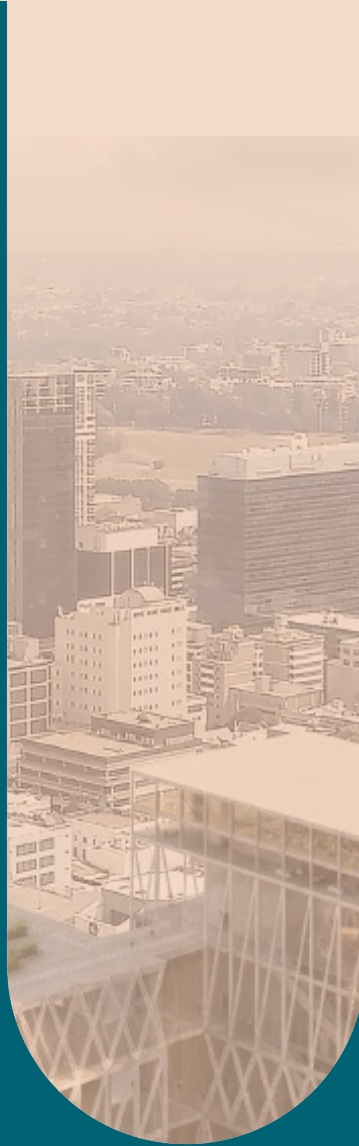


APPENDIX H ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

Curio Projects



Aboriginal Cultural Heritage Assessment Report

Powerhouse Parramatta

Client: Infrastructure NSW

Final SSDA Issue - 22 April 2020



Document Information

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Relevant Abbreviations

ABBREVIATION/ TERM	DEFINITION
ACHAR	Aboriginal Cultural Heritage Assessment Report
ATR	Archaeological Technical Report
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
ASIRF	Aboriginal Site Impact Recording Form
'Code of Practice'	DECCW 2010, Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales.
'Consultation Guidelines'	DECCW 2010, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.
DECCW	Department of Environment, Climate Change and Water (now Office of Environment and Heritage—OEH).
'Due Diligence Code of Practice'	DECCW 2010, Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW.
EP&A Act	Environmental Planning and Assessment Act 1979
'Guide to Investigating'	OEH 2011, Guide to Investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW.
Heritage Act	NSW Heritage Act 1977
ICOMOS	International Council of Monuments and Sites
LALC	Local Aboriginal Land Council
LGA	Local Government Area
NPW Act	NSW National Parks and Wildlife Act 1974
OEH	NSW Office of Environment and Heritage (formerly DECCW)
PAD	Potential Archaeological Deposit
RAPs	Registered Aboriginal Parties
SHR	NSW State Heritage Register

Executive Summary

Curio Projects Pty Ltd was commissioned by Infrastructure NSW (INSW) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) to support a State Significant Development (SSD) Development Application (DA) for the development of the Powerhouse Parramatta at 34-54 & 30B Phillip Street and 338 Church Street, Parramatta (the study area). The Powerhouse Parramatta is a museum (information and education facility) that has a capital investment value in excess of \$30 million and as such the DA is submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). INSW is the proponent of the DA.

This ACHAR documents the process of investigation, consultation and assessment with regards to Aboriginal cultural heritage and Aboriginal archaeology, as undertaken for the Powerhouse Parramatta development project and study area, specific to the proposed development works. This includes background research and assessment of evidence and information about material traces of Aboriginal land use in the study area and surrounds, significance assessment of potential Aboriginal sites, places, landscapes and/or other values, as well as an impact assessment and management recommendations to assist Infrastructure NSW with their future responsibilities for Aboriginal cultural heritage within the study area.

The proposed activity is the redevelopment of the study area for the construction of the Powerhouse Parramatta, and comprises:

- site preparation works, including the termination or relocation of site services and infrastructure, tree removal and the erection of site protection hoardings and fencing;
- demolition of existing buildings including the existing Riverbank Car Park, 'Willow Grove', 'St George's Terrace' and all other existing structures located on the site;
- construction of the Powerhouse Parramatta—two main buildings (west and east);
- operation and use of the Powerhouse Parramatta including use of the public domain provided on the site to support programs and functions;
- maintenance of the existing vehicular access easement via Dirrabarri Lane, the removal of Oyster Lane and termination of George Khattar Lane, and the provision of a new vehicular access point to Wilde Avenue for loading;
- public domain within the site including new public open space areas, landscaping and tree planting across the site; and
- building identification signage.

The project does not involve any alterations to the existing edge of the formed concrete edge of the Parramatta River or to the waterway itself.

Aboriginal Community Consultation

Aboriginal community consultation in accordance with statutory guidelines *Aboriginal cultural heritage consultation requirements for proponents 2010*, (DECCW 2010) was initiated for the Powerhouse Parramatta project in February 2020 (as required by project SEARs).

Commencing in 2015, the Powerhouse Parramatta have been undertaking a parallel process of “Indigenous Engagement and Strategy” for the Powerhouse Parramatta project, separate to that of the statutory consultation process described through this ACHAR (as required and dictated by OEH Consultation Guidelines for a report to meet the criteria to be considered an ‘ACHAR’). In order to both meet the statutory requirements of the OEH Consultation Guidelines, without dismissing or overlooking the presence and significance of the Powerhouse consultation process, Powerhouse, INSW and Curio Projects made the decision to acknowledge and incorporate the outcomes of both these processes in the following ways:

- Stakeholders involved in the existing Powerhouse consultation process were automatically registered as ‘RAPs’ for the project, to be included in all ACHAR consultation and correspondence in addition to the ongoing Powerhouse process; and
- Information about the history, outcome, process and progress of the Powerhouse consultation for the project was to be incorporated into that described in the ACHAR.

Due to the mandatory minimum timeframes that apply to each stage of the statutory consultation process, at the time of writing (i.e. April 2020), Aboriginal community consultation for the project remains ongoing, and will continue beyond the planning process as part of the Museum’s practice.

As of April 2020, the Aboriginal community consultation process undertaken in accordance with statutory guidelines has reached the completion of ‘Stage 1’, i.e. ‘identification of project Registered Aboriginal Parties (RAPs)’. Twenty-seven RAPs have been identified for the Powerhouse Parramatta project. Stage 2 of the Consultation process (i.e. presentation of information about proposed project to project RAPs) is anticipated to commence in May 2020

Aboriginal Archaeological Potential

The summary and analysis of environmental and archaeological context as presented through Section 4 of this ACHAR, has led to the following predictions for Aboriginal archaeological potential within the Powerhouse Parramatta study area:

- The at-grade car park across in the southern parts of the study area retain high Aboriginal archaeological potential. These areas are also located across the northern mapped extent of the PSB, and therefore have high potential for the PSB to be retained in these locations, buried beneath the existing asphalt and concrete surfaces.
- The footprint of the multi-storey Riverside Car Park has nil to very low Aboriginal archaeological potential, due to the substantial levels of excavation undertaken for its construction, which would have removed all natural soil profiles in this location.

- The southern bank of the Parramatta River also has nil to very low Aboriginal archaeological potential due to flooding and scouring activities, as well as flood mitigation activities such as land reclamation and sea wall construction, and other significant landscaping management works along the southern foreshore.
- Portions of the site located on the southern edge of the Holocene floodplain (i.e. near the mapped boundary between the Pleistocene and Holocene deposits) where disturbance has not exceeded 2m below current ground, have low Aboriginal archaeological potential.

Aboriginal Cultural Heritage Significance

The local Aboriginal community of Parramatta have stated that the Parramatta River is of high cultural and spiritual significance. The study area is located on the southern foreshore of the River and therefore included within this statement of significance. The study area has social significance both for its intangible values (such as Dharug connection to Country and use of space), as well as for its association with tangible archaeological evidence of continued Aboriginal occupation of the area. Numerous sites are located in close proximity to the study area that provide physical evidence for the continued Dharug occupation of the River foreshore and immediate surrounds.

Should archaeological deposits be present within the study area, for the local Dharug community, this would represent a tangible and meaningful connection to their ancestors.

The study area is therefore considered likely to have **high social and spiritual significance** to the local Aboriginal (Dharug) community, however this would be further investigated and confirmed through the RAP review of this draft ACHAR.

Should the PSB be present within the study area, and contain a remnant Aboriginal archaeological deposit, the study area may have **high scientific significance** for its ability to contribute knowledge to the archaeological record about Aboriginal occupation of this area of Parramatta and across the PSB itself.

Mitigation Measures and Recommendations

Potential impact of the Powerhouse Parramatta project to the Aboriginal archaeological potential and Aboriginal cultural heritage values of the study area are proposed to be managed and mitigated via two main strategies:

- **Archaeological investigation;** and
- **Aboriginal Heritage Interpretation** to facilitate a long term conservation outcome for Aboriginal cultural heritage values (tangible and intangible) within the proposed development.

It is believed that the application of these strategies through the Powerhouse Parramatta project will serve to minimise any harm posed by the development to Aboriginal cultural heritage values. The proposed mitigation measures and timing are summarised in the table below.

PROPOSED MEASURE	TIMING
Aboriginal Archaeological Investigation	Prior to/in collaboration with development works
Aboriginal Heritage Interpretation	Prior to completion of project
Adoption of Unexpected Finds Protocol as part of Construction Management Plan	Prior to construction

The following recommendations are made for the Powerhouse Parramatta project, following from the Aboriginal cultural heritage assessment of the concept design and proposed development impacts, including Aboriginal community consultation, ethnohistorical and environmental context, predictive modelling, heritage significance assessment and impact assessment, in accordance with relevant NSW OEH statutory guidelines. It is recommended that:

- As an SSD project, the Powerhouse Parramatta project is exempt from the requirement to seek an AHIP under Section 90 of the NPW Act, however appropriate management and mitigation measures should be applied to the site, namely in the form of: 1. *Aboriginal archaeological excavation*; and 2. *Aboriginal heritage interpretation*.
- Aboriginal archaeological excavation works within the study area should be undertaken in accordance with the excavation methodology and research design as developed for and included within this ACHAR (Appendix C).
- The program of Aboriginal archaeological excavation should be coordinated with the historical archaeological investigation works required for the development (as per the *Powerhouse Parramatta —Historical Archaeological Assessment & ARD*, Curio Projects 2020).
- Representatives from the recognised knowledge holder/Indigenous stakeholders as identified through the Aboriginal community consultation process for the project, should be present for and participate in the archaeological investigation works within the Powerhouse Parramatta study area.
- Once archaeological investigation works have been completed within the study area, an Aboriginal Site Impact Recording Form should be submitted to the Aboriginal Planning Section of the NSW DPIE, to update the AHIMS site card for the registered site AHIMS Site #45-6-3192 'Riverbank Square'.
- Following the completion of the Aboriginal archaeological investigation within the study area, a post-excavation report should be prepared detailing the findings and results of the investigation, to be submitted to the project RAPs, and Aboriginal Planning Section of the NSW DPIE for their information and records.
- With respect to Aboriginal intangible heritage values (social and cultural), the Powerhouse Parramatta project presents an opportunity for a positive impact, to be achieved via the installation of Aboriginal cultural heritage interpretation elements within the site, to celebrate and communicate the significance of the site and landscape to the Dharug people, and local Aboriginal community
- Continuing consultation with the identified Indigenous stakeholders should be undertaken throughout the project.

1. Introduction

Curio Projects Pty Ltd was commissioned by Infrastructure NSW (INSW) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) to support a State Significant Development (SSD) Development Application (DA) for the development of the Powerhouse Parramatta at 34-54 & 30B Phillip Street and 338 Church Street, Parramatta (the study area). The Powerhouse Parramatta is a museum (information and education facility) that has a capital investment value in excess of \$30 million and as such the DA is submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). INSW is the proponent of the DA.

This ACHAR documents the process of investigation, consultation and assessment with regards to Aboriginal cultural heritage and Aboriginal archaeology, as undertaken for the Powerhouse Parramatta development project and study area, specific to the proposed development works. This includes background research and assessment of evidence and information about material traces of Aboriginal land use in the study area and surrounds, significance assessment of potential Aboriginal sites, places, landscapes and/or other values, as well as an impact assessment and management recommendations to assist Infrastructure NSW with their future responsibilities for Aboriginal cultural heritage within the study area.

This ACHAR has also been prepared with reference to the following key relevant client plans and consultant documents, specific to the Powerhouse Parramatta project, including:

- Moreau Kusunoki/Genton, *Powerhouse Parramatta Architectural Drawings*, 1 April 2020
- Moreau Kusunoki/Genton 2020, *Architectural Design Report, Powerhouse Parramatta*, First Draft Issue, 13 March 2020.
- Curio Projects 2020, *Powerhouse Parramatta—Historical Archaeological Assessment Report and ARD*, prepared for INSW
- AHMS 2015, *Aboriginal Cultural Heritage Assessment: Riverbank Square, Phillip Street, Parramatta LGA*, prepared for Parramatta City Council.

1.1. Background

The Powerhouse is Australia's contemporary museum for excellence and innovation in applied arts and sciences. The museum was established in 1879 in the Garden Palace which emerged from a history of 19th Century grand exhibition halls, including the Grand Palais. It currently encompasses the Powerhouse in Ultimo, Sydney Observatory in The Rocks and the Museums Discovery Centre in Castle Hill. The Powerhouse has occupied the Ultimo site since 1988.

Parramatta, in the heart of Western Sydney, is entering a period of rapid growth. It was identified in the NSW Department of Planning and Environment's 2014 *A Plan for Growing Sydney* as the metropolis' emerging second Central Business District, with the provision of supporting social and cultural infrastructure regarded as integral to its success. The strategic importance of Parramatta as an economic and social capital for Sydney has been subsequently reinforced and

further emphasised through its designation as the metropolitan centre of the Central City under the *Greater Sydney Region Plan*.

Powerhouse Parramatta will be the first State cultural institution to be located in Western Sydney – the geographical heart of Sydney. In December 2019, the Government announced the winning design, by Moreau Kusunoki and Genton, for the Powerhouse Parramatta from an international design competition.

Powerhouse Parramatta will establish a new paradigm for museums through the creation of an institution that is innately flexible. It will become a national and international destination renowned for its distinctive programs driven by original research and inspired by its expansive collections. It will be a place of collaboration, a mirror of its communities forever embedded in the contemporary identity of Greater Sydney and NSW.

1.2. Site Description

The site is located at the northern edge of the Parramatta CBD on the southern bank of the Parramatta River. It occupies an area of approximately 2.5 hectares and has extensive frontages to Phillip Street, Wilde Avenue and the Parramatta River. A small portion of the site extends along the foreshore of the Parramatta River to the west, close to the Lennox Street Bridge on Church Street. The site boundary is identified in Figure 1.1 and Figure 1.2. The site excludes the GE Office Building at 32 Phillip Street.

The site is currently occupied by a number of buildings and structures, including:

- Riverbank Car Park – a four-level public car park;
- Willow Grove – a two-storey villa of Victorian Italianate style constructed in the 1870s;
- St George's Terrace – a two-storey terrace of seven houses fronting Phillip Street constructed in the 1880s;
- 36 Phillip Street – a two-storey building comprising retail and business premises;
- 40 Phillip Street – a two-storey building comprising retail and business premises; and
- 42 Phillip Street – a substation building set back from the street.

The immediate context of the site comprises a range of land uses including office premises, retail premises, hotel, serviced apartments and residential apartments. To the north is the Parramatta River and open space corridor, beyond which are predominately residential uses. The Riverside Theatre is located to the north-west across the Parramatta River.



Figure 1.1: Aerial photograph of the site and its context. (Source: Mark Merton Photography)



Figure 1.2: Site boundary, key existing features, and immediate local context. (Source: Ethos Urban 2020)

1.3. Overview of the Proposed Development

The Powerhouse was established in 1879, and Powerhouse Parramatta will radically return to its origins through the creation of seven presentation spaces of extraordinary scale that will enable the delivery of an ambitious constantly changing program that provides new levels of access to Powerhouse Collection. The Powerhouse will set a new international benchmark in experiential learning through the creation of an immensely scaled 360-degree digital space, unique to Australia.

Powerhouse Parramatta will reflect the communities and cultures of one of Australia's fastest growing regions. It will hold First Nations cultures at its core and set a new national benchmark in culturally diverse programming. The Powerhouse will be highly connected through multiple transport links, and integrate into the fine grain of the city.

Powerhouse Parramatta will be an active working precinct and include the Powerlab, which will enable researchers, scientists, artists and students from across regional NSW, Australia and around the world to collaborate and participate in Powerhouse programs. The Powerlab will feature digital studios to support music and screen industries alongside co-working spaces, life-long learning and community spaces. Integrated into the Powerlab will be a research kitchen and library that will support a NSW industry development program including archives and oral histories.

This application will deliver an iconic cultural institution for Parramatta in the heart of Sydney's Central City. The SSD DA seeks consent for the delivery of the Powerhouse Parramatta as a single stage, comprising:

- site preparation works, including the termination or relocation of site services and infrastructure, tree removal and the erection of site protection hoardings and fencing;
- demolition of existing buildings including the existing Riverbank Car Park, 'Willow Grove', 'St George's Terrace' and all other existing structures located on the site;
- construction of the Powerhouse Parramatta, including:
 - seven major public presentation spaces for the exhibition of Powerhouse Collection;
 - front and back-of-house spaces;
 - studio, co-working and collaboration spaces comprising the 'Powerlab', supported by 40 residences (serviced apartments) for scientists, researchers, students and artists, and 60 dormitory beds for school students;
 - education and community spaces for staff, researchers and the Powerlab residents, the community, and education and commercial hirers;
 - commercial kitchen comprising the 'Powerlab Kitchen' used for cultural food programs, research, education and events;

- film, photography, and postproduction studios that will connect communities with industry and content that will interpret the Powerhouse Collection;
- public facing research library and archive for community, industry, students and researchers to access materials; and
- a mix of retail spaces including food and drink tenancies with outdoor dining.
- operation and use of the Powerhouse Parramatta including use of the public domain provided on the site to support programs and functions;
- maintenance of the existing vehicular access easement via Dirrabarri Lane, the removal of Oyster Lane and termination of George Khattar Lane, and the provision of a new vehicular access point to Wilde Avenue for loading;
- public domain within the site including new public open space areas, landscaping and tree planting across the site; and
- building identification signage.

The project does not seek consent for the carrying out of works outside of the site boundary, and in particular does not involve any alterations to the existing edge of the formed concrete edge of the Parramatta River or to the waterway itself.

1.4. Assessment Requirements

The Department of Planning, Industry and Environment (DPIE) have issued Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement (EIS) for the proposed development. This report has been prepared having regard to the SEARs as follows:

SEAR	WHERE ADDRESSED
7. Aboriginal cultural heritage The EIS shall: <ul style="list-style-type: none"> ▪ identify and describe Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR) 	This report (ACHAR)
<ul style="list-style-type: none"> ▪ ensure consultation has taken place with Aboriginal people and is documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW) 	Section 3
<ul style="list-style-type: none"> ▪ assess impacts on Aboriginal cultural heritage values and document them in the ACHAR. This must demonstrate attempts to avoid impacts, identify any conservation outcomes and measures to mitigate impacts. 	Section 6.3

This report also addresses the following Strategic Policy and Technical Guidelines:

POLICY OR GUIDELINE	WHERE ADDRESSED
<ul style="list-style-type: none"> Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) 	Entire report. See notes in Section 2.1.4
<ul style="list-style-type: none"> Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 	Section 3
<ul style="list-style-type: none"> Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010 	Entire report. See notes in Section 2.1.4

1.5. Limitations and Constraints

This report has been prepared using the available historical data and documentation available for the study area and surrounds, including relevant archaeological reports and assessments.

This report does not include assessment of non-Aboriginal heritage values or archaeology, nor any non-heritage related planning controls or requirements.

1.6. Investigators, Contributors and Acknowledgements

This report has been prepared by Sam Cooling, Senior Archaeologist of Curio Projects, with review by Natalie Vinton, Director of Curio Projects. Table 1.1 presents a complete list of the project team, including qualifications, affiliation and role in the project. Details of all project RAPs are presented in Section 3.

Table 1.1: Investigators and Contributors

PERSON (QUALIFICATION)	AFFILIATION	ROLE
Sam Cooling, Senior Archaeologist (BA, M Archaeological Science)	Curio Projects	Report Author
Natalie Vinton, Director (BA (Hons) Archaeology and Palaeoanthropology)	Curio Projects	Report Reviewer
Andre Fleury, Archaeologist (B. Hist, M Archaeological Science)	Curio Projects	GIS and Mapping

2. Relevant Statutory Context

Aboriginal cultural heritage is governed in NSW by two principal pieces of legislation:

- *National Parks and Wildlife Act 1974 (NSW)* (NPW Act); and
- *Environmental Planning and Assessment Act 1979 (NSW)* (EPA Act);

2.1.1. National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974 (NSW)* (NPW Act), administered by the Aboriginal Heritage Planning Section of the Environment, Energy and Science (EES) division of the NSW DPIE (formerly known as the Office of Environment and Heritage (OEH)), is the primary legislation that provides statutory protection for all 'Aboriginal objects' (Part 6, Section 90) and 'Aboriginal places' (Part 6, Section 84) within NSW.

An Aboriginal object is defined through the NPW Act 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 NPW Act provides the definition of 'harm' to Aboriginal objects and places as:

"...any act or omission that:

(a) destroys, defaces or damages the object or place, or

(b) in relation to an object-moves the object from the land on which it had been situated, or

(c) is specified by the regulations, or

(d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c), (NPW Act 1974).

The NPW Act also establishes penalties for 'harm' to Aboriginal objects and declared Aboriginal places, as well as defences and exemptions for harm. One of the main defences against the harming of Aboriginal objects and cultural material is to seek an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the NPW Act, under which disturbance to Aboriginal objects could be undertaken, in accordance with the requirements of an approved AHIP.

2.1.2. Environmental Planning and Assessment Act 1979

The EP&A Act is an 'Act to institute a system of environmental planning and assessment for the state of NSW'. Dependent upon which Part of the EP&A Act a project is to be assessed under, differing requirements and protocols for the assessment of associated Aboriginal cultural heritage may apply.

Part 4, Division 4.1 of the EP&A Act identifies and defines State Significant Development projects (SSD) as those declared under Section 89C of the EP&A Act. SSD and State Significant

Infrastructure projects (SSI), replace 'Concept Plan' project approvals, in accordance with Part 3A of this Act, which was repealed in 2011.

Where a project is assessed to be an SSD, the process of development approval differs, with certain approvals and legislation no longer applicable to the project. Of relevance to the assessment of Aboriginal heritage for a development, the requirement for an AHIP in accordance with Section 90 of the NPW Act is removed for SSD projects (EP&A Act, Section 89J).

The project will meet the criteria for SSDA, and therefore will not be subject to the provisions of the NPW Act.

2.1.3. Native Title Act 1993

The *Native Title Act 1993* provides the legislative framework to recognise and protect native title, which recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Under the Native Title Act, native title claimants can make an application to the Federal Court to have their native title recognised by Australian law.

There are currently no native title claims or determinations in place for the Powerhouse Parramatta study area.

2.1.4. OEH Statutory Guidelines

In order to best implement and administer the protection afforded to Aboriginal objects and places as through the NPW Act, and EP&A Act, the OEH (formerly known as OEH, now part of the DPIE) have prepared a series of best practice statutory guidelines with regards to Aboriginal heritage. These guidelines are designed to assist developers, landowners and archaeologists to better understand their statutory obligations with regards to Aboriginal heritage in NSW and implement best practice policies into their investigation of Aboriginal heritage values and archaeology in relation to their land and/or development. This report has been prepared in accordance with these guidelines, including:

- DECCW 2010a, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. (the Due Diligence Code of Practice)
- OEH 2011a, *Guide to Investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW*. (the Guide to Investigating)
- DECCW 2010b, *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales*. (the Code of Practice)
- DECCW 2010c, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. (the Consultation Guidelines)
- OEH 2011b, *Aboriginal Heritage Impact Permits, a Guide for Applicants*.

2.2. Objectives of Aboriginal Heritage Assessment

The objectives of the Aboriginal cultural heritage assessment for the Powerhouse Parramatta project, were to:

- identify Aboriginal community members who can speak for the Country within which the project is located;
- involve the Aboriginal community in the cultural heritage assessment process, including consultation to determine their opinions with respect to the project and its potential 'harm' to their cultural heritage;
- understand the number, extent, type, condition, integrity and archaeological potential of any potential Aboriginal heritage sites and places that may be located within the study area;
- determine whether the potential Aboriginal sites and places are a component of a wider Aboriginal cultural landscape;
- understand how the any potential physical Aboriginal sites relate to Aboriginal tradition within the wider area;
- prepare a cultural and scientific values assessment for all identified aspects of Aboriginal cultural heritage associated with the study area;
- determine how the proposed project may impact any identified Aboriginal cultural heritage;
- determine where impacts are unavailable and develop a series of impact mitigation strategies that benefit Aboriginal cultural heritage and the proponent (in close consultation and discussion with the local Aboriginal community); and
- provide clear recommendations for the conservation for Aboriginal heritage and archaeological values and mitigation of any potential impacts to these values.

3. Aboriginal Community Consultation

Aboriginal community consultation is required for assessment of Aboriginal cultural heritage, and should be undertaken in the early stages of project planning in order to best guide the development process. This section documents the process of Aboriginal community consultation that has been undertaken for the Aboriginal cultural heritage assessment of the Powerhouse Parramatta project. Aboriginal community consultation in accordance with statutory guidelines *Aboriginal cultural heritage consultation requirements for proponents 2010*, (DECCW 2010) was initiated for the project in February 2020.

The objectives of Aboriginal Community Consultation, as stated in the Consultation guidelines are to:

‘ensure that Aboriginal people have the opportunity to improve assessment outcomes by:

- *Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s)*
- *Influencing the design of the method to assess cultural and scientific significance of Aboriginal object(s) and/or place(s)*
- *Actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed project area*
- *Commenting on draft assessment reports before they are submitted by the proponent to the OEH.’ (DECCW 2010a)*

Aboriginal people are recognised in the OEH Consultation Guidelines as the determinants of their own heritage. Therefore, the ongoing process of Aboriginal community consultation for the Powerhouse Parramatta project seeks to identify social and cultural values of the study area and its surrounds to the local Aboriginal community, in order to identify appropriate and respectful mitigation strategies for any identified impacts to Aboriginal heritage presented by the project.

Due to the mandatory minimum timeframes that apply to each stage of the statutory consultation process, at the time of writing, Aboriginal community consultation for the project remains ongoing, and will continue beyond the planning process as part of the Museum’s practice.

3.1. Powerhouse Consultation Process

Commencing in 2015, the Powerhouse Parramatta have been undertaking a parallel process of “Indigenous Engagement and Strategy” for the Powerhouse Parramatta project (coordinated by Marcus Hughes- Head of Indigenous Engagement & Strategy, Powerhouse), separate to that of the statutory consultation process described through this ACHAR (as required and dictated by OEH Consultation Guidelines for a report to meet the criteria to be considered an ‘ACHAR’). In order to both meet the statutory requirements of the OEH Consultation Guidelines, without dismissing or overlooking the presence and significance of the Powerhouse consultation

process, Powerhouse, INSW and Curio Projects made the decision to acknowledge and incorporate the outcomes of both these processes in the following ways:

- Stakeholders involved in the existing Powerhouse consultation process were automatically registered as 'RAPs' for the project, to be included in all ACHAR consultation and correspondence in addition to the ongoing Powerhouse process; and
- Information about the history, outcome, process and progress of the Powerhouse consultation for the project was to be incorporated into that described in the ACHAR.

The Powerhouse consultation process includes the key stakeholder groups:

- Deerubbin LALC;
- Dharug Strategic Management Group (DSMG) (and through them to other members of the Dharug community); and
- City of Parramatta Aboriginal & Torres Strait Islander (ATSI) Advisory Committee.

Powerhouse are finalising Statements of Understanding with respect to the Powerhouse Parramatta, with these key groups.

Other Powerhouse documents relevant to the consultation process for the project, to which reference has been made in the preparation of this ACHAR, include:

- *MAAS Innovate, Reconciliation Action Plan, May 2017-May 2019* (May 2017)
- *MAAS Australian Indigenous Cultural and Intellectual Property Protocol* (July 2016)

3.2. OEH Consultation Guidelines Process

A complete log of all communications between Curio Projects and Registered Aboriginal Parties (RAPs) for the project has been maintained throughout the project. This log will be appended to the final ACHAR as Appendix A, while copies of meeting minutes, written correspondence to and responses from RAPs etc will be attached as Appendix B to the final report.

Cultural protocols with regards to RAP requests to censor, redact or omit sensitive cultural information from reports and correspondence have been observed throughout the consultation process. Therefore, some correspondence may be excluded from direct reproduction within this report where requested by project RAPs.

The Aboriginal Community Consultation process in accordance with OEH Guidelines consists of four main stages:

Stage 1—Notification of project proposal and registration of interest

Stage 2—Presentation of Information about the Proposal Project

Stage 3—Gathering Information about Cultural Significance

Stage 4—Review of Draft Cultural Heritage Assessment Report

3.3. Aboriginal Consultation to Date (April 2020)

3.3.1. Stage 1—Notification of project proposal and registration of interest

The first step in undertaking the Aboriginal Cultural Heritage Assessment process for the study area, is the identification of the Aboriginal community members who can speak for Country in the area of the project (Stage 1).

In March 2020, Curio Projects on behalf of INSW, initiated a new process of Aboriginal Community Consultation for the Powerhouse Parramatta study area in accordance with DPIE (former OEH) consultation guidelines. Stage 1 notifications identified the nature and location of the Powerhouse Parramatta project. In accordance with Stage 1.2 of the consultation guidelines, letters were sent to the relevant statutory bodies on 3 March 2020 (Aboriginal Heritage Planning Section of NSW DPIE [former OEH], Deerubbin Local Aboriginal Land Council [DLALC], the Registrar- Aboriginal Land Rights Act 1983, the National Native Title Tribunal [NNTT], Native Title Services Corporation Limited [NTS Corp], City of Parramatta Council [CoP], and the Greater Sydney Local Land Services [LLS]), requesting names of Aboriginal people who may have an interest in the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and places relevant to the study area.

A public notice advertising the project was also placed in Parramatta Advertiser on 11 March 2020 (consistent with Stage 1.3 of the Consultation Guidelines) (Figure 3.1), advising of the project location and proposed development, and inviting registration from local Aboriginal people.

All names compiled from Stage 1.2 of the process were then written to via email and/registered post in March 2020, inviting registration in the process of community consultation for the project. Response was requested within 14 days of the date of the letter.

3.3.2. Registered Aboriginal Parties

As a result of Stages 1.2 and 1.3, 27 Registered Aboriginal Parties (RAPs) were identified for the Powerhouse Parramatta project (in alphabetical order):

- A1 Indigenous Services;
- Amanda Hickey Cultural Services;
- Aragung;
- Barking Owl Aboriginal Corporation;
- Barraby Cultural Services;
- Bidjawong Aboriginal Corporation;
- Butucarbin Aboriginal Corporation;
- City of Parramatta Aboriginal & Torres Strait Islander (ATSI) Advisory Committee;
- Corroboree Aboriginal Corporation;

- Darug Aboriginal Cultural Heritage Assessments;
- Darug Aboriginal Land Care;
- Dharug Custodian Aboriginal Corporation (DCAC);
- Deerubbin LALC;
- Dharug Ngurra Aboriginal Corporation;
- Dharug Strategic Management Group (DSMG);
- Dhinawan Culture and Heritage;
- Didge Ngunawal Clan;
- Freeman and Marx;
- Ginninderra Aboriginal Corporation;
- Goodradigbee Cultural & Heritage Aboriginal Corporation;
- Kamilaroi Yankuntjatjara Working Group;
- Merrigarn;
- Muragadi Heritage Indigenous Corporation;
- Murra Bidgee Mullangari Aboriginal Corporation;
- Tocomwall;
- Widescope Indigenous Group; and
- Yurrandaali Pty Ltd.

Adults		Notices	
Adult & Escort Services AT BLACKTOWN Special 24/7 Full Service \$100 5 Flushing Rd (2 min fr Station) 9622 9388 www.blacktown.com.au	Adult Relaxation CHILL MASSAGE UNDER NEW MANAGEMENT 107 Queen St. Nth Strathfield • Aussie • South American • Asian • European • Indian • African 7 DAYS 9743 3110	Public Notices  Infrastructure NSW New Powerhouse in Parramatta Curio Projects (heritage consultants), on behalf of Infrastructure NSW, seek registration from local Aboriginal groups and people with respect to a proposed development. The project site is the development of the New Powerhouse in Parramatta , at 34 & 308 Phillip St and 338 Church Street, Parramatta (see map below). The New Powerhouse in Parramatta is a museum (information and education facility) that has a capital investment value in excess of \$30 million and as such the Development Application (DA) is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979. The project will therefore be exempt from the requirements for an Aboriginal Heritage Impact Permit (AHIP) in accordance with Section 90 of the NSW Parks and Wildlife Act 1974. This application will deliver a new cultural institution for Parramatta in the heart of Sydney's Central City. The State Significant DA seeks consent for the delivery of the New Powerhouse in Parramatta comprising site preparation works; demolition of existing buildings; construction of the New Powerhouse; operation and use of the New Powerhouse; public domain and landscaping; and building identification signage. Curio Projects invite local Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places in the area of the New Powerhouse, to register an interest in a process of community consultation.	
At Smithfield Large section 16.21 to 4000s New Undercover Parking 8.75 30min 8.10 45min 8.130 60min 8.150 Outcall 02 9604 8818 Website: Smithfield2.com.au Unit 1, 72-80 Percival Rd	At Seven Hills New Asian Massage No Sex 04170 432 2 333 Shop 6/138 Best Rd. YENNOBA CHINESE MASSAGE Monday - Sunday 10.30am-10pm Best Massage - Easy Parking 7 Days 0410 305 391	Find it with Buy Search Sell buy search sell	
Motoring Cars Wanted TOP CASH 7 DAYS For all Cars, Vans, Utes, 4x4, Trucks, etc. \$350 - \$35,000* Call George 0404 714 714 WE ARE LOCAL		WE WILL BEAT ANY PRICE or 100% free removal THR PICKUP *Conditions apply	
AT BLACKTOWN New 100% New, Innovation 18-30 yo Ladies Top Service Special Price \$14.50 Parking Backyard 2/40 Forge Street • 9831-1838 • 9831-1568 web: 02 9604 8818 No Out Call	Grand 45% Opening OFF Open on Xmas & New Year New Ladies Blacktown 1 Private Parking Aust, Euro, Indian ladies Best Service 247 Inout 8 Carnegie Pl 9621 8868 or 9622 8858 www.blacktown.com.au	Absolutely UNWANTED All cars, vans, utes & trucks, removed free. CASH up to: \$10,000 All Areas, same day removal Call Mike 8764 80710 • 414 423 200	
AAROW'S Sydney's Gay & Bi Social Club Open 24/7 - Entry \$20 9638 0553 Spa, Sauna & Steam Room	AT ARNHELD PARK Aussie Asian & Euro Ladies 10 Vangelis St off Holbeche Rd. 9671 3313	Jaguar, Statesman or similar wanted Genuine Private Buyer Older Style With History Budget Under \$10,000 0416 007 760	
Public Notices Australian Turf Club TRAFFIC IMPACT NOTICE LONGINES GOLDEN SLIPPER DAY » 21 MARCH 2020 The Australian Turf Club is the host of the Longines Golden Slipper Race Day to be held at Rosehill Gardens on Saturday 21 March 2020 . The Longines Golden Slipper is an Australian Thoroughbred horse race for two-year-old horses held annually at Rosehill Gardens Racecourse at Rosehill and is run over 1200 metres at set weights. It is the premier two-year-old race in Australia and is the world's richest race for two-year-old Thoroughbred horses. The majority of our patrons will be taking advantage of public transport on the day, however there will be a significant number of visitors who may elect to drive and based on past experience our car parks will not be able to fill quickly. If you are planning to drive to the Longines Golden Slipper Race Day, the following road closures and diversions will be in effect: • Right Hand Turn at James Ruse Drive into Australian Turf Club Car Parks at Prospect Street - CLOSED • Turning Bay 1 - Grand Avenue (Members P1 Car Park) - CLOSED • Turning Bay 2 - Grand Avenue East - CLOSED We apologise for any inconvenience these closures may cause.		 Please forward registrations to Curio Projects no later than 25 March 2020, via phone, email or mail to: Curio Projects: Suite 9/17 Thurlow Street, Rosehill NSW 2150 info@curioprojects.com.au (02) 8014 760	
Penrith 423 High St. 24 hour Asian ladies, new faces daily FULL SERVICES \$100 - for One hour \$65 - for half hour Ph: 4722 2005 Mob: 0470 267 110	Sweet & Fun Aussie Girl Friendly & Passionate Stunning Blonde, Mid 30s Daytime ONLY Northern Suburbs - No Drugs 0431 764 157	Dining table had its day? Sell your unwanted furniture at Buy Search Sell. Call 13 11 13 buy search sell	
AT KNOXY HILL 9400 937 008 Asian ladies, new faces daily FR Shop 4/2 Riverhill South Redfern off New St. 100m	MALE / ASIAN MALE Full Body Massage \$50 p/h Ph: Van 0401 206 757 7 days		
Mature Busty Asian Lady A Very Good Massage Private 0415 771 821	Private Mature Asian Lady Sexy & friendly by Asst only No priv numbers but please 0411 569 316	Adult Employment & Opportunities HOTNESS REQUIRED All Ladies, Young, Sexy, Exotic, Days, Nights & Weekends Avail Accom Pr provided Ph 5567 9494	

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Wednesday, March 11, 2020 PARRAMATTA ADVERTISER 39

03.06.2020 17:53 NewsCorp Australia - Tearsheet

Figure 3.1: Tear-sheet from Parramatta Advertiser 11.3.2020

3.4. Ongoing Aboriginal Community Consultation

At the time of writing, Stage 2 of the Consultation process was about to commence (i.e. presentation of information about proposed project RAPs). Stage 2 of the Consultation process usually includes a site inspection/initial meeting with project RAPs to discuss the project, and an opportunity to visit the project site. Powerhouse Parramatta are currently investigating a process by which the initial meeting/opportunity to visit the project site can occur that is compliant with Australian and NSW State Government COVID-19 social distancing regulations and requirements (current as of 17 April 2020).

An Aboriginal cultural heritage assessment methodology is currently in preparation, and will be provided to and discussed with the project RAPs through Stages 2 and 3 (Gather Information about Cultural Significance) of the consultation process. Once the draft Aboriginal cultural heritage assessment methodology has been finalised, project RAPs will be provided 28 days to review and provide comment.

Following RAP review and approval of the cultural heritage assessment methodology (the results of which will be incorporated into this section of the final ACHAR), this draft ACHAR will be provided to all project RAPs for review and comment. Project RAPs will be provided minimum 28 days to review and provide comment on the draft ACHAR (Stage 4 of the Consultation guidelines). Following RAP review, the ACHAR will be finalised to incorporate all RAP comment, feedback and discussion of cultural values provided.

All Aboriginal community consultation has been comprehensively documented (and will continue so throughout the process), to be presented in full within the final ACHAR.

A summary of the consultation process undertaken to date, and detailed description of the future stages that will be undertaken on an ongoing basis throughout the Powerhouse Parramatta project (in accordance with Consultation Guidelines) is summarised in Table 3.1.

Table 3.1: Summary of Aboriginal Cultural Heritage Assessment Process for Powerhouse Parramatta

STAGE	DESCRIPTION	DATE UNDERTAKEN/ STATUS	COMMENT
<i>Stage 1—Notification of project proposal and registration of interest</i>			
Stage 1.2	Write to relevant statutory bodies requesting names of Aboriginal people	3.3.2020 Requested response by: 17.3.2020 Complete	N/A
Stage 1.3	Write to all names compiled from Stage 1.2	20.3.2020 Requested response by: 3.4.2020	
Stage 1.4	Identification of RAPs	Complete	
<i>Stage 2—Presentation of Information about the Proposed Project</i>			
Stage 2.1–2.2	Preparation of proposed project information and initiate arrangements for presenting proposed project information	Following completion of Stage 1	Anticipated May 2020
Stage 2.3	Presentation of Proposed project information to RAPs (record and document)	Following completion of Stage 1	Minimum 28 days will be provided for RAP review. Anticipated provision May 2020, 28 day review end c.June 2020.

STAGE	DESCRIPTION	DATE UNDERTAKEN/ STATUS	COMMENT
Stage 2.4	Create opportunity for RAPs to visit site	Following completion of Stage 1	Anticipated May 2020
Stage 3—Gathering of Information about Cultural Significance			
Stage 3.1	Present/provide proposed cultural heritage assessment methodology to RAPs	Stage 2 and 3 documentation will be provided to RAPs for review at same time- as one consolidated document	Anticipated May 2020
Stage 3.2	Opportunity for RAPs to review and provide feedback on cultural heritage assessment methodology		Minimum 28 days will be provided for RAP review. Anticipated provision May 2020, 28 day review end c.June 2020.
Stage 3.3–3.6	Seek cultural information from RAPs regarding Aboriginal objects/places, social, spiritual and cultural values relating to the subject site, management options etc	Through Stage 3.2	
Stage 3.7	Document all feedback received from Stage 3	At completion of Stage 3	Anticipated c. June 2020
Stage 4—Review of Draft Cultural Heritage Assessment Report (ACHAR)			
Stage 4.1	Prepare draft ACHAR	This report	This report
Stage 4.2–4.3	Provide copy of draft ACHAR to project RAPs	Following completion of Stage 3.	Minimum 28 days will be provided for RAP review. Anticipated provision June 2020, 28 day review end c. early July 2020.
Stage 4.4	Incorporate RAP comments and feedback and finalise ACHAR	Following completion of Stage 4.2-4.3	c. Early July 2020
Stage 4.5	Provide copy of final ACHAR to RAPs	At completion of Stage 4.4	c. Early July 2020

4. Summary and Analysis of Background Information

This section summarises the environmental, historical and archaeological background and context for Powerhouse Parramatta, study area. This summary serves to place the study area and proposed development into an appropriate regional context. This background assessment has been undertaken in order to provide a holistic understanding of the cultural landscape within which the study area is located. This analysis has been prepared to focus on both the tangible, as well as intangible cultural heritage and Aboriginal history of the region, and will assist with the development of appropriate mitigation measures, prior to any non-reversible impact to the site, Aboriginal archaeology and cultural values and significance.

4.1. Aboriginal Ethnohistory

Prior to European occupation of the region Aboriginal people had inhabited the wider region of the Sydney basin for thousands of years. The Dharug, the traditional owners of the Parramatta area, are part of a language group that originally extended from the eastern suburbs of Sydney as far south as La Perouse, west as far as Bathurst and north as far as the Hawkesbury River. The wider Dharug language group comprised a number of sub-groups often referred to as 'clans'. The clan that occupied the area now known as Parramatta were the Burramattagal, from which Parramatta derives its name (Attenbrow 2002; Kohen 1986)

Much of the evidence of traditional Aboriginal lifestyle and economy was disturbed in the early years of European settlement and much of our information on the local people is based on ethnohistorical sources.

The wide range of natural environments and resources accessible from the Parramatta CBD region and locality supported a diverse ecosystem of plants and animals, creating an attractive and productive location for Aboriginal occupation and life. The surrounding grasslands supported game for hunting and the tree species in the area were important sources of bark for constructing shelters and canoes, while the Parramatta River provided both freshwater and estuarine species of fish, along with tortoise and waterfowl.

The Burramattagal people enjoyed an abundant and uniquely varied food resource created by the convergence of fresh water and salt water within the river. Fresh water species included mullet, crayfish, shell fish and turtles while the salt water species included eels, fish, shell fish and molluscs, creating large shell middens along the majority of the main waterways in the region (Attenbrow 2002). Post-1788, excavation of Aboriginal shell middens by Europeans for a myriad of uses, demonstrated the widespread availability and consumption of shellfish by Aboriginal people.

Early historical records account the importance and prevalence of fishing and connection to the River to the Burramattagal. For example, Lt. Collins wrote accounts about local people catching species such as bream and mullet (Collins, 1975, from Extent 2016), while the word Burramatta itself is said to translate as 'the place where eels lie down', reinforcing the significance of the river and its natural resources to the local Aboriginal people.

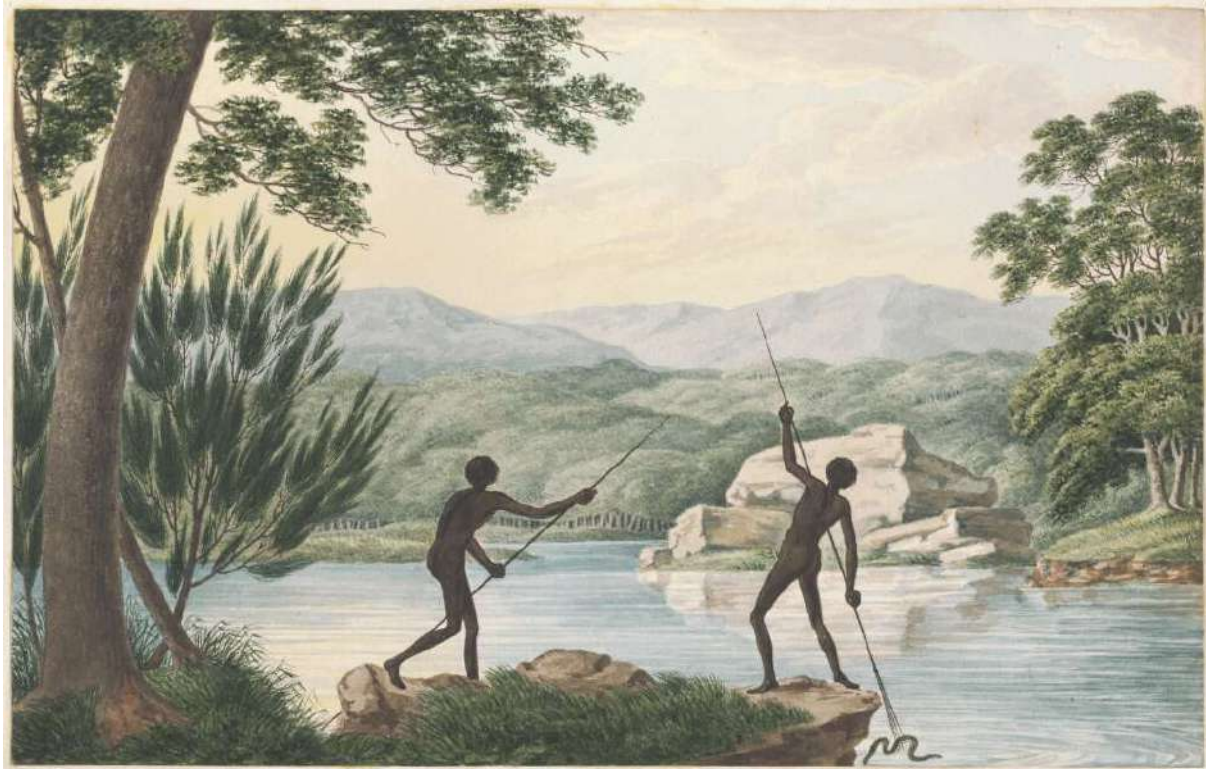


Figure 4.1: Two Aboriginal Australian men fishing for eels, ca. 1817, Joseph Lycett (Source: National Library of Australia, available from <<http://nla.gov.au/nla.obj-138499671>>)

4.2. Early Contact Period

The traditional lifestyle of Parramatta Aboriginal people was significantly impacted by the European colonial settlement, with the local people being some of Australia's first traditional owners to experience detrimental impacts, social dislocation and disturbance as a result of European arrival. The population in the area decreased as the community came into conflict with the settlers and were displaced and forced to move into territories of other Aboriginal clans to access resources (Attenbrow 2002).

Parramatta was the second settlement established in New South Wales intended to supply the Sydney settlement with agricultural resources. Soon after the First Fleet reached Sydney Cove in January 1788 it became apparent that the surrounding land was not suitable for Western agricultural approaches. In addition, the Colonial Marines and convicts were largely untrained in farming, which exacerbated the shortage of both necessary skills and supplies for maintaining the colony. As a result, explorations were made further inland to locate arable land.

In April 1788, the Parramatta area was identified by an exploration party as a suitable location for settlement and farming. By the end of the year a small party of twenty convicts and twenty marines was stationed at the settlement at Parramatta, originally named Rose Hill (Kass et al 1996: 16-17). Land clearance for farming began quickly and a Government Farm was established on the north side of the river.

The original layout of the Rose Hill settlement designed by Governor Phillip in 1790 consisted of two main streets, High Street (now George Street) and South Street (now Macquarie Street), and

two north-south streets, Bridge Street (now O'Connell Street) and Church Street. The river was crossed at a bridge at what is now O'Connell Street while a ford crossed the river at what is now Smith Street.

The initial planning of Parramatta saw wide streets and large land allotments, with the early population of the city predominantly consisting of convicts. The first permanent European dwellings and structures in the city were generally focused along the main streets of George, Macquarie and Church Streets. Parramatta was renamed in 1791, after the Aboriginal name for the area (Burramatta, which is reported to loosely translate to 'the place where the eels lie down') (MDCA 2003).

Effects of European occupation of Parramatta would have been keenly felt by the local Parramatta population, including loss of access to traditional lands, disease, starvation, inter-tribal conflict and the breakdown of traditional cultural and social practices. Increasing conflict between the local Parramatta people and the new colonists in the early days of Parramatta lead to the establishment of a school for Aboriginal children, known as the Parramatta 'Native Institution', in 1814 (the public gazettal of the 'Rules and Regulations' for the Native Institution date to 10 December 1814), in an effort to extend British ideals of 'civilisation', commerce and Christianity to local Aboriginal people of the Sydney colony (Brook & Kohen, 1991). In reality, there was no intention of returning children to their parents or of maintaining any traditional cultural connections.

The Institute was originally conceptualized by William Shelley (together with his wife Elizabeth), a trader and former London Missionary Society member, who wrote a letter to Governor Macquarie in April 1814 proposing the establishment of the school. Shelley became the appointed superintendent of the Institution (which after his death in 1815, continued to be run by his wife Elizabeth Shelley).

The Parramatta Native Institute was officially opened with the first Aboriginal Annual Feast on 28 December 1814, at the marketplace in Parramatta (site of the current Parramatta Town Hall). While the establishment of the 'Annual Feast' at Parramatta was originally orchestrated with the intention of encouraging Aboriginal families to give their children over to the Institution, it became a significant annual gathering and event in Parramatta from 1814–1835. In its peak the Annual Feast attracted several hundred Aboriginal people from as far as beyond the Blue Mountains, Jervis Bay, Broken Bay and the Monaro district gathering in Parramatta for the annual distribution of food, blankets, clothes, and the feast (Brook & Kohen 1991: 72).

Records such as the 1828 census and blanket returns provide some information about Parramatta's Aboriginal population in the early 1800s- for example, the 1828 census records the 'Parramatta Tribe' as comprising of 49 people. However, this (already limited) information about the presence and activities of Parramatta people seems to be almost completely absent by the 1850s (Extent 2016).



Figure 4.2: Detail of Plan of Parramatta, 1796 with the location of the site indicated. (Source: SLNSW BT 26/Series 1/map 17)



Figure 4.3: Annual Meeting Of Native Tribes At Parramatta', Augustus Earle, c. 1825–1827. (Source: NLA, available from <http://Nla.Gov.Au/Nla.Obj-134502097>)

4.3. Historical Summary

The study area formed part of the early section of the Rose Hill settlement, and by 1804 was covered by four lots fronting the river, and two lots fronting Smith Street. Creation of Phillip Street in c.1811 resulted in the reconfiguration of these earlier allotments, creating a number of irregularly shaped allotments fronting both Smith and Phillip Streets. Most early buildings

constructed within the study area were domestic residences. By 1880s, further subdivision of these allotments had occurred, including construction of the Oriental Hotel and St George's Terrace on Phillip Street. The extant heritage item 'Willow Grove' was constructed in the 1870s.

A small number of businesses were established along the Phillip Street frontage in the 1920s and 30s, and the river foreshore was reformed in concrete in the early 1940s as part of ongoing flood mitigation works. The extant multi-level and at-grade car parks were constructed in the 1950s.

An Historical Archaeological Assessment (AA) has been prepared for the Powerhouse site (Curio 2020), which includes a detailed history of the study area post-1788. A brief summary of this history is provided in the table below, with respect to the ability for historical activities to impact the ability for Aboriginal archaeological resources to remain at the site. For full detailed history of land use activities, refer to Curio 2020 AA, Section 3.

Figure 4.4 shows a composite image of the historical structures across the study area since 1804.

HISTORICAL PHASE	DATES	DESCRIPTION
1. Aboriginal Settlement	Pre 1788	See Section 4.1 and 4.2 above
2. Early Colonial Settlement	1788-1800	No evidence for occupation or other activities in the study area. Early activities at Parramatta sited nearby to the west. Possible associated activities such as vegetation clearance and small scale tillage within study area due to proximity to the early Parramatta settlement.
3. Town Development	1800-1840	Definite evidence of development in study area by 1804. Ten large and fairly regular allotments, five occupied by whitewashed structures. Small scale gardening/tillage and/or cottage industries in conjunction with domestic residence. Phillip St constructed 1810, altering layout of allotments in study area.
4. Municipal Development	1840-1870	Further subdivision and construction of buildings, mostly for domestic residences and shops etc.
5. Late 19 th Century	1870-1900	Construction of 'Willow Grove' Construction of St George's Terrace (Oriental Hotel) on corner of Phillip and Smith Streets in 1881.
6. Early to Mid 20 th Century	1900-1950	Church Street grows as retail district, many major retail chains open stores in Parramatta by 1937. Lennox Bridge widened on western side in 1935 to accommodate increased motor traffic. Southeast of study area primarily occupied by domestic households, businesses operating on Church St used centre of study area for storage purposes. Industrial buildings and businesses established along Phillip St frontage.

HISTORICAL PHASE	DATES	DESCRIPTION
		Northeast corner and northern boundary along river remain underdeveloped.
7. Mid 20th Century to Present	1950-2020	Major development Clearance for, and construction of, open carpark (1953), replaced by the existing multistorey carpark structure in the 1970s (originally named the 'David Frater Carpark'). Construction of David Jones store in Church Street in 1960s (adjacent to study area to west) demolished in 2000 and redeveloped by Meriton Apartments (330 Church St).

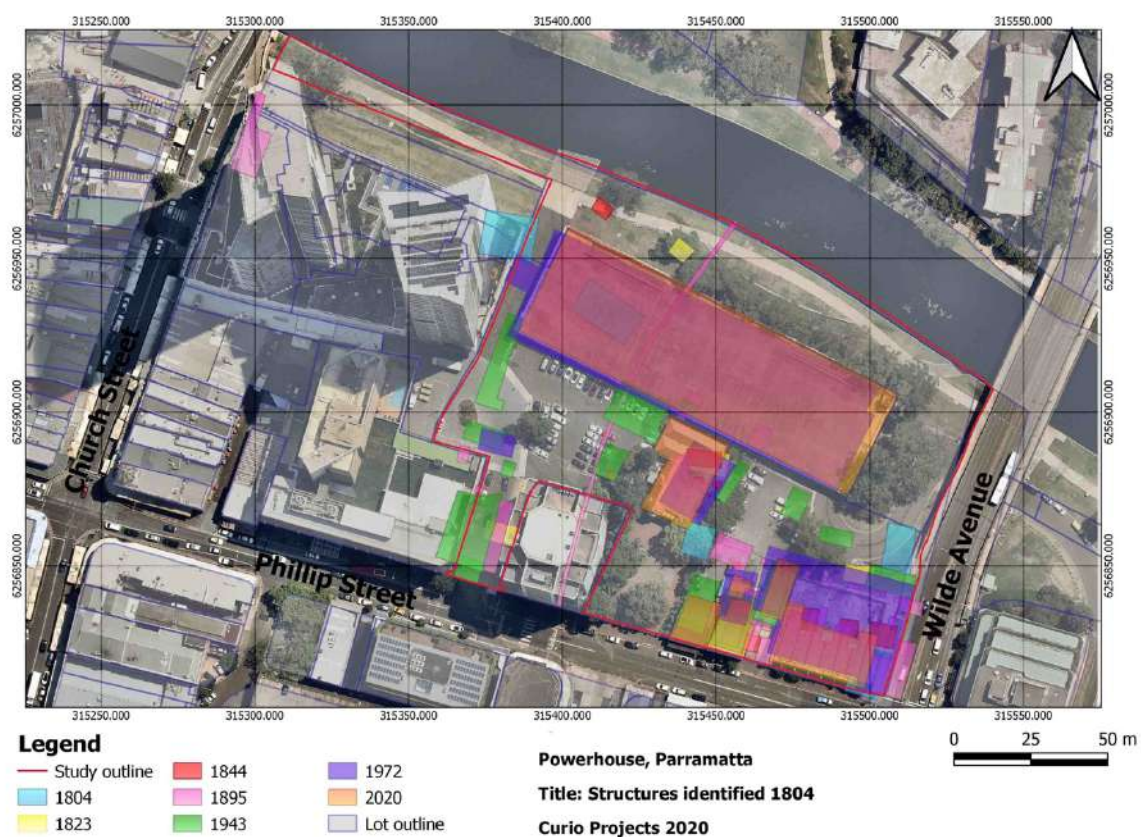


Figure 4.4: Composite overlay of historic plans and aerial photos on study area, representing historical use of the site since 1804 (Source: Curio 2020)

4.4. Physical Setting and Landscape Context

The physical setting of the study area, its natural resources, landforms, and wider landscape setting has a significant influence over the nature, location, and form of Aboriginal occupational and use patterns through their interactions with the land (tangible values and site), while also providing meaningful landscape context for intangible heritage and connection to Country.

4.4.1. Soils and Geology

Parramatta falls within the Cumberland Basin, which is a low-lying plain located in the west of the greater Sydney Basin. The land along the Parramatta River is mostly made up of Bringelly Shale of the Wianamatta Group- which is generally overlaid by alluvial materials derived from Bringelly Shale and other flood event deposits (Chapman & Murphy 1989). Chapman & Murphy map the study area as being disturbed terrain, located on the Birrong soil landscape- characterised by fluvial deposits marked by high clay content.

However, local soil mapping across the Parramatta CBD, undertaken by geomorphologist Peter Mitchell (Mitchell 2008), identified that soils across the region have generally been subjected to lower levels of disturbance than predicted by Chapman & Murphy. The study area is situated across the interface/approximate boundary between the Holocene (modern) floodplain of the Parramatta River on the northern part of the study area, and the Parramatta Sand Sheet (PSB) in the south (Figure 4.5 and Figure 4.6). The PSB is a Pleistocene era deposit that has been demonstrated to retain significant archaeological, environmental and geological evidence that contributes to the understanding of the Cumberland Basin pre-European settlement. The Holocene floodplain consists of alluvial deposits and is subject to flooding and scouring, which means any previous Aboriginal archaeological deposits along the floodplain are likely to have been moved by regular flood events and not be retained in situ.

No known sources for stone tool materials are located within the bounds of Parramatta. Therefore, it is assumed that raw materials used by local people for manufacture of stone tools would have been imported from the surrounding area or possibly from St Marys, Marsden Park, or other western areas where silcrete is known to be sourced. Other, less certain, sources of raw material for use in stone tool manufacture including basalt and other volcanic materials may have been sourced from the Toongabbie area.

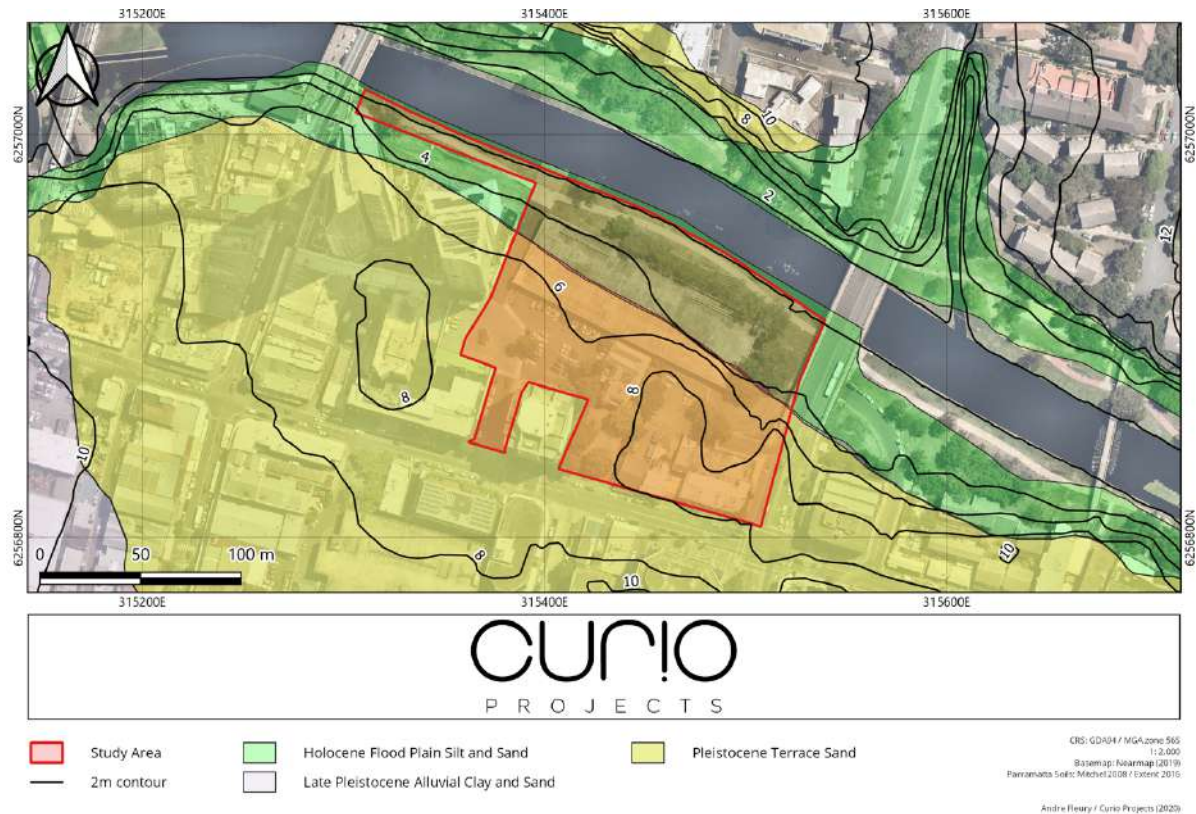


Figure 4.5: Indicative mapping of Parramatta Sand Body over Study Area, 2m contours (Source: Curio 2020, after Mitchell 2007)

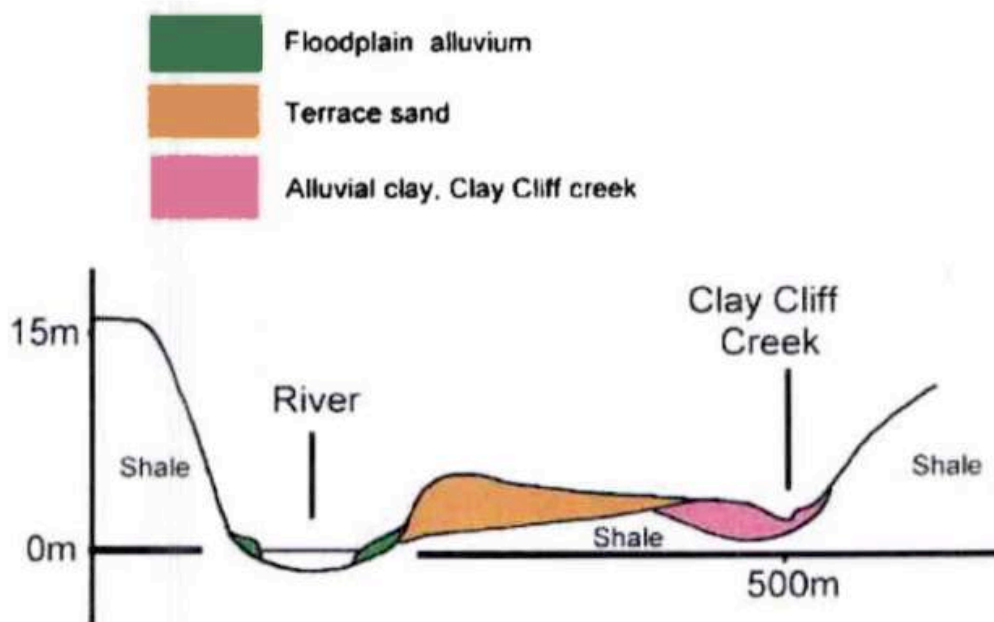


Figure 4.6: Section of Parramatta River and Clay Cliff Creek deposits in the vicinity of Harris St; visualising the interface between the floodplain alluvial (Holocene) deposits and the PSB sand deposits (Source: AHMS 2015, from Mitchell 2008)

Parramatta Sand Body (PSB)

The PSB is of significant archaeological, environmental and geological importance to understanding the Cumberland Basin pre-European settlement. As the name suggests, it is a fluvial sand profile that has been demonstrated to contain stratified Aboriginal archaeological materials (dating to the Pleistocene period, i.e. >10,000 years BP). The extent of the PSB is thought to be between George Street to the north, Harris Street to the west, 'Ellangowan' to the east, and Robin Thomas Reserve to the south. This means that the study area falls within the potential zone for finding this soil formation (Mitchell 2008), although indicative mapping developed for the extent of the Sheet suggests that the study area may be on the northern edge of the sand (Figure 4.5).

The PSB has been typically described through previous archaeological investigations as presenting as:

- c. 25-30cm of brown to brownish grey loamy sand A1 topsoil (this soil unit was often found to be missing/truncated through historical activities);
- Bleached A2-horizon of greyish yellow brown to light grey fine sand extending to a depth of c.50-60cm; and
- Compact reddish brown to dull orange fine sand B-horizon with well-developed porous earthy fabric to c.120cm.

Relatively little concrete information is actually known about the PSB except that it was formed through fluvial process and was later reworked by both aeolian and colluvial processes (DSCA 2017: 33). It is thought that the lower terraces of the PSB- those close to the river (Figure 4.7)- were deposited over the last 10,000 years. Older deposits would then be located at higher elevations and would be the most disturbed from development throughout Parramatta CBD (DSCA 2017: 34). Due to the aggrading nature of this deposit, it is thought that it was formed through multiple large events interspersed with smaller processes, although more research is required to understand exactly what the extent and formation process was. Previous archaeological investigations on the PSB have demonstrated that Aboriginal artefacts may occur within the sand body at depths of up to 2m.

Archaeological excavations undertaken on the PSB in recent years have constantly demonstrated that the uppermost levels have been mostly removed due to historical land use activities, truncating the PSB in most locations. This is discussed further in Section 4.5.3 below, with reference to the results of relevant archaeological investigations previously undertaken in Parramatta.

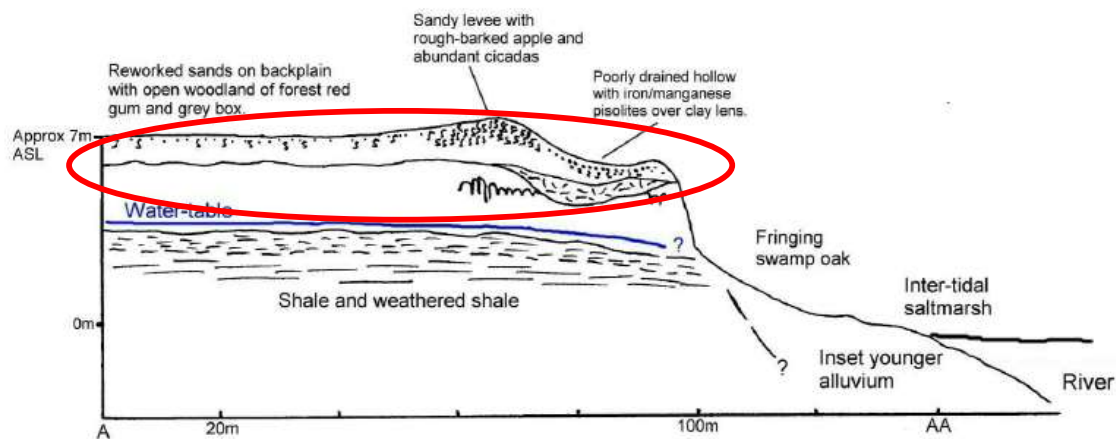


Figure 4.7: Sketch Section of interpreted pre-European geomorphology, sediments and vegetation along the Parramatta River. PSB terrace area indicated (Source: JMcDCHM 2005: 12)

4.4.2. Hydrology

The hydrology of an area plays an important role in identifying not only areas of occupational, environmental, and archaeological potential, but also in understanding how deposits at a site are formed and/or impacted by hydrology. The effects of hydrology range from the availability of water, to flooding, which impacts both occupation and deposition.

Located directly along the southern foreshore of the Parramatta River, the study area would have afforded access to significant natural resources of the river, however its proximity to the river also means it would have been (and remains so) to be susceptible to major flooding events. This would have caused significant soil erosion events, particularly prior to the 1970s when flood mitigation strategies were developed. The section of the Parramatta River adjacent to the study area is not tidal (the tidal influence, referred to as the Lower Parramatta River Catchment-commences just east of the study area at the Charles Street Bridge and Weir).

Council's flood mapping of the Parramatta River predicts that a significant portion of the study area is subject to inundation from flood waters (Figure 4.8), with the northern part of the study area located across 'high flood risk land' (Figure 4.9)- with much of the site falling within the one-in-20 and one-in-100 year flood levels. Despite introduction of flood mitigation strategies since the 1970s, the study area remains subject to sporadic and extensive flood events, see Figure 4.10 showing flooding in February 2020 (partially submerging the ground floor of the multistorey carpark, as well as the grassed area fronting the river).

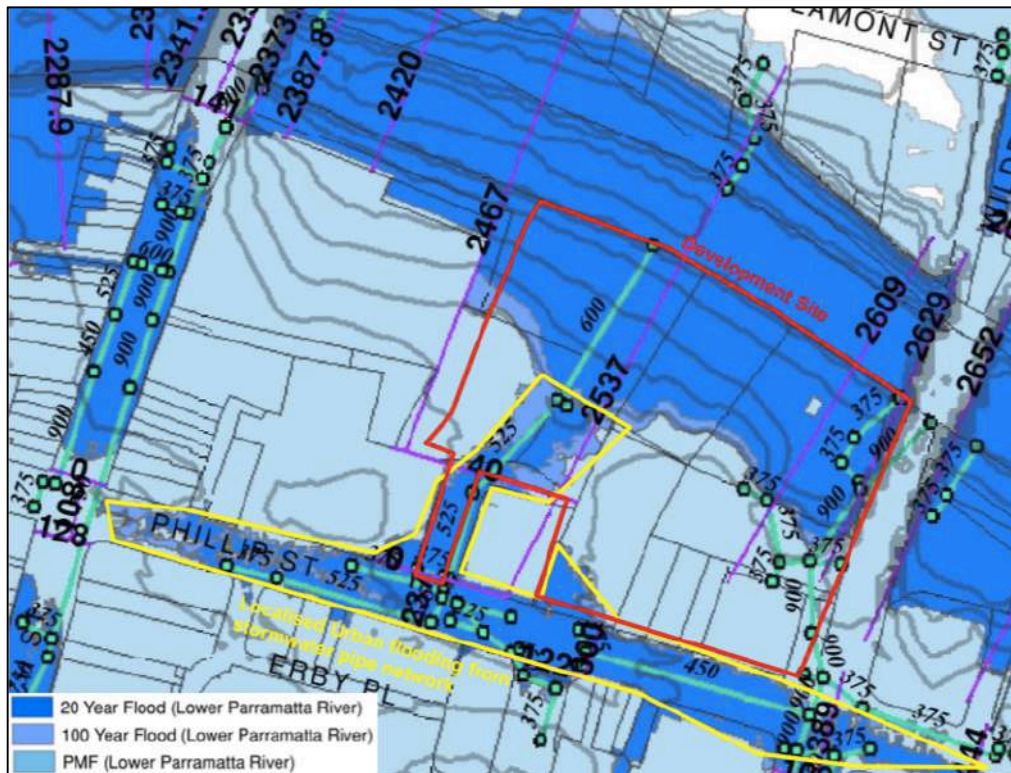


Figure 4.8: Flooding map, study area in red (Source: TTW 2016: 6, Figure 4, after Council Flood Map)

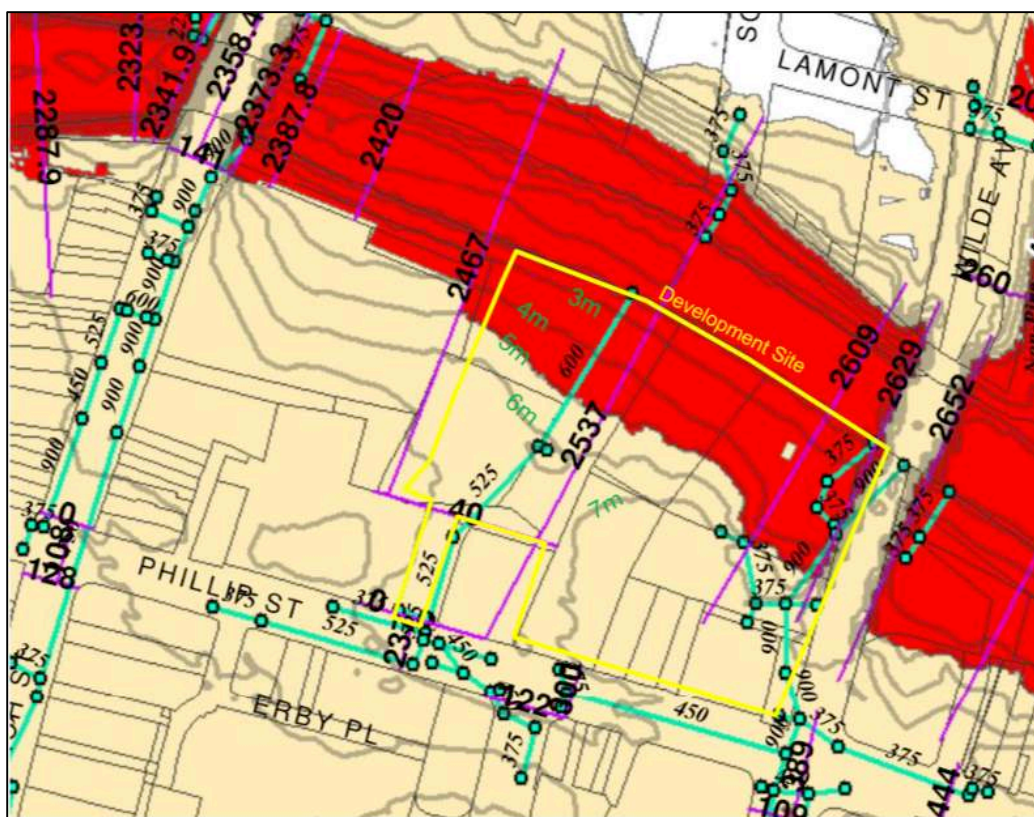


Figure 4.9: Flood Risk Map, study area in yellow. High flood risk in red. (Source: TTW 2016: 6, Figure 5, after Council Flood Map)

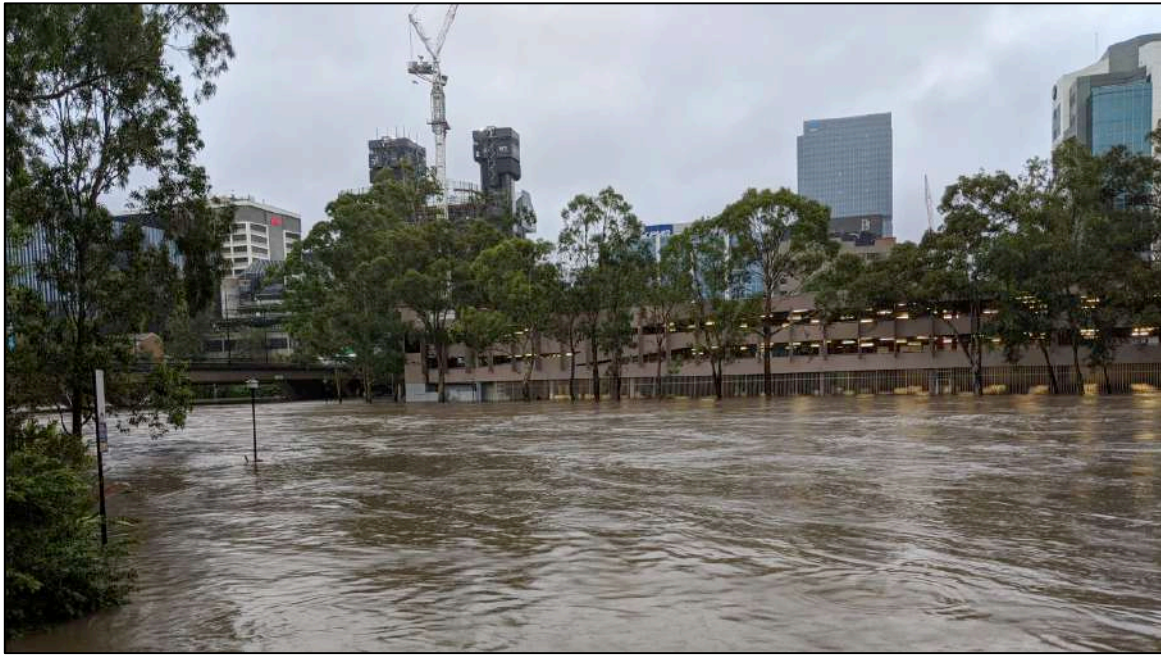


Figure 4.10: Flooding across the study area carpark, view south, February 2020. Existing multistorey carpark structure visible in background. (Source: Sydney Morning Herald, accessed 7.3.20 from <https://www.smh.com.au/culture/art-and-design/parramatta-powerhouse-site-flooded-20200209-p53z6p.html>)

4.4.3. Landscape and Landforms

The study area is located on the southern bank of the Parramatta River, across an elevated flat landform in the south (currently containing carparks and existing commercial developments/buildings), which then transitions to the north to a gentle slope extending down to the River (Figure 4.11). The construction of the multi-level carpark on the site has meant that the majority of the gentle slope has been benched. The shoreline of the river within the study area has been shored by concrete blocks and a retaining wall to mitigate against erosion and flooding, currently taking the form of a grassed park setting.

The elevated flat area is likely located across the fluvial sand body (PSB), while the northern slope adjacent to the riverbank is located on the Holocene Floodplain alluvial terrace.

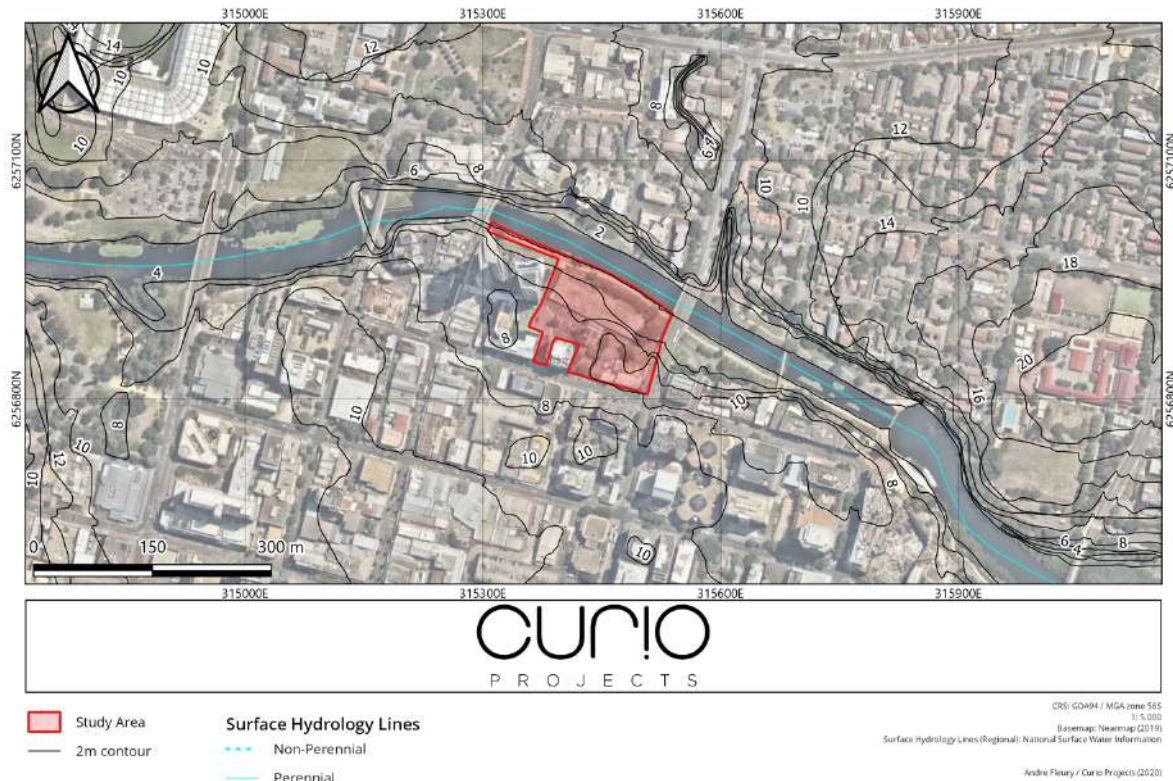


Figure 4.11: Landforms and Hydrology, 2m contour lines (Source: Curio 2020)

4.4.4. Vegetation

An understanding of the original vegetation of an area provides information about the resources that such vegetation would have provided to Aboriginal people in the area, and would have influenced how different locations were accessed, used and visited. Vegetation can itself be a direct resource- such as tree bark for canoes, shield etc, or edible plants- or it can be an indirect resource, creating habitats for different animals such as possums, birds etc, available for hunting.

The study area has been completely cleared of all original vegetation throughout the historic period of use, and no old growth/original trees remain. However, historical sources indicate that original vegetation along the foreshore of the Parramatta River would likely consisted of grey box and forest red gum trees on flats, mangroves along tidal zones, and species such as common reed and paperbark along freshwater reaches of the river (Benson & Howell 1990). An early historical account of the environment by Governor Phillip and Surgeon John White in 1788, described the area as being 'open and flat with immense trees quite a distance from each other' (Kass et al 1996:12).

The open nature of the area would have enabled Aboriginal people to camp along with easy access to the Parramatta River. The lack of underbrush (as described in early historical accounts) may also be an indication that Aboriginal people undertook intentional land management via burning along the banks of the Parramatta River, i.e. what is commonly referred to as 'fire-stick farming'.

4.4.5. Description of Project Area

The study area is located at the northern edge of the Parramatta CBD, on the southern bank of the Parramatta River across a gentle slope (sloping towards the north). The immediate context of the site comprises a range of land uses including office premises, retail premises, hotel, serviced apartments and residential apartments. To the north is the Parramatta River and open space corridor, beyond which are predominately residential uses. The Riverside Theatre is located to the north-west across the Parramatta River.

At the time of writing, the study area is occupied by several key buildings and features, including:

- Willow Grove including front garden set back from Phillip St (34 Phillip Street) (Figure 4.12);
- Retail and business properties at 36-40 Philip Street (two storey buildings);
- Substation building at 42 Phillip Street, set back from the street;
- St George's Terrace (44 Phillip Street) (Figure 4.12);
- Riverbank Car Park (formerly known as the David Frater Car Park)– a four-level public car park structure (Figure 4.17); and
- At Grade Car Park to the rear of the Phillip St buildings (Figure 4.14 to Figure 4.16).

The northern part of the study area (adjacent to the River) is occupied by a grassed and landscaped foreshore area (known as the 'Riverside Walk') that extends along the foreshore between the Lennox Bridge in the west, and the Barry Wilde Bridge in the east (Figure 4.18 and Figure 4.19).

The open area/at grade car park across much of the south of the study area comprises bitumen and hard surfaces established at current ground level. The at-grade car park area has been subject to less below ground disturbance than that of the multi-storey car park structure, with cut, fill and regrading activities likely to extend to approximately 300-400mm below the ground surface.

The construction of the multi-storey Riverbank Car Park has clearly truncated the original slope across the northern half of the study area (Figure 4.20), including significant excavation for its construction. The river bank to the north of the study area has clear evidence of recent erosion and scouring (Figure 4.21).



Figure 4.12: Willow Grove from Phillip St (Source: Ethos Urban 2020)



Figure 4.13: St George's Terraces fronting Phillip St (Source: Ethos Urban 2020)



Figure 4.14: At grade car park to rear of 46-42 Phillip St (Source: Ethos Urban 2020)



Figure 4.15: At grade car park western side of study area, west of Willowgrove (visible in background) (Source: Ethos Urban 2020)



Figure 4.16: At grade carpark area to the rear of the Phillip Street buildings, view west (Source: Ethos Urban 2020)



Figure 4.17: Multi-storey carpark, view north from entry from Dirrabarri Lne (Source: Ethos Urban 2020)



Figure 4.18: Foreshore walk view east, carpark structure visible in right of image (Source: Ethos Urban 2020)



Figure 4.19: Foreshore walk view west along front of study area (carpark structure visible) (Source: Ethos Urban 2020)



Figure 4.20: View south across study area from foreshore. Construction of carpark has impacted/truncated natural slope (Source: Ethos Urban 2020)



Figure 4.21: View west along riverbank from in front of study area, erosion along foreshore (Source: Ethos Urban 2020)

4.4.6. Modern Land Use History and Disturbance

The Parramatta foreshore and surrounding areas have been heavily disturbed by both modern development as well as from historical flood events. While vegetation clearance is generally considered to only present a minor impact to archaeological potential, subsequent processes following vegetation removal such as sheet erosion of soils and increased flooding impacts increase the likely impact to archaeological potential of a site. Soil disturbance at a site directly influences Aboriginal archaeological potential, as intact Aboriginal archaeological deposits of high integrity are located within undisturbed topsoils.

Historical flood events would have caused major erosion and scouring of study area soil profiles. Further, the flood mitigation strategies would have caused additional ground disturbances through the introduction of sea walls and land reclamation.

In summary, the main historical activities specific to the study area that would have the greatest impact to and/or removed natural soil profiles include (Figure 4.22):

- Construction of multi-level carpark- including bulk excavation works for basement carparking that would have completely removed any natural soil profiles within the excavation footprint;
- Construction of the southern 'at-grade' bitumen carpark- which would have required some cut and fill to establish the carpark surface, including some cutting of the natural topsoil (likely disturbing soil profiles up to 400mm below ground surface within footprint);
- Installation of utilities and services across site (trenching for sewer and water mains, electric easements etc); and
- Flood mitigation works including: two small areas of reclamation along the foreshore; creation of the retaining wall; construction of pedestrian park; and associated landscaping works.

Other historical activities such as the construction of residential and commercial premises over time (as summarised and presented in Figure 4.4) would have disturbed the topsoil deposits across the study area, however are unlikely to have impacted the deeper soil profiles, which retain potential to Aboriginal archaeological deposits, regardless of the prior (or extant) existence of historical structures and buildings.

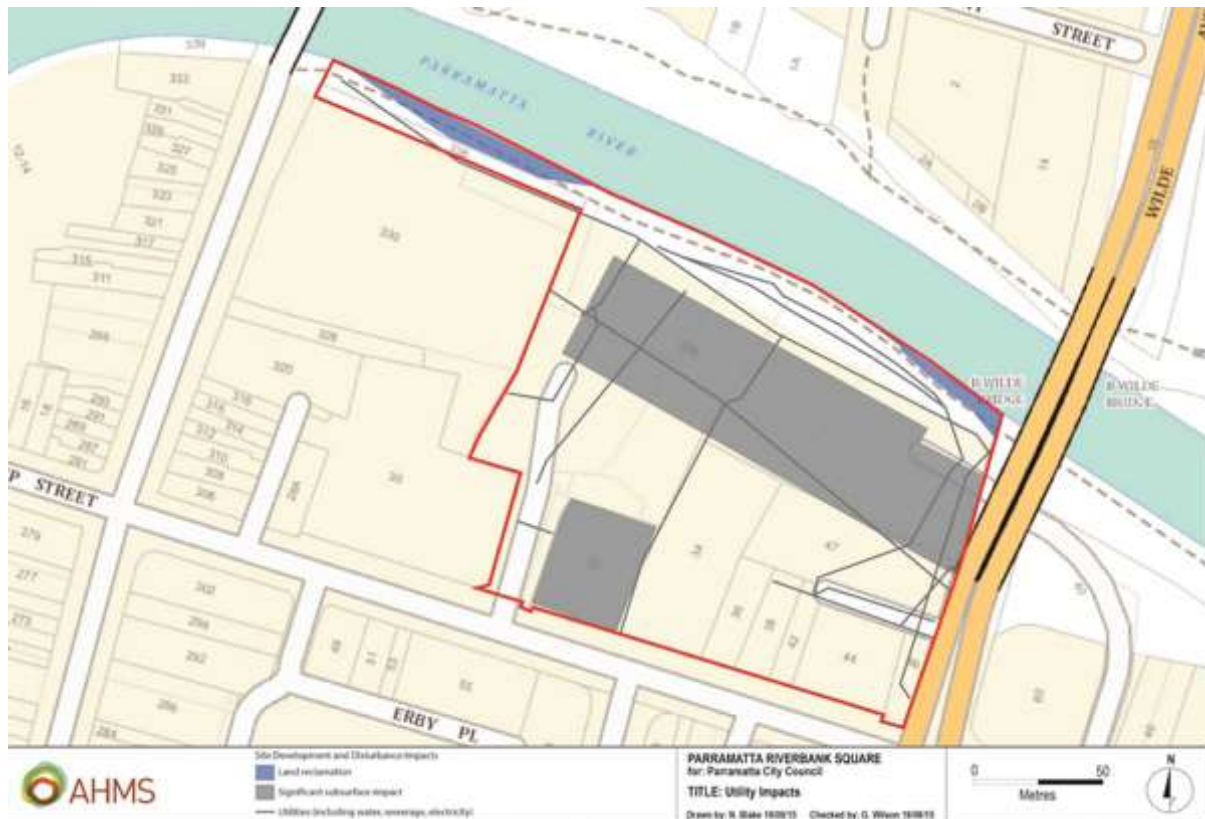


Figure 4.22: Significant sub-surface impacts within study area with high impact to Aboriginal archaeological potential (Source: AHMS 2015)

Geotechnical Investigation

Geotechnical investigations undertaken within the study area provides groundtruthing and further clarification of the nature of the sub-surface soil and disturbance provide at the site. Two investigations have been undertaken in recent years within the study area: four geotechnical boreholes in 2013 (JK Geotechnics); and an additional four boreholes in 2015 (PSM 2016). From these investigations, an inferred subsurface soil and geological profile has been developed for the site (Table 4.1). Generally, sandstone bedrock is located across the study area at depths between 3-5m below the current ground level. Investigation works also confirmed the high groundwater level across the site (due to proximity to the river)- i.e. 1-2m below ground level in northern areas of the site, adjacent to the River.

Geotechnical investigation at the site confirms that the study area retains localised remnant natural soil profiles, with description of alluvial soils encountered is generally consistent with that of the PSB Pleistocene deposit. Geotechnical results generally correlate with the soil mapping of the site, i.e. Holocene floodplain soil deposits along the river foreshore, and alluvial soils (PSB) across the southern area of the site (Figure 4.23)- outside of areas of high disturbance where all natural topsoils have been removed.

Table 4.1: Summary of inferred subsurface conditions encountered in PSM Boreholes (Source: PSM 2016: Table 2)

INFERRED UNIT	ENCOUNTERED DEPTH OF TOP OF INFERRED UNIT (m)	DESCRIPTION
TOPSOIL / EXISTING FILL	0.0	Existing pavement (asphalt and roadbase). Clayey Sandy GRAVEL to Gravelly SAND with some clay. SAND; medium grained, brown, sub angular gravel up to 20 mm, low plasticity clay. Some pieces of brick observed.
NATURAL SOIL	0.1 to 1.2	Clayey SAND to SAND; fine to medium grained, grey, inferred to be of variable density from loose to dense. Clay is medium to high plasticity.
SHALE	5.0	SHALE; brown to dark grey, extremely weathered, extremely low strength.
SANDSTONE	3.0 to 7.7	SANDSTONE; grey, fine to medium grained, moderately weathered to fresh, inferred high strength. The upper 1 m of the unit is inferred low to medium strength.

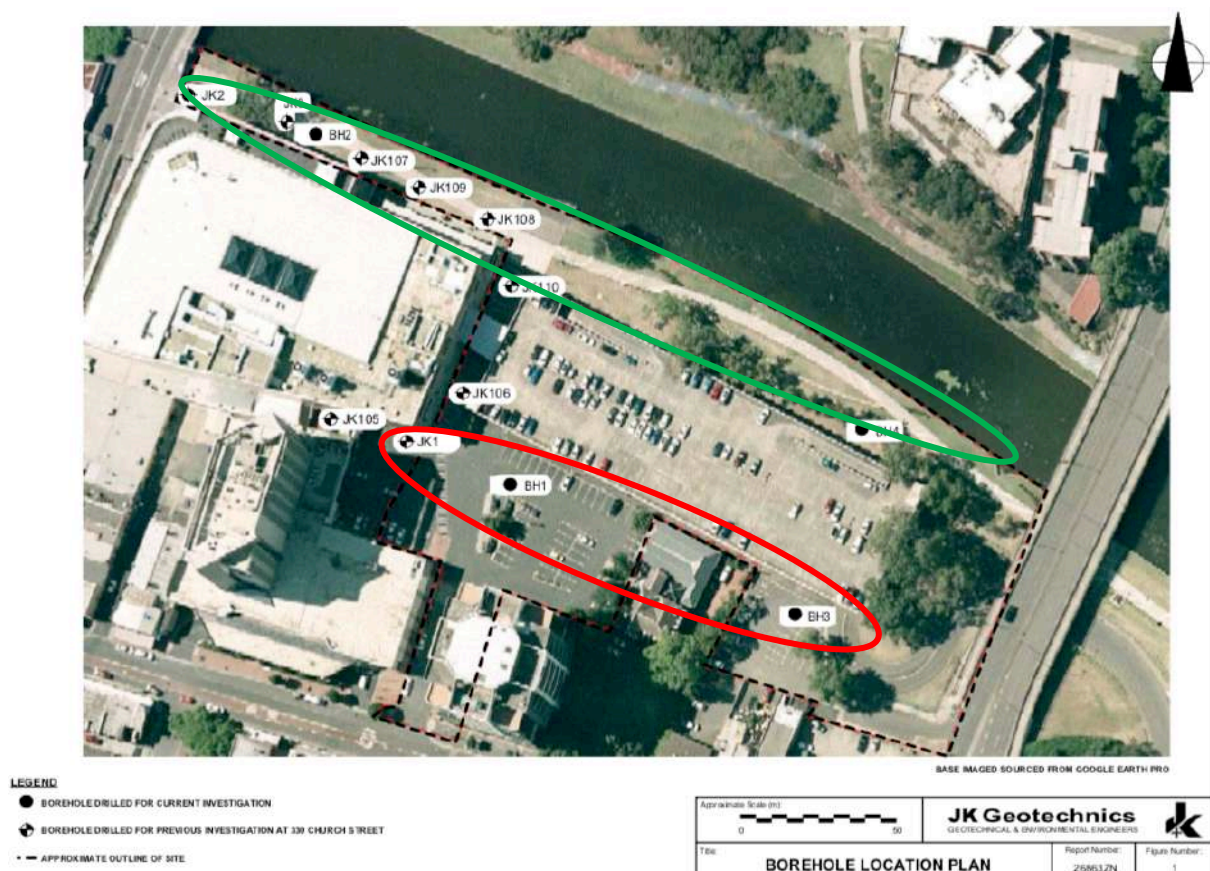


Figure 4.23: 2013 Geotechnical Borehole Plan. Areas of remnant alluvial soils circled in red, Holocene floodplain soils in green (Source: JK Geotechnics 2013: Figure 1)

4.5. Archaeological Context

Extensive archaeological excavations across the Parramatta CBD in recent years has served to confirm a pivotal trend of archaeology across the city: that the presence of modern development at a site is not sufficient to determine that all sub surface archaeological deposits have been disturbed or removed. In fact, if anything, previous archaeological excavations have constantly demonstrated that both historical and Aboriginal archaeological deposits (including natural soil profiles) remain intact at a large number of sites across the Parramatta CBD.

Numerous archaeological excavations have determined the potential for intact natural soil profiles to be present beneath layers of modern and historical development, and therefore it cannot be assumed that simply because the land in question has been developed, that this would have removed all Aboriginal archaeological deposits in this location. Aboriginal stone artefacts, in a pre-historic, post-contact, and in disturbed contexts are likely to be present across most areas of the Parramatta CBD.

The nature, location and extent of archaeological evidence of Aboriginal occupation as it presents in the Parramatta region is further described in the following subsections.

4.5.1. Archaeological Evidence of Aboriginal Occupation

The earliest accepted scientific dates recovered from archaeological sites on the Cumberland Plain are, like those across the rest of Australia, unlikely to accurately reflect earliest occupation of Aboriginal people. This discrepancy between scientific dating and likely occupation relates largely to changes in sea levels, which impacted both occupation patterns of Aboriginal people between the Last Glacial Maximum (LGM) and present, as well as inundating sites along the coast and rivers, making them inaccessible to today's archaeological investigations.

The most recent period of maximum glaciation in Sydney was 15,000-18,000 BP, at which time sea levels would have been up to 130m below current, pushing the coastline further to the east. Around 10,000 years ago at the end of the Pleistocene epoch (LGM), the polar ice caps melted and sea levels began to rise, which would have forced Aboriginal people to abandon coastal sites and move inland, causing significant impact both to physical occupation patterns, as well as to economic and social habits. By around 6,000 years ago, rising sea levels had flooded what was once a coastal plain along Sydney's east coast, forming the landscape of Sydney harbour and its river valleys that we recognise today. Therefore, the majority of archaeological sites in Sydney that have been scientifically dated, recover dates of 5,000BP and later, after sea levels had stabilised. Few archaeological sites in Sydney have been dated to before 10,000BP, with a few exceptions- summarised with relevance to the current study area as follows.

The oldest widely accepted date for Aboriginal occupation in the Sydney region is 25,000-30,000 years ago, recovered from the George & Charles St site in Parramatta (JMcDCHM 2005), a basal date of 30,735±407BP, recovered from the Pleistocene geomorphological formation known as the Parramatta Sand Body (PSB). This geomorphological formation has been encountered during several excavations in Parramatta, although it has not always been found to contain evidence of Aboriginal occupation. In instances of the presence of Aboriginal artefacts within the

PSB, they have generally been recovered from deposits at depths of 0.8 to 2 m below the modern surface.

4.5.2. AHIMS Search

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 3 March 2020 across the Parramatta CBD, centred on the study area (with a buffer of 1km), and returned 100 results. The extensive AHIMS search is attached as Appendix D.

Summary descriptions of Aboriginal site features registered on AHIMS, as relevant to the study area, are presented in

Table 4.2. The 100 registered sites from the AHIMS search included 9 different site types, some located in combination with each other, as summarised in Table 4.3.

One registered site is located within the study area (AHIMS 45-6-3192-'Riverbank Square') which is a Potential Archaeological Deposit registered by AHIMS in 2015 as a result of an earlier assessment of the Aboriginal archaeological potential and cultural assessment for the development area. This main reason for the registration of this PAD site was the location of the site across the PSB and the Aboriginal archaeological potential associated with this soil formation. A number of other registered sites are located in close proximity to the study area (i.e. approximately eight sites are within 200m).

The most common site types in the area are artefact sites (n=42), followed by Potential Archaeological Deposits (PADs) (n=33), and Potential Archaeological Deposits (PADs) in relation to a number of other site types (n=15). While one modified tree and two grinding grooves were located by this AHIMS search, neither of these sites are in close proximity to the current study area.

AHIMS search results always require a certain amount of scrutiny in order to acknowledge and accommodate for things such as inconsistencies in the coordinates (differing datums between years of recording), the existence of, and impact to, registered sites (impact to a registered site technically requires the submission of an Aboriginal Site Impact Recording form to be submitted to the OEH, however these forms are not always submitted), and other database related difficulties. It should also be noted that AHIMS database is a record of archaeological work that has been undertaken, and registered with OEH in the region.

The AHIMS database is therefore a reflection of recorded archaeological work, the need for which has likely been predominantly triggered by development, and not a representation of the actual archaeological potential of the search area. AHIMS searches should be used as a starting point for further research and not as a definitive, final set of data.

Table 4.2: Aboriginal site features referred to in this report

SITE FEATURE	DESCRIPTION/DEFINITION BY OEH 2012
Aboriginal Resource and Gathering	Related to everyday activities such as food gathering, hunting, or collection and manufacture of materials and goods for use or trade.
Art Site	Art is found in shelters, overhangs and across rock formations. Techniques include painting, drawing, scratching, carving, engraving, pitting, conjoining, abrading and the use of a range of binding agents and natural pigments obtained from clays, charcoal and plants
Artefact Site (Open Camp Sites/arteifact scatters/isolated finds)	Artefact sites consist of objects such as stone tools, and associated flaked material, spears, manuports, grindstones, discarded stone flakes, modified glass or shell demonstrating physical evidence of use of the area by Aboriginal people. Registered artefact sites can range from isolated finds, to large extensive open camp sites and artefact scatters. Artefacts can be located either on the ground surface or in a subsurface archaeological context.
Grinding Groove	Grinding grooves are a groove in a rock surface resulting from manufacture of stone tools such as ground edge hatchets and spears, may also include rounded depressions resulting from grinding of seeds and grains.
Modified Tree	Trees which show the marks of modification as a result of cutting of bark from the trunk for use in the production of shields, canoes, boomerangs, burials shrouds, for medicinal purposes, foot holds etc, or alternately intentional carving of the heartwood of the tree to form a permanent marker to indicate ceremonial use/significance of a nearby area, again these carvings may also act as territorial or burial markers.
Potential Archaeological Deposit (PAD)	An area where Aboriginal cultural material such as stone artefacts, hearths, middens etc, may be present in a subsurface capacity.

Table 4.3: AHIMS Sites in the Vicinity of the Study Area

SITE TYPE	NUMBER OF SITES	% OF SITES
Aboriginal Resource and Gathering	1	1
Art (Shelter with Art)	1	1
Artefact (Isolated)	3	3
Artefact (Open Camp Site)	42	42
Artefact and Hearth	1	1
Artefact and Modified Tree	1	1
Potential Archaeological Deposit (PAD)	33	33
PAD and Artefact	14	14

SITE TYPE	NUMBER OF SITES	% OF SITES
PAD, Artefact & Hearth	1	1
Modified Tree	1	1
Grinding Groove	2	2
TOTAL	100	100%

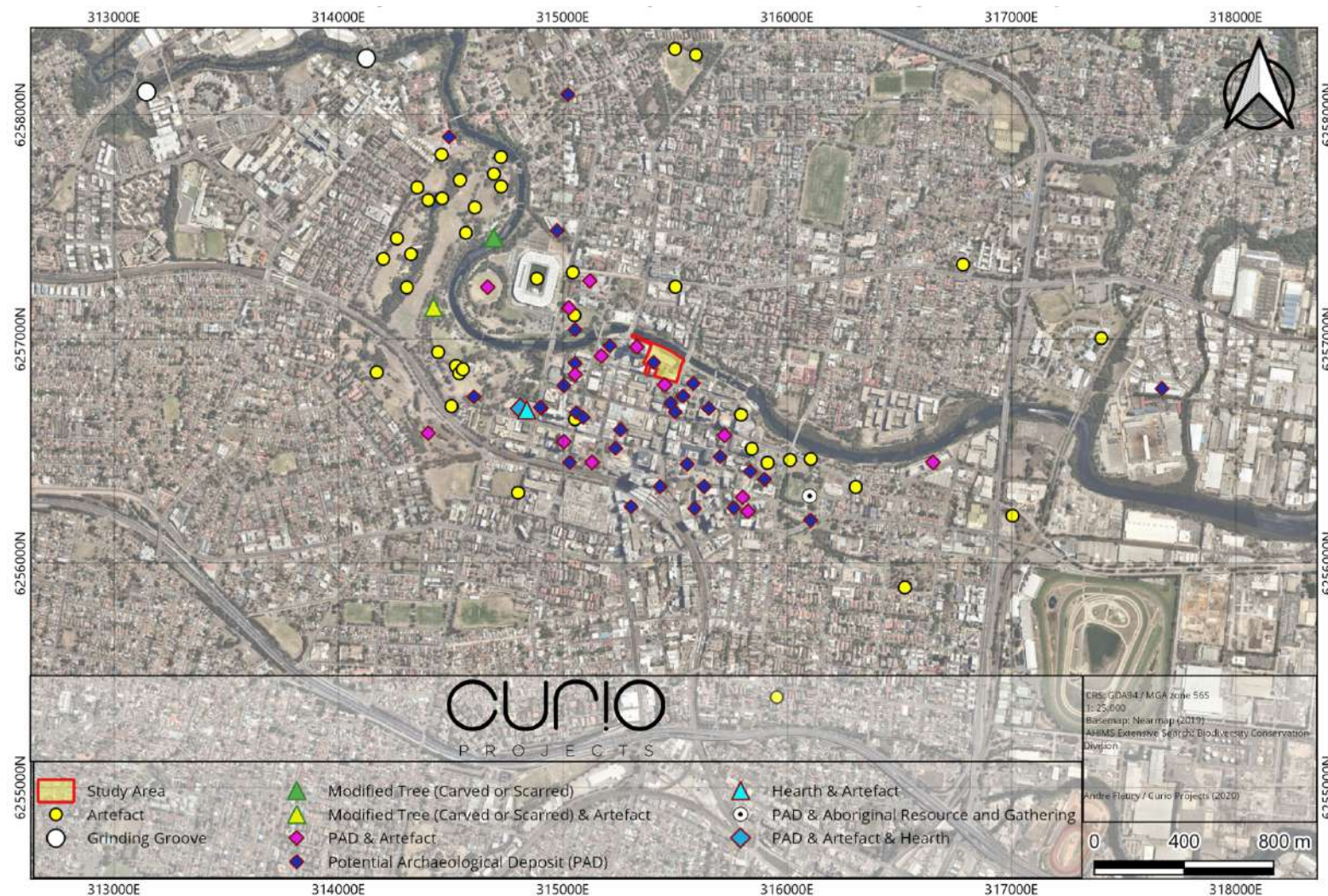


Figure 4.24: AHIMS Sites. Study Area in Red (Source: Curio 2020)

4.5.3. Previous Archaeological Investigations and Assessment

Aboriginal archaeological excavations have often been undertaken in conjunction with historical archaeological excavations across Parramatta. Numerous Aboriginal archaeological excavations have successfully demonstrated that regardless of level of supposed development and ground impact at a site within Parramatta, there often remains the potential for Aboriginal archaeological deposits and stone artefact assemblages to remain intact within remnant natural soil profiles, as well as in a post-contact context.

The following section presents the results of a literature review of the NSW AHIMS library and other relevant reports, to better understand the broader archaeological patterning of the Parramatta region, with particular focus on investigations undertaken on the south bank of the Parramatta River. The location of sites discussed below are presented in Figure 4.26 below.

Parramatta Aboriginal Heritage Study and Review (MDCA, 2003; 2014 Review)

The Parramatta Aboriginal Heritage Study, prepared by Mary Dallas Consulting Archaeologists (MDCA), focused on the entire Parramatta LGA and developed an Aboriginal cultural heritage planning and management strategy. Notably, this study included the compilation of a database of known Aboriginal sites within the Parramatta LGA, which along with the mapping of areas of Aboriginal archaeology and cultural heritage sensitivity, which was the basis for the Aboriginal Sensitivity Map, which now functions as Appendix 11 of the Parramatta DCP.

The Aboriginal Sensitivity Map essentially predicts potential areas within the LGA to contain unrecorded and unregistered Aboriginal sites. It is not a rating of potential significance, but rather an indication of the potential for Aboriginal sites to be present. Aboriginal sensitivity was zoned across the Parramatta LGA as:

- High Sensitivity= known sites (within 50m radius +)/high archaeological potential/undisturbed natural landscape.
- Medium Sensitivity= some archaeological potential/partially disturbed landscape.
- Low Sensitivity= largely disturbed landscape.
- No Sensitivity= totally disturbed landscape/reclaimed land.
- Areas of Social/Historical Association= areas identified as having some degree of significant to present day Aboriginal people through current social or historical connections.

The current study area is included within an area of 'High Sensitivity' on the Parramatta Aboriginal Sensitivity map.

Parramatta CBD Foreshore Strategic Archaeological Management Strategy (Extent 2017)

The Powerhouse study area is included within 'Precinct 18- Southern Foreshore- Lennox Bridge to Barry Wilde Bridge' in the Archaeological Management Strategy (AMS) for the Parramatta River CBD Foreshore (Extent 2017). This precinct is assessed as having 'high Aboriginal sensitivity' due to:

- *Moderate distribution of Parramatta Terrace sand sheet;*
- *Low disturbance evident;*
- *Located within 200m of a watercourse; and*
- *Precinct contains one known archaeological site AHIMS 45-6-3192. (Extent 2017: 110)*

Riverbank Square, 30b-46 Phillip Street, 338 Church Street and 46/47 Smith Street, Parramatta (AHMS 2015)

In 2015, AHMS prepared an ACHAR, including test excavation methodology, for an area that is effectively consistent with the current study area (although the current study area excludes 32 Phillip St, which was included within the 2015 ACHAR). At the time, the project was referred to as 'Riverbank Square', for which Council was proposing the redevelopment of the whole site for mixed residential, commercial, and open space uses.

The ACHAR identified that the Riverbank Square site was located across the PSB, and had potential for Aboriginal archaeological material to be present in portions of the site where prior ground disturbance had not extended more than 2m below the ground surface. As a result of this assessment, a Potential Archaeological Deposit (PAD) site was registered with AHIMS (Site #45-6-3193), and AHMS developed an Aboriginal archaeological test excavation research design and methodology, specific to the nature of the proposed development at the time.

AHMS proposed a two-staged excavation methodology and research design for the site, that would require an AHIP to undertake due to the presence of the PSB, summarised as follows:

- Stage 1 test excavation via 1m² test pits at 15m intervals across areas of Aboriginal archaeological sensitivity, targeting least disturbed areas of the site (approx. 37 test pits);
- Stage 2 detailed salvage excavation of any key areas identified with significant material, consisting of a 100m² single large open area or a number of smaller open areas dug at a fine resolution.

Figure 4.25 shows AHMS' zoning of Aboriginal archaeological potential across the site, and the proposed test pit locations.

It is understood that while this ACHAR and an AHIP Application was prepared, that this AHIP, nor the test excavation it proposed, did not proceed at the site.



Figure 4.25: AHMS 2015 Riverbank Square Aboriginal Archaeological Sensitivity Mapping and Proposed Test Pits (Source: AHMS 2015, Fig 16, p. 59)

330 Church Street, Parramatta (AHMS 2011, 2014)

Following from an archaeological assessment prepared in 2011, in 2013 Aboriginal archaeological test excavation was undertaken at 330 Church Street, Parramatta (Meriton apartments adjacent to the current study area to the west, corner of Church St & Parramatta River). The excavation recovered 43 Aboriginal objects, and an additional 32 non-diagnostic fragments of stone suitable for working, with an overall artefact density of 2.4 artefacts/m².

The excavation encountered some evidence for the presence of the Pleistocene PSB in this location, although the majority of soils were interpreted to likely be Holocene in origin, suggesting that the Holocene flood plain deposits in this location may extend further south than mapped (Mitchell 2008). Natural soils encountered during excavation were predominantly sand, with varying clay and silt components. The basal soil deposit of the excavation (120 cm below ground surface) was OSL dated to the terminal Pleistocene (~20-10,000 years BP). The stratigraphy encountered during this excavation suggested a regular process of alluvial deposition with indication for scouring and sheet wash.

The investigation found that historical excavation across the site had previously truncated the majority of the natural soil profile across the site, with Aboriginal objects only recovered from areas where historical disturbance had been minimal. Further, the inconsistency of distribution of artefacts across the site suggested potential that some of the artefacts may have been washed in with flood deposits, rather than representative of primary deposition events. The high levels of disturbance and the low number of Aboriginal objects recovered from the

excavation meant that test excavation was considered sufficient to understand the nature of the archaeology at the site, and no further archaeological work was considered necessary.

George St Sites (CG1, RTA-G1, & CG3) (Jo McDonald CHM 2004-2006)

Archaeological excavations in Parramatta between 2004 and 2006, initially identified and investigated the presence of the PSB. Three key excavations were undertaken during this time on the fluvial sand body along the south bank of the river, focused around the intersection of Charles and George Streets (i.e. c.400m southeast of the Powerhouse study area).

Aboriginal archaeological excavation of CG1 (corner of George & Charles Sts) was located on the PSB, and represented multiple periods of Aboriginal occupation of the area, from those of considerable antiquity, to more recent deposits. Excavation encountered several occupation/living floors at the site, containing both artefacts as well as hearth arrangements. Over 6,500 artefacts were recovered from CG1, with relative dating suggesting that the older assemblage could date to between 10,000 and 20,000 years BP.

Archaeological salvage excavation at RTA-G1 (109-113 George St) recovered >4,500 Aboriginal stone artefacts from within the PSB, a site identified to be a continuation of the archaeological landscape investigated at the nearby site of CG1. Radiocarbon dating of the site recovered some of the earliest dates recovered from the greater Sydney region for Aboriginal archaeological sites, indicating repeated occupation of the PSB in this location from c.30,000 years BP. At the time this date was recovered, this more than doubled the previously accepted scientifically dated timeframe for Aboriginal occupation of the Sydney region.

Archaeological test and salvage excavation of CG3 (101-110A George Street) in 2005 encountered further evidence of Aboriginal occupation of the PSB, identified as being a continuation of the archaeological landscape identified at CG-1 and RTA-G1. Archaeological excavation at CG3 recovered <1,000 artefacts, dominated by silcrete and silicified tuff, along with clear evidence for change in preferential use of raw material types and stone tool production technologies over time.

Geomorphological analysis, as well as archaeological excavation and scientific dating has determined this sand sheet to be likely of late Pleistocene age. Due to the general depth and antiquity of the PSB, Aboriginal archaeological excavations on the sand body have the potential to provide significant new information about timing and patterns of Aboriginal occupation of the Parramatta area.

184-188 George St (GSP 2013) (DMCA 2013, 2017)

Aboriginal excavations at 184-188 George St ('GSP 2013') recovered 114 stone artefacts primarily manufactured from silicified tuff and silcrete. The nature of this deposit was interpreted as likely reflecting the site's consistency as a river landscape on the periphery of more favourable terrace positions. Here, the low numbers of stone artefacts were likely to represent limited in situ knapping activities and the possibly that the use of non-durable tools was favoured. Aboriginal objects were also identified which could be dated to the late eighteenth and early nineteenth century, firmly supporting historical records for the continued Aboriginal occupation of Parramatta.

While multiple building and demolition phases across the site had removed and truncated the upper archaeological levels, 'natural' soil profiles with potential to contain Aboriginal objects were still retained at the site. The preservation of these soil profiles, regardless of high levels of historical disturbance, was thought to be due to a drainage 'gully' through the centre of the site that emptied into the river, creating greater preservation of the PSB stratigraphic sequence in this location.

Palynological evidence from the gully indicated the presence of freshwater lagoons or ponds on the lower river terraces bordering the town, and that the surrounding vegetation was shrub-fernland dominated by rainbow fern. Furthermore, there was evidence for previously unrecorded vegetation, and confirmation of the presence of she-oaks and/or river oaks on the lower terraces.

142-154 Macquarie St (Comber Consultants 2010)

Aboriginal archaeological test excavation of the former Cumberland Newspaper Site was undertaken by Comber Consultants in 2010 (located c.450m southwest of the current study area). These test excavations recovered 21 Aboriginal objects from two 3mx1, test pits. While the site was confirmed as being located on the PSB, soils were found to have been highly disturbed with mixed fill and road base present to depths of 45-60cm, as well as presence of historical archaeological footings and relics etc.

95-101 George St (Austral 2007)

Aboriginal test excavations at 95-101 George Street (c. 300m southwest of the current study area) found that while historic development had removed most or all of the pre-1788 topsoil, the underlying Pleistocene PSB remained intact, from which 601 Aboriginal objects were recovered. The site demonstrated similar archaeological characteristics to the George Street Sites (RTA-G1 and CG1), such as dominance of silicified tuff artefacts at depth, however unlike the George Street sites, there was no evidence of technological change in preferred raw material over time. Located on the PSB, this site was assessed to be a part of the wider archaeological deposit of the George Street sites.

Parramatta Justice Precinct (Haglund & Associates 2007)

The Parramatta Justice Precinct, located c.250m west of the study area, was subject to Aboriginal archaeological salvage excavations in 2006. Aboriginal archaeological excavation was undertaken via a combination of 1m² test pits, as well as larger trenches where possible, and ultimately identified a shallow, generally disturbed, soil profile over-lying heavy clay. The northern part of the Justice Precinct site was located along a ridge and upper slopes that retained an Aboriginal archaeological deposit, despite disturbance from historical activities. A total of 807 Aboriginal objects were recovered from the site, however as the majority of these were recovered from within historical archaeological deposits or disturbed context, reliable analysis and chronological dating of the deposit was not possible.

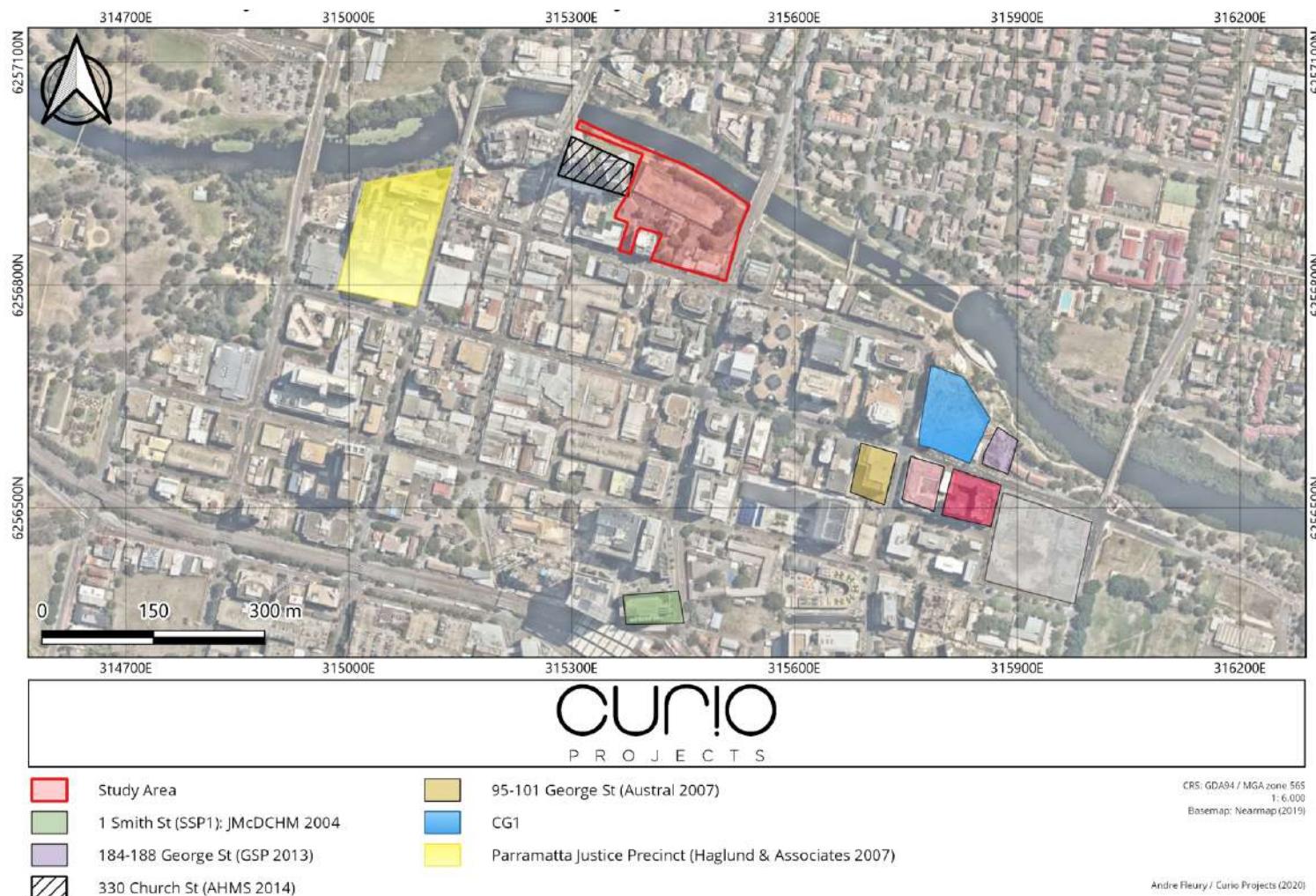


Figure 4.26: Location of Sites referenced above (Source: Curio 2020)

4.5.4. Summary of Previous Archaeological Investigation

Previous Aboriginal archaeological excavations along the Parramatta River—particularly the southern bank—have consistently identified the presence of multiple phases of occupation and use of the PSB by Aboriginal people in the region- dating from the Pleistocene (c.30,000 BP) through until the mid to late Holocene (c.2,500 BP). Excavations have constantly demonstrated the ability for Aboriginal archaeological deposits to be retained within a site area, regardless of the presence of historical disturbance and development, particularly when located across the deeper soil profiles of the PSB-which often remain intact beneath previous development and existing structures.

4.6. Regional Character and Archaeological Predictive Model

Predictive modelling plays an important role in understanding the remnant archaeological potential of a site, and thus factors into development of appropriate management recommendations and mitigation strategies. Archaeological predictive modelling integrates information about environmental context, previous historical activities and ground disturbance, and known locations of surrounding sites (excavations and registered AHIMS sites), to assess and predict the nature of archaeology that may be present within the study area.

Regionally, Aboriginal people have occupied the Parramatta CBS area since at least the Pleistocene (i.e. 10,000-50,000 years ago), archaeological evidence of which remains within the Parramatta region, particularly focused within the geomorphological feature of the PSB. While the exact depth of the PSB across the study area is not accurately known at present, geotechnical investigations suggest it may be present across the southern parts of the study area around 1.5m below the current ground level. This is relatively consistent with the results of other nearby archaeological investigations undertaken on the PSB, which have found that the sand deposits of the PSB are typically present 1.5-2m below existing ground surfaces.

The Holocene floodplain along the northern boundary of the study area (i.e. along the southern bank of the Parramatta River) is considered to have low potential for an intact Aboriginal archaeological deposit due to the extent of periodic flooding and scouring in this location that would most likely have constantly moved and redeposited sediments within the floodplain. However, the floodplain still retains some potential for Aboriginal archaeological deposits-mainly in the form of isolated objects without context-due to local movement of soil materials in the area.

Aboriginal site types most likely to be located within the study area would be artefact and PAD sites, represented by the registered site AHIMS Site #45-6-3192 ('Riverbank Square'). Other site types such as art and shelter types, grinding grooves and modified trees, will not be present within the study area due to the absence of geological or environmental features required for such site types to exist (i.e. remnant mature vegetation, exposed sandstone platforms or rockshelter formations).

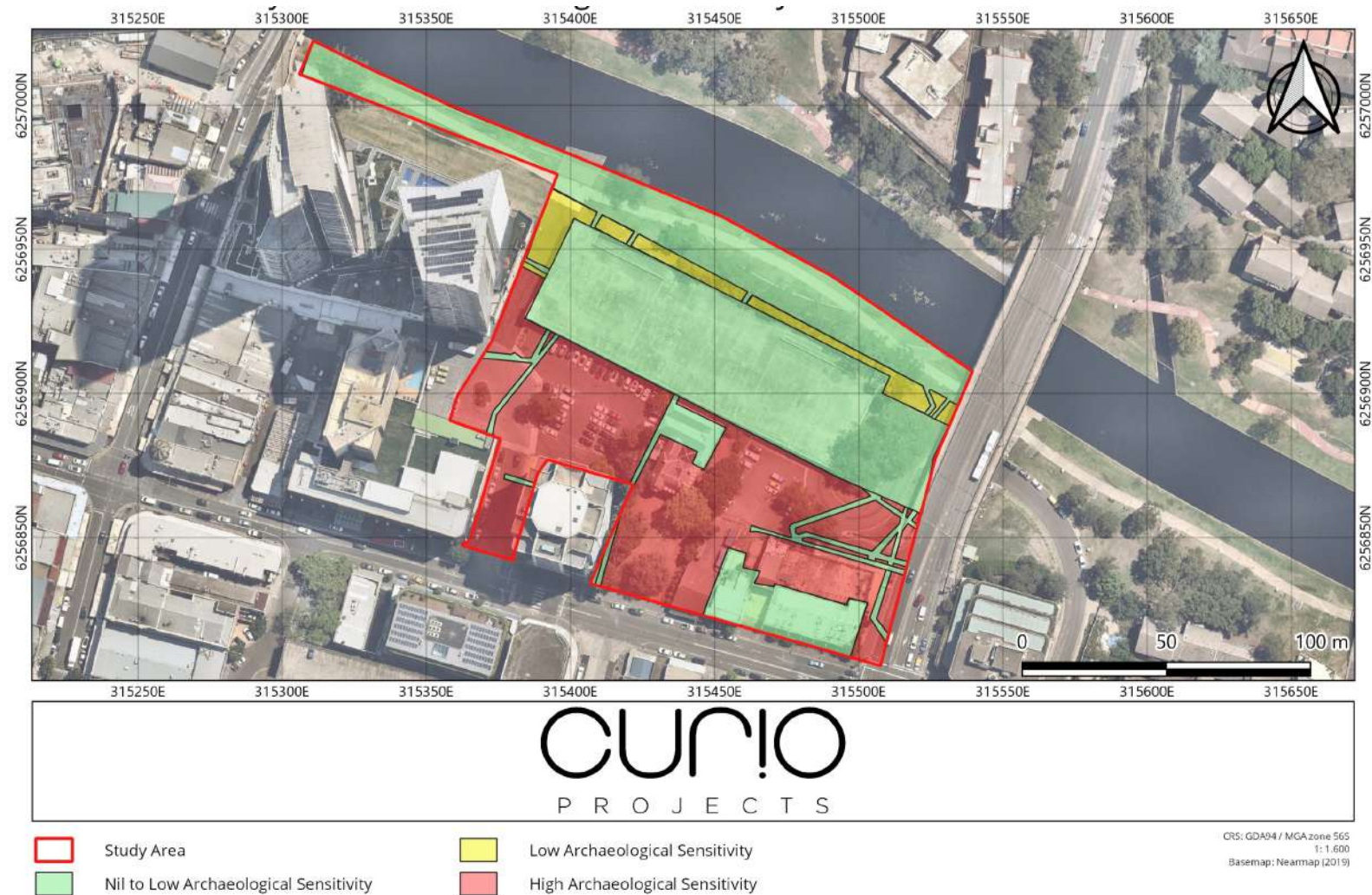
While the historical activities within the study area would have impacted the natural soil profiles within the study area to varying degrees (and therefore impacted the level of Aboriginal

archaeological potential accordingly), where previous development did not involve substantial excavation, potential for deeper sub-surface archaeological deposits remains.

Overall, this ACHAR makes the following predictions for Aboriginal archaeological potential within the Powerhouse Parramatta site:

- The at-grade car park across in the southern parts of the study area retain high Aboriginal archaeological potential. These areas are also located across the northern mapped extent of the PSB, and therefore have high potential for the PSB to be retained in these locations, buried beneath the existing asphalt and concrete surfaces.
- The footprint of the multi-storey Riverside Car Park has nil to very low Aboriginal archaeological potential, due to the substantial levels of excavation undertaken for its construction, which would have removed all natural soil profiles in this location.
- The southern bank of the Parramatta River also has nil to very low Aboriginal archaeological potential due to flooding and scouring activities, as well as flood mitigation activities such as land reclamation and sea wall construction, and other significant landscaping management works along the southern foreshore.
- Portions of the site located on the southern edge of the Holocene floodplain (i.e. near the mapped boundary between the Pleistocene and Holocene deposits) where disturbance has not exceeded 2m below current ground, have low Aboriginal archaeological potential.

Figure 4.27 presents the predicted levels Aboriginal archaeological sensitivity across the study area.



Andre Fleury / Curio Projects (2020)

Figure 4.27: Aboriginal archaeological sensitivity within the study area (Source: Curio 2020)

5. Cultural Heritage Values and Significance Assessment

The Burra Charter (Australia ICOMOS 2013) defines cultural significance as:

...aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups. (Australia ICOMOS 2013: 2)

The five types of cultural heritage value, as presented in The Burra Charter (2013) form the basis of assessing the Aboriginal heritage values and significance of a site or area. Each of these cultural heritage values, as specifically relevant to Aboriginal cultural heritage, are summarised as follows (after OEH 2011a).

Social (Cultural) and Spiritual Value—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.

Historic Value—associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have ‘shared’ historic values with other (non-Aboriginal) communities.

Scientific Value—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.

- Assessment of Scientific Value also includes assessment in terms of Research Potential, Integrity, Condition, Complexity, Archaeological Potential, Connectedness, Representativeness, Rarity, Education Potential, and Archaeological Landscapes.

Aesthetic Value—sensory, scenic, architectural and creative aspects of the place. It is often closely 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.

Assessment of each of the above criteria has been undertaken in consideration of the landscape and environmental context of the study area, Aboriginal history, previous archaeological work, and the field survey. The assessment of each criteria has then been graded (as per OEH 2011a *Guide to Investigating*) in terms of high, medium and low, in order to allow significance to be described and compared. The application of the cultural values criteria to the Aboriginal cultural heritage of the study area has also included consideration of: research potential; representativeness; rarity; and education potential for each criterion (as relevant).

5.1. Assessment of Aboriginal Cultural Heritage Values

5.1.1. Social (Cultural) and Spiritual Value

The local Aboriginal community of Parramatta have stated that the Parramatta River is of high cultural and spiritual significance. The study area is located on the southern foreshore of the River and therefore included within this statement of significance. The study area has social significance both for its intangible values (such as Dharug connection to Country and use of space), as well as for its association with tangible archaeological evidence of continued Aboriginal occupation of the area. Numerous sites are located in close proximity to the study area that provide physical evidence for the continued Dharug occupation of the River foreshore and immediate surrounds.

Dharug people consider all their sites to be connected. Viewed as a whole, these sites form a complex that embodies all aspects of Dharug history and life. This complex of sites is of exceptional significance for its ability to provide evidence of ongoing occupation, land use and traditional lifestyle across Dharug Country, demonstrating the long-enduring and continuous Dharug occupation of, and connection to, the Parramatta area.

Should archaeological deposits be present within the study area, for the local Dharug community, this would represent a tangible and meaningful connection to their ancestors.

The study area is therefore considered likely to have **high social and spiritual significance** to the local Aboriginal (Dharug) community, however this would be further investigated and confirmed through the RAP review of this draft ACHAR.

5.1.2. Historical Value

The study area holds potential to be of historical value and significance to local Aboriginal people in connection with the wider area in this part of Parramatta associated with early interactions between European colonists and Aboriginal people at the Parramatta settlement. However, this will be further investigated through the community consultation process with project RAPs, particularly via review of the draft ACHAR.

5.1.3. Scientific (Archaeological) Value

OEH states the scientific (archaeological) value of an Aboriginal site or place to:

Refer 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. (OEH 2011: 9)

Following OEH guidelines for assessing scientific value (OEH 2011), five key criteria have been considered with regards to the scientific and archaeological context of the study area in order to determine its level of scientific significance. These criteria, as they have been applied to the study area, are defined below in Table 5.1. Following the criteria above, an assessment of the potential scientific significance of the Powerhouse Parramatta study area has been undertaken, identified as relevant to the five key criteria.

Table 5.1: Archaeological significance criteria

CRITERIA	DESCRIPTION
Research potential	Research potential describes how much potential a site has to contribute to a further scientific or archaeological understanding of a site/area/region. This should include consideration of factors such as: integrity and condition (the level of soil disturbance that a site has been subject to and the ability for the site to yield intact archaeological deposits); complexity (demonstrated or potential ability of a site to yield a complex archaeological deposit; archaeological potential (the potential for a site to yield an archaeological deposit or resource); and connectedness (the connection of a site to others in the
Rarity	Rarity refers to the frequency of similar site types in a local or regional area/landscape.
Representativeness	Representativeness refers to the level of variability between or within Aboriginal sites in an area or region, what is already conserved, how sites relate to each other, and the condition that a particular site type may be in that is able to better present or demonstrate more clearly that specific site type through the archaeological record.
Education Potential	Education potential refers to the ability of a site to contribute to the public record and provide teaching resources in order to further understanding of Aboriginal cultural heritage and archaeology. Is the site well preserved? Are there artefacts that would be good to use in teaching? Are there recognisable site features, artefacts types, records etc, that would be productive in teaching or use within public heritage interpretation strategies?
Archaeological Landscapes	The study of Aboriginal cultural heritage and archaeological study in the context of the wider landscape (geographical and cultural/social) in which they exist.

The Aboriginal archaeological (scientific) significance of the study area is not able to be accurately assessed until the results of Aboriginal archaeological investigations are available.

However, the study area has high research potential because of its location within the mapped PSB, which is an alluvial terrace formation which is significant on a State level due to its high potential for stratified Aboriginal archaeological material dating back to the Pleistocene (c.30,000 years BP). The study area has potential to contain a chrono-stratified archaeological deposit that would be both rare and representative in the context of Aboriginal occupation in this area of Parramatta.

Should the PSB be present within the study area, and contain a remnant Aboriginal archaeological deposit, the study area may have **high scientific significance** for its ability to contribute knowledge to the archaeological record about Aboriginal occupation of this area of Parramatta and across the PSB itself.

Scientific significance and values can only be further confirmed through a program of archaeological investigation.

5.1.4. Aesthetic Value

The study area may have aesthetic value to the local Aboriginal community, both for its landform positioning on the southern foreshore of the Parramatta River, as well as in the context of the wider Aboriginal landscape in which it is located. Should archaeological investigation within the study area recover Aboriginal stone tools, these may potentially have aesthetic value and significance.

5.2. Statement of Significance

The local Aboriginal community of Parramatta have stated that the Parramatta River is of high cultural and spiritual significance. The study area is located on the southern foreshore of the River and therefore included within this statement of significance. The study area has social significance both for its intangible values (such as Dharug connection to Country and use of space), as well as for its association with tangible archaeological evidence of continued Aboriginal occupation of the area. Numerous sites are located in close proximity to the study area that provide physical evidence for the continued Dharug occupation of the River foreshore and immediate surrounds.

Should archaeological deposits be present within the study area, for the local Dharug community, this would represent a tangible and meaningful connection to their ancestors.

The study area is therefore considered likely to have **high social and spiritual significance** to the local Aboriginal (Dharug) community, however this would be further investigated and confirmed through the RAP review of this draft ACHAR.

Should the PSB be present within the study area, and contain a remnant Aboriginal archaeological deposit, the study area may have **high scientific significance** for its ability to contribute knowledge to the archaeological record about Aboriginal occupation of this area of Parramatta and across the PSB itself.

6. Conservation and Impact Assessment

As noted by the OEH, it is important that an impact assessment directly addresses the potential harm that an activity may pose, specific to an Aboriginal place, objects, site or archaeological deposit (OEH 2011: 12).

6.1. Ecologically Sustainable Development

One of the aims of the NPW Act is to 'conserve places, objects and features of significance to Aboriginal people' (NPW Act, Section 2A(1)(b)(i)). One of the ways in which this objective can be achieved, is via the consideration of the principles of Ecologically Sustainable Development (ESD). ESD is defined in Section 6 of the Protection of the Environmental Administration Act 1991 (NSW), as requiring the integration of both economic and environmental considerations (including cultural heritage) in the decision-making process for a development, with an aim to achieving, on balance, beneficial outcomes for both development, and Aboriginal cultural heritage.

ESD can be achieved by applying the precautionary principle and the principle of inter-generational equity to the nature of the proposed activity, in relation to the Aboriginal cultural heritage and archaeological values of a site.

6.1.1. Precautionary Principle

The precautionary principle states that if there are threats of serious or irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation. In applying the precautionary principle, decisions should be guided by:

- *a careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and*
- *an assessment of the risk-weighted consequences of various options.*

The precautionary principle is relevant to DECC's [now OEH] consideration of potential impacts to Aboriginal cultural heritage where:

- *the proposal involves a risk of serious or irreversible damage to Aboriginal objects or places or to the value of those objects or places; and*
- *there is uncertainty about the Aboriginal cultural heritage values or scientific or archaeological values, including in relation to the integrity, rarity, or representativeness of the Aboriginal objects or places proposed to be impacted.*

Where this is the case, a precautionary approach should be taken and all cost-effective measures implemented to prevent or reduce damage to the objects/place. (DECC 2009: 26)

6.1.2. Intergenerational Equity

Intergenerational equity is the principle whereby the present generation should ensure the health, diversity and productivity of the environment for the benefit of future generations.

In terms of Aboriginal heritage, intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region. If few Aboriginal objects and places remain in a region (for example, because of impacts under previous AHIPs), fewer opportunities remain for future generations of Aboriginal people to enjoy the cultural benefits of those Aboriginal objects and places.

Information about the integrity, rarity or representativeness of the Aboriginal objects and places proposed to be impacted, and how they illustrate the occupation and use of land by Aboriginal people across the region, will be relevant to the consideration of intergenerational equity and the understanding of the cumulative impacts of a proposal.

Where there is uncertainty, the precautionary principle should also be followed. (DECC 2009: 26)

6.2. Proposed Activity

The proposed activity is the redevelopment of the study area for the construction of the Powerhouse Parramatta, and comprises:

- site preparation works, including the termination or relocation of site services and infrastructure, tree removal and the erection of site protection hoardings and fencing;
- demolition of existing buildings including the existing Riverbank Car Park, 'Willow Grove', 'St George's Terrace' and all other existing structures located on the site;
- construction of the Powerhouse Parramatta—two main buildings (west and east);
- operation and use of the Powerhouse Parramatta including use of the public domain provided on the site to support programs and functions;
- maintenance of the existing vehicular access easement via Dirrabarri Lane, the removal of Oyster Lane and termination of George Khattar Lane, and the provision of a new vehicular access point to Wilde Avenue for loading;
- public domain within the site including new public open space areas, landscaping and tree planting across the site; and
- building identification signage.

The project does not involve any alterations to the existing edge of the formed concrete edge of the Parramatta River or to the waterway itself.

Further detail is provided below about development activities that have potential to impact Aboriginal archaeological deposits and values. That is, activities that will disturb the ground surface.

Figure 6.1 to Figure 6.15 below present the relevant plans for the development, relevant to understanding below ground impacts that may present archaeological impact.

6.2.1. Bulk Excavation Works

Bulk excavation works are required beneath the new western building to accommodate required services including grease arrestor, sewer and stormwater pumps, lift pits, foundation piles (see Section 6.2.2), and rainwater/waste tank. Due to the fall of the land within the study area (i.e. sloping to the north towards the river), excavation depths beneath the western building will range from approximately 2m below ground level in the north, to approximately 4m below ground level at the southern end of the building. Some localised excavation beneath the eastern building will also be required for foundation piles (see Section 6.2.2), and lift pits.

Figure 6.1 presents the proposed main excavation plan for the concept design.

6.2.2. Foundation Piling¹

The structural foundation concept for the new development has been designed as necessary to comply with requirement to support long spans (>35m) and high floor loading capacities, as specified by the project brief.² The two new buildings will be supported on large diameter piles drilled into sandstone bedrock, connected to the superstructure via pile caps supporting the main building columns, overlaid with a c.150mm concrete slab on grade (subject to geotechnical advice). Piles would extend between 4-10m into the bedrock (subject to geotechnical advice) with the total pile lengths varying from 14-20m. The concept for the piling foundations is the installation of approximately 22 and 20 perimeter piles (for the western and eastern buildings respectively), spanned by horizontal perimeter ground beams. The exact number and placement of piles will be confirmed and finalised by structural engineers. Perimeter piles are aligned to underlie the buildings perimeter support columns, with use of both single piles, as well as paired piles to support heavily loaded columns. Each perimeter pile would typically be 1800mm in diameter with a 2000mm x 2400mm x 2000mm deep pile cap (single piles), or 2000mm x 5700mm x 2000mm deep pile cap (paired piles).

Additional piles will be required across the footprint of each building to support architectural and design features that require additional sub-structural support (e.g. features such as educational floors and stairs in the eastern building, and support for concrete core walls and escalator in western building). Additional piles may also be required in the northern part of the eastern building to support a ground beam to support the façade, however this would be subject to further geotechnical advice. Other required structural support elements that will impact the ground surface are likely to include excavation of a trench along the northern wall of the eastern building to accommodate the movable door in this location (minimum 1m depth), and other smaller diameter piles (600mm-1200mm) for additional wall and door support, as well as foundational concrete pads.

Figure 6.11 presents the preliminary concept plan for foundations and piling, to be further refined through the development of the concept design.

¹ Description of foundation concept summarised from Arup, *Foundation- Preliminary Concept*, SSK-01, 12.2.2020

² As per *Architectural Design Brief*

6.2.3. Service Trenching

Exact locations and dimensions of service and utility trenching required to support the new development are to be confirmed. However, Figure 6.12 shows indicative locations, and trenches are likely to require excavation in the range of 1-7m depth and 600mm-3000mm (for each service) in width.

6.2.4. Landscaping and Other Minor Activities

Landscaping works at lower ground level will be mainly focused on the northern side of the new buildings, fronting the river foreshore. The existing strip of lawn and river path along the river foreshore will both be retained, while new lawn areas will be established fronting the undercroft of the new buildings. A new 'rain garden' is proposed to the west of the western building, integrated with the emergency vehicular access ramp to the river (Figure 6.13). Landscaping works will also include removal of some existing trees, and replacement with new native mature trees, as well as other native plantings.



Figure 6.1: Site Demolition Plan (Moreau Kusunoki/Genton, DA061, Rev. 4, 1.4.2020)

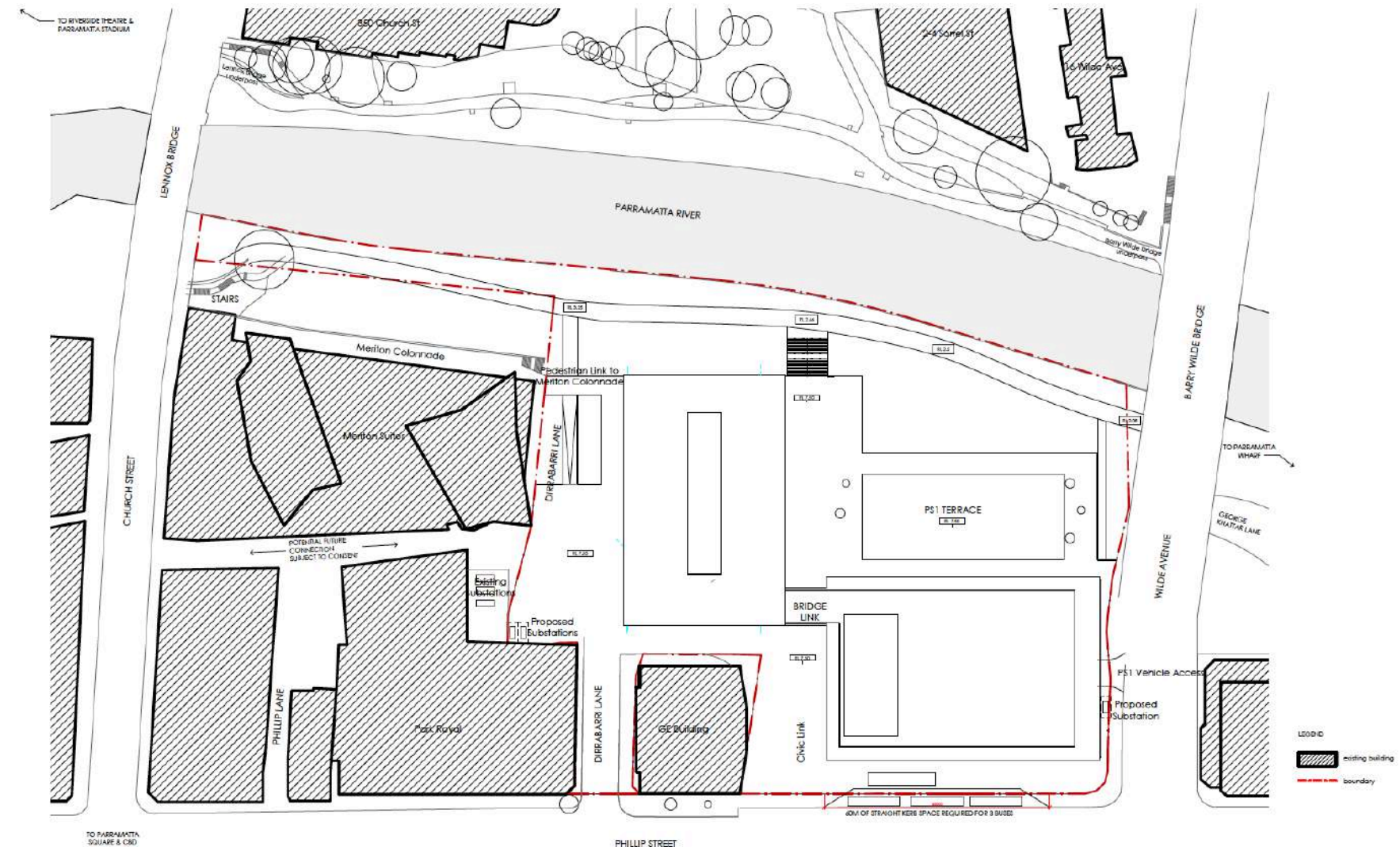


Figure 6.2: Proposed Site Master Plan (Moreau Kusunoki/Genton, DA062, Rev. 3, 1.4.2020)

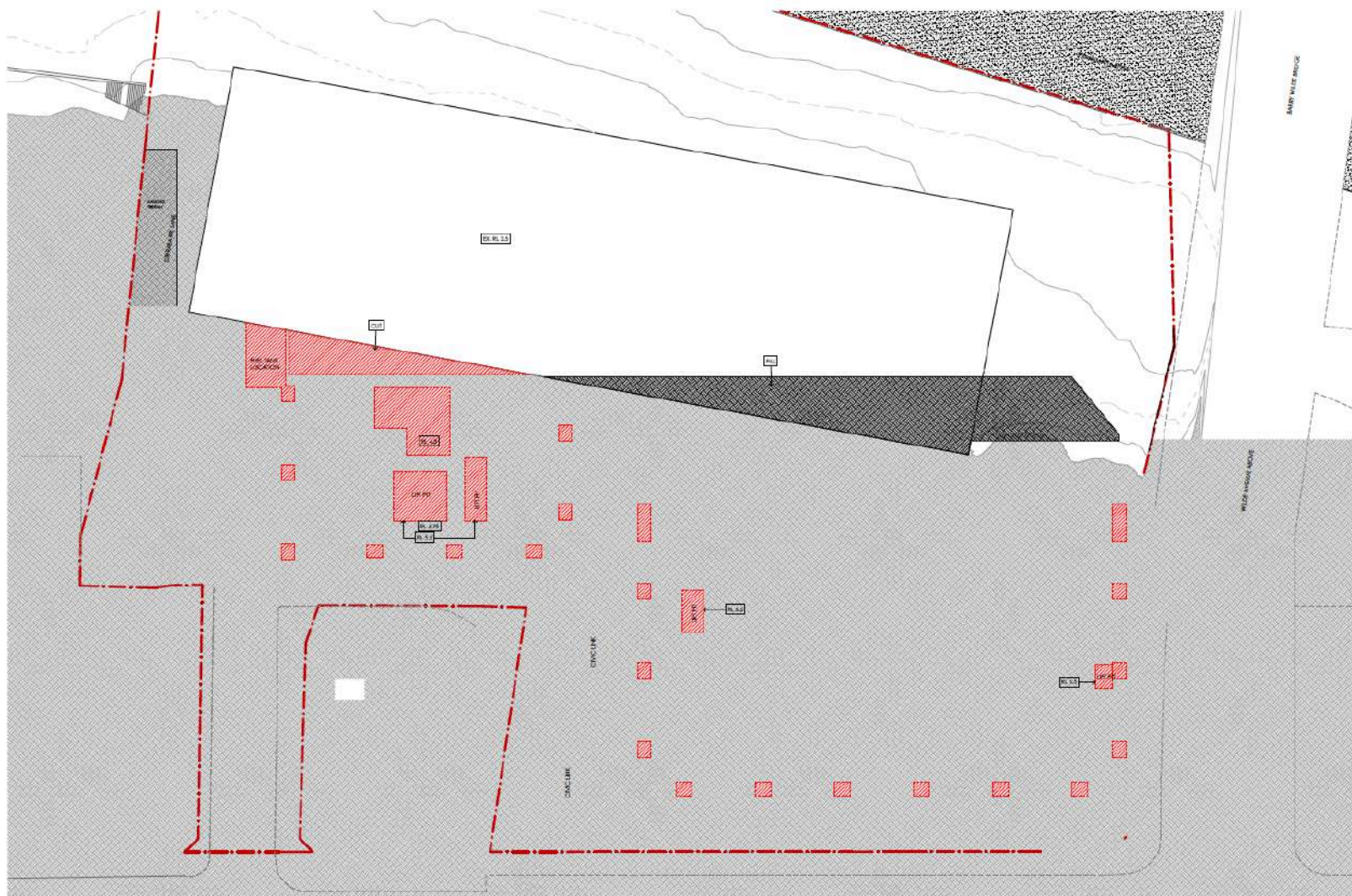


Figure 6.3: Excavation Plan (Moreau Kusunoki/Genton, DA070, Rev. 1, 1.4.2020)

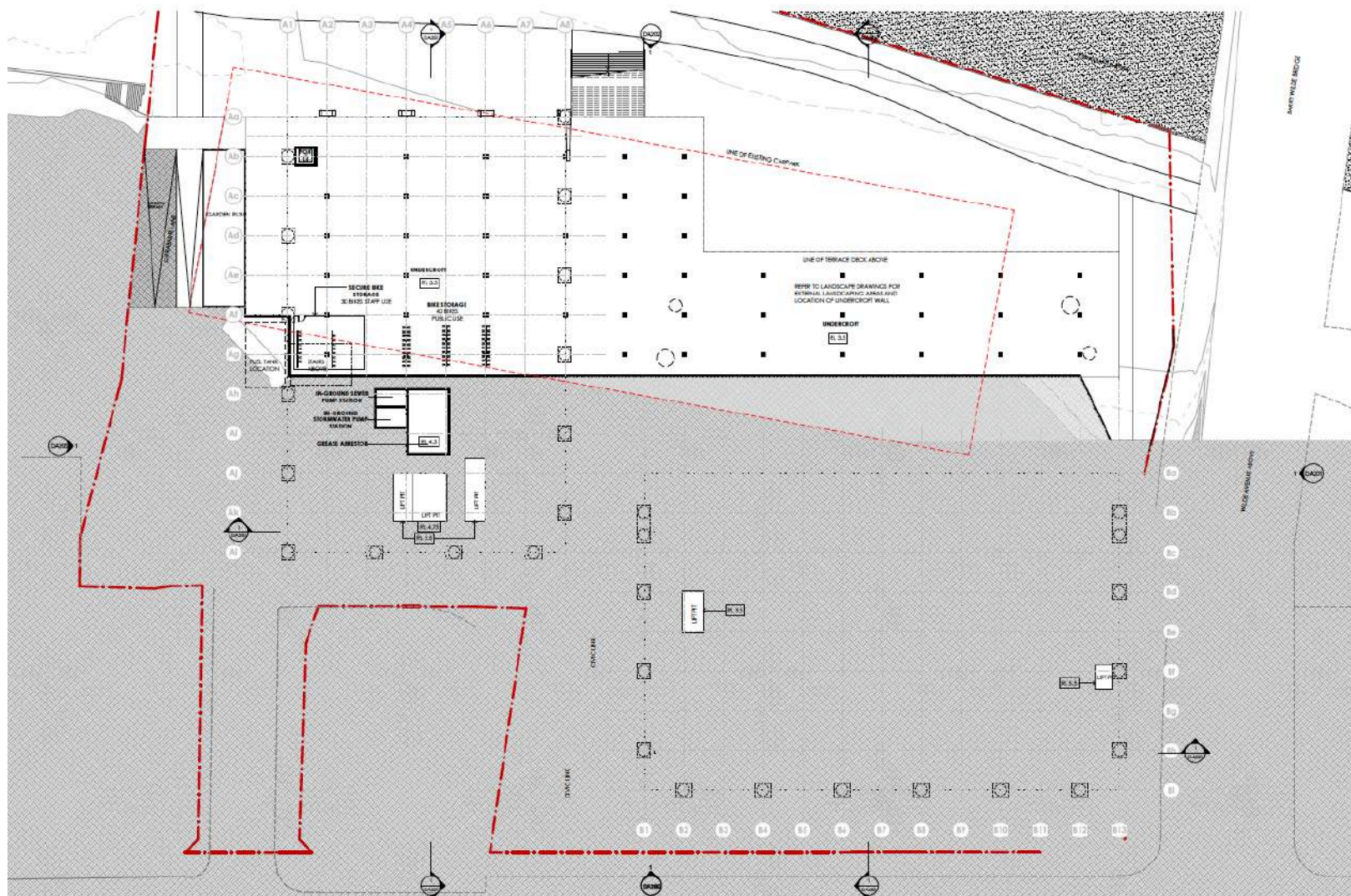


Figure 6.4: Lower Ground Level Floor Plan (Moreau Kusunoki/Genton, DA100, Rev. 7, 1.4.2020)

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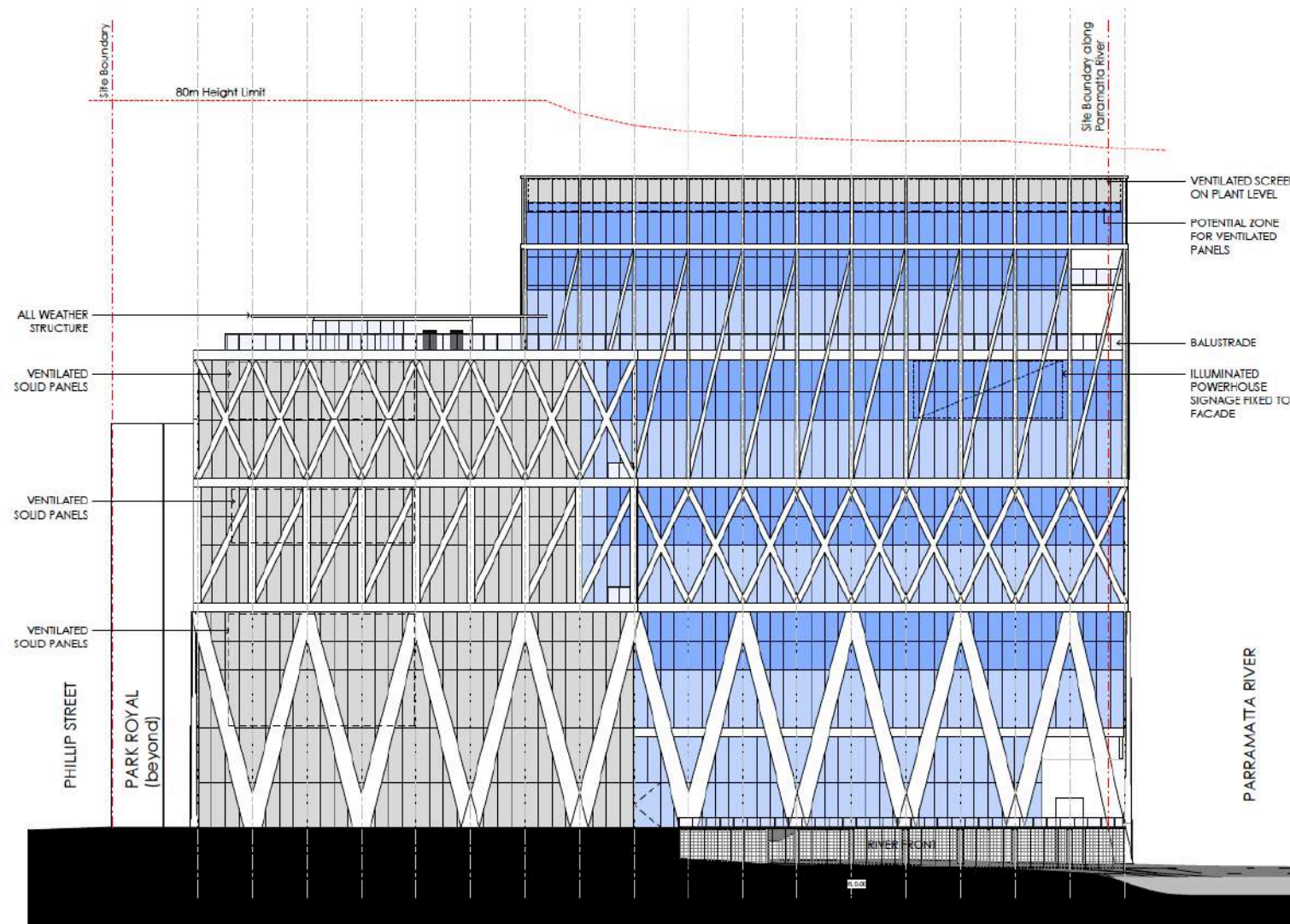


Figure 6.6: External Elevation East (Moreau Kusunoki/Genton, DA201, Rev. 5, 21.4.2020)

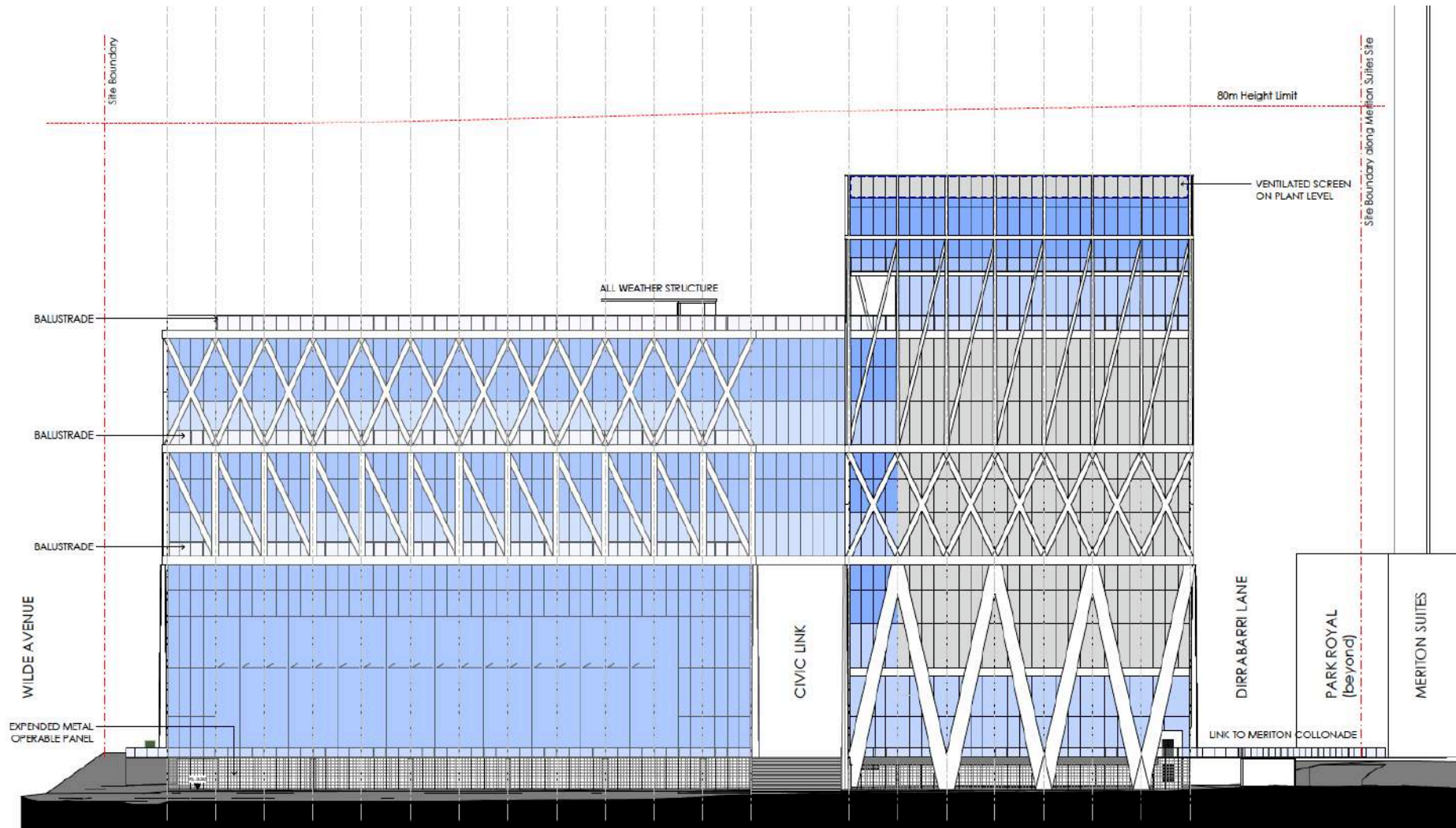


Figure 6.7: External Elevation North (Moreau Kusunoki/Genton, DA202, Rev. 5, 21.4.2020)

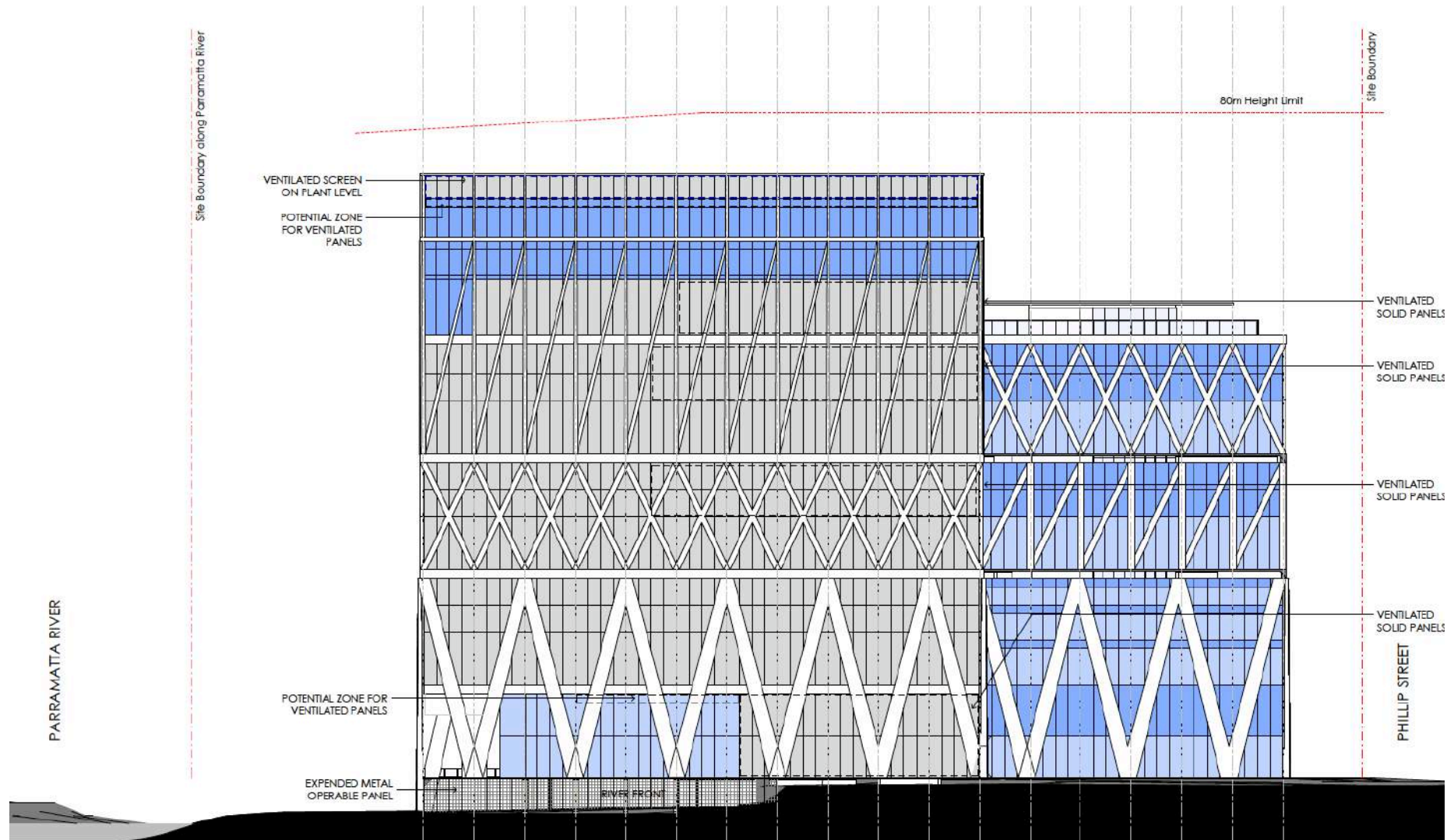


Figure 6.8: External Elevation West (Moreau Kusunoki/Genton, DA203, Rev. 5, 21.4.2020)

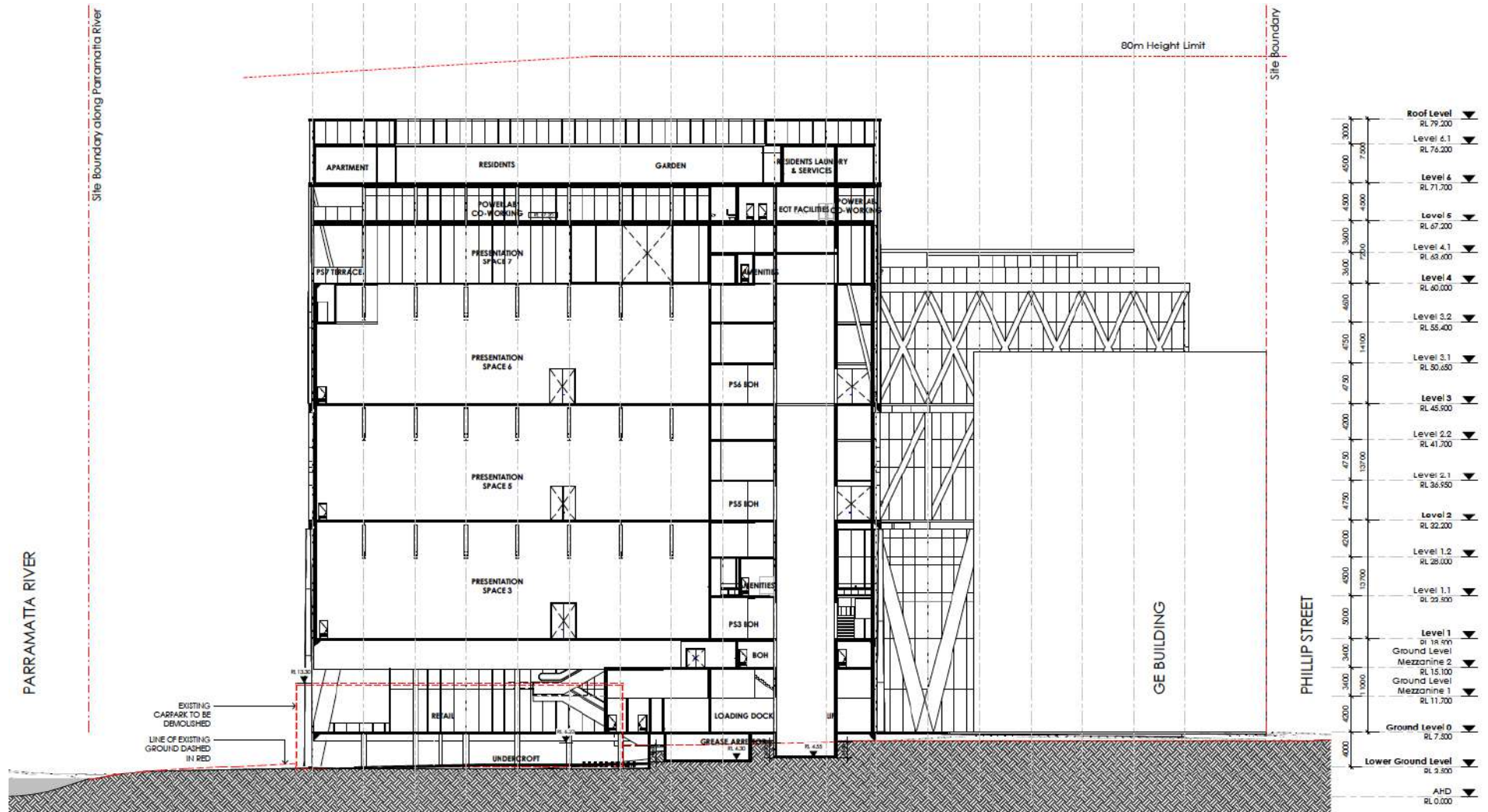


Figure 6.9: Section B (Moreau Kusunoki/Genton, DA251, Rev. 5, 1.4.2020)

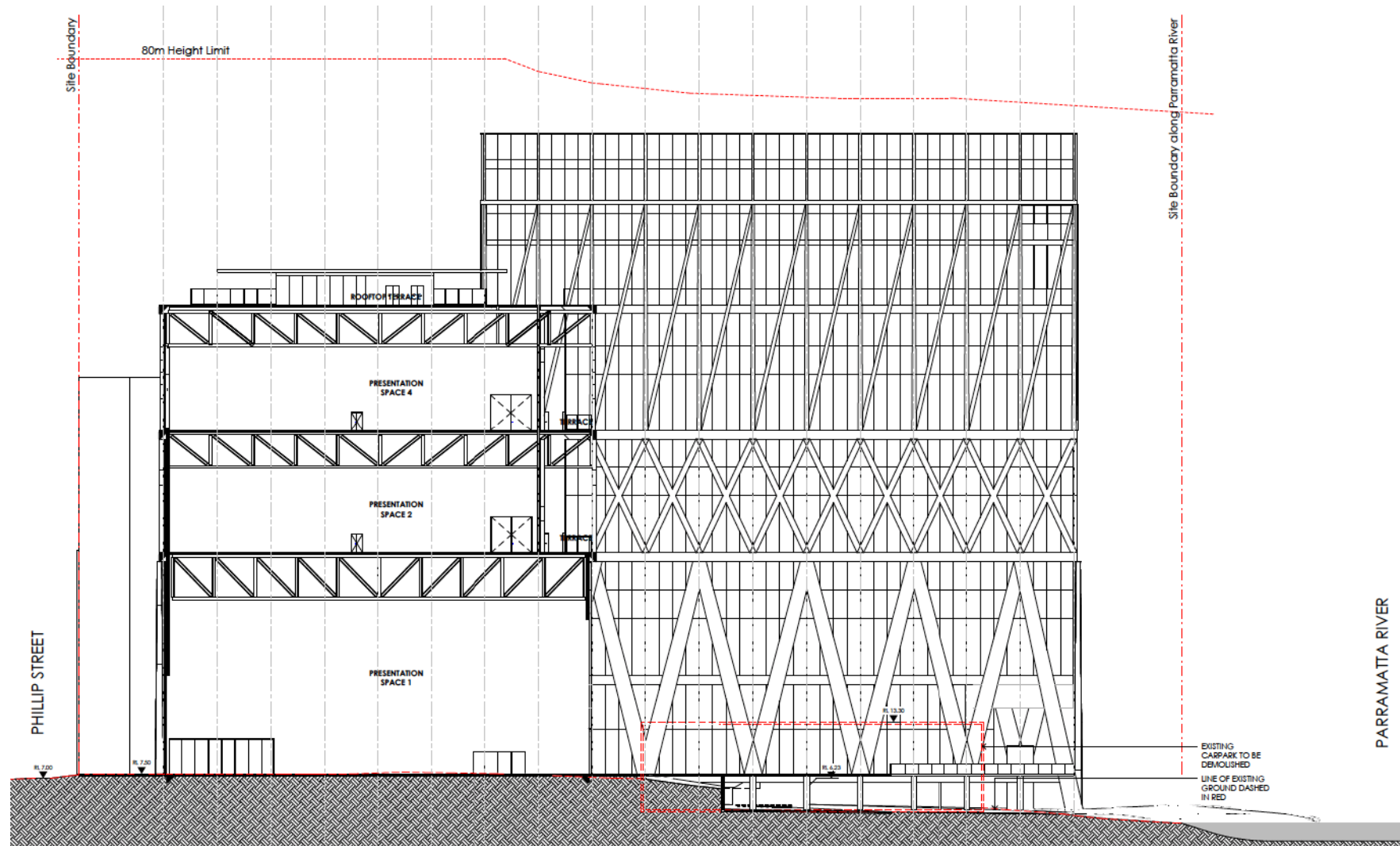


Figure 6.10: Section C (Moreau Kusunoki/Genton, DA252, Rev. 5, 1.4.2020)

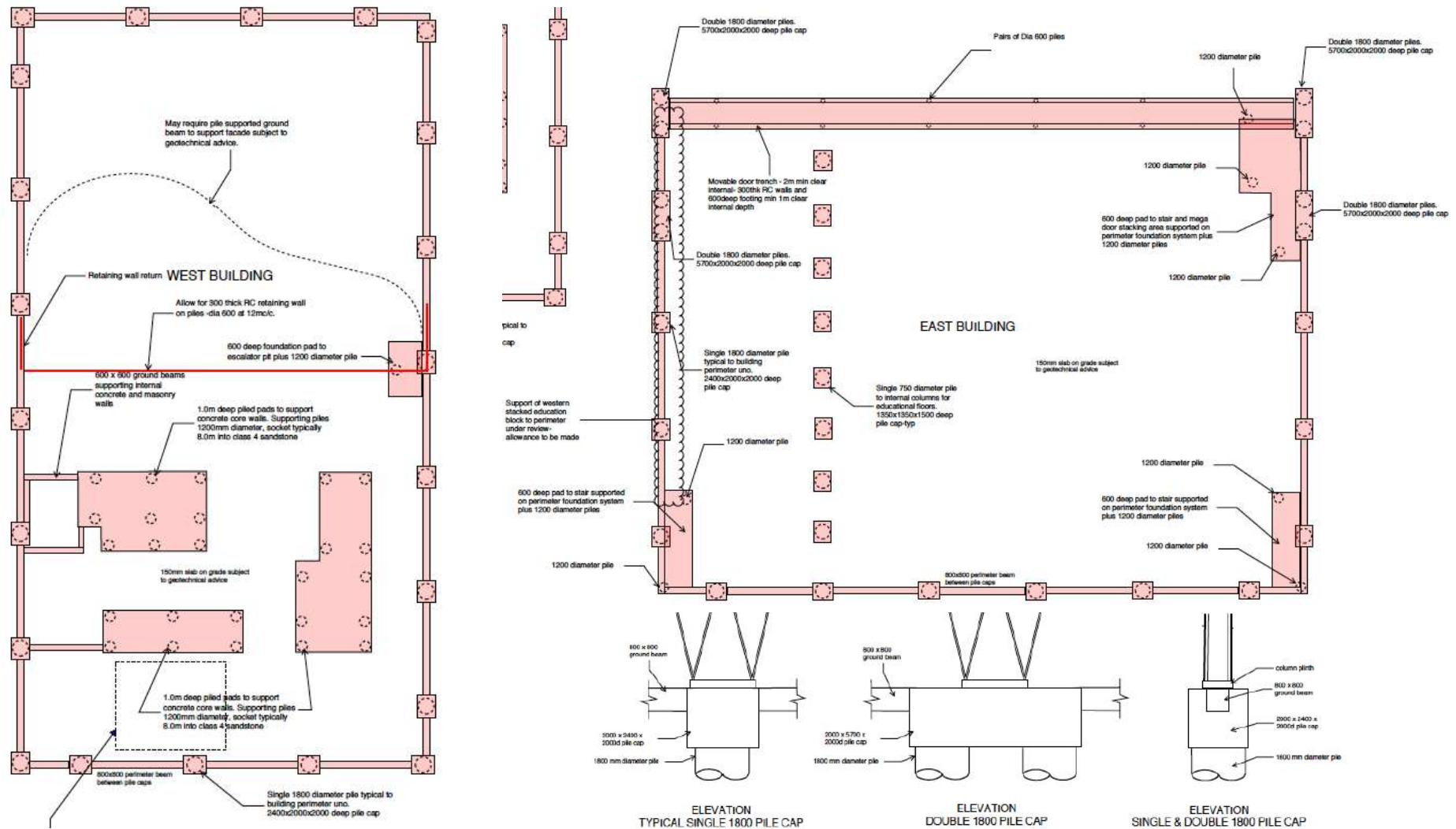
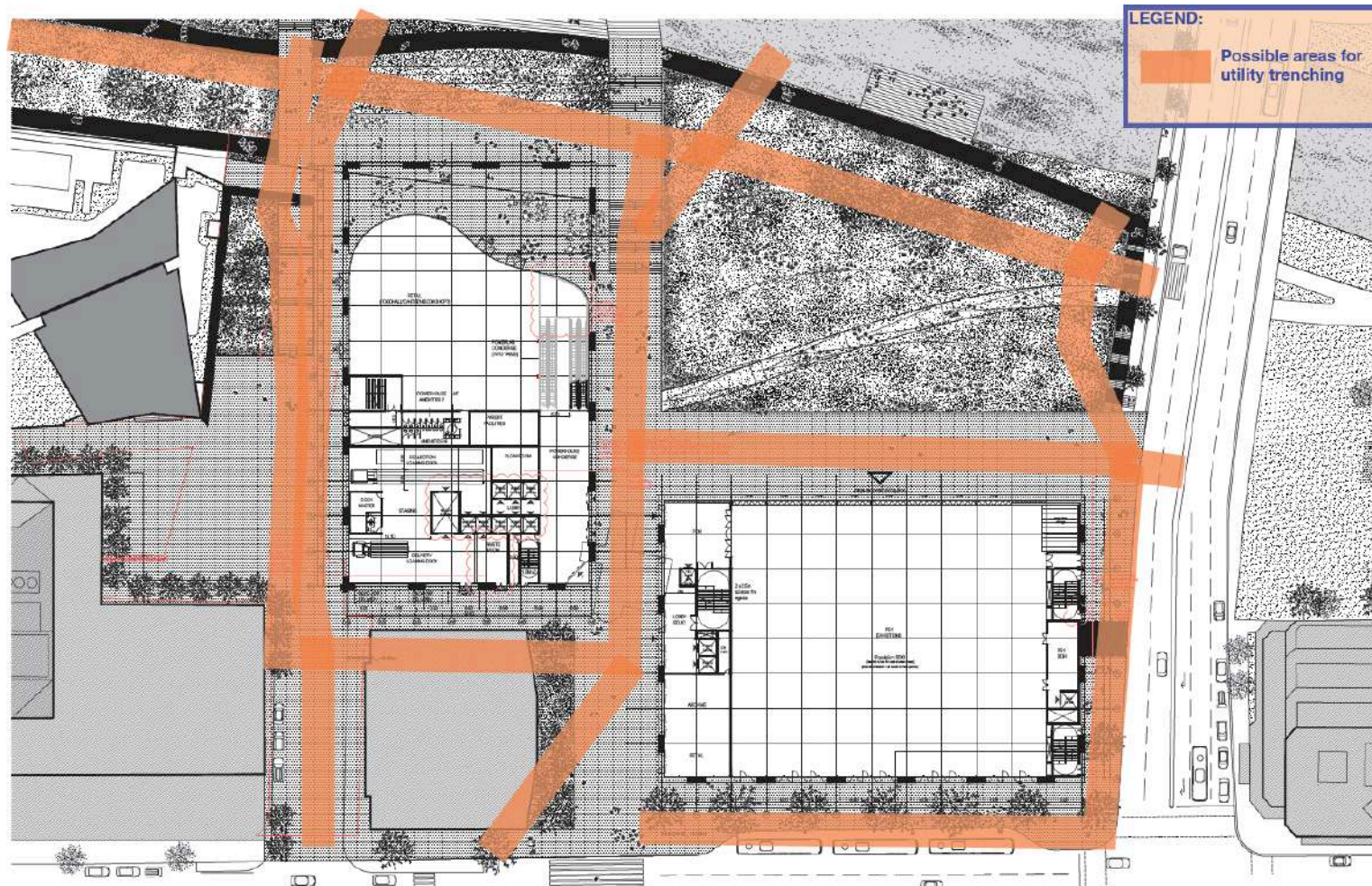


Figure 6.11: Foundation-Preliminary Concept (Arup, SSK-01, 12.2.2020)



Civil Engineering
Preliminary Opportunities & Constraints Plan: Underground
Simplified excavation plan update for utilities only
10/03/2020

ARUP

Figure 6.12: Potential Utilities Trenching Plan (Arup, 10.3.2020)



Figure 6.13: Landscape Key Plan, Podium Level (McGregor Coxall LD_DA_00-02, Rev. C, 2.4.2020)

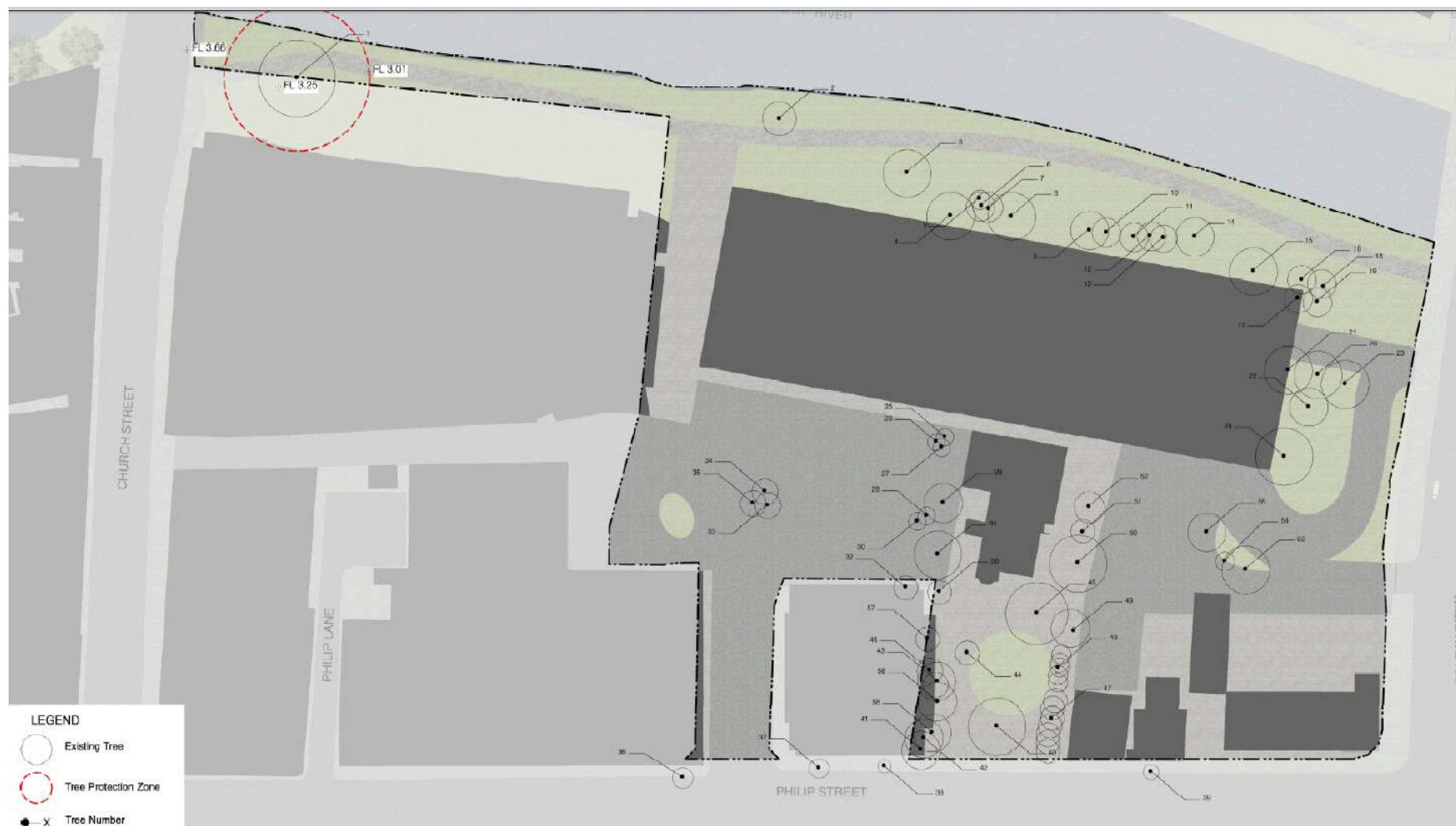


Figure 6.14: Tree Retention and Removal Plan (McGregor Coxall LD_DA_30-03, Rev. C, 2.4.2020)



Figure 6.15: Landscaping Plan, Trees Proposed (McGregor Coxall LD_DA_30-04, Rev. C, 2.4.2020)

6.3. Avoiding and Minimising Harm

While the provisions of the NPW Act hinge predominantly on the presence and protection of physical Aboriginal sites (i.e. and AHIP provides a defence against ‘harm’ to ‘Aboriginal objects’), an effective and holistic assessment of potential impact to Aboriginal cultural heritage values as posed by a development is really two-fold:

- the physical and archaeological values of sites (tangible heritage); and
- the wider social and cultural impact of a development within a landscape (often relating to more intangible Aboriginal heritage values, lacking material evidence).

6.3.1. Potential Impact to Aboriginal Objects/Sites/Archaeology

Aboriginal archaeological potential within the Powerhouse study area is directly related to the possible presence of the PSB, and the Aboriginal archaeological potential associated with this feature. This is reflected by the location of the registered AHIMS PAD site (#45-6-3193) within the study area.

Development activities with the potential to impact Aboriginal sites and/or potential archaeology are those that extend below the ground surface within the zone of mapped Aboriginal archaeological potential.

Bulk excavation works have the highest potential to impact natural soils with the potential to retain Aboriginal archaeology (either partially or wholly). However, the majority of the bulk excavation works for the western building have been positioned within the footprint of the current multi-storey carpark structure, i.e. within an area of no Aboriginal archaeological potential due to previous excavation works in this location. The main excavation works proposed have been mapped over the Aboriginal archaeological sensitivity for the study area in Figure 6.16 to demonstrate the locations within the study area where the development works have potential to impact potential Aboriginal objects, sites, and archaeology.

Table 6.1 summarises these development activities with potential to impact Aboriginal sites and features, including assessment of the potential type, degree and consequence of these impacts.

Table 6.1: Type and Degree of Impact and Harm that Development Activities may cause to Aboriginal sites

ACTIVITY	TYPE OF HARM	DEGREE OF HARM	CONSEQUENCE OF HARM
Bulk Excavation—Western Building	Direct	Partial	Partial loss of value (dependent on nature of PAD present within the study area)
Foundation Piling and Lift Pits	Direct	Partial	Partial loss of value (dependent on nature of PAD present within the study area)
Service Trenching (exact locations and extent TBC)	Direct	Partial	Partial loss of value (dependent on nature of PAD present within the study area)

ACTIVITY	TYPE OF HARM	DEGREE OF HARM	CONSEQUENCE OF HARM
Landscaping works	None	None	No loss of value (nil potential for Aboriginal archaeology within the footprint of the existing multi-storey carpark due to previous excavation works/along river foreshore)

6.3.2. Potential Impact to Aboriginal Cultural Heritage Values

As discussed in the introduction to this section above, intangible Aboriginal heritage values of a site or area are as important to the local Aboriginal community, if not more important, as the more tangible and physical evidence of Aboriginal life and culture that remains in the landscape. Therefore, it is appropriate to consider the potential impact the proposed development may have to wider intangible cultural heritage values, and, should potential impact be identified, appropriate management strategies should be developed to help mitigate this impact.

Aboriginal community consultation for other projects in the Parramatta CBD area has provided several relevant comments regarding potential impact to intangible heritage values associated with the study area and surrounds:

- The area is significant to the Dharug people due to the connection and proximity to the complex of significant sites in the Parramatta area and evidence of continued occupation
- Landscapes and landforms are significant for the information they hold, and connection to Dharug people. While physical evidence of the passage of Dharug people through the land may not necessarily remain evident today, people had intricate knowledge of their land and followed signs in the landscape—aware and respectful of restricted and sacred areas.

6.4. Proposed Conservation (Avoidance)

Curio Projects have worked closely with INSW through the design development for the Powerhouse Parramatta, in order to provide advice regarding the potential of the development to impact Aboriginal archaeology. Following from this advice, below ground development impacts have been located as much as possible within areas of the study area that have already been excavated and/or highly disturbed (i.e. within the footprint of the multi-storey carpark), and therefore have low to no potential to contain Aboriginal archaeological deposits. The design has made a concerted effort to reduce impacts within the mapped extent of the PSB and areas of Aboriginal archaeological sensitivity at the site by modifying the design to locate bulk excavation areas in areas of low to no archaeological potential.

In this way, the below ground impacts of the Powerhouse Parramatta have been intentionally positioned and designed to avoid and minimise impact to potential Aboriginal archaeology as much as possible.

6.5. Harm to Aboriginal Objects and Values

Table 6.2 presents a summary of the Aboriginal sites that have the potential to be harmed through the proposed development works, and summarises the type and degree of physical harm the proposed development may present. N.B. The potential harm proposed to this site is dependent on the results of Aboriginal archaeological investigation to confirm whether the PAD associated with the study area actually contains an intact Aboriginal archaeological deposit, or not.

Table 6.2: Physical Harm to Aboriginal Sites

SITE	TYPE OF HARM	DEGREE OF HARM	CONSEQUENCE OF HARM
#45-6-3193	Direct	Partial	Partial loss of value (dependent on nature of PAD present within the study area)



Figure 6.16: Proposed Development Excavation areas and potential service trenching over Aboriginal archaeological sensitivity. Development excavation areas in black, potential services/utility trenching dashed grey (Source: Curio 2020, after Genton DA061, Rev. 4, 1.4.2020 and Arup, Potential Utilities, 10.3.2020)

7. Mitigation Measures, Conclusions and Recommendations

The design for the Powerhouse Parramatta project has sought to minimise and avoid impact to Aboriginal archaeology via the strategic location of subsurface features and excavation works away from areas of high Aboriginal sensitivity within the study area. However, some proposed development works for the construction of the Powerhouse Parramatta still have potential to impact Aboriginal objects and archaeology, and therefore require the development of mitigation measures to offset this potential impact.

The cultural heritage significance of the Powerhouse Parramatta study area to the Dharug community has been readily communicated by Dharug stakeholders, particularly with respect to the association of the study area with the exceptional cultural significance of the Parramatta River. Therefore, any potential impact to Aboriginal cultural heritage values is also proposed to be managed via the introduction of mitigation measures as detailed in the following section.

7.1. Mitigation Measures

Potential impact of the Powerhouse Parramatta project to the Aboriginal archaeological potential and Aboriginal cultural heritage values of the study area are proposed to be managed and mitigated via two main strategies:

- **Archaeological investigation;** and
- **Aboriginal Heritage Interpretation** to facilitate a long term conservation outcome for Aboriginal cultural heritage values (tangible and intangible) within the proposed development.

It is believed that the application of these strategies through the Powerhouse Parramatta project will serve to minimise any harm posed by the development to Aboriginal cultural heritage values. The proposed mitigation measures are summarised in Table 7.1 and detailed further in the following subsections.

Table 7.1: Summary of Mitigation Measures

PROPOSED MEASURE	TIMING
Aboriginal Archaeological Investigation	Prior to/in collaboration with development works
Aboriginal Heritage Interpretation	Prior to completion of project

7.1.1. Strategy One—Aboriginal Archaeological Investigation

An Aboriginal archaeological excavation methodology and research design has been developed for the Powerhouse Parramatta study area, based on the archaeological predictive model and Aboriginal archaeological sensitivity mapping as presented through this ACHAR. The primary aim of the proposed archaeological works will be to investigate the nature and extent of any

subsurface Aboriginal archaeological deposit (i.e. to the registered site located within the study area—AHIMS #45-6-3192), within the impact zones of the proposed development. This methodology and research design is attached to this ACHAR as Appendix C.

The methodology generally entails a two stage approach to the investigation of Aboriginal archaeology within the study area, predicated on the locations of excavation impact areas as required by the development, as follows:

1. Initial testing of the Aboriginal archaeological potential of the main impact zones of the study area (Phase 1) with an aim to identify the presence or absence of intact subsurface profiles of the PSB and any associated Aboriginal archaeological deposit that may be present; and
2. Guided by the results of the initial testing (Phase 1), Phase 2 (salvage excavation) is proposed to be undertaken within development impact zones in order to recover the entirety of any Aboriginal archaeological deposit within the study area that requires impact through the proposed development works.

7.1.2. Strategy Two—Aboriginal Heritage Interpretation

Appropriate heritage interpretation can contribute to the conservation and celebration of the history and cultural heritage of the local Dharug people and wider local Aboriginal community, preserving their culture, history and stories within the development for generations to come.

The Powerhouse approach to Heritage Interpretation for the Powerhouse Parramatta is summarised below, with respect to Aboriginal heritage specifically.

Powerhouse Parramatta will exemplify innovation and best practice in heritage interpretation, recognising it as a vital and defining component of all stages of redevelopment of the site and its continuing operation. Such a definition of heritage interpretation uncovers, recognises and expresses complex and plural relationships to site. Underpinning this approach is an urgency in redefining heritage interpretation as mutable and inseparable from place, people, and their stories; it must always be defined by the people invested in the site (its caretakers) – Traditional custodians of the land upon which the works will take place, those invested in the settler history of place, and the broader social and cultural communities of Parramatta and surrounds.

Compelling, contested and genuinely engaged notions of heritage interpretation will foster, strengthen and sustain connections to history, site and community and provide a unique foundation to enhance the understanding and enjoyment of the Powerhouse Parramatta. Such an approach will also stimulate ideas and debate around community engagement with site, and lead to a deeper and more nuanced experience of place in Australia.

This approach will be articulated by firstly; foregrounding First Nations lead heritage interpretation; secondly, committing to major and ongoing commissioning of both permanent and temporary heritage interpretations that bring together historians, artists, scientists and writers and finally by recognising the value of items of

significance through visual preservation via new digital technologies and more traditional media.

Heritage interpretation will align with the design principles provided in the *Powerhouse Parramatta Stage 2 Brief*, in particular, **Indigenous Perspectives**, and be developed in close consultation with Aboriginal and Torres Strait Islander stakeholders.

Powerhouse Parramatta will consult with local Aboriginal and Torres Strait Islander community groups to engage First Nations elders, historians, artists and scientists to lead the development of a Heritage Interpretation Plan of pre-colonial and ongoing Indigenous experience and significance of the site.

In close consultation with its ATSI Consultative Groups, Powerhouse Parramatta will engage First Nations Elders, researchers, artists and artisans, scientists and cultural thought leaders to inform the development of a Heritage Interpretation Plan focused on the pre and post contact significance of the site.

Based on preliminary consultation, it is understood that the Powerhouse Parramatta will work to provide a safe keeping place for cultural material and a place which celebrates First Nations achievements in the Applied Arts and Sciences. Themes that have emerged during consultation with Traditional Owner groups and that must be considered in the development of the Heritage Interpretation Plan include:

- places for welcome, acknowledgement and celebration
- places for learning, for working and for respite
- places that show lines of sight and connection
- places for other than human and places that support cultural practice

Any Heritage Interpretation Plan prepared for the study area will include an analysis of existing interpretative installations and public art within or in relative proximity to the study area that relate to Aboriginal heritage – particularly along the southern bank of the Parramatta River – in order to ensure that future interpretation initiatives will be informed, relevant and meaningful in the locational context and intended cultural uses of the study area.

7.1.3. Management of Aboriginal Objects

There are several options when it comes to the long-term management and curation of Aboriginal stone objects, once recovered from excavations. The suitability of each option depends on a number of factors including the nature of the development, the significance and extent of the deposit, and the wishes of the Aboriginal community.

Long term management options for the management of Aboriginal objects recovered from the Powerhouse Parramatta study area, could include:

- reburial in accordance with Requirement 26 ‘Stone artefact deposition and storage’ in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*;

- incorporation within future interpretive opportunities on site; or
- other strategies as suggested by project RAPs.

Further consultation with project RAPs on preferred methodology for keeping the objects on Country will be undertaken through the review of this draft ACHAR, as well as once the nature and extent of any Aboriginal archaeological resource within the study area is understood.

7.2. Unexpected Finds Policy

7.2.1. Unexpected Aboriginal Objects

Upon discovery of an archaeological feature that is suspected to be an Aboriginal Unexpected Find (excluding human remains- see Section 7.2.2 below), the following procedure should be followed:

1. *Cease works in the immediate vicinity of the find.*
2. *Contact the project archaeologist to verify the nature of the find.*
3. *If Unexpected Find is confirmed as Aboriginal archaeology, project archaeologist will notify project RAPs and DPIE of the find. (If Unexpected Find is confirmed as not Aboriginal in origin, project archaeologist will provide advice for works to recommence).*
4. *Project Archaeologist/Project RAPs will undertake a preliminary assessment and recording of the find.*
5. *Formulate archaeological or heritage management plan- specific to nature of the find.*
6. *Implement archaeological/heritage management plan.*
7. *Works may commence once archaeological/heritage management plan has been successfully implemented and project archaeologist provides sign off to contractor for works to resume in vicinity of find.*

7.2.2. Unexpected Skeletal Remains

While not anticipated to be encountered within the Powerhouse Parramatta study area, the unexpected discovery of any potential skeletal remains during development works would be managed in accordance with the approved DPIE protocol for the discovery of human remains which is stated as:

If any suspected human remains are discovered and/or harmed the proponent must:

- a) *Not further harm these remains;*
- b) *Immediately cease all work at the particular location;*
- c) *Secure the area so as to avoid further harm to the remains;*
- d) *Notify the local police and OEH's Environment Line on 131 555 as soon as practicable and provide any available details of the remains and their location; and*
- e) *Not recommence any work at the particular location unless authorised in writing by OEH.*

7.3. Conclusions and Recommendations

This report relates specifically to the proposed development impacts of the Powerhouse Parramatta in relation to potential Aboriginal archaeological and cultural heritage impacts, and provides recommendations for management and mitigation of development impacts, both archaeologically (i.e. ground disturbing works), as well as culturally (i.e. opportunities for Aboriginal cultural heritage interpretation within the site redevelopment).

These following conclusions and recommendations are made on the basis of:

- Legislation as detailed and adhered to through this ACHAR, including the NPW Act, EP&A Act, and relevant OEH statutory guidelines, protecting Aboriginal cultural and archaeological objects and places in NSW;
- Background research and archaeological analysis of the study area in its local and regional contexts;
- Consultation with the local Aboriginal community regarding the cultural significance of the study area and surrounding Parramatta CBD and River area, noting their concerns, views and requests; and
- The impact of the proposed development works within the Powerhouse Parramatta study area.

7.3.1. Conclusions

- This ACHAR documents the process of investigation, consultation and assessment with regards to Aboriginal cultural heritage and Aboriginal archaeology, as undertaken for the Powerhouse Parramatta study area and proposed development works.
- The study area is situated across the interface/approximate boundary between the Holocene (modern) floodplain of the Parramatta River on the northern part of the study area, and the Parramatta Sand Sheet (PSB) in the south; a fluvial sand profile dating to the Pleistocene epoch (i.e. >10,000 years BP) that has been demonstrated through previous archaeological excavations in the Parramatta CBD area to contain stratified Aboriginal archaeological materials.
- One registered Aboriginal site is located within the study area (AHIMS Site #45-6-3192 'Riverbank Square'), impact to which will require mitigation and further investigation (as identified and detailed through this ACHAR).
- Aboriginal site types most likely to be located within the study area would be artefact and PAD sites (as represented by the registered AHIMS site).
- In general, the study area has potential for Aboriginal archaeological deposits to be present in locations where previous historical disturbance would not have caused excavation/removal of all natural soil profiles, summarised as follows:
 - The at-grade car park across in the southern parts of the study area retain high Aboriginal archaeological potential. These areas are also located across the

northern mapped extent of the PSB, and therefore have high potential for the PSB to be retained in these locations, buried beneath the existing asphalt and concrete surfaces.

- The footprint of the multi-storey Riverside Car Park has nil to very low Aboriginal archaeological potential, due to the substantial levels of excavation undertaken for its construction, which would have removed all natural soil profiles in this location.
 - The southern bank of the Parramatta River also has nil to very low Aboriginal archaeological potential due to flooding and scouring activities, as well as flood mitigation activities such as land reclamation and sea wall construction, and other significant landscaping management works along the southern foreshore.
 - Portions of the site located on the southern edge of the Holocene floodplain (i.e. near the mapped boundary between the Pleistocene and Holocene deposits) where disturbance has not exceeded 2m below current ground, have low Aboriginal archaeological potential.
- The study area is considered likely to have **high social and spiritual significance** to the local Aboriginal (Dharug) community, however this would be further investigated and confirmed through the RAP review of this draft ACHAR.
 - The study area has high research potential because of its location within the mapped area of the PSB. Should the PSB be present within the study area, and contain a remnant Aboriginal archaeological deposit, the study area may have **high scientific significance** for its ability to contribute knowledge to the archaeological record about Aboriginal occupation of this area of Parramatta and across the PSB itself. (TBC following the results of Aboriginal archeological excavation).
 - Development activities that have potential to impact Aboriginal archaeological deposits and values (i.e. activities that will disturb the ground surface) include bulk excavation works, structural foundation works (i.e. piling), and trenching for services/utilities.
 - The design has made a concerted effort to reduce and avoid impacts within the mapped areas of the PSB and areas of high Aboriginal archaeological sensitivity, by locating below ground impacts within areas of the study area that have already been excavated and/or highly disturbed as much as possible (i.e. within the footprint of the multi-storey carpark), and therefore have low to no potential to contain Aboriginal archaeological deposits.
 - Unavoidable development impacts located within areas of Aboriginal archaeological sensitivity will require mitigation via archaeological investigation.

7.3.2. Recommendations

The following recommendations are made in light of the conclusions above, following from the Aboriginal cultural heritage assessment of Powerhouse Parramatta concept design and proposed development impacts, including Aboriginal community consultation, ethnohistorical

and environmental context, predictive modelling, heritage significance assessment and impact assessment, in accordance with relevant NSW OEH statutory guidelines. It is recommended that:

- As an SSD project, the Powerhouse Parramatta project is exempt from the requirement to seek an AHIP under Section 90 of the NPW Act, however appropriate management and mitigation measures should be applied to the site, namely in the form of:
 1. *Aboriginal archaeological excavation*
 2. *Aboriginal heritage interpretation*
- Aboriginal archaeological excavation works within the study area should be undertaken in accordance with the excavation methodology and research design as developed for and included within this ACHAR (Appendix C).
- The program of Aboriginal archaeological excavation should be coordinated with the historical archaeological investigation works required for the development (as per the *Powerhouse Parramatta —Historical Archaeological Assessment & ARD*, Curio Projects 2020).
- Representatives from the recognised knowledge holder/Indigenous stakeholders as identified through the Aboriginal community consultation process for the project, should be present for and participate in the archaeological investigation works within the Powerhouse Parramatta study area.
- Once archaeological investigation works have been completed within the study area, an Aboriginal Site Impact Recording Form should be submitted to the Aboriginal Planning Section of the NSW DPIE, to update the AHIMS site card for the registered site AHIMS Site #45-6-3192 'Riverbank Square'.
- Following the completion of the Aboriginal archaeological investigation within the study area, a post-excavation report should be prepared detailing the findings and results of the investigation, to be submitted to the project RAPs, and Aboriginal Planning Section of the NSW DPIE for their information and records.
- With respect to Aboriginal intangible heritage values (social and cultural), the Powerhouse Parramatta project presents an opportunity for a positive impact, to be achieved via the installation of Aboriginal cultural heritage interpretation elements within the site, to celebrate and communicate the significance of the site and landscape to the Dharug people, and local Aboriginal community
- Continuing consultation with the identified Indigenous stakeholders should be undertaken throughout the project.

8. References

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APPENDIX A—Aboriginal Community Consultation Log

APPENDIX A—Aboriginal Consultation Log—Powerhouse Parramatta

Stage 1—Notification of project proposal and registration of interest

Stage 1.1—Compilation of a list of Aboriginal stakeholders

STATUTORY BODY	CONTACT	DATE SENT	DATE REPLY	COMMENT
NSW Aboriginal Planning Division (DPIE) Regional Office	Susan Harrison	3.3.2020	3.3.2020	List of all registered groups Greater Sydney.
The Registrar, Aboriginal Land Rights Act		3.3.2020	26.3.20	A search of the RAO has shown that there are currently no Registered Aboriginal Owners in the project area. We suggest you contact the Deerubbin Local Aboriginal Land Council.
National Native Title Tribunal		3.3.2020		Search of NNTT site. No current native title claims or determinations.
Deerubbin Local Aboriginal Land Council (LALC)	Steve Randall	3.3.2020	5.3.2020	Deerubbin registration.
City of Parramatta Council	Steven Ross	3.3.2020	5.3.2020	List of relevant Aboriginal groups
Native Title Services Corp		3.3.2020		
Greater Sydney Local Land Services		3.3.2020		

Stage 1.2—Newspaper Advertisement

NEWSPAPER	DATE PUBLISHED
Parramatta Advertiser	Wed 11 March 2020

A minimum 14 days were allowed for Aboriginal people to respond to the newspaper advertisement (25 March 2020).

Stage 1.3 and 1.4—List of Aboriginal groups/people from Stage 1.1 and 1.2, Aboriginal notification of proposed project and offer to be involved in consultation

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Deerubbin LALC	Kevin Cavanagh	DPIE	19.3.20	5.3.20	
Gandangara LALC	Melissa Williams	DPIE	19.3.20		Reminder sent 3.4.20. 9.4.20 - Darren Duncan called to query if they were in the area. Darren will confirm.
Parramatta City Council Aboriginal Advisory Committee	Parramatta City Council	DPIE	13.3.20	2.4.20	Invitation posted. Registration was from Phil Russo.
Darug Custodian Aboriginal Corporation	Justine Coplin	DPIE	19.3.20	26.3.20	

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Darug Tribal Aboriginal Corporation		DPIE	19.3.20		Invitation posted. Follow up call 3.4.20 and left message.
Darug Aboriginal Cultural heritage Assessments	Gordon Morton/Celestine Everingham	DPIE	19.3.20	2.4.20	Invitation posted.
Darug Land Observations	Jamie and Anna Workman	DPIE	19.3.20		Reminder sent 3.4.20
Darug Aboriginal Land Care	Des Dyer	DPIE	19.3.20	15.4.20	Reminder sent 3.4.20
A1 Indigenous Services	Carolyn Hickey	DPIE	19.3.20	23.3.20	
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrise/ Cheryl Carroll Lagerwey	DPIE	19.3.20		Reminder sent 3.4.20
Corroborree Aboriginal Corporation	Marilyn Carroll-Johnson	DPIE	19.3.20	20.3.20	

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson	DPIE	19.3.20	2.4.20	Invitation posted.
Muragadi Heritage Indigenous Corporation	Jesse Johnson	DPIE	19.3.20	2.4.20	
Bidjawong Aboriginal Corporation	James Carroll	DPIE	19.3.20	30.3.20	Invitation posted 19.3.20 and it was returned to sender. Spoke to James and he provided an email address so invitation was emailed 30.3.20 and he registered immediately.
Kamilaroi Yankuntjatjara Working Group	Phil Khan	DPIE	19.3.20	24.3.20	
Wurrumay Pty Ltd	Kerrie and Vicky Slater	DPIE	19.3.20		Reminder sent 3.4.20
Warragil Cultural Services	Aaron Slater	DPIE	19.3.20		Invitation posted.
Tocomwall	Scott Franks	DPIE	19.3.20	2.4.20	Invitation posted. Follow up call 2.4.20 and it was not received. Sent by email given by Scott 2.4.20 and confirmed registration over the phone and by email.

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Amanda Hickey Cultural Services	Amanda Hickey	DPIE	19.3.20	3.4.20	Reminder sent 3.4.20
Widescope Indigenous Group	Steven and Donna Hickey	DPIE	19.3.20	2.4.20	Invitation posted. Follow up call 2.4.20 – not received . Donna requested Steven be registered, and copy of invitation emailed to address provided by Donna.
Dhinawan Culture & Heritage Pty Ltd	Stephen Fields	DPIE	19.3.20	23.2.20	
HSB Consultants	Patricia Hampton	DPIE	19.3.20		Invitation posted. Follow up call 2.4.20 – not received as address has been changed. Sent by email provided by Patricia.
Rane Consulting	Tony Williams	DPIE	19.3.20		Reminder sent 3.4.20
Anthony Williams		DPIE	13.3.20		Invitation posted. Follow up call 2.4.20 – left voice message. Mail has been returned, Anthony moved out Dec 2019. Left voicemail 14.4.20 asking him for new address or

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
					confirmation if he would like to be registered.
Gunyu	Lylie Ann Bell	DPIE	19.3.20		Reminder sent 3.4.20
Walbunja	Hika Te Kowhai	DPIE	19.3.20		Reminder sent 3.4.20
Badu	Karia Lea bond	DPIE	19.3.20		Invitation posted. Follow up call 2.4.20 – number disconnected and searched google for another contact with no results.
Goobah Developments	Basil Smith	DPIE	19.3.20		Reminder sent 3.4.20
Wullung	Lee-Roy James Boota	DPIE	19.3.20		Invitation posted. Follow up call 2.4.20 – left voice message.
Yerramurra	Robert Parson	DPIE	19.3.20		Reminder sent 3.4.20
Nundagurri	Newton Carriage	DPIE	19.3.20		Reminder sent 3.4.20

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Murrumbul	Mark Henry	DPIE	19.3.20		Reminder sent 3.4.20
Jerringong	Joanne Anne Stewart	DPIE	19.3.20		Reminder sent 3.4.20
Pemulwuy CHTS	Pemulwuy Johnson	DPIE	19.3.20		Reminder sent 3.4.20
Bilinga	Simalene Carriage	DPIE	19.3.20		Reminder sent 3.4.20
Munyunga	Kaya Dawn Bell	DPIE	19.3.20		Reminder sent 3.4.20
Wingikara	Hayley Bell	DPIE	20.3.20		Reminder sent 3.4.20
Minnamunnung	Aaron Broad	DPIE	19.3.20		Invitation posted. Follow up call 2.4.20 – not received. Reposted 6.4.20 to same address as advised by Aaron.
Walgalu	Ronald Stewart	DPIE	20.3.20		Reminder sent 3.4.20

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Thauaira	Shane Carriage	DPIE	20.3.20		Reminder sent 3.4.20
Dharug	Andrew Bond	DPIE	20.3.20		Reminder sent 3.4.20
Gulaga	Wendy Smith	DPIE	20.3.20		Reminder sent 3.4.20
Biamanga	Seli Storer	DPIE	20.3.20		Reminder sent 3.4.20
Callendulla	Corey Smith	DPIE	20.3.20		Reminder sent 3.4.20
Murramarang	Roxanne Smith	DPIE	20.3.20		Reminder sent 3.4.20
DLMD Consultancy	Darren Duncan	DPIE	20.3.20		Reminder sent 3.4.20
Butucarbin Aboriginal Corporation	Jennifer Beale	DPIE	20.3.20		Reminder sent 3.4.20

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Didge Ngunawal Clan	Lillie Carroll and Paul Boyd	DPIE	20.3.20	20.3.20	
Ginninderra Aboriginal Corporation	Steven Johnson and Krystle Carroll	DPIE	20.3.20	3.4.20	Reminder sent 3.4.20
Wailwan Aboriginal Group	Philip Boney	DPIE	20.3.20		Reminder sent 3.4.20
Barking Owl Aboriginal Corporation	Mrs Judy Kulakowski	DPIE	20.3.20	3.4.20	Reminder sent 3.4.20
Yulay Cultural Services	Arika Jalomaki	DPIE	20.3.20		Reminder sent 3.4.20
Thoorga Nura	John Carriage	DPIE	20.3.20		Reminder sent 3.4.20
Barraby Cultural Services	Lee Field	DPIE	20.3.20	3.4.20	Reminder sent 3.4.20
Yurrandaali Cultural Services	Bo field	DPIE	20.3.20	3.4.20	Reminder sent 3.4.20

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Darug Boorooberongal Elders Aboriginal Corporation	Paul Hand	DPIE	20.3.20		Reminder sent 3.4.20
B.H. Heritage consultants	Ralph & Nola Hampton	DPIE	20.3.20		Reminder sent 3.4.20
Ngambaa Cultural Connections	Kaarina Slater	DPIE	20.3.20		Reminder sent 3.4.20
Goodradigbee Cultural & Heritage Aboriginal Corporation	Caine Carroll	DPIE	20.3.20	20.3.20	
Mura Indigenous Corporation	Phillip Carroll	DPIE	20.3.20		No delivery notice received, however confirmation of delivery was received later – 2.31pm. Reminder sent 3.4.20 – this has come back as undeliverable; and phone number provided is disconnected. Cannot locate on a Google search.
Aragung Aboriginal Cultural Heritage Site Assessments	Jamie Eastwood	DPIE	20.3.20	3.4.20	Reminder sent 3.4.20

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
Waawaar Awaa	Rodney Gunther	DPIE	20.3.20		Reminder sent 3.4.20
Clive Freeman (Freeman and Marx)	Clive Freeman	DPIE	20.3.20	21.3.20	
Dharug Ngurra Aboriginal Corporation	Corina	PCC	20.3.20	3.4.20	Reminder sent 3.4.20
Dharug Custodians		PCC	20.3.20		Reminder sent 3.4.20
Burbaga Aboriginal Corporation		PCC	20.3.20		Email address undeliverable, tried to call and left messages on the 20.3.20, 23.3.20 and 31.3.20. Found a contact following google search and posted to Sandra Lee, 154 Hill End Rd Doonside on 31.3.20.
NSW State Aboriginal Land Council	David Lee	PCC	20.3.20		Reminder sent 3.4.20. Another reminder emailed 14.4.20 as David Lee had been on leave and no response has been received as yet. It is confirmed that email had been delivered on the 3.4.20. Received

ORGANISATION/PERSON	CONTACT	HOW NAME WAS OBTAINED	DATE CONTACTED	DATE REGISTERED	COMMENT
					response 14.4. 20 – matter is being referred to Stephen Hynd, Executive Director of Land, Legal and Strategy. Query received from Sharon Close 15.4.20.
Parramatta Koori Interagency	Jayde Kelly	PCC	20.3.20		Reminder sent 3.4.20
Link Up		PCC	20.3.20		Reminder sent 3.4.20
Dharug Strategic Management Group (DSMG)	Michelle Locke	Powerhouse	3.3.20	3.3.20	Automatic registration from Powerhouse process.

A minimum 14 days were allowed for Aboriginal people to register and interest to be consulted.

Stage 1.5—Registered Aboriginal Parties (In Alphabetical Order)

ORGANISATION/PERSON	CONTACT	METHOD REGISTERED	REGISTRATION DATE & COMMENT
A1 Indigenous Services	Carolyn Hickey	Email	22.3.20
Amanda Hickey Cultural Services	Amanda Dezwart	Email	3.4.20

ORGANISATION/PERSON	CONTACT	METHOD REGISTERED	REGISTRATION DATE & COMMENT
Aragung	Jamie Eastwood	Email	3.4.20
Barking Owl Aboriginal Corporation	Mrs Judy Kulakowski	Email	3.4.20 – letter attached requesting their involvement in all fieldwork, excavation, etc.
Barraby Cultural Services	Lee Field	Email	3.4.20
Bidjawong Aboriginal Corporation	James Carroll	Phone	30.3.20 – post returned, follow up call 30.3.20 and invitation sent by email provided by James. Requested registration during phone call.
Butucarbin Aboriginal Corporation	Jennifer Beale	Email	3.4.20
Corroboree Aboriginal Corporation	Marilyn Carroll-Johnson	Email	20.3.20 - Please do not disclose any of our details to LALC nor publish our correspondence for LALC to peruse. Please only note our corporation details i.e. our name and only for registration purposes. Our actual correspondence is only for the proponent and yourself. Just our name as registered stakeholders for the recordings paperwork.
Darug Aboriginal Cultural Heritage Assessments	Celestine Everingham	Phone	2.4.20
Darug Aboriginal Land Care	Mark Dyer	Email	15.4.20
Darug Custodian Aboriginal Corporation	Justine Coplin	Email	26.3.20
Deerubbin LALC	Steve Randall	Email	5.3.2020. Also received email from Stephen Wright 1.4.20.
Dharug Ngurra Aboriginal Corporation	Corina	Email	3.4.20
Dharug Strategic Management Group (DSMG)	Michelle Locke	Email-automatic registration from Powerhouse process	3.3.2020

ORGANISATION/PERSON	CONTACT	METHOD REGISTERED	REGISTRATION DATE & COMMENT
Dhinawan Culture and Heritage	Stephen Fields	Email	23.3.20
Didge Ngunawal Clan	Paul Boyd & Lilly Carroll	Email	20.3.20
Freeman and Marx	Clive Freeman	Email	21.3.20
Ginninderra Aboriginal Corporation	Krystle Carroll-Elliott	Email	3.4.20
Goodradigbee Cultural & Heritage Aboriginal Corporation	Caine Carroll	Email	20.3.20
Kamilaroi Yankuntjatjara Working Group	Phil Khan	Email	24.3.20 – supplied insurances
Merrigarn	Shaun Carroll	Email	2.4.20 – not on contact list. To be followed up for more details.
Muragadi Heritage Indigenous Corporation	Jesse & Anthony Johnson	Email	30.3.20 & 2.4.20
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson	Email	2.4.20
PCC Aboriginal Advisory Committee	Paul Russo	Email	2.4.20 - if you need further information regarding my application to register I suggest you contact Ellen Ross.at PCC. Phil's email – prusso34@optusnet.com.au
Tocomwall	Scott Franks	Phone and email	2.4.20 – registered during follow up call and invitation resent by email. Raised query regarding the NSW APIC policy.
Widescope Indigenous Group	Steven and Donna Hickey	Phone	2.4.20
Yurrandaali Pty Ltd	Bo Field	Email	3.4.20

APPENDIX B—Aboriginal Consultation Correspondence

THIS APPENDIX HAS BEEN OMITTED FOR EXHIBITION DUE TO CONFIDENTIAL INFORMATION

APPENDIX C—Aboriginal Archaeological Excavation Methodology

The following Aboriginal archaeological excavation methodology and research design has been developed to investigate the nature and extent of the Aboriginal archaeological potential within the impact zones of the proposed development.

Aims

The aims of archaeological test excavation within the Powerhouse Parramatta study area are to:

- Identify the presence/absence and condition (including boundary, extent and intactness) of the PSB within the study area.
- Determine the nature, depth, extent, and significance of any potential Aboriginal archaeological deposits within the study area (should they be found to be present).
- Salvage a reasonable sample of any Aboriginal archaeological deposits that may be present within the footprint of the development impacts—to which impact via proposed works will be unavoidable—prior to commencement of development works.
- Provide data for the overall archaeological record to help refine future archaeological predictive modelling across the Parramatta region (if possible).

The proposed archaeological excavation methodology as outlined below, has been designed

Methodology Rationale

In the interest of best practice principles for archaeological investigation (i.e. the concept of archaeology as a finite resource which should be retained without disturbance where possible), the proposed locations of archaeological test trenches have been focused mainly in areas with potential for development activities to encounter (and therefore impact) the PSB and the potential Aboriginal archaeology contained within it, and has avoided areas where below ground development impact is not required.

While the opportunity presented by these sub-surface investigations to further our understanding of the nature and location of the PSB in this location is acknowledged (and therefore addressed within the sampling strategy and excavation methodology proposed here), it is inappropriate and unnecessary to disturb soil profiles more than necessary, solely in the interest of archaeological research. It is argued that the archaeological investigation of development impact areas will be sufficient both to understand the nature of the potential impact of the development, as well as to further the archaeological record and understanding for the locality, without additional unnecessary impact.

Further, the Aboriginal archaeological investigation will be coordinated with a program of historical archaeological test excavation, the locations of which are also predicated on development impact locations. Therefore, unnecessary Aboriginal archaeological excavation in areas not proposed to be subject to development impact, would potentially cause impact to historical archaeological resources- which otherwise would be able to be retained without disturbance.

Archaeological Sampling Strategy

Aboriginal archaeological investigation of the Powerhouse Parramatta study area is proposed to be undertaken in two phases:

1. Initial testing of the Aboriginal archaeological potential of the main impact zones of the study area (Phase 1) with an aim to identify the presence or absence of intact subsurface profiles of the PSB and any associated Aboriginal archaeological deposit that may be present; and
2. Guided by the results of the initial testing (Phase 1), Phase 2 (salvage excavation) is proposed to be undertaken within development impact zones in order to recover the entirety of any Aboriginal archaeological deposit within the study area that requires impact through the proposed development works.

Phase 1 investigation is initially proposed to proceed as the excavation of a series of 1m x 1m test pits to be positioned—where possible within the footprint of development impacts—on a staggered offset grid at 10-20m intervals. Where the extent and footprint of below ground development impacts do not allow the establishment of an excavation grid, 1m x 1m test pits would be positioned to match with localised development impacts (i.e. within the footprint of each pile, lift pits etc). Where service trenching is located within zones of high and moderate Aboriginal archaeological sensitivity, test excavation would proceed as a linear transect at 10-20m spacing along the length of the trench, as a series of 1m x 1m test pits. The exact location and number of Phase 1 test pits to be excavated within the study area would be refined following confirmation of development impacts as per the final concept plan, and determined in the field allowing flexibility to incorporate the physical parameters of the study area, and specifically target location of development impacts within zones of Aboriginal archaeological sensitivity. Phase 1 test excavation would focus on investigating the nature and extent of the PSB within the study area, including investigation of the mapped boundary between the PSB and Holocene soils.

Natural soil profiles within the study area have potential to be unstable and of considerable depth, meaning that WHS conditions may prove excavation of 1m² test trenches to be impractical in some areas of the site. Therefore, this sample strategy also makes an allowance for test pit sizes to be increased if necessary, to ensure that deeper deposits (if encountered) could be logistically and safely investigated. For example, establishment of a 2m x 2m test trench would allow for safe excavation to depth of 1.2m below the ground surface. Additional 1m² test trenches may be added to the Phase 1 excavation program in locations nominated by the Excavation Director if determined to be warranted based upon the results of the excavation noted during the program.

Figure 1 below presents the proposed development impacts as located within high and moderate areas of Aboriginal archaeological sensitivity, with indicative locations of the possible test pit grid indicated by blue squares. As shown in this figure, Phase 1 test excavation works would be focused in the centre-west of the study area (i.e. excavation works proposed for the western building), with additional test pits beneath the footprint of the eastern building targeted

to piling/lift pit locations. The location of test pits as shown in Figure 1 are *indicative only*, the exact trench locations and number of test pits would be finalised in the field, subject to some flexibility at the time of excavation as necessary in order to respond to local landscape features (i.e. stability of the soil profiles encountered, presence of previous disturbance within the study area such as existing services, location in combination with historical archaeological investigations etc). Phase 1 excavation would aim to excavate approximately 34 x 1m x 1m test pits. However, should a lesser number of test trenches be sufficient to adequately answer the research questions, Phase 1 investigative works would be considered complete without reaching this higher number of trenches proposed. Should excavation works find 34 to be insufficient to meet research aims, additional test pits could be undertaken, relevant to the location of impact works, to be discussed and agreed upon in the field by the Excavation Director, project RAP representatives, and client/construction contractor.



Figure 1: Development Impact areas requiring Aboriginal archaeological investigation (Source: Curio 2020)

Consideration of Historical Archaeology

The study area also has potential for historical archaeological deposits to be present (Curio Projects 2020, Historical AA and ARD), which are proposed to be mitigated via the excavation of historical archaeological test trenches, as depicted in Figure 2. As both historical and Aboriginal archaeological potential occurs in combination within the study area—particularly across the southern areas of the study area—any Aboriginal archaeological investigation within the study area should be undertaken in tandem and/or coordinated with the historical archaeological investigation.

Historical archaeological trenches located in areas of nil to low Aboriginal archaeological potential (i.e. historical test trenches 1, 2, 7 and 8, Figure 3) can proceed without directly Aboriginal archaeological monitoring or coordination, only requiring Aboriginal archaeological advice/supervision, should a suspected natural soil profile be encountered within these

trenches. Excavation of historical archaeological trenches located in areas of high Aboriginal sensitivity (Figure 3) should be monitored by an Aboriginal archaeologist and project RAP representative, with the opportunity to initiate an Aboriginal archaeological test pit through the base of the historical test trench, particularly in the case that natural soil profiles are encountered in the location.

Should historical archaeological excavation as guided by the Historical ARD encounter any displaced Aboriginal objects within historical archaeological deposits, the Aboriginal archaeology Excavation Director, and project RAPs would be informed. Any displaced Aboriginal objects within historical contexts would be recorded in their location, and removed, to be catalogued and analysed in accordance with the Aboriginal archaeological methodology outlined below.

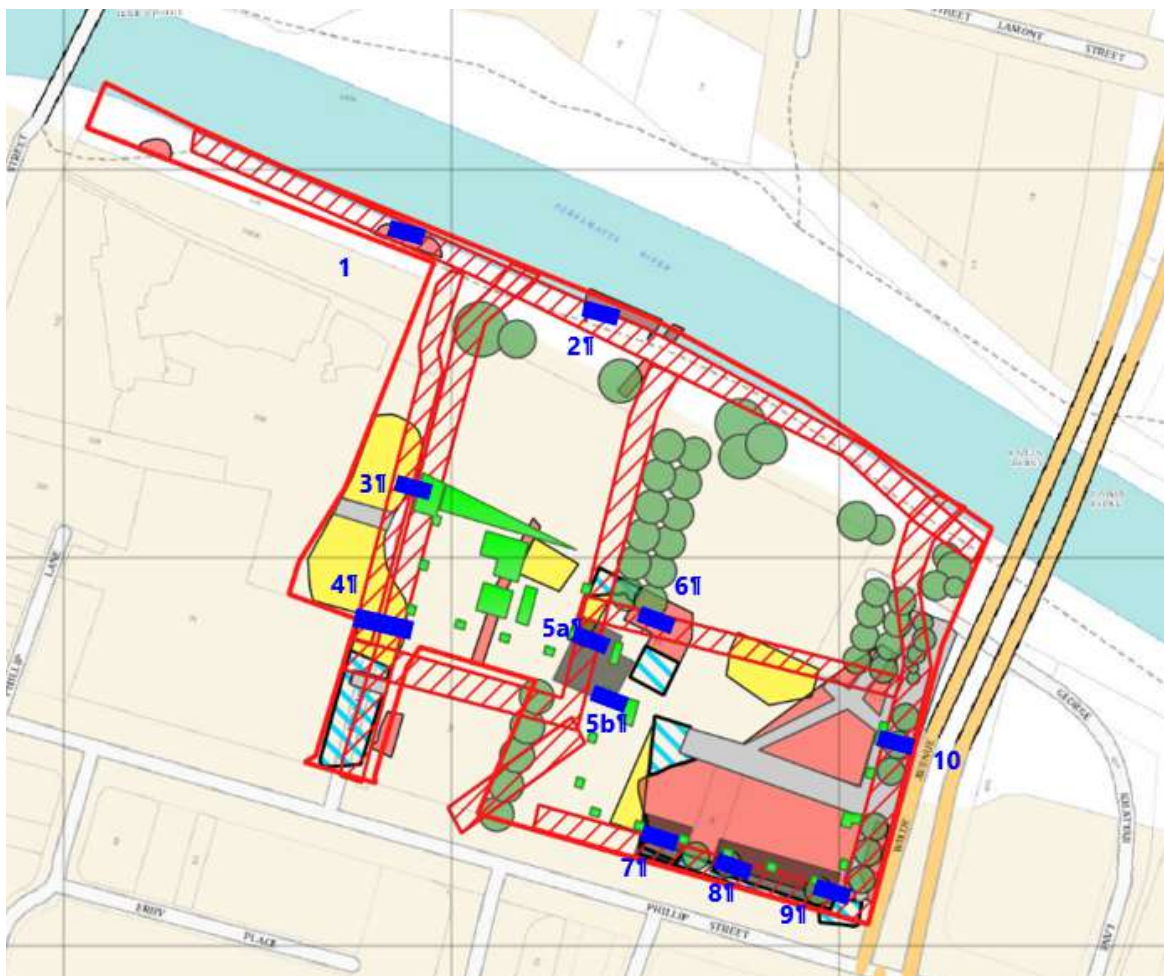


Figure 2: Proposed Historical Archaeological Test Trenches and Significance (Source: Curio ARD 2020)

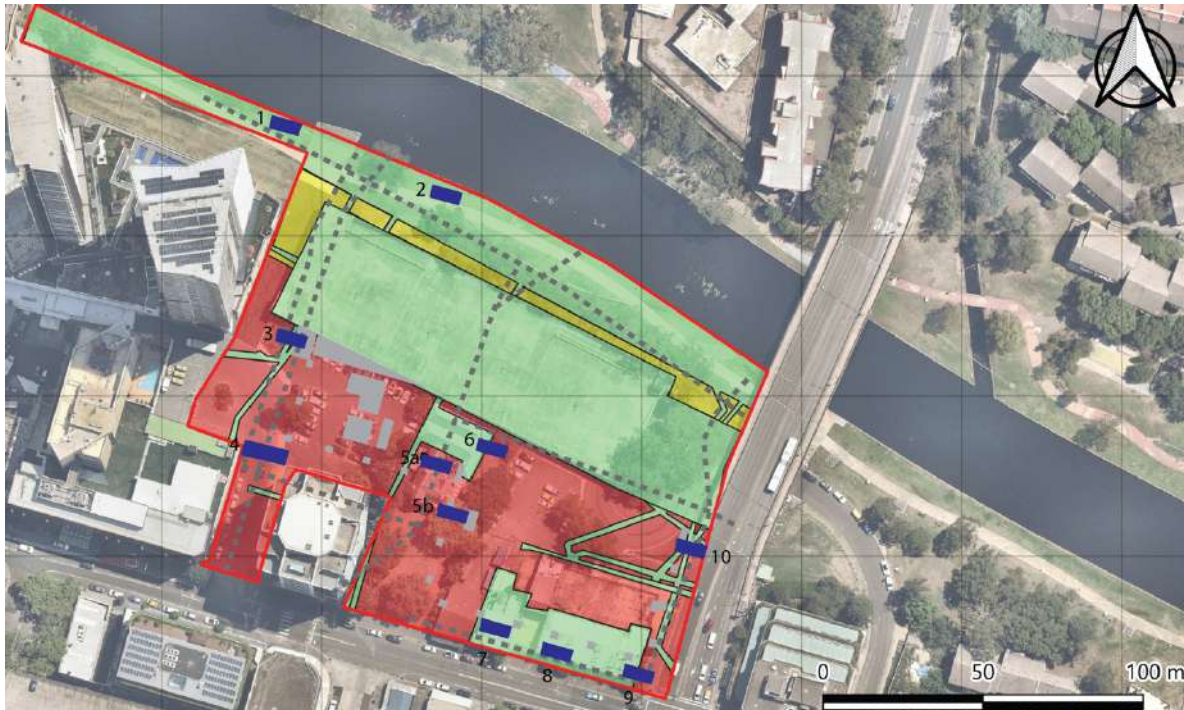


Figure 3: Proposed Historical Archaeological Test Trenches over Aboriginal archaeological sensitivity (Source: Curio 2020)

Excavation Methodology

All Aboriginal archaeological works would be undertaken by a suitably qualified and experienced archaeologist as Excavation Director, to be assisted in the field by archaeologists and representatives from the project RAPs.

Phase 1 archaeological investigation would be undertaken as per the following methodology:

- Careful removal of any imported materials (e.g. gravel road base, concrete slab) or historical fill on top of the natural soil/sand deposits from the area of the excavation pit without disturbing the surface of the underlying natural deposits prior to the start of the excavation works. Removal of historical fill could be undertaken with the assistance of a small mechanical excavator, to be supervised by a suitably qualified archaeologist to avoid mechanical impact below the layer of historical fill.
- Following the removal of imported materials/fill, archaeological excavation of natural soil profiles within the parameters of each identified test trench would proceed using hand excavation techniques (hand tools only).
- Excavation of test trenches would proceed in 0.5m x 0.5m quadrants in 100mm spits, unless a shallower depth is defined by natural soil profiles or other stratigraphy/features identified.
- Where necessary to meet WHS conditions, excavation of contiguous test trenches would be undertaken, with maximum continuous surface area to be no greater than 3m².
- Undertake shoring of pits as necessary to support trench walls and ensure safe conditions for archaeological team.

- Excavation of each test trench would continue until it is determined that the soil profile in the location is archaeologically sterile.

Should Phase 1 excavation encounter a significant Aboriginal archaeological deposit in any location that requires impact through the proposed development works, archaeological works would progress to Phase 2 salvage excavation within the development impact footprint. A significant Aboriginal archaeological deposit is defined for these purposes as:

- Higher relative number of Aboriginal artefacts;
- Evidence of the Parramatta Sand Body;
- Potential hearths or heat treatment pits;
- Presence of significant, rare or unusual artefact types (e.g. backed blades, axe heads);
- Material potentially appropriate for scientific dating; or
- Any other unusual or unique archaeological, cultural, and/or geomorphological features, as identified by the Excavation Director.

Phase 2 archaeological works would include the expansion of the Phase 1 test trench via the excavation of one adjoining 1m x 1m excavation pit in order to investigate and salvage the full extent of the feature encountered, to the extent of the footprint of the development impact zone.

All archaeological deposits recovered from either phase of the Aboriginal archaeological investigation would be subject to the following procedures:

- All deposits excavated will be individually sieved through a 5mm aperture wire-mesh sieve, and any archaeological material recovered, retained by provenance.
- The location of each test trench (or salvage area) will be recorded by GPS, and recorded in detail including stratigraphic/soil profile description and drawings, description of any relevant features, artefacts etc, and photographed using a DSLR camera and appropriate photoscale.
- If carbon or other features suitable for scientific dating are identified, these would be sampled for possible further analysis (e.g. C-14 dating or OSL dating).
- Sampling of representative soil horizons from each archaeological excavation location.
- Stone artefact analysis will be undertaken in accordance with OEH Code of Practice requirements, and current accepted academic texts for stone artefact analysis and recording in southeast Australia, i.e. Holdaway and Stern 2004.
- A post-excavation report detailing the results of the Aboriginal archaeological investigation works within the study area would be prepared and submitted to the Aboriginal Heritage Section of the NSW DPIE, consistent with best practice for preparation of post-excavation reporting. The report would be provided to all project RAPs for their information.

- Following completion of Aboriginal archaeological excavation within the Powerhouse Parramatta study area, an Aboriginal Site Impact Recording Form with the results of the excavation would be completed and submitted to the AHIMS Registrar for AHIMS 45-6-3192-‘Riverbank Square’.

Aboriginal Artefact Analysis

Any Aboriginal artefactual material recovered from the excavation works would be subject to a descriptive and functional recording and analysis by appropriately qualified and experienced specialists (lithic and/or shell specialist, depending on the nature of any archaeological deposit encountered). Recorded attributes and features of all archaeological material would consider analysis methodologies from previous archaeological investigations on the PSB to allow comparative analysis of deposits (as much as possible).

Geomorphology

A suitably qualified geomorphologist and/or geo-archaeologist may be engaged as a specialist if necessary in order to examine and analyse the nature of the PSB soils (if encountered) and to report on site formation processes and any implications for potential age and integrity of archaeological deposits encountered.

Research Design

Several research questions have been developed in order to inform the primary aims of the Aboriginal archaeological investigation within the Powerhouse Parramatta study area, namely to:

1. investigate the presence of the PSB within the study area (and the boundary, extent and intactness if found to be present);
2. to identify any locations with Aboriginal stone objects (or other sites) within the study area;
3. to salvage a reasonable sample of any Aboriginal archaeological deposits that may be present within the footprint of the development impacts, prior to commencement of development works; and
4. to contribute to the archaeological record for Aboriginal occupation of the Parramatta Sand Body.

Key research questions for the proposed archaeological investigation of the study area include:

- What is the nature, extent, integrity and intactness of the PSB across the study area (if present)?
- Does the Powerhouse Parramatta study area represent an intact stratified Aboriginal archaeological deposit within the alluvial sand profiles of the PSB along the southern bank of the Parramatta River?
 - If so, to what nature and extent is this deposit present? What is the condition and integrity of this deposit? Can this deposit be dated? How does it compare with other deposits recovered from previous nearby archaeological excavations?

- Is there any evidence for long term occupation of the PSB by Aboriginal people in this location (i.e. Pleistocene deposits)?
- Can the natural soil profiles inform a geomorphological context of the study area? If so, how?
- How can the Aboriginal archaeological deposit (if recovered) be interpreted in a local and regional context?
- Is the archaeological deposit (if encountered) culturally and/or publicly significant? To what extent?

APPENDIX D—Extensive AHIMS Search Results

THIS APPENDIX HAS BEEN OMITTED FOR EXHIBITION DUE TO CONFIDENTIAL INFORMATION

APPENDIX E—Glossary of Technical Terms

TERM	DEFINITION
Aboriginal Object	“Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains” (DECCW 2010:18).
Aboriginal Place	“A place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture” (DECCW 2010:18). Aboriginal places are gazetted by the minister.
Archaeological survey	A method of data collection for Aboriginal heritage assessment. It involves a survey team walking over the land in a systematic way, recording information about how and where the survey is conducted, recording information about the landscape and recording any archaeological sites or materials that are visible on the land surface. The activities undertaken by a survey team do not involve invasive or destructive procedures, and are limited to note taking, photography and making other records of the landscape and archaeological sites (e.g. sketching maps or archaeological features). (From DECCW 2010: 37)
Exposure	Estimates area with a likelihood of revealing buried artefacts or deposits rather than just an observation of the amount of bare ground. The percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence of the surface of the ground. (From DECCW 2010: 37)
In Situ	Anything in its natural or original position or place is said to be in situ.
Knapping	The process of manufacture of stone tools.
PAD	Potential Archaeological Deposit. Nature of potential site yet unknown, environmental, archaeological and cultural modelling suggests the location has potential for a subsurface archaeological deposit to be present.
Test Unit	Location identified for archaeological test excavation
Study Area	Development/project area to which this report, the information, discussion and assessment presented within, directly refers to.



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