# Lakemba Station Catchment Construction Works

Archaeological method statement for WE38

Prepared for HSEJV
March 2021

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## Archaeological method statement for WE38

**Report Number**

J210114 RP#1

**Client**

HSEJV

**Date**

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**Version**

v1 Final

| Prepared by | Approved by |
| --- | --- |
| |  |
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| 11 March 2021 | 11 March 2021 |

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# 1 Lakemba Station Catchment and Construction Works

## 1.1 Overview

EMM Consulting Pty Ltd (EMM) has been engaged by Transport for New South Wales to prepare archaeological method statements (AMS) for proposed excavation works of the Sydney Metro City & Southwest Sydenham to Bankstown project (the project).

This AMS has been prepared to guide management of relics, that is, archaeological resources of local or State significance, that may be present in the works corridor on the Lakemba Station Catchment and Construction works (Lakemba site). AMS reports have also been produced for the Marrickville Station and Canterbury Station Catchment sites.

Project details are provided in the table below:

| **Project** | **Sydney Metro Southwest** |
|---|---|
| Date | 5 March 2021 |
| EMM Project | J210114 |
| Location | Lakemba Station |
| Track possession | 20 and 21 March 2021 |
| Authors | James McGuinness, EMM Archaeologist and Researcher |
| Review | Pamela Kottaras, EMM National Technical Leader - Historical Heritage |
| Excavation Directors | Pamela Kottaras<br>James McGuiness<br>Fiona Lesley |
| Client | Smart Infrastructure Consulting |
| Client review | N/A |

## 1.2 Background

### 1.2.1 Purpose of this document

This archaeological management strategy (AMS) has been prepared to manage construction works as impacts to relics may arise during the construction phase of the project. It is a response to the Revised Mitigation Measures document approved by the Department of Planning Industry and Environment (DPIE). Specifically, condition NAH12:

> The archaeological research design, including any mitigation measures identified in the Archaeological Assessment and Research Design report, would be implemented (SPIR p.16.13).

This AMS covers construction activities for rail possession WE38 (WE38) confined to the rail corridor, and site preparation activities for the Metro Services Building (MSB), which can take place outside of the rail possession periods.

The archaeological excavation method in this document forms the framework for the identification and recording of relics should they be identified during monitoring or outline the methods if test and salvage excavation has been confirmed as the management measure. Additionally, archaeological resources that may not fit the category of relics, but are considered significant, will also be recorded as per this report. An unexpected finds procedure that addresses Aboriginal heritage will also be apply to the work.

The method statement in this AMS will be updated to reflect each possession prior to the start of the construction and archaeological programs. Undocumented and unexpected finds will be recorded as per the unexpected finds procedure. Recording procedures for each archaeological field activity will remain as detailed in this document.

The methods presented in the AMS are in accordance with the following:

- Artefact Heritage 2018, *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade Historical Archaeological Assessment & Research Design* (AARD, Section 4.0); which forms part of the
- Submissions and Preferred Infrastructure Report 2018 (SPIR);
- Sydney Metro Integrated Management System (IMS) 2020, Southwest Metro – Marrickville, Canterbury and Lakemba Station Upgrades Heritage Management Plan; and
- the updated mitigation measures.

### 1.2.2 Site location

Lakemba Station is located on The Boulevarde, Lakemba, in the Parish of St George, County of Cumberland and sits within the Canterbury-Bankstown local government area. The station area is bounded by Railway Parade to the north and Haldon Street overbridge to the east and is accessed via either Railway Parade or The Boulevarde to the south.

The Lakemba Station Catchment works are proposed to occur in the boundaries of:

- Lot 2 DP1012364, which includes Lakemba Station and the rail corridor east of the station;
- Lot 1 DP1184734, the Haldon Street overbridge;
- Lot 1 DP937756, the railway corridor north-west of the station; and
- Lot 7 DP4217, the rail corridor west of the station.

The Lakemba Station Catchment works and construction activities may additionally occur within the boundaries of:

- Lot 8 DP1184406, a narrow corridor separating the rail line and The Boulevarde to the south-west of the station,
- Lot 1 DP1012364, 60A The Boulevarde; and
- Lot 2 DP128316, the railway corridor east of the Haldon Street overbridge.


**Plate 1.1** **Archaeological potential of the project area. Work associated with WE38 will be occurring in the green 'low to moderate' zone. Source: Artefact Heritage 2018, Figure 6-18. p.121.**

## 1.3 Archaeological phases and possible archaeological resources

### 1.3.1 Summary

Artefact Heritage (2019, pp.142-143) identified potential for the presence of relics and archaeological resources in the proposed Lakemba Station Catchment (see section 6). The project area has been divided into four phases with potential, significance, proposed works and management summarised in Table.1. The excavation works associated with the construction of an island platform, retaining wall and service building, new services and utilities and a new security fence along the southern boundary of the rail corridor have been assessed to pose potential impacts to archaeological resources, possibly of local significance, that relate to the four identified historical phases of the site.

This AMS fulfils the requirement for NAH12 in relation rail possession WE38. Additional archaeological management that will be required for future construction work will be added to this document.

### 1.3.2 Phase 1 (1788–1880s)

John Wall's 50-acre (20 ha) land grant "Ashford" remained unutilised until it was leased by Ben Taylor in 1881. During these initial years of use development of Taylor's lease is likely to have been limited to clearing and agricultural use. Archaeological features that would be present with this type of land use would be:

- evidence of land clearance including tree boles;
- post holes denoting fence lines and sheds;
- field drains; and
- isolated artefacts.

Such features may, though are unlikely, meet the criteria for local significance with regard to the early European occupation of Lakemba.

### 1.3.3 Phase 2 (1880s–1909)

After purchasing the leased land in 1890 Taylor built a house that he named "Lakemba" and a stable on the property that stood outside the project area to the south. It is possible the stable was demolished during construction of the roadway that became The Boulevarde during the early twentieth century. "Lakemba" remained on the corner of Railway Crescent (The Boulevarde) and Haldon Street until it was demolished c.1930.

The following relics associated with the establishment and use of "Lakemba" may occur in the project area:

- structural evidence of agricultural outbuildings,
- refuse pits;
- fence lines;
- drains or culverts; and
- isolated artefacts or artefact scatters.

Such features may meet the criteria for local significance with regard to the early agricultural and residential history of Lakemba.

### 1.3.4 Phase 3 (1909–1919)

Lakemba Station was opened on 14 April 1909. The original station at Lakemba had an island platform with entrance steps from the Haldon Street overbridge. A small timber station building with a ticket and parcels office was located at the eastern end of the station.

Potential archaeological resources of this phase would be associated with the first timber island platform and initial railway infrastructure and may include:

- timber footings and postholes;
- brick drainage pits;
- stanchion bases;
- electrical conduit/pits; and
- sleepers and rail track

Such features may meet the criteria for local significance with regard to the establishment of the railway and Lakemba Station.

### 1.3.5 Phase 4 (1919 – present)

In 1919 a new brick platform building with cantilever awnings replaced the earlier timber structure and a signal box was opened at the Bankstown end of the station. In 1921 a shunting neck was introduced to the west of the station allowing services to terminate at Lakemba. This was no longer required after electrification was introduced in 1926, at which time a haunched beam footbridge with overhead timber-framed booking office was erected. The booking office was demolished after fire damage and replaced by a modern metal and glass structure on the footbridge in 2001.

Potential archaeological resources of this phase would be associated with station and rail corridor upgrades such as: utilities and drainage.

- utilities;
- drainage services;

Any such features would be unlikely to meet the threshold for local significance.

## Table.1 Lakemba Station archaeological management

| Phases | Land use | *Significance* & Potential | Potential relics / significance | Potential impacts | Proposed mitigation |
|---|---|---|---|---|---|
| 1: 1788–1880s<br>Early settlement | • early land grants<br>• land clearance<br>• farming<br>• Ben Taylor's lease | *Unlikely to reach the threshold for local significance*<br>Nil to low | • evidence of land clearance including tree boles;<br>• post holes denoting fence lines and sheds;<br>• field drains; and<br>• isolated artefacts. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | Unexpected Finds Procedure |
| 2. 1880s–1909<br>Establishment of "Lakemba" house and property | • construction of domestic dwelling<br>• construction of agricultural outbuildings<br>• construction of boundary and stock fences<br>• farming | *Local (potentially)*<br>Low | • structural evidence of agricultural outbuildings,<br>• refuse pits;<br>• fence lines;<br>• drains or culverts; and<br>• isolated artefacts or artefact scatters. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | Unexpected Finds Procedure |
| 3. 1909–1919<br>Development of Lakemba Station | • Construction of first station island platform<br>• construction of first station buildings | *Local (potentially)*<br>Low to Moderate | • timber footings and postholes;<br>• brick drainage pits;<br>• stanchion bases;<br>• electrical conduit/pits; and<br>• sleepers and rail track | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | Monitoring or Test/Salvage |

## Table.1 Lakemba Station archaeological management

| Phases | Land use | *Significance* & Potential | Potential relics / significance | Potential impacts | Proposed mitigation |
|---|---|---|---|---|---|
| 4. 1919– present<br>Lakemba Station upgrades | • rail corridor upgrades<br>• station building upgrades<br>• utilities and drainage | *Unlikely to reach the threshold for local significance*<br>Moderate | • utilities;<br>• drainage services. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | Unexpected finds procedure |

# 2 Heritage significance

## 2.1 The significance framework

In NSW, historical value is ascribed to buildings, places, archaeological sites and landscapes modified in the Australian historical period for purposes other than traditional Aboriginal use. The assessment of heritage significance is based on the *Burra Charter* (Australia ICOMOS 2013) and further expanded upon in *Assessing Heritage Significance* (NSW Heritage Manual Heritage Office 2001). The heritage manual lists seven criteria to identify and assess heritage values that apply when considering if an item is of state or local heritage significance, which are set out in Table 2.1. The result of the assessments of significance may determine that an individual component does not meet the threshold for local or State significance as an individual item, but that it does contribute to the significance of the cultural landscape.

The criteria against which heritage significance have been assessed are reproduced in Table 2.1.. The assessment of relics is hypothetical as their existence as intact and substantial sites is predicted.

**Table 2.1 NSW heritage assessment criteria**

| Criterion | Explanation |
|---|---|
| a) | An item is important in the course or pattern of NSW's (or the local area's) cultural or natural history (Historical Significance). |
| b) | An item has strong or special association with the life or works of a person, or group of persons of importance in NSW's (or the local area's) cultural or natural history (Associative Significance). |
| c) | An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area) (Aesthetic Significance). |
| d) | An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons (Social Significance). |
| e) | An item has the potential to yield information that will contribute to an understanding of NSW's (or the local area's) cultural or natural history (Research Significance). |
| f) | An item possesses uncommon, rare or endangered aspects of NSW's (or the local area's) cultural or natural history (Rarity). |
| g) | An item is important in demonstrating the principle characteristics of a class of NSW's (or the local area's) cultural or natural places or environments (Representativeness). |

*Source:* *Assessing heritage significance* (NSW Heritage Office 2001, p.9).

## 2.2 Assessment of sites in the development footprint

Lakemba Station is identified as an item of local heritage significance on the *Canterbury Local Environmental Plan 2012* (Federation railway station buildings, 120–124 Railway Parade (Lakemba Railway Station Group, Lakemba, I143). The Lakemba Station Group is significant as an extension of the Sydenham to Bankstown Line and the intact platforms and stairs are significant examples of design and technology used by NSW railways in the early twentieth century.

Artefact Heritage (2018, p.119-120) has produced an assessment of significance for the potential archaeological relics of Marrickville Station and the project boundary, which is summarised below in Table 2.2.

**Table 2.2 Assessment of significance**

| Criterion | Assessment |
|---|---|
| a) Historical | The potential archaeological resources may offer information relating to the historical development of the suburb of Lakemba. The Lakemba station resources also have connections to the development of Lakemba. |
| b) Associative | Potential archaeological resources of *Lakemba* would be associated with Ben Taylor, a prominent local political figure, and his second wife Lucy Annie Johnston. |
| c) Aesthetic | It is unlikely archaeological resources will meet the criteria for aesthetic or technological significance. |
| d) Social | N/A |
| e) Research | The potential archaeological resources associated with the early twentieth century rail infrastructure would contribute to additional information not readily available through historical sources.<br>It is unlikely archaeological resources of Phases 1 and 2 will reach the criteria as the phases are likely to be heavily disturbed. In the case where substantial resources relating to *Lakemba* were revealed, the archaeological evidence may contribute further information on the early occupation of the area. |
| f) Rarity | Archaeological sites representing early residential uses are rare in NSW. |
| g) Representativeness | Evidence of life in early historical Lakemba would be representative of life in the colony. |

## 2.3 Statement of significance

> There is nil to low potential for archaeological remains associated with nineteenth century farming. Potential remains of structures or deposits associated with 'Lakemba' may have research and associative value. There is low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 archaeological remains are associated with the historical development of the Bankstown rail line, remains associated with former rail infrastructure are unlikely to reach the threshold for local heritage significance. Remains associated with the 1919 Lakemba Station timber island platform have the potential to demonstrate early development phases within the suburb of Lakemba. Potential remains associated with 'Lakemba' and the Lakemba 1909 timber island platform may have local heritage significance.
>
> Artefact Heritage 2018, p.120

# 3 Proposed works

## 3.1 WE38 Possession

Approved works for WE38 (Possession map WE38; Appendix A) includes excavating 18 slit trenches using a sucker truck on the station platform. The slit trenches will be approximately 5 m length, 300 mm wide and a maximum of 800 mm deep.

## 3.2 Future works

The approved works associated with the construction of the new Lakemba Station (Possession map WE38; Appendix A) will involve earthworks, trenching and subsurface ground disturbance, as well as the construction of:

- a new island platform within the rail corridor;
- a station service building to the south of the rail corridor;
- a retaining wall along the southern and northern boundary of the station,
- installation drainage pipes, single grate drainage pits, cess drain, gas pipelines and CSR utilities,
- addition of Metro South West running tracks (MSWs); and
- a security fence along the southern boundary of the rail corridor.
- station platforms inside the rail corridor;
- a station service building;
- a retaining wall on the southern boundary of the station and rail corridor;
- the addition of Metro Southwest running tracks;
- installation of drainage pipes;
- single grate drainage pits;
- gas pipelines and CSR utilities; and
- installation of a segregation fence on the northwest boundary of the rail corridor.

## 3.3 WE38 Anticipated impacts

The works scheduled for WE38 are very unlikely to unearth significance archaeological resources the slit trenches will be occurring on the station platform.

# 4 Research questions

## 4.1 Introduction

The purpose of research questions that are posed on the archaeological resource is to answer questions that can substantively add knowledge to the past and will guide how resources are interpreted while they are being excavated.

The research questions relevant to the archaeological excavation in this document are reproduced from the AARD (Artefact Heritage 2018).

## 4.2 Questions

The following research questions should be used to guide archaeological investigation if the need for one arises:

1. *What evidence of early land clearing and land modification, if any, is present on the site?*
2. *What evidence of the pre-station landscape exist within the site? Is there evidence of early subdivision?*
3. *What evidence of 'Lakemba' remains within the study area? Is there evidence of the stables and outbuildings?*
4. *If evidence associated with 'Lakemba' exists, how does this inform early homesteads in the region? Is there evidence of early farming activities?*
5. *Can the archaeological remains of the outbuildings inform the internal and external layout of the buildings and the use of space?*
6. *Can the archaeological remains inform changes in building technology, supply of materials and architectural preferences for the period? Do the remains provide evidence of class/status distinction?*
7. *Does the artefact assemblage provide information on the daily life of the occupants of 'Lakemba'?*
8. *Can gender and class/status be discerned from the archaeological record?*
9. *Do any refuse deposits indicate a domestic setting? Do refuse deposits inform about daily eating habits?*
10. *Is there any evidence of former platforms located below or within the present-day station platforms?*
11. *What similar sites have been investigated within the local or broader context?*
12. *What evidence of transport developments and changes in transport technology exist on the site?*
13. *What evidence remains of early services, including early cisterns, tanks, wells, cesspits, in-ground services including sandstone, timber, brick and ceramic drains?*
14. *Does this provide information about the provision of services and changes in technology?*
15. *What physical evidence of former activities survives within the site?*

16. *What is the integrity of the remains? Have they been truncated by later development or excavation work within the study area?*

17. *What does the evidence indicate about the development of rail infrastructure and technology?*

18. *How does the evidence inform the historical development of the Bankstown rail line and Lakemba Station? Sydney Metro City & Southwest Sydenham to Bankstown Upgrade – AARD Page 126*

19. *Interpret the results in terms of broader themes, posing questions that help to inform the Statement of Significance.*

Additional research questions may be posed (and existing questions modified) as the archaeological excavation progresses and the extant and condition of the archaeological resource is revealed. The answers to these questions will inform the revised assessments of significance and public interpretation.

# 5 Archaeological methods

## 5.1 Background

The methods presented in this AMS address and expand upon the requirements of Section 4.6.1. of the AARD (Artefact Heritage 2018, p.84).

## 5.2 Call out requirements

An archaeologist will be on call for the period 8–10 March 2021 when potholing is scheduled at Lakemba, Marrickville and Lakemba stations. While potholing for existing services is unlikely to uncover relics, the need for an archaeologist to attend site if questions arise will be met.

## 5.3 Monitoring

An archaeologist will be in attendance to supervise construction and excavation work which has the potential to expose and/or impact relics or significant works such as the early rail platform identified as Phase 3 of the historical development. Monitoring is generally implemented in areas considered to have lower archaeological potential and/or minor excavation work is undertaken in areas of archaeological sensitivity.

If relics are identified during monitoring, localised stoppages of construction would be required so the archaeologist can record and assess the find. Work will only recommence once the monitoring archaeologist has completed recording and determined that further investigation is not required. The archaeological team will communicate with the construction team to ensure that resources and equipment is in place before construction that has the potential to impact on archaeological resources begins. This will be (and has been) achieved by programming the archaeological fieldwork with the construction schedule.

**Monitoring will be implemented during the period when excavation for the construction of new platforms and retaining walls is being undertaken.**

## 5.4 Archaeological test and salvage excavation

Archaeological test and salvage excavation will occur if, during monitoring, relics are noted by the excavation director(s).

Archaeological excavation process will be generally as follows:

- a smooth-bucket machine excavator will remove fills, overburden and/or vegetation followed by topsoil under the direction of a qualified archaeologist. This will be done according to the archaeologist;
- the excavator will be stopped if archaeological features are identified; if none are detected, machine excavation will continue until the culturally sterile layer is identified or the target construction depth has been reached; and
- if archaeological features or deposits are identified, they will be further clarified by the archaeologist using manual excavation techniques and recorded (see section for recording techniques).

## 5.5 Salvage of identified relics

The AARD (Artefact Heritage 2018, p.123) has proposed salvage excavation be undertaken to:

Monitoring or test and salvage excavations would be undertaken to investigate and record archaeological remains related to Phase 3.

Salvage excavation is largely guided by the nature and extent of the archaeological resource. If significant relics are identified, whether through desktop assessment or monitoring, then further salvage excavation would be required prior to construction. Salvage excavation aims to:

- determine if peripheral or ephemeral and unrelated archaeological resources exist within the construction zone; and
- answer the research questions developed for the project.

## 5.6 Recording method

### 5.6.1 Excavation recording

The excavation recording methods are as follows:

- a site datum would be established or an existing one will be used;
- a standard context recording system will be implemented whereby a context number will be applied to each element of each feature, cut and deposit; the feature number, assigned to each feature, will be related to the context number assigned on site;
- archaeological features, deposits and cuts will be photographed (RAW format with photo board and scale), planned to scale and sections drawn prior to, and, depending on the remains, after removal by hand. All in situ artefacts will be collected by context for later analysis; and
- features will be recorded by a qualified surveyor and the resulting plan will be tied into the appropriate datum (on advice from the surveyor). This will include recording reduced levels to establish the varying depths of phases across the sites.

### 5.6.2 Curation of archaeological material

Curation of archaeological material processes reflect strategies outlined in the Salvage and Storage Strategy of the Sydney Metro Integrated Management System (Transport for NSW 2016a: p.5-6).

- artefacts recovered from the site will be managed by a dedicated artefact manager after retrieval from the site;
- large or redundant materials will have samples collected (eg bricks). Hazardous material will be recorded but will not be collected.
- unprovenanced artefacts and other material assessed as being of low significance or future research potential will be discarded upon delivery of the final report;
- artefacts that are retained will be catalogued by using a system that identifies and allows easy retrieval of the item;
- specialist cataloguers' will produce reports on the artefacts containing an analysis of artefacts, their deposits and contexts, as well as outlining issues of importance. Analyses will be supported using tables and photographs;

- once post-excavation analysis and reporting has been completed, Transport for NSW will be responsible for the management, curation and ongoing care of the collection, including items which require special care (i.e. material prone to deterioration). Artefact management will fall under the project's salvage strategy; and

- if the artefact collection is to be incorporated into an interpretive public display of artefacts may be subject to material conservation including gluing of pottery or the conservation of important metal or leather materials.

### 5.6.3 Public engagement

If substantial relics are discovered the Heritage NSW can be invited to attend the site and public engagement opportunities implemented, i.e. public open day and public interpretation. Discussion with TfNSW and the HSEJV would be required as the form of public engagement may be photographs and text at Lakemba Station. In situ site visits will not occur during the project.

### 5.6.4 Reporting

If salvage excavation is required a detailed archaeological excavation report will be prepared following the completion of archaeological analyses. The report will describe the methods, and results of the archaeological program and present an interpretation of these findings. The report will additionally include artefact analyses and respond to research questions of the AARD. The report will be supported by photographs, tables and plans. The excavation report is a separate stage to the field program.

If relics are identified and assessed during the project, a memorandum outlining the results will be prepared at the end of the archaeological works prior to work commencing on the excavation report.

### 5.6.5 Aboriginal archaeological heritage strategy

Aboriginal cultural heritage such as object, are not anticipated to occur in the project area. The unexpected finds procedure will address such an event.

## 5.7 Team and timing

The archaeological team will be on call during WE38 in the event that unexpected finds are uncovered.

# 6 Unexpected finds procedure

## 6.1 Introduction

This section is a summary of the unexpected finds procedure prepared by Sydney Metro (Appendix C) and fulfils condition NAH14.

## 6.2 Human remains

Discovery of suspected human remains would be managed under the project Unexpected Finds Policy and the Exhumation Policy (Sydney Metro 2019; Appendix C).

If suspected human skeletal remains were uncovered at any time during earthworks for the project, the following actions apply in the following order:

20. Immediately cease all excavation activity.

21. Notify NSW Police and NSW Coroner's Office.

22. Consult a forensic anthropologist to determine the nature of the remains.

23. Notify Heritage NSW via the Environment Line on 131 555 to provide details of the remains and their location.

24. Ensure no recommencement of excavation activity unless authorised in writing by Heritage NSW.

## 6.3 Suspected relics or Aboriginal objects

The procedure if suspected relics or Aboriginal objects are encountered unexpectedly and if an archaeologist is not present will follow the process set out in the project Unexpected Finds Procedure (Appendix F).

# References

Artefact Heritage 2018, *Sydney Metro City & Southwest Sydenham to Bankstown Upgrade: Historical Archaeological Assessment & Research Design*, Report prepared for Transport for New South Wales.

Sydney Metro, *Submissions and Preferred Infrastructure Report 2018*

Sydney Metro, *Southwest Metro – Marrickville, Canterbury and Lakemba Station Upgrades Heritage Management Plan*, 16 December 2020

Appendix A

# Lakemba possession map WE 38

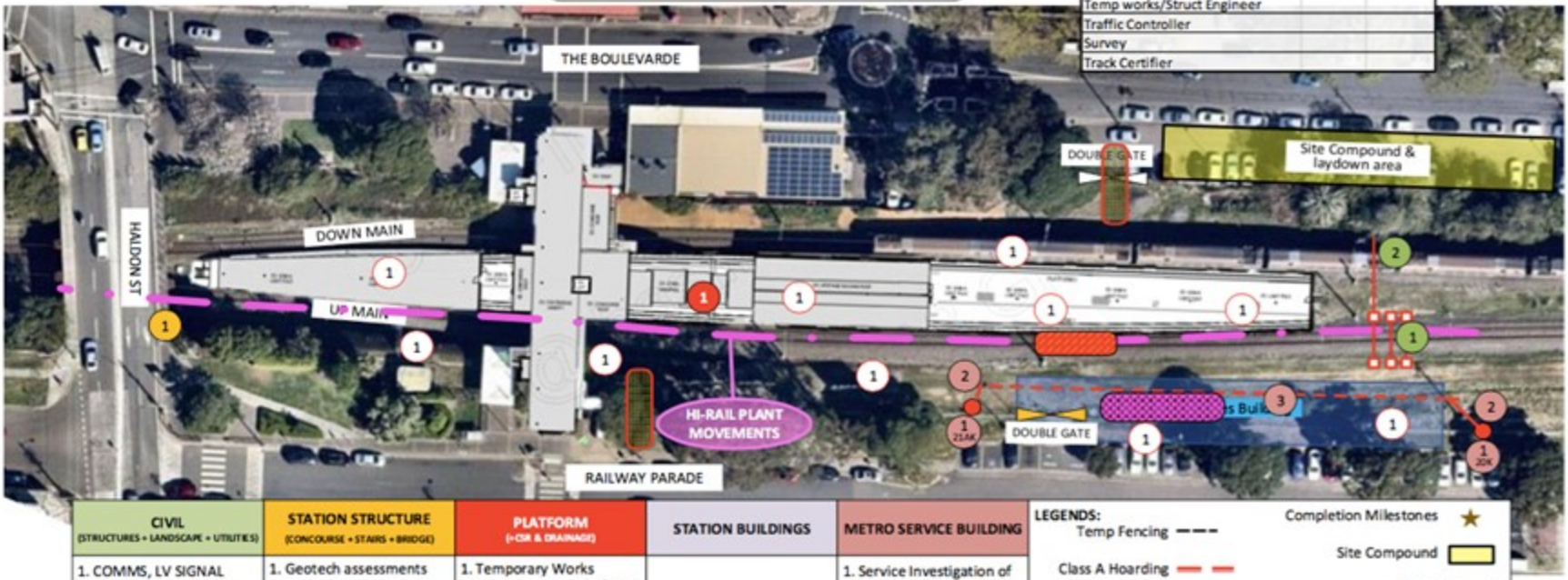
## A.1 Lakemba possession map WE38

CENTRAL / CITY

BANKSTOWN

# WE38 20-21 March 2021
# Config 10 (ST & ARTC)

| Resource | Qty | Shifts |
|---|---|---|
| Protection officer (PO2) | | |
| Protection officer (PO4) | | |
| Geotech Engineer | | |
| Geo Technician | | |
| Temp works/Struct Engineer | | |
| Traffic Controller | | |
| Survey | | |
| Track Certifier | | |




| CIVIL (STRUCTURES + LANDSCAPE + UTILITIES) | STATION STRUCTURE (CONCOURSE + STAIRS + BRIDGE) | PLATFORM (+CSR & DRAINAGE) | STATION BUILDINGS | METRO SERVICE BUILDING |
|---|---|---|---|---|
| 1. COMMS, LV SIGNAL ULXs (3 of) Up Main<br>2. LV LCR (2 of) Down Main | 1. Geotech assessments | 1. Temporary Works assessment on platforms | | 1. Service Investigation of HV poles and MSB<br>2. New service trenches to connect New HV Poles to existing Pits<br>3. Mandrel existing CSR |
| **COMPLETION MILESTONES** | | | | |
| | | | | |

**LEGENDS:**

- Temp Fencing
- Class A Hoarding
- Critical/Near Critical (In bold)
- Stockpile
- Completion Milestones
- Site Compound
- Gates
- Hi-Rail Pad
- Supersuper

**GENERAL COMMENTS:**

1. Service Investigation and Slit trench potholing

| REVISION: | | FILE NAME: | | STATION: | SCALE: | SHEET NO: |
|---|---|---|---|---|---|---|
| REV 00 - 23/06/20 | HSE | | SOUTHWEST METRO UPGRADE – PACKAGE 4<br>**POSSESSION SCOPE OF WORKS** | LAKEMBA<br>DRAWN BY: Gary Penberthy | N.T.S | OF 25 |

Appendix B

# Lakemba Station AARD

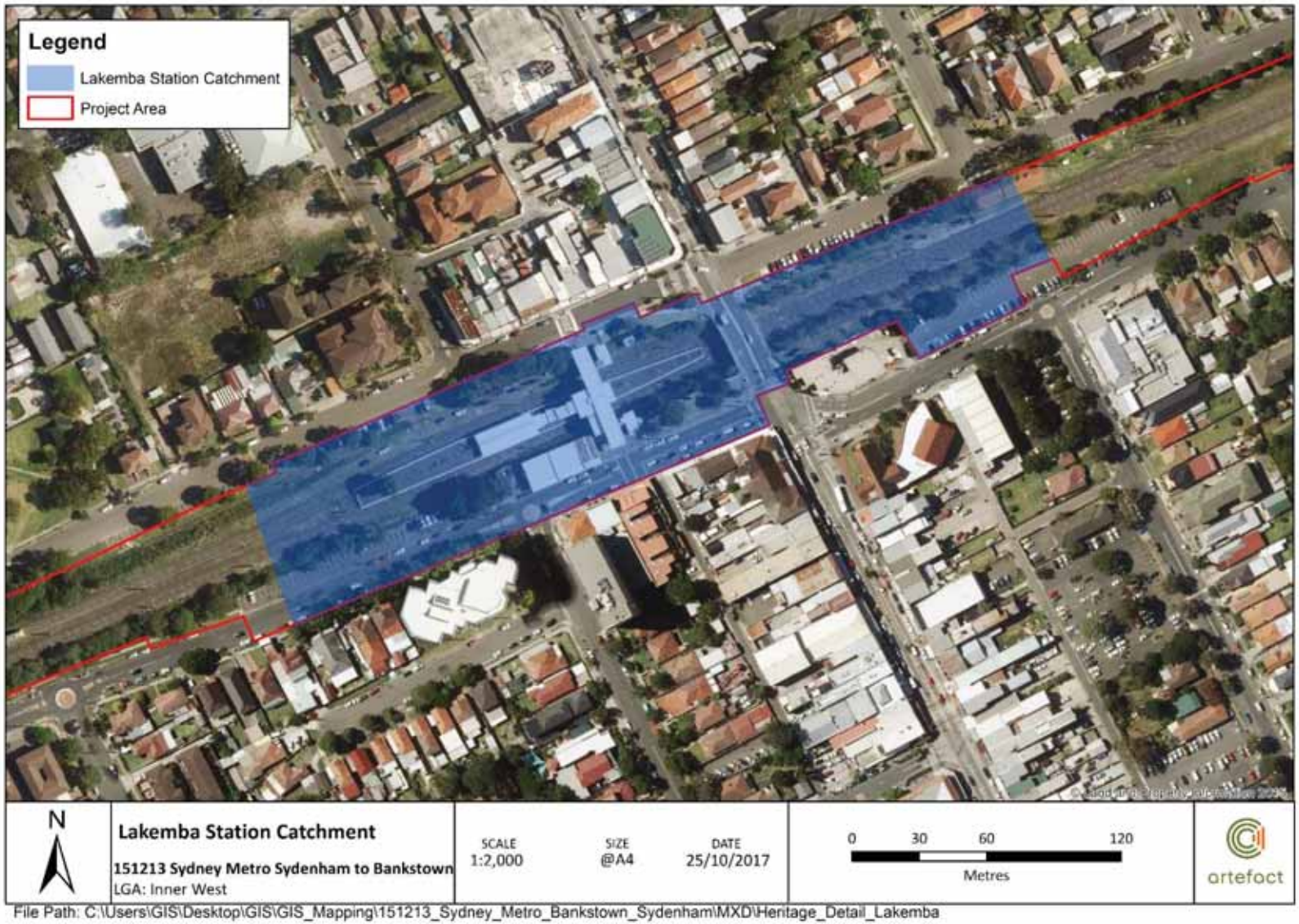
## B.1 Lakemba Station AARD

# 6.0 LAKEMBA STATION CATCHMENT

## 6.1 Site Location

Lakemba Station is located about 60 metres to the west of the Haldon Street overbridge. The station area is bounded by Railway Parade to the north and The Boulevarde to the south. Access to the station is provided off Railway Parade and The Boulevarde.

**Figure 6-1: Lakemba Station Catchment**



## 6.2 Historical Analysis

### 6.2.1 1788-1880s: Early Land Grants

The suburb of Lakemba was originally located within John Wall's 1831 grant of 50 acres, called "Ashford". During this time the area was relatively undeveloped with much of the land being forest. In August 1881 Ben Taylor leased "Ashford", before purchasing the property in 1890 (Figure 6-2). Figure 6-3 shows Taylors house on this grant prior to the construction of the railway line, consisting of a house and stable building. Additional outbuildings may have occupied land around the main property, and therefore within the study area.

### 6.2.2 1880s-1909: Pioneer Settlement

In 1883, Taylor married his second wife Lucy Annie Johnston, the granddaughter of missionaries based on Lakeba Island in Fiji (pronounced Lakemba).[57] Soon after their marriage, Taylor named his house "Lakemba," and by the 1920s it was a substantial two-storey residence to the south of the study area (Figure 6-4, Figure 6-5, Figure 6-6).

It is possible the stables were demolished to make way for the construction of Railway Crescent/The Boulevarde in the early twentieth century. After the arrival of the railway "Lakemba" was located on the corner of Haldon Street and the newly formed Railway Crescent/The Boulevarde.

Taylor was a staunch Methodist, and donated the land for the Methodist (now Uniting) Church on the south eastern corner of Haldon Street and The Boulevarde (Figure 6-5 and Figure 6-7). "Lakemba" was demolished in the late 1920s or early 1930s to make room for shops (Figure 6-8).

**Figure 6-2: Undated plan showing approximate alignment of the proposed railway. Wall and Taylor's grant has been outlined in red. Source: SLNSW call no. Z/SP/B12.**


[57] City of Canterbury Library, Madden 2014 "Lakemba - Name Origin" Accessed 8 July 2016.

**Figure 6-3: Plan showing the subdivision of the Lakemba Park Estate in 1895, prior to the construction of the railway line and Lakemba Station (outlined in green), showing location of Ben Taylor's house and stables. Source: SLNSW call no. Z/SP/B12.**

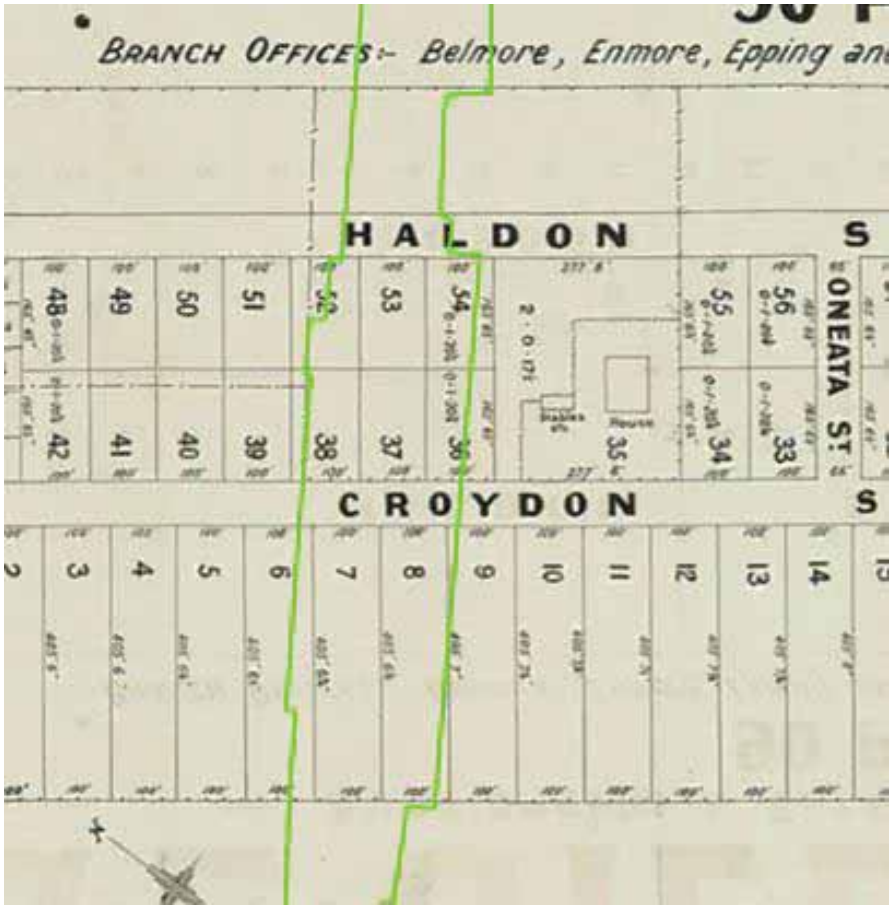


**Figure 6-4: Ben Taylor's "Lakemba" in 1921, during the Anzac Day March on Haldon Street. Source: City of Canterbury, Pictorial Canterbury, image no. 020227.**

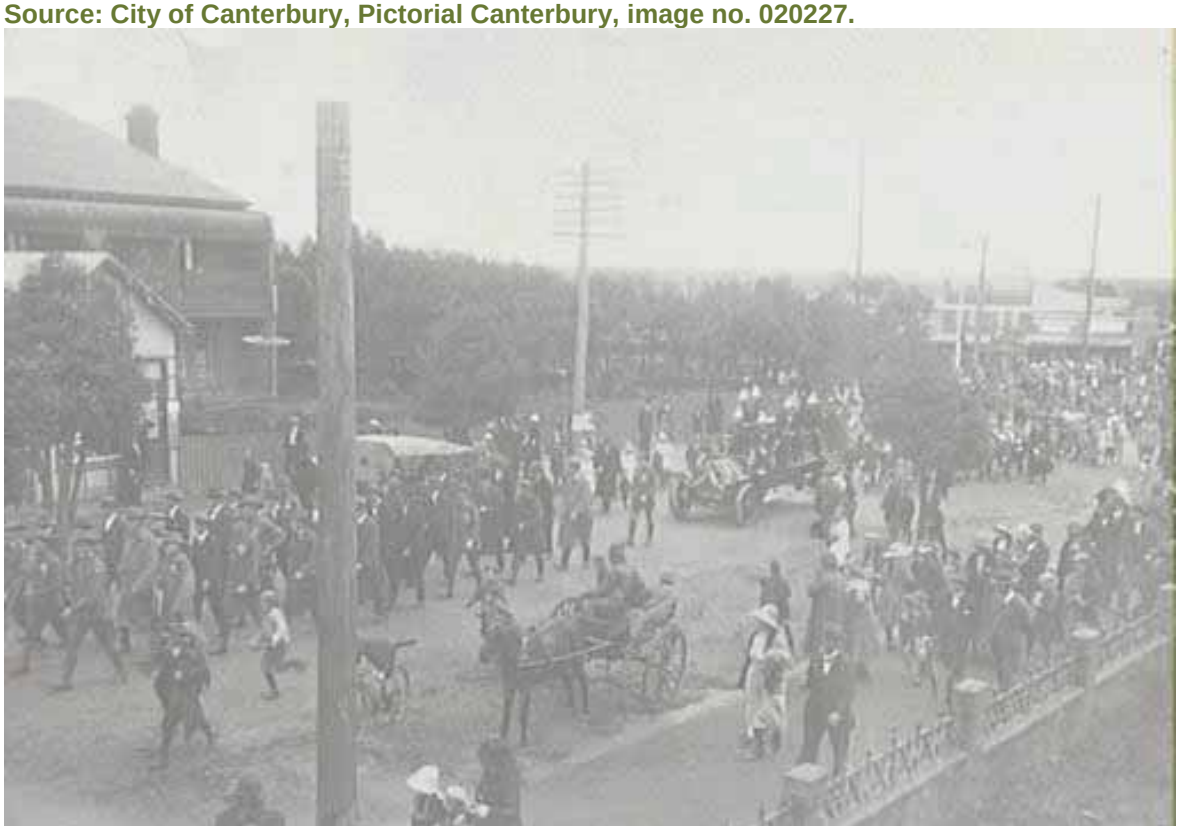


**Figure 6-5: The Methodist Church during construction c.1920, with Taylor's "Lakemba" house in the background. Source: City of Canterbury, Pictorial Canterbury, image no. 210002.**

**Figure 6-6: Construction of timber bridge over railway line at Haldon Street, with Lakemba house in the background right c. 1931. Source: Pictorial Canterbury, City of Canterbury Council.**

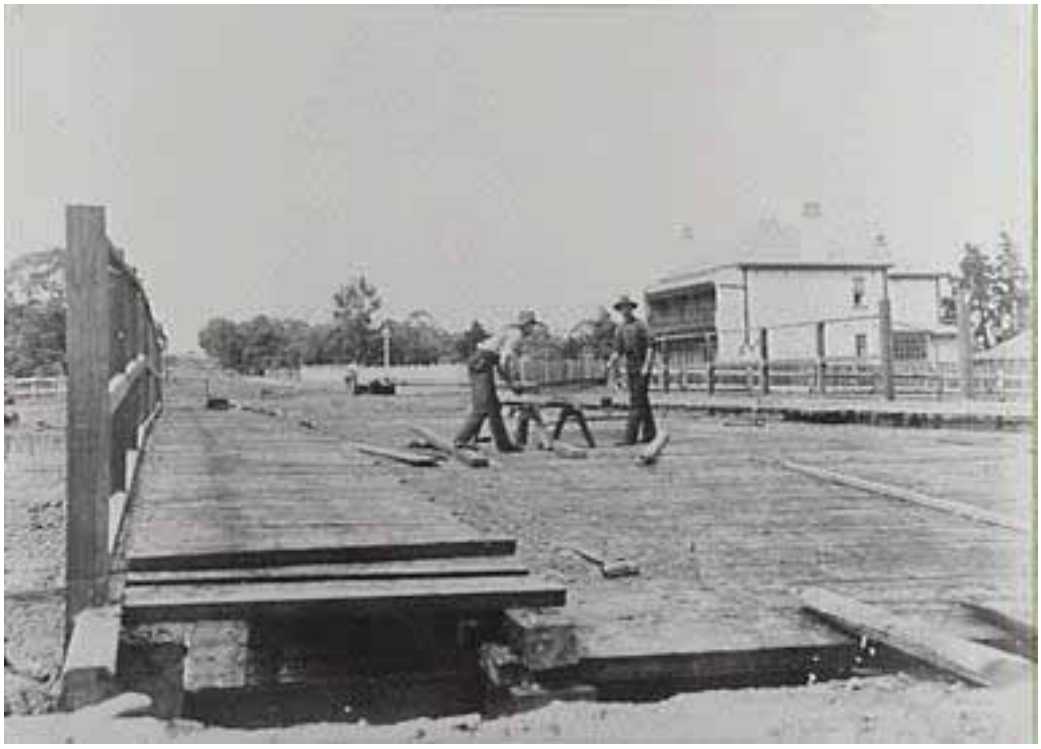


**Figure 6-7: Lakemba Station and surrounds in 1919. Source: SLNSW call no. Z/SP/B12.**

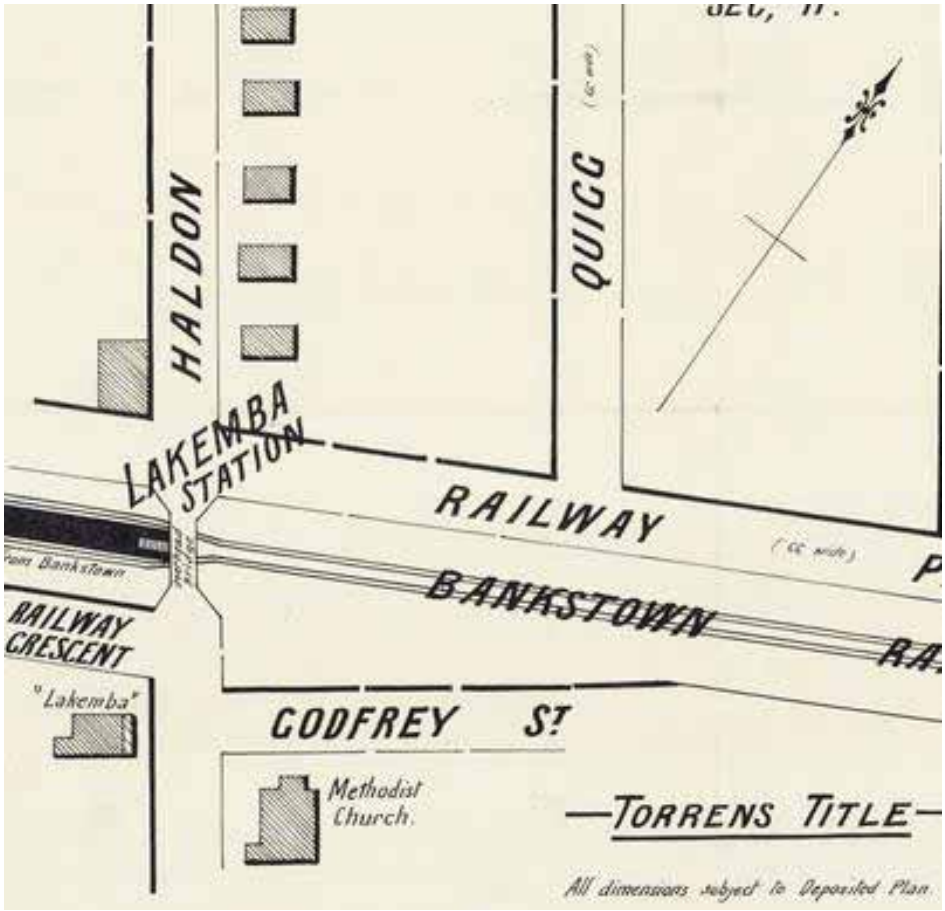


**Figure 6-8: Site of the residence of Lakemba after it was demolished. Source: Canterbury City Council.**

### 6.2.3 1909-1919: Lakemba Railway Station and development

Prior to the arrival of the railway, the surrounding area consisted predominantly of bushland dotted with the occasional small homestead (Figure 6-9). Early industry included a tannery in Wangee Road, charcoal burning and brickmaking.[58] Commercial nurseries, such as Horton's, and small poultry farms, were also located throughout the area. A piggery was originally located on Haldon Street (Figure 6-10).[59]

Land values, however, rose dramatically after the construction of Lakemba Station, and shopfronts on Haldon Street were highly sought after by the mid-1920s (Figure 6-14). In 1932 the Chamber of Commerce (established in 1922), suggested that Haldon Street be concreted, as befitting its status as a busy commercial street (Figure 6-15).

Lakemba Station was opened on 14 April 1909. The original station at Lakemba had an island platform with entrance steps from the Haldon Street overbridge. A small timber station building with a ticket and parcels office was at the Belmore end with a small signal frame on the Bankstown side of the building (Figure 6-11).

On 24 December 1919, a new brick platform building with cantilever awnings replaced the earlier timber structure (Figure 6-12) and a signal box was opened at the Bankstown end of the station.

[58] Jervis 1951: 92.
[59] City of Canterbury Library "Lakemba NSW" Accessed 8 July 2016.

**Figure 6-9: Plan of the land to be resumed for Lakemba Railway Station. Source: Sydney Trains Plan Room.**

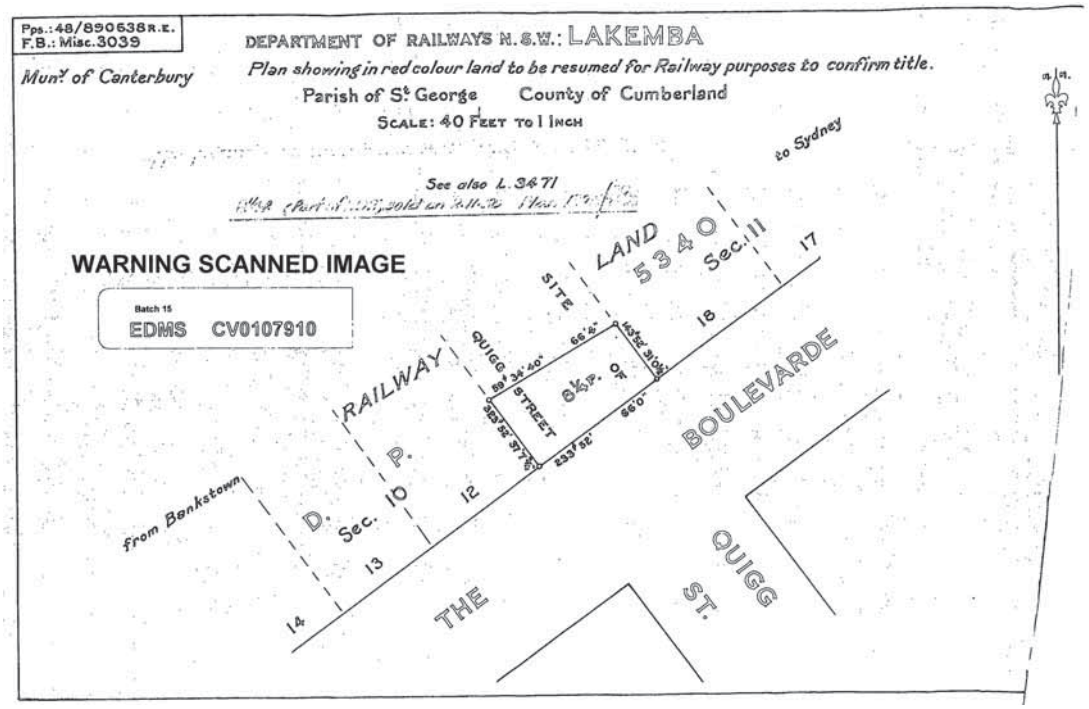



**Figure 6-10: Haldon Street c1910 showing shop fronts. Source: Canterbury Bankstown Express.**

**Figure 6-11: Lakemba Station in c.1910. Source: Bankstown Library Collection via Pictorial Canterbury, items 020204(L) and 020215 (R).**

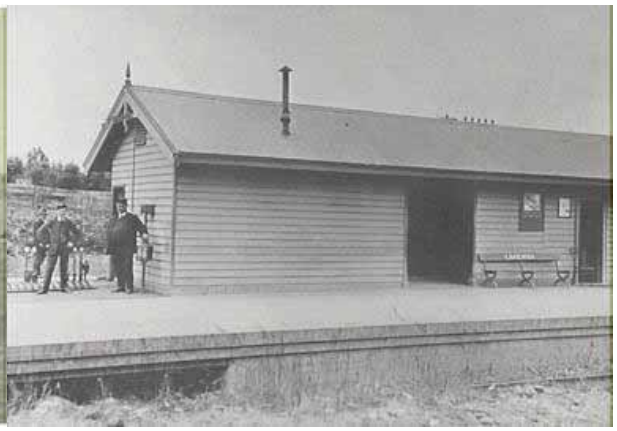


**Figure 6-12: Lakemba Station c.1920. Source: National Library of Australia nla.pic-vn4543845-v.**

**Figure 6-13: Opening of the overhead bridge. Source: City of Canterbury Library Collection via Pictorial Canterbury, Image No. 30416.**

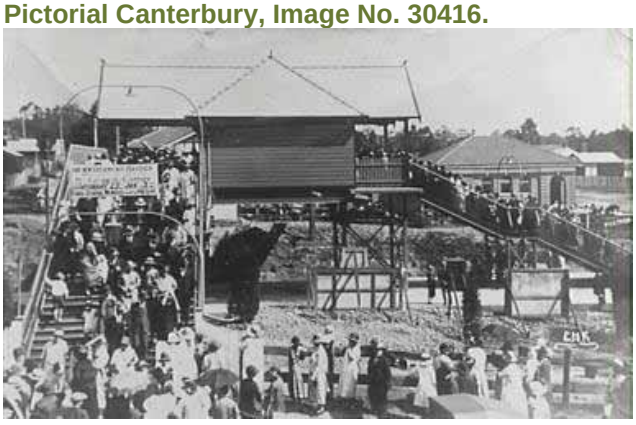


**Figure 6-14: Lakemba c.1920, looking south down Haldon Street from the junction with The Boulevarde. Source: Bankstown Library Collection via Pictorial Canterbury, item 020214.**

**Figure 6-15: Lakemba c.1932, concreting Haldon Street. Source: Bankstown Library Collection via Pictorial Canterbury, item 020201.**

### 6.2.4 1919-present: Railway Station Upgrades

Shops and businesses continued to grow in the Lakemba area and, in 1922, the Chamber of Commerce was opened.

On 31 January 1921, a shunting neck was introduced to the west of the station allowing services to terminate at Lakemba. This was no longer required after electrification was introduced in 1926.

The station was modified for electrification in 1926 and a haunched beam footbridge with overhead timber-framed booking office erected (Figure 6-13).[60] The booking office was demolished after fire damage and replaced by a modern metal and glass structure on the footbridge in 2001 consisting of a new boking office, a central concourse and a concessionaire.

A war memorial, consisting of a sandstone block on a plinth located in a small lawn area, was opened outside the station entrance on 19 April 1953 by State Governor John Northcott (Figure 6-17).[61]

[60] State Heritage Inventory 'Lakemba Railway Station Group' Accessed 8 July 2016.
[61] State Heritage Inventory 'Lakemba Railway Station Group' Accessed 8 July 2016.

**Figure 6-16: 1943 aerial of Lakemba Station. Source: SIX maps.**

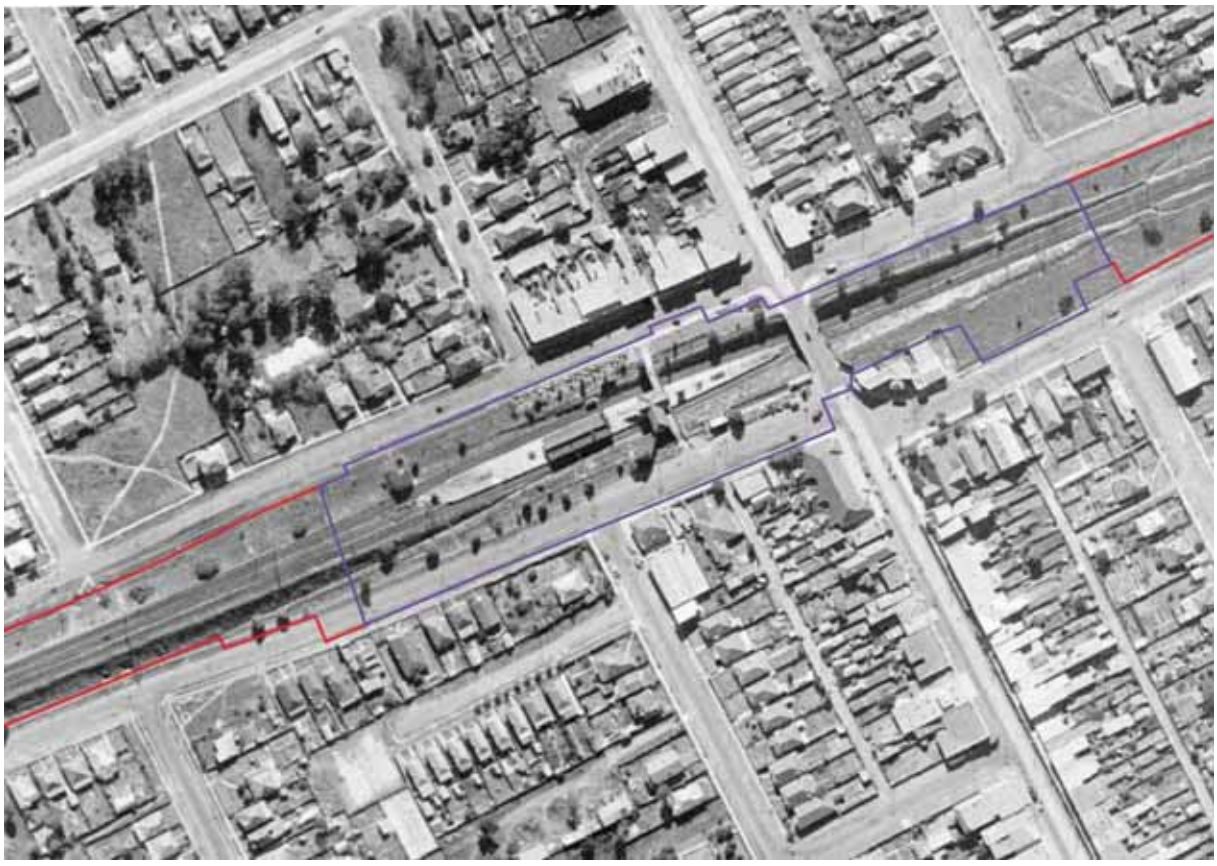


**Figure 6-17: War Memorial at Lakemba Railway Station Group. Source: RailCorp.**

## 6.3 Archaeological Potential

### 6.3.1 Previous Archaeological Studies

**Artefact Heritage 2017. *Sydney Metro City & Southwest: Sydenham to Bankstown, Non-Aboriginal Heritage Impact Assessment*. Prepared for Transport for NSW.**

The technical paper considered the construction and operational impacts on listed heritage items and potential archaeological resources within the study area. It included identification of items and areas of heritage significance that would be materially affected by the project, with consideration of the potential impacts on the values, settings and integrity of heritage items and archaeological resources located within the project area. The paper outlined proposed mitigation and management measures in accordance with relevant best practice guidelines.

### 6.3.2 Land Use Summary

The historical development of the Lakemba Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1880s) early land grants: land clearance, grazing and farming activity
- Phase 2 (1880s – 1909) pioneer settlement: farming activity, homesteading, stables, tanneries, commercial nurseries, poultry farms and piggery
- Phase 3 (1909 – 1919) railway station and development: railway station constructed in 1909, suburban and commercial development follows
- Phase 4 (1919 – present) railway station upgrades: new brick station building replaces original timber structure, electrification of the line in 1926 and addition of footbridge and overhead booking office, continued use of railway.

### 6.3.3 Previous Impacts

Construction of the railway station and rail line in the twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the second half of the twentieth century would have resulted in high levels of ground impacts throughout the station catchment. These impacts include, but are not limited to, the following:

- Subsurface excavations to varying depths to grade and level land within the rail corridor and railway station
- Trenching within and adjacent to the rail corridor and railway station to accommodate services and utilities
- Vegetation clearance
- Subsurface excavations associated with subsequent upgrades to the rail corridor and railway station

### 6.3.4 Potential Archaeological Remains

***Phase 1 (1788 – 1880s)***

The suburb of Lakemba was originally located within John Wall's 1831 grant of 50 acres, called "Ashford". In August 1881 Ben Taylor leased "Ashford", before purchasing the property in 1890.

Potential archaeological remains associated with this phase would be representative of the initial land owners moderately sized grants which were used for agricultural and pastoral purposes. Archaeological remains could include features associated with low intensity land use such as timber getting, grazing and farming including tree boles, fence line postholes, field drains and isolated artefact scatters.

***Phase 2 (1880s – 1909)***

Taylor named his house "Lakemba," and by the 1920s it was a substantial two-storey residence to the south of the study area. It is possible the stables were demolished to make way for the construction of Railway Crescent/The Boulevarde in the early twentieth century. After the arrival of the railway "Lakemba" was located on the corner of Haldon Street and the newly formed Railway Crescent/The Boulevarde. "Lakemba" was demolished in the late 1920s or early 1930s to make room for shops.

Potential archaeological remains associated with this phase would relate to the establishment of the Taylor House (Lakemba), stables and potential outbuildings. Archaeological features would be associated with farming activities, and include domestic and agricultural structures, refuse pits and drains or culverts.

***Phase 3 (1909 – 1919)***

Lakemba Station was opened on 14 April 1909. The original station at Lakemba had an island platform with entrance steps from the Haldon Street overbridge. A small timber station building with a ticket and parcels office was at the Belmore end with a small signal frame on the Bankstown side of the building.

Potential archaeological remains of this phase would be associated with the first timber island platform and initial railway infrastructure, such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track.

***Phase 4 (1919 – present)***

On 24 December 1919, a new brick platform building with cantilever awnings replaced the earlier timber structure and a signal box was opened at the Bankstown end of the station. On 31 January 1921, a shunting neck was introduced to the west of the station allowing services to terminate at Lakemba. This was no longer required after electrification was introduced in 1926.

The station was modified for electrification in 1926 and a haunched beam footbridge with overhead timber-framed booking office erected.[62] The booking office was demolished after fire damage and replaced by a modern metal and glass structure on the footbridge in 2001 consisting of a new boking office, a central concourse and a concessionaire.

Potential archaeological remains of this phase would be associated with station and rail corridor upgrades such as utilities and drainage.

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services, although potential remains of outbuildings associated with Lakemba may exist in the area.

[62] State Heritage Inventory 'Lakemba Railway Station Group' Accessed 8 July 2016.

### 6.3.5 Summary of Archaeological Potential

Based on historical information, land use data and evidence of sub-surface impacts, a summary of the potential archaeological remains at Lakemba Station Catchment is presented in Table 6-1.

**Table 6-1: Summary of potential archaeological remains for Lakemba Station Catchment**

| Phase | Likely archaeological remains | Potential |
|---|---|---|
| 1 (1788-1880s) | • Initial land owners associated with moderately sized grants used for agricultural and pastoral purposes<br>• Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters. | Nil-low |
| 2 (1880s – 1909) | • Establishment of the Taylor House (Lakemba), stables and potential outbuildings<br>• Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts | Low |
| 3 (1909 – 1919) | • Archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track. | Low to moderate |
| 4 (1919 – present) | • Archaeological remains associated with station and rail corridor upgrades such as utilities and drainage | Moderate |

## 6.4 Archaeological Significance

The following assessment of significance is based on the guidelines discussed in Section 2.4 of this report.

**Table 6-2: Assessment of archaeological significance for Lakemba Station Catchment**

| Criteria | Discussion |
|---|---|
| Research potential | • It is unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential.<br>• However, if intact or substantial remains associated with 'Lakemba' were found to exist, they may have the ability to yield information regarding early residential occupation in the area.<br>• Potential archaeological remains associated with Phase 3 former rail infrastructure would unlikely contribute additional information not available from other historical resources. |
| Association with individuals, events or groups of historical importance | • The potential archaeological remains of 'Lakemba' are associated with Ben Taylor and his second wife Lucy Annie Johnston. Ben Taylor was a prominent local political figure, who was employed as an alderman, mayor and town clerk for the locality. |
| Aesthetic or technical significance | • The potential archaeological remains are not likely to hold aesthetic value although exposed in situ archaeological remains may have distinctive/attractive visual qualities. |

| Criteria | Discussion |
|---|---|
| Ability to demonstrate the past through archaeological remains | • The potential archaeological remains associated with structures or remains of 'Lakemba' have the ability to illustrate the historical development of the suburb of Lakemba.<br>• The potential archaeological remains of the 1909 Lakemba Station platform have the ability to demonstrate past development phases associated with Lakemba Railway Station and changes to the suburb over time. |

### 6.4.1 Statement of Archaeological Significance

There is nil to low potential for archaeological remains associated with nineteenth century farming. Potential remains of structures or deposits associated with 'Lakemba' may have research and associative value. There is low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 archaeological remains are associated with the historical development of the Bankstown rail line, remains associated with former rail infrastructure are unlikely to reach the threshold for local heritage significance. Remains associated with the 1919 Lakemba Station timber island platform have the potential to demonstrate early development phases within the suburb of Lakemba. Potential remains associated with 'Lakemba' and the Lakemba 1909 timber island platform may have local heritage significance.

A summary of the significance of potential archaeological resources is provided in Table 6-3 and Figure 6-18 below.

**Table 6-3: Summary of areas with potential for significant archaeology for Lakemba Station Catchment**

| Phase | Archaeological resource | Potential | Significance |
|---|---|---|---|
| 1 (1788-1880s) | • Initial land owners associated with moderately sized grants used for agricultural and pastoral purposes<br>• Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters. | Nil-low | Unlikely to reach the threshold for local significance |
| 2 (1880s – 1909) | • Establishment of the Taylor House (Lakemba), stables and potential outbuildings<br>• Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts | Low | Potentially local |
| 3 (1909 – 1919) | • Archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track. | Low to moderate | Potentially local |
| 4 (1919 – present) | • Archaeological remains associated with station and rail corridor upgrades such as utilities and drainage | Moderate | Unlikely to reach the threshold for local significance |

**Figure 6-18: Archaeological potential for Lakemba Station Catchment**

## 6.5 Archaeological Impacts

### 6.5.1 Proposed Works

Proposed impacts within the Lakemba Station Catchment would involve the construction of a new island platform within the rail corridor, construction of a station service building to the south of the rail corridor, construction of a retaining wall along the southern and northern boundary of the station, installation drainage pipes, single grate drainage pits, cess drain, gas pipelines and CSR utilities, addition of Metro South West running tracks (MSWs) and the construction of a security fence along the southern boundary of the rail corridor. These works would involve earthworks, trenching and subsurface ground disturbance.

### 6.5.2 Potential Archaeological Impacts

The proposed works would involve excavation of the current platform structure, and excavation for service building, retaining wall, new tracks, drainage pipes and pits, gas pipelines, CSR utilities and fence. There is a low potential for the potentially locally significant remains associated with 'Lakemba' to exist within the study area and be impacted by the proposal, and low to moderate potential for the potentially locally significant remains of the 1919 Lakemba island platform to be impacted.

## 6.6 Archaeological Management

The area within the Lakemba Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1, low potential to contain archaeological remains of Phase 2 and low to moderate potential to contain archaeological remains associated with Phase 3 and 4 occupation of the site. Potential archaeological remains associated with Phase 2 and 3 may reach the threshold for local significance. Potential archaeological remains associated with Phase 4 are unlikely to reach the threshold for local significance.

As there is low to moderate potential for remains associated with Phase 3 occupation of the site to have local significance, it is recommended that an Archaeological Method Statement be prepared when construction impacts are finalised, which would detail whether archaeological monitoring or a program of test and salvage would be undertaken. Areas of potential for Phase 1, 2 and 4 would be covered by the Unexpected Finds Procedure.

The archaeological monitoring or test and salvage would be supervised by a suitably qualified Excavation Director with experience in managing locally significant archaeology.

The archaeological mitigation is summarised in Table 6-4.

**Table 6-4: Summary of archaeological mitigation for Lakemba Station Catchment**

| Phase | Potential archaeology | Impact | Mitigation |
|---|---|---|---|
| 1 (1788-1880s) | Nil to low potential for archaeological remains associated with the initial land owners associated with moderately sized grants used for agricultural and pastoral purposes. Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters. Unlikely to reach the threshold for local significance. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | • Unexpected Finds Procedure |

| Phase | Potential archaeology | Impact | Mitigation |
|---|---|---|---|
| 2 (1880s – 1909) | Low potential for locally significant archaeological remains associated with the establishment of the Taylor House (Lakemba), stables and potential outbuildings. Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | • Unexpected Finds Procedure |
| 3 (1909 – 1919) | Low to moderate potential for locally significant archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | • AMS<br>• Monitoring or Test/Salvage |
| 4 (1919 – present) | Moderate potential for archaeological remains associated with station and rail corridor upgrades such as utilities and drainage. Unlikely to reach the threshold for local significance. | Excavation for the construction of new station platforms, station service building, retaining wall, tracks, services, utilities, and fencing. | • Unexpected Finds Procedure |

### 6.6.1 Archaeological Methodology

The following archaeological methodology for Lakemba Station Catchment is based on impacts known at project approval stage. Explanation and further details regarding the archaeological process and methodologies identified below are provided in Section 7.0.

- An AMS would be prepared prior to construction works commencing at the Lakemba Station Catchment. This AMS would:
  - Review scope of works and construction methodology
  - Reassess potential for impacts to significant archaeological resources based on construction methodology
  - Review contamination reports and provide archaeological mitigation strategies for any remediation with the potential to impact significant archaeology
  - Outline how the archaeological program would be undertaken within the construction program
  - Provide a detailed archaeological mitigation for potential impacts in these areas, such as monitoring or test and salvage excavation
  - Consider opportunities to provide information regarding the archaeological findings to the public.
- Monitoring or test and salvage excavations would be undertaken to investigate and record archaeological remains related to Phase 3
- Unexpected finds procedure would apply to all other areas within Lakemba Station Catchment.
- The archaeological investigations would be supervised by a suitably qualified Excavation Director with experience in managing local significant archaeology.
- A preliminary results report would be written once archaeological fieldwork has been completed.

- Post-excavation analysis of fieldwork results, artefacts, samples and other archaeological data would be undertaken and included in a final archaeological investigation report.
- Significant archaeological findings would be considered for inclusion in heritage interpretation for the project.

### 6.6.2 Research Questions

The historical themes associated with Lakemba Station Catchment study area are presented in Table 4-5.

**Table 6-5: Historical themes associated with Lakemba Station Catchment**

| Australian theme | NSW theme | Explanatory notes | Comments |
|---|---|---|---|
| 3. Developing local, regional and national economies | Agriculture | Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture | Evidence of land clearance, timber getting, grazing and farming activity could provide information about the development of agriculture in the area. |
| 3. Developing local, regional and national economies | Pastoralism | Activities associated with the breeding, raising, processing and distribution of livestock for human use | Evidence of outbuildings associated with 'Lakemba' would provide information associated with early homesteads in the region, and activities associated with raising of livestock. |
| 3. Developing local, regional and national economies | Transport | Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements | Lakemba Railway Station is associated with the provision of transport in developing local economies. Evidence of the development of the Bankstown line could provide information about the changing technologies in rail infrastructure. Evidence could include early rail infrastructure. |
| 4. Building settlements, towns and cites | Towns, suburbs and villages | Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages | Evidence of the early subdivision pattern of the study area could provide information about the development of the site, which would complement existing historical plans. It is possible that ephemeral evidence of fencelines and postholes, may exist. |
| 4. Building settlements, towns and cites | Land tenure | Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal | Evidence of the early subdivision pattern of the study area could provide information about the development of the site, which would complement existing historical plans. It is possible that ephemeral evidence of fencelines and postholes, may exist. |
| 4. Building settlements, towns and cites | Utilities | Activities associated with the provision of services, especially on a communal basis | Evidence of early culverts, wells and cesspits can provide information about the provision of services and changes in technology, and often contain artefact deposits that have research potential. Early in-ground services including sandstone, brick and ceramic drains could be present in the study area. |

| Australian theme | NSW theme | Explanatory notes | Comments |
|---|---|---|---|
| 4. Building settlements, towns and cites | Accommodation | Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles – use the theme of Creative Endeavour for such activities. | Evidence associated with 'Lakemba' would provide information about the early homesteads of the region. |

The following research questions should be used to guide archaeological investigation.

- What evidence of early land clearing and land modification, if any, is present on the site?
- What evidence of the pre-station landscape exist within the site? Is there evidence of early subdivision?
- What evidence of 'Lakemba' remains within the study area? Is there evidence of the stables and outbuildings?
- If evidence associated with 'Lakemba' exists, how does this inform early homesteads in the region? Is there evidence of early farming activities?
- Can the archaeological remains of the outbuildings inform the internal and external layout of the buildings and the use of space?
- Can the archaeological remains inform changes in building technology, supply of materials and architectural preferences for the period? Do the remains provide evidence of class/status distinction?
- Does the artefact assemblage provide information on the daily life of the occupants of 'Lakemba'? Can gender and class/status be discerned from the archaeological record?
- Do any refuse deposits indicate a domestic setting? Do refuse deposits inform about daily eating habits?
- Is there any evidence of former platforms located below or within the present-day station platforms?
- What similar sites have been investigated within the local or broader context?
- What evidence of transport developments and changes in transport technology exist on the site?
- What evidence remains of early services, including early cisterns, tanks, wells, cesspits, in-ground services including sandstone, timber, brick and ceramic drains?
- Does this provide information about the provision of services and changes in technology?
- What physical evidence of former activities survives within the site?
- What is the integrity of the remains? Have they been truncated by later development or excavation work within the study area?
- What does the evidence indicate about the development of rail infrastructure and technology?
- How does the evidence inform the historical development of the Bankstown rail line and Lakemba Station?

Appendix C

# Sydney Metro Unexpected finds procedure

## C.1 Sydney Metro Unexpected finds procedure

# Sydney Metro Unexpected Heritage Finds Procedure

[SM-18-00105232]

Sydney Metro Integrated Management System (IMS)

| | |
|---|---|
| **Applicable to:** | Sydney Metro |
| **Document Owner:** | Author/Document owner |
| **System Owner:** | IMS element owner (generally a member of the Executive) |
| **Status:** | Draft/Final |
| **Version:** | 2.0 |
| **Date of issue:** | 19 March 2019 |
| **Review date:** | 22 March 2020 |

# Table of contents



# Figures



# Tables

# 1. Purpose

This procedure is applicable to the Sydney Metro program of works including major projects delivered under Critical State Significant Infrastructure Planning Approvals (CSSI), early CSSI minor and enabling works and works that are subject to the NSW Heritage Act (1977) including s57/139 and s60/140 exemptions and permit approvals.

This procedure has been prepared for Sydney Metro programs to provide a method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during preconstruction (pre-Construction Heritage Manage Plan approval), construction phases (post Construction Heritage Manage Plan approval) and for works subject to the NSW Heritage Act (1977).

An 'unexpected heritage find' can be defined as any unanticipated archaeological discovery, that has not been previously assessed or is not covered by an existing approval under the Heritage Act 1977 (Heritage Act) or National Parks and Wildlife Act 1974 (NPW Act).

In NSW, there are strict laws to protect and manage heritage objects and relics. As a result, appropriate heritage management measures need to be implemented to minimise impacts on heritage values; ensure compliance with relevant heritage notification and other obligations; and to minimise the risk of penalties to individuals, Sydney Metro and its contractors. This procedure includes Sydney Metro's heritage notification obligations under the Heritage Act, NPW Act and the Coroner's Act 2009 and the requirements of the conditions of approval(CoA) issued by NSW Department of Planning and Environment.
Note that a Contractor must not amend the Sydney Metro Unexpected Finds Procedure without the prior approval of Sydney Metro.

It should be noted that this procedure must be read in conjunction with the relevant CCSI conditionals of approval (if applicable), the contract documents and other plans including the Sydney Metro Exhumation Management Plan and procedures developed by the contractor during the delivery of the Sydney Metro works.

## 1.1. Legislation that does not apply

The following authorisations are not required for Sydney Metro approved Critical State Significant Infrastructure (and accordingly the provisions of any Act that prohibits an activity without such an authority do not apply):

- Division 8 of Part 6 of the Heritage Act 1977 does not apply to prevent or interfere with the carrying out of approved State significant infrastructure.
- An approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,
- An Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974,

This document provides relevant background information in Section 4, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices 1-6.

# 2. Scope

Despite earlier investigation, unexpected heritage items may still be discovered during works on a Sydney Metro site. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.
This procedure **applies to**:

- the discovery of any unexpected heritage item, relic or object, where the find is not anticipated in an approved Archaeological Assessment Design Report (AARD) or Archaeological Method Statements (AMS) that are prepared as part of the planning approval for that project.

This procedure must be followed by all Sydney Metro staff, contractors, subcontractors or any person undertaking works for Sydney Metro. It includes references to some of the relevant legislative and regulatory requirements, but is not intended to replace them.
This procedure **does not apply** to:

- The discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with the Office of Environment and Heritage's (OEH) *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW 2010*[1]; an Aboriginal Heritage Impact Permit (AHIP) issued under the NPW Act; or a permit approval issued under the Heritage Act.
- the discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP; or an approval issued under the Heritage Act or CSSI /CSSD planning approval;

# 3. Definitions

All terminology in this procedure is taken to mean the generally accepted or dictionary definition with the exception of the following terms which have a specifically defined meaning:

| | Definitions |
|---|---|
| **AHIP** | Aboriginal Heritage Impact Permit |
| **Aboriginal object** | An Aboriginal object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains. An Aboriginal object may include a shell midden, stone tools, bones, rock art, Aboriginal-built fences and stockyards, scarred trees and the remains of fringe camps. |
| **CEMP** | Construction Environmental Management Plan |
| **CoA** | Conditions of Approval |
| **CSSD** | Critical State Significant Development |
| **CSSI** | Critical State Significant Infrastructure |
| **EP&A Act** | **NSW *Environmental Planning and Assessment Act 1979*** |
| **Excavation** | A person that complies with the Heritage Council of NSW's Criteria for Assessment of |

[1] An act carried out in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* as published by the Department in the Gazette on 24 September 2010 is excluded from the definition of ***harm*** an object or place in section 5 (1) of the NPW Act.

| | |
|---|---|
| **Director** | Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology. Note this applies to a specific project/program and requires consultation and/or approval by OEH. |
| **Heritage Act** | NSW *Heritage Act 1977* |
| **NPW Act** | NSW *National Parks and Wildlife Act 1974* |
| **OEH** | Office of Environment and Heritage |
| **SM** | Sydney Metro |
| **Relic (non-Aboriginal heritage)** | A relic means any deposit, artefact, object or material evidence that:<br>a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and<br>b) is of State or local significance.<br>A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse. |
| **TfNSW** | Transport for New South Wales |
| **Work (non-Aboriginal heritage)** | Archaeological features such as historic utilities or buried infrastructure that provide evidence of prior occupations such as former rail or tram tracks, timber sleepers, kerbing, historic road pavement, fences, culverts, historic pavement, buried retaining walls, cisterns, conduits, sheds or building foundations, but are also subject to assessment by the Excavation Director to determine its classification |

# 4. Types of unexpected heritage items and corresponding statutory protections

The roles of project, field and environmental personnel (including construction contractors) are critical to the early identification and protection of unexpected heritage items.

**Appendix 1** illustrates the wide range of heritage discoveries found on Sydney Metro projects and provides a useful photographic guide. Subsequent to confirmation of a heritage discovery it must then be identified and assessed by Excavation Director. An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Sydney Metro does not have approval to disturb[2] and/or have an existing management process in place.

These discoveries are categorised as either:

(a) Aboriginal objects

(b) Historic (non-Aboriginal) heritage items

(c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below and is also addressed in the Sydney Metro Exhumation Management Plan).

## 4.1. Aboriginal objects

The NPW Act protects Aboriginal objects which are defined as:

[2] Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

*"any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains"*[3].

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

**IMPORTANT!**

**All Aboriginal objects, regardless of significance, are protected under law.**

If any impact is expected to an Aboriginal object, an AHIP is usually required from OEH Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location[4]. Assistance on how to do this is provided in Section 7 (Step 5).

## 4.2. Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological 'relics'
- Other historic items (i.e. works, structures, buildings or movable objects).

### 4.2.1. Archaeological relics

The Heritage Act protects *relics* which are defined as:

"*any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance*"[5].

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

**IMPORTANT!**

**All relics are subject to statutory controls and protections.**

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council[6]. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location[7].

### 4.2.2. Other historic items

Some historic heritage items are not considered to be 'relics', but are instead referred to as works*, buildings, structures or movable objects. Examples of these items that may be encountered include culverts, historic pavements, retaining walls, tramlines, rail tracks, timber sleepers, cisterns*, fences, sheds, buildings and conduits. Although an approval under the Heritage Act may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

[3] Section 5(1) NPW Act.
[4] This is required under section 89(A) of the NPW Act and applies to all Sydney Metro projects.
[5] Section 4(1) Heritage Act.

[7] This is required under section 146 of the Heritage Act and applies to all Sydney Metro projects.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. For an unexpected find an archaeological excavation permit under section 140 of the Heritage Act may be required to do this. In contrast, 'other historic items' either exist above the ground surface (e.g. a shed), or they are designed to operate and exist beneath the ground surface (e.g. a culvert).

## 4.3. Human skeletal remains

Also refer to Sydney Metro Exhumation Management Plan for a more detailed explanation of the approval processes.

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-European settlement archaeological Aboriginal burial would be protected under the NPW Act, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the Heritage Act. For a non-Aboriginal archaeological burial, the relevant heritage approval and notification requirement described in Section 3.1 would apply. In addition to the NPW Act, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under section 20(1) of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth).

**IMPORTANT!**

**<u>All</u> human skeletal remains are subject to statutory controls and protections.**

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the Coroners Act 2009 (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in section 35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old8 regardless of ancestry (i.e. both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in Appendix 5.

# 5. Legislative Requirements

Table 1 identifies some of the relevant legislation/regulations for the protection of heritage and the management of unexpected heritage finds in NSW. It should be noted that significant

[8] Under section 19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

penalties exist for breaches of the listed legislation as a result of actions that relate to unauthorised impacts on heritage items. Further, it is noted that heritage that has been assessed and is being managed in accordance with relevant statutory approvals(s) is exempt from these offences.

To avoid breaches of legislation, it is important that Sydney Metro and its contractors are aware of their statutory obligations under relevant legislation and that appropriate control measures are in place to ensure that unexpected heritage items are appropriately managed during construction. Contractors/Alliances will need to ensure that they undertake their own due diligence to identify any other legislative requirements that may apply for a given project.

**Table 1 Legislation and guidelines for management of unexpected heritage finds**

| Relevant Requirement | Objectives and offences |
|---|---|
| ***Environmental Planning and Assessment Act 1979 (EP&A Act)*** | Section 115ZB Giving of approval by Minister to carry out a project. |
| ***Environmental Planning and Assessment Act 1979 (EP&A Act)*** | Requires heritage to be considered within the environmental impact assessment of projects.<br>This guideline is based on the premise that an appropriate level of Aboriginal and non-Aboriginal cultural heritage assessment and investigations and mitigation have already been undertaken under the relevant legislation, including the EP&A Act, during the assessment and determination process. It also assumes that appropriate mitigation measures have been included in the conditions of any approval. |
| ***Heritage Act 1977*** **(Heritage Act)** | The Heritage Act provides for the care, protection and management of heritage items in NSW.<br>Under section 139, it is an offence to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, unless the disturbance or excavation is carried out in accordance with an excavation permit issued by the Heritage Division of the OEH.<br>Under the Act, a relic is defined as: *'any deposit, artefact, object or material evidence that: (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance.'*<br>A person must notify the Heritage Division of OEH, if a person is aware or believes that they have discovered or located a relic (section 146). Penalties for offences under the Heritage Act can include six months imprisonment and/or a fine of up to $1.1million. |

| Relevant Requirement | Objectives and offences |
|---|---|
| ***National Parks and Wildlife Act 1974*** **(NPW Act)** | The NPW Act provides the basis for the care, protection and management of Aboriginal objects and places in NSW.<br>An Aboriginal object is defined as: *'any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains'*.<br>An 'Aboriginal place' is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture. An Aboriginal place does not have to contain physical evidence of occupation (such as Aboriginal objects).<br>Under section 87 of the Act, it is an offence to harm or desecrate an Aboriginal object or place. There are strict liability offences. An offence cannot be upheld where the harm or desecration was authorised by an AHIP and the permit's conditions were not contravened. Defences and exemptions to the offence of harming an Aboriginal object or Aboriginal place are provided in section 87, 87A and 87B of the Act.<br>A person must notify OEH if a person is aware of the location of an Aboriginal object.<br>Penalties for some of the offences can include two years imprisonment and/or up to $550,000 (for individuals), and a maximum penalty of $1.1 million (for corporations). |

# 6. Unexpected heritage finds protocol

## 6.1. What is an unexpected heritage find?

An 'unexpected heritage find' can be defined as any unanticipated archaeological discovery that has not been identified during a previous assessment or is not covered by an existing permit under the Heritage Act. The find may have potential cultural heritage value, which may require some type of statutory cultural heritage permit or notification if any interference of the heritage item is proposed or anticipated.

The range of potential archaeological discoveries can include but are not limited to:

- remains of rail infrastructure including buildings, footings, stations, signal boxes, rail lines, bridges and culverts
- remains of other infrastructure including sandstone or brick buildings, wells, cisterns, drainage services, conduits, old kerbing and pavement, former road surfaces, timber and stone culverts, bridge footings and retaining walls
- artefact scatters including clustering of broken and complete bottles, glass, ceramics, animal bones and clay pipes
- Archaeological human skeletal remains.

## 6.2. Managing unexpected heritage finds

In the event that an unexpected heritage find (the find) is encountered on a Sydney Metro site, the flowchart in Figure 1 must be followed. There are eight steps in the procedure. These steps are summarised in Figure 1 and explained in detail in Table 2.

**Figure 1 Overview of steps to be undertaken on the discovery of an unexpected heritage item**

**IMPORTANT!**

Sydney Metro may have approval to impact on certain heritage items during construction. If you think that you may have discovered a heritage item and you are unsure whether an approval is in place or not, **STOP** works and follow this procedure.

**Table 2 Specific tasks to be implemented following the discovery of an unexpected heritage item**

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| **1** | **Stop work, protect item and inform the Excavation Director** | | |
| 1.1 | Stop all work in the immediate area of the item and notify the Project Manager | Contractor/ Supervisor | **Appendix 1** (Identifying Unexpected Heritage items) |
| 1.2 | Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. No work is to be undertaken within this zone until further investigations are completed and, if required, appropriate approvals are obtained.<br>Inform all site personnel about the no-go zone. | Project Manager/ Contractor/ Supervisor | |
| 1.3 | Inspect, document and photograph the item. | Archaeologist and or Excavation Director | **Appendix 2** (Unexpected Heritage Item Recording Form)<br>**Appendix 3** (Photographing Unexpected Heritage items) |
| 1.4 | Is the item likely to be bone?<br>If **yes**, follow the steps in Appendix 4 – 'Uncovering bones'. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. Also refer to the Sydney Metro Exhumation Management Plan<br>If **no**, proceed to next step. | Excavation Director | **Appendix 4** (Uncovering Bones) |

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| 1.5 | Inform the Excavation Director of the item and provide as much information as possible, including photos and completed form (**Appendix 2**).<br>Where the project has a Sydney Metro Environmental Manager, the Environmental Manager should be involved in the tasks/process. | Contractors Project Manager | |
| 1.6 | Can the works avoid further disturbance to the item? Project Manager to confirm with Sydney Metros Environment Manager.<br>Complete the remaining tasks in Step 1. | Contractors Project Manager | |
| 1.7 | Excavation Director and Sydney Metro Environmental Manager to advise the Project Manager whether Sydney Metro has approval to impact on the 'item'.<br>Does Sydney Metro have an approval or permit to impact on the item?<br>If **yes**, work may recommence in accordance with that approval or permit. There is no further requirement to follow this procedure.<br>If **no**, continue to next step. | Contractors Project Manager | |
| 1.8 | Has the 'find' been damaged or harmed?<br>If **yes**, record the incident in the Incident Management System Implement any additional reporting requirements related to the planning approval and CEMP, where relevant. | Contractors Project Manager, Excavation Director | |
| **2** | **Contact and engage an archaeologist and/or an Aboriginal heritage consultant** | | |
| 2.1 | If an archaeologist and/or Aboriginal heritage consultant has been previously appointed for the project, contact them to discuss the location and extent of the item and arrange a site inspection, if required. The project CEMP may contain contact details of the archaeologist/Aboriginal heritage consultant.<br>Where there is no project archaeologist engaged for the works engage a suitably qualified consultant to assess the find:<br>if the find is a non-Aboriginal deposit, engage a suitably qualified and experienced archaeological consultant<br>if the find is likely to be an Aboriginal object, engage an Aboriginal heritage consultant to assess the find. | Contractors Project Manager, Excavation Director | |
| 2.2 | If requested, provide photographs of the item taken during Step 1.3 to the archaeologist or Aboriginal heritage consultant. | Contractors Project Manager, Excavation Director | **Appendix 3** (Photographing Unexpected Heritage items) |

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| **3** | **Preliminary assessment and recording of the find** | | |
| 3.1 | In a minority of cases, the archaeologist/Aboriginal heritage consultant may determine from the photographs that no site inspection is required because no heritage constraint exists for the project (*e.g. the item is not a 'relic', a 'heritage item' or an 'Aboriginal object*'). Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Sydney Metro Project Manager. | Archaeologist/ Aboriginal heritage consultant/ , Excavation Director | Proceed to Step 8 |
| 3.2 | Arrange site access for the archaeologist/Aboriginal heritage consultant to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment. | Contractors Project Manager, Excavation Director | |
| 3.3 | Subject to the archaeologist/Aboriginal heritage consultant's assessment, work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which may have not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established. | Archaeologist/ Aboriginal heritage consultant Contractors Project Manager, Excavation Director | |
| 3.4 | The archaeologist/Aboriginal heritage consultant may provide advice after the site inspection and preliminary assessment that no heritage constraint exists for the project (e.g. the item is not a '*relic*' or a '*heritage item'* or an '*aboriginal item'*. Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Metro Project Manager.<br>Note that :<br>a relic is evidence of past human activity which has local or State heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse<br>an Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree<br>a "work", building or standing structure may include tram or train tracks, kerbing, historic road pavement, fences, sheds or building foundations. | Archaeologist/ Aboriginal heritage consultant/ Contractors Project Manager, Excavation Director | Proceed to Step 8<br>Refer to **Appendix 1**<br>(Identifying heritage items) |

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| 3.5 | Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). The archaeologist/Aboriginal heritage consultant can provide contacts for such specialist consultants. | Excavation Director Archaeologist | |
| 3.6 | Where the item has been identified as a 'relic' or 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item. | Archaeologist/ Aboriginal heritage consultant | |
| 3.7 | OEH (Heritage Division for non-Aboriginal relics and Planning and Aboriginal Heritage Section for Aboriginal objects) can be notified informally by telephone at this stage by the Sydney Metro Environmental Manager Any verbal conversations with regulators must be noted on the project file for future reference. | Contractors Project Manager, Excavation Director | |
| **4** | **Section 4 not used** | | |
| | | | |
| | | | |
| | | | |
| | | | |
| **5** | **Notify the regulator, if required.** | | |
| 5.1 | Based on the findings of the archaeological or heritage management plan and corresponding legislative requirements, is the find required to be notified to OEH and the Secretary?<br>If **no**, proceed directly to Step 6<br>If **yes**, proceed to next step. | Sydney Metro Environmental Manager Excavation Director | |
| 5.2 | If notification is required, complete the template notification letter, including the archaeological/heritage management plan and other relevant supporting information and forward to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) for signature. | Sydney Metro Environmental Manager Excavation Director | **Appendix 6** (Template Notification Letter) |
| 5.3 | Forward the signed notification letter to OEH and the Secretary.<br>Informal notification (via a phone call or email) to OEH prior to sending the letter is appropriate. The archaeological or heritage management plan and the completed site recording form (Appendix 2) must be submitted with the notification letter (for both Aboriginal objects and non-Aboriginal relics).<br>For Part 5.1 projects, the Department of Planning and Environment must also be notified. | | |

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| 5.4 | A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form is to be kept on file and a copy sent to the Sydney Metro Project Manager. | Contractors Project Manager, Excavation Director | |
| **6** | **Implement archaeological or heritage management plan** | | |
| 6.1 | Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with OEH. | Contractors Project Manager, Excavation Director | |
| 6.2 | Implement the archaeological or heritage management plan. Where impact is expected, this may include a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with Registered Aboriginal Parties, obtaining heritage approvals etc., if required. | Contractors Project Manager, Excavation Director | |
| 6.3 | Where heritage approval is required contact the Sydney Metro Environment Manager for further advice and support material. Please note there are time constraints associated with heritage approval preparation and processing. | Contractors Project Manager, Excavation Director | |
| 6.4 | Assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. | , Excavation Director/Sydney Metro Environmental Manager | |
| 6.5 | Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator. | Contractors Project Manager, Excavation Director | |
| 6.6 | Where statutory approval is not required but where recording is recommended by the archaeologist/Aboriginal heritage consultant, sufficient time must be allowed for this to occur. | Contractors Project Manager, Excavation Director | |
| 6.7 | Ensure short term and permanent storage locations are identified for archaeological material or other heritage material removed from site, where required. Interested third parties (e.g. museums, local Aboriginal land councils, or local councils) should be consulted on this issue. Contact the archaeologist or Aboriginal heritage consultant for advice on this matter, if required. | Contractors Project Manager, Excavation Director | |
| **7** | **Section 7 Not Used** | | |
| | | | |
| | | | |

| Step | Task | Responsibility | Guidance and tools |
|---|---|---|---|
| **8** | **Resume work** | | |
| 8.1 | Seek written clearance to resume project work from the project Excavation Director/Archaeologist/Aboriginal heritage consultant. Clearance would only be given once all archaeological excavation and/or heritage recommendations and approvals (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations. | Contractors Project Manager, Excavation Director | |
| 8.2 | If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies. | Contractors Project Manager, Excavation Director | |
| 8.3 | Deleted | | |
| 8.4 | If additional unexpected items are discovered this procedure must begin again from Step 1. | All | |

# 7. Responsibilities

**Table 3 Roles and Responsibilities**

| Role | Responsibility or role under this guideline |
|---|---|
| **Contractor / Supervisor** | Stop work immediately when an unexpected heritage find is encountered. Cordon off area until Environmental Manager /Excavation Director advises that work can recommence. |
| **Contractor or Environment Manager** | Manage the process of identifying, protecting and mitigating impacts on the 'find'.<br>Liaise with Sydney Metro Project Manager and Environment Manager and assist the archaeologist/Aboriginal heritage consultant with mitigation and regulatory requirements.<br>Complete Incident Report and review CEMP for any changes required. Propose amendments to the CEMP if any changes are required. |
| **Contractor's or Project Heritage Advisor or Consultant** | Provide expert advice to the Sydney Metro Environment Manager on 'find' identification, significance, mitigation, legislative procedures and regulatory requirements. |
| **Environmental Representative** | Independent environmental advisor engaged by Sydney Metro<br>Ensures compliance with relevant approvals (new and existing). |
| **Heritage Division of OEH** | Regulate the care, protection and management of relics (non-Aboriginal heritage).<br>Delegated authority for Heritage Council<br>Issue excavation permits. |

| Role | Responsibility or role under this guideline |
|---|---|
| **Registered Aboriginal Parties (RAPs)** | Aboriginal people who have registered with Sydney Metro to be consulted about a proposed project or activity in accordance with the OEH *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. |
| **Sydney Metro Environment Manager** | Notify the Sydney Metro Principal Manager, Environmental Management of 'find' and manage Incident Reporting once completed by Environmental Manager. |
| **Contractors Project Manager** | Ensures all aspects of this procedure are implemented. Advise Contractor / Supervisor to recommence work if all applicable requirements have been satisfied and the Excavation Director /Project Archaeologist has approved recommend of work. |

# 8. Seeking Advice

Advice on this procedure should be sought from the Sydney Metro Environment a Manager in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure.
Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from a suitably qualified and experienced archaeologist/Aboriginal heritage consultant.

# 9. Related documents and references

- Environmental Incident Classification and Reporting – 9TP-PR-105
- Guide to Environmental Control Map – 3TP-SD-015
- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains.*
- Roads and Maritime Services (2015), *Standard Management Procedure Unexpected Heritage Items.*
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains.*
- Sydney Metro Exhumation Management Plan

# 10. List of appendices

The following appendices are included to support this procedure:

Appendix 1: Examples of finds encountered during construction works
Appendix 2: Unexpected Heritage Item Recording Form
Appendix 3: Photographing Unexpected Heritage Items
Appendix 4: Uncovering Bones
Appendix 5: Archaeological Advice Checklist
Appendix 6: Template Notification Letter

# 11. Document history

| Version | Date of approval | Notes |
|---|---|---|
| 1.1 | | Incorporates ER comments 21/06/17 |
| 1.2 | | Amends p13 step 8 reference to s146 added |
| 1.3 | | Incorporates Planning Mods 1-4 including amended CoA E20 |
| 1.4 | | Incorporates ER comments 21/03/18 |
| 2.0 | | Removes SSI 15-7400 COA reference |

# Appendix 1: Examples of finds encountered during construction works


Photo 1 - Aboriginal artefacts found at the Wickham Transport Interchange, 2015


Photo 2 – Aboriginal artefacts (shell material) found at the Wickham Transport Interchange, 2015


Photo 3 1840s seawall and 1880s retaining wall uncovered at Balmain East, 2016

Photo 4 Sandstone pavers uncovered at Balmain East, 2016

Photo 5 - Platform structure at Hamilton Railway Station classified as a 'work' by the project archaeologist - Wickham Transport Interchange project, 2015

Photo 6 - Platform structure at Hamilton Railway Station classified as a 'work' by the project archaeologist - Wickham Transport Interchange project, 2015

Photo 7 - Sandstone flagging and cesspit - Wynyard Walk project, 2014

Photo 8 - Chinese Ming Dynasty pottery and English porcelain/pottery dating back to early 19th century - Wynyard Walk project, 2014

Photo 9 - Pottery made by convict potter Thomas Ball during the early settlement - Wynyard Walk project, 2014

The following images, obtained from the Roads and Maritime Services' *Standard Management Procedure for Unexpected Heritage items 2015,* can be used to assist in the preliminary identification of potential unexpected items during construction and maintenance works.


**Photo 10 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).**


Photo 11 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).

# Appendix 2 - Unexpected heritage item recording form

Example of unexpected heritage item recording form:

| This form is to be completed Excavation Director on the discovery of an archaeological heritage item during construction or maintenance works | | | |
|---|---|---|---|
| **Date:** | | **Recorded by:** (include name and position) | |
| **Project name:** | | | |
| **Description of works being undertaken:** | | | |
| **Description of exact location of item** | | | |
| **Description of item found** *(What type of item is it likely to be? Tick the relevant boxes).* | | | |
| **A. A relic** | ☐ | A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottle, utensils, plates, cups, household items, tools, implements, and similar items | |
| **B. A 'work', building or structure'** | ☐ | A 'work' can generally be defined as a form infrastructure such as track or rail tracks, timber sleepers, a culvert, road base, a bridge pier, kerbing, and similar items | |
| **C. An Aboriginal object** | ☐ | An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones | |
| **D. Bone** | ☐ | Bones can either be human or animal remains. **Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains.** | |
| **E. Other** | ☐ | | |
| **Provide a short description of the item** *(E.g. metal rail tracks running parallel to the rail corridor. Good condition. Tracks set in concrete, approximately 10 cm below the current ground surface).* | | | |

| | | | |
|---|---|---|---|
| **Sketch**<br>*(Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken)* | | | |
| **Action taken** (Tick either A *or* B) | | | |
| A. Unexpected item **would not** be further impacts on by the works | ☐ | **Describe how works would avoid impact on the item.** *(E.g. the rail tracks would be left in situ and recovered with paving).* | |
| | | | |
| B. Unexpected item would be further impacted by the works | ☐ | **Describe how works would impact on the item**. *(E.g. milling is required to be continued to a depth of 200 mm depth to ensure the pavement requirements are met. Rail tracks would need to be removed.)* | |
| | | | |
| | | | |
| Excavation Director | | Signature | |
| | | Signature | |

**Important**

**It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought.**

**Approvals may also be required to impact on certain works.**

# Appendix 3 - Photographing unexpected heritage items

Photographs of unexpected items in their current context (*in situ*) may assist archaeologists/Aboriginal heritage consultants to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin etc.) and a note describing the direction of the photograph.

### Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add value to the subsequent detailed photographs also required (Figure 2).

**Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.**

**Figure 2:** Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

**Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008 (RMS, 2015).**

### Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of these features, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.

Figure 3: Ceramic bottle artefact with stamp.


Figure 4: Detail of the stamp allows '*Tooth & Co Limited*' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

### Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, the police must be contacted immediately (see Appendix 6 for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. The project archaeologist can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed.

Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily

be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.

Figure 7: Photograph showing complete bone.


Figure 8: Close up of a long bone's epiphysis.

# Appendix 4 - Uncovering bones

This appendix provides advice regarding:

- what to do on first discovering bones
- the range of human skeletal notification pathways
- additional considerations and requirements when managing the discovery of human remains.

## 1. First uncovering bones

**Refer to the Sydney Metro Exhumation Management Plan**

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. The bones must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist.

On the very rare occasion where it is immediately obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1[9]. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and/or clothing are present.

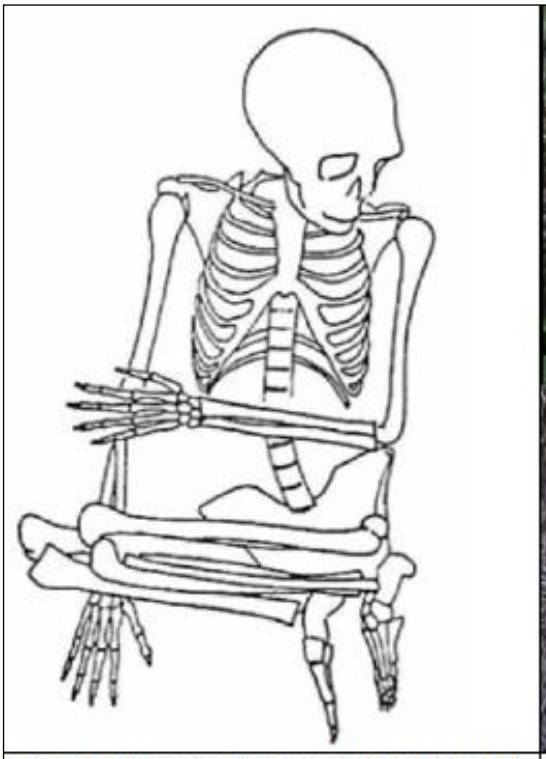


**Figure 1:** Schematic of a complete skeleton that is 'obviously' human [12].


**Figure 2:** Disarticulated bones that require assessment to determine species.

[9] After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains: 17*

This preliminary phone call is to let the police know that a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not immediately obvious that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix 3. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur.

Preliminary telephone or verbal notification by the archaeologist to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) is appropriate. This must be followed up later by a formal letter notification to the relevant regulator when a management plan has been developed and agreed to by the relevant parties.

## 2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

**A. Human bones are from a recently deceased person (less than 100 years old).**

| **Action** |
| --- |
| A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed. |

**B. Human bones are archaeological in nature (more than 100 years old) and are likely to be *Aboriginal* remains.**

| **Action** |
| --- |
| The OEH (Planning and Aboriginal Heritage Section) must be notified immediately. The Aboriginal Cultural Heritage Advisor must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. |

**C. Human bones are archaeological in nature (more than 100 years old) and likely to be non-Aboriginal remains.**

| **Action** |
| --- |
| The OEH (Heritage Division) must be notified immediately |

Figure 3 summarises the notification pathways on finding bones.

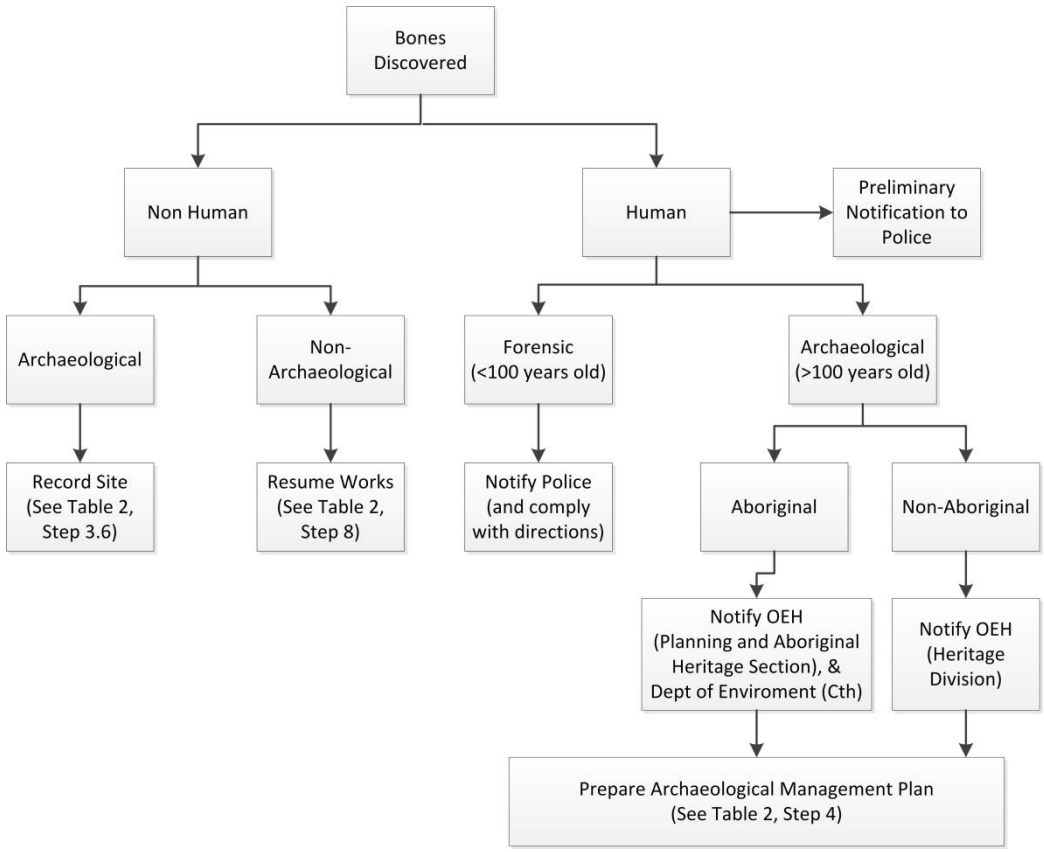



**Figure 3 Overview of steps to be undertaken on the discovery of bones**

After the appropriate verbal notifications (as described in 2B and 2C above), the Project Manager must proceed through the *Unexpected Heritage Items Exhumation Management Plan* (Step 4). It is noted that no *Exhumation Management Plan* is required for forensic cases (2A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to record the find as per Step 3.6.

## 3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Project Managers may need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains.

Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Sydney Metro may be required to apply to the Director General of NSW

Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)[10].

Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health website.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

[10] This requirement is in addition to heritage approvals under the *Heritage Act 1977.*

# Appendix 5 - Archaeological/heritage advice checklist

The archaeologist/Aboriginal heritage consultant must advise the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) of an appropriate archaeological or heritage management plan as soon as possible after an inspection of the site has been completed (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

In discussions with the archaeologist/Aboriginal heritage consultant the following checklist can be used as a prompt to ensure all relevant heritage issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

| | Required | Outcome/notes |
|---|---|---|
| **Assessment and investigation** | | |
| • Assessment of significance | Yes/No | |
| • Assessment of heritage impact | Yes/No | |
| • Archaeological excavation | Yes/No | |
| • Archival photographic recording | Yes/No | |
| **Heritage approvals and notifications** | | |
| • AHIP, section 140, section 139 exceptions etc. | Yes/No | |
| • Regulator relics/objects notification | Yes/No | |
| • Notification to Sydney Trains for s170 heritage conservation register | Yes/No | |
| • Compliance with CEMP or other project heritage approvals | Yes/No | |
| **Stakeholder consultation** | | |
| • Aboriginal stakeholder consultation | Yes/No | |
| **Artefact/heritage item management** | | |
| • Retention or conservation strategy (e.g. items may be subject to long conservation and interpretation) | Yes/No | |
| • Disposal strategy | Yes/No | |
| • Short term and permanent storage locations (interested third parties should be consulted on this issue). | Yes/No | |
| • Control Agreement for Aboriginal objects | Yes/No | |

# Appendix 6 - Template notification letter

Insert on TfNSW letterhead
Select and type date]
[Select and type reference number]

XXX
Manager, Conservation
Heritage Division, Office of Environment and Heritage
Locked Bag 5020
Parramatta NSW 2124

[Select and type salutation and name],

**Re: Unexpected heritage item discovered during Sydney Metro activities.**

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Sydney Infrastructure and Services construction works at [insert location] on [insert date] in accordance with the notification requirement under select: section 146 of the *Heritage Act 1977* (NSW). [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

**NB:** On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for the Environment in accordance with notification requirements under section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (e.g. Part 5). Also include any project approval number, if available].

Sydney Metro [*or contractor*] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Based on the preliminary findings, Sydney Metro *[or contractor]* is proposing [provide a summary of the proposed archaeological/heritage approach (e.g. develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Should you have any feedback on the proposed approach, or if you require any further information, please do not hesitate to contact [Environment and Planning Project Manager] on (02) XXXX XXXX.

Yours sincerely

[Sender name]

Sydney Metro Principal Manager Sustainability Environment and Planning (Program) [Attach the archaeological/heritage management plan and site recording form]