

ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

***Centre of Excellence (CoE) Agricultural School
2 College Road
Richmond NSW 2753
(Hawkesbury LGA)***



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& Streat Archaeological Services

**for
Colliers International**

**On behalf of
Department of Education NSW**

**Version 4
June 2021**

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Cover Image

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ACKNOWLEDGEMENT OF COUNTRY

NSW Department of Education would like to acknowledge the Traditional Custodians of the western Sydney Area– the Darug peoples– and pay respect to their cultural heritage, beliefs and continuing relationship with the land.

NSW Department of Education would also like to acknowledge the post contact experiences of Aboriginal peoples who have attachment to the Sydney area.

“We pay our respect to the Elders – past, present and future – for they hold the memories, traditions, culture and hopes of Aboriginal Peoples in the area”.

NSW Department of Education recognises the role of the registered Aboriginal parties in the management of the Aboriginal cultural heritage sites, landscape features and values of this project.

NSW Department of Education would like to thank the Registered Aboriginal Parties for their participation in this project and for their valuable contribution to this Aboriginal Cultural Heritage Assessment which has been enriched by their willingness to share valuable aspects of their cultural knowledge especially in respect of Caring for Country

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EXECUTIVE SUMMARY

Study Area

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd (SAS) was commissioned by Colliers International on behalf of the Department of Education (DoE) in March 2021, to prepare an Aboriginal Cultural Heritage Assessment Report and accompanying Aboriginal Archaeological Technical Report including consultation for the proposed State Significant Development (SSD-15001460) - Centre of Excellence (CoE) Agricultural School, Western Sydney University (Hawkesbury Campus), at 2 College Road, Richmond, New South Wales 2753.

The study area (see Figure 2.1) is that piece of land described as Part Lot 2 of the Land and Property Information Deposited Plan 1051798 forming the following street address Vines Drive, Richmond, at Western Sydney University (Hawkesbury Campus), 2 College Road, Richmond in the Parish of Ham Common, County of Cumberland. The study area comprises 11.37 Hectares of land leased from Western Sydney University (Hawkesbury Campus) for the CoE development.

In 2018, the study area was part of the SSDA Submission (SSD 8614) for the Hurlstone Agricultural High School (AMAC 2018) and the same site has been subsequently superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School.

Aboriginal Consultation

Consultation for this report has taken place in accordance with Heritage NSW and *Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010)*.

A mandatory 28-day period for the Aboriginal stakeholders to comment on this document will take place. All comments will be included in the final Aboriginal stakeholder approved version of this report.

Physical Evidence

As part of the previous investigations undertaken as part of the Hurlstone Agricultural High School (SSD 8614) application (subsequently withdrawn), test excavation of the study area was undertaken over six days 06/12/17 – 13/12/17. The programme was conducted under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* and consisted of the excavation of 51 test trenches (50cm x 50cm).

The proposed development and associated infrastructure will impact the study area. In review of the test excavation results, of which intact soils were found to be present, the study area was, however, absent of any Aboriginal objects and/or deposits or features of cultural and archaeological significance. Therefore, further investigation is not warranted and works may proceed with caution.

Significance

The site is found to be of nil-low archaeological significance this is on account the test excavation resulting in no Aboriginal objects and/or deposits of cultural or archaeological significance being located. The A horizon was present and soils of the Berkshire Park (bp) Soil Profile were found to be intact with only minor disturbance visible.

Recommendations

In 2018, the study area was part of the SSDA Submission (SSD 8614) for the Hurlstone Agricultural High School (AMAC 2018) application and had been subsequently withdrawn and superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School.

The findings from the 2017 test excavation indicate the site to be of nil-low archaeological significance. Intact A horizon was present onsite, however, no Aboriginal objects and/or deposits of cultural significance were located, therefore the development should be allowed to proceed with caution.

The recommendations have been formulated after consultation with RAPs, the proponent and DPIE after issue of the development application plans (Figures 8.1–8.31).

- Consultation with the registered Aboriginal stakeholders should continue. Stakeholders have been given the opportunity to comment on the recommendations of this report and these comments are included in this report
- An Aboriginal Cultural Heritage Management Plan should be devised upon approval of the State Significant Development application (SSD-15001460) and prior to construction commencing, in order to manage any unexpected Aboriginal archaeological and cultural constraints that may arise
- Archaeological test excavation conducted in 2017 in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)* revealed no Aboriginal archaeological objects or deposits. The development as shown (Figures 8.1–8.31) should be allowed to 'proceed with caution'
- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site as to their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development.

If any Aboriginal archaeological deposits and/or objects are located during the development, then the following should take place:

- All work is to cease in the immediate vicinity of the deposits and/or objects
- The area is to be demarcated
- DPIE, a qualified archaeologist and the participating RAPs are to be notified.

Should any human remains be located during the development, then the following should take place:

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately;
- The NSW police and Heritage NSW Enviroline be informed as soon as possible;
- Once it has been established that the human remains are Aboriginal ancestral remains, DPIE, and the relevant Registered Aboriginal Parties will identify the appropriate course of action.

Additional Recommendations

Copies of the final version of this report should be forwarded to the following organisations:

- | | |
|--|--|
| ➤ Heritage NSW | ➤ Ms J. Smith, Biamanga |
| ➤ Mr S Randall, Deerubbin LALC | ➤ Mr B. Smith, Goobah Developments |
| ➤ Mr P. Khan, Kamilaroi-Yankuntjatjara Working Group | ➤ Ms J. Seymour, Aboriginal Education Consultative Group & Darug Woman Member Darug Custodians |
| ➤ Ms C. Everingham, Darug Aboriginal Cultural Heritage Assessments | ➤ Mr D. Trewlynn, Aboriginal Education Consultative Group |
| ➤ Ms C. Hickey, A1 Indigenous Service | ➤ Ms J. Flood, Aboriginal Education Consultative Group, RHS/RAC |
| ➤ Ms. A. DeZwart, Amanda Hickey Cultural Services | ➤ Ms K. Medley, RHS Campus/RAC |
| ➤ Mr A. & Mr T. Williams, Aboriginal Archaeological Services | ➤ Ms E. Wilkens, Darug Woman Member Aboriginal Education Consultative Group & Darug Custodian |
| ➤ Ms J. Coplin, Darug Custodian Aboriginal Corporation | ➤ Ms S. Price Member Aboriginal Education Consultative Group, Teacher NSW DoE & WSU Lecturer |
| ➤ Mr S. Hickey, Widescope Indigenous Group | ➤ Ms M. Stubbings, Merana Aboriginal Community Association for the Hawkesbury Inc. |
| ➤ Mr P. Boyd & Ms L. Carroll, Didge Ngunawal Clan | |
| ➤ Ms C. Carroll, Gunjeewong Cultural Heritage Aboriginal Corporation | |
| ➤ Mr D. Dyer, Darug Aboriginal Land Care | |
| ➤ Mr C. Smith, Cullendulla | |
| ➤ Ms R. Smith, Murramarang | |

CONTACT DETAILS

The contact details for the following archaeologist, NSW Police, DPIE, and Registered Aboriginal Parties are as follows:

Organisation	Contact	Contact Details
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Archaeological Management & Consulting Group Pty Ltd	Mr. Benjamin Streat or Mr. Martin Carney	122c-d Percival Road Stanmore NSW 2048 Ph:(02) 9568 6093 Fax:(02) 9568 6093 Mob: 0405 455 869 Mob: 0411 727 395 benjaminstreat@archaeological.com.au
NSW Department of Planning, Industry, and Environment	Archaeologist – Head Office	Locked Bag 5022 Parramatta NSW 2124 Ph: 1300 361 967 heritagemailbox@environment.nsw.gov.au
Deerubbin Local Aboriginal Land Council (DLALC)	Cultural Heritage Officer	[REDACTED]
Kamilaroi-Yankuntjatjara Working Group	Phil Khan	[REDACTED]
Darug Aboriginal Cultural Heritage Assessments	Celestine Everingham	[REDACTED]
Darug Custodian Aboriginal Corp.	Justin Coplin	[REDACTED]
A1 Indigenous Services	Carolyn Hickey	[REDACTED]
Amanda Hickey Cultural Services	Amanda DeZwart	[REDACTED]
Aboriginal Archaeological Services	Andrew Williams	[REDACTED]
Widescope Indigenous Group	Steven Hickey	[REDACTED]
Didge Ngunawal Clan	Paul Boyd	[REDACTED]
Gunjeewong Cultural Heritage Aboriginal Corp.	Cherie Carroll Turrise	[REDACTED]
Darug Aboriginal Land Care	Des Dyer	[REDACTED]
Cullendulla	Cory Smith	[REDACTED]
Murramarang	Roxanne Smith	[REDACTED]
Biamanga	Janaya Smith	[REDACTED]
Goobah Developments	Basil Smith	[REDACTED]
Aboriginal Education Consultative Group & Darug Woman Member Darug Custodians	Jasmine Seymour	[REDACTED]

Organisation	Contact	Contact Details
Aboriginal Education Consultative Group	Dewayne Trewlynn	[REDACTED]
Aboriginal Education Consultative Group, RHS/RAC	Jennifer Flood	[REDACTED]
RHS Campus/RAC	Kathie Medley	[REDACTED]
Darug Woman Member Aboriginal Education Consultative Group & Darug Custodian	Erin Wilkens	[REDACTED]
Member Aboriginal Education Consultative Group, Teacher NSW DoE & WSU Lecturer	Susan Price	[REDACTED]
Merana Aboriginal Community Association for the Hawkesbury Inc.	Mel Stubbings	[REDACTED]

1.0 INTRODUCTION

1.1 BACKGROUND

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd (SAS) was commissioned by Colliers International on behalf of the Department of Education (DoE) in March 2021, to prepare an Aboriginal Cultural Heritage Assessment Report and accompanying Aboriginal Archaeological Technical Report including consultation for the proposed State Significant Development (SSD-15001460) - Centre of Excellence (CoE) Agricultural School, Western Sydney University (Hawkesbury Campus), at 2 College Road, Richmond, New South Wales.

This report conforms to the reporting process, conditions, and requirements of *Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1998)* and *Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010)*. This assessment addresses the requirements stipulated in Item 7 of the Secretary's Environmental Assessment Requirements for (SSD-15001460) issued on the 19th March 2021:

Item 7: Aboriginal Cultural Heritage

Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that:

- *identifies and describes the Aboriginal cultural heritage values that exist across the site.*
- *Includes surface surveys and test excavations where necessary.*
- *has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).*
- *incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010).*
- *documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land.*
- *identifies, assesses and documents all impacts on the Aboriginal cultural heritage values.*
- *demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts.*
- *demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development.*

Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.

In 2018, the study area was part of the SSDA Submission (SSD 8614; see Figure 7.1) for the Hurlstone Agricultural High School (AMAC 2018) and it should be noted that this application has been withdrawn and is superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School. The site of the current proposal is the same as the previous SSDA.

1.2 STUDY AREA

The study area is that piece of land described as Part Lot 2 of the Land and Property Information Deposited Plan 1051798 forming the following street address Vines Drive, Richmond, at Western Sydney University (Hawkesbury Campus), 2 College Road, Richmond in the Parish of Ham Common, County of Cumberland.

The study area comprises 11.37 Hectares of land leased from Western Sydney University (Hawkesbury Campus) for the CoE development.

Lot	Deposited Plan
2	1051798

1.3 SCOPE

The aims of this cultural heritage assessment are to assess the Aboriginal cultural heritage values of the study area, to provide registered Aboriginal persons or organisations who hold cultural knowledge relevant to determining the cultural significance of Aboriginal object(s) and/or place(s) within, or in the vicinity of the area of the proposed development, to present this knowledge for synthesis, analysis and compilation into a Cultural Heritage Assessment about the study area.

This report has assessed the impact of the proposed development on any identified items or places of Aboriginal cultural heritage value and to develop mitigative strategies under the appropriate legislation for the management of Aboriginal archaeological and cultural heritage values of the study area. This process also involved the proponent and/or the proponent's representative to outline the project details and the participating Aboriginal parties to have input into formulating mitigative strategies at identified points in the impact assessment process.

This report has utilised the findings and associated test excavation results from the previous Hurlstone Agricultural High School development on the same site originally completed in 2018. The initial programme of test excavation was carried out in relation to the first development proposed and was reviewed by the RAPs in this context. Once the report was completed and finalised consultation was viewed to be at an end. In January 2021, variations to the initial development plans were proposed and these new plans were incorporated into the report and an opportunity for the RAPs to review the new proposed development was provided on the 9th April 2021 for review and input for a period of no less than 28 days.

The programme of test excavation for the first proposed development consisted of 51 test pits and was carried out over an area of 12.59 hectares. The variation to the size of the development constitutes a reduction on overall size with a small variation to the location (Figure 1.1). The nature and extent of the archaeological deposit is very well understood as a result of the test excavation. There is no Aboriginal cultural or archaeological material present within the study area, even a so-called 'background scatter' is absent and as such no further archaeological work is called for in relation to the proposed development. A site induction document and an unexpected finds protocol should be produced as a precaution.

A methodology and a timeline for the completion of assessment process and report delivery was developed and distributed to all registered parties for review and input for a period of no less than 28 days.



Figure 1-1 Orange fill indicates the locations the CoE development falls outside the previous development boundary.

1.4 AUTHOR IDENTIFICATION

The analysis of the archaeological background and the reporting were undertaken by Mr Benjamin Streat (BA, Grad Dip Arch Her, Grad Dip App Sc), archaeologist and Director of Streat Archaeological Services Pty Ltd in association with archaeologist Mr Steven J. Vasilakis (B. Arch. Hons) and under the guidance of Mr Martin Carney archaeologist and Managing Director of AMAC Group.

1.5 LEGISLATIVE CONTEXT AND STATUTORY CONTROLS

This section of the report provides a brief outline of the relevant legislation and statutory instruments that protect Aboriginal archaeological and cultural heritage sites within the state of New South Wales. Some of the legislation and statutory instruments operate at a federal or local level and as such are applicable to Aboriginal archaeological and cultural heritage sites in New South Wales. This material is not legal advice and is based purely on the author's understanding of the legislation and statutory instruments. This document seeks to meet the requirements of the legislation and statutory instruments set out within this section of the report.

1.5.1 Commonwealth Heritage Legislation and Lists

One piece of legislation and two statutory lists and one non-statutory list are maintained and were consulted as part of this report: the National Heritage List and the Commonwealth Heritage List.

1.5.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) offers provisions to protect matters of national environmental significance. This act establishes the National Heritage List and the Commonwealth Heritage List which can include natural, Indigenous and historic places of value to the nation. This Act helps ensure that the natural, Aboriginal and historic heritage values of places under Commonwealth ownership or control are identified, protected and managed (Australian Government 1999).

1.5.1.2 National Heritage List

The National Heritage List is a list which contains places, items and areas of outstanding heritage value to Australia; this can include places, items and areas overseas as well as items of Aboriginal significance and origin. These places are protected under the Australian Government's EPBC Act.

1.5.1.3 Commonwealth Heritage List

The Commonwealth Heritage List can include natural, Indigenous and historic places of value to the nation. Items on this list are under Commonwealth ownership or control and as such are identified, protected and managed by the Federal Government.

1.5.2 New South Wales State Heritage Legislation and Lists

The state (NSW) based legislation that is of relevance to this assessment comes in the form of the acts which are outlined below.

1.5.2.1 National Parks and Wildlife Act 1974

The NSW National Parks and Wildlife Act 1974 (as amended) defines Aboriginal objects and provides protection to any and all material remains which may be evidence of the Aboriginal occupation of lands continued within the state of New South Wales. The relevant sections of the Act are sections 84, 86, 87 and 90.

An Aboriginal object, formerly known as a relic is defined as:

‘any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains’ (NSW Government, 1974).

It is an offence to harm or desecrate an Aboriginal object or places under Part 6, Section 86 of the NPW Act:

Part 6, Division 1, Section 86: Harming or desecrating Aboriginal objects and Aboriginal places:

- (1) *A person must not harm or desecrate an object that the person knows is an Aboriginal object.*

Maximum penalty:

- (a) *in the case of an individual—2,500 penalty units or imprisonment for 1 year, or both, or (in circumstances of aggravation) 5,000 penalty units or imprisonment for 2 years, or both, or*

- (b) *in the case of a corporation—10,000 penalty units.*

- (2) *A person must not harm an Aboriginal object.*

Maximum penalty:

- (a) *in the case of an individual—500 penalty units or (in circumstances of aggravation) 1,000 penalty units, or*

- (b) *in the case of a corporation—2,000 penalty units.*

- (3) *For the purposes of this section, **circumstances of aggravation** are:*

- (a) *that the offence was committed in the course of carrying out a commercial activity, or*

- (b) *that the offence was the second or subsequent occasion on which the offender was convicted of an offence under this section.*

This subsection does not apply unless the circumstances of aggravation were identified in the court attendance notice or summons for the offence.

- (4) *A person must not harm or desecrate an Aboriginal place.*

Maximum penalty:

- (a) *in the case of an individual—5,000 penalty units or imprisonment for 2 years, or both, or*

- (b) *in the case of a corporation—10,000 penalty units.*

- (5) *The offences under subsections (2) and (4) are offences of strict liability and the defence of honest and reasonable mistake of fact applies.*

- (6) *Subsections (1) and (2) do not apply with respect to an Aboriginal object that is dealt with in accordance with section 85A.*

- (7) *A single prosecution for an offence under subsection (1) or (2) may relate to a single Aboriginal object or a group of Aboriginal objects.*
- (8) *If, in proceedings for an offence under subsection (1), the court is satisfied that, at the time the accused harmed the Aboriginal object concerned, the accused did not know that the object was an Aboriginal object, the court may find an offence proved under subsection (2).*

1.5.2.2 Environmental Planning & Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) states that environmental impacts of proposed developments must be considered in land use planning procedures. Four parts of this act relate to Aboriginal cultural heritage.

- Part 3, divisions 3, and 4 refer to Regional strategic plans and both Local Environmental Plans (LEP) and Development Control Plans (DCP), which are environmental planning instruments and call for the assessment of Aboriginal heritage among other requirements.
- Part 4 determines what developments require consent and what developments do not require consent. Section 4.15 calls for the evaluation of
The likely impacts of that development, including environmental impacts on both the natural and built environments and the social and economic impacts in the locality (NSW Government 1979).
- Part 5 of this Act requires that impacts on a locality which may have an impact on the aesthetic, anthropological, architectural, cultural, historic, scientific, recreational or scenic value are considered as part of the development application process (NSW Government, 1979).

1.5.2.3 The Aboriginal Land Rights Act 1983

The NSW *Aboriginal Land Rights Act 1983* (ALR Act), administered by the NSW Department of Aboriginal Affairs, established the NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs). The ALR Act requires these bodies to:

- take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law;
- promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

These requirements recognise and acknowledge the statutory role and responsibilities of New South Wales Aboriginal Land Council and Local Aboriginal Land Councils.

The ALR Act also establishes the Office of the Registrar whose functions include but are not limited to, maintaining the Register of Aboriginal Land Claims and the Register of Aboriginal Owners.

Under the ALR Act the Office of the Registrar is to give priority to the entry in the Register of the names of Aboriginal persons who have a cultural association with:

- lands listed in Schedule 14 to the NPW Act;
- lands to which section 36A of the ALR Act applies (NSW Government, 1974 & DECCW 2010).

1.5.2.4 The Native Title Act 1993

The *Native Title Act 1993* (NTA) provides the legislative framework to:

- recognise and protect native title;
- establish ways in which future dealings affecting native title may proceed, and to set standards for those dealings, including providing certain procedural rights for registered native title claimants and native title holders in relation to acts which affect native title;
- establish a mechanism for determining claims to native title;
- provide for, or permit, the validation of past acts invalidated because of the existence of native title.

The National Native Title Tribunal has a number of functions under the NTA including maintaining the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements and mediating native title claims (NSW Government, 1974 & DECCW 2010).

1.5.2.5 New South Wales Heritage Register and Inventory 1999

The State Heritage Register is a list of places and objects of particular importance to the people of NSW. The register lists a diverse range of over 1,500 items, in both private and public ownership. Places can be nominated by any person to be considered to be listed on the Heritage register. To be placed an item must be significant for the whole of NSW. The State Heritage Inventory lists items that are listed in local council's local environmental plan (LEP) or in a regional environmental plan (REP) and are of local significance.

1.5.2.6 Register of Declared Aboriginal Places 1999

The NPW Act protects areas of land that have recognised values of significance to Aboriginal people. These areas may or may not contain Aboriginal objects (i.e. any physical evidence of Aboriginal occupation or use). Places can be nominated by any person to be considered for Aboriginal Place gazettal. Once nominated, a recommendation can be made to EPA/OEH for consideration by the Minister. The Minister declares an area to be an 'Aboriginal place' if the Minister believes that the place is or was of special significance to Aboriginal culture. An area can have spiritual, natural resource usage, historical, social, educational or other type of significance. Under section 86 of the NPW Act it is an offence to harm or desecrate a declared Aboriginal place. Harm includes destroying, defacing or damaging an Aboriginal place. The potential impacts of the development on an Aboriginal place must be assessed if the development will be in the vicinity of an Aboriginal place (DECCW 2010).

1.5.3 Local Planning Instruments

1.5.3.1 Hawkesbury Local Environmental Plan 2012

The Hawkesbury City Council Local Environment Plan was endorsed in 2012. Heritage Conservation is discussed in Part 5; Clause 5.10. The following section highlights the archaeological considerations of a site in relation to developments:

5.10 Heritage conservation

(1) Objectives

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Hawkesbury*
- (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*
- (c) to conserve archaeological sites,*
- (d) to conserve Aboriginal objects and Aboriginal places of heritage significance.*

(2) Requirement for consent

Development consent is required for any of the following:

- (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):*
 - (i) a heritage item,*
 - (ii) an Aboriginal object,*
 - (iii) a building, work, relic or tree within a heritage conservation area,*
- (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,*
- (c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,*
- (d) disturbing or excavating an Aboriginal place of heritage significance,*
- (e) erecting a building on land:*
 - (i) on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,*
- (f) subdividing land:*
 - (i) on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*

(3) When consent not required

However, development consent under this clause is not required if:

- (a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:*
 - (i) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or*

archaeological site or a building, work, relic, tree or place within the heritage conservation area, and

- (ii) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or*
- (b) the development is in a cemetery or burial ground and the proposed development:*
 - (i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and*
 - (ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to an Aboriginal place of heritage significance, or*
- (c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or*
- (d) the development is exempt development.*

(8) Aboriginal places of heritage significance

The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance:

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and*
- (b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent*

(10) Conservation incentives

The consent authority may grant consent to development for any purpose of a building that is a heritage item or of the land on which such a building is erected, or for any purpose on an Aboriginal place of heritage significance, even though development for that purpose would otherwise not be allowed by this Plan, if the consent authority is satisfied that:

- (a) the conservation of the heritage item or Aboriginal place of heritage significance is facilitated by the granting of consent, and*
- (b) the proposed development is in accordance with a heritage management document that has been approved by the consent authority, and*
- (c) the consent to the proposed development would require that all necessary conservation work identified in the heritage management document is carried out, and*
- (d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, or the heritage significance of the Aboriginal place of heritage significance, and*
- (e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area*

1.5.3.2 Hawkesbury Development Control Plan 2002

The Hawkesbury Development Control Plan was prepared by the Hawkesbury City Council in 2002. Part C; Chapter 10 deals with heritage of which the following sections address Aboriginal Cultural Heritage:

10.3.1 Indigenous Heritage

Indigenous heritage consists of places and items that are of significance to Aboriginal people because of their traditions, observations, lore, customs, beliefs and history. It provides evidence of the lives and existence of Aboriginal people before European settlement through to the present.

Long before European settlement the Aboriginal people inhabited the Hawkesbury region. The Darug people are known to have occupied the area for more than 40,000 years. Before 1788 it is believed that up to 3000 Darug people lived in the Hawkesbury River Valley.

The Darug People of the Hawkesbury, the Marramarra clan, subsided around the rich and diverse Hawkesbury River, known as the Deerubbin. The Hawkesbury River played a significant role in the Darug People's day to day subsistence and ceremonies, as such Aboriginal heritage sites occur throughout the Hawkesbury LGA.

The effective protection and conservation of this heritage is important in maintaining the identity, health and wellbeing of Aboriginal people.

10.6 Submission Requirements

Aboriginal Cultural/Archaeological Report

If a development involving the excavation or filling of land or the erection (involving disturbance of land) or demolition of buildings on land which is an archaeological site that has Aboriginal significance or a potential archaeological site that is reasonably likely to have Aboriginal significance, an archaeological report adequately and appropriately addressing relevant issues is to be prepared by a suitably qualified professional.

1.5.4 Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales

This assessment conforms to the parameters set out in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010).

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales states that if;

- a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely, then further archaeological investigation and impact assessment is necessary.

1.5.5 Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales

Any further work resulting from recommendations should be carried out conforming to the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010).

1.5.6 Guidelines

This report has been carried out in consultation with the following documents which advocate best practice in New South Wales:

- Aboriginal Archaeological Survey, Guidelines for Archaeological Survey Reporting (NSW NPWS 1998);
- Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010);
- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010);
- Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1998);
- Australia ICOMOS 'Burra' Charter for the conservation of culturally significant places (Australia ICOMOS 1999);
- Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010);
- Protecting Local Heritage Places: A Guide for Communities (Australian Heritage Commission 1999).

1.6 ACKNOWLEDGEMENTS

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- | | |
|--|--|
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| ➤ Mr D. Dyer, Darug Aboriginal Land Care | |

2.0 DESCRIPTION OF STUDY AREA

The study site is that piece of land described as Part Lot 2 of the Land and Property Information Deposited Plan 1051798 forming the following street address Vines Drive, Richmond, at Western Sydney University (Hawkesbury Campus), 2 College Road, Richmond in the Parish of Ham Common, County of Cumberland.



Figure 2-1 Aerial of Study Area.
Study area outlined in red. Six Maps, LPI Online (accessed 31/03/2021).

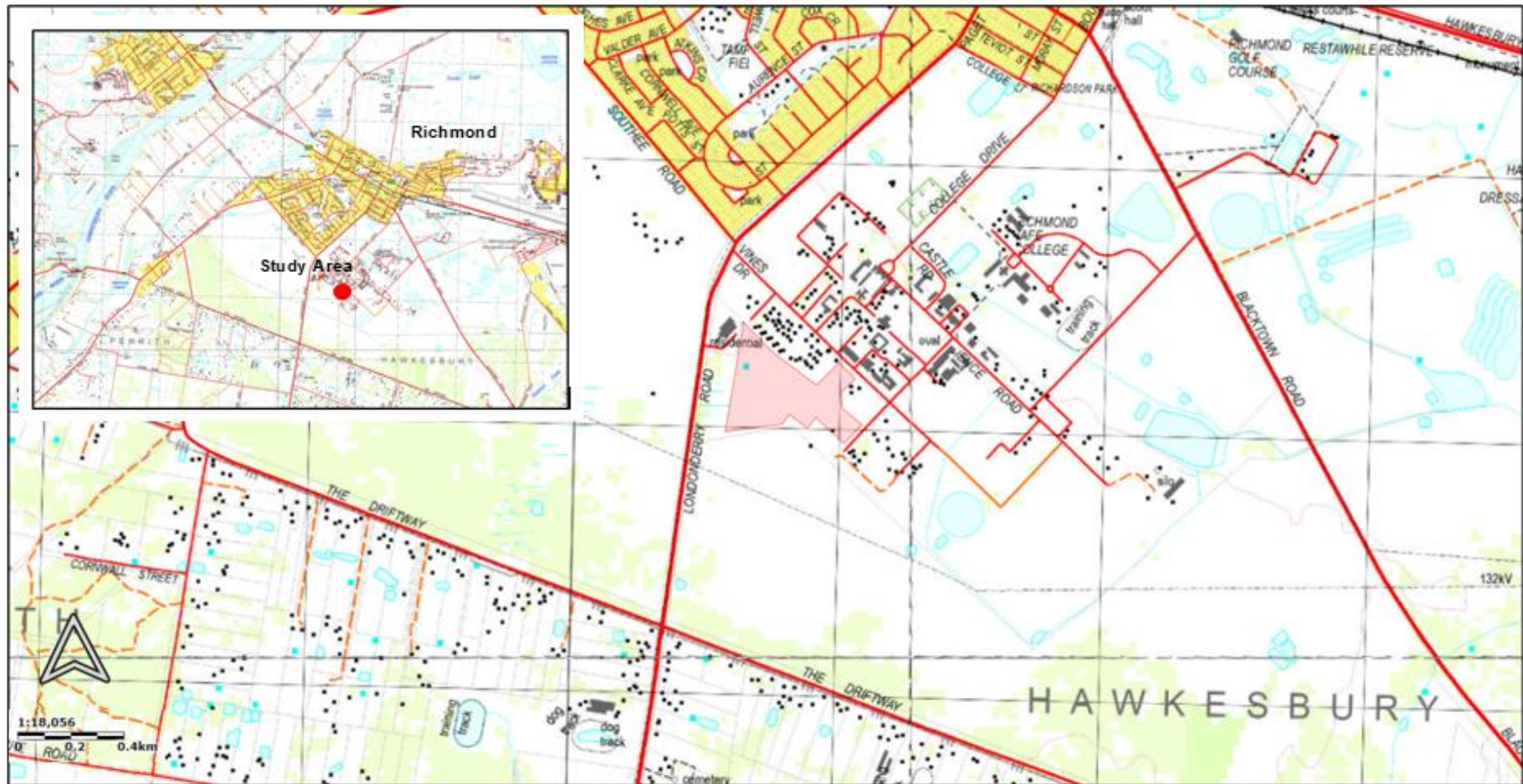


Figure 2-2 Topographic Map with Site Location.
Study area red outline/shade. Six Maps, LPI Online (accessed 31/03/2021).

2.1 REGISTERED ARCHAEOLOGICAL SITES WITHIN THE STUDY AREA

There are no registered sites within the study area that the author of this report is aware of. Test excavation conducted in 2017 (AMAC Group), resulted in no Aboriginal archaeological and cultural objects and/or deposits being located.

2.2 ENVIRONMENTAL CONTEXT

To adequately understand and assess the potential Aboriginal archaeological resource that may be present within the study area it is vital to understand the environment in which the Aboriginal inhabitants of the study area carried out their activities. The environment that Aboriginal inhabitants lived in is a dominant factor in shaping their activity and therefore the archaeological evidence created by this activity. Not only will the resources available to the Aboriginal population have an influence on the evidence created but the survival of said evidence will also be influenced by the environment.

2.2.1 Topography

The study area lies between the lower terraces of the Hawkesbury/Nepean River System. It intersects a number of major tributaries including South Creek and Agnes Banks.

The study area extends over one topographic zone, that belonging to the Berkshire Park (bp) alluvial landscape which consists of mostly flat terrace tops as well as gently undulating low rises, that have been modified to include small drainage channels and lines for agricultural purposes. The area can be prone to flooding and seasonal waterlogging.

2.2.2 Geology and Soils

The soil landscape map for the Penrith 1:100 000 map sheet shows that the study area lies on the Berkshire Park (bp) soil landscape (Bannerman & Hazelton, 1990).

The geology of the study area consists of three depositional phases of Tertiary alluvial/colluvial origin. This includes the following sandstone and clay formations, St Mary's overlain by the Rickabys Creek gravel formation, which varies in thickness across the region, and is then topped by the Londonderry Clay.

The Berkshire Park (bp) soil profile is made up of weakly pedal clays and clayey sands. In high wind erosion and sheet erosion is likely in cleared/ exposed areas.

N.B lower in the landscape where drainage conditions are poor there can be a thin (<20cm) layer of bp1 or bp2. On flats and drainage lines there can be up to 50cm of bp2. Most areas consist of 50cm of sandy clay (bp3) overlaying >50cm of high chroma clay (bp4) for a total depth of <450cm.

Table 2-1 Description of dominant soil material

Soil Material	Soil Horizon	Description
bp1	A1 Horizon	brownish black fine sandy loam to silt loam with apedal single grained structure and is very porous. Can also be found as bright reddish brown. Roots and charcoal do not occur.
bp2	A2 Horizon	reddish brown – yellowish brown sandy to fine sandy clay loam with a porous sandy fabric, however can be hardsetting.no inclusions.
bp3	B Horizon	brown sandy (slightly silty) clay with porous sandy fabric. It has a weak structure and may contain mottles, usually orange in colour, ironstone nodules are common.
bp4	B2 Horizon (deep subsoil)	bright coloured reddish brown to bright yellowish brown with white/ grey pipes are common as well as mottles of orange or red. This soil is light – heavy clay and can contain up to 90% stones.

2.2.4 Watercourses

The study area lies between two high order streams, the Hawkesbury River to the northwest - west approximate 3.7km and Rickabys Creek to the northeast - east 3.6km as well as having Yarramundi Lagoon located 3.1km to the northwest. There are a number of drainage channels and manmade dams within the vicinity as a result of European occupation and past land use as well as the area being within a swamp land (Figure 2.5)

2.2.5 Vegetation

The vegetation found in the study area is no longer in a native state and is comprised of a variety of introduced and noxious types of vegetation. This movement away from the natural vegetation is a result of previous land clearing for farming, residential and urban development.

These lands were cleared soon after European settlement due to the relatively high agricultural value of the soils upon which they are situated. The native vegetation of this area probably comprised of *Eucalyptus fibrosa* (broad leaved ironbark), *Angophora bakeri* (narrow leaved apple), *E. sclerophylla* (scribbly gum), *Melaleuca decora* and *M. nodosa* (paperbarks).

The shrub understorey would have been dominated by the following families; Fabaceae, Papilionaceae, Sapindaceae, Proteaceae and Myrtaceae. (Benson, 1981).

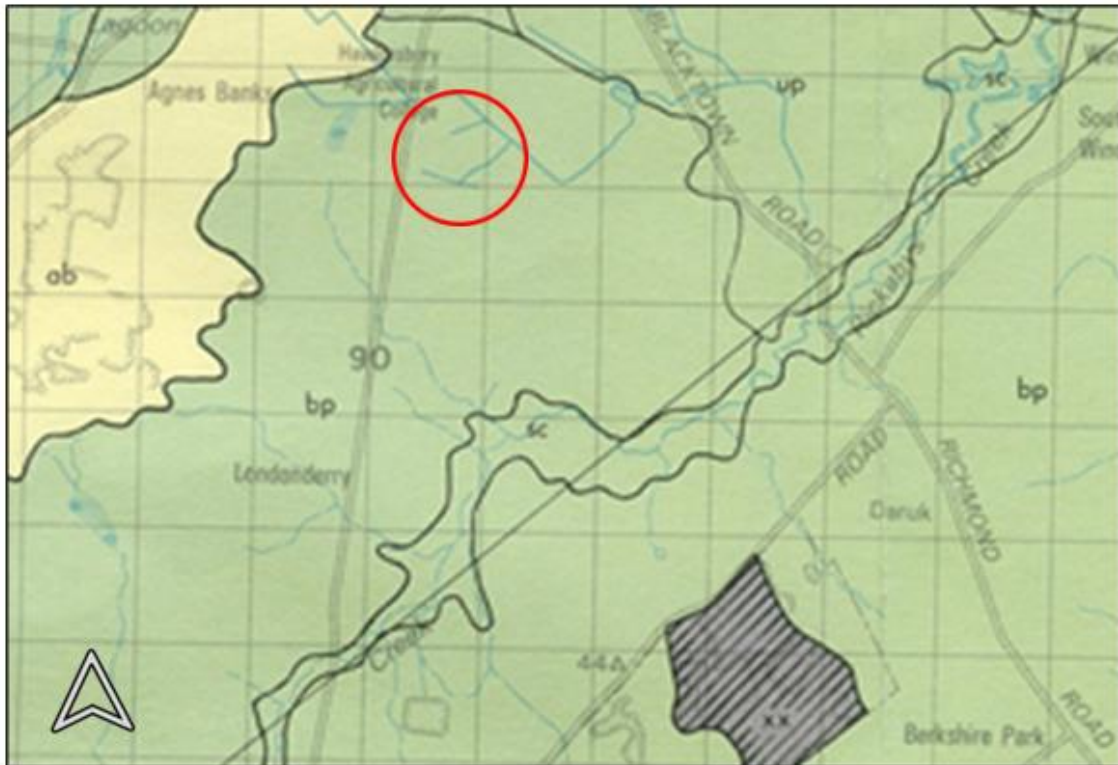


Figure 2-3 Study Area on Soil Map.
Approximate Site location outlined in red and located in the Berkshire Park soil landscape (bp). Soil Landscapes of the Sydney 1:100 000 Sheet (Chapman & Murphy, 1989).

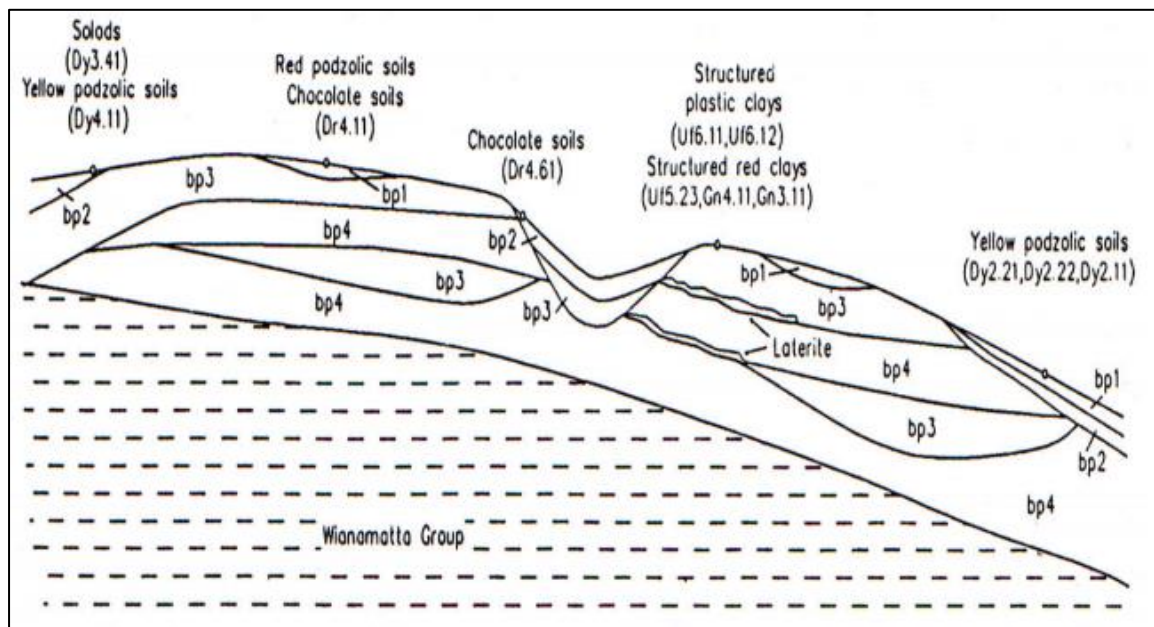


Figure 2-4 Cross Section of soil landscape illustrating relationships between landscape features and dominant soil materials.
Soil Landscapes of the Sydney 1:100 000 sheet (Chapman & Murphy, 1989).



Figure 2-5 Topography Map indicating watercourses in blue.
Study site indicated in red circle. Six Maps, LPI Online (2021).

2.3 LAND USE AND DISTURBANCE FACTORS

This section of the report provides an assessment of land use, the level of disturbance and the likely archaeological potential of the study area. The archaeological potential is based on the level of previous disturbance as well as the previously discussed predictive model for the region.

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010); defines disturbed lands as given below.

“Land is disturbed if it has been the subject of a human activity that has changed the land’s surface, these being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure and construction of earthworks)”

This definition is based on the types of disturbance as classified in The Australian Soil and Land Survey Field Handbook (CSIRO 2010). The following is a scale formulated by CSIRO (2010) of the levels of disturbances and their classification.

Minor Disturbance		Moderate Disturbance		Major Disturbance	
0	No effective disturbance; natural	3	Extensive clearing (e.g.: poisoning and ringbarking)	6	Cultivation; grain fed
1	No effective disturbance other than grazing by hoofed animals	4	Complete clearing; pasture native or improved, but never cultivated	7	Cultivation; irrigated, past or present
2	Limited clearing (e.g.: selected logging)	5	Complete clearing; pasture native or improved, cultivated at some stage	8	Highly disturbed (quarrying, road works, mining, landfill, urban)

The above scale is used in determining the level of disturbance of the study area and its impact on the potential archaeology which may be present.

2.3.1 Aboriginal Land Use and Resources

The study area lies in a resource zone which had resources that may have been exploited on either a regular or repeated basis. Reliable access to fresh water may have been present nearby to the study area.

Sites containing fresh water and sedentary food sources, coupled with the presence of other resources which may have been exploited or available on a seasonal basis, would suggest that Aboriginal land use of the study area was regular and repeated, with this reflected in the archaeological record.

Concentrated and repeated occupation may be represented in areas that have reliable access to water and foods sources. These areas will possess a high archaeological potential (Goodwin 1999).

Hawkesbury River provided a rich dietary intake for the local inhabitants, in which estuarine marine resources could be exploited. This is one of the major creek lines within the landscape that has been associated with Aboriginal activity. The accessibility of permanent water and resources along the bank would have channeled Aboriginal movement and land use to this location.

2.3.2 European Land Use

The site remained undeveloped and in its natural state until the late 19th Century when over 3,195 acres was removed in order to establish the Hawkesbury Agricultural College (Proudfoot 1987). The College was established in 1891 which it remains today. The study area has been subject to agricultural activity however, no developments has taken place within the project zone.



Figure 2-6 Aerial photograph of Agricultural College.
Australian Aerial Photographs 56 5 416 (1939).

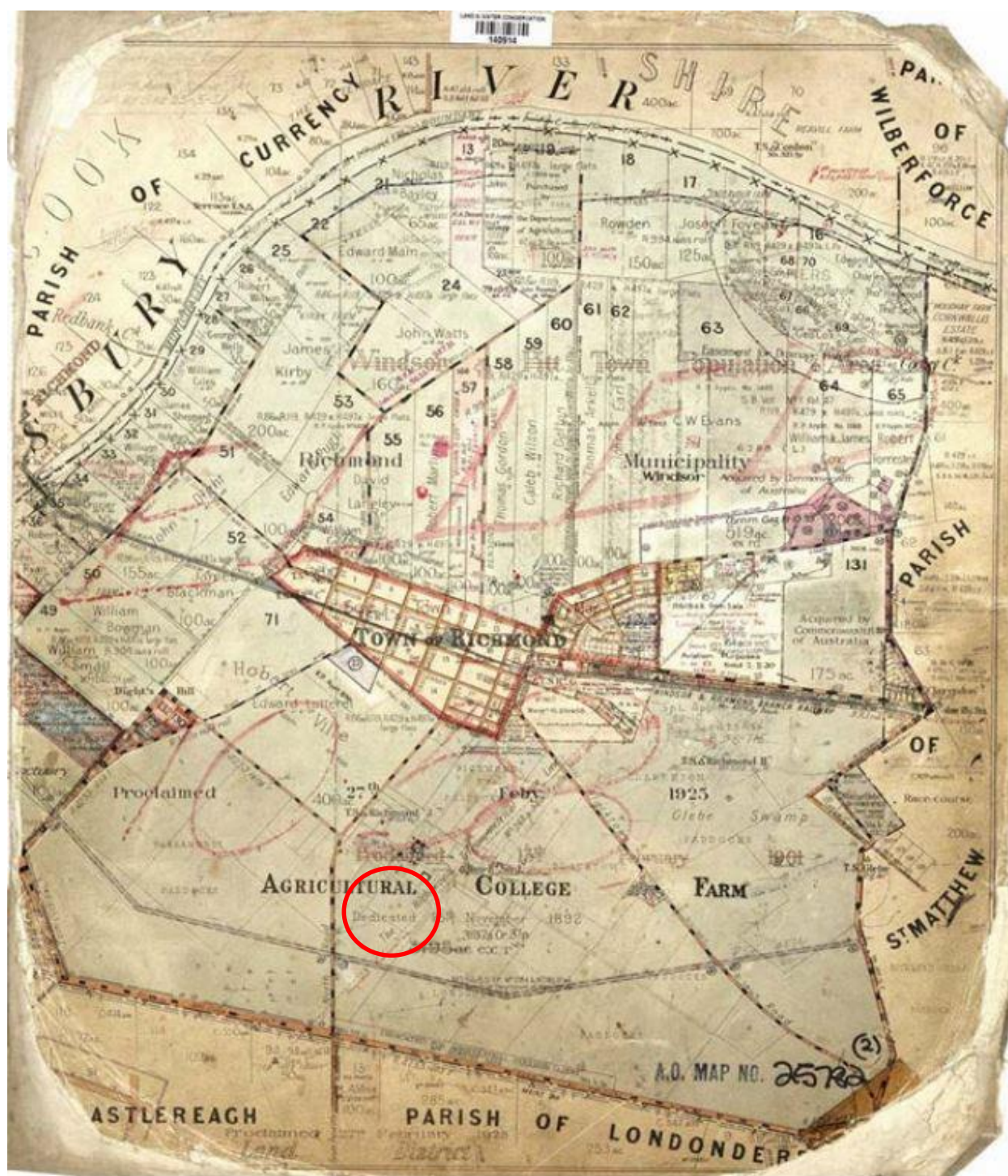


Figure 2-7 1901 Parish Map of Ham Common.
Study area outlined in red. (Proudfoot 1987).

2.3.3 Disturbance and Archaeological Potential

It is important to note that the following assessments describe the archaeological potential of the study area. It is acknowledged that if the study area has little or no archaeological potential, the study area may still have cultural significance to the Aboriginal community.

Background research indicates that the entirety of the study area has been impacted on during the 19th Century – 21st Century for agricultural purposes which only pose an impact to the surface. The depth of the soil profile indicate intact soils may remain intact. There is no indication that any deep excavation, construction of basements or bulk soil removal has taken place. Given the nature of the predicted deep soil profile, research suggests that there is original soil profile left intact. The following is predicted;

Low/Moderate disturbance to sections of the landscape: Sub-surface Aboriginal objects with potential conservation value have a low-moderate probability of being present within the study area.

The study area is shown in orange shading (Figure 2.8) based on its moderate disturbance on account to the area having been subject to complete clearing of native vegetation/cultivation, as well as having been subject to surface disturbances with the construction of minor dwellings such as sheds. These activities have the ability to disturb the soil profile at a minor – moderate rate. There is no indication that any deep excavation, construction of basements or bulk soil removal has taken place. Given the nature of the deep soil profile predicted in the area, research suggests that there is original soil profile left intact including the A horizon which is the artefact bearing layer.

2.3.4 Exclusion Areas

No formal areas of exclusion have been identified in the current plans.



Figure 2-8 Disturbance classification of study area.
Orange indicates moderate disturbance, (AMAC Group). Six Maps, LPI Online (accessed 31/03/2021).

3.0 ABORIGINAL CONSULTATION

This section documents the requirements of the Aboriginal consultation process that should be undertaken as part of any Aboriginal archaeological and cultural heritage assessment where an Aboriginal Heritage Impact Permit (AHIP) or test excavation is required. Section 4.1 outlines the guidelines for Aboriginal consultation issued by the DECCW. Section 4.2 documents the steps taken for this Aboriginal cultural assessment and the outcomes of the consultation. Further information, including copies of correspondence to and from registered parties is included in Appendix A.

3.1 CONSULTATION REQUIREMENTS

Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010), referring to Part 6 Approvals under the NPW Act were released in April 2010. The responsibilities of the proponent when test excavation is to take place and/or permit under section 90 of the NPW Act are listed below.

<http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf>

Stage 1 – Notification of project proposal and registration of interest

Stage 1 states that:

“4.1.2- Proponents are responsible for ascertaining, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal *objects* and/or *places*. Reasonable sources of information could include (a) to (g) below. Proponents must compile a list of Aboriginal people who may have an interest for the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal *objects* and/or *places* by writing to:

- (a) the relevant DECCW (sic) EPRG regional office
- (b) the relevant Local Aboriginal Land Council(s)
- (c) the Registrar, *Aboriginal Land Rights Act 1983* for a list of Aboriginal owners
- (d) the National Native Title Tribunal for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements
- (e) Native Title Services Corporation Limited (NTSCORP Limited)
- (f) the relevant local council(s)
- (g) the relevant catchment management authorities for contact details of any established Aboriginal reference group.

4.1.3- Proponents must write to the Aboriginal people whose names were obtained in step 4.1.2 and the relevant Local Aboriginal Land Council(s) to notify them of the proposed project. The proponent must also place a notice in the local newspaper circulating in the general location of the proposed project explaining the project and its exact location. The notification by letter and in the newspaper, must include:

- (a) the name and contact details of the proponent
- (b) a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project
- (c) a statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP and to assist the Director General of DECCW in his or her consideration and determination of the application
- (d) an invitation for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity
- (e) a closing date for the registration of interests.

4.1.4- There must be a minimum of 14 days from the date the letter was sent, or notice published in the newspaper to register an interest. The time allowed to register an interest should reflect the project's size and complexity.

4.1.5- The proponent must advise Aboriginal people who are registering an interest that their details will be forwarded to DECCW and the Local Aboriginal Land Council (LALC) unless they specify that they do not want their details released.

4.1.6- The proponent must make a record of the names of each Aboriginal person who registered an interest and provide a copy of that record, along with a copy of the notification from 4.1.3 to the relevant DECCW EPRG regional office and LALC within 28 days from the closing date for registering an interest.

4.1.7- LALCs holding cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area who wish to register an interest to be involved in consultation must register their interest as an Aboriginal organisation rather than as individuals.

4.1.8- Where an Aboriginal organisation representing Aboriginal people who hold cultural knowledge has registered an interest, a contact person for that organisation must be nominated. Aboriginal cultural knowledge holders who have registered an interest may indicate to the proponent they have appointed a representative to act on their behalf. Where this occurs, the registered Aboriginal party must provide written confirmation and contact details of those individuals to act on their behalf.

Stage 2 – Presentation of information about the proposed project

Stage 2 states that:

“4.2.1- The proponent must initiate arrangements for presenting the proposed project information to the registered Aboriginal parties (from Stage 1).

4.2.2- The presentation of proposed project information should provide the opportunity for:

- (a) the proponent to present the proposal, outline project details relevant to the nature, scope, methodology and environmental and other impacts
- (b) the proponent to outline the impact assessment process including the input points into the investigation and assessment activities

- (c) the proponent to specify critical timelines and milestones for the completion of assessment activities and delivery of reports
- (d) the proponent and registered Aboriginal parties to clearly define agreed roles, functions and responsibilities
- (f) the registered Aboriginal parties to identify raise and discuss their cultural concerns, perspectives and assessment requirements (if any).

4.2.3- The proponent should record or document that the proposed project information has been presented. This record or documentation should include any agreed outcomes, and any contentious issues that may require further discussion to establish mutual resolution (where applicable). The proponent should provide a copy of this record or documentation to registered Aboriginal parties.

4.2.4- Depending on the nature, scale and complexity of the proponent's project, it may be reasonable and necessary for the proponent to:

- (a) conduct additional project information sessions to ensure that all necessary information about the project is provided and enable registered Aboriginal parties to provide information about the cultural significance of Aboriginal object(s) and/or place(s) that may be present on the proposed project area
- (b) create the opportunity for registered Aboriginal parties to visit the project site" (DECCW 2010).

Stage 3 – Drafting, review and finalisation of the Cultural Heritage Assessment Report

Stage 3 states that:

"4.3.1- The proponent must present and/or provide the proposed methodology(s) for the cultural heritage assessment to the registered Aboriginal parties.

4.3.2- The registered Aboriginal parties must be given the opportunity to review and provide feedback to the proponent within a minimum of 28 days of the proponent providing the methodology. The review should identify any protocols that the registered Aboriginal parties wish to be adopted into the information gathering process and assessment methodology and any matters such as issues/areas of cultural significance that might affect, inform or refine the assessment methodology. Comments should be provided in writing, or may be sought verbally by the proponent and accurately recorded.

4.3.3- As part of this consultation, the proponent must also seek cultural information from registered Aboriginal parties to identify:

- (a) whether there are any Aboriginal objects of cultural value to Aboriginal people in the area of the proposed project
- (b) whether there are any places of cultural value to Aboriginal people in the area of the proposed project (whether they are Aboriginal places declared under s.84 of the NPW Act or not). This will include places of social, spiritual and cultural value, historic places with cultural significance, and potential places/areas of historic, social, spiritual and/or cultural significance.

4.3.4- Some information obtained from registered Aboriginal parties may be sensitive or have restricted public access. The proponent must, in consultation with

registered Aboriginal parties, develop and implement appropriate protocols for sourcing and holding cultural information. In some cases the sensitive information may be provided to the proponent by an individual and the proponent should not share that information with all registered Aboriginal parties or others without the express permission of the individual.

4.3.5- Information obtained in 4.3.4 is used to understand the context and values of Aboriginal object(s) and/or place(s) located on the proposed project site. This information must be integrated with the scientific (archaeological) assessment of significance. Together the context, values, and scientific assessment provide the basis for assessing Aboriginal heritage values and recommending management options.

The information collected by the proponent during the consultation process must be used only to inform decision making for any application for an AHIP, unless the registered Aboriginal parties agree otherwise.

4.3.6- The proponent must seek the views of registered Aboriginal parties on potential management options. Management options will include ways to avoid or mitigate harm and/or conserve known Aboriginal object(s) and/or place(s). Management options should consider how Aboriginal people can continue their association with identified Aboriginal heritage values.

4.3.7- The proponent must document all feedback received in Stage 3 from registered Aboriginal parties in the final cultural heritage assessment report. This must include copies of any submissions received and the proponents response to the issues raised. In some cases this may require an acknowledgment of sensitive information and a list of Aboriginal people who should be contacted for permission to receive further details” (DECCW 2010).

Stage 4 – Review of draft cultural heritage assessment report.

Stage 4 states that:

“4.4.1- The proponent must prepare a draft cultural heritage assessment report.

4.4.2- The proponent must provide a copy of the draft cultural heritage assessment report to registered Aboriginal parties for their review and comment.

4.4.3- The proponent must give registered Aboriginal parties a minimum of 28 days from sending the draft report to make submissions. The time allowed for comment on the draft report should reflect the project’s size and complexity. Comments should be provided in writing or, where provided verbally, accurately recorded.

4.4.4- After considering the comments received on the draft report the proponent must finalise the report. The final report must include copies of any submissions received, including submissions on the proposed methodology and on the draft report. The final report must also include the proponent’s response to each submission. The report must then be submitted to DECCW for consideration with the proponent’s application for an AHIP.

4.4.5- The proponent must provide or make available copies of the final cultural heritage assessment report and the AHIP application to registered Aboriginal parties and the relevant LALC(s) (whether or not the LALC is registered in Stage

1). The report and application must be provided or made available within 14 days of the AHIP application being made” (DECCW 2010).

3.2 CONSULTATION SUMMARY

Consultation for this report has been undertaken in accordance with the Heritage NSW and *National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010)*.

In 2018, the study area was part of the SSDA Submission (SSD 8614) for the Hurlstone Agricultural High School (AMAC 2018) and the same site has been subsequently superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School.

All registered stakeholders were given a copy of a proposed Aboriginal Cultural Heritage Research Methodology on the study area during the 2017-2018 archaeological investigation of the *New Hurlstone Agricultural High School, Hawkesbury Campus, 2 College Road, Richmond (Hawkesbury LGA)* and given 28 days to respond to the Aboriginal Cultural Heritage Assessment Research Design and Testing Methodology.

Archaeological test excavation had been undertaken in 2017 and resulted in no Aboriginal archaeological and cultural objects and/or deposits being located. The findings of that investigation were synthesised into a report *Aboriginal Test Excavation Report, New Hurlstone Agricultural High School, Hawkesbury Campus, 2 College Road, Richmond (Hawkesbury LGA)*. All registered parties were given 28 days to review and comment on the document.

As the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School has superseded the Hurlstone Agricultural High School development all the registered Aboriginal organisations/individuals from that project have been consulted for this development.

All registered stakeholders have been given a copy of this Aboriginal Cultural Heritage Assessment and had an opportunity to review and comment on this document. All comments have been incorporated into this report.

Table 3-1 Consultation Summary

STAGES 1 /2/3 - Completed as Part of Hurlstone Agricultural High School (HAHS) ACHAR 2017/2018					
Registered Organisations/Individuals (HAHS)	Contact Person	Email Address	Date	Method	Notes
Kamilaroi-Yankuntjatjara Working Group (KYWG)	Phil Khan	[REDACTED]	27/10/2017	Email	[REDACTED]
Darug Aboriginal Cultural Heritage Assessments (DACHA)	Celestine Everingham	[REDACTED]	30/10/2017	Phone	[REDACTED]
Deerubbin LALC	Steve Randall	[REDACTED]	12/10/2017	Email	
A1 Indigenous Service	Carolyn Hickey	[REDACTED]	30/10/2017	Email	
Amanda Hickey Cultural Services	Amanda Hickey	[REDACTED]	30/10/2017	Email	
Darug Aboriginal Cultural Heritage Assessments (AAS)	Andrew Williams	[REDACTED]	29/10/2017	Email	[REDACTED]
Widescope	Steven Hickey	[REDACTED]	27/10/2017	Email	
Didge Ngunawal Clan (DNC)	Paul Boyd	[REDACTED]	27/10/2017	Email	
Gunjeewong Cultural Heritage Aboriginal Corp	Cherie Carroll - Turrise	[REDACTED]	30/10/2017	Email	
Darug Aboriginal Land Care	Des Dyer	[REDACTED]	27/10/2017	Email	
Cullendulla	Cory Smith	[REDACTED]	8/11/2017	Email	
Murramarang	Roxanne Smith	[REDACTED]	8/11/2017	Email	
Biamanga	Janaya Smith	[REDACTED]	8/11/2017	Email	
Goobah	Basil Smith	[REDACTED]	8/11/2017	Email	
Darug Custodian Aboriginal Corp (DCAC)	Justin Coplin	[REDACTED]	8/11/2017	Email	

Registered Organisations/Individuals (CoE)	Contact Person	Email Address	Date	Method	Notes
Secretary Aboriginal Education Consultative Group (AECG), Darug Women, Member Darug Custodians, Teacher Riverstone PS	Jasmine Seymour		1/04/2021	Email	
President AECG	Dewayne Trewlynn		1/04/2021	Email	
Previous President AECG Aboriginal Liaison Officer RHS/RAC	Jennifer Flood		1/04/2021	Email	
Aboriginal Support Officer RHS Campus/RAC	Kathie Medley		1/04/2021	Email	
Darug Woman Member AECG and Darug Custodians	Erin Wilkins		1/04/2021	Email	
Member AECG, Teacher NSW DoE and Lecturer WSU	Susan Price		1/04/2021	Email	
Manager Merana Aboriginal Community Association for the Hawkesbury Inc.	Mel Stubbings		1/04/2021	Email	

STAGE 4

ACHAR Report Minimum 28 days to respond (09/04/2021) - (07/05/2021)

Contacted Organisation/ Individuals	Contacted by Organisation/ Individual	Subject	Date	Method	Notes
All RAPs	AMAC/Steven J. Vasilakis	Dispatch ACHAR/AATR Reports	9/04/2021	Email	
AMAC/Steven J. Vasilakis	Kamilaroi-Yankuntjatjara/Kadibulla Khan	ACHAR/AATR Review	14/04/2021	Email	Supports Recommendations
AMAC/Steven J. Vasilakis	Gunjeewong/Cherie Carroll-Turrisse	ACHAR/AATR Review	20/04/2021	Email	Supports Recommendations
All RAPs (except Kamilaroi-Yankuntjatjara & Gunjeewong)	AMAC/Steven J. Vasilakis	ACHAR/AATR Review Reminder	06/05/2021	Email	No Responses

Other Contact					
Contacted Organisation/ Individuals	Contacted by Organisation/ Individual	Subject	Date	Method	Notes
All RAPS	AMAC/Steven J. Vasilakis	Virtual Meeting Invite	19/04/2021	Email	Meeting with NSW Aboriginal Education Consultative Group Inc.

Table 3-2 Consultation Summary of Previous Development - Hurlstone Agricultural High School (AMAC 2018)

STAGE 1						
Authority Letters & Advertisement						
Authority Body/ Organisation	Contact Person	Contact Details	Date Sent	Method	Response Received	Date
Hawkesbury City Council	Heritage Officer	Po Box 146, Windsor NSW 2012	11/10/2017	Mail	No	
Greater Sydney LLS	Heritage Officer	PO BOX 4515, Westfield Penrith NSW 2750	11/10/2017	Mail	No	
Deerubbin Local Aboriginal Land Council	Heritage Officer	PO BOX 40, Penrith BC NSW 2751	11/10/2017	Mail	No	
NSW Native Title Services	Heritage Officer	PO BOX 2105, Strawberry Hills NSW 2012	11/10/2017	Mail	No	
NNTT	Heritage Officer	GPO BOX 9973, Sydney NSW 2001	11/10/2017	Mail	Yes	16/10/17
NTSCORP	Heritage Officer	PO BOX 2105, Strawberry Hills NSW 2012	11/10/2017	Mail	No	
OEH	Archaeologist	PO BOX 644, Parramatta NSW 2124	11/10/2017	Mail	Yes	19/10/17
Office of Registrar	Heritage Officer	PO BOX 112, Glebe NSW 2037	11/10/2017	Mail	Yes	19/10/17
Newspaper Advertisement:	Hawkesbury Gazette		Date printed: 01/11/17		End Period: 18/11/17	
Stakeholders Contacted	Minimum 14 days to register	(25/10/2017) - (08/11/2017)				
Name/Organisation	Contact Person	Contact Details	Date Sent	Method	Notes	
Deerubbin LALC	Steve Randall		25/10/2017	Mail		
Darug Custodian Aboriginal Corp (DCAC)	Justin Coplin		25/10/2017	Mail		
Darug Tribal Aboriginal Corp			25/10/2017	Mail		
Darug Aboriginal Cultural Heritage Assessments	Celestine Everingham		25/10/2017	Mail		
Darug Land Observations	Gordon Workman		25/10/2017	Mail		
Darug Aboriginal Land Care	Des Dyer		25/10/2017	Mail		
Gunjeewong Cultural Heritage Aboriginal Corp	Cherie Carroll Turrise		25/10/2017	Mail		
Merrigarn Indigenous Corporation	Shaun Carroll		25/10/2017	Mail		
Murri Bidgee Mullangari Aboriginal Corporation	Darleen Johnson		25/10/2017	Mail		
Bidjawong Aboriginal Corp	James Carroll		25/10/2017	Mail		

Kamilaroi-Yankuntjatjara Working Group	Phil Khan	[REDACTED]	25/10/2017	Mail	
Wurrumay Consultancy	Kerrie Slater	[REDACTED]	25/10/2017	Mail	
Warragil Cultural Services	Aaron Slater	[REDACTED]	25/10/2017	Email	
Kawul Cultural Services	Vicky Slater	[REDACTED]	25/10/2017	Mail	
Tocumwall	Scott Franks	[REDACTED]	25/10/2017	Mail	
Amanda Hickey Cultural Services	Amanda Hickey	[REDACTED]	25/10/2017	Mail	
Widescope Indigenous Group	Steven Hickey	[REDACTED]	25/10/2017	Mail	
HSB Consultants	Patricia Hampton	[REDACTED]	25/10/2017	Mail	
Rane Consulting	Tony Williams	[REDACTED]	25/10/2017	Mail	
Aboriginal Archaeological Services	Andrew Williams	[REDACTED]	25/10/2017	Mail	
Dhinawan-Dhigaraa Culture & Heritage	Ricky Fields	[REDACTED]	25/10/2017	Mail	
Gunyu	Kylie ann bell	[REDACTED]	25/10/2017	Email	
Walbunja	Hika te Kowhai	[REDACTED]	25/10/2017	Email	
Badu	Karia Lea Bond	[REDACTED]	25/10/2017	Mail	
Goobah Developments	Basil Smith	[REDACTED]	25/10/2017	Mail	
Wullung	Lee-Roy James Boota	[REDACTED]	25/10/2017	Mail	
Yerramurra	Robert Parson	[REDACTED]	25/10/2017	Email	
Nundagurri	Newton Carriage	[REDACTED]	25/10/2017	Email	
Murrumbul	Mark Henry	[REDACTED]	25/10/2017	Email	
Jerringong	Joanne Anne Stewart	[REDACTED]	25/10/2017	Email	
Pemulwuy CHTS	Pemulwuy Johnson	[REDACTED]	25/10/2017	Email	
Bilinga	Simalene Carriage	[REDACTED]	25/10/2017	Email	
Munyunga	Kaya Dawn Bell	[REDACTED]	25/10/2017	Email	
Wingikara	Hayley Bell	[REDACTED]	25/10/2017	Email	
Minnamunnung	Aaron Broad	[REDACTED]	25/10/2017	Email	
Jerringong	Joanne Anne Stewart	[REDACTED]	25/10/2017	Email	
Gundungurra Tribal Technical Services	Christopher Payne	[REDACTED]	25/10/2017	Mail	
Walgala	Ronald Stewart	[REDACTED]	25/10/2017	Email	
Thauaira	Shane Carriage	[REDACTED]	25/10/2017	Email	

Dharug	Andrew Bond	[REDACTED]	25/10/2017	Email	[REDACTED]
Bilinga Cultural Heritage Technical Services	Robert Brown	[REDACTED]	25/10/2017	Email	[REDACTED]
Gunyu Cultural Heritage Technical Services	Darlene Hoskins-McKenzie	[REDACTED]	25/10/2017	Email	[REDACTED]
Munyunga Cultural Heritage Technical Services	Suzannah McKenzie	[REDACTED]	25/10/2017	Email	[REDACTED]
Murrumbul Cultural Heritage Technical Services	Levi McKenzie-Kirkbright	[REDACTED]	25/10/2017	Email	[REDACTED]
Wingikara Cultural Heritage Technical Services	Wandai Kirkbright	[REDACTED]	25/10/2017	Email	[REDACTED]
Gulaga	Wendy Smith	[REDACTED]	25/10/2017	Email	[REDACTED]
Biamanga	Seli Storer	[REDACTED]	25/10/2017	Email	[REDACTED]
Cullendulla	Corey Smith	[REDACTED]	25/10/2017	Email	[REDACTED]
Murramarang	Roxanne Smith	[REDACTED]	25/10/2017	Email	[REDACTED]
DJMD Consultancy	Darren Duncan	[REDACTED]	25/10/2017	Email	[REDACTED]
Butucarbin Aboriginal Corporation	Jennifer Beale	[REDACTED]	25/10/2017	Mail	[REDACTED]
Didge Ngunawal Clan	Lillie Carroll	[REDACTED]	25/10/2017	Mail	[REDACTED]
Ginninderra Aboriginal Corp	Steven Johnson	[REDACTED]	25/10/2017	Mail	[REDACTED]
Nerringundah	Newton Carriage	[REDACTED]	25/10/2017	Email	[REDACTED]
Sharaon Hodgetts	Sharon Hodgetts	[REDACTED]	25/10/2017	Mail	[REDACTED]
Registered Organisations/Individuals	Contact Person	Email Address	Date	Method	Notes
KYWG	Phil Khan	[REDACTED]	12/10/2017	phone	[REDACTED]
DACHA	Celestine Everingham	[REDACTED]	12/10/2017	phone	[REDACTED]
Deerubbin LALC	Steve Randall	[REDACTED]	12/10/2017	email	[REDACTED]
A1 Indigenous Service	Carolyn Hickey	[REDACTED]	30/10/2017	email	[REDACTED]
Amanda Hickey Cultural Services	Amanda Hickey	[REDACTED]	30/10/2017	email	[REDACTED]
AAS	Andrew Williams	[REDACTED]	29/10/2017	email	[REDACTED]
Widescope	Steven Hickey	[REDACTED]	27/10/2017	email	[REDACTED]
Didge Ngunawal Clan	Paul Boyd	[REDACTED]	27/10/2017	email	[REDACTED]
Gunjeewong Cultural Heritage Aboriginal Corp	Cherie Carroll - Turrise	[REDACTED]	30/10/2017	mail	[REDACTED]

Darug Aboriginal Land Care	Des Dyer		27/10/2017	email	
Cullendulla			8/11/2017	email	
Murramarang			8/11/2017	email	
Biamanga			8/11/2017	email	
Goobah	Basil Smith		8/11/2017	email	
Darug Custodian Aboriginal Corp (DCAC)	Justin Coplin		8/11/2017	email	

STAGE 2 & 3

ACHA Methodology (/Test Excavation Methodology)	Minimum 28 days to respond	(20/11/2017) - (18/12/2017)	Tender Due (20/11/17 - 04/12/17)		
Contacted Organisation/ Individuals	Contacted by Organisation/ Individual	Subject	Date	Method	Notes
All RAPs	Yolanda Pavincich/ AMAC	ACHA Methodology & Tender	20/11/2017	Email	Posted to DACHA, Gunjeewong and KYWG
Yolanda Pavincich/ AMAC	Des Dyer	Agrees to Methodology	23/11/2017	Phone	Agrees to recommendations
Yolanda Pavincich/ AMAC	DLALC	Agrees to Methodology	27/11/2017	Phone	Agrees to recommendations
Yolanda Pavincich/ AMAC	Didge Ngunawal Clan	Agrees to Methodology	23/11/2017	Email	Agrees to recommendations
Yolanda Pavincich/ AMAC	Phil Khan	Agrees to Methodology	22/11/2017	Phone	Agrees to recommendations
Yolanda Pavincich/ AMAC	A1 Indigenous	Agrees to Methodology	20/11/2017	Email	Agrees to recommendations
Yolanda Pavincich/ AMAC	Amanda Hickey	Agrees to Methodology	20/11/2017	Email	Agrees to recommendations
Yolanda Pavincich/ AMAC	Widescope	Agrees to Methodology	20/11/2017	Email	Agrees to recommendations
Yolanda Pavincich/ AMAC	Goobah	Agrees to Methodology	27/11/2017	Phone	Agrees to recommendations
Ben Streat/ AMAC	AAS	Agrees to Methodology	27/11/2017	Email	Agrees to recommendations
Yolanda Pavincich/ AMAC	DACHA	Agrees to Methodology	27/11/2017	Phone	Agrees to recommendations
Yolanda Pavincich/ AMAC	Gunjeewong	Agrees to Methodology	27/11/2017	Mail	Agrees to recommendations
DCAC	Ben Streat/ AMAC	Agrees to Methodology	29/11/2017	Phone	Agrees to recommendations
Goobah	Ben Streat/ AMAC	Agrees to Methodology	29/11/2017	Phone	Agrees to recommendations
Biamanga	Ben Streat/ AMAC	Agrees to Methodology	29/11/2017	Phone	B. Smith from Goobah spoke on behalf of Biamanga, Cullendulla and Murramarang
Cullendulla	Ben Streat/ AMAC	Agrees to Methodology	29/11/2017	Phone	B. Smith from Goobah spoke on behalf of Biamanga, Cullendulla and Murramarang

Murramarang	Ben Streat/ AMAC	Agrees to Methodology	29/11/2017	Phone	B. Smith from Goobah spoke on behalf of Biamanga, Cullendulla and Murramarang
Test Excavation		06/12/2017 - 13/12/2017			
STAGE 4					
ACHA Report	Minimum 28 days to respond	(20/12/2017) - (21/01/2017)			
Contacted Organisation/ Individuals	Contacted by Organisation/ Individual	Subject	Date	Method	Notes
All RAPs	Consultation/ AMAC	Dispatch ACHA and test excavation report	20/12/2017	Email	
Consultation/AMAC	Des Dyer /DALC	ACHA and test report	6/01/2018	Email	Agrees to recommendations
Consultation/AMAC	Phil Khan/KYWG	ACHA and test report	5/01/2018	Mail	Agrees to recommendations
Consultation/AMAC	Justin Coplin/ DCAC	ACHA and test report	12/01/2018	Email	Agrees to recommendations
All RAPs	Consultation/ AMAC	Revised review period date	12/01/2018	Email	initially said 21/01/17 instead of 17/01/17
All RAPs	Consultation/ AMAC	Reminder for review period	16/01/2018	Email	

4.0 BACKGROUND INFORMATION

Pre-field work research consisted of an analysis and synthesis of the background data to determine the nature of the potential archaeological and cultural heritage resource in the region.

Background research entailed a detailed review of sources of information on the history, oral history, ethno-history and archaeological background of the study area and surrounds and will include but not be limited to material from:

- Heritage NSW archaeological assessment and excavation reports and cultural heritage assessments
- Heritage NSW Library
- State Library of NSW including the Mitchell Library
- Local libraries and historical associations
- National Library of Australia.

A search of the Heritage NSW AHIMS was undertaken and the results examined. The site card for each site within 1000m in all directions from the centre of the study area was inspected (where available) and an assessment made of the likelihood of any of the sites being impacted by the proposed development.

The Heritage NSW library of archaeological reports (Hurstville) was searched and all relevant reports were examined. Searches were undertaken on the relevant databases outlined in Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010).

Further to this the following sources were examined:

- The National Heritage List
- The Commonwealth Heritage List
- The NSW State Heritage Inventory
- The National Native Title Register
- The Register of Declared Aboriginal Places
- Prevailing local and regional environmental plans
- Environmental background material for the study area.

4.1 AHIMS SEARCH RESULTS

The Archaeological Heritage and Information Management System Database (AHIMS) is located at the Heritage NSW Offices at Hurstville in New South Wales. This database comprises information about all the previously recorded Aboriginal archaeological sites registered with Heritage NSW. Further to the site card information that is present about each recorded site, the assessments and excavation reports that are associated with the location of many of these sites are present in the library of reports.

The location of these sites) must be viewed as purely indicative as errors in the recording of the locations of sites often occurs due to the disparate nature of the recording process, the varying level of experience of those locating the sites and the errors that can occur when transferring data. If possible, sites that appear to be located near a study area should be relocated.

An AHIMS extensive 1km search was conducted on the 30th March 2021 (ID 579679). This search resulted in four registered sites near the study area. The following table is comprised of the results listed from the extensive search.

Table 4-1 AHIMS Search Results

Site ID	Site name	Site status	Site features
45-5-1062	Richmond Marketplace 1; RM 1.	Valid	Artefact
45-5-2404	RWP 1	Valid	Artefact
45-5-0652	HB14	Valid	Artefact
45-5-0651	HB13	Valid	Artefact



Figure 4-1 AHIMS Search Results.
AMAC Group (2021). Six Maps, LPI Online (accessed 31/03/2021).

4.2 OTHER SEARCH RESULTS

Results for other statutory databases searched are given below:

Heritage Listings/ Register/ Other	Result
National Heritage List	Not Listed
Commonwealth Heritage List	Not Listed
NSW State Heritage Register	Not Listed
Register of Declared Aboriginal Places	Not Listed
National Native Title Register	Not Listed

4.3 SUMMARY OF ARCHAEOLOGICAL PREDICTIVE MODEL FOR THE REGION

Predictive modelling is an adaptive process which relies on a framework formulated by a number of factors, including but not limited to the use of local land systems, the environmental context, archaeological work and any distinctive sets of constraints that would influence land use patterns. This is based on the concept that different landscape zones may offer different constraints, which is then reflected in the spatial distributions and forms of archaeological evidence within the region (Hall and Lomax 1996).

Early settlement models focused on seasonal mobility, with the exploitation of inland resources being sought once local ones become less abundant. These principles were adopted by Foley (1981) who developed a site distribution model for forager settlement patterns. This model identifies two distinctive types of hunter and gather settlements; 'residential base camps' and 'activities areas.' Residential base camps are predominately found located in close proximity to a reliable source of permanent water and shelter. From this point the surrounding landscape is explored and local resources gathered. This is reflected in the archaeological record, with high density artefact scatters being associated with camp bases, while low density and isolated artefacts are related to the travelling routes and activity areas (Foley 1981, Fig. 4.2).

However, more recently, investigation into understanding the impacts of various episodes of occupation on the archaeological record has been explored, of which single or repeated events are being identified. This is often a complex process to establish, specifically within predictive models as land use and disturbance can often result in post depositional processes and the superimposition of archaeological materials by repeated episodes of occupation.

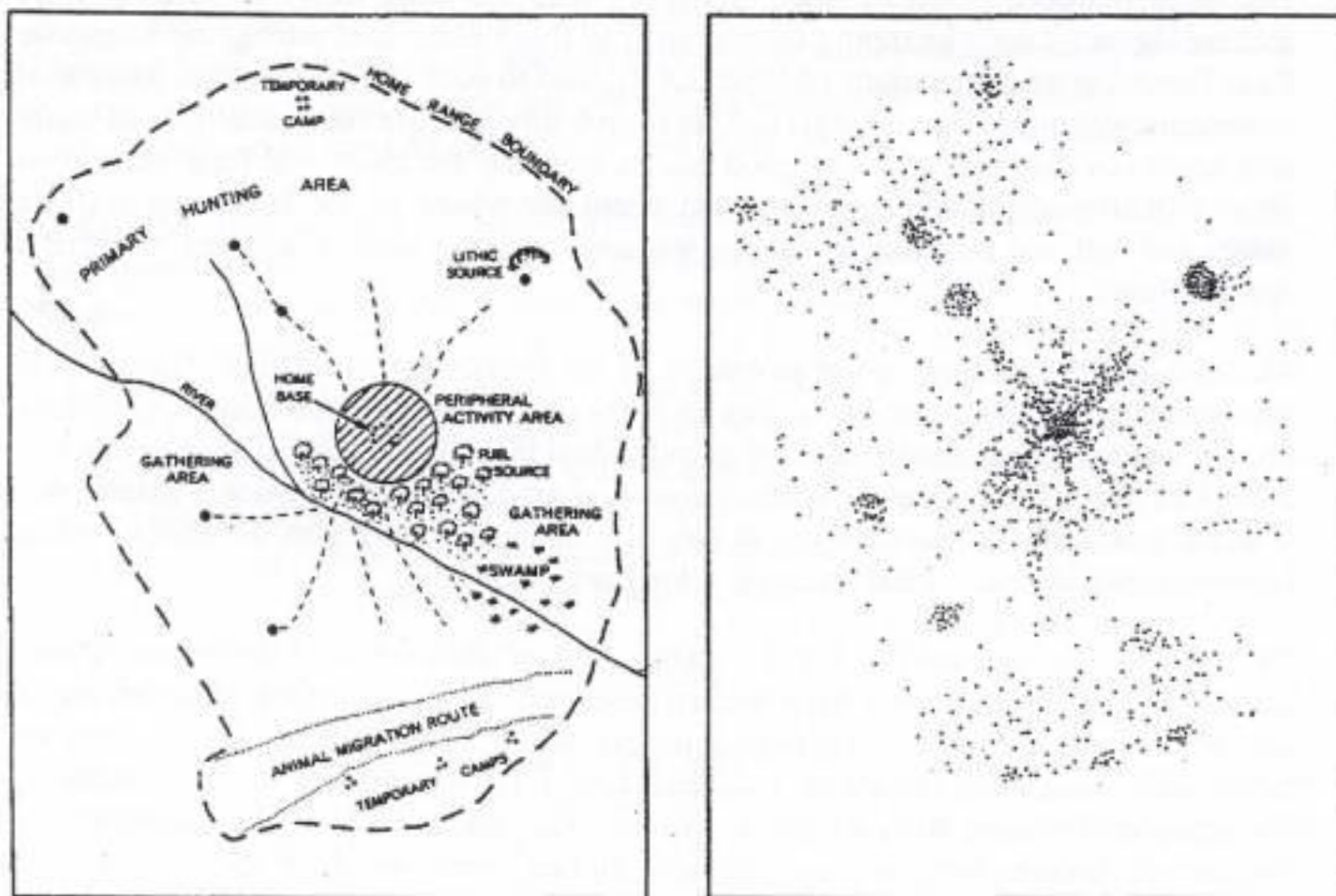


Figure 4-2 Examples of forager settlement patterns.
Foley (1981).

The principals behind this model have been incorporated into other predictive models such as that of McBryde (1976). McBryde's model is centred on the utilisation of food resources as a contributor to settlement patterns, specifically with reference to the predictability and reliability of food resources for Aboriginal people within the immediate coastal fringe and/or hinterland zone, with migratory behaviour being a possibility. Resources such as certain species of animals, particularly; small marsupials and reptiles, plant resources and nesting seabirds may have been exploited or only available on a seasonal or intermittent basis. As such, archaeological sites which represent these activities whilst not being representative of permanent occupation may be representative of brief, possibly repeated occupation.

Jo McDonald and Peter Mitchell have since contributed to this debate, with reference to Aboriginal archaeological sites and proximity to water using their Stream order model (1993). This model utilises Strahler's hierarchy of tributaries (Figure 4-3). This model correlates with the concept of proximity to permanent water and site locations and their relationship with topographical units. They identify that artefact densities are greatest on terraces and lower slopes within 100m of water.

Intermittent streams however, also have an impact on the archaeological record. It was discovered that artefacts were most likely within 50 – 100m of higher (4th) order streams, within 50m (2nd) order streams and that artefact distributions around (1st) order streams were not significantly affected by distance from the watercourse. Landscapes associated with higher order streams (2nd) order streams were found to have higher artefact densities and more continuous distribution than lower order streams.

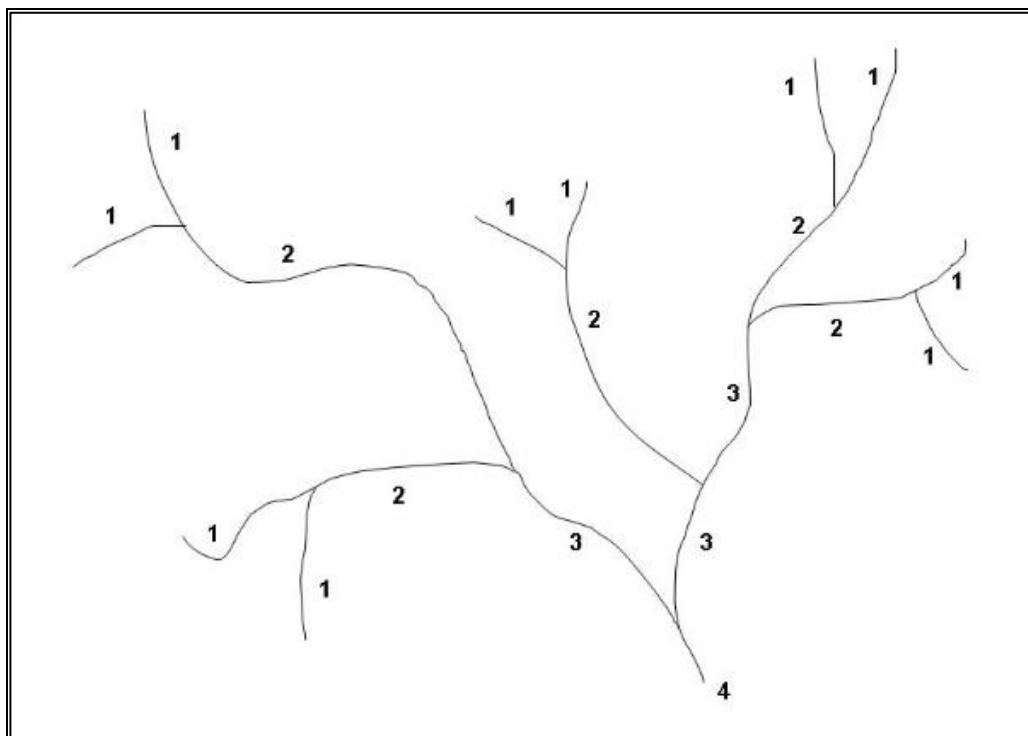


Figure 4-3 Strahler's hierarchy of tributaries.
Strahler (1957).

Table 4-2 Relationship between landscape unit and site distribution for region.

Landscape Unit /Site types	Site Distribution and activity
1st order stream	Archaeological evidence will be sparse and reflect little more than a background scatter
Middle reaches of 2nd Order Stream	Archaeological evidence will be sparse but focus activity (one off camp locations, single episodes and knapping floor)
Upper reaches of 2nd order stream	Archaeological evidence will have a relatively sparse distribution and density. These sites contain evidence of localised one-off behaviour.
Lower reaches of 3rd order stream	Archaeological evidence for frequent occupation. This will include repeated occupation by small groups, knapping floors (used and unused material) and evidence of concentrated activities.
Major creeklines 4th order streams	Archaeological evidence for more permanent or repeated occupation. Sites will be complex and may be stratified with a high distribution and density.
Creek junctions	This landscape may provide foci for site activity, the size of the confluence in terms of stream rankings could be expected to influence the size of the site, with the expectation of there being higher artefact distribution and density.
Ridge top locations between drainage lines	Ridge Tops will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one off occupation may be in evidence in such a location.
Raw Materials near watersources	The most common raw materials are silcrete and chert in sites closer to coastal headlands, though some indurated mudstone/silicified tuff and quartz artefacts may also be found.
Grinding Grooves	Grinding Grooves may be found in the sandstone or shale/sandstone transition areas.
Scarred trees -	May occur in stands of remnant vegetation.
Ceremonial Sites	Consultation with relevant Aboriginal Stakeholder groups, individuals and review of ethnographic sources often reveal the presence of ceremonial or social sites.

This predictive model has been refined with focus on the dominant environment and landscape zones of the Cumberland Lowlands, such as the Wianamatta Group Shales, Hawkesbury Sandstone, Quaternary alluvium, Quaternary Aeolian and Tertiary alluvium. Attenbrow (2002) discovered that the Quaternary alluvial deposits had a greater concentration of archaeological sites, which is likely the result of these deposits being located towards major creeklines and rivers, such as Eastern Creek, Second Ponds Creek etc. Areas of alluvial deposits were found by Kohen (1986) to contain artefact scatters of a large and complex nature the closer they were to permanent creeks.

Umwelt (2004), have identified similar environmental – archaeological relationships which contribute to the mapping and modelling of archaeological sites, such as:

- The pattern of watercourses and other landscape features such as ridge lines affected the ease with which people could move through the landscape

- Certain landscape features such as crests or gently sloping, well-drained landforms influenced the location of camping places or vantage points that provided outlooks across the countryside
- The morphology of different watercourses affected the persistence of water in dry periods and the diversity of aquatic resources and so influenced where, and for how long, people could camp or procure food
- The distribution of rock outcrops affected the availability of raw materials for flakes and ground stone tools
- The association of alluvial, colluvial and stable landforms affects the potential that sites will survive
- European land-use practices affect the potential for site survival and/or the capacity for sites to retain enough information for us to interpret the types of activities that took place at a specific location.

The Aboriginal Cultural Heritage Data Audit (DOP, 2005) produced the following table as part of the NSW Comprehensive Coastal Assessment Toolkit (DOP, 2005) which made the following statements outlined in table 4.3 about the predictive location of Aboriginal sites in Coastal NSW. These statements support the conclusions drawn in the following predictive model established for the study area. The study makes one very important claim which is that Aboriginal Ceremonial or Dreaming Sites can only be identified by Aboriginal community knowledge.

All models state that the primary requirement of all repeated, concentrated or permanent occupation is reliable access to fresh water. Brief and possibly repeated occupation may be represented in areas that have unreliable access to ephemeral water sources, however these areas will not possess a high archaeological potential (Goodwin 1999).

Table 4-3 Aboriginal Cultural Heritage Data Audit, Predictive Modelling for Coastal Aboriginal Sites, NSW.

Site Type	Archaeological/ Predictive Modelling
Aboriginal Ceremony and Dreaming Sites	Can only be identified on the basis of Aboriginal community knowledge.
Aboriginal Resource and Gathering Sites	Can occur at any location where plant and animal target species are found at present or were available in the past
Art Sites	All rock paintings or drawings and some rock engravings will occur within rock shelters/overhangs, most commonly within sandstone cliff lines and in granite boulder fields. Rock engravings may occur wherever there are suitable rock-surface exposures.
Artefacts	Will occur in all landscapes with varying densities. Artefacts of greatest scientific significance will occur in stratified open contexts (such as alluvial terraces, sand bodies) and rock shelter floors.
Burials	Most likely (but not always) to be buried in, or eroding from, sandy soils. Can occur within rock shelters/overhangs, most commonly within sandstone cliff lines and in granite boulder fields.
Ceremonial Ring Sites	Environmental factors may be of particular importance in site location including association with sources of water, ridges, unstructured soils and geological boundaries. Distance to adjacent ceremonial ring sites may influence site location.
Conflict Sites	Can only be identified on the basis of historical records and community knowledge.
Grinding Grooves	Most likely to occur on surface exposures of sandstone. Occasionally occur within sandstone rock shelters.
Modified Trees	Will only occur where target tree species survive and if these are of an age generally greater than 100 years old.
Non-Human Bone and Organic Material Sites	Will occur in any surface or buried context where preservation conditions allow. Most commonly survive in open shell midden sites and in rock shelter floor deposits.
Ochre Quarry Sites	Can occur at any location where suitable ochre sources are found, either as isolated nodules or as suitable sediments (clays).
Potential Archaeological Deposits	Can occur in all landscape types. PADs of greatest scientific significance will occur in stratified open contexts (such as alluvial terraces, sand bodies) and rock shelter floors.
Shell Middens	Will occur as extensive packed shell deposits to small shell scatters in all coastal zones along beaches, headlands and estuaries, both in open situations and in rock shelters. May occur along rivers and creeks where edible shellfish populations exist or existed in the past.
Stone Arrangements	Tend to be on high ground, often on the tops of ridges and peaks commanding views of the surrounding country. Often situated in relatively inaccessible places.
Stone Quarry Sites	Can occur at any location where suitable raw materials outcrop, including pebble beds/beaches.
Waterholes	May occur within any river or creek. Rare examples may occur in open exposures of rock.

4.4 ARCHAEOLOGICAL PREDICTIVE MODEL FOR THE STUDY AREA

The following section gives an indication of the likelihood of certain site types being located within the study area. These indications are based on the research and results of assessments and excavations in the vicinity of the study area and also from the greater Cumberland Region.

Site Type	Research	Likelihood
Open Artefact Scatters	Higher order streams are located within the vicinity of the study area. The dearth of known reliable raw material source within nearby landscape units, would suggest that the artefacts may be significant in number but smaller in size, on account to greater levels of stone tool reduction. Excavations in the vicinity of the study area indicate the presence of deposits that are suggestive of concentrated and repeated occupation.	Likely within undisturbed parts of the study area.
Isolated Artefacts	Higher order streams are located within the vicinity of the study area. The dearth of known reliable raw material source within nearby landscape units, would suggest that the artefacts may be significant in number but smaller in size, on account to greater levels of stone tool reduction. Excavations in the vicinity of the study area indicate the presence of deposits that are suggestive of concentrated and repeated occupation.	Likely within undisturbed parts of the study area.
Grinding Grooves	Boulders of sandstone or outcrops can occur in the landscape, generally near watercourses.	Unlikely, none apparent in area.
Stone Resource Sites	Rock outcrops of suitable flaking material are almost absent from the soil landscapes represented within the study area.	Unlikely
Scarred Trees	Trees of sufficient age are not located within the study area due to land clearing.	Unlikely
Sandstone Shelters	The soil landscapes of the study area do not contain sandstone overhangs	Unlikely
Burials	Undisturbed sandy loam deposits do not lie within the study area and the soil landscapes in which the study area is located are generally acidic. Skeletal remains tend to decompose very quickly in acidic soil profiles.	Unlikely
Ceremonial Sites	Consultation with relevant Aboriginal parties and individuals is taking place, however it is possible that such information may become available in the future as a result of further consultation	Possible that Ceremonial/Social sites will be present within the study area

4.6 ARCHAEOLOGICAL CONTEXT

It is generally accepted that Aboriginal occupation of Australia dates back at least 40,000 years (Attenbrow 2002 p.20 - 21 & Kohen et al 1983). The result of this extensive and continued occupation which includes the Sydney region has left a vast amount of accumulated depositional evidence and the Cumberland Lowlands is no exception. The oldest date generally considered to be reliable for the earliest occupation around the region comes from excavations at Parramatta which contain objects or features which have been dated to $30,735 \pm 407$ BP (McDonald et al 2005).

The majority of reliably dated archaeological sites within the region are less than 5,000 years old which places them in the mid to late Holocene period. A combination of reasons has been suggested for this collection of relatively recent dates. There is an argument that an increase in population and 'intensification' of much of the continent took place around this time, leading to a great deal more evidence being deposited than was deposited as a result of the sparser prior occupation period. It is also the case that many archaeological sites along the past coastline may have been submerged as the seas rose approximately to their current level around 6,000 years ago. This would have had the effect of covering evidence of previous coastal occupation. In addition, it is also true that the acidic soils which are predominate around the Sydney region do not allow for longer-term survival of sites (Hiscock 2008 p. 106).

Different landscape units not only influence the preservation of sites but can determine where certain site types will be located. Across the whole of the Sydney Basin, the most common Aboriginal archaeological site type is occupation evidence within Rock Shelters. However, the most common Aboriginal archaeological site type in the Cumberland Lowlands is Open Artefact Scatters or Open Campsites, which are locations where two or more pieces of stone show evidence of human modification. These sites can sometimes be very large, with up to thousands of artefacts and include other habitation remains such as animal bone, shell or fireplaces [known as *hearths*] (Attenbrow 2002 p. 75 – 76). Many hundreds of artefact sites have been recorded within the Cumberland Lowlands. This is despite the fact that at least 50% of the Cumberland Lowlands has already been developed to such an extent that any archaeological evidence which may have once been present has been destroyed.

4.7 THE DARUG AND GANDANGARA PEOPLE

It is estimated that around 250 distinct languages were in use throughout the Australian continent at the time of contact. The exact number cannot be known for certain, however 250 is a conservative estimate. These languages fell within two language groups; the *Pama-Nyungan* and *Non Pama-Nyungan* languages. Knowledge of the different language groups in a given area is variable. Early European recordings noted the names of particular Aboriginal individuals and groups, but were not always clear about which named groups represented a language rather than some other social grouping (Hardy and Streat 2008).

There were two known distinct language groups observed in the Cumberland Lowlands at the time of contact. Each one is likely to have had a number of dialects, but the observed language groups appear to have been the Darug and Gandangara. One of these language groups, the Darug, was divided into two dialects, a coastal dialect and a hinterland dialect; the later may have been spoken by the inhabitants of the Cumberland Lowlands (Attenbrow 2002).

The boundary between the territories of these two language groups and dialect groups is unclear. Attenbrow (2002) suggests that speakers of the hinterland dialect of the Darug were spread across the Cumberland Lowlands, from the Hawkesbury River in the north to Appin in the area south-west of the Georges River, Parramatta, the Lane Cove River and Berowra Creek. The Gandangara inhabited the southern rim of the Cumberland Lowlands, west of the Georges River and into the southern Blue Mountains. Kohen (1993) suggests that the boundary between the hinterland dialect speakers of the Darug language and the Gandangara was the Nepean River and the Gandangara occupied an area that “extended from the Blue Mountains at Hartley and Lithgow through the Burragong and Megalong Valleys at least as far as the Nepean River” (Kohen 1993 p. 13) This view is concurred with by the Australian Institute of Aboriginal and Torres Strait Islander Studies (2000). There may have been a significant amount of interaction both cultural and linguistic between these two nations and it is probable that the territorial boundary altered from time to time.

Within these large language groups resource access and ownership was centred on extended family groups or ‘clans’ which appear to have had ownership of land (Attenbrow 2002). As it was unlikely to be acceptable to find sexual partners within the family grouping and for other reasons such as resource sharing, a number of clans would often travel together in a larger group. These groups are referred to as *bands*. Whether the clan or the band was the most important group politically to an individual is likely to have varied from place to place. Group borders were generally physical characteristics of the landscape inhabited, such as waterways or the limits of a particular resource. Groups also shared spiritual affiliations, often a common dreaming ancestor, history, knowledge and dialect (Hardy 2008).

A wide variety of activities comprised the lifestyle of the Aboriginal groups across the Cumberland Lowlands. Some behaviours leave traces which can be retrieved by archaeological study of material remains. Many of these can only be reconstructed by oral history, observations of European explorers and ethnologists, and other forms of past recording such as photography or art. Some of the details of the complexity and sophistication of the past lifestyles of Aboriginal people in the area have been lost, but many can be reconstructed using the sources available.

4.8 PREVIOUS ARCHAEOLOGICAL STUDIES NEAR THE STUDY AREA

As part of the research process of this report the library of Archaeological assessments, test excavation and salvage excavation reports, which is located at the offices of OEH at Hurstville, was consulted. This list is by no means exhaustive and merely represents some of the more relevant recent studies that have taken place within the vicinity of the study area in the opinion of the author of this document.

Archaeological survey assessments by Kohen 1983, Kohen et al 1984, Dallas 1985, Brayshaw 1986, Mills 1998 and Therin 2001 & 2004, all identified Aboriginal sites or objects as part of archaeological survey assessments. Koetigg 1990, McDonald 1998, Casey & Lowe 2000, Ozark 2004, Therin 2004, AHMS 2006 and AHMS 2008, all conducted test excavations in the area and McDonald 1997 & 1998, conducted larger scale open area salvage excavation.

An archaeological survey conducted by James Kohen (1984) near Londonderry over three adjacent yet separate study locations covering an area of 67.9 hectares located seven distinct Aboriginal archaeological sites. These sites were named AB/2 – AB/8. Site AB/2 consisted of one isolated retouched chert flake (thumbnail scraper). Site AB/3

consisted of three chert flakes located over an area of 70 square metres. Site AB/4 consisted of one isolated chert flake. Site AB/5 was the largest site located in this survey which consisted of 47 stone artefacts over an undetermined area. The assemblage comprised “one core, two steep scrapers, two sharp scrapers, three concave scraper, two flakes, two unifacial pebbles and 35 debitage flakes.” Site AB/6 consisted of one chert flake. Site AB/7 consisted of one isolated chert scraper. Site AB/8 consisted of two broken chert flakes. The recommendations of this report were that all sites could be destroyed if a permit was approved under the relevant sections of the NPW Act.

An archaeological survey was conducted by Mary Dallas (1985) in north Richmond for a residential housing development. This survey located eight distinct Aboriginal archaeological sites. These sites were named NR1 – NR7 and ISF 1. Sites NR1 – NR6 and ISF 1 were located in areas of land designated for open space as part of the development and as such were to be left undisturbed and intact. Site NR7 was located within an area that was to be impacted by the proposed development and the recommendation was that this site be preserved and the development plans accommodate the site.

An archaeological survey conducted by Helen Brayshaw and Laura Jane Smith (1986) as part of modifications to the rail line between Blacktown and Richmond located two new Aboriginal archaeological sites near Vineyard. These sites were named Open Site Vineyard 1 and Isolated Find Vineyard 1. Open Site Vineyard 1 occupied an area of 3380 square metres and consisted of 117 stone artefacts. A total of 96 % of these artefacts were silcrete with the remainder being made up of quartz, mudstone and petrified wood. The assemblage was dominated by flaked pieces of fine grained silcrete (99) as well as three cores and 15 flakes. Isolated Find Vineyard 1 was a multi-platform banded chert core. The recommendations of this report were that Isolated Find Vineyard 1 could be destroyed and Open Site Vineyard 1 undergo test excavation after receipt of a permit under the relevant sections of the NPW Act.

An archaeological survey conducted by Robynne Mills (1998) as part of residential housing development at Parklea located six new Aboriginal archaeological sites and three new Potential Archaeological Deposits (PAD's). These sites were named OWR-OS-1, PL-OS-1, PL-OS-2, ML-OS-1, ML-OS-2, ML-OS-1 and PAD'S 1-3. OWR-OS-1 and the associated PAD 1 consisted of nine silcrete artefacts (one multi-platformed core, one flake and six flaked pieces) over an area of 200 square metres. Site PL-OS-1 consisted of one silcrete artefact (manuport) and one chert artefact (flake) over an area of 1800 square metres. The recommendations of this report were that PL-OS-1, PL-OS-2, ML-OS-1, ML-OS-2, ML-OS-1 could be destroyed if a permit were approved under the relevant sections of the NPW Act after the visible surface artefacts were recorded and collected. PAD's 1 -3 and that site OW-OS-1 be left intact and undisturbed.

An archaeological survey conducted by Michael Therin (2001) adjacent to Windsor Road, Kellyville for a road widening development located a single site in the form of a lone silcrete flake, this site was called W1. The recommendations were that site W1 be destroyed after approval under the relevant sections of the NPW Act and that further bulk excavation be monitored by Aboriginal stakeholder groups. This survey also located nine sites in the form of four open campsites, four isolated artefacts and one stone quarrying site. Two possible scarred trees were relocated as part of this survey. These sites were called WBH 1 – WBH 9 and WHST 1 and 2. The recommendations were that a preliminary research permit be sought and test excavation be carried out throughout the areas of sites WBH 3, WBH 4, WBH 7 and WBH 8. It was also recommended that after the test excavation the sites be destroyed with approval under relevant sections of

the NPW Act. Sites WBH 1, WBH 2, WBH 5, WBH 6, WBH 9 and WBST 1 and 2 were not to be impacted by the development and would be left intact.

An archaeological survey conducted by Michael Therin (2004) in relation to the construction of a proposed cycleway, did not located any Aboriginal archaeological artefacts within the study area of the proposed development, Therin identified the potential for sub-surface archaeological artefacts on the basis of two nearby sites outside the study area and as such recommended that a permit for destruction under the relevant sections of the NPW Act. be applied for.

Archaeological test excavations were carried out by Margrit Koettig (1990) at the Waste Management depot at Londonderry. This excavation comprised 23 test trenches excavated along four transects at two separate localities. Only one artefact was recovered from this test excavation and as such the recommendations were that no further archaeological work was needed within the study area of the waste management depot.

Archaeological test excavations were carried out by Jo McDonald Cultural Heritage Management (1998) at the Water Reuse Facility at Richmond. This excavation comprised 40 1m x 1m test trenches excavated along five transects. A total of 69 artefacts were recovered from this test excavation. The stone artefact assemblage indicated that generalised (not specific) lithic flaking activity was carried out at the site. The recommendations were that no further archaeological work was needed within the study area of the Water Reuse Facility after the developer sought a destruction permit under the relevant section of the NPW Act.

Archaeological test excavations were carried out by OzArk (2000) over four PADs along the Windsor Flood Evacuation Route. This excavation comprised 60 1m x 1m test trenches excavated along five transects. The stone artefact assemblage comprised 65.9% silcrete, 23.6% tuff, 3.8% quartz with the remainder being made up of chert, silicified wood and quartzite. The recommendations were that two parts of this study area be preserved and the remainder be destroyed in accordance with a permit under the relevant section of the NPW Act.

Archaeological test excavations were carried out by Michael Therin (2004) as part of the widening of Windsor Road between Rouse Hill and Vineyard. This excavation comprised 34 1m x 1m test trenches over four separate locations and a 16 square metre open area hand excavation. A total of 1986 artefacts were recovered from this test excavation. The recommendations were that no further archaeological work was needed within three of the four locations of the study area while one location which yielded the highest artefact density was recommended for salvage and destruction with approval under the relevant section of the NPW Act.

Archaeological test excavations were carried out by Archaeological and Heritage Management Solutions (2008) at Windsor Police Station. This excavation comprised 14 1m x 1m test trenches and ten square metre exploratory holes. A total of 24 artefacts made of silcrete, quartzite, tuff and chert, were recovered from this test excavation. The recommendations were that no further archaeological work was needed and destruction of the sites could take place following approval under the relevant section of the NPW Act.

In 1998 Jo McDonald Cultural Heritage Management completed a salvage excavation program at the corner of Baker and George Streets Windsor (BGW97). A total of 28 square metres was excavated and yielded 1586 stone artefacts of which 654 were

conchoidally flaked artefacts. The excavated assemblage indicated that the production of small flakes such as geometric microliths was the most common activity practised at the site. Evidence suggests that completed artefacts were transported to and from the site while there is some evidence of intact microlith knapping floors. The recommendations of this report were that upon completion of the salvage excavation in accordance with the conditions of the permit the client had discharged their obligations with regard to Aboriginal Heritage and the site could be destroyed and the artefacts handed to the Deerubbin Local Aboriginal Land council for safe keeping.

The practical ramifications of the results of the above-mentioned archaeological assessments and excavations indicates that there is a moderate to high potential for Aboriginal archaeological objects or deposits to be present within any intact original soil profiles located within vicinity of the study area. Higher order streams are located in the landscape units represented in the study area, mainly the Hawkesbury River. The dearth of known reliable raw material source (outcrops of silcrete, chert or mudstone) within nearby landscape units, would suggest that the artefacts may be significant in number and smaller in size with a low percentage of cortex will be present in any assemblage located. This may be evident of greater levels of stone tool reduction due to the lower availability of raw materials. Excavations at locations in the immediate vicinity of the study area indicates the presence of deposits that are suggestive of concentrated and repeated occupation.

5.0 TEST EXCAVATION

In 2018, the study area was part of the SSDA Submission (SSD 8614) for the Hurlstone Agricultural High School (AMAC 2018) and has been subsequently superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School.

As part of the Hurlstone Agricultural High School investigation, test excavation was undertaken over six days 06/12/17 – 13/12/17. The programme was conducted under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* and consisted of the excavation of 51 test trenches (50cm x 50cm). The results of this Test Excavation can be found in the accompanying Aboriginal Archaeological Technical Report for the Centre of Excellence (CoE) Agricultural School.

The archaeological test excavation resulted in *no Aboriginal archaeological and cultural objects and/or deposits being located*. The findings of that investigation were synthesised into a report *Aboriginal Test Excavation Report, New Hurlstone Agricultural High School, Hawkesbury Campus, 2 College Road, Richmond (Hawkesbury LGA)*. All registered parties were given 28 days to review and comment on the document.

The design for the State Significant Development (SSD-15001460) - Centre of Excellence (CoE) Agricultural School, at Western Sydney University (Hawkesbury Campus) comprises of 8 building blocks (Blocks A-H) that will include administration, boarding accommodation, learning facilities, science laboratories, recreational areas, greenhouse, and farming premises, as well as landscaping. No basement has been proposed. The proposed development and associated infrastructure will impact the study area.

In review of the test excavation results, of which although intact soils were found to be present, the study area was *absent of any Aboriginal objects and/or deposits or features* of cultural significance. Therefore, *further investigation is not warranted and works may proceed with caution*.

All RAPs present on site were informed of the status of the investigation and condition of the study area. They acknowledged the sterility of the A2 horizon and likelihood of the investigation resulting in no objects being located. They had no objections to the development taking place with caution.

6.0 CULTURAL HERITAGE RESPONSES

All registered stakeholders were given a copy of this report and were given a minimum of 28 days to comment on this report. All comments will be incorporated into this report. This section outlines the research questions and responses concerning the cultural heritage of the study area.

6.1 REGISTERED STAKEHOLDER QUESTIONS

All registered stakeholders were given a copy of a proposed Aboriginal Cultural Heritage Assessment (ACHAR) research methodology and given 28 days to respond to this methodology.

The following is a questionnaire that was included with the ACHAR methodology.

- Does the study area hold any social, spiritual or cultural values to the participating Aboriginal stakeholders? If so, what are these values and are they confined to particular parts of the study area?
- Why are these parts or the whole of the study area culturally significant to the participating Aboriginal stakeholders?
- Are particular parts of the study area more important than others?
- Are any previously unidentified known culturally significant places present within the study area? If so, where are they located?
- Are any previously unidentified Aboriginal objects or Aboriginal places present within the study area? If so, where are they located?
- Are any previously unidentified natural or archaeological resources present within the study area? If so, where are they located?
- Are there any traditional stories or legends associated with the study area?
- Are there any recollections of Aboriginal people living within the study area?
- Is there any information to suggest the presence of burials within the study area?
- Are any traditional flora or fauna resources associated with the study area?
- Does the study area have any sensory scenic or creatively significant cultural values? If so, what are these values and are they confined to particular parts of the study area and where are they located?
- In what way, if any, will the proposed development harm the identified cultural heritage and archaeological values of the study area?
- Do the participants have suggestions on the mitigative strategies for the management of the cultural and archaeological values of the study area?
- Are there any gender specific cultural values associated with the study area which cannot be raised in a male presence?
- Are there any gender specific cultural values associated with the study area which cannot be raised in a female presence? If so, how would the Aboriginal stakeholders like these dealt with?
- Do the participants have any concerns not yet raised in this interview?

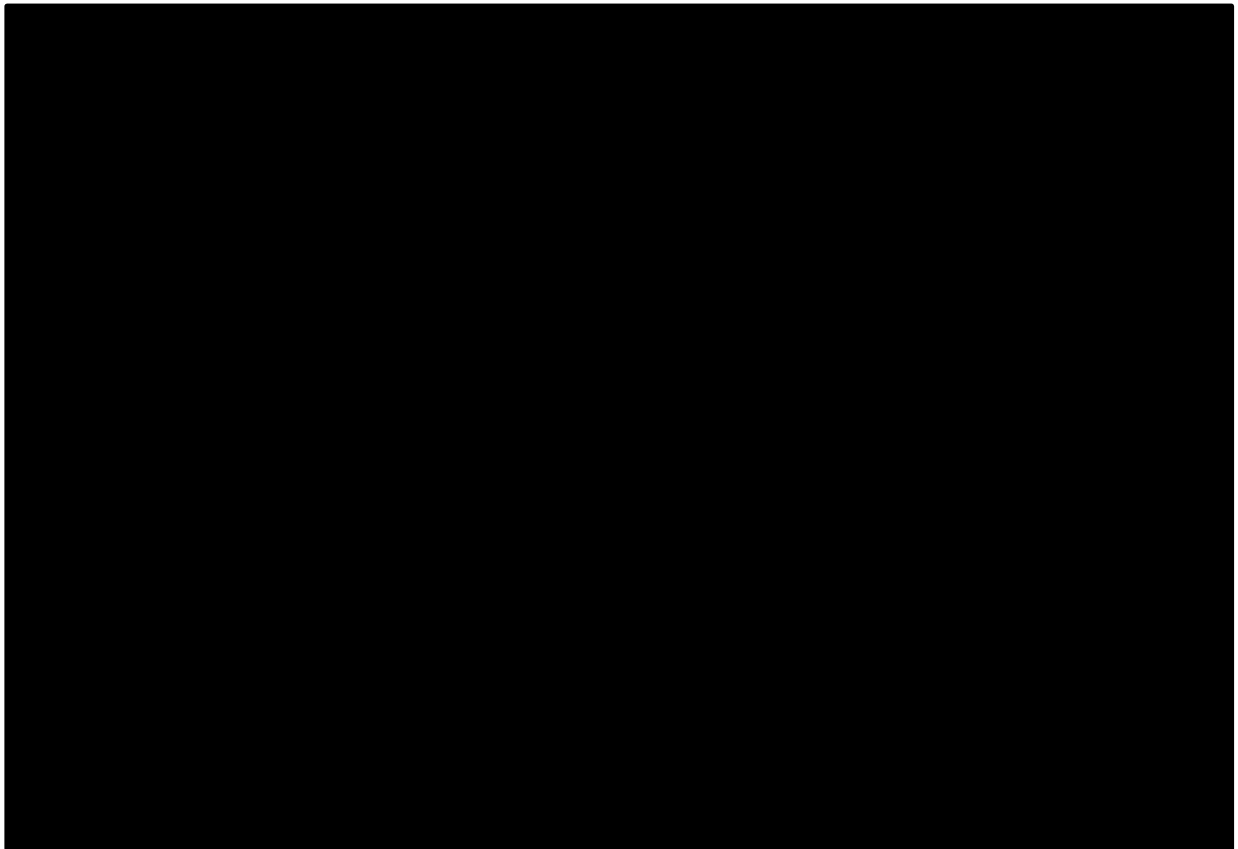
6.2 REGISTERED STAKEHOLDER SUBMISSIONS TO QUESTIONS

No responses received.

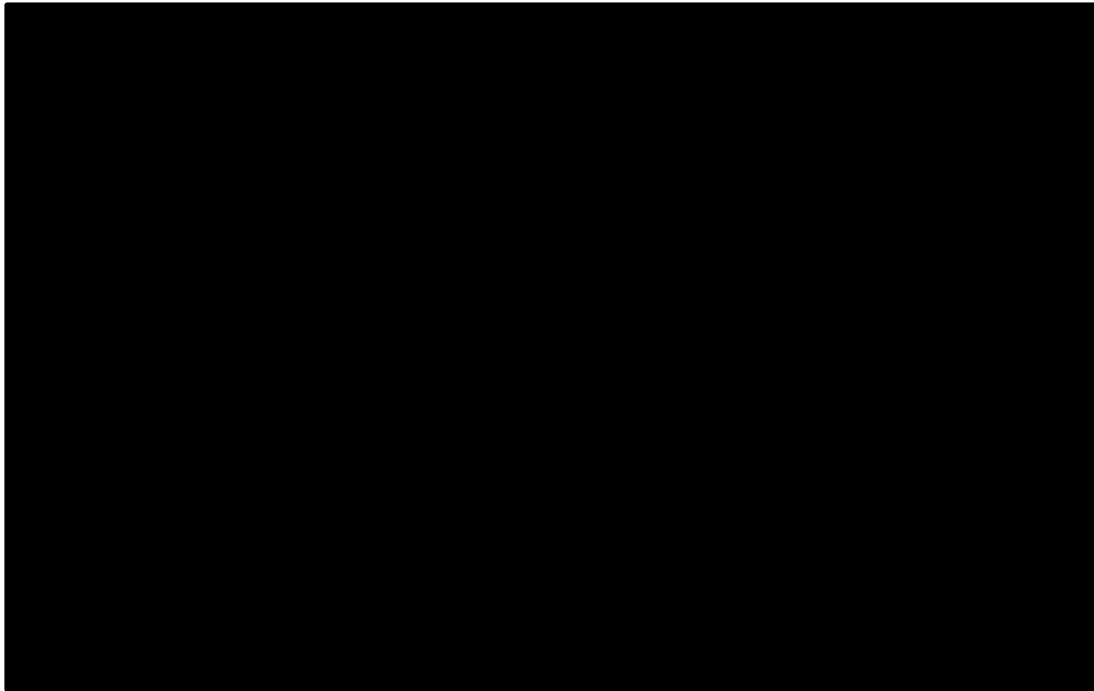
6.3 REGISTERED STAKEHOLDER SUBMISSIONS TO ACHAR

The Following responses were received for the ACHAR Report.

6.3.1 Kamilaroi-Yankuntjatjara Working Group



6.3.2 Gunjeewong Cultural Heritage Corporation



No other submissions were received from any other stakeholder.

6.4 VIRTUAL MEETING MINUTES 20TH APRIL 2021

On the 20th April 2021, an online virtual meeting was presented by members of the NSW Aboriginal Education Consultative Group Inc., Teachers, and Community members for the Centre of Excellence in Agriculture Education to inform all the Registered Aboriginal Stakeholders and other interested parties of the cultural ideas, strategies, and visions for the development's design layout, building use, agricultural plots, animal plots, accommodation centre, and village green.

Topics discussed but not limited to included, the Aboriginal Enterprise and landscaping plans, wayfinding, primary art works, and heritage. The Following minutes were recorded:

Greater Western Sydney Cluster Centre of Excellence – AECG Consult

Meeting Details	
Project	Centre of Excellence in Agriculture Education
Date	20 April 2021
Location	Microsoft Teams
Attendees	CIPL – Lizza Young (LY), Maddy Stenniken (MS), Jacob Ainsworth (JA) NBRS – Stephanie Ferguson (SF), Ewan Saunders (ES), CoE – Kris Beazley (KBe), Jasmine Seymour, Dewayne Trewlynn (AECG Lead), Jen Flood Invitees – Susan Price and Erin
Apologies	Kathie Medley, Jo Evans, Phil Khan (Kamilaroi-Yankuntjatjara Working Group), Steve Randall (Deerubbin LALC), Justin Coplin (Darug Custodian Aboriginal Corp.), Carolyn Hickey (A1 Indigenous Service), Amanda Hickey (Amanda Hickey Cultural Services), Andrew Williams (Darug Aboriginal Cultural Heritage Assessments), Steven Hickey (Widescope Indigenous Group), Paul Boyd (Didge Ngunawal Clan), Cherie Carroll-Turris (Gunjeewong Cultural Heritage Aboriginal Corp.), Des Dyer (Darug Aboriginal Land Care), Cory Smith (Cullendulla), Roxanne Smith (Murrumbidgee), Janaya Smith (Biamanga), Basil Smith (Goobah Developments), Steven J. Vasilakis (AMAC).

Task	Responsible	Date
1. Overview SF gave a brief overview of site location and the design layout. Building uses, ag plots, animal plots, accommodation centre and village green.	Note	
2. Aboriginal Enterprise <ul style="list-style-type: none"> SF gave an overview of the aboriginal enterprise. Most growing and planting would be done by students (blue areas indicated on landscape plan). Movable fire pit, (noted by EFSG that fixed fire pit would be inappropriate) Feedback Sue suggested dance platform, Sydney river sand, animal tracks, storytelling opportunity to be incorporated within the site. <ul style="list-style-type: none"> SF confirmed the aboriginal enterprise is approx. 100sqm 5-8m diameter circle minimum required that doesn't need to be undercover ES suggested dual function at yarning circulate with half seating. This was concurred in the forum. Surface material to be changed to Sydney river sand. NBRS sought confirmation of any further considerations to get maximum benefit across the enterprise areas. <ul style="list-style-type: none"> JS requested confirmation of access to water and water plat, dry river creek bed to be added. 	Note NBRS NBRS	 May'21 May'21
3. Way finding		

Task	Responsible	Date
<ul style="list-style-type: none"> - ES gave an overview of signage, vinyl prints coming into aboriginal enterprise area, overview of potential walls that could have artworks or prints. - Places of opportunity for visual way finding (ES) 	Note	
4. Primary Art Works Potential themes to run through the art works (ES) - Language and story telling <ul style="list-style-type: none"> - Sydney bees - Dreaming the Eel - Coolamon - Fish trap - Canoe building - Rock Art Emu and Dark Emu - Yam Daisy Feedback from the Forum <ul style="list-style-type: none"> - Permanent acknowledgement in the front entry gate area, outside. An installation that isn't attached to a building. - JS suggested natural looking sculpture, (KB) needs to be done by Dharug people. - JS suggested there needs to be an acknowledgement that this is Boorooberongal country. Kangaroo engravings onto the entry pathway. - JS suggested acknowledgement of Yarramundi. 	Note	
5. Heritage <ul style="list-style-type: none"> - ES raised question about tying back to WSU heritage and stable, and how the aboriginal understanding of time could also be communicated. - KB raised having a western connection with aboriginal symbolism. - JS suggested deep time could be explored. KB suggested timeline on pavement. 	NRBS	May'21
6. Post Meeting Note – Kris Beazley <ul style="list-style-type: none"> - The CoE is on the land of Boorooberongal Clan of the Dharug nation. Boorooberongal people are the people of the grey kangaroo. - We also celebrate Yarramundi as a local Aboriginal Elder/leader in times of first colonisation of the area. - Note – The daisy yam isn't the local yam – it is the yam for greater NSW – the vine yam is the primary yam of the Hawkesbury and local riverbeds. 	NRBS	June'21

The above represents the authors understanding of issues and conclusions reached. Any errors or omissions brought to the attention of CIPM in writing will be addressed, and the record revised.

Closure sequence for minute author.

- Most current minute is to be maintained until closure of item/issue.
- Closed meeting minute is to be formatted as ~~strike through~~.
- Next meeting, closed minute can be dropped off completely.

7.0 SIGNIFICANCE ASSESSMENT

The processes of assessing significance for items of cultural heritage value are set out in *The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance: the Burra Charter* (amended 1999) formulated in 1979 and based largely on the Venice Charter of International Heritage established in 1966. Archaeological sites may be significant according to four criteria, including scientific or archaeological significance, cultural significance to Aboriginal people, representative significance which is the degree to which a site is representative of archaeological and/or cultural type, and value as an educational resource. In New South Wales the nature of significance relates to the scientific, cultural, representative or educational criteria and sites are also assessed on whether they exhibit historic or cultural connections.

7.1 ARCHAEOLOGICAL SIGNIFICANCE

7.1.1 Educational Significance

The educational value of any given location will depend on the importance of any archaeological material located, on its rarity, quality and the contribution this material can have on any educational process (Australia ICOMOS, 1999 p. 11).

No archaeological and/or Aboriginal cultural material was located as a result of the 2017 programme of test excavation. Therefore, no educational significance can be assigned to the study area.

7.1.2 Scientific Significance

The scientific value of any given location will depend on the importance of the data that can be obtained from any archaeological material located, on its rarity, quality and on the degree to which this may contribute further substantial information to a scientific research process. (Australia ICOMOS, 1999 p.11).

No archaeological and/or Aboriginal cultural material was located as a result of the 2017 programme of test excavation. Therefore, no scientific significance can be assigned to the study area.

7.1.3 Representative Significance

The representative value of any given location will depend on rarity and quality of any archaeological material located and on the degree to which this representativeness may contribute further substantial information to an educational or scientific research process. (Australia ICOMOS, 1999 p.11).

No archaeological and/or Aboriginal cultural material was located as a result of the 2017 programme of test excavation. Therefore, no representative significance can be assigned to the study area.

7.2 SOCIAL AND CULTURAL SIGNIFICANCE

As defined in the 'Burra Charter' (ICOMOS, 1999) cultural significance is broken into three parts: aesthetic, historic and scientific value for past, present or future generations. Cultural significance is a concept which assists in estimating the value of any given place. Places that are likely to be of significance are those which can contain information which may assist with the understanding of the past or enrich the present, and which will be of value to future generations. The meaning of these terms in the context of cultural

significance is outlined below. It should be noted that they are not mutually exclusive, (Australia ICOMOS, 1999 p.12).

7.2.1 Historic Significance

A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment. (Australia ICOMOS, 1999 p.11).

See Section 6.4 for the minutes included that relate to the historic value and cultural significance of the site.

On the 20th April 2021, an online virtual meeting was presented by members of the NSW Aboriginal Education Consultative Group Inc., Teachers, and Community members for the Centre of Excellence in Agriculture Education to inform all the Registered Aboriginal Stakeholders and other interested parties of the cultural ideas, strategies, and visions for the development's design layout, building use, agricultural plots, animal plots, accommodation centre, and village green. Topics discussed but not limited to included, the Aboriginal Enterprise and landscaping plans, wayfinding, primary art works, and heritage.

7.2.2 Scientific Significance

The scientific value of any given location will depend on the importance of the data that can be obtained from any archaeological material located, on its rarity, quality and on the degree to which this may contribute further substantial information to a scientific research process. (Australia ICOMOS, 1999 p.11).

No specific scientific significance has been assigned by registered Aboriginal parties.

7.2.3 Aesthetic Significance

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use. (Australia ICOMOS, 1999 p.11).

See Section 6.4 for the minutes included that relate to the aesthetic value and cultural significance of the site.

On the 20th April 2021, an online virtual meeting was presented by members of the NSW Aboriginal Education Consultative Group Inc., Teachers, and Community members for the Centre of Excellence in Agriculture Education to inform all the Registered Aboriginal Stakeholders and other interested parties of the cultural ideas, strategies, and visions for the development's design layout, building use, agricultural plots, animal plots, accommodation centre, and village green. Topics discussed but not limited to included, the Aboriginal Enterprise and landscaping plans, wayfinding, primary art works, and heritage.

8.0 PROPOSED ACTIVITY

This section outlined the proposed activity including the staging and timeframes along with the potential harm of the proposed activity on Aboriginal objects and or declared Aboriginal places, assessing both the direct and indirect result of the activity on any cultural heritage values associated with the study area.

It also aims to outline the justification for harm with the intention of avoiding and minimising harm where possible.

8.1 DESCRIPTION OF PROPOSED ACTIVITY

The proposed activity is for the State Significant Development (SSD-15001460) - Centre of Excellence (CoE) Agricultural School, at Western Sydney University (Hawkesbury Campus). The design comprises of 8 building blocks (Blocks A-H) that will include administration, boarding accommodation, learning facilities, science laboratories, recreational areas, greenhouse, and farming premises, as well as landscaping. No basement has been proposed.

These works address and include the following for the property:

- Block A will house the Administration Building
- Blocks B, C & D will provide the learning/seminar facilities
- Block E is for the dining/conference space
- Block F provides the boarding accommodation
- Blocks G & H provide the greenhouse & agricultural workshop
- Aboriginal Enterprise & COLA
- Construction of access roads, driveways, kerbs, and car park
- Associated site works including earthworks, drainage, services, and landscaping.

8.1.1 Overview

The proposed development involves the construction and operation of a new Centre of Excellence (CoE) in Agricultural Education on a leased land parcel within the Western Sydney University (Hawkesbury Campus) site, Richmond NSW.

The CoE will provide new agricultural/STEM teaching facilities with general learning and administration spaces to be utilised by rural, regional, metropolitan and international school students. The CoE will accommodate up to 325 students and up to 25 full-time employees consisting of farm assistants, administration staff and teachers and up to five itinerant staff members. The CoE will also include short-term on-site accommodation facilities for up to 62 visiting students and teaching professionals from regional and rural NSW.

The CoE will include five science laboratories, ten general learning spaces, practical activity teaching areas, seminar, botany room, administration block and accommodation facilities. It will also include covered outdoor learning areas, dining / recreation hall, canteen and kitchen, agricultural plots, significant landscaping spaces, car parking and provision of necessary infrastructure.

The proposed development has been designed to be well integrated into the Western Sydney University site, having due regard for scale, bulk and orientation of existing buildings. The educational facilities will display linear open building forms in single story design with open spaces and lightweight construction techniques. The site is benefitted

by views Blue Mountains to the west and the building and landscape plans have incorporated viewing opportunities into the design.

The EIS seeks development consent for the following works:

- Three academic blocks (Block B, C and D).
- Short-term, dormitory site accommodation with capacity for 62 patrons (Block F).
- Dining hall, Conference space and canteen (Block E).
- Administrative building (Block A).
- Support facilities for management and maintenance of site.
- External works to accommodate circulation and covered walkways between buildings.
- Pedestrian walkways.
- Student and staff amenities.
- Covered Outdoor Learning Areas.
- Staff car parking area and mini-bus drop off and pick up area. The parking located in front of block A is for visitors
- Short-term accommodation car parking area. The parking near block F is for staff.
- Green house.
- Various agricultural and animal plots and associated agricultural workshop.
- Provision of waste facility area.
- Installation of all essential services including stormwater management devices where required.
- Operation of the CoE site.

8.1.2 Building Design Philosophy

The proposed development has been designed with a strong focus on the speciality function of the educational facility. The learning environment offers a strong focus on Agriculture and STEM skills, as such the external learning environment produces equal if not more significance to the facility than the internal arrangements. The site planning has accommodated for this with the inclusion of the following principles of the project:

- Strong presentation to Vines Drive, with the Administrative Building identified as the principal entrance to the site.
- Regard for the Western Sydney University (Hawkesbury Campus) masterplan principles and the existing entry arrangements at the site with concern to the axial arrangement of the proposed buildings.
- Entry vistas that terminate at low level within the learning blocks.
- Intuitive educational “block” organisation; assigning order to related function.
- Consideration to the local heritage items within the WSU campus
- Orientation and placement of buildings to correspond to the existing surrounding environment and enterprises.
- Positioning of internal spaces to be sympathetic to the existing vistas and Aboriginal heritage nature of the site.

8.1.3 Proposed Built Form

The proposed development is to be sited on a vacant parcel to the south of the existing Western Sydney University (Hawkesbury Campus) and Vines Drive. The proposed CoE buildings are sited to the south of Vines Road with the primary access from a private road. The proposed development includes new educational buildings, open spaces and parking facilities as per below.

New educational buildings

Six (6) main educational buildings are proposed as part of the development.

- Block A: One (1) single- storey building on the site will accommodate the administrative activities, shared office space and staff located at the main entrance from Vines Road.
- Block B: One (1) single storey building provides a central practical activities / seminar room and four general learning areas (two on the northeast elevation and two on the southwest elevation) to be used as teaching areas. Oriented generally north to south.
- Block C: One (1) single storey building offers two (2) areas for practical activities, 1 seminar, semi commercial food tech with kitchen prep and six (6) general learning areas. Generally oriented east to west.
- Block D: One (1) single storey building to provide five (5) labs, 1 botany / zoology room, 2 practical spaces and one preparation area. Oriented east to west.
- Block E: One (1) Single story building containing the dining hall and conference area with canteen and kitchen. Oriented north to south.
- Block F: One (1) Single storey building to accommodate short term accommodation, dormitory style bedrooms with a wellbeing area extending to the northeast.
- Block G: One (1) Single storey green house.
- Block H: One (1) Single storey Agricultural workshop.

Open space and amenities

Buildings have been oriented on the site in linear open building forms utilising a 7.5 x 9m DfMA grid for a light weight steel structure and portal frame structures. The buildings are connected by Covered Outdoor Learning Areas, facilitating pedestrian activity. Agricultural plots are sited to the west of the buildings and accessed by internal circulation path. The arrangement of the outdoor learning spaces and buildings create a comprehensive site wayfinding strategy with landscaping utilised to reinforce the site plan.

Site and parking facilities

The site planning focuses on separate private and public vehicular access with minibus/ student drop off and pickup occurring at the north from Vines Road. Further parking for staff, short-term accommodation, loading, waste removal and maintenance is located to the eastern side of the site.

The proposed development will impact sections of the study area where intact/residual soil profiles may exist. There is a low-moderate potential for Aboriginal artefacts and/or deposits of archaeological and cultural significance to be present. Test excavation under the Code of Practice (DECCW 2010), had been undertaken in 2017 (see Section 6.0) to assess the level of disturbance of the site and the potential harm that may be the result of the proposed activity. In review of the test excavation results, of which although intact soils were found to be present, the study area was absent of any Aboriginal objects and/or deposits or features of cultural significance. Therefore, further investigation is not warranted and works may proceed with caution.

No formal areas of exclusion have been identified in the current plans.

8.2 PROPOSED DEVELOPMENT JUSTIFICATION

The CoE is proposed to be a state-wide resource with short-term accommodation facilities and online project/subject content, to enable students from across the state to access facilities, classes, research, and joint work with the WSU, TAFE and industry. This enables opportunities for a closer and a more cohesive engagement with tertiary students, allowing for the development of educational pathways and industry engagement, collaborative research opportunities, and a hands-on experience with modern agriculture.

The short-term accommodation facilities at the CoE will also allow for students from remote areas to access educational facilities and tertiary partnerships which may not be available in their regions, increasing equity of access to a quality education. Onsite learning experience means students can spend longer periods in the centre and experience a more immersive impactful experience. Affording students the opportunity to visit the CoE, can result in enhanced student exposure to and understanding of tertiary education options.

8.3 POTENTIAL HARM TO ABORIGINAL OBJECTS AND CULTURAL HERITAGE

No Aboriginal objects and/or features of cultural and archaeological significance were located during the programme of test excavation. The A2 horizon was found to be present over the site. However, in review of the results and level of sterility of the soil, there is a low-nil possibility of their being artefacts present and works may proceed with caution.

8.4 ASSESSING HARM

No Aboriginal objects and/or features of cultural and archaeological significance were located during the programme of test excavation. The A2 horizon was found to be present over the site. However, in review of the results and level of sterility of the soil, there is a low-nil possibility of their being artefacts present and works may proceed with caution.

8.5 AVOIDING AND MINIMISING HARM TO ABORIGINAL OBJECTS

No Aboriginal objects and/or features of cultural and archaeological significance were located during the programme of test excavation. The A2 horizon was found to be present over the site. However, in review of the results and level of sterility of the soil, there is a low-nil possibility of their being artefacts present and works may proceed with caution.

8.6 JUSTIFICATION OF HARM TO ABORIGINAL OBJECTS

No Aboriginal objects and/or features of cultural and archaeological significance were located during the programme of test excavation. The A2 horizon was found to be present over the site. However, in review of the results and level of sterility of the soil, there is a low-nil possibility of their being artefacts present and works may proceed with caution.

8.7 ECOLOGICALLY SUSTAINABLE DEVELOPMENT AND INTERGENERATIONAL EQUITY

The ability of any development to be completely ecologically sustainable will be limited by definition. However, the proponents of this development appear to have made significant efforts to meet the needs of the current generation without compromising the ability of future generations to meet their own needs. This has been accomplished by proposing a plan on a manageable and affordable scale while still protecting and conserving the archaeological resources. This is being accomplished by a program of subsurface test excavation with the possibility of further salvage excavation if needed as well as extensive consultation with the relevant Aboriginal community.

Inter-generational equity refers to the equitable sharing of resources between current and future generations. The planet's current generation should ensure that future generations have the same opportunities and resources available. This idea is being accomplished by designing a building with as little disturbance to the ground surface as possible and as such any archaeological or cultural material that may be present in these areas either identified or unidentified will be left intact and persevered for future generations.

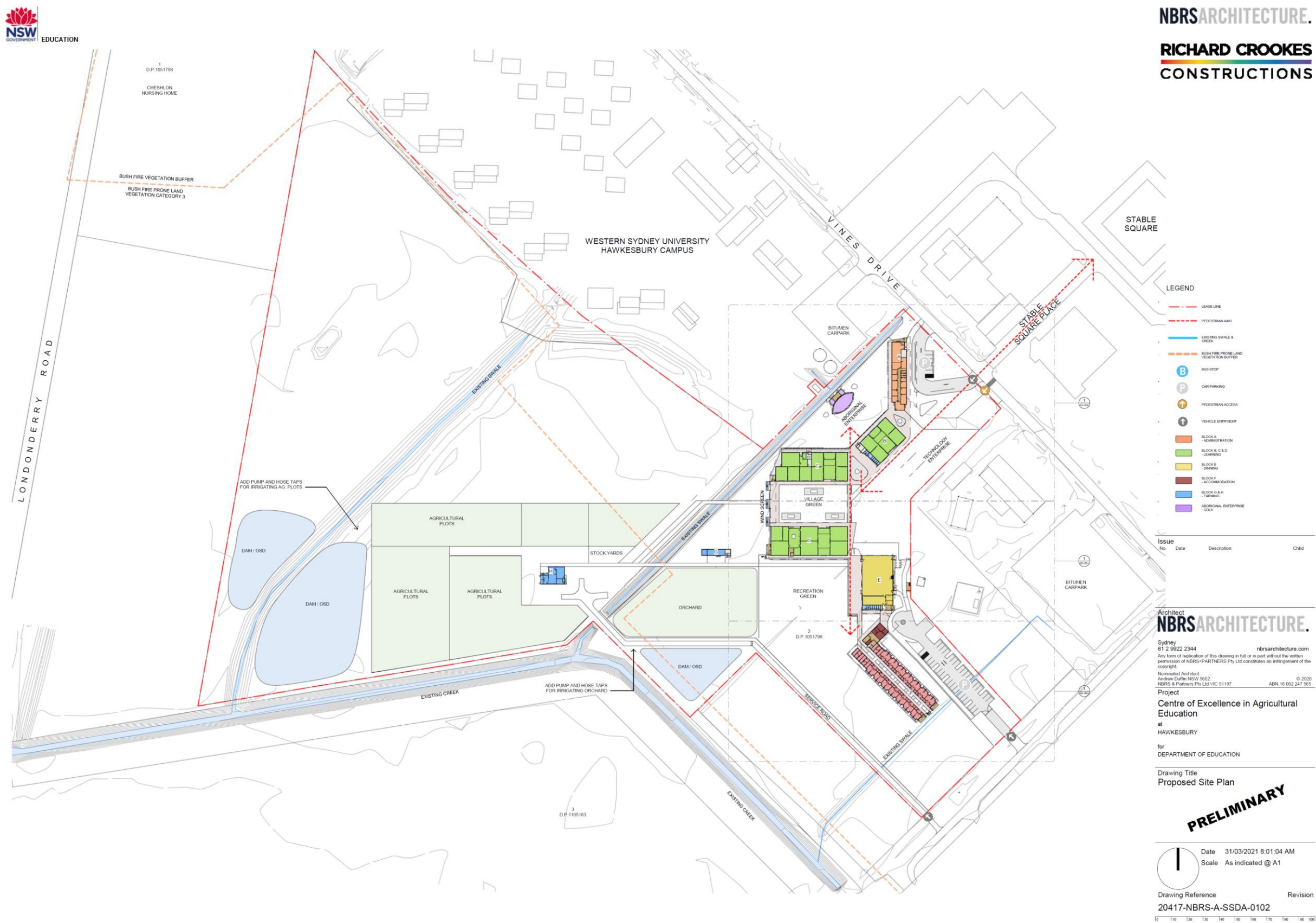
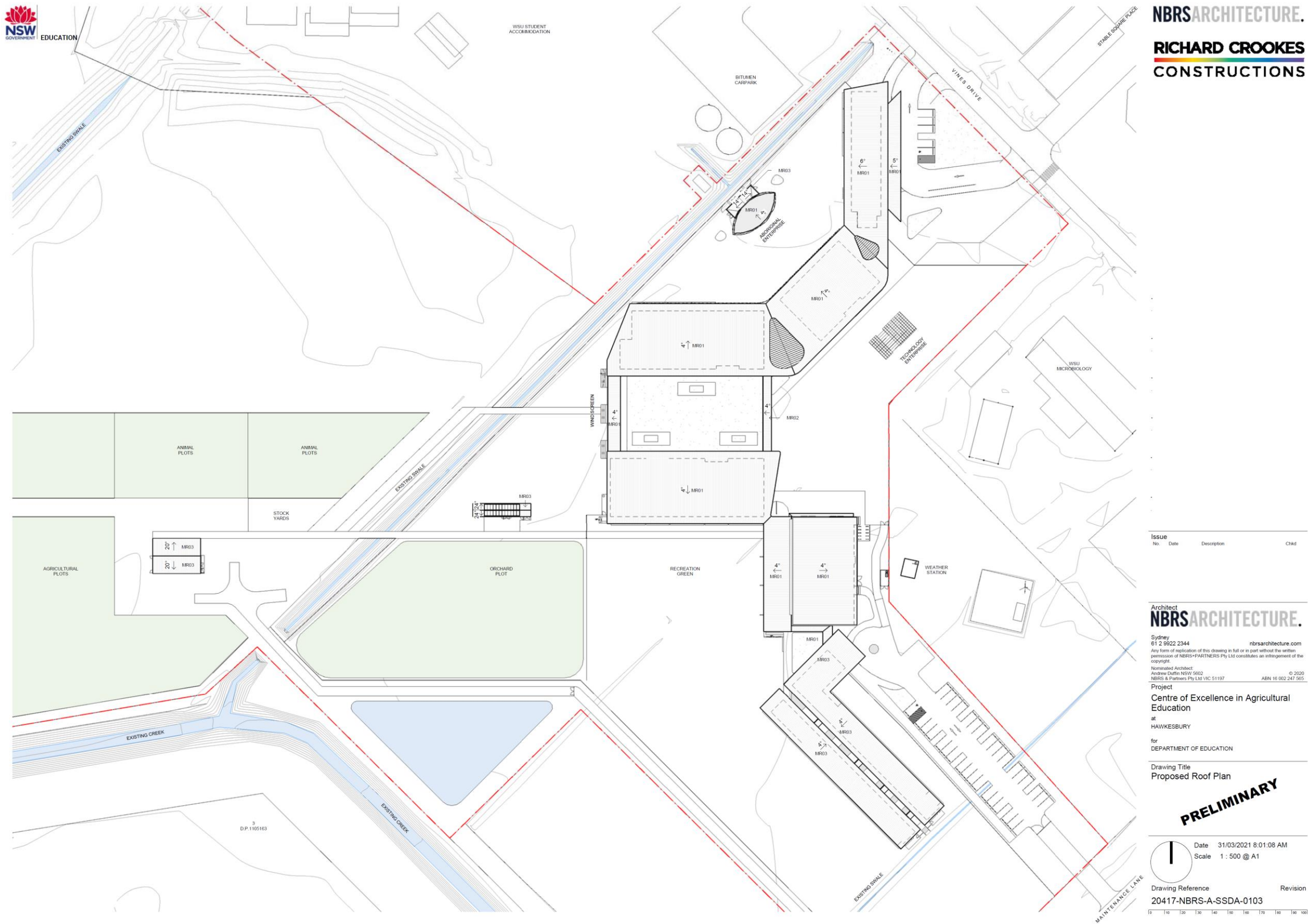


Figure 8-1 Proposed Site Plan.
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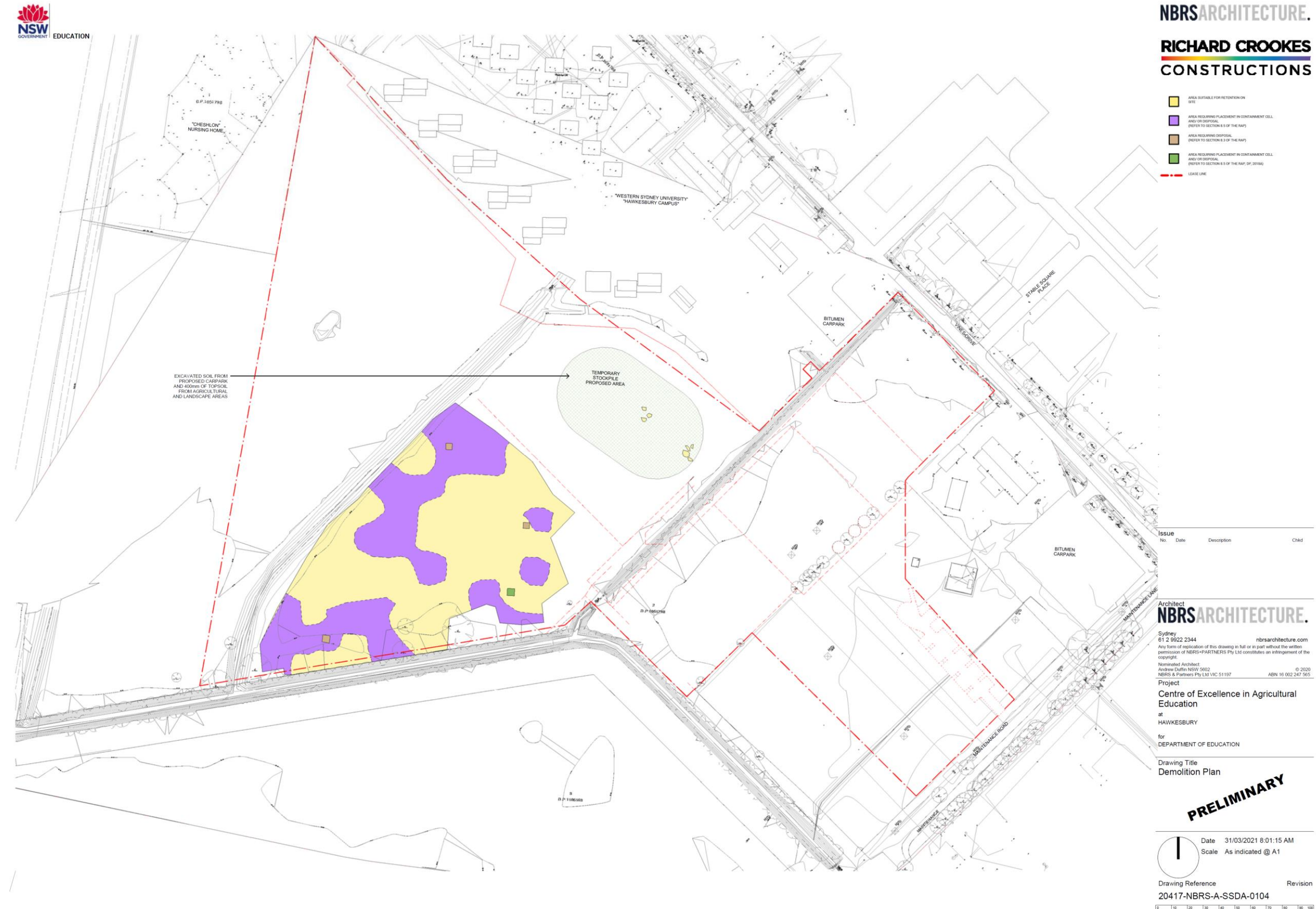
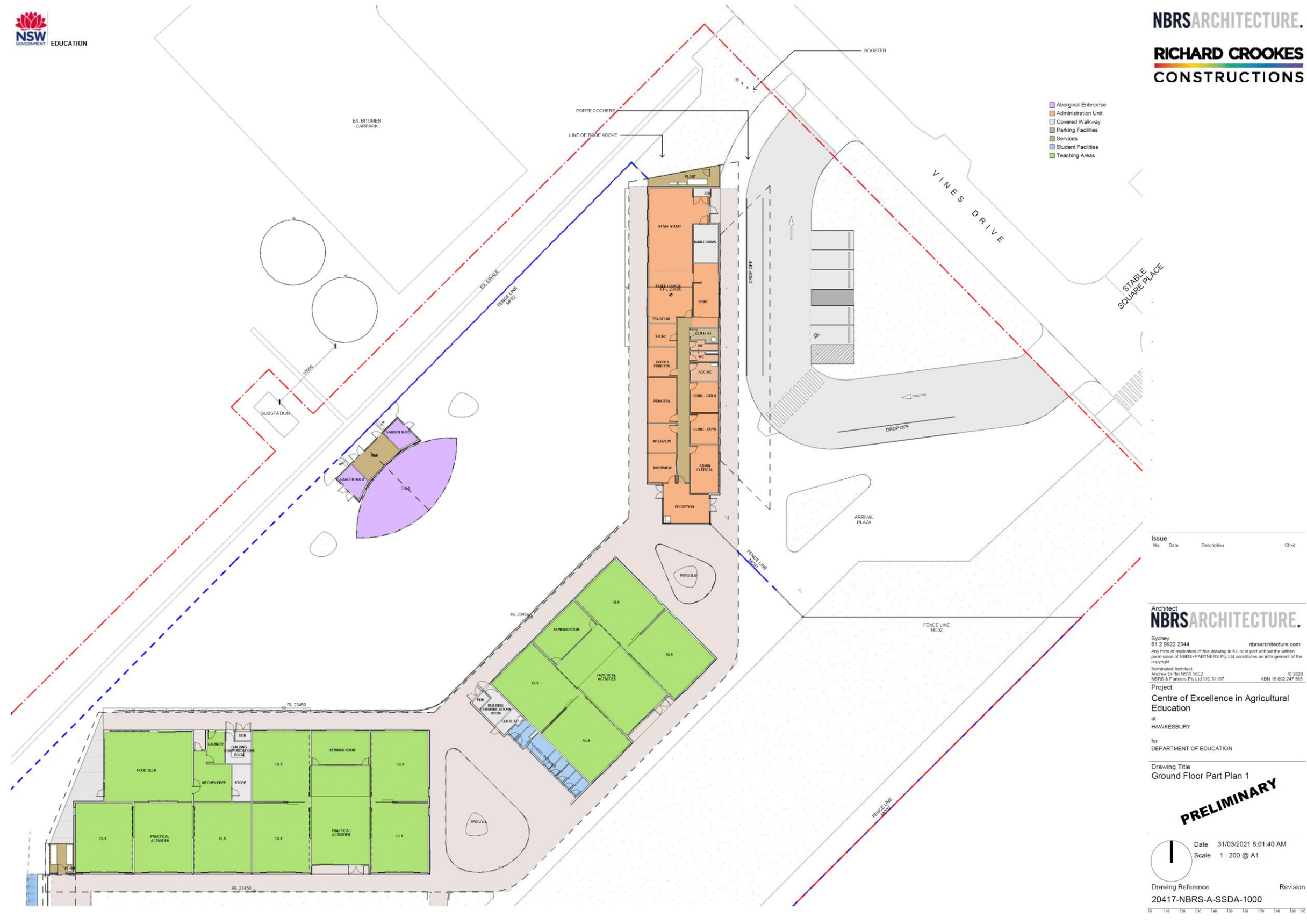


Figure 8-3 Demolition Plan.
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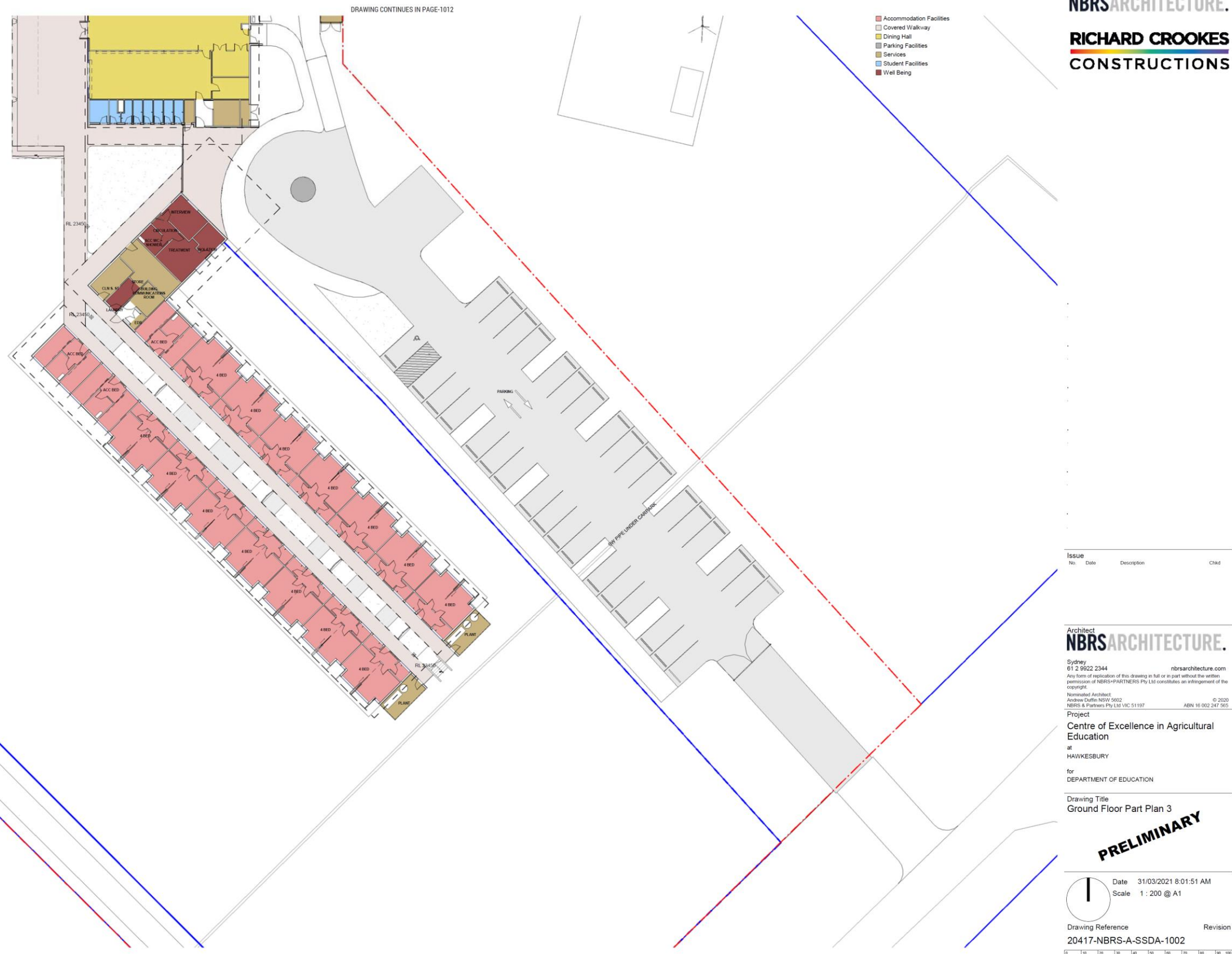
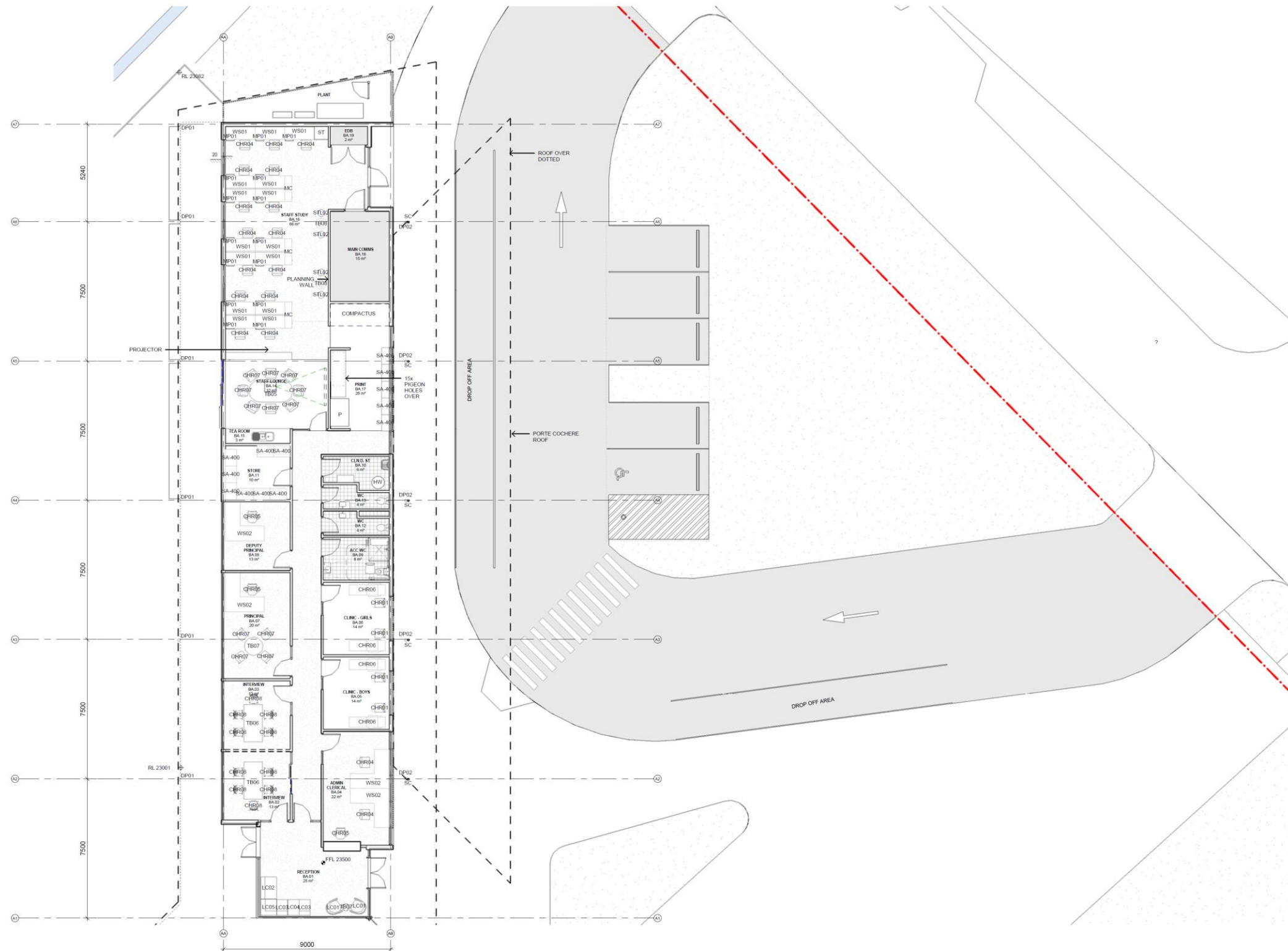


Figure 8-6 Ground Floor Plan Part 3.
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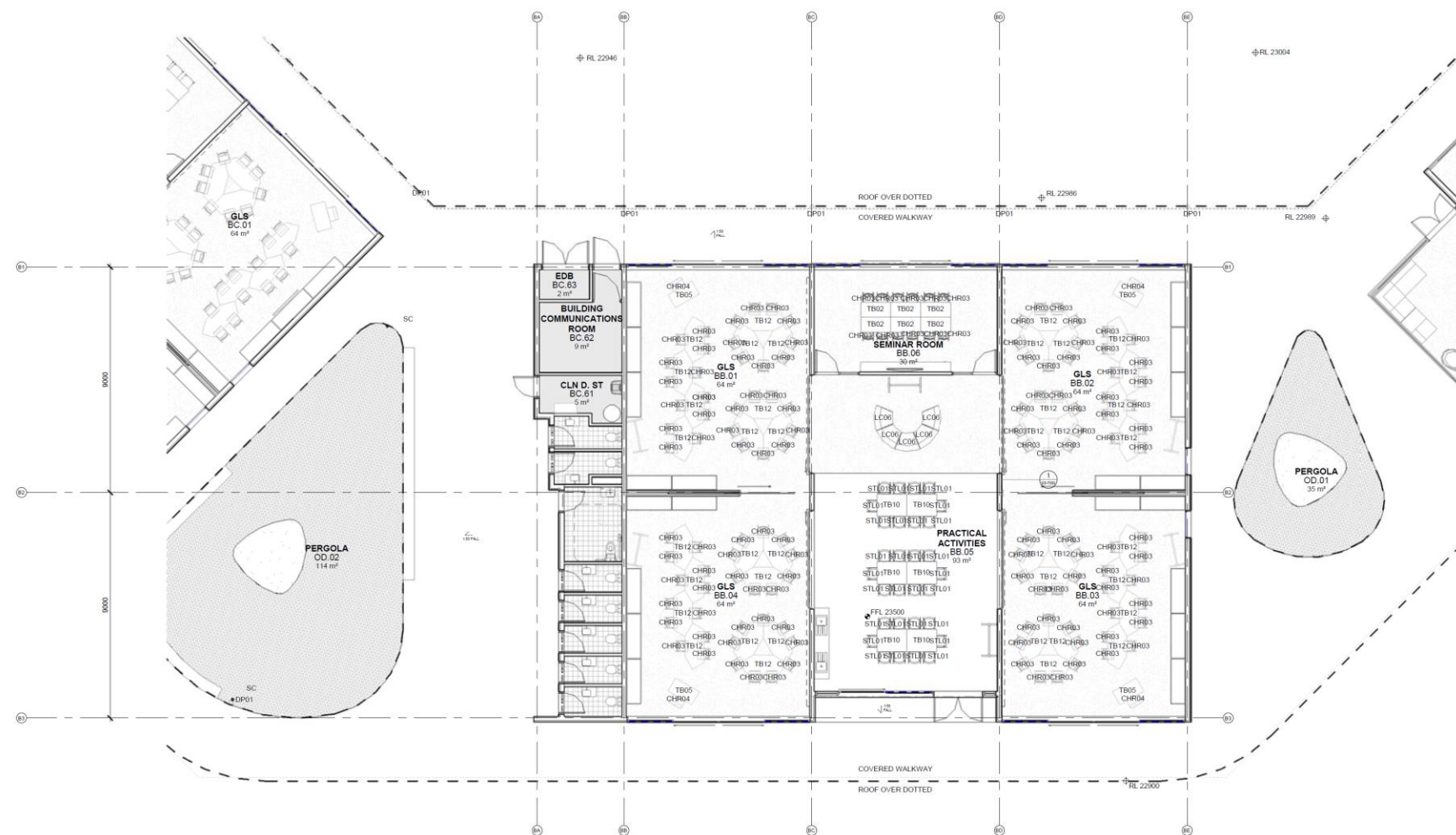
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Figure 8-7 Block A – Administration Building.
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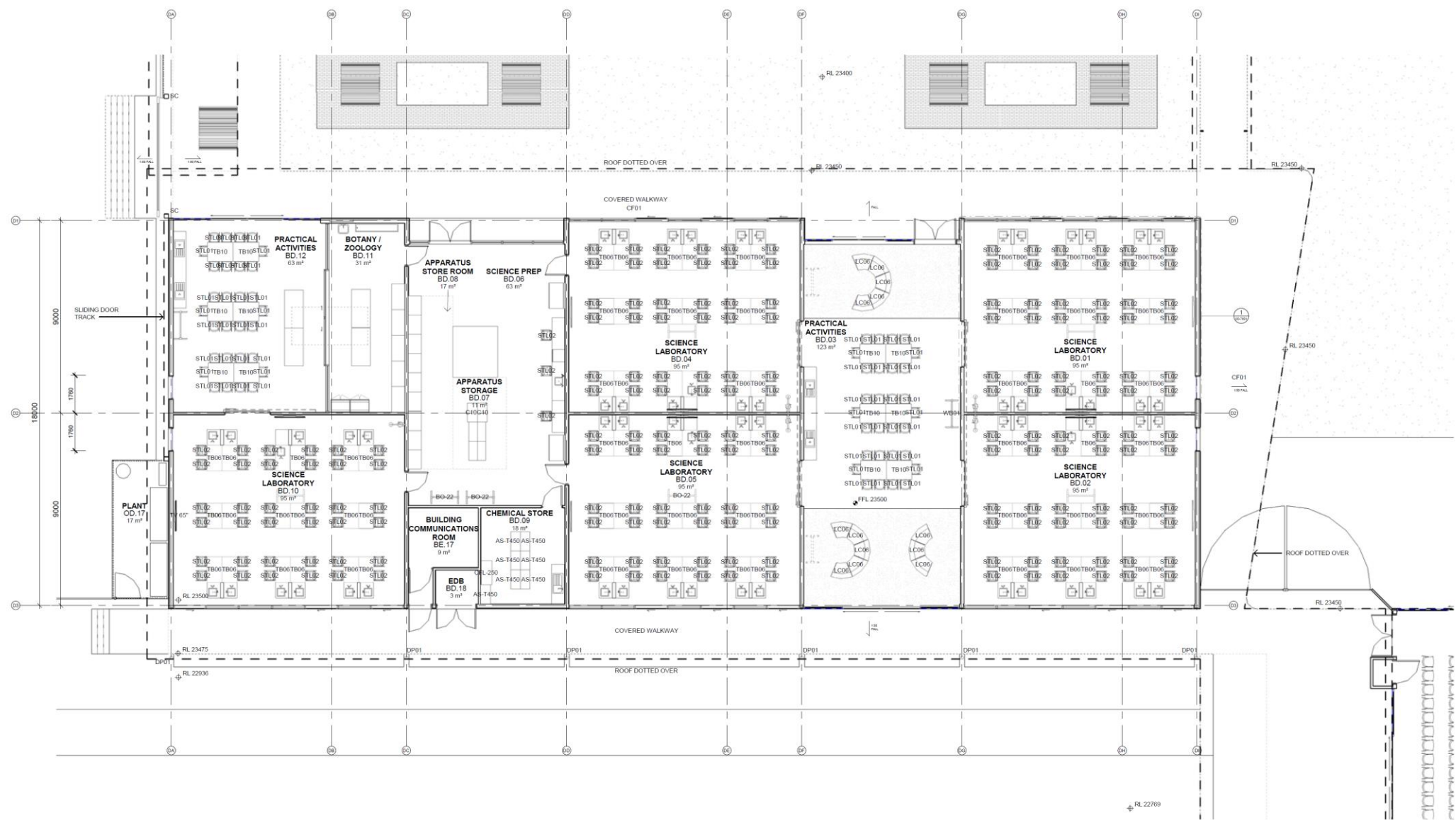
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Figure 8-8 Block B Plan.
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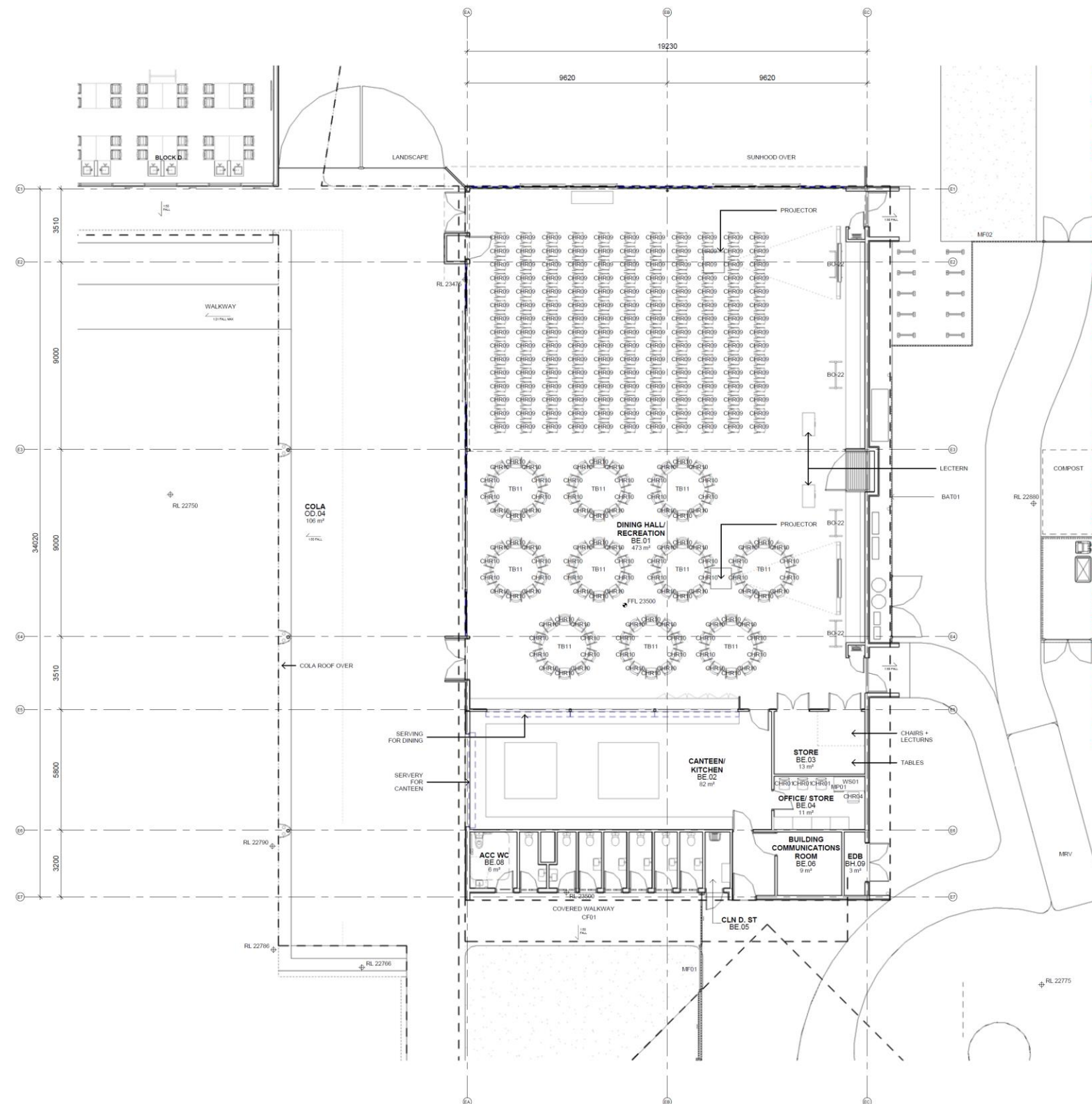
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Figure 8-10 Block D Plan.
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Block E Plan

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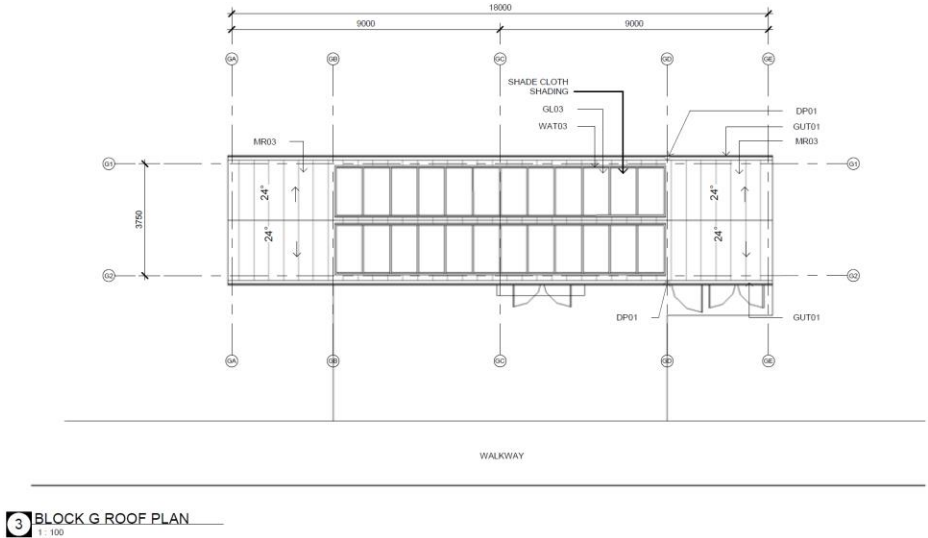
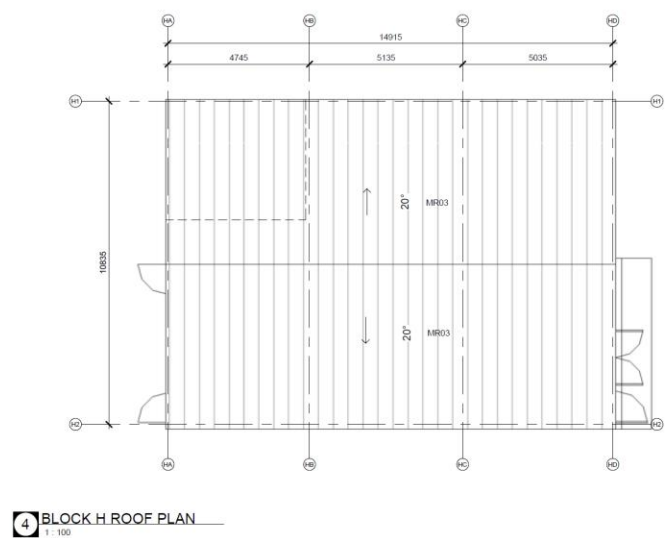
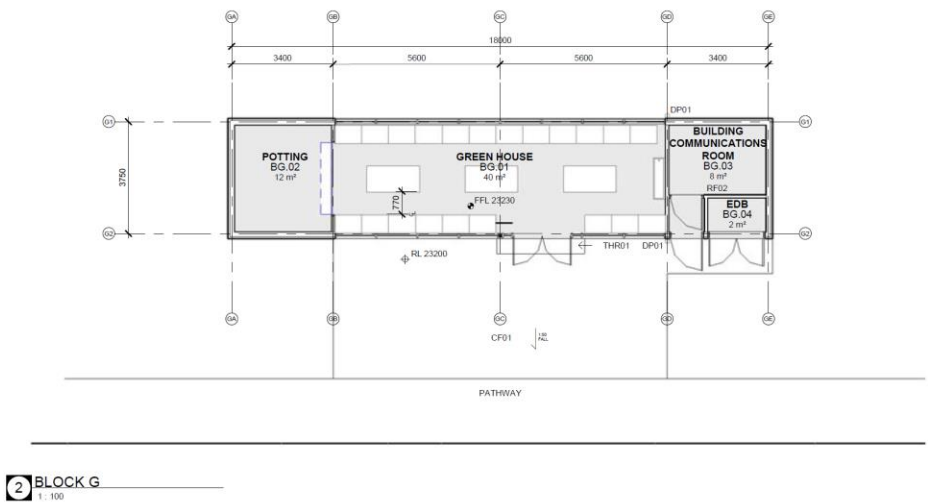
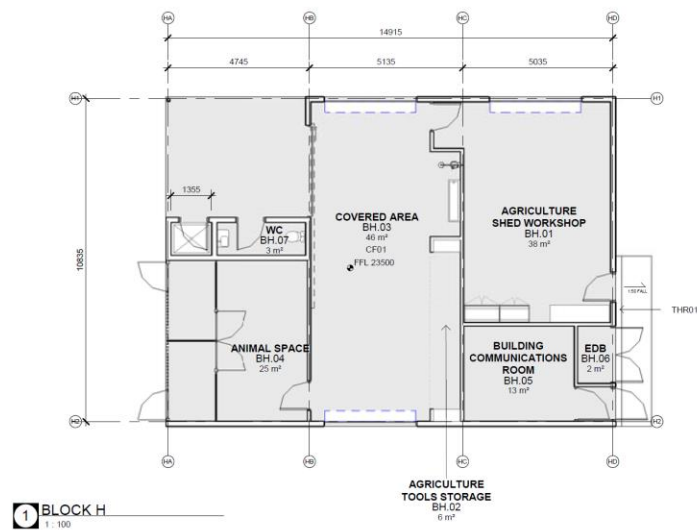
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Figure 8-11 Block E Plan.
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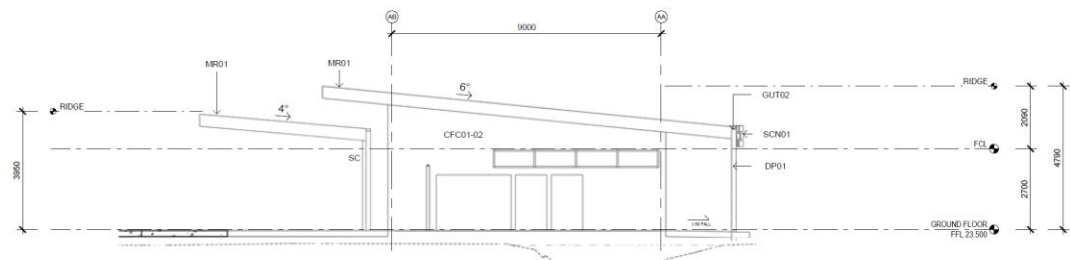
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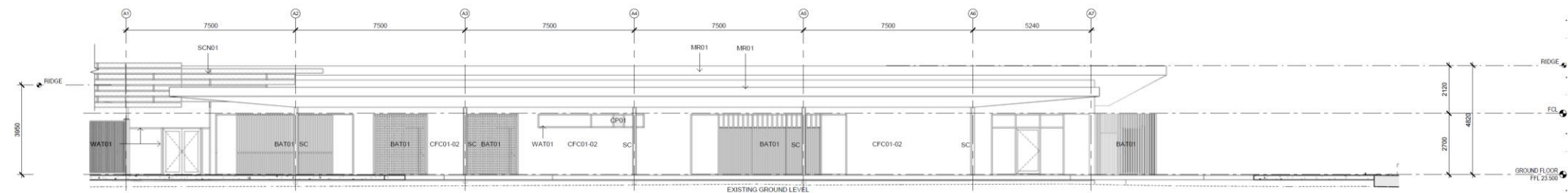
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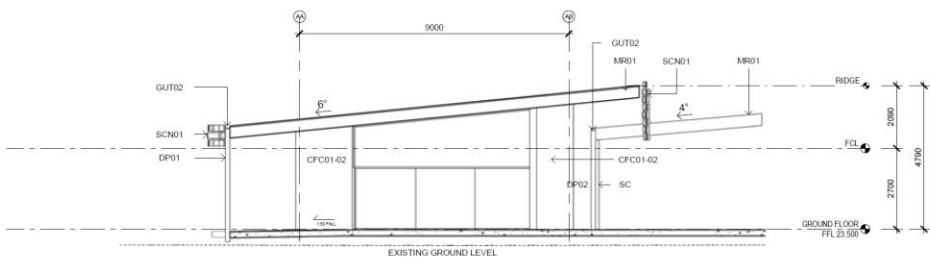
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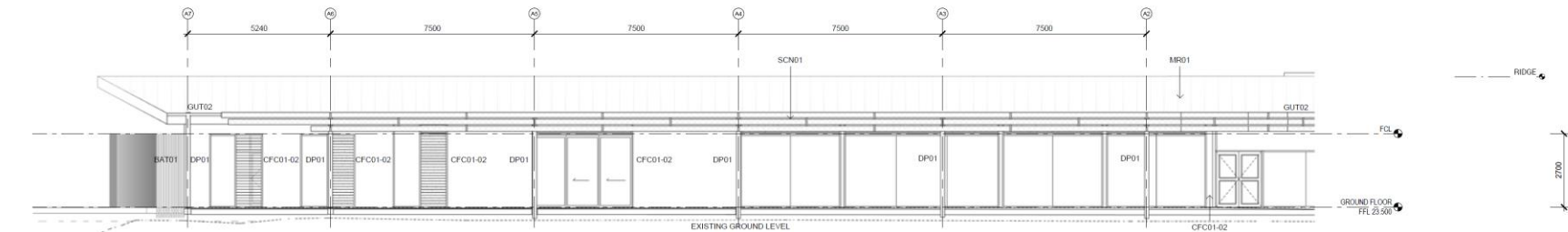
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4 BLOCK A - SOUTH ELEVATION 1
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1 BLOCK A - WEST ELEVATION 1
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Block A Elevations

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Figure 8-14 Block A Elevations
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Figure 8-15 Block B Elevations.
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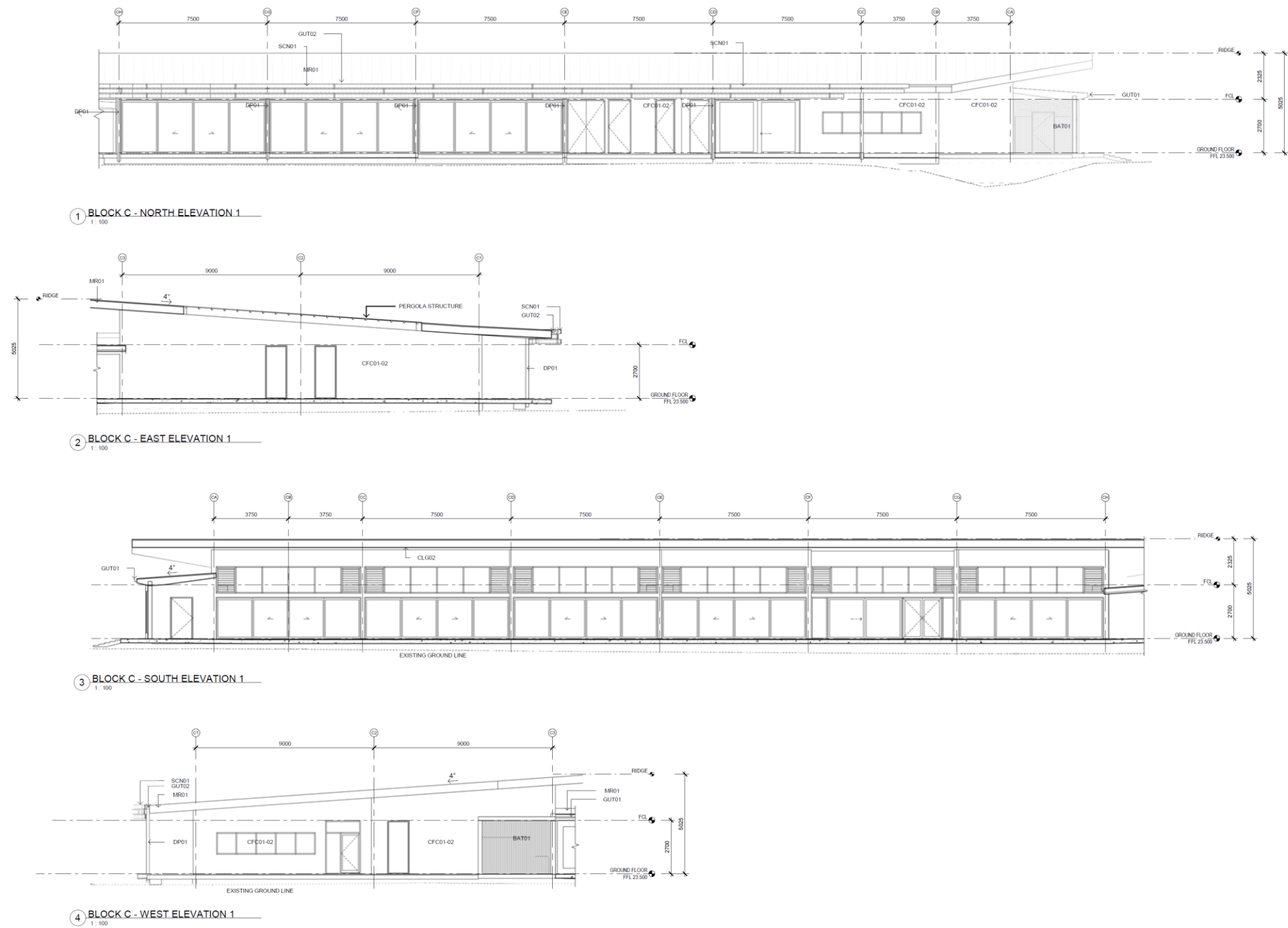


Figure 8-16 Block C Elevations.
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Figure 8-17 Block D Elevations.
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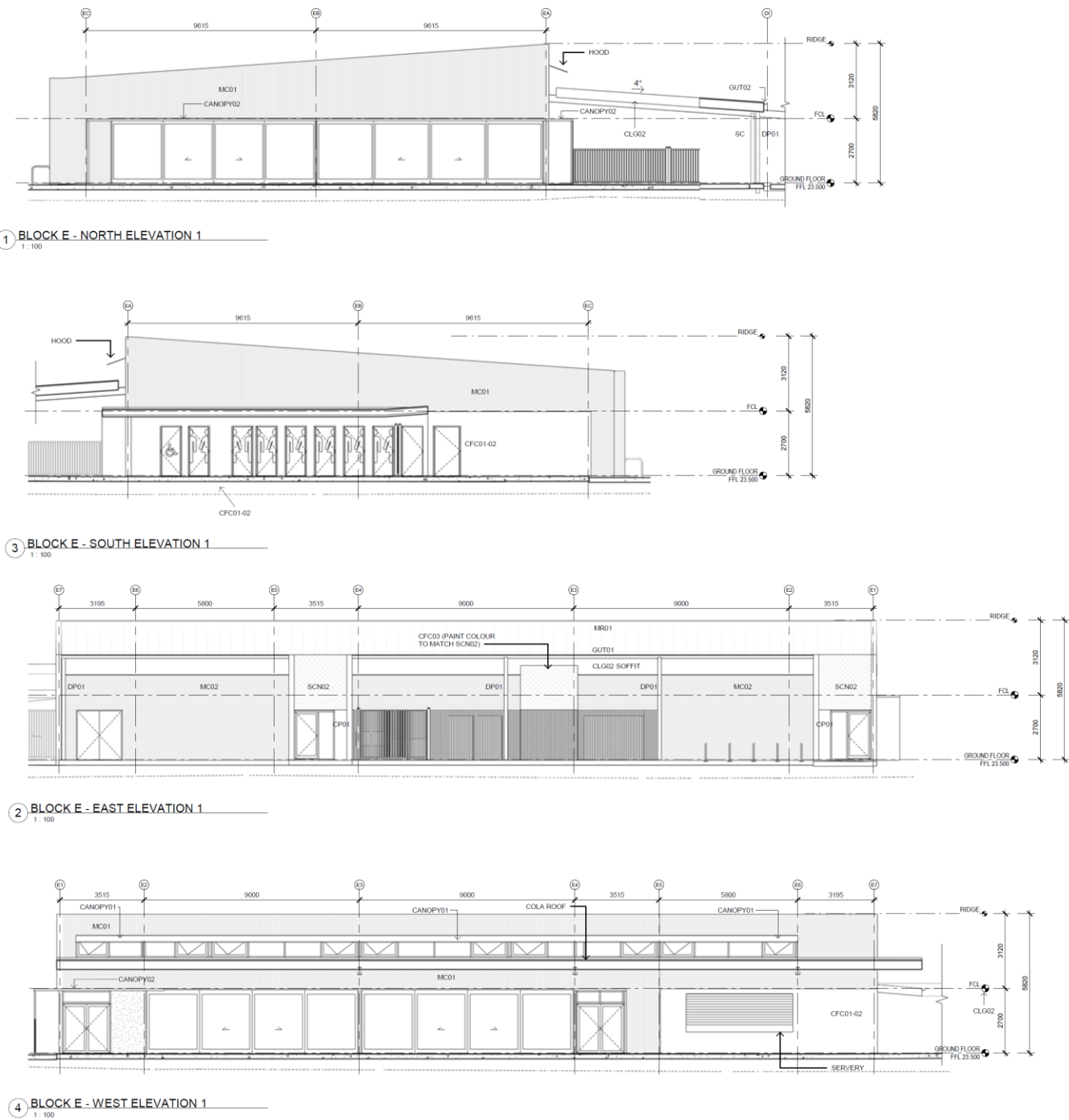


Figure 8-18 Block E Elevations.
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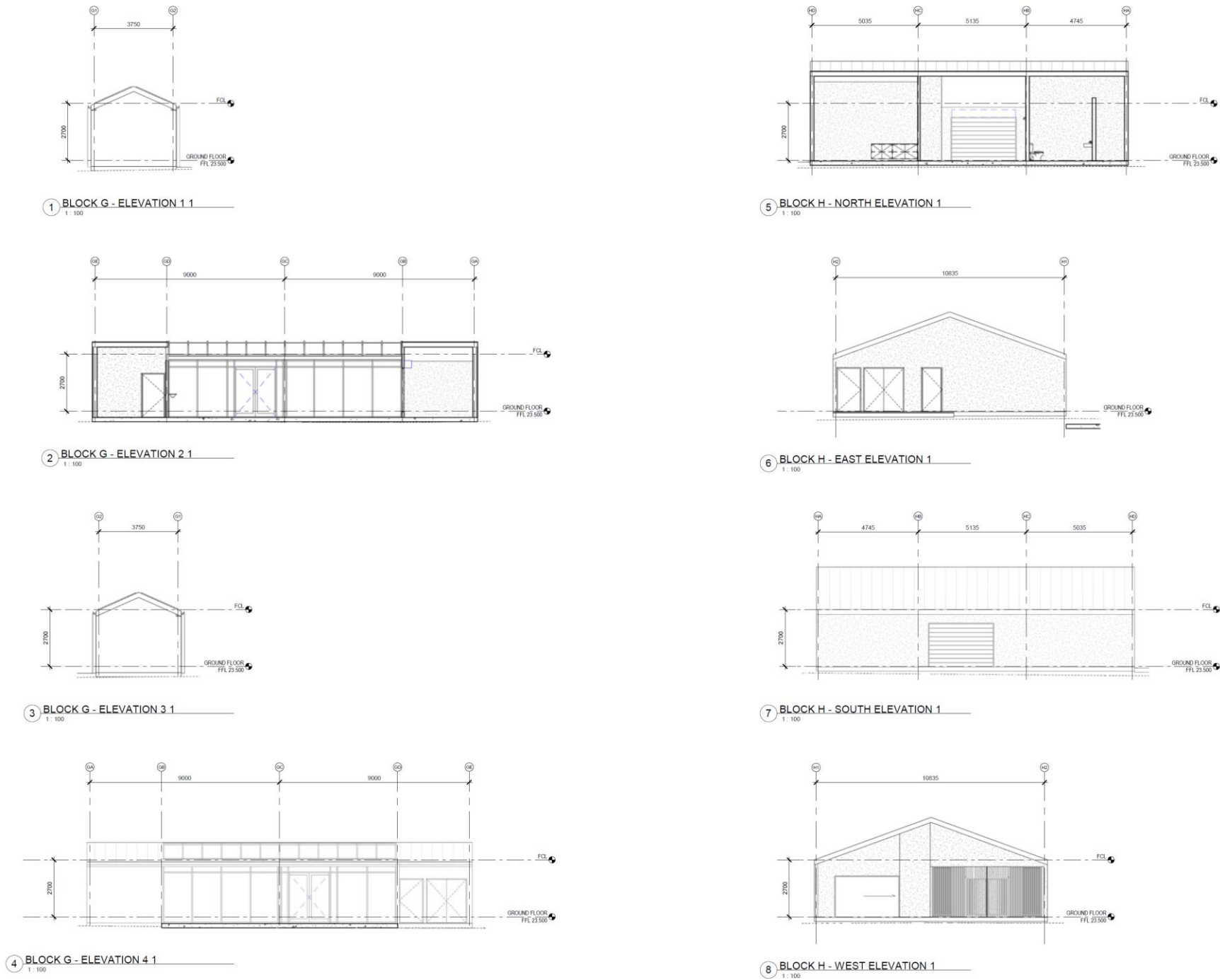


Figure 8-20 Block G & H Elevations.
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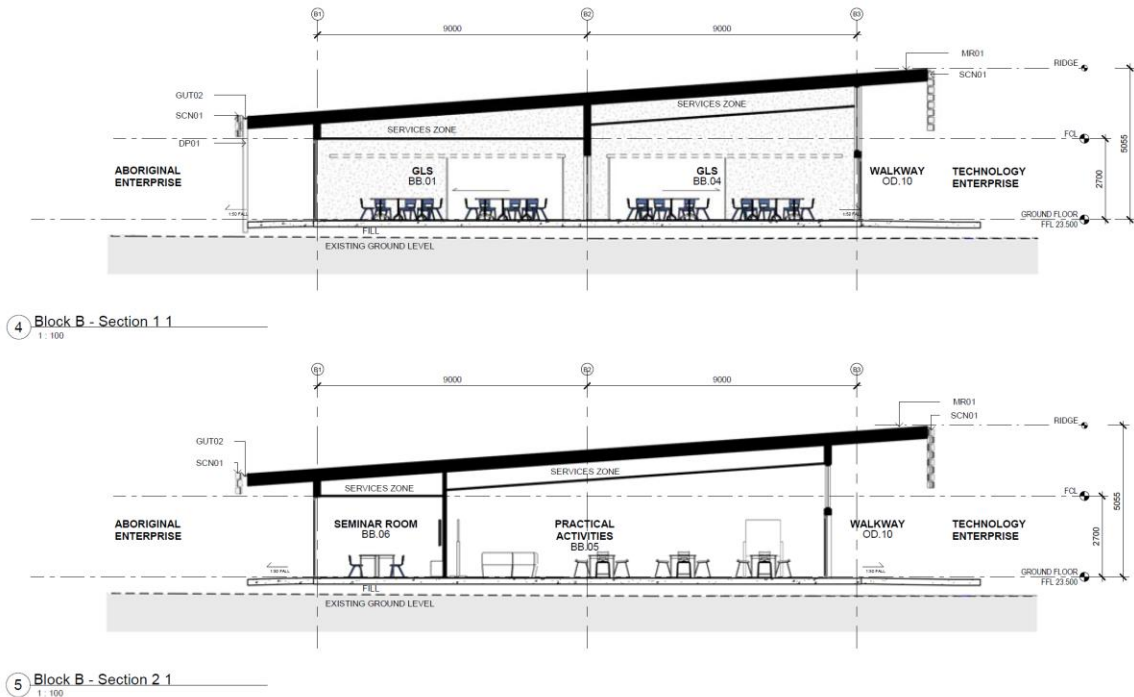
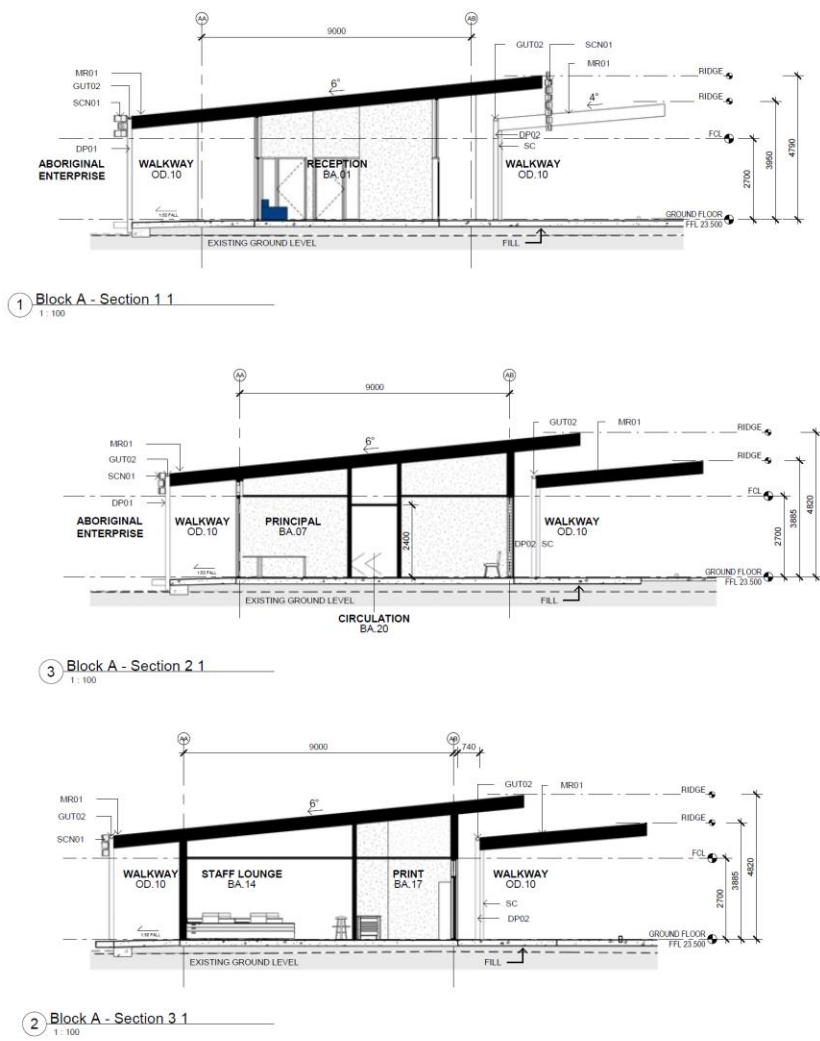
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Block A & B Sections

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Figure 8-21 Block A & B Sections.
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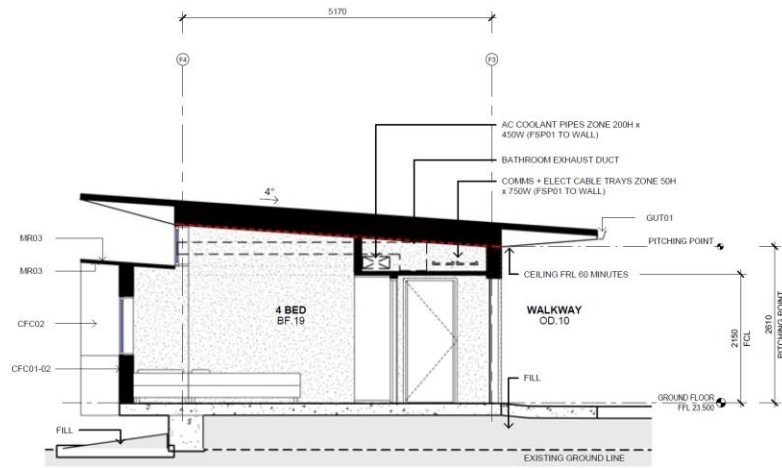
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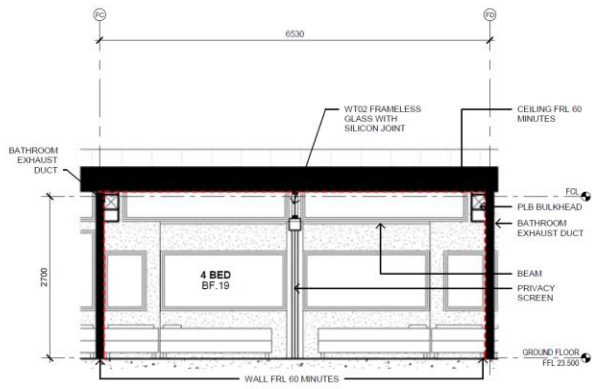
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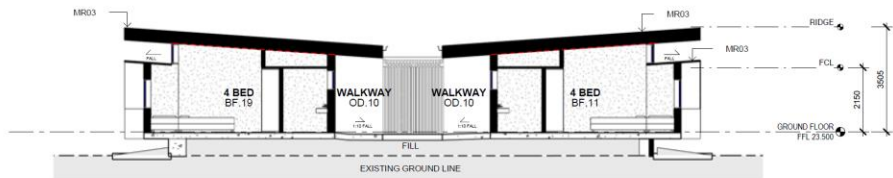
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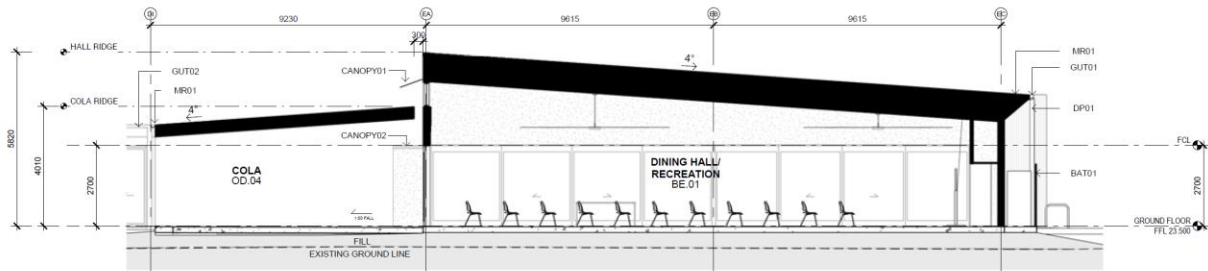
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2 Block F - Section 2.1
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3 Block F Section 3.1
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4 Block E - Section 1.1
1 : 100

Figure 8-23 Block E & F Sections.
NBR & Partners Pty Ltd (31/03/2021). 20417-NBRSA-SSDA-4002.

FRL

Issue	No.	Date	Description	Chd
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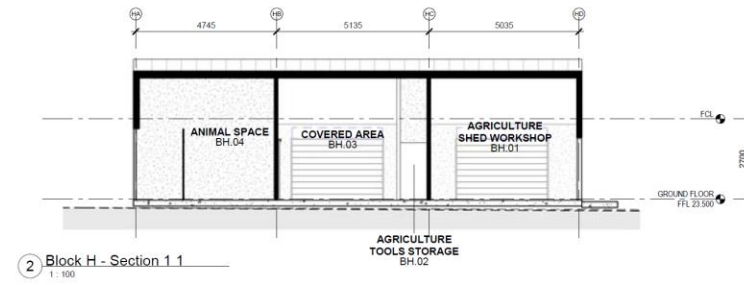
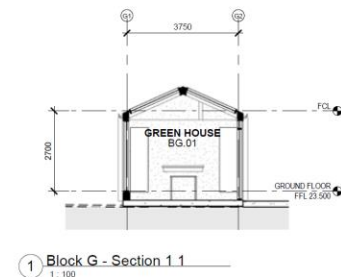
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Drawing Reference
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Revision

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Drawing Title
Block G & H Sections

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PRELIMINARY

Date 31/03/2021 8:03:31 AM
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20417-NBRS-A-SSDA-4003

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Figure 8-24 Block G&H Sections.
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Typical Wall Section 1

PRELIMINARY


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20417-NBRS-A-SSDA-4500
 Revision

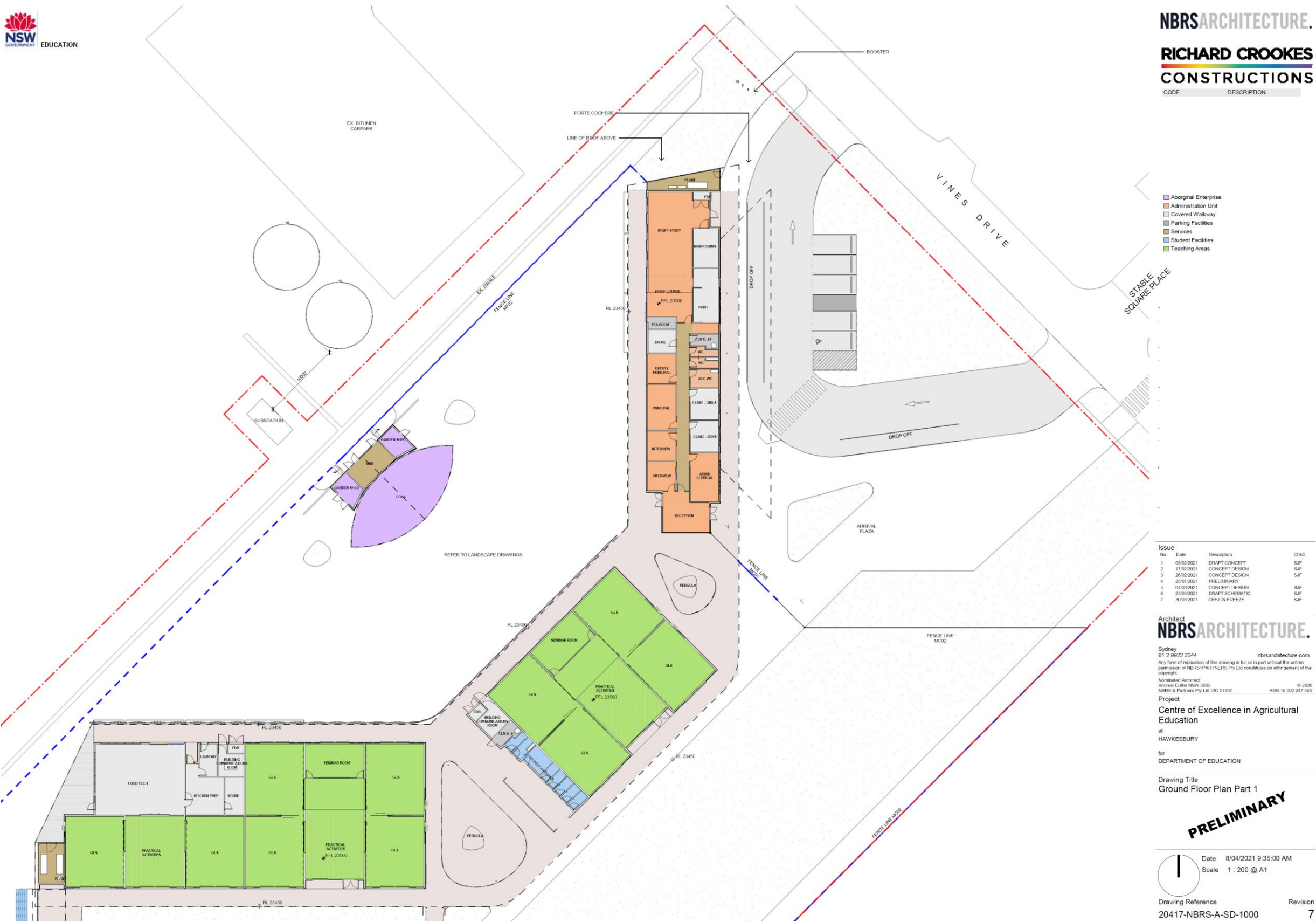


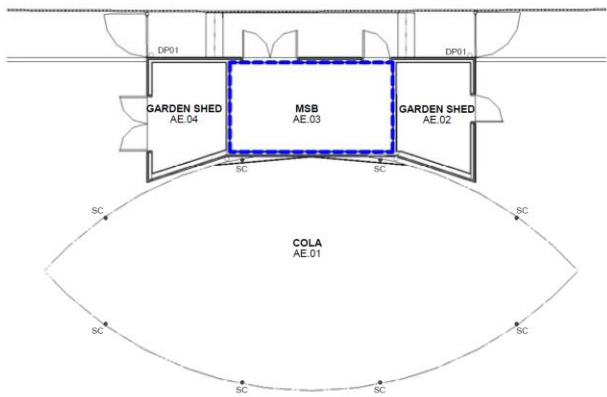
Figure 8-26 Ground Floor Plan Part 1.
NBRS & Partners Pty Ltd (08/04/2021). 20417-NBRS-A-SD-1000, Rev. 7.



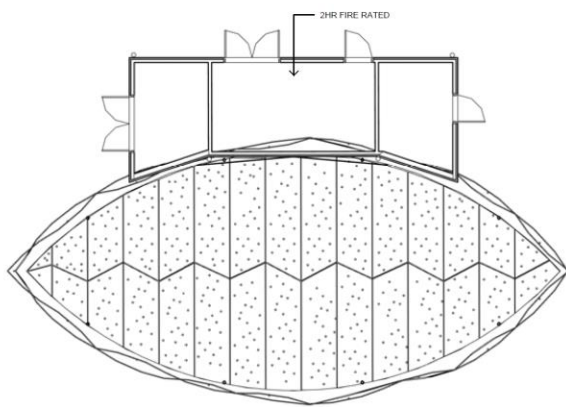
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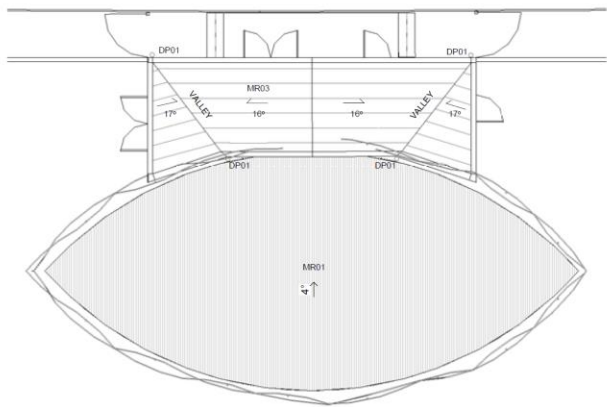
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MR01	METAL ROOFING TYPE 01
MR03	
SC	STEEL COLUMN



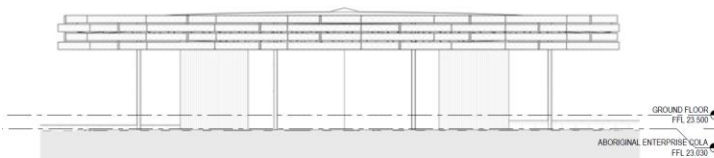
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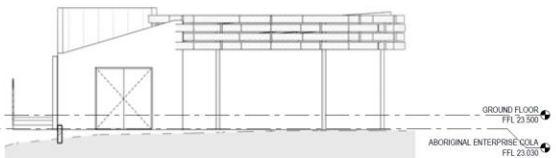
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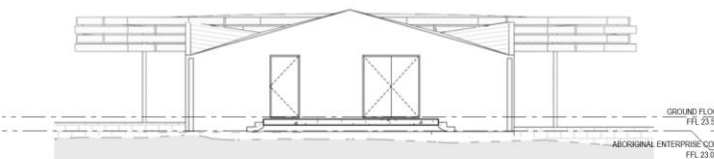
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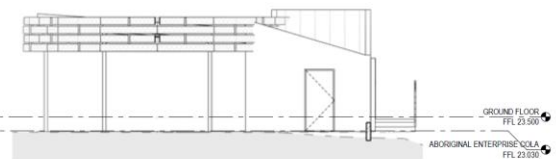
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7 AE - SOUTH WEST ELEVATION
1 : 100



5 AE - NORTH WEST ELEVATION
1 : 100



4 AE - NORTH EAST ELEVATION
1 : 100

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1	30/03/2021	DESIGN FREEZE		SJF

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Drawing Title
Aboriginal Enterprise Plan

PRELIMINARY

Date 8/04/2021 9:35:53 AM
Scale 1 : 100 @ A1

Drawing Reference
20417-NBR&A-SD-1017
Revision
1

Figure 8-27 Aboriginal Enterprise Plan.
NBR& Partners Pty Ltd (03/04/2021). 20417-NBR&A-SD-1017, Rev. 1.

INDIGENOUS ENTERPRISE



Weaving paths and planted beds with native species and indigenous foods. The Yam Daisy to be propagated. Informal paths Native pastures for grain harvests. Indicative character

TECHNOLOGY ENTERPRISE



Flowering crops Agricultural influenced design. Vineyards Pergola structure integrated into trellis system. 'Cut Flower Gardens' Promenade hardscape Kitchens Gardens with small Orchard.

LEARNING SPACES



Village green with covered walkways and shade provided by trees. Outdoor spaces integrated with school curriculum. Outdoor informal learning rooms. Cafeteria breakout learning space.

MATERIALITY



Combination of paving materials along promenade. Tree detail in hardscape. Seamless transition from inside blocks to external surfaces. Educational paving features. Porous paving around tree pits. Earthy coloured gravels and decomposed granite.

Figure 8-28 Landscape Design & Character.
NBRS & Partners Pty Ltd (01/04/2021). 20417-NBRS-L-SK004, Rev. A.

DRAFT

Issue			
No.	Date	Description	Chkd
A	01/04/2021	SCHEMATIC ISSUE	AL

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Drawing Title
Landscape Design and Character
Date 01/04/2021
Scale 1:500 @ A1 1:1000 @ A3
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Drawing Reference 20417-NBRS-L-SK 004 Rev A

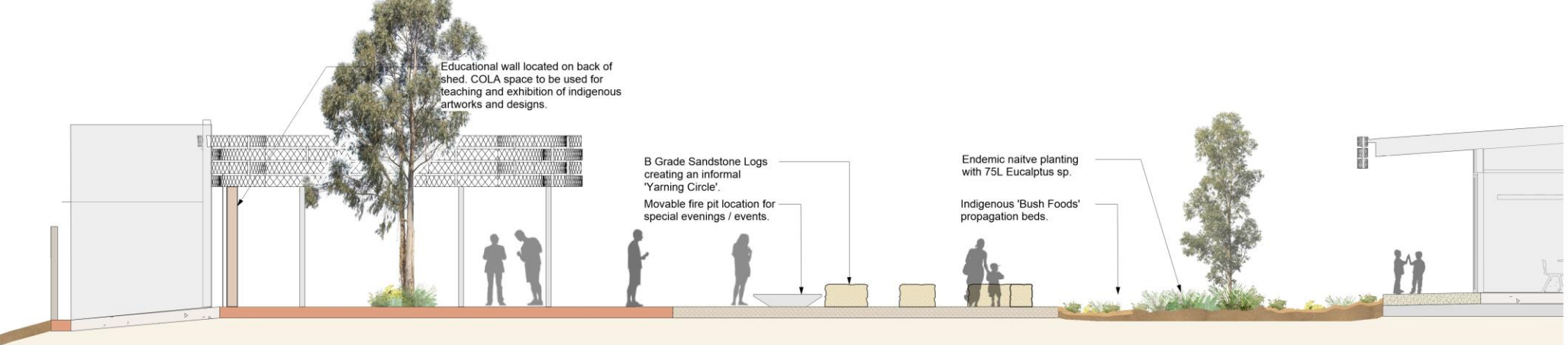


Figure 8-29 Arrangement Plan 1.
NBS & Partners Pty Ltd (01/04/2021). 20417-NBSL-SK007, Rev. A.

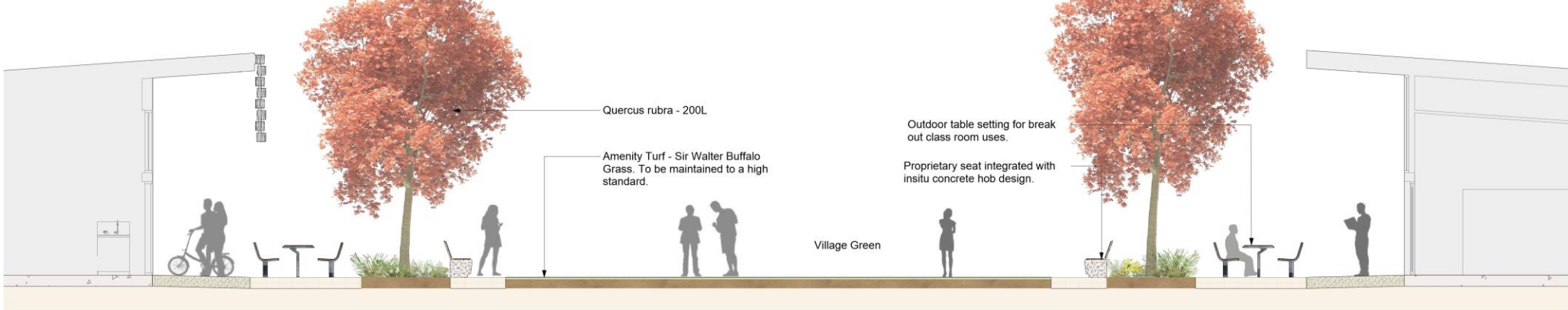
A-A: TECHNOLOGY ENTERPRISE



B-B: INDIGENOUS ENTERPRISE



C-C: OUTDOOR LEARNING SPACES



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Landscape Sections

Date 01/04/2021
Scale Refer to Drawing












Drawing Reference
20417-NBRSL-SK 011

Rev
A

Figure 8-30 Landscape Sections.
NBRSPARTNERS Pty Ltd (01/04/2021). 20417-NBRSL-SK 011, Rev. A.

PLANT SCHEDULE

PLANTING PLAN

TREES		
	Eucalyptus tereticornis-200LT	17
	Eucalyptus moluccana-200LT	3
	Quercus rubra-200LT	8
	Pistacia chinensis-100L	3
	Melaleuca styphelioides-100L	14
	Eucalyptus spp.-75L	75
	Orchard spp.-Installed by School	105
PLANTING		
	Native Planting 1800m2 (4 /M2)	
	Hardenbergia violacea-150mm	
	Lomandra 'Tanika'-150mm	
	Poa labillardieri 'Eslerdale'-150mm	
	Pennisetum alopecuroides-150mm	
	Themeda australis-150mm	
	Endemic Indigenous Planting 500m2 (6 /M2)	
	Acacia falcata-5L	
	Microlaena stipoides-150mm	
	Lomandra multiflora-150mm	
	Themeda australis-150mm	
	Garden Planting 230m2 (5 /M2)	
	Dianella revoluta-150mm	
	Lomandra 'Tanika'-150mm	
	Pennisetum setaceum 'Rubrum'-150mm	
	Philodendron 'Xanadu'-200mm	
	Trachelospermum jasminoides-150mm	
	Xanthorrhoea arborea-25lt	
	Rain Gardens (Bio-retention) 140m2 (5 /M2)	
	Carex appressa-150mm	
	Ficinia nodosa-150mm	
	Juncus usitatus-150mm	
	Lomandra longifolia-150mm	



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DRAFT

No.	Date	Description	Chkd
A	24/02/2021	DRAFT CONCEPT	AL
B	01/04/2021	SCHEMATIC ISSUE	AL

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Drawing Title
Planting Plan and Schedule
Date 01/04/2021
Scale 1:500 @ A1 1:1000 @ A3
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Drawing Reference 20417-NBRS-L-SK 012 Rev B

Figure 8-31 Planting Plan & Schedule.
NBR & Partners Pty Ltd (01/04/2021). 20417-NBRS-L-SK 012, Rev. B.

9.0 MANAGEMENT AND MITIGATION

The management recommendations presented in the following section of the report take into account the following:

- Legislation outlined in this report which protects Aboriginal cultural and archaeological objects and places in New South Wales;
- Research and assessment carried out by the author/s of this report;
- Results of previous archaeological assessment and excavation in the vicinity of the study area;
- The concerns and views of the Aboriginal stakeholders listed in this report;
- The impact of the proposed development on any Aboriginal archaeological material that may be present;
- The requirements of the consent authority (Hawkesbury City Council).

9.1 CARE AND CONTROL

If any archaeological material is recovered it shall be subject to a care and control agreement established after the nature and significance of the archaeological or cultural material is understood as per requirement 26 of the Code of Conduct for the investigation of Archaeological objects in NSW.

9.2 RECOMMENDATIONS

In 2018, the study area was part of the SSDA Submission (SSD 8614) for the New Hurlstone Agricultural High School (AMAC 2018) application and had been subsequently withdrawn and superseded by the State Significant Development (SSD-15001460) for the new Centre of Excellence (CoE) Agricultural School.

The findings from the 2017 test excavation indicate the site to be of nil-low archaeological significance. Intact A horizon was present onsite, however, no Aboriginal objects and/or deposits of cultural significance were located, therefore the development should be allowed to proceed with caution.

The recommendations have been formulated after consultation with RAPs, the proponent and the DPIE after issue of the development application plans (Figures 8.1-8.31).

- Consultation with the registered Aboriginal stakeholders should continue. Stakeholders have been given the opportunity to comment on the recommendations of this report and these comments are included in this report
- An Aboriginal Cultural Heritage Management Plan should be devised upon approval of the State Significant Development application (SSD-15001460) and prior to construction commencing, in order to manage any unexpected Aboriginal archaeological and cultural constraints that may arise
- Archaeological test excavation conducted in 2017 in accordance with *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010)*

revealed *no Aboriginal archaeological objects or deposits*: the development as shown (Figures 8.1–8.31) should be allowed to ‘proceed with caution’

- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site as to their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development.

If any Aboriginal archaeological deposits and/or objects are located during the development, then the following should take place:

- All work is to cease in the immediate vicinity of the deposits and/or objects
- The area is to be demarcated
- DPIE, a qualified archaeologist and the participating RAPs are to be notified.

Should any human remains be located during the development, then the following should take place:

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately;
- The NSW police and Heritage NSW Enviroline be informed as soon as possible;
- Once it has been established that the human remains are Aboriginal ancestral remains, DPIE and the relevant Registered Aboriginal Parties will identify the appropriate course of action.

Additional Recommendations

Copies of the final version of this report should be forwarded to the following organisations:

- | | |
|--|--|
| ➤ Heritage NSW | ➤ Mr D. Dyer from Darug Aboriginal Land Care |
| ➤ Mr S Randall, Deerubbin LALC | ➤ Mr C. Smith, Cullendulla |
| ➤ Mr P. Khan, Kamilaroi-Yankuntjatjara Working Group | ➤ Ms R. Smith, Murramarang |
| ➤ Ms C. Everingham, Darug Aboriginal Cultural Heritage Assessments | ➤ Ms J. Smith, Biamanga |
| ➤ Ms C. Hickey, A1 Indigenous Service | ➤ Mr B. Smith, Goobah Developments |
| ➤ Ms. A. DeZwart, Amanda Hickey Cultural Services | ➤ Ms J. Seymour, Aboriginal Education Consultative Group & Darug Woman Member Darug Custodians |
| ➤ Mr A. & Mr T. Williams, Aboriginal Archaeological Services | ➤ Mr D. Trewlynn, Aboriginal Education Consultative Group |
| ➤ Ms J. Coplin, Darug Custodian Aboriginal Corporation | ➤ Ms J. Flood, Aboriginal Education Consultative Group, RHS/RAC |
| ➤ Mr S. Hickey, Widescope Indigenous Group | ➤ Ms K. Medley, RHS Campus/RAC |
| ➤ Mr P. Boyd & Ms L. Carroll, Didge Ngunawal Clan | ➤ Ms E. Wilkens, Darug Woman Member Aboriginal Education Consultative Group & Darug Custodian |
| ➤ Ms C. Carroll, Gunjeewong Cultural Heritage Aboriginal Corporation | ➤ Ms S. Price Member Aboriginal Education Consultative Group, Teacher NSW DoE & WSU Lecturer |

- Ms M. Stubbings, Merana Aboriginal Community Association for the Hawkesbury Inc.

GLOSSARY

Term	Definition
Aboriginal/ Aborigine	These terms apply to indigenous Australians throughout time.
Aboriginal Object	A term now used (formerly 'relic') within the NSW <i>National Parks and Wildlife Act, 1974</i> to refer to "...any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains."
AHIP	Aboriginal Heritage Impact Permit, issued under Part 6 of the National Parks and Wildlife Act 1974, where harm to an Aboriginal object or Aboriginal place cannot be avoided.
Alluvial	Describes material deposited by, or in transit in flowing water.
AMAC	Archaeological Management and Consulting Group.
Artefact	Any object, usually portable, that has been made or shaped by human hand.
Assemblage	A collection of artefacts found in close proximity with one another often excavated together.
Axe grinding Grooves	Areas on a stone surface where other items such as stone tools, wood or bones have been sharpened.
Basalt	A dark coloured, basic volcanic rock.
Bioturbation	Reworking of sediments through the action of ground dwelling life forms. This can also include soil cracking and root activity.
Broken Flake	A flake fragment which displays only part of the diagnostic features of a complete flake.
BP	Before present (AD1950).
Burial	Sites containing the physical remains of deceased Aboriginal people.
Ceremonial Sites	Places or objects of ceremonial, religious or ritual significance to Aboriginal people.
Chert	A hard siliceous rock suitable for flaking into tools.
DCP	Development Control Plan.
DP	Deposited Plan.
Erosion	Process where particles are detached from rock or soil and transported away principally via water, wind and ice.
Flake	A piece of stone, detached by striking a core with another stone.
Flaking/Knapping	The process of making stone tools by detaching flakes from a piece of stone.
Friable	Easily crumbled or cultivated.
Hard setting	Soil which is compact and hard. It appears to have a pedal structure when dried out.
Heritage Division	Formerly known as the Heritage Branch
Holocene	The period of time since the last retreat of the polar icecaps, commencing approximately 10,000 – 110,000
Intensification	Increased social and economic complexity.

Term	Definition
Landscape Unit	An area of land where topography and soils have distinct characteristics, are recognisable, describable by concise statements and capable of being represented on a map.
Laminite	A thinly bedded, fine grained sedimentary rock.
LEP	Local Environment Plan.
LGA	Local Government Area.
Lithics	A term used to describe stone and stone artefacts.
Loam	A medium textured soil of approximate composition of 10-25% clay, 25-50% silt and 2% sand.
Loose	A soil which is not cohesive.
Matrix	Finer grained fraction, typically a cementing agent within soil or rock in which larger particles are embedded.
Midden	Aboriginal occupation site consisting chiefly of shells, which can also include bone, stone artefacts and other debris.
NPW Act	National Parks and Wildlife Act 1974
OEHL	NSW Office of Environment and Heritage (formerly known as the DECCW)
Open Campsite	A surface accumulation of stone artefacts and/ or other artefacts exposed on the ground surface.
Potential Archaeological Deposit (PAD)	An area where no surface archaeological remains are visible but where it has been assessed that there is some potential for sub-surface archaeological remains to be present.
Ped	An individual, natural soil aggregate.
Pedal	Describes a soil in which some or all of the soil material occurs in the form of peds in a moist state.
Pleistocene	The epoch of geological time starting 1.8 million years ago.
Quartz	Common mineral with naturally sharp edges and poor fracturing properties. Colour ranging from clear, to milky white and pink.
Quartzite	Homogenous medium to coarse grained metamorphosed sandstone.
Rock Painting	Encompassing drawing, paintings or stencils that have been placed on a rock surface usually within a rock shelter.
Rock Engraving	Pictures which have been carved, pecked or abraded into a rock surface, usually sandstone and predominantly open, flat surfaces.
Sandstone	A detrital sedimentary rock with predominantly sand sized particles.
Scarred/ Carved Tree	A tree from which bark has been deliberately removed.
Sclerophyll	Denoting the presence of hard stiff leaves, typically used to classify forest and indicative of drier conditions.
Sedimentation	Deposition of sediment typically by water.
Silcrete	A sedimentary rock comprising of quartz grains in a matrix of fine grained – amorphous silica.
Silt	Fine soil particles in size ranges of 0.02 – 0.002mm.
Slope	A landform element inclined from the horizontal at an angle measured in degrees or as a percentage.
SHI	State Heritage Inventory
SHR	State Heritage Register
Subsoil	Subsurface material comprising the B and C horizons of soils with distinct profiles.
Stone Resource Site	A geological feature in the landscape from which raw material for the manufacture of stone tools was obtained.

Term	Definition
Texture	The coarseness or fineness of a soil as measured by the behaviour of a moist ball of soil when pressed between the thumb and forefinger.
Topsoil	A part of the soil profile, typically the A1 Horizon, containing material which is usually darker, more fertile and better structured than the underlying layers.
Weathering	The physical and chemical disintegration, alteration and decomposition of rocks and minerals at or near the earth's surface by atmospheric and biological agents.

REFERENCES

ABORIGINAL HERITAGE AND INFORMATION MANAGEMENT SYSTEM.

2011 & 2012 www.environment.nsw.gov.au/awssapp

ARCHAEOLOGICAL MANAGEMENT & CONSULTING (AMAC)

2018 *New Hurlstone Agricultural High School Hawkesbury Campus 2 College Road Richmond NSW*. Report for the Department of Education.

ARCHAEOLOGICAL HERITAGE MANAGEMENT SOLUTIONS.

2006 *Windsor RC Cemetery, Archaeological Test Excavation Report*. Report for New South Wales RTA.

2008 *Windsor Police Station: Section 87 #1092724 Excavation Report and Section 90 Application*. Report for ADCO Constructions Pty Ltd.

ATTENBROW, V.

2002 *Sydney's Aboriginal Past: Investigating the archaeological and historical records*. UNSW Press, Sydney.

AUSTRALIA ICOMOS.

1999 *The Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter)*. Australia ICOMOS, Canberra.

AUSTRALIAN HERITAGE COMMISSION.

2002 *Ask First: A guide to respecting Indigenous heritage places and values*. Australian Heritage Commission, Canberra.

AUSTRALIAN INSTITUTE OF ABORIGINAL AND TORRES STRAIT ISLANDER STUDIES.

2000 *Aboriginal Australia*. Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.

AUSTRALIAN MUSEUMS BUSINESS SERVICES.

2008 *Rosehill Recycled Water Scheme Preliminary Cultural Heritage Assessment*. Unpublished Report to DECCW.

BANNERMAN, S. M. AND HAZELTON P. A.

1990 *Soil Landscapes of the Penrith 1:100 000 Soil Sheet*. Soil and Conservation Service of NSW.

BRANAGAN, D, C. HERBERT AND T. LANGFORD-SMITH.

1979 *The Sydney Basin: An outline of the Geology and Geomorphology*. University of Sydney, Sydney.

BRAYSHAW, H.

1986 *Archaeological Survey associated with modifications to the Rail Branchline between Blacktown and Richmond, New South Wales*. Report prepared for State Rail Authority, NSW.

BURKE, H. AND C. SMITH.

2004 *The Archaeologists Field Hand Book*. Allen & Unwin, St Leonards, NSW.

COLEMAN, J.

1982 *A new look at the North Coast: Fish traps and villages*. In S. Bowdler (ed) *Coastal Archaeology in Eastern Australia*. Australian National University, Canberra.

COMMONWEALTH HERITAGE LIST.

2011

www.environment.gov.au/cgibin/ahdb/search.pl?mode=search_result;s:state=N SW;list_code=CHL;legal_status=35

DALLAS, M.

1985 *An Archaeological Survey of North Richmond, New South Wales*.

DALLAS, M. AND M. KELLY.

1999 *Preliminary Overview Aboriginal and European Heritage, Proposed RTA South Creek Flood Evacuation Routes, Windsor New South Wales*. Report to McKenzie Land Planning Services Pty Ltd.

DEC.

2004 *Aboriginal Womens Heritage: Port Stephens*. Department of Environment and Conservation. Sydney.

DECC.

2005 *Aboriginal Scarred Trees in New South Wales: A Field Manual*. Department of Environment and Climate Change, Sydney.

DECCW.

2010 *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974*. Department of Environment, Climate Change and Water, Sydney.

2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974*. Department of Environment, Climate Change and Water, Sydney.

2010 *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974*. Department of Environment, Climate Change and Water, Sydney.

2010 *Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents*. Department of Environment, Climate Change and Water, Sydney.

DEPARTMENT OF PLANNING.

2005 *The NSW Comprehensive Coastal Assessment Tool Kit*. NSW Government.

GOODWIN, L.

1999 Two steps forward, one back. Some thoughts on settlement models for the North Coast of New South Wales. In *Australian Coastal Archaeology* edited by Jay Hall and Ian J McNiven. ANH Publications, Canberra.

HARDY, V. AND B. STREAT.

2008 *An Aboriginal Heritage Assessment of SADA Coal Washery, Glenlee New South Wales*, Unpublished Report for SADA Coal submitted to DECCW.

HAWKESBURY CITY COUNCIL.

2012 *Local Environmental Plan*. Hawkesbury City Council

2002 *Development Control Plan*. Hawkesbury City Council

HISCOCK, P.

2008 *Archaeology of Ancient Australia*. Routledge, London & New York.

HOLDAWAY, S. AND N. STERN.

2004 *A Record in Stone: The Study of Australia's Flaked Stone Artefacts*. Aboriginal Studies Press, Melbourne.

JO McDONALD C.H.M.

1997 *Archaeological Salvage Excavation of an Aboriginal Site, Richmond Market Place, Richmond*. Report for Restifa and Partners on Behalf of Woolworths.

1998 *Archaeological test excavations at Site RWP-1 (NPW 45-5-2404) Richmond Water Reuse Project, Richmond NSW*. Report for OEH.

1999 *Archaeological Salvage Excavation of an Aboriginal Site, corner of Baker and George Streets, Windsor*. Report for OEH.

KOETIGG, M.

1990 *Test Excavations at Londonderry: Supplementary Report to the Assessment of Aboriginal Sites in the Proposed Waste Depot Site in Londonderry, New South Wales*. Report to Metropolitan Waste Management Authority.

KOHEN, J.

1984 *Archaeological Survey within the Agnes Banks/Londonderry Area*. Report to K.H. Dixon and Readymix Farley.

1986 *Prehistoric Settlement in the Western Cumberland Plain: Resources, Environment and Technology*. PhD Thesis, School of Earth Sciences, Macquarie University, Sydney.

n.d. *Aborigines of the Blacktown District*.

1993 *The Darug and Their Neighbours: The traditional owners of the Sydney Region*. Darug Tribal Aboriginal Corporation, Sydney.

2000 *Archaeological Survey of the "proposed new extraction area", Racecourse Road, Menangle Park, New South Wales*.

KOHEN, J. E.D. STOCKTON AND M. A. J. WILLIAMS.

1983 *Shaw's Creek Rockshelter: Prehistoric Settlement in the Blue Mountains Piedmont, Eastern New South Wales*.

MCBRYDE, I.

1976 *Subsistence patterns in New England Prehistory*. University of Queensland Occasional Papers in Anthropology. 6:48 – 68.

MCDONALD, J.

1992 Chapter 2: Aboriginal Usage of the Hawkesbury-Nepean In Prehistory.
In *Hawkesbury-Nepean Historic Environmental Changes Study*. .

MCDONALD, J. and P. MITCHELL.

1997 *Interim Heritage Management Report: ADI Site St Marys. Volume 1: Text*. Report to Lend Lease - ADI Joint Venture in Response to the Section 22 Committee Interim Report.

MILLS, R.

1998 *Aboriginal Heritage Study of proposed residential development at Old Windsor Road and Meurants Lane, Parklea*. Report to Conacher Travers

2001 *Western Sydney Orbital EIS: Aboriginal Archaeological Investigations. Power Street to Richmond Road, A Supplementary Report to New South Wales RTA*.

MULVANEY, J. AND J. KAMMINGA.

1999 *Prehistory of Australia*. Allen & Unwin, St Leonards, NSW.

NATIONAL HERITAGE LIST.

2011 www.environment.gov.au/heritage/places/national/index.html

NATIONAL NATIVE TITLE TRIBUNAL.

2011 www.nntt.gov.au

NEW SOUTH WALES HERITAGE BRANCH.

2011 *New South Wales Heritage Register*.
www.heritage.nsw.gov.au/07_subnav_04.cfm

NEW SOUTH WALES GOVERNMENT.

1974 *National Parks and Wildlife Act*. New South Wales Government, Sydney.

1979 *Environmental Planning and Assessment Act*. New South Wales Government, Sydney.

1983 *Land Rights Act*. New South Wales Government, Sydney.

1993 *Native Title Act*. New South Wales Government, Sydney.

1999 *Environmental Protection and Biodiversity Conservation Act*. New South Wales Government, Sydney.

NEW SOUTH WALES NATIONAL PARKS AND WILDLIFE SERVICE.

1997 *Aboriginal Cultural Heritage: Standards and Guidelines Kit*. NSW National Parks and Wildlife Service.

OZARK.

2000 *Archaeological Test Excavations of Four PADS along the Flood Evacuation Route, Windsor New South Wales*. Report to New South Wales RTA.

SMITH, L.

1988 *Aboriginal Site Planning Study in the Sydney Basin. Stage 1: The Cumberland Plain. Interim report: site survey and site analysis on the northern Cumberland Plain*. Part of the Cumberland Plain Management Study prepared for the NSW National Parks and Wildlife Service.

THERIN ARCHAEOLOGICAL CONSULTING.

2001 Archaeological Surface Survey for the Proposed Upgrade of Windsor Road between Schofields Road and Merrivale Road, Kellyville. Report to Hyder Consulting.

2004 Aboriginal Heritage Preliminary Research Permit Excavations for the Upgrade of Windsor Road between Level Crossing Road, Vineyard and Mile End Road Rouse Hill. Report to Hyder Consulting.

2004 Aboriginal Heritage Assessment for the Proposed Upgrade of Windsor Road between Boundary Road and Henry Road, Windsor. Report to Hyder Consulting.

2004 Aboriginal Assessment for the Proposed Construction of a Cycleway along the Western Edge of Windsor Road between McGraths Hill Flat Lagoon, McGraths Hill and Macquarie Street, Windsor. Report to Cardno MBK.

WALKER, P. H.

1975 A Soil Survey of The Cumberland Plain. NSW Department of Agriculture.

APPENDICES

APPENDIX ONE

AHIMS EXTENSIVE SEARCH RESULT



Office of
Environment
& Heritage

AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : CoE - Hawkesbury Campus

Client Service ID : 579679

Benjamin Streat

Date: 29 March 2021

122c Percival Road

Stanmore New South Wales 2048

Attention: Benjamin Streat

Email: benjaminstreat@archaeological.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot: 2, DP:DP1051798 with a Buffer of 1000 meters,
conducted by Benjamin Streat on 29 March 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

4	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](http://www.nsw.gov.au/gazette) (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



Office of
Environment
& Heritage

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : CoE - Hawkesbury Campus

Client Service ID : 579679

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-5-1062	Richmond Marketplace 1;RM 1;	AGD	56	291260	6279650	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Doctor Jo McDonald					Permits	838,963	
45-5-2404	RWP 1;	AGD	56	292850	6278450	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Stephanie Garling					Permits	938	
45-5-0652	HB14	AGD	56	290260	6277750	Open site	Valid	Artefact : -	Open Camp Site	1380
	Contact	Recorders	Laura-Jane Smith					Permits		
45-5-0651	HB13	AGD	56	290300	6277670	Open site	Valid	Artefact : -	Open Camp Site	1380
	Contact	Recorders	Laura-Jane Smith					Permits		

Report generated by AHIMS Web Service on 30/03/2021 for Benjamin Streat for the following area at Lot : 2, DP:DP1051798 with a Buffer of 1000 meters. Additional Info : Archaeological Research. Number of Aboriginal sites and Aboriginal objects found is 4
This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 1

**APPENDIX TWO SECRETARY’S ENVIRONMENTAL
ASSESSMENT REQUIREMENTS SSD-
15001460**

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD-15001460
Project Name	Hawkesbury Centre of Excellence
Location	Part Lot 2 DP1051798, Vines Drive, Richmond at Western Sydney University (Hawkesbury Campus), 2 College Street, Richmond
Applicant	Department of Education
Date of Issue	19 March 2021
General Requirements	<p>The Environmental Impact Statement (EIS) must be prepared in accordance with and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 (the Regulation).</p> <p>Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.</p> <p>In addition, the EIS must include:</p> <ul style="list-style-type: none"> • an executive summary. • a complete description of the development, including: <ul style="list-style-type: none"> ○ the need for the development. ○ justification for the development. ○ suitability of the site. ○ alternatives considered. ○ likely interactions between the development and existing, approved and proposed operations in the vicinity of the site. ○ a description of any proposed building works. ○ site survey plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries. ○ a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development. ○ plans, elevations and sections of the proposed development. ○ cladding, window and floor details, including external materials. ○ a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process). ○ plans and details of any advertising/business identification signs to be installed, including size, location and finishes. ○ a description of any proposed construction or operational staging including timing and dependencies. ○ details of construction and decommissioning including timing. ○ an estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided.

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	<ul style="list-style-type: none"> • a detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including: <ul style="list-style-type: none"> ◦ a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions. ◦ an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines. ◦ consideration of the cumulative impacts due to other related development proposed or underway on the site, including development progressed under other assessment pathways and all other developments in the vicinity (completed, underway or proposed). ◦ identification of all proposed monitoring or required changes to existing monitoring programs. ◦ measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action. ◦ details of alternative measures considered. • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS. • the reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development. <p>The EIS must be accompanied by a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived.</p>
Key issues	<p>The EIS must address the following specific matters:</p> <p>1. Statutory Context, Strategic Context and Policies</p> <p>Address the statutory provisions contained in all relevant legislated and draft environmental planning instruments, including but not limited to:</p> <ul style="list-style-type: none"> • State Environmental Planning Policy (State and Regional Development) 2011. • State Environmental Planning Policy (Infrastructure) 2007. • State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017. • State Environmental Planning Policy No 64 – Advertising and Signage. • State Environmental Planning Policy No 55 – Remediation of Land. • Draft State Environmental Planning Policy (Remediation of Land). • Draft State Environmental Planning Policy (Environment). • Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities). • Draft State Environmental Planning Policy (SEPP) for strategic conservation planning. • Draft State Environmental Planning Policy (Housing Diversity). • Hawkesbury Local Environmental Plan 2012. <p>Having regard to the relevant environmental planning instruments:</p>

	<ul style="list-style-type: none"> • address the permissibility of the development, including the nature and extent of any prohibitions. • identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards. • adequately demonstrate and document how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents. <p>Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following:</p> <ul style="list-style-type: none"> • NSW State Priorities. • State Infrastructure Strategy 2018 – 2038 Building the Momentum. • Future Transport Strategy 2056. • Crime Prevention through Environmental Design (CPTED) Principles. • Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017). • Healthy Urban Development Checklist (NSW Health, 2009). • Draft Greener Places Design Guide (GANSW). • Koala Habitat Protection Guideline (DPIE, 2020). • The Greater Sydney Region Plan - A Metropolis of Three Cities. • Western City District Plan. • Hawkesbury Development Control Plan 2002. • Hawkesbury Local Strategic Planning Statement 2040. • Hawkesbury-Nepean Valley Flood Risk Management Strategy. • Hawkesbury City Council's Draft Flood Policy 2020. • Draft Hawkesbury Employment Lands Strategy. • Draft Cumberland Plain Conservation Plan. <p>1. Built Form and Urban Design</p> <ul style="list-style-type: none"> • Address: <ul style="list-style-type: none"> ○ the height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces. ○ design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette. ○ how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development. ○ how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility. ○ how design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018). ○ how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development. • Provide:
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	<ul style="list-style-type: none"> o a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development. o a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items. <p>2. Trees and Landscaping</p> <ul style="list-style-type: none"> • Provide: <ul style="list-style-type: none"> o where relevant, an arboricultural impact assessment prepared by a Level 5 (Australian Qualifications Framework) Arborist, which details the number, location and condition of trees to be removed and retained, includes detailed justification for each tree to be removed and details the existing canopy coverage on-site. o a detailed site-wide landscape strategy, that: <ul style="list-style-type: none"> ▪ details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. ▪ provides evidence that opportunities to retain significant trees have been explored and/or informs the plan. ▪ considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation. ▪ demonstrates how the proposed development would: <ul style="list-style-type: none"> – contribute to long term landscape setting in respect of the site and the streetscape. – mitigate the urban heat island effect and ensure appropriate comfort levels on-site. – contribute to objectives to increase urban tree canopy cover. o a detailed landscape plan prepared by a suitably qualified person. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Australian Standard 4970 Protection of trees on development sites. • Draft Greener Places Design Guide (GANSW). • Objective 30 of The Greater Sydney Region Plan - A Metropolis of Three Cities. • Technical Guidelines for Urban Green Cover in NSW (Office of Environment and Heritage (OEH), 2015). <p>3. Environmental Amenity</p> <ul style="list-style-type: none"> • Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. • Provide: <ul style="list-style-type: none"> o shadow diagrams. o a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.
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	<ul style="list-style-type: none"> o an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts. o details of the nature and extent of the intensification of use associated with the proposed development and detail measures to manage and mitigate the impacts. <p>4. Transport and Accessibility</p> <p>Provide a transport and accessibility impact assessment, which includes, but is not limited to the following:</p> <ul style="list-style-type: none"> • analysis of the existing transport network to at least the existing or proposed enrolment boundary, including: <ul style="list-style-type: none"> o road hierarchy. o pedestrian, cycle and public transport infrastructure. o details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality. o existing transport operation for 1hr before and after (existing or proposed) bell times such as span of service, frequency for public transport and school buses, pedestrian phasing for signals. o existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling). • details of the proposed development, including: <ul style="list-style-type: none"> o a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways. o pedestrian site access and vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis (complying with Australian Standards) demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes. o car and motorcycle parking, bicycle parking and end-of-trip facilities. o drop-off / pick-zone(s) and arrival/departure bus bay(s). o pedestrian, public transport or road infrastructure improvements or safety measures. • analysis of the impacts due to the operation of the proposed development, including: <ul style="list-style-type: none"> o proposed modal split for all users of the development including vehicle, pedestrian, bicycle riders, public transport, school buses and other sustainable travel modes. o where necessary, the need/associated funding for upgrading or road improvement works (such as the alignment of the Londonderry Road and Southee Road/Vines drive intersection) at nearby intersections to ensure traffic safety. o examination and modelling (but not limited to) of the following intersections: <ul style="list-style-type: none"> ▪ Londonderry Road at Vines Drive and Southee Road. ▪ Lennox and Paget Street. ▪ Blacktown Road at Bourke Street and Campus Drive o estimated total daily and peak hour vehicular trip generation. o a clear explanation and justification of the:
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	<ul style="list-style-type: none"> ▪ assumed growth rate applied. ▪ volume and distribution of proposed trips to be generated. <ul style="list-style-type: none"> • type and frequency of design vehicles accessing the site. <ul style="list-style-type: none"> ○ details of performance of nearby intersections with the additional traffic generated by the development both at the commencement of operation and in a 10-year time period (using SIDRA network modelling). ○ cumulative traffic impacts from any surrounding approved development(s). ○ adequacy of pedestrian, bicycle and public transport infrastructure and operations to accommodate the development. ○ adequacy of car and motorcycle parking and bicycle parking provisions for the site and the wider Western Sydney University campus when assessed against the relevant car / bicycle parking codes and standards. ○ adequacy of the drop-off / pick-up zone(s) and bus bay(s), including assessment of any related queuing during peak-hour access. ○ adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users. • measures to ameliorate any adverse traffic and transport impacts due to the development based on the above analysis, including: <ul style="list-style-type: none"> ○ travel demand management programs to increase sustainable transport (such as a Green Travel Plan / School Transport Plan). ○ arrangements for the Travel Coordinator roles. ○ governance arrangements or relationships with state and local government transport providers to update roads safety. ○ infrastructure improvements, including details of timing and method of delivery. • a preliminary school transport plan detailing an operational traffic and access management plan for the site, pedestrian entries, the drop-off / pick-up zone(s) and bus bay(s). • analysis of the impacts of the traffic generated during construction of the proposed development, including: <ul style="list-style-type: none"> ○ construction vehicle routes, types and volumes. ○ construction program (duration and milestones). ○ on-site car parking and access arrangements for construction, emergency and construction worker vehicles. ○ cumulative impacts associated with other construction activities in the locality (if any). ○ road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality. ○ measures to mitigate impacts, including to ensure the safety of pedestrian and cyclists during construction. • a preliminary Construction Traffic and Pedestrian Management Plan. <p><i>Note: Further guidance is provided in the TINSW advice attached to the SEARs.</i></p> <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Guide to Traffic Generating Developments (Roads and Maritime Services, 2002). • EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996). • Cycling Aspects of Austroads Guides.
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	<ul style="list-style-type: none"> • NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004). • Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020). • Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS 2890.3). <p>5. Ecologically Sustainable Development (ESD)</p> <ul style="list-style-type: none"> • Identify: <ul style="list-style-type: none"> ○ how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development. ○ proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy. ○ how the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy. ○ how environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018). • Provide: <ul style="list-style-type: none"> ○ an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level. ○ a statement regarding how the design of the development is responsive to the NARCIIM projected impacts of climate change. ○ an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • NSW and ACT Government Regional Climate Modelling (NARCIIM) climate change projections. <p>6. Heritage</p> <ul style="list-style-type: none"> • Identify any archaeological potential or archaeological significance on and adjacent to the site and the impacts the development may have on this significance. • Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on and adjacent to the site in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996) and Assessing Heritage Significance (OEH, 2015). <p>7. Aboriginal Cultural Heritage</p> <ul style="list-style-type: none"> • Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that: <ul style="list-style-type: none"> ○ identifies and describes the Aboriginal cultural heritage values that exist across the site. ○ includes surface surveys and test excavations where necessary.
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	<ul style="list-style-type: none"> o has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010). o incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010). o documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land. o identifies, assesses and documents all impacts on the Aboriginal cultural heritage values. o demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. o demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development. <ul style="list-style-type: none"> • Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet. <p>8. Social Impacts</p> <ul style="list-style-type: none"> • Include an assessment of the social consequences of the schools' relative location. <p>9. Noise and Vibration</p> <ul style="list-style-type: none"> • Provide a noise and vibration impact assessment that: <ul style="list-style-type: none"> o includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction. o details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours. o includes a quantitative assessment of the main sources of operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities. o outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers. o considers sources of external noise intrusion in proximity to the site (including, road rail and aviation operations) and identifies building performance requirements for the proposed development to achieve appropriate internal amenity standards. o demonstrates that the assessment has been prepared in accordance with policies and guidelines relevant to the context of the site and the nature of the proposed development. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA)).
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	<ul style="list-style-type: none"> Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006). Australian Standard 2363 Acoustics - Measurement of noise from helicopter operations (AS 2363). <p>10. Biodiversity</p> <ul style="list-style-type: none"> Provide a Biodiversity Development Assessment Report (BDAR), that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the <i>Biodiversity Conservation Act 2016</i>, Biodiversity Conservation Regulation 2017 and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land. Where a BDAR is not required, because a BDAR waiver has been issued, in relation to the development, provide: <ul style="list-style-type: none"> a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver. an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development. <p><i>Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.</i></p> <p>11. Contributions</p> <ul style="list-style-type: none"> Identify: <ul style="list-style-type: none"> any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type. any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution. any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or amendments required to a Voluntary Planning Agreement affected by the proposed development. <p>12. Staging</p> <ul style="list-style-type: none"> Assess impacts of staging where it is proposed and detail how construction works, and operations would be managed to ensure public safety and amenity on and surrounding the site. <p>13. Utilities</p> <ul style="list-style-type: none"> In consultation with relevant service providers: <ul style="list-style-type: none"> assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.
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	<p>14. Stormwater Drainage</p> <ul style="list-style-type: none"> • Provide: <ul style="list-style-type: none"> ○ a preliminary stormwater management plan for the development that: <ul style="list-style-type: none"> ▪ is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority. ▪ details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point. ▪ demonstrates compliance with Council or other drainage authority requirements. • stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties. • Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards. <p>15. Flooding</p> <ul style="list-style-type: none"> • Identify any flood risk on-site in consultation with Council and other relevant agencies and having regard to all relevant flood studies for the development area and the potential effects of climate change, sea level rise and an increase in rainfall intensity. • Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions (including emergency evacuation plans) to mitigate flood risk where required. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • NSW Floodplain Development Manual (DIPNR, 2005). <p>16. Soil and Water</p> <ul style="list-style-type: none"> • Provide: <ul style="list-style-type: none"> ○ an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant. ○ details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. ○ an assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004). • Acid Sulfate Soil Manual, (NSW Acid Sulfate Soil Management Advisory Committee, 1998). • Acid Sulfate Soils Assessment Guidelines (DoP, 2008). • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008).
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	<p>17. Waste</p> <ul style="list-style-type: none"> • Identify, quantify and classify the likely waste streams to be generated during construction and operation. • Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. • Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. • Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Waste Classification Guidelines (EPA, 2014). <p>18. Contamination</p> <ul style="list-style-type: none"> • Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority: <ul style="list-style-type: none"> ◦ Preliminary Site Investigation (PSI). ◦ Detailed Site Investigation (DSI) where recommended in the PSI. ◦ Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy. ◦ Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998). • Sampling Design Guidelines (EPA, 1995). • Consultants Reporting on Contaminated land – Contaminated Land Guidelines (EPA, 2020). • National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013). <p>19. Bush fire</p> <ul style="list-style-type: none"> • Provide a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with Planning for Bush Fire Protection (NSW RFS, 2019). <p>20. Aviation</p> <ul style="list-style-type: none"> • Provide a report prepared by a suitably qualified person: <ul style="list-style-type: none"> ◦ identifying whether the proposed school is located within any of the following Australian Noise Exposure Forecast (ANEF) contours as specified in Table 2.1 of Australian Standard 2021:2015 Acoustics - Aircraft noise intrusion - Building siting and construction (AS 2021:2015): <ul style="list-style-type: none"> ▪ <20. ▪ Between 20 – 25. ▪ or >25. ◦ providing details of any flight paths that may be impacted by the proposed development.
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	<ul style="list-style-type: none"> identifying and assessing the potential impacts of the future development on the aviation operations of any nearby airports and affected flight paths of any existing on shore Helicopter Landing Site (HLS) in accordance with the relevant sections of the National Airports Safeguarding Framework (NASF). <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> National Airports Safeguarding Framework and associated guidelines.
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.</p> <p>In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following:</p> <ul style="list-style-type: none"> Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate). Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: <ul style="list-style-type: none"> architectural design statement. diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal. detailed site and context analysis. analysis of options considered to justify the proposed site planning and design approach. summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice. summary report of consultation with the community and response to any feedback provided. Geotechnical and Structural Report. Accessibility Report.
Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> the relevant Council. Government Architect NSW (through the NSW SDRP process). Transport for NSW. <p>Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development.</p> <p>The EIS must describe and include evidence of the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p> <p>Targeted consultation in accordance with the draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment) must also occur where there is a requirement to prepare and submit a Social Impact Assessment.</p>

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Further consultation after two years	If you do not lodge a development application and EIS for the development within two years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS. If any other significant issues are identified in the risk assessment, that are not identified in this SEARs, the Planning Secretary must be consulted in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must consider, but not be limited to, relevant guidelines, policies, and plans as identified.

