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HERITAGE ADVISORS
TO AUSTRALIA AND
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University of Sydney – Campus Improvement Program Aboriginal Cultural Heritage Management Plan

Prepared for University of Sydney

September 2018

Sydney
Melbourne
Brisbane
Perth

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Document Control Page

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CLIENT: University of Sydney

PROJECT: University of Sydney – Campus Improvement Program – Aboriginal Cultural Heritage Management Plan

SITE NAME: Various

EXTENT HERITAGE PTY LTD INTERNAL REVIEW/SIGN OFF						
WRITTEN BY	DATE	VERSION	REVIEWED	EDITED	EDIT LEVEL	APPROVED
Alistair Hobbs	14.6.18	Draft	Alan Williams	Y	Minor	Alan Williams
Alistair Hobbs	20.8.18	Final Draft	Alan Williams	Y	Major	Alan Williams
Alistair Hobbs	17.9.18	Final	Alan Williams	Y	Minor	Alan Williams

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Revision	Date	Description	Page	Prepared by	Approved
Draft	June 18	Draft ACHMP for review	All	AH, AW	AW
Draft	August 18	Minor amendments for Final Draft	All	AH	AW
Final Draft	August 18	Removal of proposed tasks for the Health Precinct - the area being managed by another approval process	1, 5, 14, 18, 20, Appendix 1	AH	AW
Final	September 18	Finalisation	-	AW	AW

Abbreviations

Acronyms	Glossary
ACHMP	Aboriginal Cultural Heritage Management Plan
CIP	Campus Improvement Program
CEMP	Environmental Management Plan
Cth	Commonwealth
DEC	Department of Environment and Conservation NSW (now OEH)
DECC	Department of Environment and Climate Change NSW (now OEH)
DECCW	Department of Environment Climate Change and Water (now OEH)
DP&E	Department of Planning and Environment (NSW)
EA	Environmental Assessment
Eg	For example
ER	Environmental Representative
GFA	Ground Floor Area
HIS	Heritage Impact Statement
ISO	International Organisation for Standards
MCoA	Minister's Conditions of Approval
NPWS	National Parks and Wildlife Service (NPWS) (incorporated in OEH)
NSW	New South Wales
OEH	Office of Environment and Heritage (NSW)
PA	Project Approval
PHWP	Precinct Heritage Work Plan
RAP	Registered Aboriginal Party
SEARs	Secretary's Environmental Assessment Requirements
SHI	Statement of Heritage Impact
SoC	Statement of Commitments
SWAOHB	Susan Wakil AO Health Building

Contents

1.	INTRODUCTION	1
1.1	PROJECT DESCRIPTION	1
1.2	SITE LOCATION AND IDENTIFICATION.....	2
1.3	APPLICATION OF THE ACHMP	2
1.4	PURPOSE OF THE ACHMP	6
1.5	LIMITATIONS	6
2.	LEGISLATIVE AND REGULATORY REQUIREMENTS	7
2.1	KEY ENVIRONMENTAL LEGISLATION	7
2.2	MINISTER'S CONDITIONS OF APPROVAL	7
2.3	STATEMENT OF COMMITMENTS	8
2.4	ADDITIONAL APPROVALS, LICENCES, PERMITS AND REQUIREMENTS	11
2.5	GUIDELINES AND STANDARDS	11
3.	IDENTIFIED ABORIGINAL HERITAGE SITES.....	12
3.1	BACKGROUND.....	12
3.2	ASSESSMENT RESULTS.....	12
3.3	CULTURAL VALUES	14
3.4	THE PROJECT IMPACTS.....	19
4.	ARCHAEOLOGICAL MANAGEMENT PLANE	21
4.1	GENERAL APPROACH	21
4.2	PRECINCT HERITAGE WORK PLANS	22
4.3	RATIONALE	23
4.4	HIERARCHICAL MANAGEMENT ACTIONS.....	23
4.5	ABORIGINAL COMMUNITY CONSULTATION RATIONALE	25
5.	ABORIGINAL HERITAGE MITIGATION POLICY AND PROCEDURES.....	26
5.1	GENERAL	26
5.2	IDENTIFIED AREAS OF HIGH ARCHAEOLOGICAL POTENTIAL.....	26
5.3	IDENTIFIED AREAS OF MODERATE ARCHAEOLOGICAL POTENTIAL	27
5.4	IDENTIFIED AREAS OF LOW ARCHAEOLOGICAL POTENTIAL	30
5.5	IDENTIFIED AREAS OF LOW -NIL ARCHAEOLOGICAL POTENTIAL.....	30
5.6	POST EXCAVATION ANALYSIS	30
5.7	REPORTING	30
5.8	STORAGE OF ARCHAEOLOGICAL MATERIAL COLLECTED	31
5.9	DISCOVERY OF POTENTIAL HUMAN REMAINS PROCEDURES.....	31

5.10	UNEXPECTED FINDS PROCEDURES	31
5.11	ABORIGINAL COMMUNITY CONSULTATION STRATEGY	32
6.	RISK ASSESSMENT	34
6.1	BASIS FOR ASSESSMENT	34
6.2	RISK MANAGEMENT	35
7.	COMPLIANCE MANAGEMENT	37
7.1	AUDITING	37
7.2	MONITORING	37
7.3	REPORTING AND REVIEW	37
8.	REVIEW AND IMPROVEMENT	38
8.1	CONTINUAL IMPROVEMENT	38
8.2	PLAN UPDATE	38
9.	REFERENCES	39

APPENDIX 1: PRECINCT HERITAGE WORK PLANS (PHWPS)

APPENDIX 2: ABORIGINAL COMMUNITY CONSULTATION

APPENDIX 3: PROCEDURE FOR DISCOVERY OF POSSIBLE HUMAN REMAINS

APPENDIX 4: UNEXPECTED FINDS PROCEDURE – ABORIGINAL HERITAGE

APPENDIX 5: BLACKBURN BUILDING, UNIVERSITY OF SYDNEY HERITAGE IMPACT STATEMENT.

APPENDIX 6: UNIVERSITY OF SYDNEY, BLACKBURN CIRCUIT SERVICES DIVERSIONS, ASSOCIATED WITH THE PROPOSED SUSAN WAKIL AO HEALTH BUILDING (D06) STATEMENT OF HERITAGE IMPACT

List of Tables

Table 1: Summary of the Project	3
Table 2: Ministers Conditions of Approval.	7
Table 3: Aboriginal community consultation tasks and timeframes for the Project.	32
Table 4: Key construction activities, risks and impacts.	34
Table 5: Risk matrix.....	34
Table 6: Classification of Likelihood and Consequence.....	35
Table 7: Risk Management Measures.	36

List of Figures

Figure 1: Location of the Camperdown and Darlington campuses that form the CIP	10
Figure 2: Summary of archaeological potential of the subject area.	16
Figure 3: Areas identified as of the Aboriginal cultural value.....	17
Figure 4: Areas within the Health precinct where development work has occurred and is proceeding in accordance with approved REFs. These existing works are not part of this ACHMP, but do influence some of the subsequent recommendations being developed.....	18

1. Introduction

1.1 Project Description

The University of Sydney proposes to develop six precincts across the Camperdown and Darlingtown Campuses of the University of Sydney, NSW (hereafter referred to as the 'subject area'), as part of the Campus Improvement Program (CIP). The CIP is a seven-year program (2014-2020), looking to update teaching facilities, increase floor space and increase student accommodation. The University of Sydney has recently obtained approvals for the proposed program under Division 4.7 of the *Environmental Planning and Assessment Act 1979* (SSD 13_6123 and SSD 16_7974).

As part of the assessment process, an Aboriginal Heritage Impact Assessment (AHMS, 2016) was undertaken to identify and characterise tangible and intangible cultural values associated with the University campus. Recommendations from this document were integrated into the Minister's Conditions of Approval (MCoA) for the project, namely:

A Heritage Management Plan HMP should be developed in consultation with DPE, OEH and the RAPs, and provide protocols, procedures and tasks to manage the cultural resources before, during, and after the development. The HMP should make specific reference to:

- *Management of the Life Sciences (west of Ross Street) and Health Precincts, which have the potential for deeply buried cultural materials to be present (areas of the Life Science precinct east of Ross Street are subject to another SSD application, and are not considered here). Ideally, such works should be undertaken prior to any approval under Section 89J of the Environmental Planning and Assessment Act 1979 and integrated into the AHIA, and recommendations modified accordingly. Should this prove unfeasible, further sub-surface investigation and salvage (if required) of these deposits should be developed and outlined in the HMP.*
- *The remaining precincts are considered to have low potential for Aboriginal objects to be present. These areas should be managed through unexpected finds procedures to be developed and outlined in the HMP.*

This document fulfils this requirement and provides guidance, process and management of Aboriginal cultural heritage in the post-approval phase of the project. It further outlines the processes and timeframes associated with Aboriginal consultation.

It is highlighted that while this document is designed to manage Aboriginal heritage for the entire CIP, and as such, includes the Health Precinct (D) (**Figure 1**). However, development work has already occurred within this precinct, and are ongoing. These works include demolition and deep excavation of the Blackburn Dangerous Goods Building and development of the Blackburn Circuit Services Diversions are being carried out in accordance with a separate University of Sydney self-assessed Review of Environmental Factors (REFs) (approved 14/02/17 and 20/04/18). Therefore, while included here, the ACHMP provides no approval or guidance for the current works, nor the subsequent management of the precinct until this document has been reviewed and endorsed by the Department of Planning and Environment – at which time it may have a role in managing heritage within the Health

Precinct. The REFs include the following documentation, which are included in **Appendix 5** and Appendix 6, and discussed further in **Section 3.2.1**:

- Urbis 2016, Blackburn Building University of Sydney Heritage Impact Statement. Prepared for the University of Sydney.
- Ian Kelly 2018, University of Sydney Blackburn Circuit Services Diversions, associated with the proposed Susan Wakil AO Health Building (D06), Statement of Heritage Impact. Prepared for the University of Sydney.

1.2 Site Location and Identification

The primary address of the subject area is the University of Sydney, Camperdown, NSW situated within the City of Sydney LGA (**Figure 1**). The subject area incorporates two adjacent campuses: the Camperdown campus covering an area of ~0.35 km² and situated between Parramatta Road and City Road which turns into King Street; and Darlington campus that covers an area of ~0.18 km² and is situated on the southern side of City Road and bounded by Abercrombie Street.

The Darlington campus incorporates the Merewether Precinct (A), City Road Precinct (B) and Engineering Precinct (C). These precincts are bordered to the north by Cleveland Street, to the northwest by City Road, to the east by Shepherd Street and to the south by Darlington Lane and Butlin Avenue. The Camperdown campus contains the Health Precinct (D), Life Sciences Precinct (E) and Cultural Precinct (F). These precincts are bordered to the north by Parramatta Road, to the east by parts of the University of Sydney Camperdown Campus, to the west and south by the Royal Prince Alfred complex and to the south by St Andrew's College.

1.3 Application of the ACHMP

The CIP has been divided into several different precincts (**Figure 1**), each of which represent a discrete package of works to be implemented over the next decade. This Aboriginal Cultural Heritage Management Plan (ACHMP) has been designed to provide over-arching direction for the CIP development, with precinct-specific requirements developed as supplementary documents as the need arises.

The CIP is a seven year program 2014 -2020, looking to update teaching facilities, increase floor space and increase student accommodation. Based on information provided, details of proposed development work within these six precincts is presented in **Table 1**.

Table 1: Summary of the Project

Precinct	Key Drivers	Proposed Activity
A. Merewether Precinct - Darlington Campus	Accommodation of a mix of land uses including learning and teaching spaces and faculty space. Potential student accommodation, administration offices and retail and support services. Protection and enhancement of the heritage significance of the Institute Building and Darlington House. Create an iconic gateway building from King Street to the University campus (Regiment site). Create a gateway at Butlin Avenue/City Road and Eastern Avenue intersection.	The proposal is for a mixed use precinct which will incorporate, but not be limited to student accommodation, teaching and learning spaces, facilities required to support and enhance the student experience, and basement parking. Student accommodation is also proposed for the precinct and will be supported by additional facilities such as retail, food and beverage outlets and improved meeting facilities. The proposal involves the redevelopment of the Regiment and Merewether buildings. Demolished GFA = 13,040 m²; New build GFA = 76,400 m²; Additional GFA = 63,400 m²
B. City Road Precinct - Darlington Campus	Accommodation of a mix of land uses including learning and teaching spaces and faculty space. Potential student accommodation, and retail and support services. Create an active city edge which contributes to the streetscape, urban fabric and wider community Improve permeability to and through the site into and through the University. Redevelop buildings which currently do not adequately cater to University needs, or have reached their economic and physical life cycle. Realise a University gateway building at the corner of City Road and Cleveland Street as a bookend to the Precinct A Regiment site. Provide an environment at the corner of Butlin Avenue and City Road that can cater for high volumes of pedestrian movements. The future development of this precinct is influenced by the gateway location of International House fronting Cleveland Street, and by the City of Sydney's recent development approval for a student accommodation building at St Michael's College.	The future of this precinct is for a mixed use precinct with learning and teaching facilities, student accommodation, retail and amenities to support the University. The proposal involves the redevelopment of the Wentworth, Wilkinson and International House buildings. Demolished GFA = 30,500 m²; New build GFA = 93,300 m²; Additional GFA = 62,800 m²

C. Engineering Precinct - Darlington Campus	Retain Engineering Faculty within its current location. Retain existing buildings of significance and create opportunities to build amongst existing footprints or above existing buildings where structurally suitable. Respect the precinct's interface with Shepherd Street and lower height residential dwellings to the east	The CIP will deliver the systematic refurbishment and redevelopment of the existing Engineering precinct is proposed to deliver world class teaching learning and research facilities over time. Demolished GFA = 6,550 m ² ; New build GFA = 49,040 m ² ; Additional GFA = 42,500 m ²
D. Health Precinct - Camperdown Campus*	Create a new multi faculty space for Health disciplines. Inefficient spatial provision and function of existing buildings and therefore supporting redevelopment. Interface and integrate creatively with the western boundary of RPA. Respect and respond to the heritage significance of nearby heritage buildings and spaces, and improve the interface with St Andrews College. Improve permeability and pedestrian access from Missenden Road into and through the campus.	The Health precinct will be a mixed use development comprising health clinics, shared learning and teaching spaces, laboratories, library facilities, some student accommodation, and basement parking. The precinct will also address future connections to the adjoining Royal Prince Alfred Hospital west of the precinct, and the Charles Perkins Centre north of the precinct. The new Health precinct incorporates the redevelopment of the Blackburn-Bosch group of buildings for the proposed co-location of the faculties of Nursing and Midwifery, Health Sciences, and components of Medicine, Pharmacy, and Dentistry. Demolished GFA = 18,780 m ² ; New build GFA = 75,500 m ² ; Additional GFA = 56,700 m ²
E. Life Sciences Precinct - Camperdown Campus	Create a multi faculty learning and teaching precinct for the Life Sciences (Veterinary Sciences, Agriculture and Biological Sciences) Retain and enhance the heritage aspects of the precinct adjoining the significant cultural precinct. Improve the address and gateway to Ross Street and Parramatta Road. Replace degraded and inefficient building stock. Enhance the boundaries to St Johns College and The Charles Perkins Centre. Create iconic building addressing the campus Ross Street entrance from Parramatta Road.	This new precinct will accommodate the co-location a number of faculties and schools including but not limited to, Veterinary Sciences, Agriculture & Environment, and Biological Sciences. Basement parking will be included in the development proposal. It is proposed that the new buildings create an iconic gateway into the University from Parramatta Road. The new Life Sciences precinct involves the redevelopment of the Gunn, McMaster and part Evelyn-Williams buildings. The University's sports facilities will be further enhanced by the construction of a Grandstand to Oval No.2 incorporating indoor sports and ancillary facilities and a raked outdoor seating facility. Demolished GFA = 9,700 m ² ; New build GFA = 46,950 m ² ; Additional GFA = 37,250 m ²
F. Cultural Precinct - Camperdown Campus	Refurbish and restore the Macleay building back to its original function and use. Relocate poor functioning teaching spaces out of the two buildings and relocate into new purpose built facilities.	The Cultural precinct seeks to convert the heritage significant Science Road area as a principal visitor destination precinct accommodating cultural, museum and heritage components. The precinct will be reinforced by the internal refurbishment of the Macleay and Edgeworth-David buildings in developing a museum and cultural exhibition centre, and incorporating minor building additions. Both buildings are currently

	Enhance and reinforce the Cultural precinct, Public interface and accessibility to the University's arts and museum collections. Provide international quality research and teaching spaces associated with the collections. Respect and acknowledge the significance of heritage buildings along Science Road and The Quadrangle.	occupied by the School of Biological Sciences which will be relocated under the CIP. Existing = 4,000 m²; New Build = 820 m²; Demolished GFA = 370 m²; Additional GFA = 450 m²
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As discussed in **Section 1.1, development work within the Health Precinct has already occurred and is being undertaken in accordance with self-assessed REFs for the Demolition of the Blackburn Dangerous Goods Buildings and deep excavations (approved 14/02/17) and the REF for the Blackburn Circuit Services Diversions (approved 20/04/18). This ACHMP does not include or endorse these existing works, and will only apply to the management of this precinct once approved by DPE*

1.4 Purpose of the ACHMP

The purpose of this plan is to define the rationale, policies and procedures to be implemented for management and mitigation of known, and as yet unknown, Aboriginal heritage sites during the detailed design and construction phase of the Project.

1.4.1 Objectives

The overall objectives of this ACHMP are to:

- Present overall heritage management principles and guidelines for the design and construction phase of the Project;
- Summarise potential impacts on identified heritage sites arising from the Project;
- Describe how measures will be implemented to prevent or mitigate Aboriginal heritage impacts;
- Provide specific guidelines for the mitigation of known heritage sites that will be directly and indirectly impacted by the Project;
- Provide specific guidelines and procedures for unexpected finds and possible discovery of human remains;
- Provide procedures for consultation with the Aboriginal community including Relevant Aboriginal Parties (RAP) timeframes and processes; and
- Outline an effective monitoring, auditing and reporting framework to assess the effectiveness of the controls implemented.

The draft ACHMP was provided to Relevant Aboriginal Parties for the project prior to its adoption. Any comments or recommendations made by the RAPs have been included in Appendix 2, and have been incorporated where relevant.

1.4.2 Approach

This ACHMP is designed to articulate how the conditions of planning approval, statements of commitment and relevant legislative requirements are to be met as design and construction of this Project occurs. The ACHMP is an operational document to guide the specific heritage mitigation measure by precinct.

1.5 Limitations

This document has been prepared with consideration to Aboriginal heritage of the subject site. This report does not deal with management of historical archaeological heritage, built heritage or landscape components.

This document does not encompass or approve any works already undertaken or ongoing within the Health Precinct (D). These activities are approved and being managed under separate approvals (**Appendix 5** and **Appendix 6**).

2. Legislative and Regulatory Requirements

2.1 Key Environmental Legislation

Aboriginal heritage is protected and managed under the following legislation:

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999;*
- *Commonwealth Native Title Act, 1993*
- *NSW National Parks and Wildlife Act 1974;*
- *NSW Heritage Act 1977; and*
- *NSW Environmental Protection and Assessment Act 1979.*

The National Parks & Wildlife Act, 1974 (NPW Act) provides blanket protection for Aboriginal objects (material evidence of indigenous occupation) and Aboriginal places (areas of cultural significance to the Aboriginal community) across NSW.

The Environmental Planning and Assessment Act, 1979 (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on Indigenous heritage. Where Project approval is to be determined under Division 4.7 of the Act, further approvals under the *National Parks & Wildlife Act, 1974* are not required. In those instances, management of Aboriginal heritage follows the applicable Aboriginal assessment guidelines, any relevant EIS recommendations and the Minister's Conditions of Approval (MCoA) developed for the project.

2.2 Minister's Conditions of Approval

The Minister's Conditions of Approval (MCoA) from the DPE relevant to Aboriginal heritage management have been addressed in this ACHMP. The relevant conditions are detailed in **Table 2**.

Table 2: Ministers Conditions of Approval.

MCoA	Requirement	Document Reference
B23	Where relevant, future development applications shall address Aboriginal heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005 and Aboriginal Cultural Heritage Requirements for Proponents 2010.	SSD 6123 Schedule 2, Part B
B29	An Aboriginal Cultural Heritage Management Plan (ACHMP) is to be prepared in consultation with the Aboriginal stakeholders and submitted to and approved by the Secretary prior to the commencement of works. The ACHMP must address but not be limited to, the following matters:	SSD 16_7974 DRAFT COA – Health Precinct Stage 1 Building

	Sub-surface investigation 3m below current surface level to allow further characterisation and identify the potential for any cultural deposits; Procedures to ensure all works are to immediately cease if unexpected archaeological artefacts are found on-site during any stage of works and appropriate procedures for notification for recommencing works; All works and reports required under the ACHMP for any particular potential or archaeological site must be completed in accordance with the ACHMP prior to any other works at the site; Triggers to identify situations where mechanical salvage excavations cease and manual salvage is commenced; Protocols for any salvage required for the project and also the long term management of any areas of cultural or archaeological significance; A requirement for any salvage works to be carried out under supervision of a qualified archaeologist and representatives of the registered Aboriginal Parties (RAPs) for the project; and A requirement for preparation of a final report outlining the results of any salvage work undertaken, which must be prepared in consultation with the project RAPs and should include all comments provided by the project RAPs regarding the salvage process and any long term management of Aboriginal objects	
B30	The final report where required by condition B29(g) outlining the results of all salvage work undertaken must be submitted to the secretary for approval prior to the commencement of earthworks.	SSD 16_7974 DRAFT COA – Health Precinct Stage 1 Building

2.3 Statement of Commitments

This ACHMP also considers the requirements in the Statement of Commitments (SoC) from the EIS. The SoCs are consistent for the MCoA's management of heritage outlined above (Urbis, 2014):

- Should Aboriginal objects be located during the course of future development, work should cease immediately and an archaeologist be contacted to document and assess these finds. The objects must be reported to the OEI under Section 90 of the NPW Act;

- Specifically, with respect to the Life Sciences Precinct:
 - ◆ Further archaeological monitoring and testing should be undertaken on the areas under the foundations of any buildings within this precinct that are proposed to be demolished
 - ◆ If proposed work in this precinct includes excavation to a depth greater than 3m, it is recommended that program of archaeological test excavation be carried out prior to the commencement of works, followed by archaeological monitoring of the proposed excavation; and
 - ◆ If any Aboriginal objects are located during the course of archaeological monitoring and/or test excavations these objects should be documented and recorded by an archaeologist and report to the OEH under Section 90 of the NPW Act.

In relation to the Health Precinct Stage 1 EIS (Application No. SSD 16_7974), the following mitigation measure is provided:

- Preparation of an 'unexpected finds procedure/protocol' as a Condition of DA Consent, as recommended by Ian Kelly in the Statement of Heritage Impact.

University of Sydney University Precincts

 University of Sydney Boundaries

Precincts

 Merewether Precinct

 City Road Precinct

 Engineering Precinct

 Health Precinct

 Life Sciences Precinct

 Cultural Precinct

Drawn by: Alistair Hobbs
Checked by: Alan Williams
Date: 10 July 2018
Projection: GDA 1994 MGA Zone 56
Data sources: AHMS, ESRI, University of Sydney



0 240 480
Metres



Figure 1: Location of the Camperdown and Darlington campuses that form the CIP

2.4 Additional Approvals, Licences, Permits and Requirements

2.4.1 Approvals, Permits, Licences

Approval of a project under Division 4.7 of the EP&A Act removes the requirement to obtain certain statutory approvals including:

- The requirement to obtain an Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974*.

2.5 Guidelines and Standards

The ACHMP has been developed using best practice heritage guidelines and standards. These guidelines and standards, established by the Office of Environment and Heritage, were developed to guide the assessment, conservation and mitigation of Aboriginal heritage in New South Wales. Many of the guidelines are designed to obtain permits and approvals under the *National Parks and Wildlife Act 1974*.

Not all guidelines are applicable for Division 4.7 project approvals (such as Aboriginal community consultation guidelines); however, they are useful documents to guide the general direction of assessment of the significance of heritage sites; and their conservation and mitigation.

Relevant guidelines include:

- *Due Diligence Code of Practise for the Protection of Aboriginal Objects* in New South Wales (OEH, 2010).
- *Code of Practice for Archaeological Investigation of Aboriginal Objects* in New South Wales (OEH, 2010).
- *Aboriginal cultural heritage consultation requirements for proponents* 2010 (OEH, 2010).
- *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (Draft; DECCW 2005).

3. Identified Aboriginal Heritage Sites

3.1 Background

Aboriginal heritage assessments were undertaken to inform the EIS, and included:

- Jo McDonald Cultural Heritage Management (2004), Archaeological Survey of an Aboriginal Heritage Assessment, University of Sydney NSW, Prepared for Capital Insight.
- Godden Mackay Logan (GML) (2013), University of Sydney Campus Improvement Program, Aboriginal Heritage Due Diligence Report prepared for the University of Sydney.
- Archaeological & Heritage Management Solutions Pty Ltd (2016) University of Sydney - Aboriginal Heritage Impact Assessment. Unpublished Report for University of Sydney.

The Aboriginal heritage assessments included:

- A search of Aboriginal Heritage Information Management System (AHIMS) database to identify previously recorded Aboriginal heritage sites within the subject area.
- The development of a predictive model to identify areas of Aboriginal archaeological sensitivity, where as yet unknown Aboriginal sites objects and places may be found.
- An archaeological survey to relocate known Aboriginal heritage sites to identify any previously unknown Aboriginal heritage sites by project archaeologist(s) and Aboriginal community members.

3.2 Assessment Results

The Aboriginal heritage assessments found:

- Numerous archaeological assessments have been undertaken within the University of Sydney and the surrounding area. These investigations have generally revealed very low artefact densities within heavily disturbed contexts.
- Previous research and ethnographic information suggests that the university grounds were used only ephemerally or transiently in the past. Typically, large creeklines or swamps would have formed the focus of long-term or repeated occupation, and neither types of resource are within the subject area.
- Aboriginal Heritage Information Management System (AHIMS) database search results demonstrate that evidence of Aboriginal occupation in the general vicinity of the university is limited, and usually expressed as low density artefact scatters, isolated objects and/or Potential Archaeological Deposits (PADs). While PADs have previously been registered within the university grounds, these areas have been reassessed as having low archaeological potential following archaeological testing. These findings are, however, constrained by the limited investigations that have occurred in the heavily urbanised Sydney CBD.
- Two registered Aboriginal sites have been identified within the University of Sydney, #45-6-2745 (USYD Law PAD1) and #45-6-2822 (USYD: Central). Both sites comprise isolated stone artefacts recovered from disturbed contexts. The artefacts were assessed as having low scientific significance and low research potential. Both sites have been destroyed.

- Existing information suggests that much of the subject area is heavily disturbed by historical activities. This disturbance has reduced or removed the potential for cultural materials to be present. In the unlikely event that in-situ deposits are identified, they are likely to be of local or State significance.
- Geotechnical investigations undertaken within the university grounds indicate that natural soil horizons may be preserved below 3-5 m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences, and Health Precincts. At this stage it is uncertain as to the full extent of disturbance caused by the placement of fill in these areas. Using precautionary principles, it is assumed these deposits remain intact until proven otherwise. Given their proximity to a water course, these deposits are also considered to have potential for cultural materials to be present.
- With the exception of the western portion of the Life Sciences, and Health Precincts, it is considered that the remaining precincts would have low potential for cultural materials to be present.

3.2.1 Archaeological Potential

Archaeological studies pertaining to the region suggest that site distribution is characterised by proximity to permanent water sources, and landform types such as lower slopes, spurs, river terraces and alluvial flats. While there is generally accepted to be a low density, almost ubiquitous 'background scatter' of artefacts across the Sydney Basin, the well-developed artefact distribution modelling for the area clearly demonstrates that major activity areas, where stone tools were either manufactured or maintained, did essentially have nearby freshwater as a precondition for use. On ephemeral first order streams, occupation was often immediately adjacent to the water (0-50 m), while on larger permanent fourth order streams the majority of activity leading to the accumulation of stone artefacts was set back from the creek within the area between 50 and 100 m from water.

A review of the subject area indicates that two creeklines ran through the university grounds, Orphan Creek and Blackwattle Creek. These creeklines are both initially first-order creeks, joining to become a second-order in the northwest of the university grounds. Areas in close proximity to these creeklines include the Life Sciences and Health Precincts (**Figure 2**) and are considered to have potential for cultural materials to have been present in the past. It must be highlighted, however, European development has fundamentally changed the local landscape and hydrology, and these areas may not encompass all of the water sources present in the pre-European period.

Based on geo-technical information and previous studies, it can be shown that much of the subject area has been heavily modified and/or disturbed by past development, and has low potential for cultural materials to be present. In situations where cultural material was present, it is considered unlikely to retain any context or stratigraphy, which severely reduces the significance of any finds recovered. In the case of the Life Sciences Precinct, information suggests that a natural soil profile exists some 3m beneath the current land surface, and the potential for cultural material to remain is vastly improved compared to other areas. Should cultural material be in present in these buried natural soil profiles, it would likely be of local or State significance, given the paucity of Aboriginal activity found to date in the CBD. It is considered parts of the Health Precinct would also have buried natural soil profiles beneath a

thick layer of over-burden, and similarly has moderate potential for cultural materials to be present. While this area has previously been downgraded due to its location adjacent a first order creekline, it is however also situated near the confluence of Orphan and Blackwattle Creeks. Confluences of creeks have been shown to be a focus for Aboriginal activity and occupation, and hence the identification of the precinct as an area worthy of future investigation.

Based on the information above, it is considered that in general the subject areas have low potential for Aboriginal objects to be present. Where present, they are likely to be low density artefact scatters or isolated finds in disturbed contexts, and as such unlikely to be of high significance. Two areas are considered exceptions to this, the Life Sciences Precinct (west of Ross Street) and portions of the Health Precinct. These precincts are found in close proximity to original creeklines, which ran through the university grounds, and have evidence of buried natural soil profiles at depth. As such, they are considered of moderate potential to contain cultural materials, which if found could be of local or State significance.

Subsequent reassessment of the Health Precinct was undertaken as part of a University of Sydney internal REF process for the Blackburn Dangerous Goods Building and development of the Blackburn Circuit Services Diversions (see **Appendix 5** and **Appendix 6, Figure 4**). It is understood that these REFs cover the entirety of the Stage 1 works within the Health Precinct (Ian Kelly pers comm. 6 August 2018). The Heritage Impact Statement (HIS) prepared by Urbis for the Blackburn Dangerous Goods Building considered historical heritage only. No reference is made to Aboriginal heritage values or Aboriginal archaeological potential, nor does it address the potential for Aboriginal objects to be impacted by the proposed works. The Statement of Heritage Impact (SHI) prepared for the Blackburn Circuit Services Diversions (Kelly, 2018) considered the results of the previous archaeological assessments (The Grounds Conservation Management Plan 2017, GML 2013, AHMS 2016) and concluded that the potential for the preservation of in-situ Aboriginal archaeological deposits within the site is low due to previous extensive ground disturbance. As such, an archaeological watching brief was considered appropriate for the proposed works in the Blackburn Circuit (Kelly 2018: 40). Currently, no information on the nature or results of the watching brief have been provided. A recent site investigation indicates that much of this area has been subject to deep excavation, and regardless of the previous findings, it is unlikely that cultural materials (if present) would now survive.

3.3 Cultural Values

Previous consultation with RAPs identified six places retaining cultural values within the subject area (AHMS, 2016). (It is highlighted that while the discussions focussed on the six CIP precincts, it also considered the wider Camperdown and Darlington Campuses). These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances.

Discussions with the RAPs also identified the land encompassing the two sports ovals, which was considered to have been a former hunting ground for Gadigal/Cadigal Aboriginal people. The ovals were discussed as having potential to contain subsurface archaeological deposits capped by fill. However, the Sports Ovals are located outside any of the Precinct boundaries and will therefore be unaffected by the development work.

The Aboriginal groups also described general cultural values and issues including better opportunities for Aboriginal students, the desire for better education and interpretative opportunities relating to past and contemporary Aboriginal history in the University grounds.

EXTENT

HERITAGE ADVISORS

University of Sydney Archaeological Potential

University of Sydney Boundaries

Potential

Moderate to low

Low

Low to nil

Drawn by: Alistair Hobbs
Checked by: Alan Williams
Date: 10 July 2018
Projection: GDA 1994 MGA Zone 56
Data sources: AHMS, ESRI, University of Sydney



0 200 400
Metres

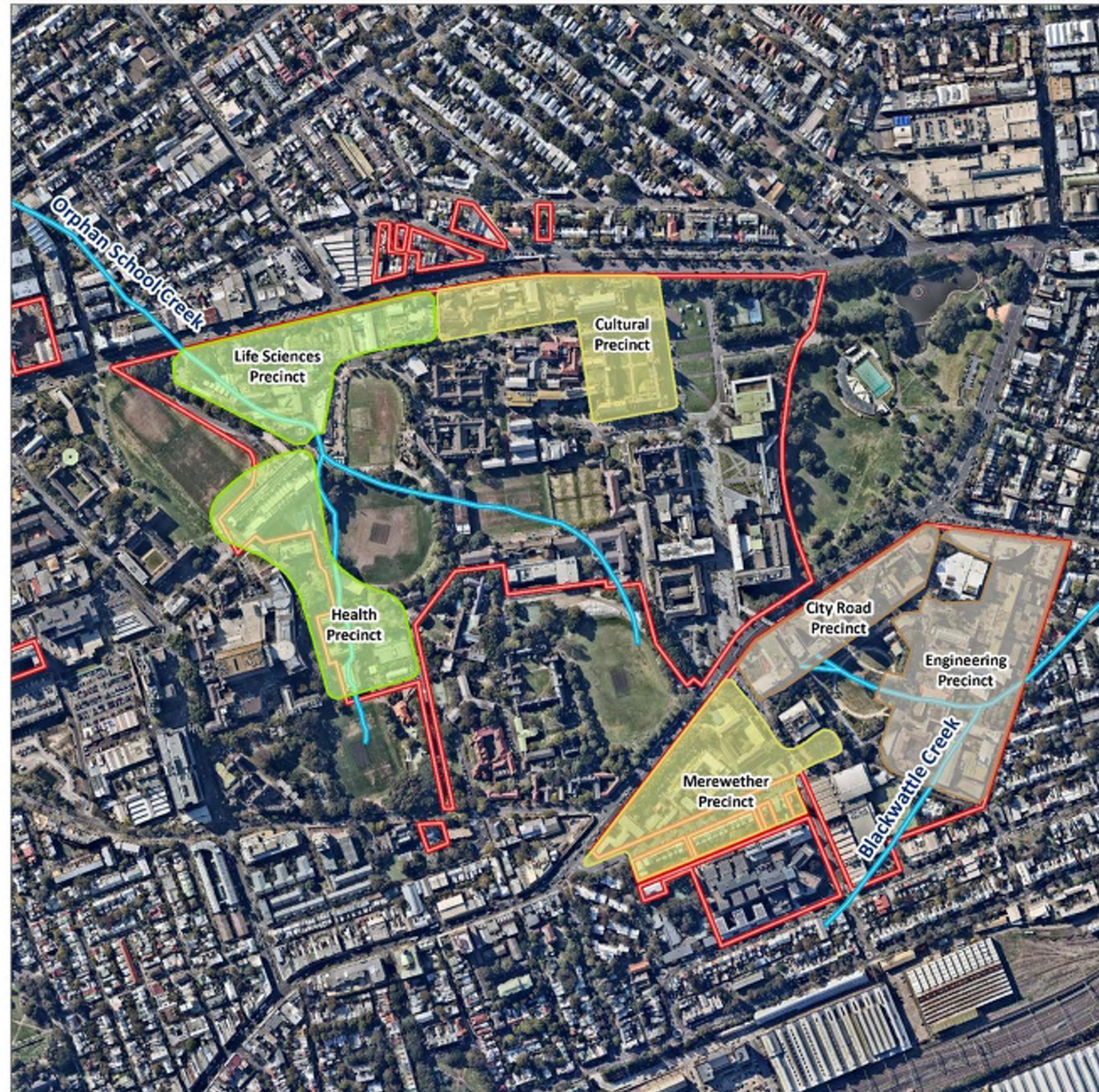


Figure 2: Summary of archaeological potential of the subject area.

University of Sydney Cultural Values Workshop Map

- University of Sydney Boundaries
- 1. Macleay Museum
- 2. Victoria Park
- 3. Shellshear Museum
(Anderson Stewart Building)
- 4. Main University Entrances
- 5. The Quad
- 6. Sports Ovals
- 7. Mackie Building
- 8. Koori Centre
(Old Teacher's College)

Drawn by: Alistair Hobbs
 Checked by: Alan Williams
 Date: 10 July 2018
 Projection: GDA 1994 MGA Zone 56
 Data sources: AHMS, ESRI, University of Sydney



0 240 480
Metres

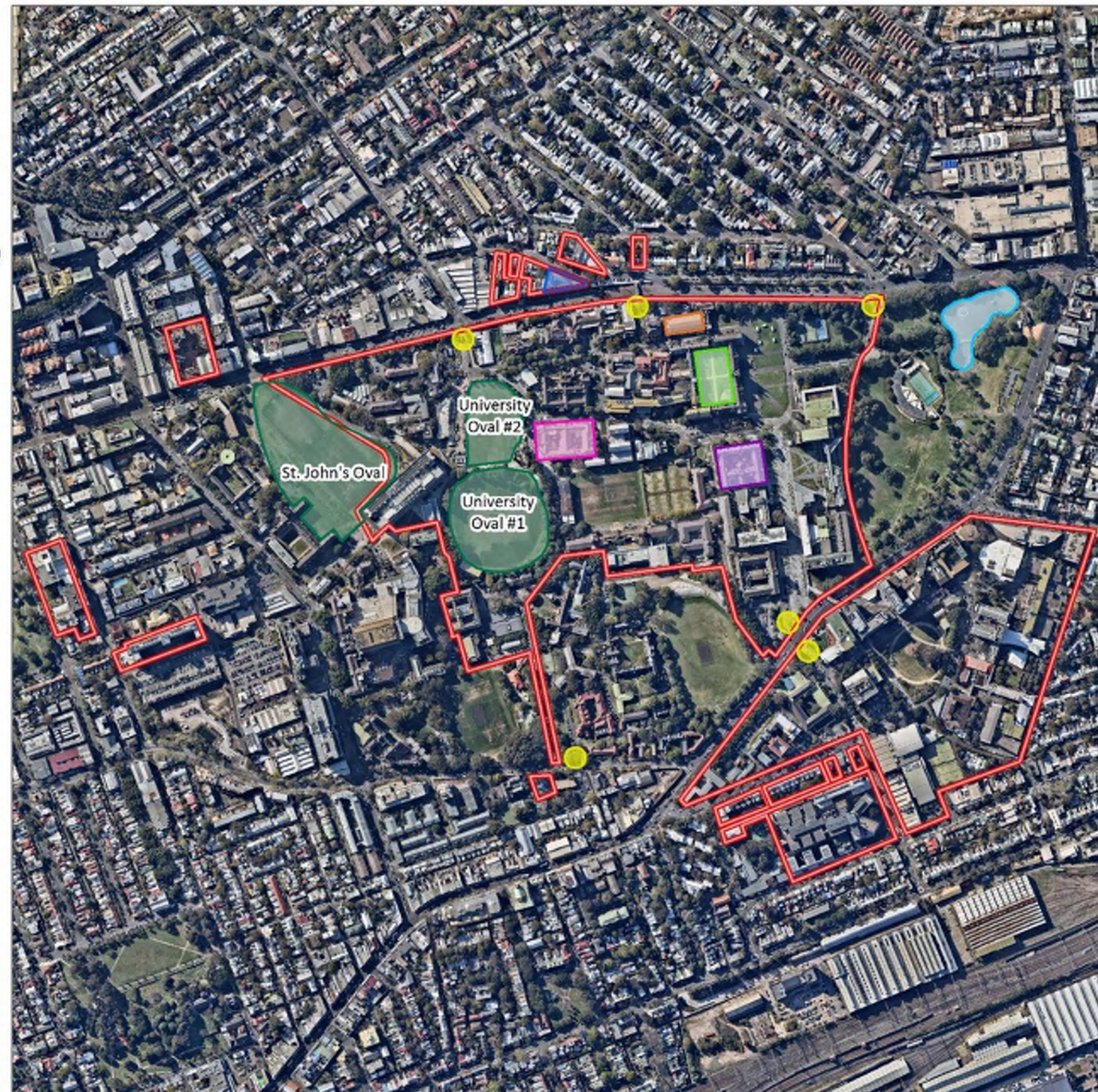
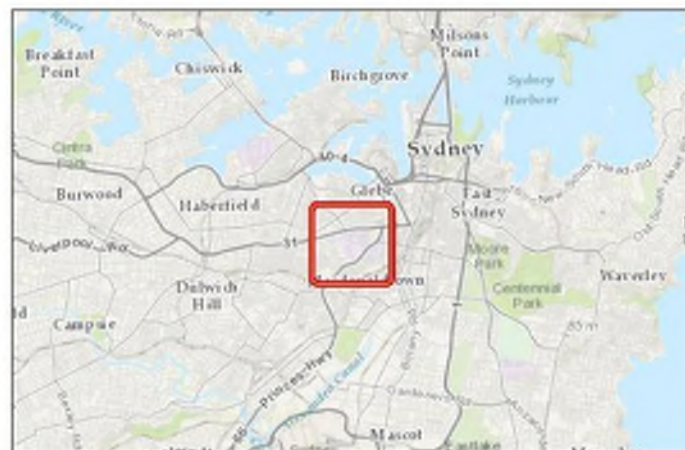


Figure 3: Areas identified as of the Aboriginal cultural value.

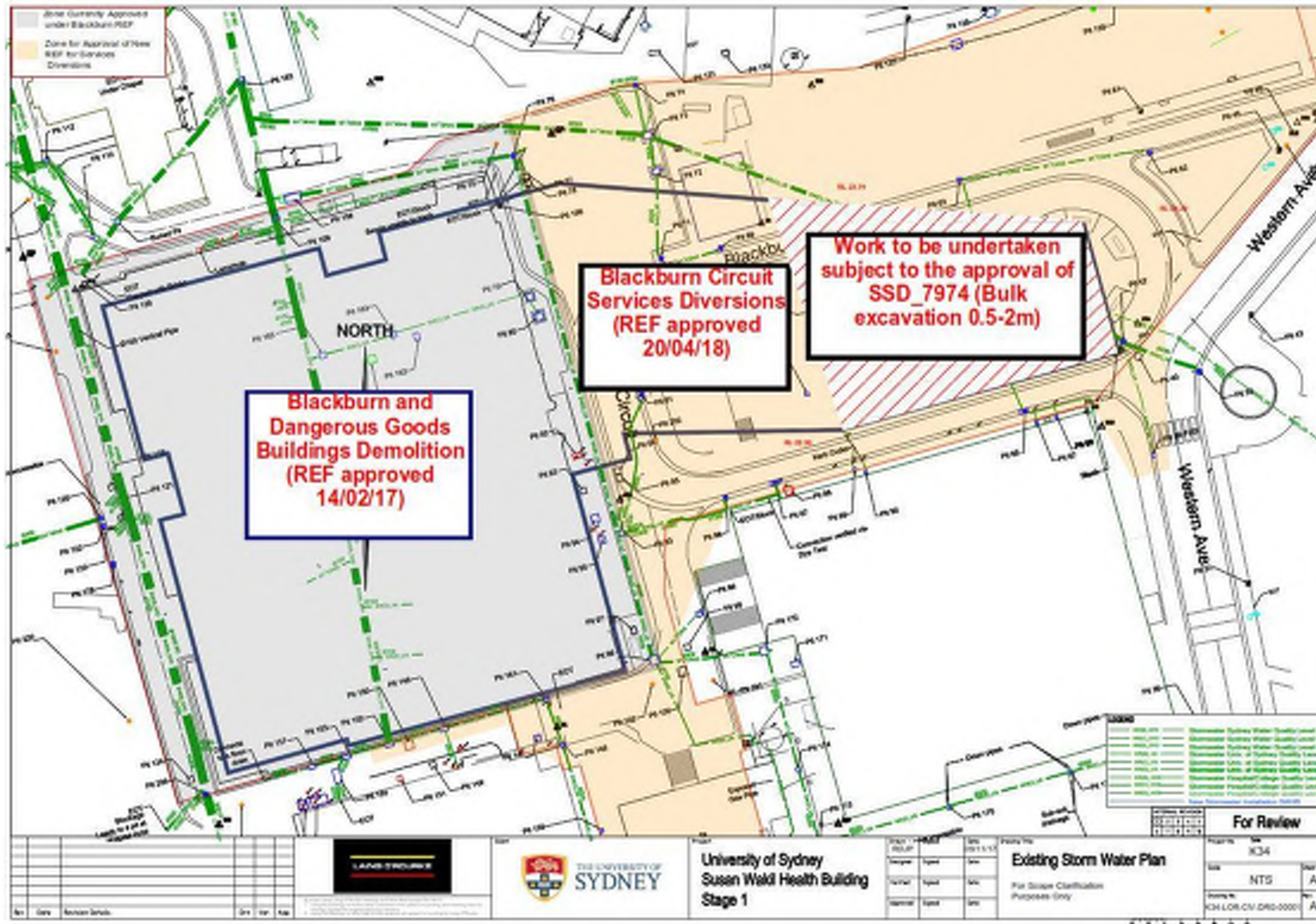


Figure 4: Areas within the Health precinct where development work has occurred and is proceeding in accordance with approved REFs. These existing works are not part of this ACHMP, but do influence some of the subsequent recommendations being developed.

3.4 The Project Impacts

The Project proposes to undertake the redevelopment of the six precincts, with an increase in GFA in all instances. While specific details for the development are yet to be understood, they are likely to involve the need for demolition of existing structures, and the establishment of foundations for future (likely hi-rise) structures. As such, both piling and localised deep excavation is considered likely across all precincts. As such, there is a significant likelihood that all areas of potential as identified in **Figure 2** would be subject to impact by the proposed development.

Once specific development impacts by precinct or stage are determined, they will be considered in further detail in the respective PHWP.

It is highlighted that no areas identified as having cultural values would be directly or indirectly affected by the proposed development.

3.4.1 Evaluation of Impacts

While specific details are not available for the broader CIP, the following types of impact are considered likely:

- **Demolition of existing structures:** In most cases, removal of existing structures would be required to allow re-development. Typically, these activities would be constrained to the current surface, or near surface, although some deeper impacts occur through removal of basement and/or associated sub-surface infrastructure features.
- **Piling:** In modern construction, substantial buildings would typically require the installation of piles to support the structure. These are typically spread across the structure's footprint, and more extensively around its perimeter. Piles come in a variety of forms and sizes, but usually require screwing, drilling or hammering into the ground to under-lying bedrock, and as such would impact any subsurface deposits. Further, the structure usually sits upon a series of capping beams that run across the top of the piles. Such beams can often be designed to sit below the current surface, and as such require substantial excavation for their installation.
- **Excavation:** A range of excavation would likely be required within a structure's footprint, either to establish and supplement the piling program and/or for the sub-floor requirements, such as underground car parks, basements, storage, etc.
- **Indirect activities:** With construction comes a range of indirect activities, such as storage compounds, parking areas, site facilities, etc. All of these would likely have some level of surface and near-surface impacts from their installation and use. There is also potential for indirect sub-surface impacts through compression and/or compaction of the soil profile, although this seems likely minor given the extremely deep depth of any in situ cultural materials.

3.4.2 Potential Aboriginal Heritage Impact

Based on the information available for the subject area, it is considered that cultural materials would be likely to be composed of low density artefact scatters, isolated finds and/or PADs in close proximity to water sources. Disturbance plays a key role in the survival of such deposits, and in the case of the university past impacts have been extensive. Based on this, it is considered that only two precincts,

within the current proposal: Health (D)¹ and Life Sciences (E), have the potential for cultural materials to be both present and to have survived historical activities. Both of these precincts have been identified on precautionary principles, assuming natural soil profile being present beneath a substantial layer of over-burden. Specific development within the precincts has yet to be defined, but construction tasks as outlined in **Section 3.4.1** are considered likely to impact these deposits (if present). Further details of impacts will be included in the precinct work heritage plans developed for each site specific activity.

The other four precincts (A, B, C and F) are considered to have low or low-nil risk of containing Aboriginal objects, and as such proposed works are considered to have of low risk in harming/destroying cultural materials.

No areas identified as having cultural values would be directly or indirectly affected by the proposed development.

¹ Development work within the Health Precinct has already occurred and is being carried out in accordance with the REF for the Demolition of the Blackburn Dangerous Goods Buildings (approved 14/02/17) and the REF for the Blackburn Circuit Services Diversions (approved 20/04/18). As such, current works are not considered part of this ACHMP, which will only manage the precinct once this project is approved by DPE.

4. Archaeological Management Plan

4.1 General Approach

Requirements to protect and manage Aboriginal heritage are described in the Statement of Commitments and Minister's Conditions of Approval (**Section 2**). The source documents (the environmental assessments, which include heritage assessments) for this plan have been variously written over the last few years by different authors and consultants. While the authors' specific recommendations are slightly different, they all require identified heritage items and zones of sensitivity to be appropriately managed.

To implement a consistent and clear framework for heritage management for the decade long CIP, this ACHMP proposes a strategic approach to manage Aboriginal heritage for the subject area, with more specific work plans developed separately for development within the six precincts. The work plans would all seek to answer the research questions proposed here, adopt the general excavation approaches outlined below, and feed into the ACHMP to ensure it remains current throughout the life of the CIP. This approach then provides an overarching framework for the whole project, while ensuring each development (many of which are poorly defined currently) can be individually considered based on previous archaeological findings and with a good understanding of the nature of the proposed scope of works.

The following mitigation policies and procedures should be adopted as part of the overall management of the site's archaeological resource.

Prior to Construction

- A heritage induction should be included in the general site induction prior to commencement of construction works, so that all personnel involved with the project are aware of heritage and archaeological requirements.
- The heritage induction should be formulated to include information on the heritage values of the University, extant built heritage and landscape items, archaeological sensitivity zones, and protocols that apply to their protection.
- Physical protection measures will be developed for the areas where significant archaeological items may be located in consultation with the design/construction team so as to retain integrity of such items.
- A Precinct Heritage Work Plan is developed for the specific development activity being undertaken.
- The Archaeological Research Design (ARD) contained within this document will be used to guide the archaeological sub-surface (test) program as well as all other archaeological works associated with this project.
- An archaeological sub-surface (test) program should be carried out prior to construction in the areas where archaeologically sensitive areas (known or potential) may be impacted by the proposed works. Test excavations will provide further information on the extent and level of preservation of potential archaeology so that adequate management can be developed (e.g. further investigation, protection, adjustment of the design, salvage etc.). In particular, the test excavation program will focus on the Health Precinct and Life Sciences Precinct.

- Appropriate heritage mitigation measures, commonly (but not necessarily limited to) an archaeological sub-surface (salvage) program, should be carried out prior to construction in areas where significant Aboriginal archaeology (if identified) will be impacted by the proposed works.
- This ACHMP will be applied to guide the archaeological works throughout all phases of the proposed CIP works. The document will be approved by the Secretary of the Department of Planning and Environment upon the receipt of advice from OEH.

During Construction

- In order to implement relevant heritage/archaeological controls the Project Archaeologist/Excavation Director should be regularly included in the project team communication about the progress of construction works on site. This will ensure timely decision making and timely delivery of advice in the event of any changes to the project, unexpected archaeological discoveries, etc.
- All archaeological works will be supervised by an appointed Excavation Director experienced in the management of heritage sites.
- Archaeological works may include a combination of test excavation, monitoring, open area (salvage) excavation, site inspections and stop work protocols.
- The Project Archaeologist/Excavation Director will notify the NSW Heritage Division of OEH, and stop works if unexpected or intact historical archaeological relics are discovered.
- Where possible, subsurface disturbance should be limited to those areas identified in the project documents so as to avoid disturbance of other potential archaeological remains at the site.
- If found, State significant archaeological remains should be retained in situ, wherever possible. In situations where removal is required, they will be thoroughly recorded, carefully removed and their fabric (should integrity allow) retained for future interpretation.

Post Construction

- Following completion of archaeological works, an archaeological excavation report will be prepared to present the results of the onsite archaeological works. The report will also provide recommendations for future management of the site's archaeological resources.
- Where possible, site compound and other temporary works areas should be reinstated to the original condition, i.e. prior to the construction works.

The approach will be finalised in consultation with Registered Aboriginal Parties in regards to Aboriginal heritage. The ACHMP will be submitted to DPE for approval.

4.2 Precinct Heritage Work Plans

This ACHMP provides over-arching guidance to manage heritage issues during the Project. The following mitigation policies and procedures should be adopted as part of the overall management of the site's archaeological resource. For each development activity and/or precinct, frameworks and procedures in the form of Precinct Heritage Work Plans (hereafter 'PHWP') - will be developed to prescribe specific mitigation measures required prior to, during construction, and/or following construction. These requirements will be based on the research questions and general approaches outlined in this document.

The PHWP will guide the Construction Manager and Environmental Manager regarding the heritage mitigation and management processes and timeframes to undertake heritage mitigation works prior to, and during construction.

The template for PHWPs is included in **Appendix 1**. They are to be developed for precincts and stages of precincts that may have direct or indirect impacts on known archaeological sites by a heritage professional, in consultation with University of Sydney, Relevant Aboriginal Parties and the Project ER.

4.3 Rationale

Geotechnical investigations undertaken within the university grounds indicate that natural soil horizons may be preserved below 3-5 m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences (E), and Health Precincts (D) (see **Section 3**). At this stage it is uncertain as to the full extent of disturbance caused by the placement of fill in these areas. Using precautionary principles, it is assumed these deposits remain intact until proven otherwise. Given their proximity to a water course, these deposits are also considered to have potential for cultural materials to be present. With the exception of the western portion of the Life Sciences, and Health Precincts, it is considered that the remaining precincts would have low potential for cultural materials to be present.

For this reason, a strategic approach is proposed to address Aboriginal heritage issues on the Project based on the extent of impact (direct or indirect) and the significance of the site. This involves considering the significance of Aboriginal sites within a hierarchical management system of conservation, investigation and/or salvage procedures.

The hierarchical approach has a number of benefits when compared with an untargeted mitigation program, including:

- Better heritage outcomes – all heritage mitigation work efforts would be focussed on sites of greater significance, rather than being spread across a range of lesser significant site types.
- Certainty – by limiting the archaeological investigation and mitigation to a series of known sites and a set number of tasks, greater certainty in the timing and costs of the works can be identified by the University of Sydney to allow better planning and delivery of the project.

4.4 Hierarchical Management Actions

With types of impact defined (**Section 3.4**), the strategic approach proposed includes the following hierarchical management options, which will be further described in **Section 5** and the PHWPs (**Appendix 1**):

Areas of High Archaeological Potential or Value

Currently, no areas of high archaeological value or potential have been identified within the subject area, however, this may require revision as work is undertaken and cultural material (if present) is identified and assessed. Should such deposits be identified, the development should consider re-design and/or modifications to avoid impact.

Where avoidance of impact is unfeasible, minimising such impact through development design and controls should be prioritised, and appropriate heritage mitigation measures should be implemented.

Areas of Moderate Archaeological Potential

The Health (D)² and Life Science (E) Precincts are highlighted as having moderate archaeological potential - as a deeply buried cultural materials may be present (**Figure 2**). Avoidance of impacts to in-situ deposits (if present) below the modern fill/overburden (~3m) is the preferred option for these areas. If impacts cannot be avoided, archaeological testing would be undertaken within the site/s curtilage to ascertain the presence of Aboriginal objects and the nature of the deposits.

Based on the outcomes of test excavation, areas will be subject to further mitigation (likely salvage excavations – see **Section 5**), or managed in accordance with the 'sites of nil to low archaeological potential' below. In sites that are found to contain Aboriginal objects - considered to be of moderate significance, following the test excavations a determination will be made by the Excavation Director, the University of Sydney, and Relevant Aboriginal Parties as to whether additional mitigation measures are required prior to construction.

Areas of Low Archaeological Potential

The Mereweather (A) and Cultural (F) Precincts are considered to have low potential for Aboriginal objects to be present (**Figure 2**). As such, no further archaeological mitigation measures are proposed for these areas. These areas would be managed through unexpected finds procedures and human remains protocols (**Appendix 3** and **Appendix 4**).

Areas of Low and Low-Nil Archaeological Potential

The City Road (B) and Engineering (C) Precincts are considered to have low-nil potential for Aboriginal objects to be present (**Figure 2**). As such, no further archaeological mitigation measures are proposed for these areas. These areas would be managed through unexpected finds procedures and human remains protocols (**Appendix 3** and **Appendix 4**).

Areas with Known Intangible Values.

Based on the feedback obtained from the cultural values workshop of the AHIA, it is considered that no intangible values will be impacted by the proposed works for the CIP (**Figure 3**). Should the CIP design change and such areas become incorporated, the development should be designed to avoid them wherever possible. In the events that impacts are likely, detailed discussion with the registered Aboriginal parties should be undertaken to determine appropriate heritage mitigations.

However, opportunities exist to reflect contemporary Aboriginal values through a range of possible initiatives that have been identified through consultation of the AHIA. It is recommended that an interpretation strategy is developed as a condition of consent to explore and implement expressions of Aboriginal cultural value across the university grounds.

² Development work within the Health Precinct has been undertaken, and is being carried out in accordance with the REF for the Demolition of the Blackburn Dangerous Goods Buildings (approved 14/02/17) and the REF for the Blackburn Circuit Services Diversions (approved 20/04/18). As such, current works are not considered part of this ACHMP, which will only manage the precinct once this project is approved by DPE.

4.5 Aboriginal Community Consultation Rationale

The engagement and involvement of the Aboriginal community is an important part of the heritage management processes of the project. Aboriginal consultation has occurred since the inception of the project (via its various assessment phases) in 2015.

In 2015, the consultation for the Project included 20 Relevant Aboriginal Parties. Of these, 11 expressed an interest in the Project:

- Metropolitan LALC
- Darug Aboriginal Cultural Heritage Assessments
- Darug Land Observations
- Larry Hoskins
- Goobah
- Murramarang
- Biamanga
- Gulaga
- Cullendulla
- Central Murrumbidgee
- Murrumbidgee

University of Sydney proposes to continue the consultation with these (11) Aboriginal stakeholders throughout the Project. Consultation includes the following:

1. Notification of the project's re-activation – Relevant Aboriginal Parties from the previous assessments will be advised of the project and request their ongoing interest.
2. Liaison and development of the ACHMP – Relevant Aboriginal Parties will be met with to discuss and develop the ACHMP before its adoption. Comments will be received and incorporated through a series of meetings.
3. Informed of PHWPs – Relevant Aboriginal Parties will be provided a copy of the PHWPs for their information, and to understand the likely upcoming archaeological works. PHWPs will be provided based on the construction program and will be provided to stakeholders three weeks prior to works beginning.
4. Involvement in archaeological investigation, mitigations and/or monitoring – all Relevant Aboriginal Parties with appropriate OH&S and insurance requirements will be afforded the opportunity to participate in the mitigation works outlined in this ACHMP.
5. Final debrief – University of Sydney will hold a series of meetings at the end of the project to review the archaeological program to identify the successes and failures of the project for incorporation into subsequent projects.

The large number of Relevant Aboriginal Parties likely to be involved in the project may mean they cannot all be involved in all stages of the work. For this reason, in relation to (4) above, development of a roster system is proposed for Relevant Aboriginal Parties, which will be managed by the heritage consultant through the life of the project. The roster will be developed to ensure all Relevant Aboriginal Parties are equitably included in the works and to provide some certainty for when their services are required. The roster will be developed once the University of Sydney has feedback on (2) above, and when some indication of the volume and timing of mitigation works is determined.

5. Aboriginal Heritage Mitigation Policy and Procedures

5.1 General

This section provides overarching archaeological methodology, team, timeframes and other requirements to meet the strategic Aboriginal heritage approach outlined in **Section 4**. The specific extent and timeframes of mitigation works are included in the PHWPs.

The specific methodologies adopted are based on the archaeological sensitivity rating identified in previous heritage assessments prepared to inform the CIP Project Approval Environmental Assessments.

The methodologies are also based on the type of impact (direct or indirect) and the type of construction techniques. The construction methodologies include demolition of existing structures, piling and excavation. Indirect impacts may include vehicle movement, spoil removal, site facilities establishment, and other logistical activities.

5.2 Identified Areas of High Archaeological Potential

The following methodology should be implemented for areas of high archaeological potential where it is confirmed that such deposits will be impacted by proposed development. Currently, no areas have been identified as containing such deposits, but this may require revision as the project and archaeological investigations progress.

Any areas identified as of high archaeological potential should be subject to development avoidance and/or additional heritage mitigation. As a default, additional heritage mitigations would consist of further sub-surface (salvage) archaeological excavation. However, other types of mitigation may be considered instead or, and/or in addition to such works, where agreed by the Excavation Director, registered Aboriginal parties, and University of Sydney. Any mitigation that does not consist of sub-surface (salvage) archaeological excavation must be correlated to the cultural values and/or material culture of the subject area.

Research Objectives

In the event that sub-surface (salvage) archaeological excavation is undertaken, the following research objectives should form the focus of the work:

Using fine resolution excavation and environmental analyses to further characterise the archaeological deposits relating to the prehistoric Aboriginal occupation. This includes a greater understanding of resource exploitation; identification of any change through time in spatial and chronological phases of activity; and site formation processes.

- Obtain a statistically viable assemblage of cultural material, for detailed analysis of the lithic assemblage to provide further information on the suite of production activities, from exploitation of the raw material outcrops to the development of complex stone tools.

- To use the findings of excavation program to further understand the nature and duration of Aboriginal occupation within the Sydney Region, and where possible, compare it with other locally documented sites.
- To allow greater cultural association between the site and the Aboriginal stakeholders (i.e. a form of cultural salvage) through involvement in the excavation, and options for the interpretation of the results, should the community decide that this is appropriate.

The following general approach would apply to all sub-surface (salvage) archaeological excavations within these areas identified as of high cultural potential or value:

- Excavations should consist of a significant proportion of the cultural deposit in question. Typically, in the Sydney Basin, this is in the order of 100m² for a given site, with the smallest salvage area being 25m². However, the overall size of the cultural deposit and the amount of impact affecting the cultural deposit should also be considered in the development of a spatial amount of excavation.
- Excavations would be undertaken by a team of heritage professionals and/or Aboriginal stakeholder. The specific team composition and the timeframes for each site are provided in the PHWPs in **Appendix 1**, but in general would consist of up to eight individuals for any one area.
- Mechanical excavation would be undertaken to remove the modern fill and/or overburden to the surface (or near-surface) of the cultural deposit. None of these over-lying deposits would be subject to further investigation. The mechanical excavation would also undertake the necessary earthworks to allow a safe work space to be established for the subsequent salvage excavations.
- Salvage excavations are initially proposed to be undertaken as a series of contiguous 0.25 m² (50x50cm) pits in square shape, focussing on the cultural deposit of interest. The shape, size and direction of the salvage may be modified during the program to ensure the maximum recovery of cultural deposits; and to fulfil the research objectives.
- All excavation would be undertaken manually in 5cm spits using hand tools
- Salvage pits would be excavated until it proves unsafe to continue excavation, the depth of the proposed impact has been reached, and/or the base of identified Aboriginal artefact bearing units, continuing below this depth to confirm the soils below are culturally sterile.
- All material from the salvage pits would be bucketed and sieved through 3 mm mesh sieve.
- All Aboriginal objects and other archaeological material would be appropriately labelled and bagged for subsequent analysis.
- Additional samples for dating, soil, and/or palaeoclimatic information will also be taken where appropriate.
- Soil profiles will be recorded in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH, 2010), including scaled drawings, photographs, and written descriptions.
- Where the above methodology proves unfeasible or unsuitable, the proposed methodology may be revised at the discretion of the Excavation Director in consultation with the University of Sydney and Relevant Aboriginal Parties based on the specific circumstances of the PHWP, archaeological site, timeframes and/or other issues.

5.3 Identified Areas of Moderate Archaeological Potential

The following methodology should be implemented for areas of moderate archaeological potential where it is confirmed that in-situ deposits will be impacted by proposed development. These include the Health and Life Sciences Precincts shown in **Figure 2** and detailed in **Appendix 1**.

Archaeological Research Design

Given the current findings, a simple research design has been developed to guide the archaeological test excavation. Further questions may be added, depending on the results of the fieldwork.

- Are in-situ deposits present? If so, is it likely that similar areas exist within other parts of the CIP?
- Are Aboriginal archaeological deposits present? What information can they provide about the past Aboriginal occupation of the study area and the broader region?
- What impact has the historical occupation and use of the study area had on the remains of earlier Aboriginal occupation?
- How do the results compare to what was expected based on the desktop research?

Test Excavations

The key aim of the test excavation program is to identify the presence or absence of Aboriginal objects and their broad spatial patterning across the site, as well as to identify whether in situ stratified natural soils are evident. It is considered that if present, more careful manual excavation and cultural material recovery would occur following the Project Approval, and prior to construction.

Test excavation would involve mechanically dug test pits (2x1m), spaced at set intervals in a grid across areas of potential impact. The grid would be designed to avoid extant structures and buried services, which will remain until the construction phase of the project. Where test pits need to be moved as a result of extant structures or buried services, they will be placed broadly on the same grid, as close to the original location as possible. Due to the presence of modern fill and/or overburden (~3m) both above, a 5-tonne mechanical excavator with a flat mud bucket is proposed to ensure excavation of the soil profile can be achieved. We highlight that much of the proposed impact area is covered in bitumen and/or other concrete surfaces that cannot be readily removed without such equipment. It provides a cost efficient and quick method to determine whether Aboriginal objects are present, and where areas for further more stratigraphically robust excavations can then occur, if required.

In the event that cultural material is identified within the under-lying natural soil profile, installation of a shoring system might be required before detailed sampling and recording of this part of the profile is undertaken. In other instances, access by individuals to the test pits would not be undertaken where depth exceeds 1.5m below surface unless appropriate measures are in place (e.g. shoring or stepping of test pits). If this is not possible, all documentation would be achieved through investigation of removed sediments, and recording undertaken from the current ground surface.

Along with the excavator, a team of three archaeologists and two Aboriginal stakeholders (totalling 5 people) would participate in the works. The duration of test excavation would be detailed in the PHWPs in **Appendix 1**

The proposed excavation methodology includes:

- All test excavation pits would be spatially located using a differential GPS device;
- Mechanical excavation of approx. 2m² test pits in a systematic grid across areas of proposed impact;
- All excavation would be undertaken with a flat mud bucket and in controlled spits, to either: i) the base of the cultural deposits; or ii) to the depth of the underlying geology, or iii) to the full extent of the excavator reach (~3m) where neither (i) or (ii) are met;
- Reduced levels of the top and bottom of the test pit would be documented using a dumpy level against a known elevation. Other levels may be taken as required;

- Given the uncertainties regarding the level of previous disturbance and depth of fill/overburden above in-situ deposits (if present). It is recommended that a representative sample of the fill/overburden is wet-sieved, to ensure and maximise recovery of Aboriginal objects from both disturbed and in-situ contexts. It is considered appropriate that twenty-five (25%) of the sediment, stockpiled from each test pit, be wet-sieved through a 5mm wire aperture mesh. Where no Aboriginal objects are recovered in the initial 25% sub-sample, no further sieving would occur. In the event that significant Aboriginal objects are recovered, further sieving may occur for the remaining 75% of the sediment. Any Aboriginal cultural material recovered would be labelled and bagged for subsequent analysis and curation.
- Soil profiles would be recorded in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010), including scaled drawings, photographs, and written descriptions; and
- Soil samples may be collected for description, sedimentological and chronological analysis where such analysis is considered likely to contribute significant information.

We highlight that excavation procedures and protocols may be modified at the discretion of the Aboriginal Excavation Director, in consultation with the Aboriginal stakeholders and the OEH as the conditions in the field and nature of the excavations develop. This includes the movement of test pits to avoid existing built structures, buried services and disturbances where not identified during the desktop phase.

Additional Heritage Mitigation

Additional heritage mitigation would be dependent on the outcomes of the test excavation program detailed above, and may be implemented on the finding of any one, or a combination of the following triggers:

- The identification of high densities of artefacts within initial test pits. Based on regional site patterning, a background scatter of ~five Aboriginal objects per metre squared (~5/m²) is expected to occur in all areas, including the study area. Therefore, in relation to expansion based on artefact densities, it is considered that >5m² would be used as a threshold.
- Artefact densities of less than five per m² may be used to implement salvage excavations if they have the potential to be of high archaeological or cultural significance, and/or are recovered from within remnant in situ stratified deposits. In such circumstances, the following criteria may trigger salvage excavations, and would be implemented following discussions between the Excavation Director, the University of Sydney and Relevant Aboriginal Stakeholders:
- The identification of any features of archaeological interest, such as hearths, burnt clay features, shell middens or burials;
- Artefacts of potential great antiquity, typologically dated to the Pleistocene (>10,000 years ago (ka));
- Artefacts manufactured of unusual or rare raw stone materials – those exotic to the Sydney region, such as silicified wood, hornfels, andalusite and other volcanics;
- Unusual or rare artefact tool types and formal tools, such as Bondi points, shell artefacts, core tools, burin blades, hammerstones, ground edge implements etc.; or
- Aboriginal objects made during or shortly after the period of European contact, such as worked glass, worked flint etc.

In this situation, the cultural deposits in question should be re-assigned to 'identified areas of high archaeological potential' and managed in accordance with **Section 5.2**.

For all other cultural deposits identified and which do not fulfil the above criteria, they would be re-assigned as of low/low-nil potential, and managed in accordance with **Section 5.4**.

5.4 Identified Areas of Low Archaeological Potential

The procedure for discovery of possible human remains and unexpected finds procedure as presented in Appendix 3 and Appendix 4 should be implemented for areas of low archaeological potential.

5.5 Identified Areas of Low -Nil Archaeological Potential

The procedure for discovery of possible human remains and unexpected finds procedure as presented in **Appendix 3** and Appendix 4 should be implemented for areas of low and low-nil archaeological potential.

5.6 Post Excavation Analysis

All tasks outlined in **Sections 5.2** and **5.3** would require post excavation analysis to appropriately document the archaeological and cultural findings of the field program. The heritage consultant, in consultation with the University of Sydney, would discuss the post excavation analysis for each PHWP and determine the tasks to be implemented.

The following general post excavation approaches may be implemented:

- **Artefact Analysis:** a lithic specialist would record, document and appropriately bag and tag the artefacts. The analysis will include raw material types, artefact features, measurements, etc. Additional analysis, such as conjoin analysis and/or residue analysis may also be undertaken at this stage. Documentation and long term storage of the artefacts will be undertaken in accordance with the Australian Museum collection policies, which currently forms best practice.
- **Digitisation and organisation of site records:** All field notes, sketches and photographs will be digitised and organised in for subsequent reporting.
- **Dating:** Where appropriate radiocarbon and/or OSL samples will be collected and processed to provide an indication of the age of soil profiles and any associated archaeological materials.
- **Soil Analysis:** Where appropriate, soil samples will be collected to undertake particle size, organic phosphorous, total carbon and other techniques to further characterise the formation and modifications to the soil profile, to further inform the archaeological record.
- **Palaeoclimatic Analysis:** Where appropriate, samples will be taken for subsequent palaeoclimatic analysis, such as vegetation change (through pollen and phytolith analysis), fire history (charcoal), temperature records (oxygen and carbon isotopes) and other techniques that provide climatic history and context for any archaeological materials recovered.
- **Other Analysis:** As the project progresses, additional techniques to provide further information on the cultural history of the study area may be identified. These analyses would be implemented where appropriate.

5.7 Reporting

Each area investigated, salvaged, monitored and/or mitigated in some way would have a brief interim or compliance report developed. This avoids the need to undertake detailed and time-consuming post excavation analysis before the construction begins. Post excavation analysis would be ongoing

throughout the project, and at, or nearing completion of the project, a detailed report on all archaeological works would be compiled.

The following general approach would apply to all reporting:

- At the completion of each stage of the archaeological mitigation program, a short compliance report would be developed to provide interim findings and allow the construction program to proceed.
- Following the completion of each stage of the archaeological mitigation program, post excavation analysis is begun with results being reported back as they become available to the Relevant Aboriginal Parties.
- At, or nearing the completion of the project, a detailed report on all archaeological mitigation works and post excavation analysis is developed and AHIMS database records updated as required.
- All reporting would conform broadly to OEH guidelines where relevant.

5.8 Storage of Archaeological Material Collected

The mitigation program may result in artefactual material and the long term curation of this material needs to be ensured. This will be developed in consultation with the Relevant Aboriginal Parties, but is likely to include:

- Deposition with the Australian Museum;
- Re-burial on site, in an appropriate location in the vicinity of the study area.
- Lodged with a RAP under a Care and Control Agreement; or

The following general approach would apply to artefact storage:

- During the project, all archaeological materials would be stored with the heritage consultant for analysis and documentation. Storage and labelling would be undertaken in accordance with Australian Museum collection policies, since these currently form the most rigorous curation methods.
- Towards the end of the project, the heritage consultant would undertake steps outlined in the PHWPs to determine the long term storage of any archaeological material collected.
- Once the archaeological materials have been situated in their long term storage location, a site card should be lodged with the OEH AHIMS database. The site card should lodge all relevant information about the archaeological materials, including where it was found/recovered, relevant reports associated with it, and its final storage location.

5.9 Discovery of Potential Human Remains Procedures

During construction works, it is possible that previously possible human remains may be discovered. Refer to **Appendix 3** for the Possible Discovery of Human Remains Procedure.

5.10 Unexpected Finds Procedures

During construction works, it is possible that previously unknown Aboriginal objects or sites may be discovered. Refer to **Appendix 4** for the Unexpected Finds Procedures.

5.11 Aboriginal Community Consultation Strategy

Consultation should be maintained with the Aboriginal stakeholders during the finalisation of the ACHMP and mitigation works. This should focus on the long-term curation and management of the Aboriginal objects recovered through the archaeological excavation program, and any mitigation measures implemented prior to, and during, the works.

5.11.1 Consultation Timeframes

Based on the Aboriginal Community Consultation Rationale (outlined in **Section 4.5**), the following consultation timeframes are proposed for the Project:

Table 3: Aboriginal community consultation tasks and timeframes for the Project.

Task	Details	Timeframe (estimate)	Dates (estimate)
Notification of the Re-activation of the Project	Notification Letters	1 week	July 2018
Liaison and development of the ACHMP	Relevant Aboriginal Parties will be contacted to discuss and develop the ACHMP before its implementation Develop and undertake a series of meetings	2 weeks	July/ August 2018
Precinct Heritage Work Plans	Preparation of PHWPs PHWPs will be provided based on the construction program and will be provided to stakeholders 2 weeks prior to works beginning.	2 weeks	3 weeks prior to archaeological mitigation measures commence per precinct
Involvement in archaeological mitigation works	Equal time on each PHWP mitigation program given to each RAP. Timeframes will vary depending on the type of mitigation (collection, monitoring, test excavation, salvage excavation) and the Work Lot	Varies Over course of the Project	Varies Over course of the Project
Review of archaeological mitigation	Discussions are to be held at the completion of archaeological mitigation works per Precinct.	Within 4 weeks of the completion of the mitigation works	Varies Over course of the Project
Final Reporting	Review of draft archaeological reports to comment on cultural heritage significance of the archaeological sites mitigated. All RAPs provided a digital copy of the final archaeological report	28 days to provide feedback on draft reports	Varies Over course of the Project

5.11.2 sRoster System

The roster will be developed following the endorsement of the ACHMP by DPE. The roster would set out the number of RAPs required by task (**Sections 5.1-5.7**) and agreed daily rates for the duration of the project. Only RAPs that have registered interest will be considered in the roster system.

It is considered appropriate to have up to three RAPs participating in test; and up to four in salvage excavations. Other situations may require, an alternate number of RAPs, and this would be explored and determined in the relevant PHWPs (**Appendix 1**)

Overall, the roster system would ensure:

- All RAPs that have registered interest would be given an opportunity to be involved in the on-site archaeological works;
- The heritage consultant, in consultation with the University of Sydney, would be responsible for the employment of the representatives of the RAPs throughout the project; and
- Only RAPS with the relevant insurances would be able to be employed on field projects.

6. Risk Assessment

6.1 Basis for Assessment

The key construction activities and potential impacts on Aboriginal archaeology are summarised in Table 4. The risk assessment is based on (1) the likelihood of an impact occurring as a result of a proposed activity; and (2) the consequences of the impact if the event occurs. The risk matrix, and definition of likelihood and consequence are provided in

Table 5 and Table 6.

Table 4: Key construction activities, risks and impacts.

Activity	Potential Impact	Residual Risk		
		Consequence	Likelihood	Risk
Demolition work results in physical disturbance of Aboriginal sites/objects.	Damage to Aboriginal archaeological resources. Non-compliance with development consent conditions.	Moderate	Unlikely	Medium
Construction work results in physical disturbance of Aboriginal sites/objects.	Damage to Aboriginal or historical archaeological resources. Non-compliance with development consent conditions.	Moderate	Unlikely	Medium
Construction work results in disturbance of previously unidentified of Aboriginal sites/objects, or skeletal remains.	Inadvertent damage, destruction or removal of Aboriginal archaeological resources.	Moderate	Unlikely	Medium
	Failure to notify and properly manage discovered objects.	Moderate	Unlikely	Medium

Table 5: Risk matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	Medium
Extreme	Intolerable - Risk reduction is mandatory wherever practicable. Residual risk can only be accepted if endorsed by senior management.				
High	Intolerable or tolerable if managed to as low as reasonably practicable - Senior management accountability				

Medium	Tolerable if managed to as low as reasonably practicable - Management responsibility
Low	Tolerable - Maintain systematic controls and monitor

Table 6: Classification of Likelihood and Consequence.

Likelihood	Description
Almost Certain	The event is expected to occur in most circumstances. This event could occur at least once during a project of this nature. 91-100% chance of occurring during the project
Likely	The event will probably occur in most circumstances. This event could occur up to once during a project of this nature. 51-90% chance of occurring during the project
Possible	The event could occur but not expected. This event could occur up to once every 10 projects of this nature. 11-50% chance of occurring during the project
Unlikely	The event could occur but is improbable. This event could occur up to once every 10-100 projects of this nature. 1-10% chance of occurring during the project
Rare	The event may occur only in exceptional circumstances. This event is not expected to occur except under exceptional circumstances (up to once every 100 projects of this nature). Less than 1% chance of occurring during the project
Consequence	Description
Insignificant	Minor disturbance of archaeological resources. No damage to Aboriginal sites/objects or historical relics.
Minor	Moderate disturbance of archaeological resources or repairable damage to Aboriginal sites/objects or historical relics.
Moderate	Considerable damage to Aboriginal sites/objects or historical relics.
Major	Major damage to Aboriginal sites/objects or historical relics.

6.2 Risk Management

The following risk management measures will be implemented to minimise potential impact to Aboriginal archaeological resources (**Table 7**). The measures identified are based on:

- Anticipated impacts to archaeological resources;
- Assessed scientific (archaeological) significance, and (where known) overall heritage significance;
- Legislative requirements and the planning approval framework; and
- Recommendations in previous reports; and

Overarching mitigation policies and procedures for the risk management measures outlined below are provided in **Section 5**

Table 7: Risk Management Measures.

Activity	Risk Management Measure
Demolition or construction work results in physical disturbance of Aboriginal sites/objects.	All staff, contractors and other relevant personnel carrying out activities with potential to disturb subsurface cultural deposits must undertake a project induction to ensure that they have an understanding and are aware of the Aboriginal archaeological issues which may affect the activity. Mitigation measures and procedures from this ACHMP will be included in relevant activity or area specific Work Method Statements.
Discovery of possible human remains	If human remains are uncovered, all works in the area would cease and project would follow procedures outlined in Appendix 4: Procedure for discovery of possible human remains.
Discovery of previously unidentified Aboriginal or historical archaeological resources.	In the case of unexpected Aboriginal objects or historical archaeological relics being uncovered by the works, immediately stop all works that would impact on the find and follow the procedure detailed in Appendix 3: Unexpected Find Procedure – Aboriginal Heritage.

7. Compliance Management

All project personnel, sub-contractors, consultants and visitors will receive training in environmental and heritage obligations during the site inductions and toolbox talks. Training will include an archaeological awareness component to reinforce the importance of heritage issues and the management measures that will be implemented. Specific archaeological awareness training will cover:

- Protection of identified Aboriginal sites and archaeological resources;
- Adherence to approval conditions and any consultation requirements with Registered Aboriginal parties;
- The means of identifying Aboriginal archaeological resources and the roles of personnel with regard to archaeological management measures.

Records would be kept of all personnel undertaking the site induction and training, including the contents of the training, date and name of trainer/s.

Key staff will undertake more comprehensive training relevant to their position and/or responsibility. This training may be provided as 'toolbox' training or at a more advanced level by the Site/Environmental Manager or delegated representatives.

7.1 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, and compliance with this ACHMP.

The planned audit process is detailed in the relevant Environmental Management Plan.

7.2 Monitoring

Inspections of areas with identified Aboriginal archaeological resources will occur for the duration of the project. Regular processes including documented inspections by specialised staff (heritage architect, arborist, environmental officer and/or archaeologist) will be utilised to ensure mitigation measures are working effectively.

A register of issues identified through inspections will be maintained to ensure that any issues are recorded for future action.

7.3 Reporting and Review

Reporting will be undertaken by an appointed officer, and will include a staged Performance Report/Review. Each report will detail relevant training, inspections, monitoring and auditing undertaken for the reporting period relating to archaeological management on the project.

This ACHMP will be updated every six months or as required.

8. Review and Improvement

8.1 Continual Improvement

Continual improvement of this plan will be achieved by the continual evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continual improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management which leads to improved environmental performance;
- Determine the root cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address non-conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions; and
- Document any changes in procedures resulting from process improvement.

8.2 Plan Update

Changes to this plan will be approved by the client and in consultation with stakeholders (if required) and documented in the document control section for each revision. A copy of the updated plan and changes will be distributed to all relevant stakeholders.

9. References

Archaeological & Heritage Management Solutions Pty Ltd (2016) University of Sydney - Aboriginal Heritage Impact Assessment. Unpublished Report for University of Sydney.

Godden Mackay Logan (GML) (2013), University of Sydney Campus Improvement Program, Aboriginal Heritage Due Diligence Report prepared for the University of Sydney.

Ian Kelly 2018, University of Sydney Blackburn Circuit Services Diversions, associated with the proposed Susan Wakil AO Health Building (D06), Statement of Heritage Impact. Prepared for the University of Sydney.

Jo McDonald Cultural Heritage Management (2004), Archaeological Survey of an Aboriginal Heritage Assessment, University of Sydney NSW, Prepared for Capital Insight.

The University of Sydney Grounds Conservation Management Plan (2017), prepared by the Planning Team, Campus Infrastructure and Services

Urbis 2016, Blackburn Building University of Sydney Heritage Impact Statement. Prepared for the University of Sydney.

Appendix 1: Precinct Heritage Work Plans (PHWPs)

Precinct Heritage Work Plan – Health Precinct (Stage 1)

1. Introduction

This Precinct Heritage Work Plan (PHWP) has been developed specifically for the Health Precinct Stage 1 work. It forms a site-specific management guide to Aboriginal heritage management and supplements the over-arching University of Sydney Campus Improvement Program (CIP) Aboriginal Cultural Heritage Management Plan (ACHMP). This document should be read in conjunction with the overarching ACHMP which elaborates on the project, legislative requirements and other pertinent information.

As outlined in the ACHMP, the Health Precinct (**Figure 1**) has been subjected to extensive disturbance and excavation prior to the completion of this document. Specifically, the demolition and deep excavation of the Blackburn Dangerous Goods Building and development of the Blackburn Circuit Services Diversions has been undertaken, and is being carried out in accordance with separate University of Sydney self-assessed Review of Environmental Factors (REFs approved 14/02/17 and 20/04/18). These works are not encompassed within the ACHMP, which will only have a legislative role to manage the Precinct following the endorsement of the ACHMP by DPE.

This PHWP will only come into operation following the approval of the ACHMP. At which time the PHWP would provide direction in relation to the remaining development works within the Health Precinct (D). Given the active nature of the development works, it is unclear the level of remaining cultural deposit, or the nature of any investigative/mitigative works that would be required at this time. The works therefore proposed here are a minimum requirement, and the PHWP would require revision once the condition of Stage 1 is known at the time of implementation.

2. Existing Environment

2.1 Archaeological Potential

No registered AHIMS sites are situated within the Health Precinct. However, the Health (D) Precinct was highlighted by Extent Heritage as having low-moderate archaeological potential - as a deeply buried cultural materials may be present due to its location to the former Orphan Creek (**Figure 2**).

Based on the information available, it is considered that cultural materials would be likely to be composed of low density artefact scatters, isolated finds and/or PADs in close proximity to water sources. Such deposits, if present, would be found beneath a considerable depth (2-3m) of modern fill and/or overburden. Disturbance plays a key role in the survival of such deposits, and in the case of the university past impacts have been extensive (in this case the construction of the Blackburn Building 1931-1933).

No areas identified as having cultural values would be directly or indirectly affected by the proposed development within the Health Precinct.

Subsequently, reassessment of the Health Precinct was undertaken as part of an internal REF process for the Blackburn Dangerous Goods Building and development of the Blackburn Circuit Services Diversions (see **Appendix 5** and **6** of the ACHMP, **Figure 3**). The Statement of Heritage Impact (SHI) prepared for the Blackburn Circuit Services Diversions (Kelly, 2018) considered the results of the previous archaeological assessments (The Grounds Conservation Management Plan 2017, GML 2013, AHMS 2016) and concluded that the potential for the preservation of in-situ Aboriginal archaeological deposits within the site is low due to previous extensive ground disturbance. As such, an archaeological watching brief was considered appropriate for the proposed works in the Blackburn Circuit (Kelly 2018: 40). Currently, no information on the nature or results of the watching brief have been provided. A recent site investigation indicates that much of this area has been subject to deep excavation, and regardless of the previous findings, it is unlikely that cultural materials (if present) would now survive.

Based on these recent works, the classification of the Stage 1 area requires revision from moderate to low archaeological potential, and appropriate investigative/mitigative measures as per **Section 5** of the ACHMP applied.

2.2 Potential Aboriginal Heritage Impact

Development work undertaken in accordance with the REF for the Demolition of the Blackburn Dangerous Goods Buildings (approved 14/02/17) and the REF for the Blackburn Circuit Services Diversions (approved 20/04/18) has already impacted the entirety of Stage 1 for development of the Susan Wakil AO Health Building.

As such, it is considered that future activities would have low impact to cultural materials.

3. Key Contact Details

Environment Manager	
University of Sydney	
Project Environmental Representative	
Project Archaeologist	Alan Williams - Extent Heritage
Aboriginal Community Groups	

4. Heritage Impact Mitigation Methodology

As per the classification for this area outlined in **Section 5** of the ACHMP, the following archaeological investigation and/or mitigation measures are required:

-) The implementation of human remains and unexpected finds procedure as presented in **Appendix 3** and **Appendix 4** of the ACHMP.

Given the nature of ongoing development works in the Stage 1 area, the PHWP should be reconsidered, and where necessary revised, to account for on-ground issues at the time of its implementation.

References

Archaeological & Heritage Management Solutions Pty Ltd (2016) University of Sydney - Aboriginal Heritage Impact Assessment. Unpublished Report for University of Sydney.

Godden Mackay Logan (GML) (2013), University of Sydney Campus Improvement Program, Aboriginal Heritage Due Diligence Report prepared for the University of Sydney.

Ian Kelly 2018, University of Sydney Blackburn Circuit Services Diversions, associated with the proposed Susan Wakil AO Health Building (D06), Statement of Heritage Impact. Prepared for the University of Sydney.

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The University of Sydney Grounds Conservation Management Plan (2017), prepared by the Planning Team, Campus Infrastructure and Services

Urbis 2016, Blackburn Building University of Sydney Heritage Impact Statement. Prepared for the University of Sydney.



Figure 1. Location of the Stage 1 works for the Health Precinct.

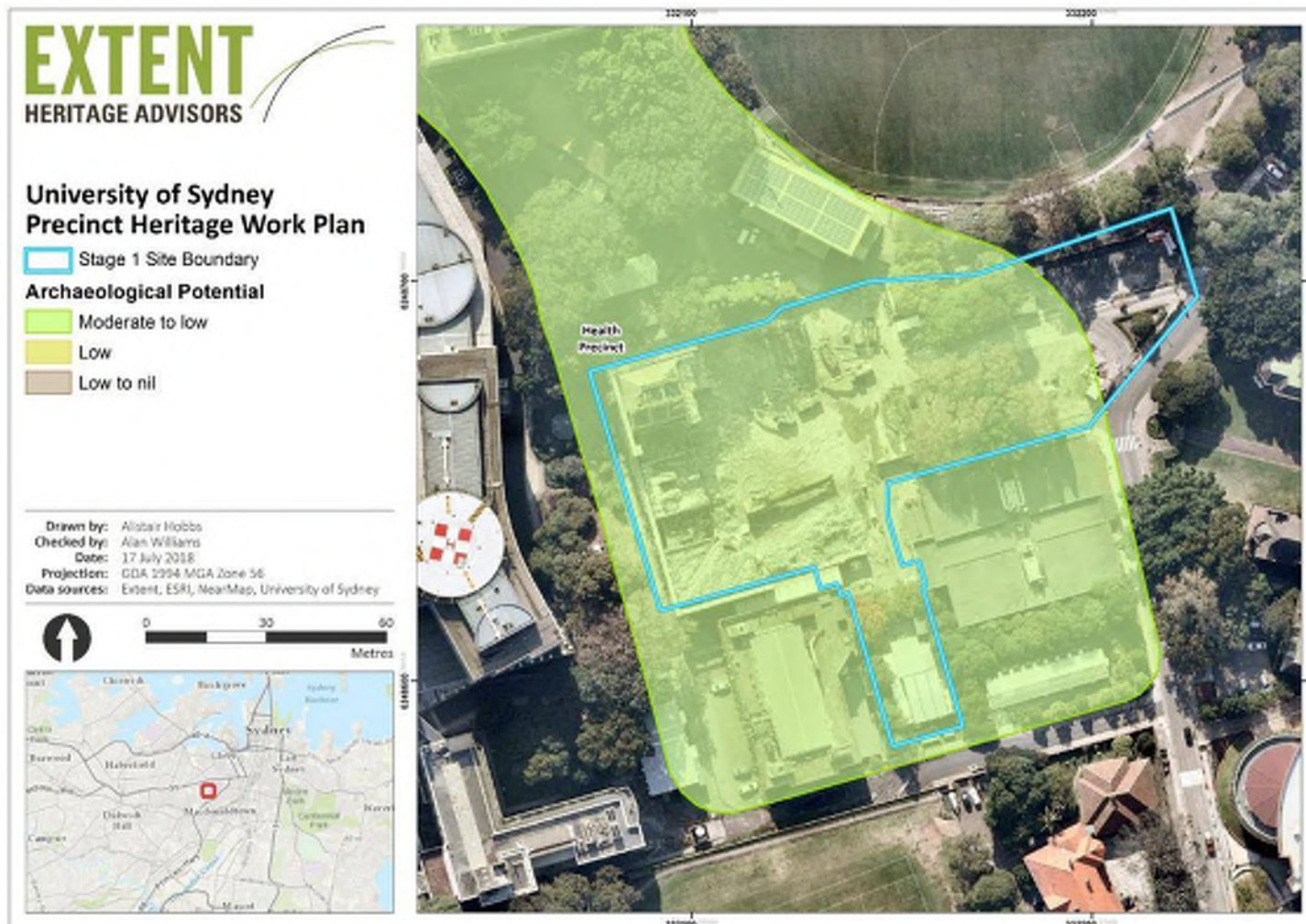


Figure 2. Initial assessment of archaeological potential within the Health PHWP and Stage 1 works area.

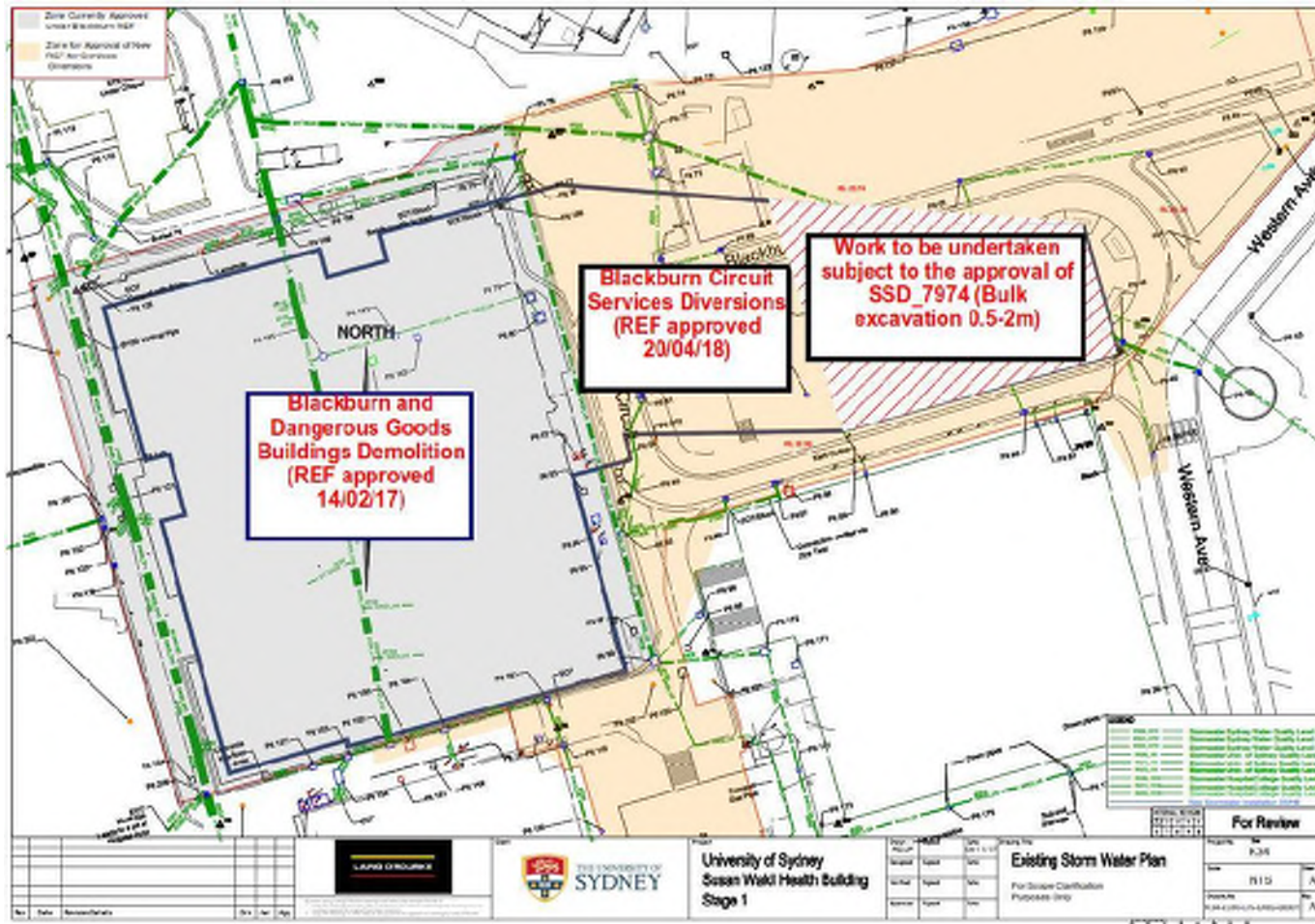


Figure 3. Areas within the Health precinct where development work has occurred and is proceeding in accordance with approved REFs. These existing works are not part of this ACHMP, but do influence some of the subsequent recommendations being developed.

Appendix 2: Aboriginal Community Consultation

Organisation/Group	Representative Contacted	Date	Comments	Extent Contact
Biamanga	Seli Storer	6.7.18	Project update to the RAPs, and request for expressions of interest in a project meeting.	Fenella Atkinson
Central Murrin	Chris Payne			
Cullendulla	Corey Smith			
Darug Aboriginal Cultural Heritage Assessments	Celestine Everingham			
Darug Land Observations	Jamie Workman			
Goobah	Basil Smith			
Gulaga	Wendy Smith			
Metropolitan Local Aboriginal Land Council	-			
Murramarang	Roxanne Smith			
Murrumbul Cultural Heritage Technical Services	Levi McKenzie-Kirkbright	6.7.18	Email address not contactable.	Fenella Atkinson
Murrumbul Cultural Heritage Technical Services	-			
Metropolitan Local Aboriginal Land Council	-	6.7.18	Auto-reply – on leave until 16 July.	Fenella Atkinson
Biamanga Central Murrin Cullendulla Darug Aboriginal Cultural Heritage Assessments Darug Land Observations Goobah Gulaga Metropolitan Local Aboriginal Land Council Murramarang Murrumbul Cultural Heritage Technical Services	As above	1.8.18	Copies of final draft ACHMP and PWHP for health Precinct distributed to RAPs for review and comment period. Response or feedback requested by 22 August 2018. Hard copies posted to DACHA – Celestine Everingham.	Alistair Hobbs
Murrumbul Cultural Heritage Technical Services	-	1.8.18	Delivery failure notice: murrumbul@mirramajah.com The Domain Name System (DNS) reported that the recipient's domain does not exist.	Alistair Hobbs
Biamanga Central Murrin	As Above	7.8.18	Reminder that the ACHP was to be finalised shortly. Also, indicated that the Health Precinct PHWP was to be updated.	Alistair Hobbs

Organisation/Group	Representative Contacted	Date	Comments	Extent Contact
Cullendulla Darug Aboriginal Cultural Heritage Assessments Darug Land Observations Goobah Gulaga Metropolitan Local Aboriginal Land Council Murramarang Murrumbul Cultural Heritage Technical Services			Information provided by USYD highlights that some of the development work is being carried out under other approvals, and is significantly progressed - and therefore will be removed from the Stage 1 area covering in the PHWP.	
		17.9.18	No comments received, report finalised.	Alan Williams

Appendix 3: Procedure for Discovery of Possible Human Remains

Procedure for Discovery of Possible Human Skeletal Remains

Purpose

This procedure details the actions to be taken when possible human skeletal material (remains) is found during construction activities.

Scope

This procedure is applicable to all activities conducted by project personnel that have the potential to uncover possible human skeletal material (remains).

This section outlines the procedure for handling human remains in accordance with the Skeletal Remains – *Guidelines for the Management of Human Skeletal Remains* under the *Heritage Act 1977* (NSW Heritage Office 1998) and the *Aboriginal Cultural Heritage Standards and Guidelines Kit* (NPWS 1997).

Procedure – Discovery of possible human skeletal material (remains)

In the event that possible human skeletal material (remains) is encountered during construction the following steps shall be taken.

- **STOP ALL WORK** in the vicinity of the find and immediately notify the relevant Site Supervisor. The Supervisor will then notify the Environment Manager and/or the Project Manager, and demark the area to protect the possible human skeletal material (remains).
- The Environment Manager/Project Manager is to record the details, take photos of the find and ensure that the area is adequately protected from additional disturbance.
- (Please note: each step of the procedure will advise if the following step is required to be implemented)
- The Environment Manager/Project Manager on site must notify the NSW Police by calling '000' and the Office of the NSW State Coroner by calling '(02) 8584 7777'.
- The Environment Manager/Project Manager on site must notify the Project Archaeologist.
- Should the NSW Police determine the remains to not be of a criminal nature, the Environment Manager/Project Manager should notify OEH through the Environment hotline on 131 555.
- Should OEH determine the remains to be of Aboriginal ancestry, OEH and/or the Archaeological Excavation Director in liaison with the Registered Aboriginal Parties would determine the most appropriate course of action, which may include deviation of the construction works, or the careful removal of the remains and reburial elsewhere.
- Should OEH determine the remains to be of historic ancestry, the Environment Manager in liaison with the Archaeological Excavation Director should contact the NSW Heritage Branch and determine the most appropriate course of action, which may include deviation of the construction works, or the careful removal of the remains and reburial elsewhere.
- Should OEH determine the remains to be of non-human origin, construction works may proceed.

Appendix 4: Unexpected Finds Procedure – Aboriginal Heritage

Unexpected Find Procedure – Aboriginal and Historic Heritage

Purpose

This procedure details the actions to be taken when a previously unidentified and/or potential Aboriginal and/or historical heritage item/object/site is found during construction activities.

Scope

This procedure is applicable to all activities conducted by project personnel that have the potential to uncover an Aboriginal and/or historical heritage artefact/item/object/site.

Procedure – Aboriginal and Historic Heritage

In the event that a potential heritage artefact/item/object/site is encountered during construction the following steps shall be taken.

- **STOP ALL WORK** in the vicinity of the find and immediately notify the relevant Site Supervisor. The Supervisor will then notify the Environment Manager and/or the Project Manager, and demark the area to protect the artefact/item/object/site.
- The Environment Manager is to record the details, take photos of the find and ensure that the area is adequately protected from additional disturbance.
- The Environment Manager contacts the Archaeological Excavation Director to notify them of the location of the find.
- If the Archaeological Excavation Director advises that the find **is not** a potential Aboriginal object or significant historical relic, work will recommence in consultation with the Project Manager and/or Environmental Manager.
- If the Archaeological Excavation Director advises that the find **is** a potential Aboriginal object or significant historical relic, the Project Manager and Environmental Manager should undertake the following procedure:
 - Liaise with the Archaeological Excavation Director to determine the significance of the potential Aboriginal object or significant historical relic. Note this may require liaison with Relevant Aboriginal Parties; and
 - Implement the appropriate heritage mitigations dependent on the significance of the site as outlined in the ACHMP.

Appendix 5: Blackburn Building, University of Sydney Heritage Impact Statement.

University of Sydney
Proposed Susan Wakil AO Health Building (D06)

Statement of Heritage Impact

Prepared by

Ian Kelly, Heritage Consultant for
Campus Infrastructure and Services

(August 2017)

Table of Contents

Executive Summary	1
1.0 Introduction	3
1.1 Background	3
1.2 Report Objectives	3
1.3 Methodology	3
1.4 Site location	3
1.5 Heritage Status	5
1.6 Statutory Controls	8
1.7 Authorship	8
2.0 Historical Summary	9
2.1 Contact and Initial European Occupation (1788-1850)	9
2.2 Establishment of Campus (1850-1900)	9
2.3 Development of Campus (1900-1920)	11
2.4 Campus Master Plans (1900-1920)	11
2.5 Development of Campus (1920-1929)	12
2.6 Development of Campus (1929-1940)	14
2.7 New Medical School (1931-33)	14
2.8 Expansion of Campus (1945-1975)	15
2.9 Development of Campus (1975-1990)	15
2.10 Expansion of Campus (1990-2000)	16
2.11 Development of Campus (2000-2015)	17
2.12 Development of Campus (2000-2015)	18
3.0 Analysis of Physical Evidence	20
3.1 Description of the Site	20
4.0 Assessment of Significance	21
4.1 Statement of Significance	21
4.2 Grading of Elements Contributing to Heritage Significance	22
4.3 Aboriginal Heritage Assessment	24
4.4 Archaeology Assessment	24
4.5 Heritage Items in the Vicinity	26
5.0 Description of the Proposal	27
5.1 Precinct Development	27
6.0 Assessment of Heritage Impact	29
6.1 Heritage Impact Analysis	29
6.2 Potential Impacts on Heritage Items on Site	29
6.3 Potential Impacts on Adjacent Heritage Items	30
6.4 Potential Impacts on Cultural Landscapes	38
6.5 Potential Impacts on Significant Views	41
6.6 Potential Historical Archaeology	43
6.7 Aboriginal Cultural Heritage Values and Archaeology	43
6.8 Potential Impacts on the Character and Heritage of the University of Sydney, University Colleges and Victoria Park	45
7.0 Conclusions and Recommendations	46
7.1 Conclusions	46
7.2 Recommendations	47
8.0 Appendices	48

Appendix A

The University of Sydney Grounds Conservation Management Plan (2017), prepared by the Planning Team, Campus Infrastructure and Services

Appendix B

University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016)

Appendix C

Blackburn and Veterinary Science Precincts Statement of Heritage Impact prepared by Clive Lucas Stapleton & Partners (2013)

Appendix D

Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013)

Executive Summary

This Statement of Heritage Impact (SHI) has been prepared to accompany the Environmental Impact Statement for the Susan Wakil AO Health Building (State Significant Development Application 7974), which is Stage 1 of the Health Precinct at the University of Sydney Camperdown Campus.

The SEARS issued by the Department of Planning & Environment require the SHI to address the impact of the Susan Wakil AO Health Building (SWAOHB) on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes.

In preparing the SHI reference was made to Drawings prepared by BLP/DS+R Architects (dated August 2017) and Drawings prepared by Arcadia Landscape Architecture (dated August 2017). Also referenced were the University of Sydney Grounds Conservation Management Plan (2017), the CIP documentation (SSD 6213), the Aboriginal Heritage Impact Assessment (2016), a number of archaeological reports, and the Aborigicultural Impact Assessment (2017).

With reference to the issues identified in the SEARS the HIS concludes the following:

i) Significant heritage items on site:

The moderate adverse impact on the overall significance of the University due to the demolition of Blackburn Building is acknowledged. In accordance with University procedures an archival record of the Blackburn has been prepared and numerous items identified for retention and future interpretative purposes. An Interpretation Strategy for the overall Health Precinct, with a focus on the SWAOHB (Stage 1), has been prepared.

ii) Adjacent Significant Heritage Items:

The impact of the proposed SWAOHB on the cultural significance of the adjacent heritage items, including:

Royal Prince Alfred Hospital (the Administration Block, the Victoria and Albert Pavilions, and Gloucester House);
St Andrew's College;
Wesley College;
Bosch 1A Building (D04) and Bosch 1B Building (D05);
University Oval No.1 Grandstand; and
the L.E.F.Neill Fountain

is acceptable.

iii) The Cultural Landscape

The SWAOHB and its associated landscaping replaces a Modern (1960s) landscape of Moderate significance with a new building integrated into a contemporary landscape. The impact of the SWAOHB and its associated landscaping on the cultural landscape is acceptable.

iv) Significant Views:

The demolition of the Queen Elizabeth II Research Institute and Victor Coppelson Building (D02) and the siting of the SWAOHB will enhance the highly significant A5 view corridor, in accordance with GCMP Policy 18. The siting of the SWAOHB and the future buildings in the Health Precinct will have no impact on the A6 planning axis, because its relevance is already diminished. The secondary B3 view line will be maintained, but with a different form of landscape. The overall impact of the SWAOHB on the various significant view corridors, therefore, is acceptable.

v) Potential Archaeological Relics

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and forecourt were built in the 1960s, further diminishing the potential for finding any archaeological evidence. Various archaeological reports which encompass the SWAOHB site conclude that the potential for archaeological relics is low, but it would be appropriate to maintain a watching brief.

vi) Aboriginal Cultural Heritage Values and Potential Archaeology:

None of the places identified in the Aboriginal Heritage Impact Assessment (2016) as retaining Aboriginal cultural values on the University of Sydney campus are located near the proposed SWAOHB.

Due to the excavation associated with the construction of the Blackburn Building (1931-33) and the later Bosch complex and its associated landscaping (1960s), the various archaeological reports which encompass the SWAOHB site conclude that the potential for the preservation of in-situ Aboriginal archaeological deposits within the proposed SWAOHB site is low. It would be prudent, however, to prepare an “unexpected finds” procedure.

vii) The character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes:

Historically, the Blackburn Building (new medical school), located in the south western section of the Camperdown Campus and bounded by University Oval No.1, Wesley College, St Andrew’s College and RPAH, has always been slightly detached from the rest of the University. There is presently neither a strong physical or visual connection between the buildings or landscape to the rest of the Camperdown campus; to the point where the Blackburn Building had a closer physical link with the RPAH. The new Health Precinct, of which the SWAOHB is Stage 1, aims to reinforce the connections, visually and physically, between its immediate neighbours and the rest of the University.

The conclusion of this heritage assessment is that the proposed Susan Wakil AO Health Building (Health Precinct Stage 1) will improve the overall character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes and, therefore, could be approved subject to the preparation of an Archaeological Unexpected Finds Procedure and the implementation of the Interpretation Strategy.

1.0 Introduction

1.1 Background and Purpose of the Statement of Heritage Impact

This Statement of Heritage Impact (SHI) has been prepared to accompany the Environmental Impact Statement for the Susan Wakil AO Health Building (State Significant Development Application 7974), which is Stage 1 of the Health Precinct at the University of Sydney Camperdown Campus.

The building footprint and building envelope of the Health Precinct were defined in the approved Campus Improvement Plan (SSD 6123). They had been informed by the University of Sydney Grounds Conservation Management Plan (GCMP, 2017), prepared by the Planning Team, Campus Infrastructure and Services, based on information provided by Clive Lucas, Stapleton and Partners and additional material prepared by Circle Square Design. The GCMP (updated in 2017) was prepared in accordance with the guidelines issued by the NSW Heritage Office, the requirements of the EP&A Act and the NSW Heritage Act, and was submitted to the Heritage Council for endorsement in accordance with the D-G requirements for SSD 6123.

1.2 Report Objectives

The SEARS issued by the Department of Planning & Environment requires the SHI to address the impact of the proposed Susan Wakil AO Health Building on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes;

1.3 Methodology

This SHI has been prepared generally in accordance with the principles and guidelines of *The Burra Charter (the Australia ICOMOS Charter for Places of Cultural Significance)* and the methodology described in the Statements of Heritage Impact prepared by the NSW Heritage Office.

1.4 Site Location

The University's proposed Health Precinct is located in the south western sector of the University of Sydney's Camperdown campus. (Fig.1.1) The site of the SWAOHB (the subject of this HIS) is bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Royal Prince Alfred Hospital. (Fig.1.2) The Blackburn Building (D06) currently stands on the site.

In this report reference to the University of Sydney (the University) refers specifically to the Camperdown Campus, as distinct from the adjacent Darlington Campus which is located on the southern side of City Road. The Camperdown Campus is bounded on the north by Parramatta Road, east by Victoria Park, south by City Road and St Paul's College, and west by St Andrew's College, Royal Prince Alfred Hospital and St John's and Sancta Sophia Colleges.

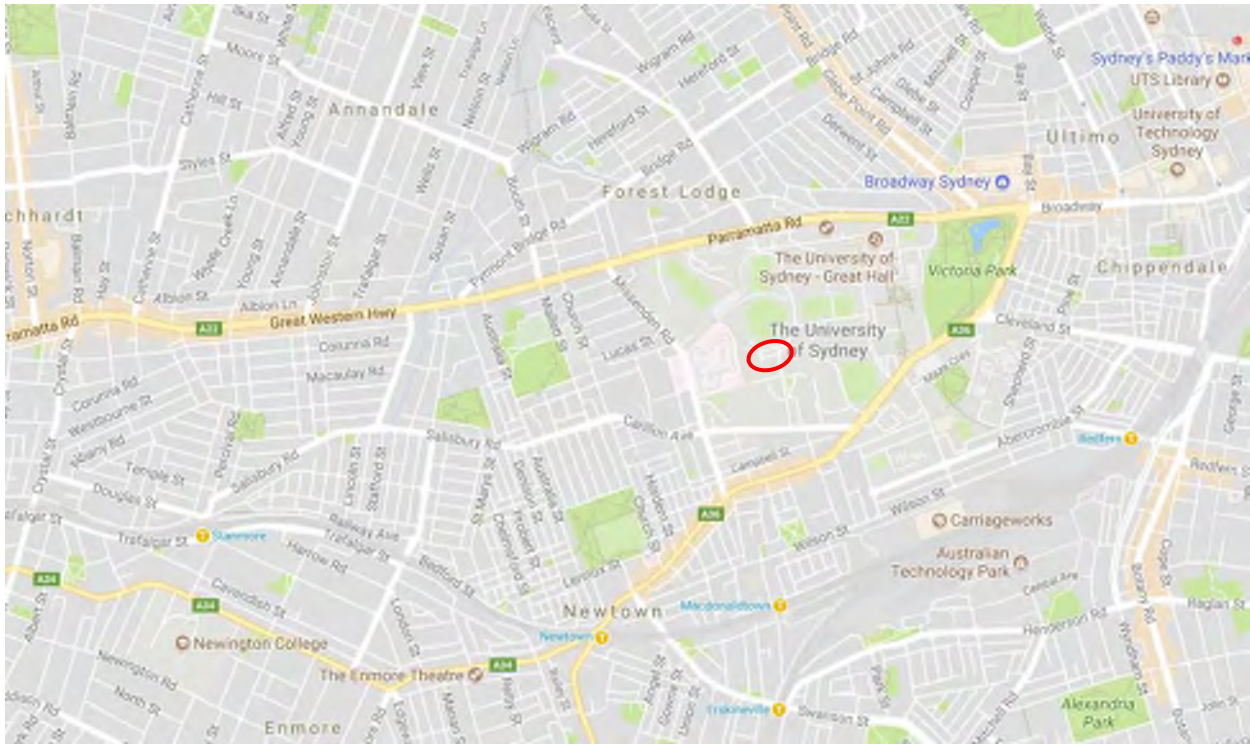


Figure 1.1 Site of the proposed Susan Wakil AO Health Building, University of Sydney - Camperdown Campus

(source: www.google.com.au/maps/@-33.8875706,151.1861839,15z)



Figure 1.2 Site of the proposed Susan Wakil AO Health Building, University of Sydney - Camperdown Campus

(source: CIS, University of Sydney) (Note: The purple unbroken line defines the University owned land.)

1.5 Heritage Status

Various statutory and non-statutory heritage registers, schedules and lists have been checked to ascertain whether The University of Sydney campus and its component buildings and landscape spaces are listed. These listings are detailed below.

1.5.1 Statutory Listings

i) Register of National Heritage Places

The Register of National Heritage Places is maintained by the Australian Heritage Council, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The University of Sydney, its grounds and buildings are not listed on the Register of National Heritage Places. It is noted that a number of University buildings were listed as having heritage value on the Register of the National Estate (RNE). Since 2007, however, the RNE has been a non-statutory archive. All the University buildings listed in the RNE archive are included in the University's Section 170 Heritage and Conservation Register. (see below.)

ii) State Heritage Register

Under the NSW Heritage Act 1977, the Heritage Council maintains the State Heritage Register (SHR), a register of items and places considered to be of heritage significance to the State of NSW.

The University's Camperdown and Darlington campuses are currently not listed in whole, or in part, on the SHR, nor are any individual items listed on the SHR. The Heritage Council resolved (February 2016) to recommend to the Minister for Heritage to list the University of Sydney, the University Colleges and Victoria Park as a collective heritage item on the State Heritage Register, but the proposed SHR listing has not yet occurred.

iii) Section 170 Heritage and Conservation Register

The University of Sydney, as a Crown body, is required under Section 170 of the NSW Heritage Act 1977 to identify, conserve and maintain those heritage items under its ownership and control.

The University's Heritage and Conservation Register (commonly referred to the s.170 Register) lists 52 heritage items located within the Camperdown – Darlington campus. The University's s.170 Register does not assign a level of significance to each heritage item, however the recent revision of the *University of Sydney Grounds Conservation Management Plan (2016)* addresses this issue and has ascribed a relative grading of heritage significance to each of the heritage items that contribute to the overall cultural significance of the University campus. (Fig.1.2)

The site of the proposed SWAOHB is surrounded by buildings which have varying levels of heritage significance, including the Administration Block (Exceptional Significance), Victoria and Albert Pavilions (High Significance) and Gloucester House (Moderate Significance) within the grounds of the Royal Prince Alfred Hospital; St Andrew's College (High Significance); Wesley College (High significance); Bosch 1A Building (D04) (Little Significance); Bosch 1B Building (D05) (Little Significance); University Oval No.1 Grandstand (Little Significance) and L.E.F.Neill Fountain (Some significance).

The GCMP also provides a grading of the cultural significance of Character Areas and Landscapes. The SWAOHB site is designated as being a Character Area of Moderate significance, with a number of trees of Exceptional significance bordering the adjacent University Oval No.1. (Fig.1.3)

In both instances the relative grading of significance - Exceptional, High, Moderate, Little or Intrusive – assists the University in making decisions to minimise any adverse impact on an item of heritage significance. (It should be noted that a number of more recent buildings on the University campus are too new to have been assessed for their heritage significance. Buildings on adjacent land, not owned by the University, were not assessed.)

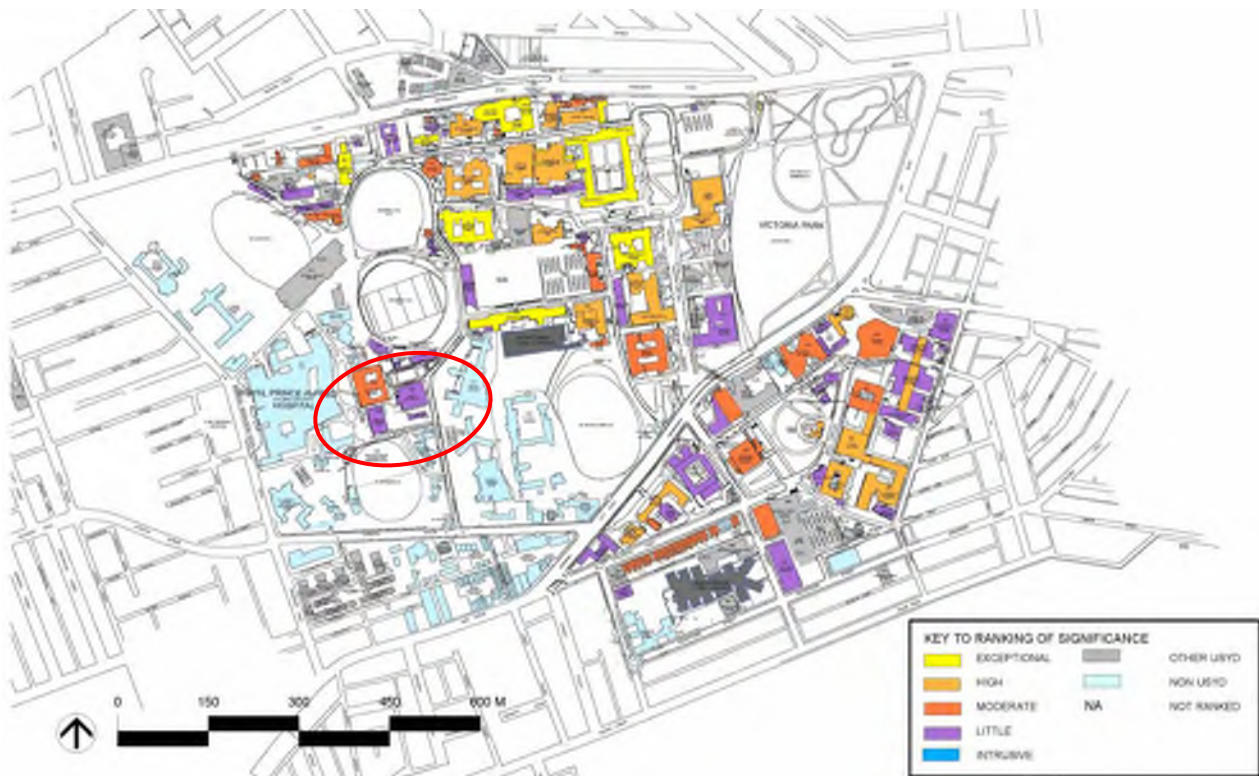


Figure 1.2 Relative grading of heritage significance of buildings across the University campus
(source: University of Sydney Grounds Conservation Management Plan (2017))

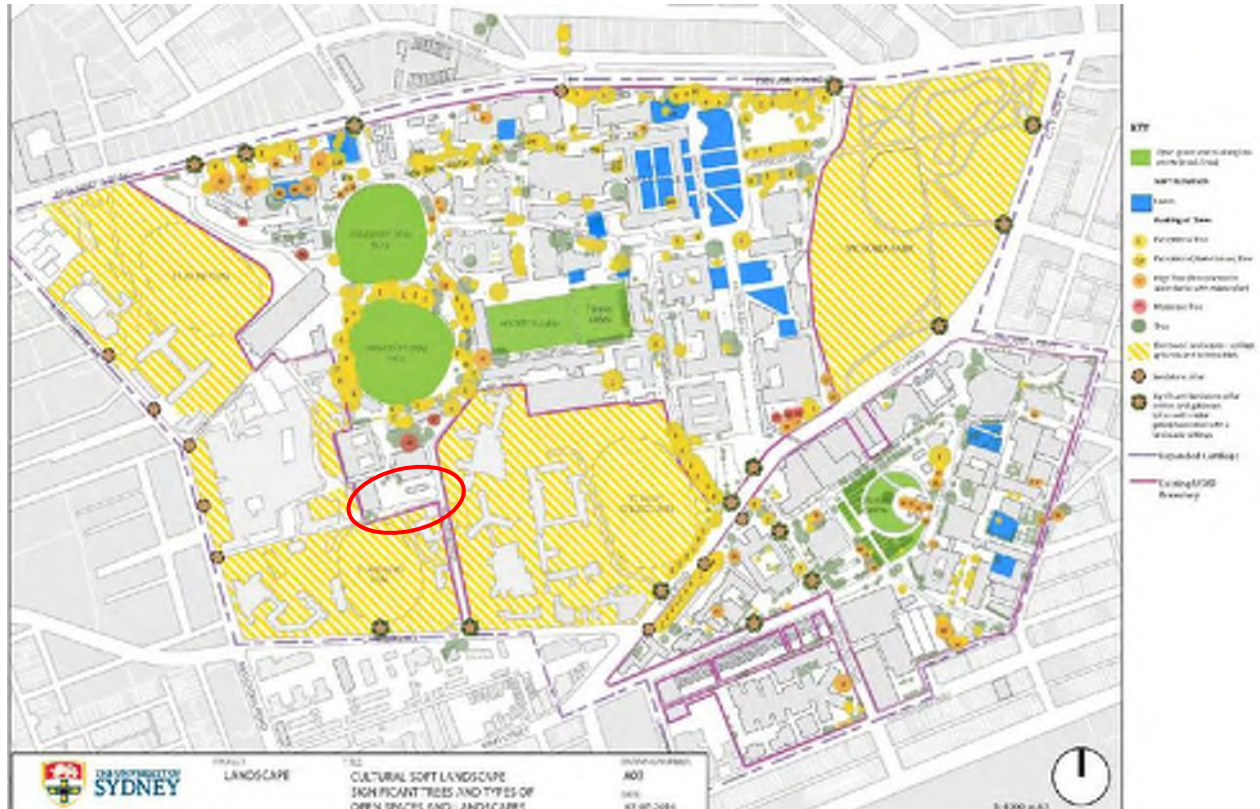


Figure 1.3 Relative grading of Significant Trees, Open Spaces and Landscapes
(source: University of Sydney Grounds Conservation Management Plan (2017))

iv) City of Sydney Local Environment Plan 2012

The University of Sydney is located within the jurisdiction of the City of Sydney Council. The University's Camperdown campus is listed as a General Conservation Area in the Sydney LEP 2012 heritage inventory (Item C5 - Sydney University Conservation Area). Numerous individual heritage items are also listed in the Sydney LEP 2012. All the heritage items listed in the Sydney LEP 2012 are also listed in the University's Section 170 Register.

The City of Sydney Register of Significant Trees (2013) lists the trees lining Western Avenue (Item C-263), which is to the east of the SWAOHB site, as being significant.

1.5.2 Non-Statutory Listings

i) National Trust of Australia (NSW) Classified Buildings.

The National Trust has classified 32 individual buildings, precincts or items located within the University campus as having heritage value. With the exception of the Darlington Road terrace houses, International House and the Greenwood & Batley Materials Testing Machine (located in the School of Civil Engineering), all the other classified items are listed in the University's Section 170 Register. The Blackburn Building, on the site of the SWAOHB, is not listed.

Although the National Trust's classification of a heritage item does not have any legal force, the heritage significance of any of the classified items impacted by this application (SSD 7054) has been taken into consideration in this Heritage Impact Assessment.

ii) Australian Institute of Architects (NSW) Register of Significant Architecture in NSW

The AIA Register of Significant Architecture in NSW lists 34 heritage items on the University campus, 25 of which are listed on the University's Section 170 Register. The other 9 buildings on the AIA list are all post-WWII buildings located within the Engineering Precinct on the Darlington campus. The Blackburn Building (D06), on the site of the SWAOHB, is not listed.

1.5.3 Historical Archaeology

The NSW Heritage Act 1977 provides for the management of archaeological relics. The disturbance or development of a site containing archaeological relics may require the issue of a permit under section 140 of the Heritage Act. The Heritage Division is responsible for the issuing of permits to undertake archaeological excavation.

There are no statutory heritage listings that identify any archaeological relics or archaeological sites within the University of Sydney campus.

1.5.4 Aboriginal Archaeology

There are no statutory heritage listings that identify any indigenous archaeological relics or archaeological sites within the University of Sydney campus.

1.5.5 Aboriginal Cultural Significance

The Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016), has identified several sites across the University campus as having cultural significance to the Aboriginal community. The sites of Aboriginal cultural significance are some distance from the site of the SWAOHB.

1.6 Statutory Controls

Planning controls under the City of Sydney LEP are limited to the zoning of the University campus as 'SP2 Educational Establishment' and the identification of heritage items on the Heritage Maps. There are no LEP planning controls pertaining to building heights and no Floor Space Ratio (FSR) relevant to the SWAOHB site.

SSD 6123 (Campus Improvement Program) established the approved building footprints and building envelopes for seven major redevelopment projects around the perimeter of the University campus, including the Health Precinct.

1.7 Authorship

This Heritage Impact Assessment has been prepared by Ian Kelly (M.Arch), Heritage Consultant for

Campus Infrastructure and Services, University of Sydney.

The following documents, prepared by experienced heritage consultants, have supported the preparation of this report:

- University of Sydney Grounds Conservation Management Plan, prepared by the Planning Team, Campus Infrastructure and Services (2017);
- University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016);
- Blackburn and Veterinary Science Precincts Statement of Heritage Impact prepared by Clive Lucas Stapleton & Partners (2013);
- Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013); and
- Aboricultural Impact Assessment, prepared by Tree IQ (August 2017)

In preparing the SHI reference was made to Drawings prepared by BLP/DS+R Architects (dated August.2017) and Drawings prepared by Arcadia Landscape Architecture (dated August 2017).

2.0 Historical Summary

The following historical summary is a précis of the University campus history as detailed in the University of Sydney Grounds Conservation Management Plan (2017).

2.1 Contact and Initial European Occupation (1788- 1850)

The land on which the University of Sydney is located within the traditional land of the Cadigal people. There are no detailed descriptions of the vegetation and animal communities that inhabited this district, nor has any archaeological evidence relating to pre-colonial Aboriginal occupation or use of the area been found within the University grounds. Although historical records provide many descriptions of early British colonial life around Port Jackson, none of them identify any definitive associations with the land that was set aside as the site for the University of Sydney.

In 1789 Governor Phillip formally divided one thousand acres around Petersham Hill for Crown, church and school purposes. In 1792 Lieutenant-Governor Francis Grose was granted 30 acres out of the 400 acres that had been designated for church or glebe land, which he then farmed. Grose sold the leasehold when he left the colony in 1794, but the land continued to be known, and marked on maps, as Grose Farm until the mid-1800s.

During Governor Macquarie's administration the land surrounded by Parramatta, Newtown, St Paul's and Missenden Roads (some 194 acres) was fenced for the agistment of horses and cattle. The area to the south east was later developed into part of the suburb of Darlington.

2.2 Establishment of Campus (1850-1900)

In the 1840s the rising class of bankers, manufacturers and professional men saw a growing need for the state to provide a higher level (tertiary) of education. At the time it was necessary to travel abroad to acquire a university education. In particular, the legal and medical professions saw a need to provide local education in these fields. As a result of local agitation an Act to incorporate and endow the University of Sydney was passed on 1 October 1850.

The structure and philosophy of the University of Sydney was based on the models of London, Edinburgh and Dublin universities, which provided a non-denominational, non-residential, education in fields more appropriate to the commercial, scientific and professional interests of an industrial democracy. In the early years the University offered a narrow curriculum.

In 1854 the University was authorised to take possession of 126 acres of land at Grose Farm, an area bounded by Parramatta Road, St Paul's Road (Carillon Avenue), Newtown (City) Road and Missenden Road, on which to construct the university and university college buildings. A building fund of £50,000 was established, originally to be provided in annual installments of £5,000 - £10,000, but this requirement was waived to enable a more rapid completion of the buildings.

In the mid-19thC British architects were immersed in a heated debate on the appropriate architectural style (the Battle of the Styles - Classicism versus Gothic/Elizabethan) for public buildings. In Sydney, the Gothic Revival style was recommended for the University buildings because the building form could more easily be extended as the needs of the University grew.

The Great Hall and the East Wing, built between 1855 and 1863, established the stylistic template for the rest of the Quadrangle and several, later, substantial campus buildings. Situated atop the Petersham ridge, the tall sandstone buildings, echoing the form of the great English universities, were clearly visible from the city. (Fig.2.1)

Between 1856 and 1876 the University residential colleges of St Paul's (Anglican), St John's (Roman Catholic) and St Andrew's (Presbyterian) were built on land specifically set aside on the southern and western sides of the university campus. These college buildings were also designed in the preferred Gothic Revival style. The proposed Methodist college (Wesley) was not established within the stipulated 5 years and, consequently, in 1873 the designated site was assigned for the establishment of the Royal Prince Alfred Hospital. (Wesley College was eventually established in 1910 on a different site.)



Figure 2.1 View of the University building, looking up Main Drive, the approach avenue from Newtown (now City) Road (1870)

(source: University of Sydney Archives)



Figure 2.2 Detail from Survey of Sydney University and landscape (1885)

(Source: University of Sydney Archives G74/1/10)

By 1880's there was a shift from the concept of the University being a 'gentlemen's university' to a 'professional university'. This was reflected in the range of courses (Medicine and Science) and the teaching (night time classes) on offer. This educational growth was reflected in the construction of the Medical School (Anderson Stuart, 1889), Physics Laboratory (Badham, 1887), Chemistry (1890), the Natural History Museum (Macleay, 1891), and the School of Mines (old Geology, 1895). (Fig.2.2)

2.3 Development of Campus (1900-1920)

Professional education continued to expand in the early 20th Century. New courses, a number which led to their own degrees, were introduced including dentistry, agricultural science, veterinary science, architecture, economics and commerce, and education. This growth in courses and student numbers was matched by the construction of new buildings in the northern sector of the campus: Biology (Zoology, 1903), Engineering School (John Woolley, 1909), Fisher Library (MacLaurin Hall, 1909), Veterinary Science School (J.D.Stewart, 1912), Student Union Building (Holme, 1912), Agriculture (R.D.Watt, 1916) and the Teachers' College (1920).

2.4 Campus Master Plans (1900-1920)

It was the construction of these new buildings, however, that prompted the University to develop a campus master plan. In 1910 W.L.Vernon, the Government Architect, prepared a general plan for the development of the University grounds. A few years later his successor, George McRae, prepared a new campus plan (1913) showing existing and future buildings, and then Walter Burley Griffin was appointed to prepare a campus master plan.

Griffin's plan was presented to the University's Building and Grounds Committee on 22 January 1915. (Fig.2.3) This plan, which ignored the existing boundaries for the university colleges and Victoria Park as well as the position of the University oval, was described as an "admirable harmonious scheme", but it was criticised on the grounds of its practicality (it included new buildings on land not owned by the University) and cost.

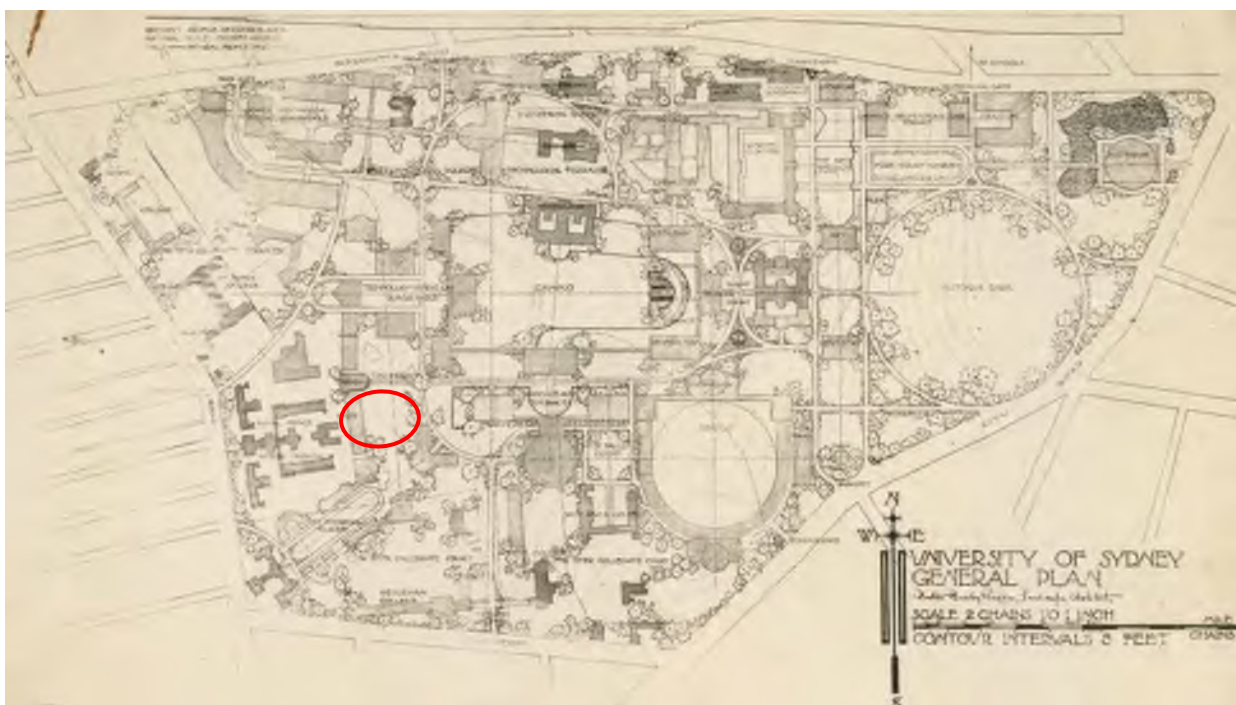


Figure 2.3: Walter Burley Griffin's General Plan for the University of Sydney, 1915.

(Source: Part of Eric Nicholls Collection, National Library of Australia, nla.pic-vn3603884-s210)

The Building and Grounds Committee requested Griffin's plan to be revised accordingly, but there is no evidence that a revised plan was ever prepared or submitted to the Committee. Consequently, in 1917, Gorrie Blair, the PWD Principal Design Architect, redrew and refined McRae's earlier plan, but due to war restrictions this plan was not implemented. (Fig.2.4)

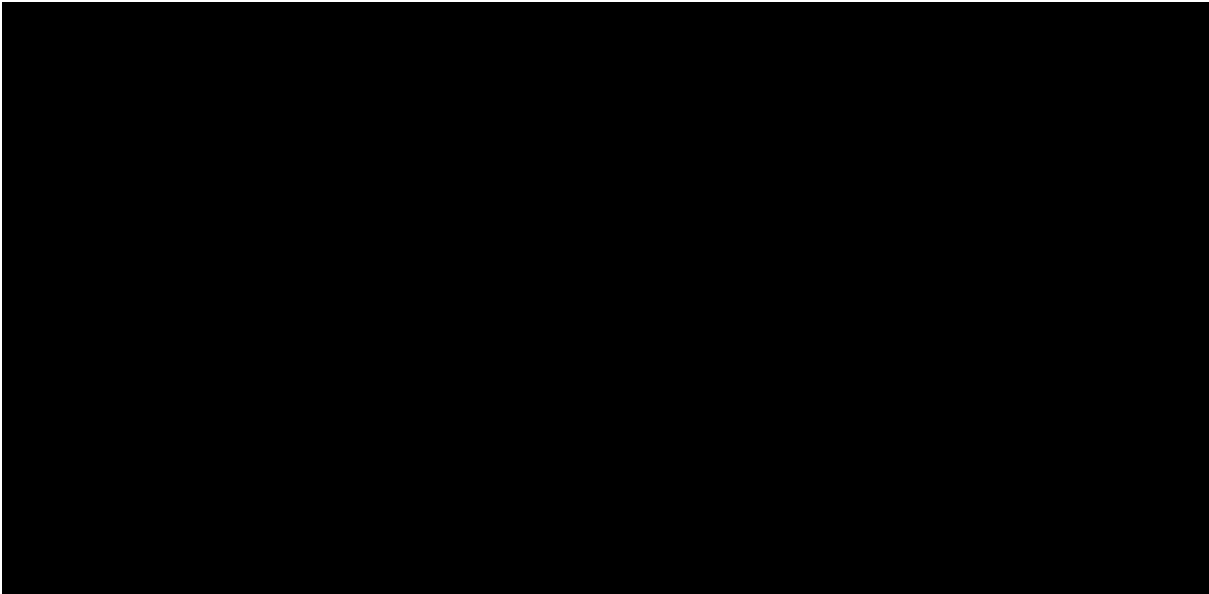


Figure 2.4 Site Master Plan by Government Architect (1917)

(source: Public Works Archives)

2.5 Development of Campus (1920-1929)

Following the cessation of WWI the University experienced unprecedented growth in student numbers. The University's capital works program was partly funded by the University (Building) Act (1919) whereby the NSW government voted to provide £50,000 annually for five years to enable the University to accommodate the doubling of students numbers.

In response the University requested Professors Leslie Wilkinson, Madsen and Craig to advise on the general layout of the University grounds. Their report, titled "A Plan showing suggested scheme for development", was presented to the Senate in 1920. (Fig.2.5)



Figure 2.5 Prof. Leslie Wilkinson's Campus Master Plan (1920)

(source: University of Sydney Archives)

Prof. Wilkinson, the first Chair of Architecture (1918) and University Architect (1920), believed that “the peaceful order of good buildings in beautiful surroundings is of paramount importance in creating the right environment for university life” and this ideal was reflected in his campus master plan.

The Wilkinson plan shows a series of new buildings ordered on planned axes. The principal east-west axis, centred on the Quadrangle Clocktower, served to reinforce the role of the Main Drive and University Place in defining the foreground of the Quadrangle. Wilkinson’s master plan also showed a new large building sited south of the Anderson Stuart Building, which would reinforce the eastern ridgeline of the campus, bounded by a straightened Eastern Avenue. The challenge with Wilkinson’s plan, like Griffin’s, was that it proposed new university buildings located on land not owned by the University, eg. Wilkinson proposed a new building, similar in footprint to his later Physics Building, behind the existing RPAH buildings.

Wilkinson’s master plan prompted the University to enter into discussions with the Sydney City Council for an exchange of land, culminating in 1924 when the University exchanged 7 ¾ acres, including the lake and the Main Drive, with the Sydney City Council for 9 acres of Victoria Park, primarily along the edge of Eastern Avenue. (Fig.2.6)

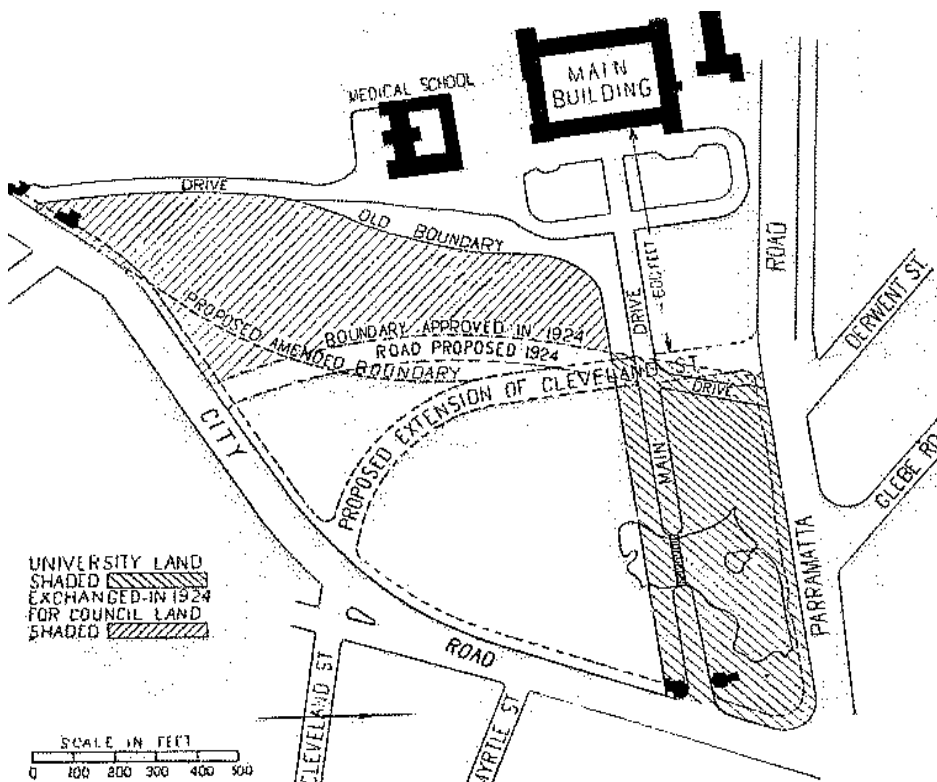


Figure 2.6 Plan showing the land transferred between the University and City of Sydney (1924)

(source: University of Sydney Archives)

Note: The City Council’s proposal for a new road connecting City and Parramatta roads, as shown on this plan, was dropped due to considerable public resistance. (Victoria Park Heritage Assessment 2010)

As a result of the land swap the Main Drive from City Road was truncated and the University’s secondary entrance, off Parramatta Road opposite Derwent Street (Fig. 2.7), served as the principal entrance. (Due to issues related to the land swap and the University’s finances, it was not until 1939 that the entrance gates and the associated gatekeeper’s house, now known as Baxter’s Lodge, were constructed in their current location, set well back from Parramatta Road.)



Figure 2.7 University of Sydney, viewed from Parramatta Road (c.1901)

(source: City of Sydney Archives, SRC 919.441 SYDN/27 #29)

2.6 Development of Campus (1929-1940)

The Depression years saw the campus building program slow down, with the exception of co-operative ventures with Commonwealth agencies. The Animal Health laboratory (McMaster, 1929) was a joint venture with the newly established Council for Scientific and Industrial Research. (CSIR) The Public Health and Tropical Diseases (Ford, 1930) was supported by the Commonwealth Government. The new Medical School building (Blackburn, 1933) was funded by the Rockefeller Medical Foundation and the CSIR building (Madsen, 1940) was the result of a Commonwealth decision to locate its National Standards Laboratory at the University.

2.7 New Medical School Building (1931-1933)

The new Medical School building (1931-33), largely funded by the Rockefeller Foundation, was later named the Blackburn Building in honour of Sir Charles Blackburn, Chancellor of the University (1941- 64) and former dean of the faculty of Medicine (1932-35). (The new Medical School building had been initially referred to as the Rockefeller Foundation building, however the Rockefeller Foundation had a policy of not naming buildings it had funded.)

Designed by the Government Architect, GA Evan Smith, the new Medical School building accommodated the University Departments of Medicine and Surgery, Obstetrics, Pathology and Bacteriology, providing both teaching and research facilities. As described in *Building* (Oct 1933) the building contained some 120 laboratories of various sizes, instruction laboratories for teaching, several large lecture halls, a library, museum and animal house. The departments were housed on separate floors: ground floor, Surgery; first floor, Medicine; second floor, Pathology; and third floor, Bacteriology and a small department of Obstetrics. The basement was left largely vacant for future expansion, with a surgical laboratory, dissecting and embalming rooms in the centre.

The building was designed so that the main entrance (east) served the research portion of the building, while the secondary entrance at the back (west) served the student section, where the lecture theatres, administrative rooms, etc. were situated. In response to the challenge of keeping the direct rays of the sun from streaming into the laboratories during normal working hours the corridor serving the laboratories on the north side of the building is located against the outside of the building, and acts as a screen to the laboratories, which face the internal area.

The architectural style of the Blackburn Building was quite unlike the Gothic Revival university buildings of the late 19thC, nor the Mediterranean style favoured by Prof. L.Wilkinson, instead it had a more industrial appearance, overlaid with Art Deco motifs.

2.8 Expansion of Campus (1945-75)

By mid-1940s, a number of elements of Wilkinson's plan had been completed. The Madsen building on Eastern Avenue, the Physics building and part of the Edward Ford building had been constructed. Manning House lay to the west of the Quadrangle, and Anderson Stuart building had reached its present stage of construction. The new entrance gate and Baxter's Lodge, off Parramatta Road, clearly marked the University's principal entrance.

Immediately after the Second World War, the large influx of students, including returned servicemen and women (by 1946 enrolments had doubled to 8,000 students) required a rapid expansion of teaching facilities. In some instance this was achieved through the erection of temporary timber framed buildings, most notably at Ross Street and on Fisher Road, but the biggest growth occurred across City Road in Darlington. Following the adoption of the Cumberland County Planning Scheme (1951) the State Government re-zoned part of Darlington for 'special uses' (aka. the University Extension area), which enabled the University to extend its campus across City Road. By 1975 the University's entire engineering faculty had been relocated to the new Darlington campus.)

On the Camperdown campus, the construction of the Chemistry (1958), Edgeworth David (1961) and Carslaw (1965) buildings, the Stephen Roberts lecture theatre (1962) and the new Fisher library (1962) and its associated Book Stack (1967) established the University's "east front" facing Victoria Park. These new buildings firmly established the physical alignment and visual character of the Eastern Avenue as it exists today.

The campus Development Plan (1961), prepared in the office of the University's Assistant Principal, indicates new buildings were to be constructed in the Health Precinct during the 1964-66 triennium, but the primary focus of campus development in this period was on the Darlington campus. (Fig.2.8)

2.9 Development of Campus (1975-90)

Australian universities faced a difficult financial time from the mid-1970s. In August 1975 the Commonwealth Government suspended the triennial grants. Funding cut backs resulted in the postponement of major building projects. Construction work over the following years was largely limited to the renovation and extension of existing buildings.

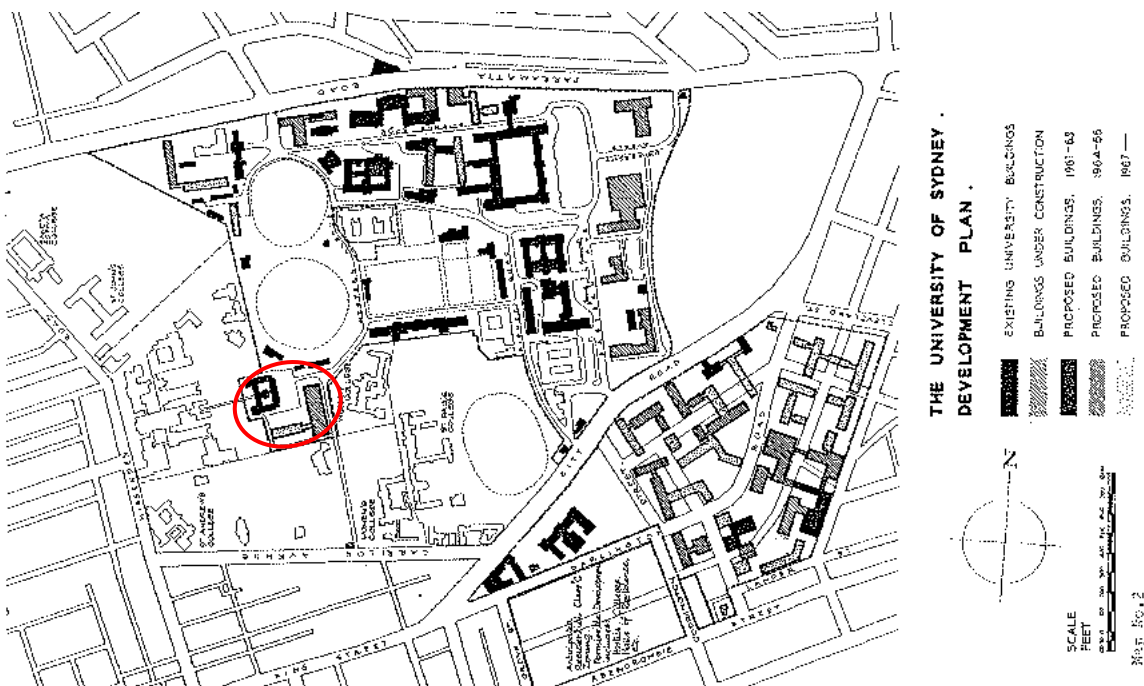


Figure 2.8 Draft Report on the Development of the University Site, prepared in the office of the Assistant Principal, W.H. Maze, May 1961.
(Source: University of Sydney Archives)

2.10 Expansion of Campus (1990-2000)

Student enrolments in 1989 had reached 19,076, with 3,846 full time staff and the University campus had increased to 72 hectares, a sizeable increase on the original 51 hectares of the Grose Farm site. Anticipating further development of the University campus, Conybeare Morrison was commissioned to prepare a University Strategy Plan (1990) (Fig.2.9), followed by a Landscape Master Plan (1993). (Fig.2.10) In both these plans the Blackburn and Bosch buildings were retained in-situ.

The community's notion of a university was changing; gaining a tertiary education was considered to be the norm, rather than elitist; enrolment fees were re-introduced by way of the Higher Education Contribution Scheme in 1990; and universities across Australia became active in the enrolment of full fee paying overseas students. The post-Modernist Education Building (1991) and the Economics and Business Building (2002) reflected the continuing growth in university teaching and also the divergent architectural styles for campus buildings.



Figure 2.9 University Strategy Plan 1990

(Source: *The University of Sydney Strategy Plan*, Conybeare Morrison & Partners 1990)



Figure 2.10 University Landscape Master Plan (1993), prepared by Conybeare Morrison & Partners
(source: University of Sydney Archives)

2.11 Development of Campus early 21st Century (2000-2015)

Over the next fifteen years a series of new buildings were constructed at the University, including the School of Information Technology Building (2006), the Jane Foss Russell Building (2008), and the new Law Building (2008).

The construction of the Jane Foss Russell and Law Buildings prompted a further redesign of the Eastern Avenue urban landscape (2008). In accordance with the Conybeare Morrison Landscape Masterplan (1993) Eastern Avenue was transformed into the University's major north south pedestrian zone linking the Camperdown and Darlington campuses. As part of these works the Wentworth pedestrian overpass was demolished and replaced by a new overpass connected to the Jane Foss Russell building; cars entering the Camperdown campus were diverted from Eastern Avenue to Fisher Road; the old University gates were transferred to the City of Sydney, and reconstructed in their original location at the entrance to the University's former Main Drive up through Victoria Park; and a large entry plaza created at the City Road end of Eastern Avenue.

Faced with the challenges of overcrowding in existing facilities and the need to renew aging buildings the University commissioned a comprehensive capital development plan, the Campus 2020 Plan (March 2008), prepared by Cox in March 2008 with an objective of unifying the Camperdown and Darlington campuses. The development of the Health Precinct was foreshadowed in the Campus 2020 Plan, with new buildings proposed to replace the two Bosch buildings. (Fig.2.11)



Figure 2.11 Campus in 2030, University Master Plan (2008), prepared by Cox Architects
(source: CIS, University of Sydney)

Consequently, three significant transformational projects - the Charles Perkins Centre for Obesity and Cardiovascular Disease (2013), the Australian Institute of Nanoscience, behind the Physics Building (2015); and the Abercrombie Business School, at the corner of Abercrombie and Codrington Streets (2016) – were constructed.

2.12 Campus Improvement Program (2014 - 2020)

In order to provide greater certainty for future campus development the University prepared the Campus Improvement Program (2014-20), which identified seven precincts suitable for redevelopment over the following decade. The CIP was lodged as a Stage 1 State Significant Development (SSD 6123) and approved by the Minister for Planning in March 2015. (Fig.2.12)

Precinct D in the CIP is identified as the Health Precinct, which will be a staged development. The SWAOHB, the subject of this HIS, is Stage 1 of the Health Precinct redevelopment. (Fig.2.13)

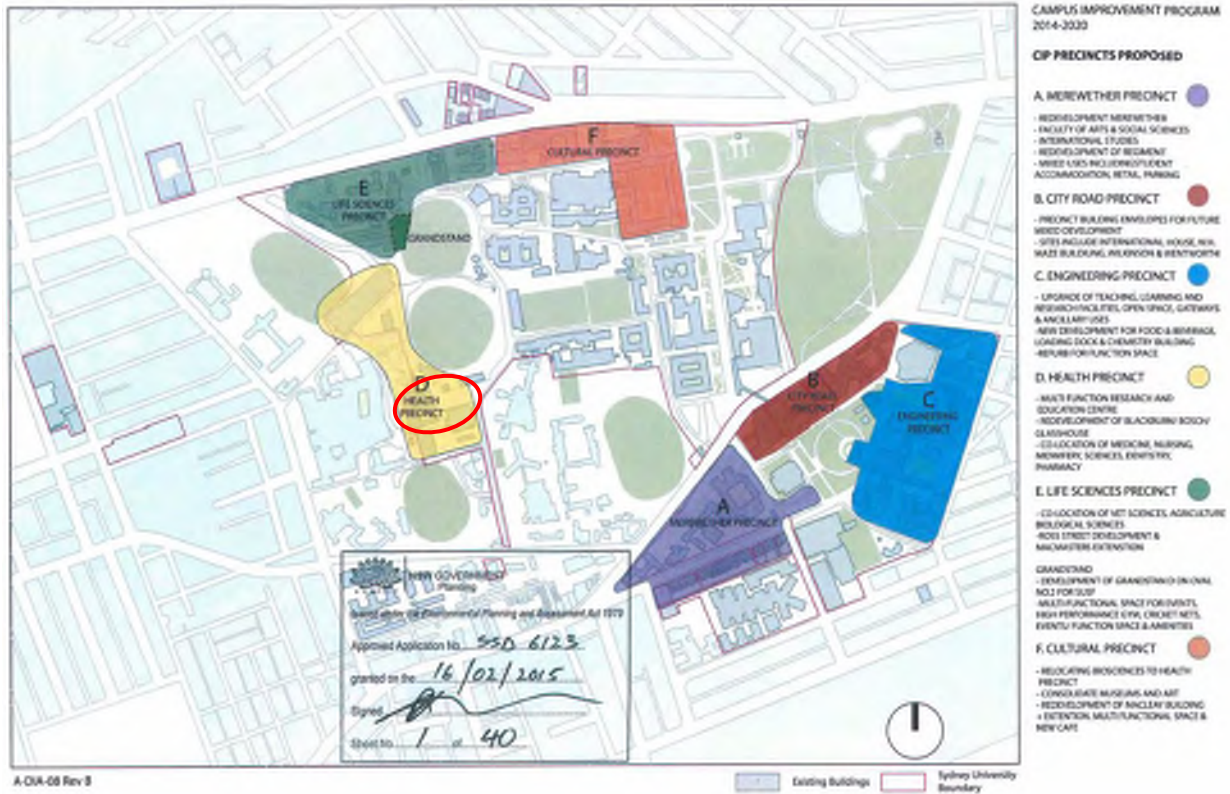


Figure 2.12 Campus Improvement Program (SSD 6123, approved 2015)
(source: CIS, University of Sydney)



Figure 2.13 Health Precinct Master Plan
(source: Drawing prepared by BLP/DS+R Architects, dated August 2017)

3.0 Analysis of Physical Evidence

3.1 Description of the Site

The University's proposed Health Precinct is located in the south-western sector of the Camperdown campus. (Fig.1.1)

Stage 1 of the Health Precinct, the SWAOHB, is bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Royal Prince Alfred Hospital. (Fig.3.1) The Blackburn Building (D06) currently stands on the western half of the site.

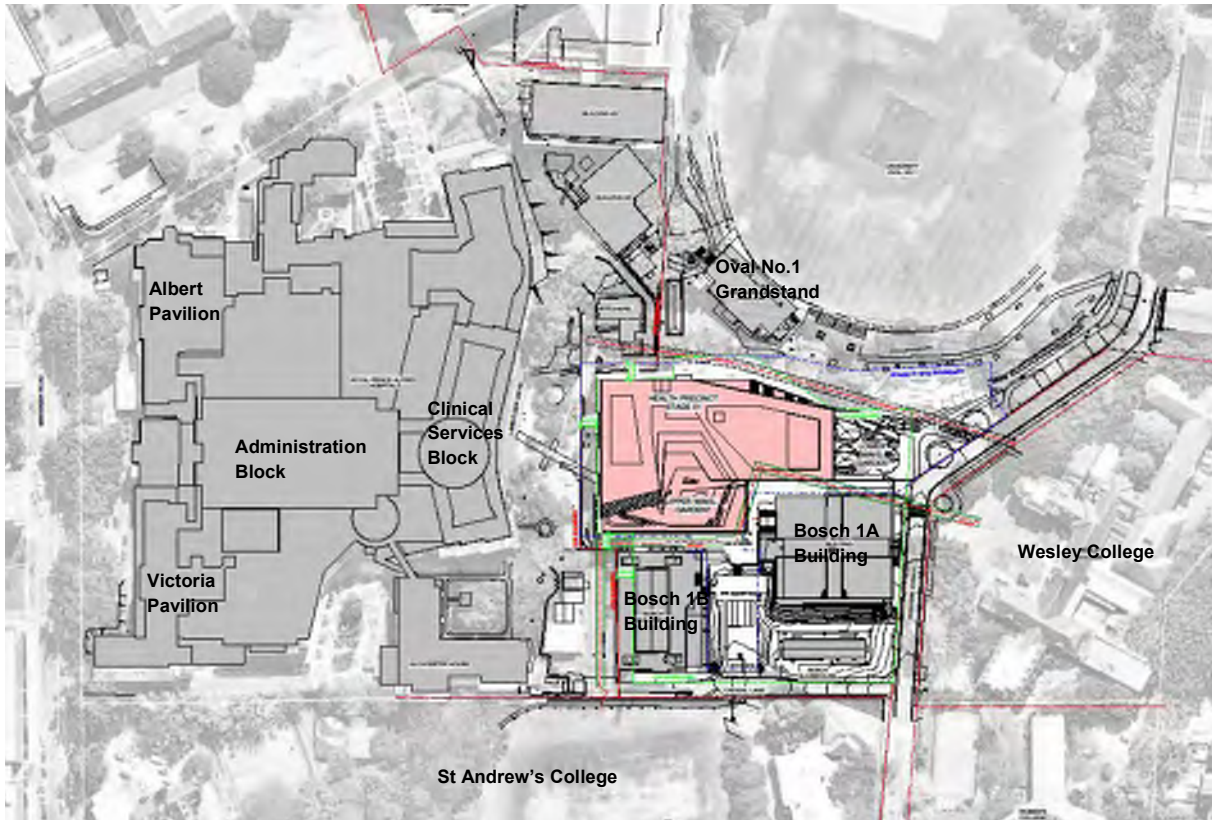


Figure 3.1 SWAOHB Site Plan

(source: Drawing prepared by BLP/DS+R Architects, dated July 2017)

Wesley College is located to the east of the SWAOHB site, separated by the Blackburn forecourt and Western Avenue. St Andrew's College is located to the south of the SWAOHB site, separated by the Bosch Building 1A and Bosch Building 1B and Cadigal Lane.

4.0 Assessment of Significance

The University of Sydney Grounds Conservation Management Plan, 2017 (GCMP), prepared by the Planning Team, Campus Infrastructure and Services, provides a thorough description of the University campus. (Appendix A)

The GCMP ranks the heritage significance of campus buildings and identifies significant landscapes and landscape elements, key view corridors and planning axes, etc. The GCMP also provides conservation policies to ensure that the heritage significance of these buildings, significant landscapes and landscape elements, key view corridors and planning axes are appropriately managed as an integral part of the future developments on the University campus.

4.1 Statement of Significance

The following summary Statement of Significance is taken from the Grounds Conservation Management Plan (2017). This Statement of Significance provides an overview of the heritage significance of the University campus:

The University of Sydney, University Colleges and Victoria Park is regarded to be of state historical significance, as a vestige of Governor Phillip's original 1,000 acres (404 ha) 'Kangaroo Ground' Crown reserve of 1790 and for its connection to the 18th century British government's approach to colonialism and its concept of 'terra nullius' as the foundation for dispossession of Aboriginal land in the immediate area of Sydney.

The cultural landscape is regarded to be of state heritage significance for its ability to demonstrate activities of the colonial era (1792–1855) associated with Grose Farm, orphan school and convict stockade.

The place is regarded to be of state heritage significance in demonstrating the aspirations of colonial Sydney to shape its own society, polity and ideals that ultimately led to the establishment of the University of Sydney by Act of Parliament in 1850 and being granted land at Grose Farm in 1855.

The University of Sydney is regarded to be of state historical significance as the first and oldest university in Australia, dating from 1850. Reflecting in the cultural landscape changes in tertiary education, landscape design, institutional architecture, economic development and social attitudes; including the establishment of the first university college for women in Australia, Women's College in 1892.

The Main Quadrangle Building, the Anderson Stuart Building and the Gate Lodges, together with St Paul's, St John's and St Andrew's Colleges, as a rare composition, comprise what is the most important group of Gothic and Tudor Revival style architecture in New South Wales and potentially Australia; the landscape and grounds features associated with these buildings contribute to and support the existence and appreciation of their state aesthetic significance.

The cultural landscape is regarded to be aesthetically significant at a state level reflecting directly the influence of E. T. Blacket (1850s), Sir J. Sulman (1890s), W.B. Griffin (1910s), Professor L. Wilkinson (1920s) and the Government Architect's Office (1960s) in shaping the place. In particular, Blacket's location of the Great Hall and East Range of the Quadrangle (1854–1862) utilised the site's topography to provide a dramatic presentation of the University on approach from the city, a setting with planning axis that still remains.

The University of Sydney and Victoria Park as connected landscapes have tangible links to Charles Moore Director of the Royal Botanic Gardens (1848–1896) and subsequent designers using prevalent 19th century theories of landscape design, plant material and horticultural techniques.

Strongly associated with Professor Leslie Wilkinson and the implementation of his 1920 master plan, the University grounds, more than any other site, reflect Wilkinson's work in beautifying and unifying buildings and their settings. This pursuit of beauty can also be seen in the work of Professor E. G. Waterhouse, who made a significant contribution to the planning and planting of gardens in the Inter-war years.

The University of Sydney is regarded to be of state social significance for its role as a site for student activism during the 20th century, in particular, the 1965 Freedom Ride, Vietnam War and conscription protests.

The 1965 Freedom Ride, a bus tour of University of Sydney students led by Charles Perkins—the first Aboriginal person to head an Australian Government department—shone a spotlight on the parlous state of Australia's race relations and is now recognised as one of Australia's most significant civil rights events.

The University of Sydney Grounds contain part of the land developed during the 19th and early 20th centuries as the Sydney suburb of Darlington. Substantial remains of Darlington survive, represented by the Old Darlington School Building (G18), terraced housing along Darlington Road, several light industrial buildings and remnants of the former

street pattern.

The University of Sydney Grounds are held in regard by many Australians and other individuals and groups as a place of high university education, the place of their higher education, as the site of past events, including social protest, and especially for its research potential and for its fine buildings and landscape.

4.2 Grading of Elements Contributing to Heritage Significance

The significance of the University grounds is complex – the grounds are extensive and contain a large number and variety of buildings and landscape features. These items may have individual heritage significance, significance as part of a group, a precinct, or a linear feature (i.e., an axis or view corridor), as well as contributing to the overall significance of the whole University campus.

4.2.1 Significant Heritage Items

The Blackburn Building (D06) currently stands on the western half of the proposed SWAOHB site. This building is identified as having Moderate heritage significance. There are a number of other heritage items in the immediate vicinity of the SWAOHB site. (Fig.4.1)

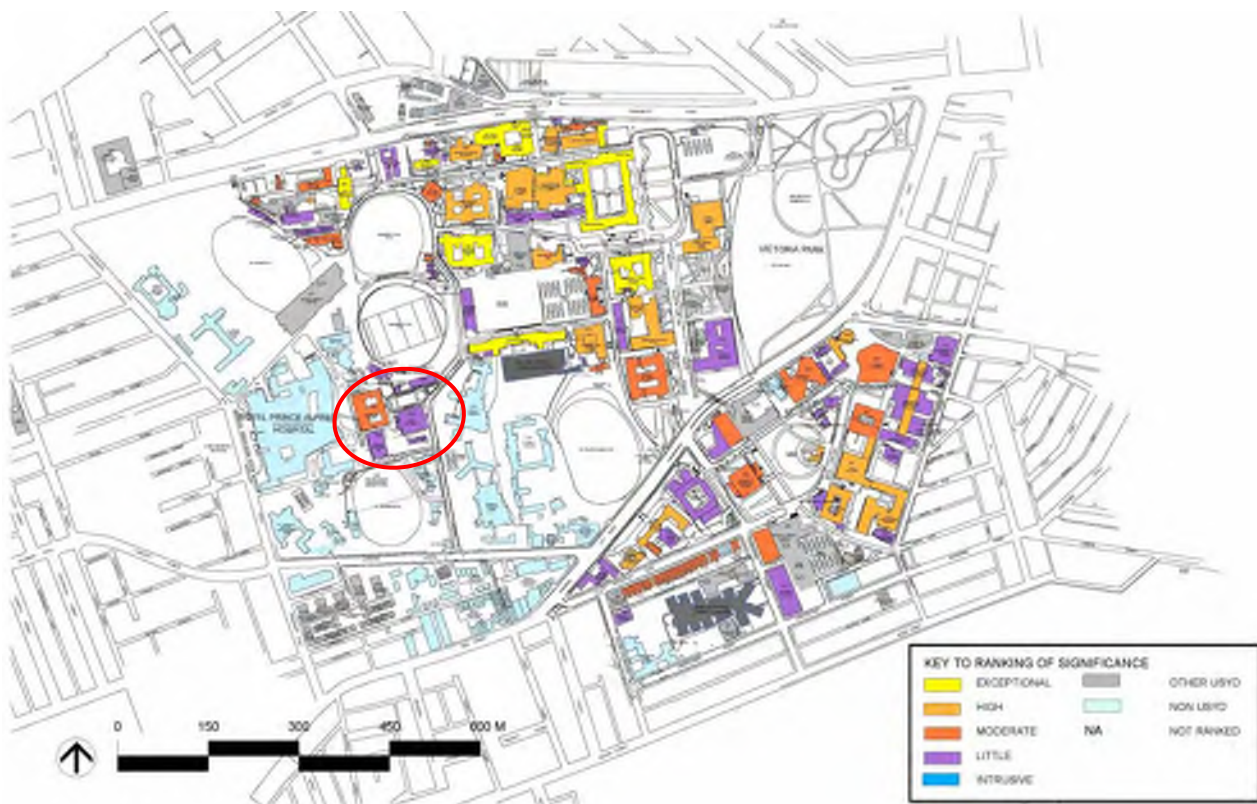


Figure 4.1 Relative grading of heritage significance of buildings adjacent to the development site

(source: University of Sydney Grounds Conservation Management Plan (2017))

4.2.2 Significant Views

The Grounds CMP (2017) identifies a number of significant view corridors and planning axes within the expanded curtilage of the University campus (Fig.4.2), that “should be retained and if possible enhanced.” (GCMP Policy 18) The principle view corridor in this part of the Camperdown campus is the north-south view along Western Avenue from Carillon Avenue to Parramatta Road. A planning axis, as distinct from an actual view corridor, was established when the Blackburn Building (1931-33) was aligned on the central axis of the Royal Prince Alfred Hospital Administration Block.

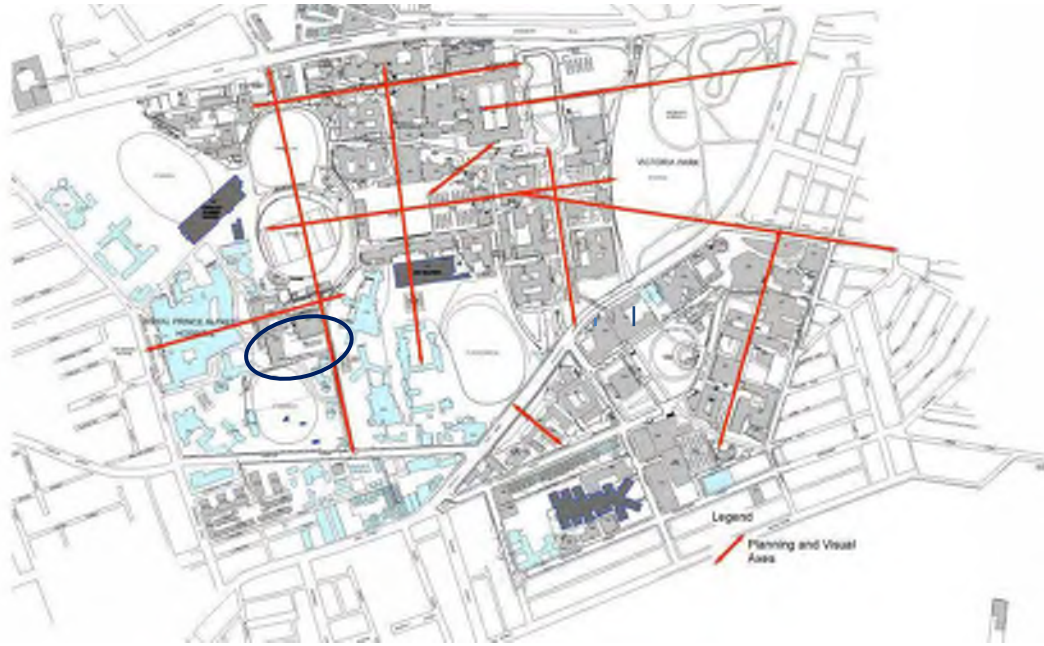


Figure 4.2 Significant view corridors and planning axes within the expanded curtilage of the University campus

(source: University of Sydney Grounds Conservation Management Plan (2017))

4.2.1 Significant Trees and Landscapes

The GCMP has identified the Significant Trees and Types of Open Spaces and Landscapes across the University campus. (Fig.4.3) The trees bordering Oval No.1 are ranked as having Exceptional significance, while in the Blackburn forecourt the large Fig tree is ranked as having Moderate significance and the numerous London Plane trees are ranked as having Some significance..



Figure 4.3 Significant Trees and Types of Open Spaces and Landscapes

(source: University of Sydney Grounds Conservation Management Plan (2017))

The City of Sydney *Register of Significant Trees (2013)* lists the trees lining Western Avenue (Item C-263), east of the SWAOHB site, as being significant.

4.3 Aboriginal Heritage Assessment

The Aboriginal Heritage Impact Assessment (AHIA) prepared by AHMS (February 2016) in consultation with the local Aboriginal community has identified places across the University's Camperdown and Darlington campuses which have Aboriginal cultural heritage values. (Appendix B) These places include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances." (AHIA, p.64.)

A number of Aboriginal heritage assessments of the University campus in general and for specific work sites, prepared over the past decade, have concluded that no archaeological sites or artefacts relating to Aboriginal occupation have been found within the University grounds.

There are, however, a number of areas within the University grounds which, because they have remained generally undisturbed, are regarded as being archaeologically sensitive. These areas are primarily ovals and playing fields, none of which are impacted by the proposed SWAOHB development.

The Grounds CMP (2017) identifies the Blackburn-Bosch Precinct (AA9) as an area having potential Aboriginal Archaeology (Fig.4.4), but assesses the area as being "heavily disturbed" and therefore its archaeological potential is Low. (GCMP, p.81)

The Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013), concludes:

"The current state of knowledge about the nature of past Aboriginal landscape use in the study area suggests that only few traces of these past inhabitants may be visible in the archaeological record. This result is a low potential for the preservation of in-situ Aboriginal archaeological deposits within the study area; however, if found these deposits would be of high archaeological significance due to their rarity." (AHDDR, p.34)

The GML conclusion was subsequently reinforced by the Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016), which concludes:

"Existing information suggests that much of the subject area (University campus) is heavily disturbed by historical activities. This disturbance has reduced or removed the potential for cultural materials to be present. In the unlikely event that in-situ deposits are identified, they are likely to be of local or State significance." (AHIA, p.63)

4.4 Archaeology Assessment

Over the past decade a number of archaeological reports have been prepared for the University campus, both in general and for specific work sites. Based on these previous reports, and given the amount of development that has occurred at the place, the GCMP concludes "the potential for archaeology, either Aboriginal or European, is considered to be low." (GCMP, p.81)

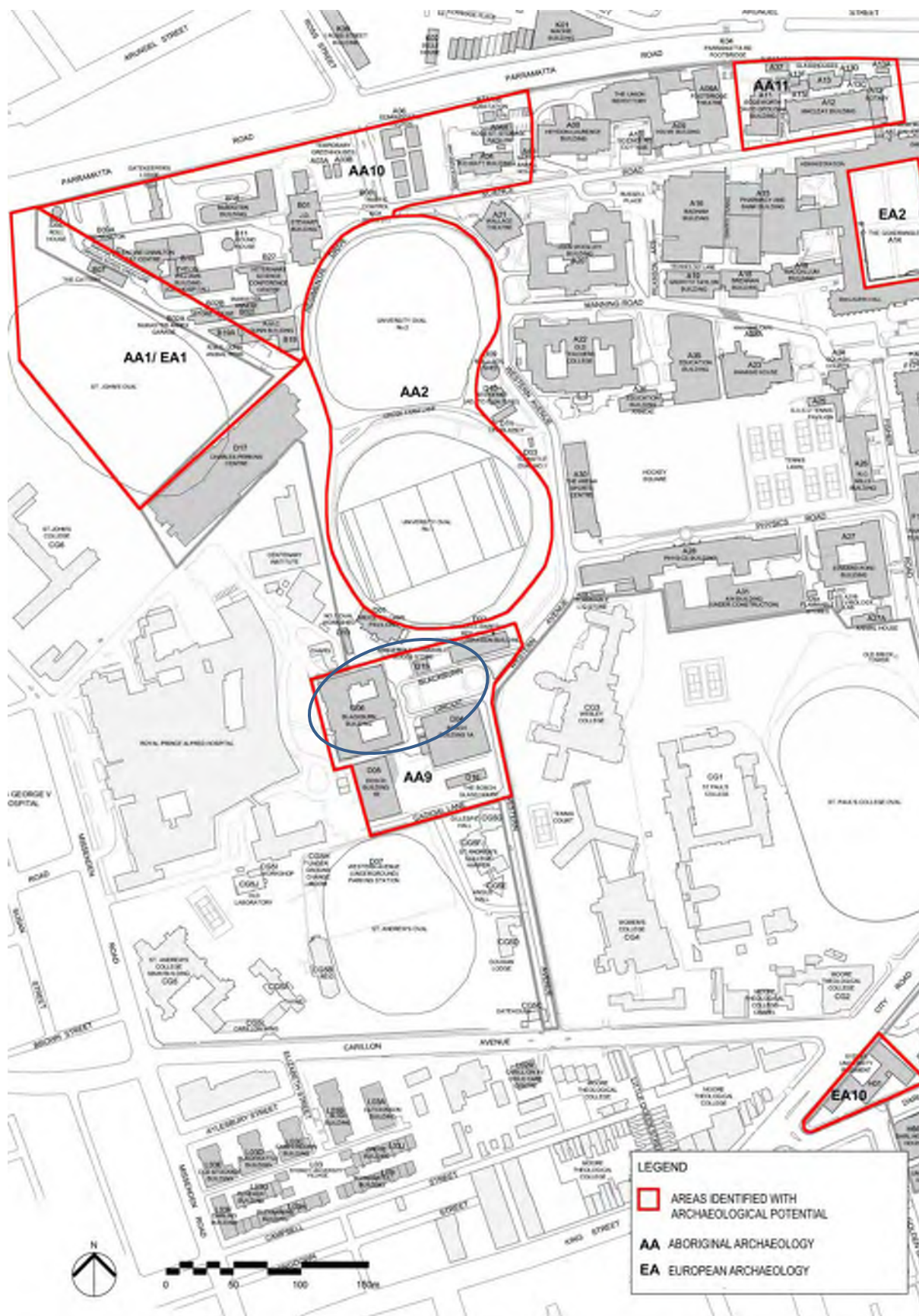


Figure 4.4 Ranking of archaeological areas on the Camperdown – Darlington Campus
(source: University of Sydney Grounds Conservation Management Plan (2017))

4.5 Heritage Items in the Vicinity

There are several heritage items of varying levels of significance in the vicinity of the SWAOHB site. (Fig 4.1) The heritage items include:

- Royal Prince Alfred Hospital: the Administration Block (Exceptional Significance); Victoria and Albert Pavilions (High Significance); and Gloucester House (Moderate Significance);
- St Andrew's College (High Significance);
- Wesley College (High Significance);
- Bosch 1A Building (D04) and Bosch 1B Building (D05) (Little Significance);
- University Oval No.1 Grandstand (Little Significance); and
- L.E.F.Neill Fountain (Some significance)

This Heritage Impact Assessment addresses the potential adverse impact of the proposed development upon these adjacent heritage items and recommends the means to mitigate any adverse impacts.

5.0 Description of the Proposal

5.1 Site of the proposed SWAOHB

The University's proposed Health Precinct is located in the south-western sector of the Camperdown campus. (Fig.1.2) The site of the Stage 1 development, the Susan Wakil AO Health Building (SWAOHB) the subject of this HIS), is bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Royal Prince Alfred Hospital. (Fig.3.1) The Blackburn Building (D06) currently stands on the site.

The proposed SWAOHB is a multi-disciplinary health and education building. (Fig.5.1) The new building will co-locate the faculties of Nursing and Midwifery (currently located at Mallett Street, Camperdown), Health Sciences (currently at the Cumberland Campus) and the Central Clinical School from the Sydney medical School (currently located in the RPAH and the Blackburn Building).



Figure 5.1 Ground Floor Plan

(Source: Drawing DA18-0001 (Rev.1), prepared by BLP/DS+R Architects, dated July 2017)

The proposed SWAOHB comprises of eight levels with a central void, with Level 0 cutting into the existing ground levels at the eastern end of the site. The SWAOHB will accommodate the following components:

- Entry foyer and reception facilities;
- General teaching spaces;
- Specialist teaching spaces
- A clinical and research hub;
- Offices and workstations for academic and professional services;
- Breakout spaces and meeting rooms;
- Support and back of house spaces; and
- Significant landscaped areas.

The proposed works also include associated earthworks, tree removal, landscape works and the augmentation of existing infrastructure and services.

6.0 Assessment of Heritage Impact

6.1 Heritage Impact Analysis

The SEARS issued by the Department of Planning & Environment requires the SHI to address the impact of the proposed SWAOHB on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential historical archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes;

6.2 Potential Impacts on Heritage Items on Site

Discussion: The Blackburn Building (1931-33) symbolically straddles the boundary between the University and the land granted to the Royal Prince Alfred Hospital in 1873, demonstrating its twin role as both a medical research facility and a teaching institution. (Fig.6.1) The building is ranked in the Grounds CMP as having Moderate heritage significance.



Figure 6.1 Blackburn Building (1931-33)

(source: Author, July 2017)

The demolition of the Blackburn Building was identified in the Campus Improvement Program (SSD 6123) (Fig.6.2) and the heritage impact of its loss to the University was assessed in the Health and Life Sciences (Blackburn and Veterinary Science) Precincts Statement of Heritage Impact (SHI) prepared by Clive Lucas, Stapleton & Partners (2013).

The SHI prepared by CLS&P (2013) concluded that the demolition of the Blackburn Building would have a medium impact on the heritage values of the University, but that the demolition was necessary to enable the University to achieve its strategic teaching and research objectives. The loss of significance could be mitigated, to some extent, by the preparation of an archival record of the building and suitable interpretation at the location of the new health buildings. (Health and Life Sciences Precinct SHI, p.101).



Figure 6.2 Buildings for Demolition, Campus Improvement Program (SSD 6123, approved 2015)
(source: CIS, University of Sydney)

An HIS prepared by Urbis (Dec 2016) to accompany an REF for the demolition of the Blackburn Building concluded:

“Whilst the proposed demolition has an acknowledged heritage impact on the building and the broader campus, the demolition has, however, been supported in the context of the need to redevelop the (Health) precinct and facilitate the ongoing university functions.” (Blackburn Building HIS, p.i)

It is noted that the “historic continuing use” of this section of the University campus for medical tuition and research will be maintained in the new Health Precinct, which is in accordance with GCMP Conservation Policy 20. (GCMP, p.136)

The HIS for both the approved CIP (SSD 6123) and the approved REF for Demolition recommended the loss of heritage significance could be mitigated, to some extent, by the preparation of an Archival Record (in accordance with the NSW Heritage Office guideline) of the Blackburn Building prior to demolition, the salvaging of specific elements of the Blackburn Building for interpretative purposes and the preparation of an Interpretation Strategy to acknowledge the Blackburn Building.

Conclusion: The moderate adverse impact on the overall significance of the University due to the loss of Blackburn Building was acknowledged in the approved CIP (SSD 6123) and the subsequent REF which approved its demolition. In accordance with University procedures an archival record of the Blackburn has been prepared and numerous items identified for retention and future interpretative purposes. An Interpretation Strategy for the overall Health Precinct, with a focus on the SWAOHB (Stage 1), has been prepared.

6.3 Potential Impacts on Adjacent Heritage Items

There are a number of heritage items of varying levels of significance immediately adjacent to the proposed SWAOHB site (Fig.6.3), including:

- Royal Prince Alfred Hospital: Administration Block (Exceptional Significance); Victoria and Albert Pavilions (High significance); and Gloucester House (Moderate significance);
- St Andrew's College (High significance);
- Wesley College (High significance);
- Bosch 1A Building (D04) and Bosch 1B Building (D05) (Little significance);
- University Oval No.1 Grandstand (Little significance); and

- L.E.F.Neill Fountain (Some significance)

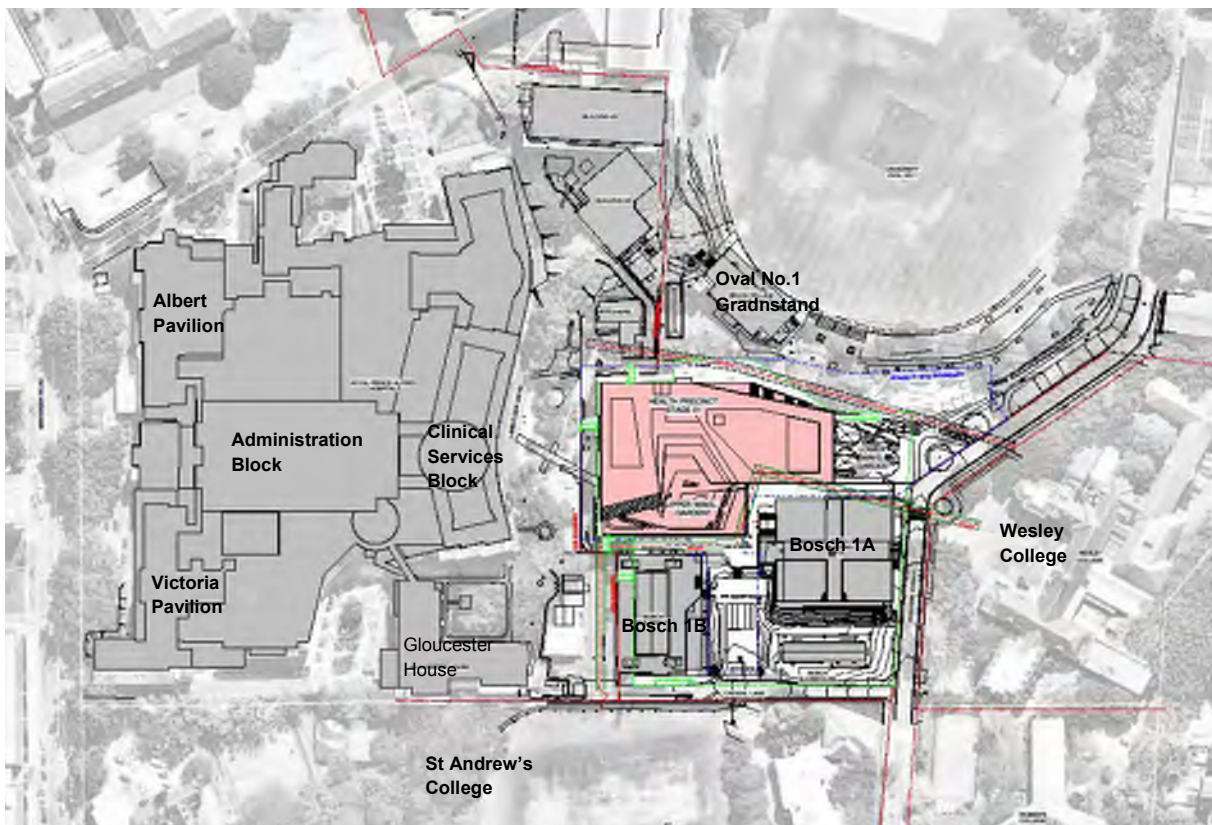


Figure 6.3 Heritage Items adjacent to the SWAOHB

(source: Drawing DA03-0002, prepared by BLP/DS+R Architects, dated July2017)

6.3.1 Royal Prince Alfred Hospital

Discussion: The Royal Prince Alfred Hospital (RPAH) was established on land that had originally been assigned for Wesley College. The college was not commenced within the stipulated time therefore, in 1873, the University transferred the land to the proposed hospital on the proviso that part of the site would be reserved for a future school of medicine. It was for this reason that the new medical building, funded by the Rockefeller Foundation in the early 1930s, was located in this section of the University campus. The Blackburn Building, as it was later known, was sited on the central axis of the RPAH Administration Block thereby emphasising the strong tuition and research links between the hospital and the university.

The RPAH grounds contain three elements of heritage significance: the Administration Block (1876-82) (Exceptional Significance); Victoria and Albert Pavilions (1904) (High significance); and Gloucester House (1936) (Moderate significance)

The SWAOHB is located to the east of the Royal Prince Alfred Hospital. The RPAH Administration Block (Exceptional significance) and the Albert and Victoria Pavilions (High significance) are all physically and visually separated from the SWAOHB by the RPAH Clinical Services Block. (Fig.6.4)

Gloucester House (Moderate significance) is located to the south west of the SWAOHB and west of Bosch 1B Building. The rear aspects of Gloucester House are already overwhelmed by the location and scale of its surrounding buildings, including the RPAH Clinical Services Block and the Blackburn Building. The SWAOHB will have a minor (additional) impact on its heritage significance.

Conclusion: The SWAOHB will have no physical or visual impact on the heritage significance of the Administration Block (1876-82) and the Victoria and Albert Pavilions (1904), and only a minor impact on the rear aspects of Gloucester House (1936). The impact of the SWAOHB on the overall heritage significance of the Royal Prince Alfred Hospital is acceptable.

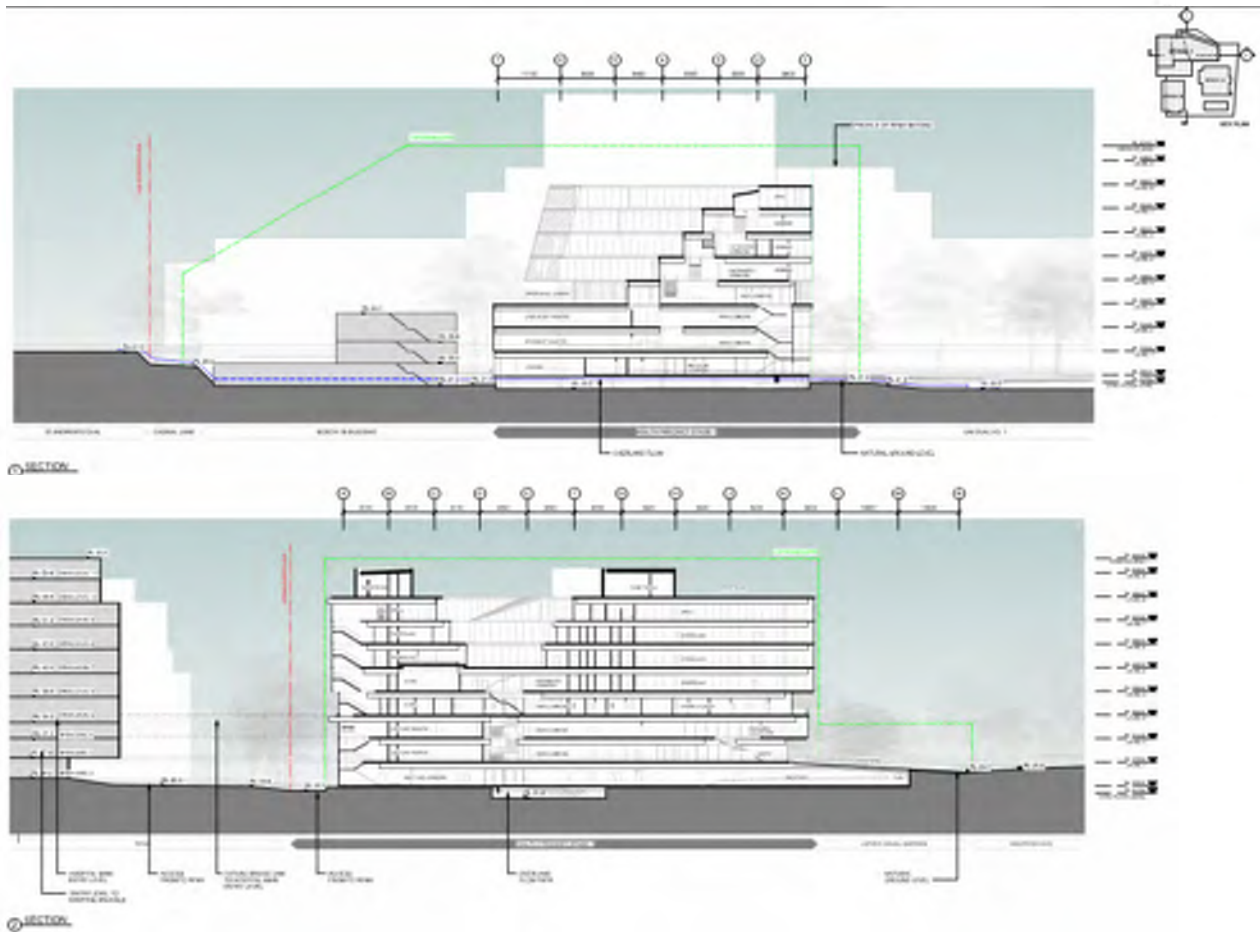


Figure 6.4 Sections showing RPHA Clinical Services Block and Gloucester House behind the SWAOHB
(source: Drawing DA30-0001 (Rev.1), prepared by BLP/DS+R Architects, dated July 2017)

6.3.2 St Andrew's College (High Significance)

Discussion: St Andrew's College is located immediately south of the Bosch 1B Building (D05). The college grounds extend south from Cadigal Lane to Carillon Avenue and west from Western Avenue to Missenden Road. The principal college buildings are located in the south-west corner of the grounds. The college sports oval occupies the area immediately south of the Bosch 1B; atop a university car-park.

St Andrew's College Master Plan (2002) proposes several new buildings around the campus perimeter, but the oval atop the carpark will remain as is. Due to its location the SWAOHB will be physically and visually separated from the St Andrew's College principal buildings by the College's own landscaping, the college oval, Gloucester House (RPAH) and the Bosch 1B Building. (Fig.6.5)

The Grounds CMP identifies View CV6 – a view from St Andrew's College residential wing past Blackburn Building (D06), over trees to the Education Building (A35) – as an important secondary view. The Blackburn and Veterinary Precincts HIS, prepared for the CIP (SSD 6123) recommended the retention of CV6. (B&V Precincts HIS, p.102)

View CV6, from St Andrew's College across to the University's Education Building, is a rather oblique view, taken from the residential Reid Building, adjacent to the college Oval. (Fig.6.6) The



Figure 6.5 View from the front door of the St Andrew's College main building
(source: Author, August 2017)



Figure 6.6 View from the residential Reid Building, St Andrew's College.
(source: Author, August 2017)
(Note: the Education Building (A35) is in the centre background)

eastern end of the SWAOHB does not project into the CV6 view across the College Oval to the Education Building.

Conclusion: The impact of the SWAOHB on the heritage significance of St Andrew's College will be minimal and, therefore, is acceptable.

6.3.3 Wesley College (High Significance)

Discussion: Wesley College is located on the eastern side of Western Avenue, across from the SWAOHB site. The principal college building, set well back from Western Avenue, faces north-west with tree-framed views across the Blackburn forecourt. (Fig.6.7)



Figure 6.7 View from Wesley College front door, across Western Avenue to the proposed SWAOHB.
(source: Author, August 2017)

The trees lining Western Avenue that define the western boundary of Wesley College, will be retained, as will the low level Bosch Building 1A. The trees in the Blackburn forecourt (background) will be removed and replaced by new trees in the landscaped Lower Wakil Garden, leading up to the entrance of the SWAOHB. (Fig. 6.8)

In discussions with the University, Wesley College expressed some concern regarding the potential for the SWAOHB to overshadow the College grounds and the loss of existing trees in the Blackburn Forecourt, but did not express a concern about the impact of SWAOHB itself. An overshadowing diagram demonstrates that the SWAOHB does not increase the existing shadow on the College. The loss of the existing trees in the Blackburn forecourt will be compensated by the proposed replacement of trees proposed for the Lower Wakil Garden.



Figure 6.8 View from Western Avenue to the Lower Wakil Garden and SWAOHB entrance.

(source: Drawing DA30-0001, prepared by BLP/DS+R Architects, dated August 2017)

Conclusion: Due to the physical distance between the SWAOHB and the Wesley College buildings and the visual separation provided by the trees lining Western Avenue, the proposed SWAOHB will have a minimal impact on the overall heritage significance of Wesley College and, therefore, is acceptable.

6.3.4 Bosch 1A Building (D04) and Bosch 1B Building (D05) (Little Significance)

By the 1960s the Faculty of Medicine had outgrown its two principal buildings (Anderson Stuart and Blackburn buildings). The George H Bosch Lecture Theatre 1A Building (Fig.6.9) was completed in 1965, as Stage 1 of the Bosch Complex. Stage 2, the Bosch 1B Building (Fig.6.10), located next to the Blackburn Building and housing the library, was completed in 1968. The two low profile Brutalist brick and concrete buildings were designed by architects, Stephenson and Turner.

The Bosch Complex is named after George Henry Bosch, who had made several substantial endowments to the Faculty of Medicine, specifically to establish the Chair of Histology and Embryology (1927) and the Chairs in Medicine, Surgery and Bacteriology (1928). Together with Prof. Claude Witherington Stump, Bosch was instrumental in the University gaining a Rockefeller Foundation grant of £100,000 to further medical research in NSW.

Discussion: While the Bosch 1B Building (Fig.6.10) displays more external articulation than the Bosch 1A Building (Fig.6.9), both buildings are architecturally understated. Their contribution to the heritage significance of the University relates more to demonstrating the development of the Health Precinct than to their architectural merit.

The SWAOHB will physically and visually overwhelm the two Bosch buildings. The two Bosch buildings, however, were identified in SSD 6123 (CIP 2014-20) for future demolition (Fig.6.2) and the SWAOHB (Health Precinct Stage 1) has been designed on the basis that these two buildings will be replaced in the Health Precinct Stage 2 development (the subject of a future Development Application).



Figure 6.9 Eastern Elevation of Bosch 1A Building, facing Western Avenue
(source: Author, July 2017)



Figure 6.10 Eastern Elevation of Bosch 1B Building (D05), adjacent to the Blackburn Building (right)
(source: Author, July 2017)

Conclusion: The impact of the SWAOHB on the heritage significance of Bosch 1A Building (D04) and Bosch 1B Building (D05) is acceptable.

6.3.5 University Oval No.1 Grandstand (Little Significance)

Discussion: The University Oval No.1 Grandstand faces north-east, with its back towards the proposed SWAOHB site. (Fig.6.11) The significance of the Oval No.1 Grandstand, a minor functional building, relates primarily to its connection with the historic oval, not as an element in its own right. The SWAOHB will have a negligible impact on the heritage significance of the Oval No.1 Grandstand.



Figure 6.11 Oval No.1 Grandstand, backing on to the SWAOHB site (Blackburn Building, left)
(source: Author, July 2017)

Conclusion: The proposed SWAOHB will have a negligible impact on the heritage significance of Oval No.1 Grandstand and, therefore, is acceptable.

6.3.6 L.E.F.Neill Fountain (Some Significance)

Discussion: The L.E.F Neill Fountain (Fig.6.12), located east of the Oval No.1 Grandstand, is a memorial to Dr Leopold Neill (1867-1901). Neill was a graduate of the University's Medical School, avid university sportsman and, later, a tutor of university medical students at RPAH. His untimely early death was keenly felt by his university and medical colleagues, who funded his memorial fountain.

The sandstone Gothic fountain (1902) will be retained in its present location, but within an improved landscape setting. (Item 14 on Fig.6.14) The proposed landscaping will ensure the retention of the symbolic connection between Neill and the University's sports oval, the Health Precinct and the RPAH.

Conclusion: The impact of the SWAOHB landscaping on the L.E.F Neill Fountain is positive.



Figure 6.12 L.E.F.Neill Fountain (1902), with the Blackburn Building in the background (left)
(source: R Scharenguivel, September 2016)

6.4 Potential Impacts on the Cultural Landscape

Discussion: Historically, the Blackburn Building (new medical school), located in the south western section of the Camperdown Campus and bounded by University Oval No.1, Wesley College, St Andrew;s College and RPAH, has always been slightly detached from the rest of the University. There is presently neither a strong physical or visual connection between the buildings or landscape to the rest of the Camperdown campus; to the point where the Blackburn Building had a closer physical link with the RPAH.

The Grounds CMP (2017) identifies the Significant Trees and Types of Open Spaces and Landscapes across the University campus. The trees which border the southern edge of University Oval No.1 are ranked as having Exceptional significance, while in the Blackburn forecourt the large Fig (*Ficus* spp.) tree is ranked as having Moderate significance and the numerous London Plane trees are ranked as having Some significance. (Fig.6.13) The Blackburn forecourt, itself, is ranked as being a Late-Modern (1947-1980) landscape of Moderate significance.

The Blackburn Forecourt and the area previously occupied by the demolished Queen Elizabeth II Research Institute and Victor Coppleson Building (D02) will be replaced by the Lower Wakil Garden, Upper Wakil Garden and Turpentine Forest. (Fig.6.14).

The Arboricultural Impact Assessment (AIA), prepared by Tree IQ (dated August 2017) assessed twenty eight (28) trees (or groups of trees) within the SWAOHB site, using the VTA criteria and notes. (Fig.6.15)

5.1 PLANTING DESIGN_VEGETATION MANAGEMENT PLAN

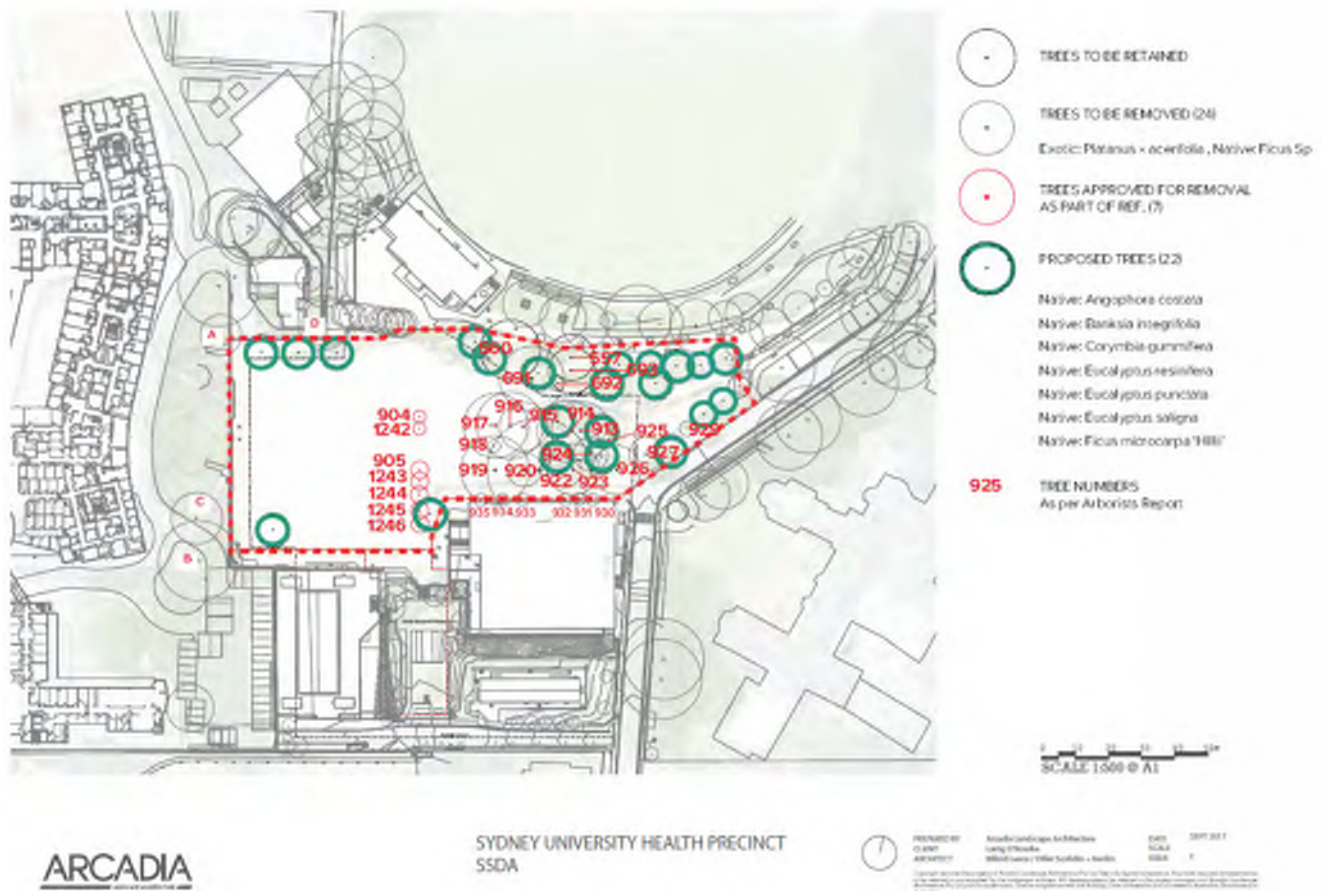


Figure 6.15 Vegetation Management Plan (showing trees to be retained, removed and replaced)
(source: Drawing prepared by Arcadia landscape Architecture (August 2017))

Of the three (3) trees proposed to be retained:

- Four (4) trees are rated as *Priority for Retention*;
- Ten (10) trees are rated as *Consider for Retention*;
- Eighteen (18) are rated as *Consider for Removal*.

Eighteen (18) of the twenty eight (28) trees assessed are proposed to be removed, of which:

- Sixteen (16) are rated as *Consider for Retention*; and
- Two (2) are rated as *Consider for Removal*.

To mitigate the loss of eighteen trees, a total of twenty two replacement trees are proposed, including a 1000ltr *Ficus* spp. (Fig), which will replace Tree 921 currently in Blackburn Circuit. (Tree 921 was identified in the Grounds CMP as having Moderate significance, but the arborist report deemed the tree to be unsuited for salvaging for later replanting.)

The trees lining the southern edge of University Oval No.1, ranked in the GCMP (2017) as being of Exceptional significance, are to be retained. Similarly, the various trees lining Western Avenue, on the eastern edge of the SWAOHB site, which are listed in the City of Sydney *Register of Significant Trees* (2013) as being significant (Item C-263) will not be impacted by the SWAOHB project.

All trees on the neighbouring properties (Trees A-H) are proposed for retention, although trees A, B, and D will require minor pruning to provide clearance for the proposed building. The AIA concludes that “the extent of pruning required should not significantly impact the health, form or amenity value of any of these trees.” (AIA, p.8)

The contemporary landscape proposed to replace the Blackburn Forecourt includes the Lower Wakil Garden, of Western Avenue; the Turpentine Forest, backing onto Oval No.1; and the Upper Wakil Garden, a large public space which will unite the Stage 1, Stage 2 and Stage 3 buildings.

Conclusion: The impact of the SWAOHB and its associated landscaping on the cultural landscape is acceptable.

6.5 Potential Impact on Significant Views

Discussion: The Grounds CMP (2017) identifies a number of significant view corridors and planning axes within the expanded curtilage of the University campus (Fig.6.16), that “should be retained and if possible enhanced.” (GCMP Policy 18)

The principle view corridor in this part of the Camperdown campus is the A5 north-south view along Western Avenue from Carillon Avenue to Parramatta Road. The demolition of the Queen Elizabeth II Research Institute and Victor Coppleson Building (D02) in preparation for the construction of the Health Precinct, has reinstated this significant view corridor in accordance with GCMP Policy 18. The SWAOHB has been sited so as to respect the reinstated significant A5 view corridor.

A planning axis (A6), as distinct from an actual view corridor, was established when the Blackburn Building (1931-33) was aligned on the central axis of the Royal Prince Alfred Hospital Administration Block. This planning axis, which originally reinforced the physical and historical connections between the two institutions, has since been disrupted by the construction of the RPAH Clinical Services Building.

A secondary view corridor is the B3 view from the front door of Wesley College, which looks north-west across the Blackburn forecourt towards the back of RPAH. (Fig.6.7) The view across the Blackburn forecourt will be replaced by a view across the Lower Wakil Garden to the SWAOHB entrance (Fig.6.8), still framed by the existing Western Avenue trees.

Conclusion: The demolition of the Queen Elizabeth II Research Institute and Victor Coppleson Building (D02) and the siting of the SWAOHB will enhance the significant A5 view corridor, in accordance with GCMP Policy 18. The siting of the SWAOHB and the future buildings in the Health Precinct will have no impact on the A6 planning axis, because the RPAH Clinical Services Block has already diminished its relevance. The secondary view corridor B3 from the Wesley College front door will be impacted somewhat by the removal of the Blackburn forecourt and its replacement with the proposed Lower Wakil Garden. The B3 view line will be maintained, but with a different form of landscape.

The overall impact of the SWAOHB on the various significant view corridors is acceptable.

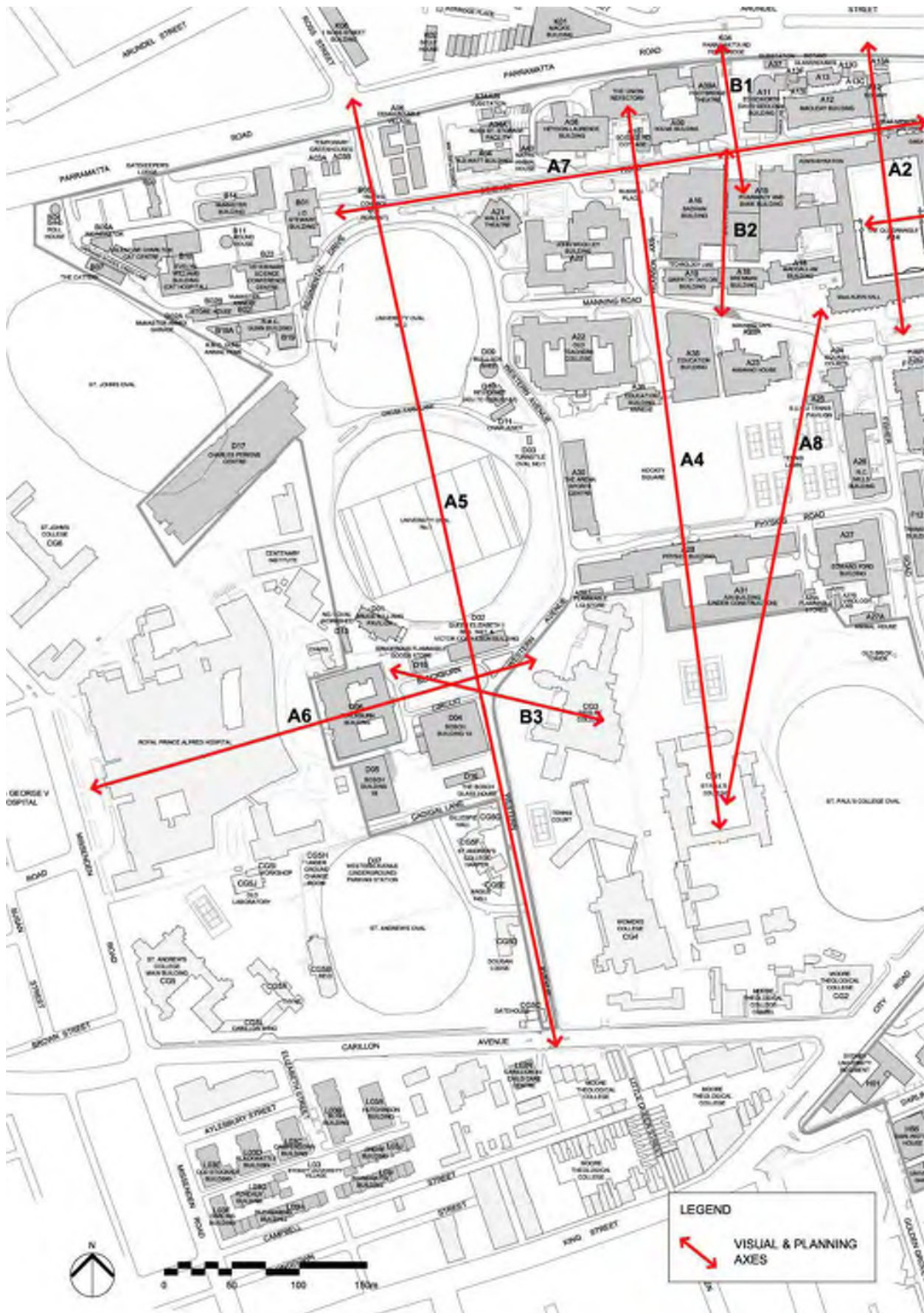


Figure 6.16 Significant Visual and Planning Axes
(source: University of Sydney Grounds Conservation Management Plan (2017))

6.6 Potential Historical Archaeology

Discussion: Over the past decade a number of archaeological reports have been prepared for the University campus, both in general and for specific work sites. Based on these previous reports, and given the amount of development that has occurred at the place, the GCMP concludes “the potential for archaeology, either Aboriginal or European, is considered to be low.” (GCMP, p.81)

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and forecourt were built in the 1960s, further diminishing the potential for finding any archaeological evidence.

Conclusion: The historic archaeology potential of the site is Low, due to the site having been heavily disturbed.

6.7 Aboriginal Cultural Heritage Values and Potential Archaeology

Discussion: An Aboriginal Heritage Impact Assessment (AHIA) has been prepared by AHMS (February 2016), in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW).

The AHIA, which covers Aboriginal cultural heritage values across the University's Camperdown and Darlington campuses, concludes:

“Consultation with RAPs identified six places retaining cultural values within the subject area. (It is highlighted that while the discussions focused on the six CIP precincts, it also considered the wider Camperdown and Darlington Campuses). These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances.” (AHIA, p.64.)

None of the places identified in the AHIA as retaining Aboriginal cultural values on the University of Sydney campus will be affected by the SWAOHB.

The Grounds CMP identified a site (AA9) within the Health Precinct as having Aboriginal Archaeology potential, but it concluded that the potential was Low due to the site having been “heavily disturbed”. (GCMP, p.81)

The University of Sydney Campus Improvement Program Aboriginal Due Diligence Report, prepared by Godden Mackay Logan (2013) concluded there “is a low potential for the preservation of in-situ Aboriginal archaeological deposits within the study area; however, if found these deposits would be of high significance due to their rarity.” (ADDR, p.34)

The AHIA, prepared by AHMS (February 2016), reached a similar conclusion: “with the exception of the western portion of the Life Sciences and Health Precincts, it is considered that the remaining (University) precincts would have low potential for cultural materials to be present.” (AHIA, p.7) The archaeological potential of the western portion of the Life Sciences and Health Precincts were flagged on the basis that *“geotechnical investigations within the university grounds indicate that natural soil horizons may be preserved below 3-5m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences and Health Precincts.” (AHIA, p.6)*

The 3-5m of fill referred to in the AHIA is present in the northern portion of the Health Precinct, specifically under the RMC Gunn Building (B19) and the nearby University Oval No.2, and is clearly evident in the level change between University Oval No.1 and University Oval No.2 (Fig.6.17], all of which is well north of the SWAOHB site.



Figure 6.17 Ground Level change between Oval No.1 (foreground) and Oval No.2 (background)
(source: Author, August 2017)

The SWAOHB site, in the southern portion of the Health Precinct, was heavily excavated for the construction of the Blackburn Building (1931-33). The construction drawings clearly show the footings, basement level and finished ground around the Blackburn Building as all being constructed at a level below the existing ground level. (Fig.6.18) In addition, University records state that the preliminary ground works included diverting an existing stormwater drain and sewer to miss the footings of the new building. (Blackburn Building CMP, p.48)

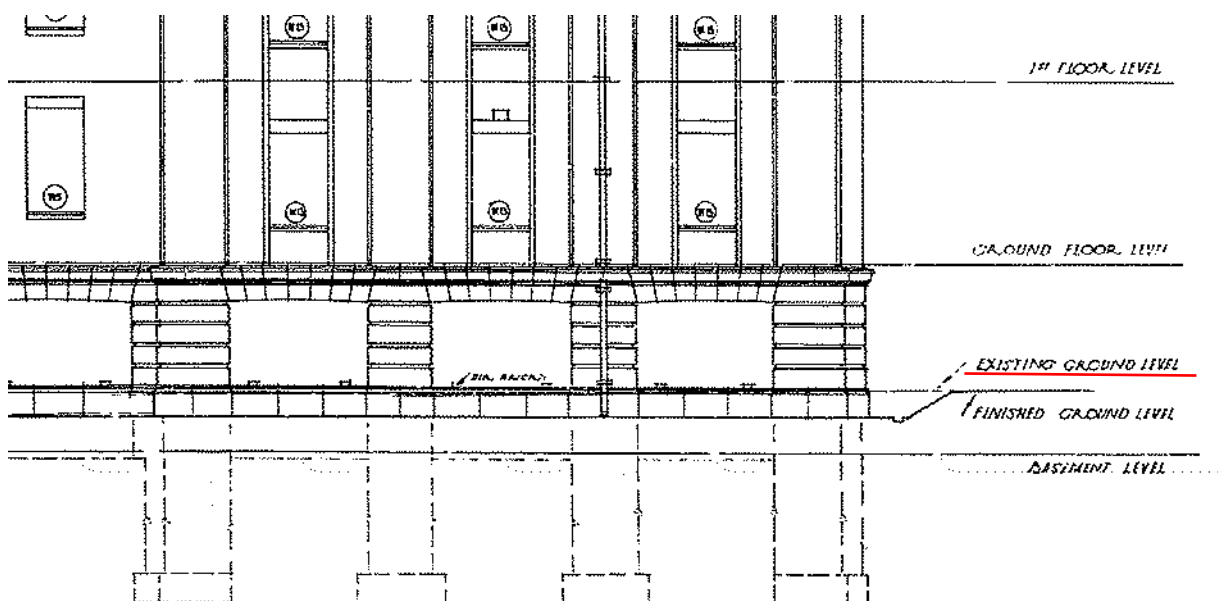
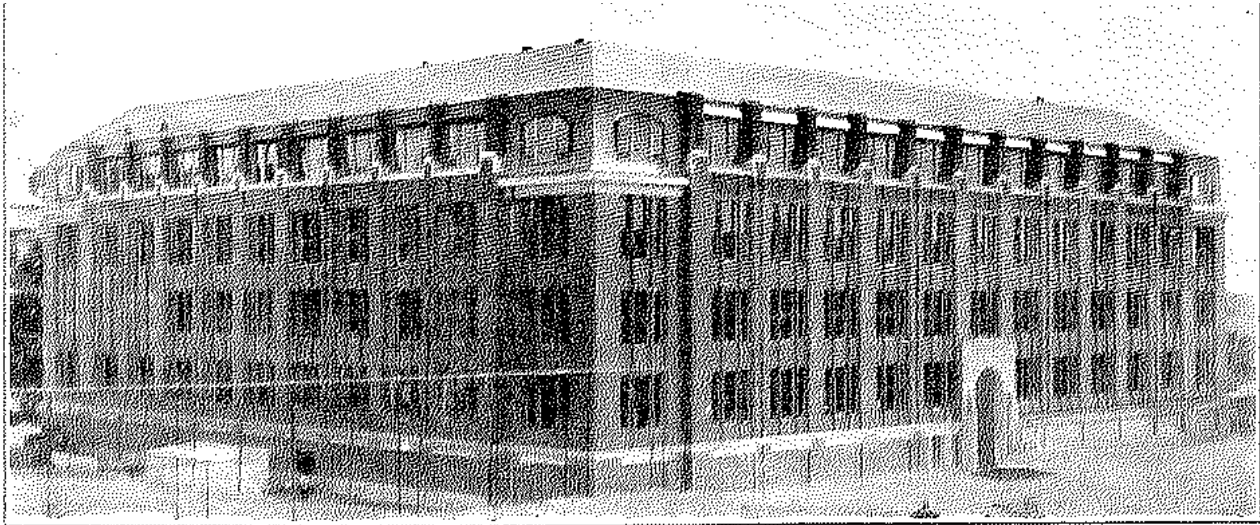


Figure 6.18 New Medical School (1931), detail of West Elevation
(source: CIS, Apspd, Plan D06-1052a)

A photograph of the completed building, taken in late 1933, shows the newly lowered ground level beyond the front façade. (Fig.6.19)



ROCKEFELLER FOUNDATION MEDICAL SCHOOL, SYDNEY UNIVERSITY

Figure 6.19 New Medical School (now known as Blackburn Building) 1933

(source: *Building*, 12 October 1933, p.22, illustrated in Blackburn Building CMP (2002)

Additional ground disturbance in the immediate vicinity occurred when the adjacent Bosch buildings (D04 & D05) and the associated landscaped Blackburn forecourt were constructed in the 1960s, further diminishing the potential for finding any archaeological evidence.

Conclusion: The construction of the SWAOHB on the proposed site is unlikely to have any adverse impact on the Aboriginal cultural heritage values of this part of the University campus. The potential for the preservation of in-situ Aboriginal archaeological deposits within the SWAOHB site is low due to previous extensive ground disturbance. It would be prudent, however, to prepare an “unexpected finds” procedure.

6.8 Potential Impacts on the Character and Heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes

Discussion: Historically, the New Medical School (Blackburn Building) located in the south western section of the Camperdown Campus, bounded by University Oval No.1, Wesley College, St Andrew’s College and RPAH, has always been slightly detached from the rest of the University. There is presently neither a strong physical or visual connection between the buildings nor landscape to the rest of the Camperdown campus; to the point where the Blackburn Building had a closer physical tie with the RPAH. The new Health Precinct, of which the SWAOHB is Stage 1, aims to reinforce the connections, visually and physically, between its various neighbours and the rest of the University.

Conclusion: The construction of the SWAOHB (Health Precinct Stage 1) on the proposed site and its associated landscaping will improve the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes.

7.0 Conclusions and Recommendations

7.1 Conclusions

With reference to the issues identified in the SEARS the HIS concludes the following:

i) Significant heritage items on site:

The moderate adverse impact on the overall significance of the University due to the demolition of Blackburn Building is acknowledged. In accordance with University procedures an archival record of the Blackburn has been prepared and numerous items identified for retention and future interpretative purposes. An Interpretation Strategy for the overall Health Precinct, with a focus on the the SWAOHB (Stage 1), has been prepared.

ii) Adjacent Significant Heritage Items:

The impact of the proposed SWAOHB on the cultural significance of the adjacent heritage items, including:

Royal Prince Alfred Hospital (the Administration Block, Victoria and Albert Pavilions, and Gloucester House);

St Andrew's College;

Wesley College;

Bosch 1A Building (D04) and Bosch 1B Building (D05);

University Oval No.1 Grandstand; and

the L.E.F.Neill Fountain

is acceptable.

iii) The Cultural Landscape

The SWAOHB and its associated landscaping replaces a Modern (1960s) landscape of Moderate significance with a new building integrated into a contemporary landscape. The impact of the SWAOHB and its associated landscaping on the cultural landscape is acceptable.

iv) Significant Views:

The demolition of the Queen Elizabeth II Research Institute and Victor Coppelson Building (D02) and the siting of the SWAOHB will enhance the highly significant A5 view corridor, in accordance with GCMP Policy 18. The siting of the SWAOHB and the future buildings in the Health Precinct will have no impact on the A6 planning axis, because its relevance is already diminished. The secondary B3 view line will be maintained, but with a different form of landscape. The overall impact of the SWAOHB on the various significant view corridors, therefore, is acceptable.

v) Potential Archaeological Relics

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and forecourt were built in the 1960s, further diminishing the potential for finding any archaeological evidence. Various archaeological reports which encompass the SWAOHB site conclude that the potential for archaeological relics is low, but it would be appropriate to maintain a watching brief.

vi) Aboriginal Cultural Heritage Values and Potential Archaeology:

None of the places identified in the Aboriginal Heritage Impact Assessment (2016) as retaining Aboriginal cultural values on the University of Sydney campus are located near the proposed SWAOHB.

Due to the excavation associated with the construction of the Blackburn Building (1931-33) and the later Bosch complex and its associated landscaping (1960s), the various archaeological reports which encompass the SWAOHB site conclude that the potential for the preservation of in-situ Aboriginal archaeological deposits within the proposed SWAOHB site is low. It would be prudent, however, to prepare an "unexpected finds" procedure.

vii) The character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes:

Historically, the Blackburn Building (new medical school), located in the south western section of the Camperdown Campus and bounded by University Oval No.1, Wesley College, St Andrew's College and

RPAH, has always been slightly detached from the rest of the university. There is presently neither a strong physical or visual connection between the buildings or landscape to the rest of the Camperdown campus; to the point where the Blackburn Building had a closer physical link with the RPAH. The new Health Precinct, of which the SWAOHB is Stage 1, aims to reinforce the connections, visually and physically, between its immediate neighbours and the rest of the University.

The overall conclusion of this heritage assessment is that the proposed Susan Wakil AO Health Building (Health Precinct Stage 1) will improve the overall character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes, subject to the following mitigation measures: the preparation of an Archaeological Unexpected Finds Procedure and the implementation of the Interpretation Strategy.

7.2 Recommendation

The proposed Susan Wakil AO Health Building (Health Precinct Stage 1) could be approved subject to the preparation of an Archaeological Unexpected Finds Procedure and the implementation of the Interpretation Strategy.

Appendix 6: University of Sydney, Blackburn Circuit Services Diversions, associated with the proposed Susan Wakil AO Health Building (D06) Statement of Heritage Impact.

**University of Sydney
Blackburn Circuit Services Diversions,
associated with the proposed Susan Wakil AO Health Building (D06)**

Statement of Heritage Impact

Prepared by

Ian Kelly, Heritage Consultant for
Campus Infrastructure and Services

(February 2018)

Table of Contents

Executive Summary	1
1.0 Introduction	3
1.1 Background	3
1.2 Report Objectives	3
1.3 Methodology	3
1.4 Site location	3
1.5 Heritage Status	5
1.6 Statutory Controls	7
1.7 Authorship	7
2.0 Historical Summary	9
2.1 Contact and Initial European Occupation (1788-1850)	9
2.2 Establishment of Campus (1850-1900)	9
2.3 Development of Campus (1900-1920)	11
2.4 Campus Master Plans (1900-1920)	11
2.5 Development of Campus (1920-1929)	12
2.6 Development of Campus (1929-1940)	14
2.7 New Medical School (1931-33)	14
2.8 Expansion of Campus (1945-1975)	15
2.9 Development of Campus (1975-1990)	15
2.10 Expansion of Campus (1990-2000)	16
2.11 Development of Campus (2000-2015)	17
2.12 Development of Campus (2000-2015)	18
3.0 Analysis of Physical Evidence	20
3.1 Description of the Site	20
4.0 Assessment of Significance	21
4.1 Statement of Significance	21
4.2 Grading of Elements Contributing to Heritage Significance	22
4.3 Aboriginal Heritage Assessment	24
4.4 Archaeology Assessment	24
4.5 Heritage Items in the Vicinity	26
5.0 Description of the Proposal	27
5.1 Precinct Development	27
6.0 Assessment of Heritage Impact	29
6.1 Heritage Impact Analysis	29
6.2 Potential Impacts on Heritage Items on Site	29
6.3 Potential Impacts on Adjacent Heritage Items	30
6.4 Potential Impacts on Cultural Landscapes	34
6.5 Potential Impacts on Significant Views	37
6.6 Potential Historical Archaeology	39
6.7 Aboriginal Cultural Heritage Values and Archaeology	39
6.8 Potential Impacts on the Character and Heritage of the University of Sydney, University Colleges and Victoria Park	40
7.0 Conclusions and Recommendations	41
7.1 Conclusions	41
7.2 Recommendations	41
8.0 Appendices	42

Appendix A

The University of Sydney Grounds Conservation Management Plan (2017), prepared by the Planning Team, Campus Infrastructure and Services

Appendix B

University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016)

Appendix C

Blackburn and Veterinary Science Precincts Statement of Heritage Impact prepared by Clive Lucas Stapleton & Partners (2013)

Appendix D

Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013)

Executive Summary

This Statement of Heritage Impact (SHI) has been prepared to accompany the Review of Environmental Factors (REF) for the Blackburn Circuit Services Diversions works, in association with the proposed Susan Wakil AO Health Building, which is part of the Stage 1 of the Health Precinct at the University of Sydney Camperdown Campus.

The SHI addresses the impact of the proposed ground works on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes.

In preparing the SHI reference was made to drawings prepared by Laing O'Rourke (dated 09 Nov.2017) and drawings prepared by Arcadia Landscape Architecture (dated August 2017). Also referenced were the University of Sydney Grounds Conservation Management Plan (2017), the CIP documentation (SSD 6213), the Aboriginal Heritage Impact Assessment (2016), a number of archaeological reports, and the Aborigicultural Impact Assessment (2017).

With reference to the identified heritage issues the HIS concludes the following:

i) Significant heritage items on site:

There are no items of heritage significance on the site of the Blackburn Circuit Services Diversions works.

ii) Adjacent Significant Heritage Items:

The impact of the proposed Blackburn Circuit Services Diversions works on the cultural significance of the adjacent heritage items, including:

- i) Blackburn Building (D06), partially demolished;
- ii) Bosch 1A Building (D04);
- iii) University Oval No.1 Grandstand; and
- iv) the L.E.F.Neill Fountain

is acceptable.

iii) The Cultural Landscape

The impact of the proposed Blackburn Circuit Services Diversions works, and the subsequent proposed contemporary landscaping of the Lower Wakil Garden and the Turpentine Forest, on the University's cultural landscape is acceptable.

iv) Significant Views:

The temporary disruption to significant views caused by the Blackburn Circuit Services Diversions work is an acceptable necessity to enable the long term improvement on the various significant view corridors across the new Health Precinct.

v) Potential Archaeological Relics

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and Blackburn Circuit were built in the 1960s, further diminishing the potential for finding any archaeological evidence. Various archaeological reports which encompass the whole SWAOHB site, including the Blackburn Circuit Services Diversions site, conclude that the potential for archaeological relics is low, but it would be appropriate to maintain a watching brief.

vi) Aboriginal Cultural Heritage Values and Potential Archaeology:

None of the places identified in the Aboriginal Heritage Impact Assessment (2016) as retaining Aboriginal cultural values on the University of Sydney campus are located near the proposed works.

Due to the excavation associated with the construction of the Blackburn Building (1931-33) and the later Bosch complex and the associated landscaping of Blackburn Circuit (1960s), the various archaeological reports conclude that the potential for the preservation of in-situ Aboriginal archaeological deposits within the subject site is low. It would be appropriate to maintain a watching brief.

vii) The character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes:

The conclusion of this heritage assessment is that the proposed Blackburn Circuit Services Diversions, in association with the proposed Susan Wakil AO Health Building (Health Precinct Stage 1), will improve on the overall character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes and, therefore, could be approved subject to maintaining an archaeological watching brief.

1.0 Introduction

1.1 Background and Purpose of the Statement of Heritage Impact

This Statement of Heritage Impact (SHI) has been prepared to accompany the Review of Environmental Factors (REF) for the Blackburn Circuit Services Diversions. This work is being undertaken in preparation for the construction of the proposed Susan Wakil AO Health Building (approved SSD 7974), which is Stage 1 of the Health Precinct at the University of Sydney Camperdown Campus.

1.2 Report Objectives

The SHI addresses the impact of the proposed ground works on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes;

1.3 Methodology

This SHI has been prepared generally in accordance with the principles and guidelines of *The Burra Charter (the Australia ICOMOS Charter for Places of Cultural Significance)* and the methodology described in the Statements of Heritage Impact prepared by the NSW Heritage Office.

1.4 Site Location

The University's proposed Health Precinct is located in the south western sector of the University of Sydney's Camperdown campus. (Fig.1.1) The site of the proposed Blackburn Circuit Services Diversions (the subject of this HIS) is presently a landscaped area bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Blackburn Building (D06), which is currently being demolished. (Fig.1.2)

In this report reference to the University of Sydney (the University) refers specifically to the Camperdown Campus, as distinct from the adjacent Darlington Campus which is located on the southern side of City Road. The Camperdown Campus is bounded on the north by Parramatta Road, east by Victoria Park, south by City Road and St Paul's College, and west by St Andrew's College, Royal Prince Alfred Hospital and St John's and Sancta Sophia Colleges.

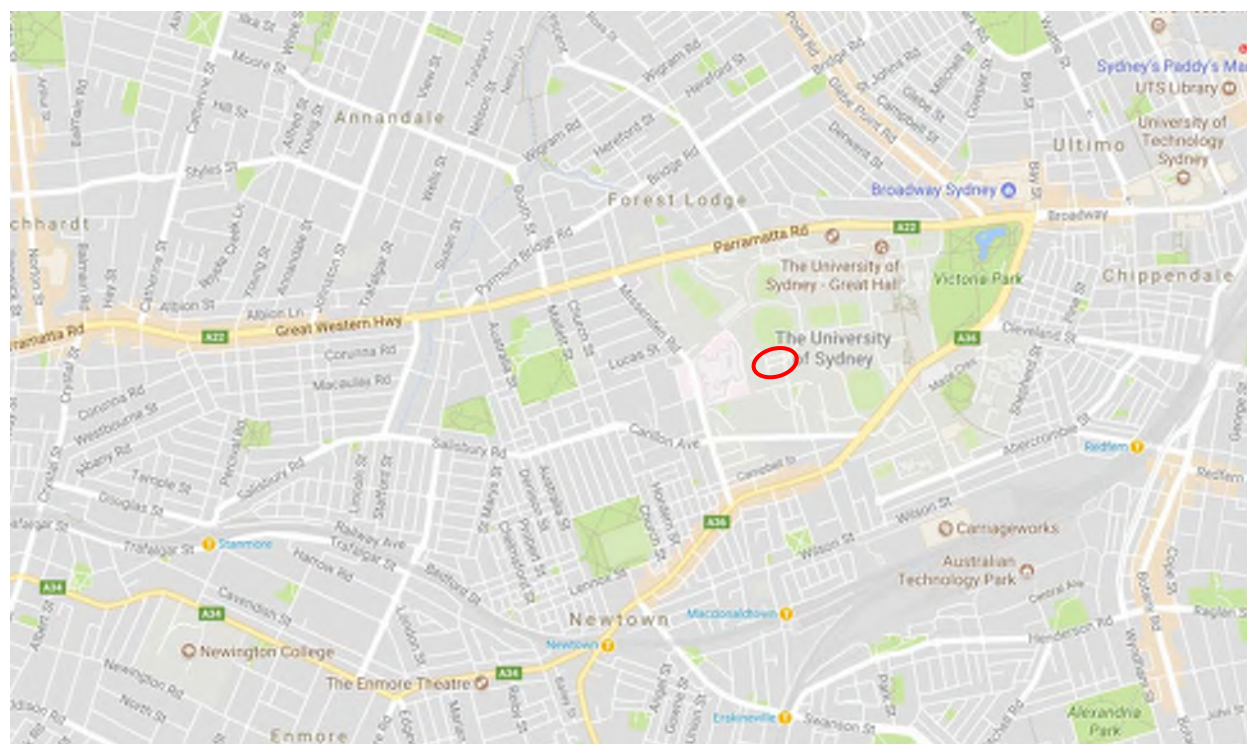


Figure 1.1 Site of the proposed Blackburn Circuit Services Diversions, University of Sydney - Camperdown Campus

(source: www.google.com.au/maps/@-33.8875706,151.1861839,15z)

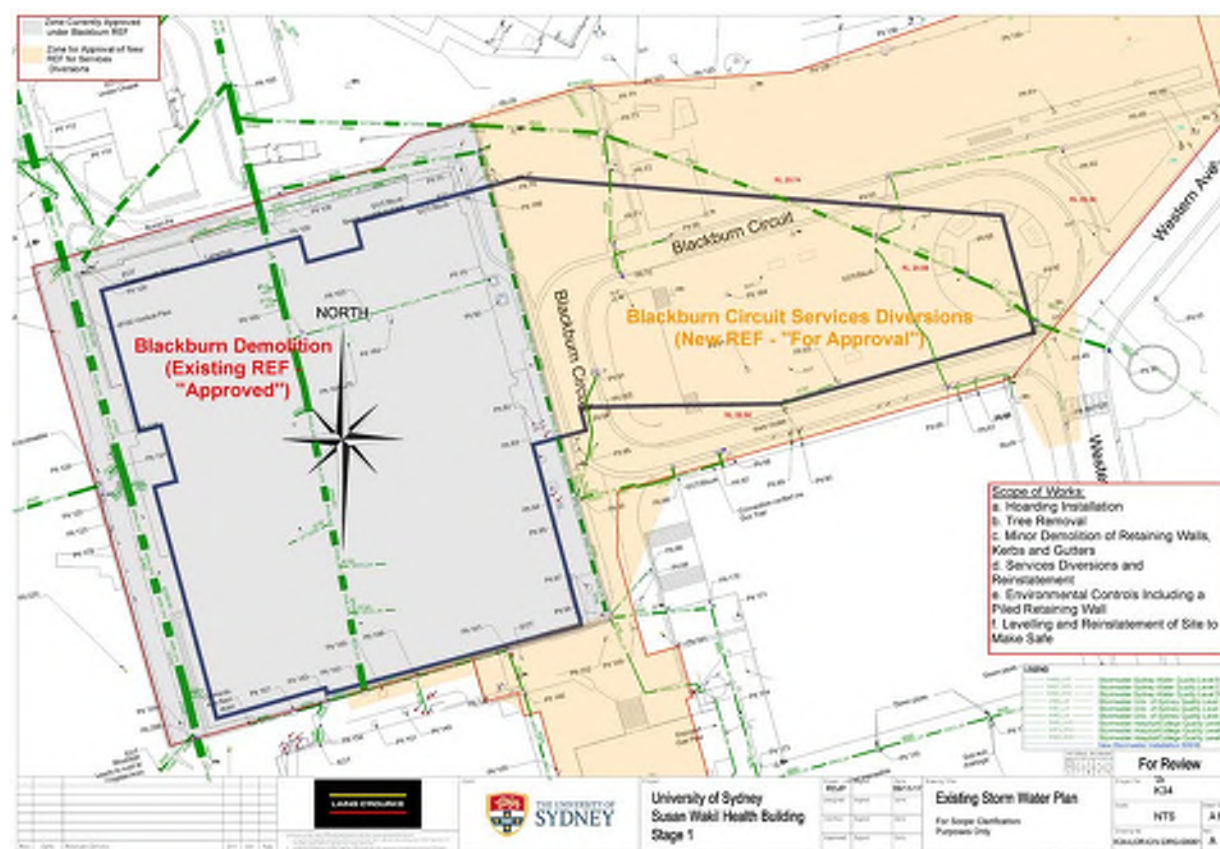


Figure 1.2 Site of the proposed Blackburn Circuit works, University of Sydney - Camperdown Campus

(source: Laing O'Rourke, dated 09 Nov., 2017)

1.5 Heritage Status

Various statutory and non-statutory heritage registers, schedules and lists have been checked to ascertain whether The University of Sydney campus and its component buildings and landscape spaces are listed. These listings are detailed below.

1.5.1 Statutory Listings

i) Register of National Heritage Places

The Register of National Heritage Places is maintained by the Australian Heritage Council, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The University of Sydney, its grounds and buildings are not listed on the Register of National Heritage Places. It is noted that a number of University buildings were listed as having heritage value on the Register of the National Estate (RNE). Since 2007, however, the RNE has been a non-statutory archive. All the University buildings listed in the RNE archive are included in the University's Section 170 Heritage and Conservation Register. (see below.)

ii) State Heritage Register

Under the NSW Heritage Act 1977, the Heritage Council maintains the State Heritage Register (SHR), a register of items and places considered to be of heritage significance to the State of NSW.

The University's Camperdown and Darlington campuses are currently not listed in whole, or in part, on the SHR, nor are any individual items listed on the SHR. The Heritage Council resolved (December 2017) to recommend to the Minister for Heritage to list the University of Sydney, the University Colleges and Victoria Park as a collective heritage item on the State Heritage Register, but the proposed SHR listing has not yet occurred.

iii) Section 170 Heritage and Conservation Register

The University of Sydney, as a Crown body, is required under Section 170 of the NSW Heritage Act 1977 to identify, conserve and maintain those heritage items under its ownership and control.

The University's Heritage and Conservation Register (commonly referred to the s.170 Register) lists 52 heritage items located within the Camperdown – Darlington campus. The University's s.170 Register does not assign a level of significance to each heritage item, however the recent revision of the *University of Sydney Grounds Conservation Management Plan (2016)* addresses this issue and has ascribed a relative grading of heritage significance to each of the heritage items that contribute to the overall cultural significance of the University campus. (Fig.1.2)

The Blackburn Circuit site is surrounded by buildings which have varying levels of heritage significance, including the; Blackburn Building (D06) (Moderate Significance); Wesley College (High significance); Bosch 1A Building (D04) (Little Significance); University Oval No.1 Grandstand (Little Significance) and L.E.F.Neill Fountain (Some significance).

The GCMP also provides a grading of the cultural significance of Character Areas and Landscapes. The Blackburn Circuit site is designated as being a Character Area of Moderate significance, with a number of trees of Exceptional significance bordering the adjacent University Oval No.1. (Fig.1.3)

In both instances the relative grading of significance - Exceptional, High, Moderate, Little or Intrusive – assists the University in making decisions to minimise any adverse impact on an item of heritage significance. (It should be noted that a number of more recent buildings on the University campus are too new to have been assessed for their heritage significance. Buildings on adjacent land, not owned by the University, were not assessed.)

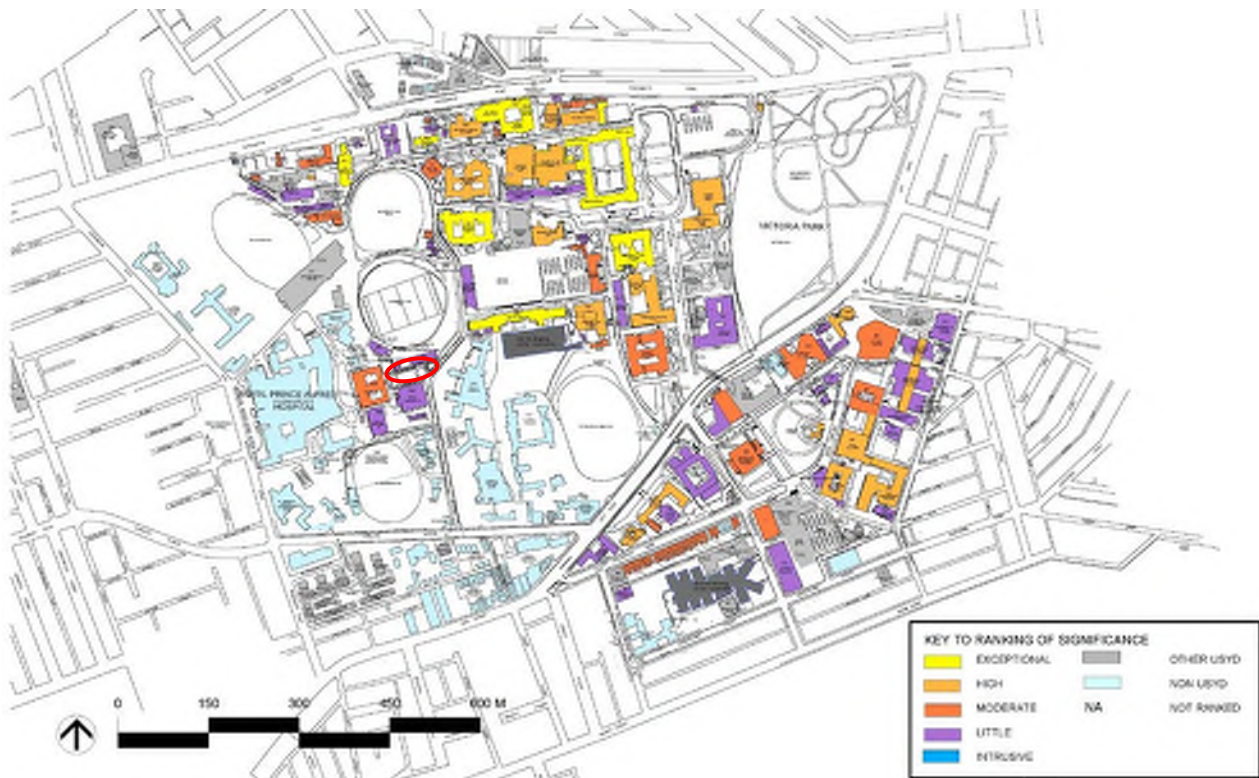


Figure 1.2 Relative grading of heritage significance of buildings across the University campus
(source: University of Sydney Grounds Conservation Management Plan (2017))

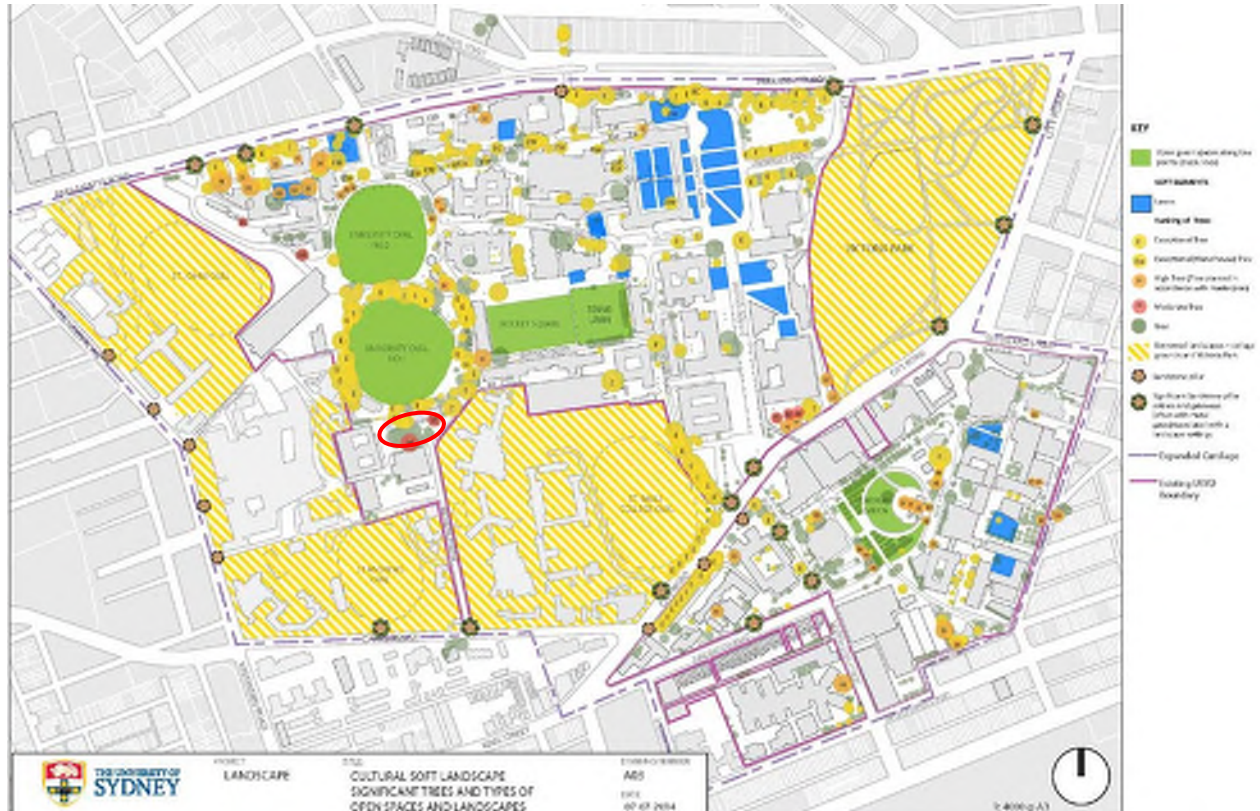


Figure 1.3 Relative grading of Significant Trees, Open Spaces and Landscapes
(source: University of Sydney Grounds Conservation Management Plan (2017))

iv) City of Sydney Local Environment Plan 2012

The University of Sydney is located within the jurisdiction of the City of Sydney Council. The University's Camperdown campus is listed as a General Conservation Area in the Sydney LEP 2012 heritage inventory (Item C5 - Sydney University Conservation Area). Numerous individual heritage items are also listed in the Sydney LEP 2012. All the heritage items listed in the Sydney LEP 2012 are also listed in the University's Section 170 Register.

The City of Sydney Register of Significant Trees (2013) lists the trees lining Western Avenue (Item C-263), which is to the east of Blackburn Circuit, as being significant.

1.5.2 Non-Statutory Listings

i) National Trust of Australia (NSW) Classified Buildings.

The National Trust has classified 32 individual buildings, precincts or items located within the University campus as having heritage value. With the exception of the Darlington Road terrace houses, International House and the Greenwood & Batley Materials Testing Machine (located in the School of Civil Engineering), all the other classified items are listed in the University's Section 170 Register. The Blackburn Building (D06) and Blackburn Circuit are not listed.

Although the National Trust's classification of a heritage item does not have any legal force, the heritage significance of any of the classified items impacted by the proposed works has been taken into consideration in this Heritage Impact Assessment.

ii) Australian Institute of Architects (NSW) Register of Significant Architecture in NSW

The AIA Register of Significant Architecture in NSW lists 34 heritage items on the University campus, 25 of which are listed on the University's Section 170 Register. The other 9 buildings on the AIA list are all post-WWII buildings located within the Engineering Precinct on the Darlington campus. The Blackburn Building (D06) and Blackburn Circuit are not listed.

1.5.3 Historical Archaeology

The NSW Heritage Act 1977 provides for the management of archaeological relics. The disturbance or development of a site containing archaeological relics may require the issue of a permit under section 140 of the Heritage Act. The Heritage Division is responsible for the issuing of permits to undertake archaeological excavation.

There are no statutory heritage listings that identify any archaeological relics or archaeological sites within the University of Sydney campus.

1.5.4 Aboriginal Archaeology

There are no statutory heritage listings that identify any indigenous archaeological relics or archaeological sites within the University of Sydney campus.

1.5.5 Aboriginal Cultural Significance

The Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016), has identified several sites across the University campus as having cultural significance to the Aboriginal community. The sites of Aboriginal cultural significance are some distance from the Blackburn Circuit site.

1.6 Statutory Controls

Planning controls under the City of Sydney LEP are limited to the zoning of the University campus as 'SP2 Educational Establishment' and the identification of heritage items on the Heritage Maps. There are no LEP planning controls affecting the Blackburn Circuit site..

1.7 Authorship

This Heritage Impact Assessment has been prepared by Ian Kelly (M.Arch), Heritage Consultant for Campus Infrastructure and Services, University of Sydney.

The following documents, prepared by experienced heritage consultants, have supported the preparation of this report:

- University of Sydney Grounds Conservation Management Plan, prepared by the Planning Team,

- Campus Infrastructure and Services (2017);
- University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016);
- Blackburn and Veterinary Science Precincts Statement of Heritage Impact prepared by Clive Lucas Stapleton & Partners (2013);
- Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013); and
- Aboricultural Impact Assessment, prepared by Tree IQ (August 2017)

In preparing the SHI reference was made to drawings prepared Laing O'Rourke (dated 09 Nov.2017) and drawings prepared by Arcadia Landscape Architecture (dated August 2017).

2.0 Historical Summary

The following historical summary is a précis of the University campus history as detailed in the University of Sydney Grounds Conservation Management Plan (2017).

2.1 Contact and Initial European Occupation (1788- 1850)

The land on which the University of Sydney is located within the traditional land of the Cadigal people. There are no detailed descriptions of the vegetation and animal communities that inhabited this district, nor has any archaeological evidence relating to pre-colonial Aboriginal occupation or use of the area been found within the University grounds. Although historical records provide many descriptions of early British colonial life around Port Jackson, none of them identify any definitive associations with the land that was set aside as the site for the University of Sydney.

In 1789 Governor Phillip formally divided one thousand acres around Petersham Hill for Crown, church and school purposes. In 1792 Lieutenant-Governor Francis Grose was granted 30 acres out of the 400 acres that had been designated for church or glebe land, which he then farmed. Grose sold the leasehold when he left the colony in 1794, but the land continued to be known, and marked on maps, as Grose Farm until the mid-1800s.

During Governor Macquarie's administration the land surrounded by Parramatta, Newtown, St Paul's and Missenden Roads (some 194 acres) was fenced for the agistment of horses and cattle. The area to the south east was later developed into part of the suburb of Darlington.

2.2 Establishment of Campus (1850-1900)

In the 1840s the rising class of bankers, manufacturers and professional men saw a growing need for the state to provide a higher level (tertiary) of education. At the time it was necessary to travel abroad to acquire a university education. In particular, the legal and medical professions saw a need to provide local education in these fields. As a result of local agitation an Act to incorporate and endow the University of Sydney was passed on 1 October 1850.

The structure and philosophy of the University of Sydney was based on the models of London, Edinburgh and Dublin universities, which provided a non-denominational, non-residential, education in fields more appropriate to the commercial, scientific and professional interests of an industrial democracy. In the early years the University offered a narrow curriculum.

In 1854 the University was authorised to take possession of 126 acres of land at Grose Farm, an area bounded by Parramatta Road, St Paul's Road (Carillon Avenue), Newtown (City) Road and Missenden Road, on which to construct the university and university college buildings. A building fund of £50,000 was established, originally to be provided in annual installments of £5,000 - £10,000, but this requirement was waived to enable a more rapid completion of the buildings.

In the mid-19thC British architects were immersed in a heated debate on the appropriate architectural style (the Battle of the Styles - Classicism versus Gothic/Elizabethan) for public buildings. In Sydney, the Gothic Revival style was recommended for the University buildings because the building form could more easily be extended as the needs of the University grew.

The Great Hall and the East Wing, built between 1855 and 1863, established the stylistic template for the rest of the Quadrangle and several, later, substantial campus buildings. Situated atop the Petersham ridge, the tall sandstone buildings, echoing the form of the great English universities, were clearly visible from the city. (Fig.2.1)

Between 1856 and 1876 the University residential colleges of St Paul's (Anglican), St John's (Roman Catholic) and St Andrew's (Presbyterian) were built on land specifically set aside on the southern and western sides of the university campus. These college buildings were also designed in the preferred Gothic Revival style. The proposed Methodist college (Wesley) was not established within the stipulated 5 years and, consequently, in 1873 the designated site was assigned for the establishment of the Royal Prince Alfred Hospital. (Wesley College was eventually established in 1910 on a different site.)



Figure 2.1 View of the University building, looking up Main Drive, the approach avenue from Newtown (now City) Road (1870)

(source: University of Sydney Archives)

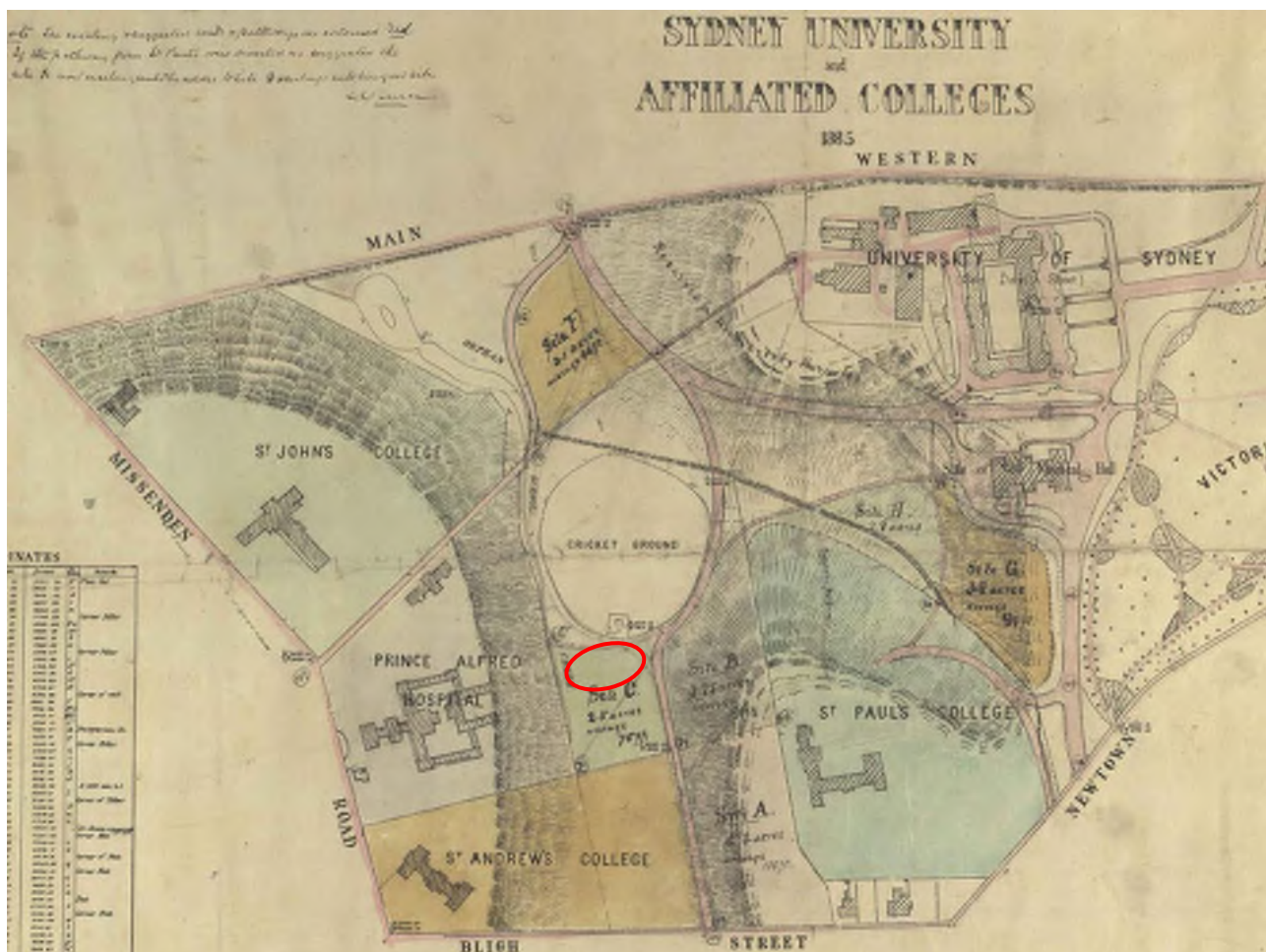


Figure 2.2 Detail from Survey of Sydney University and landscape (1885)

(Source: University of Sydney Archives G74/1/10)

By 1880's there was a shift from the concept of the University being a 'gentlemen's university' to a 'professional university'. This was reflected in the range of courses (Medicine and Science) and the teaching (night time classes) on offer. This educational growth was reflected in the construction of the Medical School (Anderson Stuart, 1889), Physics Laboratory (Badham, 1887), Chemistry (1890), the Natural History Museum (Macleay, 1891), and the School of Mines (old Geology, 1895). (Fig.2.2)

2.3 Development of Campus (1900-1920)

Professional education continued to expand in the early 20th Century. New courses, a number which led to their own degrees, were introduced including dentistry, agricultural science, veterinary science, architecture, economics and commerce, and education. This growth in courses and student numbers was matched by the construction of new buildings in the northern sector of the campus: Biology (Zoology, 1903), Engineering School (John Woolley, 1909), Fisher Library (MacLaurin Hall, 1909), Veterinary Science School (J.D.Stewart, 1912), Student Union Building (Holme, 1912), Agriculture (R.D.Watt, 1916) and the Teachers' College (1920).

2.4 Campus Master Plans (1900-1920)

It was the construction of these new buildings, however, that prompted the University to develop a campus master plan. In 1910 W.L.Vernon, the Government Architect, prepared a general plan for the development of the University grounds. A few years later his successor, George McRae, prepared a new campus plan (1913) showing existing and future buildings, and then Walter Burley Griffin was appointed to prepare a campus master plan.

Griffin's plan was presented to the University's Building and Grounds Committee on 22 January 1915. (Fig.2.3) This plan, which ignored the existing boundaries for the university colleges and Victoria Park as well as the position of the University oval, was described as an "admirable harmonious scheme", but it was criticised on the grounds of its practicality (it included new buildings on land not owned by the University) and cost.

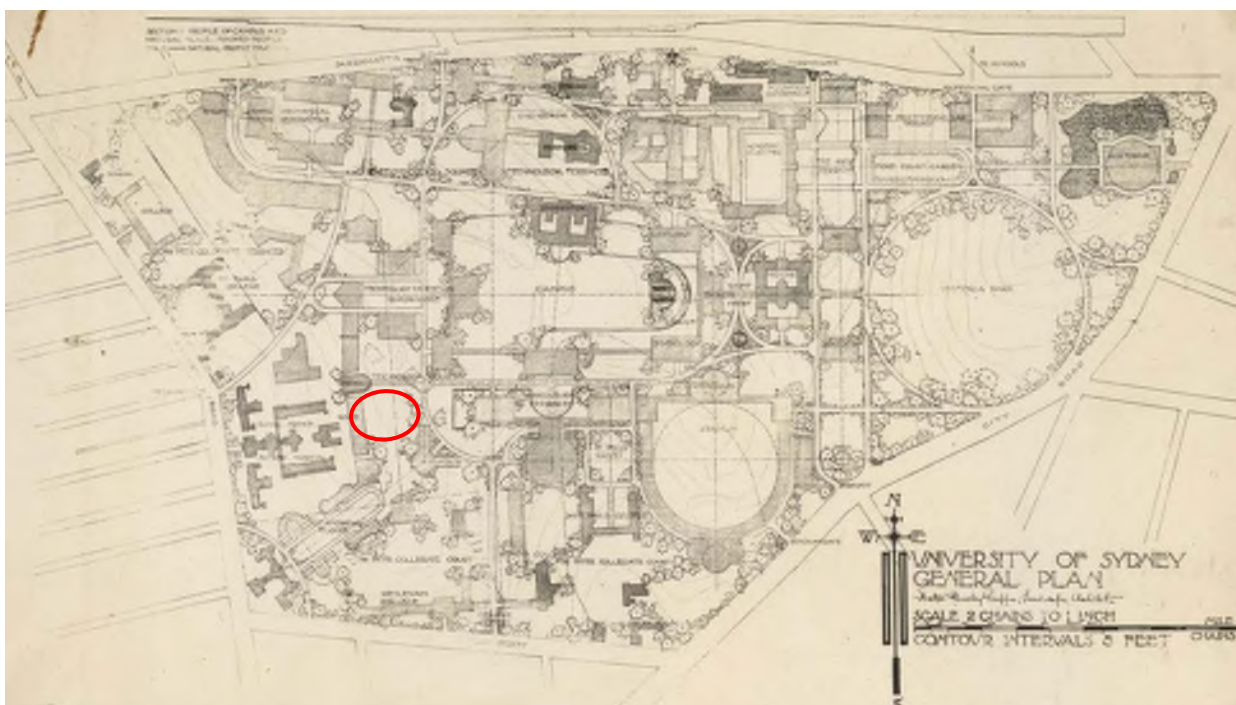


Figure 2.3: Walter Burley Griffin's General Plan for the University of Sydney, 1915.

(Source: Part of Eric Nicholls Collection, National Library of Australia, nla.pic-vn3603884-s210)

The Building and Grounds Committee requested Griffin's plan to be revised accordingly, but there is no evidence that a revised plan was ever prepared or submitted to the Committee. Consequently, in 1917, Gorrie Blair, the PWD Principal Design Architect, redrew and refined McRae's earlier plan, but due to war restrictions this plan was not implemented. (Fig.2.4)

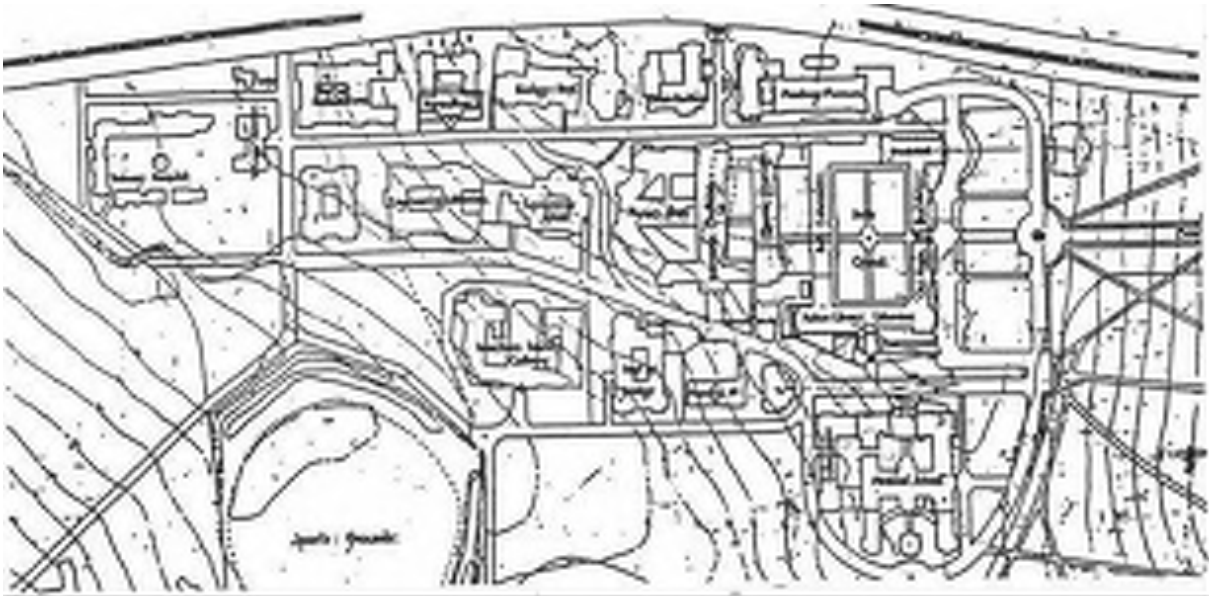


Figure 2.4 Site Master Plan by Government Architect (1917)
(source: Public Works Archives)

2.5 Development of Campus (1920-1929)

Following the cessation of WWI the University experienced unprecedented growth in student numbers. The University's capital works program was partly funded by the University (Building) Act (1919) whereby the NSW government voted to provide £50,000 annually for five years to enable the University to accommodate the doubling of students numbers.

In response the University requested Professors Leslie Wilkinson, Madsen and Craig to advise on the general layout of the University grounds. Their report, titled "A Plan showing suggested scheme for development", was presented to the Senate in 1920. (Fig.2.5)



Figure 2.5 Prof. Leslie Wilkinson's Campus Master Plan (1920)
(source: University of Sydney Archives)

Prof. Wilkinson, the first Chair of Architecture (1918) and University Architect (1920), believed that “the peaceful order of good buildings in beautiful surroundings is of paramount importance in creating the right environment for university life” and this ideal was reflected in his campus master plan.

The Wilkinson plan shows a series of new buildings ordered on planned axes. The principal east-west axis, centred on the Quadrangle Clocktower, served to reinforce the role of the Main Drive and University Place in defining the foreground of the Quadrangle. Wilkinson’s master plan also showed a new large building sited south of the Anderson Stuart Building, which would reinforce the eastern ridgeline of the campus, bounded by a straightened Eastern Avenue. The challenge with Wilkinson’s plan, like Griffin’s, was that it proposed new university buildings located on land not owned by the University, eg. Wilkinson proposed a new building, similar in footprint to his later Physics Building, behind the existing RPAH buildings.

Wilkinson’s master plan prompted the University to enter into discussions with the Sydney City Council for an exchange of land, culminating in 1924 when the University exchanged 7 ¾ acres, including the lake and the Main Drive, with the Sydney City Council for 9 acres of Victoria Park, primarily along the edge of Eastern Avenue. (Fig.2.6)

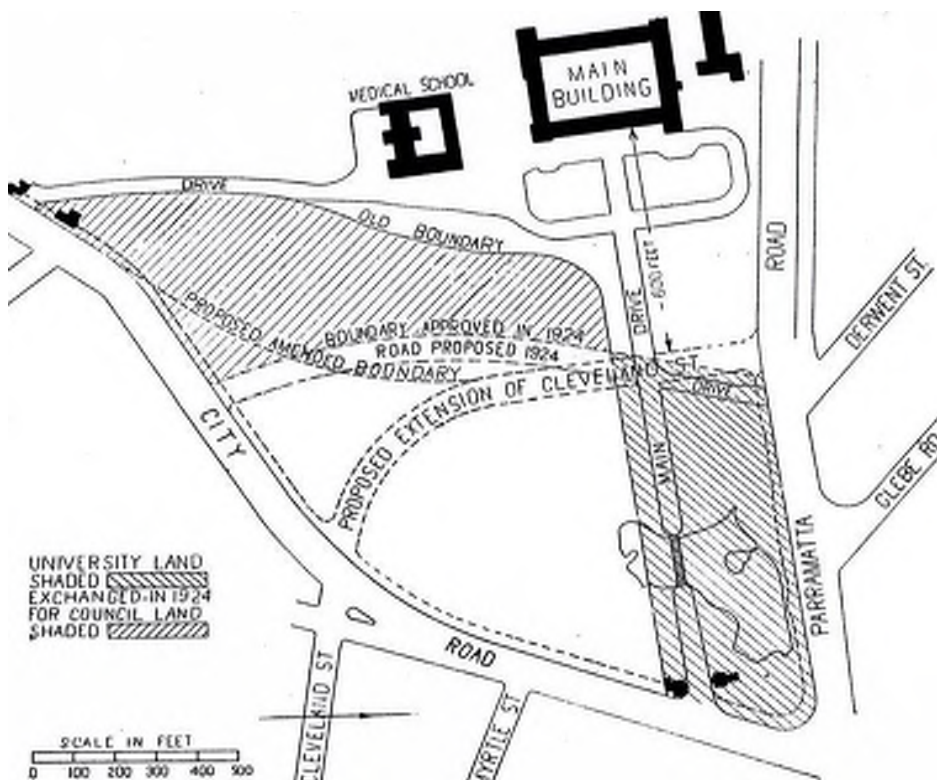


Figure 2.6 Plan showing the land transferred between the University and City of Sydney (1924)

(source: University of Sydney Archives)

Note: The City Council’s proposal for a new road connecting City and Parramatta roads, as shown on this plan, was dropped due to considerable public resistance. (Victoria Park Heritage Assessment 2010)

As a result of the land swap the Main Drive from City Road was truncated and the University’s secondary entrance, off Parramatta Road opposite Derwent Street (Fig. 2.7), served as the principal entrance. (Due to issues related to the land swap and the University’s finances, it was not until 1939 that the entrance gates and the associated gatekeeper’s house, now known as Baxter’s Lodge, were constructed in their current location, set well back from Parramatta Road.)



Figure 2.7 University of Sydney, viewed from Parramatta Road (c.1901)

(source: City of Sydney Archives, SRC 919.441 SYDN/27 #29)

2.6 Development of Campus (1929-1940)

The Depression years saw the campus building program slow down, with the exception of co-operative ventures with Commonwealth agencies. The Animal Health laboratory (McMaster, 1929) was a joint venture with the newly established Council for Scientific and Industrial Research. (CSIR) The Public Health and Tropical Diseases (Ford, 1930) was supported by the Commonwealth Government. The new Medical School building (Blackburn, 1933) was funded by the Rockefeller Medical Foundation and the CSIR building (Madsen, 1940) was the result of a Commonwealth decision to locate its National Standards Laboratory at the University.

2.7 New Medical School Building (1931-1933)

The new Medical School building (1931-33), largely funded by the Rockefeller Foundation, was later named the Blackburn Building in honour of Sir Charles Blackburn, Chancellor of the University (1941- 64) and former dean of the faculty of Medicine (1932-35). (The new Medical School building had been initially referred to as the Rockefeller Foundation building, however the Rockefeller Foundation had a policy of not naming buildings it had funded.)

Designed by the Government Architect, GA Evan Smith, the new Medical School building accommodated the University Departments of Medicine and Surgery, Obstetrics, Pathology and Bacteriology, providing both teaching and research facilities. As described in *Building* (Oct 1933) the building contained some 120 laboratories of various sizes, instruction laboratories for teaching, several large lecture halls, a library, museum and animal house. The departments were housed on separate floors: ground floor, Surgery; first floor, Medicine; second floor, Pathology; and third floor, Bacteriology and a small department of Obstetrics. The basement was left largely vacant for future expansion, with a surgical laboratory, dissecting and embalming rooms in the centre.

The building was designed so that the main entrance (east) served the research portion of the building, while the secondary entrance at the back (west) served the student section, where the lecture theatres, administrative rooms, etc. were situated. In response to the challenge of keeping the direct rays of the sun from streaming into the laboratories during normal working hours the corridor serving the laboratories on the north side of the building is located against the outside of the building, and acts as a screen to the laboratories, which face the internal area.

The architectural style of the Blackburn Building was quite unlike the Gothic Revival university buildings of the late 19thC, nor the Mediterranean style favoured by Prof. L.Wilkinson, instead it had a more industrial appearance, overlaid with Art Deco motifs.

2.8 Expansion of Campus (1945-75)

By mid-1940s, a number of elements of Wilkinson's plan had been completed. The Madsen building on Eastern Avenue, the Physics building and part of the Edward Ford building had been constructed. Manning House lay to the west of the Quadrangle, and Anderson Stuart building had reached its present stage of construction. The new entrance gate and Baxter's Lodge, off Parramatta Road, clearly marked the University's principal entrance.

Immediately after the Second World War, the large influx of students, including returned servicemen and women (by 1946 enrolments had doubled to 8,000 students) required a rapid expansion of teaching facilities. In some instance this was achieved through the erection of temporary timber framed buildings, most notably at Ross Street and on Fisher Road, but the biggest growth occurred across City Road in Darlington. Following the adoption of the Cumberland County Planning Scheme (1951) the State Government re-zoned part of Darlington for 'special uses' (aka. the University Extension area), which enabled the University to extend its campus across City Road. By 1975 the University's entire engineering faculty had been relocated to the new Darlington campus.)

On the Camperdown campus, the construction of the Chemistry (1958), Edgeworth David (1961) and Carslaw (1965) buildings, the Stephen Roberts lecture theatre (1962) and the new Fisher library (1962) and its associated Book Stack (1967) established the University's "east front" facing Victoria Park. These new buildings firmly established the physical alignment and visual character of the Eastern Avenue as it exists today.

The campus Development Plan (1961), prepared in the office of the University's Assistant Principal, indicates new buildings were to be constructed in the Health Precinct during the 1964-66 triennium, but the primary focus of campus development in this period was on the Darlington campus. (Fig.2.8)

2.9 Development of Campus (1975-90)

Australian universities faced a difficult financial time from the mid-1970s. In August 1975 the Commonwealth Government suspended the triennial grants. Funding cut backs resulted in the postponement of major building projects. Construction work over the following years was largely limited to the renovation and extension of existing buildings.

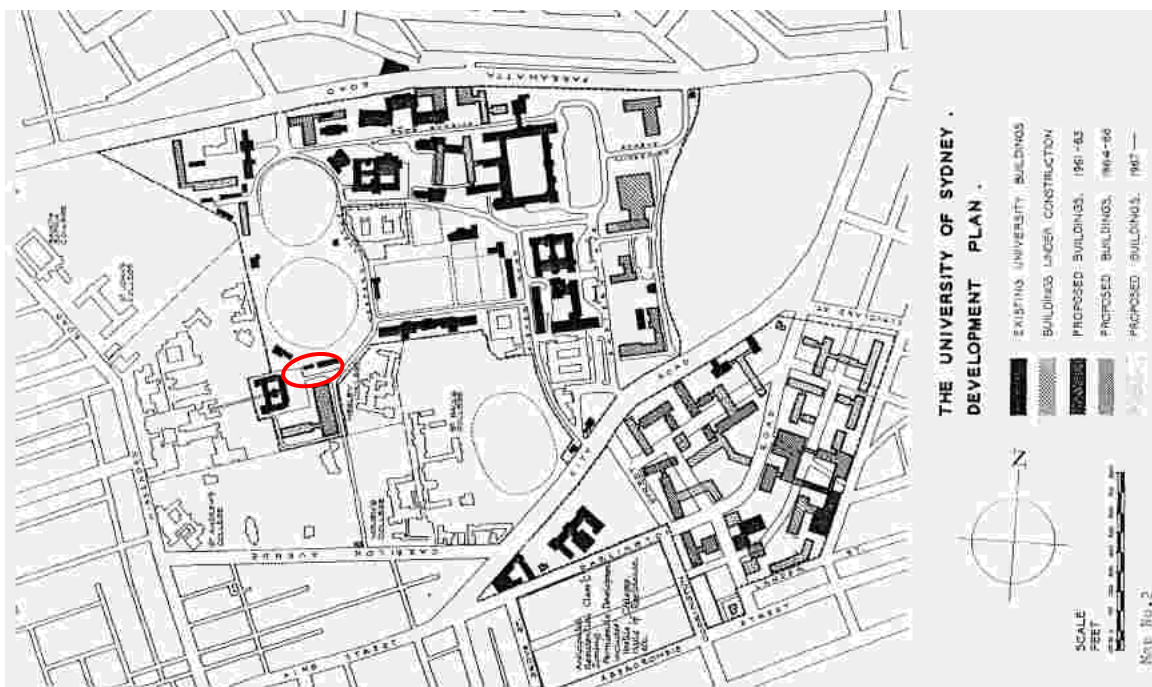


Figure 2.8 Draft Report on the Development of the University Site, prepared in the office of the Assistant Principal, W.H. Maze, May 1961.

(Source: University of Sydney Archives)

2.10 Expansion of Campus (1990-2000)

Student enrolments in 1989 had reached 19,076, with 3,846 full time staff and the University campus had increased to 72 hectares, a sizeable increase on the original 51 hectares of the Grose Farm site. Anticipating further development of the University campus, Conybeare Morrison was commissioned to prepare a University Strategy Plan (1990) (Fig.2.9), followed by a Landscape Master Plan (1993). (Fig.2.10) In both these plans the Blackburn and Bosch buildings were retained in-situ.

The community's notion of a university was changing; gaining a tertiary education was considered to be the norm, rather than elitist; enrolment fees were re-introduced by way of the Higher Education Contribution Scheme in 1990; and universities across Australia became active in the enrolment of full fee paying overseas students. The post-Modernist Education Building (1991) and the Economics and Business Building (2002) reflected the continuing growth in university teaching and also the divergent architectural styles for campus buildings.



Figure 2.9 University Strategy Plan 1990

(Source: *The University of Sydney Strategy Plan*, Conybeare Morrison & Partners 1990)



Figure 2.10 University Landscape Master Plan (1993), prepared by Conybeare Morrison & Partners
(source: University of Sydney Archives)

2.11 Development of Campus early 21st Century (2000-2015)

Over the next fifteen years a series of new buildings were constructed at the University, including the School of Information Technology Building (2006), the Jane Foss Russell Building (2008), and the new Law Building (2008).

The construction of the Jane Foss Russell and Law Buildings prompted a further redesign of the Eastern Avenue urban landscape (2008). In accordance with the Conybeare Morrison Landscape Masterplan (1993) Eastern Avenue was transformed into the University's major north south pedestrian zone linking the Camperdown and Darlington campuses. As part of these works the Wentworth pedestrian overpass was demolished and replaced by a new overpass connected to the Jane Foss Russell building; cars entering the Camperdown campus were diverted from Eastern Avenue to Fisher Road; the old University gates were transferred to the City of Sydney, and reconstructed in their original location at the entrance to the University's former Main Drive up through Victoria Park; and a large entry plaza created at the City Road end of Eastern Avenue.

Faced with the challenges of overcrowding in existing facilities and the need to renew aging buildings the University commissioned a comprehensive capital development plan, the Campus 2020 Plan (March 2008), prepared by Cox in March 2008 with an objective of unifying the Camperdown and Darlington campuses. The development of the Health Precinct was foreshadowed in the Campus 2020 Plan, with new buildings proposed to replace the two Bosch buildings. (Fig.2.11)



Figure 2.11 Campus in 2030, University Master Plan (2008), prepared by Cox Architects
(source: CIS, University of Sydney)

Consequently, three significant transformational projects - the Charles Perkins Centre for Obesity and Cardiovascular Disease (2013), the Australian Institute of Nanoscience, behind the Physics Building (2015); and the Abercrombie Business School, at the corner of Abercrombie and Codrington Streets (2016) – were constructed.

2.12 Campus Improvement Program (2014 - 2020)

In order to provide greater certainty for future campus development the University prepared the Campus Improvement Program (2014-20), which identified seven precincts suitable for redevelopment over the following decade. The CIP was lodged as a Stage 1 State Significant Development (SSD 6123) and approved by the Minister for Planning in March 2015. (Fig.2.12)

Precinct D in the CIP is identified as the Health Precinct, which will be a staged development. The Susan Wakil AO Health Building (SWAOHB) is Stage 1 of the Health Precinct redevelopment. (Fig.2.13) The Blackburn Circuit Services Diversion (the subject of this HIS) is preparatory work for the SWAOHB project.

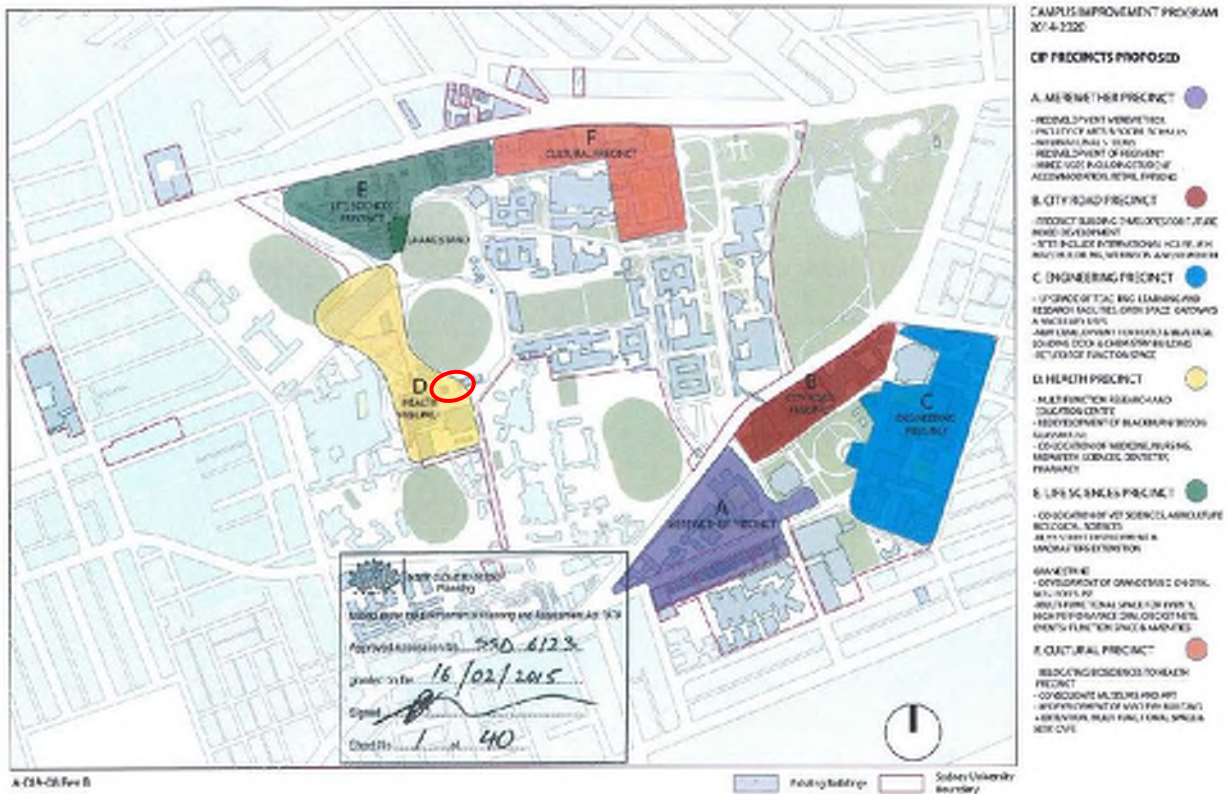


Figure 2.12 Campus Improvement Program (SSD 6123, approved 2015)
(source: CIS, University of Sydney)



Figure 2.13 Health Precinct Master Plan
(source: Drawing prepared by BLP/DS+R Architects, dated August 2017)

3.0 Analysis of Physical Evidence

3.1 Description of the Site

The University's proposed Health Precinct is located in the south-western sector of the Camperdown campus. (Fig.1.1)

The Blackburn Circuit site is bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Blackburn Building (D06). (Fig.3.1)

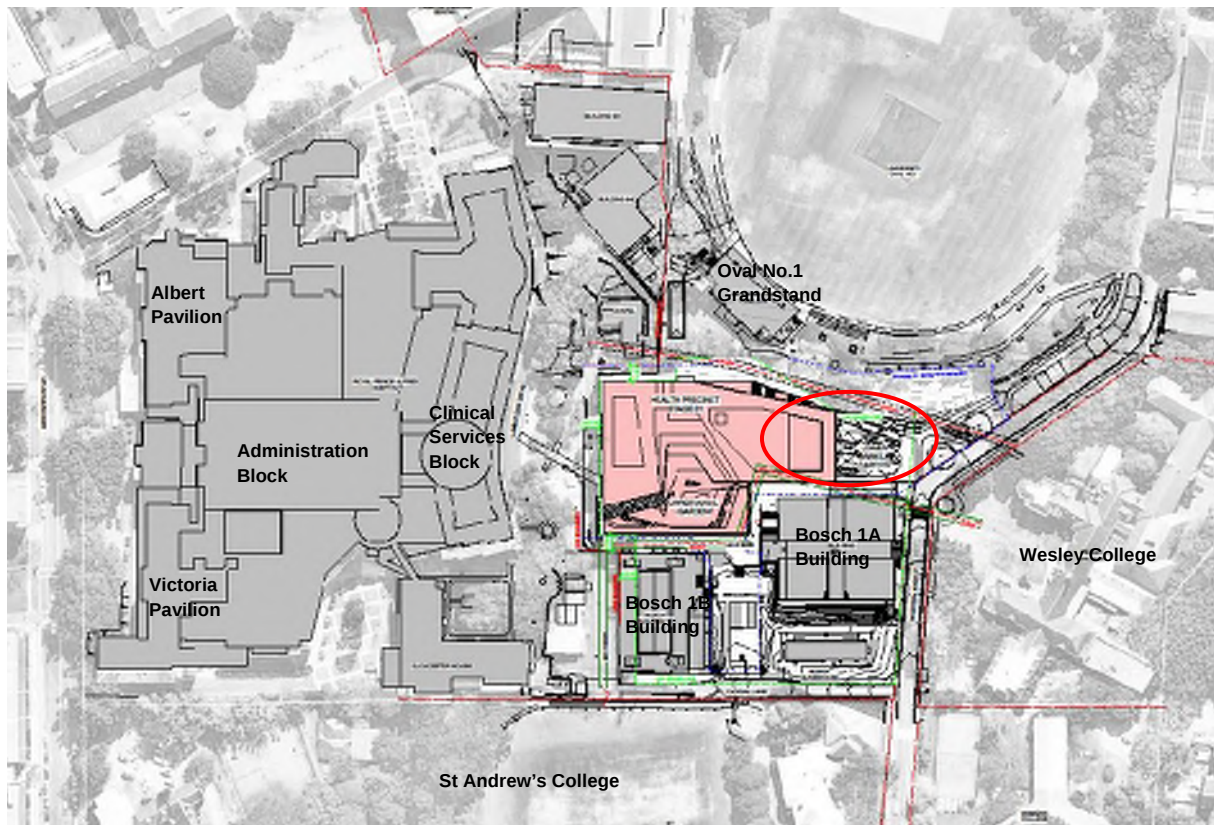


Figure 3.1 SWAOHB Site Plan (with Blackburn Circuit site highlighted)
(source: Drawing prepared by BLP/DS+R Architects, dated July 2017)

Wesley College is located to the east of the the Blackburn Circuit site and Western Avenue. St Andrew's College is located to the south of the site, separated by the Bosch Building 1A and Bosch Building 1B and Cadigal Lane.

4.0 Assessment of Significance

The University of Sydney Grounds Conservation Management Plan, 2017 (GCMP), prepared by the Planning Team, Campus Infrastructure and Services, provides a thorough description of the University campus. (Appendix A)

The GCMP ranks the heritage significance of campus buildings and identifies significant landscapes and landscape elements, key view corridors and planning axes, etc. The GCMP also provides conservation policies to ensure that the heritage significance of these buildings, significant landscapes and landscape elements, key view corridors and planning axes are appropriately managed as an integral part of the future developments on the University campus.

4.1 Statement of Significance

The following summary Statement of Significance is taken from the Grounds Conservation Management Plan (2017). This Statement of Significance provides an overview of the heritage significance of the University campus:

The University of Sydney, University Colleges and Victoria Park is regarded to be of state historical significance, as a vestige of Governor Phillip's original 1,000 acres (404 ha) 'Kangaroo Ground' Crown reserve of 1790 and for its connection to the 18th century British government's approach to colonialism and its concept of 'terra nullius' as the foundation for dispossession of Aboriginal land in the immediate area of Sydney.

The cultural landscape is regarded to be of state heritage significance for its ability to demonstrate activities of the colonial era (1792–1855) associated with Grose Farm, orphan school and convict stockade.

The place is regarded to be of state heritage significance in demonstrating the aspirations of colonial Sydney to shape its own society, polity and ideals that ultimately led to the establishment of the University of Sydney by Act of Parliament in 1850 and being granted land at Grose Farm in 1855.

The University of Sydney is regarded to be of state historical significance as the first and oldest university in Australia, dating from 1850. Reflecting in the cultural landscape changes in tertiary education, landscape design, institutional architecture, economic development and social attitudes; including the establishment of the first university college for women in Australia, Women's College in 1892.

The Main Quadrangle Building, the Anderson Stuart Building and the Gate Lodges, together with St Paul's, St John's and St Andrew's Colleges, as a rare composition, comprise what is the most important group of Gothic and Tudor Revival style architecture in New South Wales and potentially Australia; the landscape and grounds features associated with these buildings contribute to and support the existence and appreciation of their state aesthetic significance.

The cultural landscape is regarded to be aesthetically significant at a state level reflecting directly the influence of E.T. Blacket (1850s), Sir J. Sulman (1890s), W.B. Griffin (1910s), Professor L. Wilkinson (1920s) and the Government Architect's Office (1960s) in shaping the place. In particular, Blacket's location of the Great Hall and East Range of the Quadrangle (1854–1862) utilised the site's topography to provide a dramatic presentation of the University on approach from the city, a setting with planning axis that still remains.

The University of Sydney and Victoria Park as connected landscapes have tangible links to Charles Moore Director of the Royal Botanic Gardens (1848–1896) and subsequent designers using prevalent 19th century theories of landscape design, plant material and horticultural techniques.

Strongly associated with Professor Leslie Wilkinson and the implementation of his 1920 master plan, the University grounds, more than any other site, reflect Wilkinson's work in beautifying and unifying buildings and their settings. This pursuit of beauty can also be seen in the work of Professor E. G. Waterhouse, who made a significant contribution to the planning and planting of gardens in the Inter-war years.

The University of Sydney is regarded to be of state social significance for its role as a site for student activism during the 20th century, in particular, the 1965 Freedom Ride, Vietnam War and conscription protests.

The 1965 Freedom Ride, a bus tour of University of Sydney students led by Charles Perkins—the first Aboriginal person to head an Australian Government department—shone a spotlight on the parlous state of Australia's race relations and is now recognised as one of Australia's most significant civil rights events.

The University of Sydney Grounds contain part of the land developed during the 19th and early 20th centuries as the Sydney suburb of Darlington. Substantial remains of Darlington survive, represented by the Old Darlington School Building (G18), terraced housing along Darlington Road, several light industrial buildings and remnants of the former

street pattern.

The University of Sydney Grounds are held in regard by many Australians and other individuals and groups as a place of high university education, the place of their higher education, as the site of past events, including social protest, and especially for its research potential and for its fine buildings and landscape.

4.2 Grading of Elements Contributing to Heritage Significance

The significance of the University grounds is complex – the grounds are extensive and contain a large number and variety of buildings and landscape features. These items may have individual heritage significance, significance as part of a group, a precinct, or a linear feature (i.e., an axis or view corridor), as well as contributing to the overall significance of the whole University campus.

4.2.1 Significant Heritage Items

The Blackburn Building (D06) currently stands to the west of the Blackburn Circuit site. This building is identified as having Moderate heritage significance. There are a number of other heritage items in the immediate vicinity of the Blackburn Circuit Services Diversions site. (Fig.4.1)

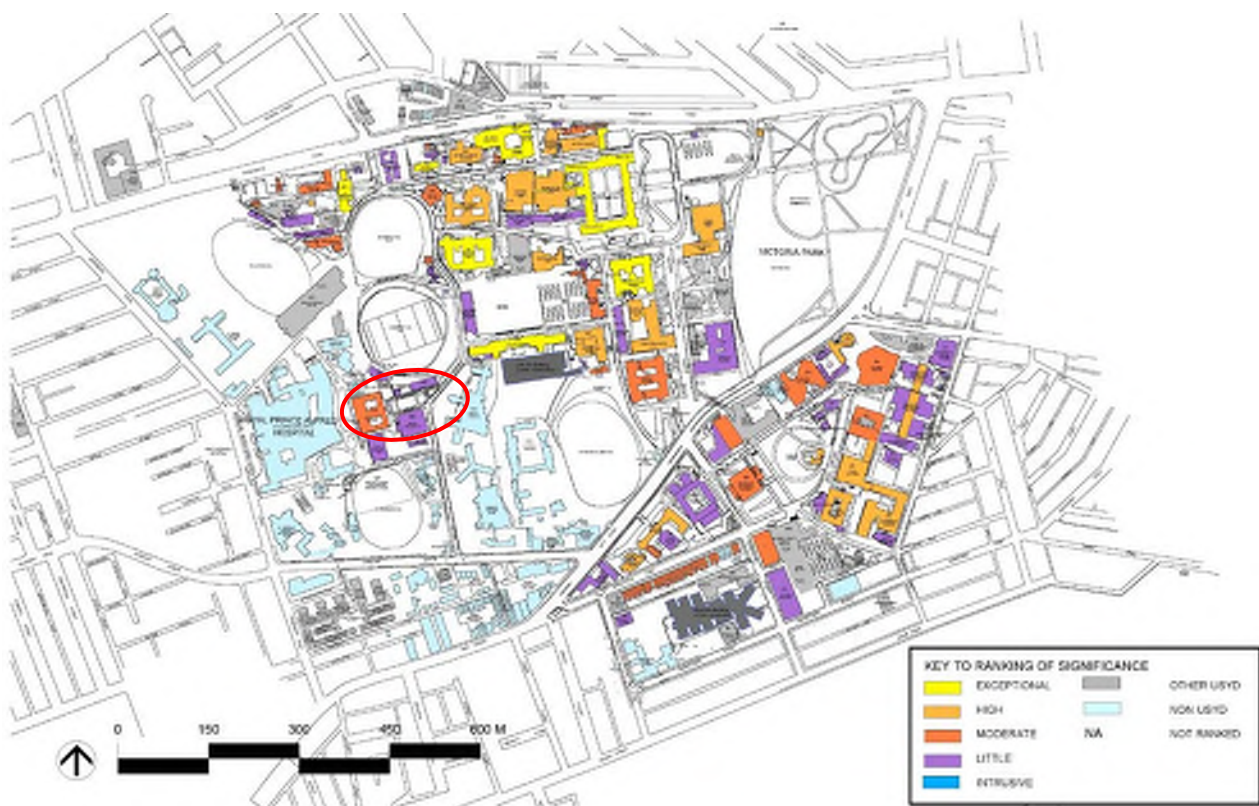


Figure 4.1 Relative grading of heritage significance of buildings adjacent to the development site

(source: University of Sydney Grounds Conservation Management Plan (2017))

4.2.2 Significant Views

The Grounds CMP (2017) identifies a number of significant view corridors and planning axes within the expanded curtilage of the University campus (Fig.4.2), that “should be retained and if possible enhanced.” (GCMP Policy 18) The principle view corridor in this part of the Camperdown campus is the north-south view along Western Avenue from Carillon Avenue to Parramatta Road. A planning axis, as distinct from an actual view corridor, was established when the Blackburn Building (1931-33) was aligned on the central axis of the Royal Prince Alfred Hospital Administration Block.

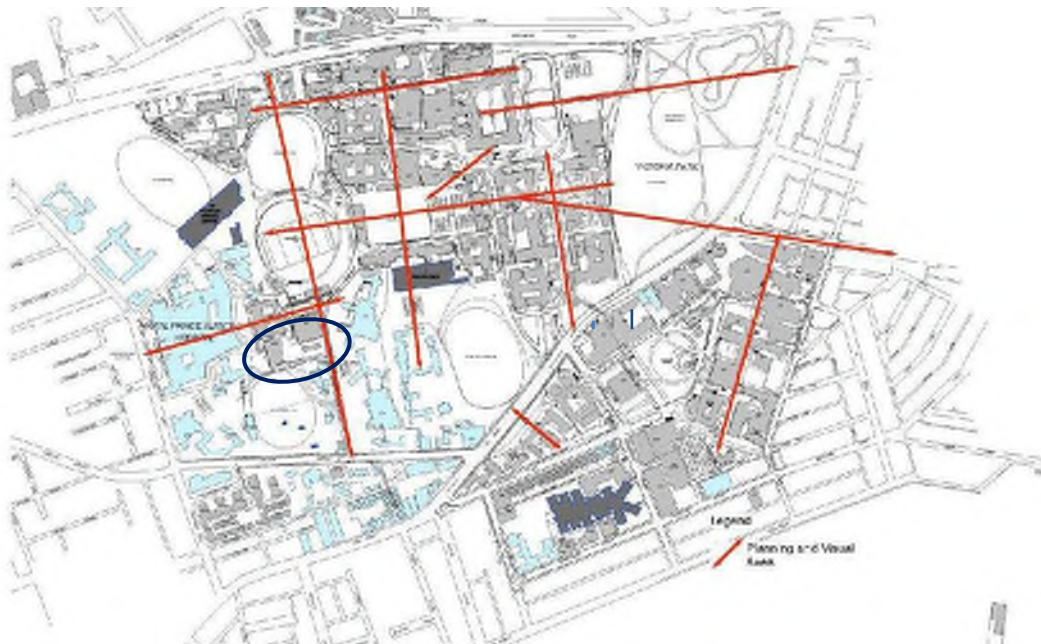


Figure 4.2 Significant view corridors and planning axes within the expanded curtilage of the University campus

(source: University of Sydney Grounds Conservation Management Plan (2017))

4.2.1 Significant Trees and Landscapes

The GCMP has identified the Significant Trees and Types of Open Spaces and Landscapes across the University campus. (Fig.4.3) The trees bordering Oval No.1 are ranked as having Exceptional significance, while in the Blackburn forecourt the large Fig tree is ranked as having Moderate significance and the numerous London Plane trees are ranked as having Some significance..



Figure 4.3 Significant Trees and Types of Open Spaces and Landscapes

(source: University of Sydney Grounds Conservation Management Plan (2017))

The City of Sydney *Register of Significant Trees (2013)* lists the trees lining Western Avenue (Item C-263), east of the SWAOHB site, as being significant.

4.3 Aboriginal Heritage Assessment

The Aboriginal Heritage Impact Assessment (AHIA) prepared by AHMS (February 2016) in consultation with the local Aboriginal community has identified places across the University's Camperdown and Darlington campuses which have Aboriginal cultural heritage values. (Appendix B) These places include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances." (AHIA, p.64.)

A number of Aboriginal heritage assessments of the University campus in general and for specific work sites, prepared over the past decade, have concluded that no archaeological sites or artefacts relating to Aboriginal occupation have been found within the University grounds.

There are, however, a number of areas within the University grounds which, because they have remained generally undisturbed, are regarded as being archaeologically sensitive. These areas are primarily ovals and playing fields, none of which are impacted by the proposed SWAOHB development.

The Grounds CMP (2017) identifies the Blackburn-Bosch Precinct (AA9) as an area having potential Aboriginal Archaeology (Fig.4.4), but assesses the area as being "heavily disturbed" and therefore its archaeological potential is Low. (GCMP, p.81)

The Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013), concludes:

"The current state of knowledge about the nature of past Aboriginal landscape use in the study area suggests that only few traces of these past inhabitants may be visible in the archaeological record. This result is a low potential for the preservation of in-situ Aboriginal archaeological deposits within the study area; however, if found these deposits would be of high archaeological significance due to their rarity." (AHDDR, p.34)

The GML conclusion was subsequently reinforced by the Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016), which concludes:

"Existing information suggests that much of the subject area (University campus) is heavily disturbed by historical activities. This disturbance has reduced or removed the potential for cultural materials to be present. In the unlikely event that in-situ deposits are identified, they are likely to be of local or State significance." (AHIA, p.63)

4.4 Archaeology Assessment

Over the past decade a number of archaeological reports have been prepared for the University campus, both in general and for specific work sites. Based on these previous reports, and given the amount of development that has occurred at the place, the GCMP concludes "the potential for archaeology, either Aboriginal or European, is considered to be low." (GCMP, p.81)

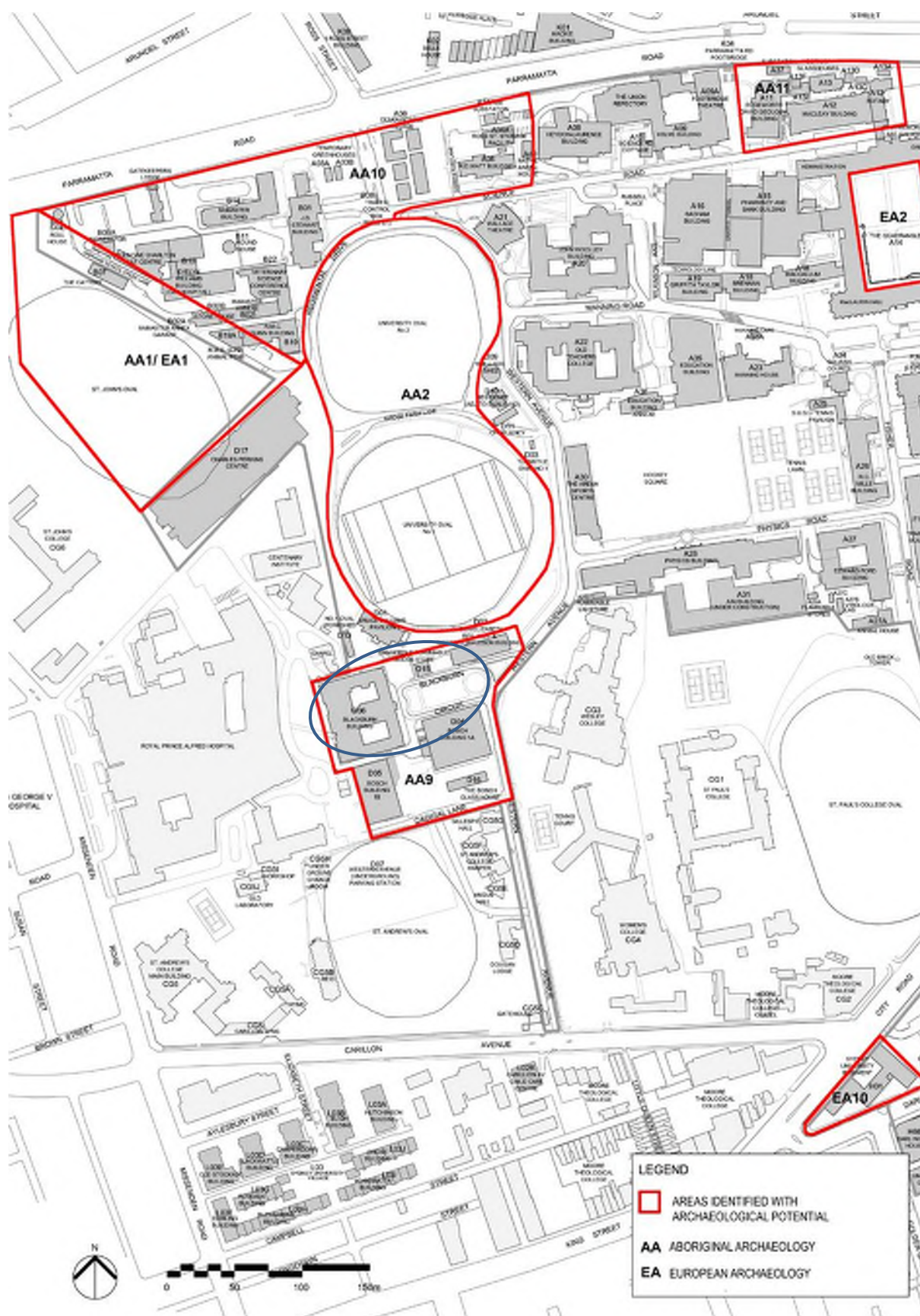


Figure 4.4 Ranking of archaeological areas on the Camperdown – Darlington Campus
(source: University of Sydney Grounds Conservation Management Plan (2017))

4.5 Heritage Items in the Vicinity

There are several heritage items of varying levels of significance in the vicinity of the Blackburn Circuit Services Diversions site. (Fig 4.1) The heritage items include:

- Blackburn Building (Moderate Significance);
- Wesley College (High Significance);
- Bosch 1A Building (D04) (Little Significance);
- University Oval No.1 Grandstand (Little Significance); and
- L.E.F.Neill Fountain (Some significance)

This Heritage Impact Assessment addresses the potential adverse impact of the proposed development upon these adjacent heritage items and recommends the means to mitigate any adverse impacts.

5.0 Description of the Proposal

5.1 Site of the proposed Blackburn Circuit Services Diversions

The University's proposed Health Precinct is located in the south-western sector of the Camperdown campus. (Fig.1.2) Stage 1 of the Health Precinct is the Susan Wakil AO Health Building (SWAOHB); a multi-disciplinary health and education building, located in the area bounded on the north by University Oval No.1, east by Western Avenue, south by the Bosch 1A Building (D04) and Bosch 1B Building (D05) and west by the Royal Prince Alfred Hospital. (Fig.3.1)

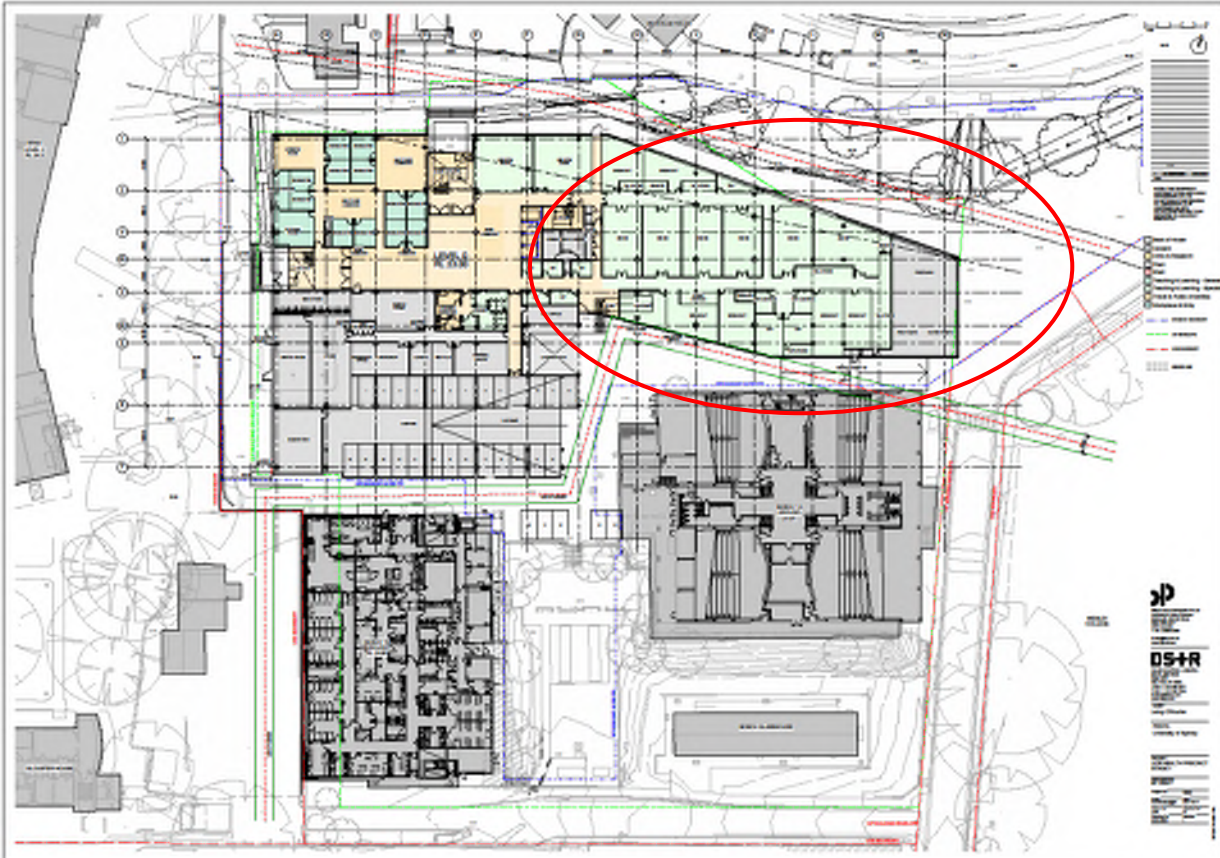


Figure 5.1 Ground Floor Plan

(Source: Drawing DA18-0001 (Rev.1), prepared by BLP/DS+R Architects, dated July 2017)

The Blackburn Building is currently being demolished to make way for the SWAOHB and the adjacent Blackburn Circuit Services Diversions is part of the overall SWAOHB project.

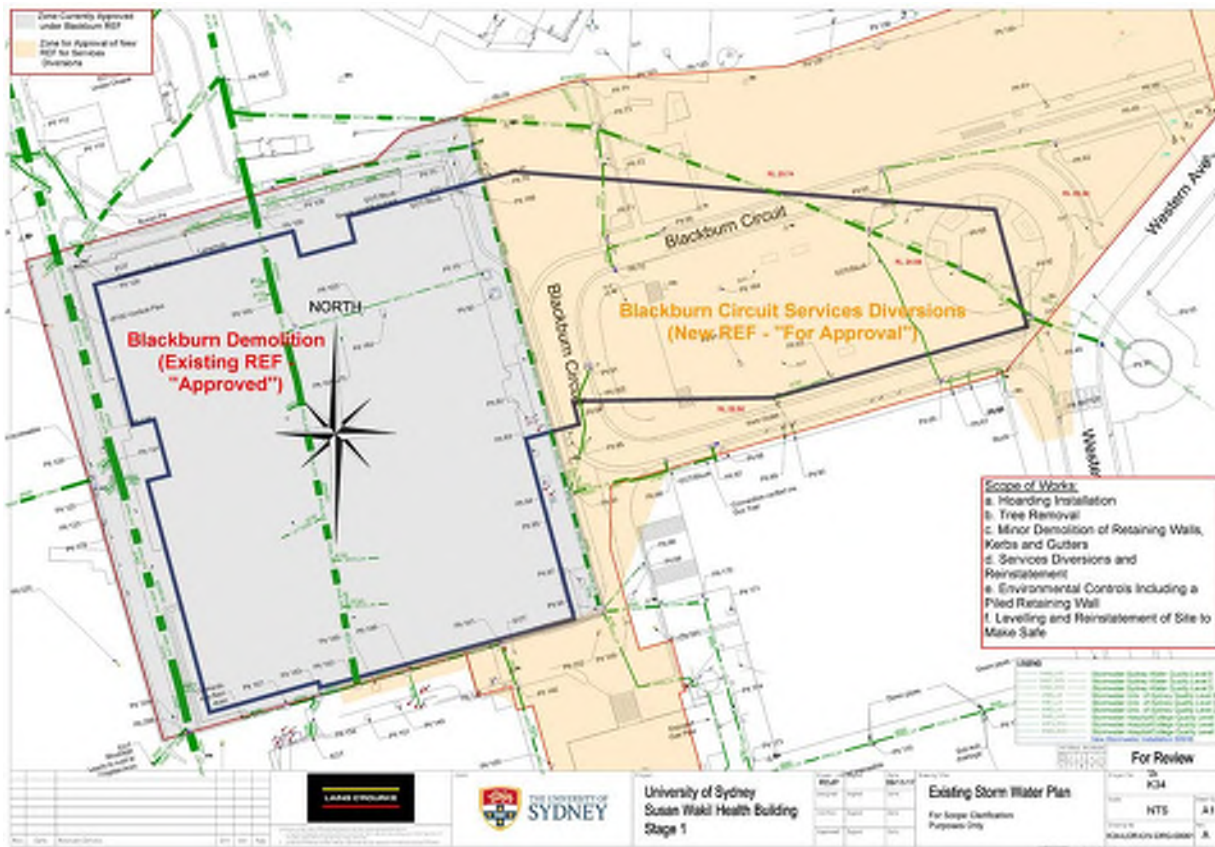


Figure 5.2 Site of the proposed Blackburn Circuit works, University of Sydney - Camperdown Campus
(source: Laing O'Rourke, dated 09 Nov., 2017)

6.0 Assessment of Heritage Impact

6.1 Heritage Impact Analysis

The SEARS issued by the Department of Planning & Environment requires the SHI to address the impact of the proposed SWAOHB on the following:

- heritage items on the site;
- adjacent significant heritage items;
- the cultural landscape;
- significant views;
- potential historical archaeological relics;
- Aboriginal cultural heritage values and potential archaeology; and
- the character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes;

6.2 Potential Impacts on Heritage Items on Site

There are no items identified as having heritage significance within the Blackburn Circuit Services Diversions site.

6.3 Potential Impacts on Adjacent Heritage Items

There are a number of heritage items of varying levels of significance immediately adjacent to the proposed Blackburn Circuit Services Diversions works site (Fig.6.1), including:

- Blackburn Building (Moderate significance)
- Wesley College (High significance);
- Bosch 1A Building (D04) (Little significance);
- University Oval No.1 Grandstand (Little significance); and
- L.E.F.Neill Fountain (Some significance)

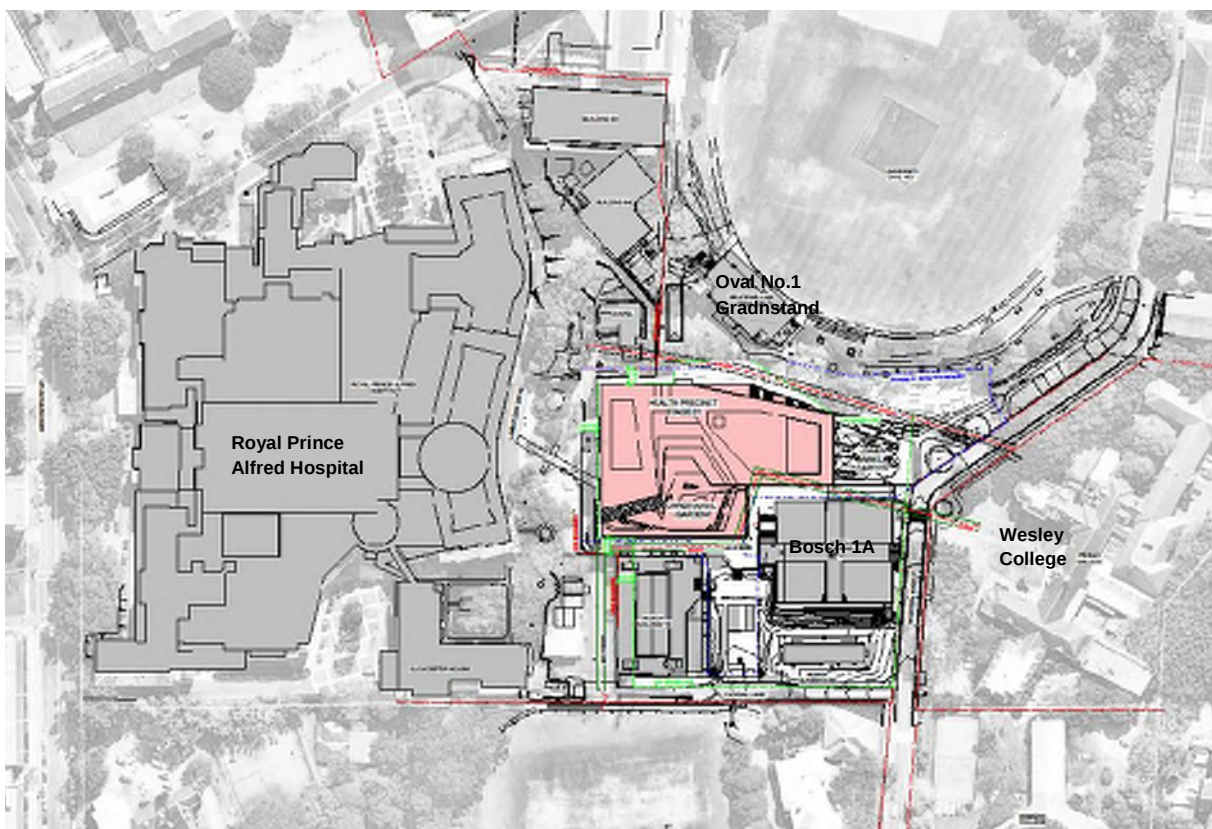


Figure 6.1 Heritage Items adjacent to the Blackburn Circuit Services Diversions site

(source: Drawing DA03-0002, prepared by BLP/DS+R Architects, dated July2017)

6.3.1 Blackburn Building

Discussion: The Blackburn Building (1931-33), west of the Blackburn Circuit Services Diversions site, symbolically straddles the boundary between the University and the land granted to the Royal Prince Alfred Hospital in 1873, demonstrating its twin role as both a medical research facility and a teaching institution. (Fig.6.2) The building is ranked in the Grounds CMP as having Moderate heritage significance.

The demolition of the Blackburn Building was identified in the Campus Improvement Program (SSD 6123) and the heritage impact of its loss to the University was assessed in the Health and Life Sciences (Blackburn and Veterinary Science) Precincts Statement of Heritage Impact (SHI) prepared by Clive Lucas, Stapleton & Partners (2013).

The Blackburn Building is currently being demolished, in accordance with SSD 7974. It is noted that the “historic continuing use” of this section of the University campus for medical tuition and research will be maintained in the new Health Precinct, which is in accordance with GCMP Conservation Policy 20. (GCMP, p.136)

Conclusion: The proposed works on the Blackburn Circuit Services Diversions site will have no impact on the heritage significance of the partially demolished Blackburn Building.



Figure 6.2 Blackburn Building (1931-33), with the Blackburn Circuit Services Diversions site in the foreground

(source: Author, July 2017)

6.3.2 Wesley College (High Significance)

Discussion: Wesley College is located on the eastern side of Western Avenue, across from the Blackburn Circuit Services Diversions site. The principal college building, set well back from Western Avenue, faces north-west with tree-framed views across the Blackburn forecourt. (Fig.6.3)

The trees lining Western Avenue that define the western boundary of Wesley College, will be retained, as will the low level Bosch Building 1A. The trees in the Blackburn Circuit Services Diversions site, (background) will be removed and subsequently replaced by new trees in the landscaped Lower Wakil Garden, leading up to the entrance of the SWAOHB. (Fig. 6.4)

In discussions with the University, Wesley College expressed some concern regarding the loss of existing trees in the Blackburn Forecourt, but did not express a concern about the impact of SWAOHB itself. The loss of the existing trees in the Blackburn Circuit Services Diversions site will be compensated by the proposed replacement of trees in the Lower Wakil Garden.

Conclusion: The view from Wesley College will be temporarily impacted by the proposed work site for the Blackburn Circuit Services Diversions, but these works are required to enable the construction of the approved SWAOHB and, therefore, is acceptable.



Figure 6.3 View from Wesley College front door, looking across Western Avenue to the Blackburn Circuit Services Diversions site.
(source: Author, August 2017)



Figure 6.4 View from Western Avenue to the Lower Wakil Garden and SWAOHB entrance.

(source: Drawing prepared by BLP/DS+R Architects, dated August 2017)

(Note: the proposed Blackburn Circuit Services Diversions works site is in the foreground.)

6.3.3 Bosch 1A Building (D04) (Little Significance)

The Bosch Complex is named after George Henry Bosch, who had made several substantial endowments to the Faculty of Medicine. The Bosch 1A Building (Fig.6.5), completed in 1965, is architecturally understated. Its contribution to the heritage significance of the University relates more to demonstrating the development of the Health Precinct than to its architectural merit.



Figure 6.5 Eastern Elevation of Bosch 1A Building, to the south of the Blackburn Circuit Services

Diversions site (source: Author, July 2017)

Discussion: The two Bosch buildings (1A & 1B) were identified in SSD 6123 (CIP 2014-20) for future demolition. The SWAOHB (Health Precinct Stage 1) has been designed on the basis that these two buildings will be replaced in the Health Precinct Stage 2 development (the subject of a future Development Application).

Conclusion: The impact of the Blackburn Circuit Services Diversions works on the heritage significance of Bosch 1A Building (D04) is acceptable.

6.3.4 University Oval No.1 Grandstand (Little Significance)

Discussion: The University Oval No.1 Grandstand faces north-east, with its back towards the the Blackburn Circuit Services Diversions site. (Fig.6.6) The significance of the Oval No.1 Grandstand, a minor functional building, relates primarily to its connection with the historic oval, not as an element in its own right. The proposed Blackburn Circuit Services Diversions works will have a negligible impact on the heritage significance of the Oval No.1 Grandstand.



Figure 6.6 Oval No.1 Grandstand, backing on to the SWAOHB site (Blackburn Building, left)
(source: Author, July 2017)

Conclusion: The proposed Blackburn Circuit Services Diversions works will have a negligible impact on the heritage significance of Oval No.1 Grandstand and, therefore, is acceptable.

6.3.5 L.E.F.Neill Fountain (Some Significance)

Discussion: The L.E.F Neill Fountain (Fig.6.7), located east of the Oval No.1 Grandstand, is a memorial to Dr Leopold Neill (1867-1901). Neill was a graduate of the University's Medical School, avid university sportsman and, later, a tutor of university medical students at RPAH. His untimely early death was keenly felt by his university and medical colleagues, who funded his memorial fountain.

The sandstone Gothic fountain (1902) will be retained in its present location, but within an improved landscape setting. (Item 14 on Fig.6.14) The proposed Blackburn Circuit Services Diversions works is well away from the fountain and therefore will have no impact. In the long term, the proposed landscaping for the SWAOHB project will ensure the retention of the symbolic connection between Neill and the University's sports oval, the Health Precinct and the RPAH.

Conclusion: The impact of the proposed Blackburn Circuit Services Diversions works on the L.E.F Neill Fountain is negligible.



Figure 6.7 L.E.F.Neill Fountain (1902), with the Blackburn Building in the background (left)
(source: R Scharenguivel, September 2016)

6.4 Potential Impacts on the Cultural Landscape

Discussion: Historically, the Blackburn Building (new medical school), located in the south western section of the Camperdown Campus and bounded by University Oval No.1, Wesley College, St Andrew;s College and RPAH, has always been slightly detached from the rest of the University. There is presently neither a strong physical or visual connection between the buildings or landscape to the rest of the Camperdown campus; to the point where the Blackburn Building had a closer physical link with the RPAH.

The Grounds CMP (2017) identifies the Significant Trees and Types of Open Spaces and Landscapes across the University campus. The trees which border the southern edge of University Oval No.1 are ranked as having Exceptional significance, while in the Blackburn forecourt the large Fig (*Ficus* spp.) tree is ranked as having Moderate significance and the numerous London Plane trees are ranked as having Some significance. (Fig.6.8) The Blackburn forecourt, itself, is ranked as being a Late-Modern (1947-1980) landscape of Moderate significance.

The Blackburn Forecourt and the area previously occupied by the demolished Queen Elizabeth II Research Institute and Victor Coppleson Building (D02) will be replaced by the Lower Wakil Garden, Upper Wakil Garden and Turpentine Forest. (Fig.6.9). The proposed Blackburn Circuit Services Diversions works is required to enable this future landscaping.

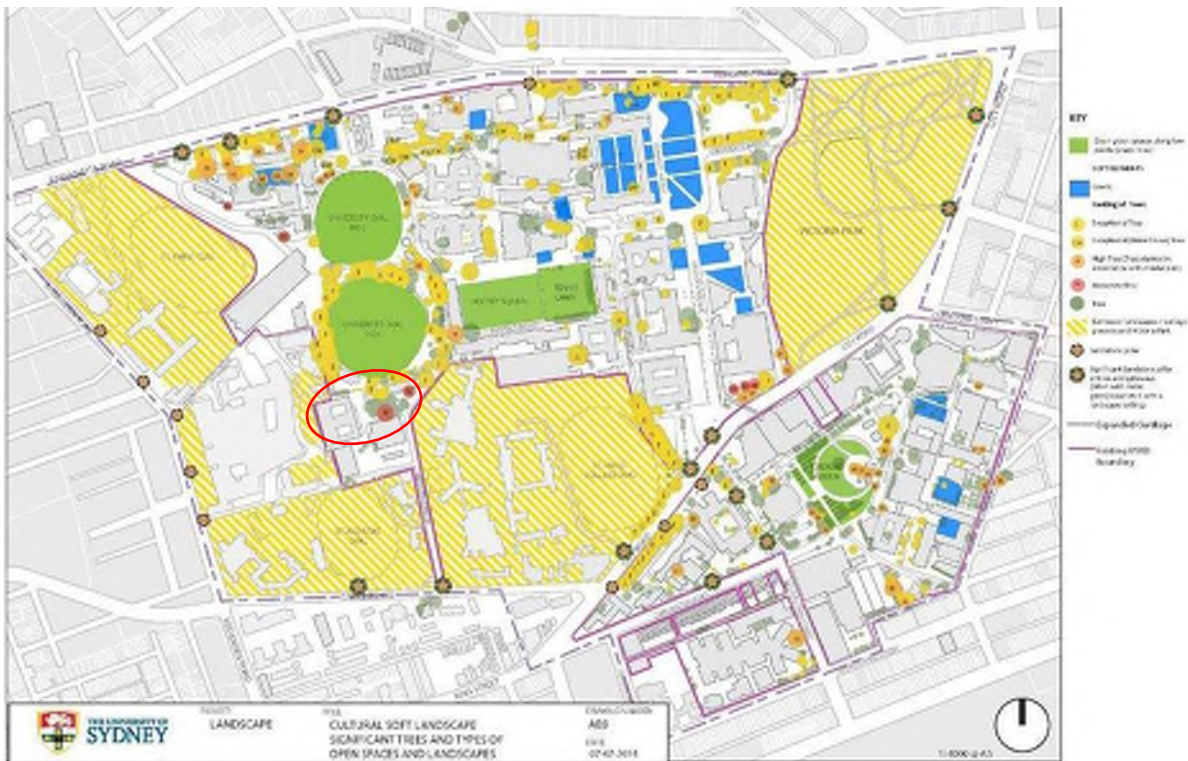


Figure 6.8 Significant Trees and Types of Open Spaces and Landscapes
(source: University of Sydney Grounds Conservation Management Plan (2017))

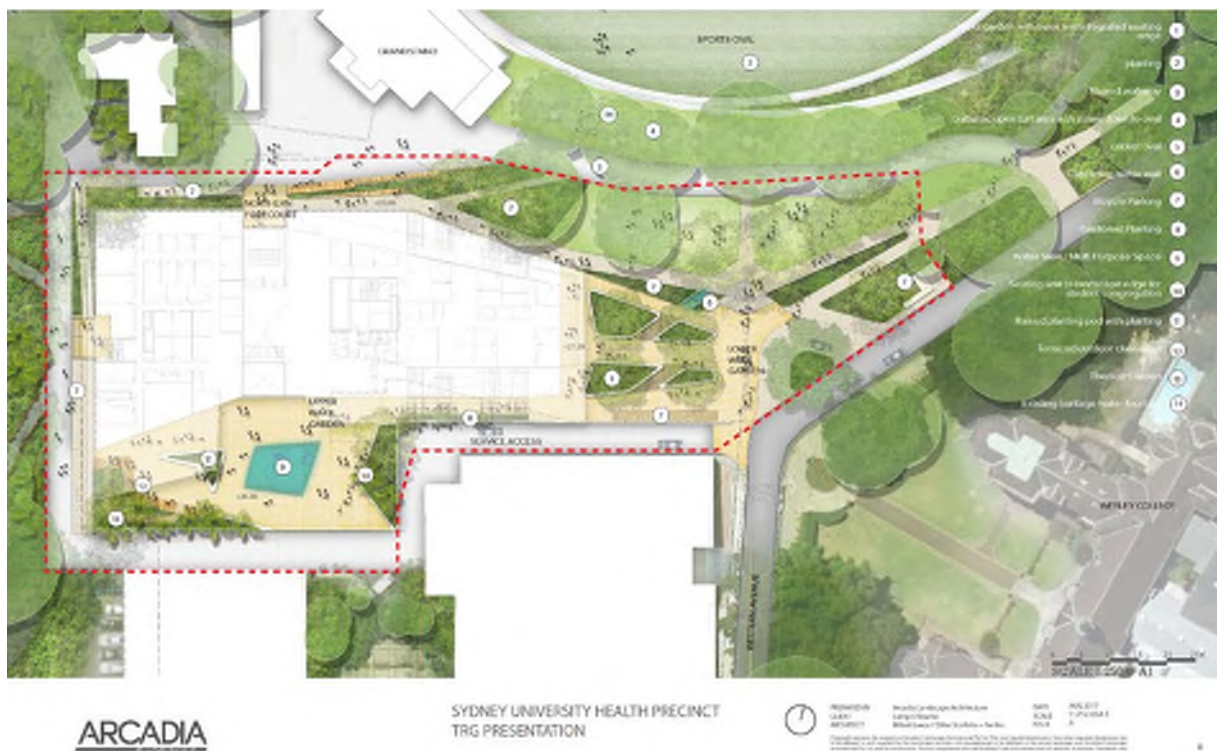


Figure 6.9 HealthPprecinct Stage 1 Landscape Plan
(source: Drawing prepared by Arcadia Landscape Architecture (August 2017))

The Aboricultural Impact Assessment (AIA), prepared by Tree IQ (dated August 2017) assessed twenty eight (28) trees (or groups of trees) within the SWAOHB site, using the VTA criteria and notes. (Fig.6.10)

5.1 PLANTING DESIGN_VEGETATION MANAGEMENT PLAN

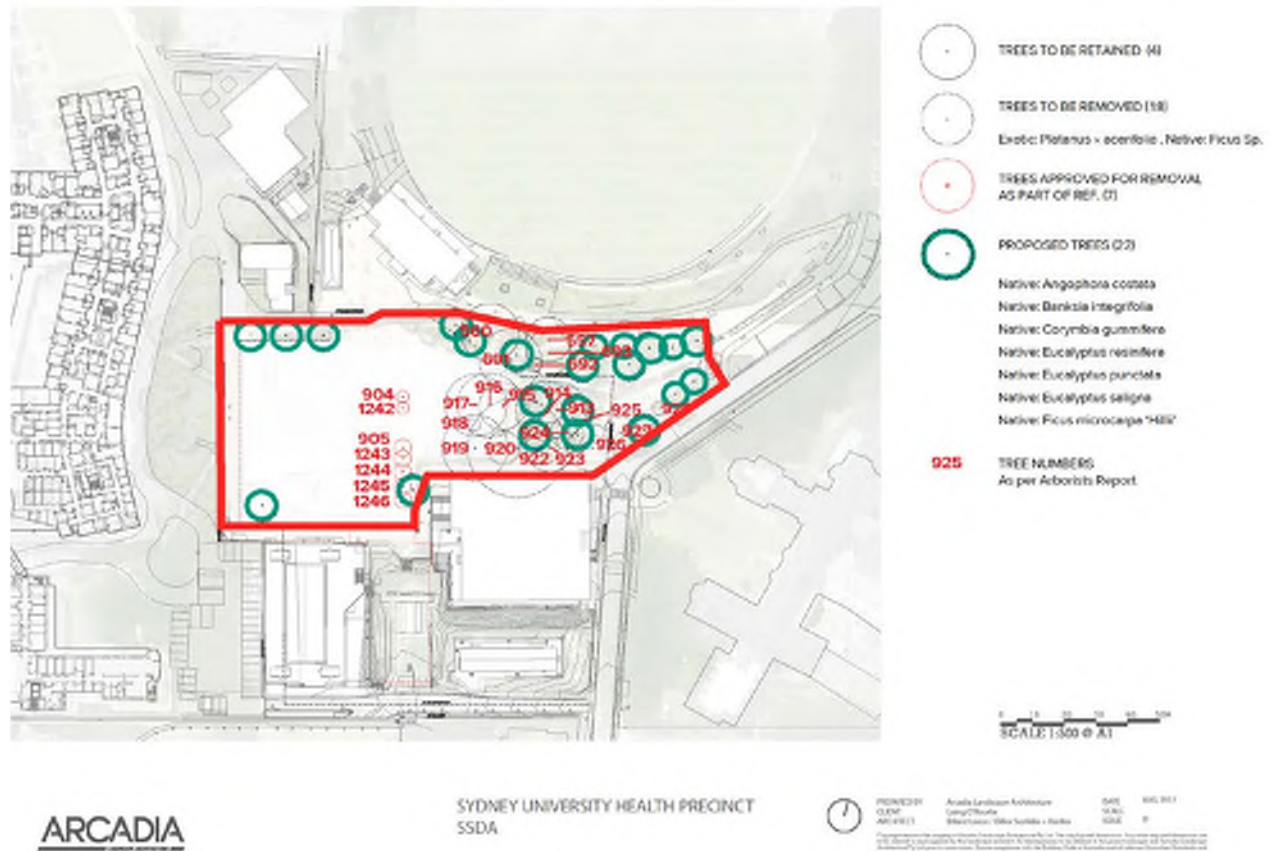


Figure 6.10 Vegetation Management Plan (showing trees to be retained, removed and replaced)
(source: Drawing prepared by Arcadia landscape Architecture (August 2017))

Of the three (3) trees proposed to be retained:

- Four (4) trees are rated as *Priority for Retention*;
Ten (10) trees are rated as *Consider for Retention*;
Eighteen (18) are rated as *Consider for Removal*.

Eighteen (18) of the twenty eight (28) trees assessed are proposed to be removed, of which:

- Sixteen (16) are rated as *Consider for Retention*; and Two (2) are rated as *Consider for Removal*.

To mitigate the loss of eighteen trees, a total of twenty two replacement trees are proposed, including a 1000ltr Ficus spp. (Fig), which will replace Tree 921 currently in Blackburn Circuit. (Tree 921 was identified in the Grounds CMP as having Moderate significance, but the arborist report deemed the tree to be unsuited for salvaging for later replanting.)

The trees lining the southern edge of University Oval No.1, ranked in the GCMP (2017) as being of Exceptional significance, are to be retained. Similarly, the various trees lining Western Avenue, on the eastern edge of the proposed Blackburn Circuit Services Diversions works site, which are listed in the City of Sydney *Register of Significant Trees (2013)* as being significant (Item C-263) will not be impacted by the these works.

The contemporary landscape proposed to replace the Blackburn Forecourt includes the Lower Wakil Garden, of Western Avenue; the Turpentine Forest, backing onto Oval No.1; and the Upper Wakil Garden, a large public space which will unite the Stage 1, Stage 2 and Stage 3 buildings.

Conclusion: The impact of the proposed Blackburn Circuit Services Diversions works and the subsequent proposed landscaping on the University's cultural landscape is acceptable.

6.5 Potential Impact on Significant Views

Discussion: The Grounds CMP (2017) identifies a number of significant view corridors and planning axes within the expanded curtilage of the University campus (Fig.6.11), that “should be retained and if possible enhanced.” (GCMP Policy 18)

The principle view corridor in this part of the Camperdown campus is the A5 north-south view along Western Avenue from Carillon Avenue to Parramatta Road. The demolition of the Queen Elizabeth II Research Institute and Victor Coppleston Building (D02) in preparation for the construction of the Health Precinct, has reinstated this significant view corridor in accordance with GCMP Policy 18. The SWAOHB has been sited so as to respect the reinstated significant A5 view corridor.

A secondary view corridor is the B3 view from the front door of Wesley College, which looks north-west across Blackburn Circuit towards the back of RPAH. (Fig.6.3) This view will be temporarily disrupted by the proposed works, but in the long term it will be replaced by a view across the Lower Wakil Garden to the SWAOHB entrance (Fig.6.4), still framed by the existing Western Avenue trees.

Conclusion: The temporary disruption to significant views caused by the Blackburn Circuit Services Diversions work is an acceptable necessity to enable the long term improvement on the various significant view corridors across the new Health Precinct.

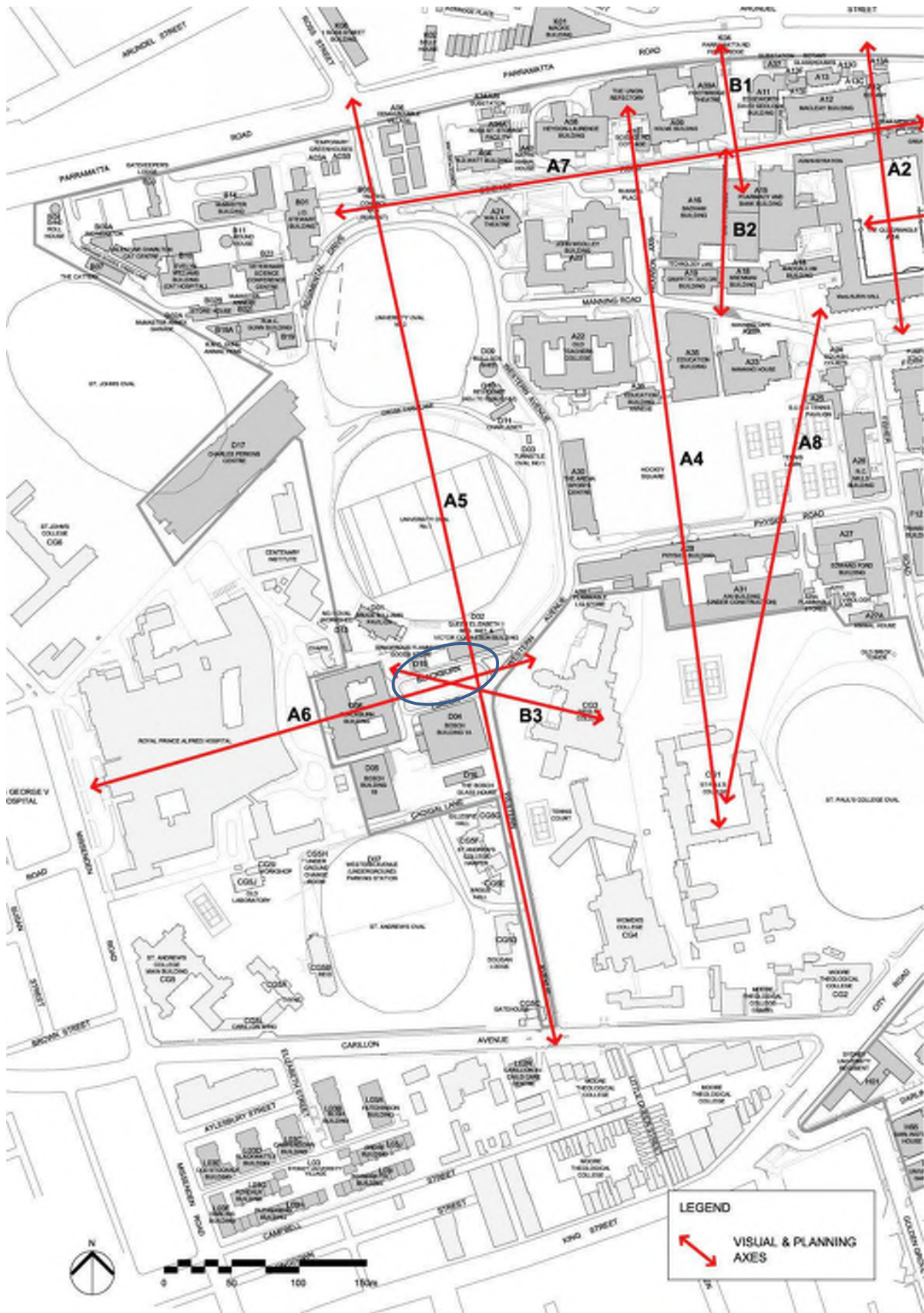


Figure 6.11 Significant Visual and Planning Axes
(source: University of Sydney Grounds Conservation Management Plan (2017))

6.6 Potential Historical Archaeology

Discussion: Over the past decade a number of archaeological reports have been prepared for the University campus, both in general and for specific work sites. Based on these previous reports, and given the amount of development that has occurred at the place, the GCMP concludes “the potential for archaeology, either Aboriginal or European, is considered to be low.” (GCMP, p.81)

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and Blackburn Circuit were built in the 1960s, further diminishing the potential for finding any archaeological evidence.

Conclusion: The historic archaeology potential of the proposed Blackburn Circuit Services Diversions works is Low, due to the site having been heavily disturbed.

6.7 Aboriginal Cultural Heritage Values and Potential Archaeology

Discussion: An Aboriginal Heritage Impact Assessment (AHIA) has been prepared by AHMS (February 2016), in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW).

The AHIA, which covers Aboriginal cultural heritage values across the University's Camperdown and Darlington campuses, concludes:

“Consultation with RAPs identified six places retaining cultural values within the subject area. (It is highlighted that while the discussions focused on the six CIP precincts, it also considered the wider Camperdown and Darlington Campuses). These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances.” (AHIA, p.64.)

None of the places identified in the AHIA as retaining Aboriginal cultural values on the University of Sydney campus will be affected by the proposed works in the Blackburn Circuit site.

The Grounds CMP identified a site (AA9) within the Health Precinct as having Aboriginal Archaeology potential, but it concluded that the potential was Low due to the site having been “heavily disturbed”. (GCMP, p.81)

The University of Sydney Campus Improvement Program Aboriginal Due Diligence Report, prepared by Godden Mackay Logan (2013) concluded there “is a low potential for the preservation of in-situ Aboriginal archaeological deposits within the study area; however, if found these deposits would be of high significance due to their rarity.” (ADDR, p.34)

The AHIA, prepared by AHMS (February 2016), reached a similar conclusion: “with the exception of the western portion of the Life Sciences and Health Precincts, it is considered that the remaining (University) precincts would have low potential for cultural materials to be present.” (AHIA, p.7) The archaeological potential of the western portion of the Life Sciences and Health Precincts were flagged on the basis that *“geotechnical investigations within the university grounds indicate that natural soil horizons may be preserved below 3-5m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences and Health Precincts.” (AHIA, p.6)*

The 3-5m of fill referred to in the AHIA is present in the northern portion of the Health Precinct, specifically under the RMC Gunn Building (B19) and the nearby University Oval No.2, and is clearly evident in the level change between University Oval No.1 and University Oval No.2 (Fig.6.17], all of which is well north of the Blackburn Circuit site.



Figure 6.17 Ground Level change between Oval No.1 (foreground) and Oval No.2 (background)
(source: Author, August 2017)

The SWAOHB site, in the southern portion of the Health Precinct, was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance in the immediate vicinity occurred when the adjacent Bosch buildings (D04 & D05) and the associated landscaped Blackburn Circuit were constructed in the 1960s, further diminishing the potential for finding any archaeological evidence.

Conclusion: The proposed works in the Blackburn Circuit site is unlikely to have any adverse impact on the Aboriginal cultural heritage values of this part of the University campus. The potential for the preservation of in-situ Aboriginal archaeological deposits within the site is low due to previous extensive ground disturbance, but it would be appropriate to maintain an archaeological watching brief.

6.8 Potential Impacts on the Character and Heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes

Discussion: Historically, the New Medical School (Blackburn Building) located in the south western section of the Camperdown Campus, bounded by University Oval No.1, Wesley College, St Andrew's College and RPAH, has always been slightly detached from the rest of the University. There is presently neither a strong physical or visual connection between the buildings nor landscape to the rest of the Camperdown campus. The new Health Precinct, of which the SWAOHB is Stage 1, aims to reinforce the connections, visually and physically, between its various neighbours and the rest of the University.

The Blackburn Circuit Services Diversions work, while temporarily disrupting significant views and vistas, is necessary to enable the future construction of the SWAOHB and its associated landscaped forecourt.

Conclusion: The proposed Blackburn Circuit Services Diversions work, as a necessary component of the proposed Susan Wakil AO Health Building (Health Precinct Stage 1), will improve on the overall character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes and, therefore, could be approved subject to maintaining an archaeological watching brief.

7.0 Conclusions and Recommendations

7.1 Conclusions

With reference to the issues identified in the SEARS the HIS concludes the following:

i) Significant heritage items on site:

There are no items of heritage significance on the Blackburn Circuit Services Diversions site.

ii) Adjacent Significant Heritage Items:

The impact of the proposed Blackburn Circuit Services Diversions works on the cultural significance of the adjacent heritage items, including:

Blackburn Building (D06), partially demolished;

Bosch 1A Building (D04);

University Oval No.1 Grandstand; and

the L.E.F.Neill Fountain

is acceptable.

iii) The Cultural Landscape

The impact of the proposed Blackburn Circuit Services Diversions works, and the subsequent proposed contemporary landscaping of the Lower Wakil Garden and the Turpentine Forest, on the University's cultural landscape is acceptable.

iv) Significant Views:

The temporary disruption to significant views caused by the Blackburn Circuit Services Diversions work is an acceptable necessity to enable the long term improvement on the various significant view corridors across the new Health Precinct.

v) Potential Archaeological Relics

The SWAOHB site was heavily excavated for the construction of the Blackburn Building (1931-33). Additional ground disturbance occurred when the adjacent Bosch buildings and Blackburn Circuit were built in the 1960s, further diminishing the potential for finding any archaeological evidence. Various archaeological reports which encompass the SWAOHB site conclude that the potential for archaeological relics is low, but it would be appropriate to maintain a watching brief.

vi) Aboriginal Cultural Heritage Values and Potential Archaeology:

None of the places identified in the Aboriginal Heritage Impact Assessment (2016) as retaining Aboriginal cultural values on the University of Sydney campus are located near the Blackburn Circuit Services Diversions site.

Due to the excavation associated with the construction of the Blackburn Building (1931-33) and the later Bosch complex and the associated landscaping of Blackburn Circuit (1960s), the various archaeological reports conclude that the potential for the preservation of in-situ Aboriginal archaeological deposits within the subject site is low. It would be appropriate to maintain a watching brief.

vii) The character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes:

The conclusion of this heritage assessment is that the proposed Blackburn Circuit Services Diversions, as a necessary component of the proposed Susan Wakil AO Health Building (Health Precinct Stage 1), will improve on the overall character and heritage of the University of Sydney, University Colleges and Victoria Park as connected landscapes and, therefore, could be approved subject to maintaining an archaeological watching brief.

7.2 Recommendation

The proposed Blackburn Circuit Services Diversions work could be approved subject to maintaining an archaeological watching brief.

8.0 Appendices

Appendix A

The University of Sydney Grounds Conservation Management Plan (2017), prepared by the Planning Team, Campus Infrastructure and Services

Appendix B

University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016)

Appendix C

Blackburn and Veterinary Science Precincts Statement of Heritage Impact prepared by Clive Lucas Stapleton & Partners (2013)

Appendix D

Campus Improvement Program Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (October 2013)

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