

225-245 Martin Road,
Bradfield | Rehab,
Quarrying & Bulk
Earthworks – SSD
97711727

Aboriginal Cultural Heritage
Assessment Report

LGA: Liverpool

Report to Goodman Property Services
(Aust) Pty Ltd

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EXECUTIVE SUMMARY

This Aboriginal Cultural Heritage Assessment Report (ACHAR) (with salvage and test excavation methodology in appendices) has been prepared by Lily Hackett (Senior Heritage Consultant, Artefact Heritage), Ryan Taedducci (Principal, Artefact Heritage) to address the site-specific Secretary's Environmental Assessment Requirements (SEARs) received in respect of the proposed State Significant Development Application (SSDA) No. 97711727. The proposed development is being undertaken by Goodman Property Services (Aust) Pty Ltd (Applicant) on behalf of Goodman Western Sydney Pty Limited as trustee for the Goodman Western Sydney Trust (Owner). The development is located at 225 – 245 Martin Road, Bradfield, 2556 (the Site).

SSDA No. SSD-97711727 (rehabilitation, quarrying and bulk earthworks) has been proposed by the applicant for site preparation works only (i.e no buildings, retaining walls or other infrastructure works), including the rehabilitation of areas disturbed by historic mining and brick-making operations, as well as remediation and bulk earthworks across other areas of the site to make the site suitable for intended future land use. The proposed application also seeks approval for demolition of any remaining structures on the Site.

A separate SSD (No. 97688711) seeks approval for the construction, fit-out (including office and standard warehouse racking) and operation of 14 warehouse buildings, Active Open Space & amenities precinct (including a café) and internal site infrastructure works. Works for the separate SSD will not be completed until the works envisaged under SSD-97711727 (as detailed in this ACHAR) have been implemented. SSD-97711727 works will be conducted after the bulk earthworks included in the subject SSD.

This ACHAR has been prepared to support the SSD- 97711727 application. The Secretary's Environmental Assessment Requirements (SEARs) issued on 26 November 2025 outline that Aboriginal Cultural Heritage assessment would be required to inform the Environmental Impact Statement (EIS) for the development proposal. This ACHAR meets the Aboriginal Cultural Heritage requirements of the project SEARs:

Key statutory framework

Where addressed

SEARs issued 26 November 2025

Heritage – including an Aboriginal Cultural Heritage Assessment Report (ACHAR), prepared in accordance with relevant policy and guidelines, identifying, describing and assessing any impacts to Aboriginal cultural heritage sites or values associated with the project.

The ACHAR must: - be prepared in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010), including results of thorough archaeological survey and test excavations (where required); - include evidence of adequate and continuous consultation with Aboriginal stakeholders in determining and assessing impacts, developing and selecting options for avoidance of Aboriginal cultural heritage; and mitigation measures (including the final proposed measures), having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010); and - address the Recognise Country: Guidelines for development in the Aerotropolis (2022).

This report
Consultation records
included in Appendix E

Heritage NSW input to SEARs SSD-97711727 – 29 October 2025

Heritage NSW recommends that the following Secretary's Environmental Assessment Requirements be included with respect to Aboriginal Cultural Heritage in relation to the proposed SSD-97711727).

- The Environmental Impact Statement should be informed by an Aboriginal Cultural Heritage Assessment Report, prepared in accordance with relevant policy and guidelines to identify, describe and assess any impacts to Aboriginal cultural heritage sites or values associated with the project. The Aboriginal Cultural Heritage Assessment Report must be prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* <https://www.environment.nsw.gov.au/publications/guide-investigating-assessing-and-reporting-aboriginal-cultural-heritage-new-south-wales> and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* <https://www.environment.nsw.gov.au/publications/code-practice-archaeological-investigation-aboriginal-objects-nsw>, including results of archaeological survey and test excavations (where required) undertaken in accordance with the relevant standards and requirements.;
- Include evidence of adequate and continuous consultation with Aboriginal parties in relation to determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation measures (including the final proposed measures) in substantial compliance with the consultation process outlined in the *Aboriginal cultural heritage consultation requirements for proponents* <https://www.environment.nsw.gov.au/publications/aboriginal-cultural-heritage-consultation-requirements-proponents>.

This report
Consultation records
included in Appendix B

Liverpool city council advice on SEARs SSD-97711727 – 10 November 2025

4. Heritage

An Aboriginal Cultural Heritage Assessment is to be prepared and submitted in accordance with Section 4.3, Clause RC2 of the Western Sydney Aerotropolis Precinct Plan. The Aboriginal Cultural Heritage Assessment is to assess both the tangible (objects) and intangible (stories, knowledges and practices) associated with the land and develop appropriate management, mitigation and interpretation strategies and outcomes.

Note: This report is more detailed than the traditional Aboriginal Cultural Heritage Assessment which typically only refers to Aboriginal Objects.

A Heritage Interpretation Strategy is to be prepared for the site considering the Aboriginal and Non-Aboriginal history of the site and identify appropriate interpretive mediums which can be implemented across the various buildings and the public domain.

A detailed Recognise Country Strategy is to be prepared for the site in accordance with the Recognise Country Guidelines for Development in the Aerotropolis, FPIC principles and Ask First. The strategy is to define the principles and objectives to guide the redevelopment of the site based on Aboriginal Co-Design and meaningful consultation. The strategy is to establish a framework to guide the design and delivery of the estate including all buildings and civil works.

Bradfield Development Authority input to SEARs SSD-97711727

The Authority supports the consultation that has occurred with Traditional Custodians in development of the proposed bulk earthworks and remediation strategy and encourage continual engagement to ensure Country-led objectives are prioritised. Consultation records included in Appendix E

Multiple Aboriginal archaeological assessments have been conducted within the study area under existing State Significant Development (SSD) MP10_0014 - Badgerys Creek Quarry & Brickworks. Since the acquisition of the land, the new SSD application is proposed to include conditions of consent to harm the existing BCBW18 Artefact Scatter 02 (AHIMS ID 45-5-5164) within the proposed works area. The site is an in-situ, subsurface artefact scatter (21 artefacts) and hearth feature that was identified by Artefact in an ACHAR (2019) prepared for MOD3 and MOD4 of MP10_0014 for the same study area. The site is considered to be of high archaeological significance. To support harm through salvage excavation to BCBW18 AS 02 (AHIMS ID 45-5-5164), this ACHAR has been prepared in consultation with the Aboriginal community. The SSD will also seek approval to undertake proposed works within AHIMS ID 45-5-4099 and test excavation of adjacent Potential Archaeological Deposit (PAD), previously identified by AECOM (2011).

Summary table of approved harm under MP10_0014 relevant to this SSD application and SSD 97711727 proposed works is provided below. The previous operations within the study area under the project approval MP10_0014 authorised archaeological investigations and salvage of several of the Aboriginal sites identified during earlier assessments within the quarry footprint, several of which have since been impacted and no longer valid as summarised below.

Summary table of approvals and applications for the current study area

Where addressed in this ACHAR

Previous approvals and restrictions under MP10_0014 (development consent relevant to current AHIMS sites included only)

29. The Applicant must ensure that:

- (a) archaeological salvage of site BC-01-09 (AHIMS ID 45-5-0498) is undertaken in accordance with Recommendation 1, Section 6.0 of the Aboriginal Heritage Assessment – Addendum in the EA; and
- (b) regeneration works, dewatering activities and water discharges in the area of the archaeological deposit identified adjacent to Badgerys Creek (see Appendix 5) are either avoided, or else undertaken in a manner that will minimise harm to Aboriginal objects, to the satisfaction of the Secretary; and
- (c) measures are implemented prior to the commencement of Phase 1, to conserve and protect the hearth feature within site BCBW18 AS 02 02 (AHIMS ID 45-5-5164).

AHIMS ID 45-5-0498 was addressed as assumed destroyed when undertaking survey for this ACHAR in May 2025.

Appendix 6 Statement of Commitments

- All Aboriginal heritage items collected during survey and test excavations will be reburied with the hearth in consultation with the RAPs

Note that the artefacts collected during CSR 2019 and 2021 MOD 3 and MOD4 amendments have not yet been reburied, an indicative proposed location for the reburial has been included in the appendices subject to further consultation with RAPs.

Application for approvals for harm included in SSD 97711727 application (this ACHAR)

The purpose of the ACHAR is to support the new SSD application (97711727), which will include permission to harm the following sites:

- Salvage excavation of BCBW18 AS 02 (AHIMS ID 45-5-5164)
- Harm to AHIMS ID 45-5-4099
- Harm to PAD along Badgerys Creek

A search of the AHIMS database resulted in six sites located within the study area. Based on the results of the site inspection undertaken in May 2025 the following sites were considered valid within the study area:

- AHIMS ID 45-5-4099
- AHIMS ID 45-5-2704
- AHIMS ID 45-5-5164

The following sites were considered destroyed through natural process and an Aboriginal Site Impact Recording Form (ASIRF) had been lodged for each site following an archaeological survey:

- AHIMS ID 45-5-4098
- AHIMS ID 45-5-5165
- AHIMS ID 45-5-5162

Therefore, following the site inspection only 3 AHIMS sites are currently valid and located within the study area. These sites have not been previously approved for salvage under MP10_0014. Avoidance has been reviewed and achieved where possible, however the proposed development is being completed in accordance with the Western Sydney Aerotropolis Precinct Plan (2024) which is in force under the provisions of State Environmental Planning Policy (Precincts – Western Parkland City) 2021, Chapter 4 Western Sydney Aerotropolis (WPC SEPP). It prescribes the location of roads and permissible building locations on the site.

A total of 21 Registered Aboriginal Parties (RAPs) registered their interest to the project. All of the RAPs agreed with the ACHAR methodology. One RAP highlighted the high cultural significance of BCBW18 AS 02 (AHIMS 45-5-5164) and requested avoidance should remain the preferred management option where feasible, with salvage or relocation only considered following consultation and agreement with RAPs. RAP comments and feedback were incorporated into this final ACHAR and excavation methodologies (Appendix B and C)

The study area holds historic significance through the identification of past Aboriginal activity and land use evidenced by low-density artefact scatters that indicate sustained occupation and cultural practices. However, no specific historical, aesthetic, social or cultural values have been identified, with the exception of the highly culturally significant hearth BCBW18 AS 02 (AHIMS ID 45-5-5164) as a culturally valued record of continuity and connection with the landscape. Overall, while the hearth feature is of high significance, the remaining study area was assessed as overall low significance. In accordance with the Aerotropolis guidelines, a Connecting with Country process has been undertaken and traditional custodians have been consulted in regard to the proposed development and cultural impacts, this has not been included in the Aboriginal Cultural Heritage Assessment Report

Summary of findings

- A total of three AHIMS registered sites are located within the study area. One area of PAD is also located within the study area. These include:
 - AHIMS ID 45-5-4099 – Comprises a subsurface artefact scatter of low archaeological and scientific significance.
 - AHIMS ID 45-5-2704 – Comprises a surface artefact scatter of low archaeological and scientific significance.
 - AHIMS ID 45-5-5164 -Comprises a subsurface artefact scatter and hearth feature of high archaeological and scientific significance.
 - PAD area adjacent to Badgerys Creek in the west.
- Two of the AHIMS sites (AHIMS ID 45-5-5164, AHIMS ID 45-5-4099), and the PAD along Badgerys Creek will be directly impacted by the proposed works.

Recommendations

- Archaeological test excavation within the PAD adjacent Badgerys Creek should be undertaken as per the test excavation methodology included in appendix B of this report.
- SSD condition of consent must be obtained prior to the salvage excavation and relocation of AHIMS ID 45-5-5164 and harm to AHIMS ID 45-5-4099 as per the salvage excavation methodology included within appendix C of this report. Sites cannot be harmed under the existing consent (MP10_0014).
- Additional areas for salvage excavation may be identified following completion of test excavations within the PAD adjacent Badgerys Creek, in which the salvage excavation methodology will be revised, or a new salvage excavation methodology will be prepared.
- All sites should be included on all maps and plans for the project until further permits approving harm is obtained.
- A heritage induction must be prepared for contractors prior to commencing works. This induction should include the Unexpected Finds Procedure, as well as an outline of the legislative framework and penalties for harming Aboriginal sites without the appropriate consent as part of the SSDA (under Part 4.1 of the EP&A Act) prior to any proposed works undertaken.
- Any changes to the project should be assessed by an archaeologist in consultation with the RAPs. Any changes that may impact on Aboriginal sites not assessed as part of the project may warrant further investigation and result in changes to the recommended management and mitigation measures.

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NOTE ON LANGUAGE IN QUOTES

A number of quotes used in this report come from documents written in the nineteenth and twentieth centuries by European observers. They have been included because they provide information on the lives of Aboriginal people in the region, though the language used and views expressed by these writers can be offensive and distressing.

GLOSSARY OF TECHNICAL TERMS

Aboriginal cultural heritage: The material (objects) and intangible (mythological places, dreaming stories etc) traditions and practices associated with past and present day Aboriginal communities.

Aboriginal object: Any deposit, object or material evidence (not being a handicraft made for sale), including Aboriginal remains, relating to the Aboriginal habitation of NSW.

Aboriginal place: Any place declared to be an Aboriginal place under s.94 of the *National Parks and Wildlife Act 1974*.

Aboriginal stakeholders: Members of a local Aboriginal land council, Aboriginal groups or other Aboriginal people who have registered their interest with the RTA to be consulted about a proposed RTA project or activity

AHIMS: Acronym for 'Aboriginal heritage information management system'. AHIMS is a register that contains information about NSW Aboriginal heritage, and it is maintained by Heritage NSW.

Alluvium: A deposit left by the flow of water. It can include sediments of gravel, mud or sand.

Angular fragment: A flaked piece of stone that does not have characteristic features which allow for it to be positively identified as a flake, core or tool.

Archaeological site: A location that has evidence of past Aboriginal activity (both material and mythological/ritual).

Archaeology: The scientific study of human history, with focus on material remains and ethnographic evidence.

Area of archaeological sensitivity: A part of the landscape that contains demonstrated occurrences of cultural material. The precise level of sensitivity will depend on the density and significance of the material.

Artefact: An item of cultural material created by humans.

Artefact scatter: Where two or more stone artefacts are found within an area of potential archaeological deposit or a site.

Backed blade/ artefact: Bladelets that have one edge blunted by steep retouch to form a back.

Basalt: A common volcanic rock. It is fine grained (approximately 45-50 per cent silica) and rich in iron and magnesium.

Baseline: A line that is the base for measurement or for construction

Bedrock: A consolidated rock that is unbroken and un-weathered, located beneath soil or rock fragments.

Bifacial flaking: The removal of flakes from two faces of a single platform.

Bipolar: A method of flaking stone, especially quartz, where cores are rested upon an anvil during flaking.

Bipolar core: A core used to create bipolar flakes.

Blade: A stone flake that is at least twice as long as it is wide.

Bioturbation: Disturbance in soil profiles caused by living organisms, such as ants and roots.

Bora ground: These are usually identified as flat, mounded earth rings that were used for Aboriginal ceremonial activities.

Bulb of percussion: A partial cone of force produced when a flake is struck off a core. The cone occurs on the ventral (inside surface) of the flake.

Burials: Burial sites may be composed of a single burial, isolated individuals in a general area, or cemeteries containing many individuals.

Carved/ modified trees: Carved trees exhibit evidence of purposeful removal of bark but differ from scarred trees in that geometric patterns and figures are cut into the tree. The motifs of the mid-north coast region are mostly linear geometric patterns (Craib and Bonhomme 1995: 27).

Chalcedony: A mineral with high silica content that has a microcrystalline structure. It is often described as 'waxy' and can be translucent. It is found in a variety of colours such as white, grey, greyish-blue or brown.

Chert: A fine grained rock composed of cryptocrystalline silica. It exhibits a range of textures and colours including red, green or black. Chert is easy to work and retains a sharp edge for an extensive period of time before resharpening is required. It has a low to medium fracture toughness.

Clast: A broken fragment of rock or crystal particle that was created either through erosion or weathering.

Clay: A type of sediment with particles less than 4 microns in size and that is composed of clay minerals (Keary 2001: 49).

Conglomerate: Is a geological term used to describe clasts that are cemented in a fine-grained matrix. It is a sedimentary rock.

Core: A stone piece from which a flake has been removed by percussion (striking it) or by pressure. It is identified by the presence of flake scars showing the negative attributes of flakes, from where flakes have been removed.

Cortical platform: This term is used to describe a platform that has cortex present and may indicate that the core's surface (where the flake was struck) was previously un-worked.

Cortex: The outer weathered surface of stone; if smooth, it can indicate the source of stone was a pebble.

Crushed platform: This term is used to describe a flake that has a damaged platform and where the platform's attributes cannot be recorded as a result.

Cultural heritage assessment report: A report combining an Aboriginal archaeological assessment and Aboriginal cultural assessment, required to be submitted to DECCW for any Part 6 *National Parks and Wildlife Act 1974* approval or prepared for projects under Section 5.1 of the *Environmental Planning and Assessment Act 1979* where Aboriginal cultural heritage is identified as a key issue.

Debitage: Small, unmodified flakes produced as part of the flaking process, but discarded unused.

Distal: Term of view used to describe the lower portion of a flake in respect to where the striking force terminates.

Distal flake: A broken flake with the presence of a termination and the absence of a platform or impact point.

Dorsal: The side of a flake that was originally part of the core's outer surface (often referred to as the 'dorsal surface').

Easting: This is a measurement used to determine location. The easting is the x-coordinate and relates to the vertical lines on a map, which divide east to west. It increases in size when moving further east.

Edge damage: Where the edge of a tool has been used, resulting in microscopic fractures along the surface.

Exposure: The level of ground exposure is based on whether the landform is eroding, aggrading or stable.

Faceted platform: A faceted platform has three or more flake scars present on its surface.

Feather termination: A feather termination has a 'minimal thickness at the distal end and an acute angle between the dorsal and ventral surfaces' (Holdaway and Stern 2008: 129). In appearance, a feather termination becomes gradually thinner towards the end of the flake.

Fine grained siliceous material: A rock that has a high content of silica and that is fine grained in appearance without any further identifying characteristics.

Flake: A stone piece removed from a core by percussion (striking it) or by pressure. It is identified by the presence of a striking platform and bulb of percussion, not usually found on a naturally shattered stone.

Flake scar: Often called a 'negative flake scar', it is the remnant of a previous flake that was struck from the core. This appears on the dorsal surface of a flake.

Flaked fragment: This is a chipped stone artefact which cannot be classed as a flake, core or retouched flake, the reason being that the defining attributes are missing. This often happens when a core contains a number of incipient fracture planes. Artefacts that are heavily weathered or which have been shattered in a fire are also difficult to categorise.

Flaked platform: This term is used to describe a platform that has been worked previously; one or more flakes were removed prior.

Floodplain: The area covered by water during a major flood and/or the area of alluvium deposits laid down during past floods.

Fluvial: Pertaining to or produced from a river.

Focalised platform: A small platform that is intentionally prepared for percussion by overhang removal.

Footprint: The scale, extent or mark that a development makes on the land in relation to its surroundings.

Geometric microliths: Backed at one end, the other end or both, these tools are made on geometric shaped flakes, <80 mm maximum dimension.

Geomorphic: Relating to the structure, shape and development of landforms.

Hammerstone: A piece of stone used to knock flakes from a core. Evidence of pitting or bashing can usually be seen along some part of the margins of this artefact.

Hinge termination: A hinge termination occurs 'when the fracture meets the surface of the core at approximately right angles to the longitudinal axis of the flake' (Holdaway and Stern 2008: 130). This can present as a rounded surface that curves downwards at the distal end of a flake.

Holocene: The Holocene epoch forms part of the late Quaternary period and extends from about 11,000 years ago to the present day.

Humic: Soil that contains organic matter (from 'humus').

Igneous: After magma or lava cools and solidifies, it forms igneous rock. This can happen in volcanic and plutonic (under the surface of the earth) scenarios. An example of this is basalt.

In situ: A description of any cultural material that lies undisturbed in its original point of deposition.

Ironstone: A type of sedimentary rock that contains iron.

Knapping: The removal of flakes and flaked pieces from a stone core by the use of percussion.

Layer: In stratigraphy, it is used to describe a horizon (soil, rock, charcoal) that is distinct from its surrounds.

Landform: Description for an area of land based on an assessment of a series of environmental characteristics including geology, geomorphology, soils and vegetation.

Loam: Soil that contains roughly equal concentrations of silt, sand and clay.

Longitudinally split flake: This is a flake that is broken (split) from the point of percussion (the strike) through to the termination.

Manuport: An unmodified piece of stone transported to a site by humans.

Medial: Term of view referring to the intermediate section or middle section of a broken flake.

Medial flake: Absence of proximal and distal margins, but with an identifiable ventral surface.

Metamorphism: The process where an existing rock (which can be sedimentary or igneous) is transformed into another mineral through the application of temperature and pressure. An example of this is hornfels.

Mudstone: A sedimentary rock formed from mud/clay.

Muller: A large stone artefact which differs in construction depending on the environment. These were used as an aide for processing seeds and other low return plant material or ochre.

Multiple platform core: Is a core with more than one identifiable platform.

Munsell colour: This is a colour code chart used to standardise colour specifications.

Non-diagnostic: An amorphous piece of stone that is neither a flake, flaked fragment, core or retouched flake.

Northing: This is a measurement used to determine location. The northing is the y-coordinate and relates to the horizontal lines on a map, which divide north to south. It increases in size when moving further north.

Notched tool: Flakes that exhibit a small area of retouch, forming a concave edge on lateral or distal margin.

Oriented length: This is a measurement taken from the point of impact through to the termination.

Oriented thickness: This is a measurement taken from where the oriented width and oriented length intersect.

Oriented width: This is a measurement taken across the middle of a flake (halfway between the point of impact and the termination).

Overhang removal: This occurs when a platform is prepared for striking; small flakes are struck before a flake is detached, leaving visible scars behind.

Potential Archaeological Deposit (PAD): A PAD is a location that is considered to have a potential for sub-surface cultural material. This is determined from a visual inspection of the site, background research of the area and the landform's cultural importance.

pH: A measure of the acidity or alkalinity of the soil. Neutral is indicated by a pH of 7, with strongly acidic being 0 and strongly basic (alkaline) being 14. The 'pH' is said to stand for 'potential of hydrogen'.

Platform: On a flake, this is a core remnant from where the flake was struck off the core.

Platform width: This is a measurement taken across the width of a platform between the two lateral margins of a flake.

Platform thickness: This is a measurement taken from the ventral to dorsal surfaces of a flake (beginning at the point of impact/percussion).

Plunge termination: This occurs when the ventral surface 'curves markedly away from the face of a core...and continues directly into the core, removing the base of the core' (Holdaway and Stern 2008: 132). This can present as a 'J' shape when holding the flake in profile.

Proximal: Term of view used to describe the upper portion of a flake in respect from where it was initially struck off a core.

Proximal flake: A broken flake with the presence of a platform, but the absence of a termination.

Pot-lidded: The damage caused by exposure to extreme heat, resulting in a circular depression on the surface of a stone artefact.

Pressure flaking: A process to remove a flake from a core by applying pressure (from a piece of wood or bone) along the core's edge.

Quarry: In this report, 'quarry' can refer to a native source of stone that was mined by Aboriginal people in the past. Rock from these sites could be used to make artefacts.

Quartz: A mineral composed of silica with an irregular fracture pattern. The quartz used in artefact manufacture is generally semi-translucent, although it varies from milky white to glassy. Glassy quartz can be used for conchoidal flaking, but poorer quality material is more commonly used for block fracturing techniques. Quartz can be derived from water worn pebbles, crystalline or vein (terrestrial) sources.

Quartzite: A form of metamorphosed sandstone. It is often white or grey in colour but can occur in other shades due to mineral impurities.

Reduction: the process of fashioning stone from its natural state into tools or weapons by removing some parts.

Refit: Knapping is a reductive technology. As such, it is possible to 'refit' tools back together after breakage or knapping (i.e. refitting a proximal and distal flake back together or refitting a flake back to the core it was knapped from).

Resource area: An area of the landscape or part of the environment that provides a resource (be it food or material items such as a source of stone for making artefacts) for Aboriginal people. Swamps are good examples of rich resource zones.

Retouch: A flake, flaked piece or core with intentional secondary flaking along one or more edges.

Sand: A material composed of small grains (0.625-2.0 mm) (Keary 2001: 233). Sand is formed from a variety of minerals and rocks, but commonly contains silica, such as quartz.

Sandstone: Is a sedimentary rock formed from sand-sized grains.

Scarred trees: Trees that feature Aboriginal derived scars are distinct due to the scar's oval or symmetrical shape and the occasional use of steel, or more rarely, stone axe marks on the scar's surface. Scarred trees are identified by the purposeful removal of bark for use in the manufacture of artefacts such as containers, shields and canoes. The bark was also used for the construction of shelters. Other types of scarring include toeholds cut in the trunks or branches of trees for climbing purposes and the removal of bark to indicate the presence of burials in the area.

Sediment: Is a mineral that has undergone erosion or weathering and that is then deposited via aeolian, glacial or fluvial means.

Sedimentary: Sedimentary rock is formed through the accumulation of sediment deposits that are then consolidated. An example of this is mudstone.

Shale: A sedimentary rock of well-defined layers comprised of small particles (less than 4 microns in size) (Keary 2001: 16) sourced from weathered or eroded materials.

Significant ground disturbance: Means disturbance of (a) the topsoil or surface rock layer of the ground; or (b) a waterway, by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping.

Silt: A sediment with grains ranging from 4.0-62.5 microns in size (Keary 2001: 245). It can be found as a soil or in water.

Single platform core: Is a core with one identifiable platform.

Scraper: A stone tool, usually with steep retouch along its edges that was ethnographically used to make wooden implements or process foods and other resources.

Silcrete: Soil, clay or sand sediments that have silicified under basalt through groundwater percolation. It ranges in texture from very fine grained to coarse grained. At one extreme it is cryptocrystalline with very few clasts. It generally has characteristic yellow streaks of titanium oxide that occur within a grey and less commonly reddish background. Used for flaked stone artefacts.

Spit: Refers to an arbitrarily defined strata of soil removed during excavation (often 50 millimetres to 100 millimetres in depth).

Step termination: This occurs when a 'flake terminates abruptly in a right-angle break' (Holdaway and Stern 2008: 130).

Stratification: The way in which soil forms in layers.

Stratigraphy: The study of soil stratification (layers) and deposition.

Sub-surface testing: An archaeological method used to determine the cultural sensitivity of an area by excavating small (0.5 metre x 0.5 metre) pits and recording the stratigraphy, material remains (such as stone tools) and disturbance.

Survey: In archaeological terms, this refers to walking over a surface while studying the location of artefacts and landmarks. These are then recorded and photographed.

Termination: Refers to the shape of the distal end of a flake.

Tool: A stone flake that has undergone secondary flaking or retouch.

Usewear: A pattern of wear that is left on a stone artefact due to utilisation.

Ventral: The side of a flake that was originally attached to the core (often called the 'ventral surface'). Features such as the bulb of percussion are found on this surface of a flake.

Visibility: Refers to the degree to which the surface of the ground can be observed. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land use practices, such as ploughing or grading. It is generally expressed in terms of the percentage of the ground surface visible for an observer on foot.

1.0 INTRODUCTION

1.1 Project brief

This Aboriginal Cultural Heritage Assessment Report (ACHAR) (with salvage and test excavation methodology in appendices) has been prepared by Lily Hackett (Senior Heritage Consultant, Artefact Heritage), Ryan Taedducci (Principal, Artefact Heritage) to address the site-specific Secretary's Environmental Assessment Requirements (SEARs) received in respect of the proposed State Significant Development Application (SSDA) No. 97711727. The proposed development is being undertaken by Goodman Property Services (Aust) Pty Ltd (Applicant) on behalf of Goodman Western Sydney Pty Limited as trustee for the Goodman Western Sydney Trust (Owner). The development is located at 225 – 245 Martin Road, Bradfield, 2556 (the Site).

This SSDA seeks approval for the following;

- Site Preparation works only (i.e no buildings, retaining walls or other infrastructure works)
- Rehabilitation of areas disturbed by historic mining and brick-making operations under major project approval MP10_0014 and MP10_0033.
- Bulk Earthworks to the site to align with the Connecting to Country and Precinct Plan principles including both the disturbed and undisturbed portions to capture the following proposed works:
 - Rehabilitation of Pits 1 & 2 using predominantly on-site fill (Engineered fill import required).
 - Preparation of the remaining site area to Bulk Earthwork Levels (BEL) (not including detailed trimming) for the proposed industrial development as considered under SSDA 97688711.
 - Quarrying and Export of Bringelly Shale and Clay from select areas of Pit 1 & 2 to rectify the previous approved pit designs to ensure they are geotechnically stable to suit the proposed industrial masterplan.
- Vegetation Removal of 6.97Ha over land that is not certified under the Growth Centre SEPP.
 - Species being cleared involve species protected under both the BC Act and EPBC Act.
 - EPBC Act Referral completed on a precautionary measure given small amount of EPBC listed communities.
- Demolition of any remaining structures on the site.
- Rehabilitation of identified and unidentified contamination and, if required, the construction of a containment cell in the proposed northeastern corner of the site (currently identified as Lot 55 of DP 3050). The containment cell is proposed to trigger Designated Development threshold due to the proposed upper limit storage volume of 100,000m³.
- Relocation of the Jemena Gas main predominantly burdening Lot 3 of DP127878.0
- If required through an Aboriginal Cultural Heritage Assessment Report (ACHAR), relocation and reburial of artefacts.

Additionally, this SSDA application seeks to rely on already existing authority approvals issued under MP10_0014 (subject to any applicable modifications). These are as follows:

- Mining Lease 1771
- Environmental Protection Licence 684
- Ground Water Access Licence WAL24346
- Ground Water Supply Works Approval No. 10WA109463

It is important to note that a number of the proposed activities being sought for approval under this SSDA have previously been assessed and approved under MP10_0014. The existing DA relates to approximately 70Ha of Net Developable Area (NDA), with the new portion of site approx. 36ha NDA. Cumulatively the area is approx. 116ha NDA. This report further outlines this in Table 1.

Related Applications/Activities

SSDA 97688711 – 14 warehouse buildings, Active Open Space & amenities precinct (including a café) and internal site infrastructure works

The SSDA seeks approval for the construction, fit-out (including office and standard warehouse racking) and operation of 14 warehouse buildings, Active Open Space & amenities precinct (including a café) and internal site infrastructure works.

This application assumes the bulk earthworks are completed under SSDA 97711727.

Part 5 Activity – External Works Lead in Roads and Services

The Applicant is proposing access to the Site via the following route which will be upgraded to be in accordance with the Precinct Plan

Part 1 - Martin Road / Elizabeth Drive intersection upgrades

- It is expected that these works will be approved by way of amendment to the existing Part 5 approval by Transport for New South Wales ('TfNSW')
- It is understood that Transport for NSW will construct the work with a target completion date of December 2029;

Part 2 -4 - Martin Road / East West Collector Road / Lawson Road Upgrades

- Further to Part 1, access to the site is proposed to be constructed concurrently as follows:
 - Part 2 – Access from the Martin Road / Elizabeth Drive intersection will continue down Martin Road and join the future East / West Collector road identified within the Precinct Plan through Lot 36 DP 3050.
 - The portion of road between the Intersection and future East / West Collector road will be upgraded with a temporary access strategy that is consistent with Condition DS5 of the Precinct Plan.
 - Part 3 – The East / West Collector road through Lot 36 DP 3050 is proposed to be delivered in ultimate form consistent with the Precinct Plan., connecting Martin Road and Lawson Road;
 - Part 4 – From the East / West Collector Road connection on Lawson Road, the portion of Lawson Road South through to the Site will be upgraded in ultimate form consistent with the Precinct Plan.
- It is expected that these works are completed by December 2029, based on a commencement date of June 2028

It is the Applicants expectation that the above-mentioned works (Part 1-4) are completed prior to the receipt of the first building Occupation Certificate (expected December 2029).

Notwithstanding the above, the Applicant notes that access to the site under SSD 97711727 will continue to be via Martin Road based on the intersection upgrades completed under MP10_0014. Included below is a table of the existing approvals under MP10_0014

The purpose of the ACHAR is it support the new SSD application (97711727), which will include permission to harm the following sites:

- Salvage excavation of BCBW18 AS 02 (AHIMS ID 45-5-5164)
- Harm to AHIMS ID 45-5-4099

Multiple Aboriginal archaeological assessments have been conducted within the study area under existing State Significant Development (SSD) MP10_0014 - Badgerys Creek Quarry & Brickworks. Since the acquisition of the land, the new SSD application is proposed to include conditions of consent to harm the existing BCBW18 Artefact Scatter 02 (AHIMS ID 45-5-5164) within the proposed works area.

Included below is a Table 1 of the existing approvals under MP10_0014. The previous operations within the study area under the project approval MP10_0014 authorised archaeological investigations and salvage of several of the Aboriginal sites identified during earlier assessments within the quarry footprint, several of which have since been impacted and no longer valid as summarised below.

Table 1: MP10_0014 approvals for harm

Summary table of approvals and applications for the current study area	Where addressed in this ACHAR
Previous approvals and restrictions under MP10_0014 (development consent relevant to current AHIMS sites included only)	

29. The Applicant must ensure that:

- | | |
|--|--|
| <p>(a) archaeological salvage of site BC-01-09 (AHIMS ID 45-5-0498) is undertaken in accordance with Recommendation 1, Section 6.0 of the Aboriginal Heritage Assessment – Addendum in the EA; and</p> <p>(b) regeneration works, dewatering activities and water discharges in the area of the archaeological deposit identified adjacent to Badgerys Creek (see Appendix 5) are either avoided, or else undertaken in a manner that will minimise harm to Aboriginal objects, to the satisfaction of the Secretary; and</p> <p>(c) measures are implemented prior to the commencement of Phase 1, to conserve and protect the hearth feature within site BCBW18 AS 02 02 (AHIMS ID 45-5-5164).</p> | <p>AHIMS ID 45-5-0498 was addressed as assumed destroyed when undertaking survey for this ACHAR in May 2025.</p> <p>Note that the artefacts collected during CSR 2019 and 2021 MOD 3 and MOD4 amendments have not yet been reburied, an indicative proposed location for the reburial has been included in the appendices subject to further consultation with RAPs.</p> |
|--|--|

Appendix 6 Statement of Commitments

- All Aboriginal heritage items collected during survey and test excavations will be reburied with the hearth in consultation with the RAPs

Application for approvals for harm included in SSD 97711727 application (this ACHAR)

The purpose of the ACHAR is to support the new SSD application (97711727), which will include permission to harm the following sites:

- Salvage excavation of BCBW18 AS 02 (AHIMS ID 45-5-5164)
- Harm to AHIMS ID 45-5-4099
- Harm to PAD along Badgerys Creek

1.2 Description of the study area

The SSDA seeks approval for the rehabilitation, quarrying and bulk earthworks.

The study area is located in Badgerys Creek within the Liverpool Local Government (LGA) and within the boundaries of the Gandangara Local Aboriginal Land Council (LALC), Parish of Bringelly and County of Cumberland (Figure 1 and Figure 2). The key features of the study area are summarised in Table 2 below:

Table 2: Description of study area:

Description	Site Detail
Land Configuration	• Lot 1 DP 1278780 • Lot 2 DP 1278780 • Lot 3 DP 1278780 • Lot 55 DP 3050 • Lot 56 DP 3050 Note (1) – The above lots do not include the works proposed to be included under External Lead In works.
Existing land use(s)	The Site is Quarry and Brick Making Facility. The structures and hardstand areas used for the quarry operations are located in the central portion of the Site, connected by an internal road network. In addition, three pits are located along the southern and southeast portion of the Site.
Surrounding Land Use	Surrounding land uses include: • North: Land to the north is predominantly characterised by a mix of rural, agricultural, landscape industries and, residential properties accessed by Lawson and Martin Roads. It is noted that several sites are subject to existing SSDAs for industrial / warehouse developments. Both Martin and Lawson Roads intersect with Elizabeth Drive, a major Arterial Road that provides access to the WSI site and the broader regional road network including the M7, Northern Road and the future M12. • South: The land to the south is currently rural however is subject to the IPG Master Plan which was approved on 11 July 2025. The approved Master Plan covers 184 hectares and aims to support over 12,400 jobs. Inghams Property Group has allocated around 625,467 sqm for employment space, focusing on advanced manufacturing, logistics, and community services. The plan includes a mix of industrial and commercial zones, a local centre, and accessible public green spaces near the Western Sydney International Airport. Further to the south-west of the, is Bradfield City Centre, a 114-hectare planned urban development adjacent to Western Sydney International Airport. Designed to be a hub for innovation, advanced industries, and economic growth, it has the potential to create 20,000 jobs and provide 10,000 homes, including affordable housing. The Bradfield City Master Plan prioritises sustainability, integrating green spaces, climate-resilient infrastructure, and a commitment to achieving net-zero emissions. • East: Further east of the Wianamatta-South Creek which bounds the site, is the suburb of Kemps Creek. This land is characterised by a mix of open space, rural, agricultural, emerging urban development, and residential properties that are non-initial precincts under the WSAP but intended for employment generating uses • West: To the immediate west of the Site, bound by Badgerys Creek, is Western Sydney International Airport (WSI). Located in Badgerys Creek, WSI is a major federal infrastructure project designed to accommodate Sydney's future aviation needs. Set to commence operations in 2026, WSI will initially handle 10 million passengers annually and operate 24/7. Badgerys Creek Road also travels in a north-south direction to the west of the site. It provides a north-south connection between Elizabeth Drive and the Northern Road.
Site Access and road network	The Site is currently accessible from Martin Road which is located at the north-eastern boundary. The ultimate access to the site is in accordance with the proposed design via separate Part 5 Approvals with Transport for New South Wales and Liverpool City Council

Figure 1: Study area

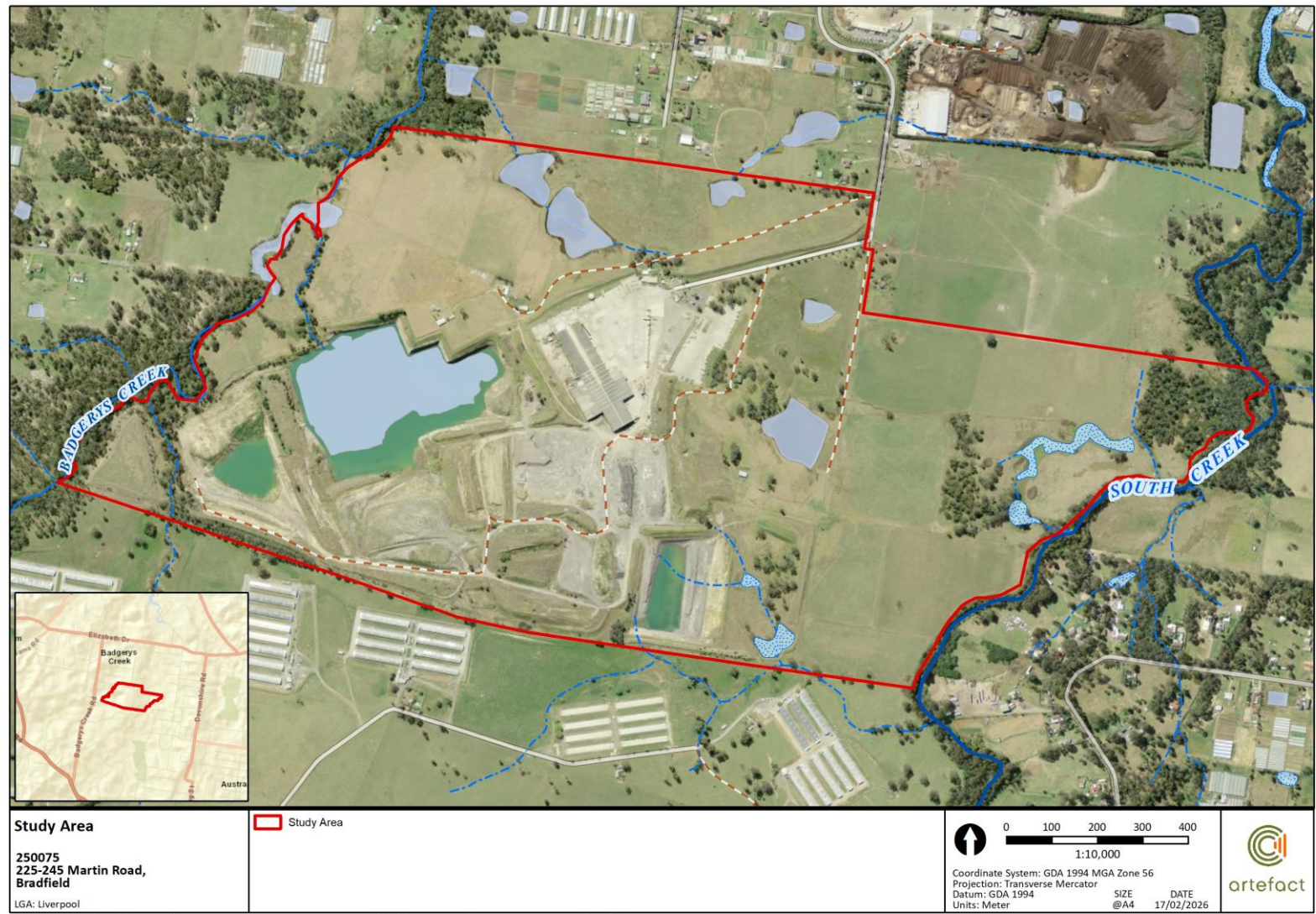
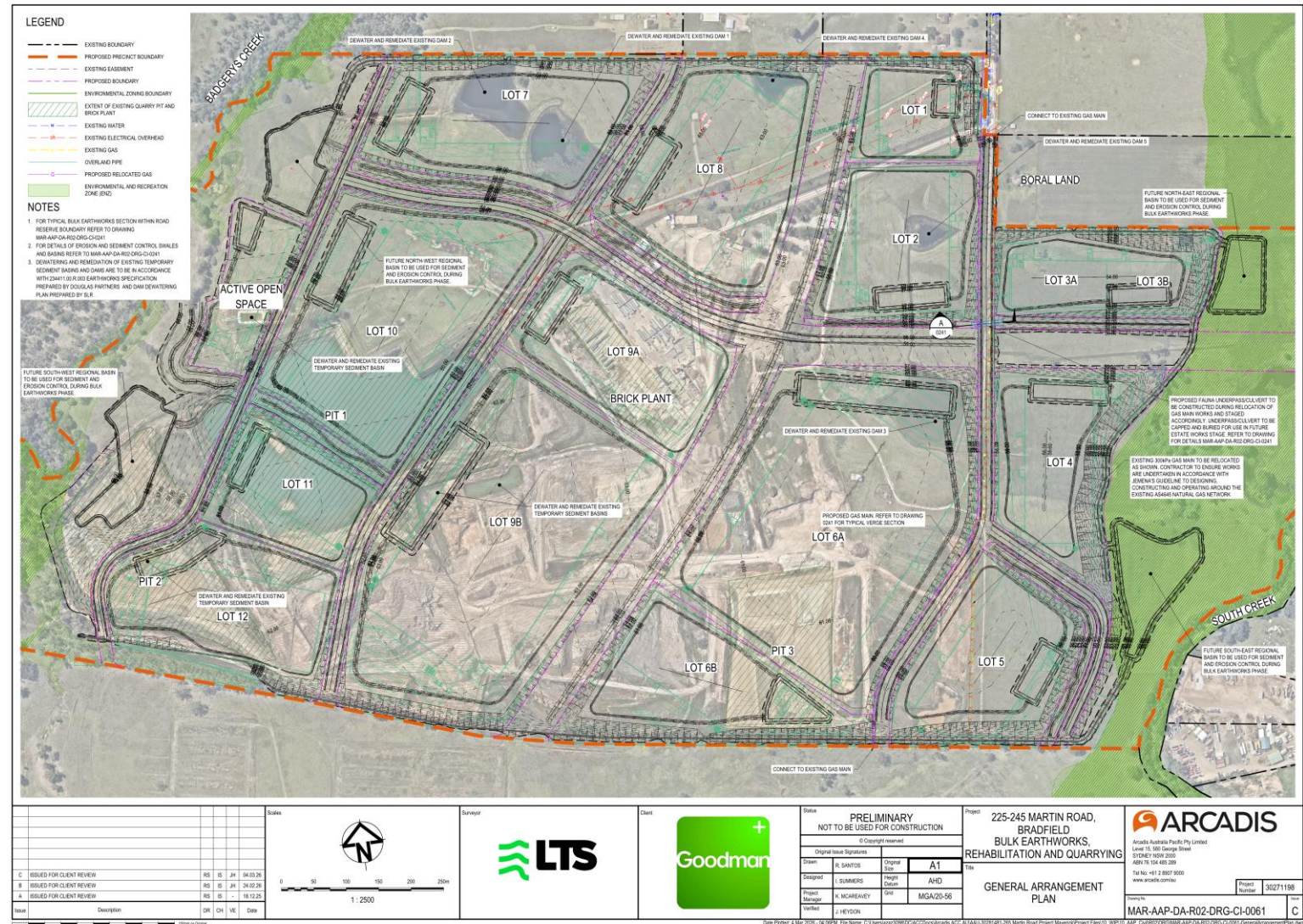


Figure 2: Bulk earthworks plan. Source: Arcadis



1.3 Aims and objectives

This ACHAR aims to identify and assess the Aboriginal heritage values of the study area and consult with Aboriginal stakeholders and the results of the archaeological investigations undertaken. This report will be included in EIS for the new SSD-97711727 application to undertake the initial stages of rehabilitation and bulk excavation works. A test excavation will inform appropriate management and mitigations within the study area, and salvage excavations will follow as part of the management of the existing AHIMS ID 45-5-5164 hearth feature. The methodologies for both excavations are included in Appendix B – Test EXCAVATION METHODOLOGY Appendix C – Salvage EXCAVATION METHODOLOGY

The objectives of the assessment are to address the SEARs requirements for SSD-997112727:

- Identify any Aboriginal cultural values in and around the study area
- Assess these cultural values, as related to the study area, through consultation with Aboriginal stakeholders
- Assess the impacts the proposed construction might have on Aboriginal cultural heritage and the potential archaeological resources within the study area
- Document the process and outcomes of Aboriginal stakeholder consultation
- Provide a plain English summary of the results of the ATR to the Registered Aboriginal Parties (RAPs).
- Appropriate management and mitigations will be determined as a result of the assessment.

1.4 Statutory framework

This ACHAR has been prepared to support the SSD- 97711727 application. The Secretary's Environmental Assessment Requirements (SEARs) issued on 26 November 2025 outline that Aboriginal Cultural Heritage assessment would be required to inform the Environmental Impact Statement (EIS) for the development proposal. This ACHAR meets the Aboriginal Cultural Heritage requirements of the project SEARS:

Key statutory framework	Where addressed
SEARs issued 26 November 2025	
Heritage – including an Aboriginal Cultural Heritage Assessment Report (ACHAR), prepared in accordance with relevant policy and guidelines, identifying, describing and assessing any impacts to Aboriginal cultural heritage sites or values associated with the project. The ACHAR must: - be prepared in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010), including results of thorough archaeological survey and test excavations (where required); - include evidence of adequate and continuous consultation with Aboriginal stakeholders in determining and assessing impacts, developing and selecting options for avoidance of Aboriginal cultural heritage; and mitigation measures (including the final proposed measures), having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010); and - address the Recognise Country: Guidelines for development in the Aerotropolis (2022).	This report Consultation records included in Appendix E

Heritage NSW input to SEARs SSD-97711727 – 29 October 2025

Heritage NSW recommends that the following Secretary's Environmental Assessment Requirements be included with respect to Aboriginal Cultural Heritage in relation to the proposed SSD-97711727).

- The Environmental Impact Statement should be informed by an Aboriginal Cultural Heritage Assessment Report, prepared in accordance with relevant policy and guidelines to identify, describe and assess any impacts to Aboriginal cultural heritage sites or values associated with the project. The Aboriginal Cultural Heritage Assessment Report must be prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* <https://www.environment.nsw.gov.au/publications/guide-investigating-assessing-and-reporting-aboriginal-cultural-heritage-new-south-wales> and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* <https://www.environment.nsw.gov.au/publications/code-practice-archaeological-investigation-aboriginal-objects-nsw>, including results of archaeological survey and test excavations (where required) undertaken in accordance with the relevant standards and requirements.;
- Include evidence of adequate and continuous consultation with Aboriginal parties in relation to determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation measures (including the final proposed measures) in substantial compliance with the consultation process outlined in the *Aboriginal cultural heritage consultation requirements for proponents* <https://www.environment.nsw.gov.au/publications/aboriginal-cultural-heritage-consultation-requirements-proponents>.

This report
Consultation records
included in Appendix B

Liverpool city council advice on SEARs SSD-97711727 – 10 November 2025

4. Heritage

An Aboriginal Cultural Heritage Assessment is to be prepared and submitted in accordance with Section 4.3, Clause RC2 of the Western Sydney Aerotropolis Precinct Plan. The Aboriginal Cultural Heritage Assessment is to assess both the tangible (objects) and intangible (stories, knowledges and practices) associated with the land and develop appropriate management, mitigation and interpretation strategies and outcomes.

Note: This report is more detailed than the traditional Aboriginal Cultural Heritage Assessment which typically only refers to Aboriginal Objects.

A Heritage Interpretation Strategy is to be prepared for the site considering the Aboriginal and Non-Aboriginal history of the site and identify appropriate interpretive mediums which can be implemented across the various buildings and the public domain.

This report includes the
Aboriginal Cultural
Heritage assessment.

A detailed Recognise Country Strategy is to be prepared for the site in accordance with the Recognise Country Guidelines for Development in the Aerotropolis, FPIC principles and Ask First. The strategy is to define the principles and objectives to guide the redevelopment of the site based on Aboriginal Co-Design and meaningful consultation. The strategy is to establish a framework to guide the design and delivery of the estate including all buildings and civil works.

Bradfield Development Authority input to SEARs SSD-97711727

The Authority supports the consultation that has occurred with Traditional Custodians in development of the proposed bulk earthworks and remediation strategy and encourage continual engagement to ensure Country-led objectives are prioritised.

Consultation records included in Appendix E

WPC SEPP Chapter 4

Section 4.26 Heritage Conservation

2) **Requirement for consent** Development consent is required for the following—

- a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—
- (ii) an Aboriginal object,

6) **Heritage assessment** The consent authority may, before granting consent to development—

- (a) on land on which a heritage item is located, or
- (b) on land that is within a heritage conservation area, or
- (c) on land that is within the vicinity of land referred to in paragraph (a) or (b), require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.

This report is being prepared in support of development consent.

A Heritage Conservation Management Plan has been prepared.

(7) **Heritage conservation management plans** The consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this section.

(8) **Archaeological sites** The consent authority must, before granting consent under this section to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the [Heritage Act 1977](#) applies)—

- (a) notify the Heritage Council of its intention to grant consent, and
- (b) take into consideration a response received from the Heritage Council within 28 days after the notice is sent.

Western Sydney Aerotropolis Precinct Plan

Section 4.3 Aboriginal Culture and Heritage

Objectives:

RCO1 - Facilitate the conservation of Aboriginal heritage items and areas of cultural heritage significance in accordance with the requirements of the National Parks and Wildlife Act 1974

RCO2 - Protect areas of high cultural sensitivity

Requirements:

RC1 - Development applications are to retain access to and connect significant Aboriginal heritage and areas of cultural value, conservation corridors and other identified areas of significant Aboriginal heritage.

An assessment of impacts on archaeological and or cultural heritage has been prepared within this report and the Aboriginal Constraints and Opportunities report (appendix). No modified trees (carved or scarred) and grinding grooves have been identified within the study area.

RC2 - Development applications that propose disturbance to the landscape in areas of moderate, high or very high Aboriginal sensitivity on Figure 4, or include known Aboriginal cultural or archaeological sites, are required to include an assessment of impacts on archaeological and or cultural heritage values and significance. Where specific measures are required to mitigate or avoid impacts, applications are to include a cultural heritage management plan or conservation management plan prior to the issue of a construction certificate.

RC3 - Modified trees (carved or scarred) and grinding grooves are to be protected and preserved in situ, and management plans are to be prepared to demonstrate how these items are to be retained and protected.

Western Sydney Aerotropolis DCP

Section 2.2.1 - Aboriginal Cultural Heritage

Performance outcome 3 - The archaeological potential of sites is to be determined as part of detailed site investigations. Aboriginal archaeological sites are conserved, and significant archaeological remains are protected and interpreted.

1. Any land with the potential to contain archaeological remains is to be subject to detailed investigations and assessment to determine the level of archaeological intervention required. Intervention may include the following:
- a. Unexpected finds procedure;
 - b. Monitoring during works; or
 - c. Formal salvage excavation.

A detailed archaeological assessment has been prepared. Test excavation, salvage excavation and an unexpected finds procedure are proposed.

This will include a salvage excavation methodology (Appendix C – Salvage EXCAVATION METHODOLOGY) to harm the existing BCBW18 Artefact Scatter 02 (AHIMS ID 45-5-5164) and revised recommendations on avoiding harm to Aboriginal objects associated with AHIMS ID 45-5-4099. This ACHAR has been prepared to address this requirement of the conditions of consent, and the following guidelines:

To satisfy this SEAR requirement, the ACHAR has been prepared in accordance with the following guidelines:

- *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales*¹; hereafter the Code of Practice
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*²; hereafter the Guide
- *Aboriginal cultural heritage consultation requirements for proponents 2010*³; hereafter the Consultation Requirements.

¹ Department of Environment, Climate Change & Water, 'Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales', 2010b.

² OEH, 'Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW', 2011.

³ Department of Environment, Climate Change & Water, 'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010', 2010.

2.0 SUMMARY OF CONSULTATION

2.1 Stage 1

2.1.1 Agency letters

In accordance with Section 4.1.2 of the Consultation Requirements, Artefact Heritage corresponded with the following organisations by email on 5 September 2025 requesting the details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area:

- Heritage NSW
- Native Title Service Corporation (NTSCorp)
- National Native Title Tribunal
- Office of the Registrar, Aboriginal Land Rights Act 1983
- Liverpool Local Council
- Gandangara Local Aboriginal Land Council
- Greater Sydney Local Land Services

2.1.2 Advertisement

In Accordance with Step 4.1.3 of the Consultation Requirements, an advertisement was placed online with advertising website Buy Search and Sell from 5 September 2025 to 19 September 2025.

2.1.3 Registration of Aboriginal parties

In accordance with Section 4.1.3 of the Consultation Requirements, invitations to register an interest in the project were sent by email on 12 September 2025 and 15 September 2025 and letters were sent on 16 September 2025 to all Aboriginal people and organisations identified through responses from agencies contacted as part of Stage 1. The emails provided details about the location and nature of the proposal and an invitation to register as an Aboriginal stakeholder. The email registrations of interest for the project were requested by 26 September and the mail registrations by 29 September 2025. A total of 21 groups were registered for the project. The list of RAPs is provided in Table 3 below.

Table 3: Summary of RAPs.

Name	Organisation

Name	Organisation

The confirmed RAP list who registered their interest in the project was provided to Heritage NSW and Gandangara LALC on 17 October 2025.

2.2 Stage 2

Stage 2 of the Consultation Requirements is to provide information regarding the scope of the proposed project and the proposed cultural heritage assessment process. To satisfy Stage 2 and Stage 3 of the Consultation Requirements, an ACHAR assessment methodology (see Appendix E) was prepared that included relevant information and the details are outlined in Section 2.3.1.

2.3 Stage 3

2.3.1 ACHAR assessment methodology

A copy of the proposed assessment methodology was sent to the RAPs by email on 17 October 2025, requesting feedback by 31 October 2025. The draft assessment methodology presented information about the project and invited feedback on the cultural significance of the area. Seven responses were received. A summary of the comments received by Artefact is presented in Table 4.

Since the ACHAR assessment methodology was provided to RAPs on 17 October 2025, the methodology has been updated. As such an updated draft methodology was provided on 23 December 2026 with comments due on 3 February 2026. .

Table 4. Summary of Aboriginal stakeholder comments on the Assessment Methodology

Person / RAP group	Comment	Response

Person / RAP group Comment

Response

2.4 Stage 4

A copy of the draft ACHAR that included the test excavation and salvage excavation methodology was sent to the RAPs by email on 23 December 2025, requesting feedback by 3 February 2026. A summary of received by Artefact is provided in Table 5. Since the last correspondence on 17 October 2025 as summarised in section 2.3, the project approvals stage has been updated. A short summary of these changes was also provided within the email.

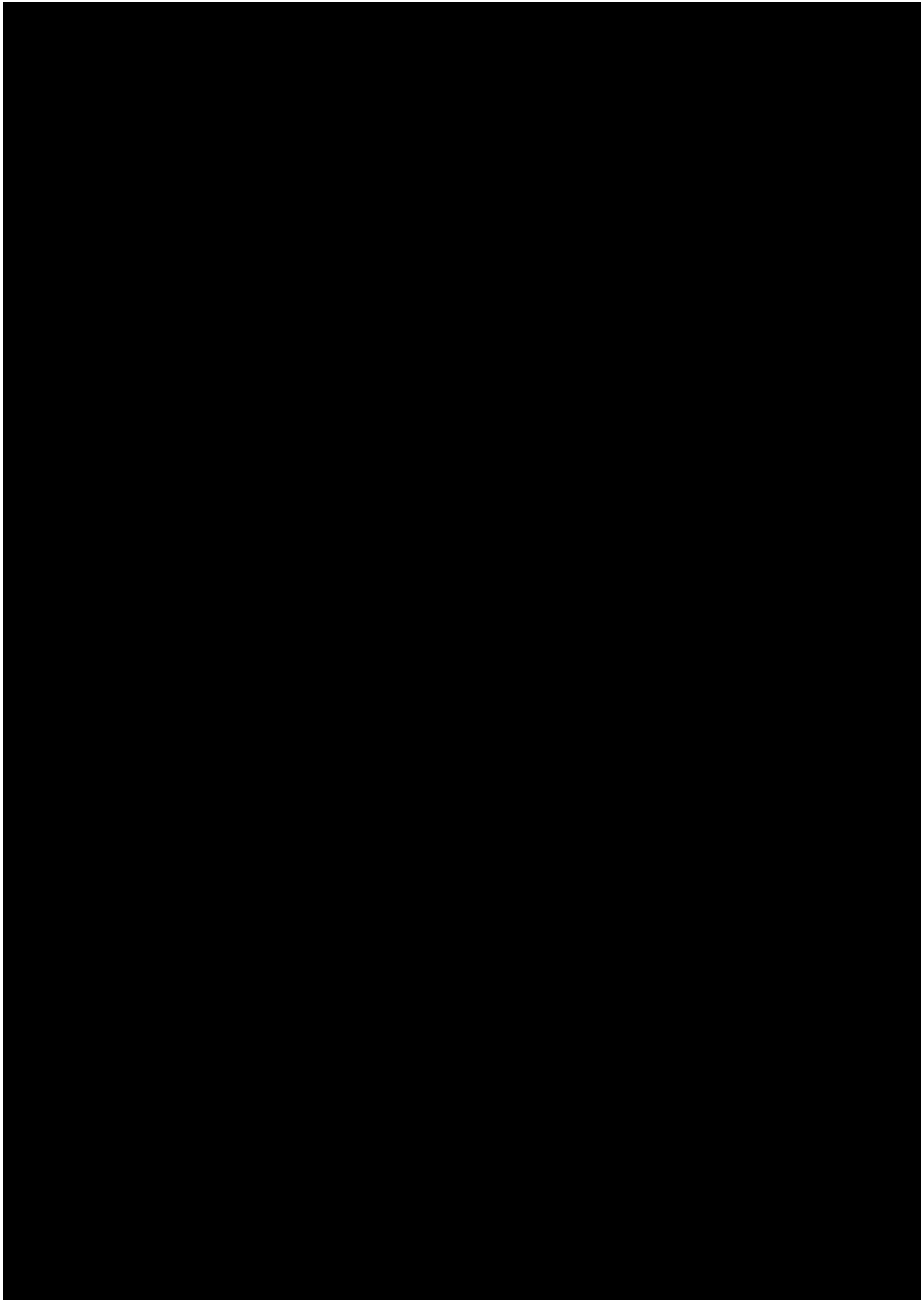
It was requested by the proponent that Julie Jones and Amy Barnes who have been involved in the Connecting with country workshops for the project, receive a copy of the draft ACHAR test excavation and salvage excavation methodology.

Table 5. Summary of Aboriginal stakeholder comments on the draft ACHAR

Person/ RAP group Comment

Response

Person/ RAP group	Comment	Response



Person/ RAP group	Comment	Response
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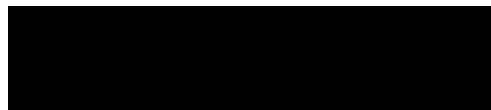
3.0 SUMMARY AND ANALYSIS OF BACKGROUND INFORMATION

3.1 AHIMS search

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

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 5 March 2025 (Client Service ID: 981793) to determine the location of Aboriginal sites in relation to the current study area. The search area was defined as 4 km x 4 km surrounding the study area to inform the characterisation of the local archaeological context. The AHIMS search parameters were as follows:

GDA, Zone 56



There were a total of 77 AHIMS registered sites located within the extensive search (Figure 3). Six of these sites are located within the study area and an additional 10 sites are located within 200 m of the study area boundary (Figure 4). Three of the sites were assessed as no longer valid during the sample survey for the Aboriginal Archaeological Constraints and Opportunities Assessment (Artefact 2025) and updated within AHIMS database (Figure 3 and Figure 4).

Table 6: Summary of AHIMS sites within the study area.

AHIMS ID	Status	Summary
AHIMS ID 45-5-5162	Completely destroyed through test excavations. No longer valid.	AHIMS ID 45-5-5162 is located within the [REDACTED] Creek Brick Works 18 Artefact Scatter (BCBW18 AS) 01 is a low-density artefact scatter situated on an upper slope, 756 m west of South Creek. The assemblage comprised two artefacts, one complete flake of mudstone and one proximal flake fragment of silcrete. Both artefacts were obtained during test excavations undertaken by Artefact (2019) from an in situ formation of humic soil. Therefore, the artefacts were once a surface scatter that was covered over by the in situ formation of soil. The site is part of a larger archaeological complex which includes BCBW 18 AS 02 (AHIMS ID 45-5-5164) and BCBW 18 AS 03 (AHIMS ID 45-5-5163). Due to the large area tested and only two artefacts were recovered, it was assessed no additional artefacts are likely to be present in the area and the site was considered to be totally destroyed through the excavations. An Aboriginal Site Impact Recording Form (ASIRF) was submitted on AHIMS updating the site as destroyed and no longer considered valid.
AHIMS ID 45-5-5164	Partially impacted through test excavations. Valid.	AHIMS ID 45-5-5164 (BCBW18 AS 02) is [REDACTED]. The site is located in the low-medium level flood zone, 50 m above sea level on a [REDACTED]. Test excavations by Artefact (2019) revealed that the subsurface deposit was in situ.

AHIMS ID	Status	Summary
		The subsurface assemblage consisted of 21 stone artefacts. The assemblage featured five raw materials with silcrete being the dominant raw material type (n=15, 71.43 per cent) chert, mudstone, quartz, quartzite and silcrete). Four artefact types (transverse flake fragments, complete flakes, a multiple platform core, and a piece of debris) were present in the assemblage. Debris and cores were indicative of on-site artefact manufacturing. All cultural material was retrieved from the upper two spits (0-200 mm). A hearth comprising burnt clay heat retainers was located in the centre of the site. The hearth was associated with one transverse fragment of chert. No signs of heat treatment were present on the fragment. A 10 m buffer currently surrounds this hearth and is protected by metal fence barrier.
AHIMS ID 45-5-5165	Destroyed through natural process.	AHIMS ID 45-5-5165 is located [REDACTED] Badgerys Creek Brick Works 18 Isolated Find (BCBW18 IF) 01 is [REDACTED]. [REDACTED] The site was initially recorded as a single complete surface flake of silcrete with three scars on the dorsal surface. It was considered of low-archaeological and scientific significance. As part of a Heritage Management Plan (HMP) (Artefact 2021) for the eastern half of the study area, it was recommended surface collection be undertaken of this artefact. The surface collection was completed on 19 July 2024 however the isolated find could not be relocated. It was considered likely that the site was destroyed by natural processes of surface wash, erosion or relocated from cattle trampling. During the sample survey for the Constraints Report (Artefact 2025) the site was confirmed as destroyed through natural processes. As such, an ASIRF was submitted on AHIMS updating the site as no longer considered valid.
AHIMS ID 45-5-2704	Valid	AHIMS ID 45-5-2704 is located in the [REDACTED] recorded as an open artefact scatter of 9 surface artefacts. The site was originally recorded as part of the initial heritage investigations in 1997 for the second airport. An attempt was made to relocate AHIMS 45-5-2704 as part of the sample survey for the Constraints report (Artefact 2025) however due to the ground surface being significantly waterlogged in proximity to the creek line, the site could not be accessed. Based on the most up to date google earth aerial imagery (2025) the location of the site appeared to be undisturbed since its last recording and was therefore assessed as remaining valid.
AHIMS ID 45-5-4098	Destroyed.	AECOM was engaged by Boral to undertake an Aboriginal Heritage Impact Assessment as part of the Environmental Assessment for the expansion and continued use of the quarrying and brick making operations at the Badgerys Creek Quarry Site. One Aboriginal site was recorded within a disturbed context during the survey located [REDACTED]. This site consisted of an indurated mudstone broken flake

AHIMS ID	Status	Summary
		located within an exposure on a cattle track [REDACTED]. This site was included under previous consent (MP10_0014) for salvage. During the sample survey for the Constraints Report (Artefact 2025), the artefact could not be relocated, likely due to the use as grazing land and track for cows that may have relocated the artefact through trampling. This site was also in close proximity to a higher traffic and pedestrian disturbed area of farming and vehicle use. As such, it was assessed the site had likely been destroyed and is no longer considered a site and an Aboriginal Site Impact Recording Form was submitted.
AHIMS ID 45-5-4099	Partially impacted through test excavation. Valid	AHIMS ID 45-5-4099 is located within the [REDACTED] AECOM was engaged by Boral to undertake a test excavation program following the Aboriginal heritage assessment carried out in 2010 (AECOM 2011). A total of 30 hand excavated pits were excavated. Four artefacts were retrieved across four test pits. These excavation units were within transect 3 at 300 mm depth within in situ deposit, located on a terrace landform approximately 50 m east of Badgerys Creek. All artefactual material retrieved consisted of silcrete. Other finds consisted of silcrete, mudstone, and quartz was not considered to be artefactual based on the absence of diagnostic features, and it was concluded that this material had been deposited during fluvial events. Artefacts were only retrieved within the flat (alluvial) areas while testing on the slopes did not identify any archaeological deposit. The results of the test excavation indicated a low-density archaeological deposit associated with Badgerys Creek. Due to the frequency of artefacts located within a single transect on the very edge of the testing area, it was assessed that the boundary of the artefact scatter was not fully understood through test excavations and therefore additional subsurface artefacts may still be present. [REDACTED] [REDACTED] Therefore, an Archaeological Deposit Avoidance Zone has been established surrounding this site.
PAD adjacent to AHIMS ID 45-5-4099	Valid	Within the site card for AHISM ID 45-5-4099 submitted by AECOM states due to the identification of the subsurface artefact scatter AHIMS ID 45-5-4099 in close proximity to [REDACTED] [REDACTED] The survey completed by Artefact in 2025 confirmed the area comprised low levels of ground disturbance and confirmed the extent of the PAD.

Figure 3:AHIMS extensive

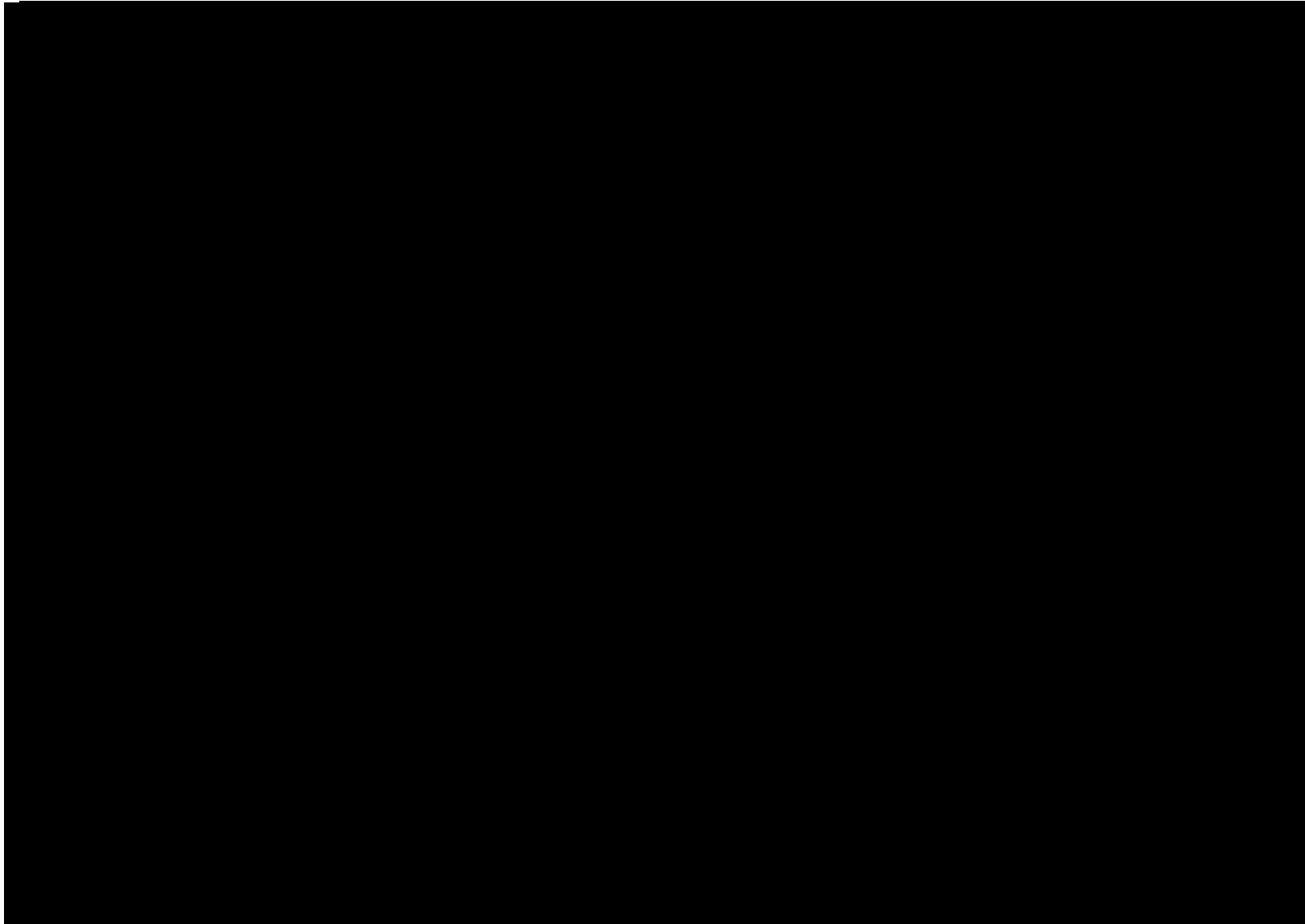
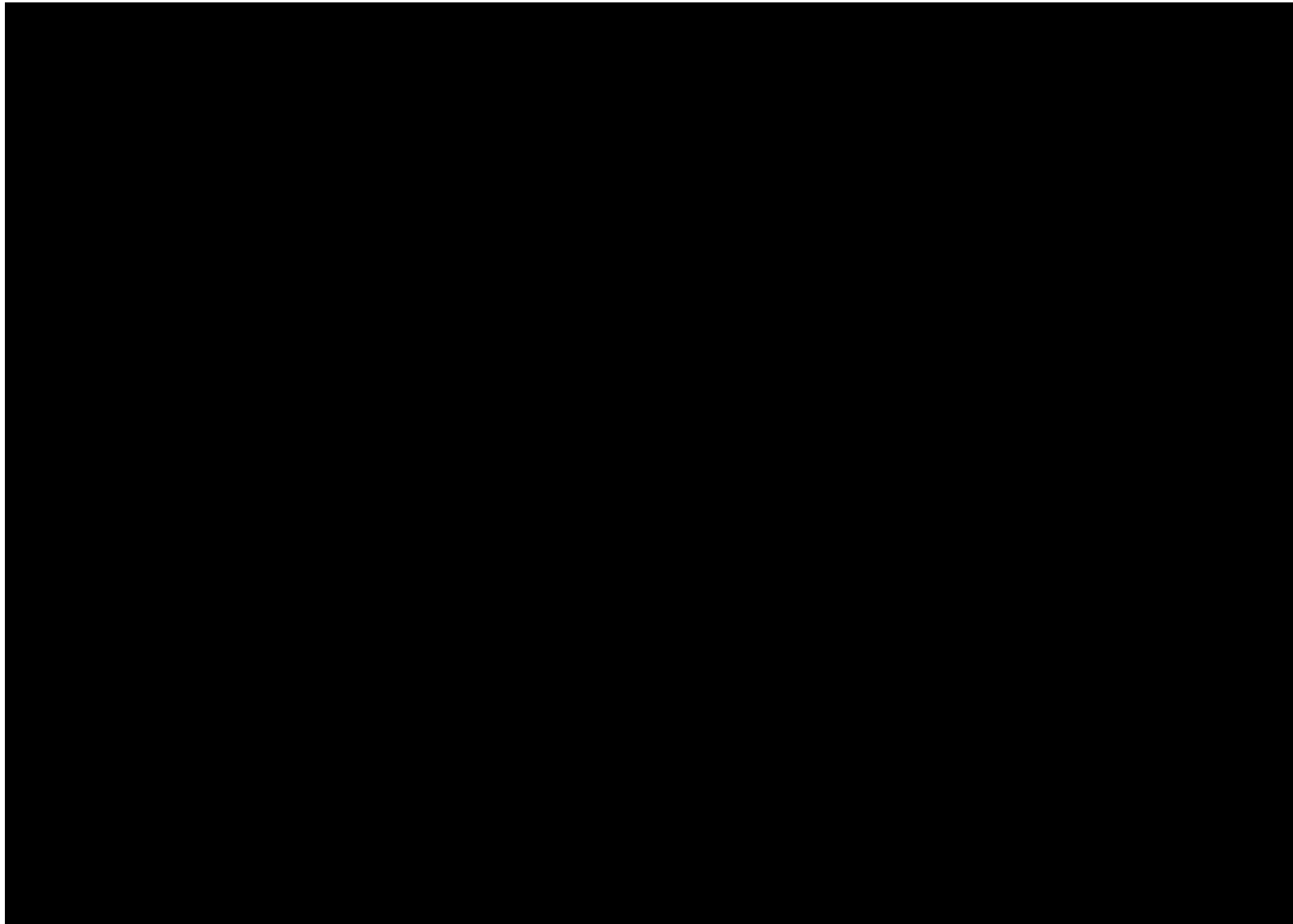


Figure 4: AHIMS detail pre-survey.



3.2 Previous Archaeological Investigations

Table 7: Summary of previously assessed AHIMS sites and approvals under MP10_0014

Under MP10_0014 the following works have been completed

1. Protection of heat retainer hearth feature in BCBW18 AS 02 (AHIMS ID 45-5-5164) through a 10m buffer zone.
2. Artefact collection BCBW18 IF 01 (AHIMS ID 45-5-5165) in conjunction with RAPs.

The following sites were subject to test excavation and. The reburial of these artefacts has not yet been completed.

- BCBW18 AS 01 (AHIMS ID 45-5-5162) (two stone artefacts)
- BCBW18 AS 02 (AHIMS ID 45-5-5164) (21 stone artefacts and a clay hearth)
- BCBW18 AS 03 (AHIMS ID 45-5-5163) (nine stone artefacts)

3.2.1 AECOM, 2010. Boral Badgerys Creek. Boral Bricks Aboriginal Heritage Impact Assessment.

AECOM was engaged by Boral to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) of the same study area as this report as part of an Environmental Assessment for the expansion and continued use of the quarrying and brick making operations. The three assessment areas were located in the central and western half of the study area and was limited to the continued use and expansion of several quarry pits that comprised Pit 3, Pit 4, and Pit 5. One Aboriginal site was recorded within a disturbed context during the survey (within the Pit 5 area) which consisted of an indurated mudstone broken flake (AHIMS ID 45-5-4098) located within an exposure on a cattle track approximately 250 m east of Badgerys Creek. This prompted an additional survey of a section of Badgerys Creek; however, no additional sites were found. The report noted that further assessment was not recommended as the proposed development did not impact the archaeologically sensitive landform along the creek.

3.2.2 Artefact 2018. Badgerys Creek Quarry and Brickmaking Facility. Combined Due Diligence and Archaeological Test Excavation Methodology.

CSR proposed to expand the Facility with the construction of a roof products manufacturing area (MOD3) and a solar farm (MOD4). These modifications were located east of the previously assessed Pit 3, Pit 4, and Pit 5 by AECOM. Secretary's Environmental Assessment Requirements (SEARs) were issued for MOD3 (MP10_0014 MOD3) that stated an EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in the EIS. A separate SEARs had not been issued for MOD4, however, the DPHI commented that cumulative impacts within and between MOD3 and MOD4 would need to be assessed.

To address the environmental assessment requirements to support the proposed modifications Artefact was engaged by Element Environment (Element), on behalf of CSR to undertake a desktop assessment and site inspection. The desktop assessment indicated that areas of Aboriginal archaeological potential were located within the proposed impact areas. This triggered further archaeological assessment of MOD 3 and MOD 4 through a surface survey and a test excavation methodology (Artefact Heritage 2018).

The survey methodology proposed targeted sampling transects of areas that would be impacted by the proposed development and that contained landforms of archaeological potential.

The test excavation methodology proposed a sampling strategy that would target areas of archaeological potential. Areas of potential for sampling were informed from previous archaeological investigations in the area that identified Aboriginal cultural material in close proximity to waterways, namely both Badgerys Creek (AECOM 2010) and South Creek (Haglund 1978). Therefore, landform observations in conjunction with predictive models were used to inform the locations of the testing programme.

3.2.3 Artefact, 2019. CSR Advanced Manufacturing Hub. (MOD3 & MOD4) –ATR.

Artefact Heritage prepared an ATR in February 2019. An archaeological survey was conducted that identified one new archaeological site, Badgerys Creek Brick Works 18 Isolated Find (BCBW18 IF) 01 (AHIMS ID 45-5-5165). BCBW 18 Tree (potentially modified scar tree) was also identified. The survey resulted in the confirmation that the entirety of the study area contained moderate archaeological potential. This was due to the study area containing low levels of historical ground disturbance, presence within a landform of archaeological potential and in close proximity to South Creek. This survey was then documented in the ATR.

The test excavation program resulted in the identification of three new subsurface Aboriginal artefact lithic sites. They comprised:

- BCBW18 AS 01 (AHIMS ID 45-5-5162) was a low-density artefact scatter (totalling two artefacts) and was assessed as being of low scientific significance.
- BCBW18 AS 02 (AHIMS ID 45-5-5164) was a low-density artefact scatter (totalling 21 artefacts). The site also featured a clay heat retainer hearth, which is extremely rare within the regional context and was considered of high research potential.
- BCBW18 AS 03 (AHIMS ID 45-5-5163) was a high-density artefact scatter (totalling nine artefacts) that was considered to be of low scientific significance (located outside of the current study area).

The ATR recommended the following:

- An ACHAR must be prepared in compliance with the Aboriginal heritage requirements of MP10_0014.
- Collection of surface artefacts across BCBW18 IF 01 (AHIMS ID 45-5-5165) must be conducted prior to the commencement of the proposed works.
- A conservation area with a 10 m buffer should be placed around the hearth feature portion of BCBW18 AS 02 (AHIMS ID 45-5-5164).

Long term arrangements for the management of excavated artefacts, involve reburial within the location specified in the ACHARs for MOD3 and MOD4 (Artefact Heritage 2019a; Artefact 2019b).

3.2.4 Artefact Heritage February 2019. CSR Advanced Manufacturing Hub. MOD3 and MOD4– ACHAR.

Artefact prepared an ACHAR for MOD3 and MOD4 in accordance with the recommendations made in the ATR and the Secretary's Environmental Assessment Requirements MP10_0014 MOD3. Aboriginal community consultation was conducted in accordance with the Heritage NSW Consultation Requirements. High cultural values were identified in association with the study area during consultation. The BCBW18 Tree (cultural site) was also identified as culturally significant. BCBW18 AS-02, BCBW18 AS-03 and BCBW18 IF-01 was assessed as moderately socially significant as part of the wider cultural landscape and as physical evidence of the use of the area by Aboriginal people.

All Aboriginal sites are considered to be of social and cultural significance to the contemporary Aboriginal community as part of an increasingly rare archaeological resource providing a tangible connection to pre-contact Aboriginal people of the area. Therefore, the study area was considered to be of moderate significance.

The assessment concluded a Heritage Interpretation Strategy must be prepared and implemented, which addresses the cultural significance of the location within the Darug landscape and the archaeological finds from the study area. This was determined in consultation with RAPs. Additionally, following completion of archaeological investigations, analysis and reporting, the assemblage retrieved from the test excavation should be reburied within the conservation area of BCBW18 AS 02 (AHIMS ID 45-5-5164).

3.2.5 Extent Heritage, 2020, Western Sydney Aerotropolis Initial Precincts Draft Aboriginal and Non-Aboriginal Cultural Heritage Assessment, Prepared for Western Sydney Planning Partnership.

Extent prepared an assessment of both historical and non-historical (Aboriginal) heritage for the broader Western Sydney Aerotropolis Initial Precincts that included the study area. Preliminary Aboriginal consultation, preliminary cultural heritage values mapping, and desktop research was undertaken.

During preliminary consultation RAPs noted the following

-
- *Unusual and well-preserved landforms such as exposed sandstone outcrops, areas of remnant old growth vegetation and well-preserved creek corridors should be protected where possible.*
 - *There is a need to investigate the results of archaeological assessments undertaken across the Badgerys Creek airport site as they may shed important light on site and settlement patterns in the region.*
 - *A single location should be established within the Aerotropolis where all artefacts recovered during archaeological investigations could be repatriated or held. This would allow all artefacts to be reburied on Country near where they were recovered and would also provide a central location for Aboriginal community members to visit.*
 - *This artefact repatriation location or "keeping place" could even be established as a memorial park where Aboriginal community members could go for the*

foreseeable future to feel connections with past and present Aboriginal people and with Aboriginal culture.

The importance of the waterways for potential unregistered archaeological sites, such as adjacent to Badgerys Creek and continued consultation with RAPs was emphasised within the preliminary recommendations and discussion. Key issues identified by Aboriginal stakeholders included: the need for further archaeological investigations; the desire to conserve key well-preserved landforms, sites and scarred trees; establishment of a repatriation area for recovered artefactual material.

3.2.6 Artefact 2021. CSR Advanced Manufacturing Hub. Heritage Management Plan.

Artefact prepared an Aboriginal HMP (Artefact 2021) that identified how the conditions of consent requirements have been addressed through previous archaeological investigations and reporting and also provided management measures for both MOD3 and MOD4 in accordance with recommendations made in both ACHARs. This included the following:

3. Heritage Induction for all staff prior to the commencement of ground disturbing works.
4. Protection of heat retainer hearth feature in BCBW18 AS 02 (AHIMS ID 45-5-5164) through a 10m buffer zone.
5. Artefact collection BCBW18 IF 01 (AHIMS ID 45-5-5165) in conjunction with RAPs.
6. Reburial of lithic artefacts:
 - BCBW18 AS 01 (AHIMS ID 45-5-5162) (two stone artefacts)
 - BCBW18 AS 02 (AHIMS ID 45-5-5164) (21 stone artefacts and a clay hearth)
 - BCBW18 AS 03 (AHIMS ID 45-5-5163) (nine stone artefacts)

Artefact was further engaged to undertake the management recommendations made in the HMP (Artefact 2021).

At the time of preparing this report, all tasks under the HMP have been completed with the exception of the artefact reburial and conservation of the hearth. A proposed location for the artefact reburial has been included in the appendices of this ACHAR.

3.2.7 M2A 2021. Sydney Metro – Western Sydney Airport. Aboriginal Archaeological Report

M2A prepared an Aboriginal archaeological report ahead of the development of a metro railway line which will span a distance of 23 kilometres between St Marys in the north to the Western Sydney Aerotropolis west of the study area.

AHIMS searches of the study area identified 360 sites, of which 10 were found to be located within the boundary of the construction footprint. Initial inspections of accessible portions of the construction footprint were undertaken in 2020, which identified two, new in-situ sites, including one artefact scatter and one isolated artefact, located outside the boundary of the construction footprint. During inspections, feedback from RAP representatives indicated that waterways traversing the construction footprint hold cultural significance as both resource acquisition zones, and as pathways for Aboriginal people in the past.

Concurrent archaeological survey and test excavation were undertaken to determine the archaeological character and cultural heritage significance of the area surveyed and excavated. Test excavation of 196, 0.5 by 0.5 metre test pits took place across the Cumberland Plain landscape, with

a number of pits excavated in Blacktown soils, which are present within the study area. Pits were excavated until a culturally sterile depth was reached, often terminating before 300 mm.

Of the 196 test pits excavated, 22 (11.2%) test pits were found to contain Aboriginal objects, with densities ranging from one to five artefacts per test pit. 42 lithic artefacts were recovered in total. Lithic analysis found that 31 artefacts were made of silcrete, six of silicified tuff, three of quartz and one of chert. One core was recovered from excavation, indicating that tool manufacturing took place within the project area.

The report stated that past disturbance and current landforms within the study area indicated that creeks within and/or adjacent to the construction footprint, including their tributaries contained the highest archaeological potential.

3.2.8 Artefact 2024. 40 The Retreat, Bringelly ATR

Artefact Heritage prepared an ATR at 40 The Retreat Bringelly Road located approximately 2.20 km southwest of the study area. There were 105 AHIMS registered site located within the search area however none were recorded inside the study area. Lithic artefacts were the most common site feature within the search area. The study area was situated within 200 m of Thompson Creek however within a disturbed landscape with no identified Aboriginal objects or areas of Potential Archaeological Deposit. Consequently, the study area was assessed as containing no archaeological potential and no further investigations were recommended.

3.2.9 Artefact 2023. 230 Martin Road, Badgerys Creek, ACHAR.

Martin Road borders the north of the current study area. An ACHAR was completed by Artefact in May 2023 for a filed but not lodged State Significant Development Application (SSD-22529236).

An updated ACHAR found that:

- One area of PAD, WSSRRC 01 (AHIMS ID 45-5-5773, located within 200m of the study area of this report) was identified during the survey completed for the May 2023 ACHAR by Artefact. The site has archaeological potential and is of unknown scientific significance.
- The area of PAD would not be impacted by the project works.

The following recommendations were made:

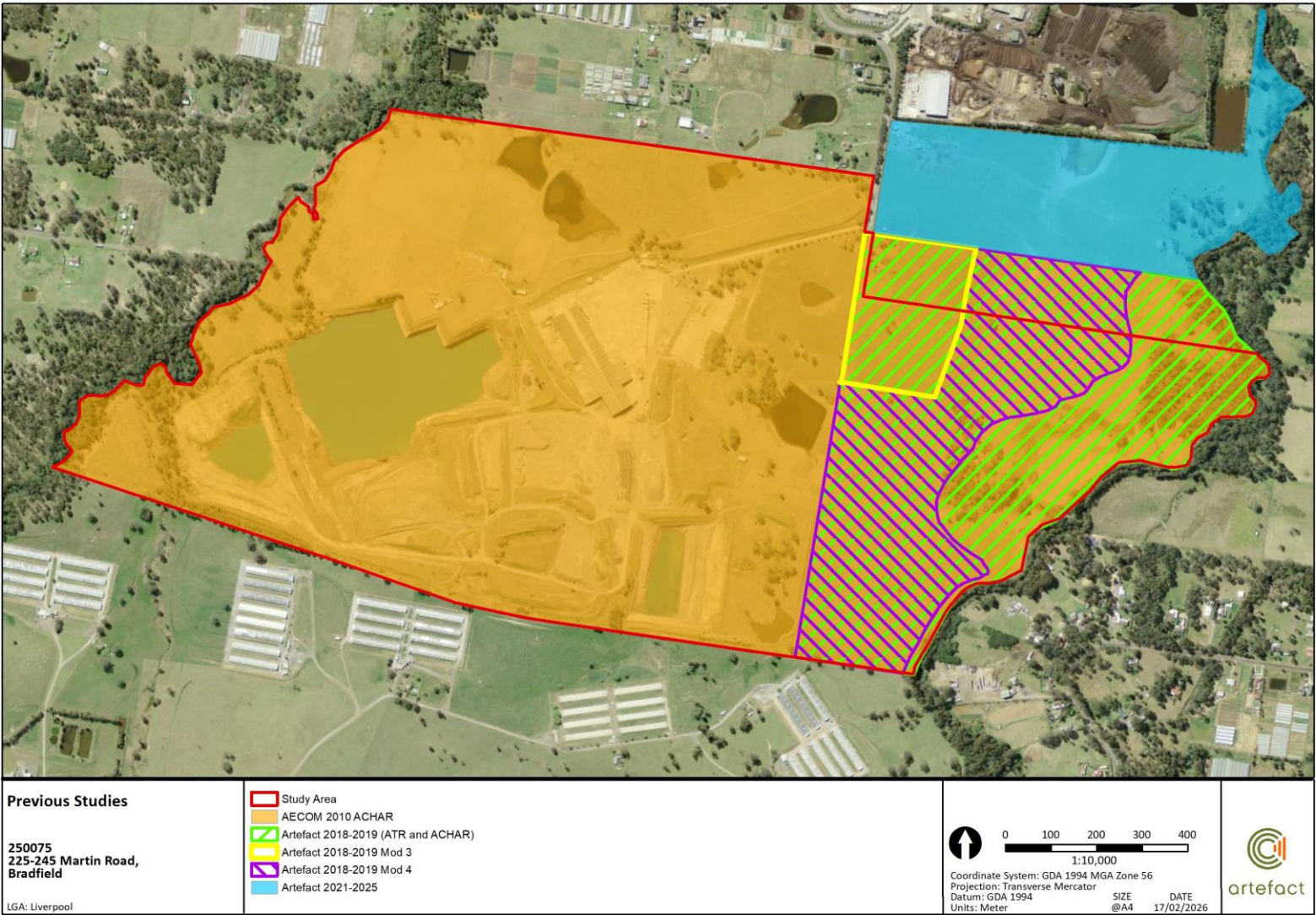
- An exclusion zone should be established around the outer perimeter of the area of PAD to prevent inadvertent impact
- The location of the registered Archaeological Heritage Information Management System (AHIMS) site BCBW18 AS 03 (AHIMS ID 45-5-5163 also within 200m of the study area of this report), an artefact scatter adjacent to the study area, should be recorded on construction drawings and the location marked during construction to ensure that it is not subject to impacts during construction works. An exclusion zone should be established around this site within the property boundary prior to the commencement of works

Based on the findings of the ACHAR, no further investigations are required as the works proposed would not impact the PAD area.

3.2.10 Artefact 2023. 126 Kelvin Park Drive, Bradfield: Heritage Constraints and Opportunities Memo. Report prepared for Taylor Smith Consulting.

In 2023, Artefact prepared a Heritage Constraints and Opportunities Memo for the concept planning phase associated with the Aerotropolis Core precinct development. That report included a preliminary review of the Aboriginal archaeology and historical archaeology of the site and preliminary research for considering a Connecting with Country approach. It was determined that, although no Aboriginal sites occurred within the site investigated, the site was within 200 metres of an ephemeral waterway, included a crest landform, and had an intact landform on the mid and low slopes north of the residential dwelling, therefore, there was a likelihood that Aboriginal objects may be present and assessment was required (Artefact 2023). Artefact also recommended that a Connecting with Country Framework, including stakeholder consultation, be developed in line with the *Recognise Country: Guidelines* and to meet the requirements of the SEPP (Precincts-Western Parkland City) 2021.

Figure 5: Previous studies within the SSD-97711727 footprint



3.3 Environmental background

3.3.1 Soils

The study area falls within the Blacktown and South Creek soil landscapes (Figure 6). The central portion of the study area is located within the Blacktown soils. These soils comprise shallow to moderately deep, hard-setting, and mottled soils (eSPADE 2025). Cultural deposits in these soils are usually shallow (less than 300 mm), as confirmed by previous excavations. Sandstone outcrops are rare in this landscape, leading to few AHIMS sites associated with sandstone outcrops such as engravings or grinding grooves. The South Creek soil landscape is located along the western and eastern edges of the study area. This soil landscape is alluvial, with deep, layered sediments overlying bedrock or relic soils. Near drainage lines, plastic clays and structured loams are common, while terraces feature red and yellow podzolic soils with some grey clays and leached variants (Bannerman and Hazelton 1990).

3.3.2 Geology

The study area is part of the Cumberland Plain within the Sydney Basin, formed 250–300 million years ago (Pickett and Alder 1997). Early geological layers include marine shales and mudstones, followed by coal measures. During the Triassic period, deposits formed three main groups: Narrabeen, Hawkesbury Sandstone, and Wianamatta (Clark and Jones 1991; Pickett and Alder 1997). Locally, the geology includes Quaternary alluvium from Wianamatta rocks and Hawkesbury Sandstone. These rocks consist of dark shales, thin sandstones, and quartz sandstone. Later weathering and stream changes have produced ironstones, lateritic soils, and gravel lags, with silcrete outcrops on the northern Cumberland Plain serving as important stone tool sources.

3.3.3 Landform and Hydrology

The study area lies between Badgerys Creek to the west and South Creek to the east, with several tributaries crossing through the study area. Badgerys Creek and South Creek are third order waterways, with the tributaries crossing through the study area being first and second order, non-perennial waterways. Areas closest to these waterways have the highest potential for Aboriginal artefacts. While parts of the study area are above the flood zone, the eastern section lies within the probable maximum flood level and medium risk zone. The terrain features gentle, undulating hills. The area rises to a ridgeline spur in the south, with landform elements including a hill crest and a gradual slope. The highest point is in the west, sloping southeast toward South Creek.

Figure 6: Study area soil landscape

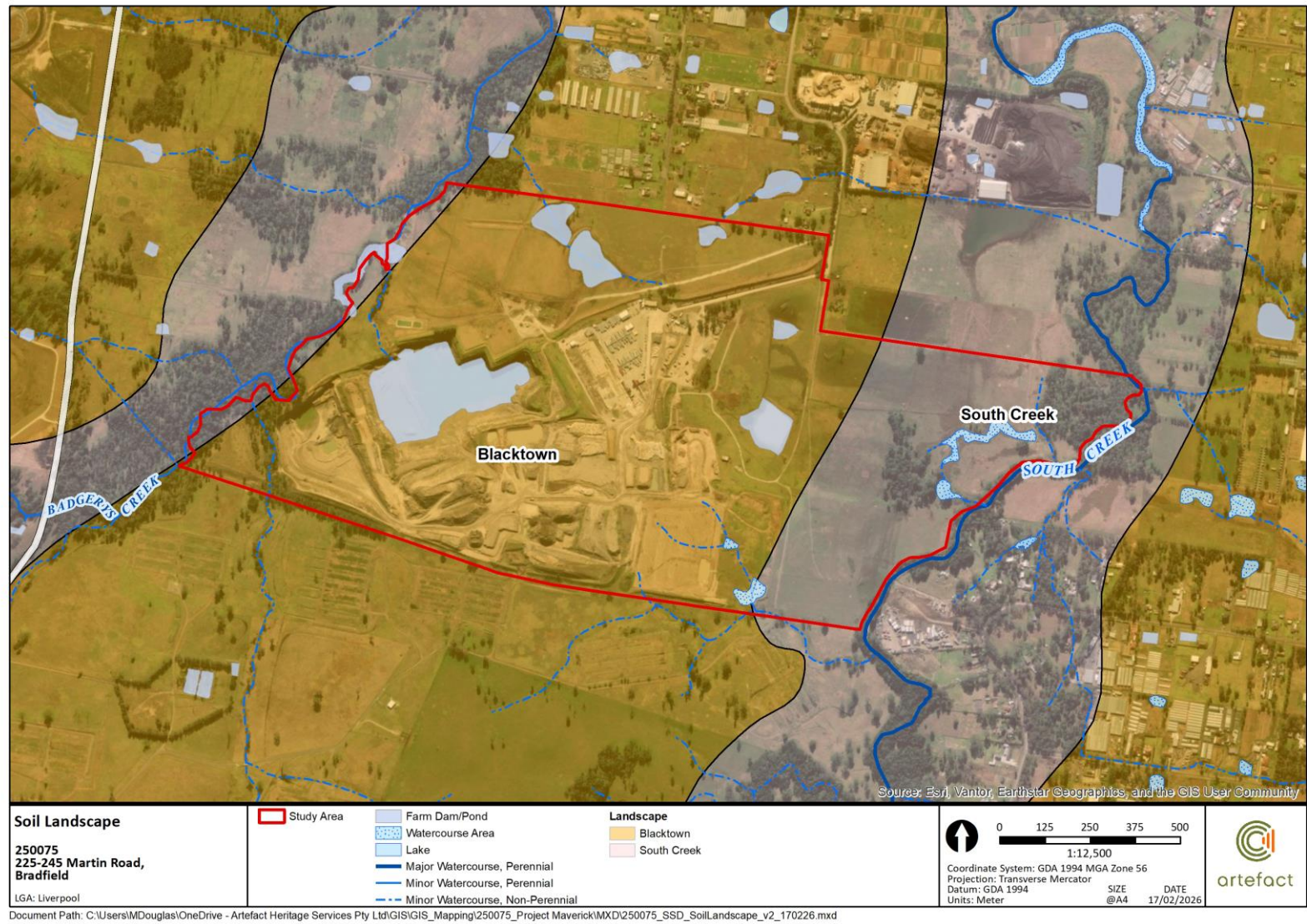
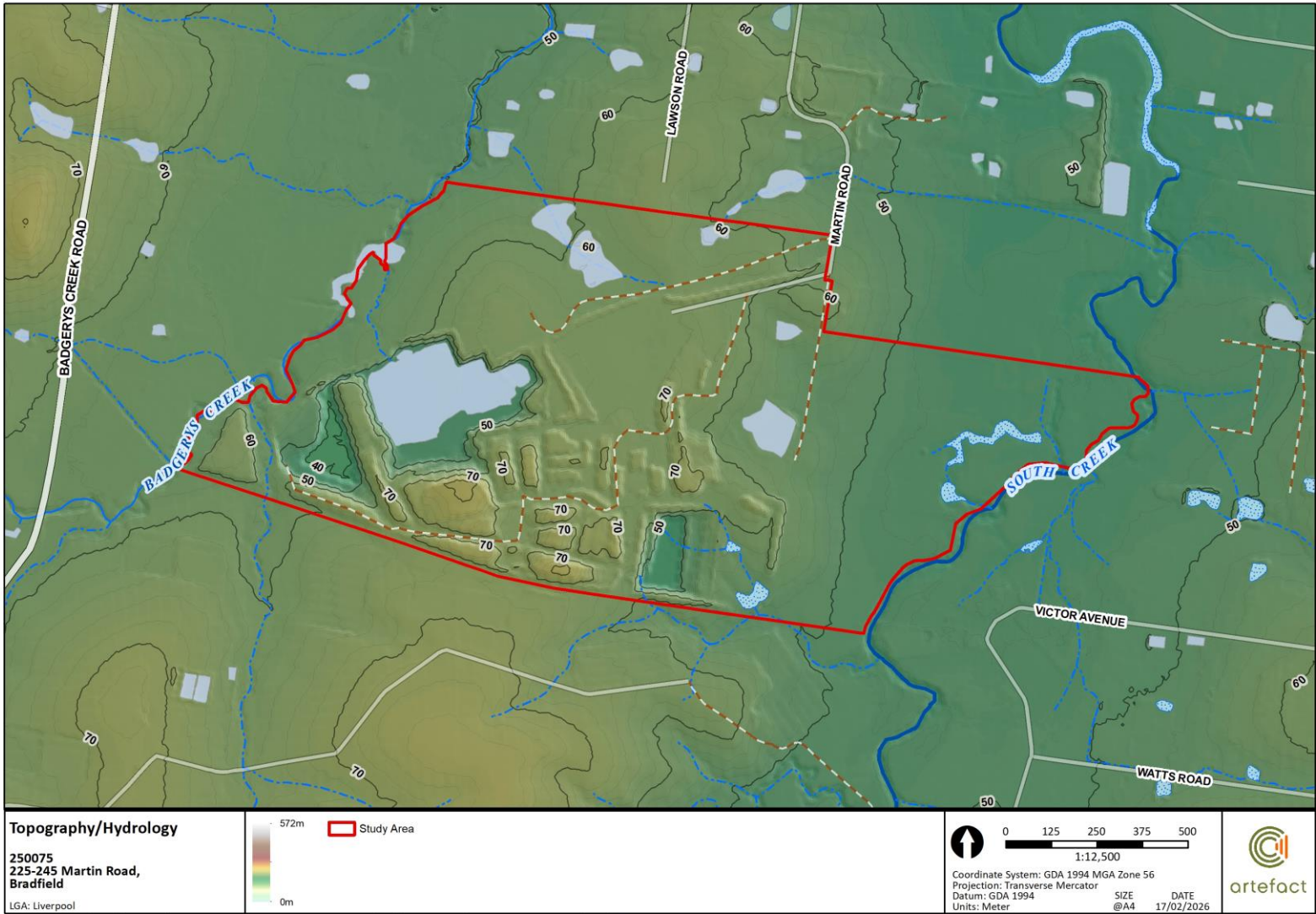


Figure 7: Study area hydrology and topography



3.4 Predictive model

The predictive model comprises a series of statements about the nature and distribution of Aboriginal land use within the study area. Based on a synthesis of information from the results of desktop research, landscape context and previous archaeological investigations, the following predictive statements can be made:

- Areas of high- moderate archaeological potential are most likely located in creek flats, banks and areas within 300 m of Badgerys Creek and South Creek and its first and second order tributaries.
- Aboriginal objects are unlikely to present within floodplains and areas of reoccurring flooding that are more likely to strip away/relocate Aboriginal objects. While parts of the study area are above the flood zone, the eastern section lies within the probable maximum floor level and medium risk zone.
 - Areas of low archaeological potential are likely located within hill tops and areas of high levels of historical ground disturbance.
- Sites in the study area are most likely to consist of surface or subsurface low-density stone artefact scatters and potentially additional clay hearths. Any artefacts encountered are likely to be made of silcrete. Materials such as quartz, quartzite, chert and mudstone may also be encountered.
 - Modified Trees are unlikely to be present within the study area. Modified Trees may be present where vegetation clearance has not taken place.
 - Ground visibility and exposure are likely to be low due to grass cover
- PAD's will be identified based on a combination of factors which include:
 - The presence of natural soil deposits
 - The presence of landform features described above
 - Observed low levels of ground disturbance
 - From the sample survey of the study area, conducted on 30th May 2025, no additional artefacts nor Potential Archaeological Deposits were recorded during the visual inspection, with the exception of confirming the area of potential adjacent to Badgerys Creek previously identified by AECOM.

4.0 SUMMARY OF FIELD INVESTIGATIONS

Several Aboriginal archaeological investigations have previously been undertaken within the study area. The most recent survey has been summarised below.

4.1 Artefact 2025. Project Maverick, Aboriginal Heritage Constraints and Opportunities Assessment, Prepared for Goodman.

Goodman Group have acquired the CSR's Badgerys Creek (Bradfield) land parcel at 225-245 Martin Road for the construction of several warehouses and associated road infrastructure. Artefact Heritage and Environment were engaged to prepare an Aboriginal Archaeological Constraints and Opportunities Assessment to identify known or potential Aboriginal cultural heritage within the study area to identify potential further required archaeological investigations for the project.

A sample survey of the study area was completed on 30 May 2025 to test the predictive model based on the synthesis of information collected as part of the background research. Due to the large amount of land the study area encompasses and the large number of archaeological investigations that have previously occurred within the study area, the sample survey focused on relocating existing registered AHIMS sites within the study area and surveying areas of undeveloped land adjacent to Badgerys Creek in the west and South Creek in the east. No additional surface artefacts nor Potential Archaeological Deposits were recorded during the visual inspection, with the exception of confirming the area of potential adjacent to Badgerys Creek previously identified by AECOM.

Based on the sample survey, the following sites were considered valid within the study area:

- AHIMS ID 45-5-4099
- AHIMS ID 45-5-2704
- AHIMS ID 45-5-5164

The following sites were considered destroyed and an ASIRF had been lodged for each site:

- AHIMS ID 45-5-4098
- AHIMS ID 45-5-5165
- AHIMS ID 45-5-5162

Two of the valid sites (AHIMS ID 45-5-4099 and AHIMS ID 45-5-5164) and an area of archaeological potential adjacent Badgerys Creek may be impacted by the proposed works. As such, the following recommendations were made:

AHIMS site	Proposed works
AHIMS ID 45-5-4099	• The site is located within proposed stormwater infrastructure and open space drainage that will include ground disturbance (as required under the Western Sydney Aerotropolis Precinct Plan (2024)). • The site was assessed as of low significance. • The site cannot be harmed under the existing consent. • An Aboriginal Cultural Heritage Assessment Report (ACHAR) must be prepared in support of either project specific SSD conditions of consent.

AHIMS site	Proposed works
	- Salvage excavations may be required as a condition of consent to harm. - The site should be included on all maps and plans for the project until further permits approving harm is obtained.
AHIMS ID 45-5-2704,	- This site will not be impacted by the proposed works. - No further investigations are required. - The site should be included on all maps and plans for the project.
AHIMS ID 45-5-5162	- The site has been destroyed through test excavations. - No further investigations are required.
AHIMS ID 45-5-5164	- The site is of high archaeological significance and will require salvage excavations prior to harm. - The site cannot be harmed under the existing consent. - An ACHAR must be prepared in support of either project specific SSD. - This must include consultation with Registered Aboriginal Parties (RAPs). - The site should be included on all maps and plans for the project until further permits approving harm is obtained.
AHIMS ID 45-5-4098 and AHIMS ID 45-5-5165	- The two sites have been destroyed - No further investigations are required.
Area of archaeological potential adjacent to Badgerys Creek	- The area adjacent to Badgerys Creek contains further potential for subsurface archaeological deposits. - The areas of proposed stormwater infrastructure and open drainage that will include ground disturbance within this area (as required under the Western Sydney Aerotropolis Precinct Plan (2024)), test excavation is required. - If test excavations result in Aboriginal objects being recovered conditions of consent for a project specific SSD will be required to approve harm or further salvage excavations. - If ground disturbance will not occur within this area of potential, no further investigations are required. The area of potential should be included on all maps and plans for the project.

5.0 CULTURAL HERITAGE VALUES

5.1 Methodology

The cultural assessment in this report includes information collected through desktop assessment and Aboriginal community consultation undertaken in accordance with the Consultation Requirements. This information was collected by Lily Hackett (Senior Heritage Consultant, Artefact Heritage).

5.1.1 Cultural landscape

The World Heritage Convention of United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines a cultural landscape as one which has 'powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent' (UNESCO 1991). The relationship between Aboriginal Australians and the land is conceived in spiritual terms rather than in material terms (Andrews et al 2006). Aboriginal cultural knowledge has been defined as:

Accumulated knowledge which encompasses spiritual relationships, relationships with the natural environment and the sustainable use of natural resources, and relationships between people, which are reflected in language, narratives, social organisation, values, beliefs and cultural laws and custom (Andrews et al 2006).

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

5.1.2 Types of values

Aboriginal people hold significant knowledge about traditional use of land before and after contact. The landscape which encompasses the study area has cultural value of importance to the Aboriginal community. The Aboriginal community collectively holds values and knowledge that relate to:

- Traditional values: these are passed down by family and community as part of ancient tradition.
- Historical values: these are passed down by family and community and relate to the eras since colonisation; these may include information gained from historical source documents.
- Contemporary values: these are values of modern importance and relevance for Aboriginal stakeholder groups.

There is often no clear separation between these values, and they collectively co-exist with equal importance in forming the value that Aboriginal people place on landscape, cultural heritage, intangible heritage, and particular landforms or parts of the landscape.

5.2 Identified Aboriginal cultural heritage values

Table 8 provides a summary of the Aboriginal cultural heritage values associated with the study area.

Table 8: Cultural heritage values identified for the study and surroundings

Cultural heritage value	Description	Source
Archaeological evidence of Aboriginal occupation	Aboriginal people have expressed a strong view that sites and deposits associated with the archaeological record of Aboriginal occupation at Badgerys Creek were of high cultural value to Aboriginal people.	As stated in the MOD 3 ACHAR (Artefact 2019), (Navin Officer Heritage Consultants 2016, Justine Coplin - Darug Custodian Aboriginal Corporation)
Badgerys Creek waterway	The study area and broader landscape is regarded as having characteristics would have been of significance regarding the traditional cultural practices of Aboriginal people of the pre-colonial past. As such the landscape should be retained in as natural a state as possible. The intangible cultural values of the landscape and its surviving biota were valued for their association with traditional culture and lore, and the sense of the place and social identity derived from them.	As stated in the MOD 3 ACHAR (Artefact 2019), (Navin Officer Heritage Consultants 2016, Justine Coplin - Darug Custodian Aboriginal Corporation)
Heat retainer hearth	BCBW18 AS 02 (AHIMS 45-5-5164) is of high archaeological significance. The hearth represents direct evidence of past Aboriginal occupation - a place of living, gathering, and resource use, and carries cultural value as a record of continuity and connection with the landscape. The associated 21 artefacts further demonstrate sustained occupation and cultural practice, representing knowledge, skill, and continuity of connection with the surrounding landforms. Together, the hearth and artefacts embody both daily life and enduring cultural values that should guide how the site is managed. Avoidance should remain the preferred management option where feasible, with salvage or relocation only considered following consultation and agreement with RAPs.	As stated in MOD 4 ACHAR (Artefact 2019) and Dean Deleponte - Mundawari Heritage Consultants)

6.0 SIGNIFICANCE ASSESSMENT

A significance assessment of the scientific, social, historic and aesthetic values of the study area is included below.

6.1 Significance assessment criteria

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. The Guide (OEH 2011: 10) provides guidelines, in accordance with the Burra Charter (Australia ICOMOS 2013) for significance assessment with assessments being required to consider the following criteria:

- Social values – does the area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?
- Historic values – is the area important to the cultural or natural history of the local area and/or region and/or state?
- Scientific values - does the area have the potential to yield information that will contribute to an understanding of the cultural and natural history of the local area and/or region and/or state?
- Aesthetic values – is the area important in demonstrating aesthetic characteristics in the local area and/or region and/or state?

Scientific values should be considered in light of the following criteria:

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

It is important to note that heritage significance is dynamic. Heritage items can shift in significance based on rarity. For example, if development leads to the impacting or destruction of heritage items, preserved items of the same kind elsewhere can increase in significance as they would now represent a less frequent example of a specific heritage item.

6.1.1 Historic value

Historic values refer to the association of the place with aspects of Aboriginal history. Historic values can be related to physical objects, but may also be present through intangible and relate to memories, stories or experiences. No specific people or events or activities of historical importance to the Aboriginal community were identified during consultation.

The three low-density artefact scatters within the study areas (AHIMS ID 45-5-2704, AHIMS ID 45-5-4099, AHIMS ID 45-5-5164,) demonstrate a sustained occupation and cultural practice in the landscape, representing knowledge, skill, and continuity of connection with traditional material culture and the surrounding landforms. However, regarding the relatively small assemblage size of each site, and low density suggests that the area was not a location of any specific significant event or activity in

the pre-contact or post-contact past. Likewise, the associated hearth feature of AHIMS ID 45-5-5164 comprises high cultural and archaeological significance, however no specific historic events/ceremony or knapping events are associated with the feature. The study area is considered to be of low historic significance.

6.1.2 Aesthetic value

This refers to the 'sensory' value of a place, and can include aspects such as form, texture, and colour, and can also include the smell and sound elements associated with use or experience of a site (Australian ICOMOS 2000). Aesthetic significance can be closely linked to the social value of a site. The western and eastern portions of the study area are considered to be of moderate aesthetic value based on proximity to aesthetically pleasing features such as the creek and bushland/vegetation. Large portions of the study area have been impacted through historical ground activities and quarrying, however prior to this disturbance the land would have been similar to the Cumberland Plains landscape. The western and eastern portions of the study area, those with the least evidence of previous ground disturbance, reflect this.

6.1.3 Socio/cultural value

The Consultation Requirements specify that the social or cultural value of a place must be identified through consultation with Aboriginal people.

BCBW18 AS 02 (AHIMS 45-5-5164) is of high cultural significance representing evidence of past Aboriginal occupation and carries cultural value as a record of continuity and connection with the landscape. The associated 21 artefacts are also of social and cultural value in demonstrating Aboriginal cultural practice, representing knowledge, skill, and continuity of connection with the surrounding landforms (Dean Deleponte, Mundawari Heritage Consultants). No additional social or cultural values were identified during consultation regarding the other AHIMS sites within the study area.

6.1.4 Scientific value

A statement of the archaeological significance for all valid sites within the study area is presented below and summarised in Table 9.

6.1.4.1 AHIMS ID 45-5-4099

AHIMS ID 45-5-4099 is recorded as a subsurface artefact scatter of four silcrete artefacts adjacent Badgerys Creek. Due to the frequency of artefacts located within a single transect on the very edge of the testing area, it was assessed the boundary of the scatter was not fully understood through test excavations and therefore additional subsurface artefacts may still be present. As such the site card states the significance of the site cannot be determined. Further excavation adjacent to the scatter in the remaining PAD may yield further data to understand if additional artefacts recovered are associated within this site as one larger scatter or are a different site which may change the overall significance. Additional test excavation will be required. However, the low number of artefacts recovered during test excavations by AECOM contained low research and educational potential to further understand the regions history. The site also lacks potential as a teaching tool due to hundreds of similar artefacts already known within the archaeological record. Likewise, the site is of low rarity and moderate representativeness. The scatter represents a low-density background scatter of overall low significance.

6.1.4.2 PAD adjacent to Badgerys Creek and AHIMS ID 45-5-4099

No Aboriginal objects were identified through archaeological survey in association with the PAD. However, based on the proximity to AHIMS ID 45-5-4099 and AHIMS ID 45-5-2704 within the same

landform context, it is assessed there is potential for archaeological objects to be present within the PAD. The scientific value of any potential artefactual material present within the PAD is currently unknown, and test excavation of the identified PAD is required to more accurately determine the scientific value of these potential remains.

6.1.4.3 AHIMS ID 45-5-2704

AHIMS ID 45-5-2704 is described as an open artefact site in proximity to the creek comprising of nine artefacts. While the raw material type and typology of lithics are not provided within the site card and original EIS technical paper (1997-1998), the EIS states that the site was assessed as comprising of low archaeological and scientific significance. It is assumed the scatter represents similar low-density background artefact scatters in the local area of moderate representativeness and would not be considered rare nor possess particularly moderate or high research or educational potential not already known within the archaeological record of the Badgerys Creek and broader Western Sydney.

6.1.4.4 AHIMS ID 45-5-5164

BCBW18 AS 02 (AHIMS ID 45-5-5164) is a low-density subsurface artefact scatter and hearth located on an intact landform. The site features a clay heat retainer hearth, which is extremely rare within the regional context representative of high variability within the archaeological record where hearth are often destroyed or do not survive. The intact nature of the deposit presents a rare research opportunity to use the obtained carbon dates to contribute towards a regional sequence of artefact assemblages. The site also poses unique education potential for the Aboriginal community and past activity. Due to the high research potential and rarity of the site, BCBW18 AS 02 (AHIMS ID 45-5-5164) is considered to be of overall high scientific significance.

Table 9: Significance assessment

Site name (AHIMS ID)	Research potential	Representativeness	Rarity	Education potential	Overall significance assessment
AHIMS ID 45-5-4099	Low	Moderate	Low	Low	Low
PAD adjacent to Badgerys Creek	Unknown	Unknown	Unknown	Unknown	Unknown
AHIMS ID 45-5-2704	Low	Low	Low	Low	Low
AHIMS ID 45-5-5164	High	Moderate	High	High	High

6.2 Statement of significance

The study area holds varying degrees of significance across historic, aesthetic, socio-cultural, and scientific values. The study area holds historic significance through the identification of past Aboriginal activity and land use evidenced by low-density artefact scatters that indicate sustained occupation and cultural practices. However, the absence of specific significant events or activities suggest the study area is of overall low historic significance. Likewise, no specific aesthetic, social or cultural values have been identified with the exception of the highly culturally significant hearth BCBW18 AS 02 (AHIMS ID 45-5-5164) as a culturally valued record of continuity and connection with the landscape. This site also carries high scientific value for its rarity and valuable research potential. In contrast, other sites are of low scientific significance, with limited research and educational potential.

Overall, while the hearth feature is of high significance, the remaining study area holds low overall significance.

7.0 IMPACT ASSESSMENT

7.1 Proposed works

Works under SSDA No. SSD-97711727 are limited to the rehabilitation of areas disturbed by historic mining and brick-making operations, as well as remediation and bulk earthworks across other areas of the site to make the site suitable for intended future land use. The proposed application also seeks approval for demolition of any remaining structures on the Site. No buildings, retaining walls or other infrastructure works will be constructed under this SSD.

7.1.1.1 Aboriginal heritage impact

7.1.2 AHIMS ID 45-5-4099

A heritage conservation area was previously established surrounding AHIMS ID 45-5-2704 by AECOM that was subject to test excavations however artefacts were only located within one transect to the northwest of the site. Therefore, it was assessed the extent of this site is constrained to the transect of test pits where artefacts were deposited. The southern portion of the transect is located within the proposed Sydney Water stormwater infrastructure basin and drainage which will include bulk excavation and flooding. At the time of writing of the report the boundary of the basins are indicative and the impacts may extend further across the site.

7.1.3 PAD along Badgerys Creek

Bulk excavation works for the proposed Sydney Water stormwater infrastructure basin and drainage will directly impact portions of an area of potential identified within 60 m of Badgerys Creek. Because potential Aboriginal objects may be harmed by these proposed works, further test excavations are required to fully understand the harm to potential Aboriginal objects.

7.1.4 AHIMS ID 45-5-2704

No proposed works overlap with AHIMS ID 45-5-2704 therefore the site will not be directly impacted. The site is located in proximity to the southern water basin and infrastructure and an environment and recreation area and therefore may be indirectly impacted through flooding and landscaping works.

7.1.5 AHIMS ID 45-5-5164

AHIMS ID 45-5-5-5164 will be directly impacted through bulk excavation for the subsequent construction of warehouses and associated carparks and road infrastructure, and Sydney Water stormwater infrastructure basin and drainage stormwater. The hearth and associated scatter will be completely impacted by the proposed works associated with warehouse 4.

7.1.5.1 Summary of impacts

A summary of the impacts is provided in Table 10 and shown in Figure 8, Figure 9 and Figure 10.

Table 10: Impact assessment

Site name (AHIMS ID)	Type of harm	Degree of harm	Consequence of harm
AHIMS ID 45-5-4099	Direct	Partial	Partial loss of value

Site name (AHIMS ID)	Type of harm	Degree of harm	Consequence of harm
PAD along Badgerys Creek	Direct	Unknown	Unknown
AHIMS ID 45-5-2704	No harm	No harm	No loss of value
AHIMS ID 45-5-5164	Direct harm	Partial	Partial loss of value

Figure 8: PAD impact zone indicated by dark purple.

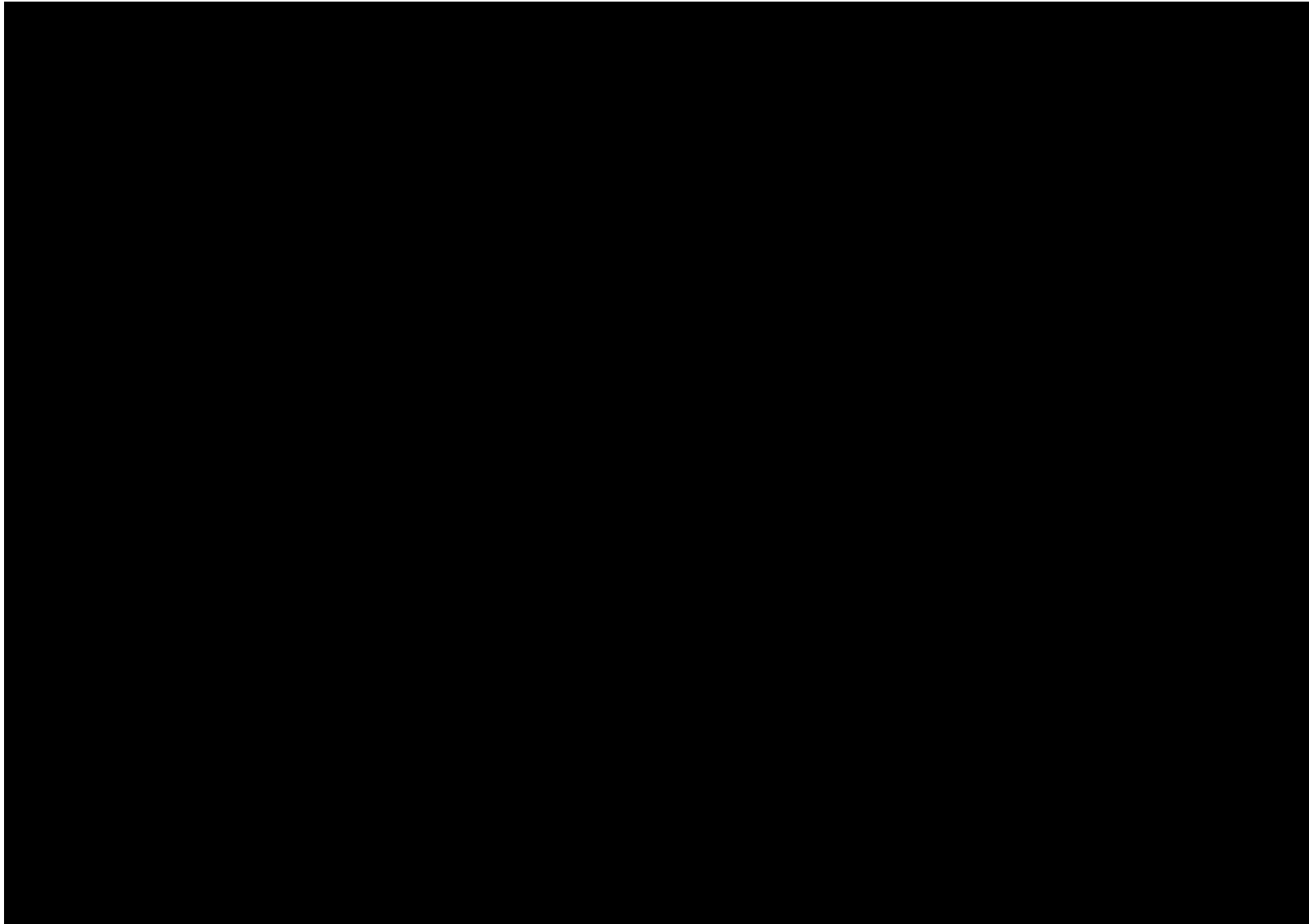


Figure 9: Bulk earthworks GA map.

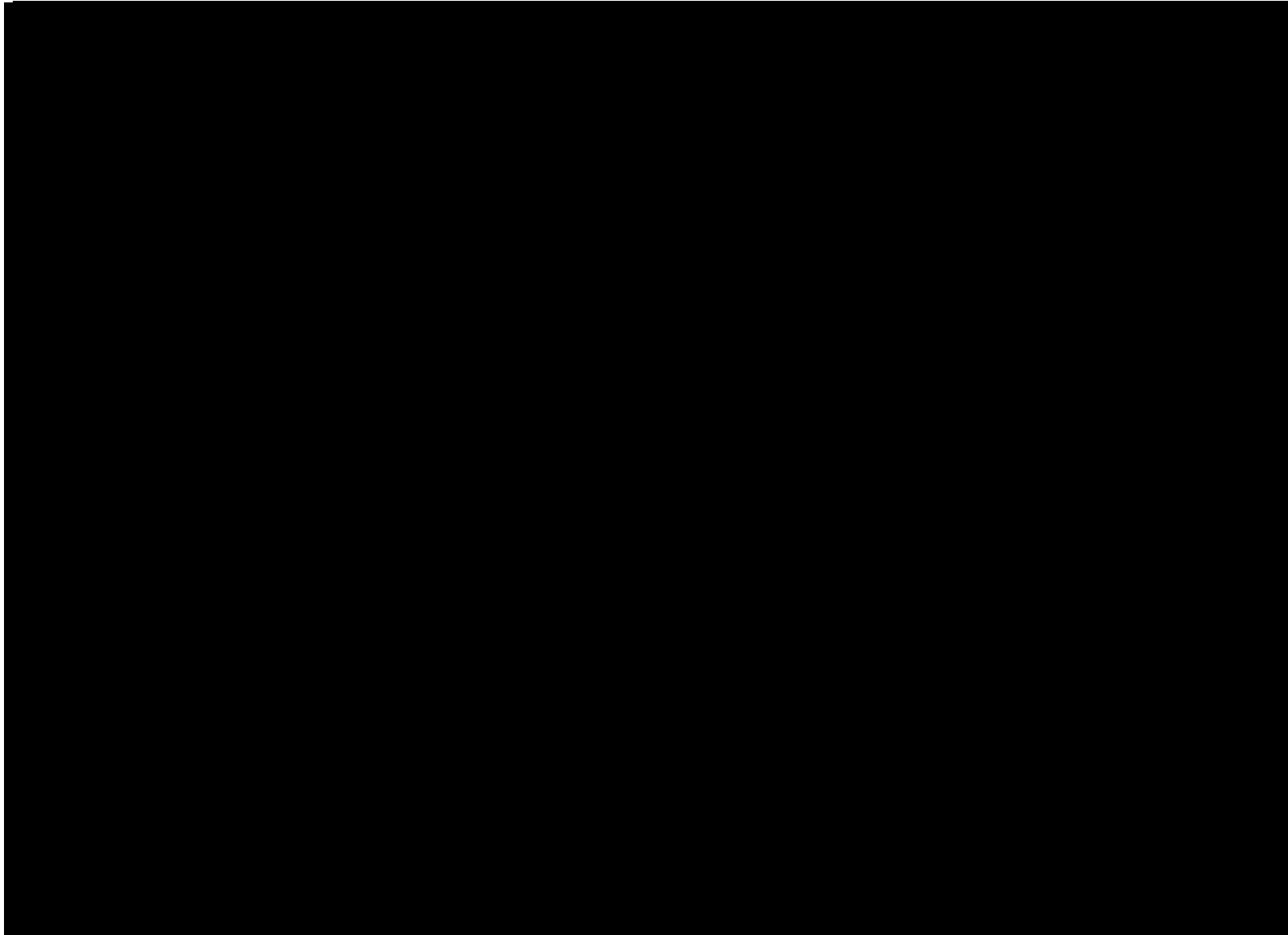
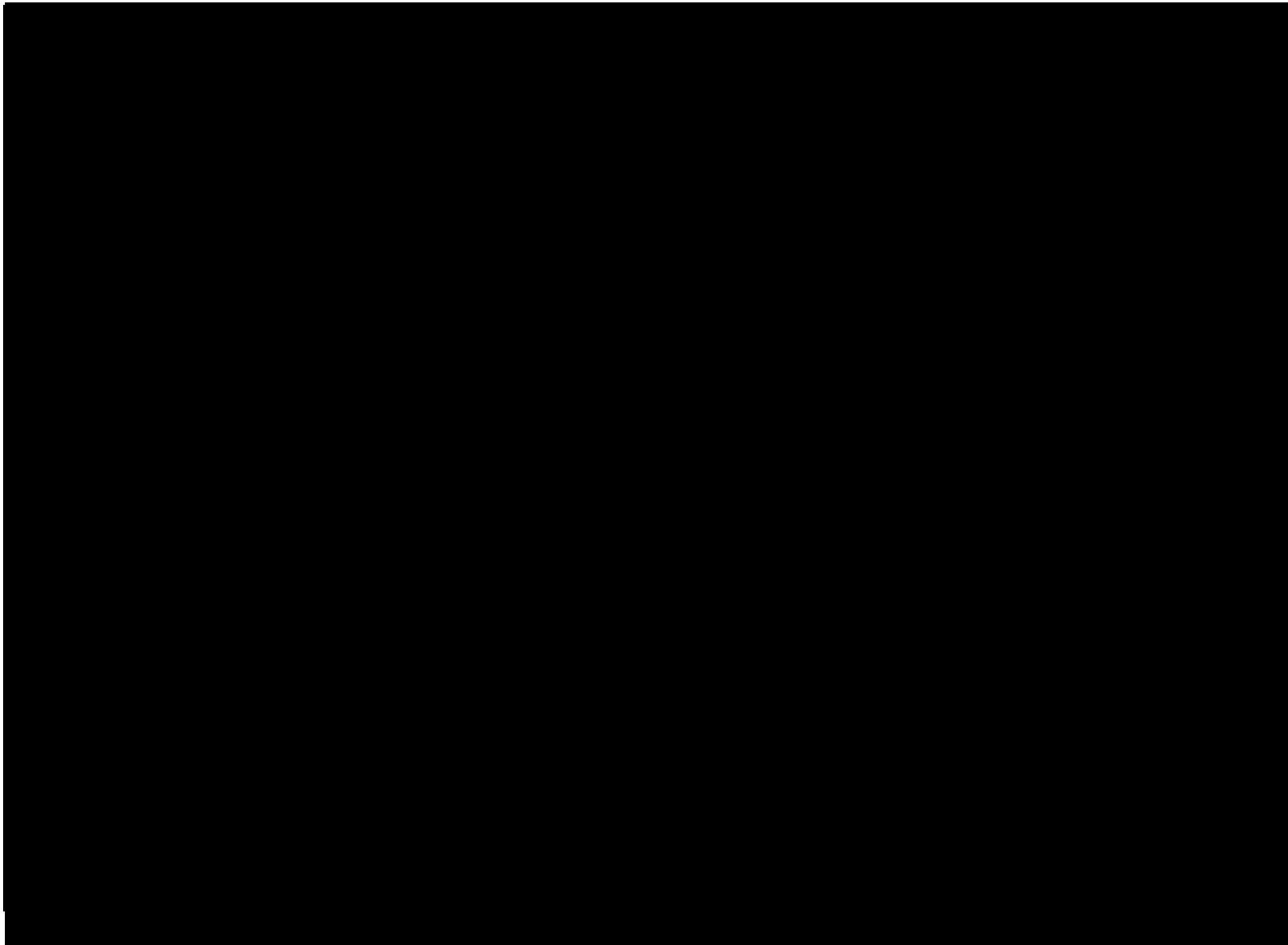


Figure 10: Bulk earthworks cut and fill.



7.2 Ecological Sustainable Development principles

The Guide (OEH 2011) specifies that Ecological Sustainable Development (ESD) principles must be considered when assessing harm and recommending mitigation measures in relation to Aboriginal objects.

The following relevant ESD principles are outlined in Section 3A of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*:

- Decision-making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the 'integration principle')
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle')
- The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the 'principle of intergenerational equity').

7.2.1 The integration principle

The preparation of this ACHAR demonstrates regard for the integration principle by considering Aboriginal heritage values and impacts to these from the proposal during the planning phase. The nature of the proposal is in itself one that contributes to the long term economic and social needs of current and future residents of the area.

Development and implementation of a Heritage Interpretation Strategy for Aboriginal cultural heritage values of the study area through the Connecting With Country Framework will assist in complying with the integration principle.

7.2.2 The precautionary principle

The combination of predictive models and the results of previous test excavation have been used to assess the probable nature of the archaeological record within the study area. It has been assessed that there is low potential for further, intact archaeological material in the majority of the study area.

Investigation is ongoing regarding the remaining registered AHIMS sites that will be impacted by the proposed works. As such, this will involve archaeological salvage and test excavation to establish the significance of the any subsurface artefacts should these be found. Once the test excavations have been completed and the results incorporated into this ACHAR, this section will be updated.

7.2.3 The principle of intergenerational equity

The proposed works would adhere, as close as possible, to the principle of intergenerational equity by collating scientific and cultural information on former Aboriginal occupation of the study area through the previous investigations and this ACHAR. Multiple previous archaeological investigations have been prepared for the study area which has adequately synthesised the regional character of Aboriginal objects and sites for posterity and future generations.

The development and implementation of a Heritage Interpretation Strategy in consultation with the RAPs will enhance the proposal and benefit future generations. The relocation and conservation of

the hearth (BCBW18 AS 02 - AHIMS ID 45-5-5164) and any recovered artefacts from the study area would ensure that Aboriginal resources are preserved for the education and benefit of future generations.

7.3 Cumulative impacts

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

All of the registered AHIMS sites within the study area and those that will be impacted by further archaeological excavations and proposed works have been assessed in light of their relationship to the archaeological landscape as a whole. The impact to registered AHIMS sites will result in an impact to the broader archaeological and cultural landscape of the study area. The multitude of developments in Western Sydney have significantly impacted similar landscapes and the archaeology that they contain BCBW18 AS 02 - AHIMS ID 45-5-5164 is of particular note as a highly significant and rare feature encountered within Western Sydney. The salvage and relocation of the hearth feature to an area that will not be disturbed will mitigate these cumulative disturbances for future generations.

8.0 MANAGEMENT AND MITIGATION MEASURES

8.1 Guiding principles

The overall guiding principle for cultural heritage management is that where possible Aboriginal sites should be conserved in situ.

Where unavoidable impacts occur then measures to mitigate and manage impacts are proposed. Mitigation measures primarily concern preserving the heritage values of sites beyond the physical existence of the site. The most common methods involve detailed recording of Aboriginal objects, archaeological salvage excavations, artefact analysis and, where appropriate, reburial of Aboriginal objects in a location determined by the RAPs.

Mitigation measures vary depending on the assessment of archaeological significance of a particular Aboriginal site and are based on its research potential, rarity, representatives and educational value. In general, the significance of a site would influence the choice of preferred conservation outcomes and appropriate mitigation measures, usually on the following basis:

- Low archaeological significance – conservation where possible. SSD Conditions of Approval would be required to impact the site before work can commence
- Moderate archaeological significance – conservation where possible. If conservation is not practicable, further archaeological investigation would be required such as salvage excavations or surface collection in accordance with the SSD Conditions of Approval.
- High archaeological significance – conservation as a priority. Where all other practical alternatives have been discounted, mitigation measures such as comprehensive salvage excavations in accordance with the SSD Conditions of Approval would be required.

Sites of unknown scientific value should be conserved where possible. Where conservation is not practical further investigation under the Code of Practice will be required to confirm the presence of Aboriginal objects and gather enough information to assess significance. Test excavation is not a mitigation measure, it is an investigatory action required to gather enough information to inform the development of appropriate mitigation measures.

8.2 Proposed measures

It is understood the impacts to existing registered sites cannot be avoided and therefore avoidance of impacts will not be possible. If the plans are changed at any stage, the following measures will need to be updated and revised.

Goodman and the consultant teams have looked to minimise harm by design rehabilitation works to avoid AHIMS where possible. However, Goodman are required to undertake the development in accordance with the Western Sydney Aerotropolis Precinct Plan (2024) which is in force under the provisions of State Environmental Planning Policy (Precincts – Western Parkland City) 2021, Chapter 4 Western Sydney Aerotropolis (WPC SEPP). It outlines important the locations of roads and Sydney water basins, which propose harm to the following artefacts included in Table 11. A summary of the proposed recommendations to the impacted AHIMS sites are included in the table below.

Table 11: Summary of proposed management and mitigation measures.

AHIMS site	Proposed works and impacts	Proposed measure
AHIMS ID 45-5-4099	The southern portion of the site is located within proposed stormwater infrastructure and open space drainage.	- The site cannot be harmed under the existing consent. - This ACHAR has been prepared in support of project specific SSD conditions of consent to obtain approval to harm the site. - The site should be included on all maps and plans for the project until conditions to approve harm is obtained.
PAD along Badgerys Creek	Portion of the PAD is located within proposed stormwater infrastructure and open space drainage that will include bulk excavation and flooding.	- Test excavation is required to understand if Aboriginal objects are present. Testing can occur under the Code of Practice. - If test excavations result in Aboriginal objects being recovered, conditions of consent will be required to approve harm or further salvage excavations pending excavation results and significance assessment.
AHIMS ID 45-5-2704,	The site will not be impacted	- No further investigations are required. - The sites should be included on all maps and plans for the project
AHIMS ID 45-5-5164	The site will be directly impacted by bulk excavation works and subsequent construction within the study area boundary.	- The site is of high significance and will require salvage excavations and relocation/repatriation prior to works. - The site cannot be harmed under the existing consent. - This ACHAR (including salvage excavation methodology – Appendix B) has been prepared in support of project specific SSD and conditions of consent to approve salvage of the hearth and harm the remaining site extent. - The site should be included on all maps and plans for the project until site is harmed under approvals.

8.3 SSD conditions of consent prior to salvage excavations

Consent must be obtained to authorise salvage excavation to **AHIMS ID 45-5-5164** and harm to **AHIMS ID 45-5-4099** in accordance with Part 4, section 4.26 Heritage Conservation of the WPC SEPP.

8.4 Archaeological excavation

8.4.1 Salvage excavation

AHIMS ID 45-5-5164 will be directly harmed by the proposed works. A highly significant hearth feature and associated subsurface artefact assemblage will be harmed therefore salvage excavation is required. An archaeological salvage excavation methodology must be prepared in consultation with RAPs prior to salvage excavations which is provided in Appendix C – Salvage EXCAVATION METHODOLOGY.

8.4.2 Test excavation

An area of potential archaeological deposit was identified by AECOM that included 60 m adjacent to Badgerys Creek. Based on the low levels of ground disturbance and confirmed presence of artefacts at the adjacent site AHIMS ID 45-5-4099, additional subsurface artefacts are likely to be present in this location of unknown scientific value. The proposed stormwater infrastructure and open drainage include ground disturbance within an area of partial overlap with the PAD, therefore it is recommended test excavations be conducted to understand the presence and extent of additional subsurface Aboriginal objects.

Archaeological test excavation is not a mitigation measure and data obtained from test excavation would be used to inform an impact assessment and develop mitigation measures for harm to potential subsurface Aboriginal objects. The results of test excavations would be included in this ACHAR to support the consent pathway.

Testing would be undertaken to support to satisfy the project specific SEARs as part of the SSD. An archaeological test excavation methodology is included within Appendix B – Test EXCAVATION METHODOLOGY. Additional areas for salvage excavation may be identified following completion of test excavations within the PAD adjacent Badgerys Creek, in which the salvage excavation methodology will be revised, or a new salvage excavation methodology will be prepared.

8.5 Heritage Induction

A heritage induction must be prepared. This will outline the Aboriginal history of the area and guidance on identifying Aboriginal artefacts in the field, this is required for contractors to fulfill the Unexpected Finds Procedure (UFP) as well as an outline of the legislative framework and penalties for harming Aboriginal sites without an AHIP or appropriate consent. The UFP should also include a human remains policy and also maps of the location of existing AHIMS sites within the study area. Workers should be made aware of these locations and their obligations to not harm these sites unless approved under relevant SSD approvals.

8.6 Changes to the project area

Advice provided within this ACHAR is based upon the most recent information provided by the proponent at the time of writing. Any changes made to the project should be assessed by an

archaeologist in consultation with the RAPs. Any changes that may impact on Aboriginal sites not assessed as part of the project may warrant further investigation and result in changes to the recommended management and mitigation measures.

9.0 CONCLUSION

Summary of findings

- A total of three AHIMS registered sites are located within the study area. One area of PAD is also located within the study area. These include:
 - AHIMS ID 45-5-4099 – Comprises a subsurface artefact scatter of low archaeological and scientific significance.
 - AHIMS ID 45-5-2704 – Comprises a surface artefact scatter of low archaeological and scientific significance.
 - AHIMS ID 45-5-5164 -Comprises a subsurface artefact scatter and hearth feature of high archaeological and scientific significance.
 - PAD area adjacent to 60 m within Badgerys Creek in the west.
- Two of the AHIMS sites (AHIMS ID 45-5-5164, AHIMS ID 45-5-4099), and the PAD along Badgerys Creek will be directly impacted by the proposed works.

Recommendations

- Archaeological test excavation within the PAD adjacent Badgerys Creek should be undertaken as per the test excavation methodology included in appendix B of this report.
- SSD condition of consent must be obtained prior to the salvage excavation and relocation of AHIMS ID 45-5-5164 and harm to AHIMS ID 45-5-4099 as per the salvage excavation methodology included within appendix C of this report. Sites cannot be harmed under the existing consent (MP10_0014).
- Additional areas for salvage excavation may be identified following completion of test excavations within the PAD adjacent Badgerys Creek, in which the salvage excavation methodology will be revised, or a new salvage excavation methodology will be prepared.
- All sites should be included on all maps and plans for the project until further permits approving harm is obtained.
- A heritage induction must be prepared for contractors prior to commencing works. This induction should include the Unexpected Finds Procedure, as well as an outline of the legislative framework and penalties for harming Aboriginal sites without the appropriate consent as part of the SSDA (under Part 4.1 of the EP&A Act) prior to any proposed works undertaken.
- Any changes to the project should be assessed by an archaeologist in consultation with the RAPs. Any changes that may impact on Aboriginal sites not assessed as part of the project may warrant further investigation and result in changes to the recommended management and mitigation measures.

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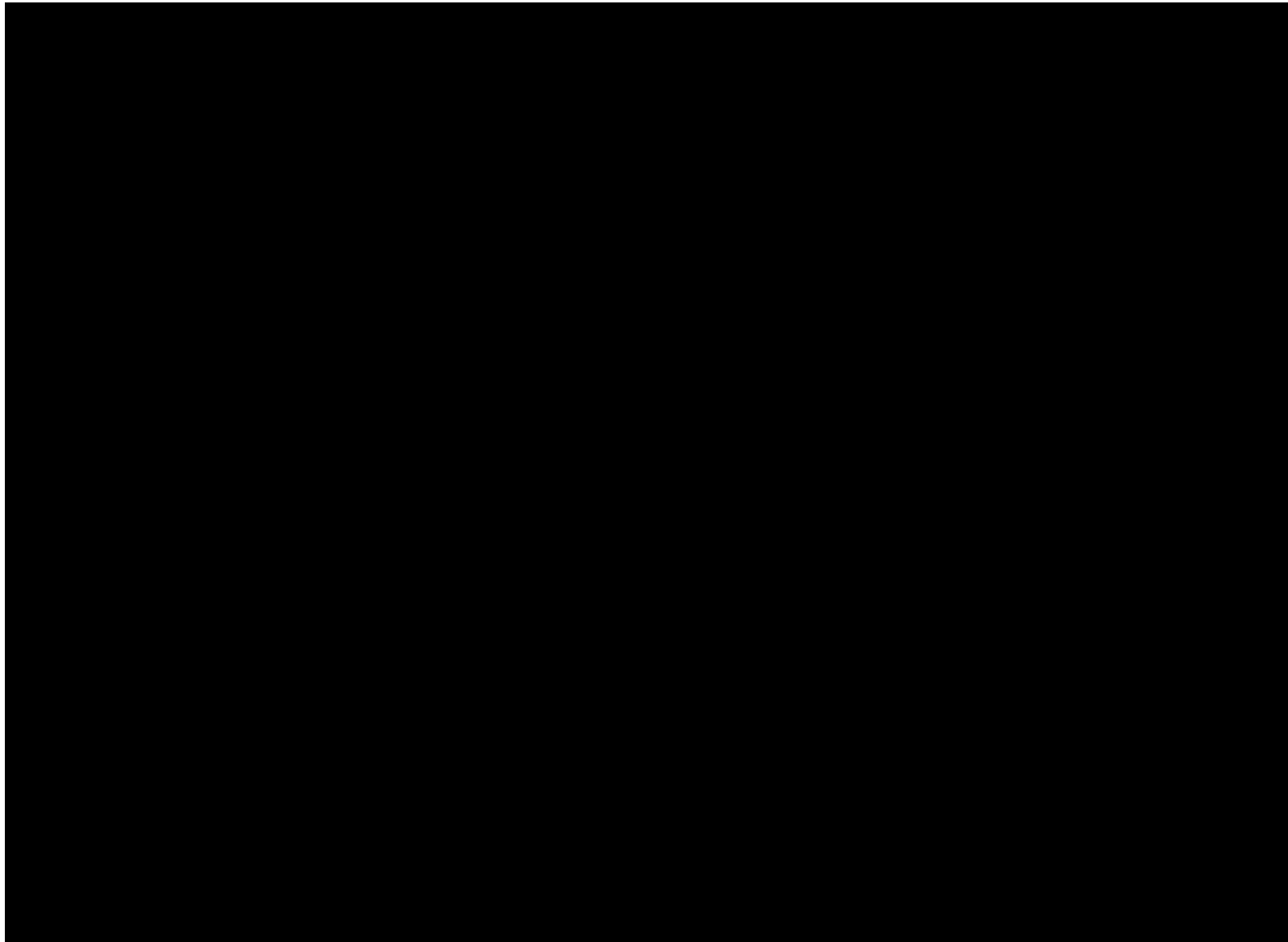
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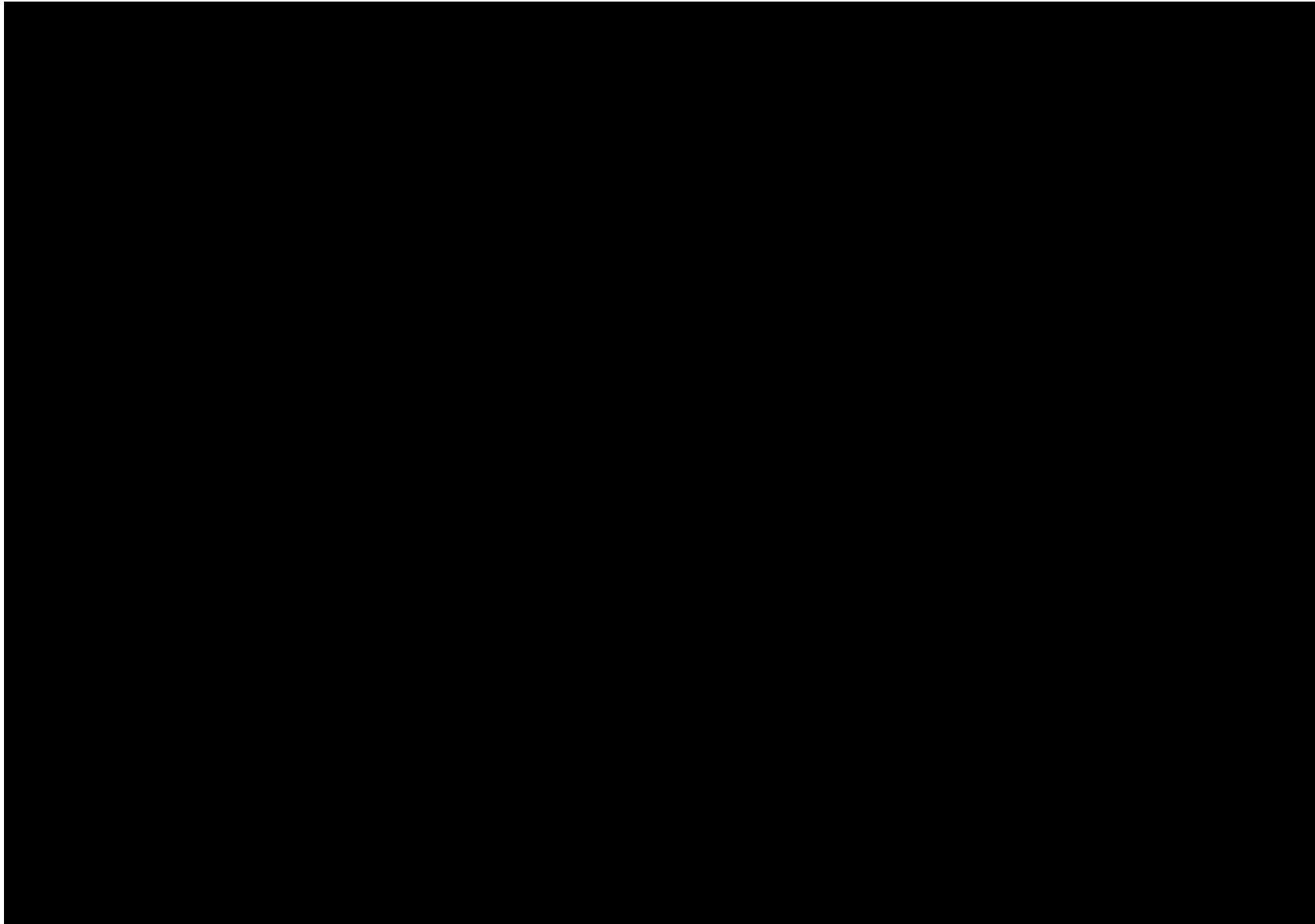
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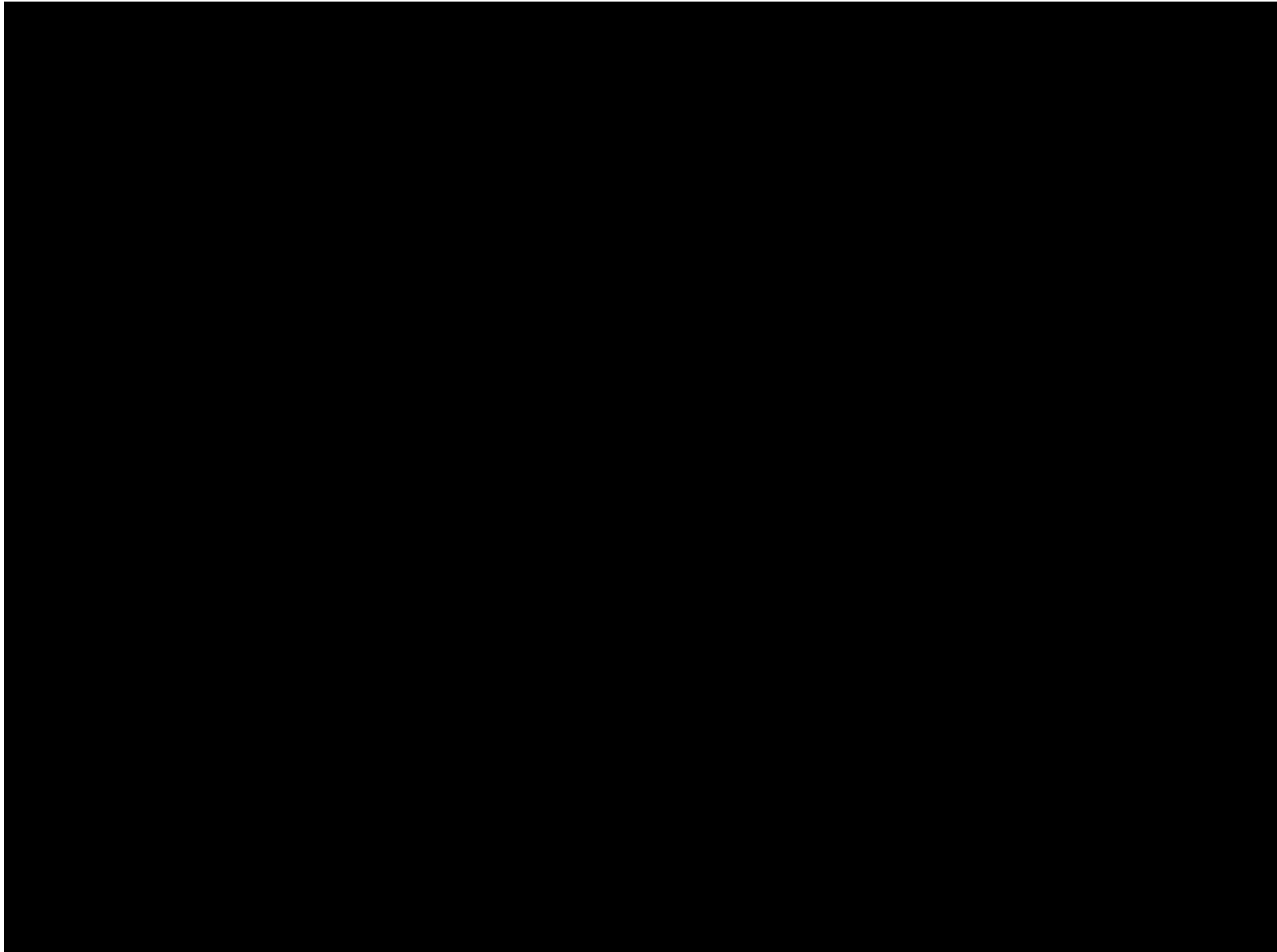
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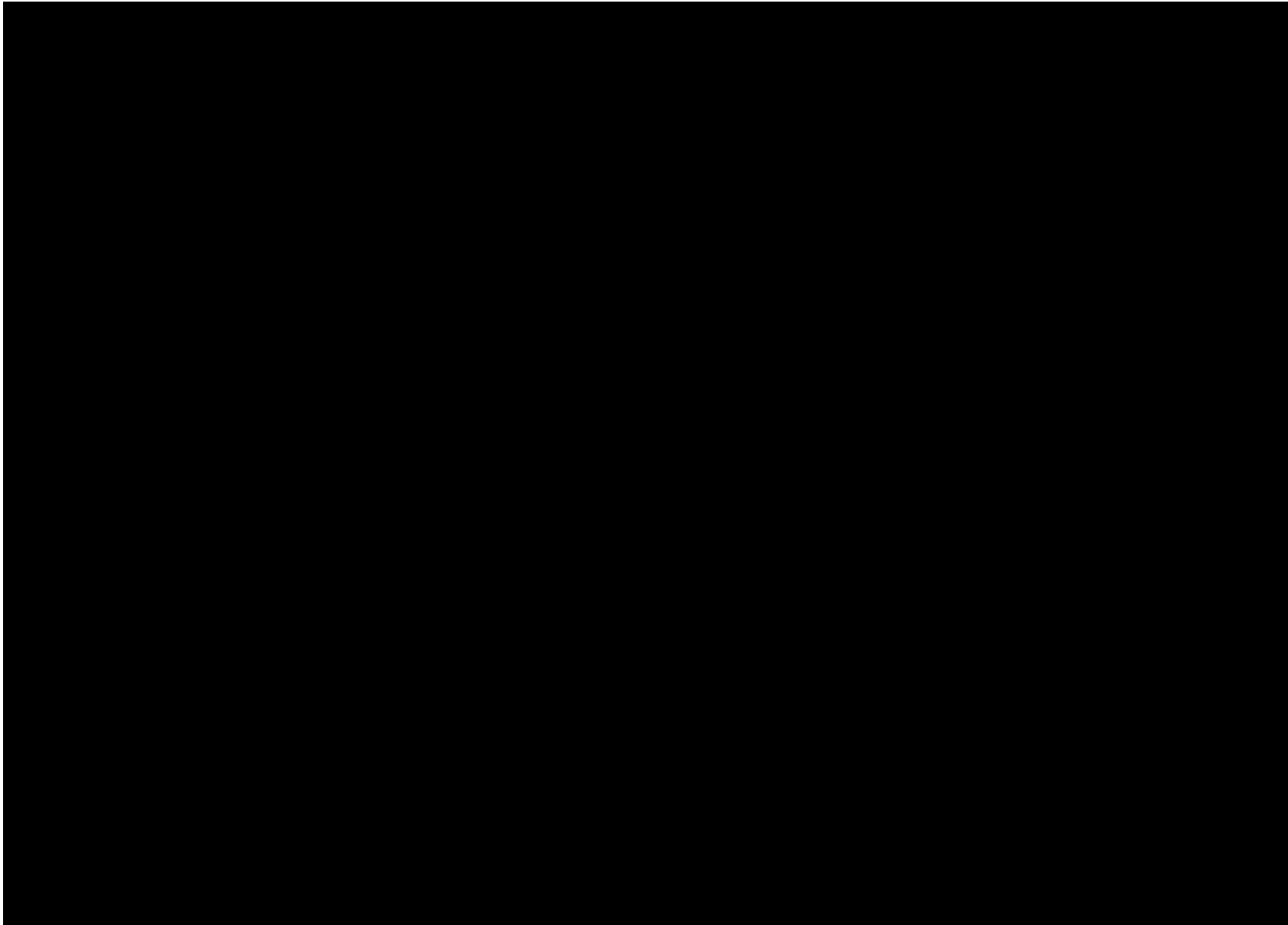
Walsh and Robinson, 1989, *St Thomas' Church*.

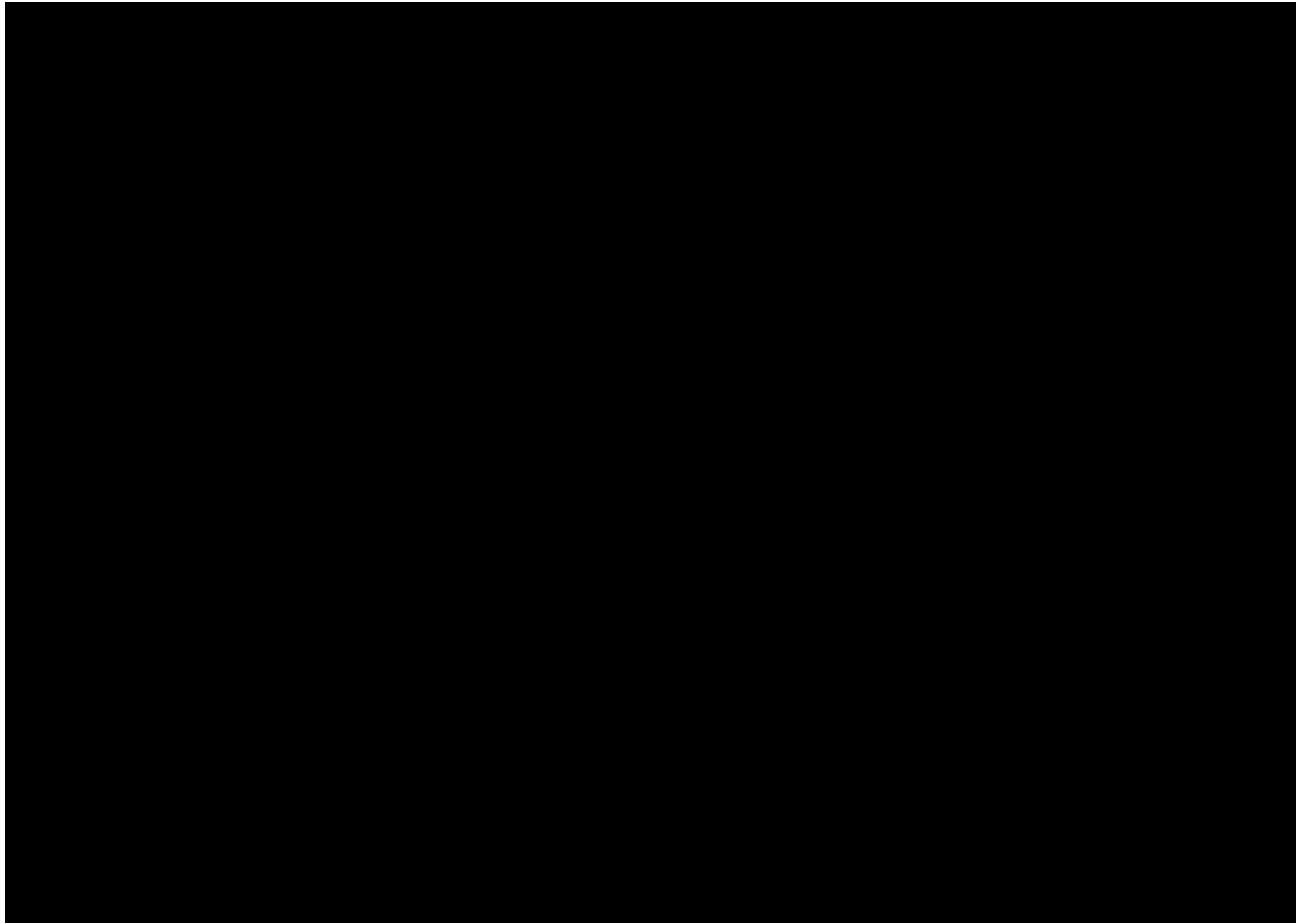
APPENDIX A – AHIMS RECORDS











APPENDIX B – TEST EXCAVATION METHODOLOGY

10.1 Description of test excavation area

The test excavation area includes a PAD that is located across 60 m of Badgerys Creek based on the results of test excavations by AECOM (2011) that identified a subsurface artefact scatter to the northern adjacent Badgerys Creek. Only some portions of the PAD will be impacted by the proposed work therefore only these portions of the PAD will be subject to test excavations (see Figure 11) for indicative test pit locations.

10.2 Consultation

It is acknowledged that Aboriginal people should be involved in the Aboriginal heritage planning process and are the primary source of information about the value of their heritage. This includes the best management and conservation measures for Aboriginal heritage and the way in which their cultural information (particularly sensitive information) is used. A draft copy of this test excavation methodology was issued to RAPs on 23 December 2025, requesting feedback by 3 February 2026. Responses are provided in Table 12. This accords to the consultation process specified in the *Aboriginal cultural heritage consultation requirements for proponents 2010* (Department of Environment, Climate Change & Water 2010a) (hereafter the Consultation Requirements) and Section 60 of the *National Parks and Wildlife Regulations 2019*.

It was requested by the proponent that Julie Jones and Amy Barnes who have been involved in the Connecting with country workshops for the project, receive a copy of the draft ACHAR, test excavation and salvage excavation methodology.

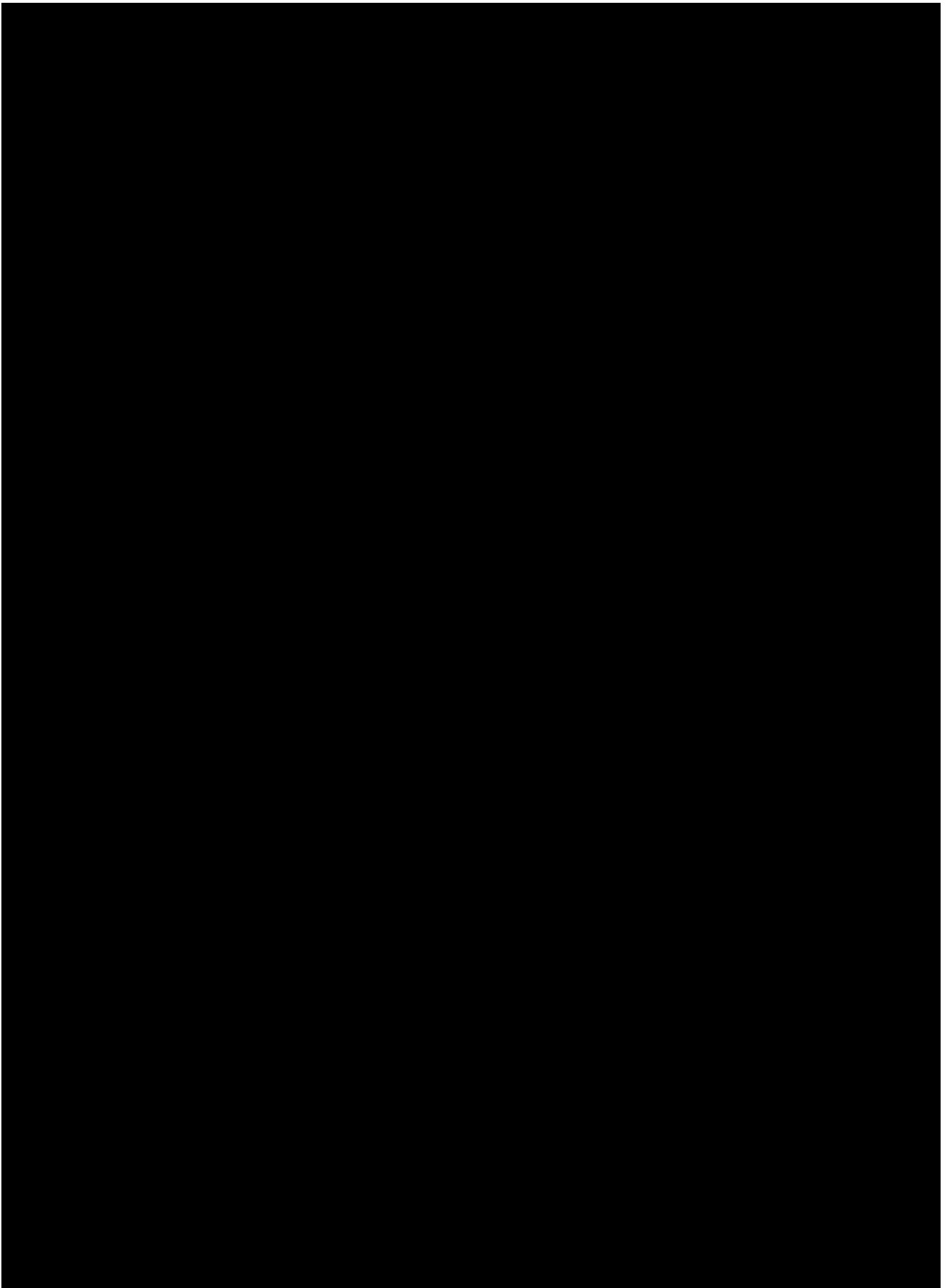
Table 12: Summary of Aboriginal stakeholder comments on draft test excavation methodology.

Person/ RAP group	Comment	Response

Person/ RAP group	Comment	Response
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Person/ RAP group	Comment	Response

10.3 Actions prior to the commencement of excavation

Before sub-surface excavation can commence, the following actions need to occur:

- A Before You Dig Australia (BYDA) search and service location efforts would be carried out in the proposed works alignment before excavation commences, due to the potential for subterranean utilities, and excavations will not take place where existing services are known to the present or if unmarked (older) services are encountered.
- Consultation with RAPs be completed to Section 60 (6) (b) of the *National Parks and Wildlife Regulations 2019*.
- An unexpected finds protocol is in place for potential discovery of identified or suspected human remains.
- A test excavation strategy (this TEM) must be designed to address Requirement 15b of the Code of Practice
- Notification of the intention to undertake test excavations under the Code of Practice must be submitted to Heritage NSW at least 14 days prior to the commencement of those excavations. The notification must contain the following information:

- The location of the proposed test excavations and the subject area
- The name and contact details of the legal entity with overall responsibility for the project
- The name and contact details of the person who will be carrying out the test excavations
- The proposed date of commencement and estimated date of completion of the test excavations.
- The location for temporary storage for any Aboriginal objects uncovered during test excavation
- A copy of the test excavation strategy for the test excavation.

10.4 Test excavation methodology

It has been assessed that test excavations will be required, and it is acknowledged that test excavations will result in the destruction of archaeological resources. The fundamental principle of cultural heritage management is that where possible, cultural heritage should be conserved and protected *in situ*. To minimise the destruction of archaeological resources, test excavations will be completed in accordance with Requirements 15 and 16 of the Code of Practice. Consequently, no more than 0.5% of the PAD will be disturbed and excavations will cease once sufficient data has been gathered to assess significance to minimise as much damage as possible. This strategy has been guided by the principles of the Code of Practice.

An indicative 24 test pits (measuring 500 mm by 500 mm) would be excavated across the area of PAD subjected to proposed impacts. These would be spaced out at approximately 20 m across to adequately test the extent of potential sub-surface Aboriginal objects. The test pits will be numbered sequentially from south to north. The locations of these pits are indicative only. Test pits may be offset from their mapped locations to account for potential ground obstructions such as trees, roots and other vegetation. It is anticipated that pits may be offset up to 10 m from their mapped locations for the avoidance of ground obstructions. Offsetting pits, if required, would be determined on site by the site supervisor, in consultation with RAP stakeholders.

Test pits may be combined and excavated as necessary to understand the characteristics of any site identified, to a maximum continuous surface area of no greater than 3 m². In areas where artefact bearing deposits are particularly deep, test excavation in accordance with the Code of Practice would not be able to take place. Excavations will not exceed a depth of 1m as pit expansion beyond 3 m² would be required to safely reach those depths. Test pits may be opened up if necessary and this would be based on the number of artefacts identified within the test pit. Based on the expected soils and composition within the PAD, the test pits are expected to be excavated to a depth of 200-500 mm below the surface before reaching the archaeologically sterile (culturally sterile) layer.

The Code of Practice outlines requirements for when enough information has been retrieved and test excavation must cease. Test excavation at the area of sensitivity must cease when (DECCW 2010: 28):

- Suspected human remains are encountered
- Enough information has been recovered to adequately characterise the objects present with regard to their nature and significance

- Utilities, signs of potential contamination (including odour or asbestos) or otherwise unsafe conditions are identified.

“Enough information” is defined by the Heritage NSW (DECCW 2010: 28) as “...the sample of excavated material clearly and self-evidently demonstrates the deposit’s nature and significance, and may include things like:

- Locally or regionally high object density
- Presence of rare or representative objects
- Presence of archaeological features or locally or regionally significant deposits, whether stratified or not.

The total number of pits excavated may vary depending on the number of artefacts obtained or identified sub surface archaeological integrity. The supervising archaeologist will determine the total number of pits to be excavated based on conditions encountered in the field. The total number of test pits are a guide only. Weather conditions prior to and during excavation may make some test pits impossible to excavate in a controlled manner. Other circumstances that may alter the total number of pits include extensive depth of non-clay deposits, potential contamination, and access difficulties in the vegetated and swampy ground.

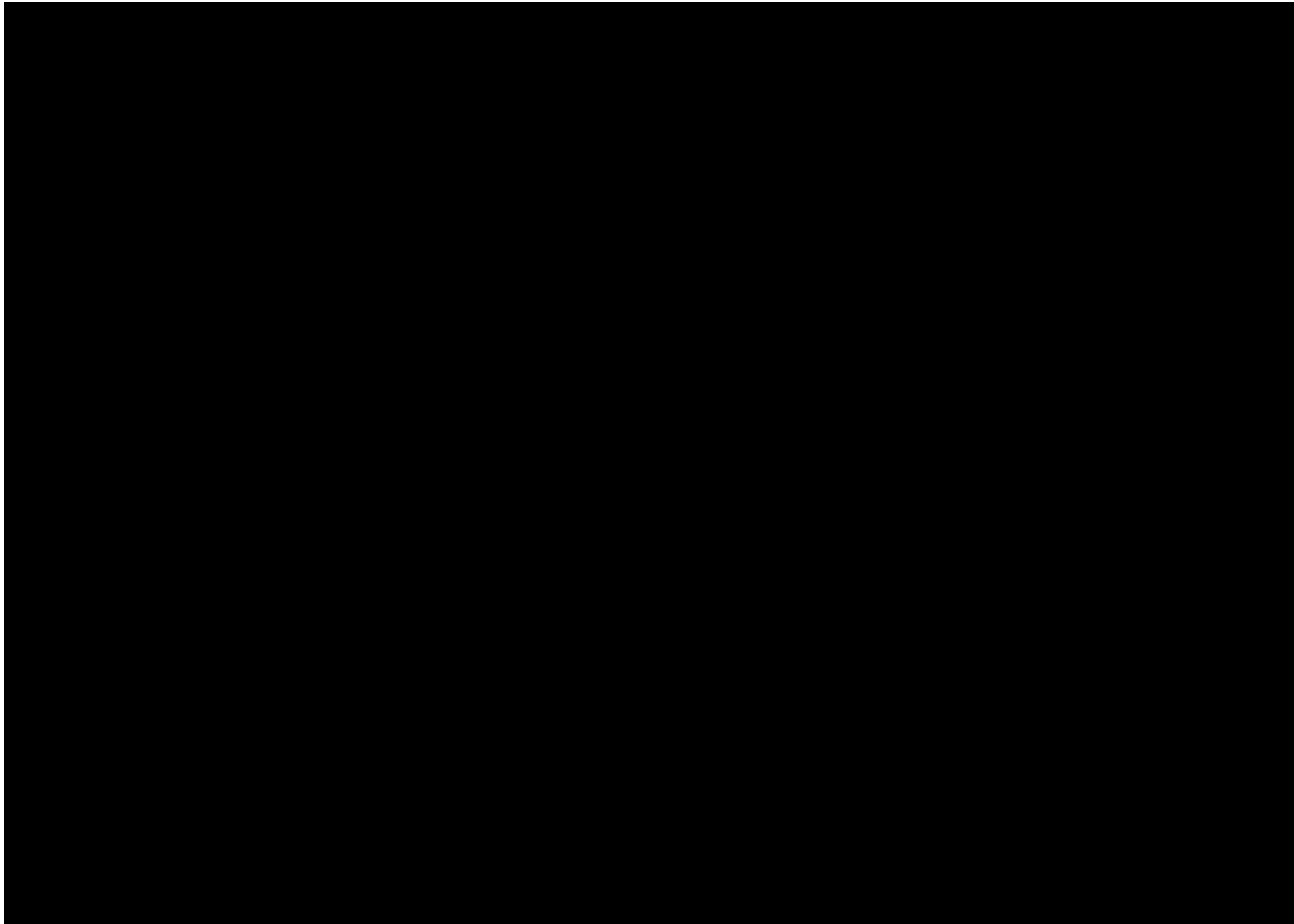
The distribution and total number of pits shown in Table 13 is indicative only. There is flexibility for the supervising archaeologist, in consultation with Aboriginal stakeholder representatives on site, to modify the location, number and spacing of proposed transects and test pits.

In accordance with the requirements of the Code of Practice, no more than 0.5% of PAD can be excavated. A summary of the areal total of each area and proposed total excavation area is outlined in Table 13 below.

Table 13: Summary of sample area

Site name	Proposed area of excavation (m ²)	Total area of PAD (m ²)	Proposed excavated percentage of total area (%)
Badgerys Creek PAD	6 m ²	77,048.6m ²	0.0078%

Figure 11: Indicative test pit locations



10.5 Excavation procedure

The following procedure was designed in accordance with Requirement 16 of the Code of Practice (DECCW 2010b):

- Test pits will only be placed within the boundaries of the proposal area
- Dial Before You Dig and service location efforts will be carried out in the pit locations before excavation due to the potential for subterranean utilities
- Test pits will not be placed in areas where significant ground disturbance has been identified in consultation with site officers for the relevant RAPs, unless required for comparison
- Test pits will be excavated using hand tools only (e.g., shovels or trowels)
- The first test pit of the PAD being investigated will be excavated and documented in 50 mm vertical spits. Based on the evidence of the first excavation square and following the establishment of its local stratigraphy, 100 mm spits or sediment profile/stratigraphic unit (whichever is smaller) may then be implemented
- Test pits will be excavated to at least the base of the identified Aboriginal object-bearing units and must continue to confirm the soils below are archaeologically sterile (B Horizon soils)
- All material excavated from the test pits will be sieved using a five-millimetre aperture wire-mesh sieve. Wet sieving is required. Where wet sieving is not possible, justification must be provided
- Photographic and to-scale, drawn records of the stratigraphy/soil profile, feature, and informative Aboriginal objects will be completed for each test pit. This includes recording of the stratigraphy of each distinct landform sampled, and of each test pit in which an archaeological feature and/or Aboriginal object were identified
- Soil type, texture and stratification will be recorded to increase understanding of the subsurface conditions of the PADs and how they may relate to site formation processes – influencing the presence and condition of subsurface archaeological deposits
- Soil colours will be recorded from each soil unit identified, using a Munsell colour chart to ensure consistency
- Geomorphological data will be gathered where possible, in order to allow a geomorphological assessment to be undertaken
- Test pits will be backfilled as soon as practicable, preferably as soon as recording has been completed
- The location of each test pit will be recorded using a mobile GIS unit. This allows for the spatial datasets collected in the field to be post-processed to sub-metre level accuracy once the Global Positioning System (GPS) co-ordinates have been differentially corrected
- All artefacts retrieved during test excavations would be double-bagged and labelled with appropriate cultural information
- Initial artefact analysis will occur in the field. Detailed analysis will be undertaken at the Artefact office at 26-32 Pirrama Road, Pyrmont NSW 2009 (Suite 56). A secure storage

location will be identified for artefacts until such time as they can be returned to site or managed in any other way that has been determined.

10.6 Radiometric dating

Samples of organic material suitable for radiometric dating (charcoal, bone, shell, wood etc.) will be collected for the dating of archaeological deposits if present. The number of samples sent for dating will be determined on the suitability of the sample and the significance of the site. Samples will be collected as follows:

- Samples will be collected using clean, nitrile gloves and placed in clean, plastic, sample bags
- Charcoal samples will also be wrapped in aluminium foil to prevent crushing
- Samples will be removed to the relevant temporary keeping place and dried to avoid fungal growth during transport
- Samples will be packaged within hard plastic cases for transport to a radiocarbon dating laboratory.

10.7 Cessation of sub-surface test excavation

Test excavations will cease if the following conditions are identified, in accordance with Requirement 17 of the Code of Practice:

- Suspected human remains are encountered
- Utilities, signs of potential contamination (including odour) or otherwise unsafe conditions are identified
- Archaeologically sterile deposits are reached
- Natural clay or bedrock is encountered
- Locally or regionally high-density deposits of Aboriginal objects are identified
- Rare or representative Aboriginal objects are identified
- Enough information is recovered to adequately characterise the objects present with regards to their nature and significance.

10.8 Documentation

All site records, including site notebooks, register of Aboriginal objects and PADs identified, photographs, drawings and geospatial data will be kept in a legible form for at least 5 years, in accordance with Requirement 12 of the Code of Practice

11.0 POST FIELDWORK TASKS

11.1 Data analysis

Once test excavations have been completed, data will be quantified, analysed and interpreted. If suitable samples for radiometric dating have been obtained, they will be sent for analysis and the results will be included in the post-fieldwork analysis.

In accordance with requirement 11 of the Code of Practice, the results of fieldwork must be interpreted using an archaeological framework that allows the story of Aboriginal occupation of the subject area to be told. This story must be placed in a local and regional archaeological context.

This information will inform the assessment of the scientific values and significance of the Aboriginal objects. The assessment must be clear and supportable, reflecting best practice assessment processes as set out in the Burra Charter. The potential impacts to Aboriginal objects will be evaluated and clearly presented.

Appropriate management and mitigation measures will be designed and justified. Clear recommendations for the conservation of archaeological values and mitigation of impacts to these values will be articulated.

11.2 Reporting

The fieldwork will be reported in an Archaeological Test Excavation Report (ATER), as specified in Requirement 11 of the Code of Practice. This will include a detailed description of what was found during the test excavation. It will include:

- A quantification of the results
- Interpretation of what was found
- Analysis and discussion based on the quantification and interpretation
- An assessment of the scientific values and significance of what was found
- An impact assessment
- Determination of appropriate management measures, including consideration of requirements for further assessment.

Information from this report will also be incorporated into an Aboriginal Cultural Heritage Assessment Report (ACHAR), as outlined in the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011. Hereafter the Guide). Reporting will be provided to RAPs upon completion.

11.3 Management of recovered Aboriginal objects

Following transport from the excavation site to the Artefact office in Sydney, all artefacts will be securely stored in a locked cabinet. The location of the artefacts will be recorded on a database, to create an electronic record of the date they were deposited into this temporary storage location.

Artefacts will be stored in the double-bagged resealable bags they were placed in during the excavation program. Durable labels made from aluminium plate, Tyvek paper or similar material will be placed inside bags to provide a resilient label of the artefacts' provenance.

Artefacts will be kept in the same temporary storage location until a strategy for repatriation or permanent storage can be implemented. At this point the artefacts will be handed over to their permanent custodian(s). The date of the handover will be recorded on the Artefact internal database. If artefacts are reburied, the burial location will be recorded on an Aboriginal Site Recording Form and lodged on the Aboriginal Heritage Information Management System (AHIMS) database.

The long-term management arrangements for any recovered artefacts will be determined in consultation with the RAPs and in accordance with Requirement 26 of the Code of Practice if appropriate. It is noted at this stage in the project that two RAPs have recommended reburial of artefacts within the study area following completion of reporting.

11.4 Site Recording Forms

Following the completion of the test excavation program, artefact analysis and reporting, an update to the AHIMS database will be lodged where necessary.

APPENDIX C – SALVAGE EXCAVATION METHODOLOGY

11.5 Description of salvage excavation area

The salvage excavation area includes the subsurface extent of existing AHIMS ID 45-5-5164 hearth feature. The salvage area is located within the eastern portion of the larger project study area and comprises pastoral farm/grazing paddocks.

11.5.1 BCBW18 AS 02 (AHIMS ID 45-5-5164)

The subsurface assemblage consisted of 21 stone artefacts. The assemblage featured five raw materials with silcrete being the dominant raw material type (n=15, 71.43 per cent) chert, mudstone, quartz, quartzite and silcrete). Four artefact types (transverse flake fragments, complete flakes, a multiple platform core, and a piece of debris) were present in the assemblage. Debris and cores were indicative of on-site artefact manufacturing. All cultural material was retrieved from the upper two spits (0-200 mm). A hearth comprising burnt clay heat retainers was located in the centre of the site. The hearth was associated with one transverse fragment of chert. No signs of heat treatment were present on the fragment.

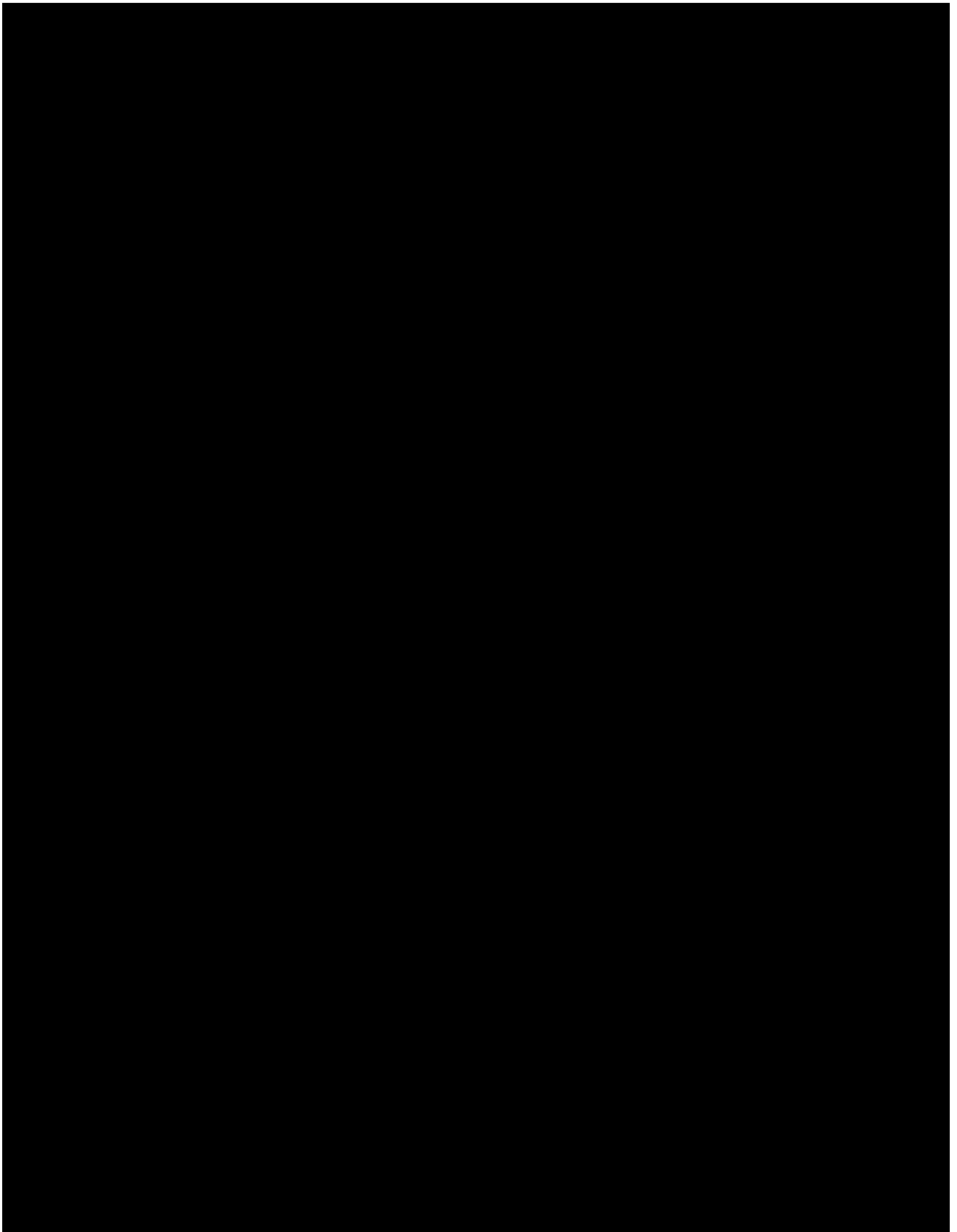
11.6 Consultation

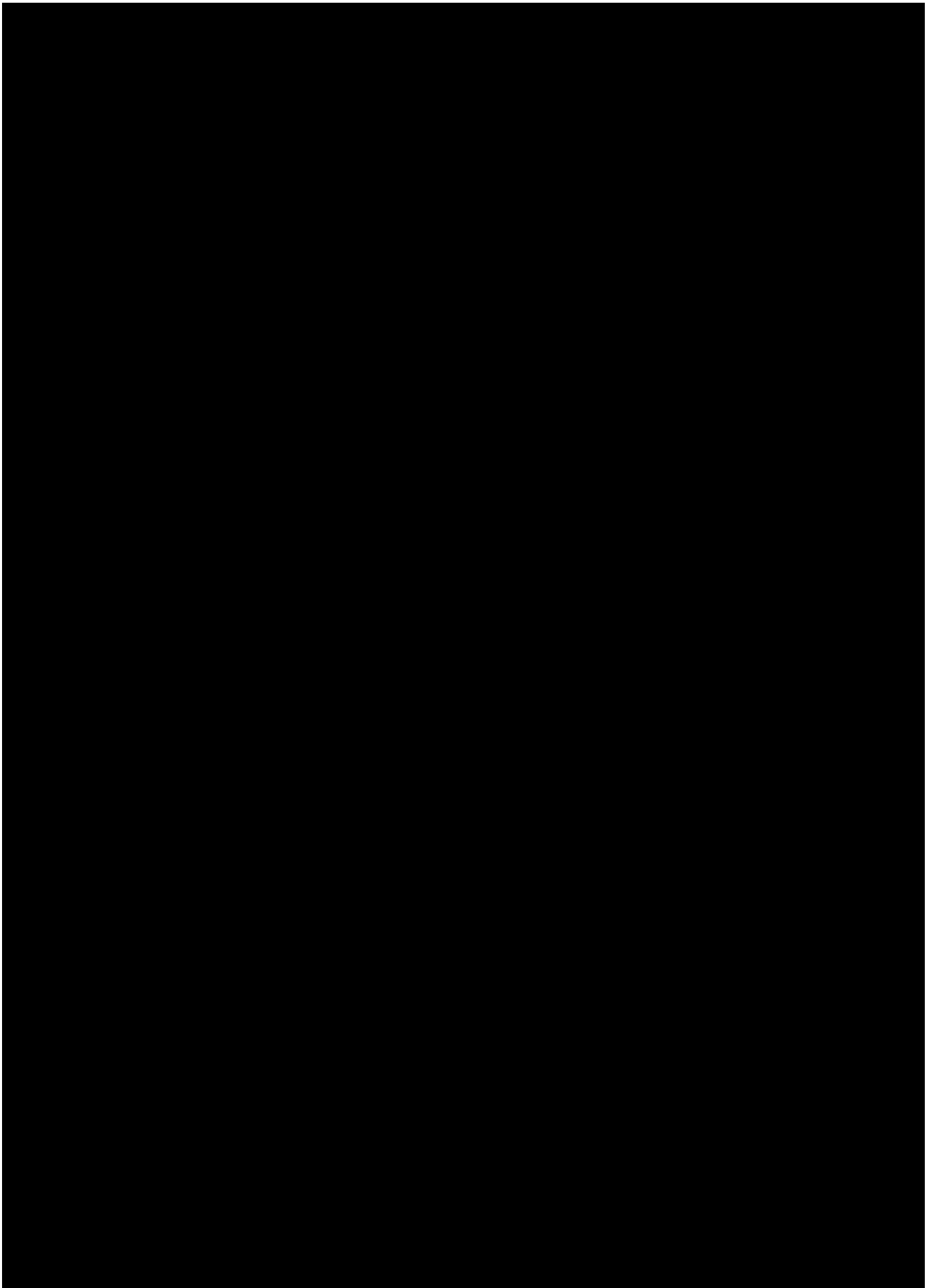
It is acknowledged that Aboriginal people should be involved in the Aboriginal heritage planning process and are the primary source of information about the value of their heritage. This includes the best management and conservation measures for Aboriginal heritage and the way in which their cultural information (particularly sensitive information) is used. A draft copy of this salvage excavation methodology was issued to RAPs on 23 December 2025, requesting feedback by 3 February 2026. Responses are provided in Table 14 below. This accords to the consultation process specified in the *Aboriginal cultural heritage consultation requirements for proponents 2010* (Department of Environment, Climate Change & Water 2010a) (hereafter the Consultation Requirements) and Section 60 of the *National Parks and Wildlife Regulations 2019*.

It was requested by the proponent that Julie Jones and Amy Barnes who have been involved in the Connecting with country workshops for the project, receive a copy of the draft ACHAR, test excavation and salvage excavation methodology.

Table 14: Summary of Aboriginal stakeholder comments on draft salvage methodology.

Person/ RAP group	Comment	Response





11.7 Salvage excavation and recording of hearth feature

This methodology outlines the proposed approach for Aboriginal archaeological salvage excavation in areas where BCBW18 AS 02 (AHIMS ID 45-5-5164) overlaps with ground impacting works. All excavations will be undertaken manually by qualified archaeologists and representatives of the RAPs using hand tools.

11.7.1 Salvage excavation

The hearth will be relocated using a differential GPS system within the existing 10 m buffer fencing. The aim is to preserve the hearth feature into the future. Manual hand excavation will be undertaken in 1 x 1 m square to relocate the hearth. Once the hearth has been relocated hand excavation will continue in 1 x 1 m squares to create an open area to expose as much of the full extent of the hearth features as possible. The hearth feature, clay balls and any additional artefacts identified in association with the feature should be left in situ where possible in preparation for high level recording and photogrammetric data collection prior to removal and relocation.

11.7.2 Radiocarbon dating

Radiocarbon dates were obtained from the hearth feature during the previous test excavation analysis. As such, there is no need for further sampling of the hearth for the purpose of dating the feature. Sub-sampling charcoal samples separately from the salvage excavation of the hearth will not be necessary.

11.7.3 Photogrammetry

Once the full extent of the upper surface of the hearth has been uncovered, in consultation with RAPs, high level recording and photogrammetric photos will be taken. This will include taking multiple overlapping photos with scales and a north arrow. Post-salvage, the photos would be processed using 3D rendering software to create a 3D recording of the feature. A detailed scaled plan will also be recorded of the hearth.

11.7.4 Sieving

All retrieved deposit excavated to uncover the extent of the hearth including backfill would be placed in buckets and transported to a sieve area to ensure additional artefacts if present are identified. All retrieved deposit would be wet sieved by hand through nested 3 and 5 millimetre mesh screens. All recovered stone artefacts would be cleaned, dried, and bagged with a brief analysis conducted in the field. This analysis would include logging artefact type, raw material, and dimensions.

11.7.5 Removal and relocation

The hearth feature is currently located within an existing 10 m buffer fencing for relocation. It is expected that the hearth feature may extend over an areal extent > than 1 x 1 m. The depth of the feature (vertical thickness) is expected to be between 100-200mm. The previous excavation indicated that the feature extended down onto clay and mostly spanned depths of 100-300mm. The overburden and backfill from the previous excavation will be hand excavated on a 1m x 1m grid. The overburden and previous backfill will be removed and sieved over 5mm mesh. Once the feature surface is revealed sampling for lifting can commence.

The volume and mass of the feature will be too large to lift the hearth in one piece, without a very high risk of uncontrolled breakage of the hearth block. Based on the previous excavation, the surface of the hearth feature is expected to appear between 100mm and 200mm ground below surface.

Lifting the hearth feature in sections is the preferred approach. Once fully recorded, the feature will be divided into slab sections. Each slab section will have a target size of approximately 250 x 250mm in plan, and a thickness (depth) of between 200-300mm. This volume should be sufficient to prevent breakage during lifting and have a volume/mass which can be safely lifted. This size (slightly larger than A4 in plan) will allow stiff metal sheets to be pushed beneath each block to provide support during the slab lift.

This method will allow the hearth to be subdivided into slab sections of approximately 250 mm x 250 mm wide to a depth/thickness of approximately 200-300 mm. These slabs will be suitable for relocation without disintegrating. The hearth slabs would be placed within a temporary storage box in sequence of removal to ensure the jigsaw of sampled slabs can be re-fitted back together in sequence and correct spatial order at the reburial location.

An appropriate open area the size of the excavated and removed hearth feature should be dug at the chosen reburial location in consultation with RAPs in a location where no Aboriginal artefacts were identified during the previous test excavations by Artefact (2019) (Appendix B). The slab sections will then be repositioned spatially in an order which replicates the original layout. Clean sand would be used to cover and backfill the relocated hearth. Similar to the existing fencing, a 10 m buffer zone with protective fencing should be erected surrounding the reburied hearth. A new AHIMS site card will be uploaded onto AHIMS for the reburial location and the existing site card would be updated.

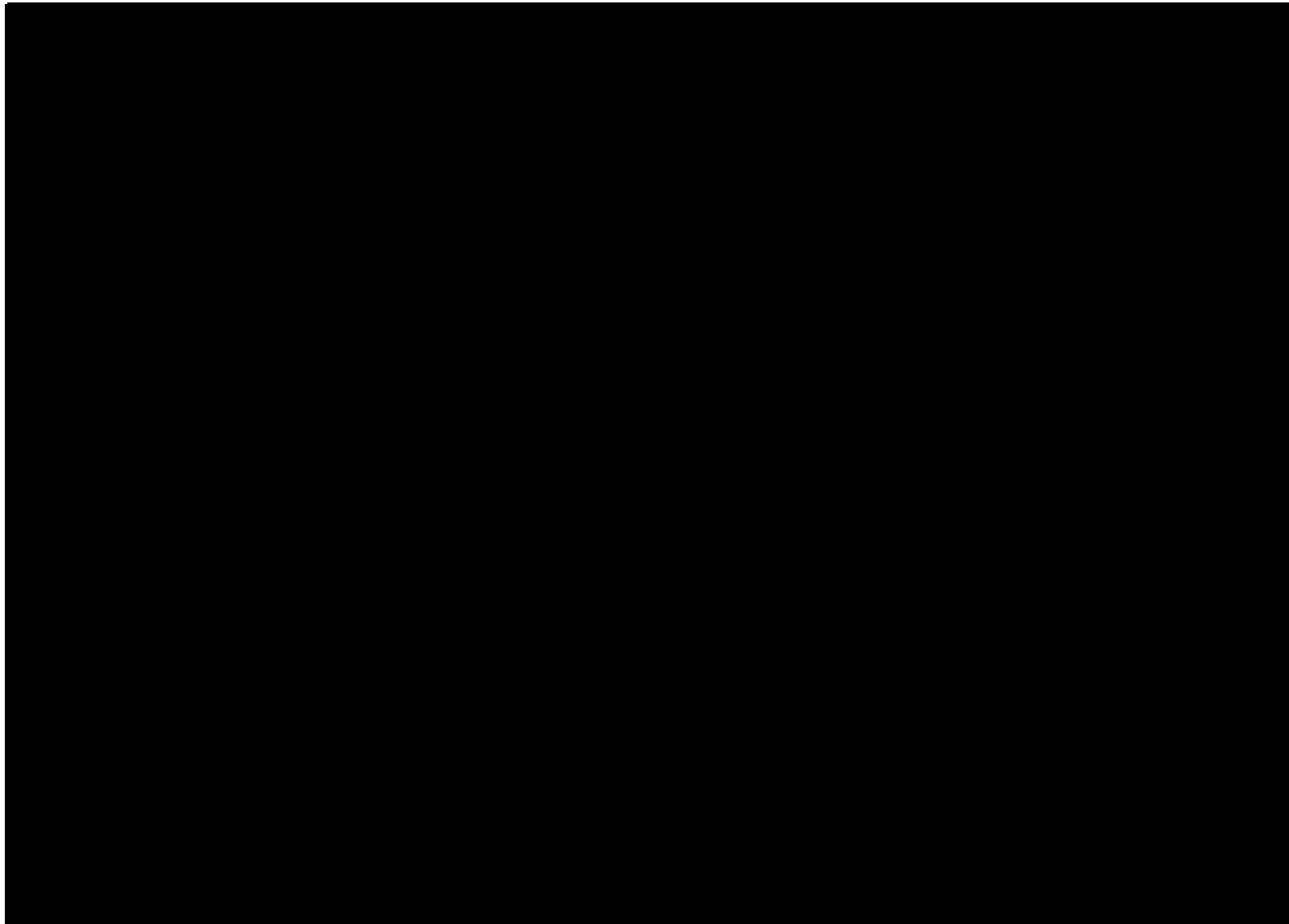
11.8 Actions prior to the commencement of excavation

Before sub-surface excavation can commence, the following actions need to occur:

- A Before You Dig Australia (BYDA) search and service location efforts would be carried out in the proposed works alignment before excavation commences, due to the potential for subterranean utilities, and excavations will not take place where existing services are known to the present or if unmarked (older) services are encountered.

- Consultation with RAPs be completed to Section 60 (6) (b) of the *National Parks and Wildlife Regulations 2019*.
- SSD conditions of consent must be approved to harm BCBW18 AS 02 (AHIMS ID 45-5-5164) through salvage excavations
- An unexpected finds protocol is in place for potential discovery of identified or suspected human remains (see Appendix D).

Figure 12: Location of previously dug test pits and artefact distribution following test excavations (Artefact ATR MOD 3 and 4 2019:64).



12.0 POST FIELDWORK TASKS

12.1 Artefact analysis and management

Once test and salvage excavation have been completed, the artefact assemblage would be recorded and RAPs would be consulted for the determination of management of the Aboriginal objects. A sample of Aboriginal objects retrieved during the course of excavations would be cleaned following initial microscopic analysis to detect residues if present and placed in re-sealable bags for further analysis and recording. This includes recording key attributes of material, artefact type, platform type, termination type and dimensions, as well as photographic and drawn records of representative artefacts.

All recorded information would be entered into a Microsoft Excel table with detail linked to the provenance of each artefact. Once entered into the Excel table, the data can be readily supplied with the excavation report to Heritage NSW and the RAPs.

All artefacts would be given a unique number and stored in double re-sealable snap lock bags. A permanent marker will be used to record the provenance and unique number of artefacts in each bag in writing on the outside of the bag and on an archival grade tag such as Dupont™ Tyvek® paper.

The temporary storage location for Aboriginal object retrieved through the salvage excavation would be a secure and locked facility within the Artefact Main Offices located at Suite 56/26-32 Pirrama Rd, Pyrmont NSW 2009 until reburial or repatriation is undertaken.

12.2 Reporting

12.2.1 Salvage Excavation

The salvage excavation report would be completed detailing the results of the salvage and relocation of the hearth feature. At the conclusion of salvage excavation an Aboriginal Site Impact Recording Form (ASIRF) would be completed and submitted to AHIMS.

The report would include:

- A quantification of the results
- Interpretation of what was found
- Analysis and discussion based on the quantification and interpretation
- An assessment of the scientific values and significance of what was found
- An impact assessment, and
- Determination of appropriate management measures, including consideration of requirements for further assessment and investigation.

Information from this report will also be incorporated into an updated Aboriginal Cultural Heritage Assessment Report (ACHAR), as outlined in the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011; hereafter The Guide).

All site records, including site notebooks, photographs, drawings and geospatial data would be kept in a legible form for at least 5 years.

APPENDIX D – PROCEDURE FOR THE DISCOVERY OF HUMAN REMAINS

Aboriginal burials which occur outside of designated cemeteries are protected under the *National Parks and Wildlife Act 1974* and should not be disturbed. If human remains, or suspected human remains, are discovered during project works, the following actions will be taken:

- All ground-disturbing works in the area of the remains will cease immediately following the discovery. The discoverer of the remains will notify machinery operators in the area to ensure work is halted.
- The remains will not be removed from the area or disturbed in any other way.
- The area will be secured by use of protective barriers to ensure no harm can occur to the remains.
- The site supervisor, the project manager, and the client will be immediately informed of the discovery.
- The project archaeologist will be informed of the discovery. The project archaeologist will determine if further assessment of the suspected remains is required. A specialist in the identification of human remains will need to be engaged to undertake this assessment.
- If it is determined that the suspected remains are not human, work can recommence.
- If it is determined that the suspected remains are human, or are likely to be, the following steps must occur, in accordance with the relevant legislation (including the Coroners Act 2009, the National Parks and Wildlife Act 1974, and the Heritage Act 1977).
- Notify the following organisations:
 - a. NSW Police
 - b. Heritage NSW – 1300 361 967
- The NSW Police will determine if the suspected human remains are human and if they represent a crime scene. If the human remains are determined to represent a criminal act, the NSW Police will direct proceedings, including deciding when works may continue.
- If NSW Police determine that the suspected human remains are human and are Aboriginal Ancestral Remains, or non-Aboriginal Ancestral Remains, Heritage NSW will be responsible for determining the next course of action.
- All activities will be directed by Heritage NSW.
- Works cannot proceed on site until Heritage NSW determine that it is appropriate to do so



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