



New Rouse Hill Hospital Laydown Area

Aboriginal Objects Due Diligence Assessment

Prepared for TSA Riley on behalf of Health Infrastructure | 15 May 2025



New Rouse Hill Hospital Laydown Area DD

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Executive summary

Project outlines

This document outlines the Aboriginal Objects Due Diligence Assessment (DD) for a proposed site accommodation/ compound to support the construction of the new Rouse Hill Hospital at Rouse Hill, New South Wales (NSW).

The Activity Area is located at the intersection of Commercial and Windsor Roads within The Hills Shire Council Local Government Area (LGA). The Activity Area occurs within the boundaries of the Deerubbin Local Aboriginal Land Council (LALC) in the traditional lands of the Darug People (also spelled Dharuk, Dharug and Daruk).

The proposed works comprise the establishment of site accommodation/ compound including the development of hardstand areas for the purpose of on-site parking, a laydown area for equipment and site sheds to support the nearby hospital construction. A new transmission pole will also be installed to supply power.

Niche Environment and Heritage Pty Ltd (Niche) has been engaged by TSA Riley on behalf of Health Infrastructure (hereafter referred to as 'the Proponent') to undertake a DD to support a Review of Environmental Factors (REF) for the proposed works. A separate Aboriginal Cultural Heritage Assessment (ACHA) has been undertaken by Niche (2025) for the New Rouse Hill Hospital development and adjoining Metro Pathway Area occurring to the east.

The aim of the assessment is to assess whether Aboriginal objects and/or places are present, or are likely to occur within the Activity, if those Aboriginal objects and/or places may be harmed by the proposed works, and if further investigation is required.

Summary of results

The desktop assessment has identified extensive surface and subsurface impacts throughout the Activity Area including a large gravel/asphalt hardstand area that has been used over the past decade to support nearby construction works including the Metro overpass over Windsor Road and the Rouse Hill Bus Interchange at the intersection of Windsor Road and Rouse Hill Drive.

A site inspection was undertaken on 5 May 2025 across the entirety of the Activity Area. No Aboriginal objects, places or areas of archaeological sensitivity were identified.

Summary of potential impacts and safeguards

As a result of the desktop assessment and site inspection, the proposed works have not been identified as causing any potential impact to Aboriginal cultural heritage. The proposed works may therefore proceed in accordance with the Unexpected Finds Procedure outlined below.



Conclusion and declaration

In response to the results of this DD, the recommendations outlined below have been developed:

Recommendations

General provisions

- | | |
|----|---|
| 1. | All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> prior to, during and following the proposed works. |
|----|---|

Unexpected Finds Procedure

- | | |
|----|--|
| 2. | <p>The following Find Procedure should be put in place as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works:</p> <ul style="list-style-type: none">– Work in the surrounding area is to stop immediately.– A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 m around the known edge of the Aboriginal cultural heritage site.– An appropriately qualified archaeological consultant is to be engaged to identify the material; and– Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in co-operation with the appropriate authorities and the local Aboriginal community:<ul style="list-style-type: none">– The recording and assessment of the finds.– Compliance with any legal requirements and Heritage NSW directions.– The development and implementation of appropriate management strategies based on an assessment of the significance of the finds.– The recommencement of ground disturbance works may only resume once legal requirements are fulfilled.– An Aboriginal Heritage Impact Permit (AHIP) will be required. <p>In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:</p> <ul style="list-style-type: none">– The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.– The NSW Police must be contacted immediately.– No further action is to be undertaken until the NSW Police provide written notification the Proponent.– If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact:<ul style="list-style-type: none">– Heritage NSW's Enviroline on 131 555– No works are to continue until Heritage NSW provides written notification to the Proponent or their Agent. |
|----|--|



Glossary and list of abbreviations

| Term or abbreviation | Definition |
|------------------------------|--|
| Aboriginal cultural heritage | The tangible (objects) and intangible (dreaming stories, legends and places) cultural practices and traditions associated with past and present-day Aboriginal communities. |
| ACHA | Aboriginal Cultural Heritage Assessment. |
| AHIMS | Aboriginal Heritage Information Management System. |
| AHIP | Aboriginal Heritage Impact Permit. |
| Artefact | An object made by human agency (e.g. stone artefacts). |
| BCD | The Biodiversity and Conservation Division (formerly the Office of Environment and Heritage and now Heritage NSW of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). |
| Code of Practice | <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.</i> |
| DCCEEW | Department of Climate Change, Energy, the Environment and Water. Formerly Department of Conservation, Climate Change and Water (DECCW), Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (DPIE) and now NSW Environment and Heritage of the NSW Department of Climate Change, Energy, the Environment and Water. |
| Development | The processes involved in preparing the Subject Area for subdivision and associated road infrastructure, including levelling and compacting for future housing constructing, and cutting and compacting areas for road infrastructure. |
| DPHI | The Department of Planning, Housing and Infrastructure, formerly DPE the department of Planning and Environment and DPIE the Department of Planning, Industry and Environment. |
| DPE | Department of Planning and Environment |
| DPIE | Department of Planning Industry and Environment |
| Drainage | Natural or artificial means for the interception and removal of surface or subsurface water. |



| Term or abbreviation | Definition |
|------------------------------|--|
| DD | Aboriginal Objects Due Diligence Assessment |
| EP&A Act | <i>NSW Environmental Planning and Assessment Act 1979.</i> |
| Heritage NSW | Former Aboriginal cultural heritage regulator in the NSW Department of Planning and Environment for the management of Aboriginal Cultural Heritage (ACH) regulation functions under the <i>National Parks and Wildlife Act 1974</i> . Formerly BCD of DPIE. |
| <i>In situ</i> | Latin term meaning 'on the spot, undisturbed'. |
| Isolated artefact / find | A single artefact found in an isolated context. |
| LALC | Local Aboriginal Land Council. |
| LEP | Local Environmental Plan. |
| LGA | Local Government Area. |
| NPW Act | <i>National Parks and Wildlife Act 1974.</i> |
| NPW Regulation | <i>National Parks and Wildlife Regulation 2019.</i> |
| NSW Environment and Heritage | Aboriginal cultural heritage regulator for the management of Aboriginal Cultural Heritage (ACH) regulation functions under the <i>National Parks and Wildlife Act 1974</i> . Formerly Heritage NSW. |
| OEH | Office of Environment and Heritage, replaced by the Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (DPIE) and now NSW Environment and Heritage of the NSW Department of Climate Change, Energy, the Environment and Water. |
| Open camp site | An archaeological site situated within an open space (e.g. archaeological material located on a creek bank, in a forest, on a hill, etc.). |
| PAD | Potential Archaeological Deposit. A location considered to have a potential for subsurface archaeological material. |
| SSD | State Significant Development |



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1 Introduction

1.1 Background and need for the project

Niche was commissioned by the Proponent to undertake a DD to assess the potential impacts associated with the development of a laydown area to support the construction of the New Rouse Hill Hospital (hereafter referred to as the 'Activity Area').

1.2 The Activity Area

The Activity Area is located at the intersection of Commercial and Windsor Roads in Rouse Hill. The Activity Area comprises undeveloped land and includes part of Lot 101 DP 1060353 and Lot 229 DP1249147.

1.3 The proposed activities

The Proponent is proposing to use the Activity Area as a site accommodation/ compound for the establishment of hardstand areas, parking for personnel and equipment and site sheds to facilitate the construction of the New Rouse Hill Hospital. To support the site, a temporary supply of power will be provided by ASP/2 comprising a new private transmission pole.

1.4 Statutory and other approvals

The *National Park and Wildlife Act 1974* (NPW Act), administered by Heritage NSW, is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW. Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm.

The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP).

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW, 2010) (the Due Diligence Code) sets out a process for individuals and organisations to follow to determine whether an Aboriginal object will be harmed by an activity, whether further investigation is needed, and whether that harm requires an AHIP.

1.5 Objectives

The aim of the assessment is to assess whether Aboriginal objects and/or places are present, or are likely to occur within, or near the Activity Area, if those Aboriginal objects and/or places may be harmed by the proposed works, and if further investigation is required.

1.6 Assessment methodology

This DD follows the process outlined below.

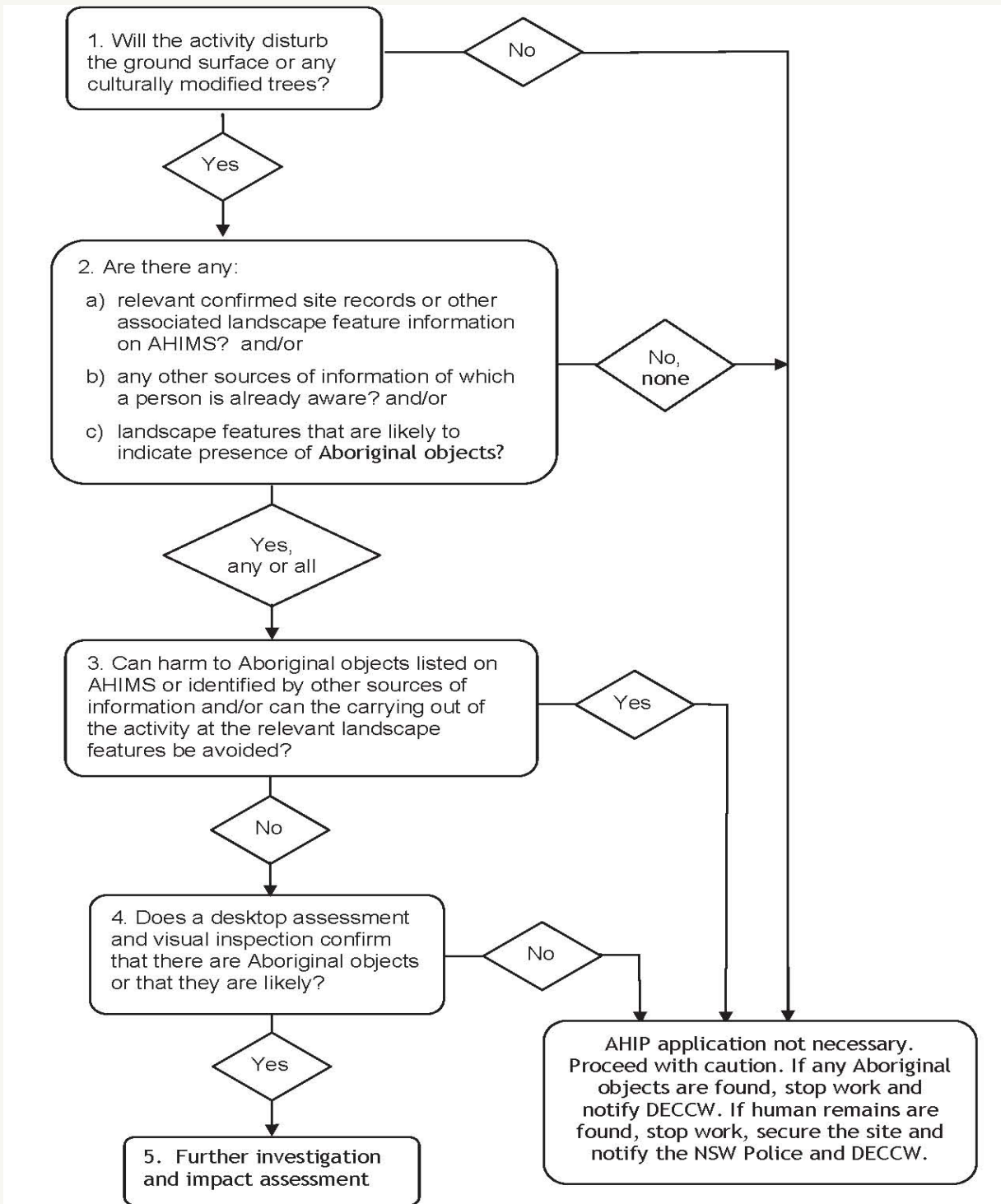


Plate 1: Due diligence process as outlined in the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*



Drawn by: AndreSward File: C:\OneDrive\Sync\Folder\Niche\GIS - APRX - APRX\85500a85595 - RouseHill\ACHA_NSW\Fr\8595 - RouseHill\HospitalIDev_ACHA_NSW.aprx Last updated: 5/05/2023

 Activity area


Transport

 Major road

 Minor road

 Rail

Hydrography

 Waterbody

Administrative and Property Boundaries

 Lot



0  100

m

GDA2020 MGA Zone 56



Figure 1

Location Map

New Rouse Hill Hospital Laydown Area DD

Niche PM: Carly Todhunter
 Niche Proj. #: 8595
 Client: Health Infrastructure

NSW Office of Environment and Heritage's BioNet Atlas, which holds the data from a number of custodians. Data Obtained 13/12/2023. | Hillshade: Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastayrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community/ World_Ocean_Base: NIWA, GeosciencesAustralia, Esri, Garmin, NaturalVue/ World Imagery: Maxar/ World Hillshade: Esri, Geoscience Australia, NASA, NGA, USGS | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to GDA2020 MGA Zone 56 is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020 MGA Zone 56.



Drawn By: Andreas Sward File: C:\OneDrive\Sync\Folder\Niche\GIS - APRX - APRX\ab500\ab595_Rouse Hill Hospital Dev_ACHA_NSW.aprx Last updated: 5/05/2025 2:23 PM

Activity area
Transport
Major road

Minor road
Rail

Hydrography
Waterbody

Administrative and Property Boundaries
Lot



Figure 2
Location of the Activity Area
New Rouse Hill Hospital Laydown Area DD

Niche PM: Carly Todhunter
Niche Proj. #: 8595
Client: Health Infrastructure

NSW Office of Environment and Heritage's BioNet Atlas, which holds the data from a number of custodians. Data Obtained 13/12/2023. | Hillshade: Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastatys, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community/ public/NSW_Imagery. © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to GDA2020 MGA Zone 56 is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020 MGA Zone 56.



2 Environmental context

Understanding the past and present environmental contexts of an Activity Area is requisite in any Aboriginal archaeological and cultural heritage investigation (DECCW 2010). The following section provides details of the environmental characteristics of the Activity Area.

2.1 Topography and landforms

The Activity Area is situated on gently inclined lower slopes of the Kellyville Ridge approximately 600 metres (m) west of Caddies Creek. The floodplain landform in which the Activity Area is located is susceptible to alluvial redeposition or concealment of surface artefacts. The archaeologically sensitive Second Ponds Creek with its high concentration of Aboriginal cultural heritage sites (Figure 5) is situated approximately 1 km to the west. Both creeks drain north-eastwards towards Cattai Creek located in Annangrove approximately 3 km to the northeast within an area of steeper, incised terrain. The elevation within the Activity Area is approximately 59 m and is very gently sloped along a minor ridgeline running east/west.

Urbis (2023) have previously suggested that the Subject Area may have been a travel route from the ridgeline of Kellyville Ridge towards the ephemeral waterways and wetlands of the Caddies Creek floodplain, though the pattern of use is likely to have been transient and limited in intensity.

The indicative topography for the Subject Area is summarised below (DPIE 2020). Table 1 provides topographical descriptions associated with the Blacktown soil landscape present within the Subject Area.

Table 1: Landform and geology descriptions of soil landscapes within the Activity Area (DPIE 2020)

| Soil landscape | Landform |
|----------------------|--|
| Blacktown (residual) | Gently undulating rises on Wianamatta Group shales with local relief of 10-30 m generally. Slopes are usually >5% but occasionally up to 10%. Crests and ridges are generally broad (200-600 m) and rounded with upper slopes grading into concave lower slopes. |

2.2 Hydrology

Water is one of the most important resources for human occupation in a landscape and is considered the primary factor in the prediction of Aboriginal sites in the landscape. Across NSW, there is a strong correlation between the presence, frequency, and density of Aboriginal objects with the abundance and permanency of water sources. Areas within 200 m of water are identified as being frequently associated with the presence of Aboriginal objects. No water courses occur within the Activity Area; however, a third-order section of Second Ponds Creek occurs approximately 1 km to the west and a fourth-order section of Caddies Creek occurs approximately 600 m to the east.

Within the Cumberland Plain, areas associated with the underlying Wianamatta Formation geology tend to have complex, well-developed drainage networks. Water sources tend to be relatively common and can occur as both ephemeral and permanent streams and ponds (White and McDonald 2010). Many streams took the chain-of-ponds form including the regionally significant Killarney Chain-of-Ponds, First Ponds Creek and Second Ponds Creek. A minor chain of ponds runs northwest to southeast approximately 270 m southwest of the Activity Area and occurs in close proximity to several known open artefact or potential archaeological deposit (PAD) sites (including AHIMS IDs 45-5-4845, 48-5-4259, 45-5-0959 in closest proximity to the Subject Area).



Historical aerial imagery available for the Activity Area indicates that three artificial ponds were situated within the Activity Area from at least 1970 and continuing up until at least 2002 associated with the period of use as a golf course. These ponds are entirely absent from the aerial imagery from 1961.

2.3 Geology

Analysis of the Subject Area's geology and soil landscapes are useful tools in identifying environmental proxies for the likely preservation and burial of Aboriginal objects within a landscape. Such analysis provides insight into resources that may have been available to Aboriginal people in the past, such as the presence of rock outcrops to provide surfaces for art or to sharpen and prepare implements, and/or stone for the manufacture of stone tools and plant species. Stone tools are often made using siliceous, metamorphic, or igneous rocks, and therefore understanding the local geology can provide important information regarding resources exploited by Aboriginal people within the Subject Area.

The Subject Area is located within the Sydney Basin Bioregion and on the northernmost edge of the Cumberland Plain, a large low-lying and generally undulating landform in the Sydney Basin. The oldest, Permian layers of the Sydney Basin comprise marine, alluvial and deltaic deposits including shales and mudstones (Kelleher Nightingale Consulting 2010). During the Triassic period, the Sydney Basin consisted of a large coastal plain with deposits from this period classified into three main groups: the Narrabeen Group, Hawkesbury Sandstone and the Wianamatta Group (Kelleher Nightingale Consulting 2010).

Within the Subject Area, the geology is dominated by the Liverpool sub-group of the Wianamatta Group consisting of (in order of increased depth) Bringelly Shale, Minchinbury Sandstone and Ashfield Shale. These units are underlain by the Hawkesbury Sandstone consisting of sandstone, quartz and some shale. Underneath this, lies the Narrabeen Group sandstone, shale and tuff materials. Typically, the geology associated with the Blacktown soil landscape associated with the Subject Area comprises laminite, siltstone, claystone and some sandstone (DPIE 2024).

From previous assessments and regional studies, numerous geological units across the Cumberland Plain have been identified as important sources of raw materials suitable for tool production. The most well-known include silcrete sourced from the St Marys Formation (including the Plumpton Ridge deposit), as well as tuff/indurated mudstone and silcrete from the Cranebrook Formation and Rickabys Creek Formation (Kelleher Nightingale Consulting 2010).

The variable geology present within the broader landscape indicates that a number of known material types used within the archaeological record are present, with silcrete and quartz being the most prevalent.

2.4 Soils

The Activity Area is located on land characterised by shallow to moderately deep (>100 cm) hard-setting mottled texture contrast soils associated with the Blacktown soil landscape (DPIE 2020). The skeletal soils of the Blacktown soil landscape occur extensively on the Cumberland Lowlands and are generally not associated with Aboriginal burials (Urbis 2023). The shallow soils tend to produce shallow occupation profiles. The erosion hazard for non-concentrated soils is light to moderate however for concentrated flows is moderate to high.

Details of the Blacktown soil landscape are outlined in Table 2 and its regional extent is conveyed in Figure 3.



Table 2: Soil landscape descriptions for soils within the Activity Area (DPIE2020)

| Soil landscape | Soil description |
|----------------------|---|
| Blacktown (residual) | <p>Soils comprise shallow to moderately deep (<100 cm) hard-setting mottled texture soils comprising red and brown podzolic soils on crests and grading to yellow podzolic soils on lower slopes and in drainage lines. The soil landscape is susceptible to localised seasonal waterlogging and surface movement potential.</p> <p>Soils associated with the Blacktown soil landscape tend to have moderate erodibility with the friable brownish-black loam (A1) and brown clay loam (A2) topsoil being hard-setting. The topsoil generally has a high fine sand and silt content. Subsoils of the B horizon tend to comprise brown light to medium clay with frequent mottles. The C horizon comprises a plastic light grey silty clay to heavy clay above a shale bedrock.</p> |

Soils associated with the Blacktown soil landscape tend to be moderately acidic to neutral, ranging from pH 5.0 to pH 7.0 (DPIE 2020). The acidic soils hamper the potential for organic material to be retained within the soil profile and therefore the potential for bone to be conserved is reduced.

The archaeological potential of the Blacktown Soil Landscape is moderate; however, it is dependent on the varying soil type limitations, the impact of past land use disturbances, sheet wash and erosion extent. Soils that have not been subjected to high levels of disturbance, particularly in protected or elevated alluvial soils that have intact soil horizons, offer a higher likelihood of preserving archaeological deposits. Archaeological deposits in the local area tend to be shallow (typically <10-30 cm) and occur close to the ground surface therefore are highly susceptible to previous land-use practices.

The soils present within the Activity Area are known to have been heavily impacted by previous land use in particular since 2015 as a result of its prolonged use as a carpark, stockpile location, laydown area and site office to support adjacent construction of the Metro overpass and bus interchange. This period of use is discussed in detail in Section 2.6. Earlier disturbance to the soil profiles within the Activity Area have been identified from at least 1970 to 2002 during the period of use as a golf course.

2.5 Ecology

Though dominated by the Cumberland Plain Woodland in modern times, the vegetation associated with the Rouse Hill area prior to European settlement would have comprised woodlands characterised by grey box (*Eucalyptus moluccana*), forest red gum (*Eucalyptus tereticornis*) and narrow-leaved ironbark (*Eucalyptus crebra*) (Apex Archaeology 2022). Notably, the nearby historically significant Mungerie House (situated approximately 770 m south-east of the Subject Area) is named after an aboriginal word 'Mungerie' meaning "place of ironbark trees" or "eating place- tall trees" (Urbis 2023) confirming the local significance of the species to local groups. Paperbark (*Melaleuca spp*) and blackthorn (*Bursaria spinosa*) would have also been present. Swamp oak (*Casuarina glauca*) would have commonly grown along creek lines.

Paperbark was widely used for a range of purposes including the use of bark as roofing material, blankets, bandages or the use of the timber for producing spears, clubs and digging sticks (Cumpston 2020:18). Leaves can also be used as a medicinal product to treat colds and relieve respiratory conditions. River red gum was a prized timber for producing canoes, coolamons and shields and the sap and leaves were also utilised as a medicine (Cumpston 2020:18). Swamp oak was also a useful timber for starting fires.

Early ethnographic evidence detailing plant resource use within the region principally concentrated on the daily activities of men. As this did not generally involve the collection of vegetable resources, much of this information is lost. However, general interpretations can be made, including evidence for firing the landscape to promote certain species which are thus inferred to have a higher economic value. Early ethnographic evidence from the



Sydney region suggested that there were two distinct economies in operation at the time of contact: that along the coast and that of the plains. The plains economy was dominated by small animals and the consumption of roots such as wild yam (Tench 1793:230). Berries, yam and fern roots, banksia flowers and honey were also described at the time (Collins 1802:462). William Dawes (1791), while undertaking a study of the Darug language, identified that there were likely three classes of food consumed by the woodland groups: berries, honey-bearing flowers (Banksia, Grevillia etc) and roots. One of the words used for the final group was djarug, strongly suggesting that the Aboriginal people of the Cumberland Plains (Darug) strongly relied on tuberous plants in their diet (Kohen 1986).

An accurate estimate of the faunal resources in the area at the time of contact is problematic, as many of them suffered heavy losses associated with initial clearing for farming. Larger macropods, including grey kangaroos and wallabies, were most likely common, as were emus (Tench 1793; Collins 1802; Best 1843). The diet of groups who inhabited the Rouse Hill area would have been dominated by small game including wallabies, possums, bandicoots, gliders, and kangaroos as well as small birds and freshwater fish (including mullet and eel) (Attenbrow 2010). Dingos, rats, reptiles and birds are also known faunal resources that would have been available to people living in the area.

As part of the Aboriginal community consultation undertaken for the New Rouse Hill Hospital ACHA, Colin Gale (a registered Aboriginal Party [RAP]) has identified several species available in the Cumberland Plains which were important freshwater resources for Aboriginal occupants of the area including fresh water mussels in Caddies Creek and long-necked turtles, eels, perch, yabbies and platypus from numerous local waterways. During the same consultation process, Phil Khan (RAP) has also emphasised the importance of gathering plant foods and fishing in Cattai Creek and the Hawkesbury River.

Redacted for public display

Access to this redacted content may be provided
on request to Niche where appropriate.



 Activity area



Figure 4-2
Historical aerial imagery (1986 & 2002)
 New Rouse Hill Hospital Laydown Area DD

Niche PM: Carly Todhunter
 Niche Proj. #: 8595
 Client: Health Infrastructure



2.6 Ethnographic context

Past Aboriginal land use of the Subject Area can be re-traced using previously recorded archaeological resources, historical observations of early settlers and surveyors, and contemporary comments from Aboriginal people.

The reconstruction of past land use of Aboriginal people within the western Cumberland Plains including statements about the structure of their society is a difficult task and (apart from the archaeological record) relies heavily on documents written by non-Aboriginal people such as early colonial surveyors and settlers. The inherent bias of the Eurocentric viewpoint, class and cultures of those people inevitably influenced their observation and conclusions about the Aboriginal ways of life. Historical accounts also make comment on a culture already disrupted by the European colonisation and its ongoing effects. Most notably, the expansion of the colony and its settlement by individuals with no understanding of long-standing Aboriginal land-use patterns and social norms resulted in inevitable conflict and misunderstandings. The sudden loss of life of large numbers of first-nation people in the smallpox epidemic further exacerbated latent mistrust between settlers and resident Aboriginal groups.

Tindale (1974:193) refers to Aboriginal people noted in the vicinity of the Subject Area as being “Daruk” based largely on accounts provided by Robert Hamilton Mathews, a surveyor and amateur anthropologist. According to an early account by Mathews (1901:155),

“the Dharruk speaking people adjoined the Thurrawal on the north, extending along the coast to the Hawkesbury River, and inland to what are now Windsor, Penrith, Campbelltown, and intervening towns”.

From available ethnographic accounts, it has been suggested that groups at the time of European settlement likely extended approximately 10 to 30 km with these clans or bands forming broader social alliances, including language groups (Attenbrow 2010 in White 2018). Across the Sydney Basin, the majority of sites that have been dated were occupied first during the Holocene and particularly in the past 2, 000 years (Jo McDonald CHM 2001:456). Artefact discard rates tend to be low initially and then increase dramatically (especially during the period c. 1,500 – 3,000 y BP) before declining in the last 1,000 years.

Extensive archaeological research in the area of Rouse Hill and surrounding areas has demonstrated numerous land use patterns ranging from low-density background artefact scatters to more complex sites containing evidence of multiple activities and repeated use (GML 2017:10).

2.7 Past land use and disturbance

The ground surface of the Activity Area has been extensively impacted as a result of previous land use, in particular since early 2015 to late 2019 during which time the area was used variously as a carpark, stockpiling area, laydown area and site office to support adjacent construction works on the Metro overpass (over Windsor Road) and bus interchange situated to the south. During this period, the land was cleared of vegetation and levelled to provide a hardstand for the ancillary works. Plate 2 provides an overview of ground impacts experienced over the period May 2016 to October 2019 during the most intensive period of use. Since this time, some vegetation has returned in the form mostly of grass and weed species.

Prior to this, historic sources including historic aerials provide further evidence of ground disturbance within the Activity Area. The earliest documented ground disturbance was in association with the construction of the Hawkesbury Road (Old Windsor Road) an important arterial road for the colony. As part of the construction, an area extending between Toongabbie Government Farm to the Hawkesbury River was cleared (Urbis 2023) with surviving sections of this road notably occurring directly adjacent to the Activity Area in the west.

The Activity Area is situated in the northwest portion of a 100-acre land grant (Portion 82 of the Parish of Castle Hill, County of Cumberland) given to Lucy Mileham. Lucy Mileham was connected through marriage to important pioneer families Hassalls and the Rouses. Lucy’s grant was identified in the 5th edition Parish Map dated 1897,



with an update in 1905 identifying the property as Milford Farm. Present-day Commercial Road was depicted within both parish maps, however, appears to be unnamed.

During the early 19th Century, the Activity Area was associated with land grants for a larger property associated with the Mungerie House (Urbis 2023), with the land used for grazing, poultry, dairy farming and citrus orchards. Long-standing occupants of the property used the land as a farm producing milk, cream, eggs and vegetables from the mid-1950s to 1969 (Urbis 2023). Following the closure of the farm, Robert and Ian Scharkie managed a transport company from the property and later created the Mungerie Park Golf Course (Urbis 2023).

In addition to this analysis, historical aerial imagery can provide further information about previous land use and impact on the ground surface specific to the Subject Area. From historical aerials, it can be determined that historical disturbances had begun to occur within the Subject Area prior to 1955 at which time the ground has been cleared to make way for pastoral activities. By 1961 (Figure 4), no trees were left standing within the Activity Area. By 1970 (Figure 4), the footprint of the golf course is visible including the fairway and green visible running roughly east to west. Several tree lines or roughs are also visible as evidence of introduced tree plantings. At this time, several ponds are present within the Activity Area. By 1986 (Figure 4), the configuration of the golf course appeared little altered however the introduced vegetation had increased and matured. The aerial imagery for 2002 indicates that the property is still likely being used as a golf course. Collectively, these historic aerial images provide a view of the landscaped nature of the Activity Area during the twentieth century resulting primarily from its period of use as a grazing property and golf course.

The evidence of prior land use/disturbance suggests that the Activity Area has a very low potential for archaeological deposits to be retained within this modified context, in particular in consideration of the shallow nature of PAD sites associated with the Blacktown Soil Landscape. Surface artefacts may be present as a result of the prior disturbance however these are also unlikely to occur given the extent of subsurface and surface disturbance throughout an extended period. If any surface artefacts were to be identified, these would not be identified *in situ*.



6 May 2016



29 May 2018



29 December 2018



7 April 2019



12 September 2019



29 October 2019



1 February 2020



20 January 2025

Plate 2: Extent of ground disturbance observed since 2016 within the Activity Area (Source: Nearmap imagery)



2.8 Summary

Based on the known impacts to the Activity Area, it is considered unlikely that any previously unrecorded Aboriginal objects or places are present. There are no mature trees present within the Activity Area and evidence of extensive subsurface and surface disturbance have been provided by available aerial imagery and historical accounts. Predictive modelling for the Cumberland Plains, however, indicates a moderate potential for shallow archaeological deposits to be present even in areas with no surface artefacts are present. The most likely site type to occur regionally are open artefact scatters or PAD. Other site types (grinding grooves, stone arrangements, shelters, art sites etc.) are not anticipated to occur due to an absence of associated sensitive features.



3 Aboriginal Objects Due Diligence Assessment

3.1 Is the proposed activity a low-impact activity as defined by the Regulation?

No.

The proposed activities are not consistent with any low activities as defined in Clause 80B.

3.2 Step 1 - Will the activity disturb the ground surface or any culturally modified trees?

Yes.

The proposed activity involves the creation and use of hardstand areas and a new transmission pole with potential to disturb the ground surface. No mature trees are present within the Activity Area.

3.3 Step 2a - Are there any relevant confirmed site records or other associated landscape feature information on AHIMS (or other heritage registers)?

Yes.

Nil previously registered Aboriginal Heritage Impact Management System (AHIMS) sites occur within the Activity Area however several occur in proximity.

3.3.1 Heritage registers

3.3.1.1 AHIMS

An extensive search of the AHIMS register was carried out on 24 January 2025 (AHIMS Client ID# 968619). The search area encompassed GDA Zone 56 Eastings: 305986 - 308760 and Northings: 6268789 - 6271654 comprising a minimum 1 km buffer around the Activity Area. A total of 92 Aboriginal cultural heritage sites have been previously recorded within the AHIMS search area. A copy of the AHIMS extensive search results is provided in Appendix 1.

No previously recorded Aboriginal cultural heritage sites are recorded within the Activity Area. Two sites were identified within 200 m of the Activity Area comprising Commercial Road AFT 1 (AHIMS ID# 45-5-5669) and Commercial Road AFT 2 (AHIMS ID# 45-5-5671). Both sites are registered in AHIMS as artefact scatters which have been identified during a test excavation program undertaken by Urbis (2023) as part of an ACHA completed for the proposed Rouse Hill Hospital development. Copies of the site cards are available in Appendix 2.

The most common site features observed within the AHIMS search area are artefacts associated with open sites (n=64 or 70%) including both isolated finds and artefact scatters. The next most common site features are Potential Archaeological Deposits (PADs) (n=12 or 13%) and artefact(s) and PAD (n=7 or 8%). Open sites containing artefact(s) and grinding grooves (n=1 or 2%) was the next most common site feature. Only one modified tree (carved or scarred) was identified and only one closed site comprising a shelter with art and artefact(s) was identified as rare site types for the local region. A summary of the site features associated with the AHIMS search is provided in Table 3.



RH/CD 3 Rouse Hill_Historic (AHIMS ID# 45-5-0907) was identified as a site associated with Aboriginal ceremony and dreaming features; however, has been reassessed as 'Not a site'.

Table 3: Summary of site features identified within the AHIMS search area

| Site features | Total | Percentage |
|-----------------------------------|-----------|-------------|
| Aboriginal ceremony and dreaming | 1 | 1% |
| Aboriginal resource and gathering | 1 | 1% |
| Artefact(s) | 64 | 70% |
| Artefact(s) and engraving | 1 | 1% |
| Artefact(s) and grinding groove | 2 | 2% |
| Artefact(s) and PAD | 7 | 8% |
| Grinding groove | 1 | 1% |
| Grinding groove and water hole | 1 | 1% |
| Modified tree (carved or scarred) | 1 | 1% |
| PAD | 12 | 13% |
| Shelter with art and artefact(s) | 1 | 1% |
| Total | 92 | 100% |

It must be noted that care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution. The distribution of registered sites does not reflect patterns of occupation but rather is often indicative of survey coverage and conditions.

3.3.1.2 AHIP register

A search was conducted of the Department of Planning, Industry and Environment (DPIE) AHIP public register on 30 April 2025. It was determined that no AHIPS have been registered within the current Activity Area. The closest AHIP (ID# 5006) was issued for potential impacts to CR01+PAD (AHIMS ID# 45-5-5529) an open site containing artefact(s) and PAD and CR-AS-01 (AHIMS ID# 45-5-5596) an open site containing artefact(s). Both sites are situated approximately 360 m to the northeast of the Activity Area.

3.3.1.3 Native Title

A Native Title search was undertaken 30 April 2025 with no claims or determinations present over the Activity Area.



3.3.1.4 Other heritage registers

Searches of the Australian World Heritage Database, the Commonwealth Heritage List, the National Heritage List, the State Heritage Register, the State Heritage Inventory, the Hills Local Environmental Plan (LEP) (2019) and the Hills Development Control Plans (DCP) (2013) were conducted on 30 April 2025.

The searches identified no heritage items within the Activity Area. Several heritage items occur within 1 kilometre (km) of the Activity Area (Table 4).

Table 4: Listed heritage items in proximity to the Subject Area

| Heritage register | Items in the Subject Area | Items within 1 km of the Subject Area |
|----------------------------|---------------------------|--|
| World Heritage Database | None | Nil |
| Commonwealth Heritage List | None | Nil |
| National Heritage List | None | Nil |
| State Heritage Register | None | <ul style="list-style-type: none"> – SHR # 5045331 Merriville House and gardens – SHR #5045488 Royal Oak Inn (Former) |
| Schedule 5 of the LEP | None | <ul style="list-style-type: none"> – LEP# A24 Queens Arms Inn site – LEP# I28 Windsor Road from Baulkham Hills to Box Hill – LEP# I30 Merriville Rise Park – LEP# I31 Merriville House and gardens – LEP# I32 Place- Battle of Vinegar Hill¹ – LEP# I104 Lintbrae House – LEP# I182 Rouse Hill Cemetery – LEP# I183 Mungerie – LEP# I184 Aberdoon House – LEP# I185 Royal Oak Inn (Former) – LEP# I187 Christchurch – LEP# I189 Private Burial Ground |

An assessment of historical heritage constraints associated with the Activity Area is beyond the scope of this DD.

¹ The historic heritage item is a placemaker to commemorate the Battle of Vinegar Hill however does not denote the actual battle ground site.

Redacted for public display

Access to this redacted content may be provided
on request to Niche where appropriate.



3.4 Step 2b - Are there any other sources of information of which a person is already aware?

Yes.

The Cumberland Plain has been the focus of intense archaeological research both for research purposes and in response to development proposals. Rouse Hill and surrounding areas have garnered particular interest in recent years owing to the region’s rapid urban development. Within the Cumberland Plain, the oldest known artefact assemblages occur within sand bodies and alluvium associated with the Hawkesbury and Parramatta Rivers where evidence for human occupation extends c. 30, 000 years or more (White 2018). Notable sites include Parramatta RTA-G1, Pitt Town PT12, the Windsor Museum site and the Cranebrook Formation CT11 (White 2018).

3.4.1 Previous heritage assessments within or relevant to the Activity Area

The heritage assessments presented in Table 5 below have occurred within the regional context or within close proximity to the Activity Area.

Table 5: Previous heritage assessments within the regional context of the Activity Area

| Author | Year | Title | Description/Outcomes |
|--------|------|---|--|
| Urbis | 2023 | <i>Rouse Hill Hospital, Rouse Hill, NSW, Darug Country: Aboriginal Cultural Heritage Assessment</i> | <p>During the initial phase of the State Significant Development (SSD) application for the new Rouse Hill Hospital, an ACHA including a survey and test excavation program was undertaken within the project area occurring directly adjacent to the current Activity Area to the east (Figure 1). Key findings of the study included:</p> <ul style="list-style-type: none"> – The field study concluded that portions of the study area in the north and west had been heavily disturbed due to previous road construction and a substation. Ground disturbance within the remainder of the study was relatively limited comprising some surface disturbance associated with previous land use (agricultural use and as fairways and greens of a golf course). – A moderate to high potential for surface and sub-surface artefact scatters and isolated finds was identified within areas of least disturbance. As the potential impacts could not be avoided, a test excavation program was proposed to determine the nature and extent of the deposit present. – During the staged test excavation program (stages 1 and 2), a total of 25 stone artefacts were recovered from 32 test pits. – A low-density artefact scatter was identified in the centre of the study area consisting of two artefacts recovered from two test pits and was subsequently recorded in AHIMS as site Commercial Road AFT 1 (45-5-5669). A denser artefact scatter was identified in the south in a disturbed area of lower slopes. The artefact scatter comprised 23 artefacts recovered from 6 test pits and was subsequently registered in AHIMS as Commercial Road AFT 2 (AHIMS ID# 45-5-5671). – Evidence of previous disturbance within the study area was confirmed during the test excavation consisting of truncated and eroded soil profiles. |



| Author | Year | Title | Description/Outcomes |
|----------------------------|------|---|--|
| | | | <ul style="list-style-type: none"> - The results of the ACHA and test excavation concluded that the study area has a low social and cultural value to the Aboriginal community as part of the broader cultural landscape. The scientific significance was also regarded to be low due to the common site type (low-density artefact scatters). |
| Beth White and Jo McDonald | 2010 | <i>Lithic artefact distribution in the Rouse Hill Development Area, Cumberland Plain, NSW</i> | <p>A systematic review of artefact distribution and density across the Rouse Hill Development Area (RHDA) was undertaken in response to the dense concentration of test excavation projects undertaken within open sites across the township (the closest being RH/SP9 situated approximately 1.3 km to the northwest. The study identified that due to the broad and dense occurrence of artefacts across a range of tested areas, most of the RHDA could be regarded as a cultural landscape. The study concluded a number of key findings, including:</p> <ul style="list-style-type: none"> - The most common site features across the Cumberland Plain are artefacts occurring in open contexts. - Topographic and stream order variables were found to correlate with artefact density and distribution with higher artefact densities and more continuous artefact distributions occurring in association with larger creeks. - High artefact concentrations are likely to be the result of high artefact discard activities and/or intensive stone-knapping techniques. - The landforms with the highest artefact densities were terraces and lower slopes associated with second and fourth-order streams. In particular, higher artefact densities tended to occur between 51-100 m from fourth-order streams and within 50 m of second-order streams. There also appeared to be a preference for slightly elevated, well-drained locations in the lower parts of valleys. - Upper slopes were found to contain artefacts however mostly in the form of sparse, discontinuous artefact distributions. White and McDonald (2010) suggested that this patterning may in part reflect the erosion of soils from upper slopes and the deposition of transported sediment into lower slope areas however their analysis of artefact densities across two sites concluded, on the basis of an absence of correlation between profile depth and artefact density, that it is not wholly responsible. - Creek flats were found to have fairly low artefact densities (contrary to earlier occupation models) and this was forwarded as potentially being a result of those areas being low-lying and less well-drained and/or the result of their greater exposure to flooding. - In terms of access to freshwater, their systematic study found that most contexts associated with first-order streams consisted of low artefact densities. - The aspect was found to influence artefact density within lower slope areas associated with larger streams, with the highest concentrations found on landscapes facing north and northeast. |



| Author | Year | Title | Description/Outcomes |
|--|------|---|--|
| | | | <ul style="list-style-type: none"> – The distance from silcrete sources did not appear to have influenced artefact distribution. – |
| Kelleher Nightingale Consultants | 2010 | <i>Area 20 Precinct North West Growth Centre: Aboriginal Heritage Assessment</i> | <p>An ACHA including a field survey program was undertaken to assess the potential impacts to Aboriginal cultural heritage resulting from a proposed rezoning and development project north of Schofields Road (situated approximately 80 m west of the current Activity Area). The study area extended across 245 hectares and was situated adjacent to the proposed Rouse Hill Hospital on the opposite side of Windsor Road. The survey program was conducted over nine days resulting in the identification of 19 new sites, eight newly recorded PADs and revised conditions and boundaries for several previously recorded sites and PADs. The survey included 74 lots with good survey coverage achieved. A high level of disturbance was identified across the study area with surface exposures described in areas of previous earthworks, heavy machinery operations, erosion scours and other areas of cleared vegetation.</p> <p>Amongst the recorded sites, one site was assessed to have a high level of significance owing to the extensive artefact assemblage present as well as for its broad site context and location adjacent to the northern side of Second Ponds Creek. A further 17 sites were identified to have moderate significance as collectively they represent the utilisation of varying landforms and represent the traditional land use activities of the original Aboriginal inhabitants. The remainder of the sites were found only to have limited significance due to their common site type and features and the fact that more representative sites exist within the local area. The study concluded that all high and moderately significant sites should be conserved where possible, however, if impacts could not be avoided for seven sites of moderate significance, salvage excavation would be warranted.</p> |
| Jo McDonald Cultural Heritage Management Pty Ltd | 2001 | <i>Salvage Excavation of Six Sites along Caddies, Second Ponds, Smalls and Cattai Creeks in the Rouse Hill Development Area NSW</i> | <p>The salvage excavations conducted by Jo McDonald (2001) are regionally significant and led to a refining of regional occupation models for the Cumberland Plain. The excavations were conducted approximately 2 km to the southeast of the current Activity Area. Her study demonstrated that the surface representation of sites on the Cumberland Plain does not reflect the actuality of that site. Salvage excavations were conducted within areas with no surface indications for the presence of a site and yet all six sites were found to contain intact archaeological deposits. Almost 35, 000 artefacts were recovered during the excavation program from 482 m² excavated across six sites. Detailed analysis of the excavation data was undertaken providing insight into the artefact assemblage with reference to broader patterns in the Cumberland Plains.</p> <p>A number of key observations were made during the program, including:</p> |



| Author | Year | Title | Description/Outcomes |
|--|------|--|--|
| | | | <ul style="list-style-type: none"> – Average artefact density across sites did not correlate consistently with geology- with both high and low mean densities occurring on alluvium and sandstone contexts, whilst shale hillslope sites generally were found to have low mean densities (2001:386). – Mean artefact density showed a broad correlation with stream order whereby artefact density increased generally with stream order. The highest mean densities were on third- and fourth-order confluences and fourth-order drainage however there were exceptions to the trend. Generally, a model of increasingly complex occupation, activity and artefact discard was found to occur in association with increased stream order (with more water, more permanent water and more associated food resources). – Silcrete was the most prevalent raw material however silicified tuff and quartz were the predominant raw materials in some assemblages. – Interpreted through the distance-decay model, the analysis did identify a general trend in support of the thesis that the sites in closest proximity to silcrete sources did contain higher prevalences of this raw material however there were variances between sites with comparable distances to local sources. Jo McDonald noted that the simple model assumes that groups always had equal access to the sources and that raw materials from various locations were indeed utilised- which cannot always be confirmed. With respect to tuff, the model could not be supported with one of the sites containing the highest frequency being situated furthest from an available local source. |
| Australian Museum Business Services (AMBS) | 2000 | <i>Mungerie Park Town Centre Archaeological Salvage Excavations near Kellyville, Cumberland Plain, NSW</i> | <p>AMBS conducted an extensive salvage program between August and October 1999 in an area referred to as “Mungerie Park” (situated approximately 1.5 km to the southeast of the current Activity Area). Originally thought to comprise two open artefact sites, the results of the test excavation demonstrated that the deposit represented two ends of a single larger site. The excavation was significant for its identification of complex intra-site patterning of stone artefacts with artefacts occurring in associated with a range of activities in all areas of the slope occurring up to 300 m from a creek.</p> <p>Adopting the Activity Overprinting Zone model, the greatest degree of ‘overprinted’ activities occurred within 120 m of the creek. Within this ‘complex zone’, multiple knapping events and the highest artefact densities were identified. A zone of dispersed activity without ‘overprinting’ was identified between 120 and 220 m of the creek. Within this ‘dispersed zone’, knapping floors and/or activity areas were found to be spatially discrete due to the less frequent occupation of those areas or the positioning of activities requiring a level of separation from the main camp. Beyond this zone, archaeological evidence was noted to be extremely sparse reflecting isolated artefact discard events. The ‘sparse zone’ comprised a consistently lower artefact density associated more likely with the use or discard of artefacts rather than their manufacture.</p> |



| Author | Year | Title | Description/Outcomes |
|--------|------|-------|---|
| | | | Importantly, the model rested on several assumptions, namely: |

3.5 Step 2c - Are there landscape features that are likely to indicate the presence of Aboriginal Objects?

Yes.

Based on the findings of the desktop assessment above (Section 2, Steps 2a and 2b), the Activity Area contains the following landscape features that are likely to indicate the presence of Aboriginal objects, as identified by the Due Diligence Code of Practice:

- Within 200 m of water (creeks or associated tributaries).
- Located on a ridge top, ridgeline or headland

The Activity Area is within 200 m of Second Ponds and Caddies Creeks. Both creek lines are freshwater, permanent resources. The Activity Area is also situated along a minor ridgeline running east to west.

3.6 Step 3 - Can the harm or the activity be avoided?

No.

Based on the proposed development within the Activity Area, harm cannot be avoided as it is necessary to use the area to support the adjacent construction of the New Rouse Hill Hospital.

3.7 Step 4 - Does a desktop assessment and visual inspection confirm that there are Aboriginal Objects or that they are likely?

The desktop assessment above (sections 2, 2a, 2b, and 2c) confirmed that there are nil Aboriginal object(s) or site(s) within the Activity Area. The extent of surface and ground surface disturbance has also been evidenced by historical accounts and available aerial imagery. Nonetheless, the Activity Area does occur within 200 m of two creeklines and along a minor ridgeline in proximity to two registered artefact scatters comprising subsurface artefact deposits. A site inspection was therefore considered warranted in order to fully assess the extent of prior disturbance and the potential for Aboriginal cultural heritage objects or sites to be present.

A site inspection was conducted by Niche Heritage Consultant Olivier Rochecouste on 5 May 2025. The site inspection was undertaken on foot and included the entire Activity Area (Figure 6). Ground surface visibility (GSV) was 50% as a result of half of the central portion of the Activity Area featuring the remnants of the exposed gravel asphalt area used during previous adjacent construction works. The remaining areas contained long grass and regrowth trees with limited GSV available. Ground surface exposures (GSE) was limited to approximately 30% of the Activity Area as a result of the gravel asphalt, imported fill and long grass vegetation/ leaf litter.

Overall, the level of previous disturbance was confirmed to be high with the Activity Area conveying an extended history of previous ground disturbance. The central portion was characterised by an extensive area of introduced gravel/ asphalt which has been partially eroded by rain and wind. Modern debris are scattered across the Activity Area including a fallen telegraph pole, glass bottles and construction waste. Areas of long grass are present along in the outer portions of the Activity Area. However, these are not native grasses and are combination of weeds and overgrowth that have grown since the last disturbance works from at least 2020.

No Aboriginal objects or places were identified within the Activity Area, nor were any areas of potential archaeological deposit identified.



Plate 3: General overview of northern portion of the Activity Area showing the presence of an existing asphalt/gravel hardstand area and telegraph pole; facing north



Plate 4: Existing gravel/asphalt hardstand area showing the extent of previous disturbance within the eastern and central portions of the Activity Area; facing south



Plate 5: Long grass/weeds and regrowth trees were present in the western portion of the Activity Area; facing southwest



Plate 6: Weeds have grown in recent years over areas of the existing gravel/ asphalt hardstand area; facing south



Plate 7: Moss and grass have begun to grow over the asphalt/ gravel hardstand area; facing north



Plate 8: Extensive disturbance was observed in the southern portion of the Activity Area; facing south






Plate 9: Photographed facing the metro overpass and bus interchange areas; facing southwest






Plate 10: Narrow area of regrowth trees and grass/weeds growing in the background along the northern boundary of the Activity Area; facing north



Drawn By: Andreas Sward File: C:\OneDrive\Sync\Folder\Niche\GIS - APRX - APRX\8595\8595_Rouse Hill\Hospital\Dev_ACHA_NSW\Aprx - 6/05/2025 4:47 PM

-  Activity area
-  Artefact(s)
-  Survey tracks

- Transport**
- Road
-  Major road
 -  Minor road
 -  Rail



- Hydrography**
-  Waterbody
- Administrative and Property Boundaries**
-  Lot



Figure 6
Survey results
 New Rouse Hill Hospital Laydown Area DD

Niche PM: Carly Todhunter
 Niche Proj. #: 8595
 Client: Health Infrastructure

Hillshade: Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastatyselsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community/ public/NSW_Imagery; © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to GDA2020 MGA Zone 56 is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020 MGA Zone 56.



3.8 Step 5 - Further investigations and impact assessment

The results of the desktop and field assessment have shown that extensive previous disturbance is present throughout the Activity Area as a result of prior land use. Extensive surface and subsurface disturbance is present in the central, northern and southern portions of the Activity Area resulting in clear disturbance to the original soils present. An extensive gravel and asphalt hardstand area was observed during the site inspection which confirms the level of disturbance identified in historical aerial imagery.

The western portion of the Activity Area has lower levels of ground surface visibility and exposures due to recent grass/ weeds, bushes and trees which have grown over the area in recent years since the period in which the land had been extensively cleared for use in adjacent construction works (Section 2.7).

No Aboriginal objects or places have been identified within the Activity Area. The extent of prior disturbance and absence of sensitive landscape features has also meant that no areas of archaeological sensitivity have been determined to be present.

No further assessment with respect to Aboriginal cultural heritage is therefore considered warranted and the works may proceed in accordance with the Unexpected Finds Procedure outlined in Section 4.



4 Conclusions and recommendations

Niche was commissioned by TSA Riley on behalf of Health Infrastructure (the Proponent) to undertake a DD to assess the potential for a proposed laydown area to support the construction of the New Rouse Hill Hospital to impact to Aboriginal objects or places.

The desktop assessment concluded that extensive prior ground and subsurface disturbance has occurred within the Activity Area as a result of prior grazing activities, the use of the location as a golf course and its most recent use as a hardstand area to support the nearby construction of the Metro overpass and Rouse Hill bus interchange.

A site inspection undertaken was undertaken on 5 May 2025 in preparation for this DD concluding that no Aboriginal objects, places or areas of archaeological sensitivity are present. The works may therefore proceed in accordance with the Unexpected Finds Procedure outlined below.

Recommendations

General provisions

| | |
|----|---|
| 1. | All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> prior to, during and following the proposed works. |
|----|---|

Unexpected Finds Procedure

| | |
|----|---|
| 2. | <p>The following Find Procedure should be put in place as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works:</p> <ul style="list-style-type: none">– Work in the surrounding area is to stop immediately.– A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 m around the known edge of the Aboriginal cultural heritage site.– An appropriately qualified archaeological consultant is to be engaged to identify the material; and– Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in co-operation with the appropriate authorities and the local Aboriginal community:<ul style="list-style-type: none">– The recording and assessment of the finds.– Compliance with any legal requirements and Heritage NSW directions.– The development and implementation of appropriate management strategies based on an assessment of the significance of the finds.– The recommencement of ground disturbance works may only resume once legal requirements are fulfilled.– An Aboriginal Heritage Impact Permit (AHIP) will be required. <p>In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:</p> <ul style="list-style-type: none">– The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.– The NSW Police must be contacted immediately.– No further action is to be undertaken until the NSW Police provide written notification the Proponent.– If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact:<ul style="list-style-type: none">– Heritage NSW's Enviroline on 131 555 |
|----|---|



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| | <ul style="list-style-type: none">- No works are to continue until Heritage NSW provides written notification to the Proponent or their Agent. |
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6 Appendix 1

6.1 AHIMS search results

Redacted for public display

Access to this redacted content may be provided
on request to Niche where appropriate.



7 Appendix 2

7.1 AHIMS site cards

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