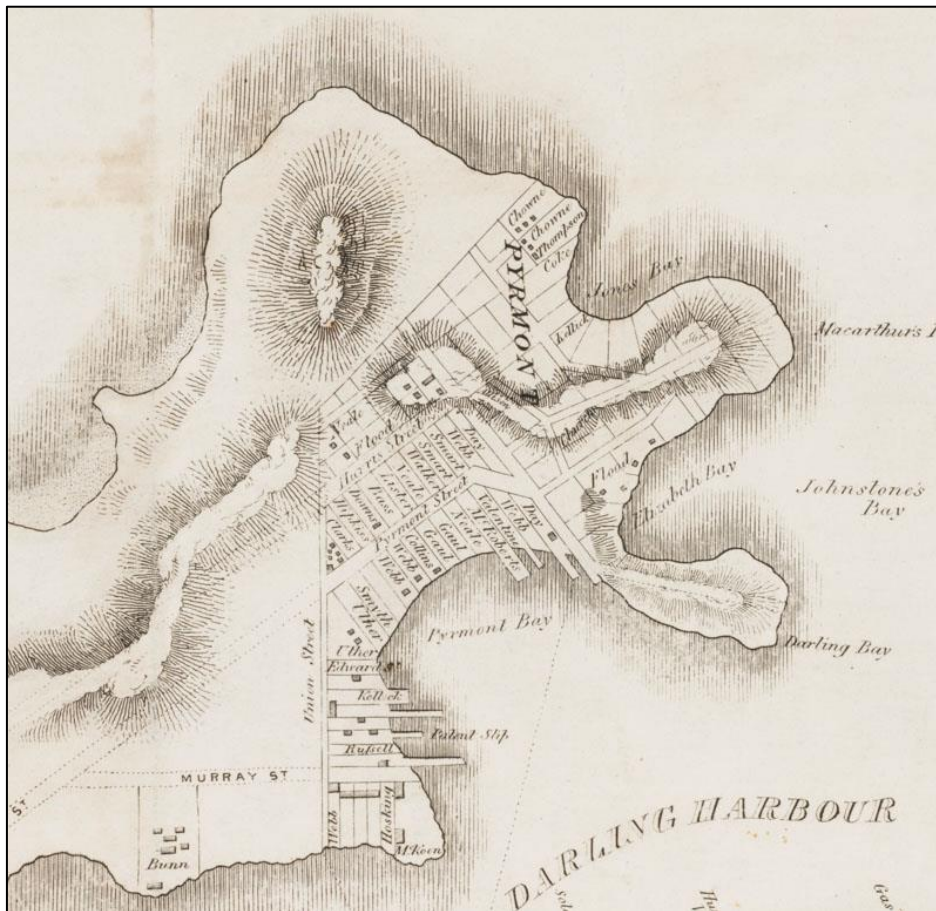


DUE DILIGENCE ABORIGINAL ARCHAEOLOGICAL ASSESSEMENT

**Bank Street Commercial Wharf
5-11 Bank Street
Pyrmont
NSW
(Sydney LGA)**



Archaeological



Benjamin Streat & Yolanda Pavincich

Archaeological Management & Consulting
Group & Streat Archaeological Services

**for
UrbanGrowth NSW**

May 2017

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Cover Image

Well's 1843 Map of Sydney
Mitchell Library MP ML A4244/1

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EXECUTIVE SUMMARY

Background

Streat Archaeological Services Pty Ltd (SAS) in conjunction with Archaeological Management and Consulting Group (AMAC) was commissioned by UrbanGrowth NSW in May 2017, to prepare a Due Diligence Aboriginal Archaeological Assessment for Modification 3 of the proposed occupation of the wharf/marina and associated land based works for the Bank Street Commercial Wharf Project at 5-11 Bank Street, Pyrmont, New South Wales.

This assessment is in response to the Secretary's Environmental Assessment Requirements (SEARs) No. MP 11_0001 MoD 3, to which it fulfils the requirement of key issue no. 17 Heritage:

Prepare an Aboriginal and non-Aboriginal archaeological assessment detailing the likely impacts and outline the proposed management and mitigation measures to protect and preserve the archaeology.

Aboriginal Consultation

Consultation for this report has not been undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), as no archaeological test excavation and no Aboriginal Heritage Impact Permit (AHIP) is being applied for under this document. Therefore, no Aboriginal community consultation has taken place as part of this study.

Recommendations

There were no confirmed Aboriginal archaeological site records located within the study area on the Aboriginal Heritage Information Management System (AHIMS) or from other sources of information of which the author of this report is aware.

The landscape has been identified as being heavily disturbed with the site located on reclaimed land. Prior to reclamation works the site would have been intertidal flats. Based on this information, sub-surface Aboriginal objects with potential conservation value may be present within undisturbed parts of the study area. However, the disturbed nature and significant land modifications made to the site, indicates that there is no intact top soil (A horizon) – the layer of soil in which Aboriginal archaeological or cultural material would be located if present.

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.

The proposed activity is:

- located within 200m of waters;

As such 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 no further archaeological and cultural assessment 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) is necessary.

The recommendations have been formulated after consultation with the proponent and the Office of Environment and Heritage (OEH);

- It is recommended that no further archaeological and cultural assessment 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) is necessary and the proposed development activity (Figure 8.1- Figure 8.3) should be able to proceed with caution.
- Before any ground disturbance takes place as part of the construction all development staff, contractors and workers should be briefed as to the heritage status of the area and their responsibilities in ensuring preservation of the said area. This brief should take place prior to works commencing on site. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development.

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;
- OEH 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 OEH, prior to the development continuing.

In the event of human skeletal remains being uncovered at any stage;

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately and the area secured;
- The NSW Police and OEH's Enviroline are to be informed as soon as possible;
- Once it has been established that the human remains are Aboriginal ancestral remains, OEH and Metropolitan Local Aboriginal Land Council (MLALC) will identify the appropriate course of action.

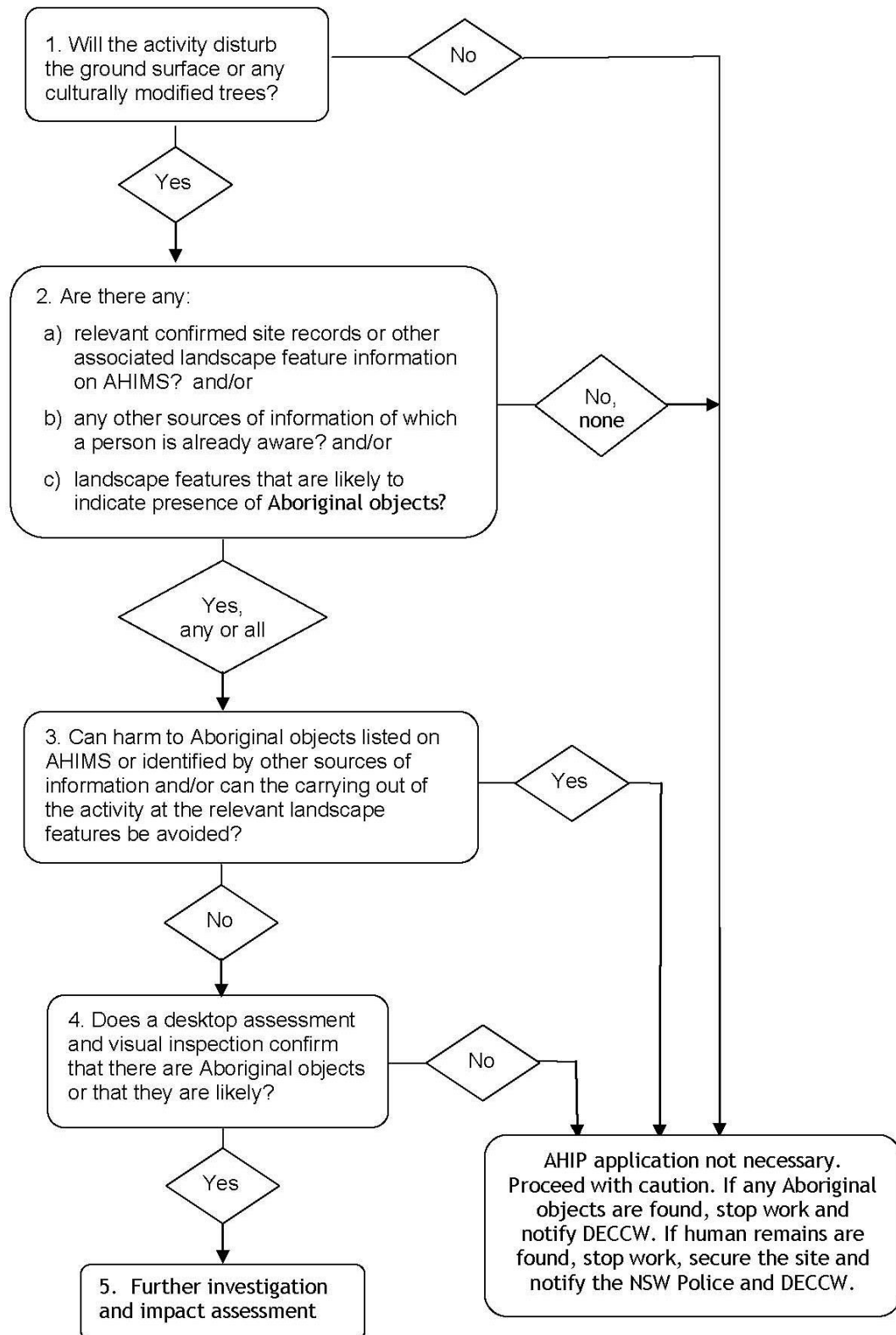


Figure 0.0.1 Generic Due Diligence Process
DECCW, (2010).

CONTACT DETAILS

The contact details for the following archaeologist, NSW Police, OEH and the Local Aboriginal Land Council are as follows:

Organisation	Contact	Contact Details
NSW Environment Line		131 555
NSW Sydney City Local Area Command		LAC Office: 192 Day Street Sydney NSW 2000 Ph: (02) 9265 6499 Fax: (02) 9265 6434
Archaeological Management & Consulting Group Pty Ltd	Mr. Benjamin Streat or Mr. Martin Carney	122c-d Percival Road Stanmore NSW 2048 Ph:(02) 9568 6093 Fax:(02) 9568 6093 Mob: 0405 455 869 Mob: 0411 727 395 benjaminstreat@archaeological.com.au
Office of Environment & Heritage NSW Department of Planning and Environment	Archaeologist – Head Office	PO Box A290 Sydney South NSW 1232 Ph: (02) 9995 5000 info@environment.nsw.gov.au
Metropolitan Local Aboriginal Land Council (MLALC)	Cultural Heritage Officer	Po Box 1103 Strawberry Hills NSW 2012 (02) 8394 9666 culturalheritage@metrolalc.org.au

1.0 INTRODUCTION

1.1 BACKGROUND

Streat Archaeological Services Pty Ltd (SAS) in conjunction with Archaeological Management and Consulting Group (AMAC) was commissioned by UrbanGrowth NSW in May 2017, to prepare a Due Diligence Aboriginal Archaeological Assessment for Modification 3 of the proposed occupation of the wharf/marina and associated land based works for the Bank Street Commercial Wharf Project at 5-11 Bank Street, Pyrmont, New South Wales.

This assessment is in response to the Secretary's Environmental Assessment Requirements (SEARs) No. MP 11_0001 MoD 3, to which it fulfils the requirement of key issue no. 17 Heritage:

Prepare an Aboriginal and non-Aboriginal archaeological assessment detailing the likely impacts and outline the proposed management and mitigation measures to protect and preserve the archaeology.

1.2 STUDY AREA

The study site is that piece of land described as Lot 19 and part of 20 on the NSW Land and Property Information Deposited Plan 803159 also known by the street address 5-11 Bank Street, Pyrmont, Parish of Alexandria, County of Cumberland.

1.3 SCOPE

The aims of this assessment are to assess the Aboriginal archaeological potential of the study area and to measure the impact of the proposed development on any intact soil profiles with the potential to contain Aboriginal archaeological deposits and/or objects, to develop mitigative strategies under the appropriate legislation and to devise an appropriate strategy for the management of Aboriginal archaeological and cultural heritage values of the area.

1.4 ABORIGINAL CONSULTATION & PARTICIPATION SUMMARY

Consultation for this report has not been undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), as no archaeological test excavation and no Aboriginal Heritage Impact Permit (AHIP) is being applied for under this document. Therefore, no Aboriginal community consultation has taken place as part of this study.

1.5 AUTHOR IDENTIFICATION

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

1.6 ACKNOWLEDGEMENTS

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

- Allie Barnier from Urbis;
- Haydn Dayes from UrbanGrowth NSW;

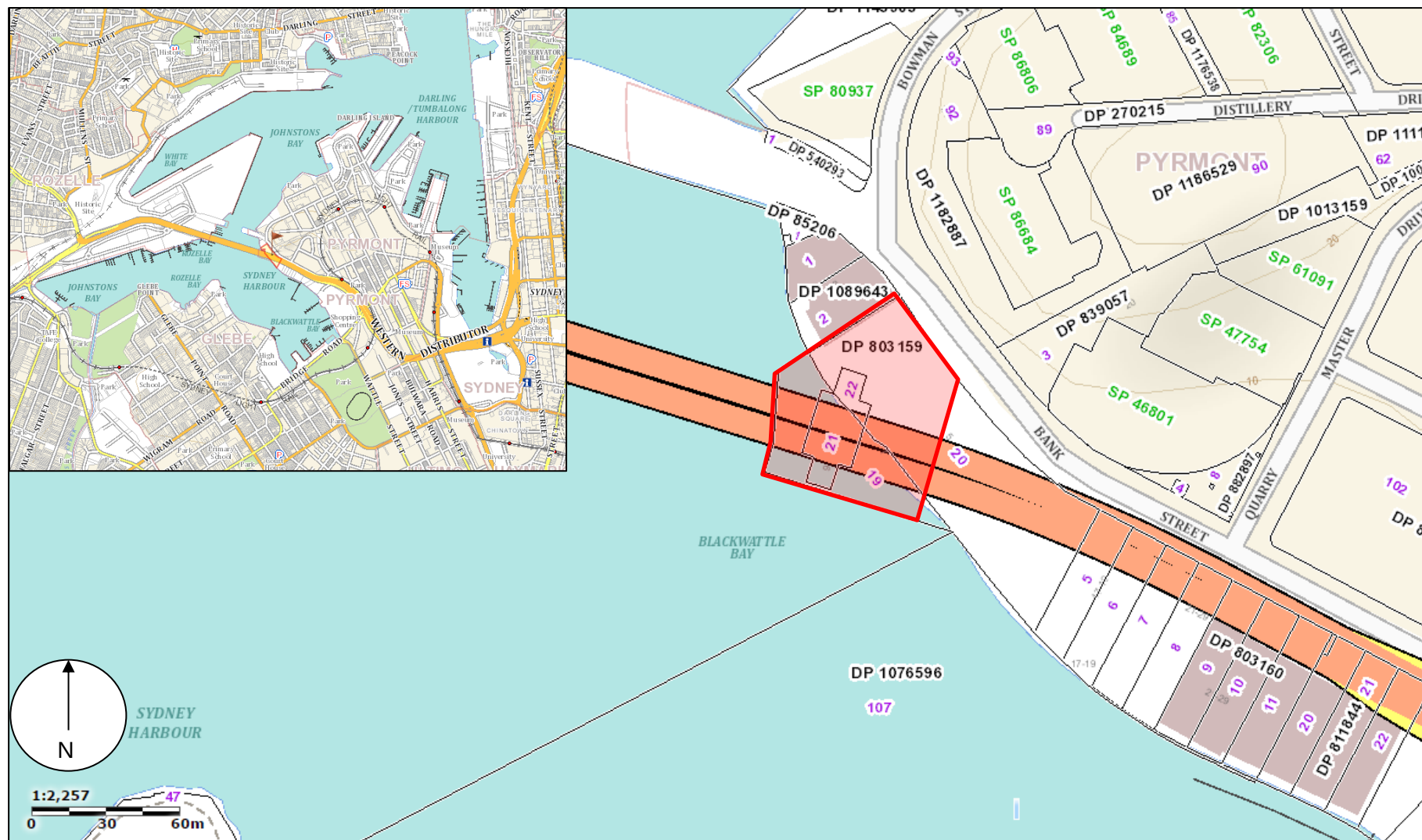


Figure 1.1 Study area location, indicated by the red outline.
Six Maps, LPI Online, accessed 03/05/2017.



Figure 1.2 Aerial photograph showing the study site
Study site outlined in red. Six Maps, LPI Online, accessed 03/05/2017.

2.0 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.

2.1 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.

2.1.1 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).*

2.1.2 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, 4 and 4A refer to Regional Environmental Plans (REP) and Local Environmental Plans (LEP) 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 79C calls for the evaluation of*

The likely impacts of that development, including environmental impacts on both the natural and built environments and the social and economic impacts in the locality (NSW Government 1979).

- *Part 5 of this Act requires that impacts on a locality which may have an impact on the aesthetic, anthropological, architectural, cultural, historic, scientific, recreational or scenic value are considered as part of the development application process (NSW Government, 1979).*

2.1.3 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).

2.1.4 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).

2.1.5 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.

2.1.6 Register of Declared Aboriginal Places 1999

The NPW Act protects areas of land that have recognised values of significance to Aboriginal people. These areas may or may not contain Aboriginal objects (i.e. any physical evidence of Aboriginal occupation or use). Places can be nominated by any person to be considered for Aboriginal Place gazettal. Once nominated, a recommendation can be made to EPA/OEH for consideration by the Minister. The Minister declares an area to be an 'Aboriginal place' if the Minister believes that the place is or was of special significance to Aboriginal culture. An area can have spiritual, natural resource usage, historical, social, educational or other type of significance.

Under section 86 of the NPW Act it is an offence to harm or desecrate a declared Aboriginal place. Harm includes destroying, defacing or damaging an Aboriginal place. The potential impacts of the development on an Aboriginal place must be assessed if the development will be in the vicinity of an Aboriginal place (DECCW 2010).

2.2 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.

2.2.1 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).

2.2.2 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.

2.2.3 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.

2.2.4 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.

2.3 LOCAL PLANNING INSTRUMENTS

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

5.10 Heritage conservation

(1) Objectives

The objectives of this clause are as follows:

- (a) *to conserve the environmental heritage of the City of Sydney,*
- (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*

2.4 DUE DILIGENCE CODE OF PRACTICE FOR THE PROTECTION OF ABORIGINAL OBJECTS IN NEW SOUTH WALES

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

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

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

2.5 CODE OF PRACTICE FOR ARCHAEOLOGICAL INVESTIGATION OF ABORIGINAL OBJECTS IN NEW SOUTH WALES

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

2.6 GUIDELINES

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

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

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 permits are required or test excavation takes place as specified in Code of Practice for the Archaeological investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW, 2010) or permits are needed.

This has not taken place as part of this study as no permits are needed nor is test excavation taking place, should any Aboriginal deposits and/or objects be located during the development these requirements would need to be observed.

Section 3.1 outlines the guidelines for Aboriginal consultation issued by the OEH. Section 3.2 documents the steps taken for this desktop Aboriginal archaeological assessment and the outcomes of the consultation.

3.1 OEH 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 applying for a permit under section 90 of the NPW Act or carrying out test excavation in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW, 2010), are listed below.

They can also be located in full at:

<http://www.environment.nsw.gov.au/resources/cultureheritage/interimConsulationGuidelines.pdf>

Stage 1 – Notification of project proposal and registration of interest

It is stated that:

“It is the responsibility of the proponent or their consultant to actively seek to identify interested groups who may wish to be consulted about a project and to invite them to register their interest” (DECCW, 2010).

The proponent or the consultant should carry out the following steps to meet this requirement:

Notifying in writing, the following:

- Local Aboriginal Land Council(s) for the area relating to the development;
- Registrar of Aboriginal Owners;
- Relevant Local Council(s);
- Native Title Services Corporation Limited;
- Relevant catchment management Authorities;
- Department of Environment, Climate Change and Water

Placement of an advertisement in the local print media.

“The notification must set out details of the proposal and invite registrations from interested groups or individuals. A closing date for registration of interest must also be included. The time allowed should reflect consideration of the project’s size and complexity, but must in all cases allow at least 14 days to respond. The proponent must record all registrations

received in writing before the closing date. DEC [sic] requires the proponent to include all parties that have registered their interest... (DECCW, 2010).

Stage 2 – Presentation of information about the proposed project

The proponent or the consultant is responsible for carrying out both an archaeological/scientific assessment and a cultural assessment which may be incorporated in one report. Respondents should be provided a reasonable time (**not less than 28 days**) to provide feedback.

The methodology should include;

- *“notifying Aboriginal people in sufficient detail about activities which may impact on Aboriginal heritage, so that their concerns can be identified;*
- *providing the opportunity for Aboriginal people who hold cultural knowledge to contribute to the assessment process;*
- *identifying objects and places of significance to the Aboriginal community that may be impacted by the proposal so that these impacts can be avoided wherever possible;*
- *identifying whether there are culturally acceptable mitigation measures when impacts are considered to be unavoidable by the proponent”* (DECCW, 2010).

Comments from respondents should be provided in writing, to the consultant or the proponent or in the absence of written comments verbal comments should be sought as part of a meeting with registered respondents these comments should be documented in the **assessment report**.

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

After the methodology for the assessment has been commented on and approved the assessment can proceed and the subsequent report can be written.

According to the guidelines the report must:

- *“detail the objects and places identified and how they will be impacted by the development;*
- *detail the consultation undertaken and how comments received at various time were considered;*
- *include management and mitigation recommendations drawing on both information provided by the stakeholders and the results of the cultural and archaeological assessments”* (DECCW, 2010).

All respondents who registered should be informed that the draft report is available and should be provided with a copy of said report for comment. This should include the relevant Local Aboriginal Land Council even if they did not respond. Any further respondents who did not respond in the given timeframe but have subsequently registered their interest should be sent a copy of the report. It is the understanding of the author that the responsibility lies with the consultant to ensure comments are received and that he/she must actively seek said comments after allowing a reasonable yet unspecified time for comment.

3.2 CONSULTATION DETAIL

Consultation for this report has not been undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), as no archaeological test excavation and no Aboriginal Heritage Impact Permit (AHIP) is being applied for under this document. Therefore, no Aboriginal community consultation has taken place as part of this study.

3.3 CONSULTATION OUTCOMES

Consultation for this report has not been undertaken in accordance with the Office of Environment and Heritage and National Parks and Wildlife Act 1974: Part 6; National Parks and Wildlife Act Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), as no archaeological test excavation and no Aboriginal Heritage Impact Permit (AHIP) is being applied for under this document. Therefore, no Aboriginal community consultation has taken place as part of this study.

4.0 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.

The study area is located on the Sydney Harbour foreshore, which is part of the Sydney Basin. The environmental setting of the study area is outlined below.

4.1 TOPOGRAPHY

The soil landscape as identified in Sydney 1:100 000 Map sheet, shows the study area lies within a disturbed soil landscape. This is the result of human activity, particularly events associated with land reclamation works. As a result the topography does not reflect the original landscape of the area.

4.2 GEOLOGY AND SOILS

The disturbed nature of the study area as a result of reclamation works along the foreshore, indicates the soils will consist of artificial fill as well as redeposited local soils and dredged estuarine sand and mud. The dominant soils are likely to be a sandy loam overlaying a mottled clay with various fill and rubble.

4.3 VEGETATION

There is no native vegetation in the study site,

4.4 ABORIGINAL LAND USE

Originally part of the study site would have consisted of intertidal zones and utilised for food resources and subject to past use, however significant land modification in the form of reclamation works throughout the 19th and 20th century, would have heavily disturbed the study area, altering the original landscape. Therefore, no Aboriginal archaeological land use patterns will be reflected in any soil profile present.

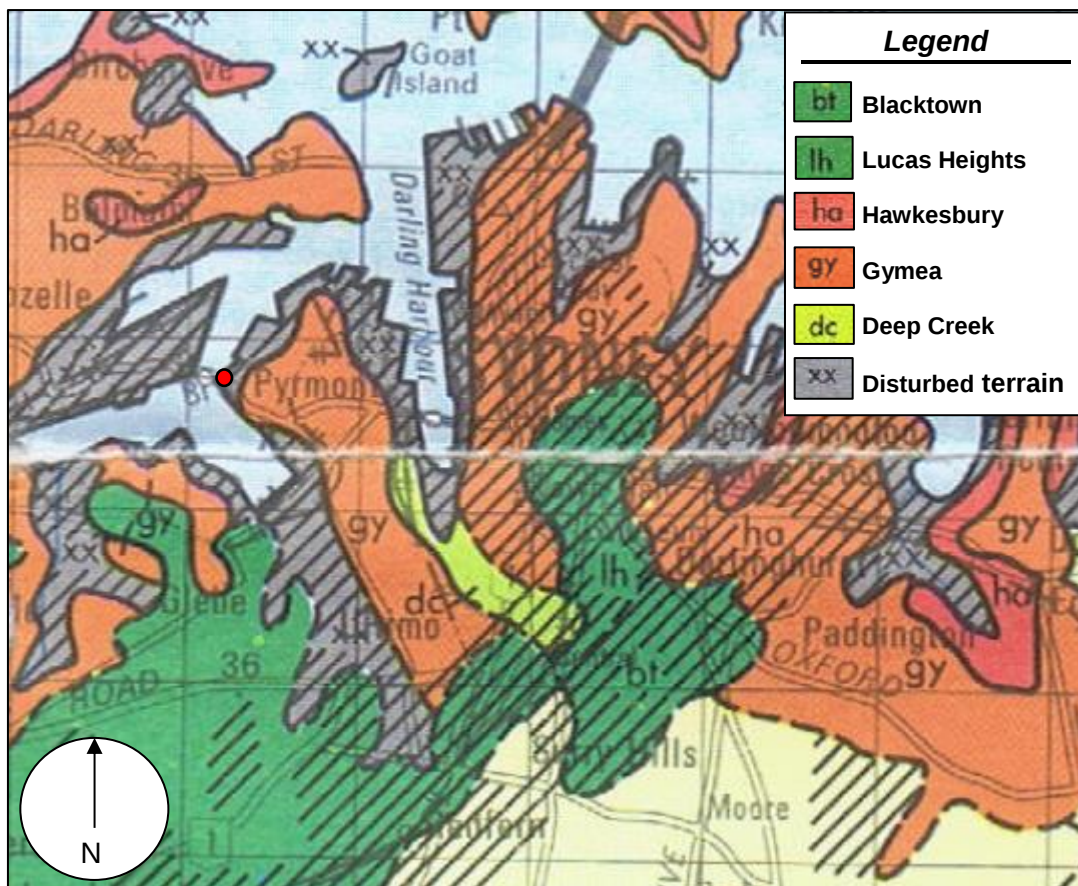


Figure 4.1 Study area on soil map, indicated by red circle.
Chapman *et al* (1989)

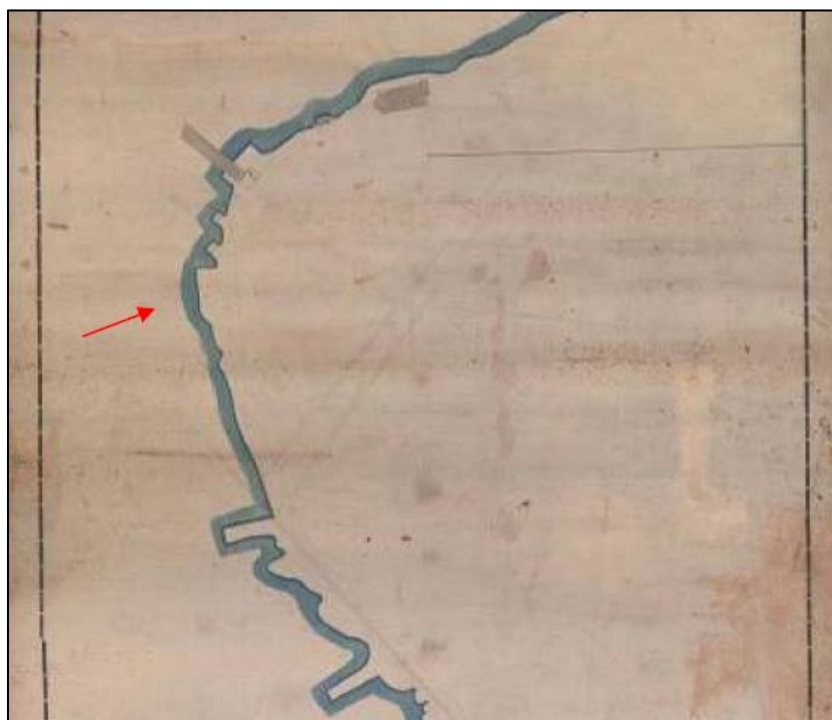


Figure 4.2 1865 Trigonometrical plan of Sydney and early foreshore boundary. Site indicated by red arrow.
AHMS (2011) and Sydney City Archives.

5.0 BACKGROUND INFORMATION

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

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

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

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

Further to this the following sources were examined:

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

5.1 ARCHAEOLOGICAL CONTEXT

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

The majority of reliably dated archaeological sites within the region are less than 5,000 years old which places them in the mid to late Holocene period. A combination of reasons has been suggested for this collection of relatively recent dates. There is an argument that an increase in population and 'intensification' of much of the continent took place around

this time, leading to a great deal more evidence being deposited than was deposited as a result of the sparser prior occupation period. It is also the case that many archaeological sites along the past coastline may have been submerged as the seas rose approximately to their current level around 6,000 years ago. This would have had the effect of covering evidence of previous coastal occupation. In addition it is also true that the acidic soils which are predominate around the Sydney region do not allow for longer-term survival of sites (Hiscock 2008 p. 106).

Different landscape units not only influence the preservation of sites but can determine where certain site types will be located. Across the whole of the Sydney Basin, the most common Aboriginal archaeological site type is occupation evidence within Rock Shelters. However, the most common Aboriginal archaeological site type in the Cumberland Lowlands is Open Artefact Scatters or Open Campsites, which are locations where two or more pieces of stone show evidence of human modification. These sites can sometimes be very large, with up to thousands of artefacts and include other habitation remains such as animal bone, shell or fireplaces [known as *hearths*] (Attenbrow 2002 p. 75 – 76).

5.2 PREVIOUS ARCHAEOLOGICAL STUDIES WITHIN THE STUDY AREA

Archaeological and Heritage Management Solutions Pty Ltd (AHMS) conducted a HIS and preliminary Aboriginal and Historic Archaeological Assessment in 2011. The results of which identified the site to be extremely disturbed with no known sites present, therefore no further investigation or Aboriginal Cultural Heritage Assessment of the study area is warranted.

5.3 OEH AHIMS SEARCH RESULTS

The Archaeological Heritage and Information Management System Database (AHIMS) is located at the OEH Offices at Hurstville in New South Wales. This database comprises information about all the previously recorded Aboriginal archaeological sites registered with OEH. 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 a library of reports. The location of these sites shown (Figure 5.1) 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 search was conducted on the 08/05/17 (Client Service ID: 280035). The following table is comprised of the results listed from the extensive search.

Table 5.1 AHIMS Search Result

Site ID	Site Name	Site Status	Site Feature
45-6-2960	Jackson Landing Shelter	Valid	Potential Archaeological Deposit (PAD)

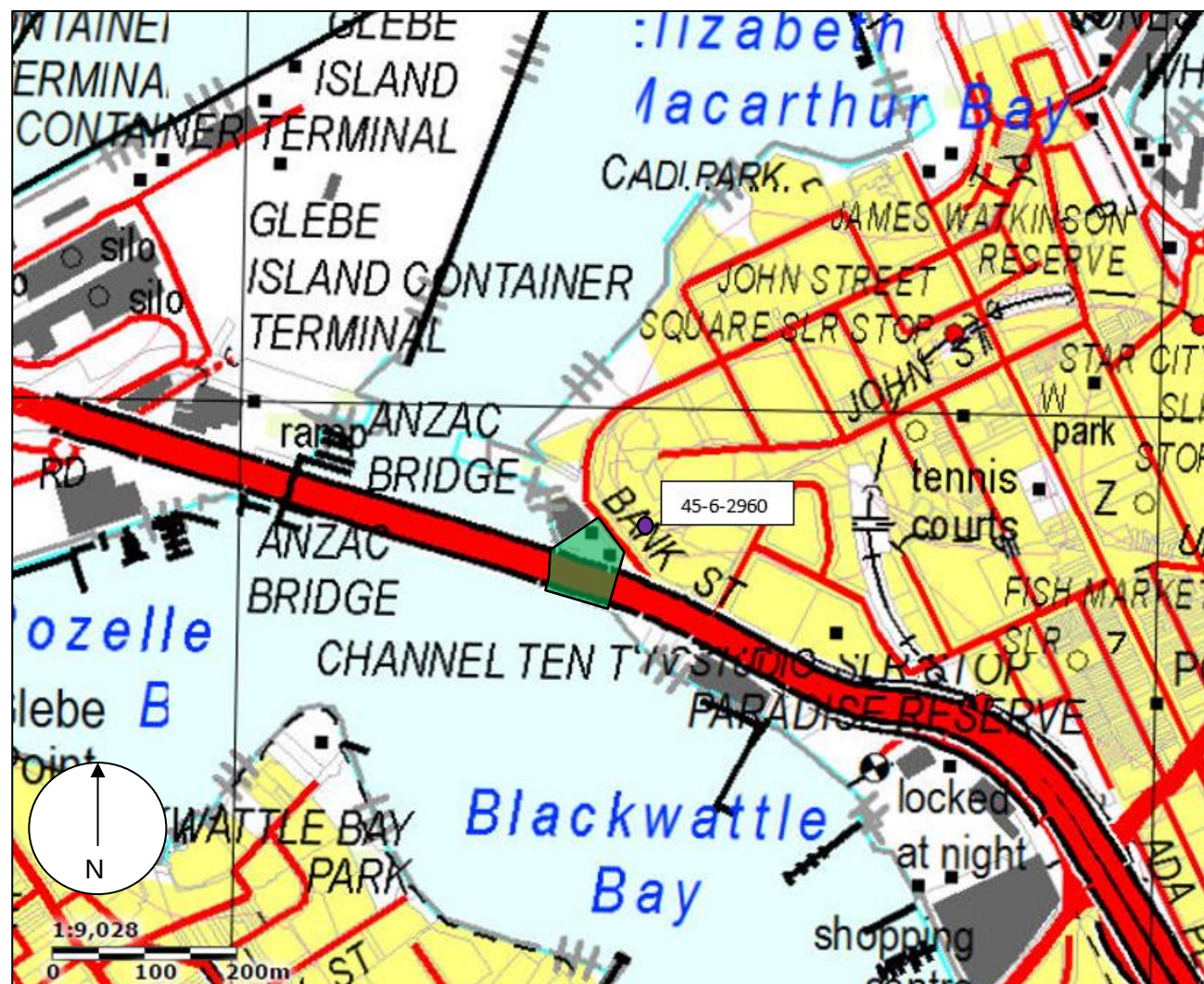


Figure 5.1

AHIMS search results

Registered sites indicated in purple with the study area indicated in green. OEH AHIMS (2017).

5.4 OTHER SEARCH RESULTS

Results for other statutory databases searched are given below;

- The study area does not appear on the National Heritage List (DSEWPC 2012);
- The study area does not appear on the Commonwealth Heritage List (DSEWPC 2012);
- The study area does not appear on the NSW State Heritage Register (NSW Heritage ACT 1977);
- The study area does not appear on the Register of Declared Aboriginal Places (DECCW 2012)

5.5 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.

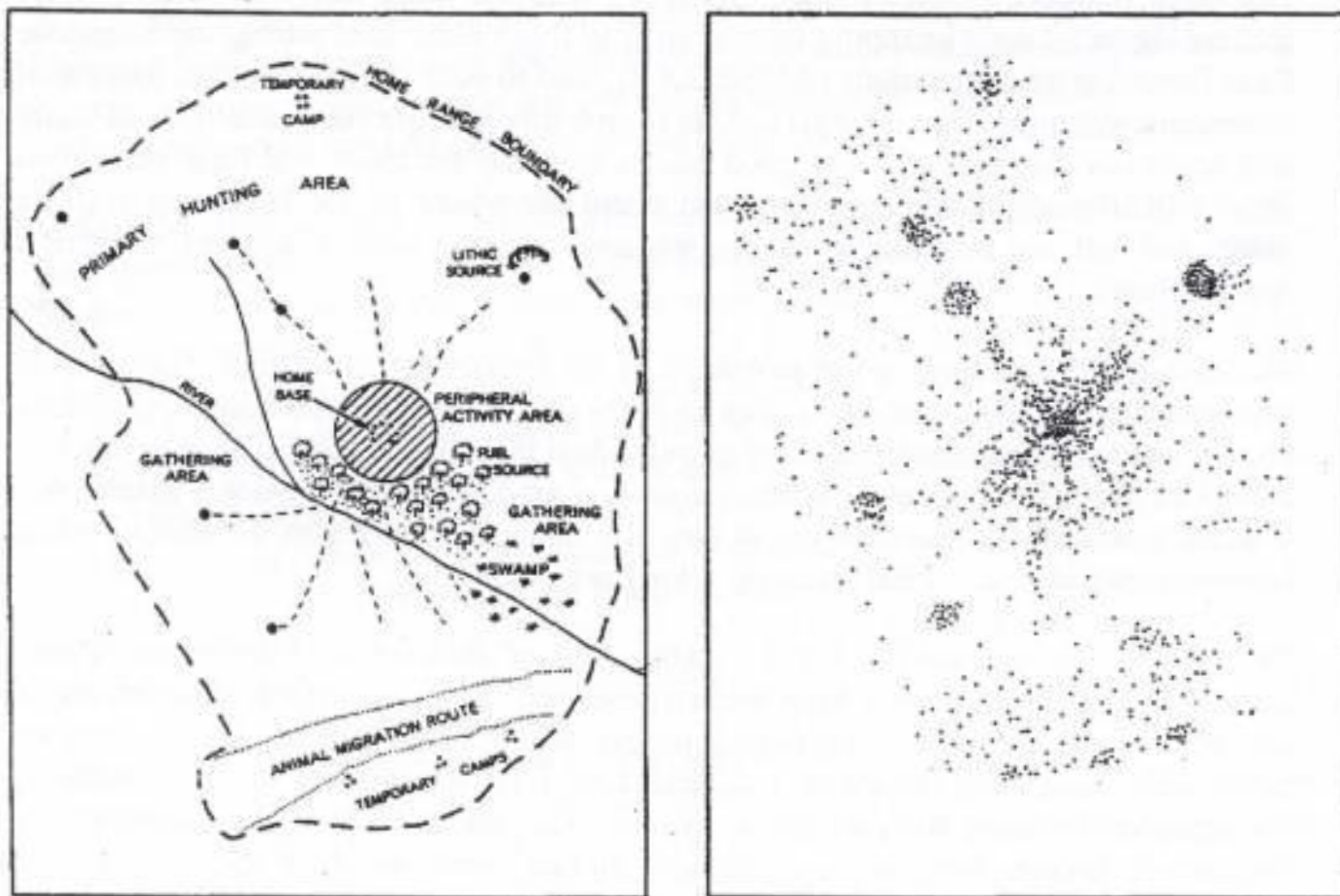


Figure 5.2 Examples of forager settlement patterns
Foley (1981)

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

Jo McDonald and Peter Mitchell have since contributed to this debate, with reference to Aboriginal archaeological sites and proximity to water using their Stream order model (1993). This model utilises Strahler's hierarchy of tributaries. 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.

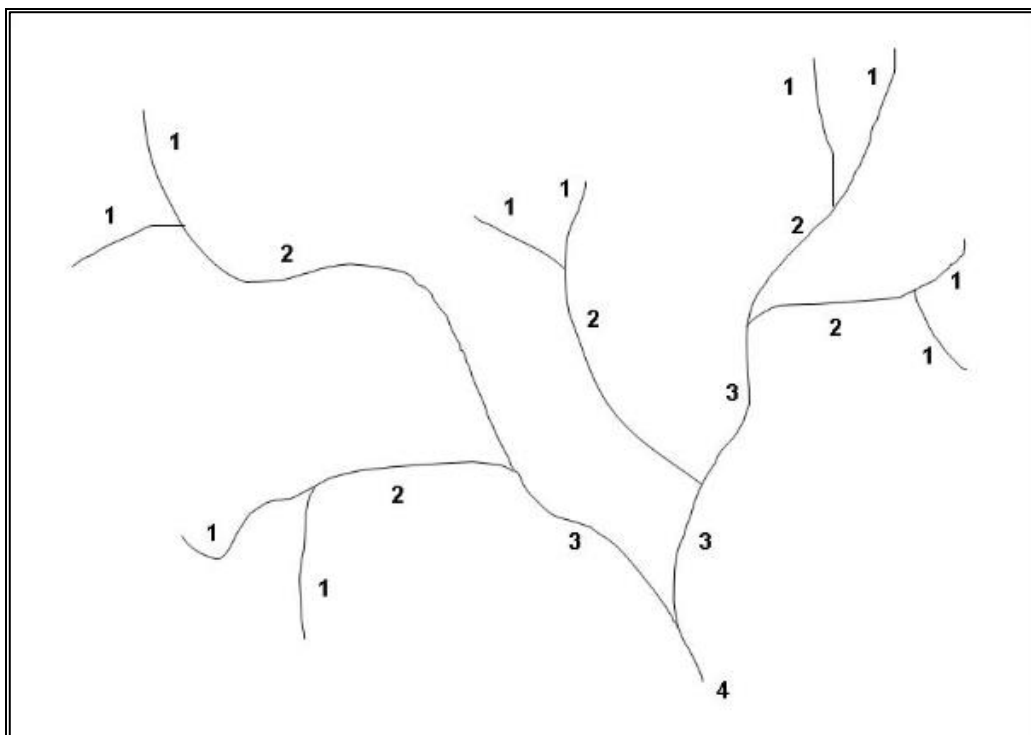


Figure 5.3

Strahler's hierarchy of tributaries
Strahler (1957)

Table 5.2 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 5.3 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.

5.6 ARCHAEOLOGICAL PREDICTIVE MODEL FOR THE STUDY AREA

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

Open Artefact Scatters

The study area is located along the Blackwater Bay foreshore, however is located within reclaimed land. Therefore, open artefact scatters are unlikely to be located within the study area.

Isolated Artefacts

The study area is located along the Blackwater Bay foreshore, however is located within reclaimed land. Therefore, isolated artefact are unlikely to be located within the study area.

Stone Resource Sites

The study area is located within reclaimed land and therefore, it is considered unlikely that Stone Resource Sites will be located within the study area.

Grinding Grooves

Boulders of sandstone or outcrops can occur in the landscape units, generally on watercourses, represented in the study area. However the study area is located within reclaimed land and therefore, it is considered unlikely that Grinding Grooves will be located within the study area.

Scarred Trees

Trees of sufficient age do not remain within the study area. It is therefore considered unlikely that Scarred trees will be located within the study area.

Sandstone Shelter Sites

The soil landscape of the study area does not contain sandstone overhangs. It is therefore unlikely that Sandstone Shelter sites will be located within the study area.

Burials

The study area is located within reclaimed land and therefore it is considered unlikely that burials will be located within the study area.

Ceremonial/Social Sites

Consultation with relevant Aboriginal parties and individuals has not taken place and as such has not revealed the presence of ceremonial or social sites. It is possible that such information may become available in the future. It is however considered unlikely that Ceremonial/Social sites will be present within the study area.

5.7 DISTURBANCE FACTORS

This section of the report provides an assessment of 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 models 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 (eg: 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 (eg: 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.

5.7.1 Disturbance Summary

The majority of the study area is located on reclaimed land to which no intact natural soils are expected to be present due to significant land modification. Reclamation began in the late nineteenth century and continued up until the completion of the Anzac Bridge in 1995 (AHMS, 2011). Therefore, the study area is deemed to be highly disturbed (Figure 5.4) with the following summary regarding the archaeological potential of the study area;

- **Major disturbance to the landscape:** Sub-surface Aboriginal objects with potential conservation value have a zero- low probability of being present within the study area.



Figure 5.4 Disturbance map. Level of disturbance of the study site. High disturbance (6-8) indicated in red.
NSW LPI Six Maps (accessed 8/05/17)

6.0 SITE SURVEY

The study site is that piece of land described as Lot 19 and part of 20 on the NSW Land and Property Information Deposited Plan 803159 also known by the street address 5-11 Bank Street, Pyrmont, Parish of Alexandria, County of Cumberland. As the area lies wholly on reclaimed land no site inspection or formal survey took place

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).

As a result of the disturbed nature of the study area no educational significance can be assigned to the study area as Aboriginal archaeological features and/or objects have a zero – low potential of being located.

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).

As a result of the disturbed nature of the study area no scientific significance can be assigned to the study area as Aboriginal archaeological features and/or objects have a zero – low potential of being located.

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).

As a result of the disturbed nature of the study area no representative significance can be assigned to the study area as Aboriginal archaeological features and/or objects have a zero – low potential of being located.

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 are discussed and assessed 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 can as yet be assigned to the study area.

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 can as yet be assigned to the study area.

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 can as yet be assigned to the study area.

8.0 PROPOSED ACTIVITY

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

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

8.1 DESCRIPTION OF PROPOSED ACTIVITY AND IMPACTS

The modification activity subject to this report is for the dry land works within the already approved development footprint (Figure 8.1- Figure 8.3). These works address the occupation of the wharf/ marina and development of the land based works while the marina is being built. The temporary premises will include the following;

- Office block – 2 offices, toilet facilities and workstations and accompanying services and utilities.
- 12 storage containers (12m x 3m)
- 10 storage containers (6m x 3m)
- Car parking facilities (2 spaces)
- Landscaping

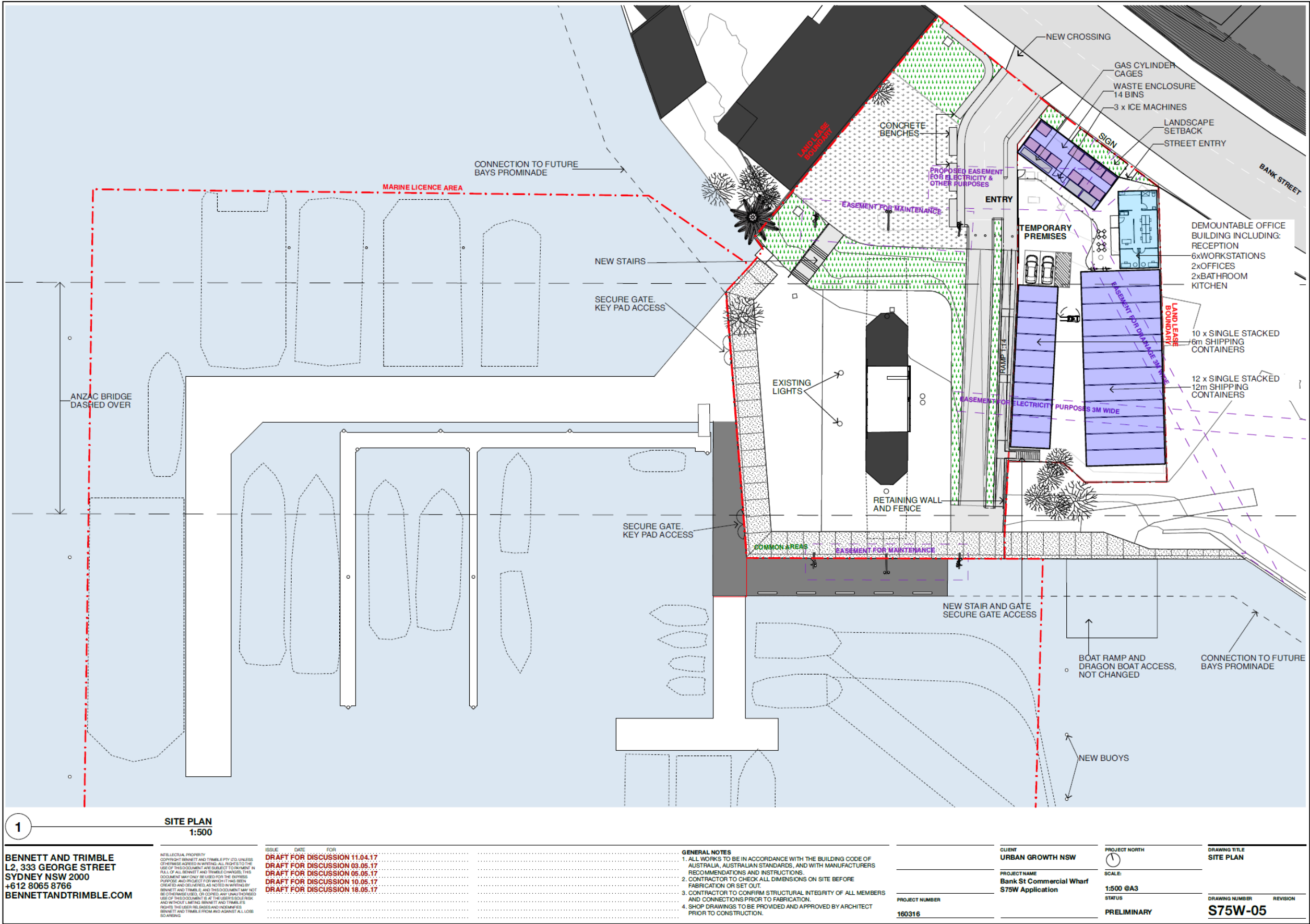


Figure 8.1 Proposed Activity Plans
Bennett and Trimble 18/05/17 (Site Plan S75W-05)

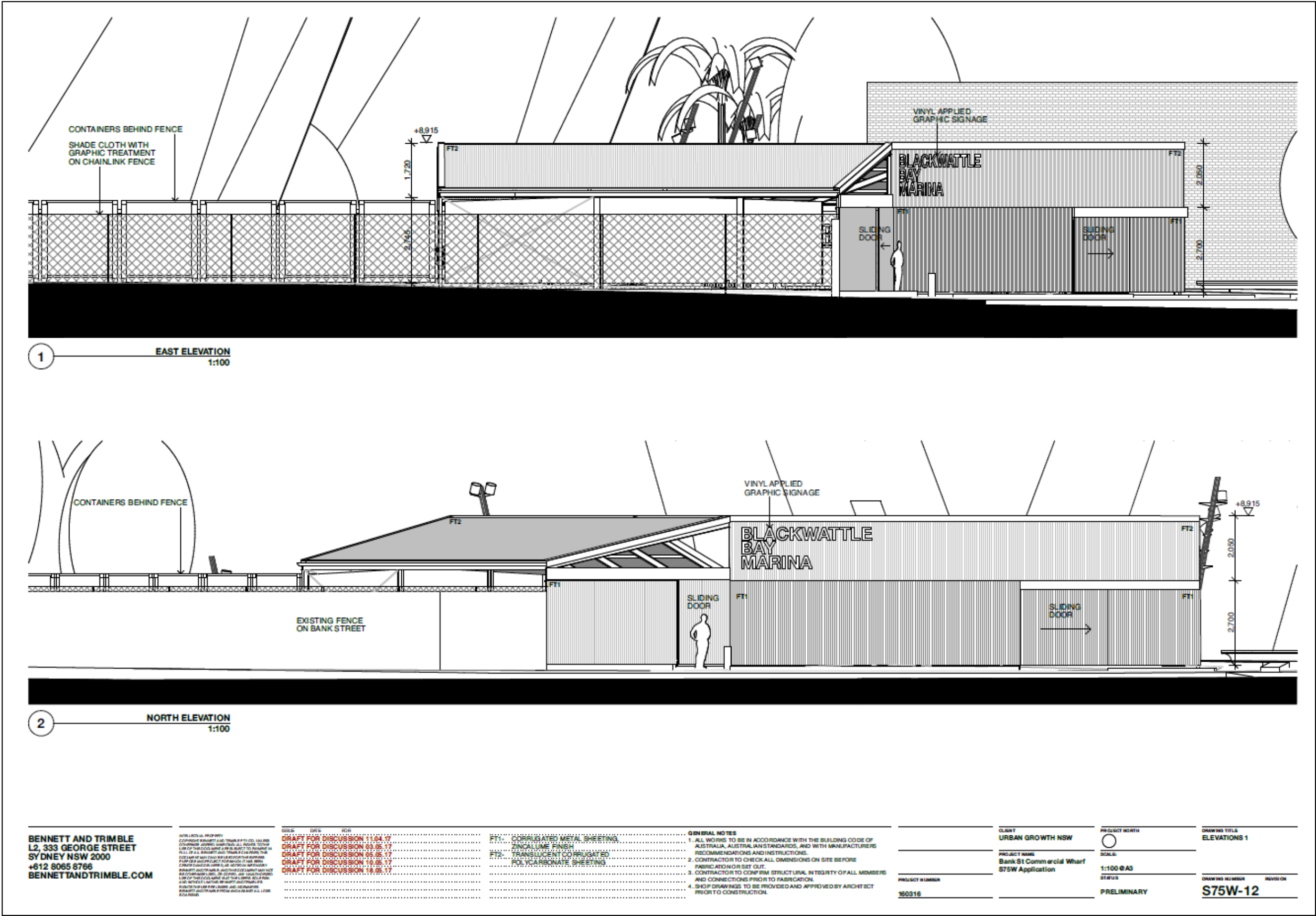


Figure 8.2 North Elevations of Proposed Activity Plans
Bennett and Trimble 18.05.17 (Site Plan S75W-12)

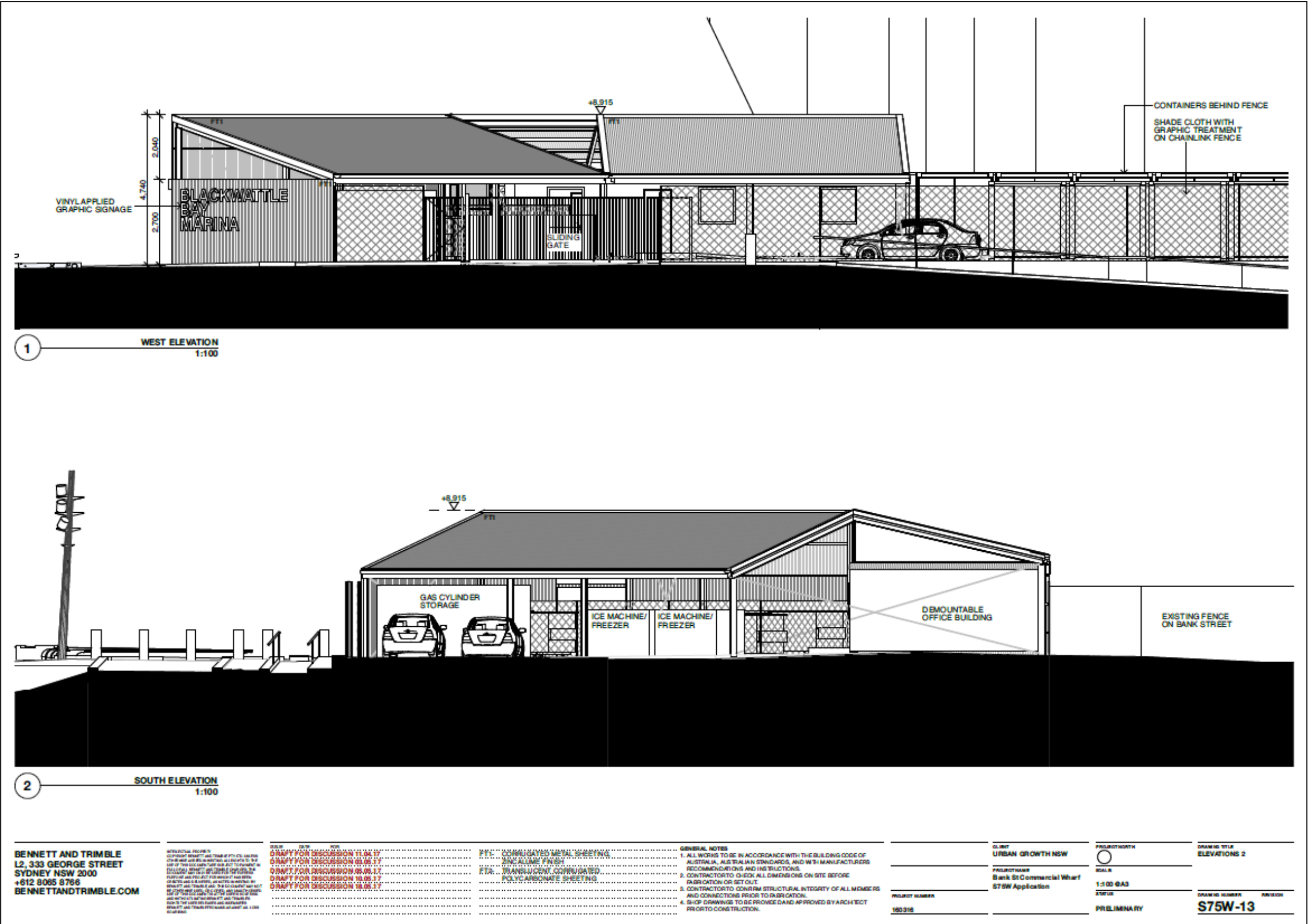


Figure 8.3 South Elevations of Proposed Activity Plans
Bennett and Trimble 18.05.17 (Site Plan S75W-13)

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 impact of the proposed development on any Aboriginal archaeological material that may be present;
- The requirements of the consent authority (Department of Planning and Environment).

9.1 RECOMMENDATIONS

There were no confirmed Aboriginal archaeological site records located within the study area on the Aboriginal Heritage Information Management System (AHIMS) or from other sources of information of which the author of this report is aware.

The landscape has been identified as being heavily disturbed with the site located on reclaimed land. Prior to reclamation works the site would have been intertidal flats. Based on this information, sub-surface Aboriginal objects with potential conservation value may be present within undisturbed parts of the study area. However, the disturbed nature and significant land modifications made to the site, indicates that there is no intact top soil (A horizon) – the layer of soil in which Aboriginal archaeological or cultural material would be located if present.

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.

The proposed activity is:

- located within 200m of waters;

As such 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 no further archaeological and cultural assessment 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) is necessary.

The recommendations have been formulated after consultation with the proponent and the Office of Environment and Heritage (OEH);

- It is recommended that no further archaeological and cultural assessment 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) is necessary and the proposed development activity (Figure 8.1-Figure 8.3) should be able to proceed with caution.

- Before any ground disturbance takes place as part of the construction all development staff, contractors and workers should be briefed as to the heritage status of the area and their responsibilities in ensuring preservation of the said area. This brief should take place prior to works commencing on site. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development.

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;
- OEH 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 OEH, prior to the development continuing.

In the event of human skeletal remains being uncovered at any stage;

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately and the area secured;
- The NSW Police and OEH's Enviroline are to be informed as soon as possible;
- Once it has been established that the human remains are Aboriginal ancestral remains, OEH and Metropolitan Local Aboriginal Land Council (MLALC) will identify the appropriate course of action.

GLOSSARY

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

Holocene	The period of time since the last retreat of the polar icecaps, commencing approximately 10,000 – 110,000
Intensification	Increased social and economic complexity.
Landscape Unit	An area of land where topography and soils have distinct characteristics, are recognisable, describable by concise statements and capable of being represented on a map.
Laminite	A thinly bedded, fine grained sedimentary rock.
LEP	Local Environment Plan.
LGA	Local Government Area.
Lithics	A term used to describe stone and stone artefacts.
Loam	A medium textured soil of approximate composition of 10-25% clay, 25-50% silt and 2% sand.
Loose	A soil which is not cohesive.
Matrix	Finer grained fraction, typically a cementing agent within soil or rock in which larger particles are embedded.
Midden	Aboriginal occupation site consisting chiefly of shells, which can also include bone, stone artefacts and other debris.
NPW Act	National Parks and Wildlife Act 1974
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.
RAP	Registered Aboriginal Parties
Rock Painting	Encompassing drawing, paintings or stencils that have been placed on a rock surface usually within a rock shelter.
Rock Engraving	Pictures which have been carved, pecked or abraded into a rock surface, usually sandstone and predominantly open, flat surfaces.
Sandstone	A detrital sedimentary rock with predominantly sand sized particles.
Scarred/ Carved Tree	A tree from which bark has been deliberately removed.
Sclerophyll	Denoting the presence of hard stiff leaves, typically used to classify forest and indicative of drier conditions.
Sedimentation	Deposition of sediment typically by water.
Silcrete	A sedimentary rock comprising of quartz grains in a matrix of fine grained – amorphous silica.
Silt	Fine soil particles in size ranges of 0.02 – 0.002mm.
Slope	A landform element inclined from the horizontal at an angle measured in degrees or as a percentage.

SHI	State Heritage Inventory
SHR	State Heritage Register
Subsoil	Subsurface material comprising the B and C horizons of soils with distinct profiles.
Stone Resource Site	A geological feature in the landscape from which raw material for the manufacture of stone tools was obtained.
Texture	The coarseness or fineness of a soil as measured by the behaviour of a moist ball of soil when pressed between the thumb and forefinger.
Topsoil	A part of the soil profile, typically the A1 Horizon, containing material which is usually darker, more fertile and better structured than the underlying layers.
Weathering	The physical and chemical disintegration, alteration and decomposition of rocks and minerals at or near the earth's surface by atmospheric and biological agents.

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APPENDICES

APPENDIX ONE SEARS DOCUMENT MP 11_0001 MOD 3



Mr Oliver Klein
Senior Associate
RobertsDay
Level 4, 17 Randle Street
SURRY HILLS NSW 2010

Our ref: MP 11_0001 MOD 3

Dear Mr Klein

**Section 75W Request for Secretary's Environmental Assessment Requirements
Maritime Facility (Former Sydney Heritage Fleet), Pyrmont - MP 11_0001 MOD 3**

As requested, please find attached Secretary's environmental assessment requirements (SEARs) for the preparation of an Environmental Assessment (EA) for the above modification. These requirements have been prepared in consultation with relevant public authorities based on the information you have provided to date. Attached is also a copy of the public authorities' comments for your information (refer to **Attachment A**). Please note that the Secretary may alter these requirements at any time.

If you do not lodge the EA within 2 years of the issue of these SEARs, you must consult further with the Secretary in relation to the preparation of the EA.

The Department wishes to emphasise the importance of effective and genuine community consultation, where a comprehensive, detailed and genuine community consultation engagement process must be undertaken as early as possible in the preparation of the EA. This process must ensure that the community is provided with a good understanding of what is proposed, how this relates to the existing approval and provide a clear description of any additional impacts and how they can actively engage in issues of concern to them.

The Department will review the EA prior to exhibition to determine if it addresses the SEARs. Please contact the Department at least two weeks before you propose to submit your EA.

If you have any questions, please contact Andrew Hartcher, Senior Planning Officer, on (02) 9274 6446 or via email at andrew.hartcher@planning.nsw.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'BL 12.4.17'.

Ben Lusher
Director
Key Sites Assessments
as the Secretary's nominee

Secretary's Environmental Assessment RequirementsSection 75W of the *Environmental Planning and Assessment Act 1979*

Application number	MP 11_0001 MOD 3
Project	Construction of a Maritime Facility
Location	3 Bank Street Pyrmont
Proponent	Urban Growth NSW
Date issued	12 April 2017
Expiry date	If the modification application is not exhibited within 2 years after this date, the proponent must consult further with the Secretary in relation to the preparation of the environmental assessment.
General requirements	The modification application must include: • An executive summary. • A description of the existing and surrounding environment. • A thorough description and justification of the proposal, including: ◦ a detailed justification for any proposed changes in use, design and built form; ◦ identification and analysis of alternatives, and environmental impacts; and ◦ description of the public benefits arising from the proposal. • Consideration of any statutory provisions (see below). • A detailed assessment of the key issues specified below, including: ◦ a description of the existing environment; and ◦ an assessment of the potential impacts of the modifications, including cumulative impacts. • An amendment to the approved Statement of Commitments (where relevant). • A conclusion justifying the proposal, taking into consideration the environmental impacts of the proposal, and the suitability of the site.
Key issues	The Environmental Assessment (EA) shall address the following: 1. Relevant EPIs, Strategies, Plans and Guidelines • Demonstrate that the project will comply with the relevant requirements set out in the following environmental planning instruments, policies, plans and guidelines: ◦ <i>State Environmental Planning Policy (State and Regional Development) 2011</i>; ◦ <i>State Environmental Planning Policy (State Significant Precincts) 2005</i>; ◦ <i>State Environmental Planning Policy (Infrastructure) 2007</i>; ◦ <i>State Environmental Planning Policy 33 – Hazardous and Offensive Development</i>; ◦ <i>State Environmental Planning Policy 55 - Remediation of Land</i>; ◦ <i>Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005</i>; ◦ <i>Sydney Regional Environmental Plan No. 26 (City West)</i>; ◦ <i>Sydney Harbour Foreshores and Waterways Area DCP 2005</i>; ◦ <i>Sydney Local Environmental Plan 2012</i>; ◦ <i>NSW 2021</i>; ◦ <i>Towards Our Greater Sydney 2056</i>; ◦ <i>Draft Central District Plan</i>; ◦ <i>A Plan for Growing Sydney</i>; ◦ <i>NSW Long Term Transport Master Plan</i>; ◦ <i>Sydney's Walking Future 2013</i>;

	○ <i>Sydney's Cycling Future 2013;</i> ○ <i>Sydney's Bus Future 2013;</i> ○ <i>Sydney's Rail Future 2013;</i> ○ <i>Development Near Rail Corridors and Busy Roads 2008;</i> ○ <i>the Bays Precinct Transformation Plan 2015;</i> ○ <i>Bank Street Pyrmont Master Plan 2006;</i> and ○ Nature and extent of any non-compliance with relevant environmental planning instruments, policies, plans and guidelines and justification for any non-compliance.
	2. Built Form / Urban Design • Include detailed justification for the height, bulk and scale of the proposed development within the context of the locality, its impacts on amenity, views and vistas, and how it would successfully relate to the built form of the existing and future character of the surrounding area. • Demonstrate design quality with specific consideration of the massing, waterfront interface, setbacks and visual impacts, including impacts on the waterway. • Provide a detailed justification for the nature of any built structures proposed on site and specify a maximum period for temporary structures to be in place. • Shadow diagrams.
	3. Public Domain and Public Access • Identify scope for public domain improvements, proposed open space, public domain and linkages with and between other public domain spaces, including the waterfront. • Details on the interface between the proposed uses, public domain, and the relationship to, and impact upon, the existing public domain, including demonstration of means of activating the public domain. • Address existing and future opportunities for public access to the foreshore, and consider provision for public access along the foreshore above the mean high water mark. • Demonstrate that the design of the foreshore access for the development proposal is compatible with the Sydney Harbour Cycleway and that a connection from the facility to potential developments adjacent to the site is maintained.
	4. Visual Impacts • A visual impact assessment shall be undertaken to identify the visual changes and view impacts of the project to/from key vantage points and surrounding properties. Photomontages or perspectives should be provided showing the project. • Ensure built structures are located to conserve views of the Anzac Bridge from key vantage points where possible.
	5. Transport and Accessibility Impacts • Justification for the proposed quantum of on-site car parking with consideration of the relevant RMS guidelines and Australian Standards and the likely impacts of parking provision on the surrounding street network. • Daily and peak traffic movements likely to be generated by the proposed development, including modelling and assessment of the performance of key intersections providing access to the site, and any upgrades (road/intersections) required because of the proposal. • Identification of Travel Demand Management (TDM) measures that will optimise the opportunity provided by the project site's proximity to public

	transport, including the preparation of a Work Place Travel Plan. • In relation to construction traffic: ○ cumulative impacts associated with other construction activities on the site; ○ details of anticipated truck movements to and from the site; ○ details of access arrangements for workers to/from the site, emergency vehicles and service vehicle movements; and ○ impacts on the temporary cruise ship terminal. • Details of any proposed transportation of waste materials via Sydney Harbour and proposed locations for handling materials. 6. Marina Development • Justify the suitability of the site for a marina development, including the infrastructure required to accommodate the proposal in this location. • Address the potential impacts due to marina construction and operations on marine vegetation, aquatic ecology. • Provide a detailed review of existing water-based activities in the area and the impact of the proposal on these activities. • Address the cumulative impact on increased boating activities in the locality including the provision of appropriate boating infrastructure. • Demonstrated consultation with the Harbour Master of the Port of Sydney and Roads and Maritime Services regarding potential navigation impacts and safety, and detailing any mitigation measures to minimise navigation impacts. 7. Flora and Fauna • Impacts on flora and fauna including threatened species, populations and endangered ecological communities and their habitats and steps taken to mitigate any identified impacts to protect the environment. 8. Water Quality • Address potential impacts on water quality, including surface water controls, management of slipways, hardstands and vessels, management of sewerage waste from vessels, fuel and chemical storage and spill management. • Assess the impacts of the proposal on surface and groundwater hydrology and quality. 9. Air Quality and Odour • Address potential air quality and odour impacts in accordance with the relevant Environment Protection Authority guidelines. • Identify the main air emission generating sources and activities from the proposed development during construction and operation. • Identify measures to minimise and mitigate potential air quality and odour impacts on surrounding occupiers. 10. Noise and Vibration • Address potential noise and vibration impacts in accordance with the relevant Environment Protection Authority guidelines. • Identify the main noise and vibration generating sources and activities from the proposed development during construction and operation. • Identify measures to minimise and mitigate potential noise and vibration impacts on surrounding occupiers. 11. Drainage and Flooding • Address drainage/flooding issues associated with the site, including: ○ Stormwater and drainage infrastructure;
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	○ Assessment of any flood risk in accordance with the guideline contained in the <i>NSW Floodplain Development Manual 2005</i>, including potential effects of climate change, sea level rise and an increase in rainfall intensity. 12. Waste Management • Identify all potential sources of liquid waste and non-liquid wastes as defined in the EPA's <i>Waste Classification Guidelines 2014</i>. The application should identify any waste that will be stored, separated or processed on the site and identify the procedures to be adopted to minimise, manage, dispose of this waste in accordance with the relevant standards and guidelines. 13. Utility Infrastructure • Address the existing capacity and any augmentation requirements of the development for the provision of utilities, including staging of infrastructure and additional licence/approval requirements in consultation with relevant agencies. • Identify any potential impacts on existing utility infrastructure and service provider assets, and demonstrate how these will be protected or impacts mitigated. 14. Ecologically Sustainable Development (ESD) • Detail how ESD principles (as defined in clause 7(4) Schedule 2 of the EP&A Regulation 2000) will be incorporated in the design, construction and ongoing phases of the development. • Outline resource, energy and water efficiency initiatives, including the use of sustainable technologies and or/renewable energy. • Provide an integrated Water Management Plan including alternative water supply, proposed end uses of potable and non-potable water, water sensitive urban design and water conservation measures. 15. Contamination • Identification of any contaminated material on site and demonstrate compliance with the requirements of <i>State Environmental Planning Policy 55 - Remediation of Land</i>. 16. Climate Change and Sea Level Rise • An assessment of the risks associated with sea level rise on the proposal in accordance with current NSW Government guidelines. 17. Heritage • Identify whether any listed or potential heritage items are located within the project area. If any items are likely to be affected, prepare a Heritage Impact Statement. • Prepare an Aboriginal and non-Aboriginal archaeological assessment detailing the likely impacts and outline the proposed management and mitigation measures to protect and preserve the archaeology. 18. Contributions • Address provision of public infrastructure, including Council's Section 94 Contributions Plan and/or details of any Voluntary Planning Agreement. 19. Statement of Commitments • The EA must include a Statement of Commitments detailing measures for environmental management, impact mitigation and on-going monitoring.
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Consultation	During the preparation of the modification application, you must consult with local, State or Commonwealth Government authorities, service providers, community groups and affected landowners, as relevant. In particular, you should consult with: • The City of Sydney Council; • Roads and Maritime Services; • Transport for NSW; • The Environment Protection Authority; • The Office of Environment and Heritage; • Property NSW; • The Department of Primary Industries; and • The Port Authority of NSW. The application must describe the pre-submission consultation process, issues raised and how the proposed development has been amended in response to these issues. A short explanation should be provided where amendments have not been made to address an issue.
Further consultation after 2 years	If you do not lodge a development application and EA for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EA.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans. While not exhaustive, the following attachment contains a list of some of the guidelines and plans that may be relevant to the environmental assessment of this proposal.

Plans & Documents

General requirements	The Environmental Assessment (EA) must include: 1. An executive summary; 2. A thorough site analysis including site plans, aerial photographs and a description of the existing and surrounding environment; 3. A thorough description of the proposed development; 4. An assessment of the key issues specified above and a table outlining how these key issues have been addressed; 5. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project; 6. The plans and documents outlined below; 7. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading; 8. A Quantity Surveyor's Certificate of Cost to verify the capital investment value of the project; and 9. A conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest.
Plans and Documents	The following plans and relevant documentation shall be submitted; 1. An existing site survey plan drawn at an appropriate scale illustrating: • the location of the land, boundary measurements, area (sqm) and north point; • the existing levels of the land in relation to buildings and roads; • location and height of existing structures on the site; • location and height of adjacent buildings and private open space; and • all levels to be to Australian Height Datum (AHD). 2. A locality/context plan drawn at an appropriate scale should be submitted indicating: • significant local features such as parks, community facilities and open space and heritage items; • the location and uses of existing buildings, shopping and employment areas; and • traffic and road patterns, pedestrian routes and public transport nodes. 3. Drawings at an appropriate scale illustrating: • the location of any existing building envelopes or structures on the land in relation to the boundaries of the land and any development on adjoining land; • detailed plans, sections and elevations; • the height (AHD) of the proposed development in relation to the land; and • any changes that will be made to the level of the land by excavation, filling or otherwise. 4. Shadow diagrams showing solar access to the site and surrounding areas at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March 21 and September 21) at 9.00 am, 12.00 midday and 3.00

	pm. 5. 3D modelling of the proposal and the surrounding development in digital format in accordance with the relevant guidelines. 6. Visual Impact Assessment - the visual impact assessment, including focal lengths, must be done in accordance with Land and Environment Court requirements, to/from key vantage points and surrounding land. Visual aids such as a photomontage must be used to demonstrate visual impacts of the project in particular having regard to siting, bulk and scale of built structures and their relationships with key areas. 7. Geotechnical Report – prepared by a recognised professional which assesses the risk of Geotechnical failure on the site and identifies design solutions and works to be carried out to ensure the stability of the land and structures and safety of persons. 8. Landscape plan - illustrating treatment of open space areas on the site, screen planting along common boundaries and tree protection measures both on and off the site. 9. Transport Impact Assessment. 10. Flora and Fauna Impact Assessment. 11. Integrated Water Management Plan. 12. Air Quality and Odour Impact Assessment. 13. Noise and Vibration Impact Assessment. 14. Waste Management Plan. 15. Ecologically Sustainable Design Report. 16. Heritage Impact Statement. 17. Archaeological Assessment. 18. Climate Change and Sea Level Rise Assessment. 19. Contamination Assessment. 20. Building Code of Australia Compliance Report and Accessibility Statement.
Documents to be submitted	• 1 hard copy and 1 electronic copy of all the documents and plans for the Test of Adequacy; • 5 hard copies of the documents (once the application has been determined adequate); • 4 hard copies of the plans at A3; • 4 copies of any photomontage boards at A0 in size illustrating east/west/south and north perspectives of the proposal; and

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| | <ul style="list-style-type: none">• 4 copies of all the documentation and plans on USB (PDF format). |
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