

HISTORICAL ARCHAEOLOGICAL ASSESSMENT

KAMBALA SCHOOL, ROSE BAY NSW

29 JUNE 2020

P0012687

FINAL - FOR SSDA

PREPARED FOR CARMICHAEL TOMPKINS PROPERTY GROUP ON BEHALF OF KAMBALA SCHOOL

URBIS

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EXECUTIVE SUMMARY

Urbis have been engaged by Carmichael Tompkins Property Group on behalf of Kambala Girls School to prepare a Historical Archaeological Assessment (HAA) for a State-Significant Development Application (SSD-10385) for the redevelopment of sporting facilities at Kambala Girls School. This HAA has been prepared to respond to requirement 9 of the Planning Secretary's Environmental Assessment Requirements (SEARs).

Kambala is located at 794 -796 New South Head Road, Rose Bay and is within the Woollahra Council local government area (LGA) (see Figure 1 & Figure 2). Situated in the eastern suburbs of Sydney, the School is approximately 8km east of the Sydney CBD. The School is located on New South Head Road which is a classified road connecting the City with the eastern beaches. The School is surrounded by predominantly residential uses. The school encompasses the following lots:

- Lot 67 DP2538.
- Lot 1 DP1089403.
- Lot 1 DP187595.
- Lot Null SP64653.
- Lot C DP310074.
- Lots 1 - 12 DP1116858.

The campus is bound by New South Head (to the east), Bayview Hill Road (to the north) and Tivoli Avenue (to the west). Fernbank Boarding House is located at 1A -3 Bayview Hill Road (Lot 45 DP2538 and Lot 1 DP173852) opposite the Kambala School grounds. No works are proposed to this part of the campus in this DA.

The School campus slopes down from New South Head Road in the east to the west and comprises a series of existing buildings in the western part of the campus that range in height and age. The south western and north western part of the campus accommodates much of the school's existing built form, while the eastern part has the school's sporting fields and courts.

The subject area has been in use since the early settlement of the eastern suburbs of Sydney, with the first known land grant going to a Mr Samuel Breakwell. Tivoli House was established and expanded upon over the coming years. The historic connections of the subject area result in the determination that should materials associated with convict settlement or the Dumaresq family be identified and of high integrity, they may be of state or local significance.

Within the subject area, a number of outhouses associated with Tivoli are known to have occurred, along with a convict bridge built over the Tivoli Stream and a windmill built during Dumaresq period of occupation. Any remnants of these structures were likely removed during works to the school in the 1930s. The majority of the subject area has been subject to extensive disturbance associated with the construction and demolition of school infrastructure, including to the east where the majority of proposed works will occur, which the natural topography has been extensively modified to create level playing fields in the 1930s. At nearby Kincoppal College, an archaeological assessment conducted in 2009 identified that similar land-use activities had resulted in the loss of integrity for identified archaeological remains, with all artefactual deposits identified in unstratified context, and thus of negligible value for research purposes (MDCA, 2009).

In general, the archaeological potential of the subject area is determined to be low-moderate on the basis of the assessment of historical land-use and disturbance.

On the basis of the above, Urbis recommends that works proceed with the following recommendations:

Recommendation 1 – Section 139 and monitoring

1. Prior to the commencement of works within the areas identified as containing moderate archaeological potential (see Figure 24), a Section 139 excavation exemption permit application should be submitted with NSW Heritage as defined under *The Heritage Act 1977*. Archaeological monitoring of works should be undertaken in the area defined as containing moderate potential to ensure no potential relics are harmed during the works.

Recommendation 2 – Archaeological Chance Find Procedure

In areas identified as having low potential for archaeological resources, although considered highly unlikely, should any archaeological deposits be uncovered during any site works, a chance find procedure must be implemented. The following steps must be carried out:

1. All works stop in the vicinity of the find. The find must not be moved 'out of the way' without following the steps below.
2. Site supervisor, or another nominated site representative must contact either the project archaeologist (if relevant) or DPIE to contact a suitably qualified archaeologist.
3. The nominated archaeologist examines the find, provides a preliminary assessment of significance, records the item and decides on appropriate management.
4. Depending on the significance of the find, reassessment of the archaeological potential of the subject area and application for relevant permit may be required, and further archaeological investigation undertaken.
5. Works in the vicinity of the find can only recommence upon relevant approvals from DPIE.

Recommendation 3 – Human Remains Procedure

In the unlikely event that human remains are uncovered during any site works, the following must be undertaken:

1. All works within the vicinity of the find immediately stop.
2. Site supervisor or other nominated manager must notify the NSW Police and DPIE.
3. The find must be assessed by the NSW Police, and may include the assistance of a qualified forensic anthropologist.
4. Management recommendations are to be formulated by the Police, DPIE and site representatives.
5. Works are not to recommence until the find has been appropriately managed.

1. INTRODUCTION

1.1. BACKGROUND

Urbis have been engaged by Carmichael Tompkins Property Group on behalf of Kambala Girls School to prepare a Historical Archaeological Assessment (HAA) for a State-Significant Development Application (SSD-10385).

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning, Infrastructure and Environment (DPIE) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), for the proposed redevelopment of the sports precinct of Kambala School at 794 -796 New South Head Road, Rose Bay.

This application is SSD by way of clause 8 and schedule 1 under State Environmental Planning Policy (State and Regional Development) 2011 on the basis that the development is for the purpose of an existing school and has a Capital Investment Value of more than \$20 million.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project by DPIE, ref no SSD-10385 issued on 24 November 2019. This HAA has been prepared to respond to requirement 9 of the Planning Secretary's Environmental Assessment Requirements (SEARs), which states:

If the Statement of Heritage Impact identifies impact on potential historical archaeology, an historical archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the Heritage Division, Office of Environment and Heritage Guidelines 'Archaeological Assessment' 1996 and 'Assessing Significance for Historical Archaeological Sites and Relics' 2009. This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme.

Table 1 – SEARs table

SEARs Requirement	Report Section
an historical archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the Heritage Division, Office of Environment and Heritage Guidelines 'Archaeological Assessment' 1996 and 'Assessing Significance for Historical Archaeological Sites and Relics' 2009.	Section 1.5.
This assessment should identify what relics, if any, are likely to be present	Section 4.2.
assess their significance	Section 5.
and consider the impacts from the proposal on this potential archaeological resource.	Section 6.
If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme	This assessment determined harm can be avoided. See Section 6.

1.1.1. Need for a Campus Masterplan

Kambala is an independent day and boarding school for girls up to 18 years. Kambala also has an early learning centre catering for approximately 70 girls and boys aged between 6 months and 5 years. The school was established in the late 1800s and moved to the current campus in 1913. The campus has evolved in an organic and ad-hoc manner over the last 100 years as the school and its demands have grown.

A new campus-wide planning approach offers the opportunity to strategically plan for the future in a sustainable and effective manner and to preserve the unique aesthetic and heritage qualities of the campus. The preparation of a campus-wide planning approach is also consistent with the School's 2019 - 2023 Strategic Plan which identified the need for a broader strategic plan to coordinate renewal and development in a feasible and staged manner.

1.2. LOCATION AND DESCRIPTION OF THE SUBJECT AREA

Kambala is located at 794 -796 New South Head Road, Rose Bay and is within the Woollahra Council local government area (LGA) (see Figure 1 & Figure 2). Situated in the eastern suburbs of Sydney, the School is approximately 8km east of the Sydney CBD. The School is located on New South Head Road which is a classified road connecting the City with the eastern beaches. The School is surrounded by predominantly residential uses. The school encompasses the following lots:

- Lot 67 DP2538.
- Lot 1 DP1089403.
- Lot 1 DP187595.
- Lot Null SP64653.
- Lot C DP310074.
- Lots 1 - 12 DP1116858.

The campus is bound by New South Head (to the east), Bayview Hill Road (to the north) and Tivoli Avenue (to the west). Fernbank Boarding House is located at 1A -3 Bayview Hill Road (Lot 45-46 DP2538 and Lot 1 DP173852) opposite the Kambala School grounds. No works are proposed to this part of the campus in this DA.

The School campus slopes down from New South Head Road in the east to the west and comprises a series of existing buildings in the western part of the campus that range in height and age. The south western and north western part of the campus accommodates much of the school's existing built form, while the eastern part has the school's sporting fields and courts.

The Kambala School building known as Tivoli House is in the heart of the campus. The house, its interiors, gateposts, gates and flanking walls with railing facing Tivoli Avenue, as well as 2 Norfolk Island Pines are listed as a heritage item in Woollahra Local Environmental Plan 2014 (WLEP 2014).

Within the School campus, the site of this SSDA is illustrated in Figure 2. The site proposed for new buildings is on top of the existing sports field and music building, as shown in green. The site proposed for demolition works and associated façade redevelopment and landscaping works is shown in red and is limited to a portion of the existing Hawthorne Building and the Arts building. The site of new landscape works is shown in yellow and includes all external spaces connecting these works. It is anticipated that the construction works will be staged, so the construction site for any given stage will be smaller than the overall site identified. The four key main buildings proposed are identified in Figure 3.

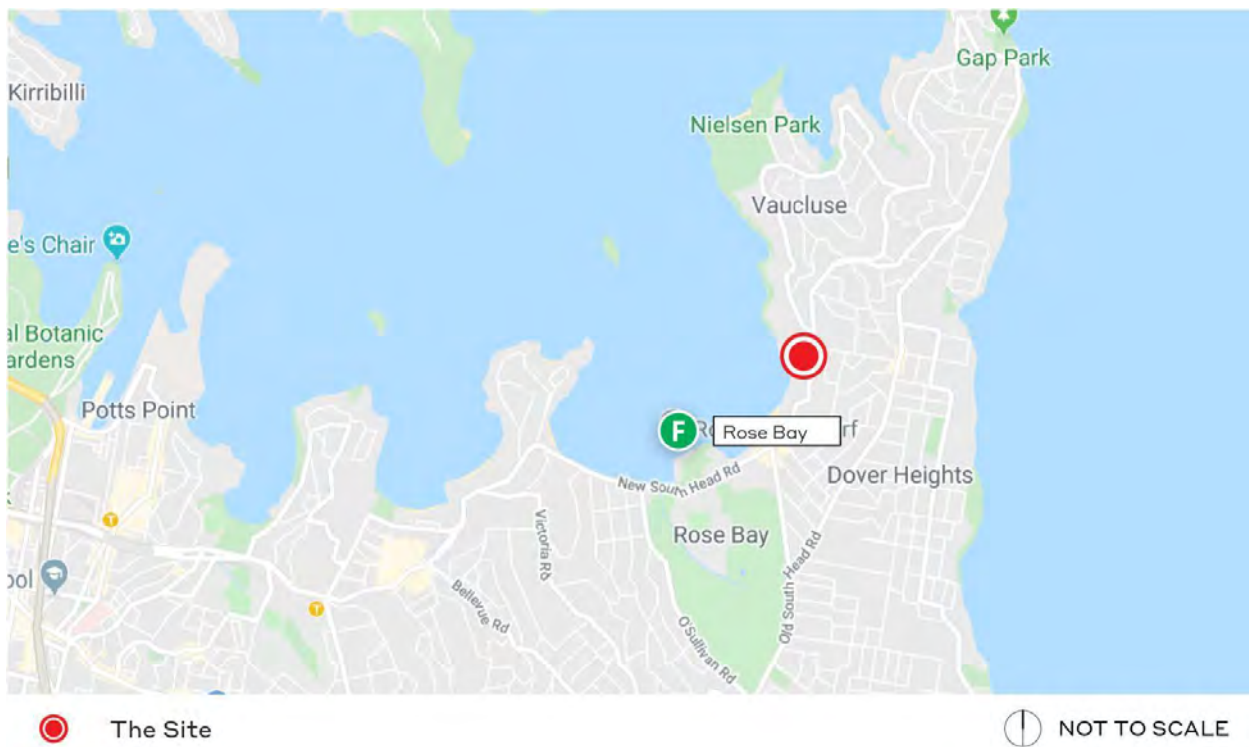


Figure 1 – Regional Location of the subject area



Figure 2 – Location of the subject area

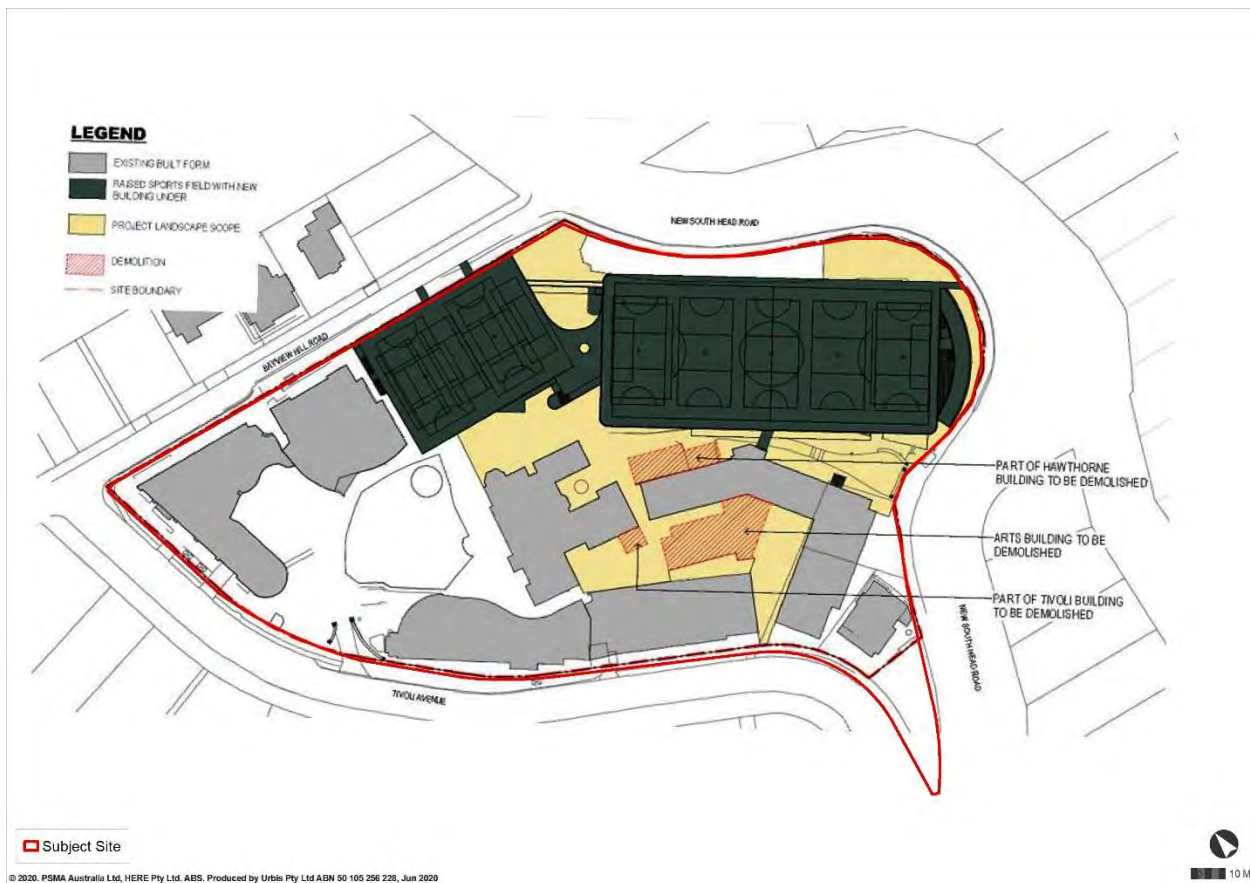


Figure 3 – Proposed works



Figure 4 – Proposed Works

1.2.1. Legal Description and Ownership

The campus comprises several allotments, the legal descriptions of which are provided in **Table 1** below. The existing campus has a site area of approximately 22511m².

Table 2 – Legal description

Address	Lot	Plan
794-796 New South Head Road	Lot 67	DP 2538
	Lot C	DP 210074
	Lot 1	DP 1089403
3 Tivoli Avenue	Null	SP 64653
3 Bayview Hill Road	Lot 1	DP 175832
1A Bayview Hill Road	Lot 45	DP 2538
1 Bayview Hill Road	Lot 46	DP 2538

1.3. PROPOSED DEVELOPMENT

This SSDA includes detailed plans for a new sport, wellbeing and senior learning precinct. Accordingly, consent is sought for the following:

- The excavation of part of the existing sports field to facilitate the construction of the following:
 - sports facilities including weights room and dance rooms;
 - indoor multipurpose sports courts for use by up to 1500 people;
 - innovative and flexible teaching and learning spaces;
 - amenities, store rooms, plant, circulation and ancillary spaces
 - reinstatement of the sports field surface on the roof (sports field and perimeter fencing)
 - spectator seating / bleachers;
- The removal of the tennis courts (currently on the roof of the music building), and the construction of the following:
 - a wellbeing centre, called the SHINE centre, to accommodate the Kambala SHINE program
 - a new staff centre, called the KITE centre, to accommodate staff workstations, meeting areas, staff development workshop rooms and amenities
 - reinstatement of the tennis courts, lighting and perimeter fencing on the new roof
- a new eastern forecourt for the school, new external landscaped areas and new courtyards;
- minor works to the existing music building to facilitate a new connection to the new courtyard;
- the partial demolition of the Hawthorne building and the construction of a new façade, roof and landscaping; and
- the demolition of the Arts building and the construction of new facades to adjacent affected buildings, and new landscaping to the footprint of the demolished building

The proposed works will involve the demolition of the existing structures, bulk excavation within the subject area and the upgrade of facilities. The proposed works will have direct impact on the subject area and will entirely destroy any potential archaeological resource within the subject area.

1.4. EXISTING CONSERVATION MANAGEMENT PLAN

In 2017, Urbis prepared a Conservation Management Plan (CMP) for the entirety of Kambala Girls School. Regarding historical archaeology, the CMP stated the following:

The subject site has local research potential.

Historic research indicates other buildings and landscape elements were located within the current boundary of the main school site, and that the site may contain archaeological deposits relating to early European occupation and landscaping.

One such element is an early 19th century convict built stone bridge over a stream which was located on the school grounds. This was demolished in c1958 when a new drainage system for the oval and drive was incorporated.

It is important to note that this CMP was prepared for the whole of the school, and historical mapping identifies this convict bridge as existing outside of the bounds of the proposed works. While within the current subject area, the location of the bridge (should it remain despite its apparent demolition in 1958) is not proposed to be heavily impacted, with this area identified in the plans (see Figure 3 for landscape works).

Further discussion on the historical archaeological potential of the subject area is included in Section 4.2.

1.5. AUTHOR IDENTIFICATION AND METHODOLOGY

This HAA has been prepared by Balazs Hansel (Associate Director/Archaeologist) and Meggan Walker (Consultant Archaeologist).

This HAA has been prepared in accordance with the following guidelines and documents:

- *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (2013).
- *The NSW Heritage Act 1977.*
- *The Heritage Manual* (1996).
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (2009).
- *Historical Archaeological Code of Practice, NSW Department of Planning* (2006).
- *Woollahra Council Development Control Plan* (2015).

1.6. LIMITATIONS

A site inspection has not been undertaken specifically for the preparation of this HAA. Site inspections and photography have been undertaken by Urbis in 2019 for other project phases, and those results inform this HAA.

This report is limited to a presentation and analysis of potential impacts on the historical archaeological (non-Aboriginal) potential only.

No intrusive archaeological methods including archaeological test excavation have been applied for the purposes of this report.

2. STATUTORY CONTEXT

2.1. NATIONAL LEGISLATION

Environment Protection and Biodiversity Conservation Act 1999

In 2004, a new Commonwealth heritage management system was introduced under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The National Heritage List (NHL) was established to protect places that have outstanding value to the nation. The Commonwealth Heritage List (CHL) was established to protect items and places owned or managed by Commonwealth agencies. The Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) is responsible for the implementation of national policy, programs and legislation to protect and conserve Australia's environment and heritage and to promote Australian arts and culture. Approval from the Minister is required for controlled actions which will have a significant impact on items and places included on the NHL or CHL.

The subject area is not included on the NHL or the CHL, and no historic heritage items in or within the vicinity of the subject area are listed on the NHL or the CHL.

2.2. STATE LEGISLATION

2.2.1. NSW Heritage Act 1977

The NSW Heritage Act 1977 (the Heritage Act) provides protection to items of environmental heritage in NSW. This includes places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, social, aesthetic, scientific, archaeological, architectural, cultural or natural values. State significant items are listed on the NSW State Heritage Register (SHR) and are given automatic protection under the Heritage Act against any activities that may damage an item or affect its heritage significance.

State Heritage Register

The Heritage Act is administered by the Office of Environment and Heritage. The purpose of the Heritage Act 1977 is to ensure cultural heritage in NSW is adequately identified and conserved. Items of significance to the State of NSW are listed on the NSW State Heritage Register (SHR) under Section 60 of the Act.

Section 170 Heritage and Conservation Register

The Heritage Act also requires government agencies to identify and manage heritage assets in their ownership and control. Under Section 170 of the Heritage Act, Government agencies must keep a register which includes all local and State listed items or items which may be subject to an interim heritage order that are owned, occupied or managed by that Government body. Under Section 170A of the Heritage Act all government agencies must also ensure that items entered on its register are maintained with due diligence in accordance with State Owned Heritage Management Principles.

Historical Archaeology

Under Section 57(1) of the Heritage Act Heritage Council approval is required to move, damage, or destroy a relic listed in the State Heritage Register, or to excavate or disturb land which is listed on the SHR and there is reasonable knowledge or likelihood of relics being disturbed. The Act defines a 'relic' as:

Any deposit, object or material evidence

- (a) which relates to the settlement of the area that comprises New South Wales, not being an Aboriginal settlement, and;
- (b) which is 50 or more years old. A Section 60 application is required to disturb relics on an SHR listed site.

Under section 139 of the *Heritage Act*, an excavation permit is required to disturb or excavate land "*knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed*". This section of the Heritage Act identifies provisions for items /relics outside of those on the State Heritage Register or subject to an Interim Heritage Order (IHO).

2.2.2. The Australian ICOMOS Burra Charter

While not a statutory document, the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter) sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance including owners, managers, and custodians. The Burra Charter provides specific guidance for physical and procedural actions that should occur in relation to significant places, regardless of their legislative listing. The Burra Charter sets out a number of conservation principles for heritage places which are relevant to the project including use, setting, conservation, management and knowledge.

2.3. HERITAGE CONTEXT

The subject area is included in the *Woollahra Local Environment Plan 2014* (LEP) as item No. 325, 'Kambala School—building formerly Tivoli and interiors, gateposts, gates and flanking walls with railing facing Tivoli Avenue, 2 Norfolk Island Pines'.

The subject area is also in close proximity to an archaeological site listed as A3 on the LEP, 'Emma's Well'. This is located across New South Head Road, to the east of the subject area. This well is the site of a perennial spring which was potentially named after Emma Collins, an Aboriginal woman who showed settlers the place to access fresh water running from the Tivoli Stream (SMH, 1939).

It is in the vicinity of the following LEP items:

- Item No. 395, 'four Norfolk Island pines'.
- Item No. 396, 'Kincoppal, Roman Catholic Convent of the Sacred Heart and school—buildings and interiors, grounds, trees, sandstone and wrought iron fence, gateposts and gates'.

The subject area is not in the vicinity of any state listed items.

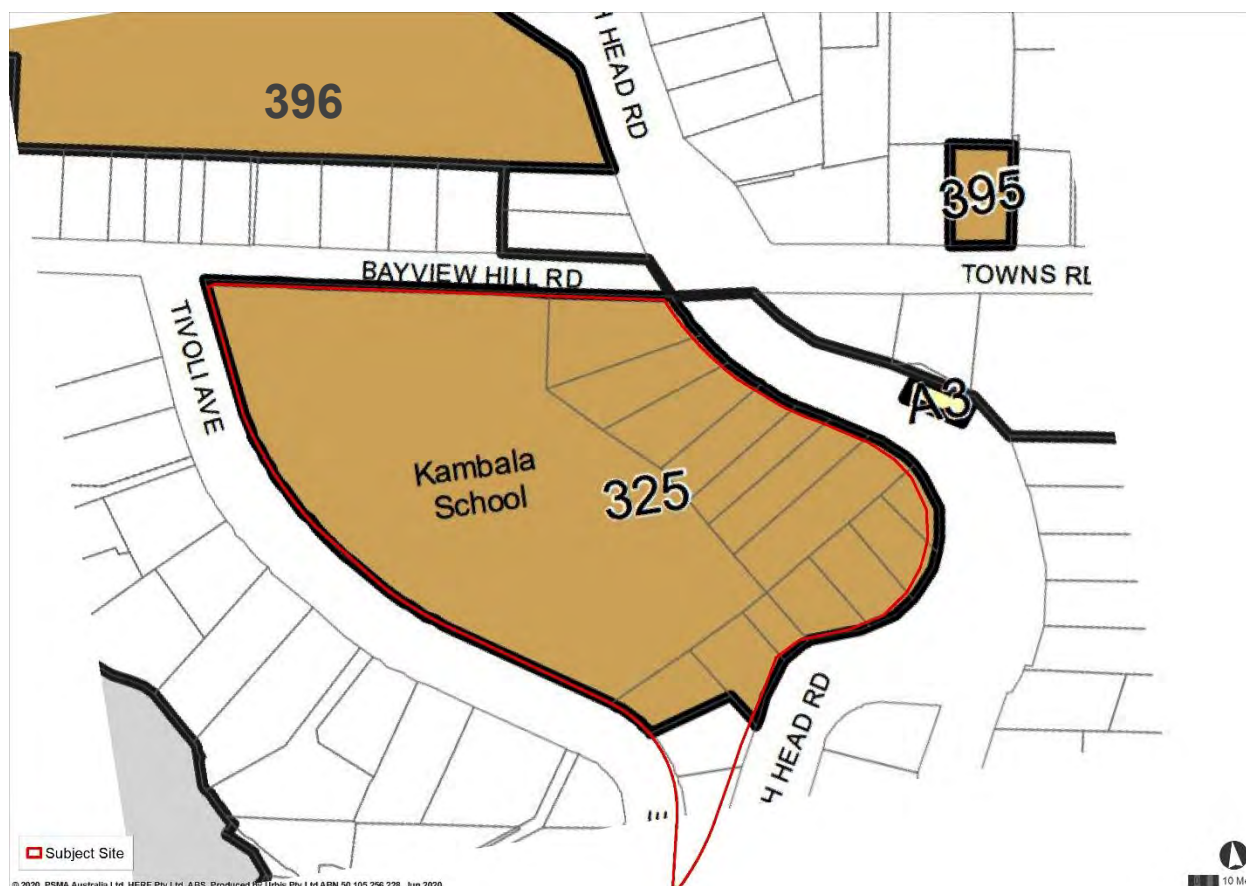


Figure 5 – LEP map showing subject area outlined in red

Source: Woollahra LEP 2014

3. HISTORICAL OVERVIEW

The following section is based upon the history and data from the Urbis, 2017 '*Kambala School Conservation Management Plan*'. The history for this Conservation Management Plan was prepared by Dr Noni Boyd. This has been supplemented with additional research and graphics for the current report.

A consideration of Aboriginal history and potential archaeological remains was not undertaken as part of this assessment.

3.1.1. Land Grants

The Eastern suburbs of Sydney were settled quickly following the landing of the First Fleet. By 1807, Government Salt Pans and a Salt House had been erected at Rose Bay and this enterprise lasted until around 1810. Other early attempts at industry were short lived and the area developed a residential character with a series of substantial marine villas and small villages along the road to the lighthouse at South Head.

Old South Head Road had been constructed in 1811 during Governor Macquarie's term in office and can be seen on the early Parish map below (Figure 6). Thomas Mitchell laid out a new road to South Head that was constructed in the early 1830s. This new route now forms the southern boundary of Kambala School and is still known as New South Head Road. The original land grant extended to Old South Head Road. The marine villas were initially connected by a bridal trail from Rose Bay that passed below the houses. There is some potential that the construction of New South Head Road caused disturbance to the eastern portions of the subject area.

3.1.2. Samuel Breakwell and Early Subdivisions, 1807-1830

An area comprising 60 acres was granted to Mr Samuel Breakwell by Governor Macquarie and it was Breakwell who named the estate Tivoli after the village and grand house at Tivoli near Cork in Ireland. This grant encompassed the subject area. The name was initially spelt the French way - Tivolé. The more common spelling is now Tivoli and this is how the grant was named in the later subdivisions. Breakwell was in the employ of Sir Henry Brown Hayes and whilst in Sydney he served land steward and manager of Hayes' Vacluse Estate. Unlike Hayes, who was transported for abducting an heiress, Breakwell came to Sydney as a free man, initially as Hayes' valet. Breakwell petitioned Governor Macquarie for a land grant, which he duly received. In October 1812, shortly after having been notified of the granting of an allotment of land near to Hayes' Vacluse estate, Breakwell announced that he was returning to Great Britain. He was returning with Hayes who had been pardoned by the Governor (SG&NSWA, 1912).

No records have been located that indicate the extent of improvements or buildings on Breakwell's land, although he later described the property as a farm, so some agricultural activities may have been undertaken between 1812 and 1830. For the purpose of farming, there may have been some temporary timber structures erected, including fences and outbuildings. Material remains of these are unlikely to survive but may be evidenced through postholes and fence slots.

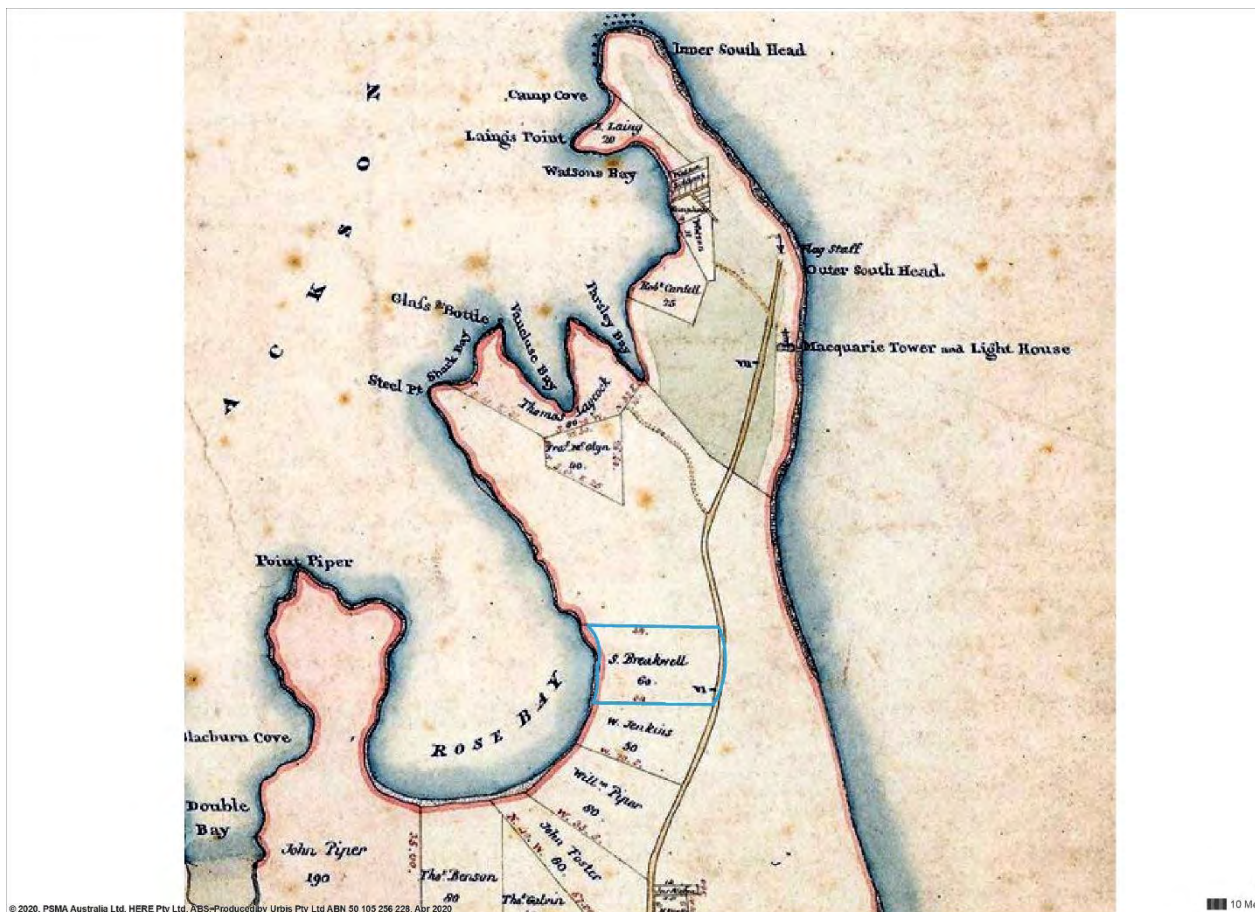


Figure 6 – 1830s Parish map showing Samuel Breakwell's 60 acre grant in the blue polygon.

Source: HLRV

The 60 acres bounded by the South Head Road in the Parish of Alexandria promised to Breakwell by Governor Macquarie was included in the series of formalized grants published in the Sydney Gazette in September 1830 (SG&NSWA, 1830).

Shortly after having received notification of the creation of title deeds, Breakwell instructed Atwell Adam Hayes to "Go to the farm at Rose Bay that nearly adjoins the one that I had lived on, see what state it is in and what it may be worth, and then sell it" (Kambala Archives, 'Notes on Samuel Breakwell', viewed 2017).

Atwell Hayes, nephew of Sir Henry, was charged with selling the Sydney properties of both Hayes and Breakwell. The convenience of the location was spelt out in an article on Hayes' estate.

"The New South Head Road passes through the [Vaucluse] Estate, which makes its distance from the Capital about four miles, along a good and lively road; it is also the same distance by water; so that conveyances at all seasons are practicable, a desideratum of great importance, as gentlemen in public offices (particularly those with families) might here live economically and conveniently" (Australian, 1838).

Attempts to subdivide land described as 'splendid marine allotments' within Breakwell's Tivoli estate date back to 1830. The land between Vaucluse and Point Piper was described in real estate advertisements as containing two 'romantic and picturesque bays', Rose Bay and Tivoli Bay (*Ibid*). Six lots were for sale in 1830 and the subdivision was aimed at free settlers rather than ticket-of-leave convicts. The lots were marketed at those seeking a change of scene such as "invalids of rank from India (who) would prefer the fine salubrious and luxuriant air of NSW to that of proceeding to the capricious climate of Great Britain" (Sydney Gazette, 1830).

Deeds for the land were advertised as being available from the Surveyor General in March 1831 and by May 60 acres of land had been purchased by Thomas Horton James (Kambala Archives, 'Notes on Thomas

Horton James, viewed 2017). James mortgaged the property, raising money for other, unspecified projects and he seems to have made no attempt to build on, or improve, the land.

He subdivided the Tivoli Estate but initially had little success in selling smaller portions of the estate, which were sandwiched between two much larger estates, the Point Piper Estate and the Vaucluse Estate. Press releases indicate a level of interest that does not match the actual rate of sales.

TIVOLI ESTATE AND ROSE BAY

Bounded by that superb sheet of water on the west, by the estate of Point Piper on the east, by the South Head Road on the South, and Major Mitchell's new and beautiful drive to the Lighthouse running all through the Estate. Numerous applications have been made to the Proprietor to purchase this property as a whole ; but it forming so many little gems of situations for country houses for the Merchants of Sydney, abounding in fresh water, and superb views of the Ocean, Port Jackson, Blue Mountains, &c., it has been divided into Allotments, so as to afford every one the opportunity of escaping out of a crowded and unhealthy Town to one of the most elegant spots near Sydney, now (by the Governor's new road) only four miles distant (The Sydney Herald, March 1834).

Corresponding subdivision plans were drawn up which could be viewed at the Auctioneers rooms; however none have yet been located dating from the 1830s for the Tivoli Estate.

3.1.3. Peter & Elizabeth Haydon, 1834- 1840

In 1834 the Irish born Sydney-based merchant Peter Haydon purchased one of the lots in the Tivoli estate. In May of the same year his marriage to Miss Elizabeth Jenkins, the youngest of the three Jenkins sisters, occurred. The house erected on the Tivoli estate was intended to be for the newlyweds – “*Mr. Haydon, of Sydney, has also laid the foundation of a house farther on, on an elevated site which commands a delightful view of the harbor*” (Sydney Gazette, 1834).

No architect has been identified for the initial house erected by Haydon nor have any plans been located. Suggestions have previously been made that John Verge or Mortimer Lewis may have been involved. Other than the newspaper report in November 1834 mentioned above noting that the foundations having been started, no tender notices have been located.

The house was probably built for Haydon by his assigned convicts and some of the building's materials are likely to have been obtained from the site. As was common practice, stone was likely to have been quarried from the site, creating a level platform to build on and also creating a cellar and possibly additional water storage. This is likely to have been sourced to the east of the land along the coast, where sandstone outcrops abound. The main roof and verandah roof is likely to have been shingled. An unpublished MS in the Kambala archives refers to an 1838 plan of the house and grounds; however, this has not been located and it is not referred to in the earlier CMP, nor is the rectangular outline of the house included on the 1840 Vaucluse Estate sale plan.

Since the 1950s various historians and architects have speculated as to which portion of the house was the original section. An assumption has been made is that the house built by Haydon was a U-shaped cottage with a verandah. The entrance hall is believed to have been in the same location as it is today. The previous CMP has an annotated plan showing walls that are believed to have survived within the existing ground floor. Newspaper articles attest to the worn flagstones near the entrance which “*were cut and laid by convicts, as was the quaintly carved stone bridge over the Tivoli stream*” (Farmer and Settler, 1939).

The bridge over the Tivoli Stream was likely constructed immediately prior to, or concurrently with, the original Tivoli House by the assigned convicts from locally sourced materials, in the same manner that the original house was constructed. This puts the date of construction of the bridge approximately within the late 1830s. The bridge was located on the Carriageway leading up to the house and provided access over the Tivoli Stream, and thus access via this roadway would not have been possible without the bridge. This bridge is believed to have been demolished during works for Kambala School in the mid-20th century (Urbis, 2017).

In a subsequent sale notice for Vaucluse Village, Mr Haydon's house is described as having a ‘domain’ or extensive grounds and he employed several staff (Sydney Mail, 1838). A plan of the grounds, drawn in 1838 and mentioned in notes held in the Kambala Archive describes the house, garden, stables, stockyard, water supply, wells, fences and roads. This document has not been located and may still be in the possession of the Haydon family.

Peter Haydon's letters to his business partner and future brother in law Peter Brodie that show he continued to have an interest in the estate improvements, arranging for planting of exotic species, even though he was intending to sell his property at Rose Bay.

"You will hardly know Rose Bay when you come down, I have had it laid with couch and English grape seeds. I am planting many now in great style" (P. Haydon, 'Haydon Family Letters', 1836).

Few structures are known to occur within the subject area at the time. These include the original Tivoli house, the convict bridge over the Tivoli Stream, and various stables and stockyards. The exact location of these structures is not known, although it is likely these structures are the same as indicated on later plans during subsequent phases of occupation.

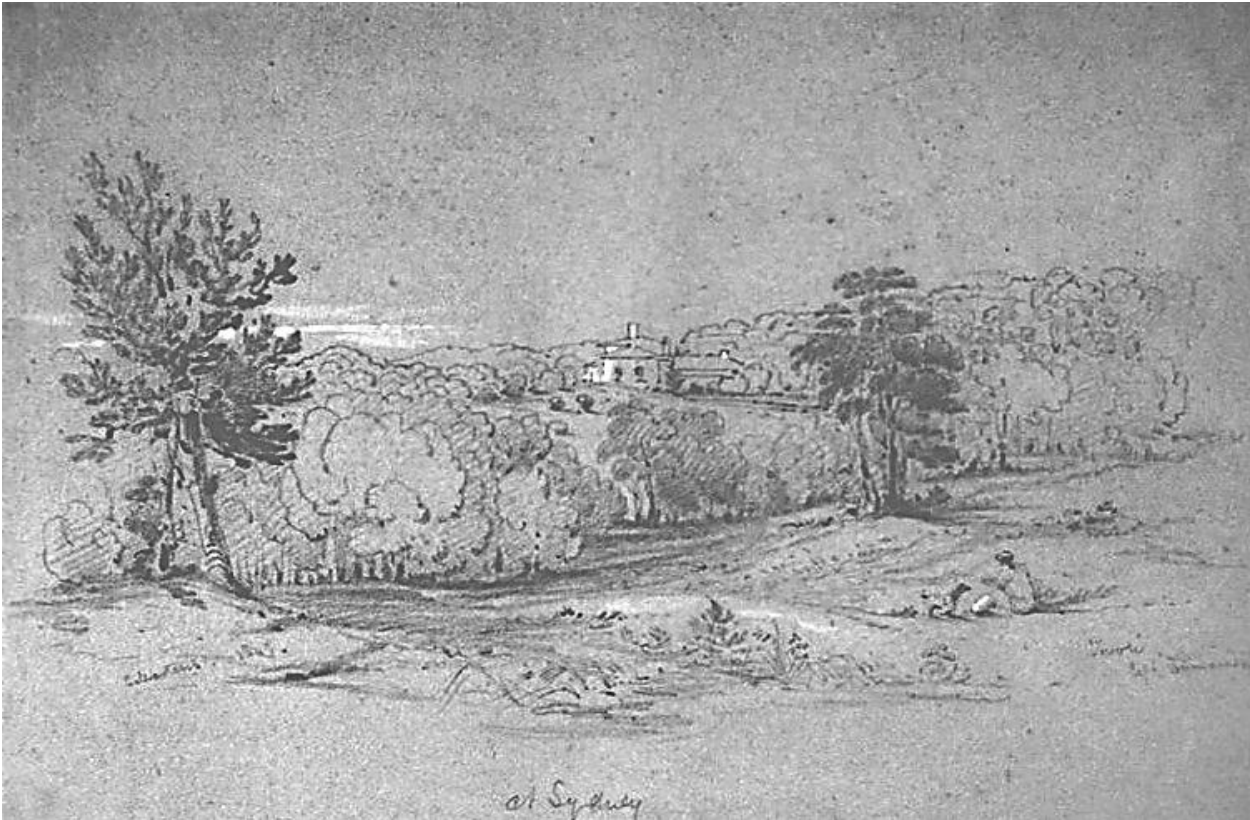


Figure 7 – Martens Sketch of Tivoli from the west. Note the natural topography and vegetation cover is vastly different to what is now present. No outbuildings are visible in this drawing.

Source: Private collection sold by Sotheby's in Melbourne. Image by Artecord.com.

Peter Haydon did not like Sydney, rather he preferred living on his pastoral holdings in the Page Valley in the Upper Hunter Valley. In his letters to his business partner and future brother in law Peter Brodie, which the Haydon family retain today, he complains that he did not enjoy family events in Sydney such as concerts and in another letter states that he preferred to live in a slab hut.

As early as 1836 Haydon was arranging for the sale of his Rose Bay property, but there was a problem with the title, which Mr. Norton estimated would delay the sale for a year (P. Haydon, 1836). Terry Hughes came to look at the property however it was the Dumaresq family who finally purchased Tivoli from Peter and Elizabeth Haydon, with the sale formalised in 1840. No photos of this bridge were identified nor plans detailing its removal, however it has been suggested that it was removed in the mid-20th century in association with the works at Kambala School (Urbis, 2017).

3.1.4. The Dumaresq family 1840 – 1881

There are numerous mentions of the Dumaresq family in the Haydon letters. William Dumaresq of St Aubin, Scone, purchased Tivoli 1840. Unlike Haydon, he preferred to be near Sydney and from 1840 spent much of

his time there. His business and political activities required this. Dumaresq did not waste any time in improving the house and he had raised funds by mortgaging their property to his sister's husband, Sir Ralph Darling.

By late August 1840 the architect James Hume had been engaged and the plans had already been prepared and were ready for tender.

"Tenders will be received at the office of Mr James Hume, No 10 King Street, Sydney, where the plans and specifications may be seen...for portions of masons', carpenters'. Joiners and other artificers' work required in making alterations and additions to the dwelling-house at Tivoli, the property of Captain Dumaresq near Sydney." (Sydney, 20 August 1840).



Figure 8 – Henry Campbells Sketch of the rear of Tivoli showing the additions carried out by James Hume. with the majority of the site is covered by natural vegetation and rolling hills. There is an outbuilding of Tivoli present in proximity to what appears to be a windmill. Both are located in proximity to the carriageway.

Source: ML PXC 291 Sydney Views circa 1840-42, Album of Sketches by Henry Campbell Folio 42, Sydney from Cap Dumaresq's, South Head Road, Digital order a6273025.

sketch of the rear of Tivoli dating from 1842 show Tivoli as extended by Hume (Figure 8). This foreground of this sketch is likely indicative of the subject area at the time, sloped with natural vegetation partially cleared and some fencing. The building to the southwest is believed to have been a stable or coach house and can be seen in photographs from the 1920s. The sketch does not indicate construction materials. This structure appears to have a chimney present and is most likely to be a coach house.

The Dumaresq family leased Tivoli To Alexander Macleay in 1846. At the time of his death in 1848 Macleay was residing at Tivoli. A second wave of additions to the house may have been to accommodate Macleay and may have included the library mentioned in later for lease notices. One of William Dumaresq's earlier roles had been as Civil Engineer and he is credited with the design of a number of watch houses including Erskine Street. The various rooms added to Tivoli may have been designed by Dumaresq as the need arose. No tenders have been located dating from the 1840s or 1850s except for the 1840 additions by Hume.

In a survey of Port Jackson in 1853 by Thomas Mitchell, several outhouses are depicted immediately to the south of Tivoli, between the stream and the house. It is likely that these are outbuildings for the property, including the coach house seen above, and they follow closely along the carriageway leading up to the house (see **Error! Reference source not found.**).

In 1860 Dumaresqs once again sought to lease the house, probably in order to spend extended amounts of time at other family properties. Following the deaths of his youngest daughter (1865), one of his two sons (1866) and his wife in 1868, William J. Dumaresq moved to Queensland to live with his remaining daughter Susan, Mrs Louis Hope. Around the time of the death of her mother, Susan had come down to Sydney for a

while, giving birth to a daughter at Tivoli in June 1868. His surviving son (William A Dumaresq) inherited Tivoli.



Figure 9 - Extract from Thomas Mitchell's Survey, 1853, approximate location of subject site indicated. Note the standing structures associated with Tivoli concentrated along the carriageway to the original house.

Source: NLA Map RM 1267.

Members of the Dumaresq family were still occupying the house in 1873, although arrangements for new staff were made by 'Mrs Dumaresq at Mrs Macleay's in Elizabeth Bay' (SMH, 1873). Attempts to sell the estate in the mid 1870s had not been successful.

A description of Tivoli from advertisements in 1874 described the grounds as follows:

The out-buildings comprise extensive, stabling, coachhouse, harness and groom's rooms, hayloft, &c. A never failing supply of pure water, from a constantly running spring, is obtained from the higher level of the land which, by gravity which supplies the residence and outbuildings. The grounds contain an area of about fourteen acres and a half, with very extensive frontage to the South Head Road, and to a road dividing the property from the Vaucluse Estate...

The residence is approached by a magnificent avenue and carriage drive (one of the most beautiful in the colony) entered on to from the main road by stately, handsome recently erected iron gates, supported by massive stone pillars, dwarf wall and palisade fencing. These grounds are exceedingly beautiful, and will be found unsurpassed by any other site overlooking the harbour.

Immediately surrounding the house are tastefully arranged gardens, croquet ground, rich lawn banks, huge masses of evergreens and beautiful clumps of native and imported timber, through which a splendid panoramic vista of the harbour scenery is obtained, from the south head of Rose Bay to the Parramatta River...

The serene quietude and beauty of this lovely scene is enhanced by the soothing gentle sounds of miniature torrents and waterfalls through depths of wilderness, primitive tracts of dense wilderness..." (SMH, 1874).

The gates to the carriage drive erected in the early 1870s were relocated to the south west of the house where they were included on Richardson and Wrench's subdivision plans (**Error! Reference source not found.**). Tivoli Avenue follows the alignment of the carriage road. The addition of the now relocated gateposts on New South Head Road seems to have been undertaken during the Dumaresq family occupation in the early 1870s and may have been undertaken to make the property more attractive to prospective tenants. Elaborate gates were also erected at Vacluse House. The windmill documented to occur within the subject area was constructed during the Dumaresq period of occupation. The below image (Figure 10) shows an example of 1800s windmills in Sydney, from Observatory Hill. While no specific information on the windmill has been locatable, it can be assumed to be of timber construction with lattice frame, as the contemporary windmill at nearby Claremont House (now Kincoppal College) was documented to be (MDCA, 2009).



Figure 10 – Example of 1800s windmills in Sydney, from sketch by H. Bloxsome of Observatory Hill. Note this structure is indicated to be constructed of timber

Source: Henrietta Bloxsome, c.1820, trove: <https://nla.gov.au/nla.obj-135207038/view>

From 1876-1878, Tivoli was tenanted by William Bede Dalley and his wife. Dalley was a lawyer and politician. In 1875 Dalley had been appointed Attorney General. One of their sons was born at Tivoli in 1876. The Dalley's then moved to their new home Clairvaux, however this residence was sold following the death of Eleanor Dalley (nee Long) in 1881. In 1878 Tivoli was again put up for lease. The next tenants were Mr Scarvell and then Alfred Bennett of the Evening News.

It was not until after William A. Dumaresq's death that the house was put up for sale by the executors in 1881. Dumaresq had died in London in 1880 having been in poor health for some time, his family having 'proceeded from Glen Innes to England' in 1878 in the hope that *'a visit to the mother country would bring about a happier state of things'* (ATCJ, 1880). The Dumaresq family ownership is recognised in the street names given to the subdivided estates. The property was transferred briefly to Mr Louise Hope (on behalf of wife's family) and sold.

Richardson and Wrench released a series of subdivision plans for the Tivoli Estate from 1881 onwards. The initial subdivision divided the estate into 4 lots west of New South Head Road. Two reserved roads were also shown. The entrance gates to Tivoli were located on New South Head Road adjacent to the southern

boundary of the large lot surrounding the house. The carriage drive served both the rear service yard and the front of the house, approaching from the west. Another drive (more likely a path) led down from the corner of what is now Bayview Hill Road to the east. The fourth lot was on the eastern side of this road reserve. The house itself is U shaped with a breakfront to the north and bay to the east, the eastern side of the residence having a similar configuration to the house as shown in the Macarthur album photographs. There are no photographs of the service yard.

To the southwest two working yards are shown on the subdivision plan, the poultry yard and the stable yard. Below the stable block was a pond and bridge for the carriage drive (The convict build bridge constructed under the Dumaresq period of occupation). No photographs or detailed plans dating from this period have been located. The metropolitan detail series plans do not extend this far. The Water Board plan dates from 1919.

The subdivision plan (**Error! Reference source not found.**) identifies that outbuildings were present across the subject area, primarily in the south and associated with the carriageway leading towards the main house. These structures fulfilled specific purposes to support the functioning of Tivoli, namely the housing of animals in the poultry and stockyards and stables. While necessary to the functioning of the Estate, these structures were likely constructed from temporary materials such as wood and are unlikely to survive to the present day. Furthermore, these structures appear to correspond to a similar location to that of the Hawthorne building, which was constructed in the 1950s and has a basement level present, which will have involved excavation beyond the natural soil level.

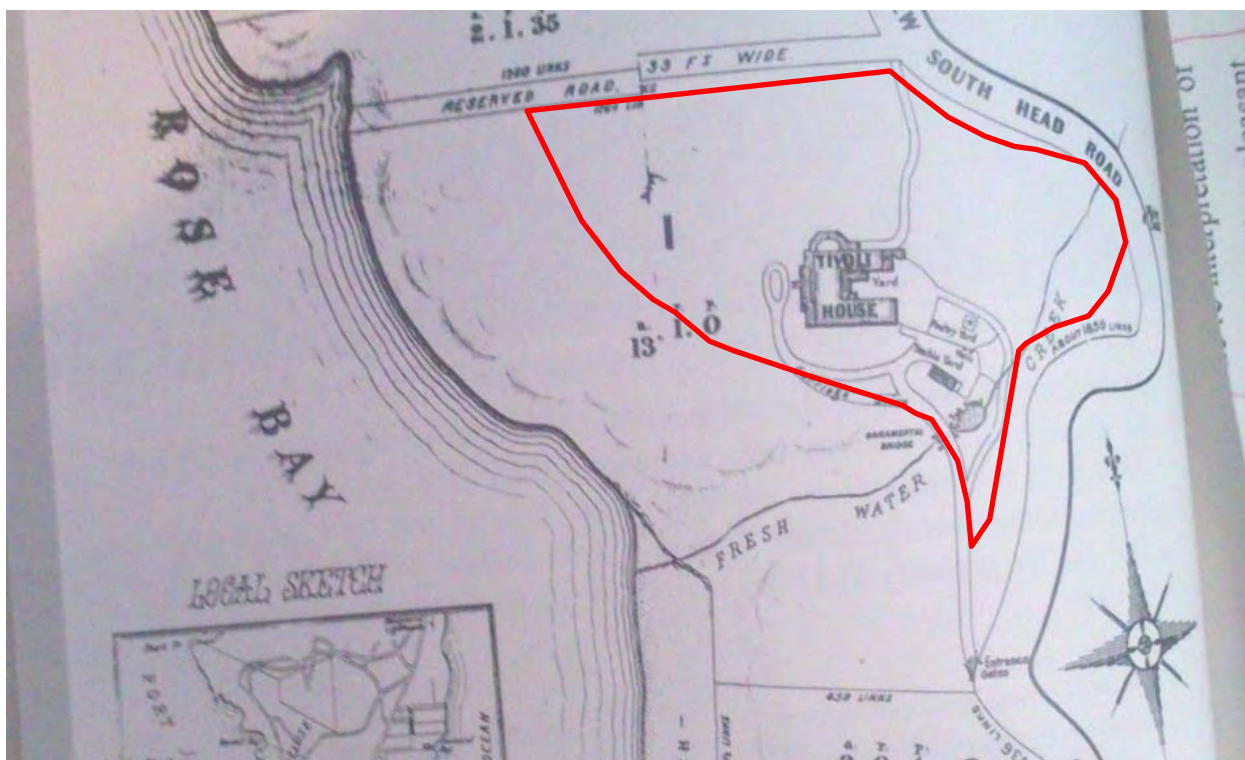


Figure 11 – Copy of the subdivision plan by Richardson & Wrench, 1881, showing the original position of the entrance gates.

Source: *ML Rose Bay Subdivision Plans, Z/SP/R13/79* not available on line. Copy held on file at the Kambala Archives.

3.1.5. Morrice Black, 1881 – 1892

Tivoli was purchased from the executors of W.A Dumaresq by Morrice Black in 1881 (SMH, 1881). The sale of the estate by Richardson & Wrench was reported in May 1881 (Maitland Mercury, 1881). The house was now known as Tivoli House rather than simply Tivoli. The planned enlargement of the house was for the return of Mrs Black, her daughters and youngest son. however shortly before returning to Sydney one of their daughters died. He took out three mortgages, one to purchase the house, one in 1884 and a second in 1887. These later mortgages would have been to fund improvements. Rather than utilize a bank, Morrice Black borrowed from the heiress Mrs Elizabeth Onslow, who was now managing her family estate.

The title deed from Black's purchase shows the Tivoli stream running through the south east of the subject area, with the sandstone convict-built bridge present over the Tivoli stream where the carriageway ran. (see Figure 12).

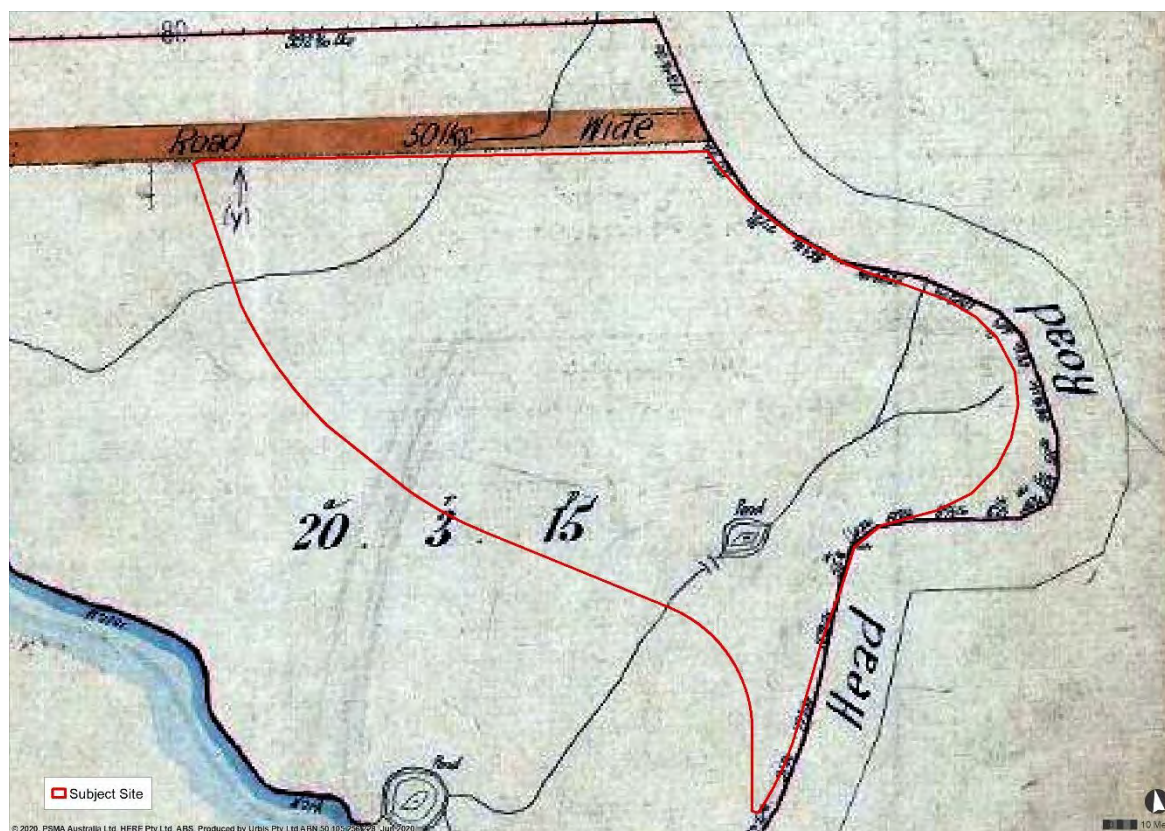


Figure 12 – Title deed from Morrice Black's purchase of the Tivoli estate, 1888.

Source: HLRV, vol-fol 874-115

During Black's ownership of Tivoli, he engaged Horbury Hunt to undertake alterations and additions to the house. No documentation relating to the commission has been located. Black is noted in later publications as being unhappy with the final cost of the project, and is reputed to have not paid Hunt's fees, forcing Hunt to sue his client.

John Horbury Hunt reworked the planning of the house to create a 'modern country house' suitable for wealthy professional man. The designs for large waterfront mansions erected in the mid 1880s such as Penshurst, Hollowforth and Gundimaine in Neutral Bay and the series of houses in Victoria Road Bellevue Hill drew on American and English precedents such as those published in the *Builder* and *American Architect*, all overlooked the harbour with extensive balconies and verandahs. English modern country houses designed by Richard Norman Shaw were widely published, as were American examples by William Ralph Emerson or Stanford White. The American examples were often designed as summer residences and frequently made use of decorative gables and sculptural chimneys as Hunt did.

Following the completion of the extension of the house, considerable improvements were made to the grounds, including the forming of roads, the erection of fencing and the removal and erection of gates.

Unfortunately, the reunited Black family did not enjoy their substantial new home in Sydney for long. Morrice Black had been in poor health since his return from London in 1886. Six months leave and an extended trip to San Francisco with his wife in 1889 did not result in an improvement. He continued to work until September 1890 but was forced to take leave. He did not recover and died at Tivoli on the 27th of August 1890 aged 59. Morrice Black left a wife and four children, two sons and two daughters, including the attorney Morrice Alexander Black (junior). In the obituary, the house was named Tivoli Bay whilst other reports listed the house as Tivoli. Morrice Black was interred at Waverley Cemetery.

3.1.6. The Sale and Subdivision of Tivoli, 1892-1913

Joseph Pearse [Pearce] of Bishopthorpe, Armidale purchased the property in 1891 and died the following year aged 81. He left a lifetime interest in Tivoli to his wife Hester Irwin Forster Pearse along with an annuity of 1400 pounds (Table Talk Melbourne, 1882). The provisions of Pearse's will were contested by his daughters Marie Isabell Russell and Eva Maria Blanche Pearse in 1893 to determine what interest they had in Tivoli after the death or remarriage of their mother. The property was to be 'converted' and trusts set up for the two daughters, each of 22,000 pounds and the estate paid the cost of the court case. The sale in December 1895 of two American buggies, a very stylish buggy horse, a brougham horse, a milking cow and heifer were put up for sale at Tivoli may indicate that the family was downsizing (SMH, 1895). Horses were however still kept at Tivoli until at least 1903.

Although the Pearse family had not lived at Tivoli since the mid-1890s, press coverage for the next 20 years still mentioned the late Joseph Pearse or Pearse of Tivoli, Rose Bay (National Advocate, 1915). From 1896 until 1913 Tivoli was rented or leased. Mrs Pearse and then her executors continued to pay the rates until the sale of the property in the 1920s. Lessee's of Tivoli during this time included Barney Allen, a racehorse owner, and The Love family.

In 1904 the estate was subdivided, and the trustees brought a case against two men who had been removing stone from the estate. The water frontages were to be sold. An un-named purchaser recalled:

The happiest Christmas time of my life and the one I shall always look back upon with the greatest satisfaction, was December 17th 1904 when I took the free steamer and purchased a block of water frontage at the sale of the Tivoli estate, Rose Bay (SMH, 1904).

Sale plans from the early 1900s show that the Tivoli Stream, which the convict bridge passed over, has become a drainage reserve. They also demonstrate only one other built item, presumably an outbuilding of Tivoli although it may be the convict bridge, on the lot (see Figure 13). There are no known improvements to the gardens of Tivoli at this time.

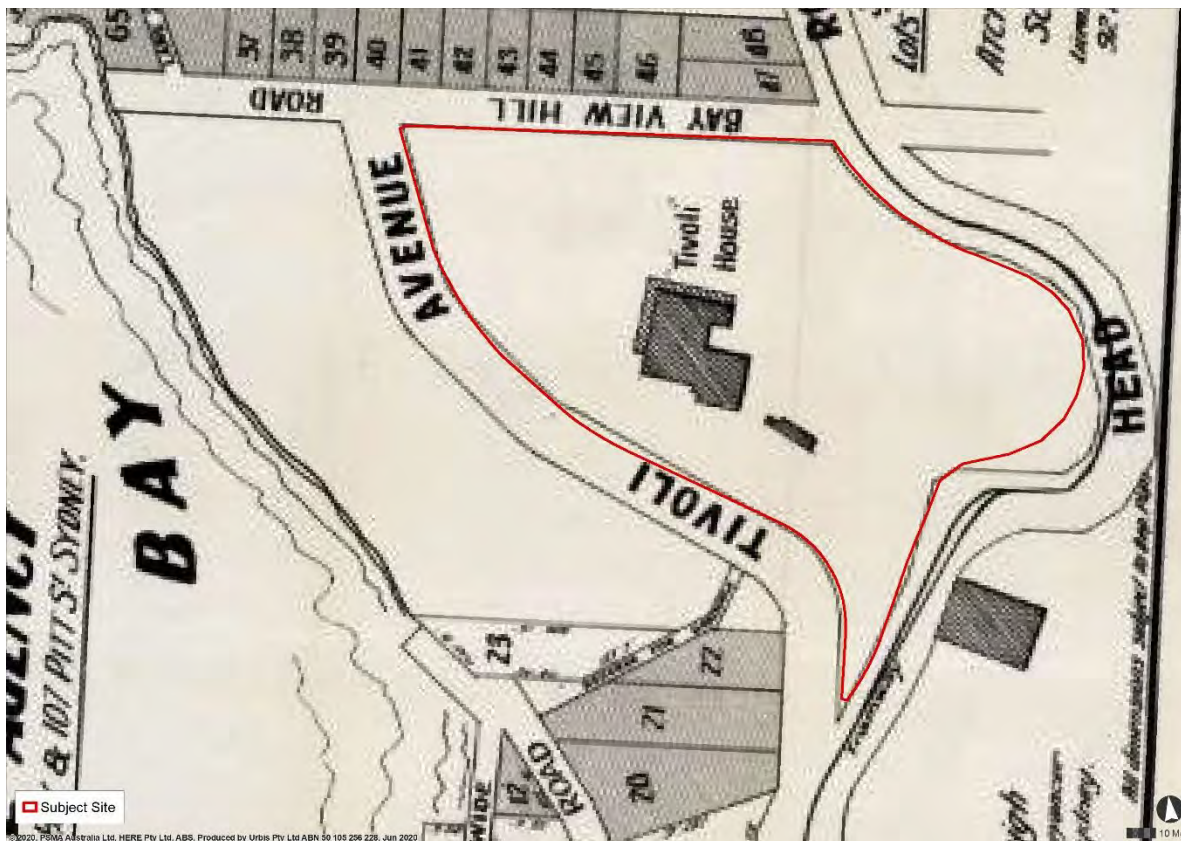


Figure 13 – Tivoli Estate subdivision

Source: State Library of NSW

3.1.7. Kambala School, 1913-present day

In 1913 Tivoli became the home of Kambala school when the school moved from Bellevue Hill. Kambala school remains on the site, which has been developed with a sequence of school buildings, starting with the additional accommodation or overflow moved from Bellevue Hill to Tivoli in 1913. Having overseen the transfer and establishment of the school at its new site Miss Gurney and Mlle Soubeiran retired.

In March 1924 preparations were made for a Vice Regal visit.

Tivoli, or as it is now called, Kambala, is to be the scene of the garden party given on Monday afternoon, to welcome Lady de Chair [Clair] on behalf of the Country Women, hundreds of whom we hope will be there to convey that welcome in person. This is a home rich in history, and it is set in perhaps the most beautiful spot on the harbour shores... This wonderful little stream which runs through our Tivoli passed right through Kambala, under the most quaint Is stone bridge and so out into Rose Bay. In the old days it supplied the household with its water by means of an old windmill which still stands in the grounds, and one can today see the old stone well where the convict servants drew their supplies and where in an old stone trough close to the house they washed (Country Life Stock and Station Journal, 1924).

The Architect and Town Planner Albert Phipps Coles does not appear to have made substantial changes to the exterior of the building. Woollahra Council retains a series of plans that he submitted. A photograph of the 1928 Sports Champions on the verandah shows the sandstone flagging, shutters and a section of archway. Only the sills appear to a darker colour.

Substantial alterations were however made to the grounds, including the provision of a sports ground and an additional tennis court. It was during these works that the 'windmill' was removed, which was reputed to have been erected by the Dumaresqs (see Figure 14). The tennis courts constructed in this period are those to the immediate north east of the subject area in Figure 14.

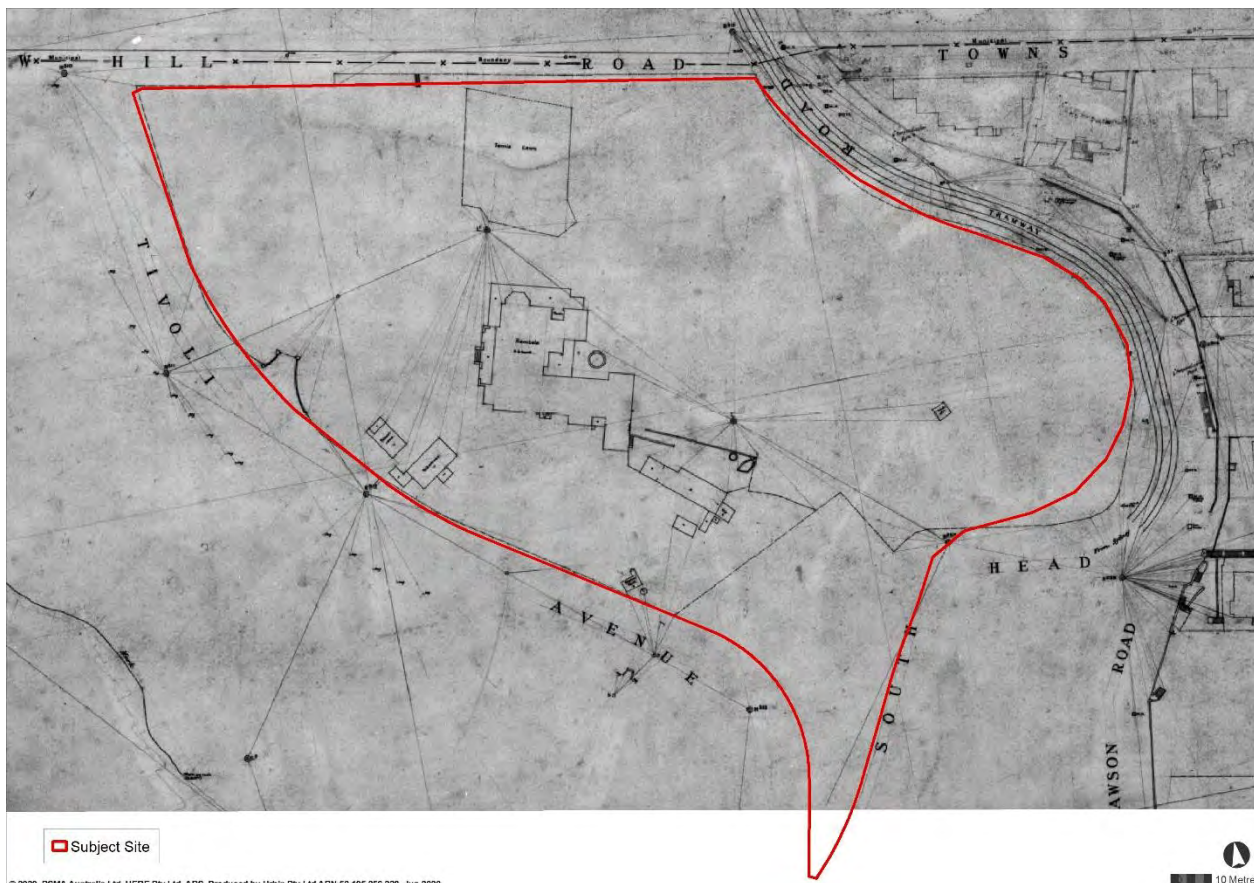


Figure 14 – Detail sheet, 1923. Small structure in southeast of subject area is identified as a windmill, which was erected by the Dumaresq Family during their period of occupation 1840-1881. The subject area is connected to the sewer main at this time. There are also outbuildings associated with Tivoli present in the west and north of the site.

Source: Sydney Water Archives

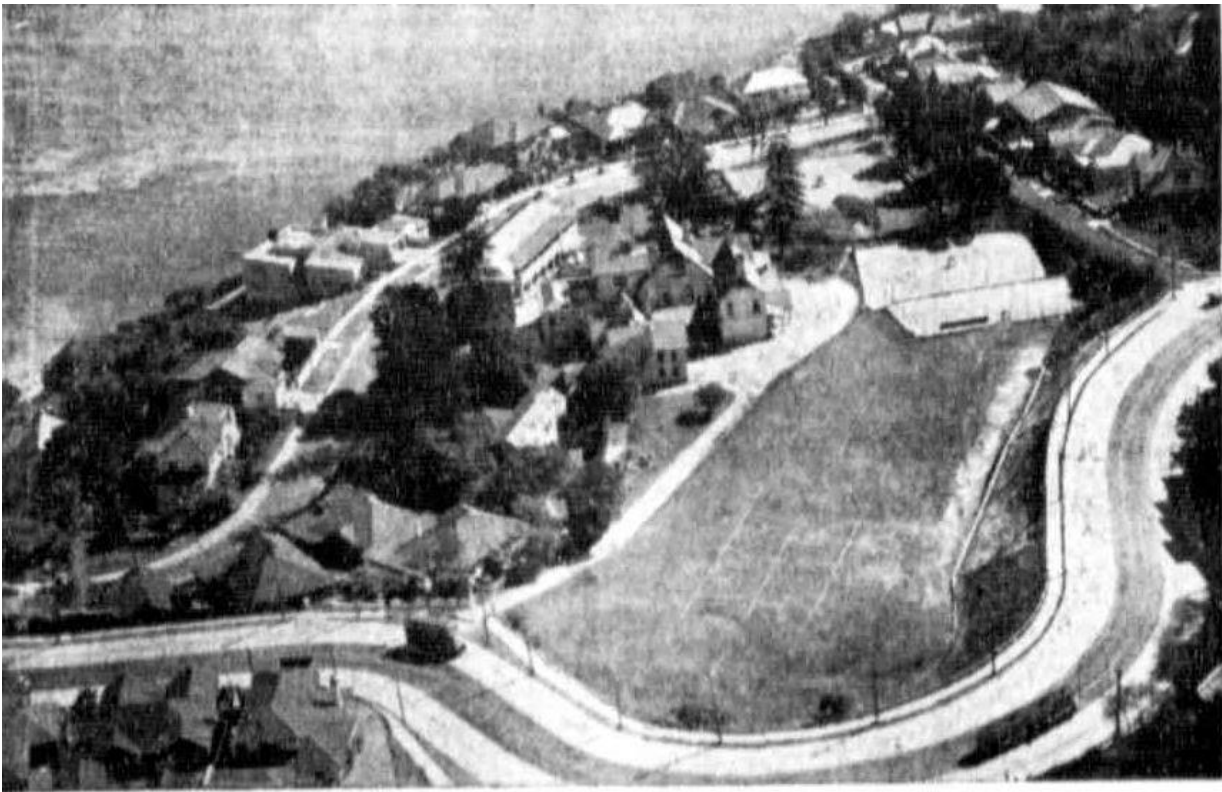
By 1930, the tennis court had a high fence and steps led up the bank to the southeast. This area has been completely redeveloped with buildings and playing fields. A 1932 view shows terracing beyond the two large Araucarias. This terracing can also be seen on the 1935 aerial, as can the playing fields and tennis courts (see Figure 15). Buildings were located along the line of the drive from New South Head Road. The line of the former drive beyond the relocated gates can also be seen and the terracing is probably contemporary with this feature.



Figure 15 - Aerial view of the school taken prior to the addition of new wings and buildings, c1935. Note the substantial change in the landscape at the sporting fields.

Source: Kambala Archives.

Extracts from the Farmer and Settler Magazine identify that Kambala was advertised as a promising city school for the daughters of wealthy families across the country, with the sporting fields and facilities of Kambala a considerable point of attraction. Advertisements boasted “51 acres of playing fields – 5 tennis courts, etc’ (Farmer and Settler, 1938).



Aerial view showing Kambala's ideal situation at Rose Bay, with Buildings and Sports Field in the centre.

Figure 16 – Aerial View of Kambala from the Farmer and Settler Magazine, 1938. Note the substantial difference in ground surface level from New South Head Road and the sporting fields.

Source: *Farmer and Settler*, 1938. Trove.

3.2. NSW HISTORIC THEMES

Historical themes can be used to understand the context of a place, such as what influences have shaped that place over time. Themes help to explain why an item exists, how it has been changed and how it relates to other items linked by the theme (Heritage Office and Department of Urban Affairs and Planning 1996). Many heritage items relate to more than one theme. The NSW Historic Themes framework (Heritage Council of NSW 2001) includes 35 themes that relate to the history of the State, and correlate with National and local historic themes. Themes applicable to the subject area are at Table 3 below.

Table 3 – Historic themes.

Australian Theme	NSW Theme	Evidence
Peopling Australia	Convict	Convict associations with the wider school and buildings, including the convict bridge over the Tivoli Stream.
Educating	Education	Tivoli House and the surrounding estate inclusive of the subject area used as a school since the early 1900s.
Developing Australia's cultural Life	Sport	Use of the eastern portion of the subject area as sporting facilities since at least the early 1900s.

4. HISTORICAL ARCHAEOLOGICAL ASSESSMENT

4.1. PREVIOUS ARCHAEOLOGICAL ASSESSMENTS AND INVESTIGATIONS.

The archaeological potential of the site not been assessed by any readily available archaeological assessments. Kambala School Archives were contacted but did not provide additional information. Below, archaeological assessments of comparable and local sites are considered for their relevance to the current subject area.

4.1.1. Nearby Archaeological Investigations

Mary Dallas Consulting Archaeology (MDCA), 2009. 'Kincoppal College, Rose Bay: Historical Archaeological Investigation'.

Kincoppal College is adjacent to the subject area to the north and is an educational facility predominantly for girls. Kincoppal College was formerly part of Vacluse Estate, prior to being subdivided. It was at one point the site of Claremont House. In these ways, Kincoppal College is not only located in close proximity to the subject area but is also comparable in terms of historic land use, having been settled and developed in a similar period, and the location of a distinguished historical estate.

In 2009, MDCA undertook an historic archaeological monitoring program, following the receipt of Development Consent from Woollahra Council for the purpose of the establishment of upgraded sporting facilities (a similar proposal to that assessed in the current report). Previous archaeological assessment of the area identified its past use as primarily horticultural and recreational, with known outbuildings. These buildings had since been demolished, and the area levelled for playing fields and further disturbed by the widening of Vacluse and New South Head roads, with further works to the playing fields in the 1990s.

The development consent conditions stated that due to the potential of *'former outbuildings associated with Claremont and the old school....an archaeologist must be present on site to monitor all excavations'* (Heritage Condition A.6). A Section 140 historical archaeological excavation permit was obtained in order to permit the monitoring program and ensure any items uncovered could be recorded and assessed without delay.

The monitoring program identified that the subject area had been heavily modified, with cutting and filling occurring for the sporting fields, and original soil profiles encountered only in small portions in the west. The monitoring program resulted in the identification of locally significant structural remains (see Figure 17). These remains included a partial sandstone footing below the retaining wall of the hard courts (see Figure 18), a brick-paved driveway dating to c. 20th century (see Figure 19), a stone and slurry footing north of the driveway (see Figure 20) and an irregular deposit of sandstone blocks near a drainage pit to the east (see Figure 21), presumably associated with the demolition of a structure. Artefactual materials were limited and derived from disturbed contexts, and none were associated with structural remains. Artefactual material included metal, plastic, ceramic, glass, brick and stone (see Figure 22).

There was the potential for a windmill, of a similar date to that of the windmill known to have existed at Kambala School (19th century) to occur in the northeastern corner, however these works were not subject to monitoring due to the design of the proposed works and the low potential for the windmill to remain due to cutting for the playing fields. MDCA argued that the cutting and modification of their subject area would have removed the traces of the windmill. This is likely to be the case at Kambala.

Overall, MDCA concluded that the episodic cutting and filling across the site had compromised the archaeological integrity and research potential of remnant features, making conclusions about their provenience difficult if not impossible. Given the comparable land use and disturbance across the current subject area, it is likely to be the same for any archaeological materials present within. Given the comparable historic record of the two sites, Urbis considers that similar conclusions will be drawn for Kambala and that a similar approach with monitoring in areas of moderate potential is appropriate. See Section 6

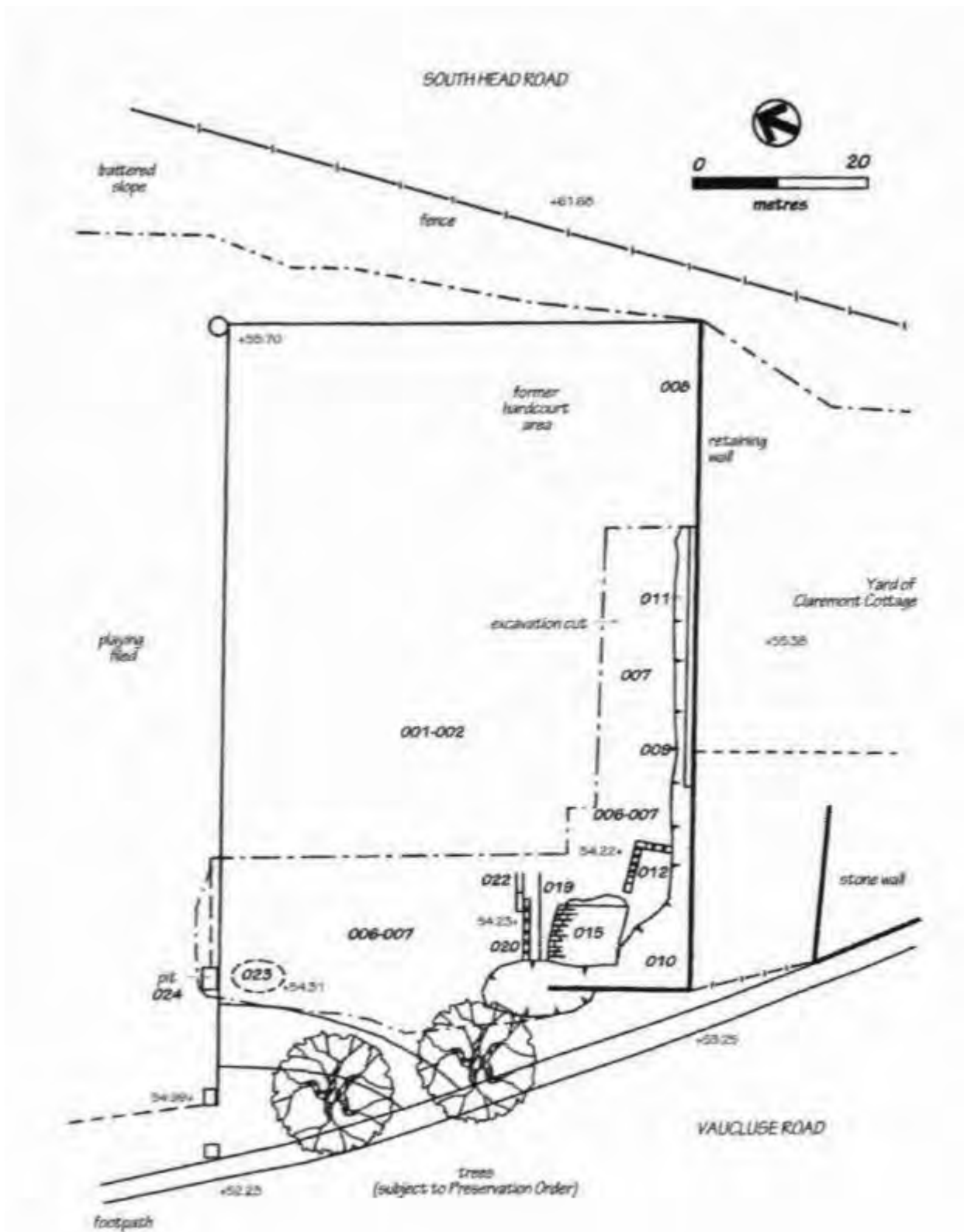


Figure 17 – site plan of monitored area and the location of archaeological features

Source: MDCA, 2009



Figure 18 – sandstone footings

Source: MDCA 2009



Figure 19 – brick driveway

Source: MDCA 2009



Figure 20 – stone and slurry footing

Source: MDCA 2009



Figure 21 – stone deposit, likely the result of demolition

Source: MDCA 2009



Figure 22 – Representative sample of artefacts uncovered during monitoring

Source: MDCA 2009



Picture 1 – Sandstone bedrock

Source: MDCA, 2009

4.2. ARCHAEOLOGICAL POTENTIAL

Historical archaeological potential is defined as:

The degree of physical evidence present on an archaeological site, usually assessed on the basis of physical evaluation and historical research (Heritage Office and Department of Urban Affairs and Planning 1996).

Archaeological research potential of a site is the extent to which further study of relics likely to be found is expected to contribute to improved knowledge about NSW history which is not demonstrated by other sites, archaeological resources or available historical evidence. The potential for archaeological relics to survive in a particular place is significantly affected by later activities that may have caused ground disturbance. These processes include the physical development of the site (for example, phases of building construction) and the activities that occurred there. The archaeological potential of The Site is assessed based on the background information presented in Section 3, and graded as per:

- **Nil Potential:** the land use history demonstrates that high levels of ground disturbance have occurred that would have completely destroyed any archaeological remains. Alternatively, archaeological excavation has already occurred, and removed any potential resource;
- **Low Potential:** the land use history suggests limited development or use, or there is likely to be quite high impacts in these areas, however deeper sub-surface features such as wells, cesspits and their artefact bearing deposits may survive;
- **Moderate Potential:** the land use history suggests limited phases of low to moderate development intensity, or that there are impacts in the area. A variety of archaeological remains is likely to survive, including building footings and shallower remains, as well as deeper sub-surface features;
- **High Potential:** substantially intact archaeological deposits could survive in these areas.

The potential for archaeological remains or 'relics' to survive in a particular place is significantly affected by land use activities that may have caused ground disturbance. These processes include the physical development of the site (for example, phases of building construction) and the activities that occurred there. The following definitions are used to consider the levels of disturbance:

- **Low Disturbance:** the area or feature has been subject to activities that may have had a minor effect on the integrity and survival of archaeological remains;
- **Moderate Disturbance:** the area or feature has been subject to activities that may have affected the integrity and survival of archaeological remains. Archaeological evidence may be present, however it may be disturbed;
- **High Disturbance:** the area or feature has been subject to activities that would have had a major effect on the integrity and survival of archaeological remains. Archaeological evidence may be greatly disturbed or destroyed.

The site at Kambala School has been occupied and redeveloped continuously from 1807 – the present-day. This occupation has seen the erection and alteration of the main building (Tivoli House), outbuildings, infrastructure and landscaping of the extensive garden..

The site at Kambala School as a whole has the potential to yield archaeological remains including structural remains of outbuildings, early road surfaces, wells, stables, stockyards, evidence of material quarrying, post holes and rubbish dumps. The potential archaeological remains associated with the various phases of occupation across the subject area are detailed in Table 4.

Table 4 – Assessment of Archaeological Potential

Phase	Evidence	Potential	Significance
Samuel Breakwell, 1807-1834.	Post holes from fences and temporary structures, farming equipment Potential building debris discarded or used as fill during the construction of South Head/New South Head Road.	Low. Subsequent terracing of the eastern subject area for playing fields, which involved the bulk excavation of natural soils, along with the construction of school infrastructure across the rest of the site would have removed any physical evidence.	Local or potentially State significant if materials of high integrity associated with early farming practices or the construction of early convict transport routes were identified (see Section 5.1).
Peter and Elizabeth Haydon, 1834-1840.	Evidence of material quarrying for construction, rubbish dumps, wells, fences and evidence of landscaping, structural remains, remains of the original carriageway.	Low Material quarrying is unlikely to have occurred within the subject area, being more likely to have occurred further west on the shoreline.. Wells, structural remains and Rubbish dumps from this period, should they have occurred within the subject area, will likely have been destroyed by subsequent activities including the construction of the Hawthorne building (located in proximity to the location of known outbuildings), the construction of other school infrastructure, and the modification of the natural topography for playing fields There is some potential that the original road surface may remain below the present roadway to the school. However, the road surface was redone during later periods of occupation and it is likely that this will have removed any evidence of the original road, unless materials were re-used.	Local and potentially state significant if materials of high integrity associated with early farming practices were identified (see Section 5.1).
The Dumaresq Family, 1840-1881.	Fences, structural remains of the windmill and outbuildings, postholes.	Low- moderate. The windmill and several outbuildings including stables and stockyards were noted to occur within the subject area and supply water to Tivoli House. However, the windmill was removed in the 1920s. Piping may still have existed within the subject area, although this likely would have been removed during subsequent activity, including the terracing of the subject area for playing fields. The outhouses including stables	Local and potentially State significant if materials of high integrity associated with early farming practices and with clear associations with the Dumaresq family (as notable individuals in colonial Australian history) were identified (see Section 5.1).

Phase	Evidence	Potential	Significance
		and stockyards were likely ephemeral structures constructed of temporary materials such as timber, and it is unlikely that these materials would survive to present day, particularly as their location in maps seems consistent with that of the Hawthorne building, constructed c. 1958, which has a basement level. Other structures known to occur including grooms rooms and the coach house which appears in sketches are likely to have been constructed from more permanent materials, however again subsequent disturbance including the construction of the Hawthorne building will likely have removed any trace of these buildings.	
Morrice Black 1881-1892.	Rubbish dumps, post holes associated with fencing and gates, remnant road surfaces.	<p>Low-moderate</p> <p>The subject area has experienced considerable disturbance associated with the various building programs across Kambala School. Further to this, Black's changes were minor and pertained mostly to Tivoli House itself, where archaeological material is unlikely to survive due to it's continued use and occupation. Black's re-surfacing of the carriageway to the main building may, however, remain below the surface of the present road as this is not a highly disruptive activity anticipated to remove previously accumulated remains.</p>	Unlikely to satisfy the criteria for significance on a local or state level I (see Section 5.1).
The Sale and Subdivision of Tivoli, 1982-1913.	Rubbish dumps.	<p>Low.</p> <p>The subject area has experienced considerable disturbance associated with the various building programs across Kambala School. Furthermore, no known improvements were made to the subject area during this time.</p>	Unlikely to satisfy the criteria for significance on a local or state level (see Section 5.1).
Kambala School, 1913-present.	Demolition materials., general discard items.	<p>Low to Moderate.</p> <p>The subject area experienced extensive disturbance associated with various buildings programs from the onset of</p>	Unlikely to satisfy the criteria for significance on a local or state level I (see Section 5.1).

Phase	Evidence	Potential	Significance
		<p>occupation by Kambala School. Fill and demolition materials where the natural topography has been altered may occur, associated with the removal of earlier structures and construction of school facilities and infrastructure.</p> <p>There may also be occurrences across the site of general discard from students present at the school across the past century.</p>	

As a result of disturbance associated with the modification of the natural topography of the subject area for the establishment of playing fields, along with the construction of school infrastructure including multistorey school buildings, it is determined that archaeological materials predating Kambala School has low-moderate potential to occur within the subject area. Figure 23 and Figure 24 below represent the archaeological sensitivity and levels of disturbance across the Kambala School precinct.

In general, the subject area is largely of low potential with extensive disturbance anticipated to have removed any potential accumulated deposit, and an absence of documented activity along the majority of the west of the site. Areas of moderate disturbance are primarily associated with Tivoli House itself, which has been nearly continuously occupied since its construction and heavily altered with the potential for archaeological deposits to occur within the floorboards or cavities of the property, and below the road, where earlier road surfaces may remain present due to the relatively low-impact activity in this area. In general across the subject area, high disturbance has been determined to correlate with low potential, with potential increasing in areas with less high-impact activity documented.



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Project No: P0012687

Project Manager: Balazs Hansel

Carmichael Tompkins Property Group on behalf of Kambala Girls School

Subject Area
 High
 Moderate
 Low

DISTURBANCE

Kambala Girls School

Figure 23 – Disturbance Levels Across Kambala School



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Project No: P0012687

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POTENTIAL

Kambala Girls School

Subject Area Low Moderate

Figure 24 – Archaeological Zoning Plan for Kambala School

5. ARCHAEOLOGICAL SIGNIFICANCE

In NSW the process of finding out whether an item is important is called assessing significance.

Archaeological sites, which contain 'relics' as defined in the NSW Heritage Act, are managed like any other significant item of environmental heritage. They should be treated in the same way with the same level of consideration and assessment process as any other surviving physical evidence of the past such as buildings, works, precincts, landscapes or other places and items with potential or known heritage value. Significance is thus an expression of the cultural value afforded a place, site or item.

The Heritage Council of NSW has developed a set of seven criteria for assessing heritage significance, which can be used to make decisions about the heritage value of a place or item. These include Historic, Social, Associative, Aesthetic, Scientific/Technical, Rarity and Representative. Archaeological significance has long been accepted as linked directly to archaeological (or scientific) research potential:

A site or resource is said to be scientifically significant when its further study may be expected to help answer questions. That is scientific significance is defined as research potential (Bickford and Sullivan 1984).

There are two levels of heritage significance used in NSW: State and local.

5.1. ASSESSMENT OF ARCHAEOLOGICAL SIGNIFICANCE

The assessment for heritage significance is in accordance with the State Heritage Register criteria. An item will be considered as having heritage significance if it meets one or more of the SHR criteria. This assessment considers items assessed as having potential to occur within the subject area in Table 4 above, however it must be acknowledge that this potential is considered to be nil-low.

Criterion (a): Historic Significance - (evolution): an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);

Should items associated with the early occupation of the subject area be encountered, including farming equipment, evidence of material quarrying, wells, post holes and early structural remains, these would be considered of state significance in association with historic convict activities, demonstrating the early settlement and practices in the Eastern suburbs of Sydney. Debris from the construction of South Head/New South Head Road would be of local significance due to the association with the settlement of the Woollahra area.

However, given the high level of disturbance within the subject area associated with the construction of school infrastructure, and its impact of any resources related to this criterion, it is unlikely that any archaeological resource would have survived and therefore there is only low possibility of having local significance.

Criterion (b): Associative Significance - (association): an item has strong or special association with the life or works of a person, or group of persons, or importance in NSW's cultural or natural history (or the cultural or natural history of the local area);

Should any material remains be identified that can be definitively associated with the Dumaresq family (1840-1881) period of occupation, these may be considered to be of local and potentially state significance due to the importance of the Dumaresq family in the early history of Sydney and New South Wales. The importance of the Dumaresq family locally is acknowledged in the naming of local streets.

However, given the high level of disturbance within the subject area associated with the construction of school infrastructure and its impact of any resources related to this criterion, it is unlikely that any archaeological resource would have survived and therefore there is only low possibility of having local significance.

Criterion (c): Aesthetic Significance - (scenic qualities / creative accomplishments): an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the cultural or natural history of the local area);

None of the potential material evidence associated with the occupation of the subject area have been identified as having aesthetic significance.

It is unlikely materials remains will be encountered that satisfy this criterion on a local or state level.

Criterion (d): Social Significance - (contemporary community esteem): an item has a strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the cultural or natural history of the local area);

Should items associated with the early occupation of the subject area be encountered, including farming equipment, evidence of material quarrying, wells, post holes and early structural remains, including those of the original carriageway, these would be considered to be socially significant on a state level, due to the association with convict groups.

However, given the high level of disturbance within the subject area associated with the construction of school infrastructure and its impact of any resources related to this criterion, it is unlikely that any archaeological resource would have survived and therefore there is only low possibility of having local significance.

Criterion (e): Technical/Research Significance - (archaeological, educational, research potential and scientific values): an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);

The subject area is considered to have low research value on the basis of the potential for archaeological materials to occur being evaluated as low. This is due to the extensive disturbance which occurred within the subject area associated with the construction of school infrastructure including the Hawthorne building.

It is unlikely materials remains will be encountered that satisfy this criterion on a local or state level.

Criterion (f): Rarity: an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);

The material culture which may occur within the subject area is not rare, nor is it uncommon in the material record of New South Wales more broadly. In the local context, the footings of outbuildings and other contemporary materials have been located at Kincoppal School to the immediate north of the current subject area. Thus should this material occurred, although it is considered highly unlikely that it would, it would not be considered exceptional or rare on a local or state level.

It is unlikely materials remains will be encountered that satisfy this criterion on a local or state level.

Criterion (g): Representativeness: an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area).

There are no items have been identified by this assessment that would satisfy the requirements under this criterion. Should material remains of previous phases of occupation occur, they are likely to be in a highly disturbed context owing to the subsequent disturbance across the subject area associated with Kambala School. These potential material remains will thus be unable to be considered representative of a principal characteristic of cultural or natural heritage.

It is unlikely materials remains will be encountered that satisfy this criterion on a local or state level.

5.2. STATEMENT OF ARCHAEOLOGICAL SIGNIFICANCE

In general the subject area has low possibility of yielding any archaeological resource that would be significant either on local or state level. While there is some potential for archaeological materials to occur within the subject area that may be considered to be of significance in accordance with the above criteria, it is generally considered unlikely that these materials will have survived to the level of integrity due to subsequent disturbance. The materials that may be considered of significance should they occur include:

- Wells.
- Physical evidence of farming including post holes, fence slots, and remains of farming equipment.
- Materials associated with the construction of South Head/ New South Head Road.
- Structural remains of outbuildings associated with Tivoli.
- Early road surfaces, likely from the Black (1881-1892) period of occupation.

- Evidence of material quarrying.
- Remains of the windmill.
- Early rubbish dumps.

These materials would be significant due to their association with convict groups and settlement of the Eastern Suburbs, and/or the Dumaresq Family. However, it is considered unlikely not only that these materials will occur, but furthermore that they will remain *in situ* and thus able to be associated with these particular circumstances which would render them significant.

Thus, on the basis of historic research and the level of disturbance across the subject area, there is low potential to encounter state or locally significant archaeological materials.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. CONCLUSIONS

The subject area has been in use since the early settlement of the eastern suburbs of Sydney, with the first known land grant going to a Mr Samuel Breakwell. Tivoli House was established and expanded upon over the coming years. The historic connections of the subject area result in the determination that should materials associated with convict settlement or the Dumaresq family be identified and of high integrity, they may be of state or local significance.

Within the subject area, a number of outhouses associated with Tivoli are known to have occurred, along with a convict bridge built over the Tivoli Stream and a windmill built during Dumaresq period of occupation. Any remnants of these structures were likely removed during works to the school across the last century. The majority of the subject area has been subject to extensive disturbance associated with the construction and demolition of school infrastructure, including to the east where the majority of proposed works will occur, which the natural topography has been extensively modified to create level playing fields in the 1930s. At nearby Kincoppal College, an archaeological assessment conducted in 2009 identified that similar land-use activities had resulted in the loss of integrity for identified archaeological remains, with all artefactual deposits identified in unstratified context, and thus of negligible value for research purposes (MDCA, 2009).

In general, the archaeological potential of the subject area is determined to be low on the basis of historical land-use and disturbance, with specific areas of moderate potential in areas that are less disturbed.

6.2. RECOMMENDATIONS

On the basis of the above, Urbis recommends that works proceed with the following recommendations:

Recommendation 1 – Section 139 and monitoring

1. Prior to the commencement of works within the areas identified as containing moderate archaeological potential (see Figure 24), a Section 139 excavation exemption permit application should be submitted with NSW Heritage as defined under *The Heritage Act 1977*. Archaeological monitoring of works should be undertaken in the area defined as containing moderate potential to ensure no potential relics are harmed during the works.

Recommendation 2 – Archaeological Chance Find Procedure

In areas identified as having low potential for archaeological resources, although considered highly unlikely, should any archaeological deposits be uncovered during any site works, a chance find procedure must be implemented. The following steps must be carried out:

1. All works stop in the vicinity of the find. The find must not be moved 'out of the way' without following the steps below.
2. Site supervisor, or another nominated site representative must contact either the project archaeologist (if relevant) or DPIE to contact a suitably qualified archaeologist.
3. The nominated archaeologist examines the find, provides a preliminary assessment of significance, records the item and decides on appropriate management.
4. Depending on the significance of the find, reassessment of the archaeological potential of the subject area and application for relevant permit may be required, and further archaeological investigation undertaken.
5. Works in the vicinity of the find can only recommence upon relevant approvals from DPIE.

Recommendation 3 – Human Remains Procedure

In the unlikely event that human remains are uncovered during any site works, the following must be undertaken:

1. All works within the vicinity of the find immediately stop.
2. Site supervisor or other nominated manager must notify the NSW Police and DPIE.

3. The find must be assessed by the NSW Police, and may include the assistance of a qualified forensic anthropologist.
4. Management recommendations are to be formulated by the Police, DPIE and site representatives.
5. Works are not to recommence until the find has been appropriately managed.

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