ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

President Private Hospital

Lot 1 DP 841502, Lot 23 & 24a DP 26995, Lot 53 & 54 DP 29493

369 – 381, President Ave, 61 -65 Hotham Rd & 2-4 Bidurgal Ave Kirrawee, NSW (Sutherland Shire LGA)

Benjamin Streat, Yolanda Pavincich & Steven J. Vasilakis

Archaeo*logical* Management & Consulting Group
& Streat Archaeological Services

for

Macquarie Health Corporation

August 2020

Disclaimer

The veracity of this report is not guaranteed unless it is a complete and original copy.

This report may be inaccurate, incomplete, not original, or modified, if it appears in monochrome form and the signature below is a copy.

Benjamin Streat
Director of Aboriginal Archaeology
(mobile 0405 455 869)

Archaeo*logical* Management & Consulting Group

AEGIS HERITAGE Pty Ltd ACN 126 155 020

Ph (02) 9568 6093
Fax (02) 9568 6093
Mob 0411 727 395
E-mail amac@archaeological.com.au

Streat Archaeological Services Pty Ltd

ACN 126 731 637 ABN 17 126 731 637

Ph (02) 9564 2206
Mob 0405 455 869
E-mail Streatarchaeological@netspace.net.au
Benjaminstreat@archaeological.com.au

Cover Image
Aerial of study area.
Six Maps (accessed 10/03/20)

ACKNOWLEDGEMENT OF COUNTRY

Macquarie Health Corporation would like to acknowledge the Traditional Custodians of the South Sydney Area– the Gweagal peoples– and pay respect to their cultural heritage, beliefs and continuing relationship with the land.

Macquarie Health Corporation would also like to acknowledge the post contact experiences of Aboriginal peoples who have attachment to the South 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.”
Macquarie Health Corporation recognises the role of the registered Aboriginal parties in the management of the Aboriginal cultural heritage sites, landscape features and values of this project.

Macquarie Health Corporation 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

INTERNAL REVIEW

Version	Written/ Edited By	Date	Document Status	Reviewed By	Issue Date
01	Y. Pavincich (AMAC) & S.J. Vasilakis (AMAC)	27/07/2020	Draft V.1	RAPs	03/08/2020
02	S.J. Vasilakis (AMAC)	24/08/2020	Draft V.2 - Amendments /Plans	Y. Pavincich (AMAC)	25/08/2020

CONTENTS PAGE

TABLE OF FIGURES

EXECUTIVE SUMMARY

Study Area

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd (SAS) was commissioned by Macquarie Health Corporation in March 2020, to prepare an Aboriginal Cultural Heritage Assessment Report for the proposed redevelopment at Lot 1 DP 841502, Lot 23 & 24a DP 26995, Lot 53 & 54 DP 29493, at the combined street address 369-381 President Avenue, Kirrawee, NSW.

This Aboriginal Cultural Heritage Assessment has been prepared in response to requirement 8 of the Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development (SSD-10320).

Requirement 8:

- *Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.*
- *Identify and address the Aboriginal cultural heritage values 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).*
- *Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.*
- *Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.*
- *The EIS and the supporting ACHAR must demonstrate 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. Any objects recorded as part of the assessment must be documented and notified to OEH.*

This report conforms to the reporting process, conditions and requirements of *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) and Part 6; National Parks and Wildlife Act *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010)

Aboriginal Consultation

Consultation for this report has been undertaken in accordance with the Part 6: National Parks and Wildlife Act 1974: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010) and is in Stage 2. Archaeological Test excavation has been proposed in accordance with *Code of practice for the investigation of Aboriginal Objects in*

NSW (DECCW,2010) and/or Aboriginal Cultural Heritage Management Plan, depending on the status of the development.

Physical Evidence

The site inspection revealed that there has been a significant level of disturbance as a result of past filling events, as indicated by the raised level of study area and levelling for car parks and past development of the hospital. Other disturbances identified include utility services running through the car park and site, as well as the substation and fire hydrant location at the southern and eastern boundary. Stormwater services were identified along the path of the past creek-line that had run through the study area. The grassy knolls along the southern and eastern boundary appear to be man-made, formed from fill material.

Significant clearing has taken place with all vegetation appearing to be landscaped, of which no native late mature trees present within the study area. It is clear and observable that the study area is considerably disturbed from recent modern land use.

However, it is likely that below fills, intact soils may be present (see Section 2.2.5) and have the potential to contain Aboriginal archaeological and cultural material and/or features.

Significance

No formal significance has of yet been assigned to the study area.

Recommendations

A background analysis of the environment and archaeological context revealed that the study area has moderate surface disturbances, as a result of filling events and levelling for the development of the hospital. The study area is however likely to contain intact Aboriginal objects and/or deposits of conservation value below fill materials, as intact soils have a chance of being present below the introduced fill.

The surrounding landscape features present do indicate that sub-surface Aboriginal objects and/or deposits are likely in undisturbed areas and are likely to be considered of low to moderate Aboriginal archaeological significance

The proposed activity is not:

- located within a sand dune system, or
- located within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth
- located on a ridge top, ridge line or headland, or

The study area is:

- located within 200m of waters

Based on the locale of water and major water tributaries such as Gymea Bay as well as unknown tributary north east of the study area and past tributary running southwest - southeast within the study area. Therefore, it is likely that Aboriginal movement and land use would be channelled to this location and as such the site may hold information regarding cultural activities of the area.

In accordance with 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)*, it is recommended that further archaeological and cultural assessment is required and 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).*

In review of the Geotechnical Report (see Section 2.3.3), there is an indication that intact natural soils are present within the study area. Natural sand/clayey sand soil have been identified within the soil profile with a depth range between 1.0m – 2.6m. This deposit could be interpreted as an A2 horizon of the Gymea soil profile with the potential for there to be a remnant A horizon (known to be an artefact bearing horizon). The proposed development activity includes basement levels and is to exceed the depth of these soil profiles. It is likely that intact soils with the potential to contain Aboriginal objects and/or features may be impacted as result of this activity.

The following recommendations have been formulated after consultation with the proponent and the Department of Planning, Industry and Environment (DPIE);

- It is recommended that an Aboriginal Cultural Heritage Management Plan (ACHMP) should be in place as part of status of the proposed development as a State Significant Development (SSD-10320). This is to manage and mitigate any potential Aboriginal objects of archaeological and cultural significance that may be present within the study area. Intact soils are likely below fill material therefore there is a potential for intact Aboriginal objects and/or features to be present.
- Consultation with the Registered Aboriginal Parties (RAPs) should continue, as per the requirements detailed in the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010).
- Subsequent to this report and in accordance with 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)*, a program of systematic, sub surface archaeological test excavation in accordance with the *Code Of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010*)* or Aboriginal Cultural Heritage Management Plan (depending on status of the development*),* should be undertaken to establish the nature and extent of any archaeological objects and/or deposits that are/may be present.
- In the event archaeological test excavations *reveal Aboriginal archaeological objects or deposits*, the following is recommended; Once the nature and extent of the archaeological site has been established through test excavation, the data will be analysed and synthesised into the Aboriginal Archaeological Technical Report (AATR) or depending on the status of the project will be updated into the ACHMP.
- If test excavation *does not reveal Aboriginal archaeological objects or deposits*, the following is recommended. Depending on the status of the project as an SSD - an ACHMP will need to be in place in order for the development activity to proceed.
- An analysis of artefacts retrieved should be conducted in a framework to allow for comparison with previous relevant results and to be recorded in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010).

Should any human remains be located during the following development:

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately

- The NSW police and DPIE's 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.

Should any Aboriginal archaeological deposits or objects be located during the development:

- all excavation in the vicinity of any objects and/or deposits shall cease immediately and the area secured
- DPIE and a suitably qualified archaeologist should be notified so the significance of the said deposits or objects can be evaluated and presented in a report and the study area recorded as an archaeological site
- the archaeological deposits or objects will require the production of an Aboriginal Cultural Heritage Management Plan, of which the way forward will be subject to the recommendations of this report in consultation with DPIE, prior to the development continuing.

CONTACT DETAILS

The contact details for the following archaeologist, NSW Police, OEH and the Registered Aboriginal Parties (RAPs) are as follows:

Organisation	Contact	Contact Details
NSW Environment Line		131 555
NSW Sutherland Shire Police Area Centre		PAC Office: 111-115 Flora Street Sutherland NSW 2232 Ph: (02) 9542 0899 Fax: (02) 9542 0708
Archaeological Management & Consulting Group	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
Heritage NSW Department of Planning, Industry and Environment	Archaeologist – Head Office	PO Box A290 Sydney South NSW 1232 Ph: (02) 9995 5000 info@environment.nsw.gov.au
Didge Ngunawal Clan	Lilly Carroll & Paul Boyd	didgengunawalclan@yahoo.com.au
Clive Freeman		clive.galamban@icloud.com
Tocomwall	Scott Franks	scott@tocomwall.com.au

1.0 INTRODUCTION

1.1 BACKGROUND

Archaeological Management and Consulting Group (AMAC) in conjunction with Streat Archaeological Services Pty Ltd (SAS) was commissioned by Macquarie Health Corporation in March 2020, to prepare an Aboriginal Cultural Heritage Assessment Report for the proposed redevelopment at Lot 1 DP 841502, Lot 23 & 24a DP 26995, Lot 53 & 54 DP 29493, at the combined street address 369-381 President Avenue, Kirrawee, NSW.

This Aboriginal Cultural Heritage Assessment has been prepared in response to requirement 8 of the Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development (SSD-10320).

Requirement 8:

- *Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.*
- *Identify and address the Aboriginal cultural heritage values 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).*
- *Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.*
- *Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.*
- *The EIS and the supporting ACHAR must demonstrate 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. Any objects recorded as part of the assessment must be documented and notified to OEH.*

This report conforms to the reporting process, conditions and requirements of *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) and Part 6; National Parks and Wildlife Act *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010)

1.2 STUDY AREA

The study site is that piece of land described as Lot 1 of the Land and Property Information, Deposited Plan 841502, Lot 23 & 24a DP 26995 and Lot 53 & 54 DP 29493 forming the following street addresses 369 – 381, President Ave, 61 -65 Hotham Rd and 2-4 Bidurgal Ave Kirrawee in the Parish of Sutherland, County of Cumberland (Figures 2.1 – 2.2).

1.3 SCOPE

The aims of this cultural heritage assessment report is 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 will assess 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. The process has also allowed 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.

A methodology and a timeline for the completion of assessment process and report delivery was developed and distributed to all parties. With these clearly identified roles the methodology and project background had been submitted to the participating Aboriginal parties for review and input for a period of no less than 28 days.

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 and Ms. Yolanda Pavincich (B. Arch, Grad Dip Cul Her) and Steven J. Vasilakis (BA. Hons.), 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; the Commonwealth Heritage List and the Register of the National Estate.

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.

1.5.1.4 Register of the National Estate

The Register of the National Estate is a list of natural, Indigenous and heritage places throughout Australia. It was originally established under the *Australian Heritage Commission Act 1975(AHC Act)*. This has now been replaced by the Environment Protection and Biodiversity Conservation Act 1999. The register will continue to operate until February 2012 when it will be completely replaced by The Commonwealth Heritage List.

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).

  This part of the legislation also addresses State Significant Developments as mentioned in division 4.7 with section 4.38 outlining the consent for State Significant Development in relation to the environmental planning instruments.
- 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/DPIE 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 Sutherland Shire Council Local Environmental Plan (2015)

The Sutherland Shire Council Local Environment Plan was endorsed in 2015. 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 Sutherland Shire,

(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

1.5.4 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)
- Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW, Part 6 National Parks and Wildlife Act 1974 (OEH 2011)
- 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

The author would like to thank the following for advice and/or input into this assessment:

- David Wenkart of Macquarie Health Corporation
- John Simpson of CDP Services
- Stephen Phillips of Imagescape Design Studios
- Makayla Horwood and Richard Silva of La Perouse LALC
- Paul Boyd of Didge Ngunawal Clan
- Clive Freeman
- Scott Franks of Tocomwall

2.0 DESCRIPTION OF STUDY AREA

The study site is that piece of land described as Lot 1 of the Land and Property Information, Deposited Plan 841502, Lot 23 & 24a DP 26995 and Lot 53 & 54 DP 29493 forming the following street addresses 369 – 381, President Ave, 61 -65 Hotham Rd and 2-4 Bidurgal Ave Kirrawee in the Parish of Sutherland, County of Cumberland (Figures 2.1–2.2).

Address	Lot	Deposited Plan
369-391 President Ave, Kirrawee	1	841502
61 Hotham Rd, Kirrawee	23	26995
65 Hotham Rd, Kirrawee	24A	26995
2 Bidurgal Ave, Kirrawee	53	29493
4 Bidurgal Ave, Kirrawee	54	29493

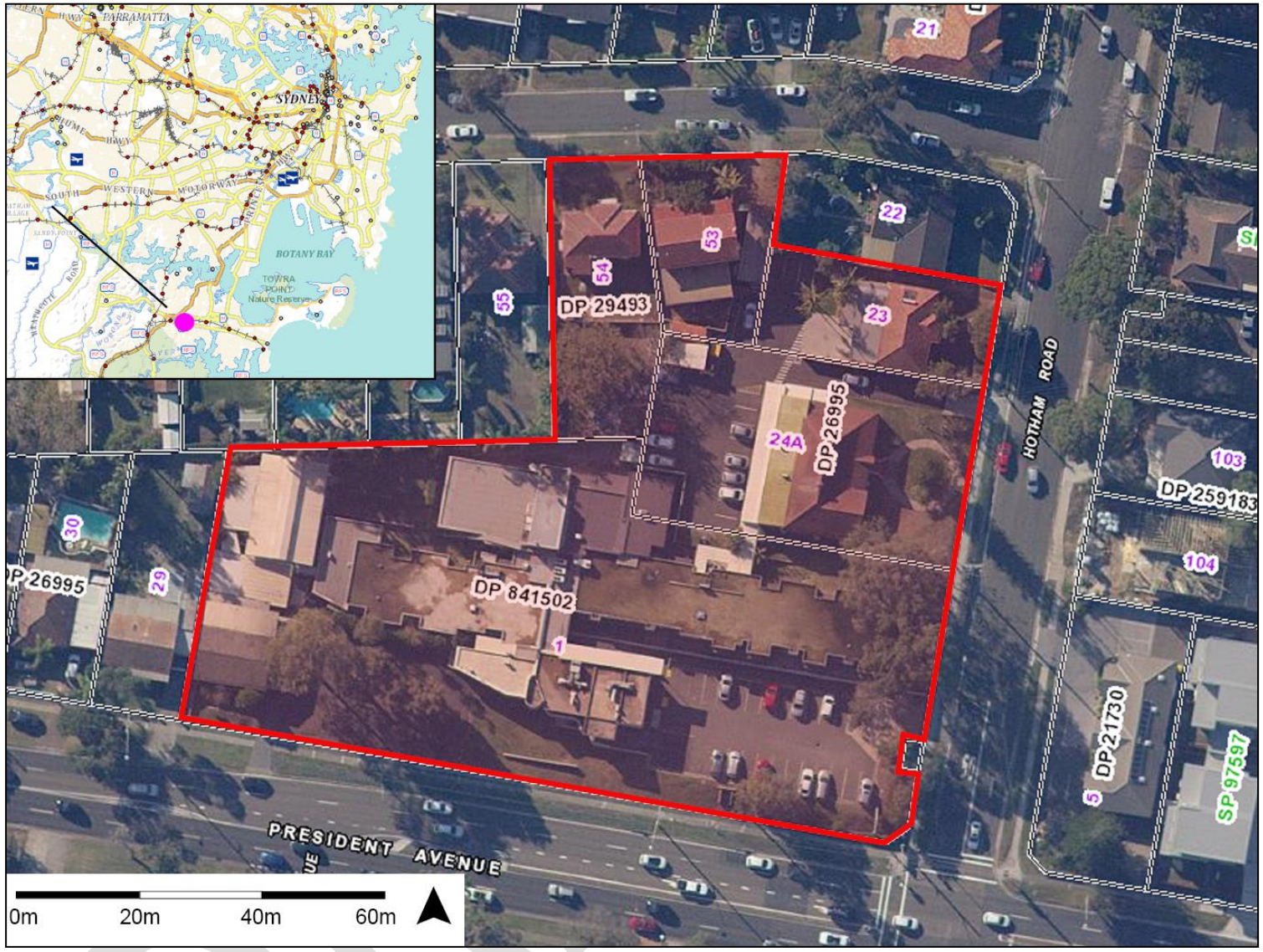


Figure 2.1 Aerial of study area.
Study area in red. Six Maps, LPI Online (accessed 10/04/20).

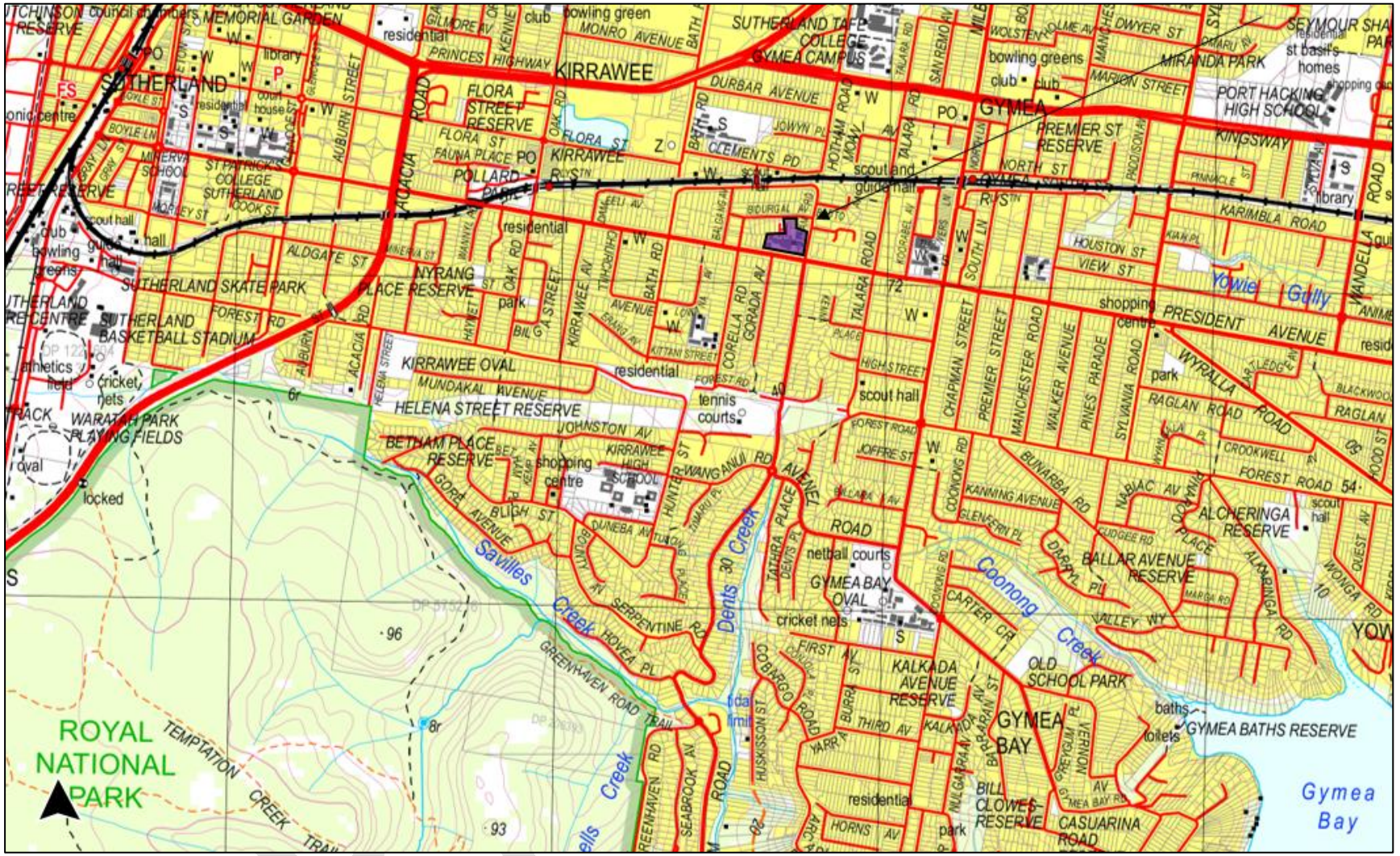


Figure 2.2 **Topographic map with site location.**
Study area indicated in purple with black arrow. Six Maps, LPI Online (accessed 10/04/20).

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.

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 is located within the Port Hacking topographic zone. The site lies on the Hornsby Plateau on Hawkesbury Sandstone and consists of undulating to rolling low hills (slopes 5-25%). The topography also contains in areas very steep hills.

The local relief varies from 40m – 200m. In these areas, slopes can have a moderate incline to precipitous. Crests and ridges are convex and narrow at 300m wide. Rock outcrops occur as horizontal benches and broken scarps are present. Nearby valleys are likely to be narrow and incised. This topographic zone is associated with both the Gymea (gy) soil landscape. The study area is located along a slope and drainage line.

Figure 2.3 **Study area on soil map.**
Study area in red. Soil Landscapes of the Wollongong – Port Hacking 1:100 000 Sheet Report. (Hazelton & Tille 1990).

2.2.2 Geology and Soils

The geology of the study area consists of Hawkesbury Sandstone – a quartz sandstone with minor shale and laminate lenses. These are the dominant geological formations of the Sydney Basin. As part of this geological unit it is situated within a shale lense of claystone and siltstone. The study area is located within the Gymea soil landscape (gy). (Figure 2.3).

The Gymea soil profile is known to be shallow to moderately deep (30-100m) consisting of yellow earths and earthy sands as well as siliceous sands along drainage lines. The soil ranges between strongly acidic pH levels to slightly. This is common within sands. The soil materials are found to have low erodibilities due to effective drainage as well as being held together by high organic matter. Therefore, surface movement is found to be stable amongst the sandy soils, while being slightly reactive with depth.

The study area is located on a lower slope/side slope with a low relief (Figure 2.4).

Table 2.1 Description of dominant soil material

Dominant Soil Material	Soil Horizon	Description
gy1	A1 Horizon	Loose, coarse sandy loam ranging from a brownish - black – when organic matter is present to a dull yellow – orange, often becoming lighter with depth. It generally contains small sandstone and ironstone fragments, as well as charcoal and roots.
gy2	B Horizon	Earthy, yellowish – brown clayey sand. This often overlays a sandstone bedrock. When exposed the soil can become hardsetting. The soil becomes a light sandy clay loam with depth along with orange mottles occurring. Less charcoal and root inclusions, however, weathered sandstone and ironstone fragments remain present.
gy3	B/C Horizon	Earthy, yellowish – brown sandy clay loam to sandy clay. The soil increases to a sandy clay with depth along with orange mottles occurring with depth. Weathered sandstone fragments remain common.

Table 2.2 Expected Gymea soil profile depth based on landform

Crest
➢ >30cm of loose sandy quartz loam (gy1) overlying, ➢ <30cm of yellowish- brown clayey sand (gy2) overlaying (sometimes), ➢ >30cm of yellow earthy sandy clay loam (gy3) overlaying, ➢ Sandstone bedrock. *N.B The total soil profile consists of <50 cm. The boundaries between the soil horizons is gradual.* *gy2 and gy3 can often be hardsetting deposits where exposure and erosion has occurred.*
Side Slopes

- 20cm of loose sandy quartz loam (gy1) overlying,
- Bedrock (Outside of benches and areas close to sandstone outcrops)

Alternatively, side-slopes located within the inside of benches can consist of the following:

- 30cm of loose sandy quartz loam (gy1) overlying,
- 10-30cm of yellowish- brown clayey sand (gy2) overlaying,
- 30cm of yellow earthy sandy clay loam (gy3)

N.B The total soil profile consists of 30-70 cm. The boundaries between the soil horizons are gradual.

Drainage Lines

- 100cm of loose sandy quartz loam (gy1);
- Overlies bedrock and leached sands.

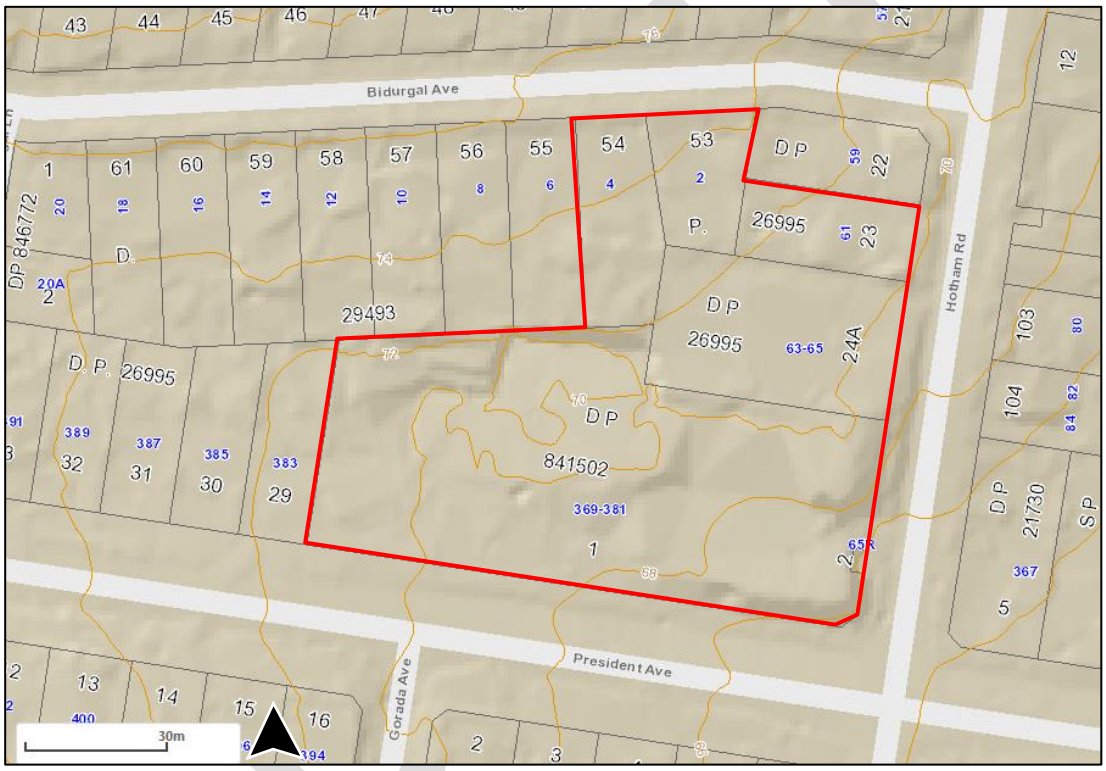


Figure 2.4 **Contour map of study area.**
Study area in red (maps.ssc.nsw.gov.au/ShireMaps accessed 10/03/20).

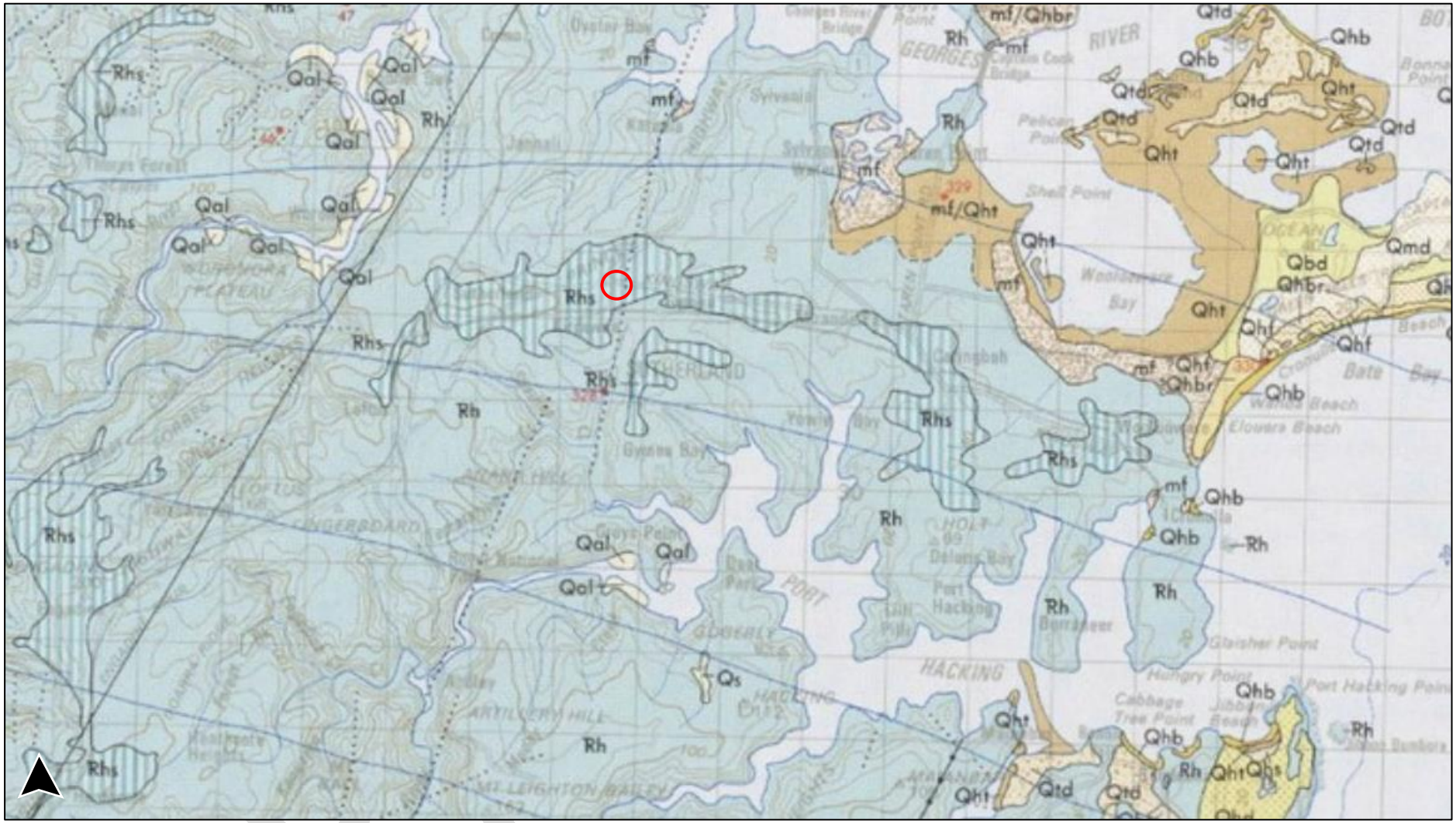


Figure 2.5 **Geological map of region with study area indicated in red outline.**
Wollongong – Port Hacking 9029 -9129 (Department of Mineral Resources, Sydney).

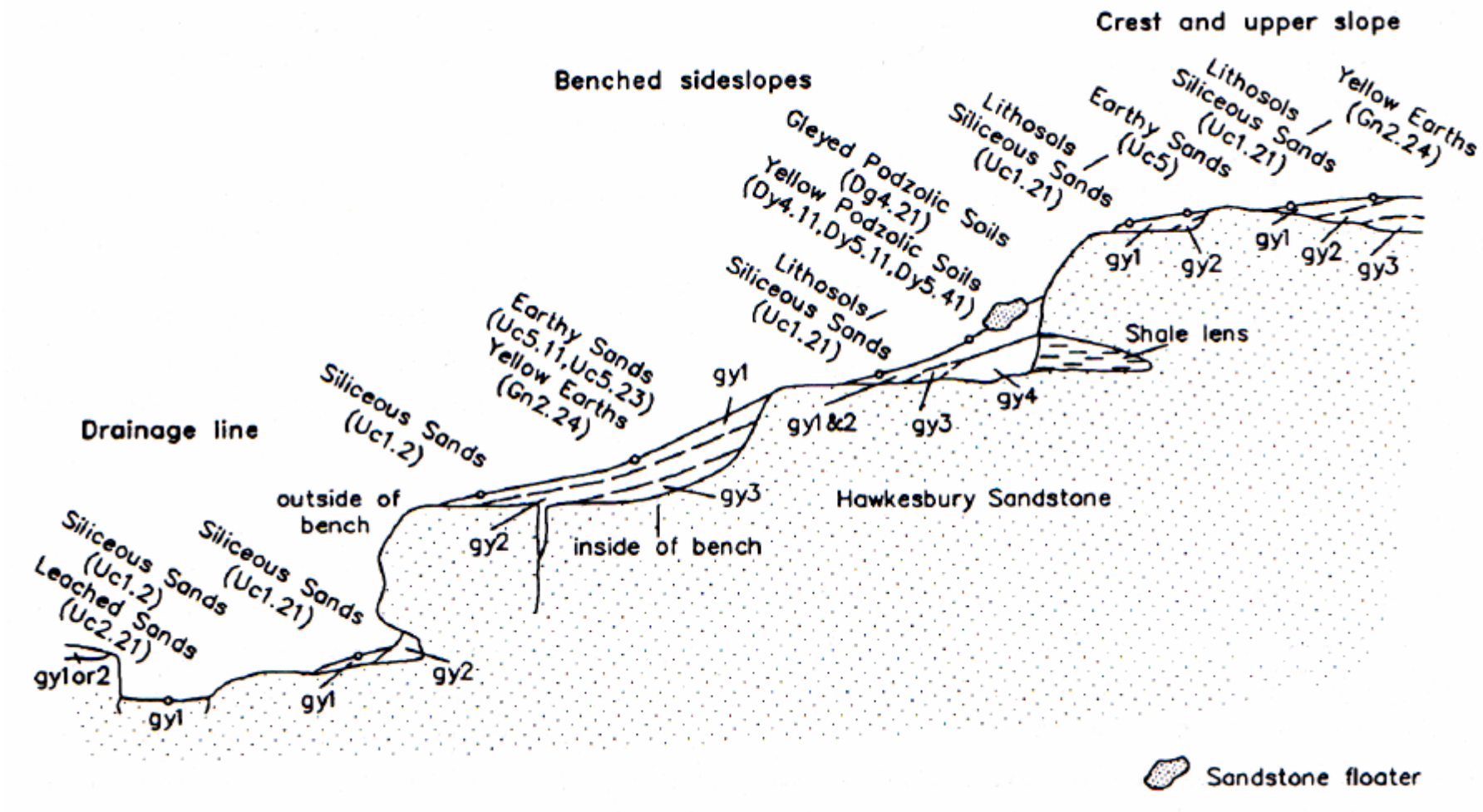


Figure 2.6 **Cross Section of soil landscape illustrating relationships between landscape features and dominant soil materials.**
Soil Landscapes of the Soil Landscapes of the Wollongong – Port Hacking 1:100 000 Sheet Report. (Hazelton & Tille 1990).

2.2.3 Watercourses

The study area is located on a peninsula bounded by the South Pacific Ocean. The ocean has been a drainage outlet creating a number of bays and inlets forming the peninsula. The following major water bodies have been identified along with their distance from the study area; Gymea Bay (SE, 2km), North West Arm (S, 2km), Woolooware Bay (NE, 4.9km), Oyster Bay (N, 2.9km) and Woronora River (W, 3.2km). Other minor watercourses have been identified including; Savilles Creek (SW, 1.2km), Temptation Creek (SW, 1.8km), Campbells Creek (S, 1.4km), Dents Creek (S, 700m), Coonong Creek (SE 1.1km) and Yowie Gully (E, 1.2km).

These surrounding watercourses would have made this a resource rich area with both estuarine as well as fresh and saltwater bodies. The boundary of the aforementioned water bodies would have extended further in the past such as Dents Creek extending further north prior to development within the area (Figure 2.7). Past aerials indicate an unknown minor tributary running southwest to southeast through the study area (Figure 2.8).

2.2.4 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 and development.

The natural vegetation would have been woodland and open dry sclerophyll forests. Areas closer to ridges and upper slopes would have been low open woodlands. The common plant communities within these areas would have consisted of red bloodwood, yellow bloodwood, scribbly gum, grey gum and old man banksia. Sheltered areas would have contained silvertop ash, Sydney peppermint and smooth-barked apple with an understorey of christmas bush, forest oak and she-oak and grass trees.

Smaller species would have included broad-leaf geebung and red spider-flower with flannel flowers on free draining benches.

For the most part this indigenous vegetation has been cleared for grazing, urban residential and light industry land use throughout the Cumberland Plain (Walker 1975, p. 11 – 13).

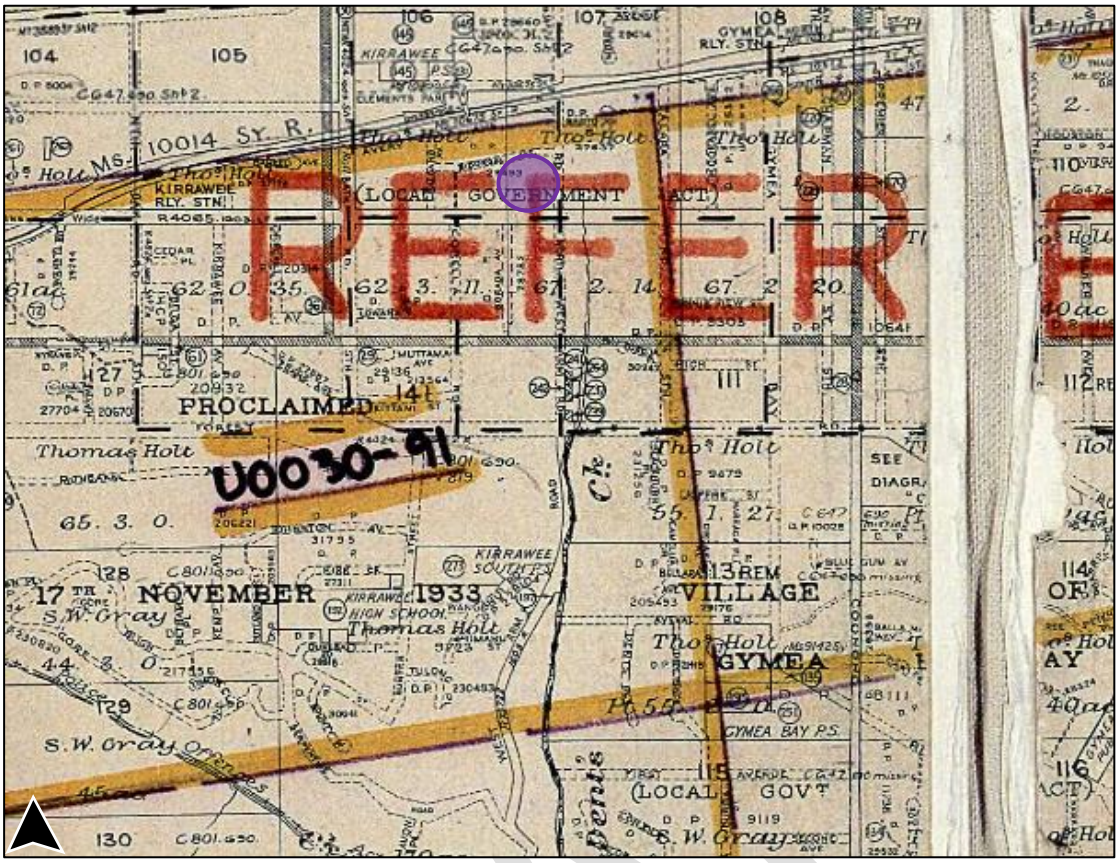


Figure 2.7 **Parish Map 1969 with study area indicated in purple circle.**
NSW LRS HLRV (accessed 11/03/20).

Figure 2.8 **1955 aerial of study area with minor tributary running through site.**
Study area indicated by red outline. (ShireMaps accessed 13/03/20).

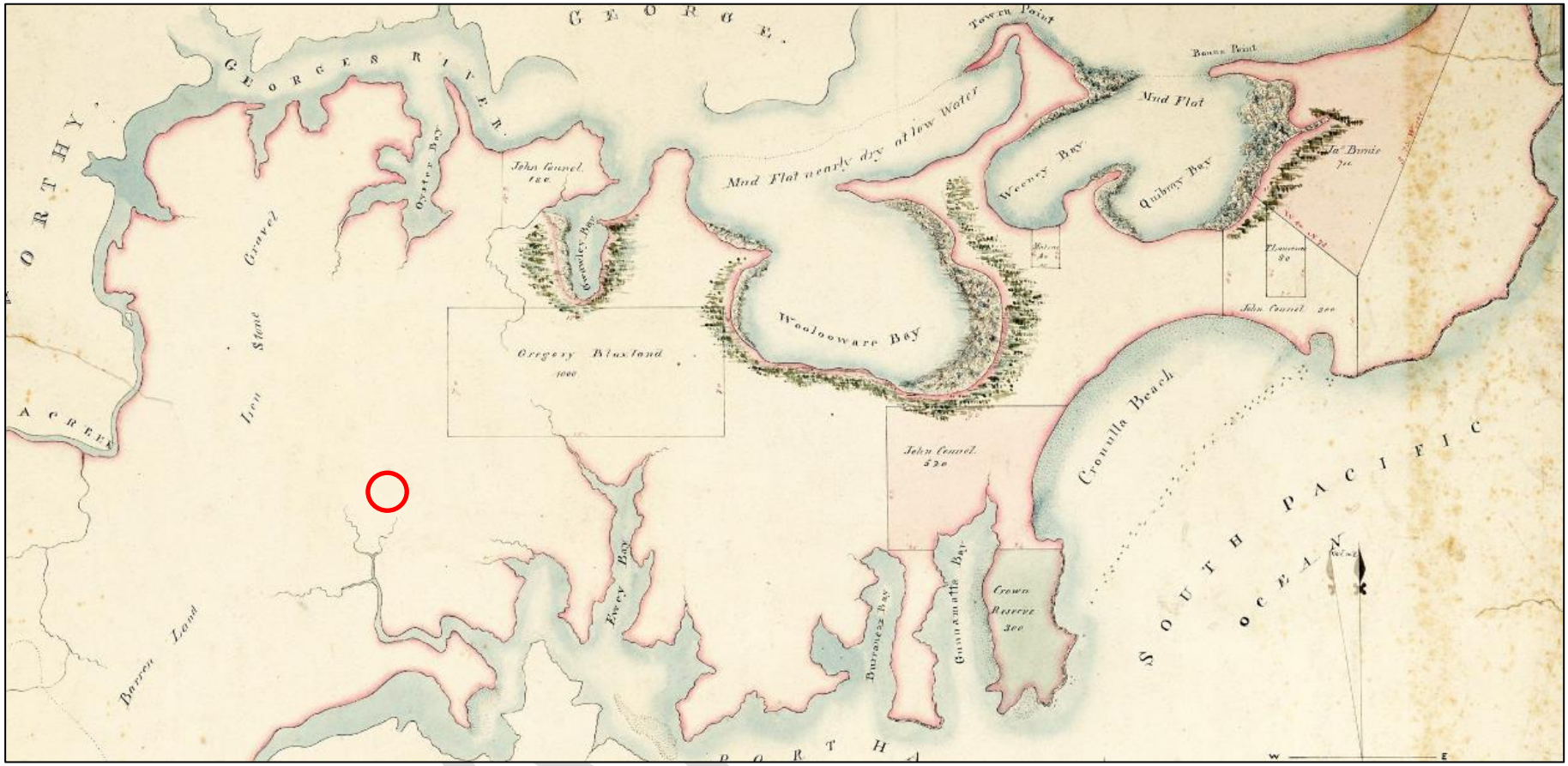


Figure 2.9 **Historical Sutherland Parish Map (date unknown) with approximate location of study area indicated in red, illustrating surrounding watercourses.**
NSW LRS HLRV, A.O Map number 289 (accessed 11/03/20).

Figure 2.10 **Topography map indicating watercourses in blue.**
Study site indicated in purple with black arrow. Port Hacking 9129 – 4n 1:25 000 Topographic map, 2017.

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.

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

2.3.1 Aboriginal Land Use and Resources

Georges River provided a rich dietary intake for the local inhabitants. These coastal tribes depended heavily on marine resources such as fish and shellfish but were not limited to such diets, as cabbage palms and bracken fern roots were also included (Dyall 1971). Farming practices were also utilised in the form of land clearing. This was conducted through the burning of grasslands in order to encourage new growth which attracted local game. Based on the predominance of rock shelters found within the Hawkesbury sandstone landscape, it is also evident that natural rock overhangs were utilised as an alternate place of temporary and/or repeated occupation.

The procurement of specific resources for ceremonial or domestic purposes would rely on the accessibility and availability of these resources. There are readily mapped resources within the region that may have been exploited by Aboriginal occupants, with more being present before the land was cleared and settled.

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. These areas will possess a high archaeological potential (Goodwin 1999).

2.3.2 European Land Use

European land use led to extensive clearing of the land. The study site was previously a poultry farm with a drainage line running through the southwest corner (Figure 2.12) and poultry sheds located to the northern end of the study area (Figure 2.11). The discontinuation of the poultry farm saw the land purchased and developed into a hospital.

In light of this, and in the context of the information provided about the land use of the site, its proximity to major tributaries indicates that potential for Aboriginal objects and deposits of archaeological and/or cultural heritage to be present.

Figure 2.11 1930s image of Hotham House and Poultry Farm within study area.
Located at 61-65 Hotham Road and 2-4 Bidurgal Road, facing west, (https://www.theleader.com.au/story/5577743/should-this-house-be-demolished/#slide=0).

Figure 2.12 1930 aerial of study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.13 1955 aerial of study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.14 **1961 aerial of study area.**
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.15 **1970 aerial of study area.**
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.16 1978 Aerial of study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.17 1984 Aerial of the study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.18 2001 aerial of study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

Figure 2.19 2010 aerial of study area.
Study area indicated by red outline, (ShireMaps, accessed 13/03/20).

2.3.3 Geotechnical Investigation Summary

Geotechnical investigations were undertaken on the 29th May 2020 by Soilsrock Engineering Pty Ltd. This investigation involved the drilling of two boreholes (BH1/BH2). Boreholes were drilled by the BG RIG 3 – HANJIN and BG RIG 8 – HANJIN drilling rigs to depths of 2.6m to 11.60m (BH1) and 2.8m to 8.46m (BH2) and terminating to high strength sandstone bedrock with soil samples collected at regular depth intervals.

Each borehole was found to comprise of the following soil profile (Soilsrock Engineering Pty Ltd 2020):

Soil title	Description
Asphalt/Topsoil	Asphalt (BH1) and Topsoil (BH2) were present on the ground surfaces to depths of 0.10 m in both boreholes.
Sand/Silty Sand	Brown silty sands and White/Reddish fine grained sands to a depth of 2.6m were present in BH1 and Light Brown/Grey silty sand, fine grained in BH2 to a depth of 1.0m
Clay	Seams of clay were present at varying intervals in the boreholes. Two Reddish Brown to Dark Grey clay seams were located in BH1 at depths of 3.3m-3.4m and at 9.0m. Three medium-high plasticity Light Grey/Dark Grey narrow clay seams were located at depths of 3.45m, 3.56m, and 4.59 in BH2.
Sandstone	Sandstone was located from depths of 1.0m (BH2) – 2.6m (BH1) to borehole termination at both locations. White/Pink to Light Brown/Light Grey sandstone, medium strength in BH2 was located to a depth of 3.5m. A Light Grey/Light Brown highly weathered, high strength sandstone was present in BH1 to depth of 3.3m. Strength typically increased with depth from medium to high strength and ranging from slightly to highly weathered.

In review of the borehole logs (Figures 2.20-2.27), there is an indication that intact natural soils are present within the study area. Natural sand/clayey sand soil have been identified within the soil profile of both BH1 and BH2. The depth of the sand/clayey sand soil deposits range between 1.0m – 2.6m. This deposit could be interpreted as an A2 horizon of the Gymea soil profile with the potential for there to be a remnant A horizon (known to be an artefact bearing horizon).

The proposed development activity for the accommodation of basements is to exceed the depth of these soil profiles. It is likely that intact soils with the potential to contain Aboriginal objects and/or features may be impacted as result of this activity.

GEOTECHNICAL BOREHOLE LOG

CLIENT:	PRESIDENT PRIVATE HOSPITAL	BOREHOLE NO:	BH1
PROJECT:	ADDITIONS & ALTERATIONS TO PRESIDENT PRIVATE HOSPITAL	PAGE:	1 of 3
LOCATION:	369-381 PRESIDENT AVENUE, 61-65 HOTHAM ROAD, 2-4 BIDURGAL AVENUE KIRRAWEE NSW	DATE STARTED:	29/05/2020
DATE:	19/06/2020	DATE COMPLETED:	29/05/2020
PROJECT NO:	SRE/564/KW/20	LOGGED BY:	AT

Equipment:	BG RIG 3 - HANJIN	Hole Diameter:	90mm	Coring Size:	-
Driller:	BG Drilling	Drilling Method:	Solid Flight Auger	Inclination:	90°

RL Surface:
Easting: -
Northing: -

METHOD	GROUNDWATER RECORD		Field Tests SPT	Sample ID	DEPTH R.L (m)	DEPTH (m)	GRAPHIC LOG	SOIL MATERIAL DESCRIPTION	SOILS CLASSIFICATION: MOISTURE CONTENT	SOILS CLASSIFICATION: STRENGTH (Consistency, Relative Density)	SOILS CLASSIFICATION: DENSITY INDEX	REMARKS AND ADDITIONAL OBSERVATION
SOLID FLIGHT AUGER WITH TC BIT	NO GROUNDWATER OBSERVED	Dry through the Completion of Augering				0.0		**ASPHALT:** 100mm thickness of Asphalt	-	-	-	
						0.5		**SILTY SAND:** Dark grey to light brown silty sands, medium grained.	D	-	L	
								SILTY SAND: Brown silty sands, medium grained.	D	-	M	
						1.0		**SAND:** White sands, fine grained.	D	-	M	
			SPT1 (13,13,18) Np = 31			1.5		**SAND:** White, reddish grey sands, fine grained.	D	-	D to VD	Residual Soils (Sandstone)
						2.0						
						2.5						Low to Medium TC Bit Resistance
								END OF AUGERING @ 2.6m **PLEASE REFER TO CORE BOREHOLE LOG**				
						3.0						
						3.5						
						4.0						
						4.5						
						5.0						
						5.5						
						6.0						

Comments:
A General Remark:

CHECKED BY: JC
APPROVED BY: JC DATE: 19/06/2020

SOILSROCK ENGINEERING PTY LTD | ABN 83 155 012 614
GEOTECHNICAL | ENVIRONMENTAL | FOUNDATIONS
www.soilsrock.com.au | info@soilsrock.com.au

Figure 2.20 Geotechnical Bore Log BH1, 1-3.
Soilsrock Engineering Pty Ltd, 2020.

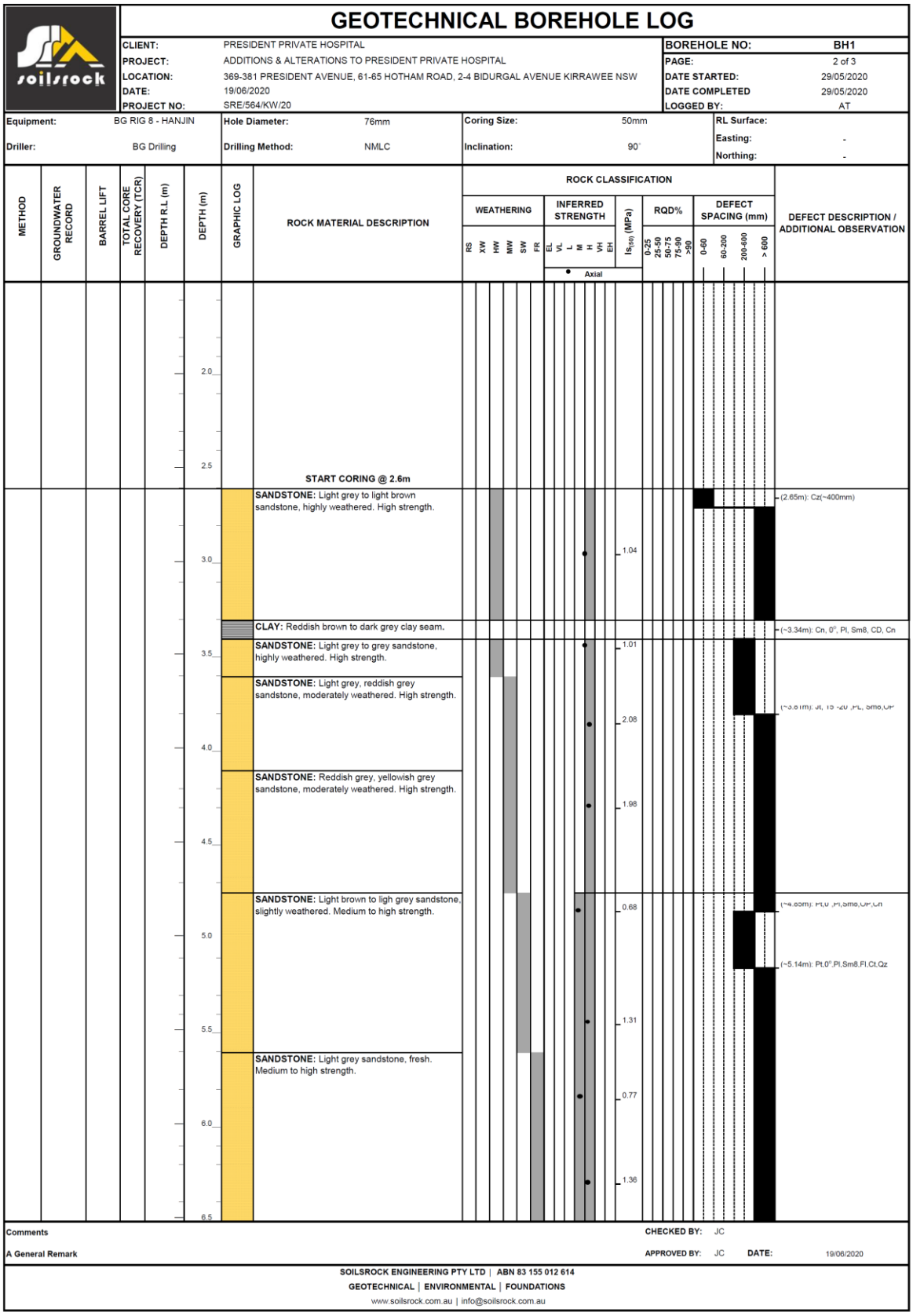


Figure 2.21 Geotechnical Bore Log BH1, 2-3.
Soilsrock Engineering Pty Ltd, 2020.

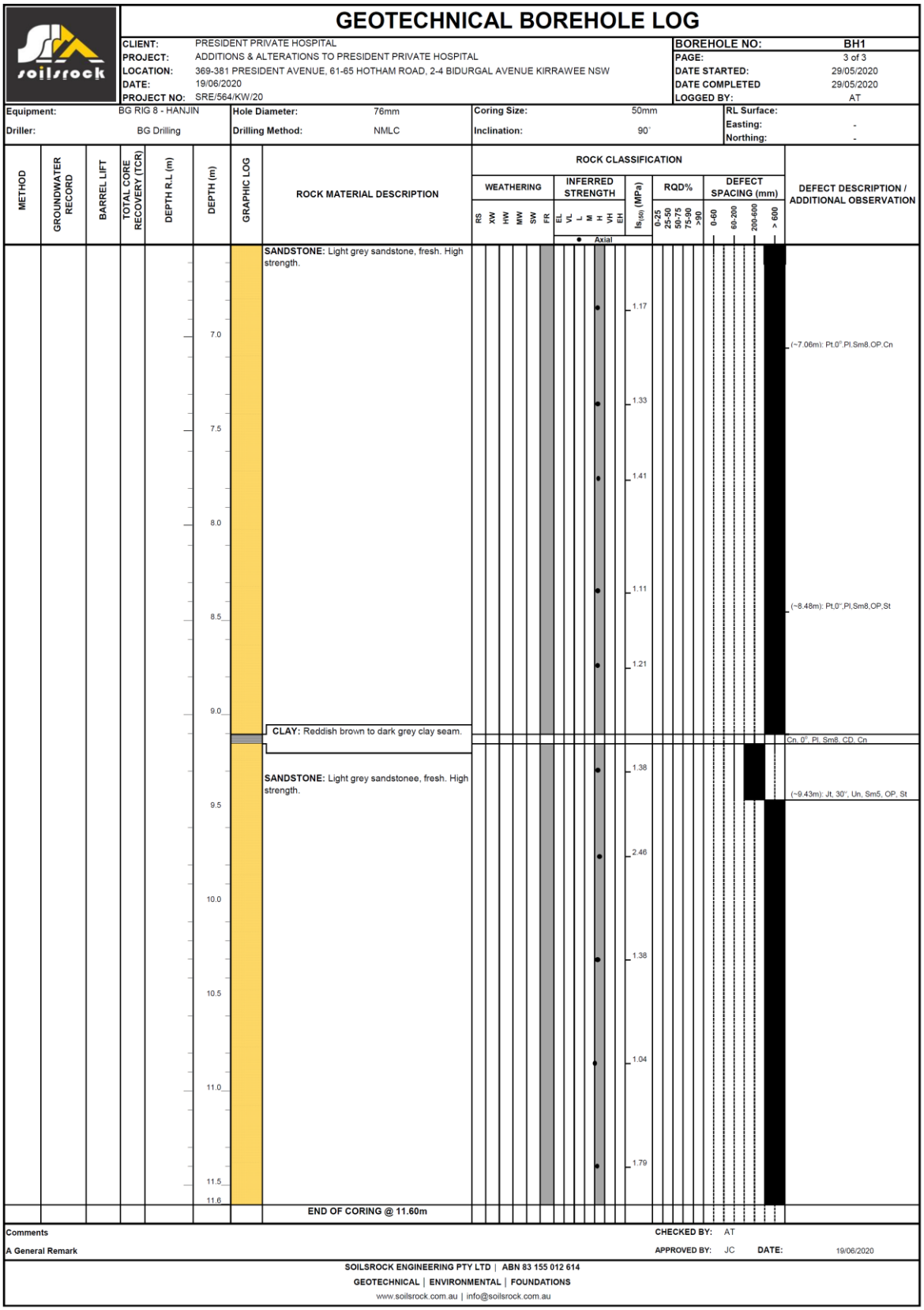


Figure 2.22 **Geotechnical Bore Log BH1, 3-3.**
Soilsrock Engineering Pty Ltd, 2020.

Figure 2.23 Geotechnical Bore Log BH1 - Rock Core Photograph.
Soilsrock Engineering Pty Ltd, 2020.

GEOTECHNICAL BOREHOLE LOG

CLIENT:	PRESIDENT PRIVATE HOSPITAL	BOREHOLE NO:	BH2
PROJECT:	ADDITIONS & ALTERATIONS TO PRESIDENT PRIVATE HOSPITAL	PAGE:	1 of 3
LOCATION:	369-381 PRESIDENT AVENUE, 61-65 HOTHAM ROAD, 2-4 BIDURGAL AVENUE KIRRAWEE NSW	DATE STARTED:	29/05/2020
DATE:	19/06/2020	DATE COMPLETED:	29/05/2020
PROJECT NO:	SRE/564/KW/20	LOGGED BY:	AT

Equipment:	BG RIG 3 - HANJIN	Hole Diameter:	90mm	Coring Size:	-
Driller:	BG Drilling	Drilling Method:	Solid Flight Auger	Inclination:	90°

RL Surface:
Easting: -
Northing: -

METHOD	GROUNDWATER RECORD	Field Tests SPT	Sample ID	DEPTH R.L (m)	DEPTH (m)	GRAPHIC LOG	SOIL MATERIAL DESCRIPTION	SOILS CLASSIFICATION: MOISTURE CONTENT	SOILS CLASSIFICATION: STRENGTH (Consistency, Relative Density)	SOILS CLASSIFICATION: DENSITY INDEX	REMARKS AND ADDITIONAL OBSERVATION
SOLID FLIGHT AUGER WITH TC BIT+A14:A133	NO GROUNDWATER OBSERVED Dry through the Completion of Augering				0.5 1.0 1.5 2.0 2.5		**TOPSOIL:** Brown/Dark brown silty sand with grass roots. **SAND:** Light brown/Grey silty sand, fine-grained.	D			LOW TC BIT RESISTANCE
							SANDSTONE: White/Pink residual sandstone, medium strength.				MEDIUM TO HIGH TC BIT RESISTANCE
					3.0 3.5 4.0 4.5 5.0 5.5 6.0		**END OF AUGERING @ 2.8m** **PLEASE REFER TO CORE BOREHOLE LOG**				

Comments:
A General Remark:

CHECKED BY: JC
APPROVED BY: JC DATE: 19/06/2020

SOILSROCK ENGINEERING PTY LTD | ABN 83 155 012 614
GEOTECHNICAL | ENVIRONMENTAL | FOUNDATIONS
www.soilsrock.com.au | info@soilsrock.com.au

Figure 2.24 **Geotechnical Bore Log BH2, 1-3.**
Soilsrock Engineering Pty Ltd, 2020.

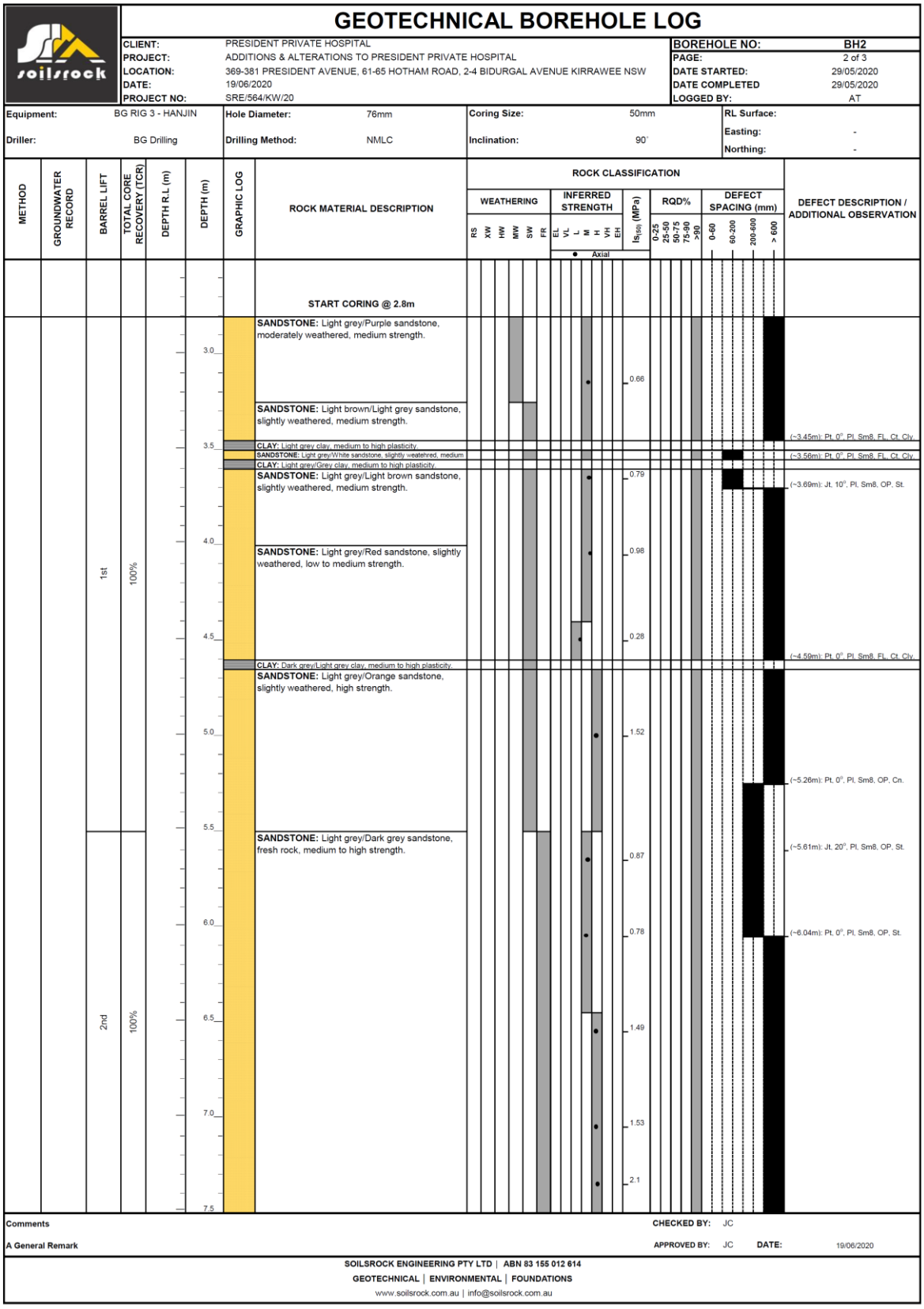
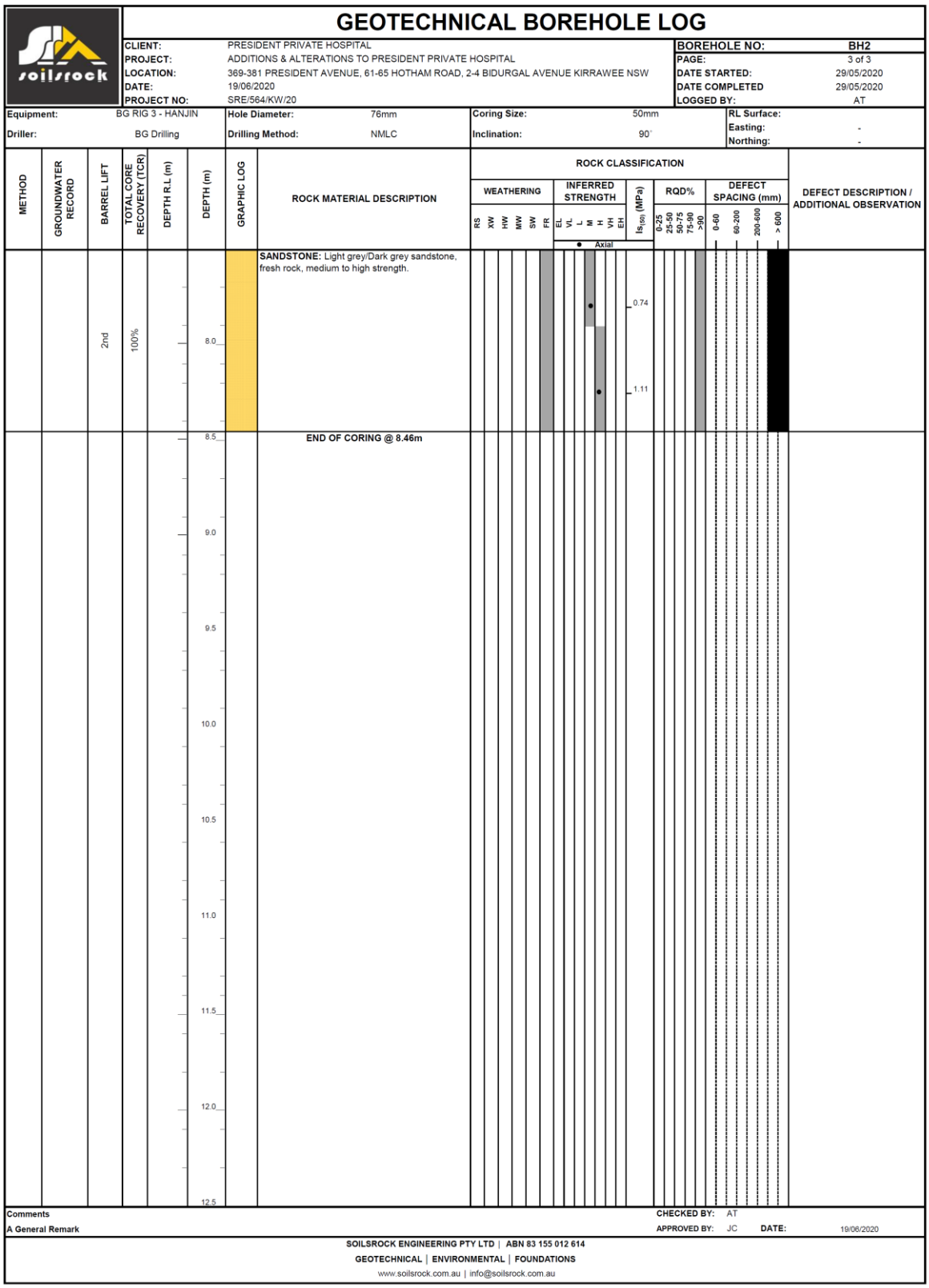


Figure 2.25 Geotechnical Bore Log BH2, 2-3.
Soilsrock Engineering Pty Ltd, 2020.



GEOTECHNICAL BOREHOLE LOG

CLIENT:	PRESIDENT PRIVATE HOSPITAL	BOREHOLE NO:	BH2
PROJECT:	ADDITIONS & ALTERATIONS TO PRESIDENT PRIVATE HOSPITAL	PAGE:	3 of 3
LOCATION:	369-381 PRESIDENT AVENUE, 61-65 HOTHAM ROAD, 2-4 BIDURGAL AVENUE KIRRAWEE NSW	DATE STARTED:	29/05/2020
DATE:	19/06/2020	DATE COMPLETED	29/05/2020
PROJECT NO:	SRE/564/KW/20	LOGGED BY:	AT

Equipment:	BG RIG 3 - HANJIN	Hole Diameter:	76mm	Coring Size:	50mm
Driller:	BG Drilling	Drilling Method:	NMLC	Inclination:	90°

RL Surface: -
Easting: -
Northing: -

METHOD	GROUNDWATER RECORD	BARREL LIFT	TOTAL CORE RECOVERY (TCR)	DEPTH R.L (m)	DEPTH (m)	GRAPHIC LOG	ROCK MATERIAL DESCRIPTION	ROCK CLASSIFICATION: WEATHERING (RS, XW, HW, MW, SW, FR)	INFERRED STRENGTH (EL, VL, L, M, H, VH, EH)	$Is_{(50)}$ (MPa)	RQD% (0-25, 25-50, 50-75, >90)	DEFECT SPACING (mm) (0-60, 60-200, 200-600, > 600)	DEFECT DESCRIPTION / ADDITIONAL OBSERVATION
		2nd	100%		8.0		**SANDSTONE:** Light grey/Dark grey sandstone, fresh rock, medium to high strength.	FR	H (Axial)	0.74, 1.11	>90	> 600	
					8.5		**END OF CORING @ 8.46m**						
					9.0								
					9.5								
					10.0								
					10.5								
					11.0								
					11.5								
					12.0								
					12.5								

Comments
A General Remark

CHECKED BY: AT
APPROVED BY: JC DATE: 19/06/2020

SOILSROCK ENGINEERING PTY LTD | ABN 83 155 012 614
GEOTECHNICAL | ENVIRONMENTAL | FOUNDATIONS
www.soilsrock.com.au | info@soilsrock.com.au

Figure 2.26 **Geotechnical Bore Log BH2, 3-3.**
Soilsrock Engineering Pty Ltd, 2020.

soilsrock
geotechnical engineering consultants

CLIENT:	PRESIDENT PRIVATE HOSPITAL	**TITLE:**	Rock Core Photograph
PROJECT:	ADDITIONS & ALTERATIONS TO PRESIDENT PRIVATE HOSPITAL	**BOREHOLE NO:**	BH2
ADDRESS:	369-381 PRESIDENT AVENUE, KIRRAWEE NSW 2232	**SCALE:**	NTS
PROJECT NO:	SRE/564/KW/20	**DATE RECORDED:**	29/05/2020

CORING STARTED AT 2.80m

END OF CORING AT 8.46m

CORING TERMINATED AT 8.46m

SOILSROCK ENGINEERING PTY LTD | ABN 83 155 012 614
GEOTECHNICAL | ENVIRONMENTAL | FOUNDATIONS
www.soilsrock.com.au | info@soilsrock.com.au

Figure 2.27 Geotechnical Bore Log BH2 - Rock Core Photograph.
Soilsrock Engineering Pty Ltd, 2020.

2.3.4 Disturbance and Archaeological Potential

Background research and review of historical aerials indicate that past European land use led to extensive clearing of the land. The study site was previously a poultry farm with a drainage line running through the southwest corner (Figure 2.12) and poultry sheds located to the northern end of the study area (Figure 2.11).

There is only one area of deep excavation in the form of a basement near the west car park associated with the existing west wing, as well as a hydrotherapy pool at the western boundary of the study area. No other deep excavation is evident. The standing buildings predominately consist of a ground and first floor with associated services.

The President Private Hospital construction in the 70s, with land modification of moderate disturbance with significant filling events have occurred as well as ongoing and more recent construction of pathways and carparks and utility services (Figures 2.14-2.19).

The geological formation of the study area puts it within a shale lense of the Hawkesbury sandstone geology. The soil profile depth is considered shallow-moderate which suggests structural foundations and deep excavations would result in a disturbed profile and removal of topsoil and A horizon (known as the artefact bearing deposit). Geotechnical investigations indicate that natural soils are present within the study area between 1.0m-2.6m in depth.

A disturbance map outlining the level of disturbance from past land-use can be seen in Figure 2.28.

In light of this, and in the context of the information provided about the land use of the site and its proximity to major tributaries, the following has been predicted:

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.

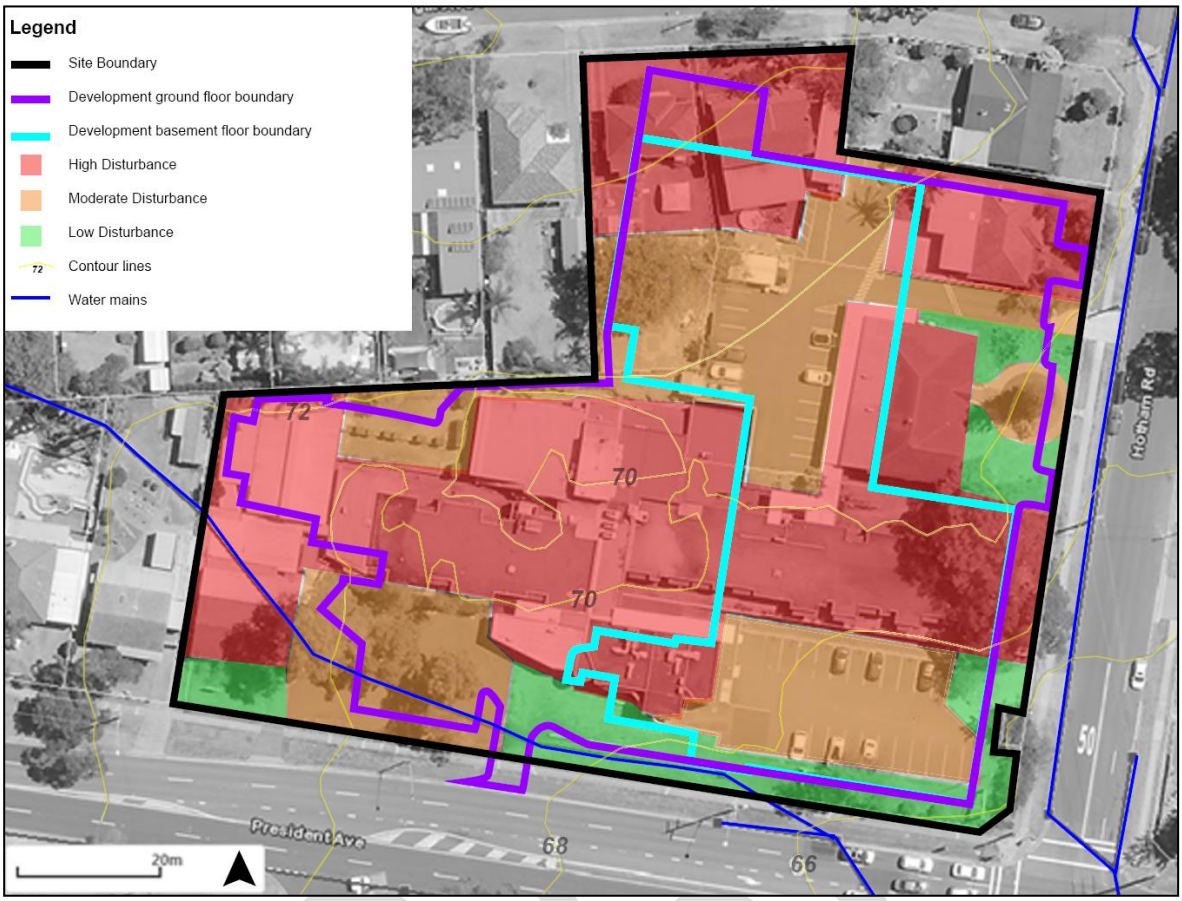


Figure 2.28 **Disturbance Map.**
Study area indicted in black outline. Area of high disturbance in red, moderate disturbance in orange and low disturbance in green. Purple outline indicates ground floor boundary. (AMAC Group 2020, Six Maps (accessed 10/04/20).

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 B.

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 proponent's 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 Part 6: National Parks and Wildlife Act 1974: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010) and is in Stage 2. Archaeological Test excavation has been proposed in accordance with *Code of practice for the investigation of Aboriginal Objects in*

NSW (DECCW,2010) and/or Aboriginal Cultural Heritage Management Plan, depending on the status of the development.

- All registered stakeholders were given a copy of the proposed Aboriginal Cultural Heritage Research Design & Methodology with the 28 days review period and have responded to this methodology.

- All registered stakeholders were given a copy of this report and were given a minimum of 28 days to comment on this report.

Table 3.1 Consultation Log

STAGE 1						
Authority Letters & Advertisement						
Authority Body/ Organisation	**Contact Person**	**Contact Details**	**Date Sent**	**Method**	**Response Received**	**Date**
Sutherland Shire Council	Heritage Officer	Locked Bag 17 Locked Bag 17, Sutherland NSW 1499	18/03/2020	Mail	Yes/Email	14/04/2020
LLS	Heritage Officer	PO BOX 4515, Westfield Penrith NSW 2750	18/03/2020	Mail	Yes/Email	
La Perouse Local Aboriginal Land Council	Heritage Officer	1 Elaroo Ave, Phillip Bay NSW 2036	18/03/2020	Mail	No	
NSW Native Title Services	Heritage Officer	PO BOX 2105, Strawberry Hills NSW 2012	18/03/2020	Mail	No	
NNTT	Heritage Officer	GPO BOX 9973, Sydney NSW 2001	18/03/2020	Mail	Yes/Email	30/03/2020
NTSCORP	Heritage Officer	PO BOX 2105, Strawberry Hills NSW 2012	18/03/2020	Mail	No	
DPIE (Formerly OEH)	Archaeologist	PO BOX 644, Parramatta NSW 2124	18/03/2020	Mail	Yes/Email	9/04/2020
Office of Registrar	Heritage Officer	PO BOX 112, Glebe NSW 2037	18/03/2020	Mail	No	
Newspaper Advertisement:	St George & Sutherland Shire Leader	Advertisers.com.au	1/04/2020	Email	Date printed: 08/04/2020	End Period: 22/04/2020
Stakeholders Contacted	**Minimum 14 days to register**	**(14/04/2020) - (28/04/2020)**				
Name/Organisation	**Contact Person**	**Contact Details**	**Date Sent**	**Method**	**Notes**	
La Perouse Local Aboriginal Land Council	Makayla Horwood	PO BOX 365, Matraville NSW 2036	14/04/2020	Mail		

Sutherland Shire Cncl. Aboriginal Advisory Sub-Committee	Bruce Howell	bruceehowell@optusnet.com.au	14/04/2020	Mail
Darug Land Observations	Jamie & Anna Workman	PO Box 173, Ulladulla NSW 2539	14/04/2020	Mail
Ken Foster		68 Australia St. Matraville NSW 2036	14/04/2020	Mail
La Perouse Botany Bay Corporation	Yvonne Simms	10 Murrong Place, La Perouse NSW 2036	14/04/2020	Mail
Norma Simms		10 Murrong Place, La Perouse NSW 2036	14/04/2020	Mail
Matthew & Andrew Coe		37 Derlanger Ave. Collingswood SA 5081	14/04/2020	Mail
A1 Indigenous Services	Carolyn Hickey	10 Marie Pitt Place, Glenmore Park NSW 2745	14/04/2020	Mail
Kamilaroi-Yankuntjatjara Working Group	Phil Khan	78 Forbes St. Emu Plains NSW 2750	14/04/2020	Mail
Wurrumay Pty Ltd	Kerrie & Vicky Slater	PO BOX 414, Emu Plains NSW 2750	14/04/2020	Mail
Tocomwall	Scott Franks	PO Box 76, Caringbah NSW 1495	14/04/2020	Mail
Gunyuu	Kylie Ann Bell	gunyuuchts@gmail.com	14/04/2020	Email
Walbunja	Hika Te Kowhai	walbunja@gmail.com	14/04/2020	Email
Badu	Karia Lea Bond	11 Jeffery Place, Moruya NSW 2537	14/04/2020	Mail
Goobah Developments	Basil Smith	66 Grantham Rd. Batehaven NSW 2536	14/04/2020	Mail
Wullung	Lee-Roy James Boota	54 Blackwood St. Gerringong NSW 2534	14/04/2020	Mail
Yerramurra	Robert Parson	yerramurra@gmail.com	14/04/2020	Email
Nundagurri	Newton Carriage	nundagurri@gmail.com	14/04/2020	Email

Murrumbul	Mark Henry	murrumbul@gmail.com	14/04/2020	Email	
Jerringong	Joanne Anne Stewart	jerringong@gmail.com	14/04/2020	Email	
Pemulwuy CHTS	Pemulwuy Johnson	pemulwuyd@gmail.com	14/04/2020	Email	DPIE Stakeholder List - Post Address Invalid
Bilinga	Simalene Carriage	bilingachts@gmail.com	14/04/2020	Email	
Munyunga	Kaya Dawn Bell	munyungachts@gmail.com	14/04/2020	Email	
Wingikara	Hayley Bell	wingikarachts@gmail.com	14/04/2020	Email	
Minnamunnung	Aaron Broad	1 Waratah Ave. Albion Park Rail NSW 2527	14/04/2020	Mail	
Walgalu	Ronald Stewart	walgaluchts@gmail.com	14/04/2020	Email	
Thauaira	Shane Carriage	thauairachts@gmail.com	14/04/2020	Email	
Dharug	Andrew Bond	dharugchts@gmail.com	14/04/2020	Email	
Gulaga	Wendy Smith	gulagachts@gmail.com	14/04/2020	Email	
Biamanga	Seli Storer	biamangachts@gmail.com	14/04/2020	Email	DPIE Contact Invalid - New Contact Janaya Smith
Cullendulla	Corey Smith	cullendullachts@gmail.com	14/04/2020	Email	
Murramarang	Roxanne Smith	murramarangchts@gmail.com	14/04/2020	Email	
Butucarbin Aboriginal Corporation	Jennifer Beale	butuheritage@gmail.com	14/04/2020	Email	
Didge Ngunawal Clan	Lillie Carroll & Paul Boyd	33 Carlyle Cr. Cambridge Gardens NSW 2747	14/04/2020	Mail	
Ginninderra Aboriginal Corp.	Steven Johnson & Krystle Carroll	PO BOX 3143, Grose Vale NSW 2754	14/04/2020	Mail	

Garrara Aboriginal Corporation	Raymond Ingrey	raymond@bariyu.org.au	14/04/2020	Email	
Wailwan Aboriginal Group	Phillip Boney	waarlan12@outlook.com	14/04/2020	Email	
Barking Owl Aboriginal Corp.	Jody Kulakowski	2/65-69 Wehlow St. Mt Druitt NSW 2770	14/04/2020	Mail	
Thoorga Nura	John Carriage	50B Hilltop Cr. Surf Beach NSW 2536	14/04/2020	Mail	
Dharug Boorooberongal Elders Aboriginal Corporation	Paul Hand	PO BOX 14, Doonside NSW 2767	14/04/2020	Mail	
B.H. Heritage Consultants	Ralph Hampton	184 Captain Cook Dr. Willmot NSW 2770	14/04/2020	Mail	
B.H. Heritage Consultants	Nola Hampton	95 Mt Ettalong Rd. Umina Beach NSW 2257	14/04/2020	Mail	
Ngambaa Cultural Connections	Kaarina Slater	6 Natchez Cr. Greenfield Park NSW 2167	14/04/2020	Mail	
Goodradigbee Cultural & Heritage Aboriginal Corp.	Caine Carroll	1 Morilla Rd. East Kurrajong NSW 2758	14/04/2020	Mail	
Mura Indigenous Corporation	Phillip Carroll	11 Nargal St. Flinders NSW 2529	14/04/2020	Mail	
Aragung Aboriginal Cultural Heritage Site Assessments	Jamie Eastwood	33 Bulolo Dr. Whalan NSW 2770	14/04/2020	Mail	
Waawaar Awaa	Rodney Gunther	15 Bungonia St. Prestons NSW 2170	14/04/2020	Mail	
Clive Freeman		6 Dhugan Close, Wreck Bay Aboriginal Community JBT 2540	14/04/2020	Mail	
Galamaay Cultural Consultants	Robert Slater	121 Robert St. Tamworth NSW 2340	14/04/2020	Mail	
Registered Organisations/Individuals	**Contact Person**	**Email Address**	**Date**	**Method**	**Notes**
Didge Ngunawal Clan	Lilly Carroll & Paul Boyd	didgengunawalclan@yahoo.com.au	21/04/2020	Email	
Clive Freeman		clive.freeman@y7mail.com	28/04/2020	Email	

La Perouse Local Aboriginal Land Council	Makayla Horwood	Admin@laperouse.org.au			
Tocomwall	Scott Franks	scott@tocomwall.com.au	18/06/2020	Email	
STAGE 2 & 3					
ACHAR Methodology (Test Excavation Methodology)	**Minimum 28 days to respond**	**(04/05/2020) - (01/06/2020)**			
Contacted Organisation/ Individuals	**Contacted by Organisation/ Individual**	**Subject**	**Date**	**Method**	**Notes**
All RAPs	Steven J. Vasilakis/AMAC	Dispatch ACHAR/Research Design & Methodology	4/05/2020	Email	
Steven J. Vasilakis/AMAC	Didge Ngunawal Clan/Lilly Carroll & Paul Boyd	Review ACHAR/Research Design & Methodology	5/05/2020	Email	Supports ACHAR Methodology
La Perouse Local Aboriginal Land Council	Steven J. Vasilakis/AMAC	Review ACHAR/Research Design & Methodology	13/05/2020	Phone	No Response – Left Message
Clive Freeman	Steven J. Vasilakis/AMAC	Review ACHAR/Research Design & Methodology	13/05/2020	Phone	No Response – Left Message
La Perouse Local Aboriginal Land Council	Steven J. Vasilakis/AMAC	Review ACHAR/Research Design & Methodology	18/05/2020	Phone	No Response – Left Message
Clive Freeman	Steven J. Vasilakis/AMAC	Review ACHAR/Research Design & Methodology	18/05/2020	Phone	To Review and Respond
Tocomwall/Scott Franks	Steven J. Vasilakis/AMAC	Dispatch ACHAR/Research Design & Methodology	22/06/2020	Email	
Site Inspection		**(03/04/2020)**			
Contacted Organisation/ Individuals	**Contacted by Organisation/ Individual**	**Subject**	**Date**	**Method**	**Notes**
Makayla Horwood/La Perouse LALC	AMAC/Steven J. Vasilakis	Site Inspection	3/04/2020	Email	
Test Excavation		**(00/00/2020) - (00/00/2020)**			
Contacted Organisation/ Individuals	**Contacted by Organisation/ Individual**	**Subject**	**Date**	**Method**	**Notes**

STAGE 4					
ACHAR Report	Minimum 28 days to respond	(04/08/2020) - (31/08/2020)			
Contacted Organisation/ Individuals	Contacted by Organisation/ Individual	Subject	Date	Method	Notes
All RAPs	AMAC/Steven J. Vasilakis	Dispatch ACHAR Report	4/08/2020	Email	
All RAPs	AMAC/Steven J. Vasilakis	Review ACHAR Report	10/08/2020	Phone	La Perouse LALC/Makayla Horwood No Response; Tocomwall/Scott Franks No Response Left Message; Clive Freeman & DNC/Paul Boyd Support ACHAR
Tocomwall/Scott Franks & La Perouse LALC/Makayla Horwood	AMAC/Steven J. Vasilakis	Review ACHAR Report	11/08/2020	Email	Email sent Due to No Phone Response
Tocomwall/Danny Franks	AMAC/Benjamin Streat	Review ACHAR Report	13/08/2020	Phone	Tocomwall Supports Recommendations
La Perouse Local Aboriginal Land Council	AMAC/Steven J. Vasilakis	Review ACHAR Report	13/08/2020	Email	Email sent Due to No Phone Response
AMAC/Steven J. Vasilakis	La Perouse LALC/Chris Ingrey	Review ACHAR Report	19/08/2020	Email	Supports ACHAR Report

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.
The research of this cultural heritage assessment consisted of stages which are listed below:

- Background research
- Aboriginal consultation and oral history interviews
- Site inspection and cultural heritage mapping

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:

- DPIE archaeological assessment and excavation reports and cultural heritage assessments
- DPIE 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* (DECCW 2010):

Further to this the following sources were examined:

- The National Heritage List
- The Commonwealth Heritage List
- The NSW State Heritage Inventory
- The Register of the National Estate
- 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 10/03/20 (ID 490045). This search resulted in 1 registered site within 1000 m of 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
52-3-0051	Dents Creek; Loftus	Valid	Shell, Artefact

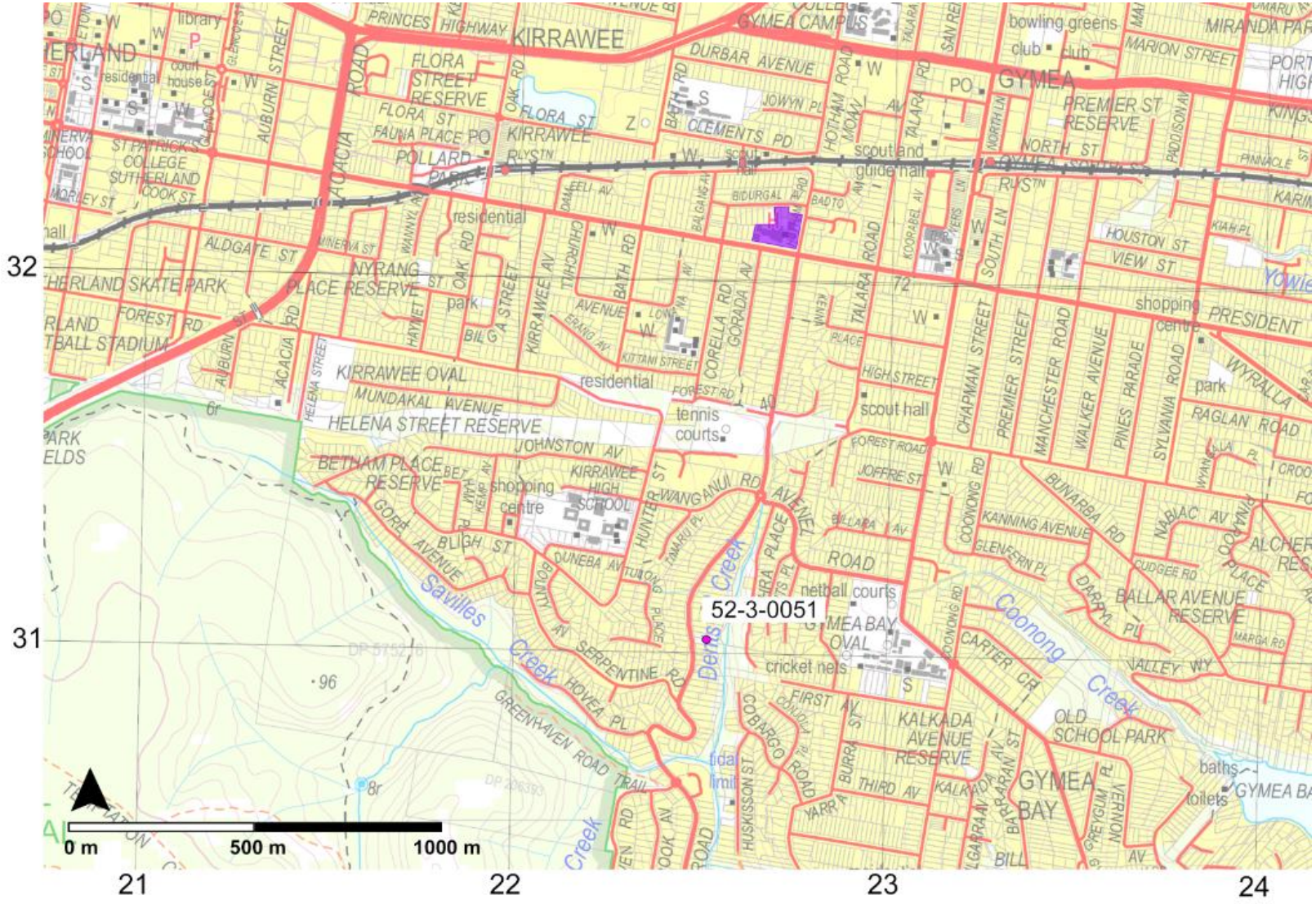


Figure 4.1
AHIMS Search Results.
AHIMS (2020), Port Hacking 1:25 000 (9129 -4n) Topographic map. AHIMS site indicated in pink, study area indicated in purple.

4.2 OTHER SEARCH RESULTS

Results for other statutory databases searched are given below:

Heritage Listings/ Register/ Other	Result
National Heritage List	N/a
Commonwealth Heritage List	N/a
NSW State Heritage Register	N/a
Register of Declared Aboriginal Places	N/a
National Native Title Register	N/a
LEP/DCP Mapping -Archaeological Sensitivity Map	Low Sensitivity

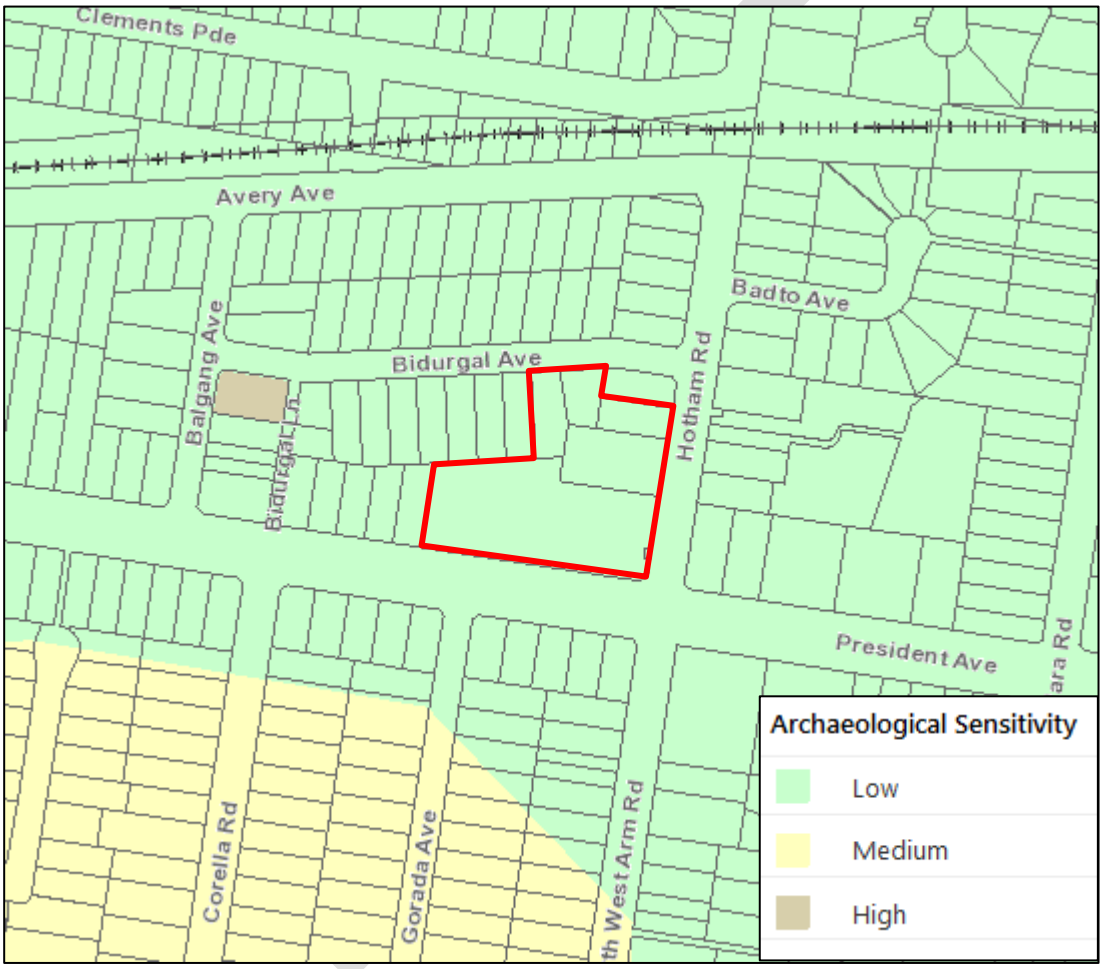


Figure 4.2 Sutherland Shire Archaeological Sensitivity Map.
Study area indicated in red, (maps.ssc.nsw.gov.au/ShireMaps, accessed 10/03/20).

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).

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.

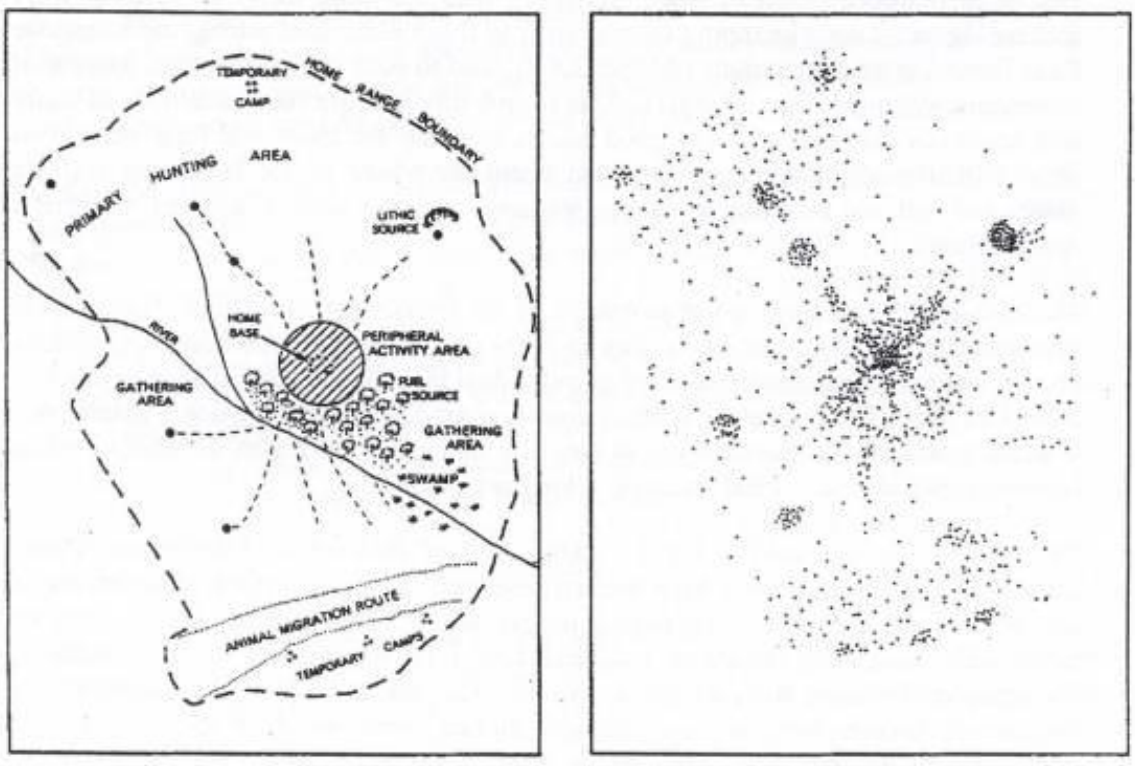


Figure 4.3 Examples of forager settlement patterns.
Foley (1981).

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.
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 was 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.

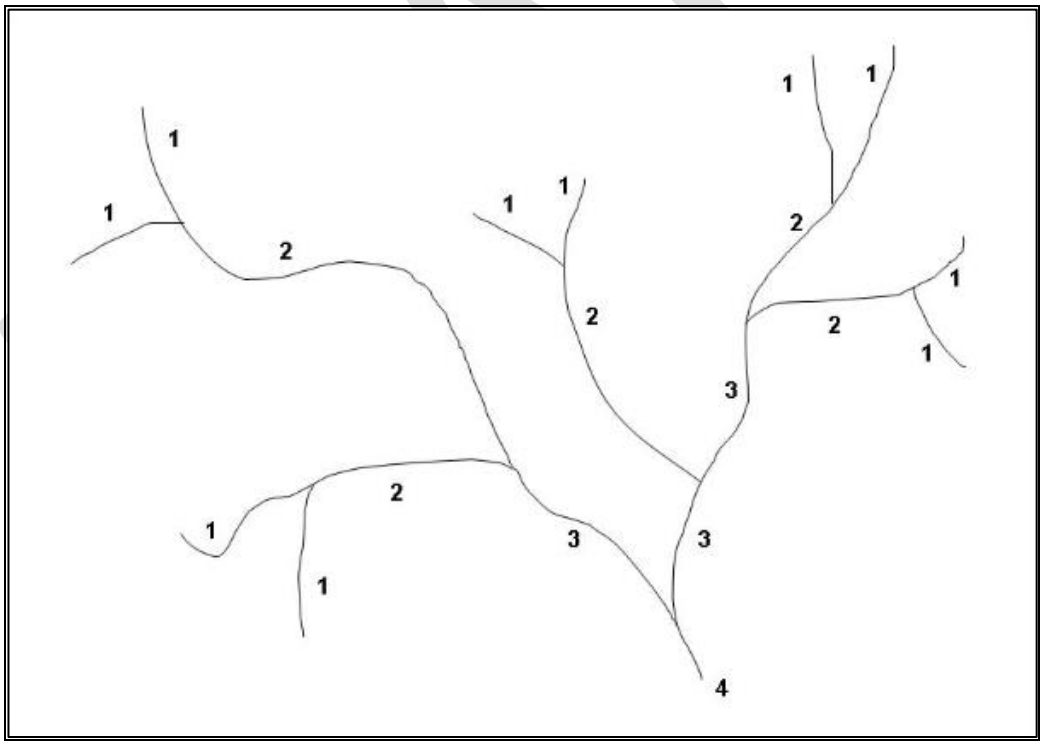


Figure 4.4 **Strahler's hierarchy of tributaries.**
Strahler (1957).

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, Hawksbury 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 PREDICITVE 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 in the landscape units surrounding the study area, chiefly Gymea Bay and surrounds. The dearth of known reliable raw material source (outcrops of silcrete, chert or mudstone) within nearby landscape units. This may be evident of greater levels of stone tool reduction due to the lower availability of raw materials.	Likely
Isolated Artefacts	Higher order streams are located in the landscape units surrounding the study area, chiefly Gymea Bay and surrounds. The dearth of known reliable raw material source (outcrops of silcrete, chert or mudstone) within nearby landscape units. This may be evident of greater levels of stone tool reduction due to the lower availability of raw materials.	Likely
Grinding Grooves	Boulders of sandstone or outcrops do not occur on the site.	Unlikely
Midden Deposits	Given the proximity of the study area to the Gymea Bay, it is likely to be the site of food procurement, consumption, and refuse discard.	Likely
Stone Resources Sites	Rock outcrops of suitable flaking material are almost absent from the study area.	Unlikely
Scarred Trees	Trees of sufficient age do not appear to remain within the study area	Unlikely
Sandstone Shelter Sites	The soil landscape of the study area does not contain sandstone overhangs.	Unlikely
Burials	While it is possible that undisturbed sand bodies may lie within the study area. These sites tend to occur within deep, sandy and/or soft soil contexts within sand dune formations, often in association with midden materials.	Unlikely

4.5 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 ± 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.

4.6 THE DARUG, GANDANGARA AND THARAWAL NATIONS

The following broad descriptions are taken from Attenbrow (2002) and represent a probable distribution at the time of non-Indigenous settlement of the region.

The Coastal Darug dialect covered the Sydney peninsula (to the north of Botany Bay and the south of Port Jackson west to Parramatta). It is possible that it also extended to the north of Port Jackson as far as Broken Bay. The hinterland dialect of the Darug was 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. Land of the Tharawal speaking people extended from the southern side of Botany Bay south to the Shoalhaven River, to the coast in the east and the Georges River and Appin in the west, probably as far west as Camden. The Gandangara inhabited the southern rim of the Cumberland Lowlands west of the Georges River and into the southern Blue Mountains (Attenbrow 2002, p.34).

Linguistic groupings were probably not the main social or political entities in day-to-day life for Aboriginal people. Land and resource ownership had been centred on smaller units. These various groupings and affiliations in social organisations have been described in differing terms. For the following broad outline the terms defined by Attenbrow (2002) have been used.

In general, resource and land ownership had been focused on extended family groups or *clans.* These groups are sometimes called local clans, territorial clans, or local descent groups. 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.

It is not always possible to reconstruct the individual clan or band group boundaries in a given area. However, aspects of the pre-contact lifestyle of the Indigenous groups across the region can be reconstructed using a variety of observations and recorded information.

Due to the difference in resource availability between the coastal and inland areas, it is frequently assumed that hinterland and coastal groups had very different lifestyles; in summary, coastal people were 'fishers' and inland people were 'hunters.' This has not always matched evidence in archaeological excavations that suggests that coastal people also exploited a wide range of terrestrial resources, and hinterland people had a variety of riverine resources available for exploitation.

Many early European observers seemed to comment on the differences in lifestyles and assumed that the work involved in procuring inland resources by hunting meant that lower population densities would have inhabited the hinterland. More recent studies suggest that the inland areas would have supported a density of at least 0.5 persons per square kilometre compared to 0.75 per square kilometre in the coastal areas around Port Jackson (Attenbrow 2002: 17).

Some lifestyle differences relating to resource availability were inevitable. Groups inhabiting the Hawkesbury Sandstone topography of the coast were able to use sandstone overhangs as shelter. Elsewhere, such as in the study area, bark huts were common. Collins described huts "made of the bark of a single tree bent in the middle and placed on its two ends on the ground" (Collins in Kohen n.d.). Watkin Tench also gave details of bark huts constructed with pieces of bark placed together to form a low shelter like an 'oven' open at one end and large enough to fit one person lying down (Tench 1996: 53).

Use of bark for such shelters would have resulted in a large number of trees with bark removal scars. Such scarred trees would also have been created when bark was removed for other purposes such as canoe manufacture and manufacture of other items such as carrying vessels (*coolamons*). There is some evidence that coastal groups would travel long distances, even as far inland as Parramatta, to find trees with suitable bark for canoe manufacture (Kohen n.d.).

It is likely that the Aboriginal people of the area practiced 'fire-stick farming'. This practice of systematic burning of the landscape had a number of purposes. It opened up land access and encouraged regrowth vegetation, in particular grasses which in turn attracted grassland animals and made them easier to hunt. These farming practices were an important tool in Aboriginal people's manipulation of their environment and increasing resource availability (Hardy & Wheeler 2004).

Other plant processing techniques also enabled the local people to broaden their range of food resources. Various types of yams and roots were important food items, generally abundant and predictable. Yams could be found in large numbers often along the alluvial terraces of larger waterways (Hunter in Martin 1986: 45). An interesting observation was made by Hunter, who became violently sick trying to eat a poisonous yam (possibly *Dioscorea bulbifera*). Hunter had seen Aboriginal people digging the same yam and concluded, *"They no doubt have some way of preparing these roots, before they can eat them".* It is also known that the poisoned fruits of the burrawang were processed to remove

the poisons before being pounded to flour and baked (Kohen n.d., p.3). Knowledge of correct processing and management of plant resources was of great importance in the lifestyle of Aboriginal people.

Elements of the social life of Aboriginal people in the area have also been recorded in a variety of sources. The ethnologist R. H. Matthews recorded information relating to the languages, social organisation and ceremonial life of the Gandangara, Tharawal and Darug peoples (Martin 1986). Gatherings of dispersed groups would occur at times for ceremonies or to share in seasonally available resources (Attenbrow 2002). Regular interaction between groups is likely to have occurred and resources, technologies, and other knowledges would have been exchanged. This interaction would have varied according to seasons and resource availability. Within the Sydney region, elements such as art motifs, technology and resource use occur across a wide area suggesting that interaction and exchange would have been regular and ongoing (McDonald 1992).

It is not true, however, to say that the groups would have been indistinguishable. Some customs and behaviour would have been restricted to certain groups. One example is the burial customs of the Gandangara. Gandangara graves were observed to be marked by decorating nearby trees with elaborately carved designs (Martin 1986).

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 variety of sources available (Streat and Hardy 2008).

4.7 PREVIOUS ARCHAEOLOGICAL STUDIES NEAR THE STUDY AREA

As part of the research process of this report the library of archaeological assessments, test excavation and open area salvage excavation reports which is located at the offices of DECCW at Hurstville was consulted. Presented below are summaries of indigenous archaeological survey assessments, test excavations and salvage excavations in the vicinity of the study area, which have all been carried out. This list is by no means exhaustive and is merely a representative sample of archaeological activity within the vicinity of the study area.

J. Megaw, Department of Archaeology, University of Sydney NSW 1966– Rock Shelter Excavation - Gymea Bay

In 1962, the discovery of an Aboriginal skeleton led to further archaeological investigations of a rock shelter located at Gymea Bay. The rock shelter was situated under a sandstone overhang with a second shelter located nearby. A large area of midden was also recorded and would have extended further but evidence of levelling and disturbance was noted. At the base of the excavated midden was a second skeleton suggesting a potential initial occupation phase of the shelter and midden. Test excavation resulted in an additional 121 artefacts being located within the shelter as well as ochre, hammerstones and ground stone implements. The cultural material was found in-situ and indicated repeated occupation of the surrounding area and shelter, with smoke stains found marking the roof. Radiocarbon dating placed the shelter at 1,000 BP.

S. McIntyre 1984 – Aboriginal archaeological survey - Towra Point Nature Reserve

McIntyre conducted an Aboriginal archaeological survey within the estuarine wetland at Towra Point. The site has been subject to human activity and erosion, with the survey area

having low visibility. The survey resulted in the location of two sites, an artefact scatter consisting of two flaked bottle glass artefacts as well as a midden. Both sites where within 100m of freshwater area with further investigation of the midden site being recommendation in order to salvage the site form the effects of tidal erosion within the area and both areas being marked as areas of Aboriginal cultural sensitivity.

Rich, E., Heap, P. & L. Smith 1989 – Aboriginal sites management study - Kurnell Peninsula

A management study was compiled by Rich *et al* in 1989 for the National Parks and Wildlife Services. Eleven registered sites were reviewed within the Kurnell Peninsula. These sites were found to range from extensive complex midden sites to open artefact scatters as well as burials and ceremonial. These sites were found to be situated along the transgressive dune field dating to both Pleistocene and mid-Holocene periods. Kurnell Peninsula has been subject to varying levels of disturbance and land clearance as a results of post colonisation human activity. Artefacts and significant deposits of cultural heritage were still located within these disturbed environments.

Dallas, M. 1996 – Archaeological Study – Cronulla Sewage treatment plant upgrade

An archaeological survey was conducted by M. Dallas in 1996 as part of the archaeological study for the Cronulla sewage treatment plant upgrade. Resulted in no finds due to the low visibility and exposure. Although the site is considered disturbed in areas, archaeological monitoring was recommended during trenching in case subsurface deposits and artefacts were located, as a result, of these impacts.

Heritage Search 1998 –Aboriginal site survey – Robvic Avenue, Sylvania

This site survey was conducted by Heritage Search in 1998 and consisted of 10,000m2 area along the foreshore down from Robvic Avenue, Sylvania. The study area was identified as having moderate potential for objects and/or deposits of Aboriginal cultural significance. The survey resulted in the identification of a rock shelter along the eastern boundary of the study area as well as sandstone shelving with the potential to bear rock engraving – however visibility and exposure were poor on account to the heavily vegetation nature of the landscape. However, no objects and/or deposits were located within the study area, therefore the study area was deemed as low potential and works continued with additional management plans to be in place for the adjacent rock shelter due to the potential impact of the construction activity.

Jo McDonald CHM Pty Ltd 2000 – Archaeological assessment – Corea Street, Sylvania

Jo McDonald conducted a survey in 2000 for a residential development at Corea Street, Sylvania. The survey resulted in the identification of a rock shelter towards the northern slopes of the study area approximately 15m in elevation above the tide mark and falls within the foreshore setback. Within the rock shelter were pigment art on the walls as well as a midden deposit. The site had been identified as being disturbed on account of the sewerage construction by Sydney Water, indicating that soils were disturbed and not completely intact. However, subsurface objects of Aboriginal cultural heritage are believed to be present and further investigation is required if any works are proposed that directly impact the rock shelter site ‘Sylvania 2’.

Kayandel 2000–Cultural Heritage Desktop Assessment – Georges River Estuary

Kayandel undertook a desktop study in 2000, compiling all the registered Aboriginal sites within the Georges River Estuary including around Botany Bay, Woolooware Bay, Kogarah Bay, etc. A total of 112 registered sites were recovered, however, a large number of these

sites require reassessment and inspection based on the date on registration being more than 20 years ago of which some of the registered sites are now below the high tide line or errors found with the grid references. The most common site type found were middens and rock shelters followed by artefact scatters and isolated finds and being an elevation of <10m.

AMBS 2017–Heritage Assessment – Captain Cook Drive, Kurnell

AMBS undertook a heritage assessment in 2017 for the construction of a distribution centre. The assessment involved an AHIMS search resulting in site #52-3-0212 being located within 150m form the study area, consisting of a moderately disturbed midden. A site inspection resulted in no identified Aboriginal objects and/or features. It was recommended that further investigation in the form of test excavation should be undertaken prior to the development taking place, in order to assess the nature and extent of any subsurface potential deposits.

The practical ramifications of the results of the archaeological assessments and excavation is that there is a low - moderate potential for Aboriginal archaeological objects to be present. These past studies have also identified objects and deposits of Aboriginal cultural and archaeological significance within disturbed contexts.

5.0 PHYSICAL EVIDENCE

The field inspection was undertaken on the 3rd April 2020 by archaeological Benjamin Streat of AMAC/ SAS and representative, Richard Silva of the La Perouse Local Aboriginal Land Council.

The LPLALC have been provided a copy of this report for review and comment.

5.1 SURVEY METHODS

The study site was inspected on foot. Where practical the whole of the study area was inspected, however, there were a number of limiting factors such as dense grass/weeds groundcover in areas of the site as well as bitumen surface encompassing large areas of the study area and standing structures. Any areas of exposed soil or areas of erosion were inspected in detail.

All visible landscape units were inspected as well as photographed where informative details as to land use and disturbance could be ascertained. Information was also collected regarding land surface and vegetation conditions as encountered during the survey.

The following broadly outlines the methods adopted:

- field inspections will be carried out on foot,
- attempts will be made to relocate the registered sites within the study area and assess their condition,
- highly disturbed areas indicated on plans will be inspected to verify the level of disturbance and depending on level of disturbance will be included or excluded from the additional survey,
- undisturbed areas will be inspected in as much detail as the remaining surface coverage and environment will allow and the results will be recorded,
- areas of exposed ground such as tracks or eroded surfaces which allow good surface visibility will form the focus of the field inspections.

5.2 INSPECTION RESULTS

The site inspection revealed that there has been a significant level of disturbance, as a result, of past filling events, as indicated by the raised level of study area and levelling for car parks and past development of the hospital. Other disturbances identified include utility services running through the car park and site, as well as the substation and fire hydrant location at the southern and eastern boundary. Stormwater services were identified along the path of the past creek-line that had run through the study area. The grassy knolls along the southern and eastern boundary appear to be man-made formed from fill material.

Significant clearing has taken place with all vegetation appearing to be landscaped, of which no native late mature trees present within the study area. It is clear and observable that the study area is considerably disturbed from recent modern land use.

However, it is likely that below fills, intact soils may be present and have the potential to contain Aboriginal archaeological and cultural material and/or features.

Table 5.1

Unit	Landform	Area (sq. m)	Visibility (%)	Exposure (%)	Effective Coverage (sq. m)	Effective Coverage (%)
1	Slope	4374	10	10	43.74	1

Figure 5.1 **Main carpark at front of hospital.**
Drainage grates and services visible within bitumen surfacing. Facing east, (AMAC 2020, Photo No. DSCN3917).

Figure 5.2 **Concrete storage unit in centre of hospital lot with access ramps.**
Facing west, (AMAC 2020, Photo No. DSCN3918).

Figure 5.3 **Grass lawn slope at the front of the hospital. Utility caps visible. Facing western bitumen car park.**
Facing west, (AMAC 2020, Photo No. DSCN3919).

Figure 5.4 **Grass lawn slope with sharper incline at the front of the hospital. Brick retaining wall around fire hydrant.**
Facing east, (AMAC 2020, Photo No. DSCN3920).

Figure 5.5 **Main carpark sloped concrete accessway fronting Hotham Road.**
Facing southeast, (AMAC 2020, Photo No. DSCN3923).

Figure 5.6 Timber retaining wall holding the landscape vegetation bank from sidewalk. Minor areas of exposed soil.
Facing southeast, (AMAC 2020, Photo No. DSCN3924).

Figure 5.7 Landscape vegetation along man-made bank.
Facing southwest, (AMAC 2020, Photo No. DSCN3925).

Figure 5.8 **Landscape vegetation along man-made bank with disturbance of signage.** Facing south, (AMAC 2020, Photo No. DSCN3926).

Figure 5.9 **Brick retaining wall around electrical substation and utilities for the hospital.** Facing south, (AMAC 2020, Photo No. DSCN3927).

Figure 5.10 Grass lawn in front of single story brick house (Lot 24A DP26995).
Facing south, (AMAC 2020, Photo No. DSCN3931).

Figure 5.11 Raised Brick house for demolition with concrete paths.
Facing north, (AMAC 2020, Photo No. DSCN3930).

Figure 5.12 Concrete access driveway to northern carpark at rear of hospital.
Facing east, (AMAC 2020, Photo No. DSCN3932).

Figure 5.13 Original dwelling on site - to be demolished.
Facing west, (AMAC 2020, Photo No. DSCN3933).

Figure 5.14 **Foundations of house including visibility of underneath soil exposure.** Facing west, (AMAC 2020, Photo No. DSCN3935).

Figure 5.15 **Northern bitumen car park facing hospital. High point of study area.** Facing south, (AMAC 2020, Photo No. DSCN3936).

Figure 5.16 **Vacant space – heavily disturbed and sloping to south.**
Facing southwest, (AMAC 2020, Photo No. DSCN3937).

Figure 5.17 **Vacant space – heavily disturbed. Western top boundary of site.**
Facing northwest, (AMAC 2020, Photo No. DSCN3938).

Figure 5.18 **Eastern boundary of study area. Illustrating sandstone wall retaining roadside fill level above road height.**
Facing north, (AMAC 2020, Photo No. DSCN3929).

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 these reports. 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 (ACHA) 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 are which cannot be raised in a male presence?
- Are there any gender specific cultural values associated with the study are 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 AND RESEARCH METHODOLOGY

Didge Ngunawal Clan

Steven John Vasilakis

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Tuesday, 5 May 2020 11:25 PM
To: Steven John Vasilakis; 'Benjamin Streat (AMAC)'
Cc: 'yolanda pavincich'
Subject: Re: President Private Hospital - ACHAR Meth

Hi Steve/ AMAC group,

We are happy with the go ahead for this project @ Kirrawee, / President private hospital

Kind regards
Paul Boyd & Lilly Carroll
Directors DNC

On Wednesday 13th May 2020, the following RAPs (DNC emailed support – see above) were phoned to confirm verbal agreement of the ACHA Research Methodology. Below are the phone responses received.

La Perouse LALC/Makayla Horwood - No Response – Left Message
Clive Freeman – No Response – Left Message

On Monday 18th May 2020, the following RAPs were phoned to confirm verbal agreement of the draft ACHA Research Methodology. Below are the phone responses received.

La Perouse LALC/Makayla Horwood - No Response – Left Message
Clive Freeman – To Review & Respond

6.3 REGISTERED STAKEHOLDER SUBMISSIONS TO ACHAR AND AATR

On Monday 10th August 2020, all RAPs were phoned to confirm verbal agreement of the draft ACHAR Report. Below are the phone responses received.

La Perouse LALC/Makayla Horwood - No Response (see below)
Tocomwall/Scott Franks - No Response Left Message
Clive Freeman – Supports ACHAR
DNC/Paul Boyd - Supports ACHAR

On Thursday 13th August 2020, Danny Franks of Tocomwall was phoned and confirmed support of ACHAR.

La Perouse Local Aboriginal Land Council

Steven John Vasilakis

From: Chris Ingrey <CIngrey@laperouse.org.au>
Sent: Wednesday, 19 August 2020 2:22 PM
To: benjaminstreat@archaeological.com.au; consultation@archaeological.com.au
Cc: La Perouse Admin
Subject: President Private Hospital - ACHAR
Attachments: LPLALC_AMCG_Presidents Private_19082020.pdf

Good afternoon

Please find attached the letter from the La Perouse LALC regarding the ACHAR for President Private Hospital.

Apologies for the delay in providing this to you.

Chris Ingrey
Chief Executive Officer
La Perouse Local Aboriginal Land Council

1 Elaroo Avenue
La Perouse NSW 2036

Email: cingrey@laperouse.org.au
Phone: (02) 9311 4282
Mail: PO Box 365 Matraville NSW 2036
Website: http://laperouse.org.au/

LA PEROUSE
LOCAL ABORIGINAL LAND COUNCIL

19 August 2020

Steven J. Vasilakis
Field Archaeologist
Archaeological Management & Consulting Group
122c-d Percival Road
Stanmore NSW 2048

Email: consultation@archaeological.com.au

Dear Mr Vasilakis

Aboriginal Cultural Heritage Assessment Report – Research Design and Testing Methodology President Private Hospital – 369-381 President Ave, 61-65 Hotham Rd. & 2-4 Bidurgal Ave, Kirrawee

I write in regards to the above mentioned assessment report dated April 2020. I have reviewed the assessment and provide the following information and recommendations on behalf of the La Perouse Local Aboriginal Land Council (**La Perouse LALC**).

As you may be aware, the La Perouse LALC was established and operates within the provisions of the *Aboriginal Land Rights Act 1983* (NSW) (**ALRA**) and currently represents a membership of approximately 470 Aboriginal persons who reside within or have an association with the La Perouse LALC area. In accordance with Section 52 of the ALRA the La Perouse LALC has a statutory function to "*take action to protect the culture and heritage of Aboriginal persons in the Council's area*".

The La Perouse LALC acknowledges and recognises the Gweagal people Dharawal (Tharawal, Turuwal or Thirroul) language group who traditionally occupied the Kirrawee area in which the subject lands are located. The La Perouse LALC can provide further significance information on request.

Following the review I can provide the following recommendations:

Recommendation 1:

The La Perouse LALC agrees with the proposed methodology as set out in the report

Recommendation 2:

The La Perouse LALC advises that if any Aboriginal objects (such as human or animal bone, shell material or stone artifacts) are impacted or unearthed during any activity on the property, the activity must cease and the NSW Office of Environment and Heritage and La Perouse LALC be contacted immediately.

If you would like to discuss this issue further please don't hesitate to contact the La Perouse LALC office on 9311 4282 during business hours.

Yours sincerely,

Chris Ingrey
Chief Executive Officer

www.laperouse.org.au

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 specific educational significance can as yet be assigned to the study area. However, intact soils are likely below fill material with the potential for Aboriginal objects and features of archaeological and cultural heritage value to be present.

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 specific scientific significance can as yet be assigned to the study area. However, intact soils are likely below fill material with the potential for Aboriginal objects and features of archaeological and cultural heritage value to be present.

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 specific representative significance can as yet be assigned to the study area. However, intact soils are likely below fill material with the potential for Aboriginal objects and features of archaeological and cultural heritage value to be present.

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).

No historical significance has been assigned to the study area by any participating Aboriginal Stakeholders.

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 scientific significance has been assigned to the study area by any participating Aboriginal Stakeholders.

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).

No aesthetic significance has been assigned to the study area by any participating Aboriginal Stakeholders.

8.0 PROPOSED ACTIVITY

This section outlines the proposed activity including the staging and timeframes a long 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 redevelopment of the President Private Hospital (Figures 8.1–8.15) will incorporate the demolition of structures on properties 2-4 Bidurgal Ave as well as Hotham House at 65 Hotham road and the building south of the Wellness centre. The operating theatres and west wing as well as west carpark will remain with the rest of the grounds subject to redevelopment. The new design will include a basement carpark and redevelopment of the rehabilitation facilities as well as a new two storey north wing and east wing containing recreation areas and services.

The proposed basement carpark is confined to the eastern and northern end of the study area with access lifts and ramps connecting it to the ground and upper floors. Due to the slope on site the western end is higher than the eastern side fronting Hotham Road of approximately 3m.

As basements have been proposed this will have a high impact and harm on any potential objects and/or deposits of Aboriginal and/or archaeological significance that may be present within this area.

There is a low-moderate potential for Aboriginal artefacts and/or deposits of archaeological and cultural significance to be present.

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

8.2 PROPOSED DEVELOPMENT JUSTIFICATION

Client to provide

8.3 POTENTIAL HARM TO ABORIGINAL OBJECTS AND CULTURAL HERITAGE

The proposed development activity will disturb the ground surface and therefore may disturb Aboriginal objects and areas of cultural significance. The study area has been shown through research to have low-moderate archaeological potential. As such the proposed development has low - moderate potential to disturb/ harm Aboriginal archaeological deposits, objects and items or areas of cultural significance. A program of test excavation has been proposed in order to assess the nature and extend of any potential Aboriginal within the study area, in order to effectively assess the potential harm.

8.4 ASSESSING HARM

The proposed development activity will disturb the ground surface and therefore may disturb Aboriginal objects and areas of cultural significance. The study area has been

shown through research to have low-moderate archaeological potential. As such the proposed development has low - moderate potential to disturb/ harm Aboriginal archaeological deposits, objects and items or areas of cultural significance. A program of test excavation has been proposed in order to assess the nature and extend of any potential Aboriginal within the study area, in order to effectively assess the potential harm.

8.5 AVOIDING AND MINIMISING HARM TO ABORIGINAL OBJECTS

A program of test excavation has been proposed in order to assess the nature and extend of any potential Aboriginal within the study area, in order to effectively assess the potential harm.

8.6 JUSTIFICATION OF HARM TO ABORIGINAL OBJECTS

A program of test excavation has been proposed in order to assess the nature and extend of any potential Aboriginal within the study area, in order to effectively assess the potential harm.

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 of unidentified will be left intact and persevered for future generations.

2 A 001 Massing - Existing

1 A 001 Massing - Proposed

3 A 001 Location Map
1 : 500

INPATIENT ACCOMODATION

Levels	Existing	Proposed: General	Proposed: Mental Health Unit (IPU)
Ground Floor		30	
First Floor		49	36
Second Floor		29	36
Total beds	47	108	72
Combined total	**47**	**180**	

EXISTING

Existing: Street address	Site m²	Floor m²	Zone
369-381 President Ave. Kirrawee NSW 2232 DP# 841502, Lot 10	5904.47	2061.61	SP1
63-65 Hotham Road Kirrawee NSW 2232 DP# 26995, Lot 24A	1615.34	321.41	SP1
61 Hotham Road Gymea NSW 2227 DP# 26995, Lot 23	644.45	134.71	SP1
2-4 Bidurgal Ave Kirrawee NSW 2232 DP# 29493, Lot 53	1355.60	213.92	R2
Total m²	9519.86	2731.65	

PROPOSED

Proposed levels	Site m²	Floor m²
Basement		21.20
Ground Floor		4132.84
First Floor		3958.55
Second Floor		3336.34
Total m²	9499.27	11448.93

PROPOSED PARKING

Proposed levels	Car Spaces
Basement 3&4	56
Basement 1&2	97
Ground Floor	13
First Floor	17
Total Parking	183

SSDA Architectural Drawings		
Dwg No	Sheet Name	Current Revision
A 001	Title Sheet	
A 005	Perspective President Ave	
A 006	Perspective Hotham Rd	
A 007	Perspective- Wellness Centre	
A 008	Site Analysis	
A 009	Site Analysis Diagrams 1	
A 010	Site Analysis Diagrams 2	
A 011	Transport Connections	
A 012	Concrete Foot Paths	
A 013	Site Wayfinding	
A 014	Services Layout for Ground and First Floor	
A 015	Unnamed	
A 016	Construction Phasing	
A 017	Shadow Analysis-Winter Solstice 9 AM	
A 018	Shadow Analysis-Winter Solstice 12 PM	
A 019	Shadow Analysis-Winter Solstice 3PM	
A 020	Unnamed	
A 024	Existing Site Plan	
A 025	Proposed Site Context Plan	
A 026	Site Set out Plan	
A 100	Existing Hospital Floor Plan	
A 102	Basement Plan LVL 3 & 4	
A 103	Basement Plan LVL 1 & 2	
A 104	Ground Floor General Arrangement Plan	
A 105	First Floor General Arrangement Plan	
A 106	Unnamed	
A 107	Second Floor General Arragement Plan	
A 108	Roof Plan General Arrangement Plan	
A 123	Ground floor fire strategy plan	
A 124	First floor fire strategy plan	
A 125	Second floor fire strategy plan	
A 300	South & East Elevations	
A 302	North & West Elevations	
A 401	East/West Sections	
A 402	North/South Sections	

Civil Engineering Drawings		
Sheet Number	Sheet Name	Current Revision

Landscape Drawings		
Sheet Number	Sheet Name	Current Revision
L	Unnamed	
L101	Landscape Concept Plan	
L 101	Unnamed	
L 102	Unnamed	

Draft SSDA

Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Final for Sears Request	24/04/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

NORTH POINT

Title Sheet

Project number	MacHealth-06	A 001	
Date	20/08/2019		
Drawn by	NA, AZ	Scale @ A1	Plot stamp: 16/06/2020 7:13:29 PM
Checked by	SP	1 : 500	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.1 Title Sheet – Location Map, Massing View Existing, Massing View Proposed.
Imagescape Design Studios (Jun. 2020), Drawing No. A 001.

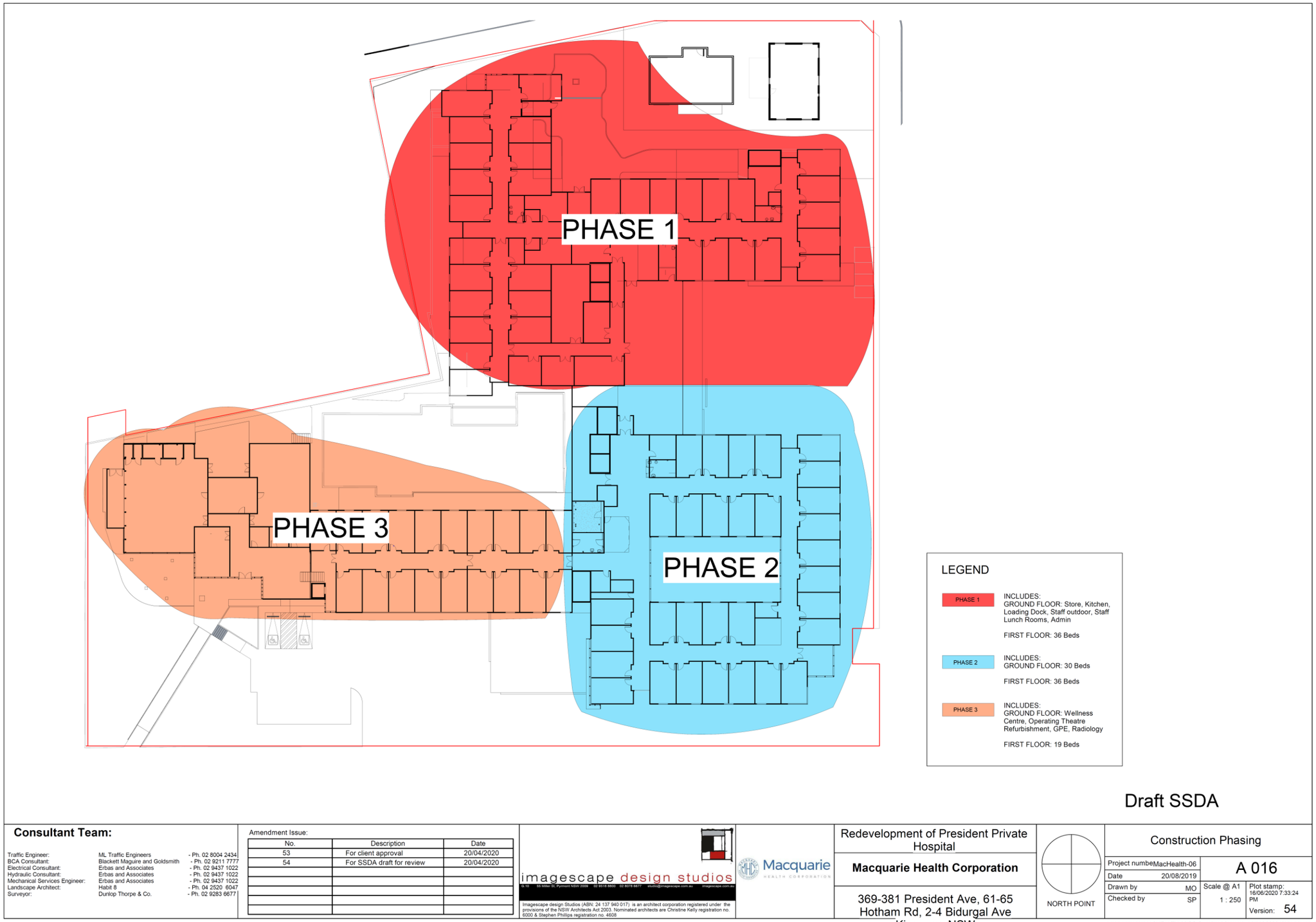
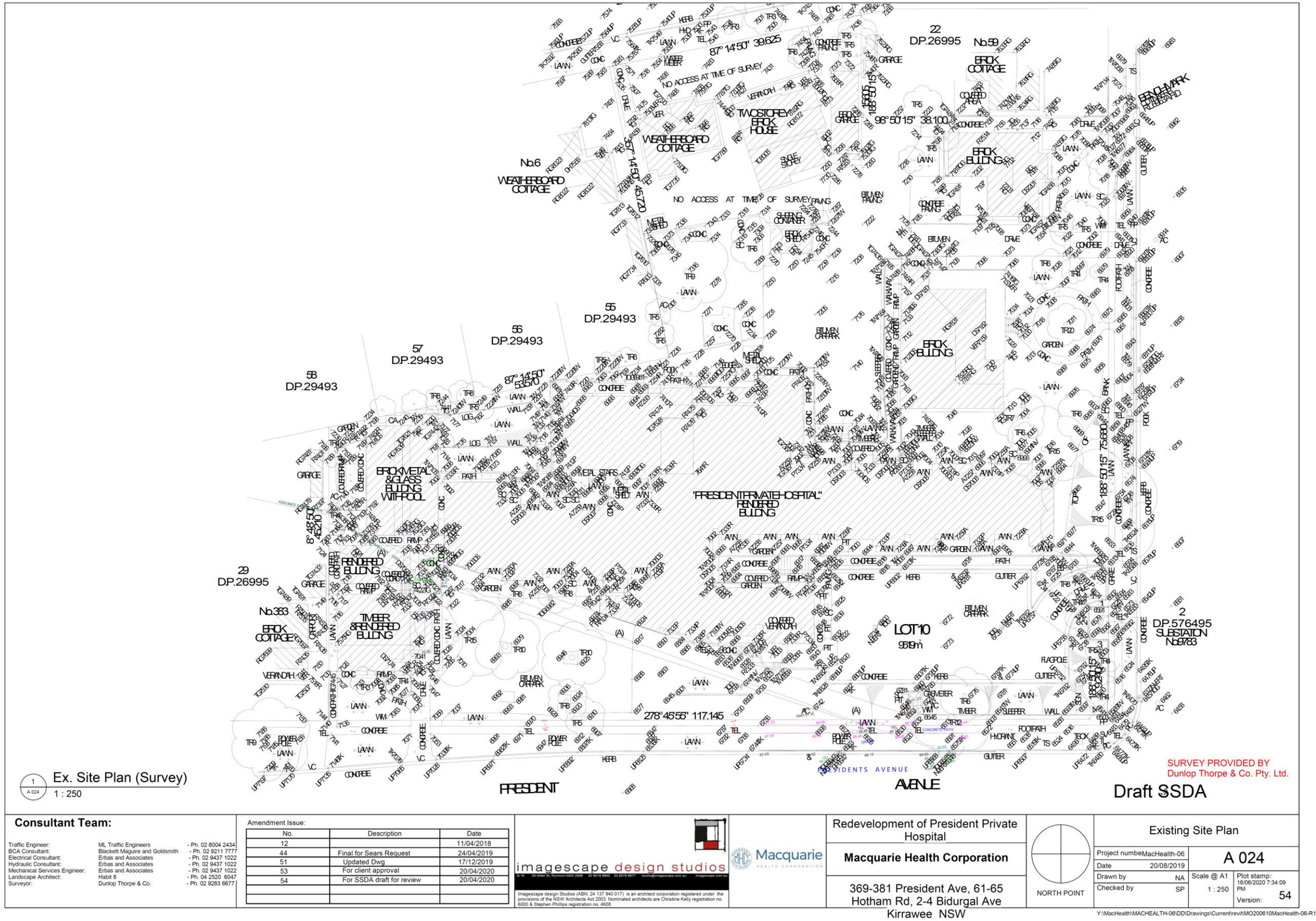


Figure 8.2 **Construction Phasing.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 016.



Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
12		11/04/2018
44	Final for Sears Request	24/04/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

NORTH POINT

Existing Site Plan

Project number	MacHealth-06	A 024	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:34:09 PM
Checked by	SP	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.3 Existing Site Plan.
Imagescape Design Studios (Jun. 2020), Drawing No. A 024.

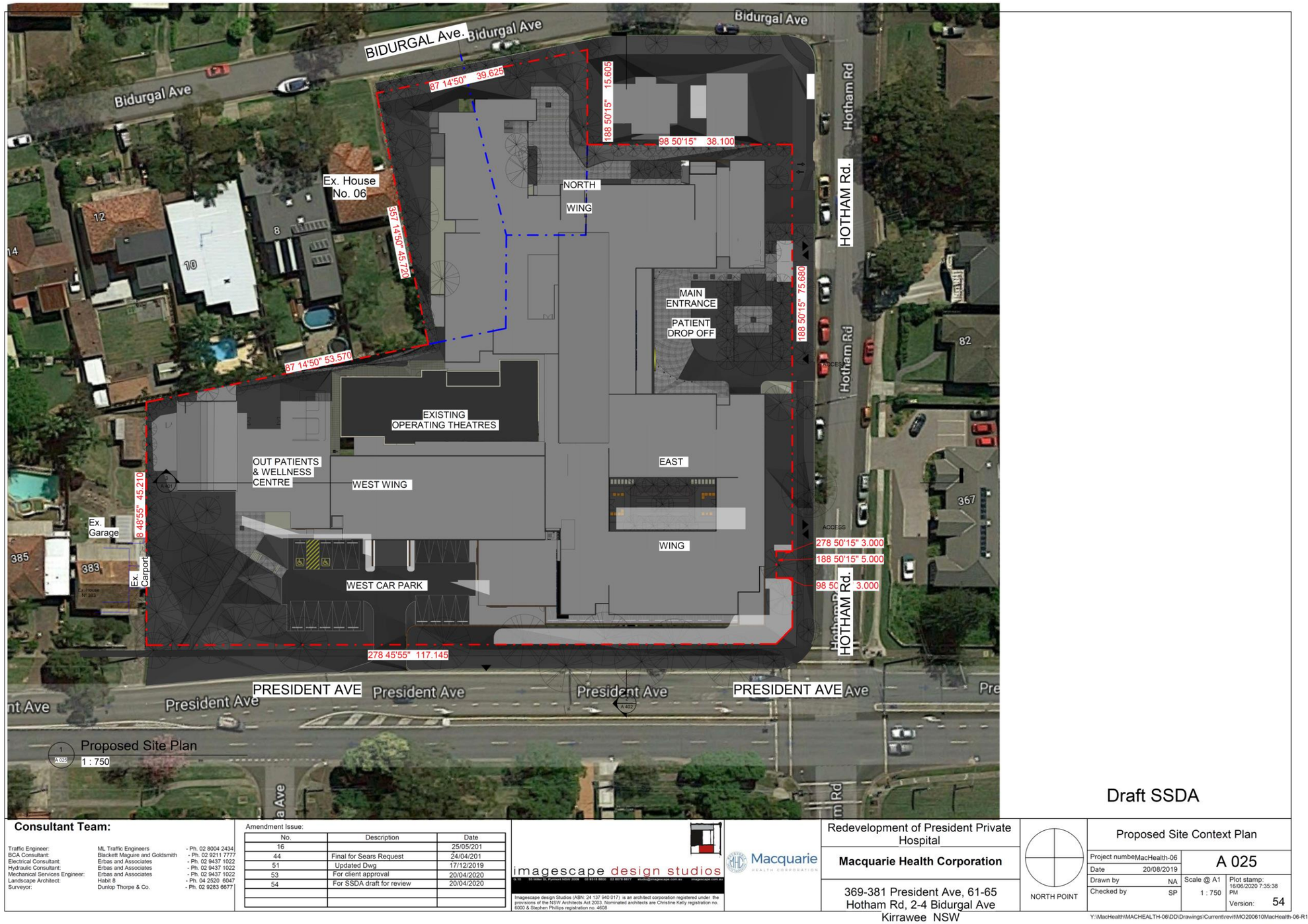
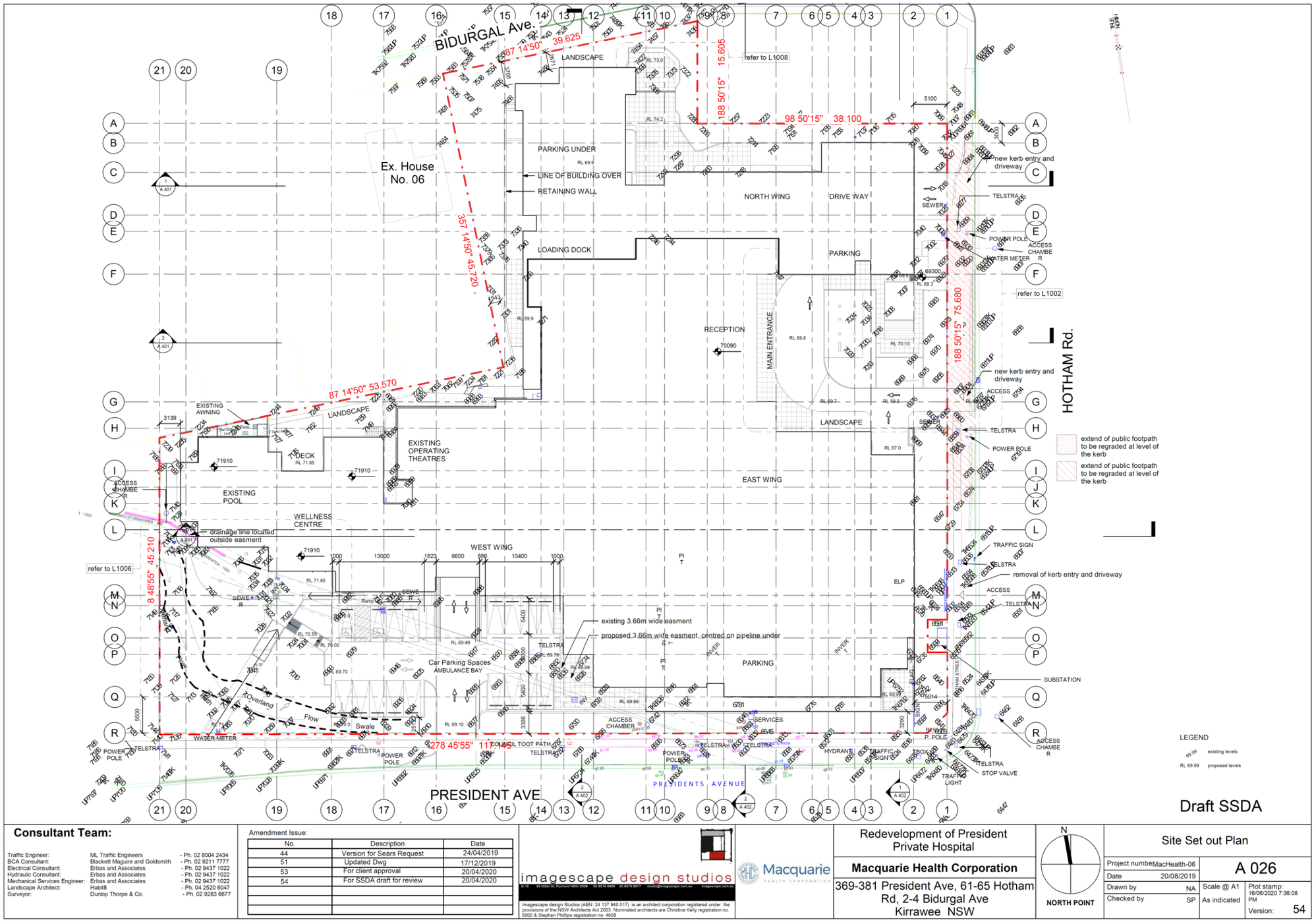


Figure 8.4 **Proposed Site Context Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 025.



Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Version for Sears Request	24/04/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

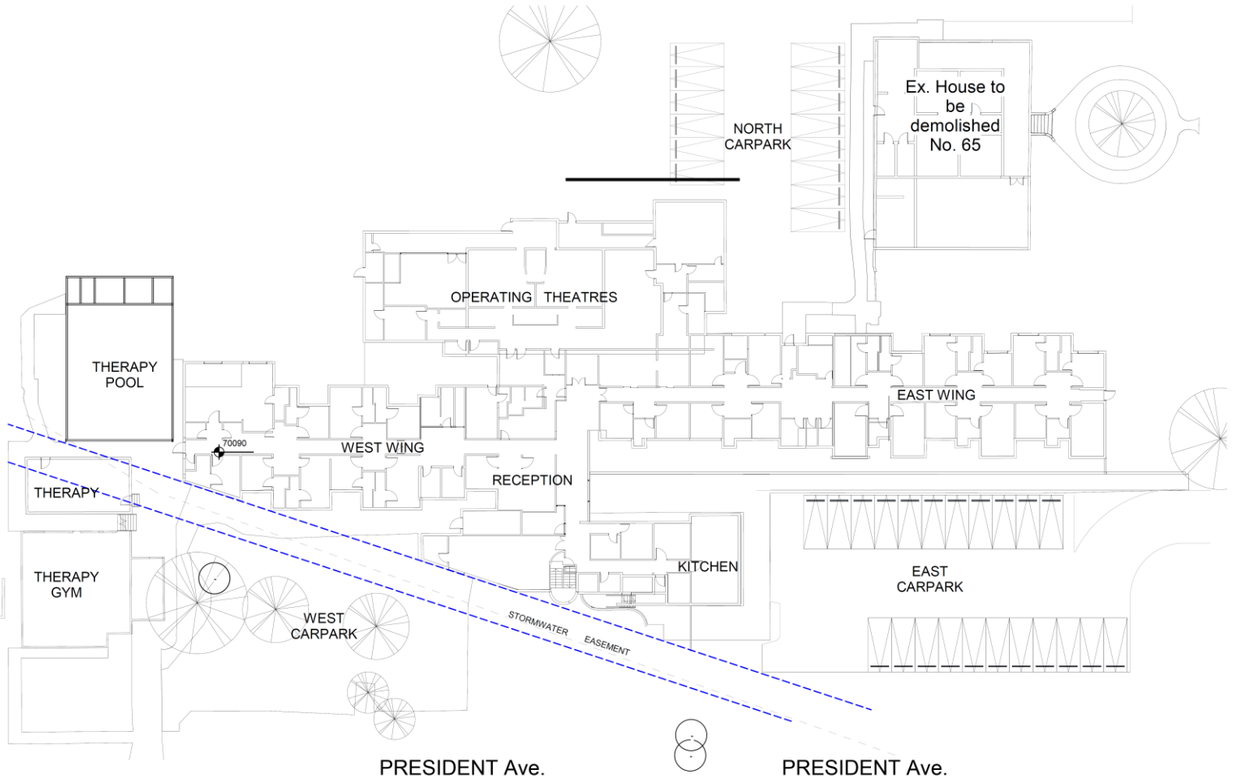
NORTH POINT

Site Set out Plan

Project number	MacHealth-06	A 026	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:36:08 PM
Checked by	SP	As indicated	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.5 **Site Set Out Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 026.



1 / A 100 Existing Ground Floor Plan
1 : 250

Draft SSDA

Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
12		11/04/2018
13		10/05/2018
14		18/05/2018
44	Final for Sears Request	24/04/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios
Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital
Macquarie Health Corporation
369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave
Kirrawee NSW

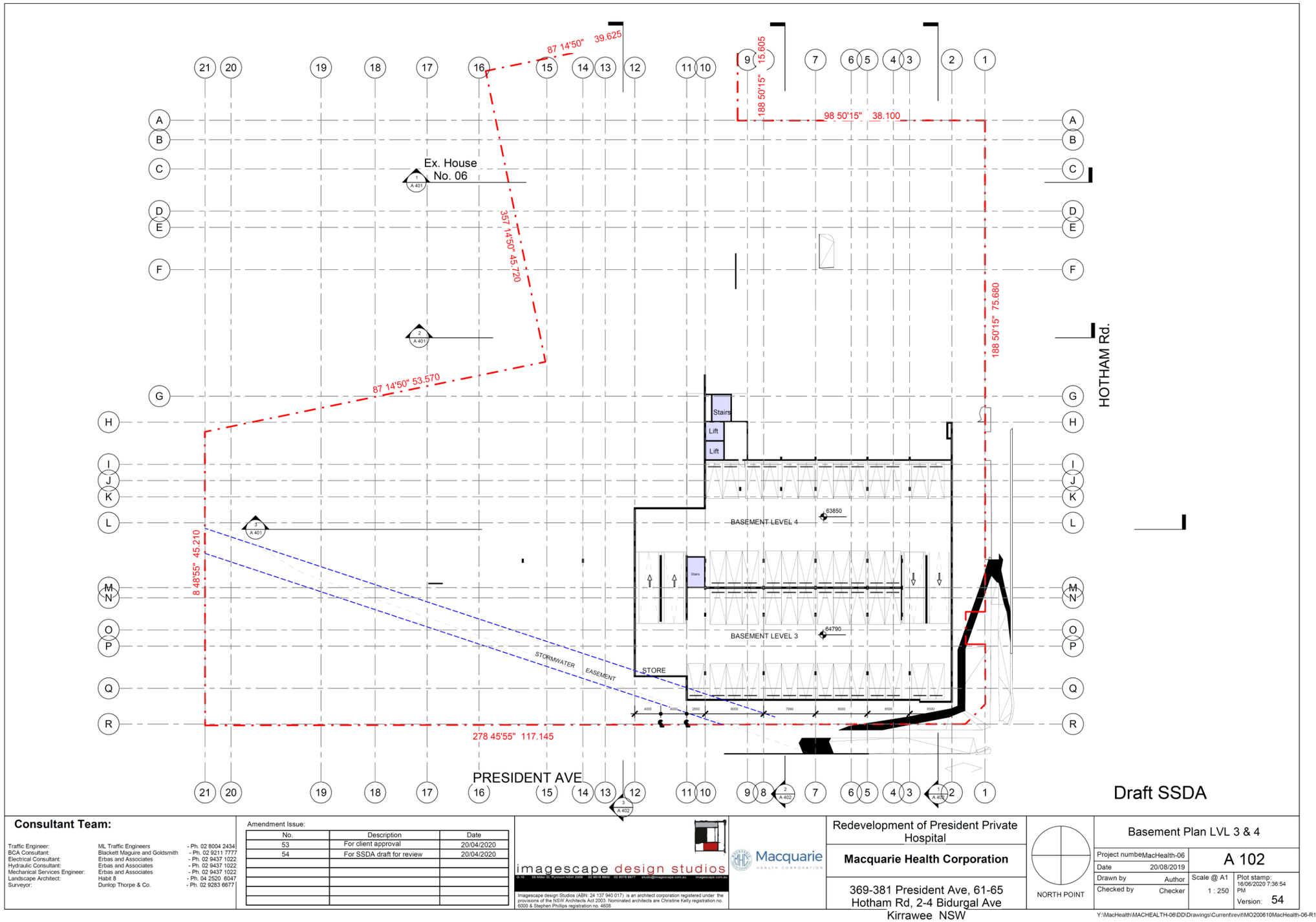
NORTH POINT

Existing Hospital Floor Plan

Project numbe	MacHealth-06	A 100	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:36:39 PM
Checked by	SP	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.6 **Existing Ground Floor Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 100.



Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

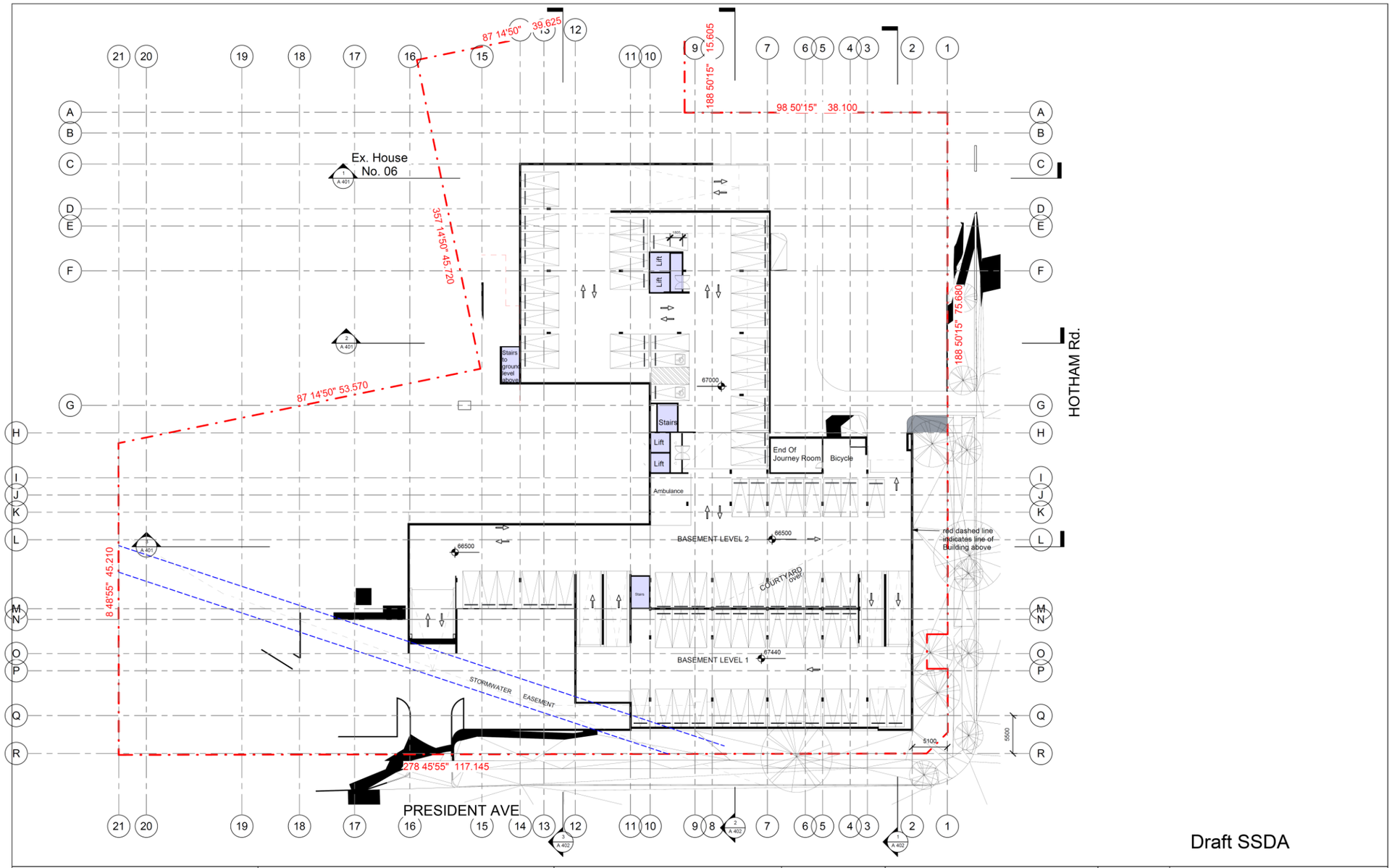
NORTH POINT

Basement Plan LVL 3 & 4

Project number	MacHealth-06	A 102	
Date	20/08/2019		
Drawn by	Author	Scale @ A1	Plot stamp: 16/06/2020 7:36:54 PM
Checked by	Checker	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.7 **Basement Plan LVL 3 & 4.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 102.



Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave
Kirrawee NSW

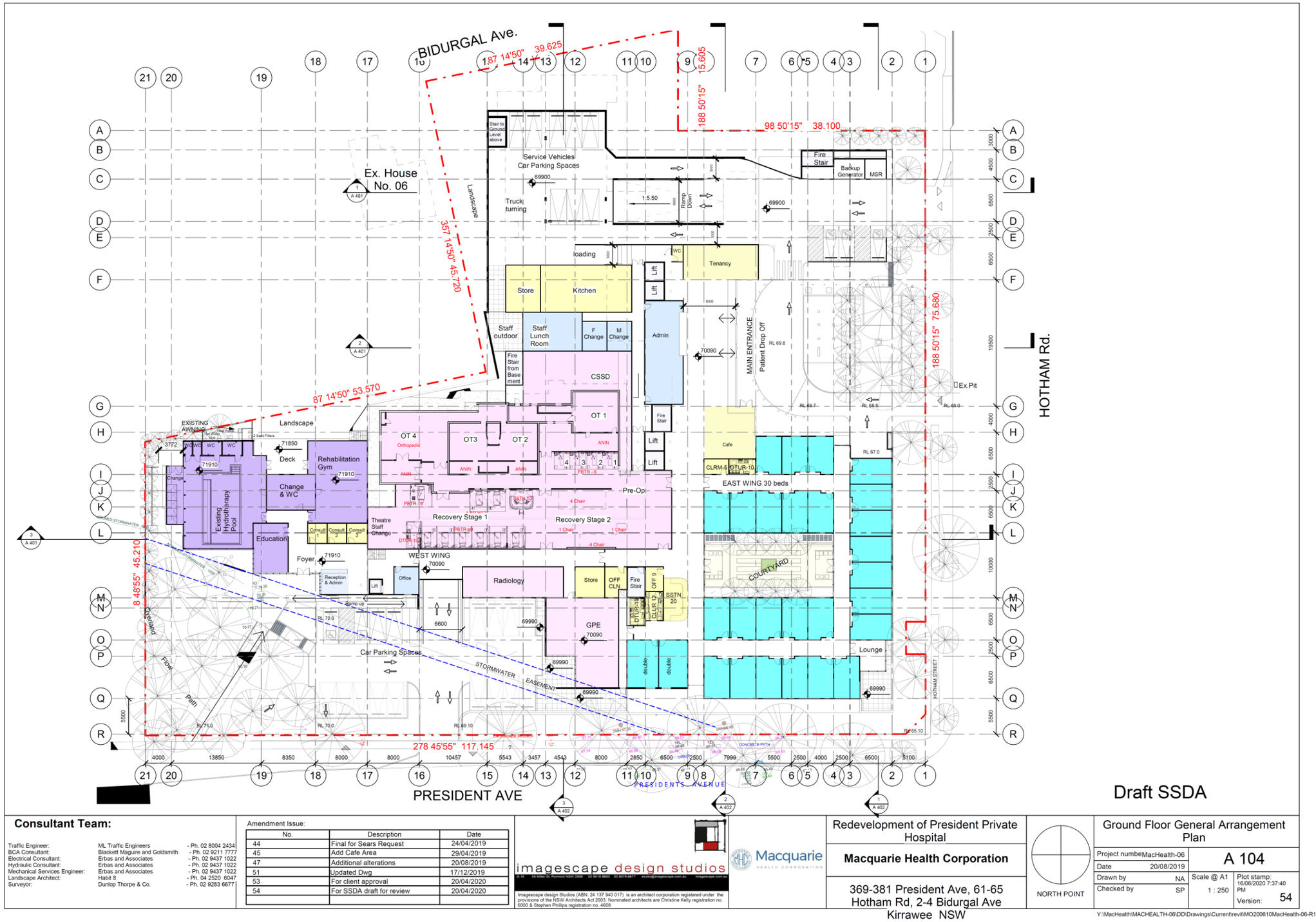
NORTH POINT

Basement Plan LVL 1 & 2

Project numbe	MacHealth-06	A 103	
Date	20/08/2019		
Drawn by	Author	Scale @ A1	Plot stamp: 16/06/2020 7:37:10 PM
Checked by	Checker	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.8 **Basement Plan LVL 1 & 2.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 103.



Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Final for Sears Request	24/04/2019
45	Add Cafe Area	29/04/2019
47	Additional alterations	20/08/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

NORTH POINT

Ground Floor General Arrangement Plan

Project number	MacHealth-06	A 104	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:37:40 PM
Checked by	SP	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Currentrevit\MO200610MacHealth-06-R18.rvt

Figure 8.9 **Ground Floor General Arrangement Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 104.

Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Final for Sears Request	24/04/2019
47	Additional alterations	20/08/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

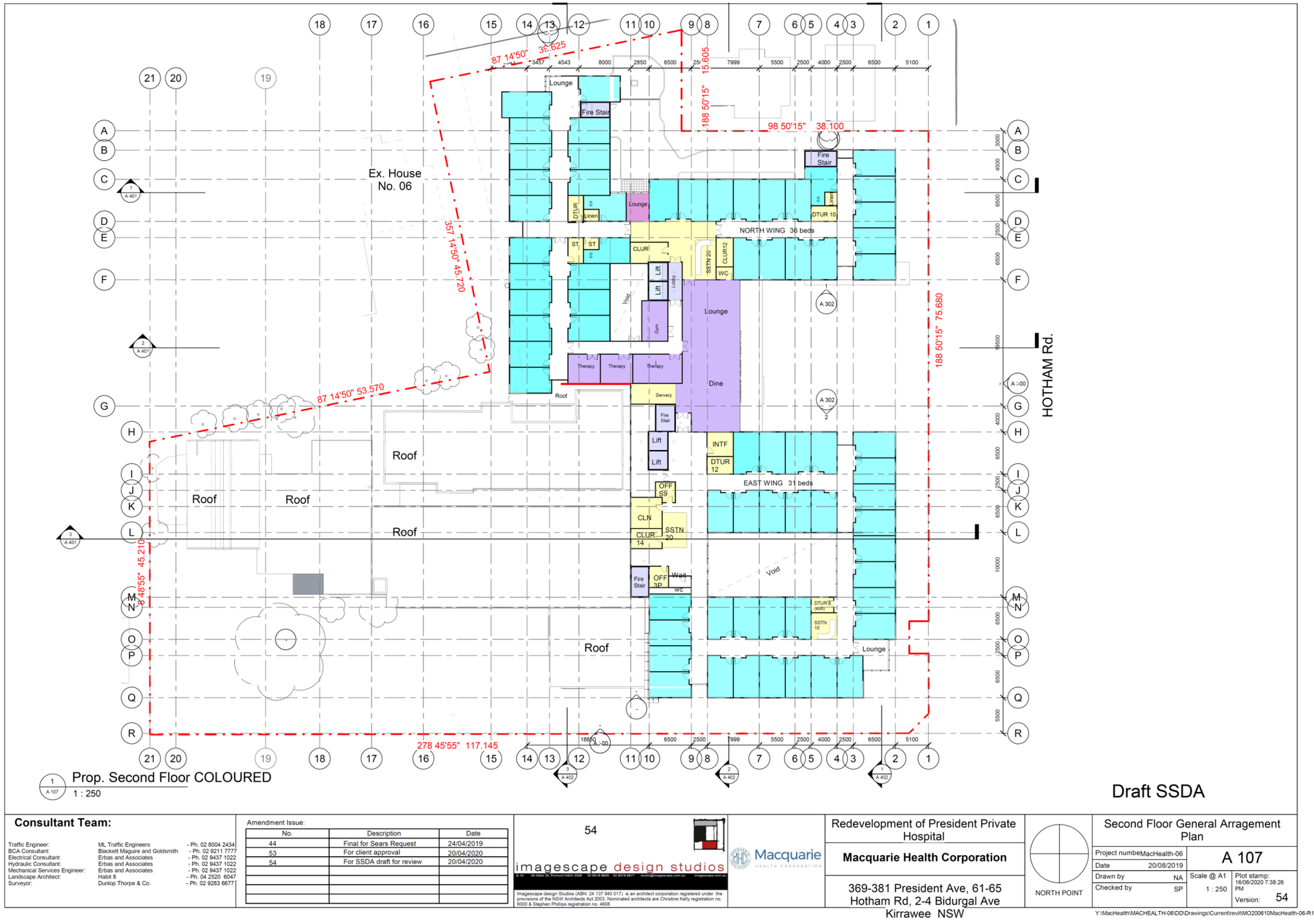
NORTH POINT

First Floor General Arrangement Plan

Project number	MacHealth-06	A 105	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:38:01 PM
Checked by	SP	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.10 **First Floor General Arrangement Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 105.



Consultant Team:		
Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Final for Sears Request	24/04/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

54

imagescape design studios

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

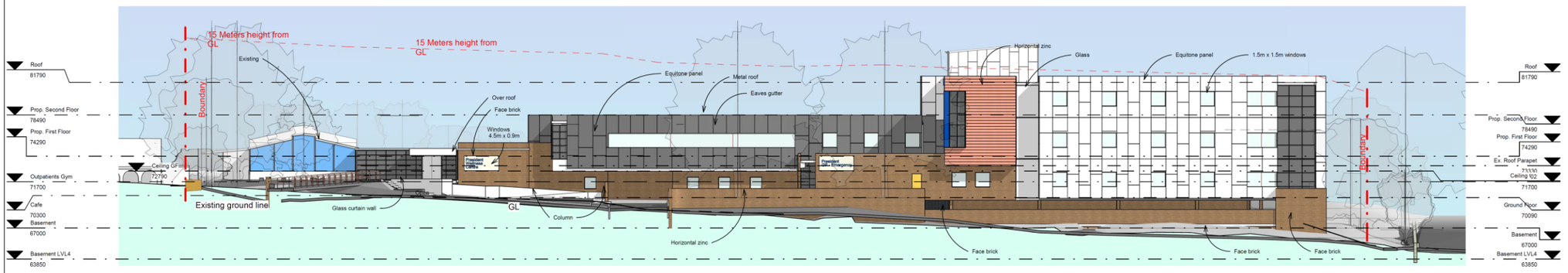
NORTH POINT

Second Floor General Arragement Plan

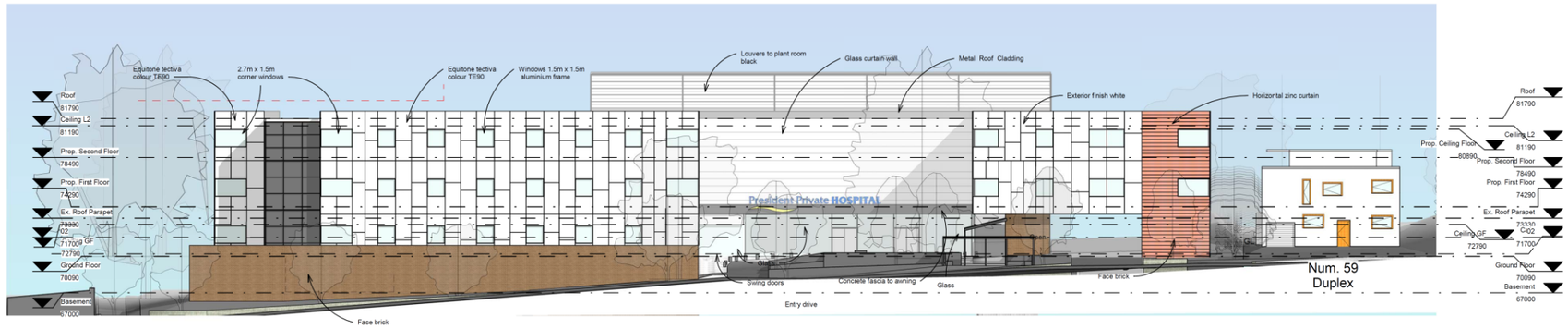
Project number	MacHealth-06	A 107	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:38:26 PM
Checked by	SP	1 : 250	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.11 **Second Floor General Arrangement Plan.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 107.



1 / A 300 Stage 5 - SOUTH Elevation
1 : 200



2 / A 300 Stage 5 - EAST Elevation
1 : 200

Draft SSDA

Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
44	Final for Sears Request	24/04/2019
51	Updated Dwg	17/12/2019
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

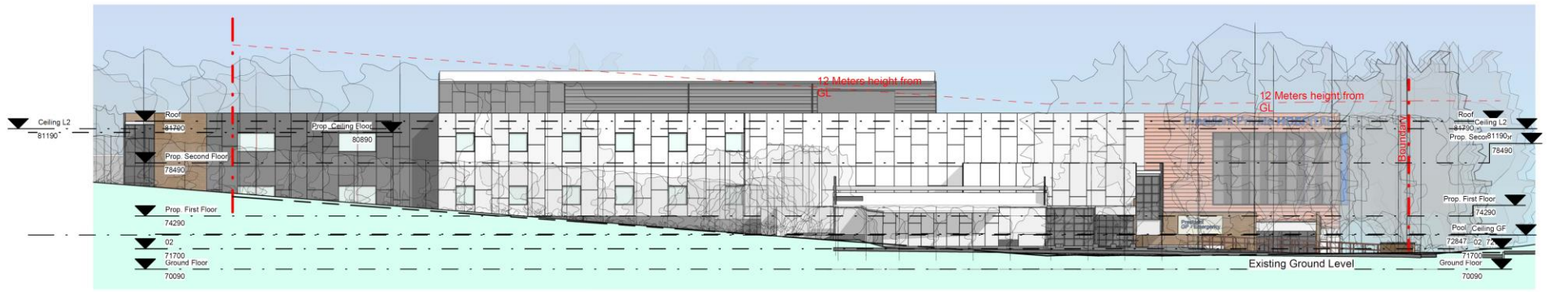
NORTH POINT

South & East Elevations

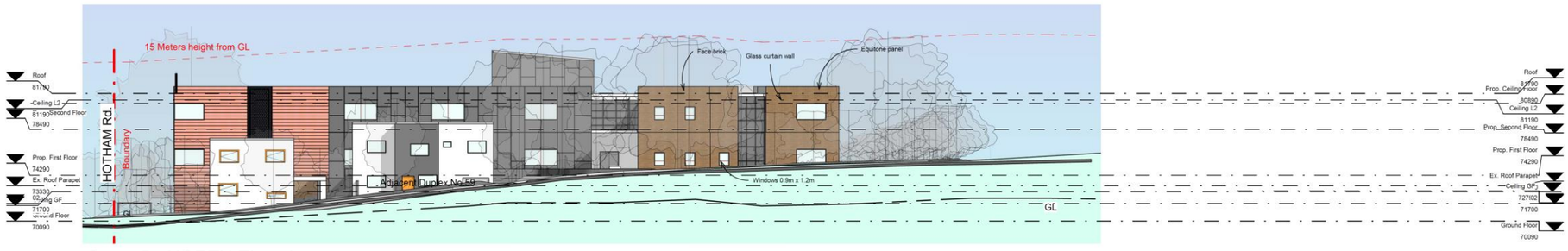
Project numbe	MacHealth-06	A 300	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:42:02 PM
Checked by	SP	1 : 200	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

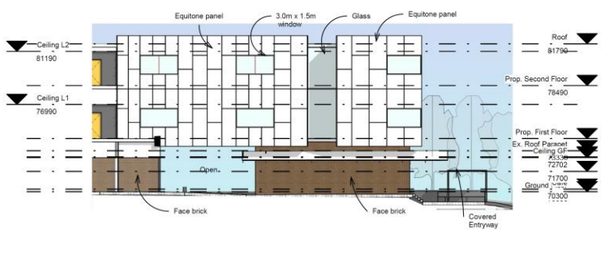
Figure 8.12 South & East Elevations.
Imagescape Design Studios (Jun. 2020), Drawing No. A 300.



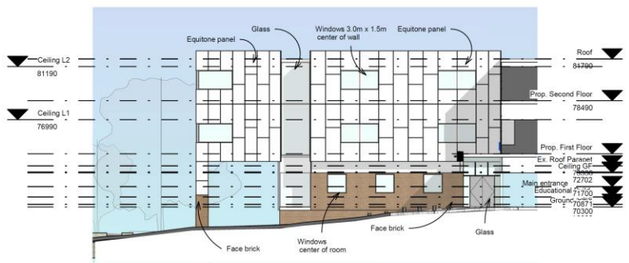
4 / A 302 Stage 5 - WEST Elevation
1 : 200



3 / A 302 Stage 5 - NORTH Elevation - Bidurgal St Frontage
1 : 200

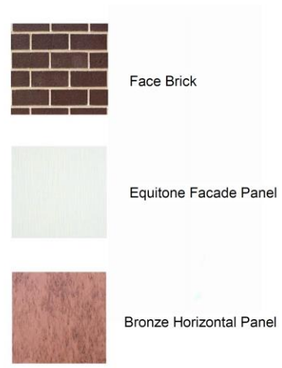


1 / A 302 Entry looking North
1 : 200



2 / A 302 Entry looking South
1 : 200

Finishes Legend



Face Brick

Equitone Facade Panel

Bronze Horizontal Panel

Draft SSDA

Consultant Team:

Traffic Engineer:	ML Traffic Engineers	- Ph. 02 8004 2434
BCA Consultant:	Blackett Maguire and Goldsmith	- Ph. 02 9211 7777
Electrical Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Hydraulic Consultant:	Erbas and Associates	- Ph. 02 9437 1022
Mechanical Services Engineer:	Erbas and Associates	- Ph. 02 9437 1022
Landscape Architect:	Habit 8	- Ph. 04 2520 6047
Surveyor:	Dunlop Thorpe & Co.	- Ph. 02 9283 6677

Amendment Issue:

No.	Description	Date
53	For client approval	20/04/2020
54	For SSDA draft for review	20/04/2020

imagescape design studios

Imagescape design Studios (ABN: 24 137 940 017) is an architect corporation registered under the provisions of the NSW Architects Act 2003. Nominated architects are Christine Kelly registration no. 6000 & Stephen Phillips registration no. 4608

Macquarie HEALTH CORPORATION

Redevelopment of President Private Hospital

Macquarie Health Corporation

369-381 President Ave, 61-65 Hotham Rd, 2-4 Bidurgal Ave Kirrawee NSW

NORTH POINT

North & West Elevations

Project number	MacHealth-06	A 302	
Date	20/08/2019		
Drawn by	NA	Scale @ A1	Plot stamp: 16/06/2020 7:45:19 PM
Checked by	SP	1 : 200	Version: 54

Y:\MacHealth\MACHEALTH-06\DD\Drawings\Current\revit\MO200610MacHealth-06-R18.rvt

Figure 8.13 **North & West Elevations.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 302.

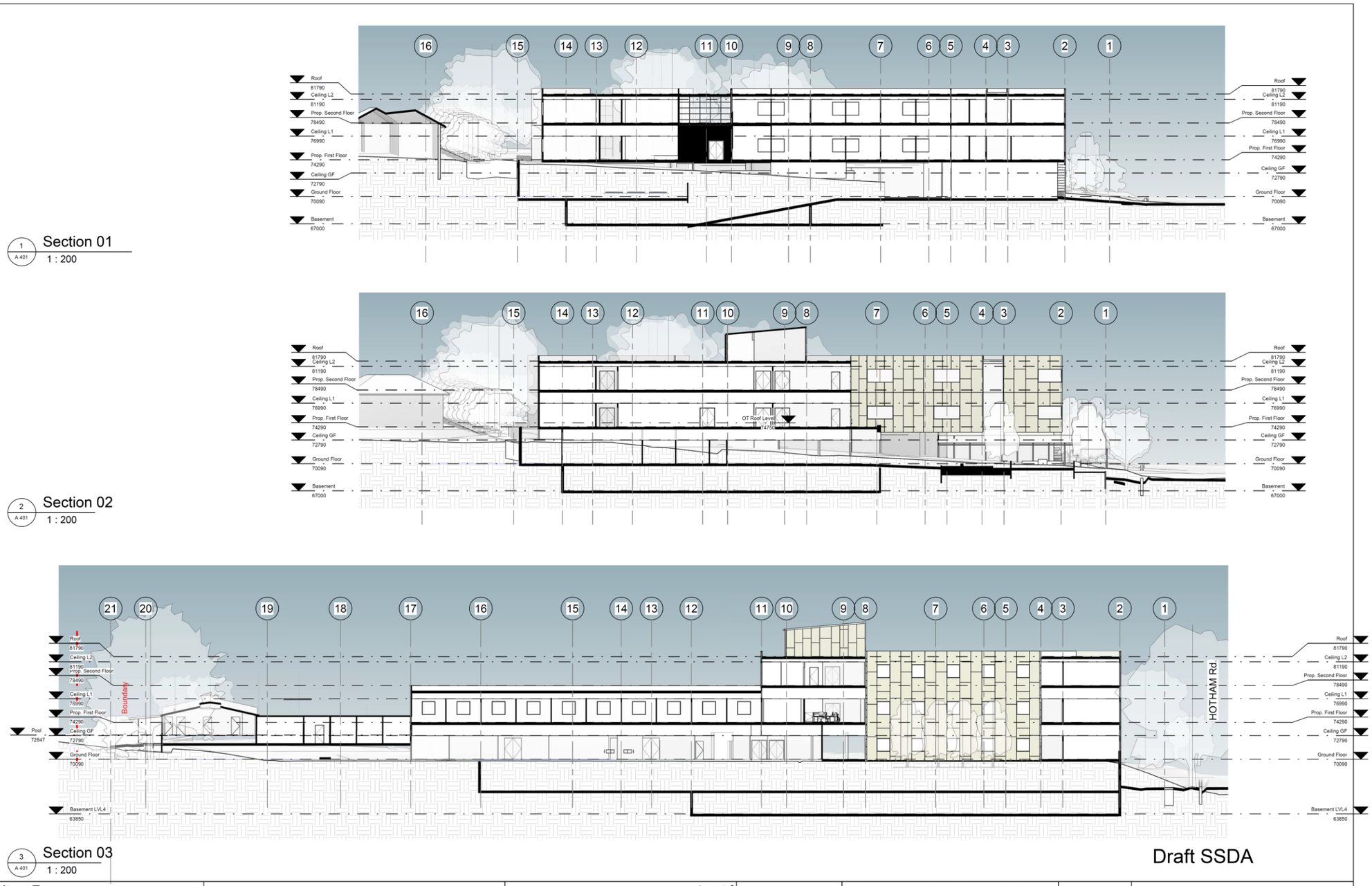


Figure 8.14 East & West Sections.
Imagescape Design Studios (Jun. 2020), Drawing No. A 401.

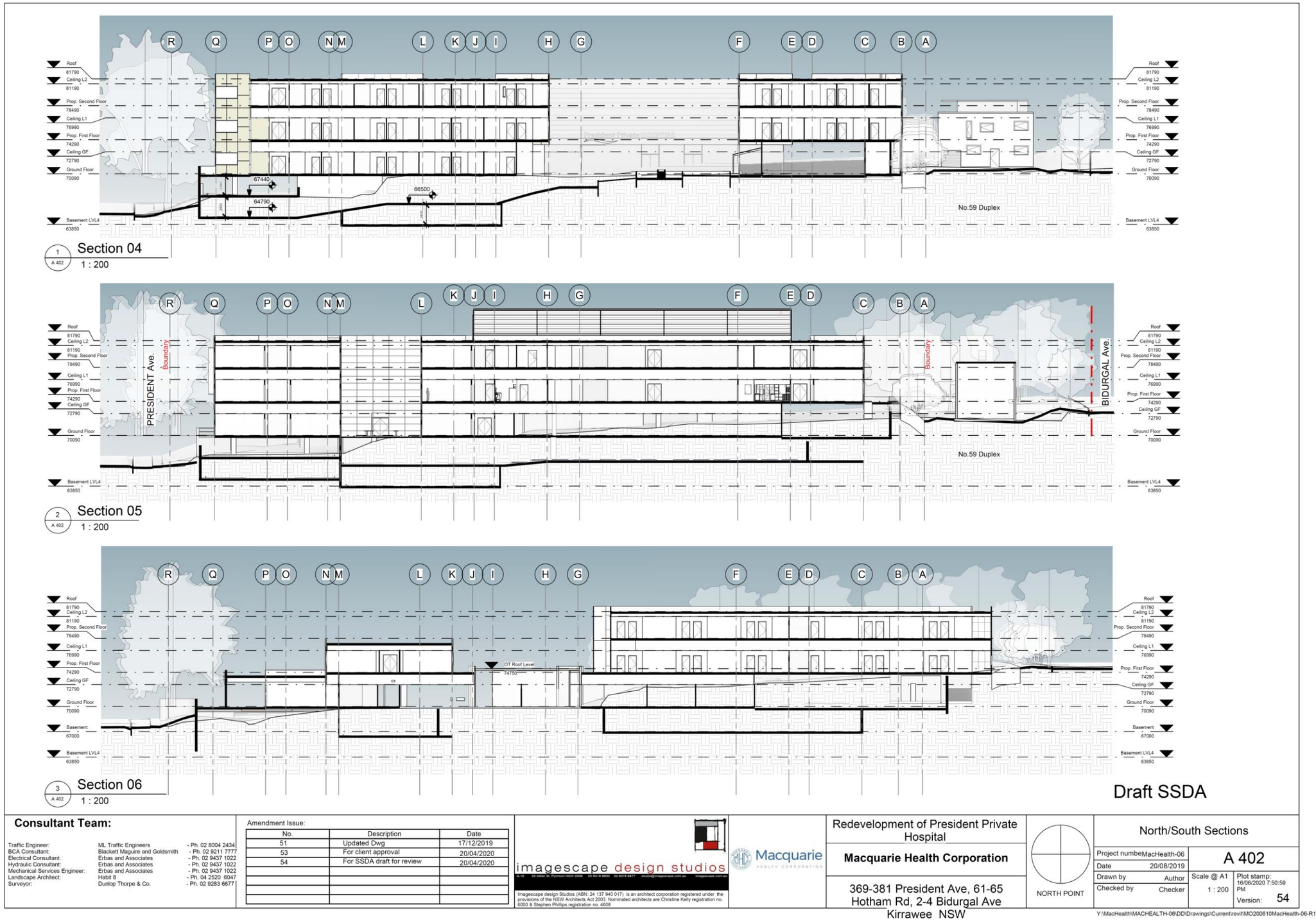


Figure 8.15 **North & South Sections.**
Imagescape Design Studios (Jun. 2020), Drawing No. A 402.

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 (Sutherland Shire Council).

9.1 CARE AND CONTROL

Any archaeological material recovered 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 practice for the investigation of Archaeological objects in NSW*.

Any artefacts recovered shall be subject to an as yet unestablished care and control agreement. A secure temporary storage location in accordance with Requirement 26 of the *Code of practice for the investigation of Archaeological objects in NSW*, shall be established (AMAC Office) pending any agreement being reached as to the long-term management of the salvaged Aboriginal objects. The excavation director is responsible for ensuring that procedures are put in place so that Aboriginal objects are not harmed. The location of the secure temporary storage location will be submitted to AHIMS with a site update record card for the site(s) in question.

If long term management of any objects recovered has not been decided in a timely fashion, the objects will be lodged with the Australian Museum.

9.2 RECOMMENDATIONS

A background analysis of the environment and archaeological context revealed that the study area has moderate surface disturbances, as a result of filling events and levelling for the development of the hospital. The study area is however likely to contain intact Aboriginal objects and/or deposits of conservation value below fill materials, as intact soils have a chance of being present below the introduced fill.

The surrounding landscape features present do indicate that sub-surface Aboriginal objects and/or deposits are likely in undisturbed areas and are likely to be considered of low to moderate Aboriginal archaeological significance

The proposed activity is not:

- located within a sand dune system, or
- located within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth

- located on a ridge top, ridge line or headland, or

The study area is:

- located within 200m of waters

Based on the locale of water and major water tributaries such as Gymea Bay as well as unknown tributary north east of the study area and past tributary running southwest - southeast within the study area. Therefore, it is likely that Aboriginal movement and land use would be channelled to this location and as such the site may hold information regarding cultural activities of the area.

In accordance with 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)*, it is recommended that further archaeological and cultural assessment is required and 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).*

In review of the Geotechnical Report (see Section 2.3.3), there is an indication that intact natural soils are present within the study area. Natural sand/clayey sand soil have been identified within the soil profile with a depth range between 1.0m – 2.6m. This deposit could be interpreted as an A2 horizon of the Gymea soil profile with the potential for there to be a remnant A horizon (known to be an artefact bearing horizon). The proposed development activity includes basement levels and is to exceed the depth of these soil profiles. It is likely that intact soils with the potential to contain Aboriginal objects and/or features may be impacted as result of this activity.

The following recommendations have been formulated after consultation with the proponent and the Department of Planning, Industry and Environment (DPIE);

- It is recommended that an Aboriginal Cultural Heritage Management Plan (ACHMP) should be in place as part of status of the proposed development as a State Significant Development (SSD-10320). This is to manage and mitigate any potential Aboriginal objects of archaeological and cultural significance that may be present within the study area. Intact soils are likely below fill material therefore there is a potential for intact Aboriginal objects and/or features to be present.
- Consultation with the Registered Aboriginal Parties (RAPs) should continue, as per the requirements detailed in the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010).
- Subsequent to this report and in accordance with 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)*, a program of systematic, sub surface archaeological test excavation in accordance with the *Code Of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010*)* or Aboriginal Cultural Heritage Management Plan (depending on status of the development*),* should be undertaken to establish the nature and extent of any archaeological objects and/or deposits that are/may be present.

- In the event archaeological test excavations *reveal Aboriginal archaeological objects or deposits*, the following is recommended; Once the nature and extent of the archaeological site has been established through test excavation, the data will be analysed and synthesised into the Aboriginal Archaeological Technical Report (AATR) or depending on the status of the project will be updated into the ACHMP.

- If test excavation *does not reveal Aboriginal archaeological objects or deposits*, the following is recommended. Depending on the status of the project as an SSD - an ACHMP will need to be in place in order for the development activity to proceed.

- An analysis of artefacts retrieved should be conducted in a framework to allow for comparison with previous relevant results and to be recorded in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010).

Should any human remains be located during the following development:

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately
- The NSW police and DPIE's 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.

Should any Aboriginal archaeological deposits or objects be located during the development:

- all excavation in the vicinity of any objects and/or deposits shall cease immediately and the area secured
- DPIE and a suitably qualified archaeologist should be notified so the significance of the said deposits or objects can be evaluated and presented in a report and the study area recorded as an archaeological site
- the archaeological deposits or objects will require the production of an Aboriginal Cultural Heritage Management Plan, of which the way forward will be subject to the recommendations of this report in consultation with DPIE, prior to the development continuing.

GLOSSARY

Term	Definition
Aboriginal/ Aborigine	These terms apply to indigenous Australians throughout time.
Aboriginal Object	A term now used (formerly 'relic') within the NSW *National Parks and Wildlife Act, 1974* 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 flowering 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 (pre-AD 1950).
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 herd siliceous rock suitable for flaking into tools.
DCP	Development Control Plan.
DP	Deposited Plan.
DPIE	Department of Planning, Industry and Environment formerly known as OEH.
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 geological period of time since the last glacial retreat, commencing approximately 11,500 BP.
Intensification	Increased social and economic complexity.
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.

Term	Definition
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
OEH	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.
Plastic	Describes soil material which is in a condition which allows it to undergo permanent deformation without appreciable volume change or elastic rebound and without rupture.
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.
Sclerophll	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 organic 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 HERITAGE MANAGEMENT SOLUTIONS.

2005 *Emmaus Village, Kemps Creek, NSW; Aboriginal Heritage Assessment of proposed extension of ages-care facilities*. Report prepared for, Catholic Health Care Services.

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.

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. & J. McDonald.

1992 *Archaeological Survey of the proposed 33kV transmission line between Bringelly and Rossmore, NSW.* Report prepared for EDAW Australia.

BURKE, H. AND C. SMITH.

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

CHAPMAN, G. A. AND C. L. MURPHY.

1989 *Soil landscapes of the Sydney 1:100 000 sheet*. Soil Conservation Service of NSW, Sydney.

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_results;state=NSW;list_code=CHL;legal_status=35

DALLAS, M.

1996 *Cronulla sewage treatment plant upgrade and additional effluent transfer pipeline archaeological site.* Prepared for Sydney Water.

DALLAS, M. AND A. BICKFORD.

1989 *Archaeological Survey of the route of proposed levee at South Creek, St Marys.* Report to Penrith City Council.

DEC.

2004 Aboriginal *Women's 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.

DOMINI STEELE CONSULTING ARCHAEOLOGY.

2016 *Aboriginal archaeological excavation report; St George Sailing Club – Riverside Drive, Sans Souci, NSW; Car park light pole installation project.* Report prepared for Rockdale City Council.

FOLEY, R.A.

1981 A model of Regional Archaeological Structure. *Proceedings of the Prehistoric Society 47: 1-17.*

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.

HALL, R. AND K. LOMAX.

1996 A Regional Landscape Approach to the Management of Stone Artefact Sites in Forested Uplands in Eastern Australia. *Australian Archaeology* 42: 35- 38.

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.

HAZELTON. P. AND TILLIE, P.

1990 *Soil Landscape of the Wollongong – Port Hacking 1:100 000 Sheet Report.* The soil conservation service of NSW.

HERITAGE SEARCH.

1998 *Aboriginal site survey; Lot 8 Robvic Avenue, Sylvania, NSW.* Report prepared for R.B Richards.

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.

KAYANDEL.

2010 *The Georges River Estuary; Cultural heritage desktop assessment*. Report prepared for SMEC.

KOHEN, J.

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

1983 *Excavations and Surface Collections in the Western Cumberland Plan*. Report to National Parks and Wildlife Service.

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

1983 *Shaw's Creek Rock shelter: 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.*

2000 *Re: Archaeological assessment of proposed residential development; Corea Street, Sylvania.* Letter to Multiplex Constructions (NSW) Pty Ltd.

2001*Survey for Aboriginal sites 1503 Elizabeth Drive, Kemps Creek, NSW.* Report prepared for Don Fox Planning

2002 (June), Rouse Hill Infrastructure Project (Stage 30 Development Areas 2, 5, 20,22 and 24B, Second Ponds Creek Area, Archaeological Assessment of Indigenous & European Heritage Issues. Report to RHI Pty Ltd.

2005. Archaeological salvage excavation of eight archaeological landscapes in the Second Ponds Creek Valley, Rouse Hill Development Area, NSW. Report prepared for Rouse Hill Infrastructure Pty Ltd and Landcom.

MCINTYRE, S.

1984 *Aboriginal archaeological survey Towra Point Nature Reserve.* Unpublished report for OEH.

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.

RICH, E., HEAP, P., AND L. SMITH.

1989 *Aboriginal sites on Kurnell Peninsula; Management study.* Report prepared for NPWS.

ROCKDALE COUNCIL.

2011 Local Environmental Plan. Endorsed by Council

STRAHLER, A. N.

1957 Quantitative analysis of watershed geomorphology. *American Geophysical Union Transaction*, 33: 913-920.

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
NSW GOVERNMENT

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : President hospital
Client Service ID : 490045

Benjamin Streat
122 c-d Percival Road
Stanmore New South Wales 2048
Attention: Benjamin Streat
Email: streatarchaeological@netspace.net.au

Date: 10 March 2020

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 1, DP:DP841502 with a Buffer of 1000 meters. Additional Info : accompany DA, conducted by Benjamin Streat on 10 March 2020.

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:

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

APPENDIX TWO – SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SSD-10320)

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-10320
Project Name	Alteration and Additions to President Private Hospital
Location	369 - 381 President Avenue, Kirrawee
Applicant	Macquarie Health Corporation Limited
Date of Issue	28/05/2019
General Requirements	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). Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: • adequate baseline data • consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed) • measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. 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 • an estimate of the jobs that will be created by the future development during the construction and operational phases of the development • certification that the information provided is accurate at the date of preparation.
Key Issues	The EIS must address the following specific matters: **1. Statutory and Strategic Context** Address the statutory provisions contained in all relevant environmental planning instruments, including: • State Environmental Planning Policy (State & Regional Development) 2011 • State Environmental Planning Policy (Infrastructure 2007) • State Environmental Planning Policy No. 64 – Advertising and

2

Signage
- State Environmental Planning Policy No.55 – Remediation of Land
- State Environmental Planning Policy No.33 – Hazardous and Offensive Development
- Draft State Environmental Planning Policy (Remediation of Land)
- Draft State Environmental Planning Policy (Environment)
- Sutherland Local Environmental Plan 2015

Permissibility
Detail the nature and extent of any prohibitions that apply to the development.

Development Standards
Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.

2. Policies
Address the relevant planning provisions, goals and strategic planning objectives in the following:
- NSW State Priorities
- A Metropolis of Three Cities - the Greater Sydney Region Plan
- South District Plan
- 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 (GANSW, 2017)
- Sutherland Shire Development Control Plan 2015

3. Built Form and Urban Design
- Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.
- Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, and colours.
- Where relevant, provide details of any signage, including size, location and general finishes.
- Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.
- Provide a detailed landscape strategy.
- Outline the design strategy for providing internal amenity, including: access to natural daylight; opportunities for visual and physical access to outdoor landscape areas; and solar shading to manage glare and heat gain.

4. Environmental Amenity
- Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts. A high level of environmental amenity for the surrounding residential land uses must be demonstrated.
- Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers.

3

- Detail the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff, patient and visitor numbers.

5. Transport and Accessibility

Include a transport and accessibility impact assessment, which details, but is not limited to the following:

- accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development
- details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the local area
- the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development
- measures to integrate the development with the existing/future public transport network
- the distribution on the road network of the trips generated by the proposed development (predicted traffic flows are to be shown diagrammatically to a level of detail sufficient for easy interpretation)
- the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years)
- the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional bus stops or bus bays. (preliminary concept drawings shall be submitted with the EIS for any identified road infrastructure upgrades).
- details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Include a Green Travel Plan and specific Workplace travel plan), wayfinding strategies, and the provision of facilities to increase the non-car mode share for travel to and from the site
- the proposed walking and cycling access arrangements and connections to public transport services
- the proposed new/altered access arrangements on President Avenue and Hotham Road, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks (including pedestrian crossings and refuges and speed control devices and zones) and adverse road safety impacts
- proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance
- proposed number of on-site car parking spaces for staff, patients and visitors, and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site
- an assessment of the cumulative on-street parking impacts of cars

4

and bus pick-up/drop-off, staff parking and any other parking demands associated with the development

- an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED
- emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times)
- the preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following:
  - assessment of cumulative impacts associated with other construction activities (if any)
  - an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity
  - details of construction program (including demolition phase) detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process
  - details of anticipated peak hour and daily construction vehicle movements to and from the site, including information on vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures for all stages of demolition/construction
  - details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicles
  - details of temporary cycling and pedestrian access during construction – should the development require the closure of a facility, adequate safety and diversion measures should be installed to limit time delay and detour distances.

→ Relevant Policies and Guidelines:

- Guide to Traffic Generating Developments (Roads and Maritime Services)
- EIS Guidelines – Road and Related Facilities (DoPI) (Where relevant)
- Cycling Aspects of Austroads Guides
- NSW Planning Guidelines for Walking and Cycling
- Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development
- Standards Australia AS2890.3 (Bicycle Parking Facilities).

6. Ecologically Sustainable Development (ESD)

- Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development.
- Include a framework for how the future development will 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

5

technology and use of renewable energy.

- Include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance.
- Include details of the initiatives that would enable the future development to achieve a minimum of 4-Green Star rating in accordance with the rating system of the Green Building Council Australia.
- Include consideration of incorporating a Green Roof, Cool Roof and/or Green Wall into the design.
- Provide a statement regarding how the design and asset life of the future development is responsive to the CSIRO projected impacts of climate change for the Sydney Metropolitan area, specifically:
  - hotter days and more frequent heatwave events
  - extended drought periods
  - more extreme rainfall events
  - gustier wind conditions
  - how these will inform landscape design, material selection and social equity aspects (respite/shelter areas).

→ Relevant Policies and Guidelines:

- NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.

7. Heritage

- Provide a statement of significance and an assessment of the impact on the heritage significance of any heritage items, including draft heritage items, on the site in accordance with the guidelines in the NSW Heritage Manual.
- Address any archaeological potential and significance on the site and the impacts the development may have on this significance.

8. Aboriginal Heritage

- Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.
- Identify and address the Aboriginal cultural heritage values 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).
- Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.
- Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.
- The EIS and the supporting ACHAR must demonstrate 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. Any objects recorded as part of the assessment must be documented and notified to OEH.

6

9. Noise and Vibration

- Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.
- Identify and assess operational noise, including consideration of mechanical services (e.g. air conditioning plant), ambulance movements, patient and visitor arrival/departures. Outline measures to minimise and mitigate the potential noise impacts of the development on surrounding occupiers of land.

→ Relevant Policies and Guidelines:

- NSW Noise Policy for Industry 2017 (EPA)
- Interim Construction Noise Guideline (DECC)
- Assessing Vibration: A Technical Guideline 2006
- Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008)
- NSW Road Noise Policy (2011).

10. Contamination

- Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55.
- Undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works.

→ Relevant Policies and Guidelines:

- Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP).

11. Hazards and Risks

- Include a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (Department of Planning, 2011) with clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development.
- Should the preliminary risk screening indicate that the development is "potentially hazardous", a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' (Department of Planning, 2011) and Multi-Level Risk Assessment (Department of Planning, 2011).

12. Utilities

- Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities, including staging of infrastructure.
- Prepare 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.

13. Contributions

7

Address Council's 'Section 7.11/7.12 Contribution Plan' and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development.

14. Drainage and Flooding

- Detail measures to minimise operational water quality impacts on surface waters and groundwater.
- Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties, including detailed survey of existing drainage infrastructure on the site.
- Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation.

→ Relevant Policies and Guidelines:

- Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).

15. Biodiversity Assessment

- Biodiversity impacts related to the proposed development (SSD-10320) are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), Biodiversity Conservation Regulation 2017 (s6.8) and Biodiversity Assessment Method.
- The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method.
- The BDAR must include details of the measures proposed to address the offset obligation as follows:
  - the total number and classes of biodiversity credits required to be retired for the development/project
  - the number and classes of like-for-like biodiversity credits proposed to be retired
  - the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules
  - any proposal to fund a biodiversity conservation action
  - any proposal to make a payment to the Biodiversity Conservation Fund.
- If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.
- The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.
- Where a Biodiversity Assessment Report is not required, engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal.

Note: Notwithstanding these requirements, the Biodiversity Conservation Act

	2016 requires that State Significant Development Applications be accompanied by a Biodiversity Development Assessment Report unless otherwise specified under the Act. **16. Sediment, Erosion and Dust Controls** Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. → Relevant Policies and Guidelines: • Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom) • Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA) • Guidelines for development adjoining land and water managed by DECCW (OEH, 2013). **17. Staging** Provide details regarding the staging of the proposed development (if any). **18. Waste** Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. **19. Construction Hours** Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.
Plans and Documents	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. In addition, the EIS must include the following: • Section 10.7(2) & (5) Planning Certificates (Previously Section 149(2) & (5) under the EP&A Act) • Architectural drawings showing key dimensions, RLs, scale bar and north point, including: o plans, sections and elevation of the proposal at no less than 1:200 o illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes o details of proposed signage, including size, location and finishes o site plan • Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings, site boundaries, existing trees (including along the boundaries of adjoining properties) • Site Analysis Plan including o site and context plans that demonstrate principles for future development and expansion, built form character and open space network o easements affecting the site

9

	○ active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links • Sediment and Erosion Control Plan • Shadow Diagrams • View analysis, photomontages and architectural renders, including from those from public vantage points • Landscape architectural drawings prepared by a qualified landscape architect or designed showing key dimensions, RLs, scale bar and north point, including: ○ integrated landscape plans at appropriate scale, with detail of new and retained planting, shade structures, materials and finishes proposed ○ plan identifying significant trees, trees to be removed and trees to be retained or transplanted ○ specific species selection, location and quantities ○ details of existing and proposed context, including hard and soft landscaped areas, contours, spot heights, finished levels and areas of cut and fill ○ details of proposed fencing and retaining walls (including height and material) ○ basic drainage detail (location of all pits, lines and irrigation) • Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including: ○ architectural design statement ○ diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal ○ analysis of options considered including building envelope study to justify the proposed site planning and design approach • Preliminary Construction Management Plan • Geotechnical and Structural Report • Accessibility Report • Arborist Report and • Schedule of materials and finishes.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: • Sutherland Shire Council; and • Government Architect NSW (through the design review process). Consultation with Sutherland Shire Council and Government Architect NSW should commence as soon as practicable to agree the scope of investigation. The EIS must describe 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.
Further consultation after 2 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.
References	The assessment of the key issues listed above must consider relevant guidelines, policies, and plans as identified.