



Sydney Yards Access Bridge: Regent Street Site Archaeological Method Statement

Project: Sydney Metro – Chatswood to Sydenham	Date: 5 June 2017 updated 04 September 2017
Project site: Regent Street, Sydney Yards Access Bridge Excavation Site	Author: Dr Iain Stuart (Excavation Director - Historical), Dr Sandra Wallace (Excavation Director – Aboriginal), Duncan Jones (Heritage Consultant), Shona Lindsay (Heritage Consultant)
Contractor: Laing O'Rourke	

Background

This Archaeological Method Statement (AMS) outlines the archaeological approach and methodology to mitigate construction impacts to potential non-Aboriginal (historic) and Aboriginal archaeological deposits at the Regent Street site. Where required this AMS should be updated to account for revised impacts, or in response to unexpected finds. This AMS does not include management for other areas of the Central Station project site.

The methodology has been informed by, and is in accordance with, the following documents:

- Artefact Heritage 2016a. Sydney Metro Chatswood to Sydenham Non-Aboriginal Archaeological Research Design (ARD)
- Artefact Heritage 2016b. Sydney Metro Chatswood to Sydenham Aboriginal Cultural Heritage Assessment Report (CHAR)
- Laing O'Rourke 2017. Sydney Metro City and Southwest Sydney Yard Access Bridge Project, Construction Heritage Management Plan (CHMP)
- Transport for NSW 2016a. Salvage and Storage Strategy of the Sydney Metro Integrated Management System.
- Transport for NSW 2016b. Sydney Metro Chatswood to Sydenham Unexpected Finds Policy
- Transport for NSW 2016c. Sydney Metro Chatswood to Sydenham Exhumation Policy

Condition E17 of the Minister's Conditions of Approval for the Sydney Metro Chatswood to Sydenham project states that an AMS must be prepared in consultation with the Heritage Council of NSW prior to the commencement of archaeological investigation. This AMS is provided to satisfy condition E17 and will be provided for review to the NSW Heritage Division as a delegate of the Heritage Council.

Archaeological resources at the Regent Street site, which will be impacted by construction of the Sydney Yards Access Bridge (SYAB), are related to the former 1847 Wesleyan chapel and school hall. This building was originally used as the first Wesleyan church in the Redfern / Chippendale

area until a new and larger church was constructed in 1867 immediately to the north. With the opening of the second Wesleyan Church, the first church was used as a school hall. The building was demolished in 1898 when the Wesleyans subdivided the property, using the brick material from the original church to build a new school house directly to the north of the study area. The southern portion of the allotment was sold for residential construction, with five terrace houses constructed on the site.

The plan of archaeological management for the Central Railway Station area prepared as part of the Sydney Metro Chatswood to Sydenham approval has been reproduced in Figure 1 on page 3, with the Regent Street site marked as area CS6 (Artefact 2016a). Five existing two-storey terrace houses are located at the Regent Street site. These buildings will be demolished prior to archaeological excavation and construction works.

Proposed Works

Building Demolition

Demolition contractors will demolish the building by using hydraulic shears to pull the existing above-ground portions of the buildings into the centre of the Regent Street site. This rubble will then be loaded off site through the rail corridor access. It is presumed that the terrace has foundations of strip footings below a base slab. Any present base slab to the terraces would be broken up using hydraulic hammers and removed with a machine excavator.

Utility services excavation

Stormwater drainage services would be installed across the site. These stormwater services, involving drainage lines and drainage tanks, would be excavated in trenches and pits from between 2 and 3.5 metres in depth. Transformer footing and local services routes would be excavated up to 1 meter in depth. The location of these excavation trenches and pits are illustrated in Figure 2.

Road pavement

The southern and eastern portions of the site would be cleared and graded for the construction of the Regent Street entry way for the Sydney Yard Access Bridge. Ground disturbing works in this area would involve the excavation of ground between 200 millimetres and 1,000 millimetres. The majority of the area would be filled to final road level. The area of these ground disturbing works is shown in green in Figure 2.

Retaining wall

The eastern side of the site would be excavated to 1.3 meters in depth for a retaining wall. The area of these ground disturbing works is shown in green in Figure 2.

Landscaping

The rest of the site would be excavated up to 300mm in depth for landscaping. The area of these ground disturbing works is shown in green in Figure 2.

Figure 1: Archaeological management plan for Central Railway Station (Source: Artefact 2016: 333)

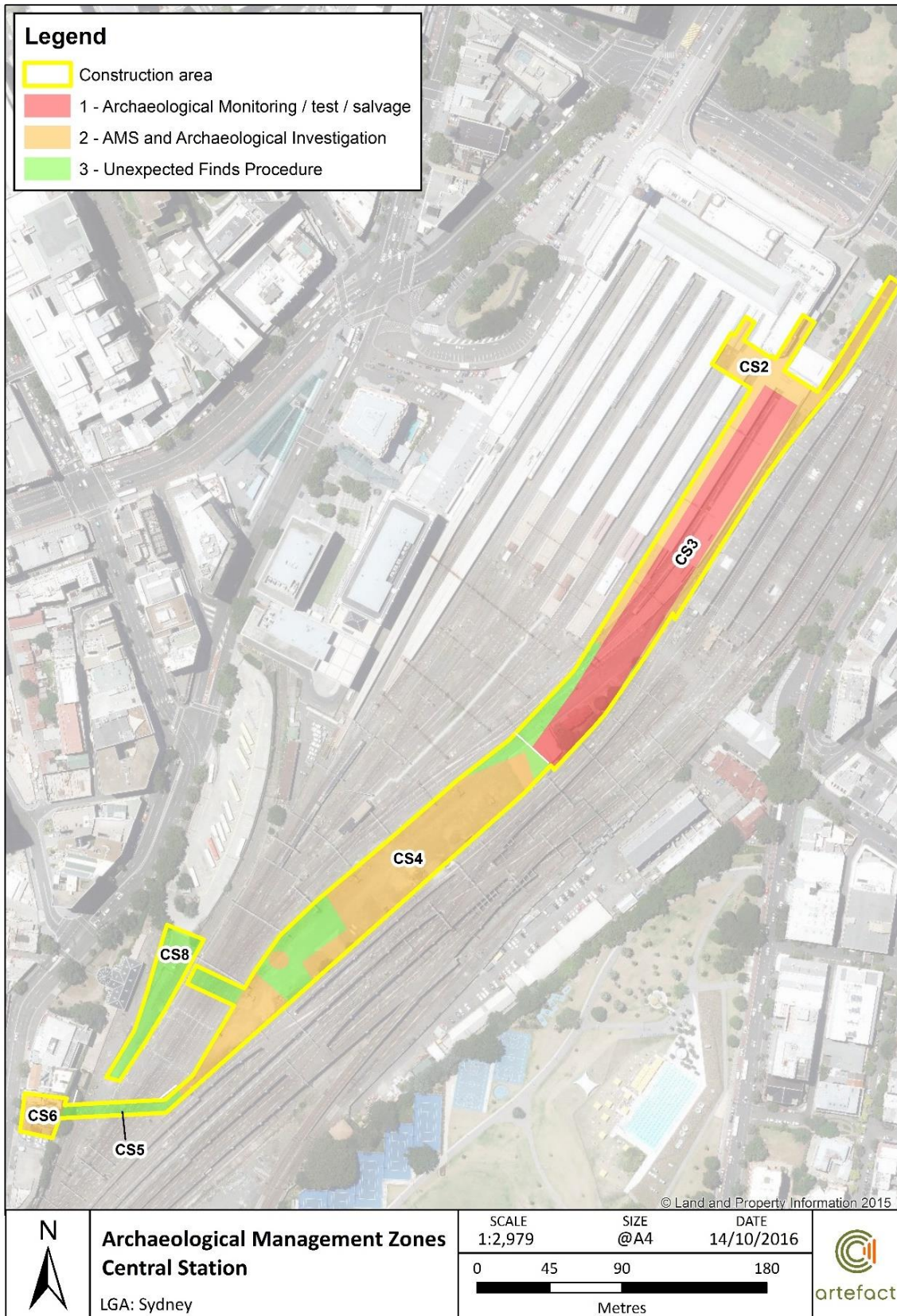
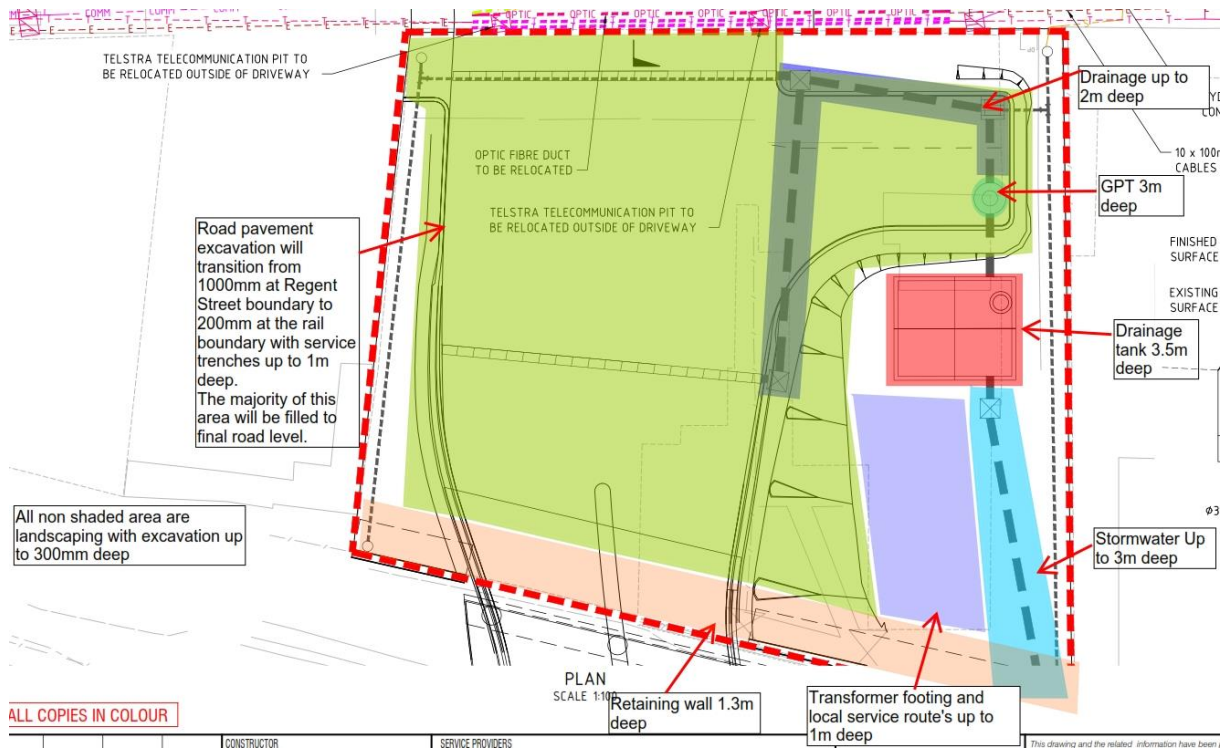


Figure 2: Ground excavation areas for Regent Street site construction of Sydney Yard Access Bridge (provided by LoR)



Non-Aboriginal Archaeological Resources

Prior to the construction of the extant two-storey terrace houses in 1898, the site was the location of a Wesleyan chapel and school hall. Archaeological resources relating to the former chapel and school hall would be of local heritage significance. A complete history and discussion of the archaeological potential and significance of this resource has been provided in the Sydney Metro Chatswood to Sydenham Non-Aboriginal Archaeological Research Design (ARD) (Artefact 2016a: 227 – 256).

Areas of potential for archaeological remains of local significance have been identified from the City of Sydney – Trigonometrical Survey, 1865 plan of the study area. These areas of archaeological potential are related to the former Wesleyan Chapel and School Hall are predicted to consist of brick and timber remains of the building and possibly archaeological deposits such as sub-floor remains and filled pits. The 1865 plan is illustrated in Figure 3 and the footprints of former brick and timber structures in the study area are shown in Figure 4.

Archaeological resources relating to the former Wesleyan chapel and school hall are likely to be located at relatively shallow depth below the existing terrace buildings. As a large portion of the site would be excavated to a depth between 200 and 1000 millimetres, it is expected that construction impacts would result in a major impact to any archaeological remains within the Regent Street site.

Figure 3: 1865 Trigonometric plan of Sydney with Study Area in red

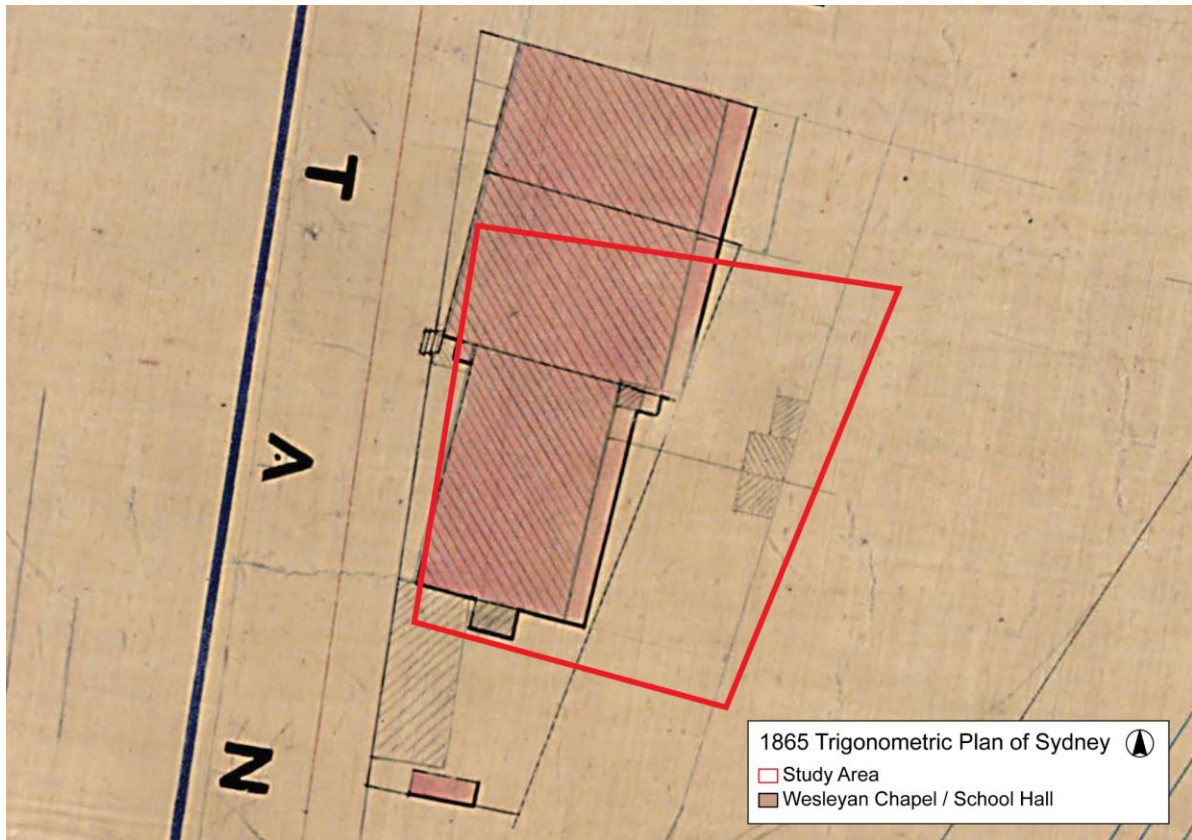


Figure 4: Footprint of 1865 brick and timber structures at the Regent Street site



Work Stage Specific Archaeological Methodology

The AMS archaeological methodology would in general meet the requirements of Chapter 12 of the project ARD which discusses details of archaeological methodologies. These requirements are not reproduced in detail, but where relevant are discussed below.

Contractor

The contractor would set up site and then operate under the direction of the archaeologists during archaeological investigation. This would involve:

- Demolish existing terrace houses and remove rubble and spoil material from site
 - Existing terrace building footings, base slabs and paving surfaces would **not** be removed during demolition prior to the archaeological team attending site
- Set out and secure the work area for the construction and archaeological team
- Provide machine plant to assist the removal of fill where required under the supervision of the archaeological team
- Provide pressurised water and a sieving area, if required
- Provide a site induction to contractors in consultation with the Excavation Director.

Historical archaeological monitoring of excavation for retaining wall

The excavation of the retaining wall along the eastern side of the site would be conducted prior to removal of the slab footings of the buildings. Due to the potential for archaeological resources within this area, the proposed works would be archaeologically monitored.

Contractors would use a machine excavator to excavate the retaining wall to a depth of 1.3 meters during archaeological monitoring. If intact archaeological remains are uncovered, works would cease to allow the archaeologist to fully record and salvage the remains.

Historical archaeological monitoring of demolition works

Due to the potential of archaeological resources to be located directly below the building footings and ground slabs of the existing late-nineteenth century terrace houses at the Regent Street site, the final stages of demolition of these structures would be archaeologically monitored.

Following the removal of demolition rubble of the above-ground terrace buildings from the site, the nominated archaeologists would supervise the machine removal of terrace footings and yard surfaces. Contractors would use a hydraulic hammer to break up any base slabs underneath the terraces, which would then be removed with machine excavator.

Should hazardous materials or contaminants be identified during archaeological monitoring, ground excavation would cease until appropriate controls or remediation is conducted by Laing O'Rourke.

Terrace footings would be removed by machine excavator during the archaeological testing and salvage phases of works, in order to ensure no adjacent archaeological deposits are not impacted during their removal.

Historical archaeological excavation (open area)

Archaeological excavation would involve the use of a machine excavator (5 to 7 tonne) with a 1.2 to 1.6 metre flat bucket to remove fills or overburden across the site. Once introduced fills have been removed, any archaeological remains located within the excavation area would be cleaned by hand to allow archaeologists to understand the nature of the potential archaeological resource.

Archaeological deposits would be recorded by context (see page 7 for the archaeological recording strategy).

During excavation, footings or residual structural elements of the 1898 terrace buildings would be removed by machine under archaeological supervision after being archaeologically recorded.

Underfloor deposits, cesspits and wells would be excavated in accordance with the methodology set out in the ARD (Artefact 2016a: 314).

Soil sampling and sieve strategy

Deep archaeological resources relating to former cesspits and wells may be located at the eastern margin of the site. Archaeological excavation of cesspits has the potential for the recovery of minute or microscopic plant and bone remains that may have been deposited during their use.

Should intact cesspit refuse deposits be identified, soil material would be excavated by hand and transported in plastic buckets by context. A single bulk soil sample would be collected from each context (between five and ten litres of sediment – a single bucket) for potential macrobotanical post-excavation analysis. Collected sediment from each context should be devoid of visible artefactual material. Precluding on-site flotation of sediment, this material would be double-bagged in large plastic bags and stored until bulk soil sample processing for macrobotanical analysis can be conducted.

From each bulk soil sample, a subsample of up to 100 grams would be bagged separately for potential palynological analysis. These samples would be double-bagged with contextual information recorded on the outside of both bags and a tag on the inside of the outer bag.

The remainder of soil from each context would be wet sieved over a 3mm mesh to capture and clean any artefactual remains.

Excavation recording methodology

Excavation recording

A record of archaeological investigation would be made in accordance with the methodology outlined in the ARD. The recording methodology includes the following:

- A site datum would be established
- Survey and scaled plans of the open area, trench locations and any significant archaeological features uncovered in the test and salvage program. The plans would include elevations recorded with a dumpy level
- Scaled section drawings where appropriate
- Digital photography, in RAW format, using photographic scales and photo boards where appropriate. A photographic record of all phases of the work on site would be undertaken

- A standard context recording system will be employed: The locations, dimensions and characteristics of all archaeological features and deposits will be recorded on a sequentially numbered context register. This documentation will be supplemented by preparation of a Harris matrix showing the stratigraphic relationships between features and deposits
- Should a large amount of archaeological resources be identified during open area excavation, the site would be digitally surveyed and recorded
- Artefact collection by context. Large or redundant artefactual materials from individual contexts would be sample collected. Hazardous material would not be collected.

Reporting

A preliminary findings report would be prepared following completion of the works outlined in this AMS in accordance with the ARD (Artefact 2016a:314). This report would outline the main results and identify if further archaeological work would be required, or if results would be appropriate for public interpretation.

An archaeological excavation report would be prepared following the completion of the program of archaeological works. This report would comprehensively describe and interpret the findings of the excavation program within the context of the research design. It would include photographs and plans of the site and contexts. Recovered artefacts would be catalogued, assessed and analysed by material specialists as required, depending on the nature of the finds. These records and analyses would be developed in response to research questions provided in the ARD for the project (Artefact 2016a: 261 – 263).

Curation of archaeological material

Storage and curation strategies have been adapted from the Salvage and Storage Strategy of the Sydney Metro Integrated Management System (Transport for NSW 2016a: 5 – 6).

Collection of artefacts would be in the context of the ARD, which state that “retrieval of artefacts would focus on those whose analysis would contribute to research agendas, or would be representative of the site” (Artefact 2016a:315).

Following excavation, all collected artefactual material would be stored by Artefact Heritage in order to conduct post-excavation material analysis. Once post-excavation analysis and salvage excavation reporting has been completed, ongoing curation and long-term care of the collection would be at the discretion of Transport for NSW. Archaeological materials may be incorporated into interpretative or public display depending on the nature of recovered finds.

Large archaeological items, or items that require special care (i.e. material that is in danger of deterioration post-excavation), would be stored in appropriate facilities co-ordinated with and managed by Transport for NSW under the projects salvage strategy.

Human Remains

Discovery of suspected human remains would be managed under the project Unexpected Finds Policy and the Exhumation Policy (Transport for NSW 2016b; Transport for NSW 2016c).

Public Engagement

If substantial intact remains are located opportunities for public engagement such as public viewing and public interpretation would be considered.

Aboriginal archaeological heritage strategy

The Regent Street site is within Method Area 2 as outlined in the Aboriginal Cultural Heritage Assessment Report (CHAR) (Artefact Heritage 2016b). In accordance with the provisions for MA2 Aboriginal archaeological test/salvage excavation would be undertaken where intact natural soil profiles with the potential to contain significant deposits, or Aboriginal objects, are located during historical archaeological excavations. The Aboriginal archaeological team would be notified by the Excavation Director and a qualified archaeologist experienced in Aboriginal archaeology would assess the find. If the find was found to trigger archaeological management under the CHAR, the registered Aboriginal Parties and Office of Environment and Heritage (OEH) would be notified in accordance with the Unexpected Finds Procedure.

If Aboriginal objects or areas of intact soil profile were to be identified this AMS would be updated to outline an appropriate methodology for the works in accordance with the CHAR. Any excavation and analysis would be undertaken in accordance with the project CHAR.

Team and timing

Archaeological team

The archaeological team would comprise:

- Primary Excavation Director – Iain Stuart (JCIS Consultants/ Artefact Heritage)
- Secondary Excavation Director – Jenny Winnett (Senior Heritage Consultant, Artefact Heritage)
- Supervising Archaeologist – Shona Lindsay (Heritage Consultant, Artefact Heritage)
- Excavation Director (Aboriginal) – Sandra Wallace (Principal, Artefact Heritage)

The Excavation Directors meet the requirements of the ARD, CHAR and Condition E18.

Excavation timing

It is anticipated that archaeological excavation and salvage would occur for up to two weeks following the commencement of monitoring of the removal of the existing terrace footings.