

Aboriginal Cultural Heritage Assessment Report

Hunter Street East Over Station Development

Aboriginal Cultural Heritage Assessment Report

October 2022

© artefact

Artefact Heritage ABN 73 144 973 526 Level 4, Building B 35 Saunders Street Pyrmont NSW 2009 Australia

+61 2 9518 8411 office@artefact.net.au

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
1 Draft		Sandra	Sandra		First draft
		Wallace	Wallace		
2	5 August	Elizabeth	Sandra		Revision 1
	2022	Bonshek	Wallace		
3	5 September	Elizabeth	Sandra	13 September	Revision 2
	2022	Bonshek	Wallace	2022	
4. Final	5 October	Elizabeth	Sandra		Final.
	2022	Bonshek	Wallace		

Document history and status

Author:
Project manager:
Project number:
Name of organisation:
Document version:

ACHAR Hunter Street East Over Station Development Elizabeth Bonshek Sandra Wallace

Artefact Heritage Final

© Artefact Heritage Services

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

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

EXECUTIVE SUMMARY

This Aboriginal Cultural Heritage Assessment Report (ACHAR) supports a Concept State Significant Development Application (Concept SSDA) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Concept SSDA is made under section 4.22 of the EP&A Act.

Sydney Metro is seeking concept approval for a commercial tower above the Hunter Street Station easter site (the site), otherwise known as the over station development (OSD).

The Concept SSDA seeks consent for a building envelope and its use for a commercial and retail premises, a maximum building height of 58 storeys (213m/reduced level 220.0), a maximum gross floor area (GFA) of 84,287m², pedestrian and vehicular access, circulation arrangements and associated car parking and the strategies and design parameters for the future detailed design of development (hereafter as the 'proposed development').

This ACHAR responds specifically to the Secretary's Environmental Assessment Requirements (SEARs).

The aim of this ACHAR is to identify Aboriginal cultural heritage values within the study area, conduct consultation with Registered Aboriginal Parties (RAPs) and to assess impacts to Aboriginal heritage that may result from the proposal.

This ACHAR draws upon the work carried out for the Sydney Metro West – Major civil construction work between The Bays and Sydney CBD (Stage 2 CSSI Application) - Technical Paper 4 Aboriginal Cultural Heritage Assessment Report to Sydney Metro completed in October 2021 (henceforth Stage 2 Technical Paper 4).

The study area is located within the Sydney City Central Business District, within the block bounded by Hunter Street, George Street and includes De Mestre Place. It lies within the City of Sydney LGA, and within the boundaries of the Metropolitan Local Aboriginal Land Council (LALC).

Consultation with Registered Aboriginal Parties (RAPs) has been completed.

Overview of findings

The following results and recommendations are based on consideration of:

- The requirements of Aboriginal heritage guidelines including:
 - The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010a) – known as The Code of Practice
 - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
 - The Aboriginal Cultural Heritage consultation requirements for proponents 2010 (OEH 2010b)- known as Consultation Guidelines)
- The SEARs issued for the proposal (Department of Planning, Industry and Environment in December 2020) on 18 August 2022.
- The results of the Stage 2 Technical Paper 4 completed by Artefact in April 2021 which included background research and an archaeological survey

The assessment found that:

- No previously registered Aboriginal sites were identified on the Aboriginal Heritage Information Management System (AHIMS) register.
- No previously unrecorded Aboriginal sites or objects were identified within the study area during the archaeological survey carried out for the Stage 2 Technical Paper 4.
- The proposed development does not involve ground disturbing work and would therefore not impact areas of Aboriginal archaeological potential.
- Through the consultation process it was established that the RAPs supported the ACHAR and the area held significance for Aboriginal people through their ongoing connection to land.

Recommendations

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

- As the proposed development would have no impact on the ground surface or subsurface ground it is recommended that further assessment is not required.
- Following the results of the consultation process, the Connecting with Country framework should be adopted for the future design process.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- If Aboriginal objects, or potential objects, are uncovered during the proposed development, all work in the vicinity must cease immediately and The Sydney Metro Unexpected Heritage Finds Procedure followed. A qualified archaeologist should be contacted to assess the find.
- If human remains, or suspected human remains, are found during the proposed development, all work in the vicinity should cease, the site should be secured, and the NSW Police and Heritage NSW should be notified, and The Sydney Metro Unexpected Heritage Finds Procedure and Exhumation Management Procedure should be followed.

CONTENTS

1.0	Introduction	1
1.1	Sydney Metro West	1
1.2	Background and planning context	1
1.	2.1 Critical state significant infrastructure	1
1.	2.2 State significant development application	2
1.	2.3 Planning proposal	2
1.3	Purpose and scope of the report	2
1.4	Secretary's Environmental Assessment Requirements	3
1.5	Project background	4
1.	5.1 Significance. Results of the Technical Paper 4	5
2.0	The site and proposal	7
2.1	Site location and description	7
2.2	Overview of the proposal	9
3.0	Legislative context	12
3.1	Introduction	12
3.2	NSW National Parks and Wildlife Act 1974	12
3.	2.1 National Parks and Wildlife Regulation 2019	12
3.3	NSW Environmental Planning and Assessment Act 1979	13
3	3.1 Local Environmental Plan	13
3.4	NSW Aboriginal Land Rights Act 1983	14
3.5	NSW Native Title Act 1994	14
3.6	Commonwealth Environment Protection and Biodiversity Conservation Act 1999	14
3.	6.1 National Heritage List	15
3.	6.2 Commonwealth Heritage List	15
4.0	Aboriginal community consultation	16
4.1	Aboriginal community consultation	16
4.2	Identification of Aboriginal stakeholders and registrations of interest	16
4.3	Review of ACHAR assessment methodology	17
4.4	Review of draft Aboriginal Heritage Assessment report	18
5.0	Environmental context	20
5.1	Geology and soils	20
5.2	Landforms and hydrology	23
5.3	Vegetation	23
5.4	European history and land use	25
6.0	Archaeological and ethnographic context	28
6.1	Ethnographic and historical evidence	28

Sydney Metro West - Hunter Street East Over Station Development Aboriginal Cultural Heritage Assessment Report

6.2	Archaeological evidence	31
6.3	Registered Aboriginal sites	32
6.	3.1 AHIMS site 45-6-2796	36
6.4	Previous archaeological investigations	37
6.5	Predictive model	46
7.0	Site survey methodology	49
7.1	Aboriginal site definition	49
7.2	Archaeological survey methodology	49
7.	2.1 Methodology	49
7.	2.2 Site inspection	49
7.	2.3 Aims of archaeological survey	51
7.3	Archaeological survey coverage	51
7.4	Survey results	51
8.0	Significance assessment	52
8.1	Significance assessment methodology	52
8.2	Socio/cultural significance	53
8.3	Historic significance	53
8.4	Scientific significance	53
8.5	Aesthetic significance	54
8.6	Statement of significance	54
9.0	Avoiding and minimising harm	55
9.1	Proposed works	55
9.2	Impact assessment methodology	55
9.3	Aboriginal heritage impact assessment	55
9.4	Ecologically Sustainable Development principles	56
9.	4.1 The integration principle	56
9.	4.2 The precautionary principle	56
9.	4.3 The principle of intergenerational equity	56
9.5	Cumulative impacts	56
10.0	Management and mitigation measures	57
10.1	Ongoing consultation with registered Aboriginal parties	57
10.2	Unexpected finds	57
11.0	Conclusions and recommendations	58
12.0	References	60
13.0	Appendix	62

FIGURES

Figure 1. Sydney Metro West	1
Figure 2. Map of the study area	8
Figure 3. Proposed Concept SSDA development and CSSI scope	11
Figure 5. Soil landscapes across the study area	21
Figure 6. Reconstruction of the original topography of the current Sydney CBD with approximate location of the study area in red (Aplin 2013: 23)	22
Figure 7. Location of Tank Stream and other historical water courses with respect to Hunter Street Station East study area shown in red (Aird 1861)	24
Figure 8. The study area in relation to the settlement at Sydney Cove in 1792	27
Figure 9. A Native Camp near Cockle Bay, New South Wales with a view of Paramatta River, taken from Dawes's Point/ drawn by J. Eyre; engraved by P. Slaeger. Image source: State Library of NSW (file no. FL1790486)	V
Figure 10. Aboriginal activities on the shore of Port Jackson in 1824. Image source: Peron and Freycinet 1824 (McBryde 1989: 26)	30
Figure 11. "Aboriginies fishing, cooking, and eating in canoes". Watercolour by an unknown artist, often attributed to Phillip Gidley King (the elder); undated, circa 1788-92. Image Source: Mitchell Library, State Library of NSW	31
Figure 12. Results of extensive AHIMS search in relation to the study area	33
Figure 13. AHIMS sites within the vicinity of the study area. Location of AHIMS ID 45-6-2796 is considered to be inaccurately mapped (see Section 6.3.1 below)	35
Figure 14. Locations of previous Aboriginal archaeological studies in the vicinity of the study area	37
Figure 15. Identified areas of Aboriginal archaeological sensitivity according to Pyrmont Peninsula Place Strategy, study area outlined in red	43
Figure 16. View north-east along O'Connell Street, construction site on right	50
Figure 17. View south-east along Hunter Street.	50
Figure 18. View north from corner of Hunter Street and Bligh Street	50
Figure 19. View south-west along Bligh Street	50

TABLES

Table 1. Secretary's Environmental Assessment Requirements	4
Table 2. Site legal description	9
Table 3. Proposed development overview	. 10
Table 4. Groups or individuals registered as RAPs	. 17
Table 5 Summary of RAP comments on the Assessment Methodology	. 18
Table 6. Summary of RAP comments on the draft ACHAR	. 19
Table 7. Frequency of recorded site types.	. 34
Table 8: Previous archaeological studies close to the proposal	. 38
Table 9. Effective survey coverage (16 July 2021)	. 51
Table 10. Landform survey coverage (16 July 2021)	. 51
Table 11. Burra Charter Heritage significance criteria	. 52
Table 12. Scientific significance assessment	. 53
Table 13. Summary of impacts	. 55

1.0 INTRODUCTION

1.1 Sydney Metro West

Sydney Metro West will double rail capacity between Greater Parramatta and the Sydney Central Business District (CBD), transforming Sydney for generations to come. The once in a century infrastructure investment will have a target travel time of about 20 minutes between Parramatta and the Sydney CBD, link new communities to rail services and support employment growth and housing supply.

Stations have been confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street.

Sydney Metro West station locations are shown in Figure 1 below.

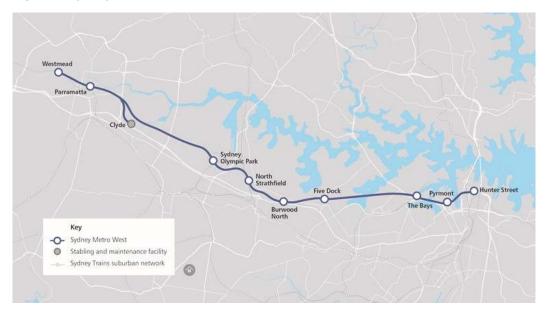


Figure 1. Sydney Metro West

1.2 Background and planning context

Sydney Metro is seeking to deliver Hunter Street Station under a two part planning approval process. The station infrastructure is to be delivered under a Critical State Significant Infrastructure (CSSI) application subject to provisions under division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), while the over station developments are to be delivered under a State Significant Development (SSD) subject to the provisions of part 4 of the EP&A Act. It is noted a Planning Proposal request has been submitted to the City of Sydney Council to amend the planning controls on the site (refer to section 1.2.3.).

1.2.1 Critical state significant infrastructure

The state significant infrastructure (SSI) planning approval process for the Sydney Metro West metro line, including delivery of station infrastructure, has been broken down into a number of planning application stages, comprising the following:

- Concept and Stage 1 CSSI Approval (SSI-10038) All major civil construction works between Westmead and The Bays including station excavation, tunnelling and demolition of existing buildings (approved 11 March 2021).
- Stage 2 CSSI Application (SSI-19238057) All major civil construction works between The Bays and Hunter Street Station (under assessment).
- Stage 3 CSSI Application (SSI-22765520) Tunnel fit-out, construction of stations, ancillary facilities and station precincts between Westmead and Hunter Street Station, and operation and maintenance of the Sydney Metro West line (under assessment).

1.2.2 State significant development application

The SSD will be undertaken as a staged development with the subject concept state significant development application (Concept SSDA) being consistent with the meaning under section 4.22 of the EP&A Act and seeking conceptual approval for a building envelope, land uses, maximum building heights, a maximum gross floor area, pedestrian and vehicle access, vertical circulation arrangements and associated car parking. A subsequent Detailed SSD/s is to be prepared by a future development partner which will seek consent for detailed design and construction of the development.

1.2.3 Planning proposal

A Planning Proposal request has been submitted to the City of Sydney Council to amend the planning controls that apply to the Hunter Street Station under the Sydney *Local Environmental Plan 2012* (LEP). Hunter Street Station includes both an eastern site (this application) and western site.

The Planning Proposal request seeks to enable the development of a commercial office building on the site that would:

- comprise a maximum building height of between reduced level (RL) 257.7m and RL 269.10m (as it varies to comply with the relevant sun access plane controls)
- Deliver a maximum gross floor area (GFA) of 84,287m2 (resulting in a maximum floor space ratio (FSR) of 22.82:1), measured above ground level.
- Facilitate the adaptive reuse of the existing Former Skinners Family Hotel within the overall development.
- Include site specific controls which ensure the provision of employment and other nonresidential land uses.
- Require the mandatory consideration of a site-specific Design Guideline.
- Allow for the provision of up to 70 car parking spaces.
- Establish an alternative approach to design excellence.

The Planning Proposal request was submitted to the City of Sydney in May 2022 and is currently under assessment.

1.3 Purpose and scope of the report

This ACHAR considers the construction impacts on Aboriginal cultural heritage and potential archaeological resources within the study area and includes:

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

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

- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales
 2010 Department of Environment Climate Change & Water [DECCW] 2010a
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (Office of Environment & Heritage 2011)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW) 2010b
- The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS 2013).

1.4 Secretary's Environmental Assessment Requirements

The SEARs for this proposal were awarded (SSD-46246713 Department of Planning, Industry and Environment) on 8 August 2022. The SEARs require that an ACHAR be undertaken following the appropriate guidelines:

Where there is potential for direct or indirect impacts, provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site.

The requirements for the SEARs are addressed within this document at the following locations (Table 1).

ltem	Secretary's Environmental Assessment Requirements	Where addressed in this report
1	identify and describe the Aboriginal cultural heritage values that exist across the development and document in an Aboriginal Cultural Heritage Assessment Report (ACHAR), unless otherwise agreed by Heritage NSW that an ACHAR is not required	Section 5, 6, 7
2	consultation with Aboriginal people must be undertaken and documented in an ACHAR	Section 3
3	a description of the impacts on Aboriginal cultural heritage values	Section 8, 9

Table 1. Secretary's Environmental Assessment Requirements

1.5 Project background

This ACHAR supports a Concept State Significant Development Application (SSDA) for a building envelope above the Hunter Street Station eastern site (the site) for which an over station development (OSD) is proposed.

The Department of Planning and Environment (DPE) have advised that an ACHAR would be required to progress the application.

This ACHAR draws upon the work carried out for the Stage 2 CSSI Application - Technical Paper 4. Aboriginal Cultural Heritage Assessment Report completed in October 2021 (henceforth Stage 2 Technical Paper 4).

The Stage 2 Technical Paper 4 is an assessment of major civil construction work between The Bays and Sydney CBD. It focused on surface and subsurface impacts along the proposed route to assess the impact on Aboriginal heritage values at sites proposed for new stations as well as the proposed route of tunnel construction and associated installation of infrastructure. The report included demolition, utility supply and excavation of proposed stations.

Consultation was undertaken with RAPs for Stage 2 in accordance with the *Aboriginal cultural heritage consultation requirements for proponents* 2010 (DECCW 2010b). Sixty Aboriginal parties registered an interest and were consulted.

This ACHAR focuses on the proposed development at Hunter Street Station and draws upon the work presented in the Stage 2 Technical Paper 4. As the subject of this ACHAR is a proposed development, it will not create any ground impacts because it proposes works in an above ground building envelope. Technical Paper 4 has already investigated and assessed the potential impacts on Aboriginal cultural heritage values at the site as a result of ground surface and subsurface works. This ACHAR draws upon the research and conclusions of that report.

The Stage 2 Technical Paper 4 was carried out with full consultation with RAPs. This ACHAR draws upon the RAP list established in the Stage 1 of the Sydney Metro West project. In accordance with statutory requirements governing consultation, Technical Paper 4 carried out a significance assessment (Section 9). Elements from the significance assessment are summarised here as the RAP

comments are pertinent to the site which is the specific subject of this ACHAR. This ACHAR will also conduct a Significance Assessment and open up opportunity for further comments.

1.5.1 Significance. Results of the Technical Paper 4.

1.5.1.1 Social / cultural significance

Across the study areas included in Stage 2 Technical Paper 4, Aboriginal cultural knowledge was acknowledged as traditionally bequeathed through oral traditions from generation to generation. Within all Aboriginal communities there was a time of dislocation and upheaval associated with the arrival of colonial settlers. This widespread disruption resulted in much of the detailed knowledge and understanding of many of the elements of the cultural landscape being lost from the Aboriginal community, nonetheless many Aboriginal people maintain a strong connection to the land of their ancestors and collectively possess a wealth of knowledge passed down through the generations.

The consultation carried out in association with the Stage 2 Technical Paper 4 demonstrated that the study areas demonstrated a particular connection with Sydney Harbour. Sydney Harbour area included locations for ceremonial activities as well as a resource gathering places. Sites are associated with initiation ceremonies and cockle shell deposits and associations with the Sydney Harbour foreshore, include the presence of women's sacred sites associated with freshwater resources.

One RAP noted that landscapes and landforms hold specific cultural connection to Aboriginal people due to the values of respect and belonging to the land (Country). It was noted that Aboriginal sites are connected through the landscape, and that Aboriginal people would move through areas following signs in the landscape. Another RAP noted that the waterways are meant to be cared for. The sandstone nature of the area was noted for its connection to Aboriginal lore and its potential to hold engravings depicting lore stories.

Several RAPs noted that, with the rapid urbanisation of Sydney, many sites and significant landform features are being lost and, with that, the original sites which were associated with these stories.

1.5.1.2 Historic significance

The locations subject to assessment in the Stage 2 Technical Paper 4 were noted to hold high levels of significance to Aboriginal people because they were places in which previous generations interacted with European explorers, settlers and soldiers.

One RAP noted that Elizabeth Street was used as a track through the landscape both before 1788 and immediately after contact. The freshwater resources along this track (partly within the wider Tank Stream catchment) were highlighted as providing important resources for Aboriginal people. The area of the early Sydney colony was noted to have connection with the figures of Bennelong and Barangaroo. Barangaroo in particular was noted due to the presence of the Tank Stream in close proximity to the study area and the connection of freshwater with women's sites. The Harbour foreshore too, would have continued to be a gathering place for Aboriginal people after 1788 due to its importance as a ceremonial site.

In summary, the RAPs expressed the view that the Sydney city area is deeply associated with historical value because of the use of the land by Aboriginal people, as well as contact between Europeans and Aboriginal people in the early colony of Sydney. They identified cultural connections with the landscape, including the freshwater resources, marine resource area of Sydney Harbour, and the sandstone nature of the land within it. The harbour and former foreshore area are recognised as part of a wider landscape representing strong cultural connection for Aboriginal people and indicates high social significance. The memory of Bennelong and Barangaroo in association with the early

contact period and the fledgling Sydney colony on Sydney Harbour contributes to the historic significance of the area. These connections are considered to result in high levels of social and historic significance.

These socio/cultural and historical values adhere regardless of substantial levels of disturbance and regardless of the assessment of low scientific significance of the ground surface and subsurface potential.

This ACHAR will renew enquiries into the social and cultural significance of the proposed development. The consultation process, which will commence with an invitation to respond to the Assessment Methodology, will provide a second opportunity for RAPs to contribute and participate in a discussion of the social, cultural and historical significance of the site.

2.0 THE SITE AND PROPOSAL

2.1 Site location and description

Hunter Street Station is in the northern part of the Sydney CBD, within the commercial core precinct of Central Sydney and within the Sydney Local Government Area (LGA). The Hunter Street Station includes two sites – the eastern site and the western site. This report relates to the eastern site only.

The Hunter Street Station eastern site (the site) is on the corner of O'Connell Street, Hunter Street and Bligh Street adjacent to the existing CBD and South East Light Rail that extends from Circular Quay to Moore Park, Kensington and Kingsford. The east site is adjacent to the new Martin Place Station which forms part of the Sydney Metro City and Southwest, Australia's biggest public transport project connecting Chatswood to Sydenham and extending to Bankstown. The remainder of the site is currently occupied by commercial office buildings and a range of ground floor business premises including retail, restaurants and cafes.

The site area is 3,694m² and will be cleared of all buildings and utilities prior to commencement of station construction activities.

The study is a block bounded by Hunter Street, O'Connell Street and Bligh Street (Figure 2). It lies within the City of Sydney LGA, and within the boundaries of the Metropolitan Local Aboriginal Land Council (LALC).

Figure 2. Map of the study area



Document Path: D:\GIS\GIS_Mapping\22112 Sydney Metro West Hunter Street\GIS\MXD\Study Area.mxd



Table 2 sets out the address and legal description of the parcels of land that comprise the site.

Table 2. Site legal description

Address	Lot and DP
28 O'Connell Street, Sydney	Lot 1, DP217112
28 O'Connell Street, Sydney	Lot 1, DP536538
28 O'Connell Street, Sydney	Lot 1, DP1107981
48 Hunter Street, Sydney	Lot 1, DP59871
48 Hunter Street, Sydney	Lot 2, DP217112
33 Bligh Street, Sydney	Lot 1, DP626651
37 Bligh Street, Sydney	CP and Lots 1-14, 21-31, 33-36, and 40, SP58859
37 Bligh Street, Sydney	CP and Lots 41-49, SP61852
37 Bligh Street, Sydney	CP and Lots 50-57, SP61922
37 Bligh Street, Sydney	CP and Lots 58-65, SP61923
37 Bligh Street, Sydney	CP and Lots 66 and 67, SP63146
37 Bligh Street, Sydney	CP and Lots 67-70, SP63147
37 Bligh Street, Sydney	CP and Lot 72, SP74004
37 Bligh Street, Sydney	CP and Lots 75-82, SP87437
37 Bligh Street, Sydney	CP and Lots 73-74, SP87628
	Total Area: 3,694m ²

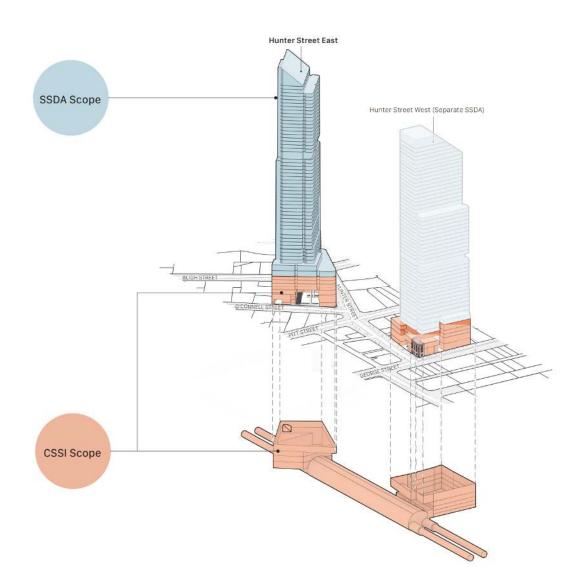
2.2 Overview of the proposal

The Concept SSDA will seek consent for a building envelope above the site (the proposed development) as detailed in Table 3 and Figure 3 and **Error! Reference source not found.**.

Built form component	Proposed development outcome
Site area	3,694m ²
Height	Building height of 257.7m (RL 269.10)
Ground floor area	Up to 84,223m ²
Land use(s)	Commercial office and retail
Carparking	Up to 70 car parking spaces

Table 3. Proposed development overview





3.0 LEGISLATIVE CONTEXT

3.1 Introduction

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

3.2 NSW National Parks and Wildlife Act 1974

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

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

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

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

However, as the <u>proposed development</u> will be subject to assessment under Section 4.1 of EP&A Act, Schedule 2 of the Environmental Planning and Assessment Regulation 2021 permits allowing harm to Aboriginal objects.

3.2.1 National Parks and Wildlife Regulation 2019

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

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

- Clause 60 consultation process to be carried out before application for Aboriginal heritage impact permit
- Clause 61 application for Aboriginal heritage impact permit to be accompanied by cultural heritage assessment report.

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

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

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

3.3 NSW Environmental Planning and Assessment Act 1979

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

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

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

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

3.3.1 Local Environmental Plan

Local Environmental Plans (LEPs) are prepared by councils in accordance with the EP&A Act to guide planning divisions for LGAs. The aim of LEPs in relation to heritage is to conserve the heritage significance listed within this schedule.

Schedule 5 of each LEP lists items of heritage significance within each LGA. If agreement is reached with the Aboriginal community, items or Aboriginal places of heritage significance are also listed within this schedule. While State Significant Development projects are not subject to environmental planning instruments (such as LEPs), the assessment of heritage items listed on the LEPs is required under the standard SEARs for the proposal.

The proposal would fall within the boundaries of the Sydney LGA. The proposal would fall within the area covered by the following environmental planning instruments:

• Sydney Local Environment Plan 2012.

No Aboriginal places of heritage significance were identified on the Sydney LEP within the vicinity of the proposal.

3.4 NSW Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act* 1983 is administered by the NSW Department of Human Services - Aboriginal Affairs. This Act established Aboriginal Land Councils (at State and local levels). These bodies have a statutory obligation under the Act 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.

The study area is located within the Metropolitan LALC boundaries.

3.5 NSW Native Title Act 1994

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

The main objects of the Native Title Act 1993 are:

- To provide for the recognition and protection of native title; and,
- To establish ways in which future dealings affecting native title may proceed, and to set standards for those dealings; and
- To establish a mechanism for determining claim to native title; and,
- To provide for, or permit, the validation of past acts, and intermediate period acts, invalidated because of the existence of native title.

No Native Title Claims were identified on the National Native Title Tribunal *Native Title Vision* mapping service. (Accessed by Elizabeth Bonshek on 12 May 2022 via: https://nntt.maps.arcgis.com/apps/webappviewer/index.html?id=b221c006ae5d4cabaa1e18099bc11b b9).

3.6 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

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

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

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

The Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984 can protect areas and objects that are of particular significance to Aboriginal people by allowing the Environment Minister, on the application of an Aboriginal person or group of persons, to make a declaration to protect an area, object or class of objects from a threat of injury or desecration.

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

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

3.6.1 National Heritage List

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

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

3.6.2 Commonwealth Heritage List

The Commonwealth Heritage List is a list of places managed or owned by the Australian Government.

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

4.0 ABORIGINAL COMMUNITY CONSULTATION

As a result of the consultation process one RAP raised the need for connecting with Country to be undertaken as part of this proposal.

Although the physical remains are not there the intangible aspects should be considered. Connecting to country is much more then art and interpretation, it's about caring for county spiritually, physically and allowing mother earth to be heathy and full life.

Sydney Metro West has established a Connecting with Country Working Group. This has been established in accordance with the Government Architect NSW Connect with Country Framework. This is a separate process to the Aboriginal cultural heritage assessment process undertaken as part of this ACHAR.

4.1 Aboriginal community consultation

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

A consultation log has been maintained which details all correspondence with the RAPs for the project.

4.2 Identification of Aboriginal stakeholders and registrations of interest

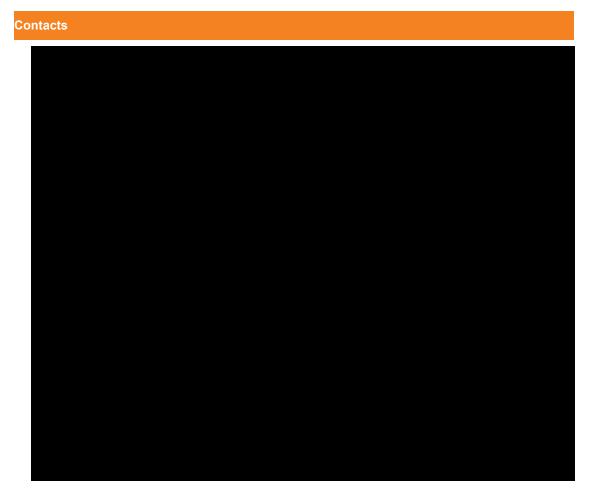
The consultation process undertaken to support the ACHAR for the major civil construction work for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process for Sydney Metro West) has been continued for this proposal and the consultation stages outlined below.

A total of 60 RAPs registered their interest in the *Sydney Metro West between Westmead and The Bays* ACHAR and their registrations and involvement continue with this report.

Documentation of the consultation process will be provided in the Appendix

The 60 RAPs are listed in Table 4.





4.3 Review of ACHAR assessment methodology

A copy of the ACHAR methodology for the project was distributed to the RAPs on 16 June 2022 with a 28-day period for review and comment. The document included details of the proposal and a summary of the proposed ACHAR assessment methodology.

A summary of comments received from four (4) RAPs is provided in Table 5.

Person/ RAP group	Comment
	" I have read the assessment methodology ACHAR for the above project, I endorse the recommendations made. Kind regards"
	"I have read the project information, ACHAR, and methodology for the above project, and I agree with the recommendations made".
	I have reviewed the document and support the Information and Methodology.
	"We would like to agree to your methodology and we look forward to further consolation [sic] on this project." Summary of full comment: The area is highly significant because Aboriginal people have occupied, cared for and walked the land for thousands of years. Aboriginal people have abided by lore, kinship and customs, and created thriving environments; water is important and Aboriginal people have followed waterways tens of thousands of years and are connected through them.

Table 5 Summary of RAP comments on the Assessment Methodology

4.4 Review of draft Aboriginal Heritage Assessment report

On 5 August 2022, the draft Aboriginal Cultural Heritage Assessment Report was emailed to the RAPs for comment (28 days review period).

There was one response to the draft Aboriginal Heritage Assessment which was supportive of the report's recommendations. The response is included in full in Table 6.

Person/ RAP group	Comment	Response
	"The study areas is close by to many water ways run near by the study areas. These water ways would have been utilised and the surrounding area full of flora and fauna allowing Aboriginal people to thrive. Mother earth cares and provides for us and in return we care for her. We would like to see the project regenerated flora and fauna where possible, allow room for interpretation and connecting to county in an culturally appropriate way.	Sydney Metro has piloted the Government Architect Office's Connect with Country Draft Framework. It is suggested this framework is referred to during the design development for OSD.
	Although the physical remains are not there the intangible aspects should be considered. Connecting to country is much more then art and interpretation, it's about caring for county spiritually, physically and allowing mother earth to be heathy and full life. Aboriginal people in fact all people have a responsibly; philosophy, law and religion, home, county family, kinship, spirt, soul and psyche, as Uncle Bob Randall said.	
	We agree to your recommendations, and we support your ACHA We would like to be involved in furthering consultation in regard to the project".	

Table 6. Summary of RAP comments on the draft ACHAR

5.0 ENVIRONMENTAL CONTEXT

5.1 Geology and soils

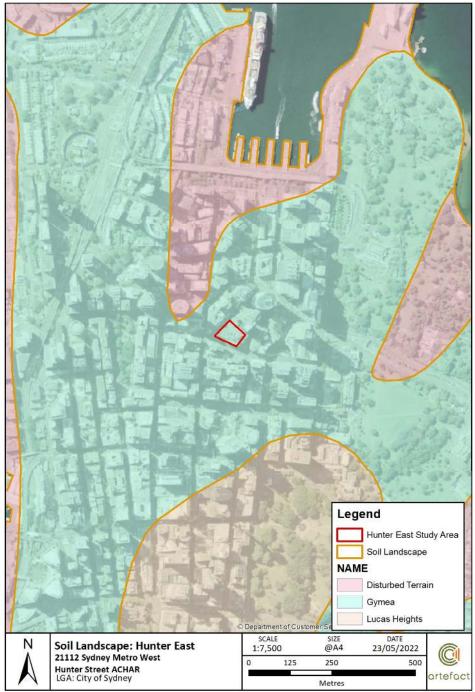
The proposal is located within the Sydney Harbour foreshores area of the wider Sydney Basin. The Sydney Basin is a large depositional geological feature that spans from Batemans Bay to the south, Newcastle to the north and Lithgow to the west.

The underlying geology of the study area consists of Triassic aged Hawkesbury Sandstone. Hawkesbury Sandstone is overlaid by the Gymea soil landscape which consists of shallow to moderately deep sandy soils with frequent rock outcrops (Figure 4). The Gymea soil landscape is generally associated with undulating to rolling rises and low hills. Soils within the Gymea soil landscape vary with underlying landform with crests and side slopes generally associated within a quartz sandy loam directly overlying bedrock Shale lenses are documented to occur within this landscape which are generally associated with a clay deposit underlying the A horizon sand deposit (Espade 2021, Gymea soil landscape

https://www.environment.nsw.gov.au/Salisapp/resources/spade/reports/9130gy.pdf accessed 17 June 2022).

The Sydney CBD has been subject to substantial landform modification which makes interpretation of the former landscape challenging. Reconstructions of the original topography of the Sydney CBD suggest that originally it comprised of two north-south running ridgelines located at the Rocks and within Hyde Park (Figure 5). These landforms were connected by a valley which formed the Tank Stream water catchment area.





Document Path: D:\GIS\GIS_Mapping\22112 Sydney Metro West Hunter Street\GIS\MXD\Soil Landscape.mxd

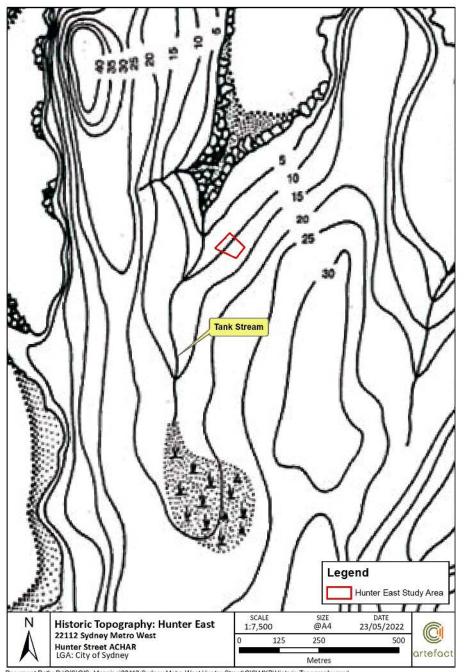
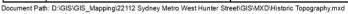


Figure 5. Reconstruction of the original topography of the current Sydney CBD with approximate location of the study area in red (Aplin 2013: 23).



5.2 Landforms and hydrology

The main watercourse within the original area of the Sydney CBD is known as the Tank Stream. The Tank Stream formed from a combination of seepage springs in the vicinity of what is now Hyde Park, as well as surface runoff from the surrounding catchment which was localised within the current Sydney CBD. The Tank Stream consisted of an open watercourse flowing generally north along the current alignments of Pitt Street and George Street before flowing into Sydney Cove near the intersection of Pitt and Alfred Street (Wong 1999).

The Tank Stream has been canalised since the mid-nineteenth century and in many cases such actions resulted in the original water course being re-routed or moved as part of modern sewerage and stormwater control (Mathews 1982).

The Tank Stream Valley had surface drainage in the vicinity of present-day Market Street, flowing north to be augmented by springs in the walls and side gullies, before cutting a definite channel in the vicinity of present-day King Street. The stream descended rapidly from this point flowing into an area of the bay since reclaimed by the construction of Circular Quay West (GML 1997: 11). The foreshore around Sydney would have been comprised of clean white sand which graduated to mud banks at the entrance of the stream.

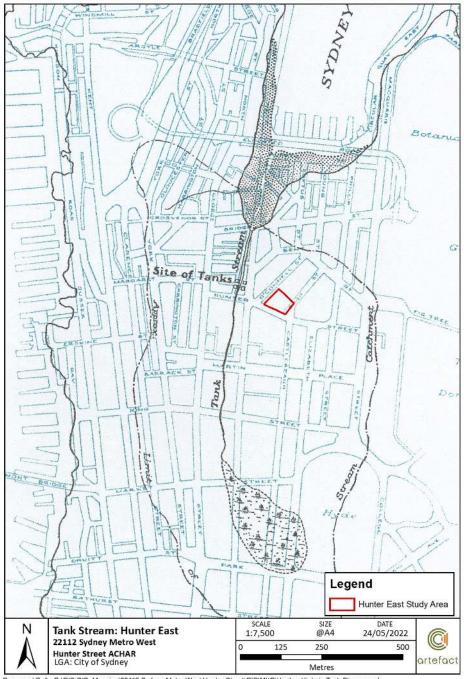
5.3 Vegetation

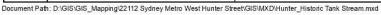
The vegetation of the study area originally would have consisted of a combination of Coastal Dry Sclerophyll Forest and Coastal Heaths. The Dry Sclerophyll Forest grows on sandstone landscapes in areas below 700 metres elevation, where rainfall average varies from 1,000 to 1,300 millimetres per annum. This vegetation type encompasses a wide range of related forest and woodland communities. The eucalypt canopy includes Sydney red gum, red bloodwood and Sydney peppermint, brown stringybark, broadleaved scribbly gum and old man banksia. The prominent and diverse sclerophyll shrub understory is shorter and more open on ridges than in gullies, while the open ground layer is dominated by sclerophyll sedges (Keith, 2004).

Analysis of plant fossils identified at 200 George Street found that casuarina swamp forest dominated in the estuary of the Tank Stream or was present as stands growing along the lower reaches of the stream, with ground ferns dominating damp sites. The study concluded that the vegetation within and surrounding the Tank Stream Valley in 1788 was part of a cultural landscape shaped and managed by Aboriginal people through millennia of burning (Macphail, M.K. and T. Owens, 2018).

The region in general would have provided an abundance of native animals for food and a number of other materials. Mammals such as kangaroos and wallabies and arboreal mammals such as possums can be used as a food source and also for tool making. For example, tail sinews are known to have been used as a fastening cord, whilst 'bone points' which would have functioned as awls or piercers are an abundant part of the archaeological record (Attenbrow 2002a: 118). Ethnographic observations of early European settlers noted that Aboriginal people used a variety of animal parts including claws, talons, bone, skin, teeth, shell, fur and feathers for a variety of tools and non-utilitarian functions. The region would have provided a variety of resource and suitable climatic conditions for year-round occupation by Aboriginal people inhabiting the area.

Figure 6. Location of Tank Stream and other historical water courses with respect to Hunter Street Station East study area shown in red (Aird 1861).





5.4 European history and land use

The study area lies in the heart of the Sydney Central Business District. It lies at the site of the first settlement at Sydney Cove (Figure 7) and within the original catchment of the Tank Stream (Figure 6), which would have served as a water source prior to European contact as well as for the fledgling Sydney colony. The Tank Stream has been canalised since the mid-nineteenth century and in many cases such actions resulted in the original water course being re-routed or moved as part of modern sewerage and stormwater control (Mathews 1982).

Following European settlement at Port Jackson, Sydney emerged as the hub of government and administration in the new colony. The freshwater source later known as the Tank Stream played a key role in the selection of the Port Jackson site, and as the colony grew, the water source was put under pressure and increasingly polluted as Sydney Town developed around it (Figure 7) (Austral Archaeology 2005: ii).

As the population of the colony grew, the spatial organisation of the colony became more complex. The Tank Stream served as a demarcation between the government's administrative centre and the convict settlement (Sydney Water 2005: 21-22). Emerging centres like Circular Quay became home to more well-to-do settlers, whilst The Rocks became a working-class suburb associated with the maritime industry concentrated around the harbour. The proposed construction site would be located on some of Sydney's oldest streets which have a long and dynamic past. George Street (formerly known as High Street or Main Street) is considered the earliest road in the colony, with Pitt Street and Hunter Street also representing early thoroughfares with similarly humble beginnings as dirt roads (Austral Archaeology 2005: ii: 9). Given the central nature of these streets, they were also home to important early civic buildings like Government House, Naval Stores and Provision stores.

From as early as the 1790s, leases were granted for the occupation and development of the land around these main streets in the heart of Sydney, such as to William Jamieson in the vicinity of the subject site (Austral Archaeology 2005: ii). An 1807 plan shows leaseholds to Robert Turnbull, John Black and William Jamieson encompassing the Hunter Street Station western site and the lease of a small block to James Petty on the corner of the Hunter Street Station eastern site (Austral Archaeology 2005: ii). The earliest development in the area – related to those leases – were small timber huts, known to have been located along Pitt Row and High (now George) Street (Austral Archaeology 2005: ii); Godden Mackay 1995: 10 and 12).

By the 1820s, development had expanded beyond the initial extent of the original township of Sydney and larger and more substantial dwellings were built. Into the 1830s, major leases taken out relating to the site. Other leases were also soon subject to official land grants, with early subdivision subsequently occurring in the surrounding area from the 1840s onward (Godden Mackay 1995:9). By the 1830s, major leases had also been taken out relating to the Hunter Street Station eastern site from Bligh to O'Connell Streets.

The growth of the city in the nineteenth century led to a rapid increase in imports to meet the demands of a population desiring foods and products from England which were not locally produced. Given the central location of George, Hunter and Pitt Streets, and the function of George Street as a main thoroughfare to the wharfs, produce and retail suppliers flourished in the surrounding streets close to the study area. The area thus emerged as a key manufacturing, commercial and storage/warehousing precinct for these goods (Austral Archaeology 2005: 11).

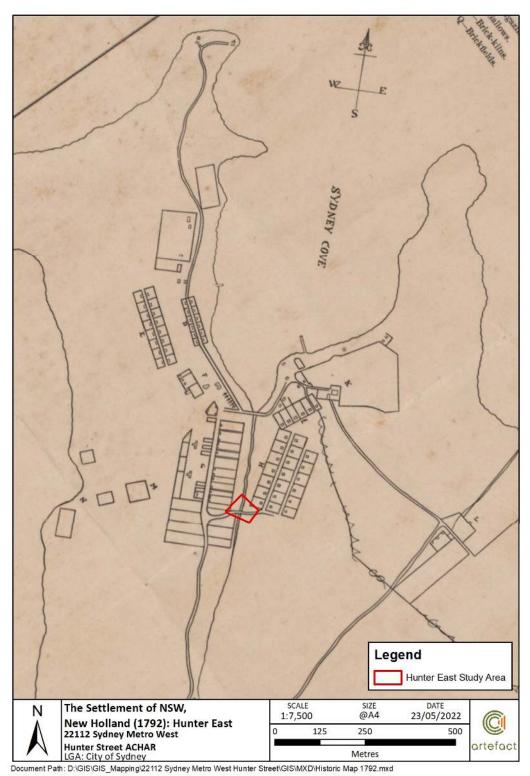
During the early 1860s, many of the major roads surrounding the site were formalised and ballasted, including George Street and Hunter Street, aiding the ease of access to the area and creating streets

more aesthetically pleasing than those of dirt.¹ Formal kerb and guttering was also constructed during the period. This area of the city was quite densely developed and built upon by 1880s, with the CBD evolving from a manufacturing and warehousing function to increasingly just commercial (i.e. customer-facing storefronts) business premises (Heritage 21, 2015: 5).

In the late 1890s, technical innovations in the form of power lifts allowed taller buildings, over ten storeys in height, to be built with ease, leading to rapid rise in redevelopment from the 1890s onward (Godden Mackay 1995: 26). By 1910, a large number of businesses occupied the land around the site. Many of the properties retain the same street numbers since that time.

All the existing buildings within the Hunter Street Station eastern site have deep basements (two storeys or lower) which encompass the entirety of their building footprints. As a result, all former soil deposits are expected to have been removed. The construction of the current Sydney Metro City & Southwest site on Bligh Street involved deep excavation work through bedrock, further removing any residual archaeological remains that may have been located in this area prior to excavation. The study area has been completely transformed from its original state, and its history since settlement has been one of ongoing construction and modification.

¹ City Works Office, "Improvements Vol 1 1862" and "Improvements Vol 2 1862" held in the City of Sydney Archives.



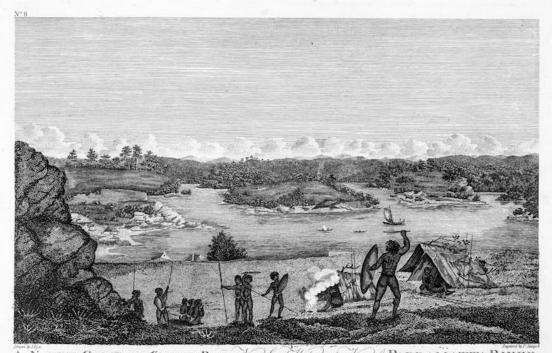


6.0 ARCHAEOLOGICAL AND ETHNOGRAPHIC CONTEXT

6.1 Ethnographic and historical evidence

The Aboriginal people who lived in the Sydney region were part of the Eora Nation. The word Eora, meaning 'here' or 'of this place', is not a term traditionally used by Aboriginal communities pre-contact but arose during the first encounters with non-Aboriginal settlers (Heiss and Gibson 2013). It is now accepted as an appropriate term for the coastal Aboriginal peoples in the broader Sydney area.

Figure 8. A Native Camp near Cockle Bay, New South Wales with a view of Paramatta River, taken from Dawes's Point/ drawn by J. Eyre; engraved by P. Slaeger. Image source: State Library of NSW (file no. FL1790486)



A NATIVE CAMP near COCKLE BAY, Nen South Wales, neth a View of PARRAMATTARIVER. Dedicated to his Excellency Lachlan Macance & sof Governor of New South Wales ze . Ze . Ze

The proposal would be located in Gadigal (alternatively Cadigal) Country. Phillip Gidley King recorded in 1793 that (cited in Dominic Steele Consulting 2005: 35):

The tribe of Cadi inhabit the south side, extending from the south head to Long-Cove; at which place the district of Wanne, and the tribe of Wangal, commences, extending as far as Par-ra-mata, or Rose-Hill.

Some contemporary streets in Sydney, including George Street, are thought to have originated as Aboriginal tracks connecting areas of plentiful food or fishing opportunities (Dominic Steele Consulting 2005:35). These tracks were worn into the landscape through years of use and managed through cultural practices such as burning off vegetation (Redfern Oral History 2022).

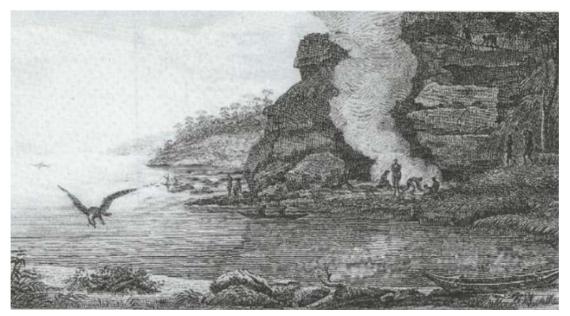
The Pyrmont Peninsula appears to form part of the boundary between the Gadigal and the Wangal tribes. Early recordings by Governor Phillip (Phillip 1790 [1892]: 309) describe the Wangal lands as:

The south of the harbour, from the above-mentioned cove (present day Darling Harbour) to Rose Hill, which the natives call Paramatta

Phillip continues to describe the district as Wann, and the clan as Wangal. The Darug (alternatively Darruk) language would have been spoken by both Gadigal and Wangal clans, as it was spoken across the Sydney region, from the Hawkesbury River in the north to Appin in the south, west of the George's River to the Blue Mountains, as well as along the coast between Port Jackson and Botany Bay (Attenbrow 2002b: 34). It is likely that dialects would have differed between the coast and inland areas, although documentary evidence of this is thin.

Ethnohistorical sources suggest that, despite differences in dialect and customs, the Wangal, Gadigal, and other Darug clans of the Eora Nation would have interacted for ceremonies, intermarriage, dispute resolution, trade, and access to resources. Early accounts report large gatherings of clans for social or religious events, or to share access to abundant resources. For example, Tench (1973) records that in September 1790 at least 200 Aboriginal people came together to harvest a whale beached in Manly Cove. He notes that the gathering included members from the Wangal, Gadigal, and Broken Bay clans.





The study area would have been located across a landscape of varied subsistence resources. While fresh water would have been available from the Tank Stream (located to the southwest of the Pitt Street area, the mouth of the Tank Stream, located to the north of Martin Place and to the east of Barangaroo, would have been tidal mudflats.

Archaeological and historical records indicate that marine and estuarine resources formed an important part of the Port Jackson area. Aboriginal communities consumed large amounts of marine animals, evidenced by the large number of shell middens in the Sydney area, where the shellfish were processed onsite for the meat to be consumed or used as fishing bait (Attenbrow 2012). Watkin Tench noted that "fishing, indeed, seems to engross nearly the whole of their time, probably forming the chief part of their subsistence (cited in KNC 2020). Tench recorded observing fish, including "bass, mullets...and sharks of an enormous size", populating the waters of Port Jackson, indicating the wide variety of marine animals available for consumption (Tench 2009). Shellfish not only formed an important subsistence resource, but also were utilised as tools. Shell tools included fishhooks, shell hafted onto spears in various forms, as a tool to repair spears, and as a cutting edge (Attenbrow 2012). Other locally available raw materials, including quartz, were also favoured for cutting edges, and in some areas bordering readily abundant shellfish in inner Sydney, quartz may have actually been favoured as a cutting edge (Baker 2004: 31).

Figure 10. "Aboriginies fishing, cooking, and eating in canoes". Watercolour by an unknown artist, often attributed to Phillip Gidley King (the elder); undated, circa 1788-92. Image Source: Mitchell Library, State Library of NSW



The Aboriginal people of Cockle Bay utilised the wide range of animals native to the region for food and tool making. Mammals such as kangaroo and wallabies, as well as arboreal mammals such as possums were in plentiful supply, with cultural burning used to facilitate hunting. Ethnographic observations by early non-Aboriginal colonists noted that Aboriginal people used a variety of tools and non-utilitarian functions. Plant products like gums and sap were used for binding and hafting stone hatchets and plant fibres were woven into baskets, nets, ropes, and hammocks. Locally sourced plants were also used in the manufacture of shelters, shields, and coolamons used to carry food and water.

6.2 Archaeological evidence

Aboriginal people have lived in the Sydney area for more than 36,000 years. The oldest dated site in the greater Sydney region is Cranebrook Terrace which was dated at approximately 41,700 years Before Present (BP) with an error range of 5,000 years (Attenbrow 2010: 18; Karskens 2020). Evidence of Aboriginal occupation has been found dated to 50-60,000 BP at Lake Mungo in NSW, so it is likely that Aboriginal people have lived in the Sydney region for even longer than indicated by the oldest recorded dates we have at present. The archaeological material record provides evidence of this long occupation, but also provides evidence of a dynamic culture that has changed through time.

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time.

Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 BP in the Sydney region (Attenbrow 2010). It is argued that these changes in material culture were an indication of changes in social organisation and behaviour.

After 8,500 BP silcrete was more dominant as a raw material, and bifacial flaking became the most common technique for tool manufacture. From about 4,000 BP to 1,000 BP backed artefacts appear more frequently. Tool manufacture techniques become more varied and bipolar flaking increases (McDonald 2006). It has been argued that from 1,400 to 1,000 years before contact there is evidence of a decline in tool manufacture. This reduction may be the result of decreased tool making, an increase in the use of organic materials, changes in the way tools were made, or changes in what types of tools were preferred (McDonald 2006). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage.

6.3 Registered Aboriginal sites

NOTE: The location of Aboriginal sites is considered culturally sensitive information. It is advised that this information, including the AHIMS data appearing on the heritage map for the proposal be removed from this report if it is to enter the public domain.

An extensive search of the AHIMS database was completed on 12 May 2022. The aim of the AHIMS site register search was to identify Aboriginal sites registered within, or in the vicinity of, the study area. Searches were undertaken using the following parameters:

GDA 1994 MGA 56	330343mE – 335934mE
	6249852mN – 6252506mN
Number of sites	36
Buffer	1 km
AHIMS Search ID	682445

The distribution of recorded sites within the AHIMS extensive search areas is shown in Figure 11. No sites were located within the study area.

The AHIMS database records sites using a list of twenty standard site types, none of which were found within the basic search, but located within 1km of the study area (Office of Environment and Heritage (OEH) 2012):

- Artefacts: Objects such as stone tools, modified glass or shell showing evidence of use by aboriginal people.
- Art (Pigment or Engraved)
- Artefacts: Open Camp Site
- Burial (Aboriginal Ceremony and Dreaming)
- Potential archaeological deposit (PAD): An area where Aboriginal objects may exist below the ground surface.
- Shell: includes middens

The distribution of these site types is presented in Table 7.



Figure 11. Results of extensive AHIMS search in relation to the study area.



@ artefact

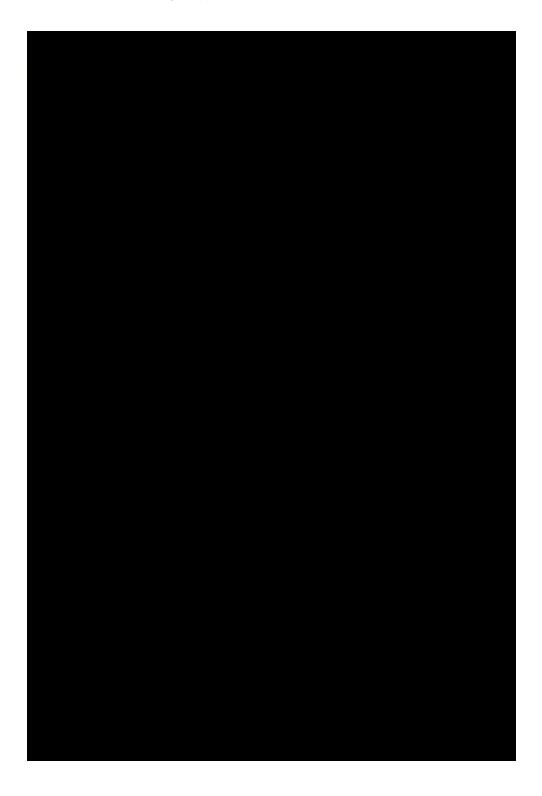
Site feature	Frequency	Per cent (%)
Artefact	3	8.3
Art (Pigment or Engraved)	2	5.5
Artefacts: Open Camp Site	3	8.3
Aboriginal Ceremony and Dreaming – includes Burial	2	5.5
PAD	22	61.1
PAD and Artefact	2	5.5
Shell	2	5.5
Total	36	100

Table 7. Frequency of recorded site types.

The nature and location of the registered sites is a reflection of the past Aboriginal occupation from which they derive, but is also influenced by historical land-use, and the nature and extent of previous archaeological investigations. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient.

While no recorded sites were located within the study area, eight sites were in proximity of the study area (Figure 12). The closest to the study area, AHIMS ID These sites are described below.

Figure 12. AHIMS sites within the vicinity of the study area. Location of AHIMS ID 45-6-2796 is considered to be inaccurately mapped (see Section 6.3.1 below).



Aboriginal occupation covered the whole of the landscape, though the availability of fresh water and resources was a significant factor in repeated and long-term occupation. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation. As a result, more resilient site types, such as stone artefacts, are predominant in the archaeological record. Because of this, the nature and location of registered Aboriginal sites is an imperfect reflection of past Aboriginal occupation. Furthermore, the surviving archaeological record is also a reflection not only of historical land-use, disturbance, and the post-depositional events, but also reflects the sampling bias of previous archaeological investigation.

6.3.1 AHIMS site

AHIMS site **Constant of** is located approximately **Constant of** of the study area (Figure 12). It is located in an area containing archaeological potential associated with the proximity of the Tank Stream, at 320 George Street. There is potential for intact soil deposits to be present beneath layers of existing disturbance. Historical excavation of this site revealed extensive disturbances, including infrastructural works associated with the walling of the Tank Stream as well as modern drains and sewers. The assessment identified that only areas in the central and eastern portions of that site had residual archaeological potential, due to the truncation of the former hillslope on the western side near George Street.

The AHIMS site is registered as being within Lots 1, 2, and 3 for DP 185597. These lots have since been consolidated as part of the development of the Ivy Complex (now Lot 2 DP 1250819). AHIMS site card information indicates that the location data displayed on the AHIMS register has been inaccurately recorded.

While no Aboriginal archaeological test excavation was conducted for work at the 320 George Street site, one Aboriginal stone artefact was identified during historical archaeological excavation conducted on there. This stone artefact was recovered from a redeposited soil layer within the historical archaeological contexts of that site. It is noted that historical archaeological remains were preserved at the 320 George Street site in part because the extant building, which was removed, did not possess basement levels. As a result, historic deposits were conserved below shallow building footings.

Again, evidence for the potential for the survivability of Aboriginal objects in sub-surface contexts includes the results of excavation at Angel Place to the south west of the study area (GML 1997). The Aboriginal and non-Aboriginal archaeological deposit at Angel Place had been preserved to some extent by large deposits of fill having been placed over those sites before subsequent building phases. The Angel Place site did not include any earlier developments with basement structures, which meant that fill deposit layers underlying the structures partially protected, but truncated, natural soil deposits.

Historical archaeological assessment of an area immediately adjacent south, at 320 George Street, noted that the site had been subject to extreme disturbance. Whilst prior assessments had considered the site to have potential for intact buried natural soil profiles, excavation demonstrated that natural soils had been repeatedly truncated and disturbed. One Aboriginal artefact was identified in a heavily disturbed context during historical excavation.

6.4 Previous archaeological investigations

There have been many archaeological investigations in the vicinity of the proposal. Table 8 below summarises those most pertinent based on proximity to the construction sites or similar landform contexts, and the locations of these previous archaeological studies are shown in Figure 13.

Figure 13. Locations of previous Aboriginal archaeological studies in the vicinity of the study area

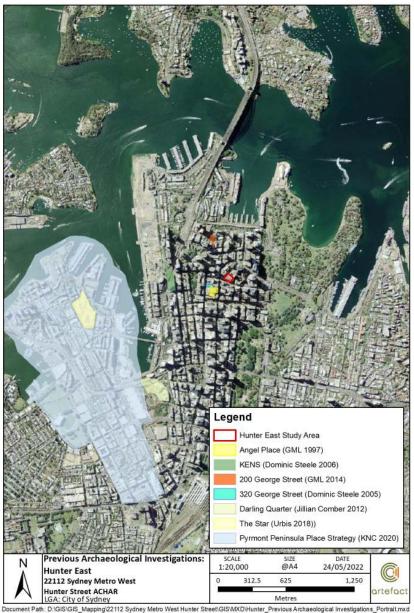


Table 8: Previous archaeological studies close to the proposal

	Summary	Distance from study area
GML Heritage – Angel Place Project Volume 3 – prehistory report Salvage Excavation of Site (1997)	The Angel Place site is situated between George and Pitt Streets opposite Wynyard Station, approximately for the study area. The Angel place investigation area was identified as containing Aboriginal archaeological potential due to its position immediately adjacent to the former alignment of the Tank Stream. Aboriginal archaeological deposit was identified when Aboriginal stone artefacts were retrieved during the course of historical excavation at the site. The site, AHIMS ID Stream was located across a four-by-four metre area of intact topography bordering the Tank Stream. The stratigraphy of the investigation area was comprised of three distinct deposits: two charcoal-rich sands overlying an alluvial sand sheet deposit. The upper layer was assessed as being re-deposited during the early nineteenth century for the purposes of European watercourse management associated with the Tank Stream, and the transitory middle layer an <i>in situ</i> fluvial soil context from post-1788. The underlying sand sheet deposit was demonstrated to be comprised of a pre-1788 sand-clay C-horizon derivative of sandstone bedrock material and contained the vast majority of the Angel Place stone artefacts. Excavation revealed that only small portions of the investigation area were relatively free of disturbance. Noted disturbances within the excavation area included a late eighteenth or early nineteenth century well, two 1840s sandstone footings, and 1820s-30s sandstock brick battel drain, and a twentieth century machine- pressed brick pad. Technological analysis of the 54 flaked stone artefacts recovered during salvage excavation identified on-site manufacturing through the presence of flakes, cores, and debris. A variety of raw materials including silicified-tuff, indurated mudstone, silcrete, and quartz were	
	identified. The total size of the original site was unable to be determined due to the truncation and modification of the subsurface profiles. However, it was concluded that, based on the distribution o artefacts recovered, an adjoining distribution of lithics would have been present alongside the banks of the original creek, deposited from repetitive or continuous Aboriginal occupation.	f
Dominic Steele Consulting Archaeology – The KENS	5	study area
Site, Sydney Aboriginal Heritage	Wendy Thorpe CRM (2002: 24-25) assessed the site to have high potential for Aboriginal archaeological deposits, based on its inclusion of the former shoreline of Darling Harbour. It was also	

	Summary	Distance from study area
Assessment (2002)	noted that little recorded European activity along the shoreline until the area was sealed by fill used to reclaim it in 1839/40.	
	The assessment concluded that it was likely that some land at the edge of the inlet on the mudflats and sand were buried beneath fill materials deposited to reclaim the bay, and that potential Aboriginal archaeological deposits may survive intact. The site was assessed to have potential for high cultural, educative, and scientific significance. Test excavation was recommended and is summarised below.	
The KENS	An Aboriginal test and salvage program was conducted at the KENS site in 2006 by Dominic Steele Consulting Archaeology. This was triggered by the historical archaeological investigation, which identified a buried soil profile in the north-east portion of the site underneath a basement floor level.	from the study area
Site, Sydney Aboriginal Archaeologica I Excavation Report (2006)	The stratigraphic record from the Aboriginal excavations revealed that natural soil profiles were truncated and rapidly buried, evidenced by a distinction between contexts containing Aboriginal and historical artefacts. The excavations also revealed that sheet erosion in the eighteenth century and additional mixing of the natural soil profiles through human activities occurred. Some natural soil profiles were buried by colluvial deposits, and later sealed by construction and demolition phases. Overall, it was assessed that post-depositional processes had severely affected the condition and distribution of artefacts.	
	The investigations identified that impact on the site through changing land practices (hunting and gathering to clearing to urbanisation) was relatively early in the post contact period. Aboriginal artefacts were recovered from three areas of salvage.	
	Some artefacts which were recovered from truncated silty soils were fragmented, with chipped edges, and artefacts damaged by heat. This was interpreted to be the result of extensive trampling, suggesting that despite the quick burial, traffic was substantial enough to damage artefacts. Post-contact artefacts were identified through the presence of two glass tools displaying retouch and use- wear characteristics. It was suggested that the artefact characteristics were consistent with the Middle to Late Bondaian assemblage (2800 BP to 1788).	
	Whilst the recovered assemblage and related contexts were not particularly significant in terms of the nature of the technology identified, the KENS site demonstrated that this area on the outskirts of the early European Sydney colony was intensively used by Aboriginal populations both prior to and also, at least for a short period, following 1788. It also contributes an understanding of how	

Summary	Distance from study area
the Aboriginal archaeological record can survive through multiple phases of historical development and disturbance in the CBD.	
 An Aboriginal Archaeological Assessment & Application for a S87 Preliminary Research Permit was undertaken by Dominic Steele Consulting Archaeology in 2005. The location, 320-328 George Street, is located opposite Wynyard Station occupying a city block between Angel Place and Paling Lane, with De Mestre Place to the north. The AHIMS site is registered as being within These lots have since been consolidated as part of the development of the Ivy Complex (current as discussed above, the location of the AHIMS site had been incorrectly recorded in the AHIMS register (see above). The extent of the AHIMS site is assumed to be confined to the extent of the Ivy Complex. The assessment identified a PAD based upon the prior ground disturbance of the site, in conjunction with the proximity to the Tank Stream and previous assessment in the immediate local area, suggesting that intact soil profiles containing archaeological deposits associated with the Tank Stream would survive. The area of potential was confined to the eastern portion of the study area, with the remaining area determined to be truncated by historic development and all potential for <i>in situ</i> archaeological deposits removed. It is noted that existing buildings on the site which were removed did not feature deep basements, allowing historical soil deposits to be preserved in some portions on the eastern side of the	
site. The Aboriginal archaeological investigation was not conducted as the excavation of test trenches conducted during historical archaeological investigations ceased at a level of occupation laid down after c.1850. During the historical archaeological investigations (AMAC Archaeological 2015), one Aboriginal lithic object was recovered. It was located in the eastern portion of the assessment area (Area A). The artefact was recovered from a heavily disturbed deposit comprising of twentieth century utility and construction fills. The historical archaeological excavations demonstrated that the as a whole the site has been subject to extensive development over time, resulting in severe truncation of the majority of the original soil profiles. This included the eastern portion of the site associated with the former alignment of the Tank Stream (Area E), where evidence of historic disturbances and modern fill layers were identified including the walling of some of the curtilage of the Tank Stream and the presence of subsurface modern sewers and drains.	

	Summary	Distance from study area
Post Excavation Report,	GML Heritage conducted an archaeological excavation at 200 George Street, Sydney, approximately 345 metres northwest from the study area. The excavations were investigating a PAD (AHIMS ID MARKED, registered in 2012 by GML, within the 200 George Street project area. Excavation was conducted under an AHIP in 2013.	Approximately est
Volume 1: Main Report (2014)	Intact natural soil was identified during historical archaeological investigations in Areas 4 and 8. The two areas (northeast and southwest of site) were located beneath the basement level of the 1970s tower building, demolished concurrently with the archaeological excavation program. These areas were investigated for potential Aboriginal objects.	
	Geomorphological assessment within Area 4 revealed an estuarine soil deposit 600-700 mm below the floor slab. The deposit was determined to be a marsh environment and assessed to be not conducive to any human activity that could have resulted in an archaeological signature. No further investigations in this area were conducted.	
	Investigations within Area 8 identified a natural deposit below historic sandstone foundations. Hand excavation was conducted to irregular sandstone bedrock. No artefacts were recovered. It was determined that archaeological deposits were unlikely to accumulate <i>in situ</i> due to the irregularity of the sandstone bedrock. It was determined that all portions of the study area hold very low to no archaeological potential for further <i>in situ</i> Aboriginal archaeological deposits.	

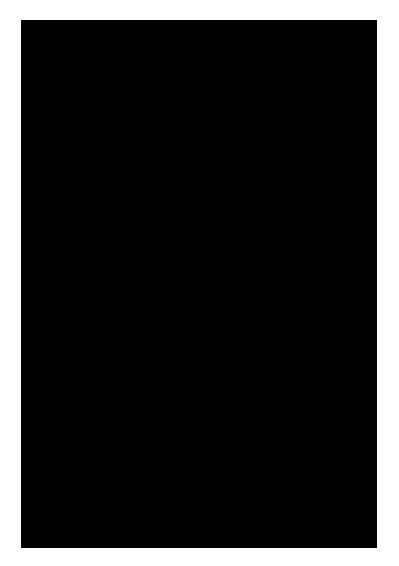
	Summary	Distance from study area
Jillian Comber – Darling Quarter (formerly Darling Walk), Darling Harbour (2012)	An assessment of the Darling Walk project area (Cockle Bay) was undertaken by Jillian Comber in 2009. The investigations included an archaeological survey, cultural heritage assessment, as well as archaeological test and salvage excavation work. Comber found that Aboriginal objects including stone artefacts and shell midden were present along the former shoreline. Lithic types included chert (n=8, 80%), as well as singular instances of silcrete and quartz. Shell material recovered was predominantly <i>Andara trapezia</i> (Sydney Cockle/ Mud Ark), accounting for 90.57% of the minimum number of individuals (MNI) retrieved during excavation. A total of 342 whole shells, 5122 values, 6754 hinges, and 8224 shell fragments were recovered. The western section of the study area contained no evidence of Aboriginal occupation and was within reclaimed land. The site was interpreted as a midden redeposited by wave action, and possibly disturbed by later land reclamation activities. It was suggested that Aboriginal people would have been cooking and eating their food on the sandstone outcrops overlooking the harbour, and that raw materials utilised for stone tool production had been traded with people from west of the harbour on the Cumberland Plain, where sources of chert are known to occur.	
Urbis – The Star Sydney, Section 75W Modification Application, Aboriginal and Historical Cultural Heritage Archaeologica I Assessment (2018)	of The Star and the previous phase of the site as the former Pyrmont Power Station, resulting in severe disturbances across the	flies
KNC – Pyrmont Peninsula Place Strategy – Aboriginal Cultural Heritage Report (2020)	KNC completed an Aboriginal Heritage assessment of the Pyrmont Peninsula in 2020. Assessment was conducted through desktop research and visual survey; no excavation was completed. The assessment identified six Aboriginal sites, including five potential archaeological deposits. The assessment noted that, despite the extensive disturbance and built nature of the Pyrmont environment, Aboriginal archaeological sites can survive in built environments as subsurface archaeological deposit if the disturbance of remnant natural soils is relatively low.	the crow flies.

Summary

Distance from study area

Despite noting extensive landform and land-use disturbance across the investigation area, KNC identified areas within the Pyrmont Peninsula as containing the potential for remnant natural soils. The approximate extent of the original peninsula landform prior to reclamation work was identified as an area of archaeological sensitivity.

Figure 14. Identified areas of Aboriginal archaeological sensitivity according to Pyrmont Peninsula Place Strategy, study area outlined in red



ArtefactAn ACHAR was prepared for the Sydney Metro West Concept and
major civil construction work for Sydney Metro West betweenHeritage –major civil construction work for Sydney Metro West betweenSydney MetroWestmead and The Bays (Stage 1 of the planning approval processWest Conceptfor Sydney Metro West) in 2020 by Artefact Heritage. The



	Summary	Distance from study area
and Stage 1 ACHAR (2020)	assessment included an area planned for The Bays Station. Assessment was conducted through visual survey and desktop research. The assessment identified that the proposed location of The Bays Station construction site was above the tidal limit in a resource-rich wetland area, and therefore an important part of subsistence land-use strategies. The assessment also noted that infilling phases in the early twentieth century are likely to have preserved any intact archaeological deposits or Aboriginal artefacts and could preserve both pre-contact and contact era remains. The south-western portion of The Bays Station construction site was considered to have low to moderate potential for Aboriginal archaeological remains, whilst the remainder of the site was considered to contain low potential.	
	Test excavation was recommended for the proposal, the latter to be triggered by any subsurface impacts within the area assessed as demonstrating archaeological sensitivity at The Bays Station site. Test excavation was also recommended if historical excavations in other portions of the construction site identified any intact remnant soil profiles.	
Artefact Heritage – Aboriginal Cultural Heritage Assessment Report. A report to support the Bays Market District State Significant Precinct Proposal.	Artefact Heritage was engaged by Infrastructure NSW (INSW) to conduct Aboriginal community consultation and prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for rezoning of the Bays Precinct through the State Significant Precinct process. The study area was located in Blackwattle Bay, and incorporated the shore line from the point sightly north of Blackwattle Bay Wharf Glebe to the old Glebe Island Bridge on the eastern side proximate to Bowman Street, Prymont.	Approximatel y
	A survey of previous reports found that there were few studies of the area and no archaeological excavations had been undertaken. This was primarily due to the significantly disturbed nature of the locality and the limited number of modern development activities that would have triggered archaeological investigation.	
September 2019 Working Document.	No registered Aboriginal objects were identified within the investigation area.	
	Two locations of Potential Archaeological Deposit (PAD) were he investigation area. These were (AHIMS ID & &) both located on the eastern side of the bay. One rockshelter, IMS ID Was found outside of the study area, about meters east of the northern most extent of the study area.	I
	The investigation area was assessed as having been subject to	

significant levels of disturbance through past land reclamation and

	Summary	Distance from study area
	considerable alteration of the natural coastline, along with ongoing development of the investigation area as a combined industrial, transport, commercial and high-density residential area. Such locations are of nil to low Aboriginal archaeological potential however they maintain Aboriginal cultural value as part of a wider cultural landscape.	
	The study identified that the majority of the Blackwattle Bay investigation area was of nil to low Aboriginal archaeological potential due to historical processes within it of land reclamation and disturbance.	
	Registered Aboriginal Parties provided comment that despite historical soil disturbances, the entirety of the Blackwattle Bay investigation area is in a foreshore location once long and highly utilised by local Aboriginal people and that its associated cultural values are therefore high and are not limited to archaeological potential (although note presence of (AHIMS ID . The report recommended a Heritage Interpretatio . The report recommended a Heritage for the study area.	I
Artefact Heritage – Sydney Metro West – Major civil construction work between The Bays and Sydney CBD, Stage 2 Technical Paper 4 (2021)	Stage 2 Technical Paper 4 was an assessment of major civil construction work between The Bays and Sydney CBD. It focused or surface and subsurface impacts along the proposed route to assess the impact on Aboriginal heritage values at sites proposed for new stations as well as the proposed route of tunnel construction and associated installation of infrastructure. The report includes demolition, utility supply and excavation of sites at new stations proposed for Pyrmont and Hunter Street (West and East) in Sydney CBD and The Bays. In summary, the assessment concluded that due to the urban environment, level of development, and the presence of identified basements, the majority of the study area was considered to demonstrate no Aboriginal archaeological potential. No Aboriginal sites or Potential Archaeological Deposits were identified. Portions of the Hunter Street Station western site were identified as demonstrating low potential to contain truncated but in-situ deposits associated with the Gymea soil body beneath modern and historic disturbances, and sedimentary deposits of the Tank Stream below the modern Tank Stream drain. These intact but truncated residual soil profiles were considered to have a low potential to contain Aboriginal objects. The remainder of the study area demonstrates no potential to contain Aboriginal objects.	

	Summary	Distance from study area
Aboriginal and Historical Archaeologica I Research	The ARD reassessed previous archaeological reports for both Aboriginal and historical archaeology in Hunter Street, Sydney including Stage 2 Technical Paper 4. The objectives of ARD was to reassess the potential for both Aboriginal and historical archaeological to be found extant on site; to provide a research framework and excavation methodology to guide and manage excavations on site prior to bulk excavation for construction which would reach to 31m depth. Consultation was undertaken for the ARD using the RAP list established in Stage 2 Technical Paper 4. RAPs who responded stated they were supportive or had no objections to the ARD methodology and report. ARD carried out a regional search of the AHIMS database and found 41 sites around the study area. The majority of sites were PAD many had been identified during geotechnical testing which found remnant soil profiles . No distinctive pattern was established for the remaining sites but a series of predictive statement on the nature of finds was offered (see below).	l ,
	Extent (2022) assessed the northern part of the study area as partly disturbed and the southern section as less disturbed, although this was not confirmed by geotechnical or archaeological investigation. The reassessment is based on the proximity of the study area to the Tank Stream which in its pre 1870 course would have flowed 100 m distant. If natural soils were identified then it might be predicted that the study area was a suitable occupation site, and might comprise isolated artefacts, scatters, or dense occupation deposits that might be evidence of occasional or repeat occupation (open camp sites). Should the soil profile not be truncated, stratification may be evident. Artefacts might also be present in redeposited natural soils in historical contexts.	

In contrast to Stage 2 Technical Paper 4, Extent assessed the study area as having nil Aboriginal archaeological potential.

6.5 Predictive model

Archaeological and ethnographic data have demonstrated substantial use of the Sydney CBD and the Pyrmont Peninsula by Aboriginal people. The study area is located in an area that would have been in close proximity to marine and estuarine resources, fresh water and varying terrestrial subsistence resources.

Previous archaeological investigation of the Sydney CBD and Pyrmont Peninsula reflect the use of the area by Aboriginal people however evidence is largely limited to areas which have been subject to archaeological investigation, and which have not been impacted by historical development. Due to the scale of urban development in the Sydney CBD and the Pyrmont Peninsula, particularly from deep excavation work for basements, much of the former ground surface has been removed which strongly limits the extent to which evidence of Aboriginal use of the landscape is preserved. However, previous archaeological investigations in the Sydney CBD have demonstrated that Aboriginal objects

can be present below older extant properties, which typically do not feature basements or have limited deep excavation. Previous archaeological investigations have also demonstrated that isolated Aboriginal stone tools may be redeposited in historically modified soils, however this redeposition would have removed the spatial and stratigraphic integrity of the site, and artefacts recovered from these historically modified layers are often out of context and of limited diagnostic value.

Sites within the Sydney CBD are largely focused around the Sydney Harbour foreshore and near early watercourses such as the Tank Stream and Cockle Creek. Sites within the Pyrmont Peninsula are largely limited to the coastal foreshore and include a sandstone rock shelter site. The majority of the registered sites across the study area are comprised of areas of PAD with the built-up nature of the study area limiting the survivability of surface-based site types.

Based on the physical inspections, comparative analysis and desk top studies Stage 2 Technical Paper 4 made the following predictive statements that for the study area:

- Archaeologically sensitive landforms, including the former foreshore of the Tank Stream, are present within the immediate vicinity of study area
- Middens may occur in remnant natural soils, particularly along the original shoreline on the Pyrmont Peninsula
- Sub-surface artefact sites within floodplain areas tend to consist of lower density isolated occurrences, including freshwater, marine and estuarine areas
- The survivability of Aboriginal objects would be largely dependent on the extent and nature of subsequent phases of historical construction activities as well as the depth of the underlying deposit. In many cases, historical construction activities have involved excavation below the lower elevation of the natural soil horizon, removing most evidence of past Aboriginal use of the landscape
- However, residual areas where intact natural soils remain may be present within the study areas. These areas of potential would be likely limited to:
 - Locations beneath extant buildings constructed in the nineteenth or early twentieth century, where deep excavation for construction was less commonly conducted
 - Chance areas on outer margins of a development where soil profiles may have been preserved below footpaths, access roads or ground-level carparks, where modern utility services in these areas are minor or absent
 - Locations beneath buildings without basement levels where construction was limited to shallow-ground disturbance
- Aboriginal objects may also be identified in redeposited soil which was excavated and infilled during historical construction events. However, Aboriginal objects identified in redeposited soil would likely be isolated, out of stratigraphic context and of low research value
- Areas of non-Aboriginal archaeological potential from the late eighteenth and early nineteenth centuries, may contain Aboriginal archaeological and cultural significance and the presence of contact-period Aboriginal objects and deposits within these contexts cannot be excluded.

Extent (2022) suggested additionally that:

- isolated artefacts, artefact scatters and occupation deposits would be most likely to be found, while
- evidence of hearths would be unlikely and most likely rarely found
- while sites would be likely be found in proximity to the Tank Stream it would be unlikely that occupation areas would be found along the stream because it was subject to flooding
- while layers of charcoal had been found in the C horizon, this might be evidence of cultural burning, or it might be evidence of bush fires
- the underlying geology would not support finds of rock shelters, stone quarries of art sites
- complete removal of vegetation in the area would not the finds of carved trees
- there would be nil-low potential to find burial sites as this tend to occur in coastal areas and dunes.

7.0 SITE SURVEY METHODOLOGY

7.1 Aboriginal site definition

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

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

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

7.2 Archaeological survey methodology

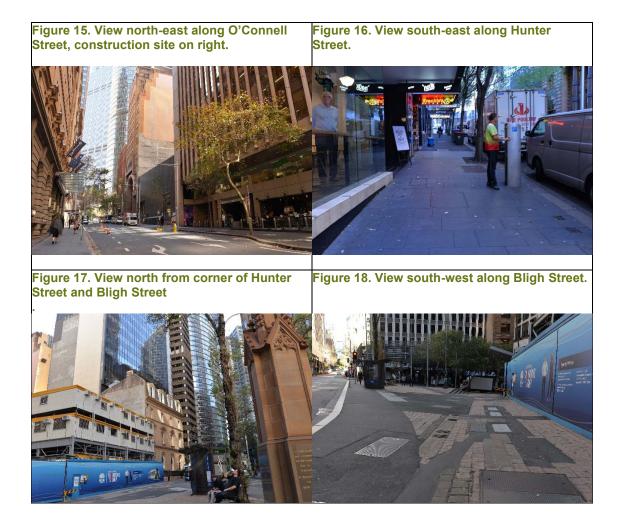
7.2.1 Methodology

The study area was surveyed on foot and a photographic record of the landscape and built environment made as part of the assessment undertaken in the Stage 2 Technical Paper.

7.2.2 Site inspection

A site inspection was conducted on 16 July 2021 with Rowena Welsh (Metropolitan Local Aboriginal Land Council). The aim of the survey was to identify any Aboriginal cultural values associated with the study areas. Metropolitan Local Aboriginal Land Council was invited to conduct survey on behalf of the RAPs as a continuation of consultation process.

The site was located across a gentle – moderate slope rising to the east and across a built environment comprised of three office blocks located along Hunter Street as well as a temporary acoustic shed within the northern portion of the construction site. The acoustic shed was associated with the Bligh Street tunnelling support site for Sydney Metro Chatswood to Sydenham to the north of the construction site. No areas of surface visibility or intact ground surface were observed.



All existing buildings within the site are known to possess deep basements (two storeys or lower) which encompass the entirety of their building footprints. All former soil deposits are expected to have been removed. The construction of the current Sydney Metro City & Southwest site on Bligh Street involved deep excavation work through bedrock, further removing any residual archaeological remains that may have been located in this area prior to excavation.

In the absence of any residual soil deposits there are no predicted areas of Aboriginal archaeological potential within the study area.

7.2.3 Aims of archaeological survey

The aims of the archaeological survey were to:

- Inspect the perimeter of the study area
- Record any surface or potential subsurface Aboriginal sites that have not been recorded in AHIMS
- Identify areas of PAD that may be present in areas that have had no or minimal disturbance
- Engage with Metropolitan LALC regarding the proposed works and the archaeological potential of the study area
- Collect information to ascertain whether further archaeological investigation is required.

7.3 Archaeological survey coverage

The perimeter of the study area was examined as well as underground access points. However, all of the study area had been built over and excavated.

A summary of the survey coverage of the study area, undertaken in one survey unit, follows in Table 9 and Table 10 and was undertaken in accordance with the methodology outlined in the Code of Practice.

Survey unit	Landform	Survey unit area (sq. m)	Visibility (%)	Exposure (%)	Effective coverage area (sq. m)	Effective coverage (%)
4	3666.97	Slope	0	0	0	0

Table 9. Effective survey coverage (16 July 2021)

Table 10. Landform survey coverage (16 July 2021)

Landform	Landform area (sq. m)	Area effectively surveyed (sq. m)	% of landform effectively surveyed	Number of sites identified
Slope	3666.97	0	0	0

7.4 Survey results

Due to the urban environment, level of development, and the presence of identified basements, the majority of the study area is considered to demonstrate no Aboriginal archaeological potential. No Aboriginal sites or Potential Archaeological Deposits were identified.

8.0 SIGNIFICANCE ASSESSMENT

8.1 Significance assessment methodology

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. *The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) provides guidelines for heritage assessment with reference to the *Burra Charter* (Australia ICOMOS 2013). The assessment is made in relation to four values or criteria (Table 11). In relation to each of the criteria, the significance of the subject area should be ranked as high, moderate, or low.

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

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

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

Table 11. Burra Charter Heritage significance criteria

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

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

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

8.2 Socio/cultural significance

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

The consultation process has been completed.

One RAP commented that the area was highly significant to Aboriginal people because Aboriginal people have taken care of the land for thousands of years and are connected to the land through their lore, kinship and customs and connected with each other through waterways. Aboriginal people have a long oral history of knowledge about the land and caring for country.

8.3 Historic significance

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

No comment was made on the historical values specific to the study area however continuous connection to land over thousands of years was stated as significant as outlined above in 8.2.

8.4 Scientific significance

Scientific values refer to a site's potential to contribute to our current understanding and information.

As there are no archaeological values in the site, there is no scientific significance (Table 12).

However, Extent (2022) suggests that there may be low archaeological scientific significance in the study area.

As the proposed development is an OSD there will be no impacts to subsurface soils. As such, any alteration in classification of significance within the study area will not affect the proposed development which consists of an above ground building envelope.

Table 12. Scientific significance assessment

	search Representativeness tential	Rarity	Education potential	Overall significance assessment
--	--------------------------------------	--------	------------------------	---------------------------------------



No AHIMS sites	None	None	None	None	None

8.5 Aesthetic significance

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

No comment was made on the aesthetic values specific to the study area although connection to the land is significant and includes intangible values, as outlined above (8.2).

8.6 Statement of significance

The consultation process has been completed.

The scientific significance of the study area was assessed as nil.

One RAP responded that the area held socio/cultural significance for Aboriginal people through their ongoing connection to land.

9.0 AVOIDING AND MINIMISING HARM

9.1 Proposed works

The proposal is a Concept SSDA for a building envelope above the Hunter Street Station eastern site including:

- Maximum building envelope and built form parameters (including tower envelopes and building setbacks, in accordance with the concept reference design)
- Maximum building height of approximately 58 storeys
- Land uses within the OSD building envelope and podium including:
 - Commercial land uses within the tower building envelope
 - Commercial and retail land uses within the building envelope for the podium.

As the proposed OSD will not create any ground impacts not already discussed and assessed in Stage 2 Technical Paper 4, there would be no impacts on the ground surface as part of this proposal.

9.2 Impact assessment methodology

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

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

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

9.3 Aboriginal heritage impact assessment

No Aboriginal objects were identified in the survey area.

As this proposal would not impact the ground surface of ground subsurface, the proposal is unlikely to impact any Aboriginal heritage items or places (Table 13).

Site	Type of harm	Degree of harm	Consequence of harm
Study area	None	None	No loss of value

Table 13. Summary of impacts

9.4 Ecologically Sustainable Development principles

In accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales*², the principles of ecologically sustainable development have been considered in preparation of this Aboriginal heritage assessment, including options to avoid impacts to Aboriginal cultural heritage, assessment of unavoidable impacts, identification of mitigation and management measures, and taking account of Aboriginal community views. The principles of ecologically sustainable development are detailed in the NSW *Protection of the Environment Administration Act 1991*. Principles of ecologically sustainable development relevant to the assessment of the project as it relates to Aboriginal cultural heritage are considered below.

9.4.1 The integration principle

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

9.4.2 The precautionary principle

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

As no archaeological sites were identified in the study area. As the proposed development is an OSD, no ground works will be undertaken. All ground disturbing work were assessed under the Stage 2 approval.

No further archaeological investigation is recommended for the proposed development.

9.4.3 The principle of intergenerational equity

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

9.5 Cumulative impacts

A cumulative impact is an impact on Aboriginal cultural heritage resulting from the incremental impact of the action/s of a development when added to other past, present and reasonably foreseeable future actions.

As the proposed development is an OSD, no ground works are proposed. All ground disturbing work were assessed under the Stage 2 approval. Therefore there are no cumulative impacts.

² Office of Environment and Heritage 2011

10.0 MANAGEMENT AND MITIGATION MEASURES

10.1 Ongoing consultation with registered Aboriginal parties

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

10.2 Unexpected finds

In the event of any unexpected finds of Aboriginal sites, objects, or archaeological deposits being found during construction the Metro Unexpected Finds Policy (Metro UFP) should be implemented.

The Metre UFP requires the following actions:

- Stop work within the affected area, protect the potential archaeological find, and inform Sydney Metro Environment Manager. Contact the Excavation Director or a suitably qualified archaeologist or Aboriginal cultural heritage consultant to assess the potential archaeological find and complete a preliminary assessment and recording of the item. Provide advice
- Formally notify the regulator by letter if required. The regulator is Heritage NSW
- Further archaeological mitigation may be required prior to works recommencing.

If human remains are found:

 If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured, and the NSW Police and Heritage NSW should be notified. The Sydney Metro Exhumation Management Procedure should be followed.

11.0 CONCLUSIONS AND RECOMMENDATIONS

The following results and recommendations are based on consideration of:

- The requirements of Aboriginal heritage guidelines including:
 - The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010a) – known as The Code of Practice
 - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
 - The Aboriginal Cultural Heritage consultation requirements for proponents 2010 (OEH 2010b)- known as Consultation Guidelines
- The SEARs issued for the proposal (Department of Planning, Industry and Environment) on 8 August 2022.
- The results of the Technical Paper 4 completed by Artefact in April 2021 which included background research and an archaeological survey

The assessment found that:

- No previously registered Aboriginal sites were identified on the Aboriginal Heritage Information Management System (AHIMS) register.
- No previously unrecorded Aboriginal sites or objects were identified within the study area during the archaeological survey carried out for the Stage 2 ACHAR
- The proposed development does not involve ground disturbing work and would therefore not impact areas of Aboriginal archaeological potential.
- Through the consultation process it was established that the RAPs supported the ACHAR and the area held significance for Aboriginal people through their ongoing connection to land.

Recommendations

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

- As the proposed development would have no impact on the ground surface or subsurface ground it is recommended that further assessment is not required.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- If Aboriginal objects, or potential objects, are uncovered during the proposed development, all work in the vicinity must cease immediately and The Sydney Metro Unexpected Heritage
 Finds Procedure followed. A qualified archaeologist should be contacted to assess the find.
- If human remains, or suspected human remains, are found during the proposed development, all work in the vicinity should cease, the site should be secured, and the NSW Police and

Heritage NSW should be notified, and The Sydney Metro Unexpected Heritage Finds Procedure and Exhumation Management Procedure should be followed.

12.0 REFERENCES

Aird, W. V. 1961 *The Water Supply, Sewerage and Drainage of Sydney, 1788-1960*. Halstead Press Pty Ltd: Sydney, Australia

AMAC Archaeological 2015 Final Archaeological Report – 320-328 George Street, Sydney, NSW, Including portions of the *Tank Stream* curtilage (SHR 636). Report to Hemmes Hermitage Pty Ltd

Andrews, G. and Daylight, J. Hunt 2006 *Aboriginal cultural heritage landscape mapping of Coastal NSW*. Prepared for the Comprehensive Coastal Assessment by the NSW Department of Natural Resources, Sydney NSW

Aplin, G. 2013 A Stange Natural Environment: Colonists in Eighteenth Century Sydney. *Sydney Journal* Vol 4, No. 1

Attenbrow, V. 2002a Sydney's Aboriginal Past: investigating the archaeological and historical records. UNSW Press

Attenbrow, V. 2002b Pre-colonial Aboriginal land and resource use in Centennial, Moore, and Queens Parks – assessment of historical and archaeological evidence for Centennial Parklands Conservation Management Plan. Report for incorporation into overall Conservation Management Plan prepared by Beyond Consulting for Conybeare Morrison and Partners

Attenbrow, V. 2012 Archaeological evidence of Aboriginal life in Sydney. *Dictionary of Sydney*. Accessed https://dictionaryofsydney.org/entry/archaeological_evidence_of_aboriginal_life_in_sydney 20 May 2022.

Austral Archaeology (2005) "Archaeological Assessment and Statement of Heritage Impact for 330-346 George Street, Sydney".

Australia ICOMOS 2013 Australia ICOMOS Charter for Places of Cultural Significance. The Burra Charter

Baker, N. 2004 Archaeological Salvage of an Aboriginal Site at Williams Street, East Sydney. Report to Zonie Construction and Design Pty Ltd

Casey and Lowe 2000 Archaeological investigation CSR Site, Pyrmont (Jacksons Landing), Vol 1: Description, Analysis and Interpretation. Report to Lend Lease

Casey and Lowe 2012 Sydney CityGrid Project – City Zone Sbstation Stage 2a – Non-Indigenous Archaeology. Report to GHD

Department of Environment Climate Change & Water 2010a Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales

Department of Environment Climate Change & Water 2010b *Aboriginal Cultural Heritage Consultation Requirements for Proponents*

Dominic Steele Consulting Archaeology 2005 Application for a S87 Preliminary Research Permit Aboriginal Archaeological Assessment, Research Design, and Excavation Methodology – 320-328 George Street PAD, George Street, Sydney NSW. Report to Caverstock Group Pty Ltd

Godden Mackay 1995. "Angel Place Archaeological Assessment," Dec 1995

GML Heritage (1997) Angel Place Project Volume 3 – prehistory report Salvage Excavation of Site.

Heiss, Anita and Melodie-Jane Gibson 2013. 'Aboriginal People and Place'. *Barani Sydney's Aboriginal History*. City of Sydney, Sydney Barani Accessed https://www.sydneybarani.com.au/sites/aboriginal-people-and-place/ 20 June 2022

Heritage 21, 2015. "Statement of Heritage Impact for Proposed Development at 296 George Street, Sydney," (December)

Keith, D. A. 2004. Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT. Department of Environment and Conservation NSW

Kelleher Nightingale Consulting 2020 *Pyrmont Peninsula Place Strategy: Indigenous Cultural Heritage Report*. Report to DPIE

Macphail, M. K. and T. Owens 2018 What was growing along the Tank Stream Valley, Sydney Cove, in 1788? *Australian Historical Archaeology* Issue 36

Matthews, M. R and Pyrmont Ultimo History Project. 1982 *Pyrmont and Ultimo: a history*. Pyrmont Ultimo History Project: Ultimo, NSW

McBryde, I. 1989 Guests of the Government House Site

Office of Environment & Heritage 2011 *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage*

Phillip, A. 1790 [1892] Letter from Governor Phillip to Lord Sydney, Government House, Sydney Cove, February 12th, 1790, in *Historical Records of NSW* Vol 1, no. 2 – Phillip 1783-1792, Government Printer, Sydney: 643-649

Sydney Water 2005. *Tank Stream Conservation Management Plan*. Report prepared for Asset Management and Sydney Water Corporation

Tench, W. [2009] 1788 Intext Publishing: Melbourne

Tench, W. 1793 Complete Account of the Settlement of Port Jackson. G. Nicol and J. Sewell, London

Washington State Department of Transportation 2008 *Guidance on Preparing Cumulative Impact Analysis*

Wong, A. 1999 Colonial Sanitation, Urban Planning and Social Reform in Sydney, New South Wales 1788-1957. *Australian Historical Archaeology*, No. 17.

13.0 APPENDIX

Consultation Log





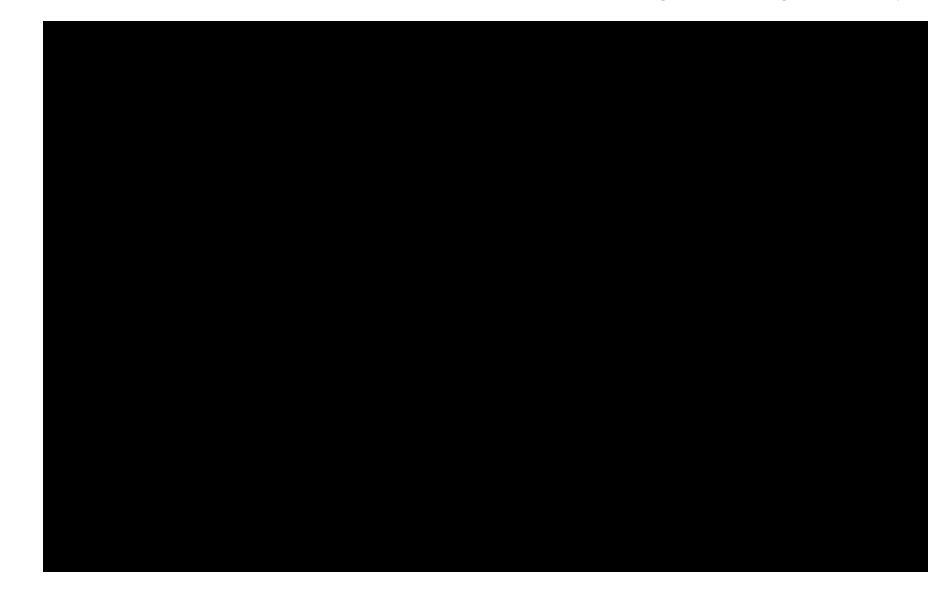


















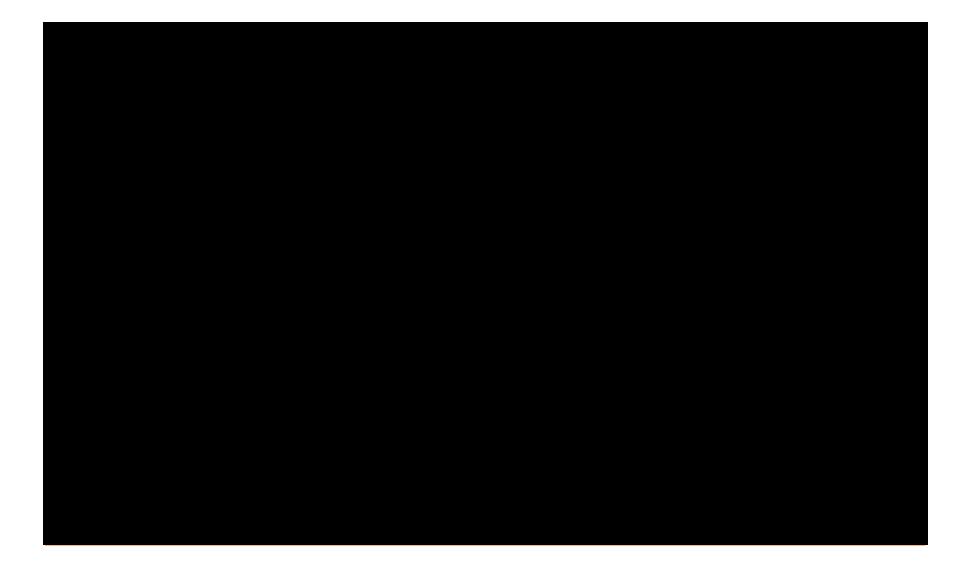




























Artefact Heritage

ABN 73 144 973 526 Suite 56, Jones Bay Wharf 26-32 Pirrama Road Pyrmont NSW 2009 Australia +61 2 9518 8411 office@artefact.net.au www.artefact.net.au