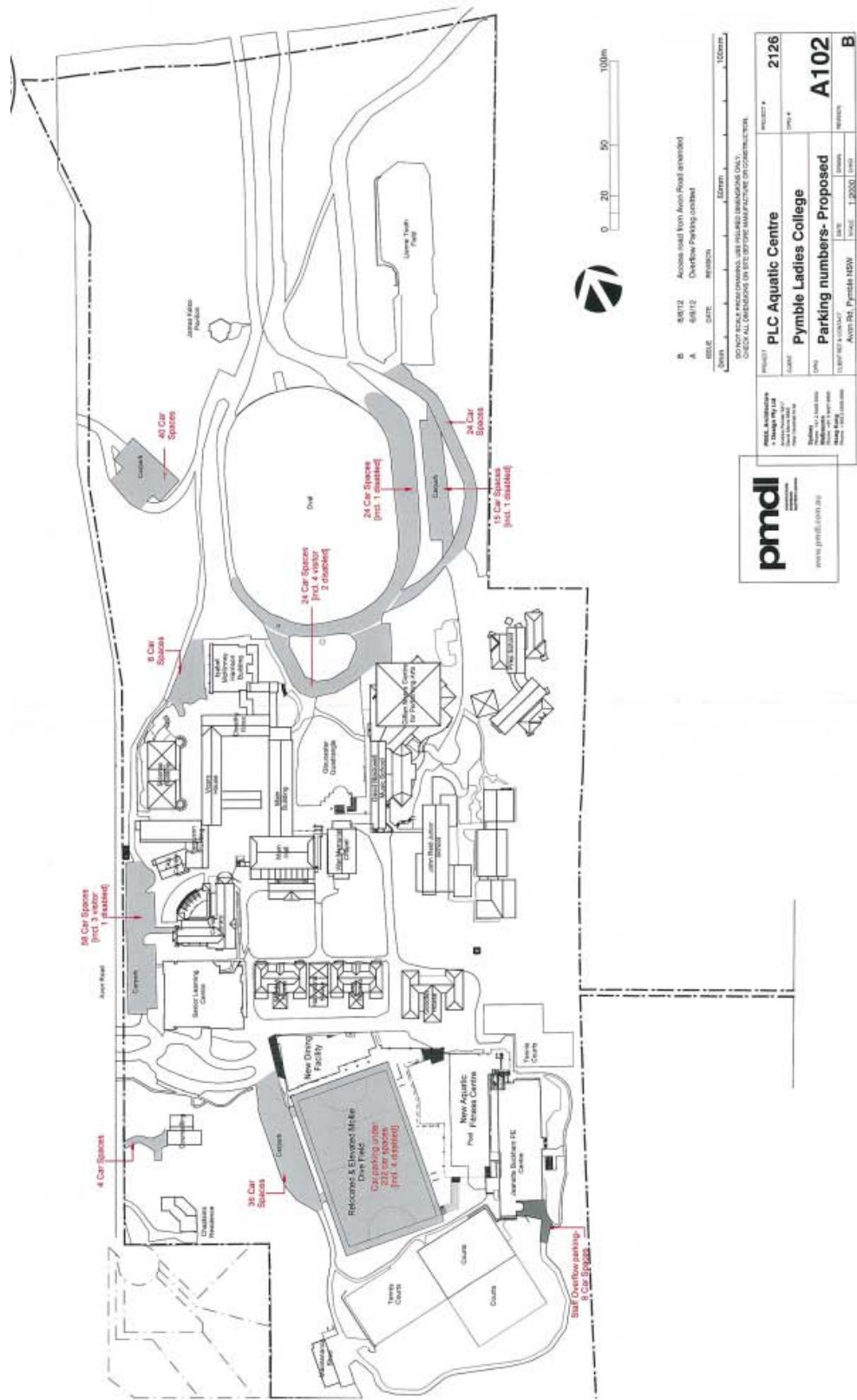
The campus has three main access and parking areas:-

- The main college entrance of Avon Road (north), this driveway provides access to the formalised set-down and pick up areas within the site as well as on site parking for staff and visitors.
- A secondary access via Avon Road (south) in proximity to the Avondale Gold Course entry. This access is accessible for staff, delivery vehicles and for parents/carers setting down and picking-up students at the Mollie Dive Sports Ground and Aquatic Centre.
- At the north-west access gate to the at grade car park and on site. Coach set-down and pick-up area adjacent to the James Kelso pavilion.

Under the Ku-ring-gai Council's Policy DCP, 335 on site parking spaces are required. The site currently provides 275 spaces. The proposed works, including a new car park below the rebuilt Mollie Dive sports field will provide for a total of 470 car parking spaces over the college campus. This detailed in figure 5 in the Traffic report.

The proposed access and on site parking provisions for the new development proposed will satisfy the Council's controls and provide more than adequate levels of on site parking, to the extent that no kerb side parking by either staff, students or visitors will be required.





Plan of proposed car park

B 5/8/12		Access road from Avon Road amended	
A 5/8/12		Overflow parking created	
ISSUE	DATE	REVISION	
0 20 50 100m		100m	
PROJECT #		2126	
CLIENT		PLC Aquatic Centre	
DESIGN		Pymble Ladies College	
DRAWN		Parking numbers- Proposed	
CHECKED BY		DATE	1/20/2012
DRAWN BY		DATE	1/20/2012
PROJECT #		A102	
PROJECT #		B	



PLC Aquatic Centre
Pymble Ladies College
Parking numbers- Proposed

www.pymble.lc.nsw.edu.au

3.5 Staging

Stage 1

The Aquatic & Fitness Centre will be commenced within 12-18 months of the consent being issued.

Stage 2

Mollie Dive Field and car parking, will commence within 12-18 months of completion of the Aquatic centre.

Stage 3 & 4

Will be undertaken within the next 5-10 years.

3.6 Application History

The site has been in continuous use as an educational establishment for girls since 1916. The recent development application history is as follows:-

- DA5680/98 - New preparatory school
- DA0824/99 - New carpark and landscaping
- DA1264/99 - Library
- DA1917/99 - Incorporation of disabled lift in chapel
- DA0982/00 - Tennis and minkey courts
- DA1284/00 - Alterations and additions
- DA1378/00 - Alterations
- DA0234/01 - Administration entry refurbishment
- DA0469/03 - Performing arts centre
- DA0287/04 - Alterations to main hall (internal works)
- DA0555/04 - Alterations and additions to junior school
- DA0618/06 - Storage facility for flammable liquids
- DA1435/06 - Alterations and additions to residence for use as a staff childcare facility
- DA1253/07 - New palisade fencing
- DA0862/08 - 2 temporary demountables containing 7 classrooms
- Pre0018/09 - Alterations & additions to school including construction of an IT data centre, seniors learning centre and carpark, demolition of 2 buildings, upgrade existing service entrance to provide car and bus access to new carpark, relocate exist driveway and new line marking - Approved as a BER Project.
- DA0295/09 - Demolition of 2 existing buildings and construction of new building, carpark and alterations to existing library
- DA0429/09 - Alterations & additions to junior school
- Mod0160/10 - Mod of DA295/09 proposing removal of trees
- PreDA069/11 - Change to vehicular access arrangements at Avon Road frontage

- DA0507/11 - Minor internal road works at both southern and northern entries of school & demolition of structures as required
- Mod0238/11 - Mod of DA295/09 proposing changes to alterations to existing library and use of areas for uniform shop, book shop and IT centre
- Mod0012/12 - Mod of DA507/11 for inclusion of plan showing widening of existing exit driveway at Main entry gated (Avon Road).

4. DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

On the 25 September 2012 the Director-General of the Department of Planning issued the final requirements for the preparation of the proposed Environmental Impact Statement. A copy of the Director-General Requirements is included in **Appendix A**.

The following table provides a detailed summary of the individual matters listed in the Stage 1 Director-General Requirements and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

REQUIREMENT	ASSESSMENT
General	
EIS must meet the minimum requirements of Schedule 2 of the EP & A Regulation 2000 specifically: Clause 6 - Form of EIS Clause 7 - Content of EIS <ul style="list-style-type: none"> • Summary of Environmental Impact • Statement of Objectives • Analysis of Feasible Alternatives • Analysis of Development • Compilation of Mitigation Measures • Justification of Development 	Pages 3 and 4 of EIS Section 0.0 Section 1.6 Section 1.5 Section 3.0 Section 7.0 Section 6.0
Environmental Risk Assessment	
Key Issues	
1. Statutory and Strategic Context: Address all relevant provisions of applicable Environmental Planning Instruments including: <ul style="list-style-type: none"> • SEPP (State & Regional Development) 2011 • SEPP (Infrastructure) 2007SEPP (State & Regional Development) 2011 • SEPP (Infrastructure) 2007 • SEPP (Sydney Harbour Catchment) 2005 • SEPP No. 55 - Remediation of Land • SEPP No. 19 - Bushland in Urban Areas 	Section 5.3 Appendix H

<ul style="list-style-type: none"> • Ku-ring-gai Planning Scheme Ordinance • Ku-ring-gai Local Environmental Plan (Town Centres) 2010 <p>Address relevant provisions, goals and strategic planning objectives of the following:</p> <ul style="list-style-type: none"> • NSW 2021 • Metropolitan Plan for Sydney 2036 • North Subregion Draft Subregional Strategy • Ku-ring-gai Council DCP 31 - Access • Ku-ring-gai Council DCP 40 - Construction and Demolition Waste Management • Ku-ring-gai Council DCP 43 - Car Parking Code • Ku-ring-gai Council DCP 47 - Water Management • NSW Bike Plan; and • Planning Guidelines for Walking and Cycling 	<p>Section 5.3.6 Section 5.3.7 Section 5.3.8</p> <p>Section 5.4</p> <p>Section 5.3.9 Section 5.3.10</p>
<p>2. Built Form and Urban Design</p> <ul style="list-style-type: none"> • Address height, bulk and scale of the proposed development within the context of the locality. • Address design quality. 	<p>Sections 5.5.1, 5.5.2, 5.5.3, 5.5.4</p>
<p>3. Land Uses</p> <ul style="list-style-type: none"> • Identify aspects of the development that are for school and educational use and aspects of the proposal that are to operate for community use on a commercial basis. 	<p>Section 5.5.5</p>

<p>4. Amenity</p> <ul style="list-style-type: none"> Assess solar access, overshadowing, view loss, visual privacy, servicing requirements (waste management, loading zones, mechanical plant), acoustic impacts and window impacts. 	<p>Section 5.5.6</p>
<p>5. Ecologically Sustainable Development</p> <ul style="list-style-type: none"> Detail how ESD principles will be incorporated. Include description of the measures that would be implemented to minimise consumption of resources. 	<p>Section 5.5.7</p>
<p>6. Noise</p> <ul style="list-style-type: none"> Identify and provide a quantitative assessment of the main noise generating sources and activities and outline measures to minimise and mitigate potential impacts. 	<p>Section 5.5.8 Appendix P</p>
<p>7. Transport & Accessibility</p> <p><i>Construction</i></p> <ul style="list-style-type: none"> Detail access arrangements at all stages of construction and measures to mitigate any associated pedestrian, cycleway or traffic impacts. Details regarding car parking arrangements during construction, . <p><i>Operational</i></p> <ul style="list-style-type: none"> Assessment of NSW 2021, Metropolitan Plan for Sydney 2036 and the North Subregion Draft Subregional Strategy. Implications of proposal for non-car travel modes. 	<p>Section 5.5.9 Appendices K and Q</p>

<ul style="list-style-type: none">• Detail daily and peak vehicle movements likely to be generated. Key intersections to include: Pacific HWY & Beechworth Rd; and Pacific HWY & Livingstone Ave.• Details proposed access and parking provisions.• Detail proposed number of car parking spaces and compliance with appropriate parking codes.• Detail proposed service vehicle movements.	
<p>8. Flora & Fauna</p> <ul style="list-style-type: none">• Undertake Flora and Fauna Survey.• Address impacts on flora and fauna and steps taken to mitigate any identified impacts.• Provide a description of any remnant EEC.• Any impacts on threatened species, populations and EEC need to assessed, evaluated and reported.• Identify any relevant Matters of National Environmental Significance.	<p>Section 5.5.10 Appendices F and S</p>
<p>9. Bushfire</p> <ul style="list-style-type: none">• Demonstrate compliance with the relevant provisions of Planning for Bushfire Protection 2006.	<p>Section 2.9 Appendix O</p>
<p>10. Sediment, Erosion and Dust Controls (Construction and Excavation)</p> <ul style="list-style-type: none">• Details measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles.	<p>Section 5.5.11 Appendix Q</p>

<p>11. Utilities</p> <ul style="list-style-type: none">• Address existing capacity and any augmentation requirements for the provision of utilities through preparation of an Infrastructure Management Plan.• Prepare Integrated Water Management Plan.	<p>Section 5.5.12 Appendix D</p>
<p>12. Staging</p> <ul style="list-style-type: none">• Details regarding the staging of the proposed development.	<p>Section 3.5</p>
<p>13. Contributions</p> <ul style="list-style-type: none">• Address Council's Section 94 Contribution Plan and /or detail any Voluntary Planning Agreement.	<p>Section 5.5.13</p>
<p>14. Flooding</p> <ul style="list-style-type: none">• An assessment of any flood risk on site and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005),	<p>Section 5.5.14</p>
<p>15. Drainage</p> <ul style="list-style-type: none">• Details of the drainage associated with the proposal, including stormwater, drainage infrastructure and OSD.	<p>Section 5.5.15 Appendix L</p>
<p>16. Waste</p> <ul style="list-style-type: none">• Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste	<p>Section 5.5.16 Appendix T</p>

17. Heritage <ul style="list-style-type: none">• If relevant, a statement of significance and an assessment of the impact on the heritage significance of any heritage items and/or conservation areas should be undertaken.	Section 5.5.17
18. Aboriginal Heritage <ul style="list-style-type: none">• Address Aboriginal Heritage.	Section 5.5.18 Appendix D
Plans & Documents	
<ul style="list-style-type: none">• Architectural drawings;• Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries;• Site Analysis Plan;• Stormwater Concept Plan;• Shadow Diagrams;• View Analysis / Photomontages;• Landscape Plan;• Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan;• Plan of Management for community use of facilities on site;• Geotechnical and Structural Report;• Arborist Report; and• Schedule of materials and finishes.	Refer to Appendix List

5. ENVIRONMENTAL ASSESSMENT

5.1 Application of Part 4

The proposal sets out the future development framework for the Pymble Ladies College. The proposed represents a substantial redevelopment of the campus with an estimated C.I.V of \$39 million.

A request for DGR'S was sought from the Department of Planning & Infrastructure in June 2012. The Director General subsequently advised that the Pymble Ladies College staged development proposed to be a project to which Part 4 of the Act applied and the DGR's were issued on the 2 July 2012 - Application No SSD 5314. Modified DGR's were issued on 25 September 2012 and are included in **Appendix A**.

The proposal is classified a State Significant Development under Part 4 of the Environmental Planning & Assessment Act 1979 as it includes development with a capital investment value of more than \$30m. Clause 8 of Schedule 1 of SEPP (State & Regional Development) 2011, identifies classes of development which are SSD which includes:

Educational Establishments

Development for the purpose of Educational Establishments (including associated research facilities) that has a capital investment value of more than \$30m

Clause 12 of the SEPP relates to staged development applications reads as follows:

Staged Development Applications

If:

- (a) Development is specified in Schedule 1 or 2 to this Policy by reference to a minimum capital investment value, other minimum size or other aspect of the development, and*
- (b) Development the subject of a staged development application under Part 4 of the Act is development so specified, any part of the development that is the subject of a separate development application is development specified in the relevant Schedule (whether or not that part of the development exceeds the minimum value or size or other aspect specified in the Schedule for such development)*

Consequently, the Minister for Planning & Infrastructure or his delegate (The PAC) is the approval authority for the proposed development.

5.2 Objects of the EPA Act

The objects of the EP & A Act are addressed below:

(a)(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forest, minerals,

water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.

The proposal seeks stages approval for the Aquatic & fitness centre and then for stages 2, 3, & 4.

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

The proposal seeks to expand the existing campus in terms of the provision of new facilities with no increase in student numbers.

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

No such facilities form part of the proposal.

(a)(iv) the provision of land for public purposes

The proposal does not include land for public purposes.

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

Some of the services and facilities will be accessible to the community, eg the Aquatic & fitness centre and dining hall - after normal school hours.

(a)(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

No threatened species, populations and ecological communities or their habitats will be impacted by this proposal.

(a)(vii) ecologically sustainable development

ESD measures are proposed, see Section 4.6.

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

No housing forms part of the proposal.

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

The process of approval of this proposal involves consultation with State and Local Government.

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

Application will be placed on public exhibition enabling public involvement and comment, Public comment was sought as part of the preparation of this document.

5.3 Environmental Planning Instruments

The following planning instruments are applicable to the subject site.

- State Environmental Planning Policy (State & Regional Development) 2011;
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy (Sydney Harbour Catchment) 2005;
- State Environmental Planning Policy No. 55 - Remediation of Land;
- State Environmental Planning Policy No. 19 - Bushland in Urban Areas
- Ku-ring-gai Planning Scheme Ordinance;
- Ku-ring-gai Local Environmental plan (Town Centres) 2010 and
- Draft KLEP (Local Centres) 2012

5.3.1 State Environmental Planning Policies (SEPP's)

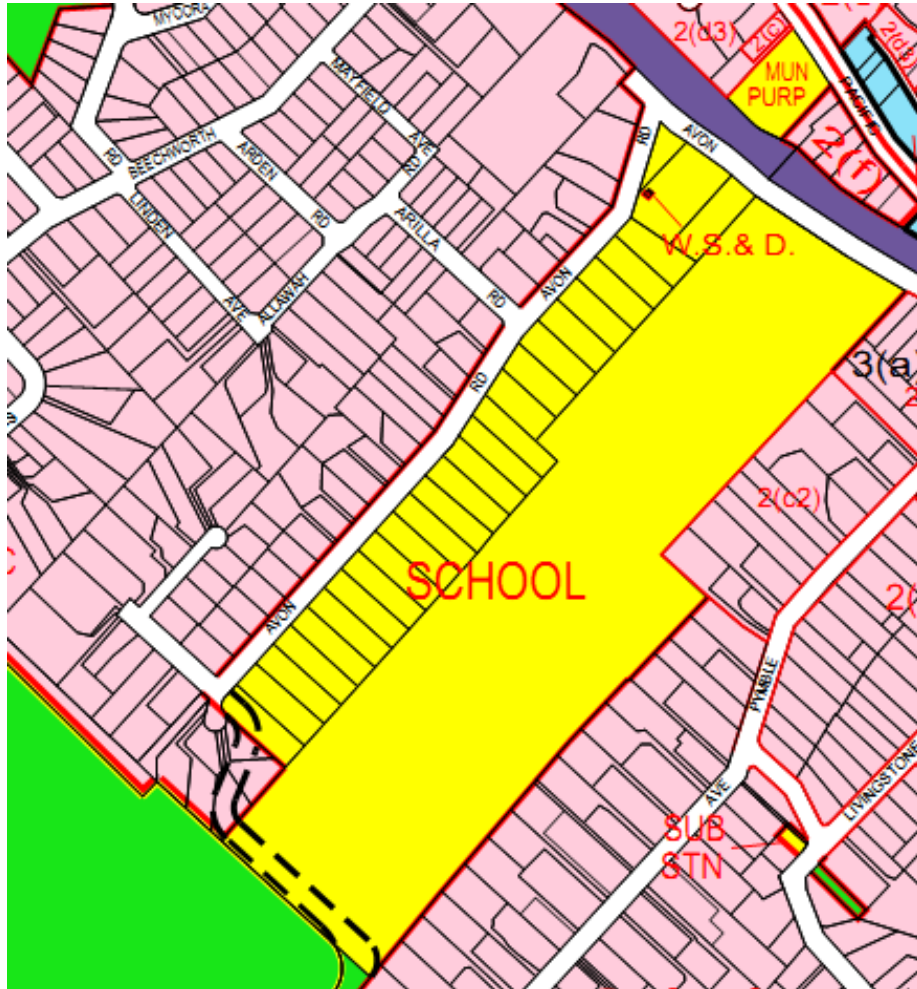
The table below summarises the key Planning Controls applicable to the site.

Control	Comment
State Environmental Planning Policy (State & Regional Development) 2011	This policy commenced on the 1 October 2011 Schedule 1 of the policy identifies development that is SSD. The proposal is identified as an Educational establishment having a C.I.V of more than \$30 million and is listed as item 15 in schedule 1.
State Environmental Planning Policy (Infrastructure) 2007	Division 3 of Part 2 of the infrastructure SEPP applies to educational establishments in 'Prescribed zones' in the standard instrument or zones in existing LEP's equivalent to the zones. The provisions of the SEPP prevail over any inconsistency and with other planning instruments including the KPSO. The Infrastructure SEPP Provisions:- <ul style="list-style-type: none">• Make educational establishments a permissible use in zones equivalent to the standard instrument.• Enable an educational establishment to

	<p>be used, with consent for any community purpose whether or not it is for commercial use; and</p> <ul style="list-style-type: none"> Identify certain types of school development as complying development subject to certain standards being met. <p>The development does not meet all of the complying development criteria.</p>
State Environmental Planning Policy (Sydney Harbour Catchment) 2005	<p>The site is located within the catchment of Sydney Harbour. Any development works associated with the construction of the proposed development have the potential to impact on the integrity of downstream watercourses. The proposal is accompanied by a detailed stormwater management plan and soil & sediment control plan to prevent any uncontrolled discharge into surrounding waterways.</p>
State Environmental Planning Policy No. 55 (Remediation of Land)	<p>A Preliminary Stage 2 Environmental Site Assessment was conducted by Environmental Investigation Services in October 2012.</p> <p>In conclusion this report provides:</p> <p><i>'Based on the results of the preliminary Stage 2 ESA, EIS consider the site (Stage 1 Works Area) to be suitable for the proposed development. In the event that anything unexpected is encountered during earthworks, EIS should be contacted for advice.'</i></p>
State Environmental Planning Policy No. 19 (Bushland in Urban Areas)	<p>The provisions of this policy apply to the LGA of Ku-ring-gai. An assessment of the development impacts in terms of the SEPP is provided in the submitted Flora & Fauna report (Appendix F).</p> <p>The development does not involve the removal of bushland on the site and through the implementation of the VMP, the proposed development will remove a heavily weedy area, reducing the spread of exotic plants into SEPP No 19 bushland.</p>

5.3.2 Ku-ring-gai Planning Scheme Ordinance

The KPSO represents the primary local planning instrument applicable to this site.



The site is zoned special uses 5(a) school pursuant to the KPSO

The proposed development is permissible on this site with consent. The provisions of SEPP (infrastructure) & SEPP (State & Regional Development) override the provisions of the KPSO.

The existing use of the site is defined by the KPSO as an “*educational establishment*” which is defined as follows:-

Educational establishment means “*a building used or intended for use as a school. College, technical college, academy, lecture hall, gallery or museum but does not include a building used or intended for use wholly or principally as an institution*”.

Educational establishments are permissible in the special use 5(c) - School zone with the consent of Council.

The proposal will include community or non-school use of the Aquatic & fitness centre on completion of stage 2, and dining hall, with the community use of school facilities encouraged and made possible through the operation of SEPP (Infrastructure) 2007. A draft plan of management relating to the on-school area of the Aquatic & fitness centre is attached as (Appendix C).

Clause 33(a) - Aesthetic Appearance

The Council is required to take into consideration the probably aesthetic appearance of the proposed development when viewed from the adjoining railway and private open space.

With respect to the railway impact, the development is adjacent to the Great Northern Railway at its northern boundary. No works are proposed at this location that can be viewed from the railway line.

In relation to the likely impacts to the adjoining private open space - Avondale Golf Course, again due to site topography and separation distance, no visible impact will arise from the buildings by patrons of the Avondale Golf Course.

Clause 46(1) - Height of Buildings

This clause states as follows:

Notwithstanding the provisions of Part iii of this ordinance, a building shall not be erected to a height, across any part of a site, which is greater than 7.0m. It is noted that the 7.0m height limit is not a development standard, rather it merely requires the submission of a Development Application for any works that exceed a height of 7.0m.

Height is defined as - *"a distance measured vertically from any point on the ceiling of the topmost floor of the building to the ground level immediately below that point"*

Ground level means *"the level of the site before development is carried out on the site under this ordinance"*.

The maximum height (as defined) of the proposed buildings are:

Stage 1:	Over 3 levels	8.6m high from ground level
Stage 2:	Basement Level	3.0m
Stage 3:	Single Storey	5m

Stage 4: 3 Storeys 6.5m

and therefore, for a local development, Council consent would be required.

Clause 61E - Heritage Provisions

This clause requires Council to undertake an assessment of the proposal to determine if it will have any impact on a heritage item in the vicinity of the development site. Properties 1,5,11 and 19 Avon Road and No. 11 Arilla Road are all identified as Local Heritage Items in Schedule 7 of the Ku-ring-gai Planning Scheme Ordinance.

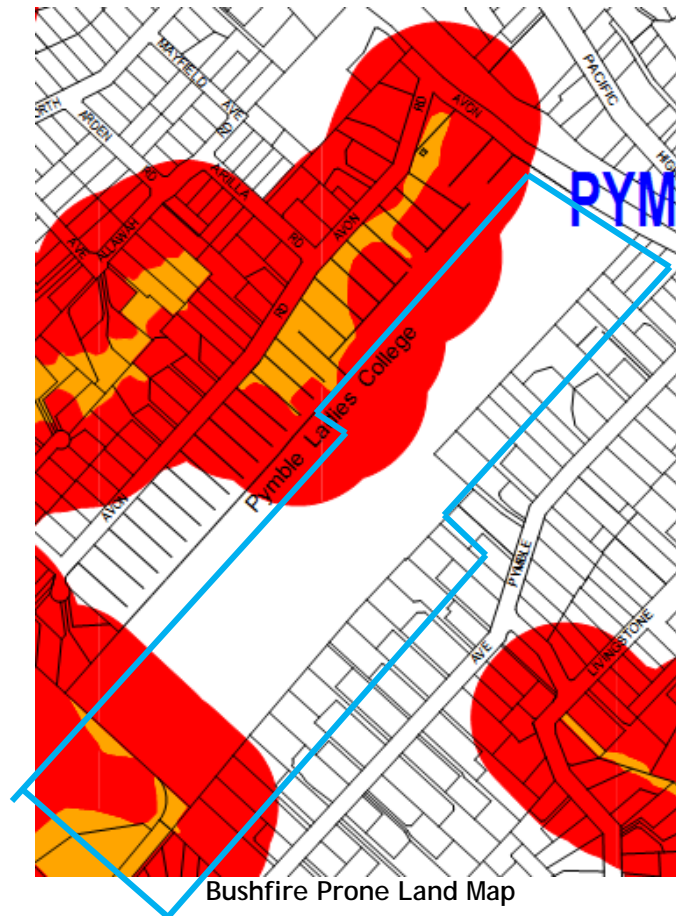
No 19 Avon Road is the closest of the listed sites to the subject site. It is located opposite the School and some distance from the proposed new building. There will be no visual connection between any listed item and the building works.



No. 19 Avon Road - Heritage Listed Item
diagonally opposite proposed carpark entrance

5.3.3 Planning for Bushfire Protection 2006

The subject site is identified as bushfire prone land - vegetation buffer zone on Council's Bushfire Prone Land map. The development is subject to the provisions of "Planning for Bushfire Protection 2006".



The development is classified as Integrated development and assessed as *"Infill Special Fire Protection Purposes"*

The proposal is supported by a Bushfire Hazard Assessment report (Appendix O) that advises that the required Asset Protection Zone (APZ) of 100m is available from all proposed building footprints.

The development was assessed noting the following:

- (a) Water supplies for fire fighting purposes are adequate.*
- (b) The proposed works are within a Bushfire Attack level as 'low'.*
- (c) Current grounds (excluding remnant vegetation) comply with performance requirements of Appendix 2 & 5 of PBP 2006*
- (d) The existing internal access system provides vehicle access around the subject property for attending fire services.*

5.3.4 Draft LEP (Local Centres) 2012

The subject site is affected by Draft (local centres) LEP 2012. The following summarises the Draft LEP as it applies to the site.

- The site is identified to be rezoned to SP2 - Educational Establishment.
- The site is identified as containing a Category 3(a) Riparian Zone.
- The site is identified as containing areas of biodiversity significance.
- The Draft Plan - Council resolved at its special meeting held on the 31 July 2012 to forward the plan as amended to the Department of Planning & Infrastructure for its consideration & making of the plan.
- The Draft Plan does not include a Savings Provision.
- The proposed is consistent with the Draft Zone Objectives.

5.3.5 LEP (Town Centres) 2010

On 28 July 2011 the Land and Environment Court declared that the Ku-ring-gai Local Environmental Plan (Town Centres) 2010 is of no legal force or effect. All land that was covered by the Town Centres LEP now falls under the Ku-ring-gai Planning Scheme Ordinance.

Notwithstanding the above, the provisions that were applicable in this LEP are discussed below:

- Zone: The Site was to be zoned R2 Low Density Residential. Educational Establishments are permitted with Consent in the R2 zone.
- The LEP did not stipulate any height or floor space controls for the subject site.
- The site was identified as comprising a Category 3 Riparian Area. However the proposed works are not located within close proximity of the identified area.

There are no other clauses that relate specifically to the proposed development.

5.3.6 NSW State Plan 2021

This plan was adopted in September 2011. It is a ten year plan that aims to *“rebuild the economy, provide quality services, renovate infrastructure restore government accountability and strengthen local environments & communities”*. It establishes action plans and targets with respect to identified areas for attention.

A Section of the Plan is devoted to the delivery of Education and a key component of this is to improve education and learning outcomes.

The proposed development is seen as supporting the objectives of the plan by:

- Providing excellent education & training facilities to improve learning opportunities.
- Improving the delivery of quality education services by the provision of improved infrastructure.
- Building on the existing educational establishment by replacing out of date facilities with modern infrastructure.
- Enhancing culturally creative, sporting & recreation facilities for use by the school and the community.
- Improving the delivery of secondary education by the provision of modern teaching and learning facilities.

5.3.7 Metropolitan Plan for Sydney 2036

The metropolitan Plan for Sydney 2036 (Metropolitan Plan) is an integrated, long-term planning framework that aims to sustainably manage Sydney's growth and strengthen its economic development to 2036. One of the key challenges facing Sydney is the expected population increase to 6 million by 2036, an increase of 1.7 million from 2006 which will require 770,000 new homes and 760,000 jobs.

To assist with implementation of the Metropolitan Plan, a series of 'subregional strategies' were prepared. These subregional strategies focus on implementation of the key objectives and strategies at a local level. The Pymble Ladies College site is included in the north subregion.

The proposed development supports the objectives of the Metropolitan Plan and the north subregion through the following.

- It reinforced the areas focus on education as a primary source of employment.
- It promotes the use of campus facilities by the community, outside of school hours.
- It takes advantage of the existing public transport facilities.

5.3.8 Metropolitan Strategy - (Draft) North Subregional Strategy

The Metropolitan Strategy is a broad framework to secure Sydney's place in the global economy by promoting and managing growth. It outlines a vision for Sydney to 2031; the challenges faced, and the directions to follow to address these challenges and achieve the vision. The draft North Subregional Strategy acts as a framework for Council in the preparation of a new Principal LEP by 2011.

The draft Subregional Strategy sets targets for the Ku-ring-gai LGA by 2031:

- Employment capacity to increase; and
- Housing stock to increase by 10,000 dwellings.

The proposed development would be consistent with the draft Strategy by providing an opportunity for retention and additional job opportunities in the locality.

5.3.9 NSW Bike Plan

The NSW Bike Plan outlines a ten year bicycle infrastructure plan and features encouragement actions to make cycling easy and accessible. The NSW BikePlan outlines how the NSW Government will work in partnership with local councils, communities and businesses to grow bike-riding over ten years.

It is considered that the proposal is consistent with the objectives of this plan by providing appropriate bicycle parking and end-of-trip facilities on site in accordance with Council and DGR's requirements. This is discussed in the Transport and Accessibility Impact Assessment prepared by Colston Budd Hunt & Kafes Pty Ltd.

5.3.10 Planning Guidelines for Walking and Cycling

These guidelines aim to assist land-use planners and related professionals to improve consideration of walking and cycling in their work. It is considered that the proposal is consistent with the aims and objectives of these Guidelines. A Transport and Accessibility Impact Assessment has been prepared by Colston Budd Hunt & Kafes Pty Ltd which in summary provides:

The proposed development is located adjacent to existing pedestrian links in the area. The existing pedestrian links through the college campus provide convenient access to Pymble railway station and to the surrounding residential area. The proposed development will enhance and improve pedestrian accessibility within the college campus and to/from the surrounding area.

To support accessibility by bicycles, appropriate bicycle parking and end-of-trip facilities will be provided in accordance with Council and DGR's requirements.

5.4 Ku-Ring-Gai Council DCP's

5.4.1: Access - DCP No 31

The application is supported by a Disability Access Report prepared by Cheung Access (**Appendix I**). The report identifies areas where further details are to be provided on the plan to ensure compliance with the full range of disability access requirements, however the proposal is capable of satisfying the access provisions of the BCA.

5.4.2: Construction & Demolition Waste Management Plan - DCP No 40

The application is supported by a Construction and Waste Management Plan (**Appendix T**).

5.4.3: Car Parking - DCP No 43

The Transport And Accessibility Impact Assessment submitted with the application confirms that the project will satisfy Council controls in relation to on site car parking and manoeuvrability (**Appendix K**).

5.4.4: Water Management - DCP No 47

The Stormwater & Integrated Water Management Plan and report submitted with the application as (**Appendix L**) responds to and satisfies Council's requirements.

This will include a detention storage volume of 48m³ with respect to the Aquatic Centre, Stage 1 of the development.

5.5: Key Issues

5.5.1: Built Form & Urban Design

The proposal will be located generally over the existing built structures and trafficable areas below the cluster of built form towards the south-eastern section of the site, with access generally from the southern gate off Avon Road.

The school is located behind a forest of large canopy trees particularly to the south and western edges, and less so to the eastern side, but nevertheless still visually screened by the substantial treed environment.



Typical interface between school &
Adjoining residential development & eastern boundary

The proposed development as described in the Architects Design Statement is a building created to “anchor” the sporting precinct. The other buildings will

complement the existing campus by using building forms and materials that are responsive to and sympathetic to the existing built form.

The design and function of the building are as set out in the Architects Design Statement as **(Appendix B)**.

Existing paths of travel and connectivity to both the sporting precinct and academic areas will be maintained. Existing setbacks and the relationship with adjoining residential properties are retained.

Positioned in the same location as the existing pool the new Aquatic and Fitness Centre maintains the existing connections to the remainder of the College. These connections are proposed to be reinforced by articulating and strengthening existing routes/axis within the main campus and terminating these with outdoor spaces, in form of generous piazzas and landscaped terraces that denote and celebrate arrival to the new facilities and their relationship to the elevated Mollie Dive Field.

5.5.2: Height, Bulk and Scale

The height and bulk of the new facilities have been designed to ensure they are in keeping with the other buildings on campus in particular to the immediate existing facilities, being the boarding houses and gymnasium.

The Aquatic and Fitness Centre has been designed to as two distinct forms to assist in reducing the apparent bulk and scale of the building. The larger form over the main pool is designed to butt into the existing 2 storey gym, which effectively buffers this new slightly higher form from the residential properties to the SE. The smaller form to the NW provides an appropriately scaled entrance to the building and backdrop to Mollie Dive Field.

The generous single storey dining facility is designed to nestle into boarding house precinct but have sufficient scale and presence, on its southern facade, to compliment its large open plan footprint and showcase its prominence as a facility for large functions and backdrop to Mollie Dive Field.

5.5.3: Design Quality

The new facilities have been designed to be sympathetic to the form, scale and aesthetics of the existing buildings on campus but with a contemporary expression, to be reflective of their history within the College.

As a major facility “anchoring” the sporting precinct, and located south of the main built zone of the campus, the Aquatic and Fitness Centre has been identified as requiring iconic qualities, separating it from the “fabric” buildings of the campus.

As such, a contemporary aesthetic has been pursued whilst using materials familiar to the College, particularly at ground level, to provide a degree of continuity.

The proposal for the Aquatic Centre comprises a building of two main forms - the main pool hall and the smaller LTS/fitness element. The pool hall is a large single volume, with a steel structure and significant proportion of glazed facades. Shading and solid facade elements are provided in prefinished cladding materials to both shade and articulate the facade. In the LTS/ fitness element these finishes are repeated and complimented by brickwork features and base elements which tie the palette to the traditional materials of the College campus.

By separating the building into two distinct forms the apparent bulk of the main hall is reduced and an appropriately scaled entrance and address to Mollie Dive Field is created. Designed as a higher projecting roof with sloping eaves the form of the main hall hovers over the smaller entrance building, creating a delicate and considered connection between the two forms.

5.5.4 Crime Prevention through Environmental Design Principles (CPTED)

The campus is a secure premises. It is locked after hours and only authorised persons are permitted entry. Strategically placed CCTV cameras are located throughout the campus.

A contact security company is used to install and maintain the security camera's and alarm system.

The 3 main gates (on a day with no functions) are operational as follows:

Gate 1:	Monday - Friday	6.00am - 7.00pm
	Saturday	6.00am - 2.00pm
	Sunday	Closed
Gate 2:	Monday - Friday	6.00am - 8.30pm
	Saturday	6.00am - 2.00pm
	Sunday	Closed
Gate 3:	Monday - Sunday	6.00am - 8.30pm

If there is a function the gates are closed one hour later.

The property manager lives on campus and a member of the property department is the after hours contact between 3.30pm and 6.00pm Monday to Saturday. On Sunday a member of the property department staff is rostered to work.

A security guard is on site between 6.00pm and 6.00am 7 days a week.

Additional measures include:

- Raising of Mollie Dive Field to relate better to the new pool and dining facility level, offering better surveillance of the College's southern precinct from the main activity areas.
- Limiting the placement of barriers within the scheme to afford clearer observation of activity generally.
- Locating the dining/function facility overlooking Mollie Dive Field maximising the ability to observe the southern part of the campus after hours, due to it evening/night use.
- Restricting or limiting access to the site after hours by the closure of main access gates and the continuous perimeter fencing.
- Expressing ownership of the campus through the creation of well defined, landscaped and maintained spaces in which students, staff and parents develop a sense of responsibility and by doing so feel the need to identify intruders.

All facilities are only used under supervision of a member of the campus staff.

5.5.5 Land Uses

In addition to the school usage of the proposed facilities it is also proposed to utilise the new indoor Aquatic & Fitness Centre for community use outside of normal school hours. It is noted that the current swimming pool and associated facilities are currently utilised for this purpose. The new indoor facilities will enable this community use to continue through the winter months.

It is also proposed that the dining hall be utilised for commercial use after school hours. This commercial use would allow the dining hall to be utilised for functions such as awards nights and musicals. The existing dining hall is currently utilised for similar purposes after hours.

As detailed previously the site is zoned Special Uses 5(a) School pursuant to the Kuring-gai Planning Scheme Ordinance. The proposed commercial/community uses are ancillary to the principal purpose as an Education Establishment and therefore permissible with consent.

5.5.6 Amenity

(a) Solar Access

Shadow diagrams for the winter solstice have been prepared. These plans demonstrate that the existing and proposed areas of open space will have adequate sunlight access during the winter solstice and that there will be no additional shadow impacts to adjoining residents.

The design and building separation allows for adequate levels of solar access to be provided to existing and proposed buildings.

(b) View Loss

The proposed buildings due to their location and height will not interrupt any views to and from the development. The new buildings within the campus will not be visible from the street or surrounding residential development.

(c) Visual Privacy

The scale of development proposed and its location within the site will ensure that there are no overlooking impacts to adjoining residential properties. Vegetation buffer ensures there is no visual connection.

(d) Loading Zones

Unloading of all materials will be carried out in accordance with the Site Specific Management Plan prepared by. In summary all unloading of all materials and equipment will be carried out from within the fenced site areas in the dedicated loading zone whenever possible. If any on-street standing is required, or unloading outside the site fence, all activities will be supervised at all times by qualified traffic controllers.

(e) Roof Top Mechanical Plant

Mechanical plant is proposed for the roof of the Aquatic and Fitness Centre, over the smaller of the two building forms where there is the opportunity to create a sunken platform with 1 metre high surrounding walls to mask any view of plant from the ground. These are proposed as open plant areas to achieve the ventilation requirements for equipment and ensure that the height of the building form is kept to a minimum. In this location the plant is also strategically buffered by the new main hall structure and existing gymnasium, ensuring mechanical noise is not an issue for the closest residents located along the SE boundary.

(f) Noise/Acoustic Impacts

Vipac Engineers & Scientists have prepared an Acoustic Impact Study which is attached to this application as (Appendix P). The report notes that:

"It is anticipated that any potential noise associated with the new facilities would not cause an increase in impact to the surrounding residential receivers and that "acoustic impacts relating to the upgrade of these school facilities are not expected to create adverse impacts onto surrounding residents".

Traffic noise will not be increased and has the potential for reduction in noise levels due to:

- Improved design of internal road network
- Rationalisation and consolidation of existing parking areas
- Internal roads and parking areas are well separated from adjoining residential properties.

Noise associated with the proposed use of the Aquatic & Fitness Centre will be reduced because the facility is indoors. The report notes that:

“Overall, we would expect that the new indoor facilities will improve the acoustic amenity of the surrounding residential receivers and that the noise levels from the use and activities from the new sports field will remain unchanged from current use.

In terms of construction noise, this is dealt with by the Construction Management Plan - (Appendix Q) and the recommendations of the Acoustic report being adopted by the proponent.

(g) Wind Impacts

The proposal provides for adequate separation distances between existing and new buildings within the campus. Given the limited scale of the proposed development it is not expected that the development will result in any significant wind impacts within the campus or adjoining properties.

5.5.7 Ecological Sustainable Development (ESD)

The following design features demonstrating a commitment to ESD principles are proposed.

- a) *“Measures proposed to minimise impact on environment include*
 - *Positioning the new Aquatic Centre in same location as existing outdoor pool, restricting impact on the surrounding environment to minor and repairable effects during the construction phase.*
 - *Gas fired boilers as a carbon friendly means of heating the water for the pools and air handling units.*
 - *Wherever possible, locally sourcing materials for construction.*
 - *Use of low emission materials such as low VOC coatings, flooring coverings and the like.*
- b) *Measures proposed to minimise consumption of water include*
 - *An integrated water management plan to harvest and reuse rainwater for hose taps, irrigation and other uses.*
 - *Inclusion of WELS rated tapware throughout.*
 - *Pool covers over both pools to minimise evaporation.*
 - *Limiting air supply velocity to reduce pool evaporation loss.*

- c) *Measures proposed to minimise consumption of energy and resources include*
- *Design of Aquatic Centre as full sealed box with a mixed mode AC design that has the flexibility to operate in mechanical and natural ventilation mode.*
 - *Limiting air supply velocity to reduce energy use and running costs and improve user comfort.*
 - *Inclusion of improved building insulation to walls, roof and under slab above minimum Section J requirements. With only 13% of heat loss through walls and roof the focus will be on increasing insulation between slab and ground.*
 - *Gas fired boilers designed in a modular approach to fire up and down according to heating demand.*
 - *Full height glazing to naturally light and passively heat the space in winter, reducing need for artificial lighting year round and energy required to heat the space in winter.*
 - *Areas of translucent roof sheeting over pool area to provide diffused natural light deep within the building, reducing need for artificial lighting, particularly over inaccessible areas of ceiling.*
 - *Inclusion of high performance glazing systems to limit solar gain in summer but still allow daylight.*
 - *Heat exchange units to gain efficiencies from varied heating and cooling loads of different building elements.*
 - *Inclusion of generous roof overhangs and vertical sunshading as integral parts of the architectural statement strategically placed to limit solar access and gain in summer.*
 - *Inclusion of masonry wall elements within the facade to provide increased thermal mass for storing heat.*
 - *Inclusion of an insulated concrete slab providing thermal mass for storing and retaining heat.*

These measures will be integrated into the School's college wide masterplan for energy use reduction, which includes initiatives in operational efficiency, behavioural change and education and on site generation. One of the most recent of these is the College's installation of 60kW PV system as part of a progressive campus wide sustainability masterplan.

The proposal is consistent with the specific principles of ESD as detailed below:

the precautionary principle:

The siting of the new indoor pool facility in the same location as the existing outdoor pool was a decision made by the College to avoid damage to any existing natural habitat. From an operational and economic point of view it would have been advantageous for the College to propose a new structure on a vacant area of site in order to retain operation of the existing pool during construction of the new pool facility.

The School has also postponed the design and construction of the new pool facility until they were confident that the existing pool was near the end of its useful life, avoiding unnecessary wastage.

The siting of the building directly over the existing pool limits impact on the surrounding landscape. The building footprint is kept to a minimum by locating the fitness studio on an upper level mezzanine overlooking the main pool.

inter-generational equity:

A major consideration in the design of the new pool facility was to maintain or enhance the health, diversity and productivity of the environment for the benefit of future generations. Measures proposed to achieve this and minimise any impact on environment include

- Positioning the new Aquatic Centre in same location as existing outdoor pool, restricting impact on the surrounding environment to minor and repairable effects during the construction phase.
- Gas fired boilers as a carbon friendly means of heating the water for the pools and air handling units.
- Wherever possible, locally sourcing materials for construction.
- Use of low emission materials such as low VOC coatings, flooring coverings and the like.

conservation of biological diversity and ecological integrity:

The conservation of biological diversity and ecological integrity has influenced the design in regard to the building's fabric, orientation and services to ensure that the operation of the facility minimises consumption of water, energy and resources.

- a) Measures proposed to minimise consumption of water include
 - An integrated water management plan to harvest and reuse rainwater for hose taps, irrigation and other uses.
 - Inclusion of WELS rated tapware throughout.
 - Pool covers over both pools to minimise evaporation.
 - Limiting air supply velocity to reduce pool evaporation loss.
- b) Measures proposed to minimise consumption of energy and resources include
 - Design of Aquatic Centre as fully sealed box with a mixed mode AC design that has the flexibility to operate in mechanical and natural ventilation mode.
 - Limiting air supply velocity to reduce energy use and running costs and improve user comfort.
 - Inclusion of improved building insulation to walls, roof and under slab above minimum Section J requirements. With only 13% of heat loss through walls and roof, the focus will be on increasing insulation between slab and ground.
 - Gas fired boilers designed in a modular approach to fire up and down according to heating demand.

- Full height glazing to naturally light and passively heat the space in winter, reducing need for artificial lighting year round and energy required to heat the space in winter.
- Areas of translucent roof sheeting over pool area to provide diffused natural light deep within the building reducing need for artificial lighting, particularly over inaccessible areas of ceiling.
- Inclusion of high performance glazing systems to limit solar gain in summer but still allow daylight.
- Heat exchange units to gain efficiencies from varied heating and cooling loads of different building elements.
- Inclusion of generous roof overhangs and vertical sunshading as integral parts of the architectural statement strategically placed to limit solar access and gain in summer.
- Inclusion of masonry wall elements within the facade to provide increased thermal mass for storing heat.
- Inclusion of an insulated concrete slab providing thermal mass for storing and retaining heat.

improved valuation, pricing and incentive mechanisms:

The College's valuation of its assets and services has been a major driver for proposals to replace the existing pool, with its outdated, inefficient and high energy consuming plant, with a new facility specifically designed to incorporate the latest ecologically sustainable measures for construction, operation, servicing and disposal.

The measures outlined in this summary for the Aquatic Centre will be integrated into the College's campus wide masterplan for reduction in energy, which includes initiatives in operational efficiency, behavioural change and education and on site generation. One of the most recent of these is the College's installation of 60kW PV system as part of a progressive campus wide sustainability masterplan.

5.5.8 Noise

Vipac Engineers & Scientists have prepared an Acoustic Impact Study which is attached to this application as (Appendix P). The report notes that:

"It is anticipated that any potential noise associated with the new facilities would not cause an increase in impact to the surrounding residential receivers and that "acoustic impacts relating to the upgrade of these school facilities are not expected to create adverse impacts onto surrounding residents".

Traffic noise will not be increased and has the potential for reduction in noise levels due to:

- Improved design of internal road network
- Rationalisation and consolidation of existing parking areas

- Internal roads and parking areas are well separated from adjoining residential properties.

Noise associated with the proposed use of the Aquatic & Fitness Centre will be reduced because the facility is indoors. The report notes that:

“Overall, we would expect that the new indoor facilities will improve the acoustic amenity of the surrounding residential receivers and that the noise levels from the use and activities from the new sports field will remain unchanged from current use.

In terms of construction noise, this is dealt with by the Construction Management Plan - (Appendix Q) and the recommendations of the Acoustic report being adopted by the proponent.

5.5.9 Transport & Accessibility

A Transport and Accessibility Impact Assessment report in respect of the proposed development has been prepared by CBH&K Pty Ltd and is attached as (Appendix K) The report considers the existing traffic and parking arrangements and responds to the DGR's Chapter 3 of the report responds to the Director Generals requirements.

At the outset it is to be noted that the proposed works will not result in an increase in student numbers and staff numbers. The works will provide new and improved facilities for existing students and improved vehicular access and car parking arrangements.

There will be no alteration to the daily and peak vehicle movements as a result of the proposed development.

The site is located within 400m walking distance from Pymble Railway Station. This station is on the North Shore line which connects north to Hornsby and Berowra, and west to Parramatta via the city.

The school operates a bus service during the morning and afternoon periods, transporting students and staff to and from the college. This service has resulted in a reduction in traffic generation of the college during the morning and afternoon periods.

There are also convenient existing pedestrian links in the location that allows easy access to the railway station and bus services for access to the surrounding residential areas.

The report at paragraph 3.21 indicates that the proposed development will satisfy the objectives of the Metropolitan Transport Plan, NSW 2021 and Integrated Land Use and Transport Plan as follows:

- Enabling students and staff to readily access public transport services to and from the college (Metropolitan Transport Plan objectives);
- Providing pedestrian connections within and through the site, to improve accessibility for students and staff as well as visitors and guests to the college (Metropolitan Transport Plan objectives);
- Provide educational and sports facilities close to transport facilities to reduce dependence on travel by car (ILUT principle);
- Providing educational facilities close to residential areas and transport facilities to reduce the need for external travel (ILUT principle, NSW Planning Guidelines for Walking & Cycling);
- Being located close to employment centres, which are readily accessible by public transport (ILUT principle);
- Greater employment density will provide more potential customers for the existing public transport services and hence support their efficient and viable operation (Metropolitan Transport Plan objectives);
- Providing appropriate bicycle parking on the site to increase the proportion of trips made by bicycle (NSW Planning Guidelines for Walking and Cycling and the NSW Bike Plan).

A construction management plan has been prepared by Grindley Constructions. The plan identifies the construction methodology, process and staging of the proposed Stage 1 work, associated with the construction of the new aquatic and fitness centre. Additional construction traffic management plans will be prepared by the builder for Stages 2 to 4, at the time of application for these works.

The temporary loss of on-site parking as a result of the construction activity, will be accommodated within temporary on-site car parks within the campus. These parking areas will be available for staff and visitors during the period of construction.

The Ku-ring-gai Council DCP 43 (Car Parking) would require a total of 335 spaces on site for the proposed development. The proposed works including the new car park beneath the sports will provide for a total of 470 car parking spaces on site. This complies with Council's DCP.

5.5.10 Flora and Fauna

A Flora and Fauna Assessment report has been prepared and is submitted as (Appendix F) to this report.

The development will result in the removal of 62 trees of which:

- 19 trees are planted indigenous species including Sydney Blue Gums (*Eucalyptus Saligna*), Blueberry Ash (*Elaeocarpus Reticulatus*) and Red Bloodwoods (*Corymbia Gummifera*)

- 22 trees are non-indigenous native species including Mountain Cedar Wattles (*Acacia Elata*), Illawarra Flame Trees (*Brachychilon Acerifolius*) and Tallow-woods (*Eucalyptus Microcorys*) and
- 21 trees are exotic species including Jacarandas (*Jacarandas Mimosifolia*) and Peppercorn Trees (*Schinus AReia*).

Apart from the trees to be removed, the habitats to be removed are modified landscape areas and the report notes that these areas *"provide little contribution to the local ecology"*.

The report was undertaken to identify the flora species on the site and fauna species residing on or using the site as part of their foraging range. The report also identifies habitats of threatened species, populations and ecological communities listed in the schedules of the Threatened Species Conservation Act (NSW) and Environmental Protection and Biodiversity Conservation Act (CWTH).

Based upon the findings in the report, the proposal is considered unlikely to have a significant impact on endangered ecological communities listed under the TSCA or a referral to EPBC Act is not considered necessary for any threatened or signatory flora or fauna.

The report concludes:

"Based upon the 7 points of consideration identified in section 5A of the Environmental Planning and Assessment Act 1979 (NSW) and taking into account the modified nature of the habitats on the site, it is considered that the proposed development will not have a significant impact on threatened species, populations or ecological communities listed in the schedules of the Threatened Species Conservation Act 1995 (NSW) nor on those listed in the schedules of the Environment Protection and Biodiversity Conservation Act 1999 (CWTH)".

5.5.11 Sediment, Erosion & Dust Controls

A Site Specific Construction Management Plan has been prepared by Grindley Constructions and is included in Appendix Q which details the proposed sediment, erosion and dust controls.

5.5.12 Utilities

The site is currently serviced by all utilities. A Feasibility Letter has been issued by Sydney Water dated 29 November 2012 (**Appendix D**) indicating that:

It would appear that your feasibility application is served from existing mains and does not require any works to be constructed at this time.

5.5.13 Contributions

The Ku-ring-gai contributions plan 2010 applies. It applies to all development in Ku-ring-gai that gives rise to a net additional demand for infrastructure identified in the plan. The plan applies to new residential, retail and commercial development.

A contribution for this development is not required.

A voluntary planning agreement is not proposed as part of this application.

5.5.14 Flooding

The site is not identified as flood prone land. An assessment of the proposal against the provisions of the NSW Flood Plain Development Manual (2005) has been undertaken. It is identified that a flood study is not required as:

- The site is located at the upper end of its catchment area
- The site is not affected by a major river system
- The site is not in a floodplain
- The site is not in a floodway
- Given the OSD measures to be adopted, the development will have not significant impact on the existing flows within the catchment.

5.5.15 Drainage

Sydney All Services Pty Ltd have prepared Stormwater Management Plans and Soil Erosion & Sedimentation Control Plans in accordance with the Council's DCP No 47.

These plans and drainage statement are included as (Appendix L).

Stormwater drainage will be designed and established in accordance with the reports of AS3500. Stormwater drainage and detention is designed in compliance with Council's DCP 47, with an assumed detention volume 48m³ to be located below the aquatic centre.

The hydraulic consultant further advises that the same principles will apply to stages 2, 3 & 4, and responds to Council's concerns relating to the provision of a detention basin in the basement carpark may not be suitable within school grounds by noting that a surface detention system is in place below the Conde library on the school campus.

5.5.16 Waste Management

A Waste Management Plan has been prepared by PMDL Architects and is included in Appendix T.

5.5.17 Heritage

There are no heritage listed buildings or spaces within the college campus and the site is not identified as being within a Heritage Conservation area or draft heritage conservation area.

Clause 61E (heritage provisions) of the Ku-ring-gai Planning Scheme Ordinance requires that the consent authority must undertake an assessment of the proposal to determine if it will have any impact on a heritage item in the vicinity of the development site. Properties 1,5,11 and 19 Avon Road and No. 11 Arilla Road are all identified as Local Heritage Items in Schedule 7 of the Ku-ring-gai Planning Scheme Ordinance.

No 19 Avon Road is the closest of the listed sites to the subject site. It is located opposite the School and some distance from the proposed new building. There will be no visual connection between any listed item and the building works.

The existing service entry, which is to be improved, will be visible, however, it is submitted that no detrimental impact will arise to the heritage listed buildings as a consequence of this work (a) because of site separation and (b) because of the new works will not be visible from any of the heritage listed properties.

5.5.18 Aboriginal Heritage

In accordance with the DGR's a search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has been carried out. This search showed that there were no Aboriginal sites recorded in or near the subject location and there have been no Aboriginal places declared in or near the subject site.

5.6 Other Issues

5.6.1 Landscape

A concept landscape plan has been prepared by Taylor Brammer Landscape Architect (**Appendix M**). The focus of the landscape treatment is to retain the treed character at the site and to this end the landscape architect has articulated the following objectives:-

- Fundamentally the creation of a holistic environment that provides a Centre of Excellence and Learning = respite, contemplation, to encourage an educated life/career;
- This is facilitated by the creation of an integrated environment consisting of physical strategies that facilitate and support this objective such as;
- Water management strategy including reuse, strategies in relation to minimisation of use (mulches, appropriate species, massing etc.), the provision of bioswales for example;

- Vegetation management strategy in relation to the provision of appropriate open space;
- An analysis of the school grounds from a bio sphere point of view, % of area that can be classified vegetation community i.e: woodland, forest with canopy, mid-storey and herbaceous/grasses layer, what is substantially canopy and grass and then other vegetation types that may apply, this relates the value of the campus in relation to bio diversity;
- The recognition of the value of the landscape to the school community being the physiological association with the area for example identification and relation to natural and cultural environment of the north shore and in particular Pymble.

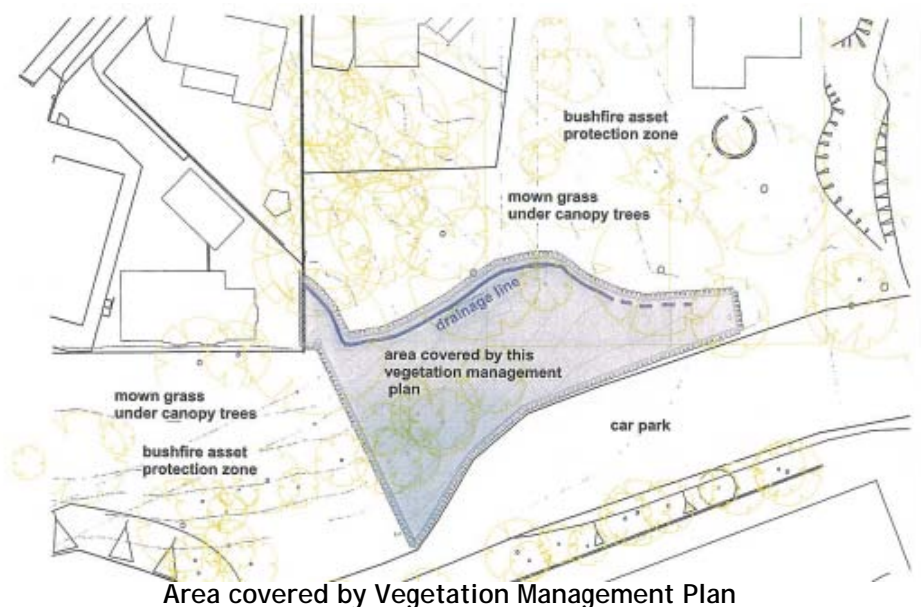
5.6.2 Vegetation Management Plan/Riparian Zone

Immediately to the north of the site, adjacent to the existing car park, there is a small drainage line. This drainage line is identified on Ku-ring-gai Council's Riparian Policy as a category 3 stream. The drainage line is an open channel within the upper portion of a small discrete catchment which collects overland flow from parts of the college grounds.

The objective of the plan is to provide for *"a stable watercourse and riparian corridor which emulates the natural vegetation communities in the area"*.

The Vegetation Management Plan is attached as **(Appendix S)** and its work will continue the programme of improvements to this landscaped area being properly undertaken by the school.

This work will be undertaken as part of stage 1 of the programme.



5.6.3 Contamination

Environmental Investigations Services (EIS)have prepared a Phase 2 Environmental Site Assessment of the campus to determine the likelihood of contamination. This assessment took into account the proposed plan layout and a review of existing reports and available site history documents.

The assessment has determined that the potential for significant, widespread soil and/or groundwater contamination is relatively low. No specific on-site or off-site point sources of contamination were identified. The primary contamination issues being:

- Potentially contaminated imported fill soils.
- Asbestos associated with demolition of two sheds formally located on the site.

In conclusion the Phase 2 report provides:

Based on the results of the preliminary Stage 2 ESA, EIS consider the site (Stage 1 Works Area) to be suitable for the proposed development. In the event that anything unexpected is encountered during earthworks, EIS should be contacted for advice.

EIS consider that the objectives of this ESA (detailed in Section 1.2) and the DQOs (detailed in Section 3) have been met.

5.6.4 Geotechnical

J & K Geotechnics have undertaken a Preliminary Geotechnical Investigation of the site. The purpose of the review was to obtain geotechnical information on subsurface conditions, and based on the results obtained, to provide preliminary comments and recommendations on earthworks, engineered fill, excavation conditions and support retaining walls, groundwater and footings.

The findings of this report need to be verified upon completion of the phase 2 Geotechnical report.

The test holes described a subsurface profile comprising fill of variable thickness overlying residual silt clays and sandy clays with weathered shale bedrock encountered at shallow to moderate depth. With verification via the phase 2 geotechnical report and taking into account the findings and recommendations of the report, particularly with respect to matters as listed being:

- Site drainage - both during construction and long term maintenance
- Sub grade preparation - to be compacted
- Engineered fill -back fill if required should be engineered fill
- Retaining wall design - parameters & specific structural design

- Footings - type of footings recommended.

The structural details will be prepared in accordance with the geotechnical engineers report and recommendations and following the completion of the phase 2 geotechnical report.

The report does not find that the site is unsuitable for the proposed development.

5.6.5 Other Approvals, Licenses and Permits

All other required approvals, licenses and permits will be obtained, including:

- Section 100B of the Rural Fires Act 1997
- Section 138 of the Roads Act 1993 - Road Opening Permits

5.7 Consultation

The Director-General Requirements specify that the application must be supported by an appropriate level of consultation, particularly with surrounding residents and Ku-ring-gai Council.

As part of the preparation of the staged development application the following authorities and groups below were consulted. The issues raised by these groups have been addressed throughout this report.

- NSW Department of Planning & Infrastructure
- Ku-ring-gai Council
- Pymble Ladies College
- Surrounding Community
- Office of Environment and Heritage
- Rural Fire Service
- Sydney Water

Most of the issues discussed have been identified in the DGR's for the project. The key areas identified during the consultation process have been taken into account in the preparation of this application and it is considered that the matters raised have been taken into account. A summary of the consultation process is detailed below:

Ku-ring-gai Council

Met with the proponants at a pre-lodgement meeting held on the 12 March 2012 and prepared minutes of this meeting detailing the matters that were to be addressed in the application. Most of these matters have been identified in the DGR's and if not, they are otherwise responded to in this report.

Surrounding Community

Consultation with the surrounding community was undertaken through the release of information on flyers and a consultation meeting held on campus in which the management described the proposed development and residents were able to view the concept plans on display.

Community consultation took place on the 1 May 2012. A letter inviting local residents to the consultation session was hand delivered to 160 local residents, (copy attached as (Appendix T) six (6) neighbours attended. A further 2 neighbours requested information and details were forwarded. The Head of School Operations also met with these residents in a private session on the 17 May 2012.

Parent consultation was held on the 1 May 2012 with 40 parents in attendance. The information has been provided to parents via school newsletter. The feedback from this consultation expressed concerns about traffic management.

The transport and Accessibility study submitted with the proposal demonstrates how the proposal responds to the traffic management issues by the use of additional school buses by the college, improved internal roadwork networks, improvements to Avon Road, North and the substantial increase in on site car parking spaces.

Office of Environment and Heritage

Consultation was undertaken with the Office of Environment and Heritage and the discussions are incorporated into the Flora and Fauna Report in **Appendix F**.

Rural Fire Service

Consultation was undertaken with the Rural Fire Service (RFS). In their correspondence to the Director-General the RFS stated:

The Service has reviewed the plans and documents received for the proposal and subsequently raises no concerns in relation to bush fire.

Sydney Water

A Feasibility Letter has been issued by Sydney Water dated 29 November 2012 (Appendix D) indicating that:

It would appear that your feasibility application is served from existing mains and does not require any works to be constructed at this time.

6. CONCLUSION & JUSTIFICATION OF THE PROPOSAL

This Environmental Impact Statement has been prepared to consider the environmental, social and economic impacts of the proposed development. This EIS has addressed the issues outlined in the Director-General's Requirements (**Appendix A**) and accords with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* with regards to consideration of relevant environmental planning instruments, conceptual above ground built form, social and environmental impacts including traffic, noise, construction impacts and stormwater.

It is considered that the project warrants approval for the following reasons:

- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the *Environmental Planning and Assessment Regulation 2000* (refer to Section 5.6).
- The area and shape of the site allows for the provision of the new facilities that meet the specific design requirements of Pymble Ladies College whilst not resulting in any significant adverse impacts on surrounding buildings or properties.
- The proposal will not result in any additional students or staff and as such will not have a significant impact on the traffic generation and incorporates a Construction and Traffic Management Plan to appropriately manage construction vehicle operation.
- The proposal provides for additional on site parking.
- The environmental investigations of the site and the soil conditions demonstrates that the proposed use is suitable for the site.
- The development will not generate a significant impact in the general waste.
- Reduction in noise emissions due to the Aquatic and Fitness Centre being located indoors.
- Improved facilities for students and teachers in promoting the school objectives.

Approval of stage development is therefore sought consistent with the details provided in this report, the specialist reports provided and the submitted plans. Consent is sought for stage 1 - the Aquatic & fitness centre and concept approval is sought for stages 2,3, & 4 and subject to consideration of any issues raised in public submissions of the application and relevant provisions of Part 4 of the EPA Act.

7.0 MITIGATION MEASURES

The collective measures required to mitigate the impacts associated with the proposed works are detailed below. These measures have been derived from the previous assessment in Section 5 of this EIS and those measures detailed in the appended consultants reports.

Traffic and Access

- Traffic, access servicing and layout arrangements to be in accordance with the Traffic and Accessibility Impact Assessment prepared by Colston Budd Hunt & Kafes P/L (**Appendix K**).
- The Traffic Management and Pedestrian & Traffic Control recommendations in the Site Specific Management Plan (**Appendix Q**) are to be implemented.

Geotechnical and Contamination

- The recommendations of Preliminary Geotechnical Investigation (**Appendix G**) prepared by J & K Geotechnics are to be implemented.
- The recommendations of the Stage 2 Preliminary Environmental Site Assessment (**Appendix H**) prepared by Environmental Investigation Services are to be implemented.

Operational Management

- Detail design must incorporate the noise attenuation measures outlined in the Acoustic Report (**Appendix P**) prepared by VIPAC.

Building Code of Australia

- The recommendations of the BCA Compliance Report (**Appendix R**) must be implemented and included in the detailed design prior to release of a Construction Certificate.

Stormwater

- The stormwater disposal and treatment is to be in accordance with the Stormwater and Integrated Water Management Plan (**Appendix L**).

Construction Management Plan

- The recommendations of the Site Specific Management Plan (**Appendix Q**) are to be implemented.

Ecologically Sustainable Development (ESD)

- The Stage 1 works and detail design must incorporate the Ecologically Sustainable Design Principles indicated in Section 5.6 of this EIS.

Flora and Fauna

- The recommendations of the Flora and Fauna Assessment (**Appendix F**) are to be implemented.

Bushfire

- The recommendations of the Bushfire Assessment Report (**Appendix O**) are to be implemented and incorporated into the plans and documentation prior to the issue of a Construction Certificate.

Riparian

- The Riparian Zone shall be treated in accordance with the Vegetation Management Plan (**Appendix S**).

Ian Glendinning
B App Sc (Env. Planning) MPIA, LMAIBS
GLENDINNING MINTO & ASSOCIATES PTY LTD
December 2012