Construction Heritage Management Plan

Sydney Football Stadium

Stage 3 Moore Park Precinct Village and Car Park

Prepared for BESIX Watpac
August 2024

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Document history and status

The original Construction Heritage Management Plan (CHMP) for the project was prepared by Artefact Heritage for John Holland and updated to incorporate Mod-7 of approval (SSDA-9835 MOD-07).[1] This CHMP continues from that plan, incorporating further approved modifications (Modification 8) and a new contractor for the current Precinct and Village Car Park scope.

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
1	21/05/2023	Jayden van Beek	22/05/2023	Jayden van Beek	First Draft to BESIX Watpac
1.1	5/06/2024				Final to BESIX Watpac
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[1] Artefact Heritage Services, 18 April 2023. *Sydney Football Stadium Redevelopment Stage 2 Modification 7 (Early Works). Construction Heritage Management Plan SFS-JHG-00-PLN-PM060009 (SSD-9835)*. Rev. C. Report to John Holland.

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1.0 COMPLIANCE MATRIX

The following compliance matrix demonstrates the alignment of this management plan with the full understanding of requirements under the Minister's Conditions of Consent and Final Mitigation Measures as outlined in the Environmental Impact Statement[2] and Response to Submissions[3]. The Project was approved as a State Significant Development (SSD) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 6 December 2019 (SSD- 9835). In December 2020 the consent was modified to integrate the Stadium Fitness Facilities (SFF), no additional conditions were noted associated with the modification to the consent. Modification 7 relates to the Precinct and Village Car Park.

Modification 9, approved on 21 May 2024, addresses use of the Stadium and has not added additional conditions or modified approved conditions related to heritage or archaeology.

Table 1: Compliance Matrix: Minister's Conditions of Approval

	Ministers Conditions of Approval	Section reference
B39	Prior to the commencement of construction, a Construction Heritage Management Plan (CHMP) must be prepared by a suitably qualified heritage consultant and address, but not be limited to, the following;	This Plan
a	Details of the excavation director nominated to direct the historic archaeological program for the development. The excavation director must have appropriate qualification in accordance with the 'Criteria for Assessment of Excavation Directors' published by the Heritage Division of the Department of Premier and cabinet (formerly Heritage Council) at a State level of monitoring and testing to identify and protect Busby's Bore;	Section 6.1
b	Details of areas of low, moderate and high archaeological potential;	Table 6
c	Details of management (for supervision and unexpected finds) measures identified in the 'Heritage Impact Statement' and section 7.2 of the 'Archaeology Research Design and Excavation Methodology' prepared by Curio dated May 2019;	Section 6
d	Detailed methods of protection of Busby's Bore including (but not limited to) vibration monitoring techniques in accordance with the recommendations of the 'Methodology Statement – Working near Busby's Bore' prepared by Curio Projects dated 2018 as updated by condition B22;	Section 6.3
e	All additional measures (supervision and monitoring) required for below ground works in the near vicinity of shafts 9,10 and the Bore itself	Section 6.7 and 7.4
f	The Unexpected Finds Protocol for heritage (including unexpected skeletal remains) in accordance with the recommendations of Archaeological Research Design and Excavation Methodology prepared by Curio projects dated May 2019;	Appendix A
g	Details of the monitoring regime including a program of visits from archaeologists; and	Section 7.2

[2] *Environmental Impact Statement, Stage 2 Construction and Operation Sydney Football Stadium* dated 12 June 2019, Ethos Urban
[3] *Response to Submissions and Amended Proposal* dated 2 September 2019, Ethos Urban.

h	Details of a stop-work procedure in case archaeological relics are uncovered during the work (including contacting the NSW Heritage Division and recommencing works once the approval from the NSW Heritage Division).	Section 7.6 Detailed in the Unexpected Find Protocol Appendix A
i	Details of the management measures identified in Section 8.2 of the Addendum Heritage Impact Assessment, prepared by Artefact, dated 21 December 2021; and	Table 7
j	Details of the multi-level carpark redesign options for basement footings and mechanical plant on the northern Moore Park Road boundary, if Shaft 8 or the spur of Busby's Bore are encountered during excavation works.	Section 7.4
B40	The CHMP must be made publicly available on the Applicant's website prior to the commencement of construction.	Section 4.1.1
B43	Prior to the commencement of construction of the stadium structure or public domain works (i.e. during the bulk earth works), historical archaeological investigation (supervision, monitoring and salvage (where needed)) is to be undertaken for all impacted areas of the site under the supervision of the nominated excavation director, in accordance with the recommendations of the Archaeological Research Design and Excavation Methodology prepared by Curio projects dated May 2019 and the CHMP required by condition 39.	Methodology outlined in Section 8
B44	In the event that historical archaeological salvage is required, it must be undertaken under the supervision of the nominated excavation director, in accordance with the requirements of the NSW Heritage Division.	Section 7.3
C22	Ongoing vibration monitoring must be conducted during the excavation works in the vicinity of shafts 9 and 10 of Busby's Bore.	Section 7.4
C31	At the completion of the archaeological program (non-Aboriginal archaeology) or within 6 months of completion of the bulk excavation works within the site (whichever occurs earlier), a final post-excavation report (including all site records and detailed artefact analysis) must be prepared and submitted for information to the Planning Secretary, the Heritage Division and the City of Sydney local studies library. The final excavation report must identify the location (conserved in perpetuity) of retained archaeological relics recovered from the archaeological program (if any).	Section 7.9

The following table identifies the approved heritage related Final Mitigation Measures documented in the Response to Submissions. The measures have been derived from the assessment undertaken during the SSD Development Application (DA) process and are required to be implemented to mitigate the heritage related impacts associated with the proposed construction works.

Table 2: Compliance Matrix: Final Mitigation Measures

	Final Mitigation Measures	Section reference
	Prepare a detailed heritage interpretation plan confirming the final interpretive elements to be installed on the site with consideration of the following: • The Heritage Interpretation Strategy prepared by Curio Projects (May 2019). • Coordination with public art. • Consultation with the local Aboriginal community, the SCG museum staff and SCSG Trust.	Section 7.1.1

	Final Mitigation Measures	Section reference
	The La Perouse Local Aboriginal Land Council should be consulted during the preparation of the detailed heritage interpretation plan, in order to seek input into the plan with regard to Aboriginal cultural heritage significance.	Section 7.1.1
	An archaeological induction is to be prepared for all on site contractors, particularly those involved in the bulk excavation works, to familiarise workers with the recommendations and practices outlined in the Archaeological Research Design and Excavation Methodology prepared by Curio Projects (May 2019), and the process should they encounter an unexpected archaeological resource.	Section 8.2 Appendix A
	The detailed Construction Environmental Management Plan is to include details of periodic site visits by the project archaeologist during site works, to verify the nature of any subsurface deposit and assess the potential for any potential archaeological resource to exist and be impacted. In zones of moderate archaeological potential, a program of archaeological supervision is to be implemented. A program of archaeological salvage or monitoring is to be implemented if any significant archaeological resource is encountered during the development that alters the level of supervision required, as confirmed by the archaeologist.	This Plan would be a sub-plan to the Construction Environmental Management Plan (CEMP) Section 7.2 Section 7.3
	Prepare and educate all on site contractors on the Unexpected Heritage Finds Protocol and Unexpected Aboriginal Finds Policy. Should any suspected archaeological resource/relic be encountered, a stop works would be required in the area of the find, and the project archaeologist contacted.	Section 8.2 and Appendix A
	The detailed Construction Environmental Management Plan is to include details for the implementation of the Methodology Statement – Working Near Busby's Bore (August 2018), and incorporate all necessary measures into the detailed Construction Environmental Management Plan and the site inductions as required. The heritage specific recommendation in the Noise and Vibration Impact Assessment prepared by Arup (31 May 2019) are also to be included.	Section 7.4
	The contractor will adhere to the minimum working distances in Table 23 of the Noise and Vibration Impact Assessment prepared by Arup (31 May 2019), and the Methodology Statement – Working Near Busby's Bore (August 2018). Should vibration intensive equipment, such as rock hammers, vibratory rollers or compactors be required at the eastern site boundary, it is recommended that monitoring be carried out at the commencement of these activities to assess any potential impacts on sound stages at Fox Studios.	Section 7.4

2.0 REFERENCES, DEFINITIONS AND ABBREVIATIONS

2.1 Definitions and abbreviations

Definitions and abbreviations to be applied to this Construction Heritage Management Plan are listed in the following table.

Table 3: Definitions and abbreviations

Term/abbreviation	Definition
BBS-1	Busbys Bore Spur Shaft 1
CHMP	Construction Heritage Management Plan
Client	Infrastructure NSW
CoC	Conditions of Consent
DPHI	Department of Planning, Housing and Infrastructure.
ECP	Environmental Control Plan – defines management measures for a specific environmental aspect
EIS	Environmental Impact Statement
Project	More Park Precinct Village and Car Park
RAP	Registered Aboriginal Party
SCG	Sydney Cricket Ground
SCSG	Sydney Cricket and Sports Ground
SFS	Sydney Football Stadium
SSD	State Significant Development
SSG	Sydney Sports Ground
PV&C	Precinct Village and Carpark

3.0 INTRODUCTION

3.1 Purpose and application

This section describes the purpose, objectives and targets of this Plan.

3.2 Purpose

The purpose of this Plan is to describe how non-Aboriginal heritage will be protected and managed during the Project in accordance with the Conditions of Consent and Mitigation Measures. This Plan is for Stage 3 works for the construction of the Moore Park Precinct Village and Carpark (PV&C).

Stage 1 works were undertaken under a separate management plan by another contractor. Stage 2 works and PV&C – Early Works were also undertaken by another contractor.

The PV&C construction, which is the subject of this CHMP, will be undertaken by BesixWatpac.

This CHMP will be made publicly available on the Applicant's website prior to the commencement of construction in accordance with condition B40.

3.2.1 Objectives

The key objectives of the Plan are to ensure all CoC, Mitigation Measures and licence/permit requirements relevant to non-Aboriginal heritage are described, scheduled and assigned responsibility as outlined in:

- The EIS prepared for Sydney Football Stadium (SFS) Stage 2
- The SFS New Precinct Village and Car Park – MP1 Car Park Addendum Heritage Impact Assessment (2021)
- The Response to Submissions Report prepared for SFS Stage 2
- CoC imposed on the Project by the Minister for Planning and Public Spaces on 6 December 2019.
- Compliance with the SSD approval (as modified)

3.2.2 Targets

The following targets have been established for the management of Non-Aboriginal heritage impacts during the Project:

- Comply with the relevant legislative requirements, CoC and Mitigation Measures.
- Follow procedures and ensure notification of any heritage objects/places uncovered during construction in accordance with the Unexpected Finds Protocol included in Appendix A
- Provide heritage awareness training to all personnel including sub-contractors as part of the induction training before they start work onsite and in toolbox talks throughout construction.

3.2.3 Personnel

This Plan has been prepared by Dr Iain Stuart based on an earlier plan by Dr Sandra Wallace.[4]

Dr Sandra Wallace is a suitably qualified and experienced expert and therefore satisfies the requirements of Condition B39. Dr Wallace has a PhD in archaeology from the University of Sydney and is Director at Artefact Heritage.

Dr Iain Stuart is a suitably qualified and experienced expert and therefore satisfies the requirements of Condition B39. Dr Stuart has a PhD in archaeology from the University of Sydney and is Principal at Artefact Heritage.

The nominated Excavation Director for Non-Aboriginal archaeology would be Dr Iain Stuart. Dr Stuart holds a Masters of Environmental Science from Monash University and a Doctorate from University of Sydney. Dr Stuart has extensive experience in archaeological management and meets the NSW Heritage Council criteria for managing State significant archaeology in accordance with Condition B39(a).

[4] Artefact Heritage Services, 18 April 2023. *Sydney Football Stadium Redevelopment Stage 2 Modification 7 (Early Works). Construction Heritage Management Plan SFS-JHG-00-PLN-PM060009 (SSD-9835)*. Rev. C. Report to John Holland.

4.0 CONTEXT OF THE PROJECT

4.1 Project scope

4.1.1 Overall project scope

The SFS Redevelopment is an Infrastructure NSW initiative which built a modern stadium replacing the earlier SFS. The Stadium was completed and opened in August 2022. The project is part of the SCSG Precinct, adjacent to the Sydney Cricket Ground and part of the wider Moore Park sports and entertainment precinct, a key economic and cultural contributor to the NSW economy.

4.1.2 Moore Park Precinct Village and Carpark

BESIX Watpac has been appointed by Venues NSW as Principal Contractor for the Precinct Village and Car Park (PV&C) which represents the next stage of development. The PV&C was approved via SSD 9835 MOD 7 on 18 July 2022 by the Minister for Planning and Public Spaces' delegate. In approving the modification, approval was granted for:

a) Up to a maximum of 1,500 space multilevel carpark below ground level with the following access arrangements:
   - 1 x egress point onto Moore Park Road to be used on event days only.
   - 1 x two-lane access point from Driver Ave to be used on event and non-event days; and
   - dedicated area within the car park for operation/servicing vehicles.

b) Reconfiguration of the currently approved drop off requirements for the elderly and mobility impaired.

c) Free flow level pedestrian access to and from the SFS concourse from Driver Ave and Moore Park Road.

d) Electric car charging provision.

e) A versatile and community public domain, comprising:
   - provision for 4 x north-south orientated tennis courts on non-event days with the potential to become an event platform on event days.
   - children's playground.
   - 1,500 m2 cafe / retail / restaurants with associated amenities in a single storey pavilion (6 meter) low level.
   - customer service office and ticket window; and

f) vertical transport provisions.

g) Utilities provision augmentation.

Figure 1: Proposed design of the SFS PV&C (Source John Holland)

4.2 The site

The SSD 9835 site is located at 40-44 Driver Avenue, Moore Park within the Sydney Cricket Ground (SCG) Precinct bounded by Moore Park Road to the north, Paddington Lane to the east, the existing SCG stadium to the south, Driver Avenue to the west, and is located within the City of Sydney local government area (LGA).

The site is legally described as Part Lots 1528 and 1530 in Deposited Plan 752011 and Lot 1 in Deposited Plan 205794 and is Crown Land.

The site is largely surrounded by Centennial and Moore Parks, the Fox Studios and Entertainment Quarter precincts and the residential suburb of Paddington (Figure 2).

The site is approximately 3km from the Sydney CBD and approximately 2km from Central Station and is connected to Sydney's transport network through existing bus routes and a dedicated stop on the Sydney CBD and South East Light Rail.

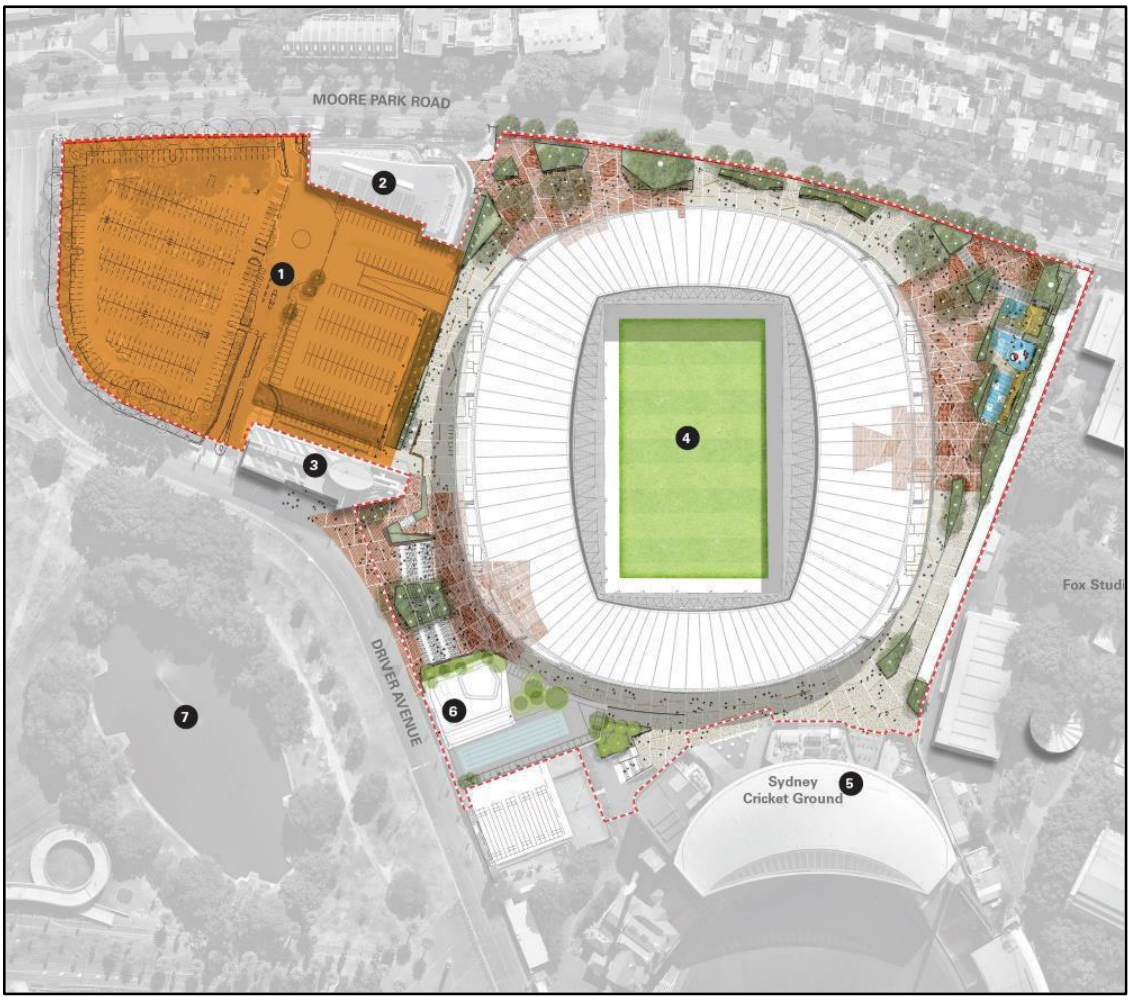

Figure 2: Precinct Village and Car Park Location

Key

1. *Precinct Village and Car Park (formerly MP1 carpark)*
1. *UTS Sydney Rugby Australia*
2. *National Rugby League Central*
3. *Sydney Football Stadium*
4. *Sydney Cricket Ground*
5. *Sydney Fitness Facility*
7. *Kippax Lake*

5.0 STATUTORY CONTEXT

Stage 2 of the Sydney Football Stadium (SFS) Redevelopment (SSD 9835) was approved by the Minister for Planning and Public Spaces on 6 December 2019. SSD 9835 has been modified on eight previous occasions as summarized in Table 4 Modifications to SSD 9835.

Table 4 Modifications to conditions of consent (SSD 9835)

Modification	*Approved*	*Description*
Modification 1	*3 April 2020*	*Amend Conditions B14 and B15 to enable the condition to be satisfied in accordance with the principles and framework prescribed by the Contaminated Land Management Act 1997.*
Modification 2	*14 December 2020*	*Reinstate fitness facilities that were previously available within the former SFS.*
Modification 3	*7 December 2020*	*Alter the approved mezzanine slabs at the eastern and western stands and relocate the approved administration facilities.* *Design amendments to the southwestern glazed façade.* *Inclusion of an additional stadium signage condition.*
Modification 4	*22 April 2021*	*Relocate the photovoltaic (PV) cells from the stadium's roof to Level 5 (above the eastern and western plant rooms) and a reduction in the amount of kilowatts peak (kWp) generated.*
Modification 5	*8 June 2021*	*Minor modification to correct plan revisions and dates.*
Modification 6	*29 September 2021*	*Fit-out, use and operation of the eastern mezzanine of the stadium for the purpose of a dedicated training and administration facility for the Sydney Roosters NRL football club, known as the Sydney Roosters Centre of Excellence.*
Modification 7	*18 July 2022*	*Construction of a Precinct Village and 1,500 space multi-level carpark adjacent to the new stadium, incorporating a single storey retail pavilion, four tennis courts, landscaping and the reconfiguration of stadium pedestrian and vehicular access.*
Modification 8	*15 December 2023*	*This modification aims to achieve the following:* • *Increase concert events within Sydney Football Stadium from 6 to 20 per year.* • *Increase concert lengths from 5 hours to 10 hours (twice per year).* • *Alter rehearsal and sound test finish time from 7pm to 10pm.* • *Curfew exemption from Mardi Gras.*

Modification 9	*21 May 2024*	*This modification aims to achieve the following:* • *Temporarily removal of 186 parking spaces within MP1* • *Update the stamped plans with a revised construction staging approach; and* • *Commit to submission of a revised parking strategy pursuant to Condition D50, by way of an updated Event Car Parking Management Plan following the Modification Application's approval.*

Under the SSD a number of Acts are also relevant to the Project in regard to non-Aboriginal heritage as outlined in Table 5.

Table 5: Legislation and Planning Instruments

	Ministers Conditions of Approval	Section reference
Environmental Planning and Assessment Act 1979	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The approval conditions and obligations are incorporated into this CHMP.
Environment Protection and Biodiversity Conservation Act 1999 (Cwth)	The main purpose of this Act is to provide for the protection of the environment especially those aspects that are of national environmental importance and to promote ecological sustainable development. Heritage places are listed on the National Heritage List (NHL) for their 'outstanding heritage value to the nation' and are owned by a variety of constituents, including government agencies, organisations or individuals. Only items owned or controlled by the Commonwealth that meet the threshold for national heritage listing under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) are listed on the Commonwealth Heritage List (CHL) and/or the World Heritage List (WHL) and afforded protection under the EPBC Act.	Not relevant as no NHL, CHL or WHL items.
Heritage Act 1977	This Act provides for the preservation and conservation of heritage items such as building, works, relic, places of historic interest, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance. It is an offence under this Act to wilfully and knowingly damage or destroy items of heritage value. Do not demolish, damage, move or develop around any place, building, work, relic, moveable object, precinct, or land that is the subject of an interim heritage order or listing on the State Heritage Register or heritage listing in a Local Environmental Plan without an approval from the Heritage Council (NSW) or local council.	Heritage Items are identified on the project site and addressed as part of the CoC. An approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977 is not required for works approved under Part 4 of the EP&A Act as SSD.
Coroners Act	This Act enables coroners to investigate certain kinds of deaths or suspected deaths in order to determine the identities of the deceased persons, the times and dates of their deaths and the manner and cause of their deaths.	This Act is relevant if Human Skeletal Remains are located within the project area.

5.1 Heritage guidelines

Additional guidelines and standards relating to the management of Aboriginal cultural heritage include:

- Assessing heritage significance Guidelines for assessing places and objects against the Heritage Council of NSW criteria (Department of Planning and Environment, 2023
- Assessing Heritage Significance (NSW Heritage Office, 2001)
- Levels of Heritage Significance (NSW Heritage Office, 2008)
- Assessing Significance for Historical Archaeological Sites and Relics (NSW Heritage Branch, Department of Planning, 2009)
- Investigating Heritage Significance (NSW Heritage Office, 2001)
- How to Prepare Archival Recording of Heritage Items (Heritage Branch, 1998)
- Photographic Recording of Heritage Items Using Film or Digital Capture (Heritage Branch, 2006)
- Guidelines for the Management of Human Skeletal Remains under the Heritage Act, 1977.

It should be noted that some of these guidelines are technologically obsolete and are difficult to implement. .

6.0 EXISTING ENVIRONMENT

6.1 Aboriginal occupation

Prior to the arrival of Europeans in 1788 and the subsequent appropriation of their land, Aboriginal people lived in small family or clan groups that were associated with particular territories or places with areas of land, known as 'estates' or 'country'[5]. On a daily basis Aboriginal people lived in groups known as bands which were made up of male members of a clan, their wives and children along with unmarried clan members[6].

The Aboriginal population of the Sydney area had access to and utilised a wide range of natural resources including both terrestrial and marine flora and fauna. While Tench indicated that fishing was the ''chief part of a subsistence''[7] terrestrial animals such as kangaroos, possums and various birds were hunted on a regular basis. Aboriginal people within the Sydney area also manipulated the landscape through periodic burning of the undergrowth, this encouraged terrestrial animals to graze and facilitate hunting.[8]

Accounts of Governor Phillip and Phillip Gidley King identified the Gadigal people as the inhabitants of the area between South Head and Darling Harbour, with the Wangal people as the inhabitants of the area from Darling Harbour west to Rose Hill (Parramatta).[9] The Moore Park area is within the land of the Gadigal. [10]

The Gadigal people and other nearby tribes would have been amongst the first to experience the impacts of the arrival of the First Fleet at Sydney Cove, with the physical and social dislocation emergent from the European settlement. Smallpox epidemics also had a large impact on the local tribes with Bennelong estimating in 1790 that more than half of the Aboriginal population of Sydney had died during one outbreak in 1789.[11] European colonisation also had other impacts of the local Aboriginal populations with the loss of access to traditional lands and resources, an increase in intertribal conflict and the breakdown of traditional cultural practices, along with an increase in starvation and disease.

6.2 European/historical background

6.2.1 Sydney Common

In 1811 Governor Macquarie dedicated a 1000-acre parcel of land, containing the subject site, for public recreational use. This area became known as the Sydney Common and was established in order to discourage people from grazing their animals in other public reserves such as Hyde Park (Figure 3).[12] The eastern portion of the Common was swampland which was declared as a freshwater reserve in the 1820s and now includes much of Centennial Park.

While the Common was established in the 1810s, transport and access to the Randwick area was minimal until Botany Road was laid out in the 1840s. In 1841 the Victoria Military Barracks were

[5] Aboriginal Heritage Office [AHO] 2015: 37; Attenbrow 2010: 22-30; Irish 2017: 17
[6] Irish, Paul 2017, Hidden in plain view: The Aboriginal people of coastal Sydney, New South, p17
[7] Tench, Watkin, 1788, A Narrative of the Expedition to Botany Bay, eBooks@Adelaide, p53
[8] CSELR, EIS, 2013, p118
[9] Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p24
[10] CSELR, EIS, 2013, p137
[11] Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p21
[12] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 37.

constructed in the northern part of the Common, located on modern Oxford Street. The Barracks were constructed with local Sydney sandstone and originally housed British Troops. In the late 1800s the NSW colony became less reliant on the British Empire for military support and the colony became responsible for filling the barracks with Australian soldiers.[13]

Much of the Common has continued in its intended function as a public reserve, incorporating Centennial Park and the Moore Park area including the Sydney Cricket Ground and former Football Stadium.

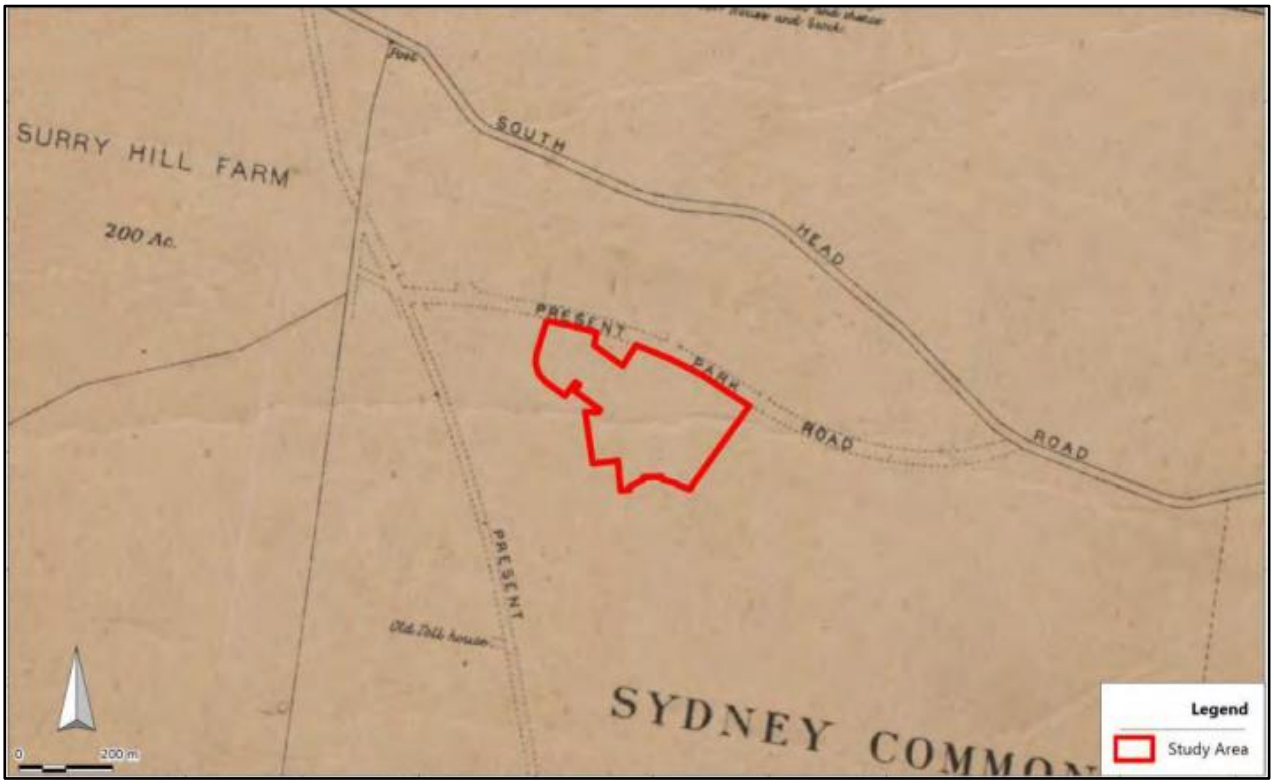

Figure 3: Map of the Sydney Common, 1811 (with study area in red). Source: NLA via Curio Projects

6.2.2 Busby's Bore

Busby's Bore was a water supply tunnel extending from Centennial Park to Hyde Park constructed from September 1827 to 1837. The bore was designed to carry water from the Lachlan Swamp, now Centennial Parklands. The supervisor of the work was John Busby and his son, the workers were convicts supplied by the Government.

6.2.2.1 Construction of Busbys Bore

The construction of Busbys Bore stemmed from the need to find an alternate supply of fresh water for Sydney. Upon landing at Botany Bay in 1788 Captain Arthur Phillip proclaimed the area unsuitable for settlement on account of unreliable drinking water supply. Phillip moved the colony to Sydney Cove, where the Tank Stream provided a reliable source of freshwater, however it quickly became polluted by the commercial activities undertaken on its banks.

In 1825 Governor Brisbane asked John Busby who was in the position of Mineral Surveyor and Civil Engineer, to report on the supply of water for Sydney. His report noted the poor quality of supply and also noted the potential of the large lagoons in the Waterloo area, His proposal was to pump water

[13] *Op. Cit.*

from the lagoon (also known as the Lachlan Swamp) into a system of pipes to Hyde Park where a series of sub-mains would distribute the water to users.[14] The total cost was estimated to be £12000 which was naturally considered far too much.

A second series of reports was produced at the request of Governor Darling in 1826-27. Busby revised his scheme in January 1826 to consider a tunnel to Hyde Park with the use of a steam engine or a convict powered treadmill. This proposal was refined by the opinion of John Oxley, Colonial Surveyor and William Dumaresq, Civil Engineer who supported Busby's idea of a tunnel but considered that the grade was sufficient for the water to flow to Hyde Park by gravity which did away with the expense of pumping machinery.[15]

Darling was keen on this scheme, and it was the one adopted by the Executive Council on the 25th May 1827 and work commenced prior to receiving official approval from the Secretary of State for Colonies. The general route is shown in Figure 4 based on the 1833 plan overlain on a modern cadastre.

Construction commenced in September 1827 under Busbys supervision, and the tunnel became known as Busby's Bore. The gravity fed tunnel was excavated through sandstone bedrock, with small sections laid with sandstone masonry.[16] The tunnel was 2.25 miles long (3.621km) with a fall of 1'9" (0.5m) from the Lachlan Swamp. This gives a gradient of 0.01% or 1 in 7242.

The tunnel was primarily 1.5 metres in height and 1.2 metres wide and had a maximum depth of 24 metres below the ground surface in some locations.[17] The convict labourers excavated the tunnel with hand picks and shovels and worked in confined underground spaces which often filled with water and required draining.[18] Gunpowder was utilised to detonate areas of particularly dense bedrock.[19] Historical documentation suggests that Busby supervised from the ground surface and did not enter the tunnel, therefore remaining ignorant to the working conditions of the labourers and the durability of the bedrock.[20] However his son William Busby acted as work supervisor and in the end received from the Government for his work £1000 plus an allowance for the upkeep of a horse.

The existing path of the bore tunnel deviates from Busby's official surveyed route, and this has been explained by the convict labourers taking the "path of least resistance."[21] This seems to be a simplistic assessment. In evidence to the Legislative Council four deviations from the original line were noted in each case they were the result of geological conditions not being suitable for the tunnelling methods used. While Major Barney in evidence stated "I think it was not necessary for Mr Busby to have deviated from the straight line of the Tunnel in consequence of quicksand" he did not explain how the construction difficulties would have been overcome.[22]

The works were completed in May 1837 and the water was piped across Hyde Park to the corner of Elizabeth and Park Streets on a timber viaduct (Figure 7). Here (at the current location of Museum

[14] Busby, John. "Report by J. Busby on Proposed Water Supply for Sydney." In Historical Records of Australia, Series 1 Volume Xi January 1823-November 1825 Brisbane, edited by Frederick Watson. Sydney: The Library Committee of the Commonwealth Parliament, 1917, p 682-87
[15] Governor Darling. "Dispatch No 71 Water Supply for Sydney: Governor Darling to Earl Bathurst." In Historical Records of Australia, Series 1 Governor's Dispatches to and from England, Volume XIII 1827-1828 Sydney:: The Library Committee of the Commonwealth Parliament, 1827, p362-71.
[16] See the Minutes of Evidence in Legislative Council. "Report of the Committee on the Tunnel for Supplying the Town of Sydney with Water ". In New South Wales Votes and Proceedings Legislative Council for the Year 1837, 678-91. Sydney: Government Printer, 1847, 1837
[17] *Op. Cit.*
[18] *Op. Cit.*
[19] *Op. Cit.*
[20] *Op. Cit.*
[21] *Op. Cit.*
[22] Legislative Council. "Report of the Committee on the Tunnel for Supplying the Town of Sydney with Water ". In New South Wales Votes and Proceedings Legislative Council for the Year 1837, 678-91. Sydney: Government Printer, 1847, 1837.p689.

Station), the water from Centennial Park was collected and transported throughout Sydney via horse and cart. There was no grant opening for the scheme. Judging from newspaper reports as the tunnel progressed water flowed down to Hyde Park and various institutions tapped into it via pipes.[23] Thus water started being suppled before the tunnel reached the swamps.

A plan dated to 15th August 1833 shows the route at that time (construction continued for another four years).[24] The plan is unsigned; the surveyor is presumed to be Busby but it also could have been Assistant Surveyor Robert Hoddle who was preparing a similar plan for an extension at the same time was surveyed on Plan AO 5780. John Busby.

The Report of the Select Committee on the Tunnel which dates from August 1837 describes the tunnel as being

> *"two miles and a quarter in length, about four-fifths of the distance excavated through solid rock, and the residue in several places formed with chiselled masonry without cement, through sand, and averaging four feet in width, and five-in height, throughout the line.*
>
> *Those parts which are formed by masonry, are backed or puddled with clay, in a manner represented to be sufficient to prevent the ingress of sand. The bottom floor is unequal in several places; these inequalities have arisen from the line. not having been correctly worked out.*
>
> *There are twenty-eight shafts, which are, on an average, fifty feet deep by five in diameter."*[25]

It is not clear whether the main bore was unlined – that is simply a cut in the rock of whether it was lined in some way. Certainly, in areas of poor rock or sand it was lined and the well known image of Busbys Bore shows an area of masonry tunnel possibly through an area of sand or soft rock.

6.2.3 Busby's Bore spur

During the excavation of Busby's Bore, which occurred from Hyde Park to the Lachlan Swamps, the planned route was forced to be diverted by difficult geological conditions notable patches of sand that would not support the tunnel. The first of these diversions was near what is now known as Shaft 8 (in Moore Park Road near the Drivers Avenue intersection). The tunnellers were forced to seek an alternative route and abandoned the completed tunnel section creating a spur.

Detail of this deviation are in Busby's letters to the Colonial Secretary which are reported by Dale and Burgess who accessed Busby's letter books in the State Library of NSW.[26] Dale and Burgess wrote

> *In July 1832 Busby detailed the progress of the tunnel from October 1831. At this time upwards of 30 yards (27 metres) of the tunnel between Shafts 8 and 9 had to be excavated to finish the "junction of the nine Shafts first commenced". The completion of this section of the bore was delayed by a bed of quick sand about 9 feet (2.7m) wide. The locating of the exact position of the bore was also prevented,*

[23] "THE TUNNEL." Sydney Morning Hearld, August 4, 1836. http://nla.gov.au/nla.news-article28654893.
[24] Plan showing the course of the tunnel for supplying water to Sydney, 1835, T.851 Item No [5780], State Records NSW.
[25] Legislative Council 1837
[26] Dale, M. J., and P. J. Burgess. "Busby's Bore - Sydney's Second Water Supply." Australian Geomechanics 15 (1988): 13-16.

> *the miners having deviated from the line of the tunnel by following a soft seam. This ordinarily would not have slowed the progress but some of the prisoners removed the props supporting the sand before the tunnel could be arched over with stone - the men were punished. The sand kept entering the tunnel from the "crevice" until that closest to the tunnel was "exhausted". At this stage a temporary arch was built to "prevent the clay from coming in on the men at work". This was possibly part of the weathered section of the Great Sydney Dyke.*[27]

This report seems to refer to the area known as the Busbys Bore Spur. This was the longest of the deviations from the main route. The location of the end point of the spur seems to correlate with the location of the Great Sydney Dyke which would have changes the geology through which the tunnel was being excavated.[28]

This is further described in a report by Major Barney RE, Colonial Engineer as follows:

> *The original design was to carry the tunnel in a direct line from Sydney to the swamp in the expectation of finding rock the whole way; but at the eleventh pit from Sydney, the workmen having come up on a bed of quicksand, it was deemed expedient to deviate to the eastward out of the direct line in to order to secure a rock covering throughout the course. To effect this, it was found necessary for the projector to retrace the course about 200 yards before he could get into a fresh line of rock. This part of the labour, however, cannot be considered entirely lost, for the springs which occur therein serve as an additional supply to the common aqueduct. After pursuing the new general line, it became necessary for the like reason to deviate again in three other instances.*[29]

In 1854 John Warner, Superintendent of Water Works for the City of Sydney was instructed to survey and report on the condition of Busby's Bore. With respect to the spur off Busby's Bore at Shaft 8 Warner wrote:

> *proceeding on I met another Shaft, at the length of 4 links: here is the off-shoot shown on the chart. This Shaft is immediately under the quarry at the rear of the Military Barrack, diameter, 6 feet, a stream of water pouring down it of two inches diameter, quite clear of the walls. From this Shaft the turning to the off-shoot (south) or to the Barrack (north) is sharp, in fact at right angles. I followed the off-shoot, 3½ chains, the water gradually deepened from 3 feet 2 inches at the Shaft, to 5 foot, 2 inches at the end of the 3½ chains. To proceed further was dangerous, and as I could meet only a dead end, perhaps useless.*
>
> *In this off-shoot the height from floor to roof is seldom less than 10 feet, width at surface of water averages 4 feet.* [30]

[27] Dale and Burgess p15.
[28] See Dale and Burgess who have reached the same conclusion.
[29] "Report of the Committee on the Tunnel for Supplying the Town of Sydney with Water ". In New South Wales Votes and Proceedings Legislative Council for the Year 1837, 678-91. Sydney: Government Printer, 1847, p678-679.
[30] Report of a Survey (with Plan and Section) of the Water Tunnel (Known as Busbys Bore) between Lachlan Swamp and Sydney made by order of the City Commissioners, in December 1854 and January 1855'. Accessed 13 December 2021. https://nla.gov.au/nla.obj-474739033. This is often called the Wilson report.

Warner clearly was not able to traverse the reported full 200 yards of the spur he only got under half way before he decided it was too dangerous.

Warner appears to have been surveying the tunnel Busby's Bore as his reports record chainages and dimensions. A plan and section were published in the report. This 1855 plan serves as the basis for later survey plans showing the location of Busby's Bore (.

In the area of the vicinity of the study area – Shaft 8 and Shaft 12 – Warner reported solid masonry construction. This method of construction is supported by evidence from remote sensing inspection of Shaft 8 on the 9th November 2021 which shows a neatly constructed shaft and the crown of Busby's Bore. This evidence is totally consistent with Warner's account. The depth from the road surface to the crown of Busby's Bore was 9.1m and the depth to the inside of the invert was 11.5m.

The works were completed in 1837 and the water was piped across Hyde Park to the corner of Elizabeth and Park Streets with above-ground trestles (Figure 7). Here (at the current location of Museum Station), the water from Centennial Park was collected and transported throughout Sydney via horse and cart. Upon the establishment of Sydney's first water pipe system in the 1840s, the pipes were connected to the Bore system and the fresh drinking water was distributed throughout the city automatically.[31] Along the route of the tunnel, 28 wells have been located to date (Figure 9). Six of these wells and shafts have been located immediately adjacent to the SFS subject site[32] During the construction work Shaft 8 in Moore Park Road was relocated.

Until 1859 Busby's Bore was the sole reliable fresh water source in Sydney, however the growth of the city required additional water supply options to be examined. This resulted in the implementation of the Botany Swamps Scheme in 1859 and the Upper Nepean Scheme in 1890.[33]

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[31] *Op. Cit.*
[32] *Op. Cit.*
[33] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 40.

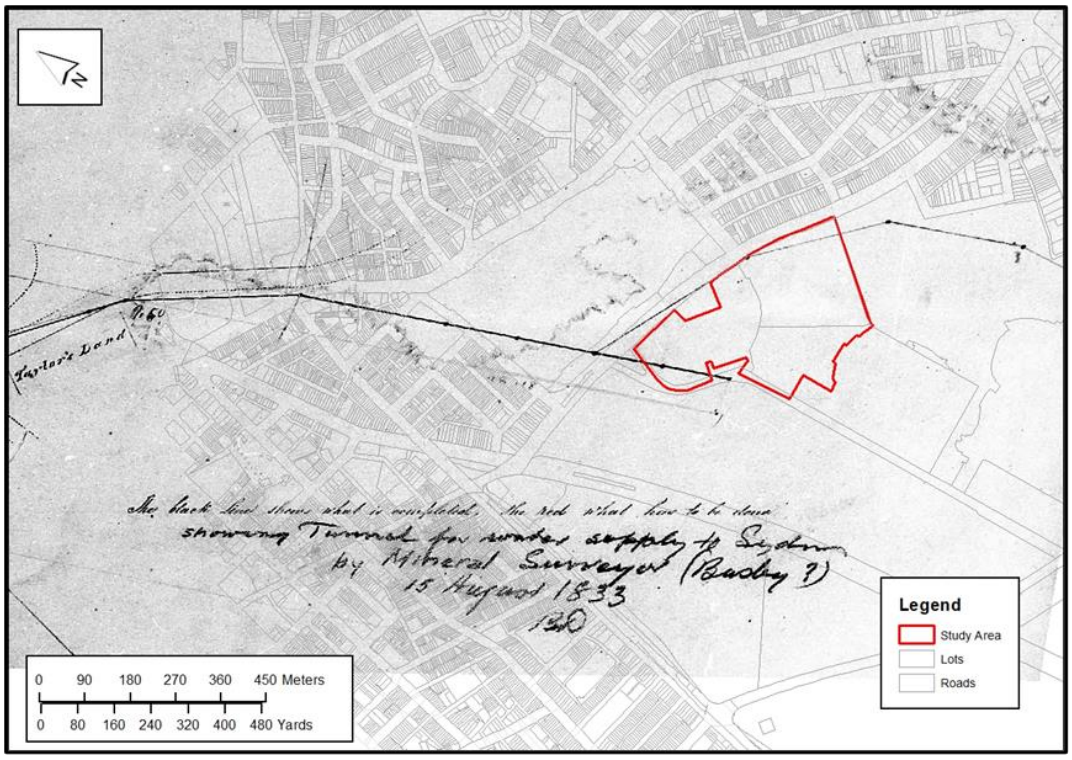

Figure 4: 1833 Plan of Busbys Bore overlain on modern cadastre

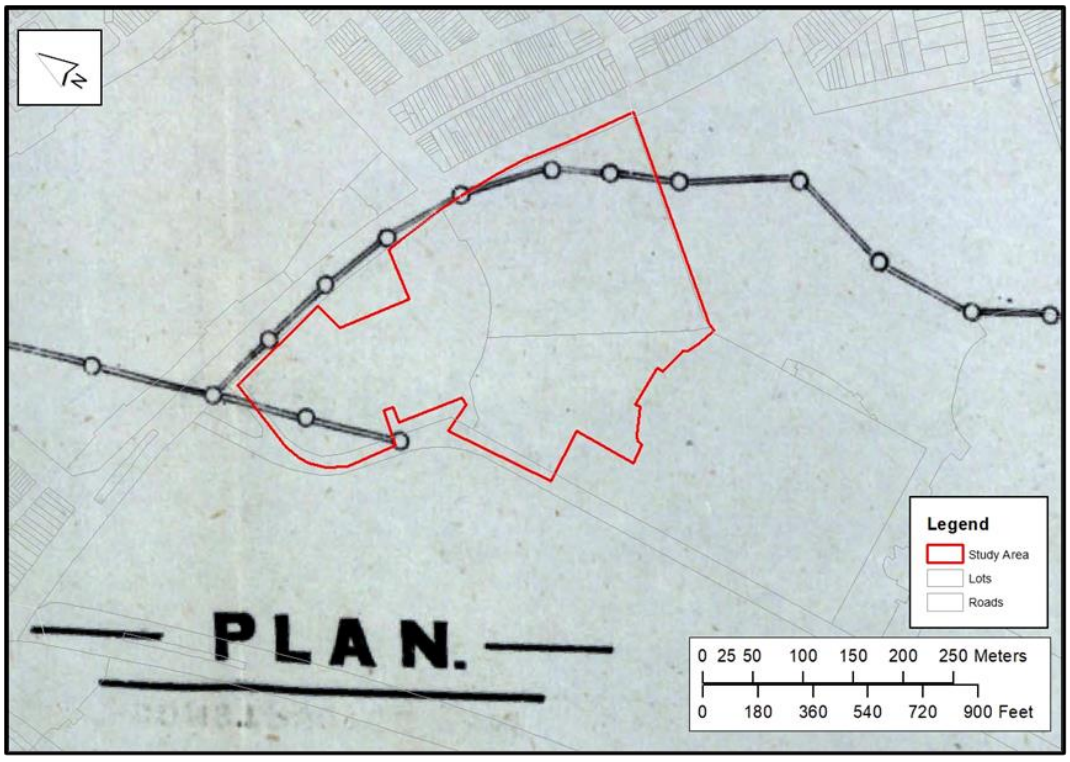

Figure 5: 1855 Plan of Busbys Bore overlain on modern cadastre

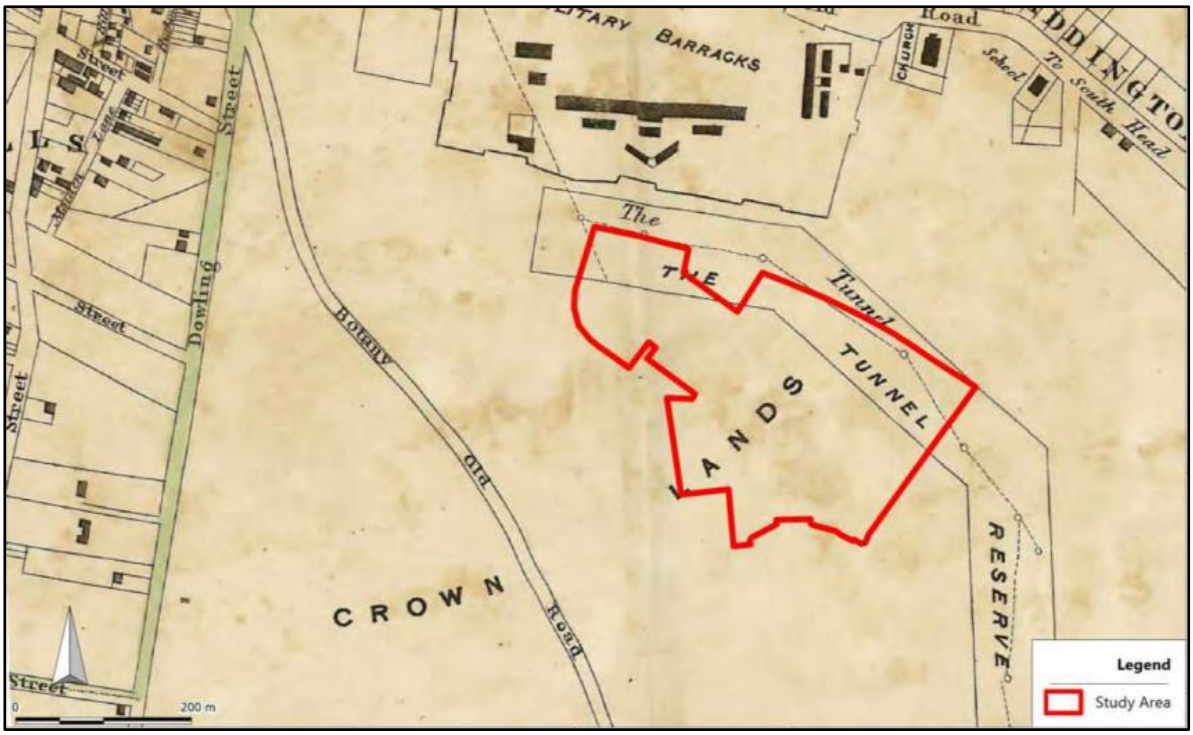

Figure 6: Busby's Bore (The Tunnel Reserve) illustrated in Woolcott & Clarke's Map of Sydney, 1864. Source: Historical Atlas of Sydney via Curio[34]

Figure 7: Busby's Bore piping at Hyde Park (looking north with St James Church in the background), n.d. Source: City of Sydney Archives

[34] Curio Projects, 2019. 'Figure 3.3. Woolcott & Clarke's Map of the City of Sydney, 1864.' *Historical Atlas of Sydney*.

Figure 8: Busby's Bore at the intersection of College and Liverpool Streets, constructed with stone masonry lining. Source: Sydney Water Archives. Note: This type of construction was not used in the construction of the Busbys Bore Spur

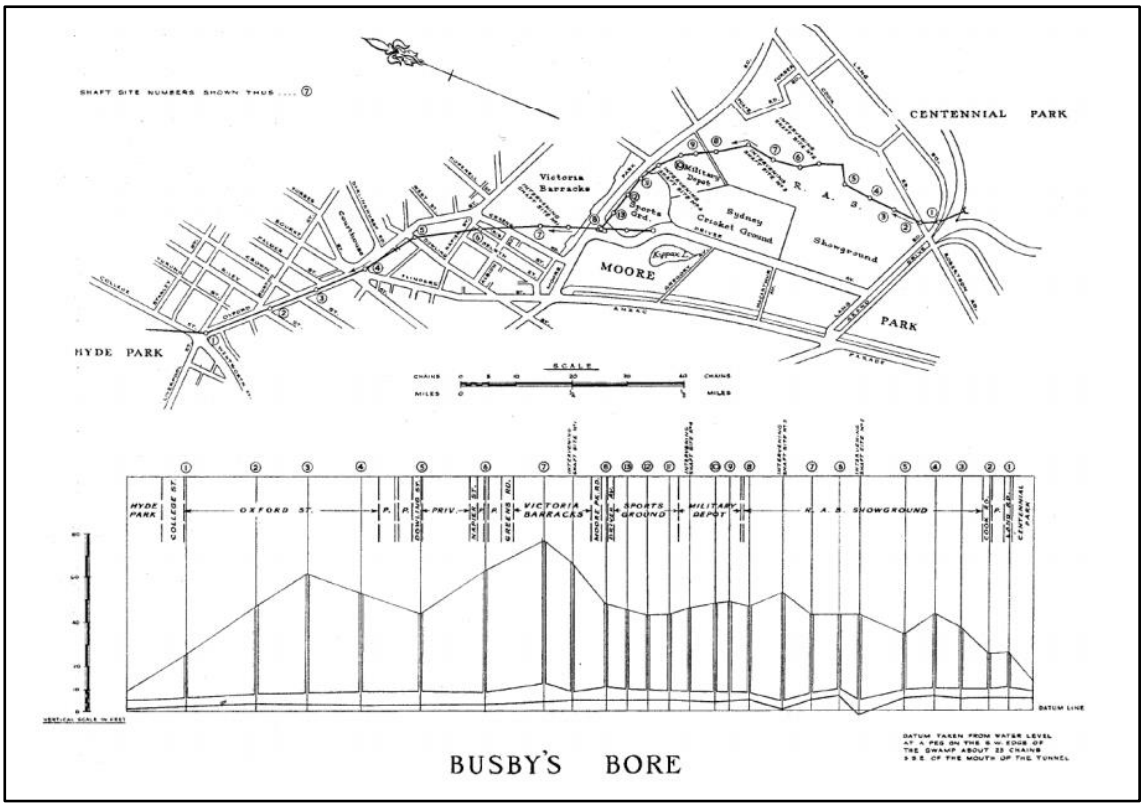

Figure 9: Busby's Bore Survey Map. Source: Sydney Water Archives but the original in in the Warner report)

1.1.1. Victoria Barracks Rifle Range

The Victoria Barracks, located at the northern end of the Sydney Common, opened in 1841 and housed British soldiers (Figure 10). Additional land for a rifle range and recreational grounds for the soldiers was required and in 1849 more of the Sydney Common was incorporated into the Barracks Grounds. In 1852 another 25 acres were resumed for a military garden and cricket ground, in the location of the current Sydney Cricket ground.[35] Seven more acres were incorporated into the rifle range in 1862.[36]

In 1882 the Sydney Cricket Ground was established, and the rifle range was subsequently relocated to Maroubra, as it was deemed dangerous to have the range near public recreational land. The Victoria Barracks was officially closed in 1890.[37]

[35] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 42.
[36] *Op. Cit.*
[37] *Op. Cit.*

Figure 10: Victoria Barracks rifle range at Moore Park. Source: Centennial Parklands

6.2.4 Moore Park

The Sydney Common came under the jurisdiction of the Sydney Council in 1861 and Moore Park was established by 1866. This resulted in the dedication of 378 acres of the northwest portion of the Sydney Common as a recreational ground for the public. It incorporated the cricket ground and provided additional sporting facilities. The park was named Moore Park after the Mayor of Sydney at the time, Charles Moore. Throughout the late nineteenth and early twentieth centuries the Moore Park area grew as a recreational precinct, incorporating Centennial Park, the Sydney Cricket Ground upon its establishment in 1882, and hosting the Royal Easter Show within the Royal Agricultural Society site from 1881 until the late-1900s.

Figure 11: Federation Celebrations at Centennial Park, 1901. Source: Centennial Parklands.[1]

Figure 12: Sydney Cricket and Sports Grounds (Engineer Depot in top left of image), 1936. Source: Royal Australian Historical Society

6.2.5 The Engineers and military depot

The former Victoria Barracks rifle range remained in the ownership of the barracks, and was converted to headquarters for the NSW Field Engineer Corps. The depot facilities were located along Moore Park Road and were originally used as training facilities for electrical and signal engineers (Figure 13). Additional facilities included harness rooms, garages, a drill hall and gymnasium as part of the remount depot.[38]

During World War I, the area was repurposed for use by the School of Military Engineering. In the Inter-War era the Barracks remained used by engineers.[39] In the 1920s the Engineer depot was relocated to Casula in South-West Sydney, however the Victoria Barracks continued to be used as division headquarters for Field Squadrons, Cavalry Divisions and Engineer groups.[40] By 1920 the eastern part of the site was transferred to the Royal Agricultural Society.

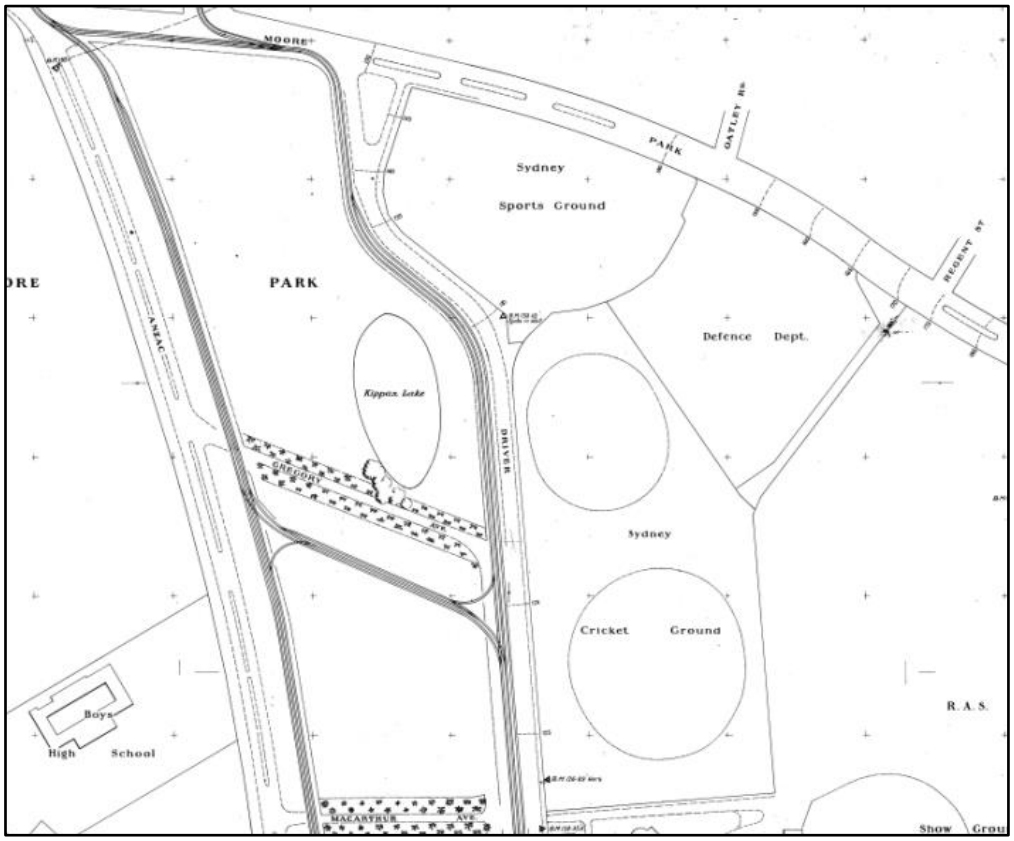

Figure 13: Sports Ground and Military Depot plan, 1938-1950. Source: Historical Atlas of Sydney[1]

Throughout World War II the site grew and changed rapidly with an increase in personnel and the construction of several prefabricated huts, anti-aircraft trenches, and the establishment of the National Emergency Service, which were stationed at the Barracks (Figure 13).[41] The prefabricated huts were removed in the 1970s and all remaining structures on the site were demolished in 1986 when the military depot was transferred to the NSW Government and it was determined that the SFS would be constructed.

[38] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 44.
[39] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 44.
[40] *Op. Cit.*
[41] *Op. Cit.*

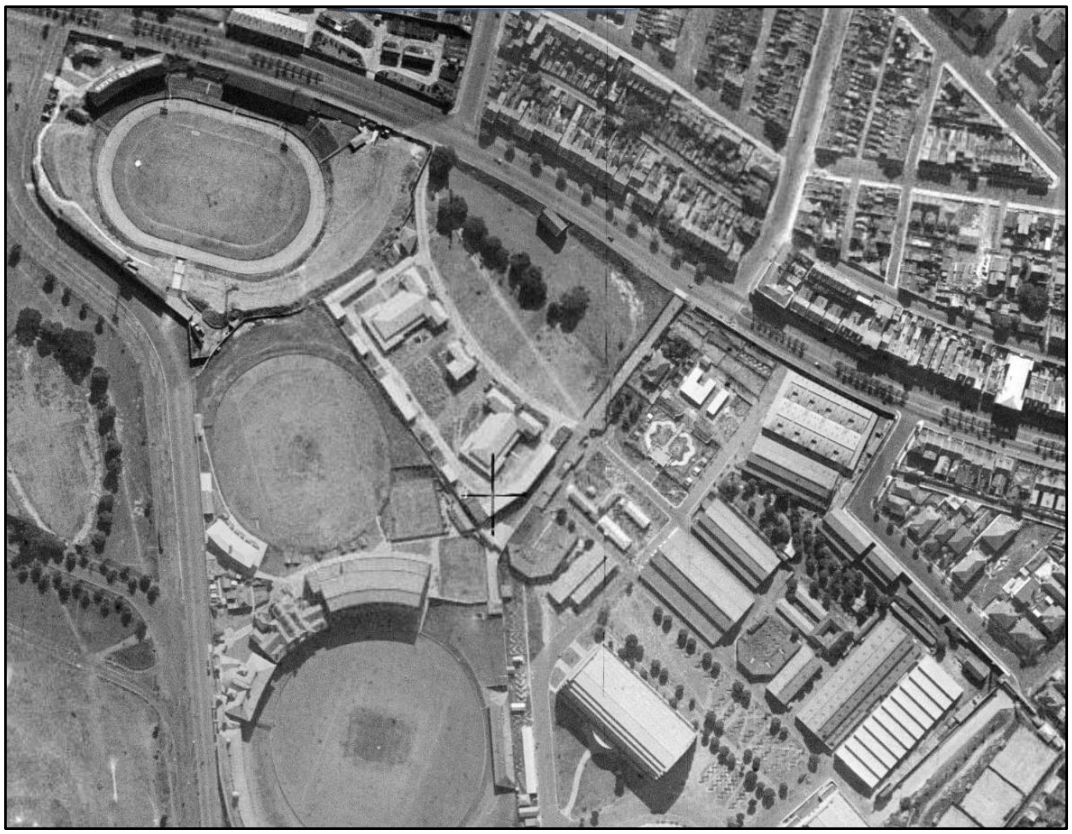

Figure 14: Sports Ground, SCG (bottom centre), and Engineer Depot (right half of image) in 1943. Source: SixMaps

6.2.6 The Sydney Sports Ground

By 1902 the Sydney Sports Ground (SSG) had been developed, located in the former rifle range land. The land was originally dedicated as an athletic ground in 1899 upon the closure of the rifle range and is located in the area of the current SFS carpark.[42] The development of the SSG was to ensure that there were facilities for organised sports other than cricket.[43] Early development of the sports ground included the construction of fencing and the levelling of the site with introduced fill.[44] Landscaping for the new ground included the planting of six fig trees, fifty oak trees, fifty border plants and shrubs which were supplied by the Sydney Botanic Garden.[45] Two grandstands and amenities blocks were constructed (Figure 15). One of the grandstands was a timber structure originally constructed at Centennial Park and relocated to the Sports Ground.[46] The ground had facilities for a variety of sports such as cricket, rugby, cycling, and other recreational uses including scout rallies, brass band contests, dog shows and dirt track racing. The rugby union was the most successful sport at the ground and largely funded upgrades to the ground. Other sports, including cycling and dirt track riding were no longer held at the ground past the 1930s. The sports ground had a brief tenure as the main car racetrack or speedway in Australia, however this was closed in 1955 (Figure 17).[47]

[42] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 50.
[43] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 50.
[44] *Op. Cit.*
[45] *Op. Cit.*
[46] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 51.
[47] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 52.

In 1951 the SSG Trust merged with the neighbouring Sydney Cricket Ground, resulting in the creation of the Sydney Cricket and Sports Ground Trust (Figure 16). From the 1970s potential upgrades to the Sports Ground were discussed. The military depot was purchased by the Trust in 1986 and incorporated into the ground. It was determined that the sports ground would be demolished and replaced with a new football stadium in 1987.[48]

Figure 15: The Sydney Sports Ground, 1919. Source: Sydney Cricket Ground Museum[1]

[48] *Op. Cit.*

Figure 17: Speedway at the Sydney Sports Ground, 1937. Source: SLNSW[1]

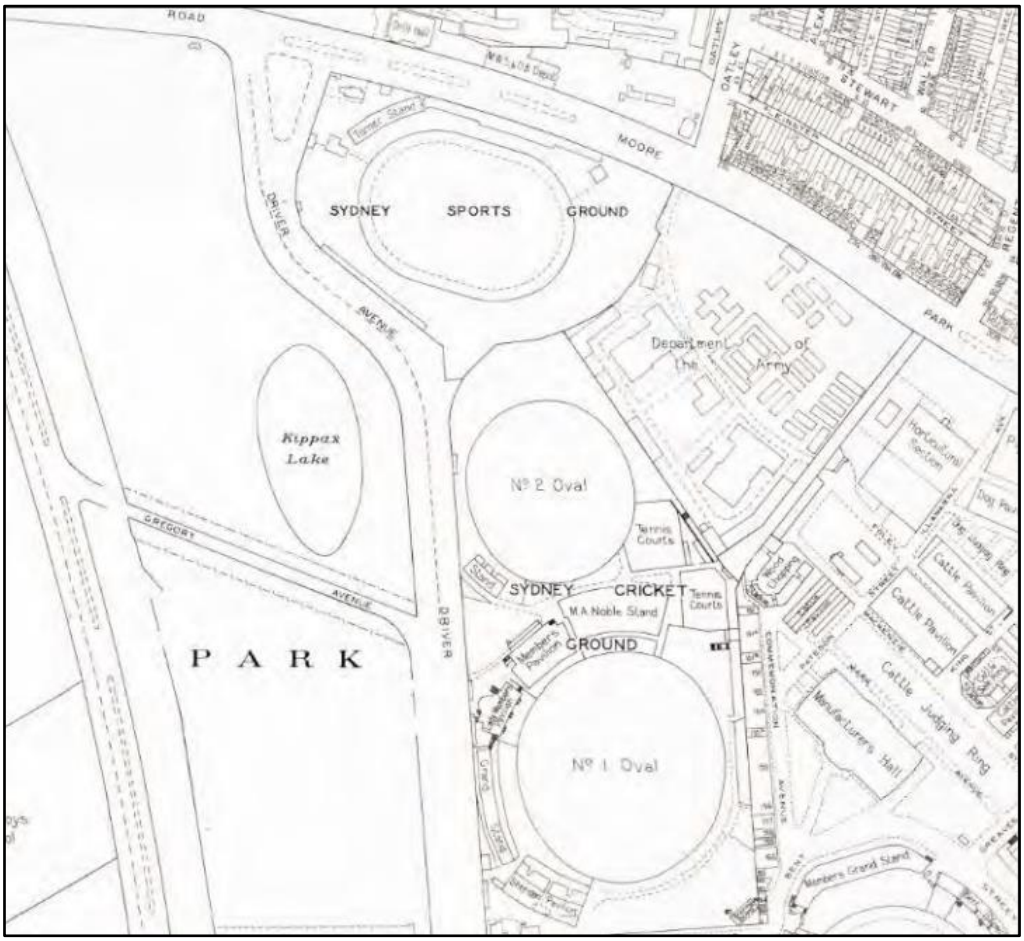

Figure 16: Plan of Moore Park, 1949-1972. Source: Historical Atlas of Sydney

6.2.7 The Sydney Football Stadium

An architectural competition for the design of the SFS was announced, with the successful design by the architecture firm Phillip Cox Richardson Taylor, with Ove Arup & Partners as engineers. The construction of the stadium required the demolition of the SSG, the military depot, and the levelling of Oval 2 of the SCG (Figure 18). The stadium was designed to minimise noise and light impacts to nearby residential areas and Cox's design featured a warped oval roof which prevented shading the playing field.[49] The stadium had a capacity of 40,000 people and was opened in January 1988 (Figure 19).

The SFS held most soccer matches during the 2000 Sydney Olympics and was the home ground of the Sydney Roosters Rugby League Club and Sydney Football Club. International and local rugby league, rugby union and soccer (football) matches have been played at the venue in addition to events such as concerts and the Edinburgh Military Tattoo.[50] The site was most recently known as Allianz Stadium. In November 2017 it was announced by the NSW Premier that the SFS would be redeveloped. The demolition of the Stadium commenced in January 2019.[51]

Figure 18: Construction of the SFS, 1987. Source: Sydney Cricket Ground Museum[52]

[49] Curio Projects, 2019. *Heritage Impact Statement – Sydney Football Stadium Redevelopment, Stage 2 DA*, p. 57.
[50] *Op. Cit.*
[51] *Op. Cit.*
[52] Sydney Cricket Ground Museum, 1987. Collection No. 12/123

Figure 19: Sydney Football (Allianz) Stadium, 2016. Source: Sydney FC53

6.3 Historically documented impacts to the project area

The study area and Moore Park in general have been subject to very significant levels of ground disturbance. Little historical mapping and very little topographic mapping of natural conditions in the study area is available. The following section therefore uses several 19th-century maps and images in which the study area is captured, to inform an understanding of historical natural ground levels within it.

Mapping from 1875 (Figure 20) shows the future location of the former SFS and the Sydney Cricket Ground (circled in red) as relatively level land, flanked at a distance to the north, east and south by sand dune ridges, and to the west by Anzac Parade, then referred to as either Old Botany Road or Randwick Road. The Victoria Barracks is situated close to the north, located strategically on top of a sand ridge. While the map only portrays flat lands or ridges, it is likely that land would have naturally trended upwards towards these ridges. The red arrow in the top left corner of the image indicates the direction and location from which the panorama shown was taken in 1875 (the same year as the Sydney Water Plan above), illustrates the very large size of the sand dunes that have since been almost totally removed from Moore Park. The future location of the former SFS and Sydney Cricket Ground is only partially captured and is indicated with a red arrow. It comprises land rising to the north and the sand dunes at the Victoria Barracks. To the right are visible ‘Mount Rennie’ and ‘Mount Steele’, both of which were removed through sand mining and for construction of the Moore Park Golf Club. The large dunes to the left of the image have been removed. They may not have been named but were nevertheless significant rises.

[53] Sydney Football Club, 2016. Former Sydney Football Stadium.

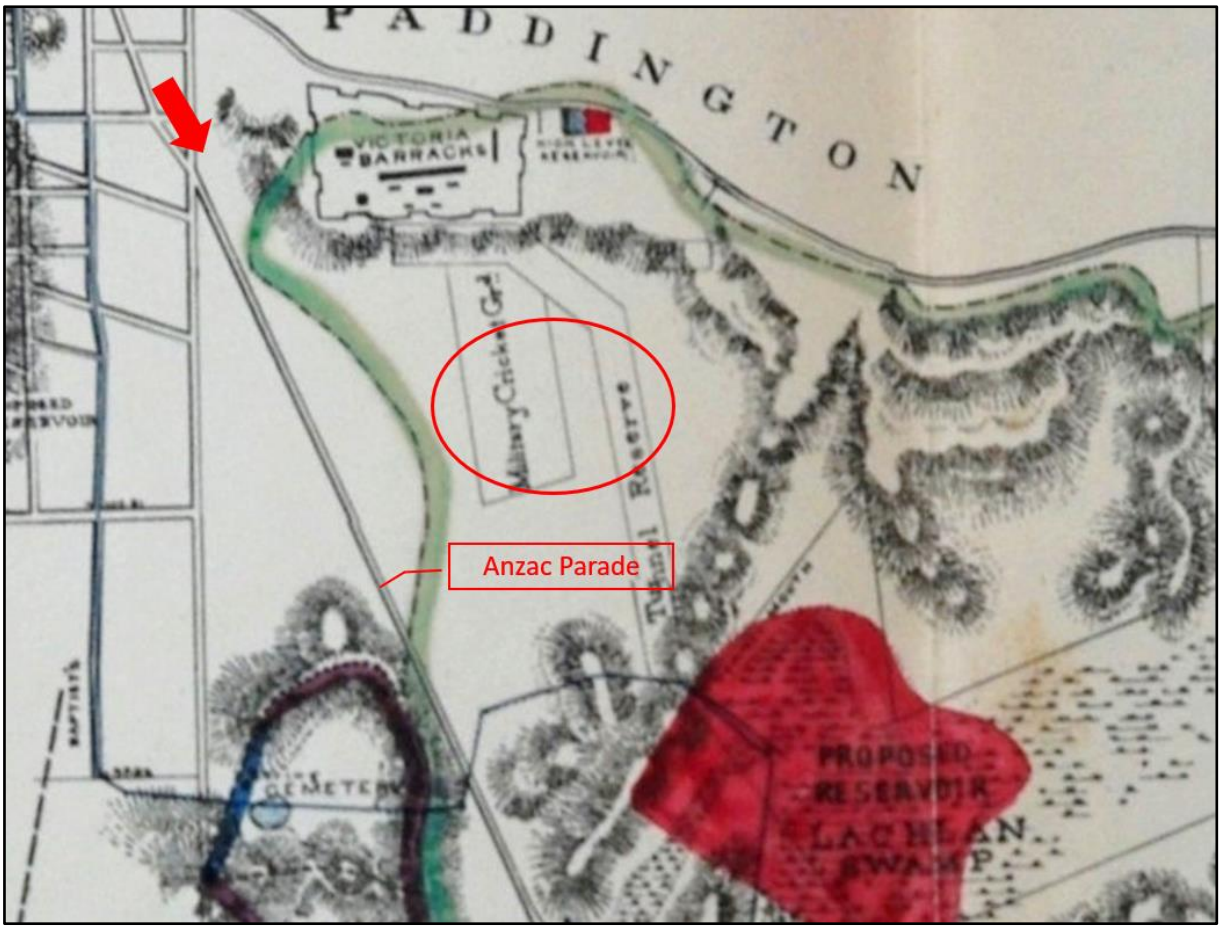

Figure 20: Sydney Water Commission Plan. F. Wells 1875 (TROVE NLA)

Figure 21: Moore Park from Anzac Parade entry in 1875. View south (SLNSW item 1243367)

In 1875 works commenced to form the Sydney Cricket Ground.[54] A photograph of a cricket test match played at the Sydney Cricket Ground in 1883 shows the future location of the former SFS in the background as a raised piece of land, rising upwards to the north west. Two historical photographs from the same day (27 January 1883) have been spliced to create (Figure 22). The Sydney Cricket Ground Members stand, and the Victoria Barracks remain in situ today, allowing for a definite identification of the SFS future location from this photograph. The row of conifer trees in the background of Figure 22 is almost certainly the row of trees shown eight years earlier in as juvenile plantings along Anzac Parade.

[54] Sydney Cricket Ground Trust (scgt.nsw.gov.au – accessed 16 December 2019)

Figure 22: Cricket match at the SCG 27/1/2019. View north west (Trove NLA)

A photograph of another cricket match played nine years later in 1892 looks slightly more to the west (Figure 23) and is taken from a higher elevation. This image shows the raised ground of the where the former SFS would be located and SSG, and also illustrates that the Sydney Cricket Ground was likely cut significantly into local dunes to produce banked or bowl like sides as seating.

Figure 23: Cricket match at the SCG in 1892. View west north west (Trove NLA)

This proven technique of excavating a flat playing surface into surrounding dunes appears almost certain to have been followed in construction of the SSG located to the north east of the Sydney Cricket Ground and partly within the footprint of the SFS Redevelopment. Dedicated in 1899, the SSG was opened in 1903. It had been excavated to depth below the surrounding landscape and was formed with high banked earthen sides to provide both informal seating and a facility for motorcycle racing (Figure 24).[55] The depth of excavation carried out to create this sunken bowl is estimated as at least five to six metres, based on the likely height of the two-storey stadium grandstand visible in Figure 24 which does not appear significantly taller than the surrounding earthen stadium walls.

Subsequent aerial imaging dating from 1951 indicates that this level of excavation and battering had also been carried out on ancillary ovals located to the south west of the SFS Redevelopment and that the original ground surface would have been removed from these areas (Figure 25). Some added detail of this is visible in aerial imaging dating from 1978 (Figure 26).

[55] *Sydney Mail and NSW Advertiser*, Wednesday 5 August 1903

Aerial imaging of works in 1986 for the former SFS show levelling and filling and in particular, reduction of the banked walls between the former SFS, the SSG, and the oval to the south west of the former SFS (Figure 24).

Figure 24: SSG in 1937. View north east (Trove NLA)

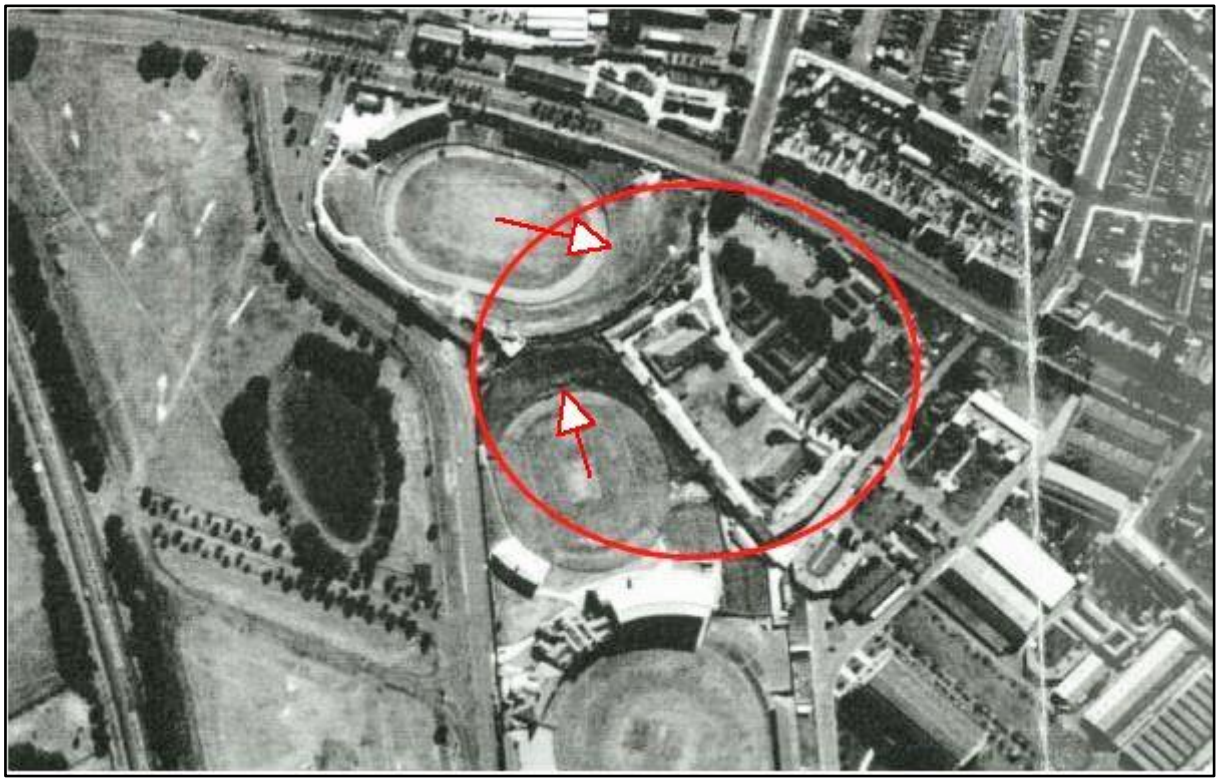

Figure 25: Project area in 1951, battering indicated with red arrows (Douglas Partners 2019)[1]

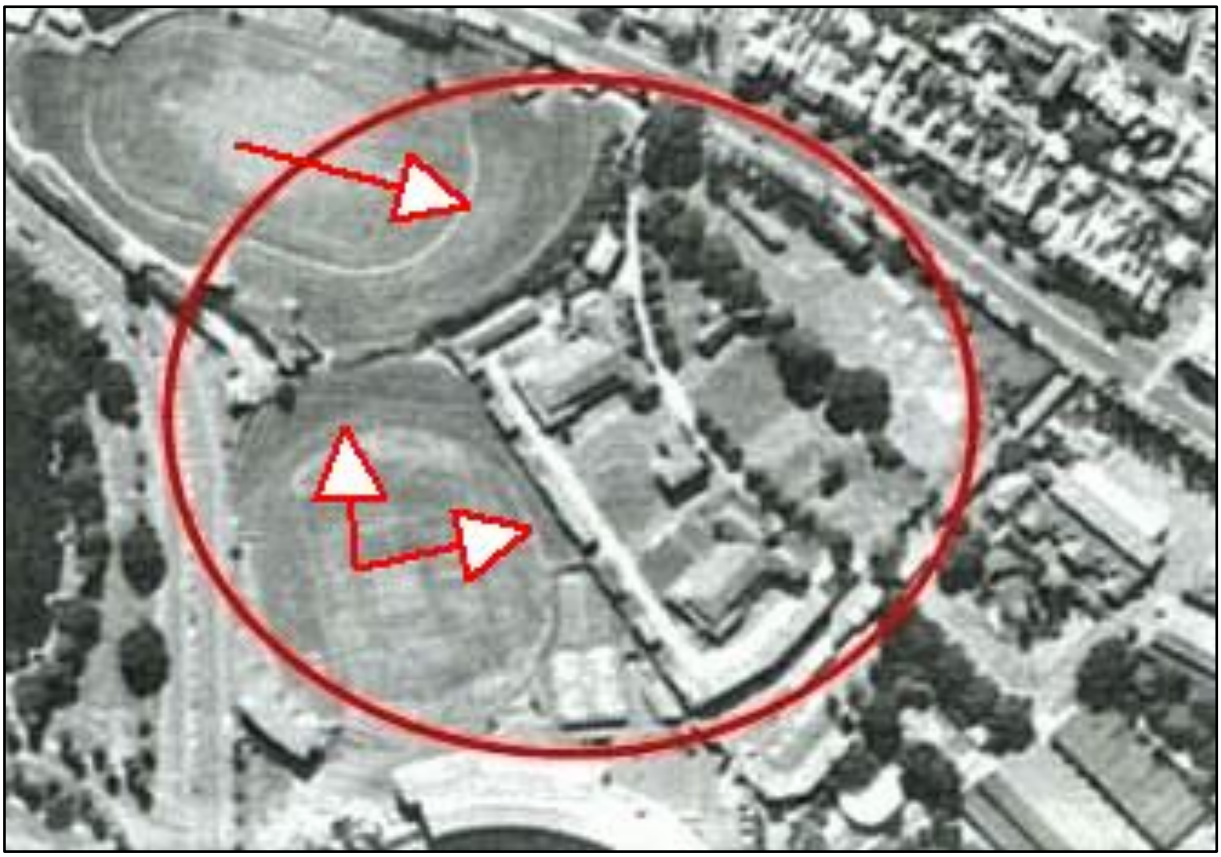

Figure 26: Added detail of excavation and battering visible in 1978 aerial (Douglas Partners 2019)

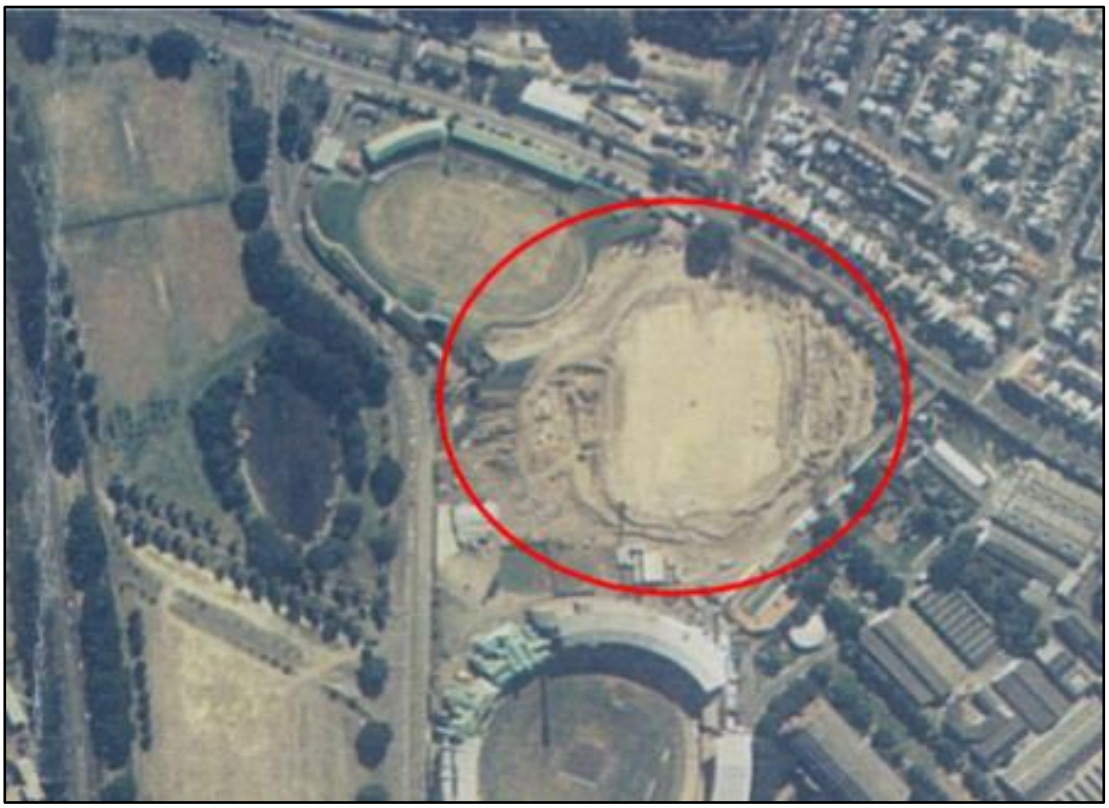

Figure 28: Project area in 1986 (Douglas Partners 2019)

Topographic mapping produced in 1950 shows the extent of excavation for the SSG (Figure 27). It also shows the preserved natural contour lines of the surrounding area, including Anzac Parade. These strongly indicate that the location of the SSG previously sloped gradually over approximately 400 metres from a low point of 130 metres elevation in the south to a high point of 145 metres elevation in the north west. This gentle rise (4% or 1 in 25) is consistent with the images and their interpretation given above.

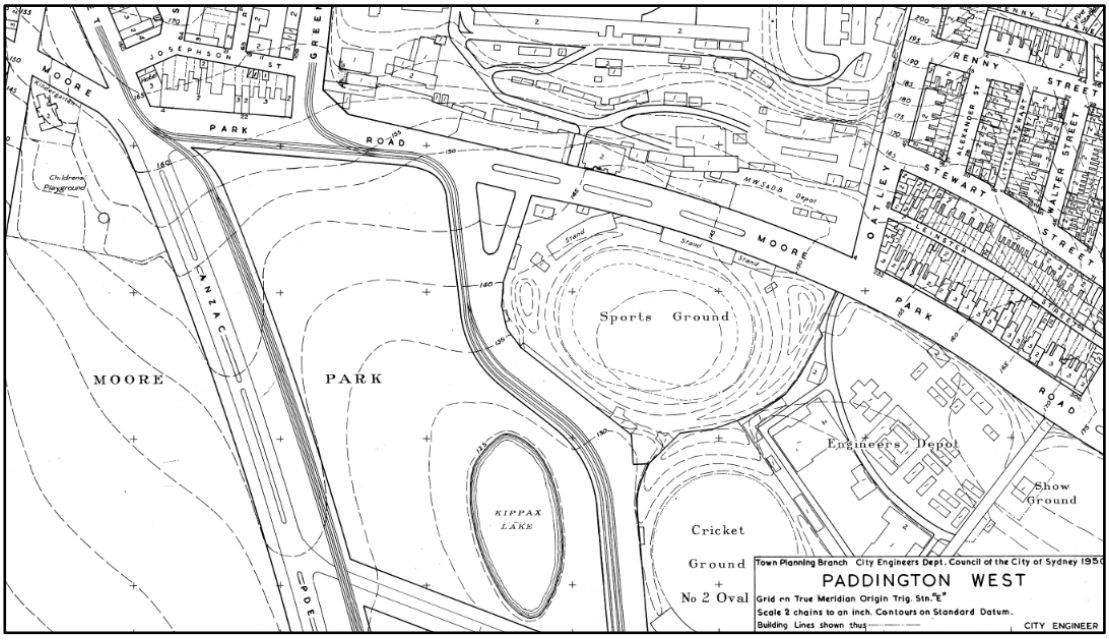

Figure 27: Excerpt from topographic map of Paddington West, 1950. (Trove NLA)

6.4 Heritage listings

There are a number of statutory listed item within and in the vicinity of the Project site (see Figure 29). Physical and visual impacts to these items were assessed as part of the EIS. A summary of items, impact assessment and listings are included below.

Table 5: Heritage listed items

Item	Register	Significance	Proximity to Project Site	Impacts
Busby's Bore	SHR 00568 Sydney Water s170 Sydney LEP 2012 I1	State	Partially within	Physical: Nil (Monitoring and Unexpected Finds) Visual: N/A
Sydney Cricket Ground HCA	Sydney LEP 2012 HCA C37	Local	Within	Physical: Minor Visual: Neutral
Sydney Cricket Ground Members Stand and Lady Members Stand	SHR 00353	State	50m south	Physical: Nil Visual: Neutral
Furber Road Conservation Area	Sydney LEP 2012 HCA C6	Local	200m east	Physical: Nil Visual: N/A
Terrace house including interior	Sydney LEP 2012 I0185	Local	85m north	Physical: Nil Visual: N/A
Victoria Barracks Group	Sydney LEP 2012 I1086	Local	40m north	Physical: Nil Visual: Neutral
Victoria Barracks HCA	Sydney LEP 2012 C49	Local	30m north	Physical: Nil Visual: Neutral
Paddington South HCA	Sydney LEP 2012 C48	Local	50m north-east	Physical: Nil Visual: Neutral
Moore Park HCA	Sydney LEP 2012 C36	Local	20m west	Physical: Nil Visual: Neutral to Positive
Centennial Park, Moore Park, Queens Park	SHR 01384	State	600m east	Physical: Nil Visual: Neutral
'Verulam' Terrace House including interior and front fence	Sydney LEP 2012 I1078	Local	30m north	Physical: Nil Visual: N/A
Olympic Hotel including Interior	Sydney LEP 2012 I1079	Local	80m east	Physical: Nil Visual: N/A
Moreton Bay Fig Tree (Moore Park Road)	City of Sydney Register of Significant Trees (2013)	Local	40m west	Physical: Nil Visual: Positive

It is noted that for listed items that have Conservation Management Plans in place a summary has been provided in relation to adherence to policies in pages 24-31 of the Heritage Impact Statement for the EIS.

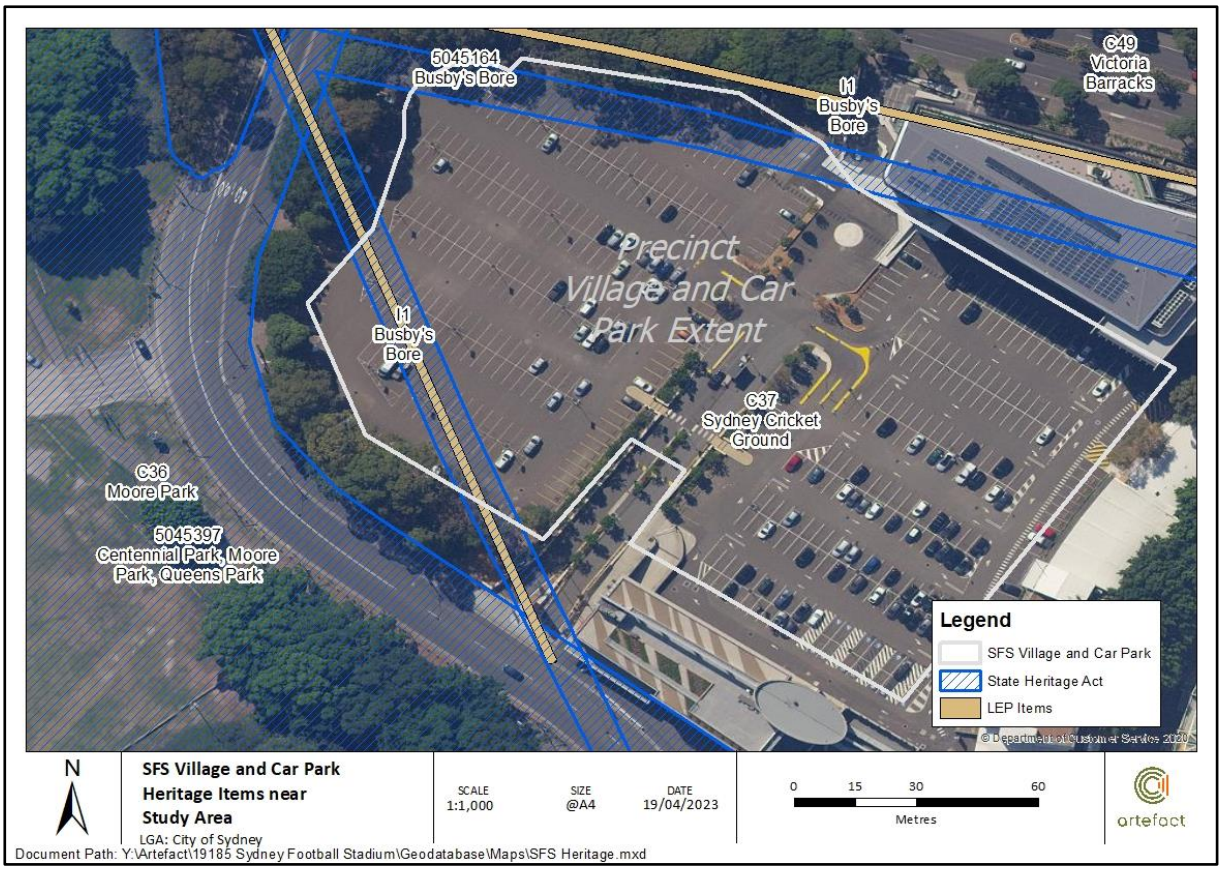

Figure 29: Heritage listed items (note the location of Busbys Bore is that identified in the SHR mapping).

6.5 Discovery of Busbys Bore Spur Shaft 1

Work on the SFS Stage 3 project for the Moore Park Precinct Village and Car Park began in mid-2024 working under consent SSD 9835 – Mod 7.

6.5.1 The discovery of the Shaft

During excavation for the piling platform on 25 June 2024 BESIX Watpac and their civil contractor uncovered what was described as “an old well / shaft”. Dr Iain Stuart from Artefact Heritage and Environment, who is the approved Excavation Director for the project, attended the site on 26 June 2024.

Accompanying Dr Stuart was Nicholas Papanikolaou (Project Manager from BESIX Watpac), Deirdre O’Neill (Group General Manager of Infrastructure and Development at Venues NSW), and Aleks Kukolj (Superintendent, Venues NSW).

As required under this CHMP, work around the item ceased, protection against inadvertent damage was erected, and the Department of Planning, Housing and Infrastructure was notified of an unexpected find at the Sydney Football Stadium Redevelopment, Moore Park Precinct, Village and Car Park site. In addition, as a courtesy Heritage NSW and Sydney Water were also notified of this discovery.

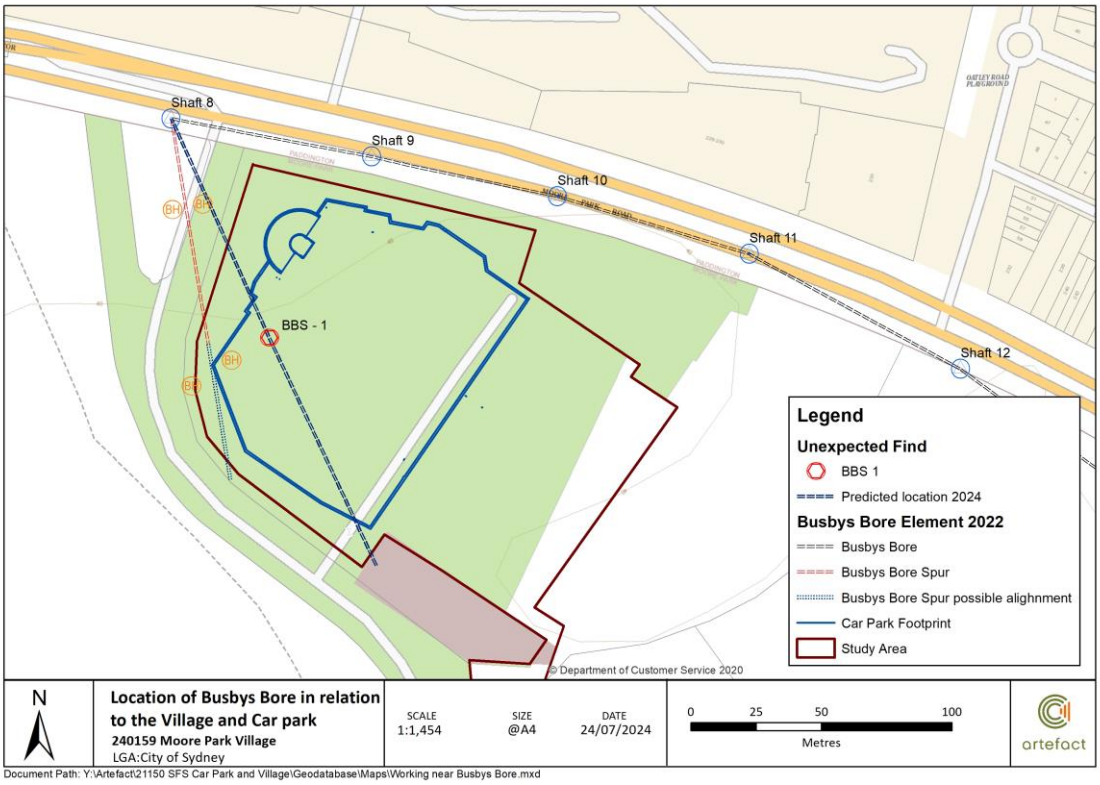

Figure 30: location of BBS-1 and predicted location of the associated spur tunnel

There is strong evidence that the well/shaft is most likely an access shaft to Busbys Bore Spur. The reasons for this view are:

1) Both the 1833 and the 1854 plans of Busby's Bore show the spur as a line and draw circles on the line to indicate access shafts. Georeferencing the plans (an imprecise art) allows the location of the shafts to plotted on a modern plan. The item is about 7m to the north of the predicted location of an access shaft based on the georeferencing of thew 1854 plan.

2) A review of historical plans shows that the land was used as part of the Rifle Range and then for recreation until the land was built over by the Sydney Sports Ground. It seems unlikely that such use required a substantial well.

3) A well has a different function than an access shaft. A well needs only be as deep as the water table, which in this area is quite shallow, whereas access to Busbys Bore needed to be deeper as the bore is in effect a tunnel on a more or less level grade. Shaft 8, for example, is about 11.12m to the overt of Busbys Bore.

Until there is compelling evidence to suggest otherwise, a precautionary approach has been adopted which is that the preliminary interpretation of the item is an access shaft to Busbys Bore Spur. The shaft identified in this report has been named Busbys Bore Spur Shaft 1 (see Figure 34).

6.5.2 Description of the Shaft

The remains consisted of five pieces of sandstone capping a circular shaft about 1.5m in diameter. These are shown in Figure 31.

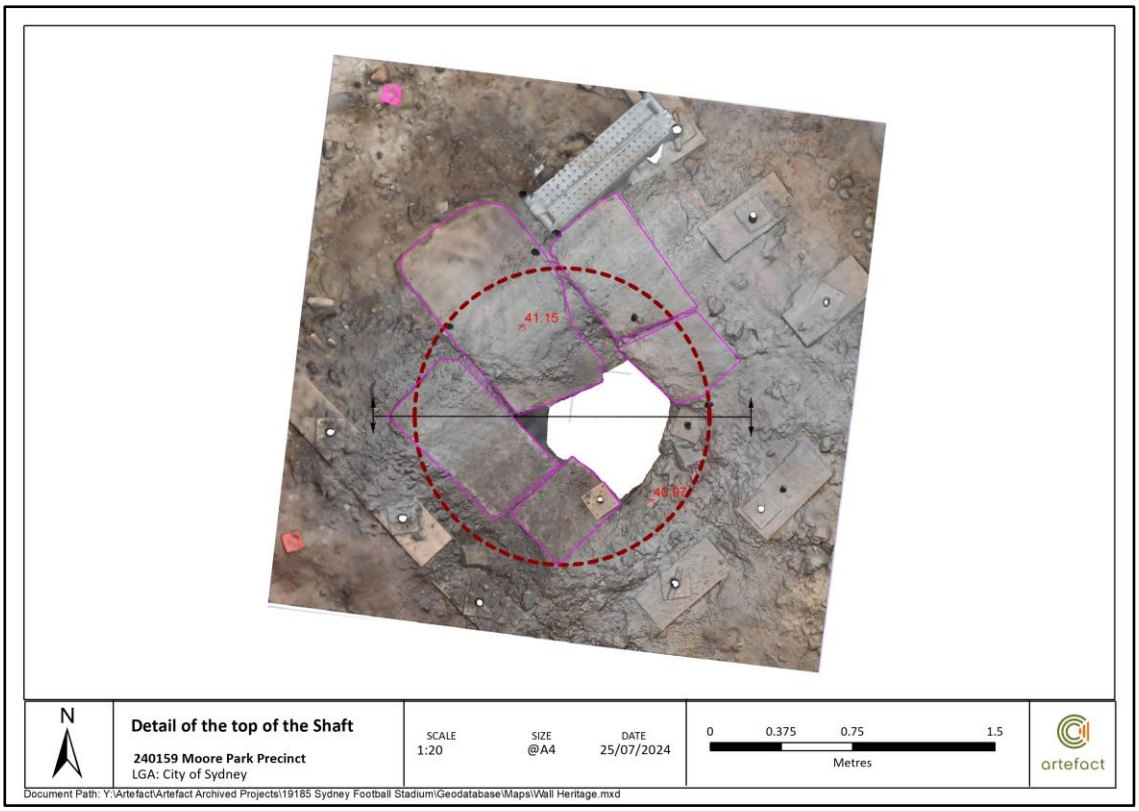

Figure 31: Photogrammetric plan of the top of the well

The interior of the shaft was investigated in several ways. Initially the depth was measured by Total Surveying Solutions - the project surveyors. They also undertook laser scanning of the interior of the shaft from the top to water level.

The shaft below the water was investigated using standard underwater CCTV. The aim was to determine whether the base of the shaft has intercepted the tunnel of the spur or not. The initial CCTV survey was undertaken by Durkin and a second survey was undertaken by Draintech. The fundamental problem was the poor visibility in the water due to a high sediment load. An attempt to improve visibility with flocculation by Draintech was unsuccessful.

The shaft above the water was recorded by photogrammetry by Guy Hazell (see Figure 31, Figure 32 and Figure 33.

To summarise this work;

Survey work had identified that the depth of the item as 8.8m from the top of the shaft. Aurecon report that the base of visible portion of the shaft ~ 8.5 m, has roughly 200mm of finer gravelly sediment under it. The actual base of shaft was not found and there is no evidence of the shaft at c8.5m (RL 32.65). Converting the measurements to decimal feet this is a depth of 27.98ft which is consistent with the depth of Shaft 8 as shown on the 1854 plan.

As the shafts intercepted the bore at the apex of the obvert then it can be assumed that the top of the Busbys Bore Spur tunnel is below RL 32.65m.

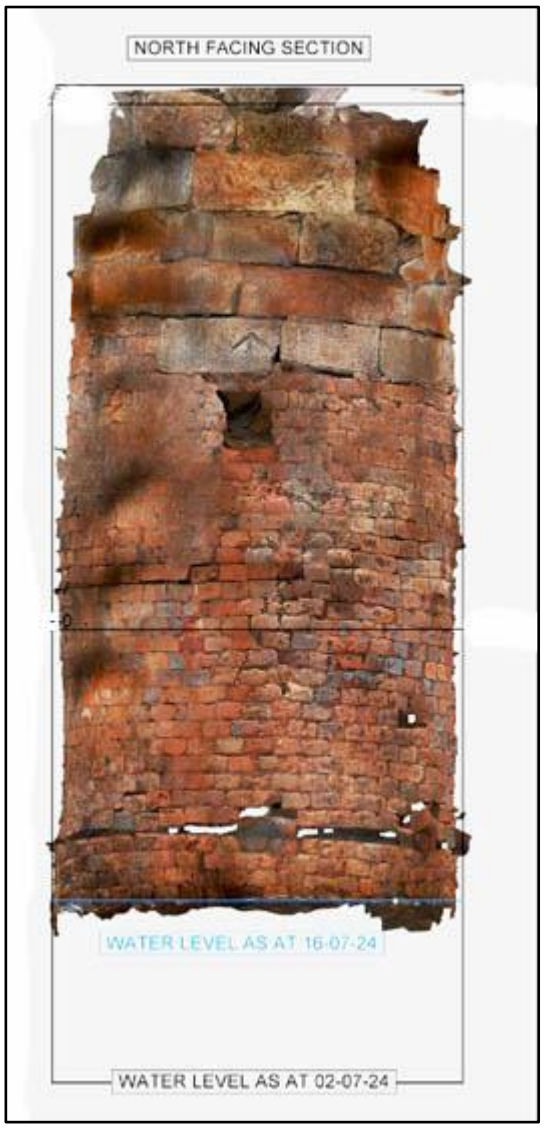

Figure 32: North elevation of BBS-1

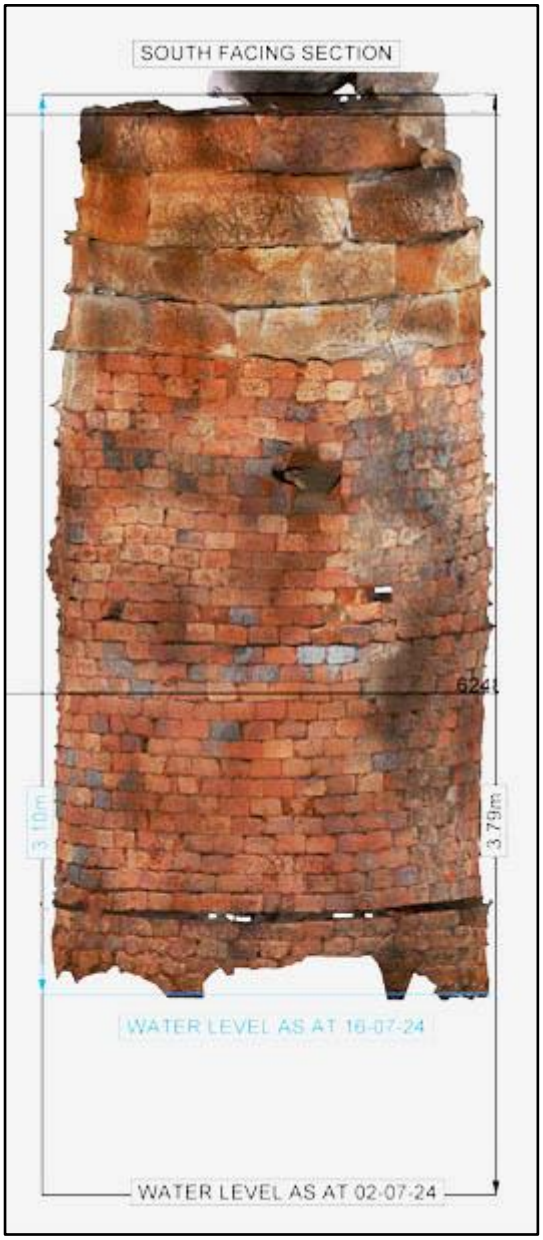

Figure 33: South elevation BBS-1

The top of the shaft was constructed as four layers of dressed sandstone block (0.88m or 2.9ft). One of the blocks has a crude broad arrow on it. This symbol was used to mark Government property.

The remains of the shaft was constructed by 33 rows of sandstock bricks (2.28m or 9.45ft). It is presumed that these extend into the water or until the underlying sandstone has been reached. The underwater CCTV evidence is that the base of the shaft is constructed in sandstone with some underwater evidence of bricks. The brickwork is in fair condition although there is a section of collapse visible on the north elevation.

The location of the find - identified in this report as Busbys Bore Spur Shaft 1 (BBS 1) can be seen in Figure 35.

The location of the shaft has allowed further georeferencing of the 1854 plan based on the previously known location of the shafts and BBS 1

Figure 34: Top of BBS 1 looking west

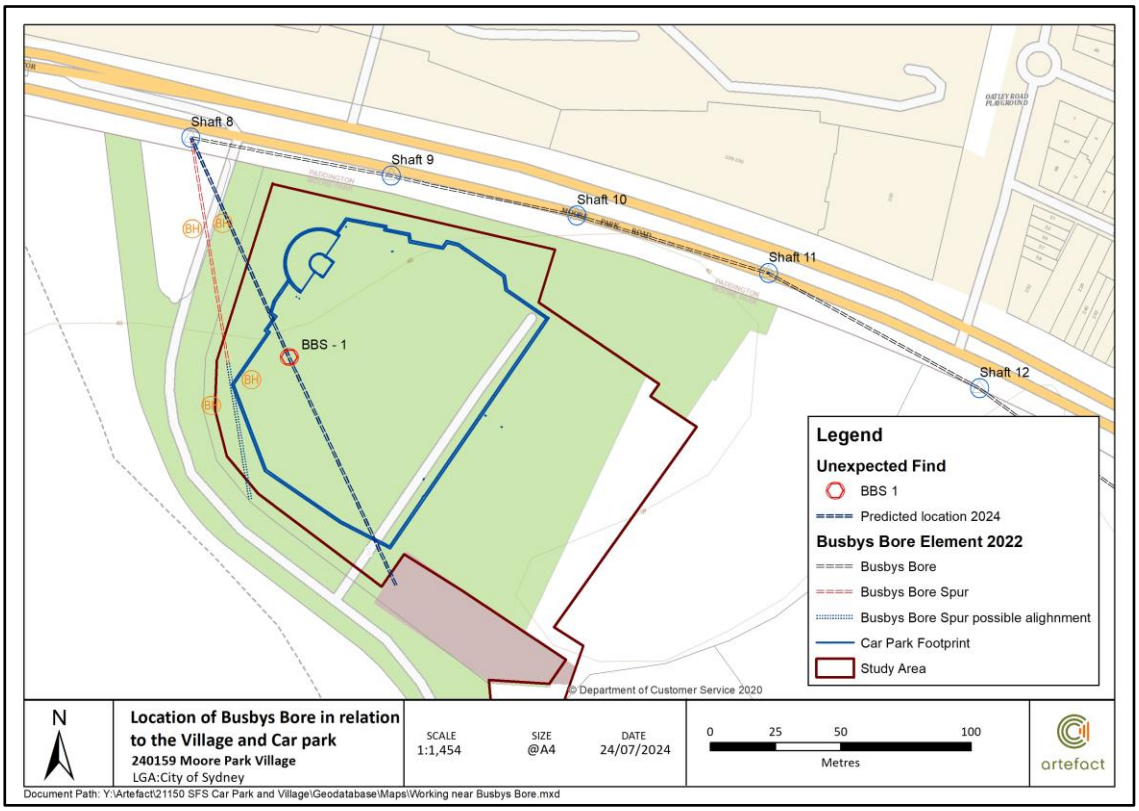

Figure 35: Location of Busbys Bore Spur following discovery of BBS-1

After georeferencing a new predicted location for the Busbys Bore Spur and shafts was mapped (Figure 35).

In comparison with the predicted alignment of Busbys Bore Spur on which the cross hole tomography was used the new predicted alignment runs to the South East from Shaft 8 whereas the former predicted alignment ran South South-East. Thus BH 1 and BH 2 were located 9m to the west of the new predicted line and BH 3 & 4 were located 23m west of the new predicted line. The inevitable conclusion is that the results of the cross hole tomography do not accurately predict the occurrence of the Busbys Bore Spur and Shafts. This is shown in Figure 35.

6.5.3 Archaeological potential of Busby's Bore Spur

The archaeological potential of Busbys Bore has been recognised in numerous assessment documents for the Sydney Football Stadium since 2019. The archaeological potential of Busbys Bore Spur has been identified in documentation relating to the Moore Park Precinct Village and Car Park since 2021. The difficulty in managing this potential has been the lack of physical evidence of the Busbys Bore Spur. The discovery of BBS-1 to some extent has overcome this problem.

By georeferencing the 1854 plan using the location of BBS-1 and Shaft 8 the location of the tunnel and the other access shaft shown on the plan within the project footprint can be predicted.

The critical issue is the depth of the Busbys Bore Tunnel. Based on the evidence of the interior of BBS-1 the location of the tunnel is below RL 32.65m as there is no evidence of the tunnel in the shaft.

The 1854 plan also includes a section for Shaft 8. Scaling off the plan the depth from the ground surface is 37ft or 11.27m which equates well with the surveyed depth of Shaft 8 of 11.5m from the road to the reported invert of Busby's Bore.

Historical evidence is that the grade of the Busby's Bore rises from Hyde Park to the Lachlan Swamp was approximately 0.01% or 1 in 7242. The distance from Shaft 8 to BBS-1 is 92m and therefore a rise of in the tunnel invert of 9 cm might be expected.

Based on topographic contours from the City of Sydney, BBS-1 is 2m lower than Shaft 8. Allowing for this it seems that the bottom of Shaft 8 may be very close to the level of the Busby Bore Spur tunnel.[56]

The historical evidence suggests that the tunnel would be approximately square in section 1.5 metres in height and 1.2 metres wide with an irregular floor. It is not clear whether the tunnel is lined or whether the sandstone bedrock was dressed.

In conclusion there is now a high potential for the archaeological remains of the Busby's Bore Spur, in the form of the BBS -1 shaft and associated tunnel, to occur within the project area. Figure 30 shows the potential location of these features.

6.5.4 Archaeological research potential

Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source, and which contributes to the archaeological significance of that site and its fabric.

[56] This change in elevation is being verified.

The construction of Busby's Bore was at the time controversial due to claims of incompetence of both the convict work gangs and of John Busby himself. Evidence of construction is likely present in the fabric of the tunnel and shaft in the form of the nature and quality of construction.

A further research consideration is whether the construction methods changed as the geology changed and the tunnel reached the "quicksand" area.

The primary focus on any archaeological research or mitigation works would be in recording and interpreting evidence of how the tunnel and shafts were constructed.

The archaeological research potential of the Busby's Bore Spur would be considered to be high as there are discrete archaeological research questions that can only be answered from archaeological investigations of the fabric.

6.6 Archaeological potential as assessed in the Heritage Impact Statement

The Heritage Impact Statement divided archaeological remains into phasing and assesses the potential for each phase to be present with the Project site. These values are included in the table below. Note that survivability is dependent on localised impacts, for example in the north western portion of the site where deep excavation has been undertaken the potential for remains to have been preserved is less that in the north eastern portion.

It is noted that there is some discrepancy in the archaeological potential values between Table 4.1, Table 6.1 and Figure 6.9 in the Heritage Impact Statement. The values in the table below have been used in this plan and in line with the management measures recommended.

Table 6: Archaeological potential (from Table 4.1 and Table 6.1 Curio 2019)

Historical phase	Activity/ development	Potential archaeological evidence	Archaeological potential/ likelihood of survival within subject site	Significance
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	Local
	Busby's Bore	Tunnel, shafts, associated archaeological deposits	Extremely high. Known to be present.	State
Phase 2 – Rifle Range	Professional and Volunteer Rifle Ranges	Possible Fragmentary Remains of munitions	Nil- Low	Local
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 – Moderate	Local
	Interwar site use	Structural remains	Interwar site use	Local
Phase 4 – Sydney	Early Sports Ground	Evidence of form and ground works undertaken to cut and fill site to development track	Low	Nil

Historical phase	Activity/ development	Potential archaeological evidence	Archaeological potential/ likelihood of survival within subject site	Significance
Sports Ground	Speedway	1930s modifications to the Sydney Sports Ground for the installation of the Sydney Speedway Race Track	Low - Moderate	Nil

6.7 Precinct Village and Carpark Impact Assessment

The Heritage Impact Assessment for Modification 7 prepared by Artefact in 2021 assessed overall works for the PV&C as having a low likelihood of encountering archaeological remnants predating or dating to the former SSG.

6.7.1 Impacts on Busby's Bore spur

Since the finalisation of the Heritage Impact Assessment, in December 2021, clear evidence of the Busby's Bore Spur has been located and this has allowed the potential location of the Spur to be more accurately predicted. This prediction is informed by further georeferencing of the 1854 plan based on the previously known location of the shafts and BBS 1.

Investigation and survey work have identified that the depth of the item as 8.8m from the top of the shaft. Aurecon report that the bottom of the visible portion of the shaft, located about 8.5m from the top of the shaft, has roughly 200-300mm of finer gravelly sediment under it. The actual base of shaft was not found and there is no evidence of the shaft at 8.5m (RL 32.65). Converting the depths to decimal feet this is a depth of 27.98ft.

As the shafts intercepted the bore at the apex of the overt then it can be assumed that the top of the Busby's Bore Spur tunnel is below RL 32.65m.

From the location of Busby's Bore Shaft it is clear that the construction of the Car Park is likely to impact on the archaeological remains of Busby's Bore Shaft.

Under Consent Condition B39 (j) this CHMP must:

> *Details of the multi-level carpark redesign options for basement footings and mechanical plant on the northern Moore Park Road boundary, if Shaft 8 or the spur of Busby's Bore are encountered during excavation works.*

As Busby's Bore Spur has been discovered VenuesNSW has commenced a process of looking at redesign options for the multi-level carpark. Therefore, management of this condition is ongoing.

In the interim, to allow construction of the permitter piling, the document methodology statement – "Working near Busby's Bore" has been updated to cover the impact of perimeter piling works on BBS-1 and the tunnel.

Once details of the redesign options for the multi-level carpark have been clarified, this document and the "Working near Busby's Bore" methodology statement will be updated.

7.0 ARCHAEOLOGICAL METHODOLOGY

The Historical Archaeological Research Design (ARD) (Curio 2019) outlines archaeological management requirements for the Project site.

The following archaeological management would be undertaken:

Supervision – for areas with low to moderate potential for remnant archaeological resource or relics to be present, and therefore requiring caution to be applied during development works. This included the area where Busby's Bore spur is likely to be located (where subsurface excavation is undertaken).

Unexpected finds – for areas assessed to have a very low to no potential for intact historical archaeological relics or resources to remain.

Where significant archaeological remains are located a program of monitoring and recording, or **salvage excavation** would be undertaken.

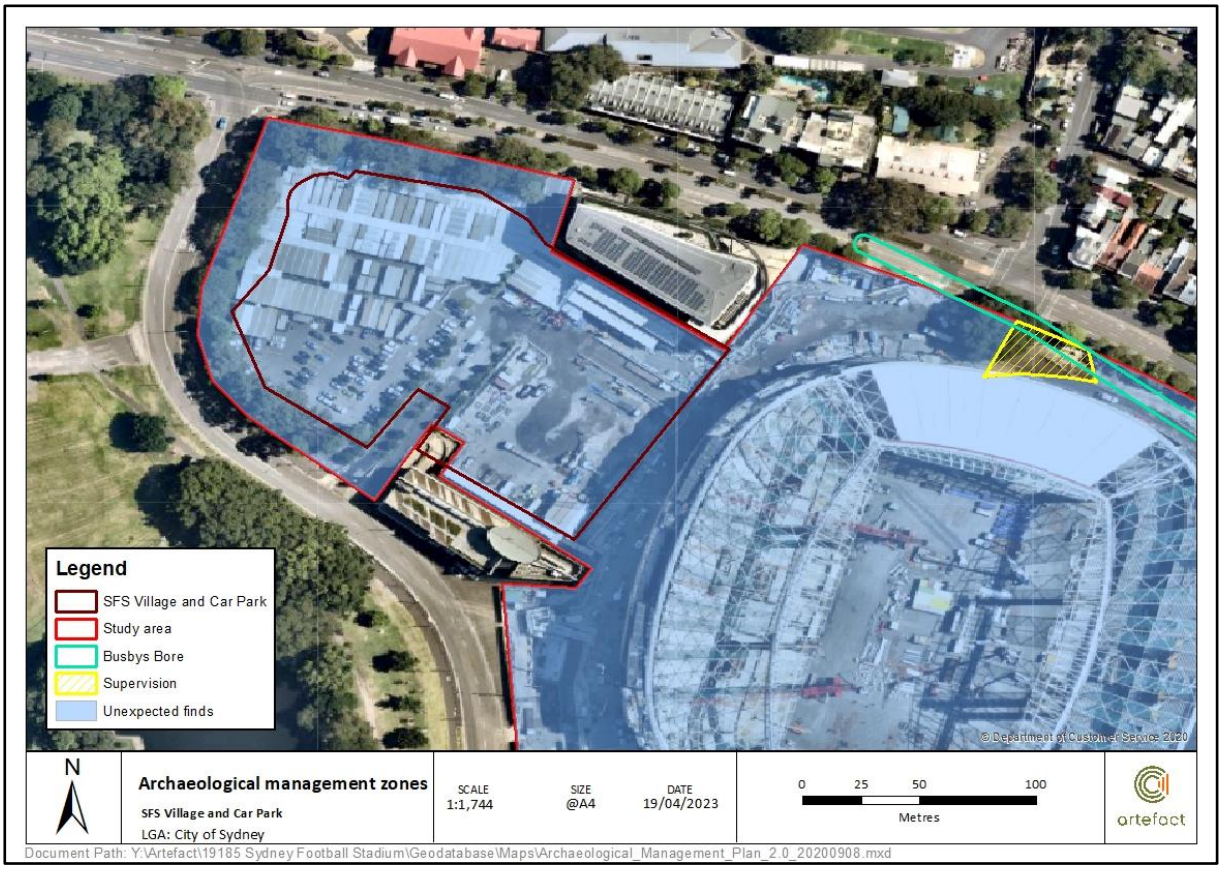

Figure 36: Archaeological Management Zones

7.1 Nominated Excavation Director

Dr Iain Stuart, Principal Artefact Heritage and Environment is nominated as Excavation Director for this project. Dr Stuart was the Excavation Director for Stage 2.

Dr Stuart has over thirty years' professional experience; initially with the Victorian Government where he worked at the Victoria Archaeological Survey for 10 years. After moving to NSW in 1993, Dr Stuart worked as Principal, Archaeology and Heritage Management, with HLA-Envirosciences, where he established and developed a successful consulting practice in Aboriginal and Historical Archaeology as well as the broader areas of Industrial Archaeology, Heritage Assessment and Management and Cultural Landscape Assessment. In 2005, he moved to Godden Mackay Logan heritage consultants, as a Senior Consultant. In 2006, he established JCIS Consultants in partnership with his wife, Jane Cummins Stuart. In 2018 Dr Stuart joined Artefact Heritage to manage large scale and State Significant Archaeological Excavations.

Dr Stuart has recently been Excavation Director for the archaeological work at Central Station as part of the Sydney Yard Access Bridge, Central Station Box, Central Walk and Common Service Route projects for Sydney Metro and the More Trains More Services project for Transport for Tomorrow. He was also Excavation Director for the CBD and Couth East Light Rail project and the Metro West Bays station.

Dr Stuart meets all the Excavation Director Criterion.

7.2 Archaeological supervision and monitoring

Archaeological supervision and monitoring of PV&C construction would be required in the areas where it is possible that Busby's Bore spur may intersect with the excavation and construction footprint.

The supervision and monitoring must be undertaken to demonstrate that there is no construction impact on Busby's Bore spur and/or the recommendations of the Working near Busbys Bore document have been implemented.

Precise details of the archaeological supervision and monitoring will need to be established once construction methodology is established through an Archaeological Management Strategy document prepared by the Excavation Director.

7.3 Archaeological recording and salvage excavation

If salvage excavation is required excavation would commence in accordance with Section 6.1.1 of the ARD overseen by the nominated Excavation Director.

Once salvage has been completed the area would be cleared by the Excavation Director and then managed under the Unexpected Finds Protocol.

7.4 Avoidance of impacts to Busby's Bore

All recommendations in the current version of the methodology statement "Working Near Busby's Bore" would be implemented where possible.

Table 7: Known information on location of Busby's Bore

Shaft no.	Location confirmed?	Within SFS site?	Description of location
8	Yes	No	In Moore Park Road near the Corner of Driver Avenue
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 exiting 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 Road
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, believed to have been substantially removed.
13	Yes. 1985/86 work identified as within Moore Park Road	No	Within Moore Park Road
Busbys Bore	Yes	No	Located in Moore Park Road on the boundary of the project construction site.
Busby's Bore spur	Yes	Yes	See Figure 30

7.5 Aboriginal archaeology

If Aboriginal objects are identified within historical archaeological deposits, the Aboriginal archaeology Excavation Director, and project Registered Aboriginal Parties (RAPs) would be informed. As the objects would be out of context they would be recorded but would not trigger the need for test excavation. Aboriginal objects within historical contexts would be recorded in their location, and removed, to be catalogued and analysed in accordance with the methodology outlined in the Aboriginal Cultural Heritage Assessment Report (ACHAR) and the Aboriginal Cultural Heritage Management Plan for Stage 2 works.

7.6 Unexpected finds

If significant archaeological remains are unexpectedly identified during construction works, the Unexpected Finds Protocol as appended to this plan would be enacted (Appendix A).

7.7 Skeletal remains

Discovery of suspected human remains would be managed under the Unexpected Finds Protocol. All suspected bone must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated.

The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist. This requirement will form part of the site induction.

If the bones are confirmed to be human, the NSW Police would be notified, and the find referred to the coroner. If the bones are found to be Aboriginal ancestral remains, the RAPs and DPHI ESS would be notified.

It is considered unlikely that human remains would be found within the project area as no known burial grounds are located there. No human bones have been found during previous archaeological work.

7.8 Contamination

Due to the potential for contaminants across the project area, the controlled archaeological excavation would also be undertaken in accordance with the specified work health and safety protocols established for the site, prior to the commencement of works on site. Should the discovery of contaminants on site likely result in the potential harm to archaeological staff working on site, there may be a requirement to deviate from the proposed archaeological methodology, in order to ensure the health and safety of onsite staff. This may include the use of protective clothing, face masks, and specified gloves, additional washing protocols, through to the need to cease hand excavation on site.

Should the requirement to employ mechanical excavation rather than hand excavation arise, archival recording of archaeological material would need to be taken in the form of photographic, recording, from a safe distance (as specified in the work health and safety requirements of the remediation specialists).

7.9 Excavation reporting

Condition 31 requires that at the completion of the archaeological program (non-Aboriginal archaeology) or within 6 months of completion of the bulk excavation works within the site (whichever occurs earlier), a final post-excavation report (including all site records and detailed artefact analysis) must be prepared and submitted for information to the Planning Secretary, Heritage NSW, DCCEEW (formerly the NSW Heritage Division) and the City of Sydney local studies library.

7.10 Management of relics

The final excavation report must identify the location (conserved in perpetuity) of retained archaeological relics recovered from the archaeological program (if any).

7.11 Management measures summary

Table 8: Management measures derived from the Addendum Heritage Impact Assessment, prepared by Artefact Heritage dated 21 December 2021 and addendum assessment

ID	Management Action	Trigger/timing	Responsibility	Description of management action
NAH1	Nominated Excavation Director	Prior to construction	Environmental Manager Excavation Director	Dr Iain Stuart has been nominated as Primary Excavation Director as he meets the criteria for management of State significant archaeology as required.
NAH2	Unexpected Finds Protocol for significant archaeological remains.	Identification of potential significant archaeological remains.	Environmental Manager	Following the discovery of new finds of significant archaeological remains – works will cease in the immediate area and the area secured in accordance with the Unexpected Finds Protocol. Assessment of the remains and subsequent management of the site will be carried out.
NAH3	Unexpected Finds Protocol for human skeletal remains.	Identification of a potential burial or discovery of skeletal remains.	Environmental Manager	Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist. Once confirmation is received from the technical specialist that the remains are of human origin and not of forensic interest notification to the NSW Police will be undertaken. No works to recommence until clearance is provided by Heritage NSW and/or the NSW Police as per the protocol outlined in Unexpected Finds Protocol
NAH4	Where impacts are identified outside the project area	New impact areas not previously surveyed	Environmental Manager	Non-conformance procedures outlined in the CEMP. Where practicable avoid additional impacts or confirm appropriate mitigation measures in consultation with DPIH.
NAH5	Archaeological supervision and monitoring	Bulk Excavation	Excavation Director/ Environmental Manager	Archaeological supervision must occur in the area where there is potential for Busby's Bore spur to be present.
NAH6	Salvage excavation	Where significant archaeological remains are located during supervision	Excavation Director/ Environmental Manager	Conduct salvage excavation in accordance with Section 6.1.1 of the ARD where necessary.

NAH7	Busby's Bore supervision and exclusion zone	Where excavation work occurs within the area marked as Busby's Bore in	Excavation Director/ Environmental Manager	This is to be updated once the details of the redesign of the Car Park is finalised.
NAH8	Busby's Bore vibration monitoring and minimum working distances	During construction	Environmental Manager	The recommendations of the vibration report by Pulse White Noise Acoustics. 'Moore Park Precinct Village and Car Park, Heritage Well, Construction Vibration Management Plan'. 240131-MPVC Well-CVMSP-R1, Report to BESIX Watpac, 2024.
NAH9	Excavation reporting	Conclusion of archaeological works	Excavation Director	An excavation report would be prepared within 6 months of the completion of bulk earthworks in accordance with Section 6.1.1 of the ARD. If needed.
NAH10	Management of archaeological remains	Conclusion of archaeological works if archaeological remains were located	Excavation Director	The final excavation report must identify the location (conserved in perpetuity) of retained archaeological relics recovered from the archaeological program (if any). This would be negotiated with the client once the nature of finds is known.
NAH11	Training and induction	Prior to construction and during regular induction and toolbox talks	Environmental Manager	Information on likely non-Aboriginal archaeological finds and the location of Busby's Bore would be provided in site inductions and regular toolbox talks.
NAH12	Update of management locations	During design development	Environmental Manager Excavation Director	Where the location and depth of subsurface impacts is revised during design development the location of archaeological management zones should be updated where required.
NAH13	Heritage Interpretation Plan	Prior to the commencement of construction of the stadium structure or public domain works	Environmental Manager	The Heritage interpretation plan is being updated to accommodate interpretation of the physical remains of Busby bore Spur..

8.0 COMPLIANCE MANAGEMENT

This section describes how compliance will be achieved and the responsible parties for all requirements.

8.1 Roles and responsibilities

The Contractor's organisational structure and overall roles and responsibilities are outlined in the CEMP.

Artefact Heritage is the engaged advisor to oversee matters related to preparation and compliance with the ACHAR.

8.2 Training

All personnel including sub-contractors working on site will undergo induction training relating to heritage management issues before starting work. The induction training under the Bessix Watpac site induction process will address elements related to heritage management including:

- Existence and requirements of this Plan
- Relevant legislation
- Roles and responsibilities for heritage management
- Location of identified heritage sites and no-go areas
- Proposed heritage management and protection measures
- Procedure to follow in the event of an unexpected heritage find or discovery of human remains.

9.0 APPENDIX A: UNEXPECTED FINDS

Unexpected Finds Protocol – Non-Aboriginal Heritage Items

Sydney Football Stadium Redevelopment Stage 3 Moore Park Precinct Village and Car Park

Project background

The Sydney Football Stadium Redevelopment Stage 3 (the Project) is an Infrastructure NSW initiative to build a new rectangular stadium. The Project is part of the Sydney Cricket Ground Trust (SCGT) Precinct, adjacent to the Sydney Cricket Ground (SCG) and part of the wider Moore Park sports and entertainment precinct, a key economic and cultural contributor to the NSW economy.

The Project was approved as a State Significant Development (SSD) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Project site has been assessed to have a low-moderate potential to contain archaeological remains of local significance in localised areas that have been subject to minimal ground disturbance. The project site also potentially contains a section of Busby's Bore which is a convict built drain of State significance. The bore is listed on the State Heritage Register. Impacts to Busby's Bore are not allowed under the SSD approval. There is some potential for a spur of Busby's Bore to be located within the construction footprint. The area where this may occur will by subject to archaeological supervision and monitoring in case remains of the spur are located.

Artefact Heritage has prepared this Unexpected Finds Protocol (UFP) to satisfy Condition of Approval (CoA) B39 and mitigation measures CMHER1, CMHER3, NAH2 and NAH3, which state that:

Table of mitigation measures and CoA [57]

ID	Management Action	Trigger/timing	Responsibility	Description of management action
B39 (f) (h)	Unexpected finds procedures for non-Aboriginal archaeological remains.	Identification of potential non-Aboriginal archaeological remains	Environmental Manager	This procedure meets the requirements of B39 (f) and (h) as part of the Non-Aboriginal Cultural Heritage Management Plan
CM HER1 and CM HER3	Unexpected finds procedures for non-Aboriginal archaeological remains and site induction	Identification of potential non-Aboriginal archaeological remains	Environmental Manager	The UFP will be detailed in site induction and stop works required if potential archaeological remains are located

[57] Artefact Heritage. 'Non-Aboriginal Cultural Heritage Management Plan SFS redevelopment Stage 2', 2019

ID	Management Action	Trigger/timing	Responsibility	Description of management action
NAH2	Unexpected finds procedures for non-Aboriginal archaeological remains.	Identification of potential non-Aboriginal archaeological remains.	Environmental Manager	Following the discovery of new finds of non-Aboriginal archaeological remains – works will cease in the immediate area and the area secured in accordance with the Unexpected finds Procedure. Assessment of the site/object and subsequent management of the site will be carried out.
NAH3	Unexpected finds procedures for human skeletal remains.	Identification of a potential burial or discovery of skeletal remains.	Environmental Manager	Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist. Once confirmation is received from the technical specialist that the remains are of human origin and not of forensic interest notification to the NSW Police will be undertaken. No works to recommence until clearance is provided by Heritage NSW and/or the NSW Police as per the protocol outlined in Unexpected Finds Procedure.

This Unexpected Finds Protocol must be implemented if any potential non-Aboriginal archaeological remains or potential human skeletal remains are identified during proposed groundworks.

Unexpected Finds Protocol

If unanticipated suspected archaeological remains or skeletal remains are uncovered at any time throughout the life of the project the actions in the following flow chart must be undertaken:

Examples of non-Aboriginal heritage

The images below are examples of non-Aboriginal archaeological remains the likes of which may be encountered on this project.

Artefact archaeologist contact

If non-Aboriginal archaeological remains or skeletal remains are encountered during groundworks a project archaeologist can be contacted via:

Artefact Heritage, Pyrmont Office **02 9518 8411,** office@artefact.net.au

The nominated Excavation Director for the project is Dr Iain Stuart 0413 380116 or ian.stuart@artefact.net.au.

POTENTIAL HERITAGE ITEM ENCOUNTERED

For a heritage item, including human remains, works will stop immediately in that area. Temporary exclusion fencing to be erected.

John Holland seeks heritage advice to determine significance of the find.

HUMAN REMAINS

John Holland is to notify NSW Police and Infrastructure NSW.

Works are not to recommence until Police clearance is received.

ARCHAEOLOICAL REMAINS

Project Archaeologist/Heritage Consultant is contacted to assess significance and determine management requirements.

NOTIFICATION and CONSULTATION

If genuine a heritage item is confirmed John Holland notifies DPIE.

Consult with relevant authorities (Heritage NSW - DPIE).

ASSESSMENT and MANAGEMENT

Record and assess the heritage find and determine required mitigation measures.

Salvage items in accordance with the ARD methodology, and other relevant guidelines.

CONSTRUCTION RECOMMENCEMENT

Works are not to recommence until written consent is given by the Project Archaeologist/Heritage Consultant and authorities where required.

CLOSE-OUT and REPORTING

Final report and clearance to be submitted to Venues NSW.

artefact

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