



FIGURE 34: SYDNEY FOOTBALL STADIUM (SOURCE: WWW.SYDNEYFC.COM.AU)



FIGURE 35: SYDNEY FOOTBALL STADIUM (SOURCE: COX ARCHITECTURE)

4.0 Aboriginal Archaeology

This section of the report has been prepared in accordance with the NSW OEH guidelines *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (Due Diligence Code of Practice).

The purpose of the *Due Diligence Code of Practice* is to ‘assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for consent in the form of an AHIP’.³³ This report has been prepared in accordance with the *Due Diligence Code of Practice*.

4.1. Environmental Context

This section summarises the environmental and archaeological background and context for the subject site, including previous work undertaken in proximity to the site. This summary serves to place the subject site and proposed development into an appropriate regional context, as well as provide a current archaeological predictive model for the region. This will assist to determine the nature and significance of any potential Aboriginal archaeology that may be present, as well as assist in the development of appropriate management mechanisms. Through a desktop assessment, a general understanding of any potential archaeology at the site can be formed, and appropriate measures developed, prior to any non-reversible impact to the site and Aboriginal archaeology and cultural values.

4.1.1. Geology and Soils

The subject site is located on the Tuggerah Soil Landscape (Figure 37), underlain by Quaternary marine sands, deposited by marine and Aeolian actions during the Holocene. The landscape of Tuggerah soils is characterized by gently undulating to rolling coastal dunefields, and extends from the northern edge of Moore Park, east to the coast, west to Surry Hills, and south to Botany Bay. Tuggerah soils are a major ecological unit of Sydney, forming what is often referred to as the Botany Sands or Botany Lowlands, located across the Botany Aquifer. Tuggerah soils tend to be relatively deep (>200cm) and generally consist of fine to medium grained quartz sand.³⁴ The northeast corner of Moore Park originally contained exposed Hawkesbury Sandstone formations, however these have since been removed by modern development and landscaping.

³³ DECCW 2010a: 2.

³⁴ Chapman, G.A. and Murphy, C. L., 1989, *Soil Landscapes of the Sydney 1:100 000 sheet*, Soil Conservation Service of NSW, Sydney

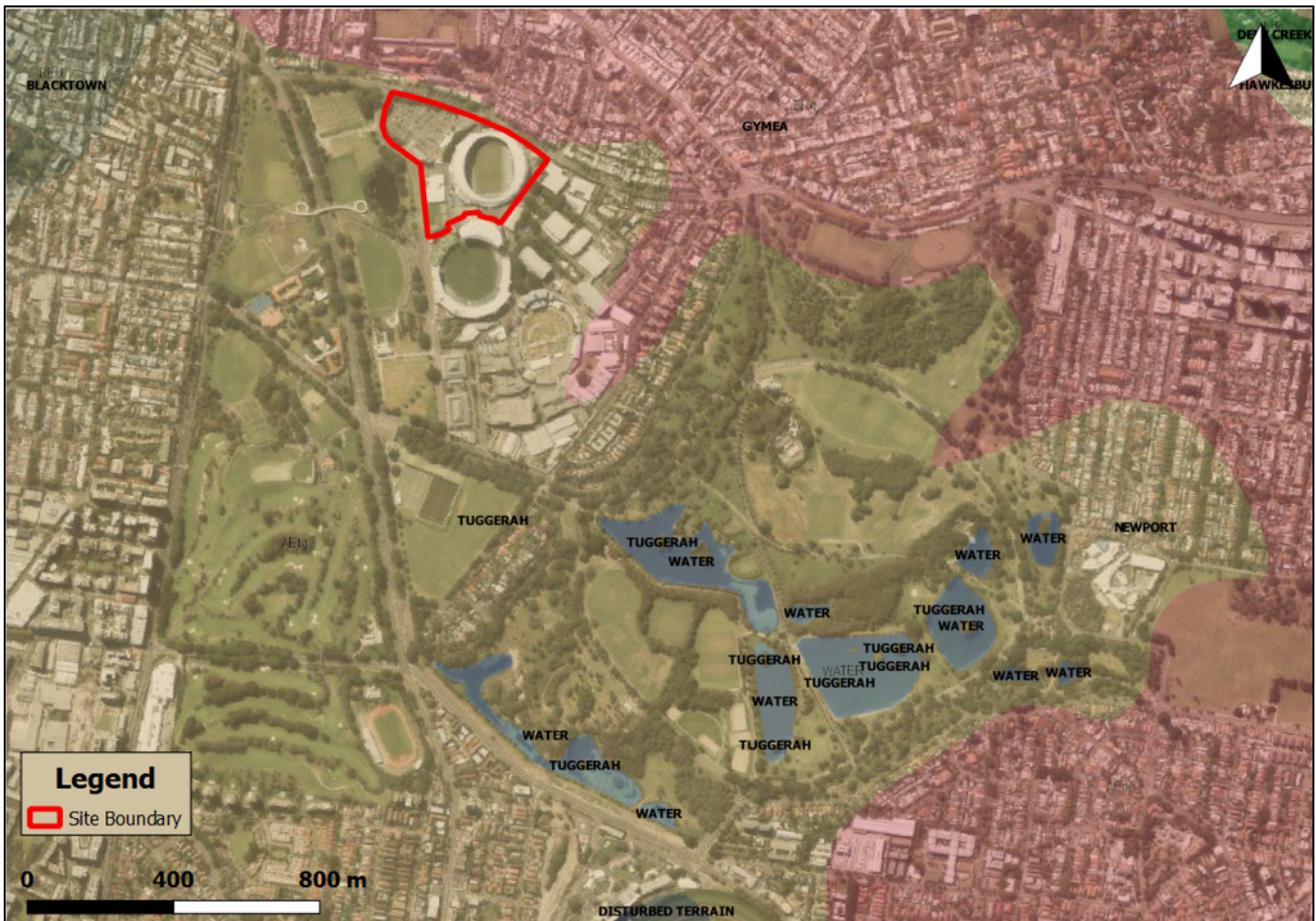


FIGURE 36: SOIL LANDSCAPES ACROSS SUBJECT SITE AND SURROUNDS. (SOURCE: GOOGLE EARTH PRO WITH CURIO ADDITIONS 2018)

4.1.2. Hydrology

The subject site is located to the northwest of Centennial Park, which while now landscaped and utilised as a public park, is part of a wider complex of natural wetlands in this area. Centennial Park is located on the Botany Aquifer, a large volume of underground water that is present in the sandy ground that connects as a series of ponds from the upper catchment in Centennial Park, to the Botany wetlands, before eventually flowing into Botany Bay. The aquifer effectively acts like a sandy sponge, retaining rainwater which trickles through the sand and sandstone layers which in turn act as natural filters for solid material, silt and the like. The Botany Wetlands are the largest freshwater wetlands in inner-metropolitan Sydney,³⁵ and would have been a very important freshwater and resource zone for the Gadigal people.

The subject site is located on the upstream end of the Botany Aquifer, and groundwater is understood to be c.3m below the existing playing field surface in the current SFS.

4.1.3. Landscape and Landforms

The landscape of the subject sites and surrounds tends to predominantly comprise of rounded sand dunes and expanses of gentle slopes with local depressions and exposed water table which is expressed

35

http://www.centennialparklands.com.au/about/planning/environmental_management/understanding_the_botany_aquifer

as ponds and marshes. However, the original topography of the extensive sand dune system has been greatly altered by modern development.

Natural ground levels within the subject site slope downwards to the south-west (with a difference of c.12m between the northeast corner and western boundary of the site), likely a reflection of its location on the rounded sand dune formations. However, the site has also been progressively subject to cutting and filling, particularly during the construction of the SFS in the last 1980s, and therefore the ground surface has been significantly altered from its original elevation.

4.1.4. Flora and Fauna

The vegetation of the wetland and sand dune landscape of the subject site and surrounds was originally characterized by eastern banksia scrub vegetation communities (such as *Banksia aemula* and *Xanthorrea resinosa*) on extensive wind-blown sand dunes, and freshwater sedge swamp communities on wetlands. The wetlands would have been more marginal to the subject site location (extending to the east), and would have also supported certain trees such as *Casaurina glauca* and *Eucalyptus robusta*.³⁶ These vegetation communities in turn would have supported a wide range of faunal species including kangaroos, wallabies, possums, bandicoots, fruit bats, and varieties of snakes, lizards and birds. Wetland areas would have supported freshwater species including waterbirds, eels, tortoises, mussels, shellfish, and numerous fish.

4.1.5. Modern Land Use and Disturbance

Historical disturbance and modern land use has the ability to impact the potential for Aboriginal archaeological deposits to remain in a location, depending on the nature and extent of the impacts, as well as the nature and depths of the natural soil profiles. As described in Section 3.0, the subject site has been subject to a number of different historical uses since 1788, including use as grazing land (Sydney Common), military use as a rifle range and Engineers Military Depot, the Sydney Sports Ground and finally, the SFS and associated structures.

However, the majority of these historical activities would have been relatively low impact in their ground disturbance, suggesting that the deeper natural sands could still be intact and capable of retaining an Aboriginal archaeological signature.

It is understood that the construction of the SFS in the late 1980s was undertaken predominantly via piling, therefore while the piles would have impacted potential Aboriginal archaeological deposits in the direct footprint of each pile, the majority of the natural soil/sand profiles surrounding the piles would still be intact and retain their potential for Aboriginal archaeology.

Geotechnical Investigation

Geotechnical investigation was undertaken at the subject site in 1985,³⁷ prior to construction of the SFS. The investigation boreholes identified the soil profiles across the site to generally consist of fill (up to 7m depth in some locations), over quaternary sands, over alluvial clays, residual clayey sands, and Hawkesbury Sandstone. The geotechnical report recommended that the proposed footprint for the SFS (i.e. the extant building) would require cutting on the northwest side, and filling to the southeast.

³⁶ Benson and Howell 1990: 25-26

³⁷ ARUP Geotechnics, 1985, *Sydney Sports Centre, Moore Park—Geotechnical Investigation Report*, prepared for Civic and Civic Pty Ltd

Future geotechnical works for the site (currently being prepared) would serve to better inform understanding of exact soil profiles within the SFS Redevelopment area, and therefore further inform the assessment of Aboriginal archaeological potential contained within.

4.1.6. Summary of Environmental Context for Aboriginal Occupation

The subject site is located along the edge of the Botany Wetlands and Tuggerah Sand Dunes system, which would have provided a rich resource zone for hunting, fishing, and gathering food, among other activities. The subject site would have been immediately along the fringe of the Centennial Park wetlands area, potentially providing land that was dry enough for short term camps in close proximity to the wetlands.

4.2. Aboriginal Archaeological Context

4.2.1. Archaeological Evidence of Aboriginal Occupation in Sydney Region

The diversity of the geology and landforms of the Sydney region landscape means there is a wide range of existing Aboriginal archaeological evidence and sites in existence all across the region. The presence of Aboriginal archaeological sites in Sydney were first noted by the First Fleet officers upon their arrival in Sydney, where Governor Phillip commented on the rock engravings in the sandstone around Sydney Cove, Botany Bay and Broken Bay.³⁸ Each geographical element of the Sydney landscape provides different conditions for the survival of physical reminders of the long term Aboriginal habitation and occupation of the Sydney region, including shell midden sites along the coast and sand dunes, rock engraving and art sites in sandstone shelters and surfaces, occupation sites in remnant soils containing Aboriginal stone tools, remains of hearth and cooking sites, remnant scarred and carved trees, and other archaeological evidence preserving the pre-1788 history of the Gadigal people.

Early researchers in Sydney's colonial history (late 19th Century) recorded and published a range of information regarding Aboriginal sites in the Sydney region, such as palaeontologist and museum director Robert Etheridge Jr, who (along with Thomas Whitelegge) documented an early archaeological excavation of Aboriginal stone tool sites along the coast, including the first identification of an artefact type that has come to be known as a 'bondi point', a type of small pointed stone tool that is common to the Sydney region.³⁹ Hundreds of Aboriginal archaeological sites have been excavated across Sydney, especially from the 1960s onwards.

Sand sheets are well known to have the potential for deeper stratified geomorphological profiles (e.g. an Aboriginal archaeological deposit preserved in the Parramatta Sand Sheet along the Parramatta River was dated to 30,735+- 407BP, one of the oldest dates for Aboriginal occupation in the Sydney region). Sand body systems including beach sand, dunes and estuarine sands are also often associated with Aboriginal burial sites.⁴⁰

Other Aboriginal archaeological sites in the south Sydney region have been scientifically dated, including Discovery Point in Tempe (a hearth dated to c.9376BP), the Prince of Wales Hospital site (a hearth dated to c.8400BP), and Captain Cooks Landing Site at Kurnell (dated to c.1330BP).⁴¹

³⁸ Attenbrow, V., 2010, *Sydney's Aboriginal Past: Investigating the archaeological and historical records*, 2nd ed., UNSW Press: Sydney: 5

³⁹ Attenbrow, V., 2010: 6

⁴⁰ Donlon, D., 1995, *Aboriginal Burials in the Sydney Basin*, report prepared for Australian Institute of Aboriginal and Torres Strait Islander Studies.

⁴¹ Attenbrow, V., 2010.

4.2.2. AHIMS Search

The OEH guidelines for Aboriginal cultural heritage management require a current extensive search of the Aboriginal Heritage Information Management System (AHIMS) database, managed by OEH (i.e. current within the last 12 months). The AHIMS search was undertaken on 28th March 2018, centred on the subject site with a buffer of 1km, and returned 18 results. The extensive AHIMS search is attached as an Appendix A to this report. No registered sites were located directly within the current subject site.

AHIMS search results always require a certain amount of scrutiny in order to acknowledge and accommodate for things such as inconsistencies in the coordinates (differing datums between years of recording), the existence of and impact to registered sites (impact to a registered site technically requires the submission of a Heritage Impact Recording form to be submitted to the OEH, however these forms are not always submitted), and other database related difficulties. It should also be noted that AHIMS database is a record of archaeological work that has been undertaken, and registered with OEH in the region. The AHIMS database is therefore a reflection of recorded archaeological work, the need for which has likely been predominantly triggered by development, and not a representation of the actual archaeological potential of the search area. AHIMS searches should be used as a starting point for further research and not as a definitive, final set of data.

Therefore, the above AHIMS search result has been synthesized as best possible within the scope of this current report to determine the most likely nature and location of previously registered sites in proximity to the current subject site.

Summary descriptions of Aboriginal site features as identified by OEH, and as relevant to this report are presented in Table 1. The 18 results from the current AHIMS search included five different site types, some in combination with each other. These sites are summarised in Table 2. The general location of each of these registered sites in relation to the study area is depicted in Figure 38. The most common site types registered in the area are Potential Archaeological Deposit (PAD) sites, followed by artefact sites.

TABLE 1: ABORIGINAL SITE FEATURES REFERRED TO IN THIS REPORT.

Site Feature	Description/Definition by OEH
Art Site	Art is located in shelters, overhangs and across rock formations. Techniques include painting, drawing, scratching, carving, engraving, pitting, conjoining, abrading and the use of a range of binding agents and the use of natural pigments obtained from clays, charcoal and plants.
Artefact Site (Open Camp Sites/artefact scatters/isolated finds)	Artefact sites consist of objects such as stone tools, and associated flaked material, spears, manuports, grindstones, discarded stone flakes, modified glass or shell demonstrating physical evidence of use of the area by Aboriginal people. Registered artefact sites can range from isolated finds, to large extensive open camp sites and artefact scatters. Artefacts can be located either on the ground surface or in a subsurface archaeological context.
Potential Archaeological Deposit (PAD)	An area where Aboriginal cultural material such as stone artefacts, hearths, middens etc, may be present in a subsurface capacity.

Site Feature	Description/Definition by OEH
	Evidence for Aboriginal cultural material may not be present on the ground surface, but still may be present at a location.
Shell Midden	<p>A shell midden site is an accumulation or deposit of shellfish resulting from Aboriginal gathering and consumption of shellfish from marine, estuarine or freshwater environments. A shell midden site may be found in association with other objects like stone tools, faunal remains such as fish or mammal bones, charcoal, fireplaces/hearths, and occasionally burials.</p> <p>Shell midden sites are often located on elevated, dry ground close to the environment from which the shellfish were foraged, and where fresh water resources are available. Shell middens may vary greatly in size and components.</p>

TABLE 2: AHIMS SITES IN VICINITY OF STUDY AREA

Site Type	Number of Sites	Percentage of Sites (%)
Art Site (Engraving)	2	11%
Artefact	5	27%
Artefact and Potential Archaeological Deposit (PAD)	1	6%
Artefact and Shell Midden	1	6%
Habitation Structure and Potential Archaeological Deposit (PAD)	1	6%
Potential Archaeological Deposit (PAD)	7	38%
Shelter with Art	1	6%
TOTAL	18	100

The distribution of the AHIMS sites (i.e. with the majority located within the Central Sydney CBD) is more a reflection of a higher density of archaeological survey and excavation work due to urban development, than an indication of the occupation patterns of Aboriginal people. The closest registered sites to the subject site include Moore Park AS1 (#45-6-1355; Artefact site); Centennial Park (#45-6-0647; Rock Engraving Site); Doncaster Ave PAD (#45-6-3245; PAD site); and RSY 1 (#45-6-3246; Artefact site). It is presumed that the Doncaster Ave PAD and the RSY 1 artefact site are related (in relation to the Randwick Stabling Yards works, see Section 4.2.3 below).

Of the 18 registered sites, only one has been updated on the AHIMS register as destroyed, however it is most likely that other sites have also been subject to impact, without the appropriate update in the AHIMS database. For example, it is known that the Centennial Park engraving site (#45-6-0647), which

was once located on a slab of sandstone just outside of Centennial Park has been destroyed by roadworks.⁴²

It is possible that other site results from this AHIMS search have already been subject to harm or have been destroyed under AHIPs or through authorized site works, and have not been updated in AHIMS. However, as none of these sites are located within the current subject site, this is not of a direct concern for this project, and the location of all sites, regardless of their current status, will inform the Aboriginal archaeological potential assessment for the current subject site.

Assessment of AHIMS Search

The AHIMS results, combined with the landforms and geology of the subject site suggest that the most likely site types to be present within the study area and surrounds would be limited to stone artefact sites, PAD sites, as the required geology for other site types such as art sites, grinding grooves and scarred trees etc is not present. Where sandstone outcroppings occur in the area, there is also the potential for engraved Aboriginal art sites.

The site 'Moore Park AS1' (AHIMS Site #45-6-3155) was located within the paved carpark area at the Moore Park Tennis Centre, and was subject to salvage excavation (and subsequently destroyed) following approved archaeological test excavation of the site. The presence of sites such as this indicates that despite historical disturbance to surface deposits, Aboriginal archaeological deposits may still be present.

The 'Doncaster Ave PAD' site was originally registered as a Potential Aboriginal Deposit due to the presence of a remnant sand dune that was identified and excavated at site 'RSY1', and was presumed to extend into the 'Doncaster Ave PAD' site area. The stone artefact site identified at 'RSY 1' was located at the top of an intact sand dune, below approximately 1m of historical fill.

All these sites demonstrate the potential for intact Aboriginal archaeological sites to be present in the area, particularly beneath layers of historical fill.

⁴² Irish, I. and Goward, T. 2014, 'Moore Park Engraving', Available from: <http://www.sydneybarani.com.au/sites/moore-park-engraving/>

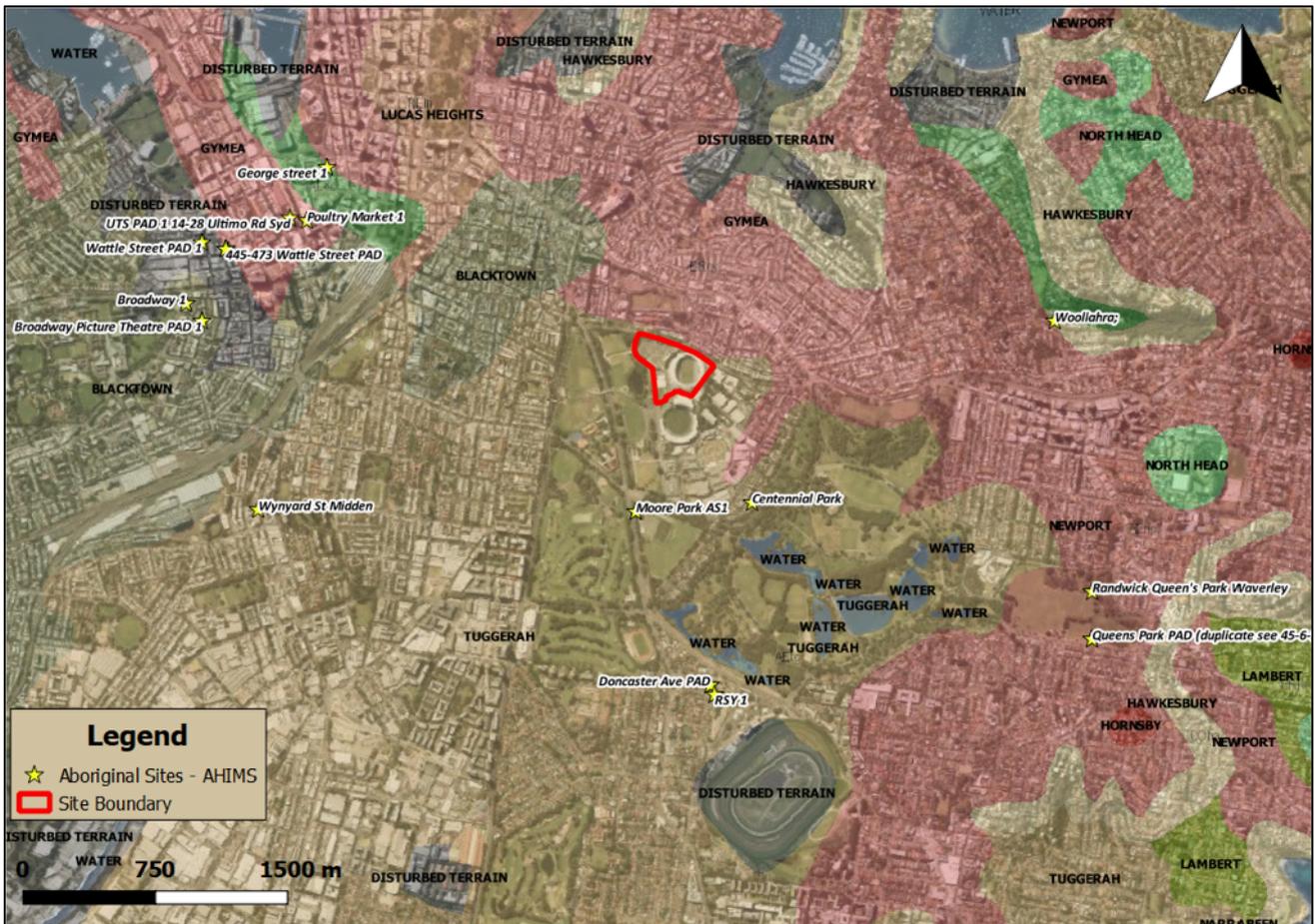


FIGURE 37: AHIMS SEARCH RESULTS SITES WITH SOIL LANDSCAPES. (SOURCE: GOOGLE EARTH PRO WITH CURIO ADDITIONS 2018)

4.2.3. Relevant Local Aboriginal Archaeological Work and Reports

Review of relevant previous archaeological work is a highly informative and necessary step in identifying the likely nature of the potential archaeology at a site. The investigation of previous work undertaken in the region, on similar sites, and on similar landscape or landforms, can inform our understanding of a site by providing a proxy against which a newly investigated site can be measured (albeit with caution). That is to say, understanding the archaeological record at a general location can provide us with an indication of the nature and level of potential of archaeology that may be present at a site, prior to any subsurface investigation. As archaeology is by its very nature, a destructive discipline, it is important to acquire as much information and understanding of a site as possible prior to undertaking fieldwork (as once evidence has been excavated, its context is effectively destroyed), and also to avoid any unnecessary fieldwork at a site.

Research into archaeological investigations undertaken in proximity to the current subject site indicate the types of archaeology that may survive in the area, and the environment that has allowed it to survive.

*Moore Park Tennis Centre (Artefact 2014)*⁴³

In 2014, an Aboriginal campsite was uncovered beneath the Moore Park Tennis Centre carpark, as a result of archaeological investigative works ahead of the construction of the Sydney Light Rail. The excavation uncovered natural sands below nineteenth and 20th C fill varying in depth between 0.5m to

⁴³ Artefact 2014, *CSELR Early Works—Moore Park Tennis Court—Aboriginal Heritage Test Excavation Report*

over 2m in depth. The top of the original sand dune had been removed previously due to historical disturbance, and some of the natural soil sand profile had undergone mixing with the fill layer, however intact sands below retained a small number of Aboriginal stone artefacts. The test excavation was undertaken within a buried sand body at the site and yielded five Aboriginal stone artefacts (made from silcrete and mudstone). The stone material that these artefacts were made from is not found in the local area.⁴⁴

The site was registered with AHIMS as #45-6-3155 (Moore Park AS1), and was subsequently subject to salvage excavation by Artefact in 2014, however the post excavation report was not publically available at the time of writing.

*CSELR ACHAR and ATR (GML 2015)*⁴⁵

In 2015, GML prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Aboriginal Archaeological Technical Report (ATR) for the Sydney Light Rail. GML established precincts along the path of the light rail, one of which was the Moore Park Precinct (Figure 39).

The ACHAR concluded that upper stratigraphic layers across the precinct were likely to have been subject to some level of historical disturbance, but this was likely to be highly variable, and mostly retain potential for deeper subsurface deposits. It also concluded that:

*As a consequence of non-focused long-term low-density Aboriginal occupation of the entire dune, moderate historic period impacts and limited archaeological investigations in the surrounding area, no specific Aboriginal archaeological patterning can be determined for the Moore Park precinct. However, deeper intact soil profiles may have potential for Aboriginal archaeological evidence to be present, such as stone objects and/or hearths.*⁴⁶

Therefore, the whole of the Moore Park precinct was assigned to have a high level of Aboriginal archaeological potential for dispersed low frequency sites, and was identified as 'Moore Park PAD 1' (although this PAD was not registered with AHIMS).

In addition, Registered Aboriginal Parties (RAPs) for the CSELR project indicated that the route of the light rail could have social significance if potential archaeological deposits were found to contain Aboriginal cultural deposits.

⁴⁴ Irish, P., and Goward, T., 2015, 'Moore Park Campsite', on *Barani—Sydney's Aboriginal History*, Accessed on 2 April 2018 from <http://www.sydneybarani.com.au/sites/moore-park-campsite/>

⁴⁵ GML Heritage, 2015, *CBD and South East Light Rail—Aboriginal Cultural Heritage Assessment Report and Aboriginal Technical Report*, prepared for KMH Environmental

⁴⁶ GML 2015: 52

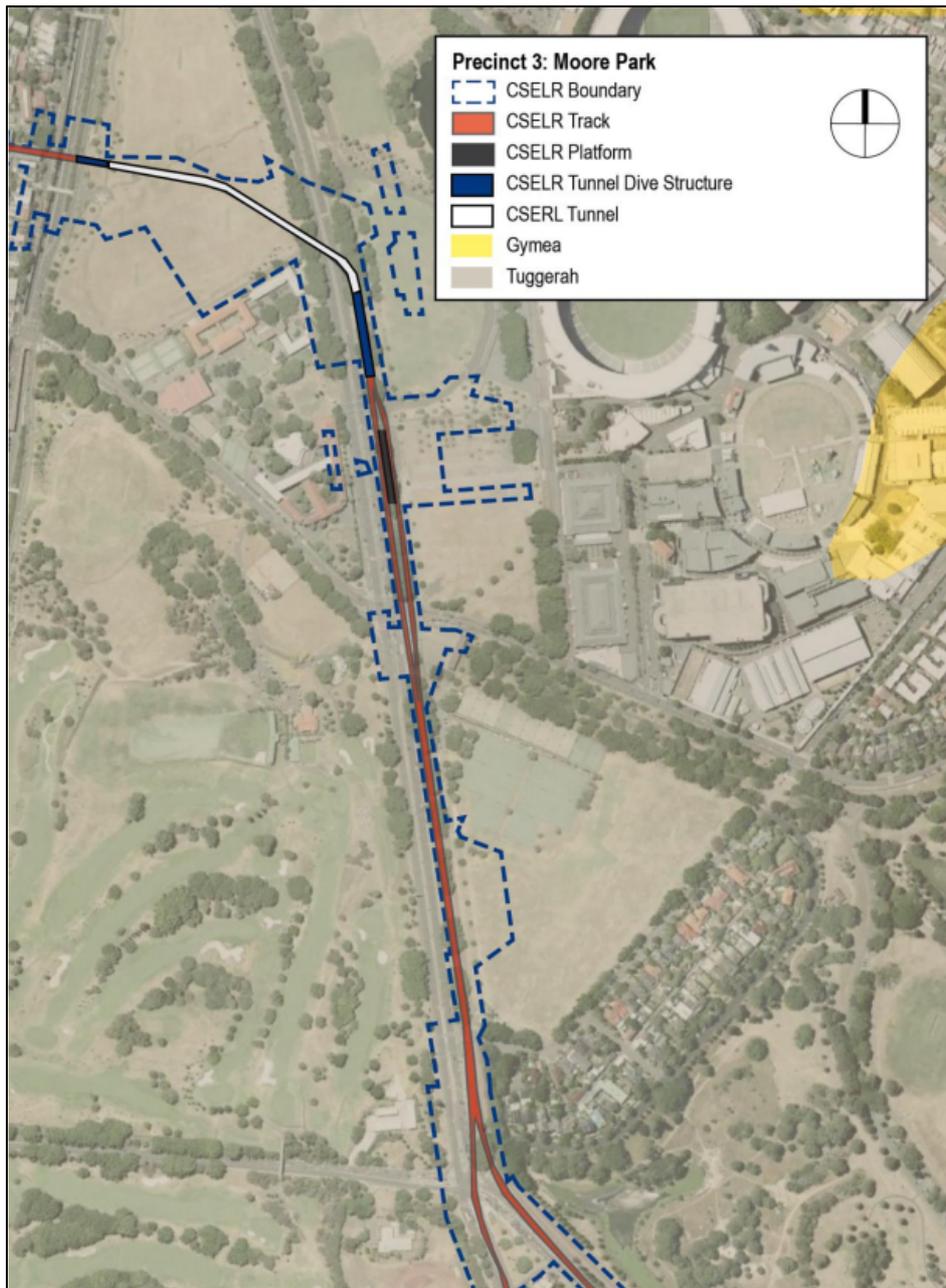


FIGURE 38: GML 2015 LIGHT RAIL MOORE PARK PRECINCT ASSESSMENT AREA, SCG AND PART OF SFS VISIBLE IN TOP LEFT OF IMAGE (SOURCE: GML 2015: FIGURE 5.1], P.45)

*Moore Park Tunnel (GML 2015)*⁴⁷

In 2015, GML prepared an Aboriginal Archaeological Research Design for the archaeological test and salvage excavation of the site proposed for the installation of the Moore Park Tunnel, for the Sydney Light Rail. Due to the nature of the deep sand profiles, presence of the water table, and safety concerns, the methodology proposed for test and salvage excavation included a technique not previously used before in Australia, using ‘push tubes’ with the use of a drill rig (using vibration to push

⁴⁷ GML Heritage 2015, *CBD and South East Light Rail—Aboriginal Cultural Heritage Assessment Report and Aboriginal Technical Report, Addendum Report—Archaeological Research Design for Moore Park*, prepared for Acciona Infrastructure Australia

a 300mm diameter metal tube into the subsurface deposit to the required depth to sample the soil in each location).

Although the construction of the Moore Park Tunnel is currently in progress, the results of the proposed archaeological excavation is currently unknown, with no post-excavation reports available detailing the archaeological work undertaken in relation to the CSELR, presumably due to confidentiality conditions. The results of this proposed excavation should be sought (once available) and discussed further in the project ACHAR/ATR and Stage 2 DA archaeological reports.

Randwick Stabling Yard (GML 2016 and 2017)

In early 2016, archaeological excavation by GML Heritage at the future site of the CSELR Randwick Stabling Yard site uncovered 22,000 Aboriginal artefacts of an unknown stone material across a site area of approximately 200m². The artefacts were generally identified between 40-60cm below the ground surface.⁴⁸ The site has been registered with AHIMS as #45-6-3246 (RSY 1). As post excavation reporting of the results of this excavation has not yet been completed, the full results of the excavation are not able to be presented or discussed at this time. However, details from relevant press releases between 2016 and 2018 have indicated that the site may be of great significance to the Aboriginal community, as well as suggesting a level of controversy and inconsistency of results to date, which remain under investigation.

When the site was first subject to excavation, it was reported that the excavation had uncovered an Aboriginal stone tool manufacture site, using a stone that was not local to the surrounding area, with possible source locations suggested by the involved Aboriginal parties to be the Nepean, Upper Hunter or coastal areas of the Illawarra. A Plan of Management was developed in conjunction with the four Registered Aboriginal Parties (RAPs) for the Light Rail project in order to help identify the composition and origin of the artefacts, as well as to develop appropriate mechanisms for the protection and storage of the cultural materials. It was acknowledged that additional research would need to be undertaken to further identify and analyse the stone objects and their origin.⁴⁹

In February 2018, Sydney Light Rail issued a new press release stating that chemical analysis of the stone objects undertaken by GML Heritage since the excavation in 2016, had determined that the stones were made from a type of flint likely originating from the banks of the Thames River in London, UK.⁵⁰ GML used the technique of pXRF⁵¹ to find that the elemental composition of the stone objects matched that of Thames River valley flint, concluding that the flint was transported to Sydney as ballast in early colonial ships, where it was then dumped, found by Aboriginal people, and used to create stone tools.⁵² GML also worked together with Sydney Living Museums to discover that among the Aboriginal artefacts excavated in the 1980s and 1990s from the first Government House site, were also several

⁴⁸ Sydney Light Rail, 2016, 'Aboriginal artefacts at Randwick stabling yard', published 1st April 2016, Accessed 2nd April 2018 from: <http://sydneylightrail.transport.nsw.gov.au/news/aboriginal-artefacts-randwick-stabling-yard-%E2%80%93-your-questions-answered>

⁴⁹ *ibid*

⁵⁰ Sydney Light Rail, 2018, 'Aboriginal Heritage Find Unearths Evidence of Early Innovation', Published 13 April 2018, Accessed 2 April from: <http://sydneylightrail.transport.nsw.gov.au/news/aboriginal-heritage-find-unearths-evidence-early-innovation>

⁵¹ Portable X-Ray Fluorescence (pXRF) is a scientific analytical technique used to determine the elemental composition of a sample, in this case, the elemental composition of the stone.

⁵² GML Heritage 2018, 'Uncovering new links between Sydney's Aboriginal People and Early Colonial Settlers', Accessed 2 April 2018 from: <https://www.gml.com.au/uncovering-new-links-sydneys-aboriginal-people-early-colonial-settlers/>

tools manufactured of flint that were chemically identical to the Randwick stone, and Thames River Valley flint.

Most recently, in an article published by BBC News on the 31st March 2018,⁵³ has suggested that while over 30,000 pieces of stone were initially excavated, it is now believed that only 100-200 are culturally significant Aboriginal stone objects. The article also makes a passing reference to other stone materials being present at the site other than those made from flint, however to date no other available source has provided further information on the nature of the Aboriginal artefactual assemblage other than the suspected.

While the final results and conclusions regarding the nature, source and status of the Aboriginal cultural materials from the Randwick Stabling site archaeological excavation remain inconclusive and slightly uncertain at present, the presence of this site may remain salient to the current SFS redevelopment project.

4.2.4. Summary of Aboriginal Archaeological Context

Review of the Aboriginal archaeological context of the subject site and surrounds has determined that Aboriginal archaeological sites have the potential to survive in the area, particularly within deeper sandy soil profiles that have been subject to lower levels of historical disturbance

Location of sites such as the Randwick Stabling Yard and Moore Park Tennis Centre, demonstrate the potential for Aboriginal artefacts and sites to be present, regardless of levels of historical disturbance, due to the deep nature of soil profiles, with intact deposits existing beneath historical fill and disturbance.

4.3. Aboriginal Archaeological Potential and Significance

The following assessment of Aboriginal archaeological potential within the subject site is based on a combination of the environmental assessment, including original landform, possible levels of disturbance across the site, and original resource zones that would have been favourable to, or sustained local Aboriginal populations of the area prior to European settlement, in combination with known previous archaeological research in the vicinity of the subject site, or on comparable sites in Sydney. Consideration of these above factors determines the likelihood for Aboriginal archaeology, artefacts or physical objects to remain at the subject site in a subsurface capacity.

In general, this desktop Aboriginal archaeological assessment has determined that the subject site has the potential for Aboriginal archaeological deposits to be present within deeper natural soil profiles that exist beneath the layers of historical fill, as well as potentially in a disturbed context within the layers of fill due to historical disturbance. While limited Aboriginal archaeological excavation has been undertaken in the vicinity of the SFS Redevelopment site, the archaeological information available clearly indicates that Aboriginal people occupied the region, and there is the potential for Aboriginal sites in the area, particularly in the form of subsurface occupation sites with deposits of Aboriginal stone artefacts.

⁵³ BBC News, 2018, 'How Aboriginal Australians forged tools from early British ships', published 31 March 2018, Accessed 5 April 2018 from <http://www.bbc.com/news/world-australia-43551015>

4.4. Summary of Aboriginal Archaeology

The purpose of an Aboriginal Heritage Due Diligence Assessment is to identify whether Aboriginal objects are likely to be present at a site, and if so, if they are likely to be harmed through a proposed activity. Following consideration of the environmental and archaeological context for the subject site, it is assessed that the SFS Redevelopment site has the potential for the Aboriginal objects (both intact and within disturbed contexts). Therefore, any ground disturbing activity will have the potential to impact Aboriginal objects.

With relation to the Stage 1 Concept Proposal/Early Works for the site, no disturbance of the ground surface will be undertaken (and therefore no Aboriginal archaeological deposits would be disturbed). However, this Due Diligence Assessment provides recommendations with a view to Stage 2 detailed design and construction impacts of the SFS redevelopment.

Therefore, this Due Diligence Assessment recommends further investigation in the form of Aboriginal community consultation (in accordance with OEH guidelines), the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Aboriginal Archaeological Technical Report (ATR), and the development of a future program of Aboriginal archaeological test excavation, to be developed and undertaken in conjunction with proposed development ground impact locations once known.

As the project will be undertaken as SSD, the requirement for an Aboriginal Heritage Impact Permit (AHIP) in accordance with Section 90 of the NSW National Parks and Wildlife Act 1974 is removed, however the due process including compliance with OEH statutory guidelines, Aboriginal community consultation etc (as described in Section 2.0) will still apply to the project as a condition of the project consent.

An Aboriginal Cultural Heritage Assessment process for the site has commenced, including Aboriginal community consultation process in accordance with OEH Guidelines, in order to provide detailed guidance and recommendations going forward for the Stage 2 detailed design and development of the site. The Aboriginal Cultural Heritage process to date, including description of ongoing process regarding Aboriginal Cultural Heritage assessment and significance, is detailed in Section 6.0 of the Stage 1 Concept Plan Heritage Impact Statement report.⁵⁴ for the project.

⁵⁴ Curio Projects, 2018, *Heritage Impact Statement for Sydney Football Stadium, Stage 1 Concept Design SSDA*, prepared for Infrastructure NSW.

5.0 Site Description

The SFS Redevelopment site is located in the northern part of the Sydney Cricket and Sports Ground Trust land, to the north of the Sydney Cricket Ground, and bounded in the north by Moore Park Road and Paddington residential development, in the west by Driver Ave and Moore Park, and in the east by Fox Studios/Entertainment Quarter site.

The site currently consists of the Sydney Football Stadium, the Sheridan Centre Building, the Sydney Roosters and Waratahs Building, Cricket NSW building, Indoor Cricket Wickets and the Gold Members Carpark (MP1 Carpark). The Australian Rugby Development Centre (ARDC) and Rugby League Central buildings are located respectively along the north and south of the MP1 Carpark, however these buildings will be retained and do not form part of the redevelopment site. A Moreton Bay Fig (*Ficus rubiginosa*) is located on Moore Park Road within the site, which will also be retained through the development.

The site features approximately a 12m difference in level between the eastern corner of the site long Moore Park Road, to the forecourt from Driver Ave. The existing SFS is a distinctive stadium, designed by Philip Cox, Richardson and Taylor, with a round footprint and a saddle shaped roof, which is visible from a number of key approaches to the stadium.

The stadium is not currently accessible day-to-day outside of events and games, and is surrounded by tall black palisade fencing. The Stadium Club, utilised by the Sydney Cricket and Sports Ground members is located within the base of the stadium, and consists of fitness facilities and member services. There are currently two entrances to the stadium, the main entrance from Driver Ave, and a secondary entrance from Moore Park Road.



FIGURE 39: VIEW NORTHEAST FROM MOORE PARK, ACROSS DRIVER AVE TO SFS (SOURCE: CLIENT 2018)



FIGURE 40: SYDNEY FOOTBALL STADIUM FIELD (SOURCE: CLIENT 2018)

6.0 Potential Historical Archaeological Resources

6.1. Sydney Cricket and Sports Ground CMP

As introduced in Section 2.7, the Sydney Cricket and Sports Ground draft CMP (GML 2013b) includes the whole of the SFS Redevelopment subject site, and of reference to this AA, includes a historical archaeological assessment.

The Archaeological Assessment as presented in the CMP divides the overall Sydney Cricket and Sports Ground site into two distinctive sports grounds: the Sydney Football Stadium and surrounds in the northern part of the site, and the Sydney Cricket Ground Oval and surrounds in the south. Section 1.3.1 of the draft CMP Archaeological Assessment (Appendix C of the draft CMP) relates to the 'northern part of the site' and states that:

*Given the intensive development activity in the footprint and immediate vicinity of the Sydney Football Stadium, there is generally very low potential for archaeological relics to survive there. However, there is a relatively high potential for relics to survive, a short distance away, that belong to Busby's Bore and the former Sydney Sports Ground...*⁵⁵

In relation to Busby's Bore, the archaeological assessment notes that previous excavation works have demonstrated the potential for the survival of the bore and associated vertical shafts in the general area. However the report also notes that the precise location of the tunnel and some of the shafts of Busby's Bore is not known, as previous investigations have shown that the surveyed/recorded locations do not necessarily perfectly correlate with true locations of the shafts and the tunnel itself.

The draft CMP archaeological assessment identified the following potential with regards to Busby's Bore within the SFS site:

- *Shafts—vertical masonry and rock cut shafts; entrance at an approximate depth of 600 to 2000mm; capped in a variety of ways including sandstone capping, a tin plate on wooden supports, wooden planks or concrete cap; roughly circular; diameter of approximately 2400mm;*
- *The bore—deposits reflecting open cut trench and fill; sandstone masonry; slab roof...*⁵⁶

The draft CMP also discussed the historical archaeological potential with regards to the former Sydney Sports Ground and potential associated relics. The draft CMP states that:

The Sydney Sports Ground was located to the northwest of the present Sydney Football Stadium, under the area now dedicated to the Gold Members Car Park. The Sydney Sports Ground was a large ground that included two sizable stands on the northwest, and a broad hill for spectators. It was demolished and partly graded in 1986–87 which will have disturbed or destroyed many of the relics that might relate to this facility. Should any of relics survive in situ they would include:

- *truncated deposits reflecting the location of the former hill, running track, playing surface etc;*

⁵⁵ GML 2013b, Appendix C—Archaeological Assessment: 3

⁵⁶ GML 2013b: 3

- remnant wall footings, basements etc relating to the former stands; and
- isolated relics such as pits, post holes, artefact scatters etc...⁵⁷

The draft CMP AA concludes that there is generally low potential for archaeological remains to survive within the SCG site, with the exception of Busby's Bore. The draft CMP AA did not discuss the archaeological potential associated with the former Engineers Depot/Military Land located approximately in the location of the current SFS.

6.2. Historical Archaeological Investigations/Comparative Analysis

The following sub-section provides a brief summary of the comparative analysis undertaken by Curio Projects of archaeological investigations/archaeological assessments completed at/undertaken for sites in close vicinity to the study area, or at sites within the local area that have been found to have a similar archaeological profile or conditions as those predicted for the current study area, or directly related to the current study area. This comparative analysis and review of other historical archaeological investigations provides invaluable information in terms of determining the potential for archaeological resources to exist and the potential significance of such a resource, if found.

*High Cross Park – CBD & South East Light Rail Works ABC NEWS*⁵⁸

During the construction works for the CBD and South East Light Rail at High Cross Park in Randwick, evidence of the zig-zag anti-aircraft trenches were exposed and archaeologically recorded during the excavation program⁵⁹, as shown in Figures 42 and Figures 43 below.



FIGURE 41: A ZIG-ZAG ANTI-AIRCRAFT TRENCH IN HIGH CROSS PARK, RANDWICK. 1943 (SOURCE:ABC NEWS, 12.10.2017).

⁵⁷ *ibid*: 3

⁵⁸ <http://www.abc.net.au/news/2017-10-12/curious-sydney-air-raid-shelters-wwii/9013568>

⁵⁹ <http://www.abc.net.au/news/2017-10-12/curious-sydney-air-raid-shelters-wwii/9013568>



FIGURE 42: ARCHAEOLOGICAL EVIDENCE OF THE ZIG-ZAG ANTI-AIRCRAFT TRENCH UNCOVERED DURING LIGHT RAIL WORKS IN RANDWICK
(SOURCE: ABC NEWS. 12.10.2017)

*Moore Park Showground Archaeological Assessment (GML 1996)*⁶⁰

Visual and geotechnical inspection of part of Moore Park showground was undertaken as part of archaeological assessment of the Showground site. Geotechnical investigation confirmed the presence of variable fill and sandy soils over most of the site, underlain by sandstone, which tends to slope from north to south, and east to west.

*Busby's Bore Investigations, Moore Park Showground (GML 2001)*⁶¹

GML investigated the location of nine shafts of Busby's Bore between 1995 to 2000 within the former Moore Park Showground site, with an additional shaft (Shaft 15) located and investigated in 2005 (just to the east of the SFS site, next easterly shaft from Shaft 9 within the SFS Redevelopment site).

Investigation of all shafts demonstrated that the actual location of features in relation to surveyed locations is variable. All investigated shafts so far uncovered were between 60cm and 2m below ground surface, covered with either sandstone capping, tin plate on wooden supports, wooden planks, or a concrete slab. Work undertaken by GML within the Fox Studios (Entertainment Quarter) site, included archaeological excavation in the vicinity of the shafts, to investigate the positioning, and resulted in the identification and exposure of Shafts 16, 17, 19, 20, 21 and 22.

⁶⁰ GML 1996, *Moore Park Showground Fox Studios Development, Archaeological Assessment*, prepared for Fox Studios, Australia, and Heritage Council of NSW

⁶¹ GML 2001, *Busby's Bore, Moore Park Showground—Archaeological Excavation Report*

*Sheridan Building, Busby's Bore Shaft 11 Investigation (GML 2007)*⁶²

In 2007, GML prepared a report to accompany a Section 57(2) Exemption application to the NSW Heritage Division for exploratory archaeological investigation to attempt to locate Shaft 11 of Busby's Bore, relating to the construction of the Sheridan Building within the SFS site.

However, the Exemption was never issued, an addendum was supplied to the NSW Heritage Division in June 2007, providing documentary evidence that the path of the Bore was further north than originally thought, and therefore would not be impacted on by the proposed piling for the Sheridan Building.⁶³ In addition, the addendum discusses the fact that geotechnical testing for the Sheridan Building revealed the presence of fill material of depths up to 3.8m, with sandstone bedrock occurring at depths between 13.5-16.6m, while the 1892 plan of the Bore suggested that the top of the tunnel was c.9.7m below ground level. Therefore, it was concluded that, allowing for increase in the depth to the top of the Bore due to filling of the site during construction of the SFS, that the piling required for the development (8-9m in depth), would not be deep enough to impact the Bore, even if it were to be located within the Sheridan Building site.

*Gold Member's Carpark Investigative Augering (GML 2010)*⁶⁴

Investigative augering was undertaken in the south of the Gold Member's Carpark in 2010 in order to test for the presence or absence of fabric relating to Busby's Bore. The investigation included 14 boreholes drilled within the first 6.1m below ground level. No evidence of features or deposits associated with Busby's Bore were encountered through this investigation.

MA Nobel & Bradman Stands Redevelopment Works, Archaeological Monitoring (GML 2012)

In 2012, GML undertook a program of archaeological monitoring and recording in conjunction with the redevelopment works for the MA Nobel and Bradman Stands. The archaeological works aimed to investigate various stages of development of former Sydney Cricket Ground Oval, and identified remains of the 1897 Northern Pavilion, a long sandstone wall, brick pier pad (probably associated with the First Member's Pavilion) and other 19th C artefacts. The 2012 investigation did not recover any evidence of Busby's Bore.

6.3. Discussion of known Busby's Bore Shafts

As discussed in Section 3.3, the convict hand excavation of Busby's Bore, mostly through solid sandstone with minimal direct supervision by Busby himself, had the end result of a relatively erratic and inconsistent tunnel that snakes its way from Centennial Park to Hyde Park. Numerous archaeological investigations in past years along the course of the tunnel have determined that shaft locations as mapped do not usually correlate exactly with the precise locale of shafts when ground truthed.

Therefore, while it is known that at least five shafts exist in close proximity to, or within the SFS Redevelopment site, there remains some discrepancy as to exactly where some of these shafts are located. In addition, there remains some inconsistency between the numbering of the shafts between different plans and reports, and therefore confusion regarding exactly which shafts are being referred to in relevant reports. This section seeks to confirm the numbering of the shafts, and provide a

⁶² GML 2007, *Sydney Cricket Ground, Busby's Bore, Application for Exemption*, prepared for Robertson and Marks Architects

⁶³ Email from Tim Adams (GML) to Siobhan Lavelle (NSW Heritage Division), dated 21 June, 2007.

⁶⁴ Detailed in GML 2013b: Appendix C, p.1. References a letter to the NSW Heritage Division dated 22 September 2010.

summary through assessment of the available literature of which shaft locations are known and unknown, with reference to the SFS Redevelopment site.

6.3.1. Numbering of the Shafts

The first depicted survey of Busby's Bore was a lithograph, attached to the 1855 City Commissioners Survey Report. This survey shows the approximate route of the bore, with shafts numbered 1 to 13 from the Lachlan Swamps to Driver Avenue/Moore Park Road, plus four 'intervening shafts', and an additional 8 shafts, numbered 1 to 8 from Hyde Park to Driver Avenue (Figure 44). The early survey shows 'Shaft 8' of the western eight shafts, as being located at the intersection between Driver Avenue and Moore Park Road.

Based on this early survey, the shafts (as numbered in 1855) that would be located in proximity to the SFS Redevelopment site are Shafts 9–13, and 'Intervening Shaft 4'. Based on the information presented in the lithograph, the only 'original' plan of Busby's Bore was produced in 1892, adopting the same numbering as the 1855 lithograph, locating the shafts and path of the Bore generally with reference to the street layout (although inaccurate) (Figure 45).

In the 1990s, heritage consultant GML began to undertake work within the former Sydney Showground site, related to its redevelopment to Fox Studios (now known as the Entertainment Quarter). At this time, the Shafts within the Showground site appear to have begun to be referred to with new numbering, presumably in an effort to eliminate any confusion surrounding the re-use of the numbers 1-8 for both the western, and eastern portions of the Bore in the 1855 and 1892 plans (Figure 46).

Analysis of the GML reports, the 1892 plan, and the general trajectory of the Bore as replicated on each representation of the route, has determined that GML 'Shaft 16' is consistent with 'Intervening Shaft No. 3' on the 1892 Plan. Presumably, this numbering system was reached by taking the first eight shafts from Hyde Park as originally numbered, and then continuing the sequential count continuing from Shaft 8 at the intersection of Driver Ave and Moore Park Road.

For the purposes of clarity, this report will refer to the shafts with their original numbering (i.e. Shafts 9, 10, Intervening Shaft 4, 11, 12 and 13), as no shafts of interest to this project are those with replicated numbering.

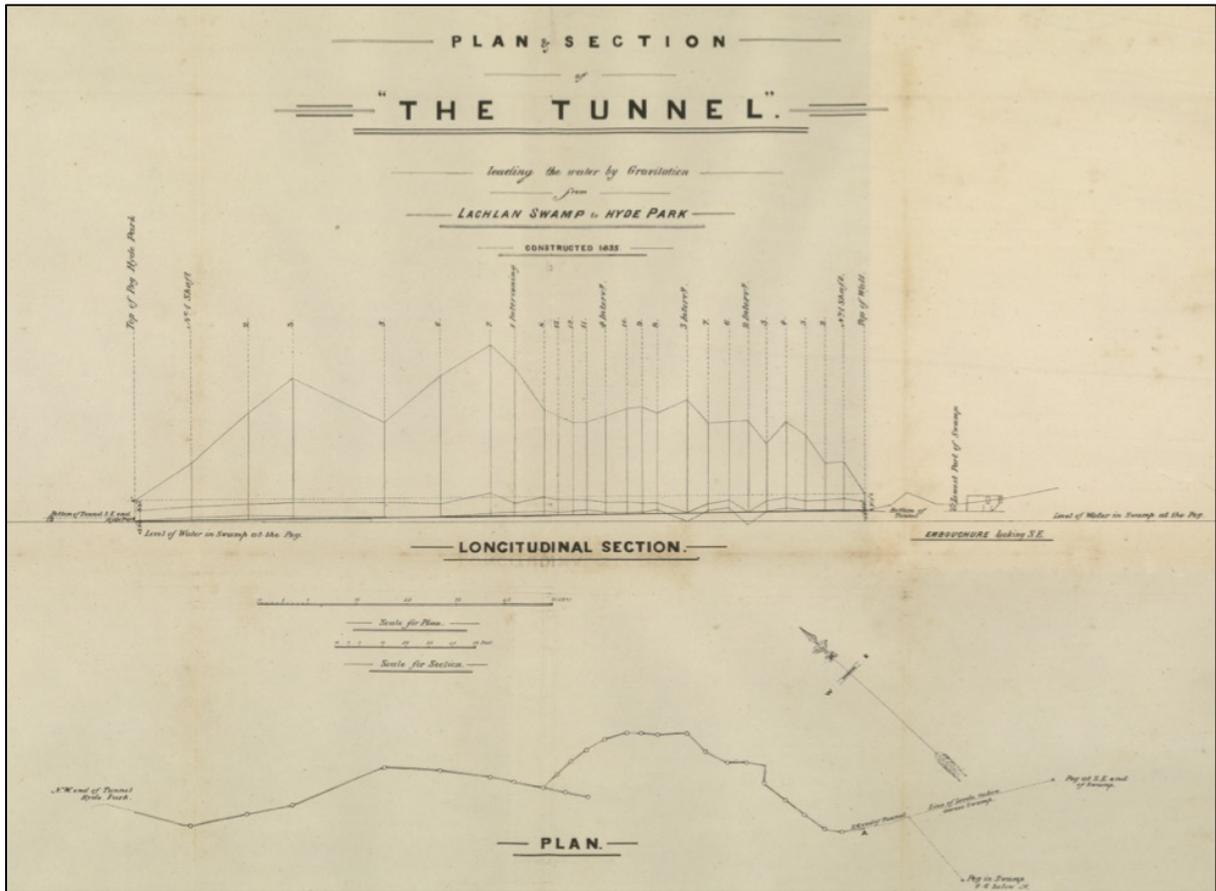


FIGURE 43: FIRST PLAN OF BUSBY'S BORE, 1855. (SOURCE: NLA CALL NUMBER, JAFP BIBLIO F14865)

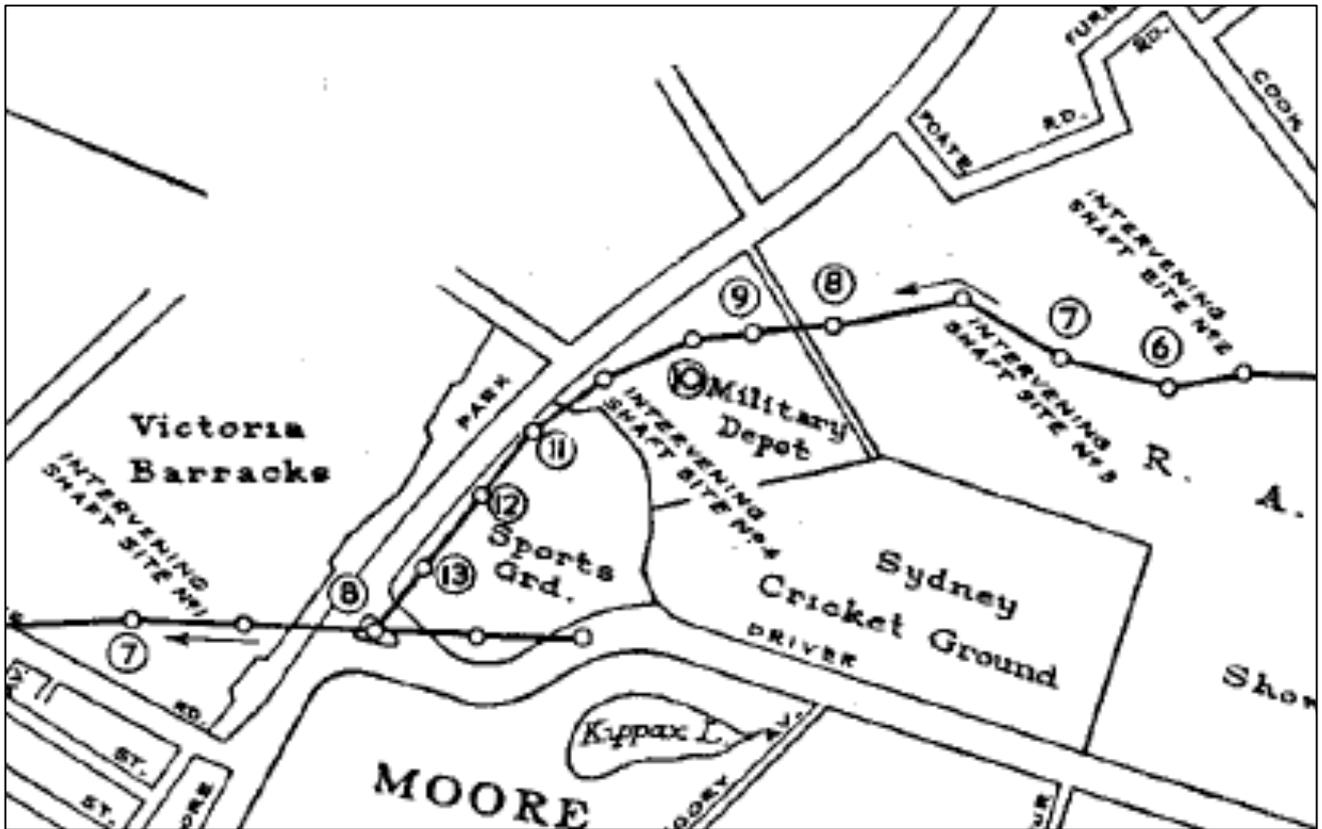


FIGURE 44: 1892 SURVEY OF BUSBY'S BORE, ZOOMED TO STUDY AREA

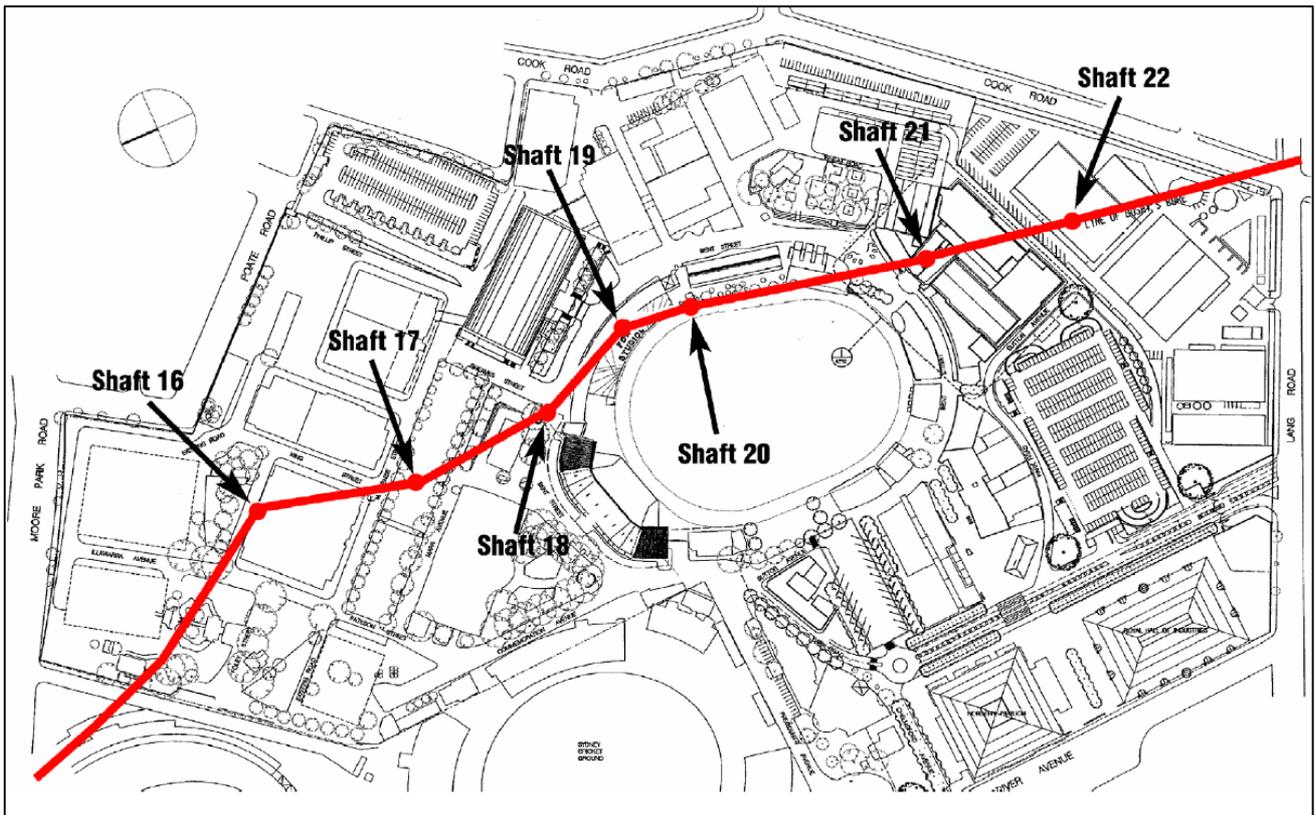


FIGURE 45: GML PLAN OF SHAFTS WITHIN FORMER SYDNEY SHOWGROUND SITE, RENUMBERED AS SHAFTS 16-22 (ORIGINAL PLAN 'INTERVENING SHAFT NO. 3, 7, 6, INTERVENING SHAFT NO.2, 5, 4, 3) (SOURCE: GML 2001: 31, FIGURE 6.1)

6.3.2. Location of Shafts

The shafts in the vicinity of the SFS Redevelopment site include Shafts 9, 10, Intervening Shaft No. 4, 11, 12 and 13. A literature review has been undertaken to determine which of these shafts have been accurately located, and which have not, and following from that, which Shafts are known to be located (or likely located) within the SFS Redevelopment site.

The location of Shafts No 9 and 10 are known, have been geolocated on a survey plan and are known to be located immediately within the SFS Redevelopment site, adjacent to the existing stadium (Figure 47 to Figure 50).

An excavation permit (requiring archaeological monitoring) was issued in 1992 for the renewal of a rising main between Moore Park and Oatley Road, that was located in the vicinity of three Busby's Bore shafts.⁶⁵ These works located Shaft 12 (Figure 51) approximately 5m to the east of its presumed location (as per original Water Board records/survey plans), within the road easement of Moore Park Road. Shaft 12 appeared to be lined with sandstone blocks to its full depth of c.10.8m below the road surface. It was found that the original path of the rising main (1899) had been laid across the southern half of the shaft. While this work appeared to have been undertaken with care, it resulted in the removal of the two top courses of stone on the southern side of the shaft, as well as a channel cut in the lower three or four courses to allow laying of the rising main. Presentation of mortar in the top stone courses on the northern side of the shaft also suggested that the whole top of the shaft had been disturbed in 1899, but the stone from the northern side had been rebuilt with original materials. The

⁶⁵ Annable, R., 1992, 'Archaeologists Report, Watching Brief, shaft 12, Busby's Bore', *Appendix A in AWT Distribution 1993*

archaeological recommendation was made that the new 1992 replacement main could be laid over the top of the shaft again, as the 1899 work had already disturbed the whole top of the shaft. A 25mm steel plate was placed over the shaft below the new main.

Shaft 13 is believed to be within the Moore Park Road easement, recorded to have been located in 1985/6 during work in relation to the construction of the SFS, however the surveyed location of these shafts are not currently available.⁶⁶

No available reports or recent plans assessed for the project have indicated that Shaft 11, or 'Intervening Shaft No. 4' have been successfully located or surveyed in recent years.



FIGURE 46: LOCATION OF SHAFT 9, ALONG EASTERN SIDE OF STADIUM BOUNDARY (SOURCE: CLIENT)



FIGURE 47: SHAFT 9 (SOURCE: CLIENT)

⁶⁶ AWT Distribution, 1993, *Report on the Supply of Groundwater from The Busby's Bore*, prepared for Water Reclamation and Reuse Planning Group, Clean Waterways Program



FIGURE 48: LOCATION OF SHAFT 10, ALONG NORTHEASTERN SIDE OF STADIUM (SOURCE: CLIENT)



FIGURE 49: SHAFT 10 (SOURCE: CLIENT)



Photo 5: Shaft No.12,
Moore Park Rd.
June 1992.



Photo 6: Shaft No.12,
full-block
construction

FIGURE 50: SHAFT 12, 1992 (SOURCE: PHOTO 5 AND 6, AWT 1993)

6.3.3. Ground Penetrating Radar, 2018.⁶⁷

In May 2018, Veris undertook a Ground Penetrating Radar (GPR) test survey within the SFS Redevelopment site, in an effort to locate Busby’s Bore. The GPR used had dual frequency at 700MHz and 200 MHz, the former showing higher resolution at shallower depths but not capable of deeper readings, while the latter penetrates deeper into the ground, but with lower resolution.

The GPR survey was undertaken roughly along the believed path of Busby’s Bore within the study area, with no conclusive results. During the survey, Shafts 9 and 10 pit lids were opened, and the depth of each shaft measured. Shaft 9 measured 4.4m to bedrock, and 6.2m to the bottom of the shaft, while Shaft 10 was measured as 2.2m to bedrock, and c.3.5m to the bottom of the shaft. However, the report also noted that it was possible that an additional cover was located over the shaft, and therefore measured depths may not be representative of the true depth of Busby’s Bore in this location.

6.3.4. Summary of Busby’s Bore Locations

Table 3 presents a summary of the locational status of each relevant shaft, and whether they are within the SFS Redevelopment site or not. Overall, two Shafts are confirmed within the SFS Redevelopment area (Shaft 9 and 10), one is considered likely to be located within the study area (‘Intervening Shaft 4’) and one shaft is considered to be possibly within the study area (Shaft 11).

Shafts 12 and 13 are understood to be located within the Moore Park Road easement, and therefore are not within the SFS Redevelopment site. Figure 52 provides a visual summary of the location (or estimated location) of the relevant shafts of Busby’s Bore, in relation to the SFS Redevelopment site.

TABLE 3: SUMMARY OF BUSBY’S BORE SHAFT LOCATIONS WITHIN OR ADJACENT TO SUBJECT SITE (SHAFT NUMBERS AS PER ORIGINAL SURVEY PLAN OF BORE, SYDNEY WATER ARCHIVES, FIGURE 10)

Shaft No	Location Identified?	Within SFS Site?	Description of Location
9	Yes. Georeferenced survey plan	Yes	Eastern side of the existing stadium, directly adjacent to stadium wall
10	Yes. Georeferenced survey plan	Yes	Northeastern side of the existing stadium, directly adjacent to stadium wall
‘Intervening Shaft 4’	No.	Likely	Likely within site, potentially between Shaft 10 and entrance to SFS from Moore Park Rd
11	No	Possibly	Uncertain. Approximately northwest of Shafts 9 and 10. Possibly within Moore Park Road easement, unconfirmed.
12	Yes	No	Within Moore Park Road easement, beneath rising main
13	Yes. 1985/86 work identified as within Moore Park Road	No	Within Moore Park Road

⁶⁷ Veris, 2018, *Allianz Stadium GPR Test*

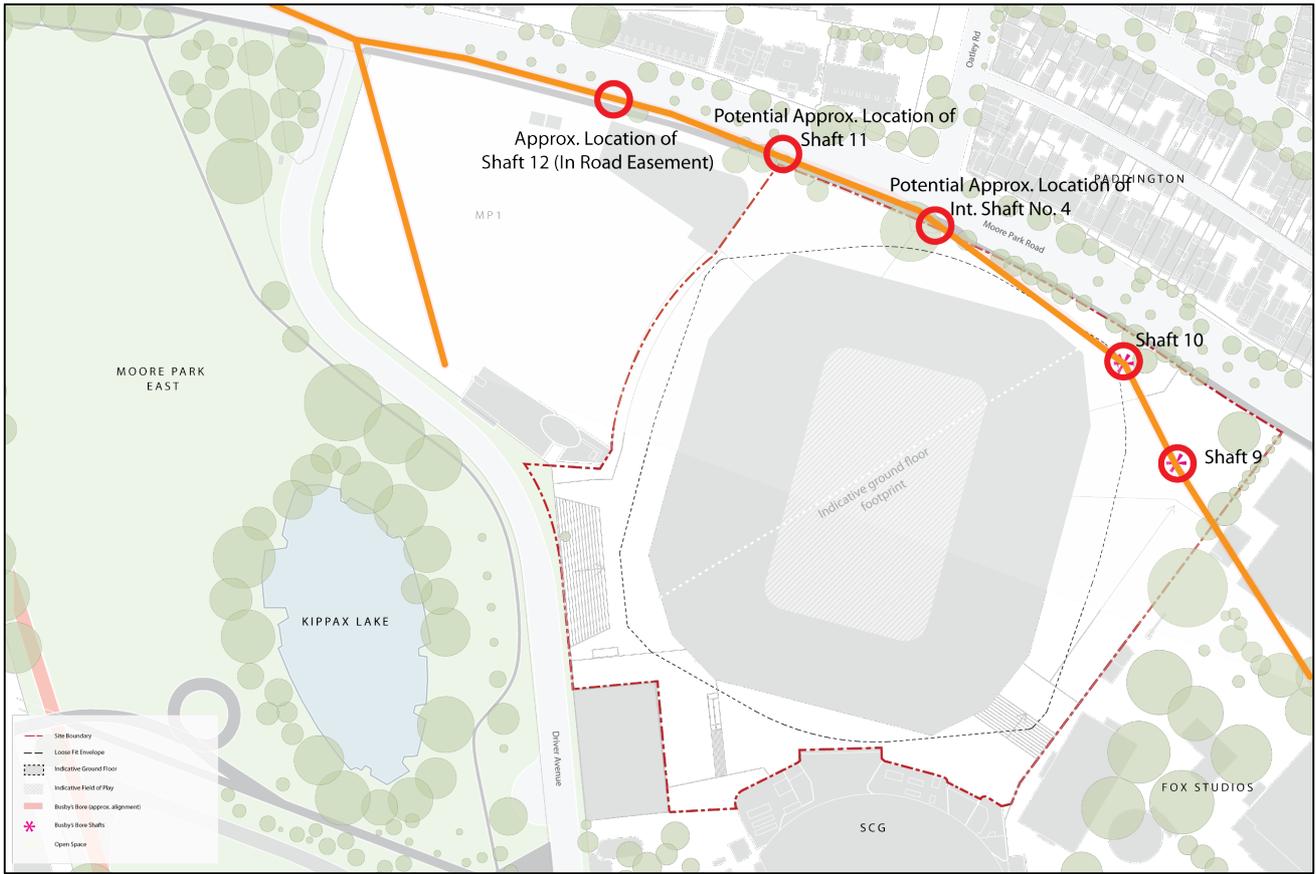


FIGURE 51: LOCATIONAL MAP OF KNOWN AND POSSIBLE BUSBY'S BORE SHAFTS WITHIN STUDY AREA, OVER INDICATIVE BUILDING OUTLINE PLAN (SOURCE: SJB ARCHITECTS WITH CURIO ADDITIONS 2018)

7.0 Historical Archaeological Potential

This section presents an assessment of the archaeological potential of the subject site. The archaeological potential of a site refers to its potential for archaeological resources to survive below the ground, and is related to its level of intactness. The potential for archaeological resources to survive is directly related to the types of cultural activities and environmental factors that have impacted on a site over time, and how such factors may or may not have disturbed, destroyed, conserved or impacted upon the evidence of earlier activities. The types of materials used for construction, daily activities, intensity of development and demolition activities, environmental conditions and topography, all influence the ability of archaeological remains to survive.

The potential for historical archaeological resources and/or 'relics' to survive is not the same as potential archaeological 'significance'. Often the two terms are confused which can lead to inaccurate historical archaeological assessments. Potential 'archaeological significance' which is discussed in Section 8.0, relates to the importance of any archaeological resource found, rather than to just its ability to survive within a cultural heritage landscape. For example, a site may contain extensive archaeological evidence of the former footings of a c.1910 terrace which means it has 'high archaeological potential'- a high likelihood for evidence to survive, but when assessed in terms of its archaeological significance and ability to contribute significant new information, it has 'low archaeological significance' because the evidence associated with the footings of c.1910 terraces in Sydney is common -with hundreds of intact c.1910 terraces still standing. Archaeological research of more c.1910 footings would not add to our understanding of Sydney's history in a meaningful way.

Archaeological potential refers to the level of likelihood for physical evidence of a particular historical activity or development to survive. It is usually classified as low, medium, or high:

- Low archaeological potential—it is unlikely that physical evidence of a particular historical phase or activity survives.
- Moderate archaeological potential—it is possible that physical evidence of a particular historical phase or activity survives, however surviving archaeological remains may have been subject to some disturbance or may only partially survive.
- High archaeological potential—it is likely that physical evidence of a particular historical phase or activity survives.

Section 7.1.2 assesses the range of physical remains that may have been present at the site based on the activities and developments at the site as indicated by the historical analysis. Activities and development at the site is also used to extrapolate the extent of physical disturbance that the subject site has experienced, that may have impacted on the survival of historical archaeological remains (Section 7.1.1). These two aspects are then assessed against each other in Section 7.1.2, within the context of previous historical archaeological assessments and excavations in the area (Section 6.1 above), to form a summary statement of the subject site's historical archaeological potential.

7.1.1. Site Disturbance Activities

Historical disturbance of a site affects its ability to retain intact archaeological resources, and has been defined as follows:

- **Low disturbance**—the site or feature has not been subject to activities that would have a major impact on the survival of archaeological remains. Archaeological evidence may be largely intact.

- **Moderate disturbance**—the site or feature has been subject to some activities that may have impacted on the survival of archaeological remains. Archaeological evidence may survive however it may be disturbed.
- **High disturbance**—the site or feature has been subject to activities that are likely to have impacted on the survival of archaeological remains. Little archaeological evidence may survive, or it may be substantially destroyed.

The subject site has been subject to the following land uses and causes of disturbance:

- Early land clearance and agricultural/grazing use as Sydney Common (c. 1811);
- Construction of military depot buildings, potential minor land modification (c.1892–1970s)
- Initial construction and subsequent development works for the Sydney Sports Ground (c.1899-1930s)
- Development of the Sydney Football Stadium, associated buildings, carpark and associated landscaping works (c.1987).

7.1.2. Assessment of Historical Archaeological Potential

The following summary provides an assessment of the possible types of historical archaeological evidence that may be found within the study area, and the potential for such evidence to survive. A summary of the potential archaeological evidence and likelihood to survive from each of the four phases of historical use of the subject site is presented in Table 4.

Phase 1—Sydney Common and Busby's Bore (1811–1840s)

The early use of the subject site as part of Sydney Common involved land clearance and use of the area for grazing of livestock and passive recreation. These activities were common within the area at that time and generally create an archaeological profile that is fragmentary and ephemeral in nature and therefore, unlikely to yield a significant and intact historical archaeological resource.

Busby's Bore is known to be present within the subject site, however the exact path as it crosses the site, and the precise locations of Shafts 11 and 'Intervening Shaft 4' remain unknown. Therefore, the subject site has high potential to present with the archaeological resource of Busby's Bore, including the path of the tunnel itself, shafts, and potentially other archaeological resources associated with its construction.

Phase 2—Rifle Range (1849–1892)

Use of the subject site as a rifle range is unlikely to have left a substantial and intact archaeological signature in the landscape, other than evidence related to the actual use of the site for shooting practice, possibly in the form of used munitions and other associated fragmentary evidence. The potential for this evidence is considered low, based on the level of disturbances to the site.

Phase 3—Engineers/Military Depot (1892–1986)

There is low potential for structural remains of the Engineers/Military Depot to be present within the eastern side of the SFS Redevelopment site, beneath and surrounding the existing SFS structure. While the construction of the SFS required the demolition of all structures associated with the Engineers Depot, the cutting and filling of the site, and use of piling for construction, means there remains the potential for structural remains such as building foundations and footings, as well as deeper subsurface features such as wells, cisterns, and rubbish dumps, as well as ephemeral artefactual remains of the military use of the site.

There is low potential for fragmentary evidence of the former zig-zag anti-aircraft trenches and associated backfilled cuttings within the landscape to be present in close vicinity to the subject site, as shown in Figures 21 and 22.

Phase 4—Sydney Sports Ground (1899–1986)

The use of the north and northwestern part of the SFS redevelopment subject site as the Sydney Sports Ground included the modification of the subject site for the field, as well as gradual construction of increasingly more permanent associated structures such as the grandstands and player facilities.

There is low to moderate potential for archaeological evidence related to Phase 4 use of the subject site as the Sydney Sports Ground.

TABLE 4: SUMMARY OF HISTORICAL ARCHAEOLOGICAL POTENTIAL WITHIN SUBJECT SITE

Historical Phase	Activity or Development	Potential Archaeological Evidence	Archaeological Potential/Likelihood of Survival within Subject Site
Phase 1—Sydney Common and Busby’s Bore	Early Grazing and passive recreational use of Sydney Common	Likely to be highly disturbed, fragmentary and ephemeral, if exists at all.	Nil - Low
	Busby’s Bore	Tunnel, shafts, associated archaeological deposits	Extremely high. Known to be present
Phase 2—Rifle Range	Professional and Volunteer Rifle Ranges	Possible Fragmentary Remains of munitions	Nil-Low
Phase 3—Engineers Depot	Early site use, pre WW1	Early structural remains, possible deeper subsurface features such as wells, cisterns etc and associated deposits fronting Moore Park Road	Low to Moderate
	Interwar site use	Structural remains and associated artefactual deposits etc located further back from Moore Park Road	Low to Moderate
Phase 4—Sydney Sports Ground	Early Sports Ground	Evidence of form and ground works undertaken to cut and fill site to development track	Low
	Speedway	1930s modifications to the Sydney Sports Ground for the installation of the Sydney Speedway Race Track	Low to Moderate

8.0 Historical Archaeological Significance

Archaeological sites, which contain ‘relics’ as defined by the NSW *Heritage Act*, are managed like any other significant item of environmental heritage. The main aim of an archaeological significance assessment is to identify whether an archaeological resource, deposit, site or features is of cultural value—a ‘relic’. The assessment will result in a succinct statement of heritage significance that summarises the values of the place, site, resource, deposit or feature.⁶⁸

There are three key questions posed by Bickford and Sullivan⁶⁹ in their influential paper on archaeological potential that help to shape whether an archaeological resource meets the threshold for having archaeological potential. They suggest that all archaeologists ask the following key questions of an archaeological resource:

- Can the site contribute knowledge that no other resource can?
- Can the site contribute knowledge which no other site can?
- Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

8.1. Draft CMP Archaeological Significance Assessment

The Sydney Cricket and Sports Ground draft CMP (GML 2013b) provides an assessment of significance of the potential historical archaeological remains across the whole site of the SCG and surrounds (including the area of the SFS Redevelopment site). Of relevance to the SFS Redevelopment site, the draft CMP assessed the archaeological significance only of the Sydney Sports Ground and Busby’s Bore as extracted below.

The Sydney Sports Ground (Gold Members Car park)

The structures of the Sydney Sports Ground were only recently demolished (1986–87) and they are amply evidenced by sources such as historic photographs, architects drawings, plans, film footage, oral histories etc. Any archaeological relics would contribute little or nothing additional to the information obtainable from these other sources. Those relics that may survive are likely to be partial and disturbed, their limited research potential residing principally in the minor contribution that they might make to a study of the site’s development. However, they would have little research value for broader questions relating to the city, state or nation.

The relics would not warrant in situ retention.

Assessed heritage significance:

- *Sydney Sports Ground structural remains: neither State nor local significance;*
- *Pre-Sydney Sports Ground Phase: local significance.*

⁶⁸ Heritage Branch-Department of Planning., 2009 *Assessing Significance for Historical Archaeological Sites and ‘Relics’* State of New South Wales

⁶⁹ Bickford, A. and Sullivan, S., 1984, ‘Assessing the Research Significance of Historic Sites’, in Sullivan and Bowdler (eds), *Site Surveys and Significance Assessment in Australian Archaeology* (Proceedings of the 1981 Springwood Conference on Australian Prehistory); Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra, pp. 23-24