

Revision	Date issued	Reviewed by	Approved by	Date approved	Review type	Revision type
1	20 May 2021	Elizabeth				First draft
		Bonshek				
2	13 August	Elizabeth				Final draft
	2021	Bonshek				
3						Final draft
Final						Final

Printed:	
Last saved:	20 May 2021
File name:	Grey House Precinct – Pymble Ladies' College
Author:	Brye Marshall
Project manager:	Elizabeth Bonshek
Name of organisation:	Artefact Heritage
Name of project:	Pymble Ladies' College
Name of document:	Grey House Precinct – Pymble Ladies' College Aboriginal Cultural Heritage Assessment
Document version:	2nd Draft

© Artefact Heritage Services

This document is and shall remain the property of Artefact Heritage Services. This document may only be used for the purposes for which it was commissioned and in accordance with the Terms of the Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

Disclaimer: Artefact Heritage Services has completed this document in accordance with the relevant federal, state and local legislation and current industry best practice. The company accepts no liability for any damages or loss incurred as a result of reliance placed upon the document content or for any purpose other than that for which it was intended.

EXECUTIVE SUMMARY

Background

Pymble Ladies College (the proponent) proposes a redevelopment within the Grey House Precinct grounds. The development consists of a five-storey complex to provide modern teaching and learning facilities. This proposal incorporates Junior School classrooms, Science, Technology Engineering and Mathematics (STEM) labs, health and wellbeing facilities, dance academy, out of school hours care (OSHC) facilities, an Early Learning Centre (ELC) and a range of outdoor learning spaces. The development will replace existing temporary (demountable) teaching spaces.

The study area consists of 0.301 hectares of the Grey House Precinct (Lot 1 DP69541) (Figure 1) located on the school premises adjacent to Avon Street, and lies within the Ku-ring-gai Council Local Government Area (LGA) within the Parish of Gordon and County of Cumberland. It is contained within the boundary of Metropolitan Local Aboriginal Land Council.

The development proposal was submitted to the NSW Department of Planning, Industry and Environment (DPIE) for consideration as a State Significant Development (SSD) under part 4.1 of the *Environmental Planning and Assessment Act 1979*. The proposal received the Secretary's Environmental Assessment Requirements (SEARs) (application number SSD-17424905) on 17 May 2021.

Artefact Heritage has been engaged by the College to provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) to fulfill its requirements under the SEARs. The aim of this ACHAR is to identify Aboriginal cultural heritage values within the study area, conduct consultation with Aboriginal stakeholder groups and to assess impacts to Aboriginal heritage that may result from the proposal.

Consultation with registered Aboriginal parties (RAPs) is currently ongoing for the proposal.

Overview of findings

The following results and recommendations are based on consideration of:

- The requirements of Aboriginal heritage guidelines including:
 - The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010a) – known as The Code of Practice
 - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
 - The Aboriginal Cultural Heritage consultation requirements for proponents 2010 (OEH 2010b)- known as Consultation Guidelines)
- Project SEARs
- The results of the Due Diligence assessment which included background research and an archaeological survey

The assessment found that:

 No previously unrecorded Aboriginal sites or objects were identified within the study area during the site inspection.

- After physical examination of the study area and examination of historical aerial photography
 the study area has been assessed as having nil to low potential to retain intact archaeological
 deposits
- Consultation with Registered Aboriginal Parties (RAPS) established that there were no social, cultural, historical or aesthetic values associated with the study area.

Recommendations

Based on the results of this assessment and in accordance with Aboriginal heritage guidelines mandated in the SEARs for the proposal, the following recommendations are made:

- As the study area was found to be disturbed and to have a nil-low potential for Aboriginal objects to be located within it, it is recommended that further archaeological assessment is not required.
- The result of the consultation supports the archaeological assessment of the study area as holding nil-low potential for the preservation of Aboriginal heritage. No further action is recommended.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974.
 If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Metropolitan LALC must be notified.
- If human remains, or suspected human remains, are found in the course of the activity, all
 work in the vicinity should cease, the site should be secured, and the NSW Police and
 Heritage NSW should be notified.

CONTENTS

1.0	Introduction	1
1.1	Project background	1
1.2	Location	1
1.	2.1 Local context of the project	1
1.3	Overview of the project	1
1.4	Purpose and scope of the report	3
1.5	Secretary's Environmental Assessment Requirements	3
S	tate Significant Developments.	3
1.6	Authorship	5
2.0	Legislative Context	6
2.1	Introduction	6
2.2	NSW National Parks and Wildlife Act 1974	6
2.	2.1 National Parks and Wildlife Regulation 2019	6
2.3	NSW Environmental Planning and Assessment Act 1979	7
2.	3.1 Ku-ring-gai Council Local Environmental Plan (LEP)	7
2.4	NSW Aboriginal Land Rights Act 1983	7
2.5	NSW Native Title Act 1994	8
2.6	Commonwealth Environment Protection and Biodiversity Conservation Act 1999	8
2.	6.1 National Heritage List	8
2.	6.2 Commonwealth Heritage List	9
3.0	Aboriginal Community Participation	10
3.1	Aboriginal consultation	10
3.2	Identification of stakeholders and registration of interest	10
4.0	Environmental Context	12
4.1	Geology and soils	12
4.2	Landform and hydrology	12
4.3	Vegetation	12
4.4	European history and land use	12
5.0	Archaeological and Ethnographic Context	14
5.1	Ethnographic and historical evidence	14
5.2	Archaeological Evidence	14
5.3	Registered Aboriginal sites	14
5.4	Previous archaeological investigations	17
5.5	Predictive model	18
6.0	Site Survey Methodology	19
6.1	Aboriginal site definition	40

6.2	A	Archaeological survey methodology	.19
6.2	2.1	Site inspection	.19
6.2	2.2	Aims of archaeological survey	.23
6.3	P	Archaeological survey coverage	.24
7.0	Sig	nificance Assessment	25
7.1	S	Significance assessment methodology	.25
7.2	5	Socio/cultural significance	.26
7.3	H	listoric significance	.26
7.4	S	Scientific significance	.26
7.5	P	Nesthetic significance	.26
7.6	S	Statement of significance	.27
8.0	Av	oiding and Minimising Harm	28
8.1	F	Proposed works	.28
8.2	li	mpact assessment methodology	.28
8.3	P	Aboriginal heritage impact assessment	.28
8.4	E	cological Sustainable Development principles	.28
8.4	4.1	The integration principle	.29
8.4	4.2	The precautionary principle	.29
8.4	4.3	The principle of intergenerational equity	.29
8.5	C	Cumulative impacts	.29
9.0	Ma	nagement and Mitigation Measures	30
9.1	C	Ongoing consultation with registered Aboriginal parties	.30
9.2	ι	Jnexpected finds	.30
10.0	Со	nclusions and Recommendations	31
11.0	Re	ferences	32
12.0	Ap	pendix	34
12.1	(Consultation Log and Documents	.34

FIGURES

Figure 1: Study Area1
Figure 2: Proposed Building. Courtesy of Willow Tree Planning 20212
Figure 3: The study area in relation to AHIMS registered sites16
Figure 4: View of demountable, looking south
Figure 5: Demountable and angle of slope. Looking south
Figure 6: Current modified landform, view of the demountable to be removed for construction of new building. Looking south east
Figure 7: Western aspect of study area planned for removal. Mature aged tree (sp) and hedges will be removed. Looking north
Figure 8: Electrical substation to be removed for construction of new building. Looking north west21
Figure 9: Lawn which has modified original surface. Looking west
Figure 10: Slope of Landform and Oak trees planned for removal. Looking south22
Figure 11: Landscaped Garden within impact zone of study area. Looking south west22
Figure 12: Second Demountable to be removed with construction of new building. Looking South East22
Figure 13: Side view of demountable to be removed. Looking east
Figure 14: Landscaping and concrete paths. Looking west
Figure 15: Installation of Stormwater drainage within landscaped garden beds. Looking west south west
Figure 16: Manicured lawn along eastern border of study area. Installation of stormwater drainage. Looking south east

TABLES

Table 1. Secretary's Environmental Requirements	4
Table 2. Heritage NSW requirements for Aboriginal heritage for the project	4
Table 3: Registered Aboriginal parties for the study area	11
Table 4: Summary of RAP comments on ACHAR methodology	11
Table 5: Summary of RAP comments on draft ACHAR	11
Table 5. Effective survey coverage	24
Table 6. Landform survey coverage	24
Table 7 Burra Charter Heritage significance criteria	25
Table 8: Scientific significance assessment	26

1.0 INTRODUCTION

1.1 Project background

Pymble Ladies College (the proponent) proposes a redevelopment within the Grey House Precinct grounds. This development will incorporate Junior School classrooms, Science, Technology Engineering and Mathematics (STEM) labs, health and wellbeing facilities, dance academy, Out of School Hours Care (OSHC) facilities, an Early Learning Centre (ELC) and a range of outdoor learning spaces. The development will replace existing temporary (demountable) teaching spaces, providing a better environment for students and teachers.

This ACHAR will address the requirements for a Secretary's Environmental Assessment Requirements (SEARs) issued on the 17 May 2021 (application number SSD-17424905). This ACHAR is a requirement of the State Significant Development award, submitted by the College to the NSW Department of Planning, Industry and Environment (DPIE).

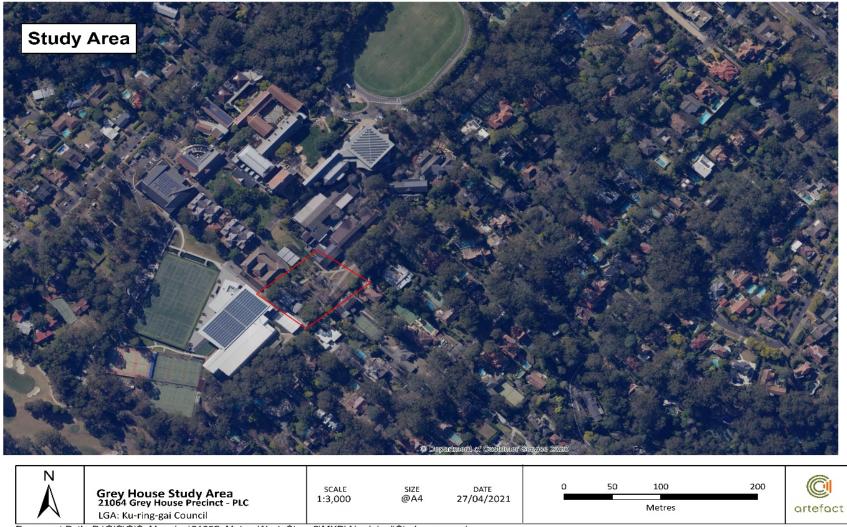
1.2 Location

The study area consists of 0.301 hectares of the Grey House Precinct (Lot 1 DP69541) (Figure 1). The study area is located between Goodlet House (from the west), private residence to the east and The Pavilion, directly south. The study area sits within the Ku-ring-gai Council (LGA) within the Parish of Gordon and County of Cumberland. It is contained within the boundary of Metropolitan Local Aboriginal Land Council.

1.2.1 Local context of the project

The school is located in a residential area of the northern suburbs of Sydney, 15 km from the Central Business District. It lies 6 km from the southern edge of the Ku-ring-gai Chase National Park, and is located between Lane Cove National Park 4 km to the east, and Garigal National Park, 3 km to the west. The National Parks and the broader region contain numbers Aboriginal sites, especially rock shelters and rock engravings. (Ku-ring-gai Chase National Park, Lion, Long and Spectacle Island Nature Reserves) contain over 800 sites or locations including shell middens in foreshore areas, rock engravings and paintings, grinding grooves, stone arrangements, burials and occupation sites. (Kelleher Nightingale Consulting (KNC) 2015: 4).

Figure 1: Study Area



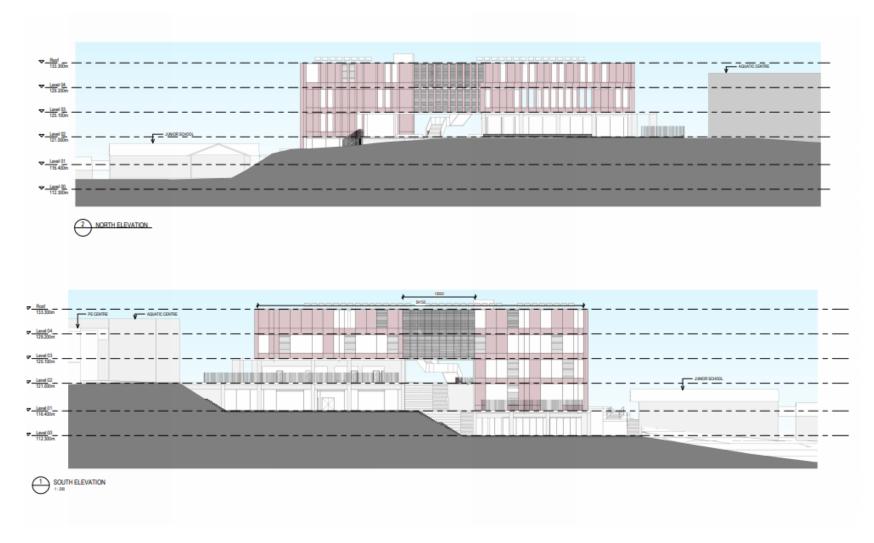
Document Path: D:\GIS\GIS_Mapping\21052_Metro_West_Stage2\MXD\Aboriginal\Study area.mxd

1.3 Overview of the project

Pymble Ladies College (the College) (the proponent) proposes to redevelop a section within the Grey House Precinct grounds. The development will replace existing temporary (demountable) teaching spaces, designed to provide a better environment for students and teachers. This development will see the construction of a multi-storey complex, to accommodate the following facilities:

- Junior School classrooms
- STEM lab
- Health and Wellbeing facilities
- Dance academy
- Out of School Hours Care (OSHC) facilities
- ELC and
- A range of outdoor learning spaces.

Figure 2: Proposed Building. Courtesy of Willow Tree Planning 2021



1.4 Purpose and scope of the report

Artefact Heritage has been engaged to prepare an ACHAR to meet the requirements of the SEARs. This report considers the impacts the proposed construction might have on Aboriginal cultural heritage and the potential archaeological resources within the study area. The report includes:

- Assessment of the Aboriginal cultural heritage values of the study area and identification of any specific areas of cultural significance
- Assessment of archaeological potential for the study area
- Aboriginal stakeholder consultation
- Preparation of a methodology for archaeological management including test excavation and salvage where required.

This ACHAR has been undertaken in accordance with the following guidelines:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales
 2010 (DECCW 2010b)
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010a).

1.5 Secretary's Environmental Assessment Requirements

State Significant Developments.

The SEARs were issued by the Department of Planning Industry and Environment (DPIE) on 17 May 2021 in respect of the proposed State Significant Development (SSD-17424905) seeking approval development of the Grey House Precinct within Pymble Ladies College. Table 1, Section 8 outlines the specific requirements in relation to Aboriginal Cultural Heritage, which requires an ACHAR.



Table 1. Secretary's Environmental Requirements

ltem	Secretary's Environmental Assessment Requirements	Where addressed in this report
1	Provide an ACHAR in accordance with the relevant guidelines	This report
2	Identify and describe the Aboriginal cultural heritage values of the site	Section 4
3	Include surface surveys and where necessary test excavations	Section 6
4	Any Aboriginal objects found must be documented and reported to AHIMS (Heritage NSW).	Section 6
5	Incorporate consultation with Aboriginal people who have cultural association with the land in accordance with relevant guidelines	Section 3
6	Identify, assess and document all impacts on Aboriginal Heritage	Section 5 and 7
7	Demonstrate attempts to avoid any impact on cultural heritage values and identify conservation outcomes and any mitigation measures	n Section 9
8	Demonstrate attempts to interpret Aboriginal cultural values identified	Section 5 and 7

An overview of the requirements outlined by Heritage NSW for the project are described in Table 2

Table 2. Heritage NSW requirements for Aboriginal heritage for the project

Item	Secretary's Environmental Assessment Requirements	Where addressed in this report
1	Identify and describe the Aboriginal cultural heritage values of the site through the provide an ACHAR in accordance with the relevant guidelines	This report
2	A surface survey must be undertaken by a qualified archaeologist and where necessary test excavations carried out and these documented in the ACHAR	Section 7
3	Incorporate consultation with Aboriginal people who have cultural association with the land and document the significance of cultural heritage values for them in accordance with relevant guidelines	e Section 3

Item	Secretary's Environmental Assessment Requirements	Where addressed in this report
4	Identify, assess and document all impacts on Aboriginal Heritage	Section 5,6,7
5	Demonstrate attempts to avoid any impact on cultural heritage values and identify conservation outcomes and any mitigation measures	Section 8
6	Document any objects identified and notify Heritage NSW	Section 8,9
7	Outline procedures to manage unforeseen findings of Aboriginal objects	Section 9
8	Outline procedures should Aboriginal burials of skeletal material be uncovered and formulate appropriate measure to manage such impacts	Section 9

1.6 Authorship

This ACHAR has been prepared by Brye Marshall (Heritage Consultant, Artefact Heritage) and Elizabeth Bonshek (Senior Heritage Consultant, Artefact Heritage), with review and management provided by Sandra Wallace (Director, Artefact Heritage).

2.0 LEGISLATIVE CONTEXT

2.1 Introduction

There are several pieces of legislation that are relevant to the assessment of Aboriginal cultural heritage for the proposal. This chapter provides a summary of these Acts and the potential implications for the proposal.

2.2 NSW National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) provides statutory protection to all Aboriginal places and objects. An Aboriginal Place is declared by the Minister, under Section 84 of the NPW Act in recognition of its special significance with respect to Aboriginal culture. Under Section 86 of the NPW Act objects are places are protected. An Aboriginal object is defined as:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

The protection provided to Aboriginal objects applies irrespective of the level of their significance or issues of land tenure. However, areas are only gazetted as Aboriginal Places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is of special significance to Aboriginal culture.

If it is assessed that sites exist or there is a likelihood of existing within the activity area and maybe impacted by the proposed activity, further archaeological investigations may be required. The SSD requirements state that attempts to avoid damage must be made. Where damage is unavoidable the ACHAR and EIS must outline mitigation measures.

As the project is being assessed as State Significant Development under Part 4 Division 4.7 of the Environmental Planning & Assessment Act 1979, permits issued under the NPW Act are not required for works undertaken in accordance with the SSD Conditions of Approval issued by DPIE.

There are no gazetted Aboriginal Places in the study area. All Aboriginal objects, whether recorded or not, are protected under the NPW Act.

2.2.1 National Parks and Wildlife Regulation 2019

Under the authority of the NPW Act, the National Parks and Wildlife Regulation 2019 provides regulations for Aboriginal heritage assessment and consultation with registered Aboriginal parties.

Part 5 (Division 2) of the National Parks and Wildlife Regulation sets out the requirements of a due diligence assessment process and provides requirements for more detailed assessment and consultation with registered Aboriginal parties for activities that may result in harm to Aboriginal objects. This includes:

- Clause 60 consultation process to be carried out before application for Aboriginal Heritage
 Impact Permit (AHIP)
- Clause 61 application for AHIP to be accompanied by cultural heritage assessment report.



In order to comply with Clause 60 and 61 of the National Parks and Wildlife Regulation 2019, preparation of an ACHAR and consultation with RAPs must be in accordance with the following guidelines:

- Code of Practice (DECCW 2010a)
- ACHAR guidelines (OEH 2011)
- Consultation guidelines (DECCW 2010b).

The current assessment has been carried out in accordance with the above guidelines in order to meet the SEARs which refer to them.

2.3 NSW Environmental Planning and Assessment Act 1979

The Environmental Planning & Assessment Act 1979 (EP&A Act) provides planning controls and requirements for environmental assessment in the development approval process. The EP&A Act consists of three main parts of direct relevance to Aboriginal cultural heritage: Part 3 which governs the preparation of planning instruments; Part 4 which relates to development requiring consent; and Part 5 which relates to activity that does not require consent.

The project is subject to assessment and approval by the NSW Minister for Planning and Public Spaces under Part 4 Section Division 4.7 of the EP&A Act, which establishes an assessment and approval regime for SSD.

An EIS supported by the current assessment has been prepared to assess the impacts of the proposal, in accordance with SEARs.

Section 4.12(8) of the EP&A Act provides that environmental planning instruments (such as local environmental plans and SEPPs) do not, with some exceptions, apply to SSD projects. Notwithstanding, the environmental planning instruments that are relevant to the proposal have been considered for consistency, as described below.

2.3.1 Ku-ring-gai Council Local Environmental Plan (LEP)

Planning decisions within LGAs are guided by Local Environmental Plans (LEPs).

LEPs are prepared by councils in accordance with the EP&A Act to guide planning divisions for LGAs. Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items listed within its schedule and which are protected under the EP&A Act and the *Heritage Act* 1977.

The study area is located in the City of Ku-ring-gai LGA and would otherwise be subject to consents under the Ku-ring-gai LEP 2012. However, as the development project has been approved as an SSD, a development application will not be required to be approved by Council.

2.4 NSW Aboriginal Land Rights Act 1983

The Aboriginal Land Rights Act 1983 (ALR Act) established Aboriginal Land Councils (at State and Local levels). These bodies have a statutory obligation under the ALR Act to:

(a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and

(b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The study area is within the boundary of the Metropolitan LALC.

2.5 NSW Native Title Act 1994

The *Native Title Act 1994* was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

There are no Native Title claims currently registered in the study area (date of search 18 June 2021 undertaken by Elizabeth Bonshek).

2.6 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Environment and Heritage Legislation Amendment Act (No. 1) 2003 amends the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to include 'national heritage' as a matter of national environmental significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List and the Commonwealth Heritage List.

The Australian Heritage Council Act 2003 establishes a new heritage advisory body – the Australian Heritage Council – to the Minister for the Environment and Energy and retains the Register of the National Estate.

The Australian Heritage Council (Consequential and Transitional Provisions) Act 2003 repeals the Australian Heritage Commission Act 1975, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together the above three Acts provide protection for Australia's natural, Indigenous and non-Indigenous heritage. The new framework includes:

- A new National Heritage List of places of national heritage significance
- A Commonwealth Heritage List of heritage places owned or managed by the Commonwealth
- The creation of the Australian Heritage Council, an independent expert body to advise the Minster on the listing and protection of heritage places
- Continued management of the non-statutory Register of the National Estate.

2.6.1 National Heritage List

The NHL is a list of places with outstanding heritage value to our nation, including places overseas. So important are the heritage values of these places that they are protected under the EPBC Act. This means that a person cannot take an action that has, will have, or is likely to have, a significant impact on the national heritage values of a national heritage place without the approval of the Australian Government Minister for the Environment and Heritage

There are no items listed on the National Heritage List located within the study area for this assessment.



2.6.2 Commonwealth Heritage List

The Commonwealth Heritage List (CHL) is a list of places managed or owned by the Australian Government and not of relevance to this project.

There are no items listed on the Commonwealth Heritage List located within the study area for this assessment.

3.0 ABORIGINAL COMMUNITY PARTICIPATION

3.1 Aboriginal consultation

Aboriginal community consultation has been conducted in accordance with the Consultation Requirements (DECCW 2010a).

A consultation log has been maintained which details all correspondence with the registered Aboriginal parties for the ACHAR (see Appendix).

3.2 Identification of stakeholders and registration of interest

The consultation for this ACHAR commenced in anticipation of the SEARs being awarded for the proposal. The SEARs were awarded on 17 May 2021 and the consultation process is continuing in accordance with these requirements.

In accordance with step 4.1.2 of the Consultation Requirements, Artefact Heritage corresponded with the following organisations by email on the 22 April 2021 requesting the details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area:

- Sydney Metropolitan Local Aboriginal Land Council
- Kur-ring-gai Council
- Native Title Service Corporation (NTSCorp)
- Heritage NSW
- National Native Title Tribunal
- Office of the Registrar, Aboriginal Land Rights Act 1983

In addition to this, and in accordance with Step 4.1.3 of the Consultation Requirements, an advertisement was placed in The Daily Telegraph on 22 April 2021 inviting the participation of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area.

In accordance with Step 4.1.3 of the Consultation Requirements, on the 28/06/2021, emails or letters were sent to all Aboriginal persons or organisations identified through advertisement or through responses from agencies contacted as part of Step 4.1.2. In accordance with Step 4.2 the letters provided details about the location and nature of the proposal, as well as an invitation to register as an Aboriginal stakeholder.

As a result of that process 6 groups and individuals registered their interest (see Table 3). A copy of the proposed assessment methodology was sent to registered Aboriginal parties (RAPs) by email and postal mail on 28/06/2021, requesting comments by 12/07/2021. At the end of this period, three RAPs had responded (Table 4).



Table 3: Registered Aboriginal parties for the study area

Organisation/ Individual	Contact Name
A1 Indigenous Services	Carolyn Hickey
Murrabidgee Mullangari Aboriginal Corporation	Ryan Johnson
Muragadi Heritage Indigenous Corporation	Jesse Johnson
Goobah Developments	Basil Smith
Merrigarn	Shaun Caroll

Butucarbin Cultural Heritage Assessments

A summary list of RAP comments is presented in Table 4.

Table 4: Summary of RAP comments on ACHAR methodology.

Name	Comments
Carolyn Hickey	Supports the information & methodology
Jesse Johnson	Agree with the recommendations
Ryan Johnson	Endorse the recommendations

On 14/7/2021 the draft ACHAR was emailed to the RAPs for feedback and comment. Reminders were sent out on 5/8/2021 and on 10/8/2021. Table 5 presents the comment of the RAP who responded.

Table 5: Summary of RAP comments on draft ACHAR.

Name	Comments
Ryan Johnson	Endorses recommendations

The findings and recommendations of the ACHAR were supported by the RAPs through the consultation process.

4.0 ENVIRONMENTAL CONTEXT

4.1 Geology and soils

The study area is underlain by Hawkesbury sandstone of the Wianamatta Group. This geological unit comprises sandstone, quartz and shale. The Hawkesbury sandstone, especially outcrops, was used by Indigenous people for engravings and art/pigmentation and the larger sandstone pieces accommodated shelters (AMBS 2008, Attenbrow 2010).

4.2 Landform and hydrology

The study area is situated on a terraced and slope landform, which falls on a steeply towards Avon Road and Pymble Avenue. The study area is located 2.29 (km) north of Lane Cove River and 1.16 (km) east of Avondale Creek.

The study area is located on land sloping down to the east and north. The slope is relatively steep and even though it has already been terraced to accommodate the construction of demountable buildings. The local area is characterised by undulating to rolling hills.

4.3 Vegetation

The area would originally have been comprised of Sydney Turpentine-Ironbark Forests. Sheldon Forest is a remnant bushland representing what we assume would have covered the majority of Pymble and surrounding suburbs. Sheldon Forest has the following vegetation: Sydney Blue Gum (*Eucalyptus saligna*), Blackbutt (*Eucalyptus pilularis*), Angophora costata, Grey Ironbark (*Eucalyptus globoidea*), Turpentine (*Syncarpia glomulifera*), Forest Oak (*Allocasuarina torulosa*), Pittosporum undulatum, Polyscias sambucifolia, Coachwood, and Lillypilly (*Acmena smithii*).

Undergrowth included shrubs such as *Dodonaea triqueta*, *Persoonia linearis*, *Leucapogon juniperinus* and Hibbertia aspera. In moist areas, common ferns species include - *Culcita debia*, *Doodia aspera*, and *Adiantum aethiopicum* (http://www.visitsydneyaustralia.com.au/history-1-natural.html).

4.4 European history and land use

European visitation started soon after settlement in 1788. A mapping expedition team led by John Hunter around Port Jackson entered into the lower reaches of the Lane Cove River. The foreshore was not as dense with mangrove vegetation as it is currently, and thick hardwood eucalypt forests were inspected for their suitability for logging (McLoughlin 1988:15-16). A logging industry was well established by the time the first land grants were apportioned in 1792, and this industry supplied the colony with timber for the first half of the 19th century (Phippen 2009).

The suburb was named after Robert Pymble, who acquired land grant of 242.8 hectares in 1823 (https://dictionaryofsydney.org/entry/pymble). Robert Pymble arrived as a free settler in 1821; in a very short period of time, he was successful in acquiring land and utilised convict labour to clear large stands of forests. In 1805 botanist George Caley had already realised the enormous riches to be made from the stands of blackbutt, turpentine, stringybark, iron bark, blue gum and mahogany which grew across the Pymble district (https://dictionaryofsydney.org/entry/west_pymble). Robert Pymble together with other settlers across the district, were able to turn a profit for the demand of lumber across the colony (https://www.khs.org.au/pymble-local-history/). The clearing of large virgin forests made fertile soil available for orcharding. Robert Pymble, again, took advantage of this potential and is credited with importing orange seeds to the district (Thorne 1979). The fruit growing industry was a



lucrative sector for this relatively new district and eventually replaced the timber industry. By the 1880s, the railway line had opened up the opportunity for urban expansion into the north shore and particularly the Ku-ring-ai district.

5.0 ARCHAEOLOGICAL AND ETHNOGRAPHIC CONTEXT

5.1 Ethnographic and historical evidence

Assumptions about Aboriginal land use patterns are made on the basis of archaeological information gained from the local area, from observations made by colonists and settlers after settlement of the area, and from information known about available natural resources.

Aboriginal people were highly mobile hunter-gathers. They used a range of resources, some of which were only available seasonally. This necessitated movement and/or trade in such resources. Particular ceremonial or ritual events also prompted people to move (Attenbrow 2010: 78). Aboriginal people hunted kangaroo and wallaby and snared possums for food and skins (Bradley 1788) and caught fish and collected shellfish in marine or estuarine environments.

Plants were an important source of nutrition and were also used in the manufacture of tools. Gum and sap were used for binding or for hafting, such as in the manufacture of stone hatchets and plant fibres were used to make baskets, nets, ropes and hammocks. Plant products were also used in the manufacture of shelters, shields and other weapons, coolamons, used to carry food and water, and digging sticks.

5.2 Archaeological Evidence

The northern side of Port Jackson is rich in exposed sandstone outcrops. These sandstone outcrops retain evidence of Aboriginal occupation. The types of cultural material associated with sandstone outcrops are rock shelters rock art sites, engravings and remnant middens camps. It is estimated that there are a minimum 1500 rock shelters across the northern Sydney harbour area.

The proximity to water enabled the Cammeray people, the Aboriginal people of the area, to have a rich and diverse marine and terrestrial diet. An excavated midden site in middle harbour, documents human occupation for over 6,000years (Currie 2008). including a profile of the foods consumed there. Over 90% of this midden contained cockles, oysters, mussels, and a small proportion of mammal and fish bones (Currie 2008:14).

Midden sites are generally located in close proximity to rock shelters. The recent work undertaken by the Aboriginal Heritage Office, investigated the status of some 242 registered sites. These sites cover the six councils – Ku-ring-gai, Lane Cove, North Sydney, Northern Beaches, Strathfield, and Willoughby (Aboriginal Heritage Office 2019). Ku-ring-gai council have 25 registered sites which are a combination of art and engraving sites. The six councils are working in conjunction with the Aboriginal Heritage Office to maintain and preserve current registered sites as well as updating their register.

5.3 Registered Aboriginal sites

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data and GIS imagery, is removed from this report if it is to enter the public domain.

An extensive search of the Aboriginal Heritage Information System (AHIMS) database was undertaken on 22 April 2021 (Client ID: 5858261).

An area of approximately 510 m (east-west) by 475 m (north-south) was included in the search. The AHIMS search provides archaeological context for the area and identifies whether any previously



recorded Aboriginal sites are located within or near the study area. The parameters of the search were as follows:

GDA 1994 MGA 56 326694 – 326184 m E

6264065 -6264540m N

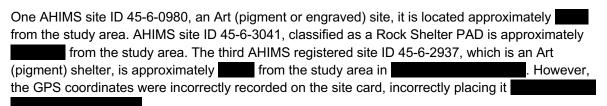
Buffer 1000 m Number of sites 3

A total of 3 sites were identified in the extensive AHIMS search area. Importantly none of these was located in the study area. The distribution of these recorded sites is shown in Figure 3. OEH lists 20 standard site features that can be used to describe a site registered with AHIMS, and more than one feature can be used for each site. The frequency of recorded site types is summarised in Table 5. For the 3 sites within the search area, three site features were recorded. The majority of recorded sites (66.6 per cent) are Art (Pigment or Engraved) Shelter with Art, followed by Potential Archaeological Deposit (PAD) (n=1),

Table 5: Frequency of recorded site types

Site feature	Frequency	Per cent (%)
Art (Pigment or Engraved	2	66.6
Rock Shelter PAD	1	33.3

The nature and location of the registered sites is a reflection of the past Aboriginal occupation from which they derive, but is also influenced by historical land-use, and the nature and extent of previous archaeological investigations. Although Aboriginal occupation covered the whole of the landscape, the availability of fresh water, and associated resources, was a significant factor in repeated and long-term occupation of specific areas within the landscape. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient.



Site types are significant across the north shore and particular in their uniqueness within greater Sydney. The majority of sites across the north Sydney shore areas predominately relate to engravings or pigments within or near sandstone outcrops or shelters.



Map redacted for public view

5.4 Previous archaeological investigations

A number of archaeological investigations have been undertaken in the Pymble area.

AMBS 2009

In 2008, Australian Museum Business Services (AMBS) was engaged by Murlan to undertake a risk analysis on potential impacts to Aboriginal Cultural Heritage in 1-8 Nield Ave, Greenwich. The proposed works were for major earthworks to redevelop the area to build a new hospital and associated facilities and car parking. This site is approximately 15km away from the study area. No new Aboriginal sites were located across the study area. It is noted that the study area had been significantly disturbed. The landform was noted as being an unfavourable sloping landform and as per predictive modelling, unlikely to sustain any Aboriginal archaeological material.

Artefact Heritage 2013

In 2013 Artefact Heritage was engaged to undertake a Due Diligence assessment for the proposed 132kV feeders through Artarmon Reserve, Artarmon for Ausgrid. The study area was 147m long and included access to Artarmon Oval, remnant bushland and a section of industrial/residential zoning. This site is approximately 8.7km from the study area and has a similar soil profile sitting on Hawkesbury sandstone. The feeder trenches being excavated were approximately 1m wide by 1.5 m deep. The archaeological team investigated associated sandstone outcrops across the study area to ensure that no rock art shelters and or rock engraving sites would be impacted, directly or indirectly. Remnant bushland with mature trees were investigated as an area of potential sensitivity. Additionally, this remnant bushland was close to the 1st order tributary, Flat Rock Creek. The site inspection found that the sandstone outcrops, which were visible, showed no evidence of rock engravings, grinding grooves, art or evidence of occupation. The sandstone platforms within the study area were uneven and limited in extent. There were no rock overhangs suitable for habitation. Investigation of remnant bushland and mature trees would not be impacted by the proposed feeder line route.

Artefact Heritage 2014

In 2014 Artefact Heritage was commissioned to undertake an Aboriginal Heritage Impact Assessment
for Meriton Group for the proposed pedestrian walkway up-grade works along
). This site is approximately from the study area. The works was to
assess the potential archaeological significance and damage to three previously registered PADs
(AHIMS ID 45-5-2982 PAD2, AHIMS ID 45-6-3013 LCC086, and AHIMS ID 45-6-1354 LCCC087).
Artefact Heritage 2019
In 2019 Artefact Heritage was engaged to undertake an Aboriginal Heritage Due Diligence
assessment at for Ausgrid. This site is
approximately from the study area. The proposed works was the removal and replacement of
two condemned timber power poles within the second
indicated, initially, two sites AHIMS ID 45-6-1687 and AHIMS ID 45-6-1688. The assessment
identified that at location 1 (e.g. and a second of the underlying subsurface deposit was
comprised of backfill down to bedrock and had no archaeological sensitivity. Location 2 was located
at Investigation of the rock shelter did not identify
any Aboriginal artefacts or artwork. Investigation of the two AHIMS sites ID 45-6-1687 & 45-6-1688,
showed that they were registered incorrectly as the coordinates submitted did not match the site card
information for any of the sandstone outcrops/overhangs within the study area. The study area was
recorded as being heavily disturbed and having low Aboriginal archaeological sensitivity.



Artefact Heritage 2021

In 2021 Artefact Heritage was engaged by Arup to undertake an Aboriginal Heritage Assessment for the proposed development of a Data Centre at Lot 10 DO 1179953. The site is approximately 6.3km away from the study area. The proposed works required the removal of existing buildings and significant earthworks and associated landscaping along Mowbray Road West, Lane Cove. The AHIMS register search indicated that there was no archaeological sensitivity across the study area. The study area is in an area of high sandstone outcrops and on a terraced area. The study area was recorded as being disturbed and having low Aboriginal archaeological sensitivity.

5.5 Predictive model

Beth White and Jo McDonald (White and McDonald 2010) developed a predictive model for site locations on the Cumberland Plain based on archaeological excavations in the Rouse Hill Development Area (RHDA). It draws on and supports earlier models that predicted a correlation between site location and proximity to permanent water sources but also stressed the relationship between topographical unit and Aboriginal occupation. It was found that artefact densities were highest on terraces and lower slopes within 100 m of water. A stream order model was used to differentiate between artefact densities associated with intermittent streams as opposed to permanent water. It was found that artefacts were most likely to be found within 50 to100 m of higher (fourth) order streams, within 50 m of second order streams, and that artefact distribution around first order streams was not significantly affected by distance from the watercourse (White and McDonald 2010: 33). Landscapes associated therefore, with higher order streams (second order or greater) were found to have higher artefact densities and more continuous distribution than lower order intermittent streams.

Archaeological sites around the Port Jackson area have different characteristics than those located across the Cumberland Plain. Artefact assemblages have more diversity and contain higher proportions of chert, quartz, quartzite, and basalt (Artefact 2019). In contrast, the dominant stone resources associated across the Cumberland Plain tend to be silcrete, quartz and Tuff.

Hawthorne (1982) investigated a number of sites on the northern side of Port Jackson in order to understand location and use type. Hawthorne's model suggests that rock shelters predominately have a north, northwest or northeast facing position and the majority would be located within 100m of the littoral zone. Generally midden sites were located within 20m of water sources.

The Aboriginal Site Report (1986) by E. Rich, backs up Hawthorne's model. Rich observed that Port Jackson sites are predominately shell middens, engravings, and art. Artefact assemblages are diverse with high proportions of chert, quartz, quartzite and basalt.

Site types and artefact assemblages across the Port Jackson region tend to be more variable than compared to the Cumberland Plain. Sites across the northern side of Port Jackson tend to be located within 100m of a water source and rock shelters sites most commonly have a northern facing aspect.

6.0 SITE SURVEY METHODOLOGY

6.1 Aboriginal site definition

An Aboriginal site is generally defined as an Aboriginal object or place. An Aboriginal object refers to any deposit, object or material evidence (not being a handicraft) relating to Aboriginal habitation of the area that comprises New South Wales (DECCW 2010). Aboriginal objects may include stone tools, scarred trees or rock art. Some sites, or Aboriginal places, can also be intangible and although they might not be visible, these places have cultural significance to Aboriginal people.

The Code of Practice states, in regard to the definition of a site and its boundary, that one or more of the following criteria must be used when recording material traces of Aboriginal land use:

- The spatial extent of any visible Aboriginal objects, or direct evidence of their location
- Obvious physical boundaries where present, for example mound site and middens (if visibility is good), a ceremonial ground
- Identification by the Aboriginal community on the basis of cultural information

6.2 Archaeological survey methodology

6.2.1 Site inspection

A site survey was undertaken on foot by Elizabeth Bonshek (Senior Heritage Consultant – Artefact Heritage) and Brye Marshall (Heritage Consultant – Artefact Heritage) on 30 April 2021. A photographic record of the landform and level of disturbance was kept.

The study area for the archaeological survey comprised the centre south section of Pymble Ladies' College. The study area is referred to as Grey House Precinct.

The study area borders residential homes on Pymble Avenue to the east. Avon Road borders the study area from the west and north. South of the study area is Avondale Golf Club. The southern aspect of the study area is a terraced hill which has been modified to accommodate buildings and concrete pathways. The north and eastern aspects of the study area follow a natural downhill slope of approximately $10^{\circ} - 15^{\circ}$ (JK Geotechnics 20210).

Temporary buildings were erected on the southern portion of the study area, and surface visibility was nil (Figure 4). This section of the study area is a slight hill which has been modified and terraced to accommodate the buildings and walkways. Significant landscaping has been developed across this aspect of the study area (Figure 5). The western section of the study area has been modified. Ground surface visibility was low with the only denuded section along the curtilage abutting the asphalt driveway and the temporary health care building. There is evidence of subsurface construction with an electrical substation powering the streetlights, and associated buildings. The northern section of the study area is lawn. Surface visibility was nil across this section of the study area.

The eastern section of the study area is a combination of landscaped gardens, drainage systems, concreted gutters and fencing. Surface visibility of this section was nil. This section of the study area has the greatest deviation of the rolling slope (Figure 11, Figure 12).

The southern section of the study area has been significantly disturbed and the landform modified to accommodate human traffic and modification of vegetation species (Figure 13, Figure 14, Figure 15, Figure 16).

The study area has been exposed to various kinds of modification. Terracing of the southern, western and eastern sections has removed the natural landform slope that is still evident across the northern part of the study area. These landform modifications have resulted in major landscaping with introduced fill covering these aspects. The northern section of the study area follows a natural downslope traveling in a north to east direction. The severity of the slope indicates that it would be highly unlikely to contain subsurface artefacts.

The study area is highly disturbed, and no Aboriginal cultural material was located within it. The proposed development will undertake significant earthworks resulting in further landform transformation. It is unlikely that the proposed works impact Aboriginal culture heritage: there is little archaeological potential or significance.

Figure 4: View of demountable, looking south.



Figure 6: Current modified landform, view of the demountable to be removed for construction of new building. Looking south east.



Figure 8: Electrical substation to be removed for construction of new building. Looking north west.



Figure 5: Demountable and angle of slope. Looking south.



Figure 7: Western aspect of study area planned for removal. Mature aged tree (sp) and hedges will be removed. Looking north.



Figure 9: Lawn which has modified original surface. Looking west.



Figure 10: Slope of Landform and Oak trees planned for removal. Looking south.



Figure 12: Second Demountable to be removed with construction of new building. Looking South East





Figure 13: Side view of demountable to be removed. Looking east



Figure 14: Landscaping and concrete paths. Looking west.



Figure 15: Installation of Stormwater drainage within landscaped garden beds. Looking west south west





Figure 16: Manicured lawn along eastern border of study area. Installation of stormwater drainage. Looking south east.



Archaeological potential is closely related to levels of ground disturbance in the area. Other factors are also taken into account, such as whether artefacts were located on the surface, and whether the area is within a sensitive landform unit according to the predictive statements for the area.

It was found that the majority of the study area had been subject to significance disturbance. The southern and central parts of the study area have been terraced to facilitate foot traffic as well as the temporary buildings for teaching. Landscaping, including a grassed play area, across the study area has transformed the space. While the placement of a grass lawn where the landform slopes significantly would have slowed potential ground surface erosion, this northern section of the study area would not accommodate archaeological material, as any potential artefacts would be transported to a lower section of the landform.

The potential for discovering artefacts lies in landforms which have been subject to a light to moderate disturbance. The site investigation could not ascertain any potential areas across the study area conducive to revealing artefacts on the ground surface. The presence of subsurface artefacts is unlikely because of the substantial movement and modification of the soil to accommodate the beautification works achieved through extensive landscaping and the installation of electrical cables.

6.2.2 Aims of archaeological survey

The aims of the archaeological survey were to:

- Inspect the ground surface of the site
- Record any surface or potential subsurface Aboriginal sites that have not been recorded in AHIMS
- Identify areas of PAD that may be present in areas that have had no or minimal disturbance
- Collect information to ascertain whether further archaeological investigation is required.

A request to attend the site visit was made to the Metropolitan LALC but a representative did not attend.

6.3 Archaeological survey coverage

The study area was covered in one survey unit. The natural ground surface was not visible as the land has been excavated, built on, covered in concrete or bitumen, or filled in.

Table 6 presents a summary of the level of visibility and exposure at the site---- to determine the effective coverage of the study area and takes into consideration the effective coverage of the landform. The effective coverage of the site (Table 7) and slope landform was zero.

Table 6. Effective survey coverage

Survey unit	Landform	Survey unit area (sq. m)	Visibility (%)	Exposure (%)	Effective coverage area (sq. m)	Effective coverage (%)
1	slope	.301 hectares	nil	0	100	100

Table 7. Landform survey coverage

Landform	Landform area (sq. m)	Area effectively surveyed (sq. m)	% of landform effectively surveyed	Number of sites identified
slope	.301 hectares	nil	100	0

Ground surface visibility was zero.

7.0 SIGNIFICANCE ASSESSMENT

7.1 Significance assessment methodology

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. *The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) provides guidelines for heritage assessment with reference to the *Burra Charter* (Australia ICOMOS 2013). The assessment is made in relation to four values or criteria (Table 8). In relation to each of the criteria, the significance of the subject area should be ranked as high, moderate, or low.

Cultural heritage consists of places or objects, that are of significance to Aboriginal people. Cultural heritage values are the attributes of these places or objects that allow the assessment of levels of cultural significance.

Assessing the cultural significance of a place or object means defining why a place or object is culturally important. It is only when these reasons are defined that measures can be taken to appropriately manage possible impacts on this significance. Assessing cultural significance involves two main steps, identifying the range of values present across the study area and assessing why they are important.

Social/cultural heritage significance should be addressed by the Aboriginal people who have a connection to, or interest in, the site. As part of the consultation process the Aboriginal stakeholders were asked to provide information on the cultural significance of the study area. Information on consultation with Aboriginal stakeholders for the project is provided in Section 3.1.

Table 8 Burra Charter Heritage significance criteria

Criterion	Description
Social	The spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them. Does the subject area have strong or special association with the Aboriginal community for social, cultural or spiritual reasons?
Historic	Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Is the subject area important to the cultural or natural history of the local area and/or region and/or state?
Scientific	This refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information. Information about scientific values will be gathered through any archaeological investigation carried out. Does the subject area have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state?
Aesthetic	This refers to the sensory, scenic, architectural and creative aspects of the place. It is often linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use. Is the subject area important in demonstrating aesthetic characteristics in the local area and/or region and/or state?



In addition to the four criteria, Heritage NSW (OEH 2011; 10) requires consideration of the following:

- Research potential: does the evidence suggest any potential to contribute to an understanding
 of the area and/or region and/or state's natural and cultural history?
- Representativeness: how much variability (outside and/or inside the subject area) exists, what
 is already conserved, how much connectivity is there?
- Rarity: is the subject area important in demonstrating a distinctive way of life, custom, process, land use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Education potential: does the subject area contain teaching sites or sites that might have teaching potential?

7.2 Socio/cultural significance

Socio/cultural heritage values should be addressed by Aboriginal people who have a connection to, or interest in, the area.

The RAPs who provided feedback, did not make any specific comments regarding socio/cultural significance.

7.3 Historic significance

Historic values refer to the association of place with aspect of Aboriginal history. Historic values are not necessarily reflected in physical objects, but may be intangible and relate to memories, stories, or experiences.

The RAPs who provided feedback, did not make any specific comments regarding historic significance.

7.4 Scientific significance

Scientific values refer to a site's potential to contribute to our current understanding and information. As there are no archaeological values in the site, there is no scientific significance.

Table 9: Scientific significance assessment

Site Name Research (AHIMS ID) potential		Representativeness	Rarity	Education potential	Overall significance assessment
No AHIMS sites	None	None	None	None	None

7.5 Aesthetic significance

Aesthetic values refer to the sensory, scenic, architectural, and creative aspects of the place. These values may be related to the landscape and are often closely associated with social/cultural values.

As the subject site is located within a developed agricultural setting, much of the aesthetic significance is lost.

The RAPs who provided feedback, did not make any specific comments regarding aesthetic significance.

7.6 Statement of significance

In summary, the RAPs who provided feedback, did not make any specific comments regarding the social/cultural, historic or aesthetic significance of the study area. The significance of the study area is therefore assessed to be of low.

8.0 AVOIDING AND MINIMISING HARM

8.1 Proposed works

Pymble Ladies College (the proponent) proposes a redevelopment within the Grey House Precinct grounds. The development consists of a five-storey complex to provide modern teaching and learning facilities. This proposal incorporates Junior School classrooms, STEM labs, health and wellbeing facilities, dance academy, out of school hours care facilities, an ELC and a range of outdoor learning spaces. The development will replace existing temporary (demountable) teaching spaces.

8.2 Impact assessment methodology

The definition of harm to an object or place under the NPW Act includes any act or omission that 'destroys, defaces or damages the object or place or in relation to an object –moves the object from land on which it had been situated.'

Direct harm may occur as a result of activities which disturb the ground surface including site preparation activities, earthworks and ground excavation, and the installation of services and infrastructure.

Indirect harm for Aboriginal heritage refers to impacts that may affect sites or features located immediately beyond or within the area of the proposed works. Indirect harm may include impacts from vibration, increased visitation, or increased erosion, including ancillary project activities (construction and/or operation) that are not located within the study area.

8.3 Aboriginal heritage impact assessment

There were no Aboriginal objects identified in the survey area, and no sites identified in the AHIMS database. This report has assessed that intact archaeological deposits are not likely to be present below the ground surface. Therefore, the proposal is unlikely to impact any Aboriginal heritage items or places, or potential Aboriginal archaeology.

8.4 Ecological Sustainable Development principles

In accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales*¹, the principles of ecologically sustainable development have been considered in preparation of this Aboriginal heritage assessment, including options to avoid impacts to Aboriginal cultural heritage, assessment of unavoidable impacts, identification of mitigation and management measures, and taking account of Aboriginal community views. The principles of ecologically sustainable development are detailed in the NSW *Protection of the Environment Administration Act 1991*. Principles of ecologically sustainable development relevant to the assessment of the project as it relates to Aboriginal cultural heritage are considered below.

¹ Office of Environment and Heritage 2011



_

8.4.1 The integration principle

Decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the 'integration principle'). The preparation of this ACHAR demonstrates regard for the integration principle by considering Aboriginal heritage values and impacts to these from the proposal during the planning phase. The nature of the proposal is in itself one that contributes to the long term economic and social needs of current and future residents of the area.

8.4.2 The precautionary principle

If there are threats of serious or irreversible environmental damage, lack of full scientific confidence should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle').

As no archaeological sites were identified in the study area, no further archaeological investigation is recommended.

8.4.3 The principle of intergenerational equity

The proposed works would adhere, as close as possible, to the principle of intergenerational equity by collating scientific and cultural information on former Aboriginal occupation of the study area through the previous investigations and this ACHAR.

This report has assessed that no further archaeological investigations through test excavations need be conducted. However, see Unexpected Finds below.

8.5 Cumulative impacts

A cumulative impact is an impact on Aboriginal cultural heritage resulting from the incremental impact of the action/s of a development when added to other past, present and reasonably foreseeable future actions. There are three registered AHIMS sites within approximately of this study area. AHIMS 45-6-0980, is an Art (Pigment or engraving) Shelter, AHIMS 45-6-2937 is Art (Pigment or Engraved) site and AHIMS 45-6-3041 is a PAD.

A draft of the ACHAR was provided to RAPS for commentary and feedback. RAPS did not provide any additional information with respect to the cumulative impacts.

9.0 MANAGEMENT AND MITIGATION MEASURES

9.1 Ongoing consultation with registered Aboriginal parties

Consultation with the registered Aboriginal parties is continuing. Following the Unexpected finds policy below, consultation with Aboriginal parties will continue at completion of the ACHAR and also according to the results of the consultation process which is currently ongoing.

9.2 Unexpected finds

An unexpected finds policy would be implemented in the event of any unexpected finds of Aboriginal sites, objects, or archaeological deposits being identified during construction.

An unexpected archaeological finds policy would involve the following actions:

- Stop work within the affected area, protect the potential archaeological find, and inform environment staff or supervisor
- Contact a suitably qualified archaeologist to assess the potential archaeological find
- If Aboriginal archaeological material is identified, works in the area should cease, and NSW
 Heritage should be informed. Further archaeological mitigation may be required prior to works recommencing
- If human remains are found:
 - Immediately cease all work at the particular location
 - Notify site manager and project archaeologist
 - Notify NSW Police
 - Notify Heritage NSW on the Environment Line 131555 as soon as practicable and provide details of the remains and their locations
 - Notify the Metropolitan LALC



10.0 CONCLUSIONS AND RECOMMENDATIONS

The following results and recommendations are based on consideration of:

- The requirements of Aboriginal heritage guidelines including:
 - The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010a) – known as The Code of Practice
 - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
 - The Aboriginal Cultural Heritage consultation requirements for proponents 2010 (OEH 2010b)- known as Consultation Guidelines)
- Project SEARs
- The results of the Due Diligence assessment which included background research and an archaeological survey.

The assessment found that:

- No previously unrecorded Aboriginal sites or objects were identified within the study area during the site inspection.
- After physical examination of the study area and examination of historical aerial photography
 the study area has been assessed as having nil to low potential to retain intact archaeological
 deposits
- Consultation with RAPS established that there were no social/cultural, historical or aesthetic values associated with the study area.

Based on the results of this assessment and in accordance with Aboriginal heritage guidelines mandated in the SEARs for the proposal, the following recommendations are made:

- As the study area was found to be disturbed and to have a nil-low potential for Aboriginal objects to be located within it, it is recommended that further archaeological assessment is not required.
- The result of the consultation supports the archaeological assessment of the study area as holding nil-low potential for the preservation of Aboriginal heritage. No further action is recommended.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974.
 If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Metropolitan LALC must be notified.
- If human remains, or suspected human remains, are found in the course of the activity, all
 work in the vicinity should cease, the site should be secured, and the NSW Police and
 Heritage NSW should be notified.



11.0 REFERENCES

- Aboriginal Heritage Office 2019. Report on the Activities of the Aboriginal Heritage Office, 2018-2019 Part 1 Including Proposed Activities for 2019-2020. Ku-ring-gai, Lane Cove, North Sydney, Northern Beaches, Strathfield and Willoughby Councils.
- Artefact Heritage 2013. Artarmon Reserve, Artarmon. Aboriginal Heritage Due Diligence Assessment, for Ausgrid
- Artefact Heritage 2014. 150 Epping Road, Lane Cove. Aboriginal Heritage Impact Assessment, for Merton Group.
- Artefact Heritage 2019. 25 Ferdinand Street, Hunters Hill. Aboriginal Heritage Due Diligence Assessment, for Ausgrid
- Artefact Heritage 2021. Mowbray Road Data Centre. Aboriginal Heritage Assessment, for Arup.
- Attenbrow, V., 2010. Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records. Sydney, UNSW Press.
- Australia ICOMOS 2013. Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013.
- Australian Museum Business Service 2009. 1-8 Nield Avenue, Greenwich. Aboriginal Cultural Heritage Assessment, for Murlan.
- Currie, J. 2008. Bo-ra-ne a-goo-na Par-ry-boo-go, Yesterday Today Tomorrow. An Aboriginal History of Willoughby. Willoughby City Council.
- DECCW 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010.
- Dictionary of Sydney. https://dictionaryofsydney.org/entry/pymble). (accessed 20/04/2021).
- Hawthorne, M. 1982. *A locational analysis of Aboriginal Sites in the Port Jackson area.* Unpublished BA(Hons) thesis, Dept of Anthropology, University of Sydney.
- JK Geotechnics 2010. Report to Pymble Ladies College on Geotechnical Investigation for Proposed School Building at 20 Avon Road, Pymble, NSW, for Pymble Ladies College.
- Kelleher Nightingale Consultants Pty Ltd (2015) Mona Vale road upgrade, Terry Hills to Ingleside. Aboriginal Cultural Heritage Constraints Mapping and Archaeological Survey Report. Prepared for Roads and Maritime Services, NSW.
- Ku-ring-gai Council. 2019. Robert Pymble Park Draft Landscape Masterplan. Ku-ring-gai Council.
- Ku-ring-gai Historical Society. https://www.khs.org.au/pymble-local-history/ (accessed 20/04/2021).
- Lane Cove Council
 - http://www.lanecove.nsw.gov.au/Community/AboutLaneCove/Pages/AboriginalHeritage.aspx. (accessed 20/04/2021).
- McDonald, J. 2008. Dreamtime superhighway: an analysis of Sydney Basin rock art and prehistoric information exchange. Terra Australia; 27. ANU Press.
- McLoughlin L. 1988. *The Middle Lane Cove River. A History and a Future.* Centre for Environmental and Urban Studies Monograph No.1. Centre for Environmental and Urban Studies, Macquarie University. Sydney.
- OEH 2011. Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW.
- PocketOz Pocket Guide to Sydney. http://www.visitsydneyaustralia.com.au/history-1-natural.html. (accessed 20/04/2021).



- Rich E 1986. Aboriginal Site Report. In K. Blackmore and Associated Consultants Heritage Study: Municipality of Manly Vol 3. A report for Manly Municipal Council and the NSW Department of Environment and Heritage.
- Thorne, L.G. 1979. A History of North Shore Sydney from 1788 to Today, Leslie Jillett (ed), Angus & Robertson Publishers, Sydney, pp 51–52
- White, B. and McDonald, J. 2010. Lithic Artefact Distribution in the Rouse Hill Development Area Cumberland Plain, New South Wales. Australian Archaeology, Number 70.
- Willow Tree Planning. 2021. Scoping Report *Grey House Precinct, Pymble Ladies College. 20 Avon Road, Pymble (Lot 1 DP 69541).*

12.0 APPENDIX

12.1 Consultation Log and Documents

Consultation documentation redacted for public view



Artefact Heritage

ABN 73 144 973 526

Suite 56, Jones Bay Wharf
26-32 Pirrama Road

Pyrmont NSW 2009 Australia
+61 2 9518 8411

office@artefact.net.au

www.artefact.net.au