

AAJV



# WINDSOR BRIDGE REPLACEMENT PROJECT

**PROJECT NUMBER: 140604-2**

Test Excavation Report – Historical Archaeology

**AAJV**

(an AUSTRAL & Extent Joint Venture)

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## **Test Excavation Report – Historical Archaeology**

**Prepared by AAJV on behalf of NSW Roads and Maritime Services**

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## EXECUTIVE SUMMARY

### INTRODUCTION

The AAJV (a joint venture of Austral Archaeology and Extent Heritage [formerly AHMS]) has been commissioned by NSW Roads and Maritime Services (RMS) to prepare a report on the results of historical archaeological test excavations within the boundaries of the Windsor Bridge Replacement Project (WBRP) area. The project area includes two heritage items: Thompson Square Conservation Area listed on the State Heritage Register (SHR 00126) and Hawkesbury River Bridge, Windsor listed on the RMS Section 170 Heritage and Conservation Register (Item No I00126).

The project, which involves replacement of the existing Windsor Bridge with a new bridge and associated infrastructure, has been approved as State Significant Infrastructure (SSI\_4951) under Part 5.1 of the *Environmental Planning and Assessment Act 1979*. The approval was issued on 20 December 2013 subject to the Minister's Conditions of Approval (MCoA).

The historical archaeological test excavations were part of the wider testing programme that included Aboriginal test excavations, maritime investigations and environmental and geophysical investigative works. The aim of the testing programme was to identify the extent, nature and integrity of the potential archaeological resource that may be impacted by the WBRP, so that information retrieved could be used to further inform the WBRP project design, the Strategic Conservation Management Plan (SCMP) for the project and the preparation of appropriate mitigation strategy to minimise the development impacts.

The testing programme was carried out between 22 August and 25 November 2016. The works were undertaken in compliance with Condition B3 of the MCoA.

The historical archaeological works were guided by the approved *Windsor Bridge Replacement Project Historical and Maritime Archaeological Research Design* prepared by AAJV in July 2016 (and updated in October 2016).

### EXCAVATION RESULTS

- A total of 61 individual test trenches (historical) and test pits (Aboriginal) were investigated for historical archaeology during the historical testing program. Twenty four of the test trenches and pits were found to contain historical archaeological remains.
- The test excavations identified that, despite the high level of disturbance by various site formation processes, the subject area contains significant relics dating from the early decades of occupation. They include remains associated with the early 19<sup>th</sup> century structures such as a brick footing likely to be associated with the c.1815-1820 entry gate and boundary wall of the Government Domain; a brick and stone surface associated with the c.1830 Government Stables; and a brick box drain possibly connecting the former Government Stables, or Andrew Thompson's 1803 Store, with a c.1815 vaulted brick drain which is believed to run through Thompson Square to the river.
- Other early archaeological evidence includes yard elements retrieved in the vicinity of the former Punt House; early to mid-19<sup>th</sup> century artefacts retrieved from within modified historical topsoils within Thompson Square; Telford-type sandstone road base layers located along the western side of the current road reserve of Bridge Street (between George Street and Macquarie Street) and the southern side of George Street (near Bridge Street); a late 19<sup>th</sup> century cobblestone path or road surface; a portion of the late 19<sup>th</sup> to early 20<sup>th</sup> century



asphalted road surface that once passed through the southern portion of Thompson Square to the bridge; soil deposits and postholes dated to the late 19<sup>th</sup> and early 20<sup>th</sup> centuries; and various artefact bearing fills and isolated features across the historical test excavation project area.

- In addition to the structural remains, the test excavations yielded a historical archaeological artefact assemblage comprising 3,147 artefacts. This assemblage is predominantly composed of fragments of ceramic and glass domestic vessels, but also includes personal items such as tobacco pipes, buttons, sewing pins, clothing fasteners and artefacts related to architectural/structural activities (bricks, early nails, fragments of roofing slate, fencing wire, and window glass). Notably, several bottle glass artefacts with evidence of modification characteristic of Aboriginal stone tool manufacture were found in the lower portion of Thompson Square (east of Bridge Street), demonstrating post-contact interactions between Aboriginal people and early European settlers. Other historical material found in associated contexts suggest that the artefacts are likely to date between 1794 and c.1830.
- These remains were found at various depths ranging from 14cm to 2.3m below the current ground levels. The various structural relics identified near the intersection of George and Bridge Streets were located closest to the surface, lying directly below the current road surfaces.
- The group of archaeological remains associated with the early 19<sup>th</sup> century occupation of the site including the Government Domain and Stables brick wall footing; the brick and stone surface associated with the former Government Stables and the brick drain possibly forming a tributary drain of the 1815 vaulted drain running through Thompson Square are considered to be of State significance. Other archaeological evidence retrieved including road surfaces, postholes and unsecured artefacts bearing deposits are assessed to be of local significance. European artefacts bearing signs of modification for use by Aboriginal people represent direct contact between the settlers of early Windsor and the local Indigenous population during the Macquarie Era, and are considered to be of State significance.

## DEVELOPMENT IMPACTS AND MITIGATION

A review of the most recent design plans indicates that the WBRP redevelopment works will impact upon the site's historical archaeological resource (known and potential). The types of works that will result in archaeological impacts include the construction of the new road with associated traffic lights and bridge abutments, relocation of existing and installation of various new services across the site and construction of a new retaining wall to the east of Old Bridge Street.

As part of the mitigation strategy, four categories of archaeological management have been formulated. The categories correspond to the levels of known and/or predicted archaeological potential and significance and include: preservation *in situ*, salvage excavation, archaeological monitoring and recording and implementation of an unexpected finds procedure..

## RECOMMENDATIONS

- The planning and execution of the proposed development and subsequent phases of development should address the historical heritage issues identified in this document, and should avoid and/or minimise development impact where possible.
- The entire archaeological management process pre and during construction would be carried out in accordance with the Detailed Excavation Strategy as outlined in Section 10 of this report.
- The Detailed Excavation Strategy should draw on the research framework outlined in the existing test excavation ARD. Based on the established procedures having regard to the

heritage aspects of the project, this Detailed Excavation Strategy should be approved by the Department of Planning and Environment and/or Heritage Division prior to its implementation.

- No ground disturbance works should be carried out within the boundaries of the project prior to the endorsement of the Detailed Excavation Strategy presented in this report.
- RMS should advise all relevant personnel and contractors involved in the design, construction and operation of the proposed development, of the relevant heritage issues, and recommendations identified in this report. This should be undertaken a part of the broader site inductions usually required prior to any personal or contractors working on the project.
- Prior to construction, recommended mitigation measures in accordance with the strategy and methodology outlined in **Section 10** of this report should be implemented. No construction or ground disturbance activities on-site should proceed until the on-site archaeological components have been completed or without a suitably qualified archaeologist present to undertake works in accordance with the methodology outlined in the Detailed Excavation Strategy provided in **Section 10** of this report.
- The recommended mitigation measures include the curtilage of the new road/bridge path plus a buffer zone. In the event that development or construction activities are required beyond currently proposed depths or beyond this identified impact corridor, the mitigation measures of this report would need to be re-assessed, and any additional requirements implemented prior to construction/development beginning/resuming.
- Temporary fencing should be installed for the duration of the proposed construction and development works for all areas beyond the impact corridor as shown in **Figure 120** as practical given the urban nature of the project area to avoid inadvertent direct or indirect impacts to the archaeological landscape by the works.
- The final approved version of this report should be submitted to the Department of Planning and Environment, the Heritage Division, and the heritage section of Hawkesbury City Council's library.

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## 1 INTRODUCTION

### 1.1 Project Description

The AAJV (a joint venture of Austral Archaeology and Extent Heritage [formerly AHMS]) has been commissioned by NSW Roads and Maritime Services (hereafter 'RMS' or 'the proponent'), to prepare a report on the results of historical archaeological test excavations within the boundaries of the Windsor Bridge Replacement Project (WBRP) area (hereafter the 'test excavation project area' or 'study area'), as referred to in the Thompson Square Strategic Conservation Management Plan (SCMP) (AAJV, 2017).

The historical archaeological test excavations were part of the wider testing programme that included Aboriginal test excavations, maritime investigations and environmental and geophysical investigative works. The works were undertaken between 22 August and 25 November 2016.

The historical archaeological test excavations were carried out in accordance with the methodology and research framework outlined in the approved *Windsor Bridge Replacement Project Historical and Maritime Archaeological Research Design* (the ARD) prepared by AAJV in July 2016.

The WBRP has been approved as State Significant Infrastructure (SSI\_4951) under Part 5.1 of the *Environmental Planning and Assessment Act 1979*. The approval was issued on 20 December 2013 subject to the Minister's Conditions of Approval (MCoA). The main objective of the project is to provide a safe and efficient river crossing for the ever-increasing demands of regular commuting. The project involves removal of the existing Windsor bridge over the Hawkesbury River at Windsor, and construction of a new bridge, approximately 35m downstream of the existing bridge. The construction works will include a number of tasks that can be summarised as follows:

- Construction of the new bridge with associated approach roads and intersections on both river banks to connect the new structure to existing roads network.
- Construction of associated pedestrian and cycling facilities and utilities and scour protection.
- Demolition and removal of the existing bridge and approach roads and backfilling of the removed road reserves.
- Modifications to the remaining roads and access arrangements including the Macquarie Park and The Terrace.
- Urban design and landscaping works.

This report has been prepared in response to Condition B3 (a-e) of the MCoA, as follows:

Condition	Compliance	Location in This Report
B3. The Applicant shall undertake an Archaeological Investigation Program comprising Aboriginal and non-Aboriginal Heritage in the project area on the southern side of the Hawkesbury River, prior to the commencement of preconstruction and construction activities in the southern area. The program shall be conducted to the satisfaction of the Director-General and in accordance with:	Compliance of non-Aboriginal heritage	This report in its entirety

Condition	Compliance	Location in This Report
a) the Heritage Council's Archaeological Assessments Guideline (1996) using a methodology prepared, in consultation with the NSW Heritage Council for non- Aboriginal heritage; and	Complies	Section 3.0
b) prepared in consultation with the OEH (Aboriginal heritage) and the Aboriginal stakeholders.	n/a	n/a
The Archaeological Investigation Program is to be undertaken by an archaeological heritage consultant approved by the Director-General in consultation with the NSW Heritage Council and by the OEH (Aboriginal heritage) and by an Excavation Director who shall demonstrate an ability to comply with the Heritage Council's Criteria for the Assessment of Excavation Directors (July 2011) and in particular must be able to demonstrate compliance with Criterion A.4 that: 'work under any approvals previously granted by the Heritage Council has been completed in accordance with the conditions of that consent and the final report has been submitted to the NSW Heritage Council.	Complies	Section 1.6
The Archaeological Investigation Program shall include archaeological testing and geophysical investigation, as required for the significance assessment.	Complies	Section 3, 5
The results of the Archaeological Investigation Program are to be detailed in a Historic Archaeological Report and a Detailed Salvage Strategy comprising the non-Aboriginal and Aboriginal heritage findings. These are to be prepared in consultation with the OEH (Heritage Branch and Aboriginal heritage) and to the satisfaction of the Director-General, and shall include, but not necessarily be limited to:	Complies	Detailed Salvage Strategy
a) detailed recommendations for further archaeological work;	Complies	Sections 4 & 10
b) consideration of measures to avoid or minimise disturbance to archaeology sites, where archaeology of historical and Aboriginal heritage archaeological significance are found to be present;	Complies	Sections 6, 9 and 10
c) where impacts cannot be avoided by construction of the SSI, recommend actions to salvage and interpret salvaged sites, conduct further research and archival recording of the historic heritage and Aboriginal heritage value of each site, and to enhance and preserve the	Complies	Section 10

Condition	Compliance	Location in This Report
archaeology of historical non-Aboriginal and Aboriginal heritage significance;		
d) consideration of providing visual evidence of heritage sites within the final landscape design of the SSI to preserve and acknowledge the heritage value of the Thompson Square Conservation Area and the site;	Partly complies	Section 10 and in Strategic Conservation Management Plan and Urban Design and Landscape Plan
e) management and mitigation measures to minimise impacts due to preconstruction and construction activities;	Complies	Section 10

## 1.2 Site Location and Identification

The subject area is located at Windsor, within the Hawkesbury Local Government Area (LGA), approximately 57 kilometres north-west of Sydney. The town is situated on the southern bank of the Hawkesbury River, close to the foothills of the Blue Mountains (**Figure 1**).

The WBRP test excavation project area incorporates the existing and proposed replacement bridge sites and associated road works. It extends from the northern boundary of Wilberforce Road in the north to the intersection of Bridge Street and Macquarie Street in the south of the township (**Figure 2**).

## 1.3 Project Objectives and Scope

This report was prepared taking into consideration the principles and procedures established by

- *Historical Archaeological Excavations: Code of Practice* (Heritage Council of New South Wales 2006); and
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Heritage Branch 2009).

The main objectives of the historical test excavations are:

- to identify the extent, nature and level of preservation of the potential historical archaeological resource that may be impacted by the WBRP and other developments within this corridor;



- to determine whether or not any archaeological salvage of remains that would be impacted by construction is warranted;
- to inform historical aspects of the SCMP for the project;
- to address research questions outlined in the ARD; and
- to direct future archaeological activities for the WBRP, if required.

## 1.4 Previous Reports and Investigations

This report was prepared taking into consideration the following previous reports and investigations informing the subject area:

- *Windsor Bridge Replacement Project Historical and Maritime Archaeological Research Design* (AAJV 2016);
- *Windsor Bridge Replacement, Windsor: Integrated Archaeological Research Design* (AAJV 2013);
- *Windsor Bridge Replacement Project: Independent Heritage Review* (Casey et al 2013);
- *Evaluation of Historical Images for Additional Archaeological Potential, Windsor Bridge Proposal* (AHMS 2013);
- *Windsor Bridge Replacement Project: Historical Heritage Assessment & Statement of Heritage Impact* (Biosis & CRM 2012).
- *Windsor Bridge Replacement Project: Aboriginal Cultural Heritage-Cultural Heritage Assessment Report* (KNC 2012).

These reports are also listed in the Bibliography in **Section 111** of this report.

## 1.5 Limitations

The report includes predictions regarding the potential for sub-surface archaeological materials to exist within the subject area as indicated by the limited archaeological test excavations undertaken as part of the current assessment. As such, it is noted that sub-surface archaeological material may survive in particular areas despite the available evidence suggesting that it does not. The converse also applies.

The test excavations revealed that introduced fills extend over much of the southern project area, particularly within Thompson Square and along the riverbank. This meant that buried cultural deposits of interest to this study frequently extended over 1m in depth. Due to Environmental Health and Safety (HSE) reasons, entry/exit of test pits deeper than 1.5m was not permitted, and this severely restricted the level of hand excavation and recording of historical contexts, especially at their lowest depths.

This report does not review the Aboriginal cultural heritage values of the subject area.

## 1.6 Author Identification

This report was prepared by James McGuinness, Senior Archaeologist and Trench Superintendent, and Anita Yousif, Senior Associate and appointed Excavation Director for the WBRP. The artefact analysis and presentation in **Section 5** was prepared by Dr. Nicolas Grguric with input from James McGuinness. The digitisation of site drawings was prepared by Miles Robson, Archaeologist. The draft report was reviewed by David Marcus, Senior Archaeologist.

This report was reviewed by Dr. MacLaren North, NSW Director of Extent Heritage Pty Ltd and Justin McCarthy, Director of Austral Archaeology Pty Ltd.



Figure 1: Map of the WBRP test excavation project area.



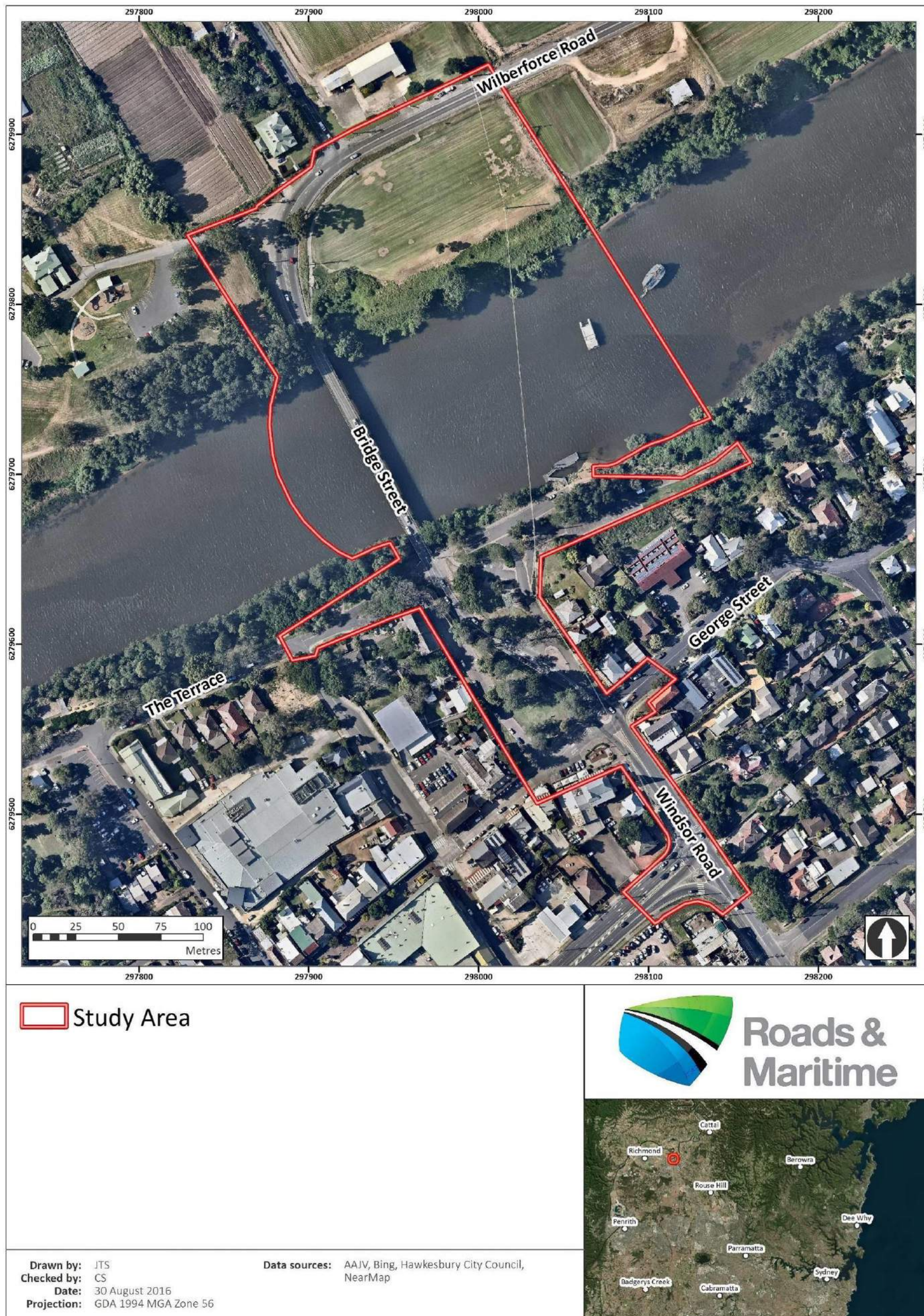


Figure 2: Aerial image of the WBRP test excavation project area.



## 2 BACKGROUND

### 2.1 Introduction

This section is adapted from the Thompson Square Strategic Conservation Management Plan (SCMP) (AAJV, 2017), which is intended to act as the principal guiding document for the management and future use of Thompson Square. The following background provides an abridged overview of the environmental setting, occupation history and summary of previous archaeological investigations of the WBRP test excavation project area. Where most relevant, elements of the wider Thompson Square Conservation Area (SHR item #00126), the cultural landscape that informs the WBRP test excavation project area, have been included within the historical overview.

### 2.2 Landform and the Hawkesbury River Corridor

The Hawkesbury River, upon which the subject area is situated, is one of the most significant fluvial systems on the eastern coast of Australia. The area has a complex geomorphological history of fluvial and aeolian processes, resulting in the landscape evident today. Studies to the south at Cranebrook Terrace suggest that the banks and surrounds of the river are situated on Tertiary clays and gravels (>2.6million years old), and have formed over the last 100,000 years.<sup>1</sup> Archaeological investigations at Pitt Town and the site of the Windsor Museum indicate that initial deposition of the extensive alluvial sand deposits within the soil profile at these sites began about 150,000 years ago.<sup>2</sup>

Within the study area, the northern portion (i.e. the left bank) is based on Quaternary alluvium, demonstrated elsewhere to be between 4 and 8m thick.<sup>3</sup> These deposits may also extend to the immediate area of the banks on the south side of the river. Recent archaeological work<sup>4</sup> suggests that these deposits formed rapidly, and may be less than 15,000 years in age. To the south of the study area, the geological landscape is characterised by a natural ridge of Tertiary clay. Archaeological excavations in 2012<sup>5</sup> indicated that this ridge is overlain by yellow-brown loamy sand up to 80cm deep. This sand is similar to the surface deposits at Pitt Town and the Windsor Museum and it was probably formed by a combination of low-energy flooding and aeolian re-working. The thickness and distribution of these deposits within the study area are likely to have been affected by numerous and extensive historical development episodes.

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<sup>1</sup> Groundtruth Consulting Pty Ltd., *Geomorphology and soils in relation to archaeological investigations on the Cranebrook Terrace, Penrith Lakes, NSW*. Unpublished Report to Comber Consultants Pty Ltd., 2010

<sup>2</sup> Austral Archaeology Pty Ltd. *Windsor Museum, NSW: Aboriginal archaeological and cultural salvage excavation*. AHIP #2119. Report to Hawkesbury City Council, 2011; Williams, A.N., Mitchell, , Wright, R.V.S., Toms, 'A Terminal Pleistocene open site on the Hawkesbury River, pit t Town, NSW'. *Australian Archaeology* 74, 2012, 85-97.

<sup>3</sup> Groundtruth Consulting Pty Ltd., 2010.

<sup>4</sup> AHMS Pty Ltd (2014) *Aboriginal Cultural Heritage Assessment: Peach Tree Creek Stabilisation Works, Penrith, NSW* (Penrith LGA). Unpublished Report to Penrith City Council.

<sup>5</sup> KNC (2012) Windsor Bridge Replacement Project-Aboriginal Cultural Heritage-Cultural Heritage Assessment Report. Unpublished Report to NSW Roads and Maritime Services.

Low-lying parts of the study area are regularly inundated by river flooding; the erosive and depositional characteristics of which are the principal factors that shaped local topography over a very long period of time. The recorded flood history extends from 1799 through to the present day (with a 6m rise in river level recorded as recently as June 2016).<sup>6</sup> Flooding and the impacts of flooding not only shaped Windsor's environmental history; the deposition of fertile flood-borne sediments and their agricultural potential was a major factor that influenced the choice of the place as an outlier township during the early historical period.

## 2.3 Historical Overview

### 2.3.1 INTRODUCTION

The following historical overview has been adapted from Volume 1 of the 2017 AAJV Strategic Conservation Management Plan (SCMP).<sup>7</sup> This historical overview focuses on historical developments of most relevance to the locations and results of the historical test excavation programme. A comprehensive historical overview of the broader Windsor Bridge Replacement Program study area is presented in the SCMP.

### 2.3.2 BEFORE 1788

Aboriginal people owned and occupied the study area beside the Hawkesbury River for millennia prior to European colonisation.<sup>8</sup> Aboriginal people fished from their canoes and hunted on both sides of the Hawkesbury River. On the lowlands, they set traps for birds and small animals and hunted larger prey like kangaroos, as well as gathering grubs, berries and, particularly in the vicinity of what we today call Thompson Square, wild yams which they harvested annually. The study area was part of the territory of the Boorooberongal people of the Darug language group.

The Hawkesbury-Nepean River corridor contains some of the earliest evidence of Aboriginal occupation in Australia. The recovery of five flaked pebbles from the base of the Cranebrook Terrace, dating to about 40,000 years BP, represents the earliest evidence of past human activity in the locality.<sup>9</sup> More compelling evidence of Aboriginal use of the river is provided by excavations undertaken in advance of residential development at Pitt Town. These excavations, of a total area of 250m<sup>2</sup> located across a kilometre section of the ridgeline (PT-12) overlooking the Hawkesbury River, recovered over 10,000 stone artefacts from depths up to 1.3m below the ground surface. They were dated to between 36,000 and 8,000 years ago.<sup>10</sup> Similar findings were made in advance of development at the Windsor Museum, where a 1.8m deep sand body recovered 12,000 stone artefacts dating to between 34,000 and 8,500 years ago.<sup>11</sup> Recent excavations on the banks of

<sup>6</sup> Hawkesbury City Council (2012) Hawkesbury Flood Levels, 1799-1992.

<sup>7</sup> AAJV, Thompson Square Windsor NSW, Strategic Conservation Plan, Final Draft, April 2017.

<sup>8</sup> E. Higginbotham, *Report on the Archaeological Excavation of the Site of the Extensions to the Hawkesbury Museum, 7 Thompson Square, Windsor, N.S.W.* 1992, report to Hawkesbury City Council, 1993; W. Thorp, *Hawkesbury Museum, Site of Proposed Extensions, Baker Street, Windsor: Archaeological Assessment*, Cultural Resources Management Plan for Hawkesbury City Council, 2002.

<sup>9</sup> Nanson, G.C., Young, R.W., Stockton, E.D. (1987) 'Chronology and palaeo-environment of the Cranebrook Terrace, near Sydney, containing artefacts more than 40,000 years old'. *Archaeology in Oceania* 22:72-78; Stockton, E.D., Holland, W. (1974) 'Cultural sites and their environment in the Blue Mountains'. *Archaeology and Physical Anthropology in Oceania* 9(1):36-65.

<sup>10</sup> Williams et. al., *Australian Archaeology*.

<sup>11</sup> Austral Archaeology Pty Ltd. 2011.

Peachtrees Creek (near Penrith CBD) recovered a handful of stone artefacts at a depth of 4m below the surface, dating to about 15,000 years ago.<sup>12</sup>

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### 2.3.3 GREEN HILLS (1794 - 1810)

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In 1794, in response to recurrent shortages of food in the colony, acting Governor Francis Grose granted an initial 22 settlers land along the upper Hawkesbury River, where the soils of the flood-plain were superior to those already exploited around Sydney, Parramatta and Toongabbie. By the end of 1794, the new district, named Mulgrave Place, comprised 118 farming grants in a location distinct and distant from the other two main settlements at Sydney and Parramatta.

The majority of soldiers, ex-soldiers and ex-sailors amongst the grantees were slower to settle, and of the 85 farms established by a population of 400 persons, all but four were by ex-convict grantees.<sup>13</sup> All of these farms included water frontages to the Hawkesbury River and its tributary creeks and by December 1796, stretched from today's North Richmond to Cattai downstream (**Figure 3**).

On the northern side of the river, on what would become the site of the Windsor Bridge and the northern portion of the study area, one of the 30-acre farms was taken up by Edward Whitton, a convicted highway robber who had arrived in New South Wales in 1788, and an Irish convict woman, Anne Slater. It was on the eastern side of portion 69 that George William Evans sat to prepare the first of his watercolours of Green Hills across the river in 1807 (Figure 89) though both Edward and Anne had died by this time and the property had passed to their daughter Mary Whitton in 1811.

Across the river, a ridge of higher and less fertile land between the farms of ex-convict Samuel Wilcox and government storekeeper William Baker had been left as vacant Crown land. This became the centre of the Mulgrave Place district, commonly known as "Green Hills" from around 1800, and the site for the location of the settlement's government facilities; where stores could be brought in by boat and wheat and maize taken back to Sydney. The civic square occupied a section of the western end of this 46-acre government precinct.<sup>14</sup> The water fronting aspect of the civic square and the fact that it sat inside a government precinct ensured it was never absorbed into the growing surrounding urban development like other similar public spaces.

The settlement was established with little in terms of infrastructure to manage the product of successful farming and facilitate transferral to the Sydney Commissary Stores, from where government provisions were being distributed to the settlers to alleviate food shortages. In January 1795, the first buildings required to house crops and government provisions were erected during the first stage of formal government building. These works took place under the supervision of the Commissary John Palmer,<sup>15</sup> an indication of the growing importance of the new settlement as an agricultural district. This was an unusual beginning for the government presence, for in the two previous areas settled on the mainland of Australia, a military presence had accompanied the settlers and convicts from the beginning and facilities had been built for them immediately along with provision stores and granaries on various government sites.<sup>16</sup>

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<sup>12</sup> AHMS Pty Ltd., 2014.

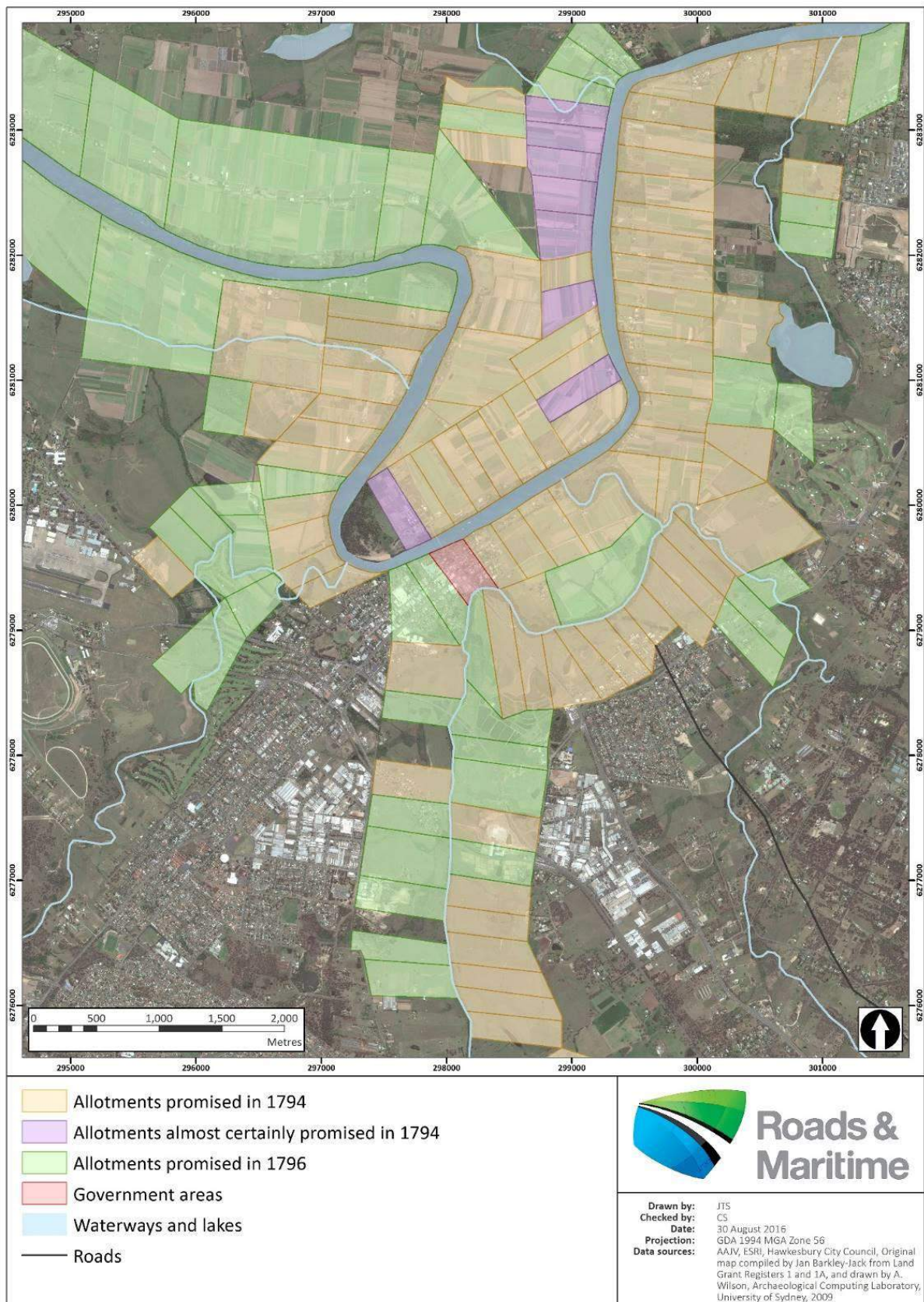
<sup>13</sup> J. Barkley-Jack, *Hawkesbury Settlement Revealed: a new Look at Australia's Third Mainland Settlement*, Rosenberg, Dural, 2009, p 55-70.

<sup>14</sup> Barkley-Jack, *Hawkesbury Settlement Revealed*, 177.

<sup>15</sup> Collins, *An Account of the English Colony*, vol.1, p338-340.

<sup>16</sup> *Historical Records of Australia*, [HRA], series 1, vol. 1, p56, 97, 143.





**Figure 3: Grants promised at Mulgrave Place by December 1796 (Source: Map compiled by Tom Sapienza – content sourced from Jan Barkley-Jack from Land Grant Registers 1 and 1A, and drawn by A. Wilson, Archaeological Computing Laboratory, University of Sydney, 2009).**



At Windsor, first a wharf was keyed into the sloping bank and then a storehouse was built nearby, enabling provisions for the settlers to be landed from government vessels and put under the protection of a small military guard.<sup>17</sup> It is almost certain that the first wharf and provision store were close to the water on the north-western side of Thompson Square. In 1799 a severe flood washed away both wharf and storehouse and Governor Hunter acknowledged that the floods had '*proved a most distressing circumstance to the settlers... where we have in some seasons rais'd from fifteen to twenty thousand bushels of wheat*'.<sup>18</sup> Two new storehouses were built close to the same position in 1799 (**Figure 4**).

All the government buildings constructed before 1796 in the vicinity of Thompson Square were shoddily put together and quickly needed replacement. The soldiers had camped or were billeted until mid-1795, when a detachment of almost 100 men was stationed in the Hawkesbury area and the first dedicated soldiers' barracks was built. In 1796, Governor Hunter described the soldiers' barracks as a '*miserable building*' and, by 1800, had replaced the original barracks with a new building on the ridgeline to the south-west of today's Thompson Square,<sup>19</sup> probably close to the position of the earlier barracks (**Figure 4**). By 1807 the space was denuded of tress and various other buildings for the military and those in government employ had accumulated on the slope below the barracks, remaining there until 1812. The Evans paintings span this period, and show that the area took on the look of a small village, with an informal public space at its centre.



**Figure 4.** Detail of G.W. Evans' 1809 view of the settlement, showing the informal cluster of government buildings within the western side of the Crown reserve during the early years of the 19<sup>th</sup> century. The provision stores, rebuilt in 1799, are likely to be the two small buildings with ventilated gables (red arrow). The second Military Barracks, built between 1796 and 1800, are likely to be the cluster of buildings on the ridge with a fenced paddock running down to the provision stores. (Source: G.W. Evans, 'The Settlement on the Green Hills', watercolour, 1809, Mitchell Library, State Library of NSW, PXD 388, vol.3 fo.7).

A granary constructed in 1795 proved totally inadequate and in August 1796, Governor Hunter was forced to rebuild '*a large granary for the reception of wheat and maize*' constructed in log and thatch.<sup>20</sup>

<sup>17</sup> Collins, *An Account of the English Colony*, vol.1, 340.

<sup>18</sup> Collins, *An Account of the English Colony*, vol.1, 340; vol.2, p143-144; *HRNSW*, vol.3, p80, 668; Hawkesbury City Council, *Hawkesbury Flood Levels*, Windsor, 2012.

<sup>19</sup> Barkley-Jack, *Hawkesbury Settlement Revealed*, p66, 292, 293-294; *HRNSW*, vol.3, 80; vol.4, 152.

<sup>20</sup> *HRNSW*, vol. 3, 80

Almost simultaneously, a well-built, commodious weatherboard dwelling was constructed for the commandant of the settlement, Edward Abbott, directly overlooking the river and the civic square from the north-eastern part of the government precinct. This cottage became the residence of governors when they were visiting the district.<sup>21</sup>

By 1798, a second log granary had been built adjoining what would become Andrew Thompson's lease and both granaries were enclosed for added security within a paling fence with a guardhouse located close by. By the time G.W. Evans first painted Thompson Square in 1807, the earlier of the two granaries had been removed, but the other, likely to be the 1798 granary, is shown clearly on the north-eastern side of Thompson Square. Andrew Thompson's small cottage, where he lived until he built a new residence early in the 19<sup>th</sup> century, is shown in all the early paintings and etchings of Thompson Square to adjoin the paling fence between his lease and the 1798 granary (**Figure 5**).

Thompson, an ex-convict, was given this exceptional right to hold a lease within the government precinct in 1799 on land he had already occupied as the local constable since 1796. Once established, Thompson's lease formally delineated the north-eastern boundary of the civic square, effectively establishing Thompson Square as the only 18<sup>th</sup> century civic square remaining in Australia. He continued to hold this acre of land that extended from the ridgeline down to the river bank for eleven years, a period of time in which he became the Hawkesbury's leading farmer and businessman and a key figure in the district's growth. Ultimately, through his deep involvement with land acquisition and trade, Thompson quickly became one of the largest grain growers and wealthiest settlers in the colony.<sup>22</sup>

The civic square had long been frequented by the Hawkesbury's earliest settlers in the course of acquiring provisions, storing the grain they wished to sell to the government or seeking the help of the constables, the military or the magistrate. Many of the colony's elite visited Windsor to attend the annual musters held initially in the vicinity of the Government House and Thompson Square, and used the square as a place to catch up on their dealings with each other or to hear the doings of the district.<sup>23</sup> Regular visitors included Judge Advocate David Collins, the Commissary John Palmer, John and Elizabeth Macarthur, the Reverend Samuel Marsden and Deputy Surveyor Charles Grimes. Some of the elite of the colony were later to recount the hospitality of their stay there as guests of Andrew Thompson.<sup>24</sup> The square was to remain the commercial and administrative focus of Windsor for another half century.

In 1803, under Governor King, the earlier stores and log and thatch granaries were replaced by a three-storey brick building on top of the ridge to the south-east of the square. At around this time Thompson, at the height of his prosperity, built his own three-storey store slightly to the west of this Government Granary and facing the square. To the east of the new granary there was added in 1804-1805 a two-storey Schoolhouse/Chapel and Schoolmaster's Residence, which also served as a court house. The Government Granary became associated with the end of the rebellion of Irish convicts that culminated in the Battle of Vinegar Hill in 1804 when the Irish leader, Phillip Cunningham, was '*to be publicly executed on the Stair Case of the Public Store [at Green Hills], which he had boasted in his march he was going to plunder*'.<sup>25</sup> The vicinity of Thompson Square was the scene of another event linked to wider turmoil when, in January 1808, soldiers burned an effigy of Governor Bligh in the Military Barrack paddock on hearing their peers in Sydney had deposed the Governor.

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<sup>21</sup> L. Macquarie, *Journals of his Tours in New South Wales and Van Diemen's Land, 1810-1822*, Library of Australian History and Library Council of New South Wales, Sydney, 1979.

<sup>22</sup> J.V. Byrnes (1967) "Thompson, Andrew (1773-1810)", *Australian Dictionary of Biography*, <http://adb.anu.edu.au/biography/thompson-andrew-2728>

<sup>23</sup> HRNSW, vol. 3, 217.

<sup>24</sup> Elizabeth Macarthur in 1795, HRNSW, vol.2, 510.

<sup>25</sup> *Sydney Gazette*, 11 March 1804, 2; L.R. Silver, *Australia's Irish Rebellion: the Battle of Vinegar Hill, 1804*, rev. ed., Watermark Press, Sydney 2002, 150.



**Figure 5:** Detail of W.G. Evans' 1809 painting showing the eastern side of the government precinct. From left to right the 1798 Government Cottage, 1803 Schoolhouse & Church, 1803 Government Granary and Thompson's buildings and garden are seen bordering the open ground of what would become Thompson Square to the right. Thompson's small cottage (circled) that he occupied as constable is shown next to the obsolete 1798 granary and attached guardhouse. (Source. G.W. Evans, watercolour, 1809, 'Settlement on the Green Hills', State Library of NSW, Mitchell Library, PXD 388, vol. 3, fol. 7).

#### 2.3.4 THE MACQUARIE ERA AND ITS AFTERMATH IN THOMPSON SQUARE (1810 – C.1850)

When Macquarie arrived in 1810 to restore normal government, he quickly found Thompson an invaluable adviser on Hawkesbury affairs. Governor Macquarie saw him as one of the founding fathers of Green Hills<sup>26</sup> and, in keeping with his philosophy of benevolence to any ex-convict whose good behaviour had illustrated genuine reform, appointed Thompson as the colony's first ex-convict magistrate in 1810, shortly before Thompson's death.

In December 1810, Governor Macquarie held a dinner in the Government Cottage where he announced the creation of five new towns on high land along the Hawkesbury-Nepean River, namely the towns of Castlereagh, Pitt Town, Richmond, Wilberforce and Windsor. Early in 1811, on 12 January, Macquarie recorded that he:

*...rode out...to survey...the ground marked out for the town and township of Windsor, which having finally fixed on...I walked over the whole of the present village on the Green Hills, forming the beginning or basis for the new town...<sup>27</sup>*

Windsor was unique among Macquarie's new towns as it required the incorporation of an existing village. He quickly gave the Deputy Surveyor-General, James Meehan, instructions to provide a detailed survey of the new town. New allotments were laid out, and Meehan's plans were to include several new streets; '*...the old ones to be enlarged and improved in various respects...*',<sup>28</sup> with the principal thoroughfare, George Street, running in a westerly direction from a gateway at the Government Cottage fence to the east (**Figure 7**).

<sup>26</sup> Macquarie, *Journals of his Tours in New South Wales and Van Diemen's Land, 1810-1822*, Library of Australian History in association with the Library Council of New South Wales, Sydney, 1979, 4-6 December 1810, 12 January 1811, 43.

<sup>27</sup> Macquarie, *Journals, 1810-1822*, 31.

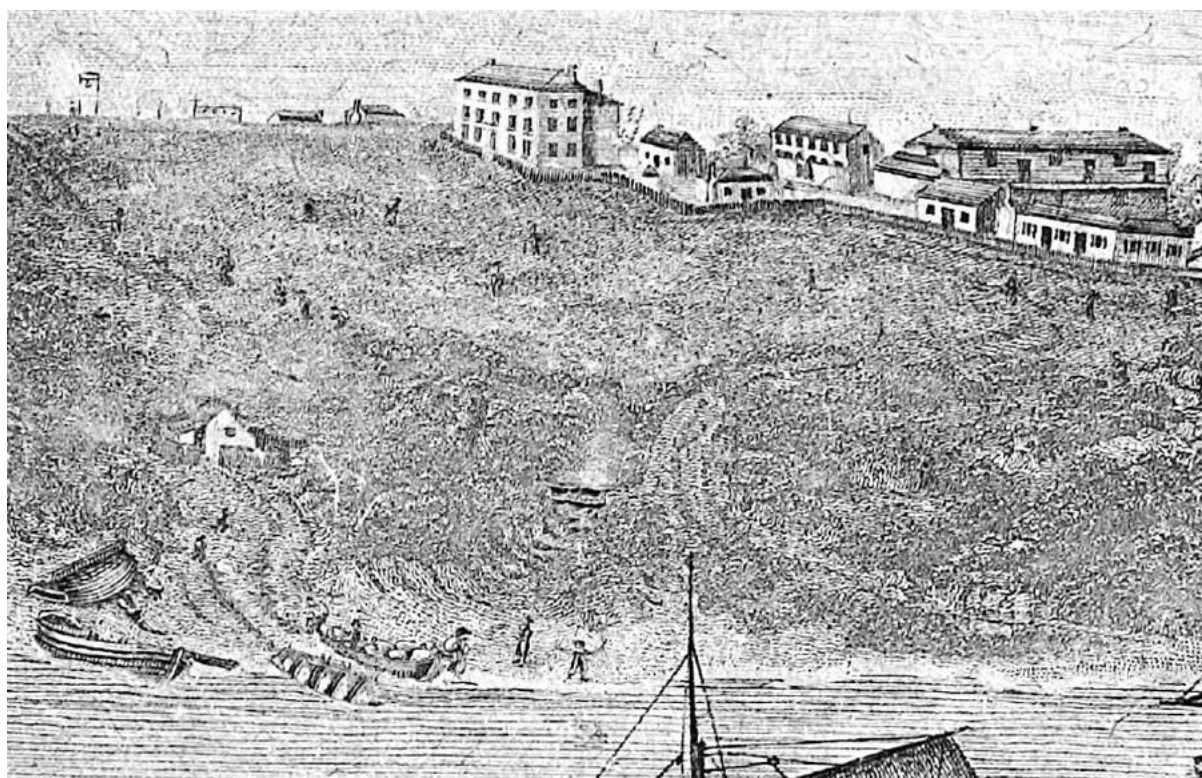
<sup>28</sup> *Ibid.*



## The Development of Thompson Square: Government Works and Wharfage

Macquarie, in his journal entry in January 1811 refers to the pre-existing 'square' in the village of Green Hills,<sup>29</sup> recording that he named it '...Thompson Square in honour of the memory of the good and worthy late Andrew Thompson'.<sup>30</sup> Macquarie's administration ushered in the designation of such formal civic spaces in New South Wales town planning, which Macquarie termed 'squares' after those he had known in Edinburgh.

The informal layout of the village had been most apparent within the newly-named Thompson Square, with huts and fencing sprawling across the sloping ground (**Figure 4**). In late 1811, Macquarie set about making improvements to the now vacated public space, removing the last of these old structures between Thompson's lease and the new allotments to the west. The square had little in the way of organised routes to the waterfront, being limited in the Evans paintings to a broad undulating slope of bare ground with a winding track beside the Thompson lease and 1798 granary (**Figure 4** and **Figure 5**). By the time Philip Slaeger's etching was made in 1811 or 1812, a secondary cart track appears to have been in place, descending from the western side of the square to the waterfront in the vicinity of today's bridge (**Figure 6**).



**Figure 6.** Detail of P. Slaeger's 'A View of Part of the Town of Windsor', showing the now bare ground of the newly-named Thompson Square, with Thompson's cottage seen at left above the beaching facilities for small boats. In addition to the track beside Thompson's former lease, a cart track is seen at right, winding down from the area of the military barracks, soon to be relocated. (Source: Published by West, Sydney, 1813).

No wharfage had been in place since the severe floods of the early years of settlement<sup>31</sup> and the only landing facility was the river verge, an arrangement suitable only for small boats (**Figure 6**). This deficiency was addressed in 1814 and 1815 when Macquarie contracted the ever-ready John Howe

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

<sup>31</sup> Collins, *An Account of the English Colony*, vol.1, 348; J. Barkley and M. Nichols, *Hawkesbury 1794-1994: the First 200 Years of the Second Colonisation*, Hawkesbury City Council, Windsor, 1994, Appendix 17, 178.

and James McGrath to make improvements to Thompson Square,<sup>32</sup> including the construction of new wharfage. In 1814, at the outset of the protracted wharf construction, Howe also established a regular punt service across the Hawkesbury, the punt being located a short distance upstream from the wharf, near the location of the current Windsor Bridge. Part of the 1815 contract involved the cutting away of the riverbank in the vicinity of the new wharf, so that there was a turning place for carts and this adjustment to the bank would have assisted access to the new punt.

Both Mulgrave Place grantees, the educated free settler Howe and convicted highwayman McGrath, make an unlikely business pairing on paper, yet the partnership was a productive one and the pair held a virtual monopoly over government works contracts throughout the Windsor region during the Macquarie era. Andrew Thompson had demonstrated the astonishing wealth that could be accumulated through service to the government and the acquisition of land. Howe and McGrath now stepped into roles Thompson had filled for Macquarie, with Howe assuming many of Thompson's former appointments<sup>33</sup> and both men applying their ingenuity to necessary government works. In this way they acquired large areas of land, including McGrath's purchase of 30 acres of Thompson's 'West-hill', or Red Hill farm during the auction of Thompson's estate, for which Howe acted as executor.<sup>34</sup>

The new wharf was to be 50 feet (15.25m) long, projecting 18 feet (5.5m) into the river and supported by piles '16 to 18 inches [0.4 to 0.45m] thick'.<sup>35</sup> Part payment was made in November 1814 but a further contract was issued in April 1815 which commissioned a larger wharf, three feet (0.9m) higher than the one largely completed and apparently over it. This new wharf was largely destroyed by a high flood on 2 June 1816. Early in July, a report to the governor concluded pessimistically that '*all the planking is carried away and there is no part of the wharf that can be built on again*'.<sup>36</sup> In November 1816, Francis Greenway, the Acting Colonial Architect, prepared plans for repairing and completing the wharf in a solid and durable manner. Howe and McGrath were given eight months to complete this work but there was another great flood in February 1817, followed by another in February 1819. The expensive wharf works, costing in all over £1,000, were not finalised until early in 1820.<sup>37</sup>

As part of the initial works in 1814, the steepness of the slope down to the river shown in the Evans and Slaeger views was to be diminished by '*piling the Front of Thompson's Square for filling up the same and reducing it to a gradual slope from the Rise or Ridge on which His Majesty's Store stands*'.<sup>38</sup>

Further alteration of the natural landscape was required in 1815:

*the Bank to the westward of the New Wharf and adjoining to that part of the River [upstream] where the Punt and Ferry Boats land is to be cut away sufficiently wide to admit of Carts turning at the Landing Place.*<sup>39</sup>

The wharf contract of 1815 specified that Howe and McGrath were also to build either one 'sewer' in the middle of Thompson Square '*with Channels leading thereto*', or two sewers, '*one on each side of*

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<sup>32</sup> Howe Papers, State Library of NSW, Mitchell Library, ML MSS 106, no.s 37, 38.

<sup>33</sup> *Sydney Gazette and New South Wales Advertiser*, 23 May 1812, 2.

<sup>34</sup> *Sydney Gazette and New South Wales Advertiser*, 15 Dec 1810, 2.

<sup>35</sup> Howe Papers, no. 37.

<sup>36</sup> Report by Cox, Mileham and Fitzgerald, 4 July 1816, SRNSW, Reel 4045, 4/1735, 83; Bowd, *Macquarie Country*, 42

<sup>37</sup> Col. Sec. Correspondence, SRNSW, Reel 6050, 4/1746, p209-211; State Library of NSW, Mitchell Library, A 773, 74; Barkley and Nichols, *Hawkesbury, 1794-1994*, 178.

<sup>38</sup> Howe Papers, no.37.

<sup>39</sup> Howe Papers, no.38.

*the Square*'.<sup>40</sup> The contractors chose to build a single central drain for which a large number of bricks, between 120,000 and 150,000, were made to complete the structure.

These changes within Thompson Square during the years 1810 to 1820 were the most significant in shaping the appearance of the open space and waterfront until the bridge construction period from the 1870's. The built environment, however, which developed on three sides of the square, underwent considerable change from Macquarie's administration onwards.

### East of Thompson Square: The Government Precinct

East of the civic space, the lease held by Thompson had reverted to the Crown after his death but it is still shown on Meehan's map of 1812 as Thompson's 'premises'. Thompson had planted fruit trees on the lower part of his leasehold land, sketched by Evans, and this established orchard was absorbed into the Government Domain garden.

The government buildings shown to the south and identified by Meehan in 1812 (**Figure 7**) are the Schoolhouse/Church of 1803-1804 (1), the Granary and Store of 1803 (2) and the Government House of 1796 (3). Thompson's buildings are not shown. At the highest point of the colonial square, there was a significant landmark, a bell mounted on a high post that initially served to notify the times of convict labour and summon the settlers in times of peril,<sup>41</sup> but later became a focal point and familiar meeting-place.<sup>42</sup> The bell-post is shown in all the early watercolours and etchings of the Green Hills, often in association with a pillory or stocks for public punishment.<sup>43</sup>

Early roads in this area included the original road to South Creek, seen on Meehan's map of 1812 (**Figure 7**). This road was essentially a continuation of George Street, running eastward of the 1803 Granary and Store and down to Thompson's bridge over South Creek. A drive extended northward from this road to the Government Cottage, commencing just to the east of the 1803 Schoolhouse/Church. Macquarie changed this configuration in 1814, again contracting Howe and McGrath to form a new route for which payment was made to '*Mr. John Howe, for a Street and Road constructed by him and James McGrath, between the Town of Windsor, and the New Bridge over the South Creek*'.<sup>44</sup> The resulting road, Bridge Street, commenced from the south-eastern corner of Thompson Square, linking with George Street on an alignment that conformed to Meehan's town plan and forming the eastern boundary of Macquarie's formalised Government Domain, enclosed within a boundary wall built in brick, with sections of timber paling. The new bridge became known as Howe's Bridge and Bridge Street became the main road out of Windsor to Parramatta.

By 1827, George Street no longer extended beyond Bridge Street at the corner of Thompson Square, terminating instead at this Domain boundary where a new gateway separated a new, more direct drive connecting the Government Cottage and the town. The sandstock brick wall bonded with shell lime mortar, which partially survives below the house at 4 Bridge Street (built in 1955), is likely to be part of this Domain boundary, here denoting the edge of the government garden, originally Thompson's garden. This was constructed by the Macquarie administration between 1813 and early 1816, as evinced by a remarkable panorama, drawn in June 1816 during the 14-metre flood that destroyed Howe and McGrath's second wharf, that depicts and identifies it as '*Wall, Govt. House Garden*'. Further lengths of wall were gradually constructed along Bridge Street that separated key government buildings from the public thoroughfare.

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<sup>40</sup> Howe Papers, nos 37, 38.

<sup>41</sup> Ridley Smith & partners Architects "Windsor Streetscape Study: Volume 1 and 2" (1986) prepared for Hawkesbury Shire Council.

<sup>42</sup> D.G. Bowd, *Hawkesbury Journey*, Library of Australian History, North Sydney, 1986, 83.

<sup>43</sup> J. Steele, *Early Days of Windsor*, Tyrrells, Sydney, 1916, reprinted Library of Australian History, North Sydney, 1977, 139.

<sup>44</sup> *Sydney Gazette and New South Wales Advertiser*, 30 Apr 1814:2



In 1817 to 1818, a new Military Barracks (**Figure 8 'a'**) was built along the southern extent of the Domain boundary wall just above the corner of Bridge Street and Court Street, replacing the old site which had been privatised in 1811. The new Military Barracks was enlarged in the 1830s and a separate guardhouse, Ordnance Store and Stables first appear on a plan in 1835.

Abbott's plan of 1831 shows this clearly and accentuates the boundary by colouring government buildings red and private buildings blue. This plan shows the government buildings above the garden to include Thompson's former store, now a Prisoner's Barracks ('f'); the Police Barracks ('g') and the Government Stables ('e'), referred to in this report as the Government Stables to distinguish it from the Police Stables on the Military Barracks site to the south on Bridge Street. Across George Street, the old Government Granary ('c') now served as the Commissariat Store. The old Schoolhouse/Church of 1804-1805 ('b') was also still standing just east of the commissariat stores and a newer, small Watch-House ('d') had been built on Bridge Street close to the Commissariat Store.

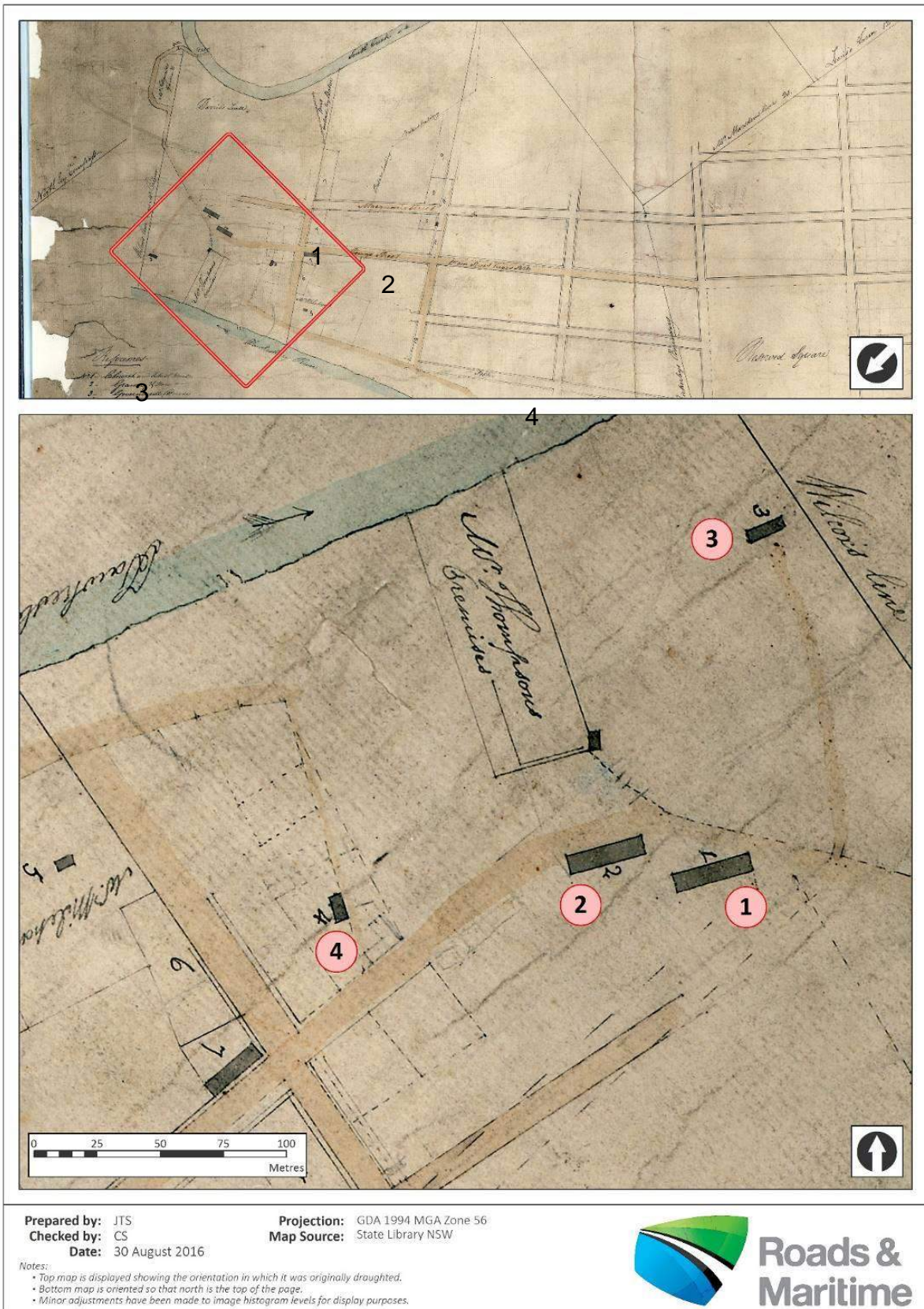
The Police Barracks and Government Stables, as shown in Abbott's plan, do not appear on two plans of 1827 suggesting they were constructed after this date. However, a small, unidentified building is shown in the general area of the Police Barracks in 1827 (**Figure 10**), which is possibly also the building depicted in the location of the Police Barracks, directly behind the Domain wall, in a sketch of Thompson's Store made around 1820 (**Figure 69**). This raises the possibility that an earlier building erected by Thompson, possibly that shown to the north of Thompson's Store in Evans' paintings (**Figure 4** and **Figure 5**), may have been converted into the Police Barracks. The auction notice of Thompson's estate in 1810 lists his Windsor property, as distinct from his other farms including that on South Creek, to include '*...a good Dwelling House, Stores, Granaries, Cellars, Stabling, and other convenient and spacious Warehouses*'.<sup>45</sup> It is therefore probable that buildings additional to Thompson's Store survived on the site of the barracks and stables into the Macquarie era, and likely that elements of them were incorporated into the new structures.

By 1835 (**Figure 9**), the Police Barracks were apparently demolished, as the building is replaced by an extension of the garden. Thompson's former store, condemned by the Government Architect in 1820,<sup>46</sup> but apparently serving as the Prisoner's Barracks after 1823 (the year the former barracks in Macquarie Street became the hospital), had finally been replaced by a smaller structure associated with the stables.

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<sup>45</sup> HRA, Vol. 10, p 690-691

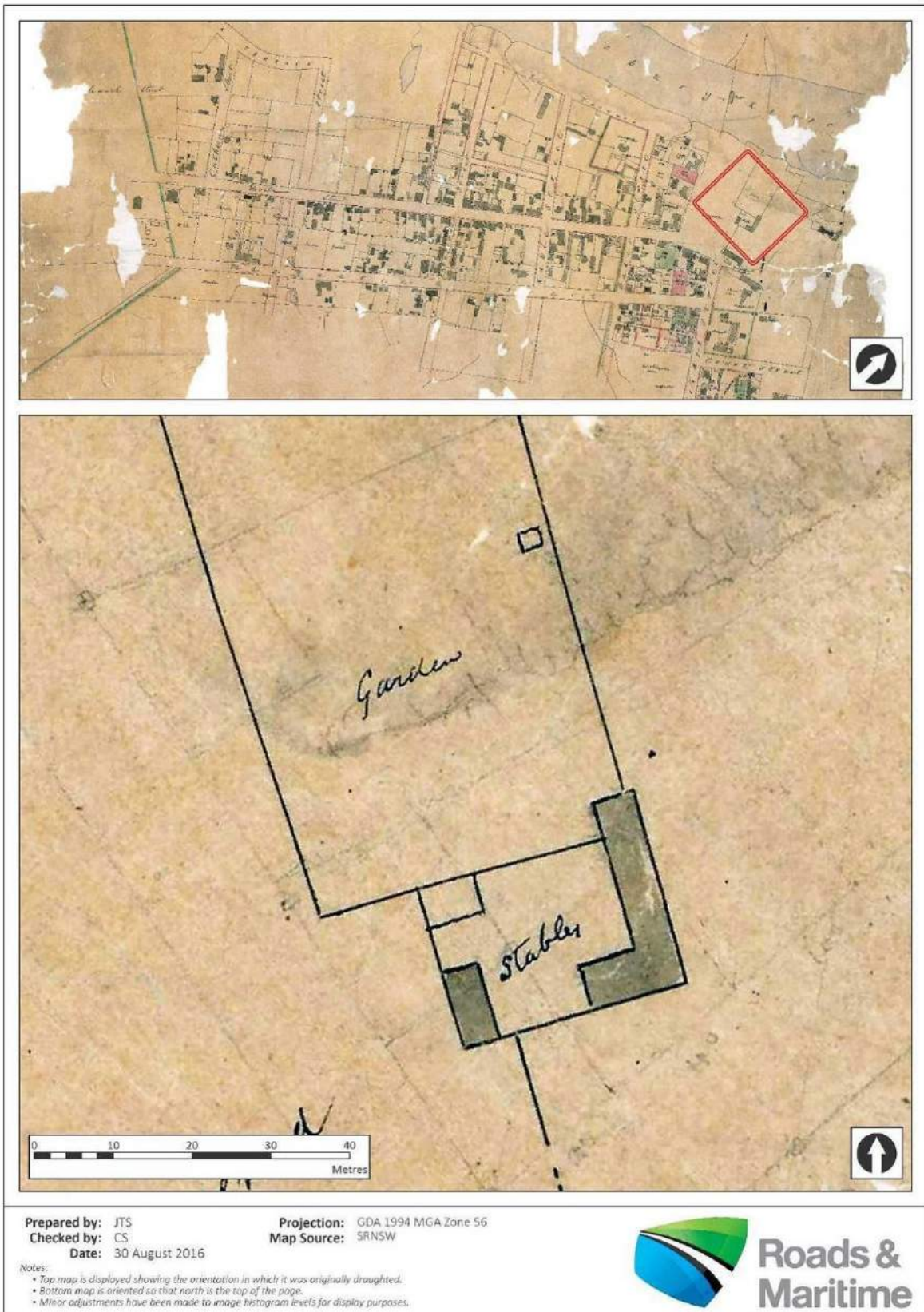
<sup>46</sup> Mitchell Library, MSS.106, article 37, 8 August 1814.



**Figure 7: Government buildings surrounding Thompson Square in 1811-1812 . Private buildings, including those of the late Andrew Thompson are not shown. (Source: J. Meehan, plan of Windsor, 1812, SRNSW, Map SZ 529).**







**Figure 9:** Detail of an 1835 plan showing the changed configuration of buildings surrounding the police stables on Thompson's former lease, close to the later, north-eastern corner of Bridge Street and George Street. The remaining section of the Prisoners' Barracks (Thompson's Store) has been incorporated into the stable enclosure. (Source: G.B. White, plan of Windsor, 1835, SRNSW, Map 5968).



The government presence declined into the Victorian period; the former government garden was abandoned in 1852 to make way for a Presbyterian manse and an attractive 1860s cottage, 6 Bridge Street, was built over part of the former stables and Police Barracks. All remaining buildings, including the stables, were demolished when the grand two-storey house called Lilburn Hall (10 Bridge Street), an important element in Thompson Square, was built in 1856 by Dr Dowe.

The military withdrew from Windsor in the 1840s and the area of Macquarie's Domain was gradually privatised. The remaining Military Barracks became associated with the police precinct, officially after 1860, and the Government Cottage was at times occupied by the Police Magistrate. The cottage survived, in increasing disrepair, until 1921 when it was finally pulled down despite public protest. The barracks buildings, excepting the surviving stables, were also demolished in 1929 to make way for the new Police Station.

### **West of Thompson Square: The Aristocratic Quarter**

Following the clearing out of huts from the square from 1811, Macquarie set about changing the south-west side of the civic space from military and store use to four promised town grants that lie just outside the present study area. The initial survey of these intended grants is shown by Meehan in dotted lines extending north from George Street. Meehan also shows the earlier Military Barracks (no.4, **Figure 7**) on the south-west hinterland of Thompson Square. However, the military were soon to move down to Bridge Street.

All four offers were taken up but the largest allotment of land, on the corner with George Street, was officially granted to Richard Fitzgerald on the premise that he build '*...a handsome commodious inn of brick or stone and to be at least two stories high...*'.<sup>47</sup> This was the largest of the four, around one acre. Fitzgerald's new inn was begun in 1812 and appears to have been enthusiastically rendered, prior to its completion, as a three-storey building by Philip Slaeger in his view of Windsor of the following year (**Figure 6**). The Inn was opened for business as the Macquarie Arms (still extant) by the eponymous governor in 1815.<sup>48</sup> A wall was built around the Inn in 1817 and it later functioned as a Military Mess House.

Further residential buildings were soon erected on the three remaining lots and are shown on surveyors' plans by 1827, and this new residential area constituted '*the aristocratic quarter of old Windsor town*' in the later words of the newspaper editor, G.C. Johnson,<sup>49</sup> and the streetscape has retained remarkable integrity for over 150 years. Of the present buildings, John Howe's House, part of the Windsor Regional Museum, seems to have supplemented and then replaced an earlier large house on the allotment closer to Baker Street in the 1830s. The cottage on Loader's grant next door was probably built in the 1850s.<sup>50</sup> On the grant closest to the river, James Doyle built an inn, the Lord Nelson. Following Doyle's death this was demolished by his widowed sister, who built the current spacious duplex with two storeys, attic and large cellars in 1844. Since medical men have occupied one or both parts of the building since the 1870s until very recently, it has become known as the Doctors' House.<sup>51</sup>

The plans of the 1820s and 1830s reveal that there was still no formal road system within Thompson Square. The first map which clearly shows a cart-road leading down to the river through Thompson

<sup>47</sup> Macquarie, *Journals*, 1810-1822, 42.

<sup>48</sup> Macquarie, *Journals*, 42; Land and Property Information, Grants Register 2 fo.131; Slaeger, 'A View of Part of the Town of Windsor', etching published Absalom West, Sydney, 1813.

<sup>49</sup> G.C.J., 'A Town with a History: Windsor'; *Windsor and Richmond Gazette*, 21 April 1900, 1. For the identification of G.C.J., see Steele, *Early Days of Windsor*, 213. Thompson Square had already been called 'that aristocratic quarter' in 1881 (*Australian*, 28 May 1881, 2)

<sup>50</sup> D.G. Bowd, *Hawkesbury Journey: Up the Windsor Road from Baulkham Hills*, Library of Australian History, Sydney, 1986, 88.

<sup>51</sup> R.I. Jack, *Exploring the Hawkesbury*, Kangaroo Press, Kenthurst, 2<sup>nd</sup> ed. 1990, p110, 112.

Square is a private sub-division plan of 1842,<sup>52</sup> which shows a road turning off George Street in front of the Macquarie Arms (then the Military Mess House) and curving north across Thompson Square before descending to the west onto the riverbank where the punt docked. This road is, however, likely to have existed in some form since the wharf, punt and associated works were established between 1814 and 1820, as indicated by the track rendered by Slaeger in 1812 to 1813 (**Figure 6**). A reference in 1855 to “moneys expended for making a road to the Windsor Wharf – contractor for cutting, carting and macadamizing- £25”<sup>53</sup> is likely to refer, not to Old Bridge Street, which was not in place until after 1879, but to improvements to part of the existing curved road, and possibly the first formal cutting of an adjoining road on the western side of the square down toward the Punt House.

A small cottage for the punt master was built on Crown land on the north-western side of Thompson Square, between the river and the newly-built Lord Nelson Inn run by James Doyle. This structure was in place by the time of Thompson’s 1827 map (**Figure 10**) and was still referred to as the ‘Punt House’ by 1894 (**Figure 15**). By 1835, the Punt House was enclosed by a small fence and yard on the high ground above the riverbank, known by that time as ‘The Terrace’ (**Figure 11**).



**Figure 10:** The Punt House in 1827 (circled in red). Thompson Square is indicated by the number 10. (Source: Thompson 1827, NSW SRNSW. Map SZ526).

### North of the Hawkesbury River

Although the Punt House was on the Windsor side of the river, there was a recurrent relationship between the Punt Master and the Inn known as the Squatters Arms on the opposing bank and, for a while, the lessee of the Squatters Arms and its 15-acre farm was also the Punt Master.<sup>54</sup> This Inn was built on the western half of Mary Whitton’s farm, which Mary’s husband Richard Barnes had divided into two equal 15 acre parts in 1816.<sup>55</sup> The eastern half of Whitton’s Farm had been acquired by an absentee owner, John Eggleton or Eccleston of Adelong, whose family retained it into the twentieth

<sup>52</sup> J. Armstrong, ‘CXXIII Building & Cultivation Allotments comprising the Peninsular Farm adjoining the town of Windsor, to be sold at Auction on 5th Feb 1842 by Mr Laban White at Windsor’, Baker’s Lithography, King Street, Sydney 1842, privately owned).

<sup>53</sup> *Sydney Morning Herald* 29 December 1855; 3.

<sup>54</sup> J C.L. Fitzgerald, *Those Were the Days: More Hawkesbury History*, NSW Bookstall Co, Sydney, 1923 , 85.

<sup>55</sup> Biographical Database of Australia online; B. Hall, *The Irish Vanguard: the convicts of the Queen, Ireland to Botany Bay*, 1791, author, Sydney, 2009, p178-181; SRNSW, ‘Old Register One to Nine’, register 5 149 (available on CD).

century. The western half of the property was advertised for sale in 1822 as '*Whitten's Farm, at Wilberforce, opposite the Punt, Windsor, comprising 15 acres, all cleared, and in cultivation, with dwelling-house, out-houses, &c...*'.<sup>56</sup> This land was purchased by Robert Smith who developed the cottage as a public house. In 1839, Smith was obliged to sell his half of Whitten's Farm to Thomas Chapman, who in 1841 sold the 15 acres to Michael McQuade. The Inn built by Smith was apparently allowed to fall down and, in 1846, McQuade leased the 15-acre farm to John Cunningham and his son for five years, with the stipulation they should build and license another inn on the property.

The Cunninghams opened their Squatters Arms within a few months of taking up the lease.<sup>57</sup> From the 1860s until 1913 both allotments were leased to one conscientious farmer, Johnny Ryan. Ryan's brother Tom held the licence to the Squatters Arms. The pub was a long rectangular building with six or seven rooms, until the flood of 1867 closed its doors permanently.<sup>58</sup> The Squatter's Arms lay on the section bought by McQuade, right on the western corner of the junction of Freemans Reach Road and Wilberforce Road. After 1867, the building was used as a stable for Ryan's stock. A Crown plan of 1878 shows the old 'house' in relation to the adjacent road reserves (**Figure 12**). By 1915, the old Inn had become ruinous and was demolished. After the McQuade family sold the land to Robert Judd, yet another Windsor publican, it was replaced by the present Federation cottage called 'Bridgeview', which lies a short distance to the north-west of the pub site.

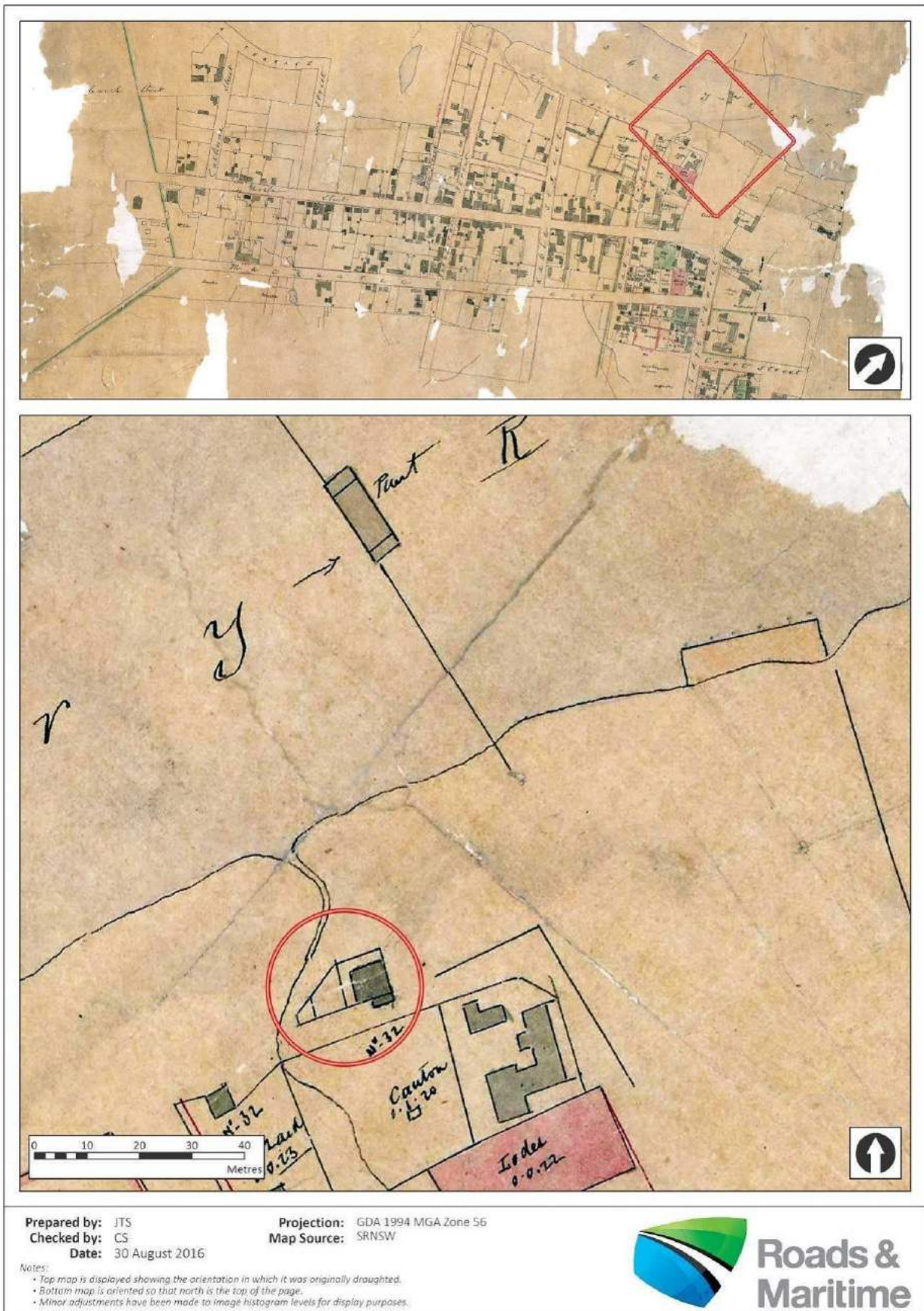
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<sup>56</sup> *Sydney Gazette and New South Wales Advertiser*, 17 May 1822, 2.

<sup>57</sup> Primary Application packet, SRNSW, 17513/2/181/15136, item 12; Steele, *Early Days of Windsor*, 151.

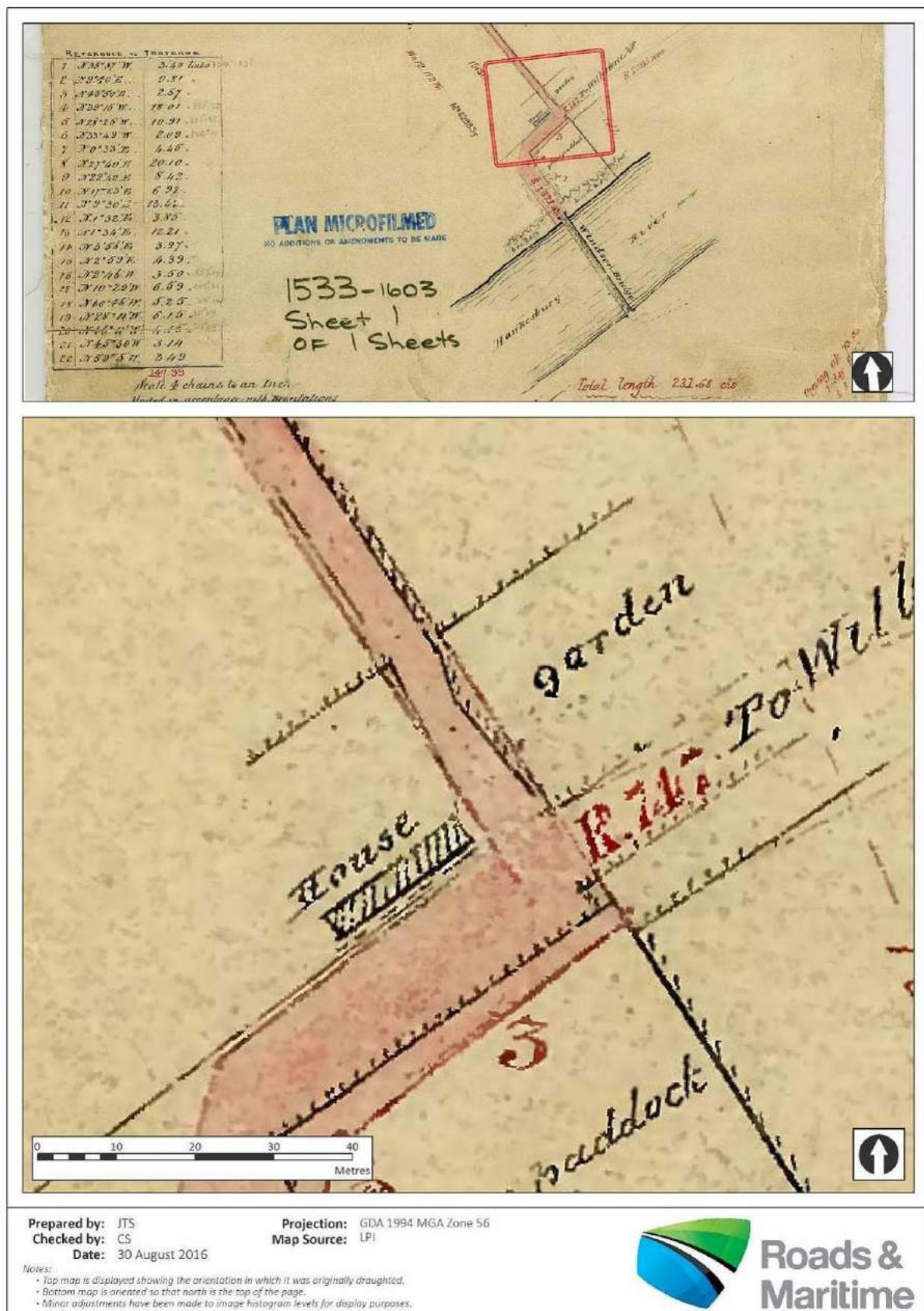
<sup>58</sup> Primary Application packet, SRNSW, 17513/2/181/15136, item 8; 17513/5/101/18115, item 8.





**Figure 11:** The Punt House after its apparent extension (Source: G.B. White, plan of Windsor, 1835, SRNSW, Map 5968).





**Figure 12:** The disused Squatters Arms on Whitton's Farm, shown, as 'house' in this 1878 plan, in the right-angle between Wilberforce Road and Freemans Reach Road (Source: G. Matcham Pitt, 1878, LPI, Crown Plan R 1533.1603).

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### 2.3.5 WINDSOR BRIDGE AND THOMPSON SQUARE (1870-1900)

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Plans for a road bridge were put forward by Hon. William Walker after the opening of the railway in 1864. It was discussed at length in Parliament for the next few years, with those involved concerned about whether it should be a high level or low level bridge. A design was settled on in 1872, with the bridge planned at fourteen and a half feet (4.4m) high above the tidal level. Windsor Bridge was opened on 20 August 1874. The bridge was 480 feet (146.3m) long and cost £10,280. The opening consisted of a great procession through the town and, in the evening, a dinner in Thompson Square.

The provision of a bridge across the Hawkesbury at Windsor greatly improved the position of those who lived on the farms around Wilberforce and Ebenezer, giving ready access to Windsor railway station and its direct links to Parramatta and Sydney. It also joined the Windsor road system to the Putty Road, leading to the Hunter, where many Hawkesbury families had settled since the early 19<sup>th</sup> century and which was developing industrial importance through the coal industry.

The construction of the bridge abutment below Thompson Square required a large area of the riverbank to be cut away between the wharf and the steep bank below the Punt House, as illustrated in C. Scrivener's plan of 1894 (**Figure 15**). These works are also likely to have included the construction of timber retaining on Thompson Square Road below the Doctor's House; a feature that is present in a photograph of 1879 (**Figure 13**). The formal extension of Thompson Square Road around to The Terrace, passing between the Doctor's House and the Punt House, may also have taken place at this time, as this road appears to have terminated beside the Doctor's House prior to the bridge construction.<sup>59</sup> This extension may also have taken place in 1885 when sections of Thompson Square Road were cut down by over 3 feet (0.9m) to reduce the steepness of the adjusted grade.<sup>60</sup>

The lower section of the adjoining road that wound down through Thompson Square to the wharf continued to serve the Windsor Bridge on a slightly tighter curve that commenced lower down Thompson Square Road. This new alignment effectively divided the open space of Thompson Square into two separate parts. In the absence of any views of the punt road comparable to those following the completion of the bridge, it is difficult to determine the degree to which the bridge works altered the road and surrounds. Later views (**Figure 13** and **Figure 14**) and plans (**Figure 15**) suggest the existing punt road was widened, cutting into the existing slope, and filled along the length of the approach to the bridge abutment. In conjunction with these changes, an extension of Bridge Street was made on the eastern side of the square from George Street to the road to the wharf and punt between 1879 and 1888 (**Figure 13** and **Figure 14**).<sup>61</sup> This road is now known as Old Bridge Street.

Following the completion of the bridge, an ongoing pattern of minor modifications to Thompson Square and surrounds commenced, including the installation of post and rail fencing to both portions in 1881 with the lower portion to be used as a grazing paddock. This was followed by the addition of a pavilion to the upper reserve and in 1897 the '*small reserve below Thompson Square*' was '*levelled*' and re-landscaped<sup>62</sup> and the stock fencing upgraded to match the large, white fence in the upper portion of the square (**Figure 79**). The square was repeatedly referred to as unsightly, or in disrepair, over the succeeding years and the best purposes for its future use were debated within the community.

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<sup>59</sup> Biosis & CRM, Windsor Bridge HA & SOHI, 2012:93.

<sup>60</sup> *Hawkesbury Chronicle and Farmers Advocate*, 6 Jun 1885:2.

<sup>61</sup> *Sydney Morning Herald* 29 December 1855; 3.

<sup>62</sup> *Windsor and Richmond Gazette* 27 February 1897:3.



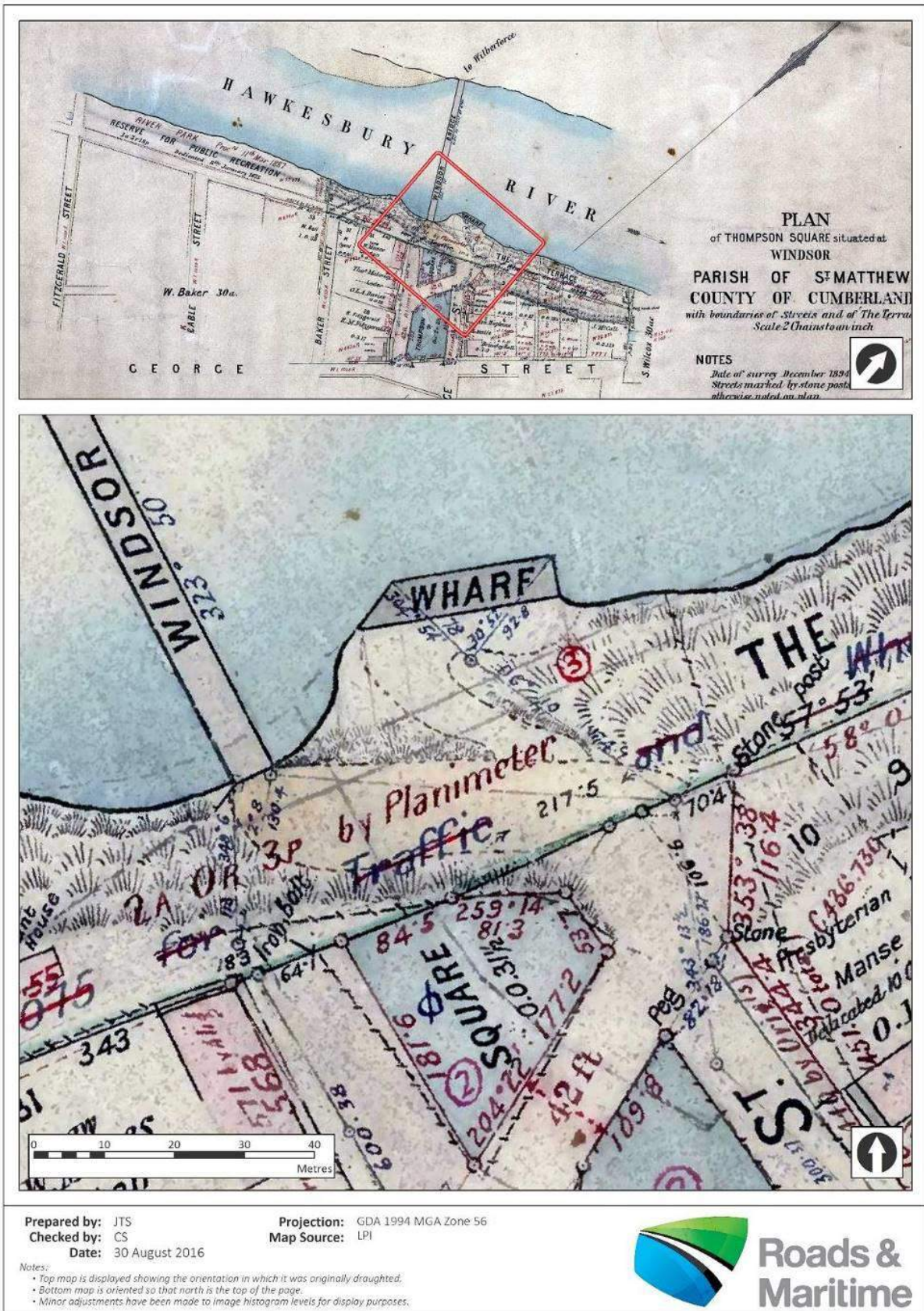


**Figure 13:** Thompson Square and surrounds c. 1879, following the completion of the low-level bridge. The extension to Bridge Street has not yet been made, however the realignment of the curving approach to the bridge has already taken place. (Source: State Library of NSW, GPO 1-06263).



**Figure 14:** The same view in 1888, showing the new extension of Bridge Street at top left and fencing within the square. By this time Thompson Square Road has been re-graded and trees have been planted in the square. (Source: State Library of NSW, digital order number d1\_06274).





**Figure 15:** Plan showing the footprint of the new road and bridge construction in 1894.  
(Source: C. Scrivener, plan of Thompson Square, 1894, LPI, Road Plan R 1009.3000).



Between 1896 and 1897, the deck level of the bridge was raised to reduce the number of occasions that it was impassable due to flooding. The alteration was made by placing new cylinders on top of the old piers and by constructing a new pair of piers at the Wilberforce end. The original timber decking was replaced with concrete and kerbing was also added around 1920. The abutment margins and approach road also needed to be raised by the necessary 8 feet (2.44m), requiring hundreds of loads of soil to be carted from the lowland near Mileham and Brabyn streets to fill in the river bank to the higher level.<sup>63</sup> Following these adjustments, the higher-level bridge was opened in April 1897, at a cost of £4,000.

Following the works, Thompson Square became an unsightly repository for left over materials,<sup>64</sup> prompting further discussion over the need for improvements and the best ways to utilise the space. Part of the discussion centred on the need for an improved approach to the bridge, as access down ‘punt hill’ was both degraded and steep for horse and cart.<sup>65</sup> This problem appears to have been finally addressed around 1904, when the Punt House was demolished and a new route cut from the bridge along The Terrace, allowing traffic to move through town via Kable Street.<sup>66</sup>

The 1890s saw the formal creation of three reserves between George Street and the river. In conjunction with the raising of the bridge, Reserve 24075 was proclaimed in May 1896, forming a long narrow strip along the river bank on both sides of the bridge. This reserve was primarily for ‘traffic and wharfage’ but also developed a recreational aspect as the ‘River Reserve’. In 1899, the two areas of Thompson Square divided by the roadway were declared public recreation reserves: Reserve 29900 was the southern area up to George Street and Reserve 29901 was the smaller northern section opposite the Doctors’ House. The contrasting characters of the three reserves are vividly shown in an aerial photograph taken in 1929 (**Figure 16**).



**Figure 16:** Thompson Square in 1929, during the October flood, from the north, showing some plantings in the two reserves, 29900 (upper) and 29901 (lower). It also shows part of the wharf reserve, along the river bank (Source: Aerial photograph, courtesy of Carol Roberts, from the collection of her mother, the late Iris Cammack. Photographer, Frederick Halpin Wilson, RAAF, 1929).

<sup>63</sup> J. Steele, *Early Days of Windsor*, Tyrrells, Sydney, 1916, reprinted Library of Australian History, North Sydney, 1977:184.

<sup>64</sup> *AWRH Advertiser* 28 May 1881: 2.

<sup>65</sup> *Windsor and Richmond Gazette* 26 September 1903; 4.

<sup>66</sup> *Windsor and Richmond Gazette* 27 February 1904; 3.

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### 2.3.6 MODERN DEVELOPMENT (1900-2017)

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Despite the improvements to the bridge and its approaches, public requests for funds to be allocated toward the ‘beautification’ of the square itself persisted into the 20<sup>th</sup> century.<sup>67</sup> In 1930, the open space within the upper reserve was leased as a mini golf-course. The mayor opened the course, which had the grandiose name of Riverview Golf Links, however, the venture was not a success and closed in May 1932.

In 1934, a new approach road to the bridge was commenced from George Street, creating the present deep cutting aligned north-west to south-east through Thompson Square. Retaining was employed at various places within this new extension to Bridge Street and large concrete retaining walls were constructed at the intersection of Bridge Street and The Terrace, where it replaced the timber pile retaining of the 19<sup>th</sup> century. The new road cutting intersected the Victorian roadway which lay on the opposing diagonal. The parts of the earlier diagonal roadway which were closed and added to the reserves 29900 and 29901 are coloured blue in the plan surveyed in 1946 (**Figure 17**). This roadway was subsequently buried within the upper portion of the newly-shaped upper Thompson Square, set aside as Reserve 74215 in 1951.

In 1949, the Upper Hawkesbury Boat Club built a club room in the lower reserve. This building, raised on brick piers, was demolished in the 1990s. By the mid-20<sup>th</sup> century, the 1820 wharf had fallen into disuse and ruin and was subsequently buried beneath filling and recently constructed gabion retaining along the riverbank. Much of the current appearance of both Thompson Square and buildings within the conservation area was achieved during improvements made during Bicentennial restoration works up to and during 1988,<sup>68</sup> with tree plantings and changes to the configuration of surrounding roads implemented since that time (**Figure 18**).

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<sup>67</sup> Windsor and Richmond Gazette, 7 May 1920:4; *Windsor and Richmond Gazette*, 4 Jun 1920:1.

<sup>68</sup> *Hawkesbury Gazette* 30 May 1988:3.

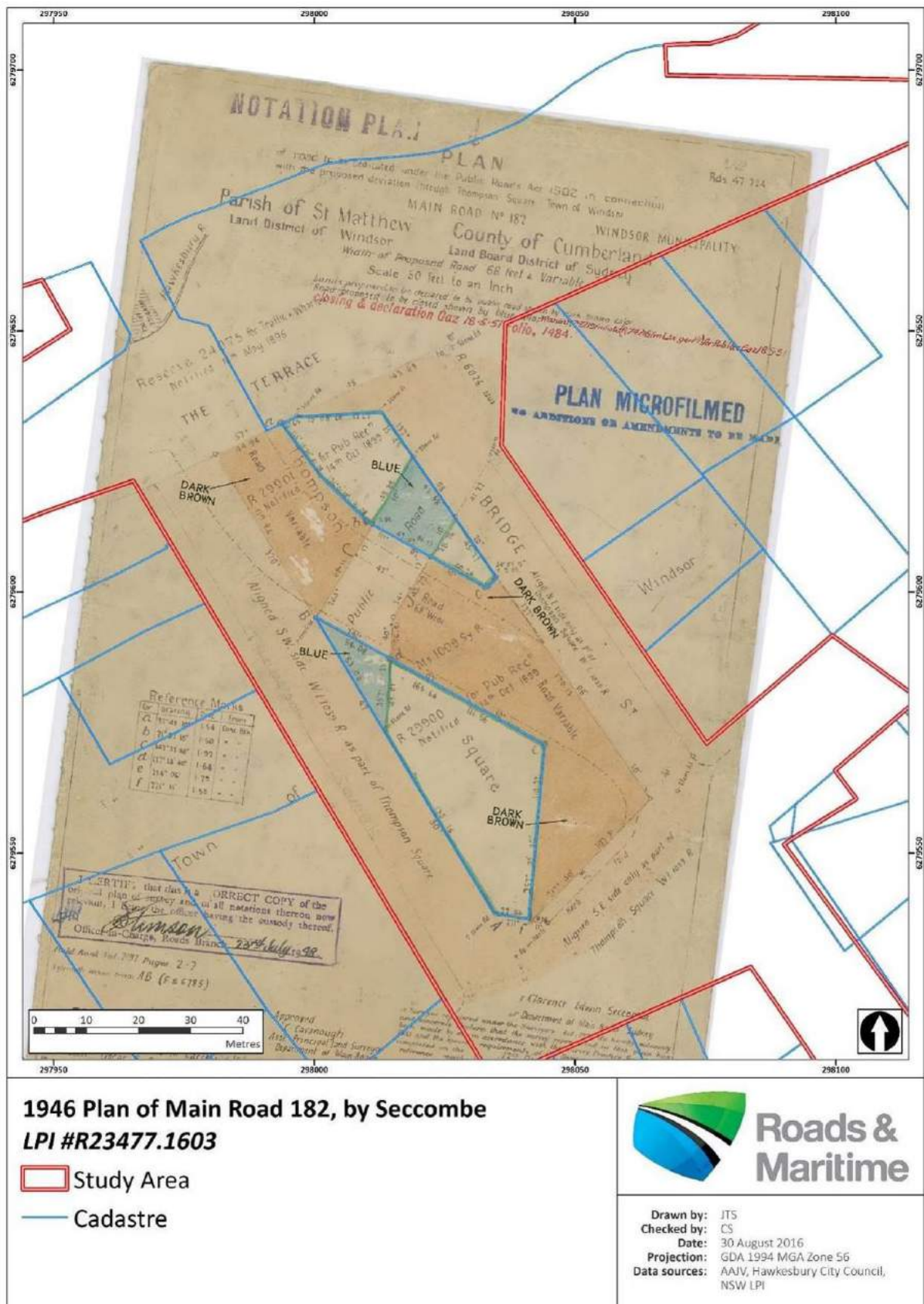
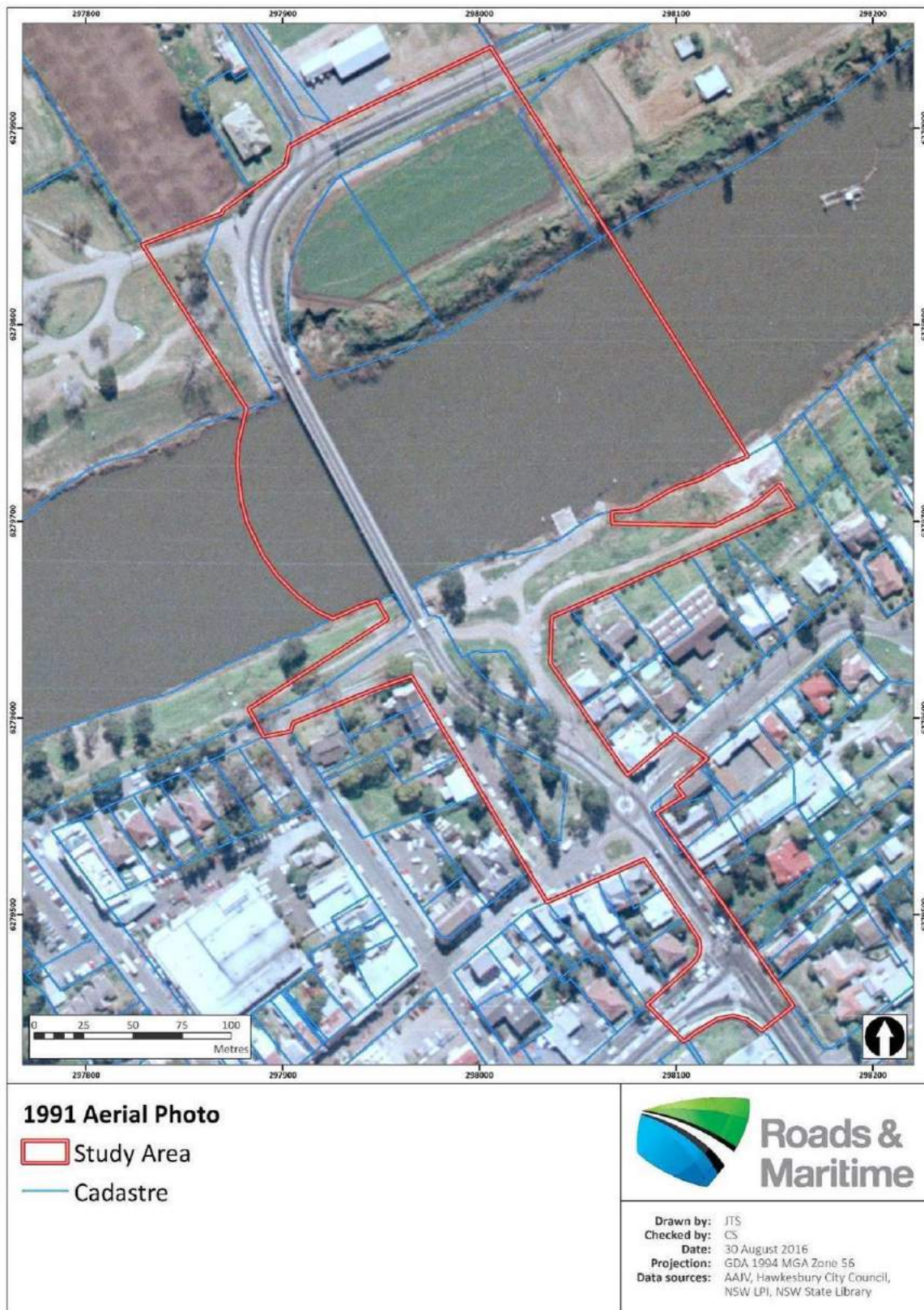


Figure 17: The present road alignment within Thompson Square, showing in blue the previous diagonal going south-west to north-east (Source: C. Seccombe, plan of Main Road 182, 1946, LPI, road plan, R.23477.1603).





**Figure 18:** The southern portion of the test excavation project area overlaid on an aerial photograph taken in 1991, shortly after the Bicentennial upgrade to Thompson Square. The roads below the lower reserve have been upgraded since this time and a road seen from Old Bridge Street onto the lower reserve is no longer present. A major embankment collapse following flooding is also seen beside the northern bridge abutment. (Source: LPI, Overlay by Tom Sapienza, 2016).

## 2.4 Overview of Previous Historical Archaeological Investigations

Most of the archaeological work undertaken at Windsor has been completed after 1977, when the *NSW Heritage Act* was gazetted. Only one archaeological project was completed in the town before that year. Much of the earliest work in the 1970s and 1980s was firmly focused on recording archaeological features to prevent the loss of information that would ensue from development of various sites. This commenced in 1976, with the excavation of the Windsor Military Barracks Guardhouse site, undertaken in response to an immediate threat from road works (**Figure 19**). The substantial foundations of the Guardhouse, measuring 3m by 12m, were archaeologically excavated by Kate Holmes and the University of Sydney<sup>69</sup> and are preserved within the footpath adjacent to the southern limit of the study area on Bridge Street.



**Figure 19:** The foundations of the guardhouse exposed after excavation in December 1976. (Source: K. Holmes, *Windsor Barracks – the Guardhouse*, *Australian Society for Historical Archaeology, Occasional Paper 6, University of Sydney, 1979, plate 2, p.12*)

JW Gregson, in his work at Bowman cottage in the early 1980s, was the first archaeologist able to explicitly state a set of research aims regarding the structural development of the site in a heritage management context, with this information being used to contribute to the Conservation Management Plan for the site.<sup>70</sup>

Much archaeological work has been undertaken on the site of the Hawkesbury Museum, on the western side of Thompson Square. Work from the mid-1980s by Higginbotham at 7 Thompson Square (at the rear of the Hawkesbury Museum) detailed the recovery of structural information and sequences of deposits prior to development of the lower rooms of the house.<sup>71</sup> The results were

<sup>69</sup> K. Holmes, *Windsor Barracks – the Guardhouse*, *Australian Society for Historical Archaeology, Occasional Paper 6, University of Sydney, 1979, plan 3, 15*)

<sup>70</sup> Gregson, J, W, 1983, *Bowman Cottage Excavation Report*, Unpublished report to the NSW Heritage Council, pp1-2.

<sup>71</sup> Higginbotham, E. 1986, *Report on the Historical and Archaeological Investigation of the Hawkesbury Museum*, 7 Thompson Square, Windsor NSW, Unpublished report to Hawkesbury Council.



framed as recommendations for future management of the site and the artefact resource recovered by the excavation. The phases of archaeological information did not necessarily correspond to the identified historical phases of site development. One reason for this, identified by the Excavation Director, was the residual nature of many of the excavated artefacts.

Work by Cultural Resources Management (CRM) in Baker Street for the Museum extension<sup>72</sup> identified natural and altered topography, structural features, pits and refuse and evidence of the clean up after the 1867 flood. Other examples of similar research objectives, focusing on the dating, function and use of structures on a site, include CRM's excavation at Hawkesbury Hospital, Higginbotham's monitoring of 232 George St and Archaeological Management and Consulting's (AMAC's) excavation at 29 North Street.

Ted Higginbotham produced a report detailing the historical and archaeological significance of Thompson Square in 1986,<sup>73</sup> in which he examined and photographed what is suggested to be the outlet of the 1814 Howe-McGrath drain on the bank of the river, behind wooden remains of an early wharf, and he commented, without giving further details, on 'several reports of [the drain's] exposure' in the middle of Thompson Square.

Further archaeological testing was undertaken by Biosis and CRM in 2012 and 2013 as a part of the early investigations for the Windsor Bridge Replacement Program.<sup>74</sup> During the 2012 testing, a large trench was excavated within Old Bridge Street that exposed, directly below the modern road, a truncated area of the Pleistocene sand deposit that occurs within the test excavation project area. Within this deposit, a possible post-hole and traces of possible topsoil were noted, the latter containing early to mid-19<sup>th</sup> century artefacts.<sup>75</sup> During the 2013 testing works, sections of sandstone road paving, re-identified during the current testing programme, were uncovered and discussed in relation to the natural landform. No artefacts were found in association with this road surface.<sup>76</sup>

These various investigations have contributed to the existing heritage status of the Thompson Square Conservation Area. In addition to the extant Thompson Square and associated built heritage, the potential archaeological resource across the cultural landscape includes, but is not limited to, remains of the earliest colonial structures, including early government granaries, barracks, civil works and housing, remains of structures and activity within the location of Andrew Thompson's original leased allotment, remains of the Government Domain established by Governor Macquarie, remains associated with the early residential development of Windsor, and the record of changes to the natural landform in response to the setting and in the process of developing the town.

These factors have informed the understanding that the southern portion of the proposed Windsor Bridge replacement would impact the historical core of Green Hills and, later, Windsor. North of the river, the locations of early structures have not been identified within the test excavation project area (the site of the Squatter's Arms Inn is outside of the existing impact corridor), however, the northern test excavation project area is sited on land that was among the earliest allotments granted in 1794, known to have included dwellings and agricultural buildings dating from this time. Artefacts dating to this early period were identified.

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<sup>72</sup> CRM, nd, Proposed Museum Site Service Area Baker Street, Windsor: application for S140excavation permit.

<sup>73</sup> Higginbotham, E. Historical and Archaeological Investigation of Thompson Square, Windsor, NSW. Report prepared for the Hawkesbury Shire Council, July 1986.

<sup>74</sup> Biosis & CRM, Windsor Bridge Replacement Project Historical Heritage Assessment & Statement of Heritage Impact, Report for Roads and Maritime Services NSW, November 2012; Biosis and CRM, Windsor Bridge Replacement Project Addendum to the Historical Heritage Assessment and Statement of Heritage Impact, Addendum B. Report for Roads and Maritime Services NSW, March 2013.

<sup>75</sup> Biosis & CRM, WBRP SoHI, 2012:215

<sup>76</sup> Biosis and CRM WBRP Addendum B, 2013:pp.26-28.



### 3 TEST EXCAVATION METHODOLOGY

#### 3.1 Excavation Methodology

During the testing programme, test excavations were carried out according to established best archaeological practice standards as set out in the AAJV (2016) ARD (**Figure 20**).

Trench locations were surveyed and cleared by a service locator prior to excavation. Temporary fenced compounds were established surrounding each work area and appropriate traffic, pedestrian and environmental controls were implemented.

Following removal of road surfaces or topsoil, excavation of the test trenches proceeded via a series of shallow scrapes with a mechanical excavator so that the exposed surface in the pit or trench was progressively reduced in a controlled manner. This process continued until the extent of archaeological remains in the trench had been identified. The mechanical excavator was fitted with a mud bucket measuring 1.2m wide.

Concurrent with this, more detailed manual excavation and recording was conducted when archaeological remains were revealed. Small hand tools such as picks, shovels, pointing trowels, brushes and pans were used during manual excavation, either for cleaning up excavated areas or revealing exposed features or deposits. Where a historical feature or deposit was encountered, mechanical excavation ceased. These features or deposits were then cleaned up by hand and recorded.

Test trenches with no identified historical occupational deposits were excavated until culturally sterile or natural deposits had been reached.

The substantial length and depth of several test trenches (e.g. SH 5 – 9 and NH 1 – 5) required that they be excavated in successive segments that measured up to approximately 3m in length.

Significant historical archaeological features and associated occupational deposits exposed within Aboriginal test pits were investigated, recorded and retained *in situ*. Historical fills retrieved from the Aboriginal test pits were retained and sieved for comparative analysis.

Spoil was retained in bulker bags for backfilling, or if found unsuitable for this purpose, retained for off-site disposal. Where permitted, spoil was stockpiled adjacent to the trench during the archaeological testing prior to backfilling. Provenance data and fabric descriptions were recorded on numbered context recording sheets and the vertical and horizontal positions of all significant deposits and features were recorded using a dumpy level against surveyed locations across the test excavations (frequently the corners of each test pit). Other levels were taken as required. This survey information was transferred to scaled site plans showing the spatial relationships between features revealed during the course of the investigation. Documentary records of the excavation were supplemented by the preparation of Context Schedules and a Harris matrix for the excavation area (where significant stratigraphic relationships were identified).



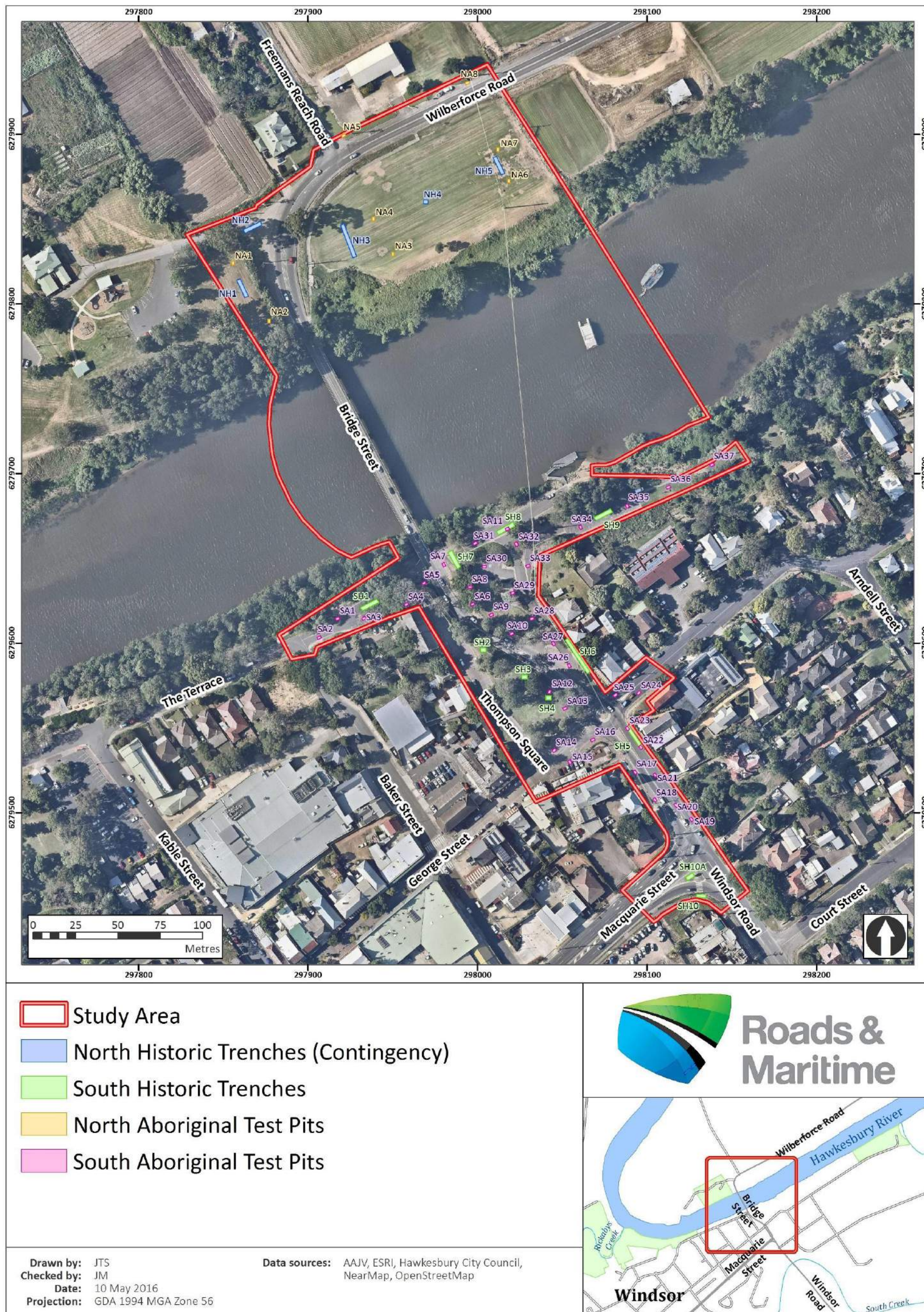


Figure 20: Proposed location of all archaeological test pits during the excavation programme.



All significant elements were photographed with a scale bar and north arrow where possible. Digital media were used for general photographic recording.

Any historical (or Aboriginal) artefacts found within the test excavation areas were collected, cleaned and catalogued in accordance with the proposed test excavation methodology and best archaeological practice. Artefacts were bagged in suitable polyethylene bags and double tagged with Tyvek (or similar) labels. The labels were annotated with the trench or pit number as well as the context or layer number using permanent ink pens. During the day, artefacts were relocated from the test trenches to the site compound north of the river for cleaning and cataloguing. All artefacts were then relocated to a secure storage facility each night. All artefacts were subjected to a detailed and statistical analysis in order to provide answers to the research questions, which guided the archaeological investigation. At the conclusion of the archaeological investigations they will be handed over to the client for retention and/or lodgement in an appropriate storage facility. The positions of any Aboriginal artefacts present in historical contexts were recorded and keyed into the adjusted archaeological site map and the nature of their identified context noted (e.g. re-deposited sand or fill).

In addition to the test excavation, a geophysical investigation was carried out by Alpha Geoscience using ground penetrating radar (GPR) techniques. The results of the investigation were presented in the Ground Penetrating Radar Archaeological Investigation Windsor, NSW prepared for Austral Archaeology and Extent Heritage JV by Alpha Geoscience in September 2016. The GPR results were considered prior to and during the testing program..

## 4 EXCAVATION RESULTS

### 4.1 Excavation Results Summary

A total of 61 individual test trenches and test pits (15 historical and 46 Aboriginal) were investigated for historical archaeology during the historical testing programme. One of the proposed historical test trenches, SH 10B, was unable to be excavated due to its proximity to underground services. Due to the discovery of early historical material scattered across the surface of the project area on the northern side of the river, an additional five 'NH' trenches were also excavated.

Of the 15 historical test trenches, ten were found to contain historical archaeology. Of the 46 Aboriginal test pits, 16 were found to contain historical archaeology. Summaries of the relevant trenches and pits where historical archaeology was identified are set out in **Table 1** and **Table 2** and their locations are shown in **Figure 21**.

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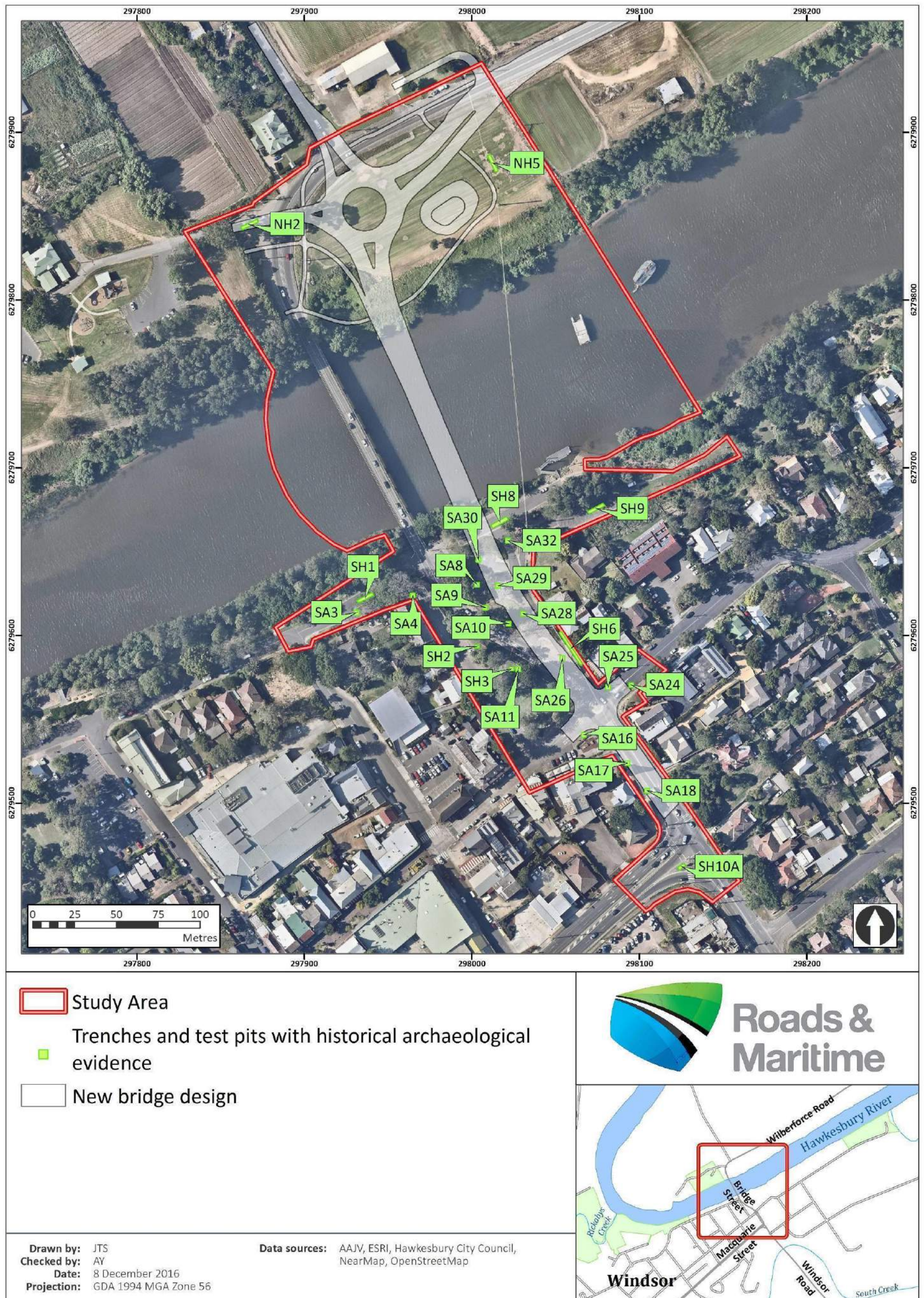


Figure 21: Location of all archaeological test pits containing historical archaeological material.



**Table 1. Overview of historical test trenches excavated.**

Trench	Location (GDA 1994, MGA Zone 56)	Area (m <sup>2</sup> )	Testing Aims	Historical Archaeology Identified	AHD Elevation (Top of Trench)	AHD Elevation (Top of Cultural Deposit)	AHD Elevation (Base of Cultural Deposit)	AHD Elevation (Base of test trench)
SH 1	E297932.143 N6279619.363	20	Vicinity of 1820s Punt House.	Burnt tree roots.	9.50	9.30	8.30	8.00
SH 2	E298002.233 N6279590.421	6	Characterise the stratigraphy of Thompson Square.	1874 road surface [SH2-003] and disturbed historical deposit with artefacts dating from the early to mid-19 <sup>th</sup> century [SH2-006].	16.50	16.07	14.90	14.53
SH 3	E298022.139 N6279578.999	6	Characterise the stratigraphy of Thompson Square.	Disturbed historical deposit with artefacts dating from the early to mid-19 <sup>th</sup> century [SH3-003].	17.96	17.46	17.25	17.12
SH 4	E298040.199 N6279566.671	6	Characterise the stratigraphy of Thompson Square.	No	20.17	-	-	19.20
SH 5	E298087.082 N6279549.512	9	Investigate potential remains of the c. 1803 granary, converted into Commissariat Store in 1831.	No	20.57	-	-	19.82
SH 6	(T1) E298064.524 N6279582.365	0.3	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	No	19.16	-	-	18.59
	(T2) E298063.392 N6279583.990	4.5	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	Demolition/disturbance surface of brick and artefacts [SH6-004] dating from the early to mid-19 <sup>th</sup> century [SH3-003].	18.85	18.53	18.40	18.33
	(T3) E298052.997 N6279598.378	3	Investigate potential deposits near location of c. 1820 Government Stables	Demolition/disturbance surface of brick and artefacts [SH6-004] dating from the mid-19 <sup>th</sup> century.	17.42	17.35	17.19	17.19
	(T4) E298064.994 N6279584.141	2	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	Early historical surface [SH6-015] and disturbed deposits dating from the early to mid-19 <sup>th</sup> century [SH6-012] – [SH6-014].	18.83	18.61	18.47	18.34
	(T5) E298060.967 N6279590.067	0.65	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	No	18.45	-	-	18.01
	(T6) E298054.133 N6279587.912	0.9	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	No	18.40	-	-	18.04
	(T7) E298061870 N6279584.014	0.7	Investigate potential deposits near location of c. 1820 Government Stables and c. 1808 Thompson's Store.	No	18.82	-	-	18.43
SH 7	E297982.610 N6279653.441	20	Potential location of vaulted brick drain.	No	6.92	-	-	4.30
SH 8	E298015.605 N6279663.802	20	Investigate potential archaeological deposits near river.	Rubbish dump/fill with historical artefacts.	5.97	4.47	4.40	4.17
SH 9	E298069.945 N6279672.485	20	Investigate potential deposits from Thompson's garden.	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century fence line [SH9-006] – [SH9-008].	8.32	7.32	6.62	6.62
SH 10A	E298123.978 N6279460.149	4	Investigate potential c. 1830s structural remains	No	13.89	-	-	12.39
NH 1	E297857.93 N6279813.98	12	Potential deposits associated with surface finds.	No	8.78	-	-	5.78
NH 2	E297862.62 N6279841.86	12	Investigate potential deposits associated with surface finds.	Dewar's Whisky bottle base and a timber post.	8.95	8.25	8.25	5.45
NH 3	E297926.25 N6279831.69	20	Investigate potential deposits associated with surface finds.	No	9.36	-	-	6.36
NH 4	E297981.14 N6279861.11	4	Investigate potential deposits associated with surface finds.	No	9.94	-	-	8.44
NH 5	E298011.17 N8279879.40	12	Investigate potential deposits associated with surface finds.	A tree/plant bole as possible gardening evidence.	10.07	9.12	9.00	8.44

**Table 2. Overview of Aboriginal test pits with identified historical archaeology.**

Test pit	Location	Dimensions (metres)	testing Aims	Historical Archaeology identified	AHD Elevation (Top of Trench)	AHD Elevation (Top of Cultural Deposit)	AHD Elevation (Base of Cultural Deposit)	AHD Elevation (Base of test pit)
SA 3	E297930.438 N6279612.842	2.4	Aboriginal test pit	19 <sup>th</sup> century road surface [SA3-008] and early to mid-19 <sup>th</sup> century historical deposits [SA3-009]- SA3-015]	11.35	11.14	9.61	9.05
SA 4	E297957.316 N6279621.799	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposit [SA4-008]	13.14	12.82	11.84	10.34
SA 8	E297994.485 N6279632.459	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposits [SA3-009]- [SA3-015]	10.71	9.41	8.61	8.42
SA 9	E298007.314 N6279615.736	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposits [SA9-002] -[SA9-003]	13.25	12.58	11.75	10.15
SA 10	E298019.412 N6279604.585	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposits [SA9-002]-[SA10-003]	15.30	14.00	12.80	12.60
SA 11	E298023.852 N6279579.379	1	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposits [SA9-002] [SA9-003]	17.12	16.87	15.62	15.62
SA 16	E298067.142 N6279541.997	1.8	Aboriginal test pit	19 <sup>th</sup> century sandstone road surface [SA16-005]	21.06	20.70	20.51	20.16
SA 17	E298092.967 N6279522.753	1.4	Aboriginal test pit	19 <sup>th</sup> century sandstone road surface [SA17-004]	19.37	19.24	18.90	19.07
SA 18	E298104.660 N6279506.393	1.4	Aboriginal test pit	19 <sup>th</sup> century sandstone road surface [SA18-005]	17.80	17.59	17.10	17.10
SA 24	E298094.640 N6279569.539	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century fill or road deposit [SA24-003]	20.02	19.94	19.85	18.52
SA 25	E298052.997 N6279598.378	2.4	Aboriginal test pit	Early 19 <sup>th</sup> century Government Domain wall base [SA25-004] and associated deposits [SA25-003] -[SA25-007]	20.15	20.08	-	19.35
SA 26	E298053.880 N6279585.581	1.4	Aboriginal test pit	Early 19 <sup>th</sup> century brick box drain [SA26-005] and associated deposits [SA26-006] -[SA26-007]	18.00	17.86	-	17.75
SA 28	E298030.845 N6279611.619	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century historical deposit [SA28-006]	13.75	12.80	12.45	11.45
SA 29	E298015.305 N6279628.669	2.4	Aboriginal test pit	Early to mid-19 <sup>th</sup> century deposit [SA29-024]	11.80	11.19	-	10.40
SA 30	E298002.818 N6279644.711	2.4	Aboriginal test pit	Possible 19 <sup>th</sup> century road surface [SA30-005]	8.55	6.75	6.65	6.25
SA 32	E298022.726 N6279657.189	2.4	Aboriginal test pit	19 <sup>th</sup> century cobbled surface [SA32-008]	9.92	8.05		7.62

## 4.2 Introduction

The results of all 24 test excavations under detailed discussion are presented in the following section. The findings of the remaining 20 test pits of the Aboriginal program<sup>77</sup> that did not contain historical archaeological features or deposits are nonetheless also presented in brief in **Section 4.3.26**, as they inform the formation processes of the site history. In some instances, these additional Aboriginal test pits were excavated within the base of a historical test trench and these are discussed as an extension of that stratigraphic profile.

A summary of the stratigraphic contexts identified in each of the 24 test excavations and their relative spatial relationships are presented in the following sections, together with a summary of their identified chronological and functional characteristics. A more detailed interpretation of the archaeology and formation processes of the site is presented in **Section 4.6**.

Discussion of the artefact assemblages in this section is limited to key temporal indicators and notable finds, date ranges and MNI (minimum number of individual items). Date ranges have been determined by the use of standard archaeological parameters of the limit (date) after which objects are known to come into production (TPQ – *Terminus Post Quem*) and the limit (date) before which objects are known to remain in manufacture (*Terminus Ante Quem* – TAQ). Where more than one item is represented, the earliest TPQ and latest TAQ of that assemblage are provided. However, where the number of MNI is sufficiently large (>10), a mean TAQ is used to provide a more accurate estimation of the end date of that particular assemblage and thereby, the archaeological deposit, or context, from which it derives. Where 1794 is given as the TPQ, this denotes that the object was in production before the advent of Australian settlement, which occurred in that year.

Where the TPQ and TAQ/MTAQ are used they are termed ‘adjusted’ date ranges, as in some instances historical ground surfaces are considered to have begun forming at an earlier date than that indicated by the TPQ, which may derive from later material added to the surface accumulation. Similarly the TAQ dates do not indicate the precise date contexts were sealed by later deposits, as cultural material remains in use after manufacture ceases and surface deposits may remain at ground level long after activity at the site has ceased.

The historical testing programme included the monitoring and recording of historical archaeology in Aboriginal test pits, which were excavated in units of equal measurement (‘spits’, predominantly 10cm in depth). Where useful in informing the depth of features or artefacts, these spits are presented alongside the historical archaeological context numbers that form the basis of post-European archaeological inquiry and discussion. Where no archaeological stratigraphy or features were identified but historical cultural material was present within fill or alluvial deposits, these artefacts were retrieved for comparative analysis and recorded by their respective spit numbers.

All archaeological contexts and associated date ranges, as well as the provenance of all retrieved historical artefacts are provided in **Appendix 12.1** and the abbreviated artefact catalogue is listed in **Appendix 12.2**. Detailed discussion of the artefact assemblages is provided in **Section 5**.

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<sup>77</sup> AAJV Aboriginal Report 2017, Windsor Bridge Replacement Project, Test Excavation Report – Aboriginal Heritage, May 2017.



## 4.3 Project Area South of the Hawkesbury River

### 4.3.1 SH 1

Test trench SH 1 was placed below Thompson Square Road on The Terrace, a road that formed an approach to the bridge from the west after 1904. SH 1 tested the former location of the c. 1820s Punt House, which was the Punt Master's residence. In addition SH 1 sought to provide insight into the stratigraphic formation sequence of this area of the riverbank, occupied from the earliest years of settlement, as indicated by the paintings of G.W. Evans.

As with all other trenches on roads, the bitumen and road base were removed from the area of SH 1 by mechanical excavator in sections, commencing from 9.50m AHD. The stratigraphy comprised a thin fill with brick and charcoal fragments [SH1-002] over a deep, truncated alluvial profile. This brown sandy silt [SH1-003] graded into pale, yellow-brown silty sand [SH1-006] that contained the burnt roots of large trees [SH1-004/005], with an associated orange, heat-affected deposit from 9.30m AHD to 8.30m AHD (**Figure 22**). This natural profile extended to the base of excavation at 8.00m AHD.

The road on which SH 1 was placed was formed as a new approach to the bridge c. 1904. The stratigraphic profile confirms that, in order to achieve the required grade for this road, the sloping riverbank was truncated and terraced to considerable depth. The 1904 works that created the present retained cutting are likely to have removed a prominent section of higher ground, taking the Punt House with it, and exposing the lower root zone of the burnt tree base.

This truncation of the stratigraphy indicates that the Punt House probably stood closer to the level of Thompson Square Road, at a height of approximately 11 metres AHD, some 1.5 metres above the current road surface of SH 1. This elevation also corresponds with the approximate transition between the alluvial stratigraphic zone on which SH 1 is sited and aeolian and fluvial sand units to the north, discussed further in **Section 4.6.10** and the AAJV WBRP Aboriginal test excavation report. Any trace of the Punt House that may have existed in this location has been removed by the later cutting, excepting perhaps the thin lense of redeposited brick and charcoal fragments [SH1-002] that caps the truncated natural alluvium. This deposit may represent debris related to the Punt House that was introduced from the upper road during demolition and earthworks in 1904, as similar archaeological deposits considered to be associated with the Punt House were later identified in nearby test pit SA 3 on Thompson Square Road.

The absence of historical artefacts in SH 1 prevents the dating of the burning event that was identified within SH 1. The burnt tree roots may denote an event that took place prior to European settlement, or, as was frequently the case, the use of fire by Europeans during early land clearance. This process was initiated from the late 18<sup>th</sup> century during the Green Hills period, exacerbating the alluvial erosion that has been such a defining feature of the site history. This burning may also have occurred at the time the Punt House was removed, as a large tree existed in this approximate location at the end of the 19<sup>th</sup> century (**Figure 84**). Beyond this potential evidence of land clearance, no historical archaeological features or structures were identified during excavation of SH 1.



**Figure 22:** View to the east showing SH 1 post-excavation. The height difference between The Terrace and Thompson Square Road can be seen. Burnt tree boles are seen at left and beside the 1m scale.

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#### 4.3.2 SH 2

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Test trench SH 2 was placed within the wedge-shaped northern end of upper Thompson Square as part of a line of three trenches that sought to characterise the stratigraphic profile and disturbance history of the square.

Excavation began with the removal of the turf and 30cm of organic silty top-soil [SH2-001], which commenced at approximately 16.50m AHD. A layer of sandy fill [SH2-002] lay beneath [SH2-001] over a 3cm thick degraded bitumen road surface [SH2-003] at 16.07m AHD (**Figure 23**). Beneath the bitumen, a remnant area of sandy gravel [SH2-004] was found, overlying a 1m deep deposit of disturbed silty sand [SH2-005] containing a small assemblage of artefacts (MNI=7). Four of these were tableware pieces with an adjusted date range of 1830 – 1940 (TAQ), but individually most were of an earlier date, including fibre patterned (1814 – 1840) and dark blue, transfer-printed (1802 – 1840) whiteware. Pipe stem fragments and a hand-moulded sandstock brick, generally in use during the period 1794 – c.1830 were also found.

Below this deposit, a transitional disturbance context [SH2-006] was excavated from 15.05m AHD that contained artefacts (MNI=23) with an adjusted date range of 1820 – 1874 (MTAQ). These were predominantly tableware fragments, with over half of the forms found falling out of production by 1830. Bottle glass, unlike from other test excavations in the lower reserve, was well-represented, comprising 30% of the [SH2-006] assemblage. All glass vessels represented were in production prior to 1794. A small number of hand-cut nails were also found (1794 – 1869 TAQ). This deposit graded into the light yellowish-brown, coarse, silty sand of the original slope [SH2-007], identified via a slot trench excavated into [SH2-006]. This culturally sterile deposit commenced from 14.90m AHD and was determined to be pre-European natural by comparison with SH 3 and SH 4 to the south. The total depth of excavation in SH 2 was 1.97m with the base of the slot trench into the sterile, natural deposit [SH2-007] reaching 14.53m AHD.



**Figure 23:** View to the west showing former road surface [SH2-003] on an alignment first established by 1874 and in use until c. 1934 when the current Bridge Street cutting was made. The scales have 20cm sections.

Historical archaeological features identified during excavation of test trench SH 2 were limited to bitumen road surface [SH2-003] and the truncated and reworked natural deposits beneath it. The artefact assemblages from these deposits suggest that evidence of activity at the site from the early 19<sup>th</sup> century has been disturbed by a road cut.

The resulting thin, bitumen road surface (**Figure 23**) is likely to be a section of the initial turn onto the winding road to the wharf and bridge. This road was re-aligned to this position from the older route slightly higher in the square sometime before 1894. No sign of earlier road surfaces were found, indicating this surface may date to the initial cutting of the road. The remnant sandy gravel layer [SH2-004] below the asphalt may be an earlier road surface but is more likely to have been laid down as bedding for the thin bitumen. Deposits [SH2-005] and [SH2-006] are likely to be redeposited material spread across the undulating ground during grading of the road, redistributing artefacts that were long present within the sandy subsoil.



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#### 4.3.3 SH 3

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Test trench SH 3 was placed within the central eastern portion of upper Thompson Square in order to further characterise the stratigraphic profile within the square.

Excavation began at 17.96 metres AHD with the removal of the turf and 30cm of organic top-soil [SH3-001] and 20cm of orange-brown, sandy clay fill devoid of artefacts [SH3-002]. From 17.46m AHD, a 15cm lense of loose, yellow-brown sandy silt [SH3-003] was excavated, containing a small assemblage (MNI=6) of predominantly bottle glass, all types in production throughout European settlement (1794 – 1920 TAQ). A single glazed earthenware shard from this context has been dated to the period 1794 – 1830.

Beneath [SH3-003], a yellow-brown silty sand [SH3-004] was excavated to 17.25m AHD (**Figure 24**). Deposit [SH4-004] contained a single artefact; a fragment of an early, decorative earthenware vase of a very limited date of manufacture (1794 – 1810 TAQ). From 17.25m AHD yellow-brown silty sand without artefacts was exposed and excavated to 17.12m, at which point a 1m by 1m Aboriginal test pit (SA 11) was commenced within the centre of the trench. Interestingly, SA 11 yielded further historical artefacts (MNI=9) from spit 5 (16.60m AHD), half a metre below the vase fragment in [SH3-004]. This group of earthenware and stoneware pieces, bottle glass and a smoking pipe stem date to between 1820 and 1900 (TAQ), with the earthenware ceramic artefacts comprising blue shell edge (1813 – 1834 TAQ), Chinese Scene transfer-print (1820 – 1859 TAQ) and glazed brown stoneware (1794 to the present).



**Figure 24:** View to the south-east showing historically modified natural sands [SH3-004] during excavation. The scales have 20cm sections.

Historical archaeological features identified in SH 3 were limited to what are likely to be disturbed historical topsoil [SH3-003] and subsoil [SH4-004] deposits. In this regard, contexts [SH3-003] and [SH3-004] are considered to denote the upper limit of the modified natural profile and likely zone of historical occupation from the early to mid-19<sup>th</sup> century, as indicated by the assemblage. The occurrence of natural sands below [SH3-004] containing Aboriginal cultural material also supports the conclusion.

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#### 4.3.4 SH 4

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Test trench SH 4 was placed upslope of SH 3, in the south-east corner of the upper portion of Thompson Square. Excavation of SH 4 commenced from 20.17m AHD. Following the removal of the turf and topsoil deposit, mid-brown sandy fill [SH4-002] and reddish-brown, sandy clay fill [SH4-003] were excavated to 19.22m AHD. This deposit was visible as a raised mound over the upper area of the square and contained frequent road bitumen debris and other modern materials within the fill. [SH4-003] continued to a depth of 19.22m AHD. A 10cm layer of brown silty clay loam [SH4-004] was then excavated that contacted sharply with a 3cm lense of reddish-brown clay silt [SH4-005]. A thin layer of red-brown silty clay sat between this and a 5 to 10cm thick, yellow-grey silty sand [SH4-006] that rested on natural clay [SH4-007] at 19.20m AHD (**Figure 25**). A shallow tree bole hollow was recorded in the western end of the trench that commenced below [SH4-003].

Three spits of Aboriginal test pit SA 12 were excavated within shallow, yellow-grey deposit [SH4-006], yielding no historical artefacts.



**Figure 25:** View to the south showing the truncated natural deposit ( trench base) in SH 4. The scale has 20cm sections.

No historical archaeological artefacts, features or structures were identified in SH 4. As elsewhere in upper Thompson Square, the profile in SH 4 is one of truncation of the natural topsoil and natural sands below, largely through ongoing processes of erosion in the 19<sup>th</sup> and early 20<sup>th</sup> centuries. [SH4-005] is considered a later fill added to the square for turfing. Subsequent dumping of modern fill has taken place in an effort to level the George Street frontage of Thompson Square. The preservation of a portion of the shallow natural sand [SH4-006] indicates that the profile has not been truncated to any great depth and historical structural remains and archaeological deposits may remain within upper Thompson Square. The remnant soil profile also shows that this area forms something of a transition between the Tertiary clay ridgeline and the sand body that occupies the slope below, discussed further in **Section 4.6.10**.

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#### 4.3.5 SH 5

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Test trench SH 5 was placed in the left south-bound lane of Bridge Street, south of the roundabout and in front of the School of Arts building. SH 5 aimed to capture any structural remains of the government Brick Granary built in 1803; a building that was converted into the Commissariat Store by 1831. The logistical difficulties and lack of archaeological material in SH 5 led to the excavation of the 15m trench via three separate 2m by 1.5m trenches at the southern, middle and northern ends of the original outline.

The profile in SH 5 commenced at 20.57m AHD and comprised the modern road surfacing and finely crushed rock (FCR) bedding over a mixed sandy clay fill deposit [SH5-002]. This rested on truncated, natural, reddish-yellow clay [SH5-003] at 20.02m AHD. This deposit was excavated a further 20cm to confirm it was culturally sterile and excavation was discontinued.

Excavation of each segment resulted in the same findings; with natural reddish-grey silty clay [SH5-003] identified below the modern construction levels of Bridge Street (**Figure 26** and **Figure 27**).

No historical artefacts, features or structures were identified in SH 5. It is apparent from these findings that all traces of the Commissariat Store and any surrounding historical deposits in this immediate area have been removed during the creation of the south-bound lanes of Bridge Street.



**Figure 26:** View to the west showing natural, silty clay [SH5-003] below the modern road surface and bedding in the section of SH 5. The scales have 20cm sections.





**Figure 27:** View to the west during excavation of the northern section of SH 5 showing natural, silty clay [SH5-003] below the modern road surface and bedding.

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#### 4.3.6 SH6

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Test trench SH 6 was placed within the footpath along the eastern edge of the proposed impact corridor at the junction of Old Bridge and Bridge streets. SH 6 aimed to characterise the stratigraphy of the footpath area fronting 6 - 10 Bridge Street, lots that occupy the sites of the Police Barracks and stables of the Macquarie era Government Domain, as well the c. 1803 three-storey store and associated buildings of Andrew Thompson's Green Hills leasehold.

Limitations imposed on the excavation of SH 6 by numerous services, private driveways and other structures transecting the area prevented the excavation of the full extent of the trench. For this reason seven smaller north-south oriented test pits were subsequently excavated within the original outline (**Figure 28**).

The modern turf and topsoil was removed across all seven test pits, exposing various shallow fills and disturbed historical deposits. Two areas of heavily disturbed sandstock bricks indicating former structures or demolition scatters were exposed in test pit 2 [SH6-004] (**Figure 28** at right) at 18.53m AHD and test pit 3 (**Figure 31**) [SH6-018] at 17.35m AHD, with both brick features occurring within the upper 30cm of the profile. These brick features were set directly onto modified natural silty clay (test pit 3) and plastic clay (test pit 2). The damage to these features can be attributed to the various service cuts within the footpath.

No artefacts were retrieved from test pit 3, however deposits overlying the brick feature in test pit 2 contained artefacts with an adjusted date range of 1890 to the present. This late date range is considered to be a reflection of disturbance to the historical deposits during the laying of numerous services in the area of SH 6, as the artefacts in the test pit 2 assemblage are predominantly earlier than the adjusted TPQ and include forged nails, including a horseshoe nail (1794 – 1859), shards of engraved coarse earthenware (1800 – 1830) and dark blue transfer-printed earthenware (1802 – 1846). Faunal remains found include cattle and sheep bone, oyster and Sydney cockle shell.

Test pit 4 was excavated against the front boundary of 10 Bridge Street (**Figure 28** at left). Test pit 4 contained 18cm of modern topsoil from 18.83m AHD, overlying a 20cm thick deposit of friable grey-brown silty clay [SH6-012] containing historical artefacts (MNI=15) with an adjusted date range of 1820 (TPQ) to 1853 (MTAQ). Below this, from 18.54m AHD, three thin lenses of crushed sandstock brick [SH6-013] (MNI=10, TAQ 1802–1839 MTAQ), mottled yellow-brown sandy silt [SH6-014] (MNI=4, 1820-1910 TAQ) and reddish-brown gravel [SH6-039] were identified overlying a compact surface of sandstock brick pieces and angular stone pebbles [SH6-015] at 18.47m AHD (**Figure 30** and **Figure 32**) that overlay natural mottled orange grey clay at 18.42m AHD. [SH6-015] contained a small artefact assemblage (MNI=5) with an adjusted date range of 1794 – 1859 (TAQ) but made up of artefacts that could have been deposited at any time after 1794 including stoneware (1794 – present) and early whiteware fragments (1794 – 1830), bone, shell and a forged nail (1794 – 1859) typically seen in early contexts where mass produced nails were unavailable.

The group of stratified test pit 4 contexts [SH6-012/015] and [SH6-039] returned date ranges consistent with formation during the first quarter of the 19<sup>th</sup> century. Among the finds were rare and early artefacts including a piece of Chinese export porcelain ([SH6-012] 1792 – c. 1830), an indicator of early colonial deposits in New South Wales particularly associated with Sydney and Parramatta, and a rare piece of manganese mottled ware [SH6-014], which has a very early TAQ of 1780. Eight forged nails (1794 – 1859), iron strapping and oyster and Sydney cockle shell were also present.

Contexts [SH6-013/015] are considered to be *in situ* early historical deposits over ground surface [SH6-015]. The thicker [SH6-012] deposit is considered to be material redeposited across the area, probably during the formation of the current Old Bridge Street road cutting during the 1880s. This interpretation is due to the presence of an intervening, truncated, dry stone garden wall seen between [SH6-012] and [SH6-013] in the eastern section (**Figure 32**). This east-west oriented non-structural wall [SH6-036] cuts [SH6-013/015] and is considered a late 19<sup>th</sup> century garden feature extending into test pit 4 from 10 Bridge Street to the east.

A central slot trench was opened in test pit 4 to further clarify the extent of [SH6-015] which revealed that the surface was cut to the south by a linear, east-west oriented trench [SH6-035] that measured 43cm wide and 39cm deep. This cut had been backfilled with mixed greyish-yellow silty soil and a lense of natural clay [SH6-034]. The fill contained sandstock brick, but no artefacts. The nature of the fill and the lack of any service pipes indicate that the trench may have been a 19<sup>th</sup> century drainage feature.





**Figure 28:** View to the south showing the southern portion of SH 6 where the remains of early features, i.e. brick and stone surface [SH6-015] (test pit 4 at left) and disturbed brick feature [SH6-004] (test pit 2 at right) were found overlying natural deposits.



**Figure 29:** View to the south of SH 6 test pit 2 showing brick feature [SH6-004] resting on redeposited natural clay. A galvanised pipe can be seen at left, one of several services within the area of SH 6. The scale has 10cm segments

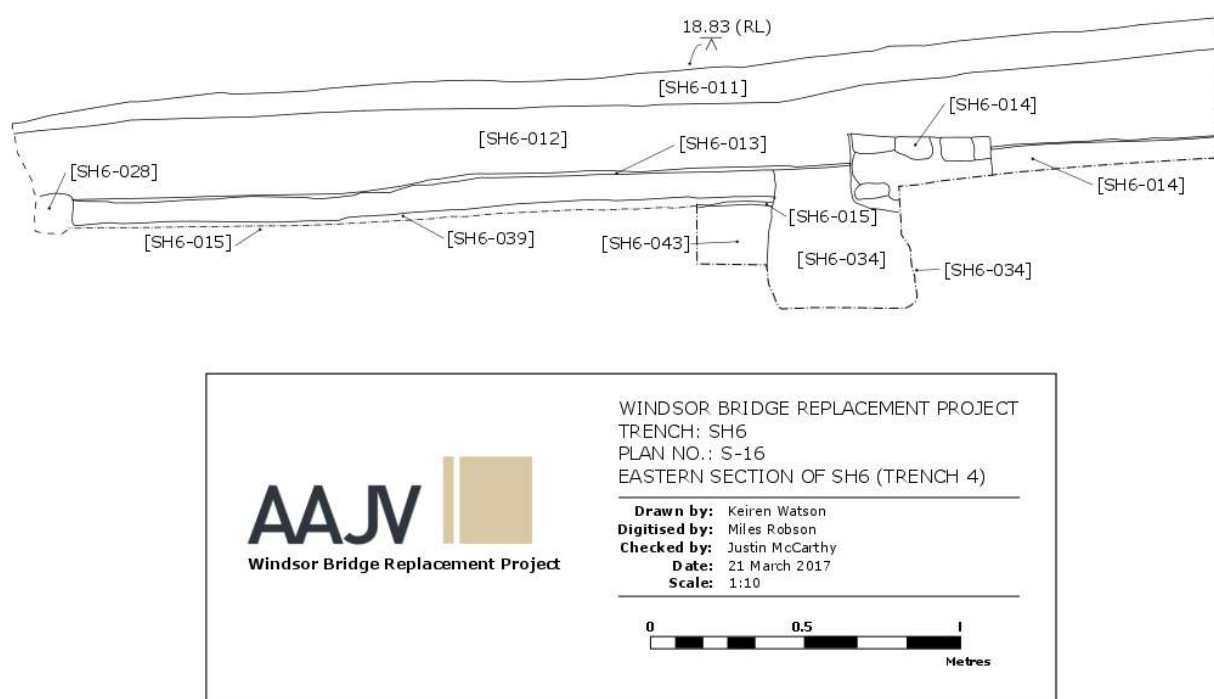




**Figure 30:** North-facing view of the centre of SH 6 test pit 4 showing the fill of cut [SH6-035] (indicated by red arrow, lower right) and surface [SH6-015] in the base of the trench in the background, as indicated by the other red arrow. The scale has 10cm segments.



**Figure 31:** North-facing view of SH 6 test pit 3 showing partially removed brick feature [SH6-018] and adjacent water pipe trench cuts that have impacted the feature.



**Figure 32:** Eastern section of SH 6 test pit 4 showing the packed surface [SH6-015] in the base at left and the potential drainage cut [SH6-034] in the central slot trench. The low stone structure at the right is a later garden feature associated with 10 Bridge Street.

SH 6 test pits 1, 5, 6 and 7 revealed no historical archaeology, with the stratigraphy being limited to redeposited road and service cut material containing occasional 20<sup>th</sup> century materials.

The early finds and heavily disturbed brick feature in test pit 2 may indicate demolition materials from a nearby building, possibly the Government Stables, demolished during the 1850's or Thompson's c. 1800 Store, demolished during the 1820s. It may also denote a disturbed section of the brick drain seen in SA 26 [SA26-005].

The brick feature in test pit 3 is likely to be remnant paving from within an enclosed yard attached to 6 Bridge Street, a building constructed during the 1850s.

The stratigraphy of test pit 4 is likely to represent a series of historical deposits, possibly the occupation of the Government Stables or Thompson's Store, over an *in situ*, but partially removed, historical ground surface [SH6-015]. Surface [SH6-015] is considered likely to have been an exterior ground surface associated with either Thompson's Store or the Government Stables.

In general, the area of SH 6 has been heavily disturbed by modern service trenches, however pockets of undisturbed areas can still provide additional information about the site and seem to indicate that external surfaces and buried demolition deposits associated with significant early buildings survive in places.

#### 4.3.7 SH7

Test trench SH 7 was placed on a north-south alignment across an area of ground below lower Thompson Square and east of the bridge abutment. SH 7 aimed to target the possible location of the vaulted brick drain constructed by Howe and McGrath in 1814 – 1815, as indicated by the alignment of an anomaly identified by the 2016 geophysical survey conducted by Alpha Geoscience.

Following the removal of a section of footpath, excavation commenced with the removal of deep fill deposits within the southern end of the trench from a height of 7.80m AHD. These fill deposits comprised a 70cm deep loamy sand with a modern flood marker sign buried within it [SH7-003], over a 70cm deep, red-brown silty clay with sandstock brick fragments [SH7-004]. Below this, a 1m deep fill context of mixed red and brown silty clay [SH7-005] was excavated from above a truncated, compact, mottled orange sandy clay [SH7-006] that commenced at 5.30m AHD (**Figure 33**). This deposit was very compacted and this together with the limit of the excavator boom required that a 45cm by 3m slot trench be excavated into this natural deposit against the western section. This slot removed 40cm of [SH7-006] at which point excavation was discontinued within the southern end of the trench.

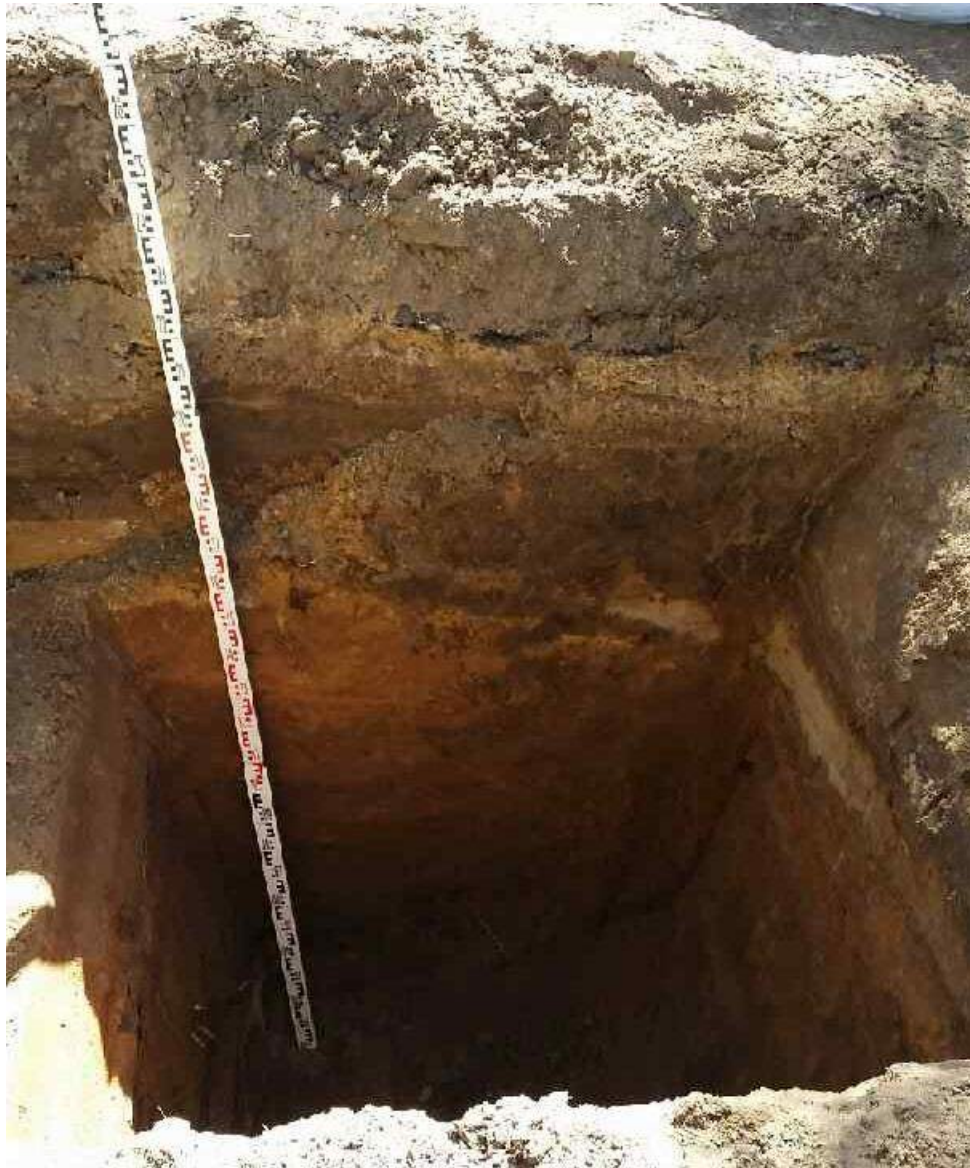
A partially-removed bitumen surface [SH7-007] was identified across the centre of SH 7 at a depth of 50cm below the surface. This central 4m section of the 10m trench was not excavated beyond this depth due to the continuation of the previously identified deep fills immediately to the south.

The northern end of SH 7 was then targeted via a 2m by 3m test pit. Below the road surface, 2.6 metres of sandy fill deposits were excavated [SH7-008/011] from above a dark, grey-brown sandy silt [SH7-012], encountered at 4.90m AHD (**Figure 34**). This was excavated a further 60cm at which point excavation was discontinued.





**Figure 33:** View to the west of the section in the southern end of SH 7 showing c. 1897 fills overlying truncated natural sandy clay within the slot trench at base.



**Figure 34:** East-facing view of the west section at the northern end of SH 7 with [SH7-012] at base. This area of fill covers the former lower ground south of the 1820 wharf.

No historical archaeology was identified within SH 7, and like nearby Aboriginal test pits SA 5 and SA 30, the deep fill deposits in this location are essentially devoid of datable historical artefacts. This is of little consequence however, as the formation history of this area is well documented. As with SA 30, SH 7 is positioned over the former approach road to the punt landing and later, the Windsor Bridge.

The roadway was first terraced into the alluvial slope above the river in 1814 by John Howe and James McGrath and used to reach the punt, as well as the wharf via a lower deviation to the north. In 1874 the roadway may have been raised along its lower length to reach the bridge, as was certainly the case in 1896, when the ground was raised by 2.4m to approach the higher lever bridge. The majority of the fill profile is considered derived from this event, with subsequent 20<sup>th</sup> century car park alterations and levelling of the waterfront raising the profile of the southern end of SH7 by perhaps another half metre.



During the 20<sup>th</sup> century the northern end has been raised with fill by up to 3 metres, as seen in **Figure 34**. These filling episodes probably followed a period of alluvial accumulation following abandonment of the 1820 wharf, as alluvium was identified towards the base of the northern excavation but above the level of the 1820 wharf area, which once lay at another 2 – 2.5m below the base of excavation.

The result of these works identified a deep profile of successive fill deposits, overlying natural alluvium and truncated sandy clays at up to 3m below the modern ground surface.

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#### 4.3.8 SH 8

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Test trench SH 8 was placed on an east-west alignment across the lower road to the new wharf. SH 8 aimed to characterise the stratigraphy by the riverbank in an area east of the 1820 wharf.

Following the removal of the modern road and road base, excavation commenced at 5.62m AHD with the removal of a 40cm layer of crushed sandstone [SH8-003]. Beneath this a remnant bitumen road surface [SH8-003] was exposed above brown silty clay [SH8-004] and sandy silt [SH8-005] fill deposits. These fills were noted to have been tipped onto a deep accumulation of undulating, laminate sands sloping to the north [SH8-008] (**Figure 35**). At the base of this deposit a 34cm thick tip deposit of reddish-brown silty clay was identified at 4.47m AHD [SH8-007] (**Figure 36**). This lense of material contained historical artefacts (MNI=16) with an adjusted date range of 1850 – 1866 (MTAQ). A further 30cm of laminated silty sand [SH8-008] was removed, at which point excavation was discontinued at 4.17m AHD.



**Figure 35:** West facing view of the upper profile of SH 8 during excavation, showing laminated sands [SH8-006] within the lower left of the section and un-laminated silty fill [SH8-005] at upper right.





**Figure 36:** View to the east during excavation showing the southern section of SH 8, with reddish-brown silty clay deposit [SH8-007] visible at the base.

Historical archaeological features identified in SH 8 were limited to the thin fill or rubbish deposit [SH8-007], dating to the latter half of the 19<sup>th</sup> century. The stratigraphy in SH 8 is considered to reflect the history of modification to the alluvial riverbank east of the bridge. [SH8-006] is likely to be a deposit created by the gradual slumping or deliberate tipping of sandy silt from the upper terrace onto the former riverbank alluvium [SH8-008]. These events are considered to have taken place during the period of construction of the Windsor Bridges, a conclusion supported by the date range of artefacts collected from buried fill or rubbish deposit [SH8-007], which is capped by an early 20<sup>th</sup> century road surface [SH8-003]. Silt deposit [SH8-005] is likely to represent a levelling fill used to convert the sloping riverbank to a flat grade when the 20<sup>th</sup> century bitumen road was constructed to the area of the new boat jetty (**Figure 35**).

Aboriginal test pit SA 38 was excavated within the eastern end of SH 8, commencing at 5.97m AHD with the base of excavation at 3.67m AHD. The stratigraphy of SA 38 was consistent with [SH8-004/008, excluding tip layer [SH8-007]. No historical archaeological features were identified within SA 38. Artefacts contained within the profile (MNI=65) are considered to have been redeposited as fill as seen in SH 8, with the lowest retrieved at the interface with the natural alluvium (3.97m AHD) having a date range of 1860 – 1900 (TAQ).

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#### 4.3.9 SH 9

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Historical test trench SH 9 was located on the eastern 'Terrace' in the car park area above the location of SH 8, and approximately 120m east of the bridge. SH 9 aimed to capture any evidence of historical deposits associated with Thompson's Garden, appropriated as the Government Garden following Thompson's death in 1811.

The excavation of SH 9 was conducted in sections, commencing with the removal of the current bitumen car park surface [SH9-001] at the eastern end of the trench from 8.32m AHD. A crushed sandstone bedding [SH9-002], identified elsewhere on Old Bridge Street, was then exposed above a laminated silt accumulation [SH9-003] that sloped toward the north and provided a date range of 1885 – 1920 (TAQ). Removal of 70cm of this deposit exposed an east-west oriented cut [SH9-005] across the base of the trench [SH9-005] from 7.30m AHD. The fill of this cut [SH9-004] contained artefacts (MNI=11) with a well-constrained adjusted date range of 1934 – 1938 (TAQ). Of note was the presence of a horse spur dated to the period 1890 – 1920, possibly a military officer's spur of the period of the First World War.

[SH9-005] was found to abut an east-west aligned row of four round timber posts [SH9-006] – [SH9-009] that cut into sterile alluvium below. These fence posts measured 10cm in diameter and commenced from 7.32m AHD (**Figure 37**). Mechanical excavation resumed to the north of this fence line, exposing a further 10cm of laminated silt [SH9-003] over a deep and homogenous alluvial profile [SH9-009] (Aboriginal stratigraphic unit iv) from 7.12m AHD.

Excavation in the western end of the trench revealed a bitumen surface [SH9-012] directly below [SH9-002] and capping 30cm of [SH9-003].



**Figure 37:** View to the south-west of the eastern end of SH 9 following the removal of [SH9-004]. Timber fence posts [SH9-006] – [SH9-011] are seen protruding from the southern section of trench cut [SH9-005]. The scales have 20cm segments.

Aboriginal test pit SA 34 was excavated into this deposit within the western end of SH 9 from 7.89m AHD, exposing 80cm of mid brown to dark brown silts [SA34-001] that provided a date range of 1910 – 1930 (TAQ). This deposit contained a further displaced timber post and capped a sharply-truncated, grey-brown alluvium of historical artefacts [SH9-009] (**Figure 38**). These natural silty sands continued to the base of excavation at 4.99m AHD.





**Figure 38: View to the east of SA 34 post-excavation showing the disturbed profile over truncated grey-brown alluvial silt. The darker band containing brick post-dates 1910.**

Historical archaeology identified in SH 9 was limited to timber fence line [SH9-006/011], likely to be a late 19<sup>th</sup> century or early 20<sup>th</sup> century feature as indicated by the presence of a linear feature in this location on cadastral boundary plans and aerial photographs of the early 20<sup>th</sup> century. The ‘Terrace’ that forms the car park has been present in this location in some form since at least the 1840s, when it was described as such on historical plans within part of the Government Garden, and is likely a natural alluvial bench. It has, however, been substantially altered over time, particularly during the 20<sup>th</sup> century, as successive historical photographs from the 1870’s until the present day demonstrate (**Figure 82**).<sup>78</sup> Following the discontinuation of the Government Garden the area became a reserve for traffic and wharfage that has undergone gradual levelling, widening and other modifications. The late date ranges derived from historical fill contexts above natural alluvium in SH 9 and SA 34, indicate that these disturbances are likely to have removed any historical topsoils related to the early period of settlement that may have survived up until the 20<sup>th</sup> century.

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<sup>78</sup> AAJV, SCMP, 2017

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#### 4.3.10 SH 10A

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Test trench SH 10A was one of two proposed trenches within the road reserve at the corner of Macquarie and Bridge streets that targeted privately owned structures present within this location from at least the 1830s. Test trench SH 10B was not excavated due to the constraints imposed by the presence of utilities located within the limited excavation area.

Excavation of SH 10A commenced from 13.89m AHD. Below the concrete traffic island surface and bedding a series of clay fills [SH10A-003/005] extended to a depth of 1.10m below the trench surface onto a mid-brown mottled sandy silt [SH10A-006]. Artefacts retrieved from this deposit provided an adjusted date range of 1900 – 1930 (TAQ). Below this deposit a pale tan, coarse sand [SH10A-007] was exposed to the base of excavation at 1.5 metres. In the north-western corner of the trench a semi-circular cut [SH10A-007] was evident that had been filled by [SH10A-006] (**Figure 39**). A slot trench measuring 50cm by 60cm and 50cm deep was excavated into this circular feature, exposing another similar deposit of mid brown mottled silt [SH10A-010]. Further investigation was not carried out due to the depth being below that of anticipated impact and the unstable edges of the test pit.



**Figure 39:** View to the west showing 20<sup>th</sup> century sandy fills in the base of SH 10A.

No historical archaeology was identified within SH10A. Artefacts retrieved from the clay and sand fills have a TPQ date of 1885, and an MTAQ of 1914, suggesting these deposits derive from turn of the century activity in this area that extends to 1.5m below Macquarie Street. Historical photographs of the corner of Macquarie Street indicate that the level of the road has not changed significantly since the 19<sup>th</sup> century and it is considered most likely that early 20<sup>th</sup> century materials have been transported here during more recent works of an unknown nature. These works would probably have removed any archaeology that may have existed here prior to that time. Natural clay, or perhaps natural alluvial material associated with South Creek, probably lies below these redeposited fills. However, since the natural profile was not reached, a low degree of potential remains for archaeology to lie beyond the limit of excavation. It is understood that any potential historical deposits below the base of excavation would not be subject to impact by the proposed works.

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#### 4.3.11 SA 3

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Aboriginal test pit SA 3 was placed on the lower end of Thompson Square Road, near the location of SH 1 and the site of the 1820s Punt House.

Excavation commenced with the removal modern road surfaces and a thin clay bedding fill [SA3-002] from 11.35m AHD. A remnant bitumen and aggregate layer, likely an earlier road surface, was then excavated [SA3-003] together with a thick, reddish-brown sandy clay fill layer [SA3-004] to 11.00m AHD that contained artefacts (MNI=29) dating between 1870 and 1876 (MTAQ). Two thin and inter-bedded lenses of reddish-brown [SA3-006] and grey-brown friable deposits [SA3-007] were then excavated to 10.84m AHD, each containing a single glass artefact with date ranges of 1794 and 1820 to the present. A second former road surface was then identified, composed of hard-packed crushed sandstone and clay [SA3-008]. This road layer contained 2 artefacts dating to between 1820 and 1859 (TAQ) and extended to 10.73m AHD.

Below this road layer a series of humic loam and silt deposits [SA3-009] – [SA3-014] were excavated from 10.73m AHD (**Figure 40**), containing crushed plaster, shell, ash, charcoal and a high frequency of historical artefacts. Context [SA3-011] contained a particularly high number of historical artefacts (**Table 3**), while [SA3-012] at the base of the sequence was the most extensive stratigraphic unit at up to 53cm in thickness and this context graded into natural brown alluvium [SA3-015] at 9.80m AHD. Aboriginal test excavation of SA 3 ceased at 9.05m AHD.

The adjusted date ranges of these historical contexts are presented in **Table 3** and indicate that the deposits accumulated over the first half of the 19<sup>th</sup> century, a conclusion further supported by the presence of a cut into the former natural alluvial ground surface of [SA3-015]. The assemblages were dominated by a high frequency of ceramic tableware, many types restricted to manufacture between c. 1800 and the 1830s including blue shell edged, banded and transfer-printed fine earthenware, hand-painted porcelain, and frequent glazed and unglazed coarse earthenware. Rare items included Chinese export porcelain (1794 – c. 1830) from [SA3-010], an indicator of early colonial deposits in New South Wales particularly associated with Sydney and Parramatta, and notably, an MNI of 22 coarse earthenware vessels of colonial (local) manufacture from [SA3-007], and [SA3-009] – [SA3-014], another indicator of early colonial deposits. These assemblages are discussed in greater detail in **Section 5**.

**Table 3: Overview of early historical contexts identified in SA 3.**

Context	Top Level (m AHD)	MNI	TPQ	MTAQ
[SA3-009]	10.73	19	1825	1850
[SA3-010]	10.44	27	1825	1851
[SA3-011]	10.32	54	1825	1849
[SA3-012]	10.12	29	1818	1848
[SA3-014]	10.14	3	1800	1859

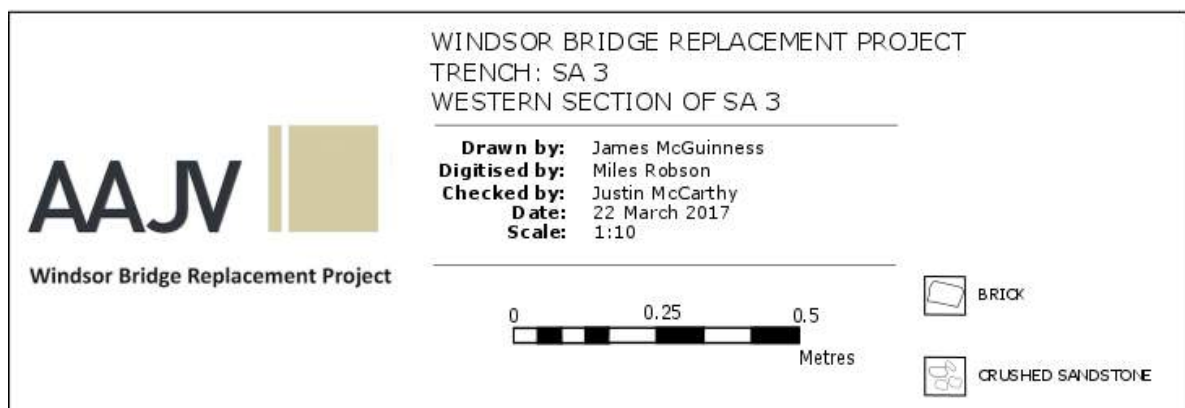
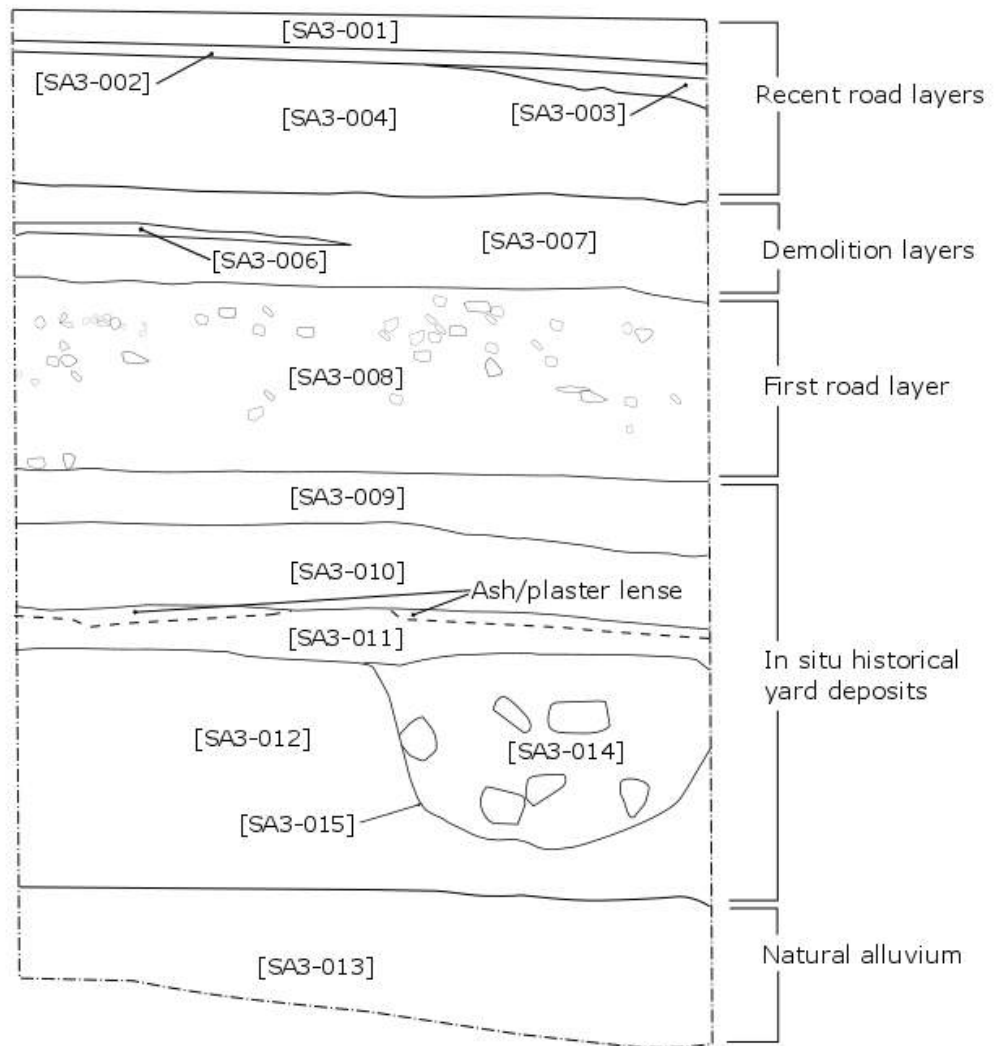
Glass artefacts of comparable date included pressed shell design, laid-on bottle finishes and window glass. Forged nails (1859 TAQ), and a hand-moulded sandstock brick (1850 TAQ) were also present. Personal items were restricted to smoking pipe fragments (MNI=4), with one example dating between 1810 and 1840 (TAQ). Bone, restricted to cattle and sheep, and oyster shell were also identified.



A shallow pit approximately 30cm deep and 50cm wide [SA3-013] was identified cutting the surface of [SA3-012] that had been backfilled with soil and brick debris [SA3-014]. This fill deposit contained 3 artefacts with a date range of 1800 – 1859 (TAQ) and the [SA3-014] assemblage included a further piece of locally-made coarse earthenware dated between 1800 – 1830, probably redeposited from the cut into [SA3-012]. Below [SA3-012/014] pre-European dark brown alluvium was encountered at 9.80m AHD, signalling the end of historical activity.



**Figure 40:** View to the south-west showing SA 3 during excavation. Dark historical deposits are seen in the lower half of the trench, cut [SA3-013] is seen at lower right near the stadia scale. Natural alluvium is appearing in the base of the trench.



**Figure 41:** Post-excitation section drawing of the western section of SA 3. The relative phases of the stratigraphy are indicated at right.

The results from SA 3 indicate that the test pit is placed over inter-bedded mid-to late 19<sup>th</sup> century road surfaces and historical fill deposits, over *in situ* demolition and yard deposits and features very likely to be associated with the c. 1820s Punt Master's House, which stood a few metres to the north-east of SA 3. As discussed in relation to SH 1, the Punt House was demolished c. 1904 during the construction of the road cutting for the Terrace below Thompson Square Road. During this demolition contexts [SA3-006] and [SA3-007] are likely to have been redeposited over the surface of the earliest road layer [SA3-007], which probably dates to the period of the bridge constructions, from earlier *in situ* deposits nearby. This is indicated by the presence of a rim fragment of a Jackfield-type vessel (1794 – 1830 TAQ) and locally-made 'colonial' pottery in [SA3-007], the latter frequently found in lower contexts [SA3-009] – [SA3-014]. A significant quantity of this pottery type, which represents the earliest attempts to produce commercial utilitarian pottery in Australia c. 1800 – 1830, is represented in SA 3.

The c. 1870s crushed clay and sandstone road layer seals the sequence of yard deposits associated with the Punt House, built up over an earlier phase of the 19<sup>th</sup> century. It is likely these deposits were truncated to some degree when the road was made, removing yard deposits relating to the later phases of occupation of the Punt House. Natural alluvium lies directly below these deposits, suggesting they commence from the earliest phases of activity on the site. This is supported by a pattern of successively earlier dates, with only 1 artefact post-dating 1818 from [SA3-012] – [SA3-014]; the rest from these contexts having TPQ's of the early years of the century or before.

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#### 4.3.12 SA 4

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Test pit SA 4 was placed higher on Thompson Square Road, 20m east of SA 3. Excavation commenced with the removal of the modern road and bedding fills from 13.14m AHD. At 12.82m AHD a layer of hard-packed aggregate gravel was identified [SA4-002] over a series of fill deposits [SA4-003/004] and a section of vitrified clay stormwater or sewer pipe and associated fill. These overlay a yellow-brown, humic sand [SA4-005] that occurred from 12.44m to 12.24m AHD. The artefact assemblage within [SA4-005] contained hand-painted porcelain (1794 – 1850 TAQ), black and blue transfer-printed earthenware and Chinese export porcelain (1794 – c. 1830 TAQ). A piece of locally-made pottery occurred at the interface with the context above. A pale, coarse yellow-brown sand was then excavated, containing a small number of artefacts between 11.66m and 11.56m AHD [SA4-008]. These returned an adjusted date range of 1820 – 1905 (TAQ) and included blue shell edge (1802-1832) and blue transfer-printed earthenware (1820 – c.1850 TAQ), Natural, tan alluvial sand [SA4-006] was then excavated to the base of SA 4 at 10.34m AHD.

The results of SA 4 indicate that road and fill deposits of up to 1m in thickness lie over a residual topsoil [SA4-005] and deep profile of natural coarse sand, identified during the Aboriginal testing program as an interface between the Aeolian sand body overlying an older fluvial deposit (**Figure 42**).

The artefact assemblages retrieved from the upper fill profile, excepting the modern road base, have broad date ranges, a feature consistent with other fill deposits associated with the period of bridge construction found elsewhere. These fills appear to have underlain an aggregate road surface, probably also laid down at this time. Earlier historical archaeology is limited to the identified topsoil and up to 1m of natural sand below the fill profile that contain post-1820 artefacts, distributed prior to the 1870s. Below these levels SA 4 predates European settlement. This is therefore likely to be remnant natural ground, disturbed during road and retaining works. The preservation of topsoil [SA4-005], though disturbed, indicates that the immediate area of test pit SA 4 holds the potential to preserve significant historical archaeology directly related to the early occupation of Thompson Square.





**Figure 42:** View to the east showing SA 4 road and fill deposits over historical topsoil [SA4-005] at the top of the natural sand [SA4-006].

#### 4.3.13 SA 8

Test pit SA 8 was placed within lower Thompson Square near the north-western edge of the reserve. Excavation commenced with the removal of the modern turf and topsoil from 11.22m AHD. Two distinct fill deposits were then excavated to a depth of 9.41m AHD. These were a red-brown silty clay [SA8-002] with artefacts (MNI=33) dating between 1970 and the present, and a pale, orange-brown sandy clay [SA8-003], containing an assemblage (MNI=44) dating between 1885 and 1910 (MTAQ). Beneath these an irregular, brown sandy silt was exposed [SA8-004] containing very few artefacts (MNI=5) that provided a date range of 1835 – 1850 (TAQ). This minimal assemblage included ceramics indicative of earlier use than the date range of the broader context, including Chinese export porcelain (1794 – c. 1830) and dark blue, transfer-printed earthenware (1802 – 1830).

At 8.91m AHD this graded into a pale, grey-brown sand [SA8-005], reflecting the upper disturbed portion of the natural profile. [SA8-005] also contained comparatively few artefacts (MNI=12), with the adjusted assemblage dating between 1837 and 1859 (MTAQ) (**Figure 43**). Of particular note within the small [SA8-005] assemblage was the presence of one of the 5 Aboriginal artefacts made from European bottle glass, discussed further in **Section 4.6.4**. [SA8-005] graded into undisturbed natural sand [SA8-006] at 8.61m AHD, which continued to the base of excavation at 8.42m AHD.



**Figure 43:** View to the east showing SA 8 during excavation. [SA8-004] (indicated by the red arrow) and [SA8-005] below it are seen in the lower half of the section. The dark material at base has been scraped into the base from [SA8-004].

[SA8-005] artefacts included, as elsewhere within the test excavation project area, a high proportion of tableware. Notable early makes included Mocha ware (1794 – 1830) and a range of blue transfer-printed earthenware with TPQ's from 1794 – 1818. A small proportion of glass was present, being limited to amber and black bottle glass dating from 1794 to 1880 (TAQ). Personal items were limited to undatable smoking pipe fragments. An unfrosted handmade brick with a typological TAQ of c. 1830 was found within [SA8-005] that may derive from an early structure within the lower reserve, given its position close to the level of pre-European deposit.

Historical archaeology identified in SA 8 was limited to a modified historical ground surface, defined by humic topsoil development and the accumulation of historical artefacts on, and within, this surface over time. The date range of artefacts retrieved suggests that development of topsoil [SA8-004] took place after 1837, and that this ground surface was then buried under successive fill deposits during the late 19<sup>th</sup> and late 20<sup>th</sup> centuries. However, limiting the archaeological advent to post-1837 is not considered a sufficient estimation of the resource, as the assemblage would have built up on the ground surface over time, with later artefacts narrowing the adjusted date range. The development of topsoil [SA8-004] may therefore post-date some of the assemblage contained within it.

The results of SA 8 are indicative of the broader archaeological profile across lower Thompson Square and suggest a disturbed though relatively *in situ* buried historical profile is preserved within the natural sand body. Despite the history of flooding, this complex of aeolian, fluvial and alluvial sand formed a relatively stable ground surface within this area from at least 1835 until the period of the bridge constructions and into the 20<sup>th</sup> century when it was progressively buried beneath introduced fill.

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#### 4.3.14 SA 9

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Test pit SA 9 was placed within the central west of lower Thompson Square near the Bridge Street cutting. Excavation commenced with the removal of the modern turf from 13.25m AHD. A bulk, heavily reworked, fill deposits of sandy clay dating to the 20<sup>th</sup> century [SA9-001] lay directly below, continuing to 12.58m AHD. The high degree of disturbance may be, in part, related to the Hawkesbury Motor Boat Club building that occupied a location immediately to the north-east of the test pit in the second half of the 20<sup>th</sup> century.

From 12.58m AHD an irregular, dark brown, silty sand deposit was identified [SA9-002] that contained artefacts with an adjusted date range of 1835 – 1859 (TAQ). Below this, 50cm of disturbed yellow-grey silty sand was exposed [SA9-003] from 12.27m AHD that returned a date range of 1810 – 1940 (TAQ), with the *ante quem* determined by a piece of pencil slate (TPQ 1794). From 11.75m AHD a pale, orange and tan coarse sand, devoid of historical artefacts [SA9-004] continued to the base of excavation at 10.95m AHD.

SA 9 provided evidence of further modified historical topsoil [SA9-002] and sandy subsoil [SA9-003] (**Figure 44**). The upper surface of [SA9-002] has undergone heavy disturbance, with the most intact section remaining in the south-west section of the trench. The thickness of the context below this disturbance, however, makes this one of the most extensive of the historical topsoils.

As with other historical topsoils within lower Thompson Square, the [SA9-002] (MNI=16) and [SA9-003] assemblages (MNI=6) were minimal. The TPQ of [SA9-002] is comparable to the findings from SA 8, however the adjusted date range of [SA9-003] is particularly early. A significant proportion of the ceramic artefacts from both of these two contexts were manufactured prior to European settlement, and in many instances have TAQ's pre-dating the 1840s. A notable example is a further shard of Chinese export porcelain from [SA9-002]. As in test pit SA 8, a small proportion of glass was present in [SA9-002] and [SA9-003]. Personal items within the assemblage were limited to smoking pipe stems, a handmade brass sewing pin (1794 – 1830 TAQ) and a post-1810 stamped brass button. Structural items were limited to a small number of early nails (1794 – 1859 TAQ) recovered from both historical deposits. Faunal materials were limited to oyster and Sydney cockle shells.

As with the historical deposits identified in SA 8, historical archaeology in SA 9 was limited to what are considered to be modified historical topsoil and subsoil. The dating of [SA9-003] and [SA9-004] to post-1835 is not considered conclusive as the assemblage would have built up over time, with later artefacts reducing the adjusted date range. As with SA 8, the results from SA 9 provide strong evidence that archaeology relating to the early settlement period of Windsor may be preserved within the Lower Square.





**Figure 44:** East facing view of SA 9 during excavation, showing modified historical topsoil [SA9-002] halfway down the section (red arrow) and the artefact-bearing sandy subsoil below [SA9-003]. Natural sand devoid of European artefacts is seen in the base of the test pit.

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#### 4.3.15 SA 10

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Test pit SA 10 was placed within the south-west part of lower Thompson Square near the Bridge Street cutting. Excavation commenced from 15.30m AHD with the removal of the modern turf and fill deposits [SA10-001]-[SA10-004]. These fills are clearly identifiable in **Figure 45** as four distinct bands of redeposited material. In contrast to other test trenches in the lower reserve, these fills contained relatively early historical artefacts, with the lowest [SA10-004] returning a date range of 1820 – 1865 (TAQ). From 14.00m AHD a dark brown, loose, silty deposit [SA10-005] was excavated containing an assemblage with an adjusted date range of 1825 – 1864 (TAQ). At 13.81m AHD, a disturbed, pale yellow-brown sand [SA10-006] was exposed that provided a date range of 1835 – 1829 (TAQ). The artefact from the lowest point was retrieved at 12.80m AHD. Undisturbed natural sand continued a further 20cm to the base of excavation.

SA 10 provided evidence of further modified historical topsoil [SA9-002] and subsoil [SA9-003] dating from the first half of the 19<sup>th</sup> century. As elsewhere, disturbance was evident. The artefact assemblages identified in SA 10 are broadly consistent with those of SA 8 and SA 9, with slightly later TPQ's that suggest the space continued to be used as a repository for waste up until the time of the first bridge construction. Of particular note was the presence of three of the five Aboriginal artefacts made from European bottle glass that were found in lower Thompson Square, two found at the interface of [SA10-004/005] and one in [SA10-006]. These finds are discussed further in **Section 4.6.4** and in detail in the AAJV Aboriginal test excavation report.



**Figure 45:** North facing view of SA 10 showing marbled historical topsoil [SA10-005] and subsoil [SA10-006] below the four fill layers above. Slumped historical topsoil is seen in the base of the pit.

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#### 4.3.16 SA 16

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Test pit SA 16 was placed within the kerb and footpath on the southern side of George Street at the junction with Bridge Street. Excavation commenced from 21.06m AHD. The modern road bitumen and sand and clay bedding were removed, exposing a degraded, sandstone block and rubble surface [SA16-003] at 20.70m AHD (**Figure 46**). This surface was removed in half-section, exposing a red-brown, natural silty clay directly below [SA16-004], commencing from 20.51m AHD. When viewed in section, the stones of [SA16-003] could be seen to be laid vertically (thin edge down) and set on a 45 degree angle to George Street (**Figure 47**). No artefacts were found in association with either context and excavation was halted, upon confirmation that the clay was natural, at 20.16m AHD.

Historical archaeology identified in SA 16 was limited to the sandstone surface [SA16-003], identified as the base layer of a road of the Telford type, rather than a flat, sandstone pavement. This conclusion was due to the fact that the stone was laid narrow edge up, stretcher fashion in masonry terms, a practice designed to create a durable foundation of interlocked stone rather than the simple foundation of packed broken stone seen in the Macadam method, or the maximum surface coverage provided by a basic surface pavement. This Telford foundation would have been overlaid with cambered, crushed stone and packed gravel surfacing during the period of use, and drainage ditches are likely to have been dug at the road edge.<sup>79</sup> This type of road construction was in use in New South Wales from the early 19<sup>th</sup> century and continued in places into the early 20<sup>th</sup> century. The absence of datable artefacts in association with this structure prevents the age of the structure being determined and construction anywhere between the Macquarie era and the later 19<sup>th</sup> century is possible. On the basis of available historical evidence, construction during the late 19<sup>th</sup> and/or early 20<sup>th</sup> century is considered most likely, as discussed in **Section 4.6.2**.



**Figure 46:** North-facing view of SA 16 showing the sandstone base [SA16-003] of the Telford road. The scales have 20cm sections.

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<sup>79</sup> A. Burton, *Thomas Telford: Master Builder of Roads and Canals*, 2015:pp.103-104.





**Figure 47:** North-facing view of a section through [SA16-003] onto natural clay [SA16-004]. The sandstone can be seen to be packed closely together and laid vertically (thin edge down). The scales have 20cm sections.

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#### 4.3.17 SA 17

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Test pit SA 17 was placed within the left, parking lane of Bridge Street below the roundabout. Excavation commenced from 19.37m AHD. The modern road bitumen and FCR bedding were removed, exposing a sandstone block and rubble surface [SA17-003] at 19.24m AHD. The edge of the structure was contained within the western side of the test trench, formed by a straight row of neatly cut and stretcher laid stone. This surface was not removed or sectioned, however it is highly likely to be laid directly onto a mottled, red-brown silty clay as seen in SA 18 [SA18-004]. No datable artefacts were retrieved in association with [SA17-003].

Historical archaeology identified in SA 17 was limited to the sandstone surface, identified as the base layer of a Telford type sandstone road [SA17-003]. In addition to the packing method, a further characteristic of this road type is seen here in the use of locking kerb stones, deeply set to hold the stone foundation layer rigid (**Figure 48**). This type of road construction was in use in New South Wales from the early 19<sup>th</sup> century and continued in places into the early 20<sup>th</sup> century. The absence of datable artefacts in association with this structure prevents the age of the structure being determined, however a comparison with photographic evidence showing the construction works on the main road in Windsor in 1926 suggests the identified sandstone surface is likely to be associated with that shown on the photographs (see further discussion below in (**Section 4.6.2**)).



**Figure 48:** East-facing view of SA 17 showing sandstone road [SA17-003]. The outer edge of locking kerb stones are visible in front of the 1m scale.

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#### 4.3.18 SA 18

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Test pit SA 18 was placed within the left parking lane of Bridge Street, 20m south of SA 17. Excavation commenced from 17.80m AHD. The modern road bitumen and FCR bedding were removed, exposing a sandstone pavement or the base layer of a Telford type, sandstone road [SA18-003] at 17.59m AHD (**Figure 49**). A narrow strip measuring 50cm was excavated immediately west of the edge of the surface, within what appeared to be the outer edge of the structure, or an area of disturbance, to test for any other earlier horizons. The exposed section revealed mottled red-brown silty clay [SA18-004] used as both bedding and a bonding for the road (**Figure 50**). Deposit [SA18-004] contained crushed brick fragments and organic debris including charcoal and shell fragments, but no datable artefacts were found. Although the modern road bedding was laid directly onto the sandstone surface, there was no evidence of the use of tar on, or within the surface itself, suggesting intermediate layers, including the gravel surfacing of [SA18-004], have been graded off during construction of the modern road. Among the flat-surfaced, but irregularly shaped stones were well shaped, squared blocks, suggesting re-use of building materials. At 17.12m AHD this deposit capped mottled orange clay [SA18-005] and excavation ceased at 17.10m AHD.

Historical archaeology identified in SA 18 was limited to the Telford sandstone road [SA18-003] and the bonding and bedding material [SA18-004]. As already suggested above images of similar sandstone surfacing used for the upgrade of the main road in Windsor (ie Bridge Street) are seen on two photographs dated 1926.





**Figure 49:** South-facing view of sandstone road surface [SA18 003] during excavation. The edge of the structure, or the fill of a later cut, is seen at right.



**Figure 50:** West facing view of SA 18 showing in section Telford type base layer [SA18-003] the mixed bedding material [SA18-004] beneath and the underlying natural mottled orange clay. A well-shaped block is seen at far left behind the vertical 50cm scale. The horizontal scale is 1m.



Test pit SA 24 was placed within the westbound lane of George Street, immediately east of the roundabout. Excavation commenced from 20.02m AHD. The modern road bitumen and bedding were removed, exposing a hard-packed grey-brown, sandy clay deposit [SA24-003] at 19.94m AHD that contained charcoal, organic debris, sandstock brick fragments and olive green bottle glass with an applied finish (1794 – 1865 TAQ).

From 19.86m AHD this deposit contacted sharply with natural, mottled, silty sand [SA24-004] that contained numerous shallow root channels (**Figure 51**). These root channels extended upward through [SA24-004] into [SA24-003], suggesting the latter had formed the topsoil zone during the period of active growth and truncation. A root channel located in the north-west corner contained fragments of a bright orange sandstock brick. A soil sample that contained plant remains was taken from one of the plant root channels. In contrast to other excavations along the ridgeline, the natural mottled sand continued to a depth of 18.52m AHD, where it graded onto the natural clay [SA24-015] and excavation ceased. No historical artefacts were found in [SA24-004] or [SA24-005].

Historical archaeology identified in SA 24 was limited to deposit [SA24-003]. It is possible that this deposit may have been a historical road surface in the 19<sup>th</sup> century; formed by the compaction of a remnant topsoil layer given its position over natural sandy subsoil and the early to mid-19<sup>th</sup> century bottle glass within it. Frequent small brick and stone inclusions are also consistent with such a surface. The funnelling of this deposit down into [SA24-004] is significant, as it suggests trees were emergent through the level of [SA24-003] at an earlier stage of development. No vegetation would have been present here after the late 18<sup>th</sup> century and this, combined with the early glass artefact, suggests [SA24-003] was present since the earliest phase of settlement, filling the cavity of a shrub or small tree uprooted during early clearance. [SA24-003] may then have been modified into a trafficked surface over the subsequent decades of the Macquarie era.



**Figure 51:** North facing view of SA 24 showing natural sandy clay and excavated root channels. Deposit [SA24-003] can be seen to be related to the root channel against the centre of the northern section.

Test pit SA 25 was placed within the eastbound lane of George Street immediately east of the roundabout. Excavation commenced from 20.15m AHD. The modern road bitumen and FCR bedding were removed, exposing a grey, silty, hard-packed surface [SA25-003] containing brick fragments and artefacts at 20.08m AHD. [SA25-003] contained two forged nails that provided a date range of 1794 – 1859 TAQ.

From 19.96m AHD, the sandstock brick footing of a structure was identified on a north-south alignment [SA25-004] (**Figure 52** and **Figure 53**). This structure cut into disturbed, natural, mottled silty sand that extended across the remainder of the trench from 20.00m AHD. [SA25-004] was built in standard English bond with indications of a stepped lower foundation course. A slot trench was excavated against the eastern limit of the test trench as part of Aboriginal testing. This showed that it was built in four courses set in the natural A2 horizon. The mortar was a sandy grey shell lime, typical of the first half of the 19<sup>th</sup> century. A sample excavation of the construction trench fill [SA25-007] yielded three artefacts that provided a date range of 1802 – 1859 (TAQ). These included a dark blue transfer-printed earthenware shard (1802 – 1830), a forged nail and a small triangular piece of iron (plating). Associated material included fragments of plastered render, painted in ochre, suggesting the structure to which the footing belonged was rendered.

Historical archaeology identified in SA 25 comprised an early 19<sup>th</sup> century wall footing [SA25-004] and associated deposit [SA25-007] and a possible mid-19<sup>th</sup> century road or ground surface overlaying these earlier, truncated structural features. Based on its location, the wall footing is likely to be part of the entrance gate wall to the Government Cottage and Domain. This boundary was present from at least the 1820s (**Figure 69**), enclosing the buildings of the government precinct and adjoining the Police Stables to the north and Commissariat Store to the south.

The Aboriginal excavation continued via a slot trench in the eastern end of SA 25. This exposed a deep, 55cm profile of natural mottled grey clay silt [SA25-008] over a reddish-brown silty clay at 19.52m AHD. No further excavation of [SA25-004] took place and the structure was left *in situ* and unexcavated in accordance with its significance and the methodology outlined in the ARD. The archaeology was covered in geofabric and the road resealed.



**Figure 52:** East facing view of SA 25 during excavation showing brick footing [SA25-004].



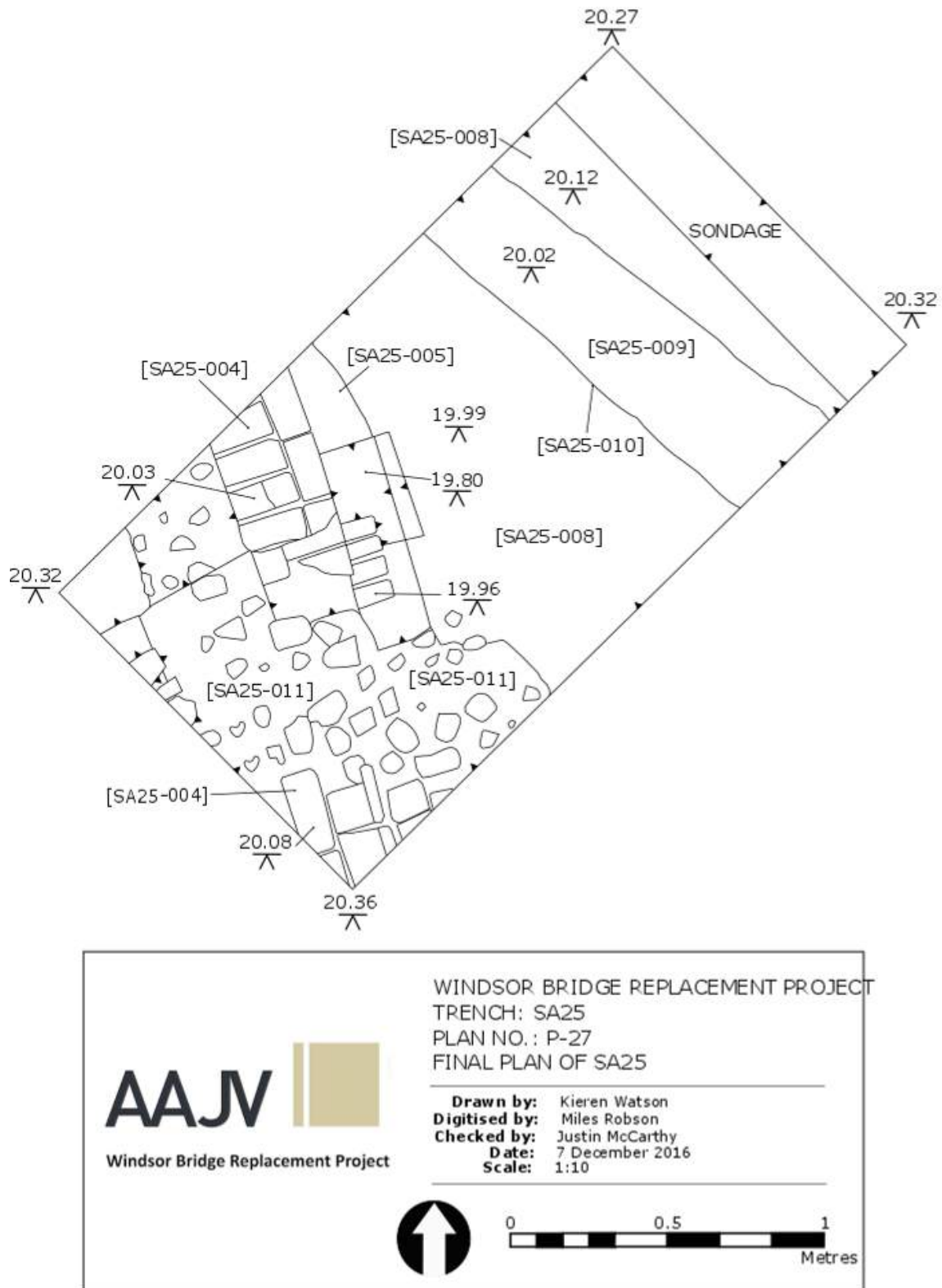
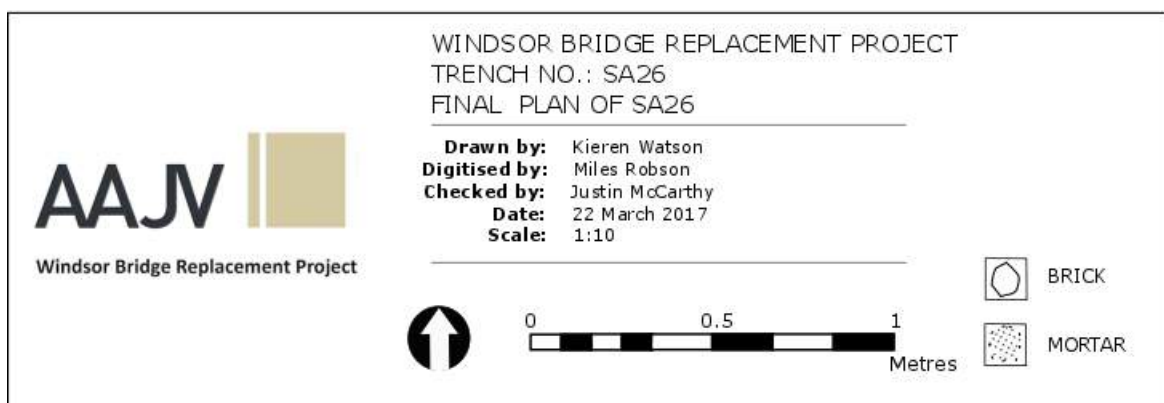
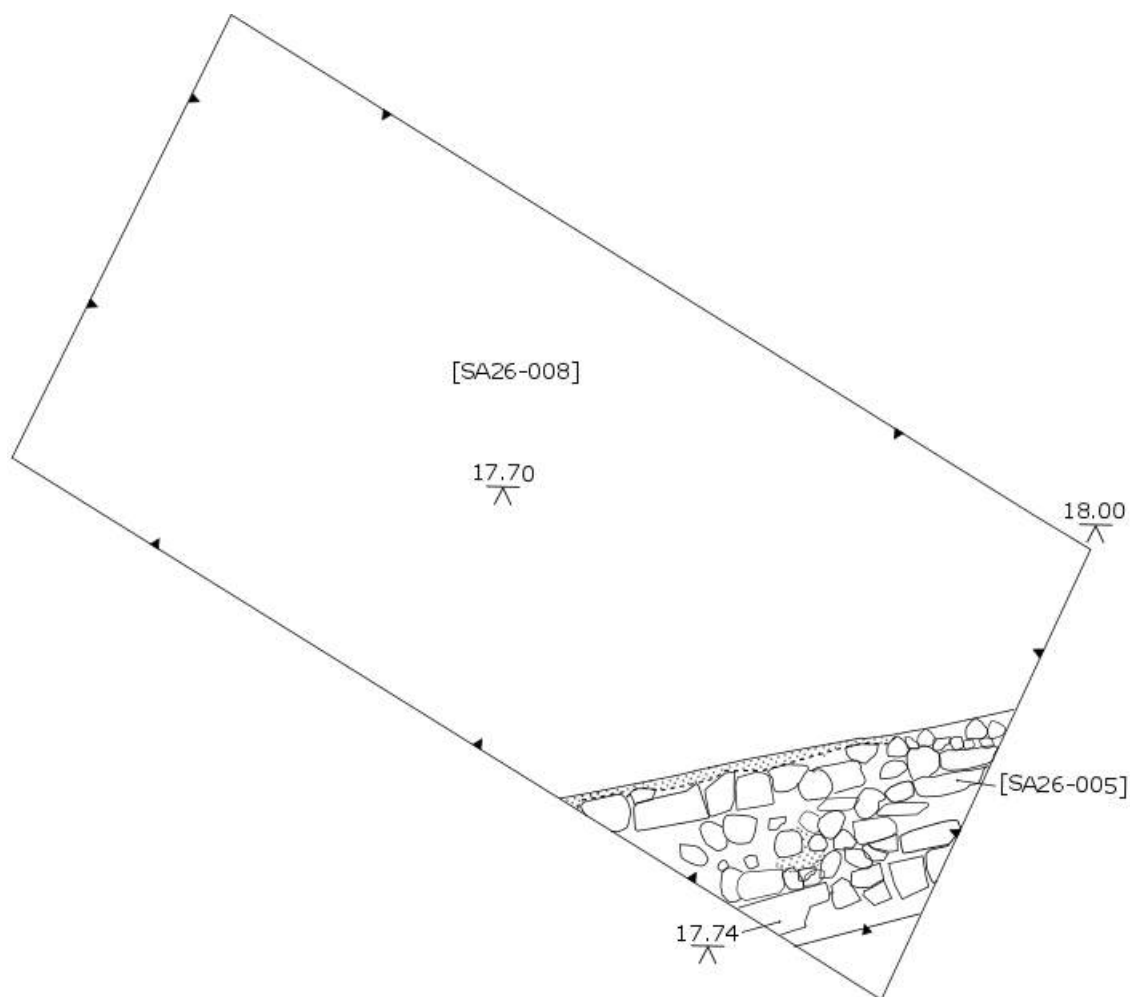


Figure 53: Post-excavation plan of the historical archaeology in test pit SA 25.

Test pit SA 26 was placed within Old Bridge Street, 7m west of SH 6. Excavation commenced from 18.00m AHD. The modern road bitumen and FCR bedding were removed, exposing a truncated, red-brown, natural clay [SA26-008]. Cutting [SA26-008] through 1.3m of the south-western corner of the pit was a 90cm wide, heavily disturbed sandstock brick box drain on an east-west alignment [SA26-005] that commenced from 17.86m AHD (**Figure 54** and **Figure 55**). This structure had been truncated by the construction of the Old Bridge Street road surfaces [SA26-001/002] and was limited to the lower courses of the side walls, base and an interior fill of collapsed bricks. The narrow construction trench for the drain [SA26-007] was clearly defined by a fill of shell mortar deposit [SA26-006] typical of the first half of the 19<sup>th</sup> century. The interior debris of the damaged drain was not excavated and no datable historical artefacts were found in SA 26. [SA26-005] was left *in situ* and unexcavated in accordance with its significance and the methodology outlined in the ARD. The archaeology was covered in geofabric and the road resealed.



**Figure 54:** East facing view of the southern end of SA 26, showing brick drain [SA26-005].



**Figure 55: Post-excavation plan of SA 26 showing brick drain [SA26-005].**

The historical archaeology identified in SA 26 comprised what is likely to be an early 19<sup>th</sup> century brick box drain [SA26-007]. This drain may have formed a tributary drain of the Howe and McGrath vaulted brick drain of 1814 – 1815. The orientation of the structure indicates that it would have led to the barrel drain from the Government Stables, or possibly from Andrew Thompson's 1803 Store, converted to government purposes around the time of the drain construction. These buildings occupied the same position, just east of the location of SH 6.



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#### 4.3.22 SA 28

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Test pit SA 28 was placed within the south-eastern corner of lower Thompson Square near Old Bridge Street. Excavation commenced from 13.75m AHD. A concretionary surface [SA28-001] was removed from just below the turf layer, followed by inter-bedded sandy fill deposits [SA28-002/004] that denoted levelling for [SA28-001]. Below these, redeposited coarse silty sand [SA28-005] was excavated to 12.80m AHD, containing artefacts (MNI=14) with an adjusted date range of 1835 – 1922 (MTAQ) This deposit contacted sharply with an irregular horizon of brown silty sand [SA28-006] which was excavated, containing an assemblage (MNI=13) with a date range of 1820 – 1858 (MTAQ) As elsewhere, this assemblage was predominantly made up of transfer-printed whiteware, with a single fragment of glass and 2 pipe stems included in the assemblage. From 12.45m AHD, a disturbed, pale, yellow-brown silty sand [SA28-007] was exposed that contained a single forged nail, retrieved at 12.15m AHD (1794 – 1859 TAQ) Undisturbed natural deposit continued from this point to the base of excavation at 11.45m AHD.

The historical deposits identified in SA 28 are consistent with those of SA 8, SA 9 and SA 10 and provide further evidence that modified historical soils dating from the early to mid-19<sup>th</sup> century occupation of Windsor is preserved within Lower Thompson Square. The upper concretionary mass is a recent context that formed a driveway up onto the reserve, probably to the former Upper Hawkesbury Boat Club building (**Figure 18**).



**Figure 56:** North facing view of SA 28. The irregular, dark brown band of modified historical topsoil [SA28-006] is seen halfway down the section

Test pit SA 29 was placed within the south-eastern corner of lower Thompson Square near Old Bridge Street. Excavation commenced from 11.80m AHD. The modern mulch and fill deposits [SA29-002/00] containing introduced or redeposited artefacts with an adjusted date range of 1872 – 1890 (TAQ) were removed by hand excavation. From 11.19m AHD, a dark brown organic loamy clay fill [SA28-007] was excavated containing an assemblage (MNI=20) with an adjusted date range of 1872 – 1884 (MTAQ). Also at this level, posthole [SA29-012] cut through the profile of [SA29-007], indicating it is likely to be a feature of a post-1870 ground surface. No artefacts were present within the post pipe fill. A number of thin lenses including deposits of crushed shell and a sandy mortar-like deposit [SA29-008/014] were identified during the excavation of [SA29-007], subsequently determined to be variation within that one fill context.

From 10.86m AHD, a series of features [SA29-013] – [SA29-023] were exposed below [SA28-007] comprising shallow depressions and their related fills. These were identified and individually excavated, proving to be disturbance to a fill layer of redeposited, mottled sand [SA29-023] (**Figure 57**). Several of these features were identified as the cavities of former tree boles, one of which [SA29-017] contained a drawn nail post-dating 1870. This deposit cut [SA29-023] and lay beneath all other contexts except [SA29-024], dating the majority of the archaeology within SA 29 to post 1870 (**Figure 58**). Irregular mottling and uneven distribution of soils in this test pit may also be evidence of flooding.

From 10.69m AHD, a small sondage was excavated against the north-western section, exposing a mid-brown, humic sand [SA29-024] in the base of the sondage at 10.40m AHD. [SA29-024] yielded a single artefact, a rare piece of colonial ware (1800 – 1830 TAQ). This deposit is likely to extend across the base of the entire test pit area and corresponded with modified topsoils identified elsewhere in the reserve at similar depths below the modern ground surface. [SA29-024] was left unexcavated, preserving the identified historical deposit in an area of lower Thompson Square known to be the general area of buildings erected during the Green Hills period of settlement (1794 – 1810).



**Figure 57:** North-east facing view of SA 29 during excavation, showing the various redeposited materials within a dark fill layer [SA28-007] (seen at left in section). Post hole [SA29-012] is seen to the left of the figure.





**Figure 58:** West facing view of SA 29 post-excavation. The small sondage in which [SA29-024] was identified is seen at top right.

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#### 4.3.24 SA 30

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Test pit SA 30 was placed within the car park area directly north of lower Thompson Square. Excavation commenced from 8.55m AHD with the removal of the modern bitumen and bedding by mechanical excavator. From 8.19m AHD a series of fills [SA30-003] – [SA30-005], containing just 3 artefacts, comprising cobalt and green bottle glass and bone china (1794 – 1940 TAQ) overlaid a hard-packed, 8cm layer of river stones and aggregate gravel [SA30-007] at 6.75m AHD (**Figure 59** and **Figure 60**). Below this lense, a relatively homogenous, loose, mid-brown silty deposit [SA30-008] extended to the base of excavation at 6.25m AHD. No artefacts were retrieved from [SA30-008].

Historical archaeology within SA 30 was limited to the thin stony layer [SA30-007] identified at approximately 2m below the level of the bridge. This corresponds with the anticipated level of the approach road to the bridge before both the bridge and road were raised in 1897. A former high energy alluvial zone that would have been repeatedly scoured during the 19<sup>th</sup> century extended below.



**Figure 59:** West-facing view of SA 30 showing the possible road surface [SA30-007] in the lower section (indicated by the red arrow) over alluvial deposits [SA30-008].



**Figure 60:** Detail of [SA30-007] in the southern section.

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#### 4.3.25 SA 32

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Test pit SA 32 was placed within the eastern side of Old Bridge Street, 10m north-east of lower Thompson Square. Excavation commenced from 9.92m AHD. The modern bitumen [SA32-001] and crushed sandstone bedding [SA32-002] were removed by mechanical excavator. From 9.25m AHD a deep, grey-brown silty deposit was excavated [SA32-003] that contained flecked charcoal and a series of shallow but ultimately ephemeral depressions, which could be associated with decorative or other plantings (**Figure 62**). Artefacts retrieved from [SA32-003] had an adjusted date range of 1905 to the present. At 20cm into this deep silty deposit, an east-west oriented, 1m wide by 10cm deep area of cobbles was identified [SA32-008] (**Figure 61**).

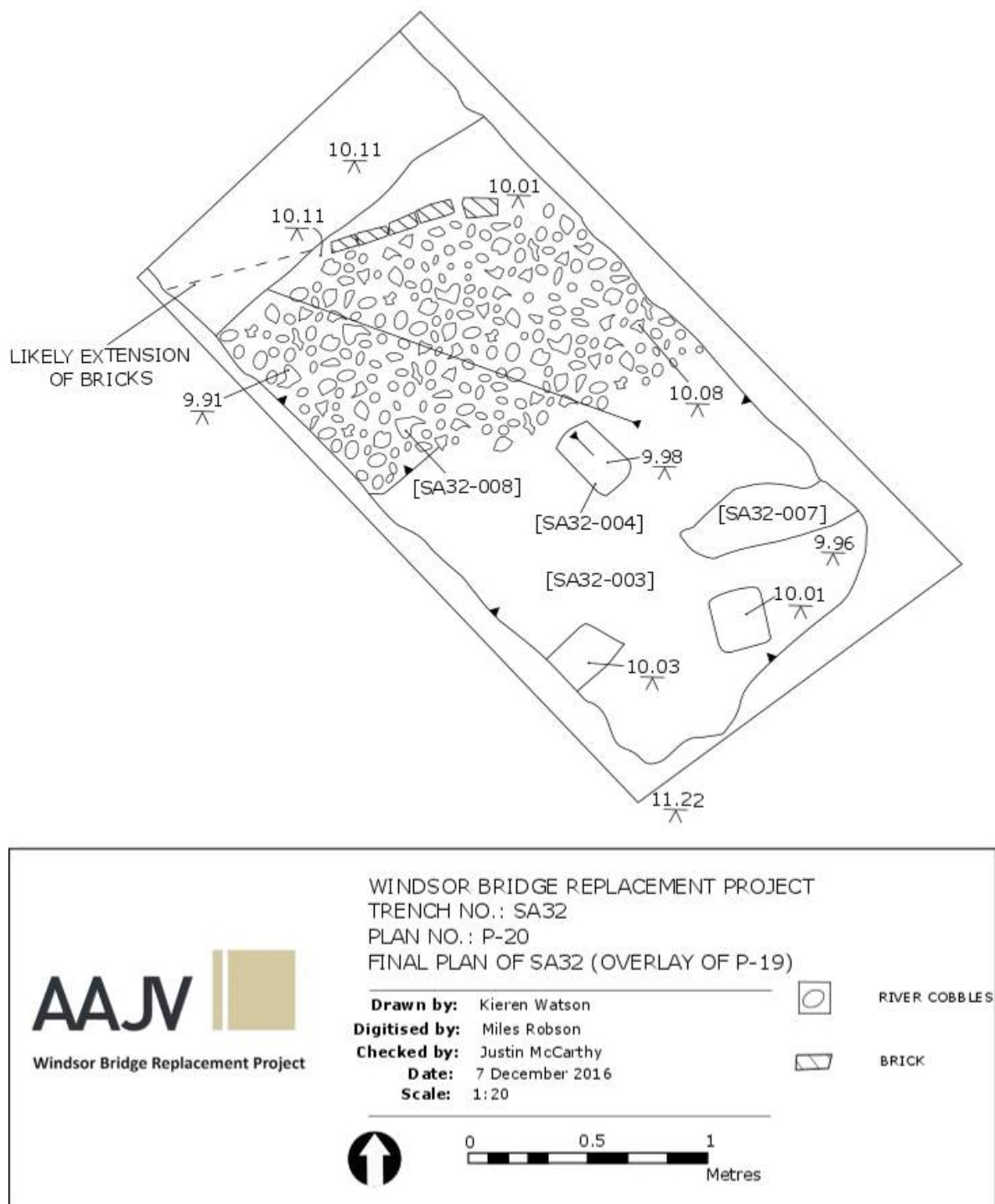
Associated artefacts returned a date range of 1880 – 1930 (TAQ). This feature was bordered on the northern side by two degraded sandstock bricks that appear to have formed deliberate edging [SA32-009]. Beneath [SA32-008], evidence of a rectilinear cut was noted [SA32-011], however no datable artefacts were retrieved in association with this feature. Silty deposit [SA32-003] continued to a depth of 8.22m AHD, where it contacted sharply with a truncated orange-grey silty sand deposit [SA32-013]. Two artefacts with a date range of 1835 – 1867 (TAQ) was retrieved near the interface of these two contexts at 8.42m AHD. [SA32-013] continued to the base of excavation at 7.62m AHD.

Historical archaeology in SA 32 was limited to a late 19<sup>th</sup> century cobbled surface [SA32-008]. Deposit [SA32-003], in which the cobble layer was found, appears to be either alluvial silt or fill deposited over a truncated, natural, fluvial sand [SA28-013]. The purpose of this small feature was not identified, however it may be related to the approach road to the wharf after the higher level bridge was constructed.





**Figure 61:** Late 19<sup>th</sup> century cobble and brick surface [SA32-008] identified in SA 32.



**Figure 62: Post-excavation plan of SA 32.**

#### 4.3.26 SA TEST PITS WITH NO HISTORICAL ARCHAEOLOGY

During the monitoring of the Aboriginal test pits, 20 were found to contain, above the interface with the natural strata, bulk fill deposits lacking any identifiable historical archaeology. These test pits were nonetheless recorded and any artefacts contained within the fill deposits were retained for comparative analysis. These test pits are presented in **Table 4**.

**Table 4. Summary of secondary deposition historical artefact finds from Aboriginal test pits in the northern portion of the test excavation project area.**

Test pit	Location	Area (m <sup>2</sup> )	Testing Aims	Historical Archaeology identified	European artefacts retrieved	AHD Elevation (Top of Trench)	AHD Elevation (Base of test pit)	Depth of test pit (m)
SA 1	The Terrace (west)	2.4	Aboriginal test pit	No	Yes/ MNI=5 from fill deposits and alluvium	11.20	8.70	2.50
SA 2	The Terrace (west)	2.4	Aboriginal test pit	No	Yes MNI=5 from fill deposits	11.83	9.43	2.40
SA 5	The Terrace (west)	2.4	Aboriginal test pit	No	Yes/ MNI=1 from fill deposits	7.82	5.22	2.60
SA 6	Lower Thompson Square	2.4	Aboriginal test pit	No	Yes/ MNI=127 from fill deposits	12.44	11.84	0.60
SA 7	The Terrace (east)	2.4	Aboriginal test pit	No	No	7.35	4.85	2.50
SA 13	Upper Thompson Square	1	Aboriginal test pit	No	Yes/ MNI=8 from fill deposits	20.39	19.79	0.60
SA 14	George Street	1.8	Aboriginal test pit	No	No	20.72	20.02	0.70
SA 15	George Street	1.8	Aboriginal test pit	No	No	20.75	19.65	1.10
SA 19	Bridge Street	1.4	Aboriginal test pit	No	No	16.56	15.76	0.80
SA 20	Bridge Street	1.4	Aboriginal test pit	No	No	17.28	16.48	0.80
SA 21	Bridge Street	1.4	Aboriginal test pit	No	No	18.82	17.72	1.10
SA 27	Old Bridge Street	1.4	Aboriginal test pit	No	No	16.75	16.15	0.60
SA 31	The Terrace (east)	2.4	Aboriginal test pit	No	Yes/ MNI=20 from fill deposits	6.42	2.82	3.60
SA 33	The Terrace (east)	2.4	Aboriginal test pit	No	Yes/ MNI=6 from fill deposit	9.78	7.58	2.20
SA 34	The Terrace (east)	1.8	Aboriginal test pit	No	Yes/ MNI=62 from fill deposits	7.89	4.99	2.90
SA 35	The Terrace (east)	3.6	Aboriginal test pit	No	Yes/ MNI=213 from fill deposits	7.87	3.87	4.00
SA 36	The Terrace (east)	2.4	Aboriginal test pit	No	Yes/ MNI=83 from fill deposits	8.22	5.22	3.00
SA 37	The Terrace (east)	2.4	Aboriginal test pit	No	Yes/ MNI=2 from fill deposits	7.72	6.42	1.30
SA 38	The Terrace (east)	2.4	Aboriginal test pit	No	Yes/ MNI=66 from fill deposits	11.36	9.06	2.30



Within the southern test excavation project area, the majority of test pits located along the eastern and western terraces and the riverbank (SA 1, SA 2, SA 5, SA 7, SA 31, SA 34, SA 35, SA 36, SA 37 and SA 38) were excavated through extensive fill deposits overlying natural alluvial or fluvial silt. Historical artefact assemblages retrieved from these profiles presented non-sequential, inverted date ranges. In the instances where this was not the case (SA 1 and SA 36), low numbers of artefacts of an early date range but unassociated with archaeological stratigraphy or features were retrieved from within alluvial deposit that are considered to derive from disturbance or historical flood events. Aboriginal test pit SA 6 was abandoned prior to reaching anticipated historical levels due to substantial tree roots.

Further up the slope and away from bulk fills and the high energy flood zone, seven further test pits (SA 13, SA 14, SA 15, SA 19, SA 20, SA 21, SA 27) were found to also have inverted assemblages, indicating extensive disturbance, or artefacts deriving from fill deposits over truncated, natural deposits with no historical materials present. Full assemblage details for these non-historical test pits is presented in **Appendices 12.1 and 12.2**, as the material is nonetheless considered to derive from the Windsor region, and contains some early and rare examples of cultural material of the colonial period.

#### 4.4 Project Area North of the Hawkesbury River

Little is known regarding the whereabouts of early Green Hills or Macquarie Era structures within the northern test excavation project area. The five 'NH' historical trenches excavated north of the river were contingency trenches, and their excavation was activated by the discovery of a significant surface scatter of early to mid-19<sup>th</sup> century artefacts surrounding the AAJV site compound. Excavation aimed to determine the potential source of this scatter, which was of a date range consistent with a source related to Robert Smith's 1830s public house, the Squatter's Arms, which was located near the site of today's cottage called 'Bridgeview'. This scatter could also be related to other unmapped early 19<sup>th</sup> century structures within the area of 'Whitton's Farm', established by Edward Whitton in 1794.

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##### 4.4.1 NH 1

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Historical test trench NH 1 was placed within Macquarie Park, west of the bridge on the northern side of the river. NH 1 was excavated from 7.28m AHD to a depth of 5.78m AHD through a poorly developed alluvial silt profile (**Figure 63**), outlined in detail in the AAJV Aboriginal excavation report for this project.<sup>80</sup> A 3m slot trench was then excavated against the north-western section to a total depth of 4.78m AHD at which point excavation was discontinued.

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<sup>80</sup> AAJV Aboriginal Report 2017, Section 6.



**Figure 63: View to the north showing NH 1 post-excavation.**

No historical structural remains, subsurface deposits or historical artefacts were identified during excavation of NH 1. The landform is considered to be the relatively stable inner alluvial terrace that forms the northern riverbank of the Hawkesbury.

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#### 4.4.2 NH 2

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Historical test trench NH 2 was placed on the entrance drive to Macquarie Park, west of the bridge on the northern side of the river. NH 2 measured 6m by 2m, was excavated in two separate sections and commenced at 8.95m AHD. The upper 1.5m of the trench provided evidence of compacted mid brown alluvial loam, characteristic of the northern riverbank as verified by other NH and NA test excavations. NH2 yielded a handful of glass and metal artefacts, and a vertical timber plank embedded in the western section, likely to be a relatively recent and associated with the park (**Figure 65**). A sondage opened along the eastern boundary of the trench was excavated to a total depth of 5.45m AHD, at which point excavation was discontinued.

No historical features or deposits were identified in NH 2. Evidence of activity that could be associated with the surface scatter of early to mid-19<sup>th</sup> century artefacts found within the vicinity of the AAJV site compound was not found. Historical artefacts retrieved from test trench NH 2 were limited to 2 MNI retrieved from context [NH2-001]; a fragment of green bottle glass (1794 – 1910 TAQ) and the base of a machine-made Dewar's whiskey bottle (1885 – 1919 TAQ) identified at a depth of 70cm that could be associated with the nearby Squatters Arms Inn that operated from the late 1840s until 1913.



**Figure 64:** View to the north showing NH 2 during excavation.



**Figure 65:** A vertical piece of timber, most likely a recent post, seen in the west section of the homogenous loam profile of NH 2.



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#### 4.4.3 NH3

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Historical test trench NH 3 was placed within the alluvial flat of President Turf Farm, 20m south-west of the AAJV site compound. NH 3 measured 10m by 2m and was excavated from 9.36m AHD. NH 3 was excavated via stepped sections into a homogenous and deep alluvial profile, the deepest of these sections being excavated to 7.86m AHD (**Figure 66**). A 2m by 50cm slot trench was then excavated against the south-western section to a total depth of 6.36m AHD, at which point excavation was discontinued.

Two historical artefacts dating to between 1820 and 1840 were retrieved during the initial truncation of the surface scatter from the upper 10cm of topsoil [NH3-001]. Evidence of activity that could be associated with this surface scatter of early to mid-19<sup>th</sup> century artefacts was not found. No further archaeological deposits or features were identified during excavation of NH 3 and the profile is considered to reflect the long-term development of the alluvial bank of the Hawkesbury River.



**Figure 66:** View to the south showing the stepped excavation into the deep alluvial profile.

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#### 4.4.4 NH 4

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Historical test trench NH 4 was placed within the alluvial flat of President Turf Farm, 15m south of the AAJV site compound. NH 4 measured 2m by 2m, commencing at 9.94m AHD. NH 4 was excavated through a homogenous and deep alluvial profile to 8.44m AHD at which point excavation was discontinued.

Two fine earthenware artefacts, dating to 1794 – 1830 (TAQ) and 1820 to the present (TAQ), were retrieved from the upper 10cm of topsoil [NH4-001]. These artefacts derived from the surface scatter of unknown origin that is dispersed across the alluvial flat of the turf farm. No further archaeological deposits or features were identified during excavation of NH 4 and the profile is considered to reflect the long-term development of the alluvial bank of the Hawkesbury River.



**Figure 67:** View to the south showing the homogenous alluvial profile of the southern section in NH 4.

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#### 4.4.5 NH 5

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Historical test trench NH 5 was placed within the alluvial flat of President Turf Farm, 50m east of the AAJV site compound. NH 5 measured 6m by 2m and was excavated from 10.07m AHD. NH 5 was excavated through a homogenous and deep alluvial profile to 8.54m AHD at which point excavation was discontinued.

Two historical artefacts with a date range of 1835 – 1929 (TAQ) were retrieved from the upper 10cm of topsoil [NH5-001]. These artefacts derived from the surface scatter of unknown origin that is dispersed across the alluvial flat of the turf farm. A single feature was identified near the south section of the trench at a depth of 9.12m AHD. The feature consisted of softer soil with frequent charcoal and burnt clay inclusions, contained within a rectangular cut with straight sides (**Figure 68**). The feature may possibly be a plant remnant associated with a Chinese market garden or orchard that existed in this area toward the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> century.



**Figure 68:** Excavated feature, a likely plant bowl in NH 5.

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#### 4.4.6 NA TEST PITS CONTAINING HISTORICAL ARTEFACTS

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As with the southern portion of the test excavation project area, low numbers of historical artefacts were retrieved from Aboriginal test pits, specifically from the upper spits of NA 1, NA 2, NA 4, NA 5, NA7 and NA 8; (**Table 5**). As with the NH excavations, these finds are considered derived from surface scatter materials and no indication of subsurface historical archaeology was identified. A notable find within the surface scatter artefacts was a 1799 half penny retrieved from spit 1 of NA 7. This coin, together with the predominantly early ceramic finds indicated that the source of this surface scatter is likely to have formed a significantly early archaeological resource. The results of the testing however, indicated that this resource probably lies elsewhere and the identified scatter represents an event of secondary re-deposition.



**Table 5: Summary of secondary deposition historical artefact finds from Aboriginal test pits in the northern portion of the test excavation project area.**

Test pit	Location	Area (m <sup>2</sup> )	Testing Aims	Historical Archaeology identified	European artefacts retrieved	AHD Elevation (Top of Trench)	AHD Elevation (Base of test pit)	Depth of test pit (m)
NA 1	50m north-west of the northern bridge abutment	2.4	Aboriginal test pit	No	Yes/ MNI=3 from alluvial deposit	8.60	3.70	4.90
NA 2	25m north-west of the northern bridge abutment	2.4	Aboriginal test pit	No	Yes/ MNI=2 from alluvial deposit	9.10	8.70	0.40
NA 3	West of the AAJV site compound	2.4	Aboriginal test pit	No	No	9.25	5.25	4.00
NA 4	South-west of the AAJV site compound	2.4	Aboriginal test pit	No	Yes/ MNI=1 from alluvial deposit	9.99	6.19	3.80
NA 5	Eastern corner of Wilberforce and Freemans Reach Roads	2.4	Aboriginal test pit	No	Yes/ MNI=8 from alluvial deposit	10.55	6.55	4.00
NA 6	East of the AAJV site compound	2.4	Aboriginal test pit	No	No	9.95	5.95	4.00
NA 7	Immediately east of the AAJV site compound	2.4	Aboriginal test pit	No	Yes/ MNI=7 from alluvial deposit	10.25	6.25	4.00
NA 8	Northern side of Wilberforce Road opposite the AAJV site compound	1	Aboriginal test pit	No	Yes/ MNI=1 from alluvial deposit	10.30	6.30	4.00

#### 4.5 Summary of Identified Archaeological Remains

Two historical structures likely to date to the Macquarie era of Windsor were identified within the proposed impact corridor of the WBRP project area during the testing programmes (SA 25, SA 26). Modified historical topsoils and deposits of a comparable date were identified in the adjacent area and across sections of Thompson Square (SA 8, SA 9, SA 10, SA 28, SA 29) and Thompson Square Road. An early 20<sup>th</sup> century sandstone Telford road surface was also identified within the impact corridor on Bridge Street (SA 17), a remnant early 19<sup>th</sup> century ground surface on the eastern margin of Old Bridge Street (SH 6/ T4). Potential late 19<sup>th</sup> century road surfaces were also identified on lower Old Bridge Street and the car park below lower Thompson Square.

Numerous other historical deposits and features were identified outside the proposed impact corridor that inform the history of the broader subject area (SH 2, SH 3 / SA 11, SA 3, SA 24), much of which is contained within the State Heritage Registered Thompson Square Precinct (SHR No.00126).

The 2016 historical test excavation programme resulted in the discovery of a number of key historical archaeological remains that can be placed into the chronological timespan between the end of the 18<sup>th</sup> and end of the 19<sup>th</sup> centuries, as outlined in the following sections.

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#### 4.5.1 PROPOSED CHRONOLOGY OF ARCHAEOLOGICAL REMAINS IN THE SOUTH SIDE OF THE TEST EXCAVATION PROJECT AREA

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- a portion of a wall footing likely to be associated with the entry gate to the Macquarie era Government Domain, or, possibly an unidentified late 18<sup>th</sup> century structure (SA 25);
- a portion of a disturbed brick drain of the Macquarie era or earlier, possibly connecting the former Thompson's Store or Government/Police Stables with the main vaulted drain running through Thompson Square (SA 26);
- the lower extent of an early 19<sup>th</sup> century ground or road surface beneath George Street (SA 24);
- a narrow strip of a brick and stone surface (road or paving) associated with the former Government /Police Stables building (SH 6);
- evidence of early 19<sup>th</sup> century occupation in the vicinity of the former Punt House, likely to be associated with its backyard area (SA 3);
- evidence of early to mid-19<sup>th</sup> century occupation within lower Thompson Square (SA 8, SA 9, SA 10, SA 28 and SA 29);
- sections of Telford road base along the east side of the current road reserve in Windsor Road between George Street and Macquarie Street (SA 17 and SA 18) and in George Street West (SA 16);
- sections of the late 19<sup>th</sup> century road surface in upper Thompson Square (SH 2); lower Old Bridge Street (SA 32) and a car park below lower Thompson Square (SA 30); and
- soil deposits and a feature dated to the late 19<sup>th</sup> and early 20<sup>th</sup> centuries (SH 10A).

In addition to these historical archaeological finds were:

- various artefact bearing fills of the late 19<sup>th</sup> and 20<sup>th</sup> centuries across the test excavation project area (see **Section 4.3.26**) that contribute to the broader archaeological assemblage (SA 1, SA 2, SA 5, SA 7, SA 13, SA 14, SA 15, SA 19, SA 20, SA 21, SA 27, SA 31, SA 34, SA 35, SA 36 and SA 37).

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#### 4.5.2 PROPOSED CHRONOLOGY OF ARCHAEOLOGICAL REMAINS IN THE NORTH SIDE OF THE TEST EXCAVATION PROJECT AREA

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- possible evidence of Chinese market gardening or orcharding during the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> century; and
- evidence of late 19<sup>th</sup> and early 20<sup>th</sup> century occupation likely to be associated with the nearby Squatters Arms Inn that operated from 1830 until 1913.

## 4.6 Synthesis of Results

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### 4.6.1 INTRODUCTION

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This section presents a detailed synthesis of the interpretation of the identified archaeology with input from the background environmental and historical information for the study area. The southern test excavation project area is divided into seven separate areas for ease of orientation.

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#### 4.6.2 BRIDGE AND GEORGE STREETS

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Structural remains dating to the Macquarie era of Windsor were identified on the eastern corner of George and Bridge streets in SA 25. This structure, a section of wall footing built in sandstock brick and shell lime mortar [SA25-004], dates to the first half of the 19<sup>th</sup> century, as indicated by the construction materials used as well as the presence of a small artefact assemblage dating from 1802 – 1859. This assemblage could have been discarded at any time after the early 1800s however, as the later date of 1859 is provided only as an indication of when one of the items, a forged iron nail, generally ceased to be produced.

Wall footing [SA25-004] does not appear to correlate with any known historical buildings mapped on the many government plans from 1812 onwards. This location has, in fact, been within a roadway since Meehan produced his 1812 plan under the direction of Governor Lachlan Macquarie when, fresh into his term as Governor of New South Wales, he set about laying out the new town of Windsor. These events are believed to be directly linked to this structure, as although it matches no known building site, it does match both the position and alignment of the Government Domain wall, a boundary along the eastern side of Bridge Street, partitioning the government and public spaces from its construction between 1812 and 1820.

The location of the boundary believed to be seen in SA 25 is represented in a sketch produced in 1820 (**Figure 69**). This wall is known to have been constructed in both high, durable masonry, as seen at left in the 1820 drawing and in substantial portions still standing on the site of the Military Barracks, as well as with sections of paling fencing.

This sketch (**Figure 69**) shows the position of this entry point to the Domain placed amid buildings relating to key historical figures. The gate is the start of the drive to the Government House, a building that Governor Hunter declared that he had built as ‘...a framed and weatherboard house on the Green Hills at the Hawkesbury for the residence of the commanding officer of that district.’<sup>81</sup> This cottage was Governor Macquarie’s residence when in Windsor and was subsequently the local Magistrate’s. Guests and visitors to the cottage included many prominent figures of early colonial Australia including Judge Advocate David Collins, the Commissary John Palmer, John and Elizabeth Macarthur, the Reverend Samuel Marsden and the Surveyor Charles Grimes.<sup>82</sup> Immediately left in the sketch is the c. 1803 store built by Andrew Thompson, a man celebrated by Macquarie as a model of convict reform who went on to achieve extraordinary wealth and status. To the right of the gate is the 1803 Government Granary, where Phillip Cunningham, the leader of the Vinegar Hill Irish rebels was executed on the stairway in 1804.

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<sup>81</sup> *Historical Records of New South Wales*, vol. 4, p. 152

<sup>82</sup> Thompson Square SCMP, AAJV 2017:61





Figure 69: An 1820 sketch of the Government Domain gate and wall between the 1803 Government Granary (later the Commissariat Store) at right, and Thompson's 1803 Store at left. (Source: State Library of NSW, Mitchell Library, Bonwick Transcripts, box 10 p.4259).



Figure 70: A georeferenced overlay of the location of SA 25 on a map of 1841 showing the Government Domain wall and gateway (red arrow). The wall is very likely to have been rebuilt in brick by this time. (Source: AAJV overlay on 1841 Plan of Windsor, personal reference library of Ian Jack).

The 1820 image shows the wall as a timber paling or palisade fence, with a recessed gate flanked by timber or masonry posts with ball finials. It appears from the archaeology that this fence was replaced after this date with brick, a move in keeping with the importance of this entry point to the Government Cottage. It is also possible, though less likely, that this footing formed part of one of the many very early government cottages, constructed and demolished prior to any known images of the site. This boundary and gateway appears on historical plans from 1827 onwards (e.g. **Figure 10** and **Figure 70**) and was probably rebuilt in masonry in conjunction with the construction of the Government/Police Stables, at around that time.

Associated occupation surfaces such as earlier tracks, yard surfaces and historical topsoils have been stripped away in the area of SA 25, to a level below the former ground surface. However, a hard-packed historical deposit [SA24-003], likely part of the road or yard surface within the Domain, was identified in SA 24 a few metres to the east of SA 25 on the opposite side of George Street. This deposit appears to be contiguous with deposits excavated from within root channels [SA24-004] extending across the sandy subsoil below [SA24-003], suggesting the possible road surface was formed from an even earlier ground surface punctuated by trees. No trees were present within this area after 1807 (probably even after the late 1790s).

The identification of such early archaeological features within these limited excavations suggests further archaeology is likely to be preserved elsewhere across the ridgeline, including further early occupation deposits, as a degree of undulation of the underlying clay landform is evident from SA 24, where a deep pocket of the sandy soil profile is preserved. Further structural relics and features of unmapped Green Hills era buildings may be present.

To the west of the roundabout and south onto Bridge Street, the sandstone base courses of one or more Telford type road surfaces was identified ([SA16-003], [SA17-003] and [SA18-003]). This construction type, though very similar to Macadam, differs by the more labour intensive close-packing of roughly cut stone blocks in stretcher fashion; a practice designed to create a durable foundation of interlocked stone. Large kerb stones are laid in the same fashion along the edges to hold this base layer firm and this appears to have been identified in SA 17. Given that no datable artefacts were found associated with these road surfaces, we must rely on the historical record for a likely date of construction. Accounts of road construction in the vicinity appear to commence relatively late. One account of 1855 describes £35 being allocated for ‘...*cutting, carting and macadamizing*...’ a section of the approach road to the wharf.<sup>83</sup> In 1883, tar paving was the preferred construction material, being laid in George Street over a ten month period.<sup>84</sup> This surface would appear to be further to the west, or to have been stripped completely from the area of SA 16 during construction of later surfaces (**Figure 71**).

The nature of the exposed sandstone blocks in SA 17 and SA18 corresponds to those shown in Figures 72 and 73 taken in 1926 during the upgrade of the main road in Windsor, which is doubtless Windsor Road itself and its extension to Bridge Street.

Within the southbound lane of Bridge Street opposite SA 16, no trace of the Commissariat Store, suggested by historic plan overlays to lie partly within the road, were identified (SA 23). This appears to be the result of grading to a greater depth on this side of the road, as natural clay lay directly below the modern road bedding. Further south on Bridge Street this was also the case for SA 22 and SA19, however the Domain boundary wall probably lies just to the east of the south-bound lane, as indicated by the remains of the Military Barracks Guardhouse within the footpath which was positioned just inside the boundary wall. Further down the road, at the corner of Macquarie Street, SA 10A was also devoid of archaeology; impacted to considerable depth perhaps, by the installation of services at

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<sup>83</sup> *Sydney Morning Herald* 29 December 1855; 3

<sup>84</sup> *Hawkesbury Chronicle*, 4 August 1883: 2

depth. Historical photographs of this area<sup>85</sup> suggest that the level of the street has not changed to any great degree and it is likely that any archaeology that may have existed here has been removed.



**Figure 71:** George Street, south of Thompson Square during the 1870s (Source: Hawkesbury City Council Library).

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<sup>85</sup> AAJV SCMP 2017:137





**Figure 72 Reconstruction of main road in Windsor, 1 January 1926 (Source: State Library NSW, image no: 2024-a038-001670)**



**Figure 73 Reconstruction of main road in Windsor, 1 January 1926 (Source: State Library NSW, image no: 2024-a038-001671)**

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#### 4.6.3 UPPER THOMPSON SQUARE

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The absence of structural features from the test excavations in the upper square is not surprising as the Evans images show that few dwellings occupied this area during the Green Hills period, extending instead from the western edge of the upper square across to the Military Barracks near today's Baker Street.

Excavation of historical test trench SH 2 in the north-western wedge of upper Thompson Square exposed a thin bitumen road surface [SH2-003] that once formed the turn onto the winding road to the wharf and bridge. This road was realigned to this position from slightly higher in the square. Historical photographs and plans indicate that this change took place between the mid-1870s and 1890 and it may have been completed as part of road works undertaken on Thompson Square Road during 1885, when sections of Thompson Square Road were cut down by over 3 feet (0.9m) to reduce the steepness of the adjusted grade.<sup>86</sup> As discussed above, bituminous tar was already in use by this time, and [SH2-003] probably dates to the initial cutting of the new alignment. It is not surprising that this road was only surfaced once, as new, less arduous routes were soon cut; directly down the slope along Old Bridge Street by 1888 and westward from the bridge along The Terrace by c. 1904.

The [SH2-003] road cutting would have stripped the surface materials to a shallow depth (<50cm in the location of SH 2) and accordingly, no historical topsoil was identified above the modified archaeological subsoil of unit 2. A residual early to mid-19<sup>th</sup> century topsoil was, however, identified within SH 3 [SH3-004] to the south, directly under fill deposits and overlying further historical material scattered through the sand body subsoil [SH3-004]. This may be an indication that the majority of the upper square was little used throughout most of the 19<sup>th</sup> century, functioning as a public gathering place and, as suggested by the artefacts that post-date the Macquarie period, a repository for the occasional dumping of domestic refuse.

Views of the square during the 1870s (**Figure 74** and **Figure 13**) suggest that the depth and slope of the remnant topsoil and sandy subsoil profile identified during testing [SH3-003/004] is generally consistent with the ground shown at that time. These views show that the historical profile could be expected to slope away more markedly along the Bridge Street cutting, particularly toward the narrow northern point of upper Thompson Square. Subsequent photographs from later in the 19<sup>th</sup> century and into the early 1900s show that the terrain underwent little change. It is likely this was generally the case, excepting road cuttings, from the time of Evans' paintings, which show much the same degrees and orientations of slope in the area of upper Thompson Square. The few extreme floods that inundated this higher terrain would probably have lacked sufficient energy at this elevation to strip significant amounts of deposit from the grassed space seen in **Figure 74** and the terrain is considered likely to have remained well stabilised throughout the history of the site.

The first of the fill deposits that sealed the historical sand body were introduced to upper Thompson Square during the Bridge Street road works of 1934 that created the present deep road cutting as well as the shape of the two reserves. The [SH2-003] roadway was probably buried at this time as part of works to convert the north-sloping park to a more level one that would not drain into the new road cutting. It is highly likely that the fill for these changes was sourced from within the cutting itself, as indicated by a photograph of the works at the time (**Figure 75**). Upper fill layers [SH2-001/002], [SH3-001/002] and [SH4-001/007] denote later landscaping and levelling additions after this date, although some of the lower fills in SH 4 may be related to levelling for a, somewhat unpopular c. 1890 timber pavilion that was installed near here.

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<sup>86</sup> *Hawkesbury Chronicle and Farmers Advocate*, 6 Jun 1885:2.



**Figure 74:** Upper Thompson Square as it was prior to 1894.



**Figure 75:** The current Bridge Street road cutting during works in 1934. Changes to the level and slope of the upper reserve have commenced, with new fencing added over newly-levelled ground. The former slope is indicated by the level of tree bases left in place (indicated by the red line). The deepest fill has been added at the end of the line where the slope had previously increased. Piled earth is seen in the lower reserve to the right where road and levelling works continue. (Source: Windsor Bridge approach looking west, May 1934, (Source: Government Printing Office, Digital Order No. d1\_01879).



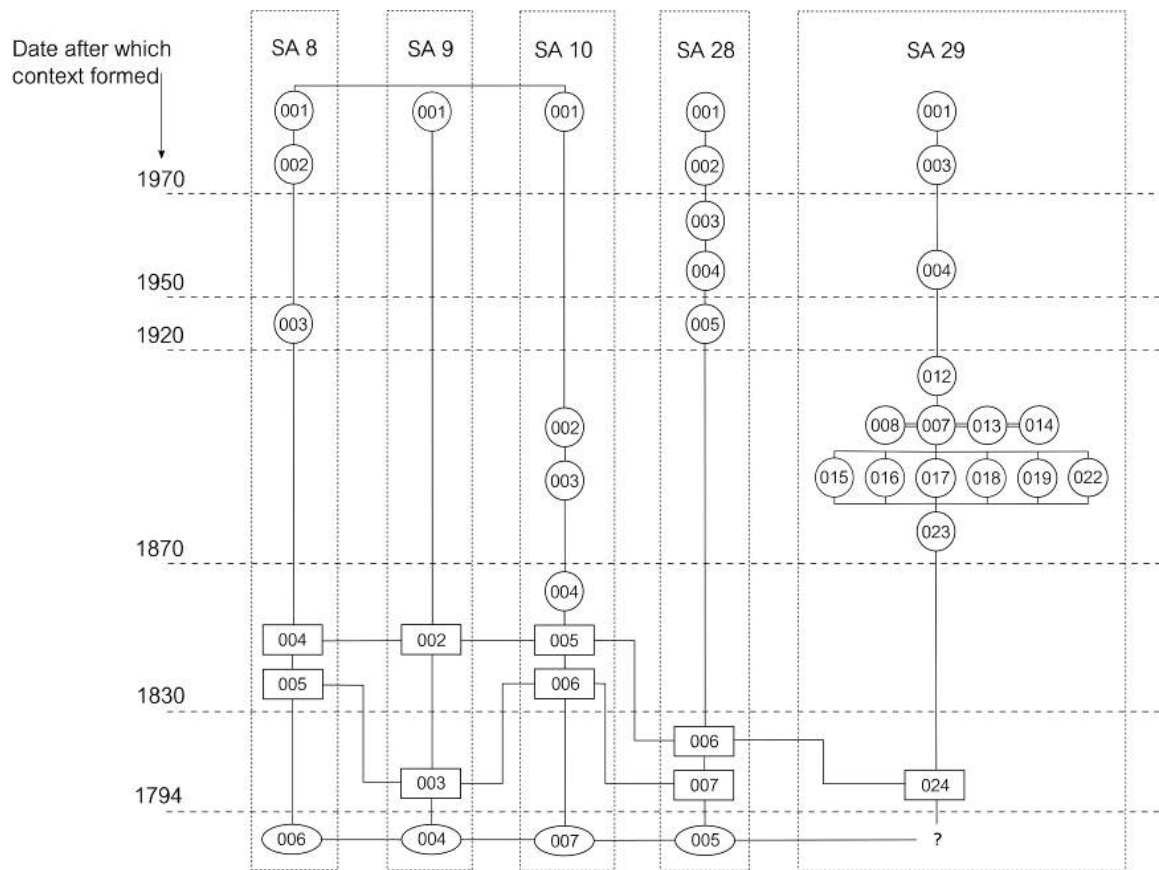
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#### 4.6.4 LOWER THOMPSON SQUARE

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The testing has resulted in substantial evidence that a disturbed, though partially *in situ* buried historical soil profile exists at the upper limit of the natural sand body in lower Thompson Square, preserved beneath later fill deposits. Despite the history of flooding, it is apparent that the 19<sup>th</sup> century ground surface remained relatively stable from at least c. 1835, as indicated by the closely associated stratigraphic relationships and temporal ranges of the artefact accumulations of [SA8-004/005], [SA9-002] and [SA10-005/006] that all have comparable adjusted date ranges bracketed between the 1830s and 1880s.

However, the c. 1830s adjusted TPQs of these modified soil contexts are not considered sufficient evidence for the date of deposition of the archaeological resource. Surface refuse assemblages do not conform readily to dating, as these contexts would have built up within the ground surface over time, causing later artefacts in the sequence to obscure the actual advent of historical activity. A significant proportion of the combined assemblages of contexts [SA8-004/005], [SA9-002] and [SA10-005/006] date from earlier periods of manufacture, and 52% of the ceramic artefacts from these contexts fell out of production by the 1830s. Many of these items are likely to have been in use from an earlier date and may have been discarded during the Macquarie era or even the Green Hills period, when activity in this area was greatest. This suggestion is supported by the progressively earlier TPQ's of the remaining lower Thompson Square historical soil contexts [SA28-006/007] (1820/1794), [SA9-003] (from 1810) and [SA29-024] (from 1800); dates that suggest these contexts, which are extensions of those discussed in the above paragraph, formed during earlier occupation periods. The stratigraphic and chronological relationships of all the archaeological deposits across test pits SA 8, SA 9, SA 10, SA 28 and SA 29 are presented Harris matrix in **Figure 76**.



**Figure 76:** Harris matrix of the various archaeological deposits of lower Thompson Square, showing physical stratigraphic relationships and a simplified chronology of the artefact assemblages.

Flooding has further obscured stratigraphic boundaries, as washing would have eroded and deposited topsoil, moving artefacts over the surface and down into the profile. The impact of flooding would have been proportionately greater with decrease in elevation, from the stabilised Pleistocene sand body, into alluvial silt that represents the higher energy alluvial zone (discussed further in **Section 4.6.10**). Historical accounts show that flood damage was a constant problem along the riverbank below Thompson Square in the first decades of settlement, washing away wharves and early structures. However, small, vernacular dwellings above the alluvial zone remained in place across the elevations of lower Thompson Square throughout the Green Hills period, as indicated by Evans' successive views of the settlement.

Alluvium as a clear sedimentary unit is restricted to SA 8 along the lower margin of the reserve. From here, the edge of the square originally fell sharply to the lower riverbank (**Figure 77**), forming a continuation of the relict or secondary scour bank that is The Terrace to the west (**Figure 14**). The absence of alluvium across the majority of lower Thompson Square indicates the area probably sat above the high energy scour and replacement zone during most floods, but it would still have been subject to inundation, surface erosion and edge slumping – a form of erosion seen in 20<sup>th</sup> century photographs of collapsed sections of road along The Terrace to the west. Proximity to the heavily rilled and slumped margin of the scour bank (seen in **Figure 13**) probably accounts for the progressively greater depths of artefacts within the subsoil toward this point (SA 28 – 40cm, SA 10 – 50cm, SA 9 – 80cm and SA 8 – 1.2m). The development of the organic topsoil unit that contains the deflated assemblage identified during testing probably post-dates the 1820s, when a respite in the severity of floods was experienced for several decades.<sup>87</sup>

The absence of structural features within the limited test excavations in lower Thompson Square is not surprising, as few dwellings occupied this area during the Green Hills period and none followed until the late 1940s. As with upper Thompson Square, Evans' paintings are the only visual reference point for structures erected within lower Thompson Square between 1796 and 1811 (**Figure 77**). The historical accounts of the poor construction of these buildings, together with Macquarie's rearrangement of the square, ensured they were all short-lived, being removed entirely by 1813.



**Figure 77:** Detail of 'The Settlement on the Green Hills, Hawksburgh [sic] River' 1809 by George William Evans, encompassing the area of Upper Thompson Square (Source: SLNSW-Image No. a1313052h).

<sup>87</sup> Hawkesbury City Council, *Hawkesbury Flood Levels*, Windsor, 2012.



Of particular note within the artefact assemblages from lower Thompson Square were five Aboriginal artefacts crafted from glass, one from SA 6 (spit 2), one from [SA8-005] and three from [SA10-004/006]. These are discussed in detail in the AAJV WBRP Aboriginal test excavation report. SA 6 was abandoned due to tree roots and an adequate chronology could not be developed. Based on other historical material found in association with these objects from other test pits, it can be determined that the glass artefact in SA 8 dates between 1794 and 1880. Since documented Aboriginal occupation and activity largely ceased in the area by c. 1837,<sup>88</sup> this suggests that most of these artefacts date to the earliest settlement and formation of Windsor, between 1794 and 1836. It is also highlighted that there are references to a number of corroborees being held in Thompson Square in the 1830s,<sup>89</sup> during which these artefacts may have been deposited.

By 1897, the archaeological deposits across the square were already sealed below the first remedial fill layers, as indicated by the documentary and archaeological evidence. As indicated by **Figure 76** and the profile photographs in **Section 4.3**, these fill events were piecemeal in nature, with few, if any, fill deposits extending across multiple test pits.

In SA 8, the first fill deposit [SA8-003] was introduced after 1921. This fill layer is composed of natural coarse fluvial sand, a deposit identified in SA 28 and in SA 33 below Old Bridge Street and fill [SA8-003] was very likely sourced from road works during the formation of the present Bridge Street approach to the bridge during the 1930s. The filling of the area of SA 9 commenced at the same time, if not later, as the fill profile itself is heavily disturbed and may represent a single event that formed the modern surface. SA 28 was also filled after 1920, with the bulk of the upper profile formed after the 1940s to create an access road to the Hawkesbury Boat Club.

The earliest filling appears to have taken place at the location of SA 29, where a timber post-hole [SA29-012], the only structural element identified in the lower square, was seen to cut a deposit post-dating 1870 [SA29-007]. A photograph, taken in 1897 (**Figure 79**), shows that this post-hole is almost certainly a post of the substantial white fence that crossed the position of SA 29, and if not, a post of the 1881 stock fence that it replaced (discussed in **Section 2.3.5**). These structures are evident from comparison of **Figure 13**, **Figure 14** and **Figure 16**.

In SA 10, a half penny minted in 1867 was retrieved from context [SA10-004], indicating this initial fill deposit is also likely to represent remedial filling dating from the time of the first bridge construction.

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<sup>88</sup> Walker, W. (1890) *Reminiscences (Personal, Social and Political) of a Fifty Year Residence at Windsor on the Hawkesbury River*. Turner and Henderson, Sydney.

<sup>89</sup> Ibid.



**Figure 78:** Lower Thompson Square in 1879, showing the slumped and rilled edge of the square above the road cutting at this time. Erosion across the flat of the square is less evident and the surface is covered in grass that protects the modified historical topsoils identified during testing. Shortly after this time the first fills were added, particularly during the bridge works of 1896 – 1897 when both the road and lower square levels were raised. (Source: State Library of NSW, GPO 1-06263).



**Figure 79:** View to north-west from Lower Old Bridge Street in 1897. The former winding road is seen at left. The fence line across the north-eastern corner of lower Thompson Square is likely to account for post-hole [SA29-012]. The lower square was subsequently filled and levelled for aesthetic appeal.

These remedial changes were documented in the *Windsor and Richmond Gazette* in February 1897 amid the excitement over the new higher level bridge, when the ‘*small reserve below Thompson Square*’ was said to be being ‘*levelled*’ and re-landscaped.<sup>90</sup> This must refer to lower Thompson Square, as the ground below comprised the roads to the wharf and bridge and the 1820 wharf.

The theme of levelling the square to form a useable space is a recurring one, commencing in 1814 – 1815 when government works were carried out involving the piling and ‘*filling up Thompson’s Square*’, for which John Howe and James McGrath were paid the sum of £350 and ‘*350 gallons of Bengal rum or other spirits of the best kind*’.<sup>91</sup> The 1814 contract also commissioned the construction of a vaulted brick sewer ‘*...with Channels leading thereto...*’ running the length of the square to the river ‘*as laid down in the Plan in the possession of His Excellency Governor Macquarie*’.<sup>92</sup> Unfortunately, the whereabouts of the plan mentioned, and also the drain, are not known. Anecdotal accounts of the drain suggest that it exists along an alignment within lower Thompson Square, or within the Bridge Street cutting, but no actual evidence of its location exists other than the contract outlining its construction.

These works were substantial, taking 18 months to complete. The contracts also allowed for ‘*the use of the Bullocks Timber Carriages Carts etc. that are now allowed to and for the Turnpike road*’. Howe and McGrath had just fulfilled contracted works on this road and it is likely that individuals among their foremen and convict labourers continued to work on their subsequent five government projects within the study area (the South Creek Bridge, Bridge Street, land forming and drainage in Thompson Square and the wharf) between the years 1812 and 1820. No indications of these early works within Thompson Square were found during testing and the precise locations of what may be substantial archaeological features are not known.

Despite early disturbance, it is evident from the archaeological evidence that the natural sand body formed a relatively stable ground surface within this area from at least the 1830s until the time of the bridge construction, during which time the identified A-Horizon topsoil formed across lower Thompson Square (**Figure 78**). The presence of this buried historical soil profile and attendant artefact assemblage of the first half of the 19<sup>th</sup> century indicates that structural elements are likely to remain *in situ* where buildings were present within Lower Thompson Square.

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#### 4.6.5 OLD BRIDGE STREET

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The brick box drain [SA26-005] identified within the natural clay directly beneath the Old Bridge Street road surface comprises one of two structural elements identified during testing that are highly likely to date to the Macquarie era or earlier, confirming that structural relics of the early phases of settlement remain *in situ* within the proposed impact corridor for the new Windsor Bridge. No datable artefacts were found within SA 26, however as with wall footing [SA25-004], the use of sandstock brick and sandy shell mortar is consistent with construction in the first half of the 19<sup>th</sup> century.

This drain is believed to have formed one of at least two tributary drains leading toward a central vaulted brick sewer that flowed into the river through the vicinity of Thompson Square, a set of works commissioned by Macquarie in 1814 as part of his improvements to the town. The orientation of the structure indicates that it would have led from the Government/Police Stables, or possibly from Andrew Thompson’s 1803 Store (**Figure 80**), that was converted to government purposes around the time of the construction of the vaulted sewer. These buildings occupied the same position, just east of the location of SH 6. The position of SA 26 in relation to the stables is shown in **Figure 70**.

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<sup>90</sup> *Windsor and Richmond Gazette* 27 February 1897:3.

<sup>91</sup> ML. MSS. 106, article 37.

<sup>92</sup> *Ibid.*



It is also possible that [SA26-005] drained surface runoff away from the government buildings and the cart track that passed through this area to the waterfront, channelling it to the main drain.

[SA26-005] was left *in situ* and unexcavated in accordance with its significance and the methodology outlined in the ARD. As discussed in the previous Section, no evidence of the vaulted sewer was located within lower Thompson Square, however, given the position and orientation of [SA26-005], the main sewer is likely to have been immediately to the west in the vicinity of Bridge Street, following that approximate alignment or passing beneath lower Thompson Square.



**Figure 80:** A detail of G.W. Evans' 1809 view of the settlement, showing Thompson's Store at left. Brick drain [SA26-005] was identified in the approximate area of ground between the two sets of figures at lower right. The bell-post and single stocks are seen at the top of the ridge, together with early dwellings; the one at right appears to be in the approximate position of today's George and Bridge street intersection (Source: G.W. Evans, 'The Settlement on the Green Hills', watercolour, 1809, State Library of NSW, Mitchell Library, PXD 388, vol.3 fo.7).

The heavily disturbed historical features within SH6 (trench 4) in the footpath east of Old Bridge Street could not be sufficiently characterised due to the numerous services. Nonetheless, early date ranges in association with surface [SH6-015] and other deposits in trench 4 suggest that significant archaeology remains in places within this road verge that may relate to activity within Andrew Thompson's lease or the subsequent Government Domain.

Further down Old Bridge Street the historical profile has apparently been truncated by road works, stripping historical occupation layers from the sandy subsoil. However, deep structural elements such as the substantial timber posts of the Green Hills granaries may still be found within this truncated deposit.

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#### 4.6.6 THE TERRACE (EAST)

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Historical test trench SH 9 was placed over an area of ground that was contained within Andrew Thompson's extensive garden from at least 1807, later the Government Garden from 1811. This orchard and garden formed a prominent feature of the settlement as viewed from the river (**Figure 81**) and had a formal layout of paths and borders. Further to the east the flood scoured and modified ground which rose up a steep road to a rise on which the 1798 Government House stood.

By the 1840s the Government Garden was abandoned and became a reserve for traffic and wharfage that has undergone gradual re-terracing, widening and other modifications into the 20<sup>th</sup> century.

The 1879 panorama of the southern study area shows that these changes were yet to take place at that time and the area of SH 9 remained much as it appears in the Evans paintings, with perhaps a greater degree of slope erosion evident beneath thick vegetation (**Figure 82**). By 1915, a cadastral plan of the privatised allotments on the former garden area to the south shows that the original property boundary extended several metres further to the north than it does today. The fence line that formed this boundary was identified in SH 9, as indicated by a georeferenced overlay of SH 9 on the 1915 cadastral plan (AAJV ARD, Appendix A), as well as an associated artefact assemblage dating from 1885 – 1920. The interval then, between 1879 and 1915, is the period in which the original slope of Thompson's garden was probably truncated to form the flat terrace seen in this location today, grading away any associated archaeological deposits.



**Figure 81:** The eastern section of the southern test excavation project area along the area known as The Terrace. The Government House is seen at far left and the approximate position of SH 9 on the slope is indicated by the red arrow. (Source: G.W. Evans, 'The Settlement on the Green Hills', watercolour, 1809, State Library of NSW, Mitchell Library, PXD 388, vol.3 fo.7).



**Figure 82:** View of the eastern 'Terrace' in 1879. The ground to the east (left) of the roads can be seen to still form the steep slope seen in the early views of the settlement. The approximate position of SH 9 on the slope is indicated by the red arrow. (Source: State Library of NSW, GPO 1-06263).

Further alterations during the 20<sup>th</sup> century that are shown by successive aerial photographs of the 20<sup>th</sup> century demonstrate the changes that lead to the burial of this fence line and realignment of the property boundaries further south.<sup>93</sup>

Aboriginal test pits SA 35, SA 36 and SA 37 to the east revealed only historical fill over the scoured alluvial landscape below.

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#### 4.6.7 THE TERRACE (WEST)

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One of the many changes that took place during the initial bridge construction was the installation of timber pile and plank retaining against the steep embankment below the Doctor's House, a precaution probably undertaken following the deep cutting made into the riverbank alluvium for the bridge abutment, although it should be noted that a right-angled feature is indicated at this location on plans from as early as 1835 (**Figure 11**).

A likely additional part of the work around this time would have been the grading of a formal extension of Thompson Square Road over the retained section around to The Terrace, passing between the Doctor's House and the Punt House. These works are seen in the stratigraphy of a road layer composed of aggregate [SA4-002] over the retaining fill [SA4-003/004] in test pit SA 4 and also the crushed sandstone [SA3-008] in SA 3. As with the road to the wharf and bridge, these works may also have taken place later, possibly in 1885 when the steep sections of upper Thompson Square Road were cut down by over 3 feet to even the grade.

In any event, all these elements were in place by 1890, as still was the Punt House, although it is not depicted in a survey plan of that year (**Figure 83**). As in upper Thompson Square during the road works of 1934, these works during the bridge construction phase sealed earlier archaeological deposits in both SA 3 and SA 4, contributing to their preservation.

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<sup>93</sup> AAJV, SCMP, 2017.





**Figure 83:** Detail of a 'Plan of Part of the Hawkesbury River at Windsor – Surveyed in October 1890', showing, below the Doctor's House, the contour of the prominent ground that was occupied by the Punt House. (Source: State Archives of NSW X1080- 74/12).

The Punt House cottage was constructed between James Doyle's Lord Nelson Inn and the river, in place by at least the time of Thompson's 1827 map (**Figure 10**) on the high bank known as 'The Terrace' by 1835. It appears to have been in use by the families of the successive Punt Masters from the time of construction until well into the bridge building era, when photographs show the small, well-built, brick cottage with a hipped roof was still occupied (**Figure 84**). An outhouse, paling fencing and another timber structure are also seen. The Punt House continued to survive until c. 1904, when it appears to have been purchased and demolished as part of the intended construction of the new approach to the bridge along The Terrace.

No archaeological deposits deriving from occupation from the latter half of the 19<sup>th</sup> century were identified. Any cultural material from this time is considered to have been stripped from the surface during the construction of road surface [SA3-008], though some of it is likely seen redeposited along with earlier cultural material in the overlying smear deposits formed during the demolition of the Punt House c. 1904 [SA3-005/006].

Little is known about the identities of the successive Punt Masters, who would have initially been in the employ of John Howe and the private operators that followed him. After 1835, the ferry was run by the government and the southern landing from the wharf was relocated to a point further upstream to the west, as depicted in the 1835 plan of Windsor (**Figure 11**). This is thought to have been done to facilitate the installation of a cable ferry system, as seen in photographs of the late 19<sup>th</sup> century. Piles that may be associated with this system are seen at the lower left in **Figure 84**.

One of the Punt Masters is named in 1859, a Mr. Davis, who became the new lessee and operator of the service, who:

*'...according to the terms of his contract, placed a new punt on the river... fifty-five feet in length by fourteen wide, capable of carrying two vehicles abreast.'*<sup>94</sup>

<sup>94</sup> *Freeman's Journal* 19 Nov 1859:2

The c. 1904 works that created the present retained cutting of The Terrace are likely to have removed a prominent section of higher ground (**Figure 83**), taking the Punt House with it and exposing the lower root zone of the burnt tree base. This feature may denote a burning event that took place prior to European settlement or, as was frequently the case, the use of fire during land clearance; a process initiated from the late 18<sup>th</sup> century during the Green Hills era that exacerbated the alluvial erosion that was such a defining feature of the site history. It is also possible that a large tree, seen in the 1879 and 1888 images of the Punt House, was burnt out by the same method as that used by the early settlers, the simplest means of removal at the time of the 1904 road works. If this is the case, then the distance between the tree and the house in **Figure 84** suggest that the southern half of the Punt House may in fact lie beneath Thompson Square Road, associated with the yard deposit identified in SA 3.



**Figure 84:** The Punt House and surrounding terrain c. 1879. Washing is clearly shown hung in front of the cottage's open door (and possibly a blurred female figure hanging it at right). All the sloping ground in the foreground has since been filled to about the level of the timber structure at lower right. Timber piles, likely associated with the punt cable, are seen at lower left. (Source: State Library of NSW, digital order number d1\_06274).

Aboriginal test pit SA 3 was placed on the edge of this road, approximately 5m west of where the Punt House would have been. This test pit contained an undisturbed stratigraphic profile of late 19<sup>th</sup> century road surfaces inter-bedded with refuse deposits that are almost certainly associated with the adjacent Punt House. As discussed in relation to SH 1, the Punt House was most likely demolished during the construction of the road cutting for The Terrace below Thompson Square Road c. 1904. The uppermost of the refuse deposits overlies the lowest road surface, suggesting that it is a deposit derived from the demolition of the Punt House that was then spread over this late 19<sup>th</sup> century road. All lower deposits are therefore likely to derive from the occupation phase of the Punt House stretching back to the 1820s. This is supported by the artefact assemblage, the most significant of the testing programme for its type, early date range and clear association with a known building. Further discussion relating to this assemblage is presented in **Section 5** of this report. It is highly likely that further evidence of the Punt House, if not other, earlier buildings that may have also been constructed here, remains beneath the early road layers of Lower Thompson Square Road.

SA 1, located 15m to the west demonstrated the filling of a natural drainage line represented in this location on plans of the 19<sup>th</sup> century. These fills contained low quantities of early historical artefacts, however the source and date of deposition for these finds cannot be ascertained. Further west, SA 2 revealed a return to fill deposits over the natural sandy profile.

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#### 4.6.8 THE WHARF AREA

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The natural profile of the lower elevations of ground along the southern riverbank is composed of alluvium and sited within the high energy flood zone. Prior to the development of the current landform, the ground would have periodically been subject to flood scouring, as evident from the early historical record, and replacement of alluvial deposit. This area is known to preserve elements of the c. 1820 wharf (**Figure 85**), the subject of the maritime archaeological investigation.<sup>95</sup>

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<sup>95</sup> Cosmos Archaeology, Windsor Bridge Replacement Project. Strategic Conservation Management Plan. Underwater Test excavation and Survey August/September 2016, April 2017.





**Figure 85:** Remains of a deck beam and two walers of the 1820 wharf. (Source: Cosmos Archaeology).

Testing was conducted within areas peripheral to the site of the wharf, to the east of the bridge abutment (SH 7) and west of the modern jetty (SH 8). No artefacts were retrieved from SH 7 and, like nearby Aboriginal test pits SA 5 and SA 30, the deep fill deposits in this location were almost devoid of historical artefacts.

A small refuse or fill deposit containing late 19<sup>th</sup> century artefacts was identified during excavation of SH 8, lensed within a profile of inter-bedded fill, colluvial material and alluvium. However, this deposit is not considered likely to be associated with further archaeological features or historical surfaces.

Similarly, a small surface of river stone and two sandstock bricks was identified at the interface of fill and alluvium in SA 32. Associated artefacts were found to post-date 1880 and this, together with the elevation of the feature in relation to known filling that took place during the 1890s, suggests this is a relatively late feature of the archaeological record. It may represent a remnant section of later 19<sup>th</sup> century surfacing of the road to the wharf, which curved through this area (**Figure 82**). This feature was underlain by relatively sterile alluvium, suggesting earlier surfaces of this road that lay at greater depths have been removed or obscured by flood scouring.

A possible lense of road surfacing was also identified in SA 30, placed within the car park directly north of lower Thompson Square. This lense of aggregate and river stone occurred at the approximate depth (1.8m below the surface) of the approach road to the bridge prior to this road being raised along its length toward the new 1897 abutment. This lense appears to have been underlain by alluvium and no lower road surfacing was evident. James Steele informs us that the fills above were formed from *'hundreds of loads of soil carted from the lowland near Mileham and Brabyn Streets to fill the river bank to the higher level'*.<sup>96</sup>

An aim of the testing was to investigate the potential for the in-filled timber piling sunk along the northern margin of Thompson Square in 1814 to remain *in situ*. No timbers, deposits or surfaces

<sup>96</sup> J. Steele, *Early Days of Windsor*, Tyrrells, Sydney, 1916, reprinted Library of Australian History, North Sydney, 1977:184.

associated with these works were identified during testing. Any potential relics associated with these works that may have survived the high energy flood scouring of the lower riverbank would lie at considerable depth below the current surface, near the level of the 1820 wharf.

Further works at this time involved the cutting away of ground in the vicinity of the southern bridge abutment ‘...to admit of Carts turning at the Landing Place’.<sup>97</sup> A road was cut to the punt landing, sweeping through the same position as the later approach to the bridge. No view of Thompson Square comparable to the four detailed art-works of 1807 to 1813 is known for the period between Howe and McGrath’s contracted works of 1814 and the bridge construction era of the 1870s. The closest comparison is afforded by an 1863 view of the lower ground of Thompson Square, the wharf and punt road, drawn by H. G. Lloyd from the then abandoned Government Garden (**Figure 86**). This image shows that the area sat at a low elevation, approximately level with the wharf, with the punt road curving steeply down from the steep upper road that wound through Thompson Square – discussed in **Section 4.6.3**.



**Figure 86:** View across lower Thompson Square from the east showing people and livestock, with the road to the punt at centre, and the level ground of the wharf at lower right. (Source: ‘On the Hawkesbury, Windsor’, 1863, Henry Grant Lloyd, ML SPF, Windsor).

The 1874 construction of the lower level bridge abutment below Thompson Square required a large area of the riverbank to be cut away between the wharf and the steep bank below the Punt House, as illustrated in Scrivener’s plan of 1894 (**Figure 15**). This removed the terminal section of the earlier road to the punt landing and the remaining section of this road was then altered to form the approach to the bridge. This would have involved considerable filling of the abutment area and the former punt road and the resulting terrain is seen in the plan view of the new approach road and sloping topography in Scrivener’s plan (**Figure 15**). The obvious potential source of material for these works is the cutting made for the bridge abutment, which could have involved the redeposition of a large quantity of alluvium onto the margin of the wharf area.

The filling of the lower wharf area followed in the 20<sup>th</sup> century, burying the wharf under steel and concrete retaining and more recently, rock gabion retaining and further fills (**Figure 87**).

<sup>97</sup> Howe Papers, State Library of NSW, Mitchell Library, ML MSS 106, no.38.





**Figure 87:** Remains of a retaining wall to the east of the above-water wharf remains. Recent gabion retaining extends across the waterfront, seen here in the background. (Source: Cosmos Archaeology).

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#### 4.6.9 NORTH OF THE HAWKESBURY RIVER

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Little is known regarding the whereabouts of early Green Hills or Macquarie era structures within the northern test excavation project area. From the earliest years of settlement, buildings would have been widely interspersed, containing dwellings and agricultural buildings like those seen in the few historical views of the landscape of the Hawkesbury (**Figure 88**). The c. 1846 Squatter's Arms Inn lay just outside of the northern test excavation project area, on the site of 'Riverview' House.





**Figure 88:** A View of the Hawkesbury in the Mulgrave Place district, possibly at Green Hills, c. 1813 showing the dispersed farm buildings and dwellings at that time. (Source: View of the Banks of the Hawkesbury in New South Wales by H. Preston from a Painting by J. Lewin in the Possession of His Excellency Governor Macquarie, engraving by Absolom West c.1813. SLNSW, Digital Order Number: a1474026)

Evidence of activity that could be associated with the surface scatter of early to mid-19<sup>th</sup> century artefacts found within the northern test excavation area was not found and the five 'NH' historical trenches excavated on the northern side of the test excavation project area provided correspondingly scarce evidence of occupation. Historical artefacts retrieved from the NH and NA test excavations were almost entirely derived from the initial truncation of this surface scatter. The presence of this scatter, which contained predominantly early historical material including a half penny dated to 1799 retrieved from NA 7, on an alluvial terrace subject to repeated inundation and alluvial deposition remains inexplicable. This coin, together with the predominantly early ceramic finds, indicates that the source of this surface scatter is likely to have formed a significantly early archaeological resource. The results of the testing, however, indicate that this resource probably lies elsewhere and the identified scatter represents an event of secondary re-deposition. The source of this scatter may be accounted for by filling that would have taken place following a major embankment scour or collapse that took place during the most recent severe flooding in 1991 (**Figure 18**). The present owner of the turf farm acquired the land in the same year and material from the remediation works may have found its way onto the site at this time.

Archaeological evidence beyond this scatter was limited to undated evidence of cropping identified at depth within the alluvial profile of NH 5, probably associated with market gardening practised on the site for a century prior to 1990, and late 19<sup>th</sup> century whiskey bottle glass within NH 2, the closest test trench to the former location of The Squatter's Arms Inn. This find suggests that archaeological evidence of 19<sup>th</sup> century occupation, including of this hotel that stood near the site of today's 'Riverview' House and had a close connection to the operation of the river ferry, is likely to remain within the broader alluvial profile north of the river.

Within the project area, no early structures or archaeological features were identified however, the northern test excavation project area is sited on land that was among the earliest allotments granted in 1794. Although their locations are not known, these farms included dwellings and agricultural buildings dating from this formative time.

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#### 4.6.10 THE ARCHAEOLOGICAL LANDSCAPE OF THE PROJECT AREA

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The study area encompasses an area of regular high levels of flooding and the Hawkesbury River has been the primary determinant of landform development, directly through geomorphological processes and indirectly through human responses to the alluvial environment since European settlement. The southern test excavation project area extends across a landform made up of three primary natural deposits, or stratigraphic units (**Figure 90**). The natural stratigraphy has been identified in detail in the WBRP Aboriginal test excavation report<sup>98</sup> and can be broadly summarised as:

1. Londonderry Tertiary clay deposit, which pre-dates the colonisation of Australia. This reddish brown deposit was found in most parts of the southern test excavation project area, identified immediately beneath road surfaces on the ridgeline and at increasing depths below younger units downslope towards the river. North of the river, Londonderry Clay was not reached, and is likely >4m in depth if present.
2. A wind-blown yellowish brown sand, part of a source-bordering dune that formed over the top of units 1 and 3 in the southern portion of the test excavation project area. This unit is generally found more than 70cm below the current land surface. The sand body was situated across the upper and lower reserves of Thompson Square and periphery and is known from the adjacent Hawkesbury Museum site.<sup>99</sup> A thin isolated patch was also found on the ridgeline within SA 24 and SA 25. This deposit was generally between 50cm and 1m thick and formed between 126,000 until at least 23,000 years ago. It also contained abundant Aboriginal objects.
3. A dark brown silty loam alluvium formed less than 23,000 years ago, and likely restricted to the Holocene (10,000ka to the present), that reflects the active floodplain extending out from the river. This deposit was prevalent across the lower elevations south of the river (between 5 and 8m AHD) and overlies units 2 and 3 along its southern margin.

These units formed the ground encountered and impacted during the historical period and, where these deposits have remained stable, they form the archaeological landscape of the test excavation project area. Historical archaeology was identified across each of these three natural units beneath later fill deposits. Preservation was greatest in association with unit 1, where the tertiary clay under the shallow soils of the ridgeline formed a resistant matrix (SA 24, SA 25, SA 26, SA 16, SA 17 and SA 18), and unit 2, where historical archaeology was identified in the upper level of the sand body (SH 2, SH 3/SA 11, SA 9, SA 10, SA 11 and SA 28). This is an indication of the surface, or near surface, exposure of these units during the 19<sup>th</sup> century (Figure 89).

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<sup>98</sup> AAJV Aboriginal Report 2017, Section 5.3.

<sup>99</sup> Windsor Museum, Austral Archaeology 2011

Unit 3, which occupies the higher energy flood zone near the river, has retained little long-term stability and undergone the greatest degree of disturbance, both human and natural. Where this has not occurred, archaeological deposits may still be preserved, as indicated by historical archaeology at the higher topographic end of the distribution of unit 3, in seen in SA 3 and SA 8.



**Figure 89:** Indicative overlay of the test excavation project area on G. W. Evans' painting of the Green Hills settlement in 1807. Stratigraphic units 1 and 2 are likely to have formed, or lain close below, the ground surfaces of the cleared landscape, with unit 1 extending through the wider strip of the test excavation project area along the ridgeline, 2 the mid-slope and 3 the eastern and western extensions along the terraces and the northern and southern riverbanks. (Source. G.W. Evans, watercolour, image courtesy of Hordern House Rare Books, Sydney. Overlay by Tom Sapienza, 2016).

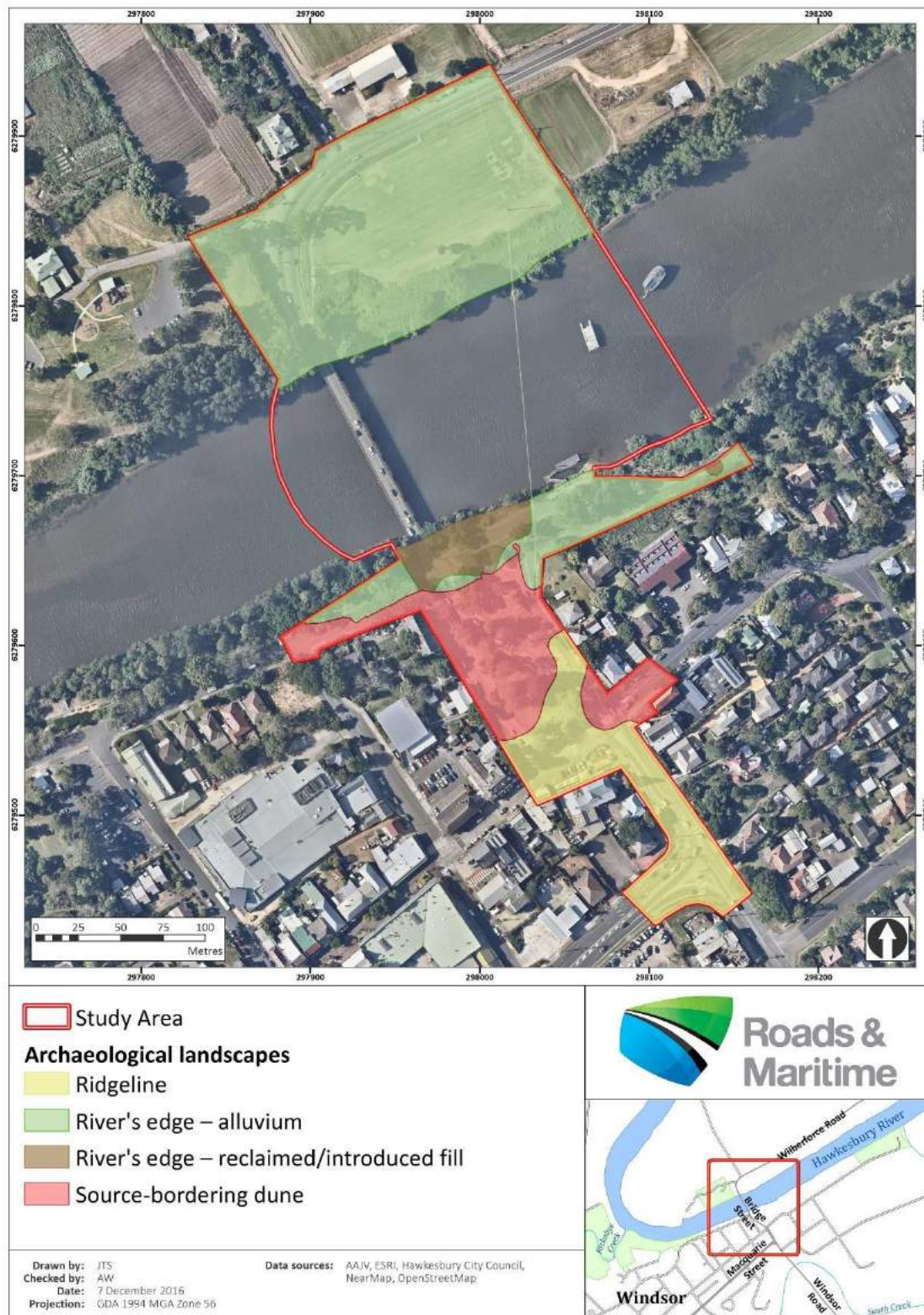
Little use has been made of Thompson Square since the Macquarie era, other than as a space for public gatherings and a repository for domestic refuse, a common practice in public spaces of the 19<sup>th</sup> century. However, it was important that the influence of flooding on the archaeological resource be ascertained during the testing programme, as the study area has been subject to repeated and often extreme floods.<sup>100</sup> Comparison of the AHD levels of the unit 2 archaeological landscape (below today's surface) with the historical photographs of Thompson Square used in this report suggests that, following the surface erosion brought on by land clearance during initial settlement, the unit 2 sand body underwent minimal impacts from flooding and this is supported by the archaeological evidence.

The landform was of course subject to flooding for millennia prior to European settlement and areas of the Pleistocene sand body that remain are testament to the long term stability of this unit. The elevation at which it was subject to significant impact is clearly demonstrated where it is overlain or replaced by unit 3 alluvium, notably along the northern margin of lower Thompson Square (**Figure 90**). This probably restricts the area of significant historical disturbance to the scour zone of the riverbank below the 12m contour. This extends from SA 3 through the northern margin of lower Thompson Square and across the slope above the eastern terrace. Changes to the terrain of Thompson Square through time are therefore largely the result of increases to the topography by the

<sup>100</sup> Thompson Square SCMP, AAJV 2017:31-36



addition of fills, initially from as early as 1814 (location uncertain) and extensively during major works from the 1870s. These fills have sealed the Thompson Square sand body, preserving the 19<sup>th</sup> century archaeological landscape (as well as the Aboriginal archaeological resource).



**Figure 90:** Map summarising the primary natural units underlying the modern landscape of the test excavation project area; the ridgeline (unit 1 Tertiary clay), the source-bordering dune sands (unit 2) and alluvium (unit 3). The area of deep historical fill associated with the bridge abutment is also shown. (Source:

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#### 4.6.11 CONCLUSIONS

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The results of the historical and archaeological synthesis have informed the understanding that the southern portion of the proposed Windsor Bridge replacement would impact the historical core of Mulgrave Place (Green Hills) and, later Windsor.

In the southern test excavation project area the archaeology can be summarised as follows:

Early 19<sup>th</sup> century archaeological structures and deposits were discovered beneath the George and Bridge Street road surfaces, including wall footing [SA25-004] and packed surface [SA24-003], both likely to date to the administration of Governor Macquarie from 1810 – 1821, if not earlier. The identification of these archaeological features within these limited test excavations suggests that the 19<sup>th</sup> century ground surface lay very close to that of today across the ridgeline and further archaeology is likely to be preserved elsewhere across the ridgeline. These would include a greater extent of those already identified deposits. Further occupation deposits, surfaces and structural remains are likely to be present that derive from the early Macquarie era, here defined as the period that spanned the convict and military presence in the town of Windsor as developed by Macquarie (1810 – c. 1850). A degree of undulation of the underlying clay landform is evident from SA 24 and SA 25, where a deep pocket of the unit 2 sand body was recorded. Occupation deposits may therefore be preserved to some depth above the natural clay.

In addition to this, sandstone road base layers of the Telford type road were identified beneath the modern road bitumen along the western lanes of Bridge Street to the south of the roundabout [SA16-003] and [SA18-005], and within George Street, west of the roundabout [SA16-003]. No associated, datable artefacts were retrieved during the limited testing, preventing the age of these road bases from being determined. Historical evidence suggests these surfaces are most likely to date from the mid-19<sup>th</sup> century.

Earlier archaeology of the Mulgrave Place/Green Hills settlement phase from 1794 – 1810 may also be present within the intersection of George and Bridge Streets, as dwellings are depicted in this general area during early views (**Figure 80**). No mapping of the settlement was undertaken during this early period prior to 1810 and structural remains from this time, yet to be identified in Windsor, may remain at the same level as the identified relics of the following decades.

An early brick box drain [SA26-005] was identified within the natural clay directly beneath the Old Bridge Street road surface. In addition to wall footing [SA25-004], this comprises a structural element identified during testing that is highly likely to date to the Macquarie era if not earlier, confirming that structural relics of the early phases of settlement remain *in situ* within the proposed impact corridor for the new Windsor Bridge. This drain is believed to have formed one of at least two tributary drains leading toward a central vaulted brick sewer that flowed into the river through the vicinity of Thompson Square, a set of works commissioned by Macquarie in 1814 as part of improvements to the new town. The orientation of the structure indicates that it would have lead from the Government/Police Stables, or possibly from Andrew Thompson's 1803 Store, converted to government purposes around the time of the construction of the vaulted sewer.

The heavily disturbed historical features within SH 6 (trench 4) in the footpath east of Old Bridge Street could not be sufficiently characterised due to the presence of numerous services. Nonetheless, early date ranges in association with surface [SH6-015] and other deposits in trench 4 suggest that isolated areas of significant archaeology remain in places within this road verge that may relate to activity within Andrew Thompson's lease or the subsequent Government Domain. Further down Old Bridge Street, the historical profile has apparently been truncated by road works, stripping historical occupation layers from the sandy subsoil. However, deep structural elements such as the substantial timber posts of the Green Hills granaries may still be found within this truncated natural deposit.

Modified historical topsoil and subsoil deposits were identified in both upper and lower Thompson Square that are indicative of early activity in the form of refuse discard, possibly associated with direct occupation. This is particularly evident throughout lower Thompson Square, where a widespread, though deflated, assemblage of early to mid-19<sup>th</sup> century historical ceramics, glass and other artefacts was recorded. This is believed, based on the date ranges of artefacts, to have begun accumulating within the profile from the Green Hills period of settlement, when the lower square was most actively occupied. Deep truncation of the natural profile was not seen and it is evident that any deep structural features of buildings that may have existed within this area, such as post-holes, and associated features, such as cess pits and refuse pits, are likely to remain *in situ*. Evidence of major works from this early period in the form of the brick sewer or early modifications to the slope were not identified during the limited testing but may exist within the proposed impact corridor of the bridge replacement.

The lower slopes toward the river have been shown to comprise of deep alluvial deposits subject to periodic removal and replacement during flooding. In addition, extensive modification and filling of the area took place during the construction and later raising of Windsor Bridge, burying the former road level. A section of the c. 1873 road may have been identified in SA 30 at 1.8m below the current car park level.

Flooding and land forming have removed or buried the archaeological record below the level of the lower square, as well as along the eastern and western sections known as The Terrace, to considerable depth. However substantial structural remains of the 1820 wharf, and possibly earlier wharf timbers, have been identified at the waterline and are likely to remain buried at depth below the retained and filled riverbank. Timber piling associated with land forming in 1814 is also likely to remain at depth in an unknown location.

No historical archaeology pre-dating the late 19<sup>th</sup> century was identified along the eastern terrace, however the higher, western alluvial terrace of Lower Thompson Square Road was found to preserve yard deposits associated with the c. 1820 Punt House. The artefact assemblage recorded from the limited excavation of these deposits is substantial and of a notably early date range. This assemblage includes imported European and Chinese tableware typical of archaeological sites of early colonial New South Wales as well as rarer 'locally-produced' colonial ware and forms a significant contribution to the material culture of early Windsor.

Numerous other historical artefact assemblages were retrieved from fills and alluvium outside the proposed impact corridor and which inform the history of the broader subject area, much of which is contained within the State Heritage Registered Thompson Square Precinct (SHR No.00126).

The northern side of the test excavation project area provided scarce evidence of occupation during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries at depth within the alluvial profile. Evidence of activity that could be associated with the surface scatter of early to mid-19<sup>th</sup> century artefacts found within the northern test excavation area was not found. The presence of this scatter on an alluvial Terrace subject to repeated inundation and alluvial deposition can be explained by the continuous ground disturbance for the cultivation of former market gardens followed by the turf production. The AAJV test excavations identified the primary natural landform units that underlie the present surface of the study area, defining their spatial extent and levels of disturbance at the historical interface. Where these natural units are found to remain relatively undisturbed, they form the archaeological landscape, the former ground surfaces of historical Windsor, which hold the potential to preserve archaeological relics.



## 5 ARTEFACT ANALYSIS

### 5.1 Introduction

This section of the report contains an analysis of the historical artefacts and faunal material recovered during the historical and Aboriginal test excavations. A total of 3,147 artefacts were recovered during the testing programme. All of these artefacts have been catalogued in detail, as per the EAMC guidelines.<sup>101</sup> These 3,147 artefacts represent a minimum number of 1,702 individual items and are divided amongst 147 individual contexts and spits. Historical artefacts were recovered from both historical test trenches and Aboriginal test pits, with ten historical test trenches and 30 Aboriginal test pits yielding dateable historical artefacts. The results show that the majority of the deposits present in the project area are heavily disturbed, with *in situ* historic topsoils scarce and with deep deposits of introduced late 19<sup>th</sup> and 20<sup>th</sup> century fill predominating.

During this project, the temporal data provided by the artefacts was used in order to provide information on when certain *in situ* historical deposits were formed, to identify deposits potentially associated with early European habitation, and to help provide an understanding of the sequence of fill deposits which form an important aspect of the site's history, particularly in Thompson Square. The presence of historical artefacts in Aboriginal test pits was also useful for determining the integrity of Aboriginal artefact-bearing deposits. Tables providing date ranges for all 147 datable contexts and spits are provided in **Appendix 12.2**.

Of note in the ceramic artefact assemblage were the remains of at least 15 Chinese import porcelain vessels. Chinese porcelain such as this was one of New South Wales' earliest international trade goods. The remains of at least 22 coarse earthenware vessels of probable local (i.e. N.S.W.) manufacture were also recovered. These are significant in that they represent the earliest attempts to produce commercial pottery in Australia. Several other examples of rare ceramic ware types were also found. One other find of note within the glass assemblage was the remains of an aerated water bottle made in Richmond, N.S.W. and bearing a late 19<sup>th</sup> century Windsor retailer's name.

The scarcity of personal, sewing and clothing-related items within the assemblage is an indication that no primary domestic occupation deposits, such as underfloor accumulations, were encountered during the excavations. However, relatively high numbers of early nails and domestic artefacts from *in situ* contexts identified in Aboriginal test pit SA 3 indicate that a structure was demolished in the immediate vicinity of that test pit. It is likely that parts of the assemblage recovered from test pit SA 3 are related to the yard deposit of the Punt Master's House, which stood nearby.

Several contexts were identified in the area of lower Thompson Square that appear to be disturbed early topsoils. Part of the artefact assemblage recovered from these contexts may be related to the earliest European occupation of this area during the Mulgrave Place/Green Hills period from 1794 to 1810. *In situ* deposits were also identified in historical test trench SH 6, north of the intersection of George and Bridge streets. The artefacts recovered from these deposits may be related to the use and or demolition of buildings of the Government Domain, established during the administration of Governor Lachlan Macquarie that existed immediately east of the square.

In addition to artefacts, faunal material in the form of 253 bones and bone fragments and 233 shells and shell fragments were recovered from both the historical test pits and the historical deposits of the Aboriginal test pits. This material was catalogued in detail using a similar methodology to that used for

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<sup>101</sup> Crook, P. & T. Murray 2006 Guide to the EAMC Archaeology Database. *Archaeology of the Modern City Series, Vol. 10*. NSW: Historic Houses Trust of New South Wales.

the historical artefacts. This material provides information on the dietary pattern and shell fish market of 19<sup>th</sup> century Windsor.

## 5.2 Cataloguing Methodology

The artefacts and faunal material were catalogued by inputting a range of attributes, including date ranges where possible, into an Excel spreadsheet. The attributes recorded correspond to those set out in the EAMC Archaeology Database and are described in detail in **Appendix 12.1**. Artefacts and faunal material were catalogued either individually or in groups, with each catalogue entry having its own unique catalogue number. The reasons for grouping multiple artefacts or faunal material together as one catalogue entry were that if they represented parts of the same item (such as a ceramic vessel), or if they shared the same diagnostic attributes, cataloguing each artefact individually would not contribute more to the data and would be inefficient (e.g. 10 forged nails from a single context would be catalogued under one entry). The minimum number of individual vessels or other items within a catalogue entry was additionally expressed as 'MNI'.

## 5.3 Results

A total of 3,147 historical artefacts were recovered during the excavations. These 3,147 artefacts represent a minimum number of 1,702 individual items. Unless otherwise stated, artefacts numbers here refer to the minimum number of individual vessels or other items with a context or spit. **Table 6** shows the number of artefacts of each of the six general material classes recovered, as well as the corresponding MNI.

**Table 6: Breakdown of Artefact Classes (as per EAMC) Showing Artefacts and MNI.**

	Ceramic	Glass	Clay Pipes	Metal Fasteners & Pins	Plastic	Miscellaneous or Composite	Total
Quantity	1331	1248	114	165	4	285	3147
MNI	895	386	60	161	4	196	1702

### 5.3.1 DATED CONTEXTS

The historical testing programme included the monitoring and recording of historical archaeology in Aboriginal test pits, which were excavated either in units of equal measurement ('spits', predominantly 10cm in depth) or in accordance with stratigraphic contexts. Where useful in informing the depth of features or artefacts, these spits are presented alongside the historical archaeological context numbers that form the basis of post-European archaeological inquiry and discussion. Where no archaeological stratigraphy or features were identified but historical cultural material was present within fill or alluvial deposits, these artefacts were retrieved for comparative analysis and recorded by their respective spit numbers.

Temporal data was obtained for 147 excavated contexts or spits from across 10 historical test trenches and 30 Aboriginal test pits. The dates assigned to each of these 147 datable contexts or spits are presented in **Appendix 12.2**.

These tables provide a TPQ and TAQ as well as an MTAQ for each context and spit. The TPQ dates can be considered firm and represent the date after which that particular context or spit could have been deposited based upon the invention or introduction of particular artefact types. Where the invention or introduction of a particular artefact type pre-dates the known European settlement of Windsor (1794), a default TPQ of 1794 has been given, as although the artefact may have been made earlier than 1794, that is the absolute earliest date that an artefact can have been deposited in that locality. For example, whereas European porcelain was first produced in Germany in 1709,<sup>102</sup> it would be misleading to date a porcelain artefact found in Windsor to 1709 as it is impossible that it could have been deposited there that early. The TAQ dates, however, only represent when particular artefacts ceased being produced or fell out of fashion, they do not necessarily reflect when an artefact ceased being used. The MTAQ dates are provided to mitigate this to an extent, by rounding off the extreme TAQ dates which sometimes occur. In general, the greater the number of dateable artefacts within a context/spit, the more reliable the date range given can be considered. For this reason, the MNI of datable artefacts for each context and spit is provided in the tables. Adjusted date ranges in this report use MTAQ (where multiple MNI occur) as the latest date that particular context/spit is considered likely to have been deposited. Where only one TAQ was available no MTAQ is given.

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### 5.3.2 CERAMICS

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Ceramic artefacts formed the majority of the assemblage. There were 1,331 ceramic artefacts recovered, representing 895 individual items (i.e. MNI). The ceramic artefacts recovered from this site were generally moderately to highly fragmented. This had the effect of making some diagnostic attributes such as pattern, sub-function and makers marks impossible to determine in most cases. Therefore, the majority of ceramic artefacts were dated on the basis of ware type and decoration.

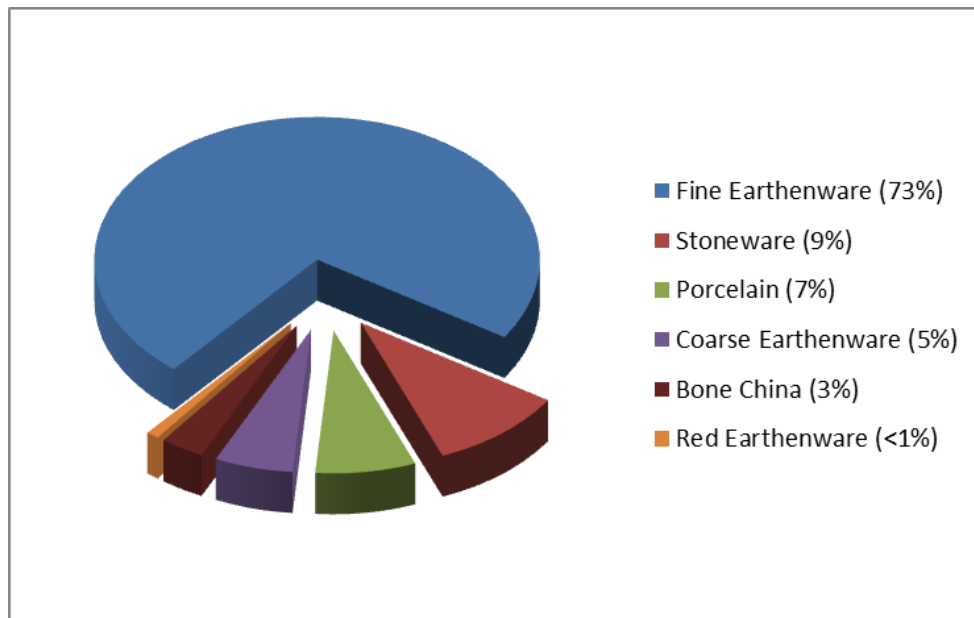
Eight ceramic artefacts with partial maker's marks were present. Of these, however, only one example was complete enough to identify the maker. This was a fragment of a yellowware mixing bowl made by Thomas Sharpe, retrieved from [SA 8-002] and providing a date of manufacture between 1821 and 1838.

As can be seen in **Figure 91**, based on the MNI, the great majority (73%) of all the ceramic items recovered were made of fine earthenware. Nine percent of the ceramic items were made of stoneware, mainly representing utilitarian storage and beverage bottles, followed by porcelain (7%), coarse earthenware (5%), bone china (3%), and red earthenware (<1%).

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<sup>102</sup> Miller, G.L 1991b A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880, *Historical Archaeology*, 25(1): 9.



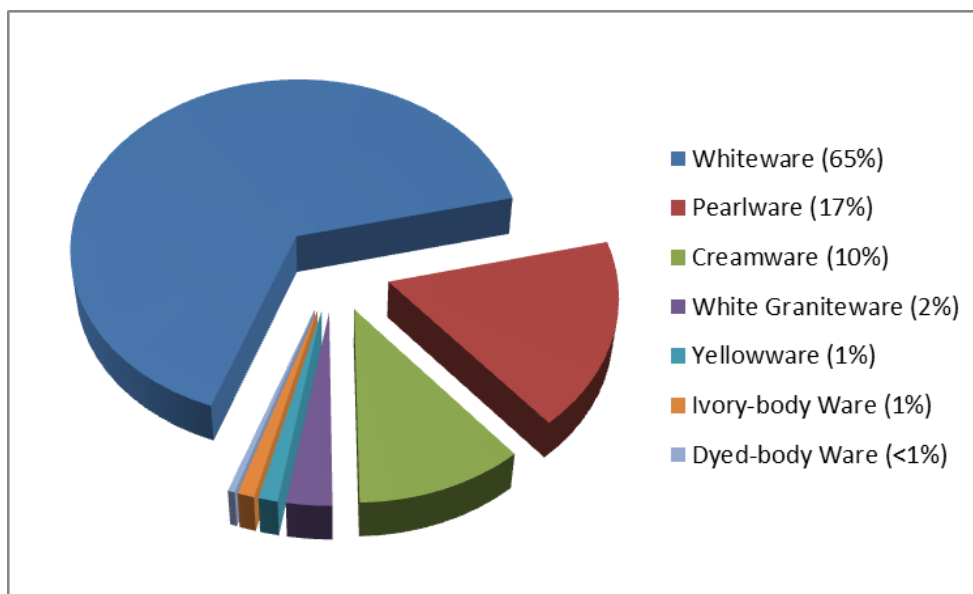


**Figure 91: Proportions of ceramic wares across entire site based on MNI.**

A closer analysis of the breakdown of ware types (by MNI) within the broader category of fine earthenware reveals that while vessels made of whiteware form the greatest proportion (65%), the technologically earlier materials of pearlware and creamware are also well-represented (17% and 10% respectively) (**Figure 92**). Whiteware was the dominant ware type from c. 1820 until the 20<sup>th</sup> century, whereas creamware and pearlware was largely obsolete by c. 1830.<sup>103</sup> The notable proportion of these earlier ware types in the assemblage is however to be expected, given that settlement of Windsor commenced in the mid-1790s.

Fragments of three vessels made of blue dyed-body ware were found. As Brooks points out, this ware is widespread but rare, with many assemblages in Australia only featuring one or two vessels (**Figure 93**). In this respect, the assemblage under analysis here is consistent with the above observation.

<sup>103</sup> Brooks, A. 2005 *An Archaeological Guide to British Ceramics in Australia 1788-1901*. Melbourne: The Australasian Society for Historical Archaeology and the La Trobe University Archaeology Program: 21, 29.



**Figure 92:** Proportions of ware types represented within the broader category of 'fine earthenware', based on MNI.

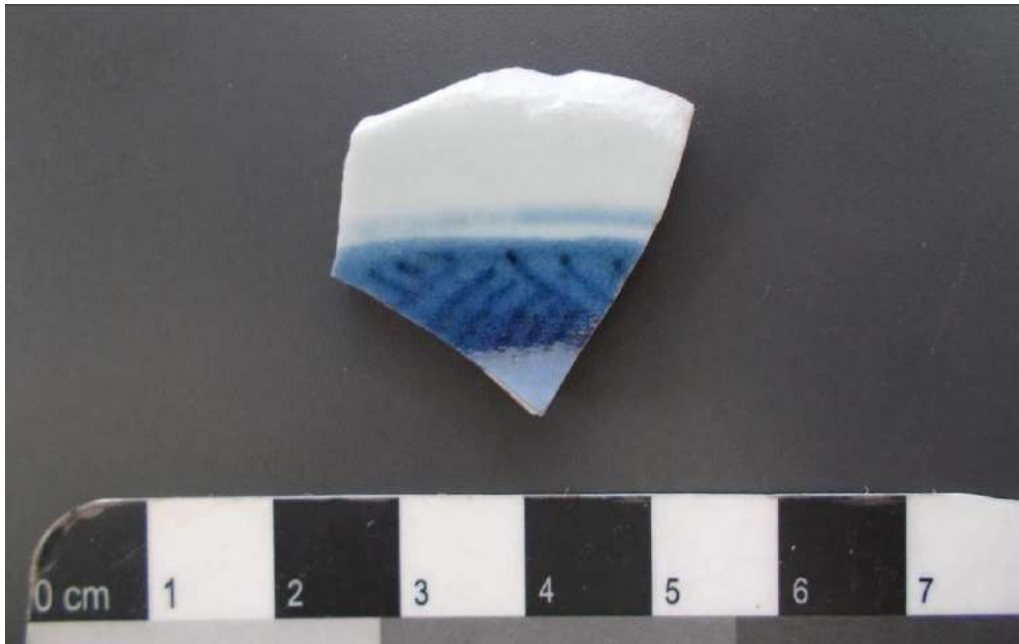


**Figure 93:** Light blue dyed-body ware shard from SA 6, spit 6, catalogue number WBRPH260.

Evidence of the use of Chinese porcelain in early Windsor is present within this assemblage in the form of at least 15 individual items of this material, which were recovered from six of the Aboriginal test pits and one historical test trench (**Figure 94**). The Chinese export porcelain trade to Australia commenced with the arrival of the first shipment in 1792 and is considered to have petered out during the 1820s.<sup>104</sup> Chinese export porcelain such as this is considered to be a key temporal indicator of early colonial deposits in New South Wales. This utility is confirmed by the findings here. As **Table 7** shows, Chinese export porcelain occurred in deposits with relatively early TPQ's of 1794 – 1840 and

<sup>104</sup> Staniforth, M. 1996 Tracing artefact trajectories: following Chinese export porcelain. *Bulletin of the Australian Institute for Maritime Archaeology* 20.1: 13-18; Corcoran, A.M. 1993 Chinese Export Porcelain in Australia. Unpublished long essay submitted for Masters Degree in Historical Archaeology, Department of Prehistory and Historical Archaeology, University of Sydney.

MTAQ's of 1840 – 1876, and moderate to high stratigraphic integrity. There are three exceptions where this material was present in 20<sup>th</sup> century contexts, however these three contexts are known to be composed of disturbed fill deposits and as such lack stratigraphic integrity and can therefore be disregarded for the purposes of this discussion. The findings of Chinese export porcelain at Windsor contributes to the known distribution of this material, as it was hitherto believed that this material is rarely found outside of the initial settlements of Sydney and Parramatta.<sup>105</sup>



**Figure 94:** Fragment of Chinese import porcelain vessel from test trench SH 6 TP4, context 012, catalogue number WBRPH966.

<sup>105</sup> Higginbotham, E. 2016 Chinese Porcelain. [www.higginbotham.com.au/chinese porcelain.html](http://www.higginbotham.com.au/chinese porcelain.html)



**Table 7: Summary details of distribution of Chinese export porcelain (20<sup>th</sup> century fill deposits shaded).**

Test Pit/Trench	Spit/Context	Spit/Context Integrity	MNI Chinese Porcelain	TPQ	MTAQ
SA 3	[C: 007]	Moderate	2	1840	1876
	[C: 010]	High	2	1825	1851
	[C: 011]	High	1	1800	1849
	[C: 012]	High	1	1818	1848
SA 4	[C: 005]	Moderate	1	1820	1863
SA 8	[C: 002]	Low	1	1970	Present
	[C: 004]	Moderate	1	1835	1840
SA 9	[C: 001]	Low	2	1953	Present
	[C: 002]	Moderate	1	1835	1850
SA 29	[C: 004]	Low	1	1953	Present
SA 36	S19	Low	1	1794	1846
SH 6	[C: 012] TP4	High	1	1820	1853

Within the coarse earthenware category were a number of vessels which appear to be of colonial (i.e. local) manufacture. In particular, test pit SA 3 contained the remains of approximately 22 ceramic vessels (MNI) which are characteristic of early colonial-made pottery, being stylistically very similar to those identified at the DMR site in the Brickfields, Sydney<sup>106</sup> (**Figure 116**). All of the locally made ceramics in test pit SA 3 came from early deposits of moderate to high stratigraphic integrity, and generally dating from the early to mid-19<sup>th</sup> century. Identifiable forms present amongst these vessels include milk pans for dairying, bowls, and cups. Remains of a further 12 likely colonial-made coarse earthenware vessels (MNI) were found in several other test pits and one test trench throughout the site (**Table 8**). These artefacts represent the earliest attempts to produce commercial utilitarian pottery in Australia (c. 1800 – c. 1830).

**Table 8: Summary details of the distribution of locally-made ceramic vessels.**

Test Pit	Spit/Context	Integrity of Spit/Context	MNI Colonial Ceramic Vessels	TPQ	MTAQ
SA 3	[C: 007]	Moderate	2	1840	1876
	[C: 009/010]	High	2	1825	1850
	[C: 010]	High	1	1825	1851
	[C: 011]	High	11	1800	1849
	[C: 012/014]	High	5	1818	1848
	[C: 014]	High	1	1800	1849
SA 4	[C: 004]	Low	1	1835	1865
SA 6	S3	Low	1	1885	1905
SA 9	[C: 003]	Moderate	1	1810	Present
SA 10	[C: 005]	Moderate	1	1835	1879
SA 29	[C: 014]	Low	1	1794	1851
	[C: 24]	Moderate	1	1794	1830
SA 34	S5	Low	1	1910	Present
SA 35	S18	Low	1	1905	Present
	S20	Low	1	1910	Present
SA 38	[C: 006]	Low	2	1873	1879
SH 6	[C: 003] TP2	Low	1	1830	1852

<sup>106</sup> Casey, M. 1999 Local Pottery and Dairying at the DMR Site, Brickfields, Sydney, New South Wales. *Australasian Historical Archaeology* 17, 1999: 3-37.

A wide variety of decoration methods were present with 27 different methods represented across an MNI of 650 vessels. **Table 9** presents the proportions of ceramic decoration methods present within this assemblage. As can be seen, based on MNI, transfer printed vessels formed approximately 50% of the ceramic assemblage. This is typical of 19<sup>th</sup> century Australian domestic assemblages as it was an extremely common decorative technique.<sup>107</sup> Flown wares were also enormously popular in the 19<sup>th</sup> century,<sup>108</sup> however vessels decorated with this technique only comprised approximately 4% of the assemblage (**Figure 96**). There was a notable proportion of vessels with hand-painted decoration present, comprising approximately 8% of all decoration methods (**Figure 97**).

**Table 9: Proportions of decoration methods represented in the assemblage.**

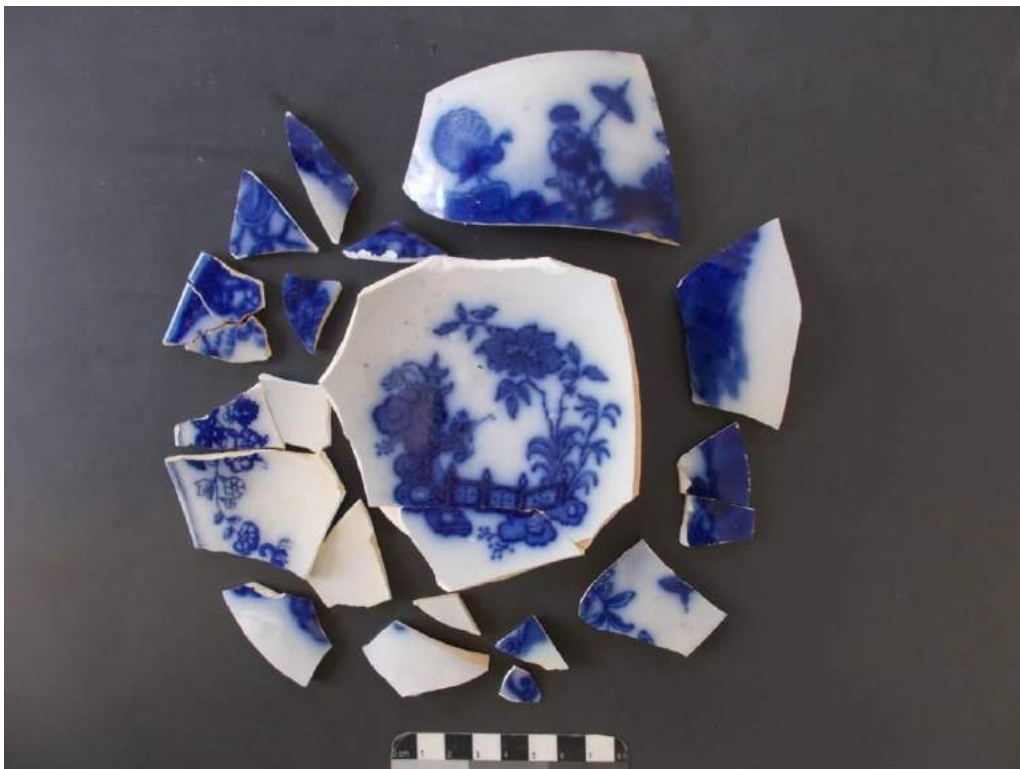
Decoration Method	MNI	Percentage
Transfer -Printed	324	49
Salt Glazed	67	10
Hand-Painted	53	8
Coloured Glaze	32	4
Moulded	32	4
Flow Transfer	28	4
Blue Shell-Edging	19	2
Bristol Glazed	15	2
Banded	13	2
Rockingham	9	1
Slipped	9	1
Enamelled	8	1
Hand-Printed	8	1
Sprigged	7	1
Annular	6	<1
Gilded	6	<1
Engraved	2	<1
Transfer-Printed, Clobbered	1	<1
Unadorned	1	<1
Clobbered	1	<1
Decal	1	<1
Dimpled	1	<1
Flow-Transfer, Clobbered	1	<1
Majolica	1	<1
Mixed Decoration	1	<1
Mocha	1	<1
Rouletted	1	<1

<sup>107</sup> Brooks, A. 2005 *An Archaeological Guide to British Ceramics in Australia 1788-1901*. Melbourne: The Australasian Society for Historical Archaeology and the La Trobe University Archaeology Program.

<sup>108</sup> Samford, P. M. 1997 *Response to Market: Dating English Underglaze Transfer-Printed Wares*. *Historical Archaeology* 31(2) Society for Historical Archaeology: 24.



**Figure 95:** Overglaze transfer-printed bone china saucer from test pit SH 9, context 004, catalogue number WBRPH052.



**Figure 96:** Flow transfer-printed bowl from test pit SA 33, context 005, catalogue number WBRPH1357.





**Figure 97:** Hand-painted bowl fragment from test pit SA 28, context 001, catalogue number WBRPH502.

In addition to the more common decoration methods present were several examples of types rarely found in the Australian context. Two (MNI) manganese mottled vessel fragments were found in test pits SA 3, context 008/010, and SH 6, context 14 (TP4). This decoration style has a TAQ of 1780 (**Figure 98**). A fragment of Buckley-type ware (TAQ 1900) was found in SA 38, context 006 (**Figure 99**). Buckleyware is extremely rare in Australia,<sup>109</sup> and this example may be locally made, as a few fragments of what appear to be the same ware were found at the DMR site in the Brickfields, Sydney.<sup>110</sup> Other examples of uncommonly-found ceramics found were a fragment of a 'Jackfield-type' vessel (TAQ 1830) (**Figure 100**) and a single fragment of tin-glazed ware, sometimes referred to as 'English delftware' (TAQ 1800) (**Figure 101**). The above ceramic wares are rare in Australia as they are generally considered to be 18<sup>th</sup> century types.

<sup>109</sup> Brooks, A. 2005 *An Archaeological Guide to British Ceramics in Australia 1788-1901*. Melbourne: The Australasian Society for Historical Archaeology and the La Trobe University Archaeology Program: 28.

<sup>110</sup> Casey, M. 1999 *Local Pottery and Dairying at the DMR Site, Brickfields, Sydney, New South Wales*. *Australasian Historical Archaeology* 17, 1999: 23.



**Figure 98:** Manganese mottled ware vessel lid fragment from test pit SH 6, context 014, catalogue number WBRPH928.



**Figure 99:** *Buckley-type ware from test pit SA 38, context 006, catalogue number WBRPH830.*



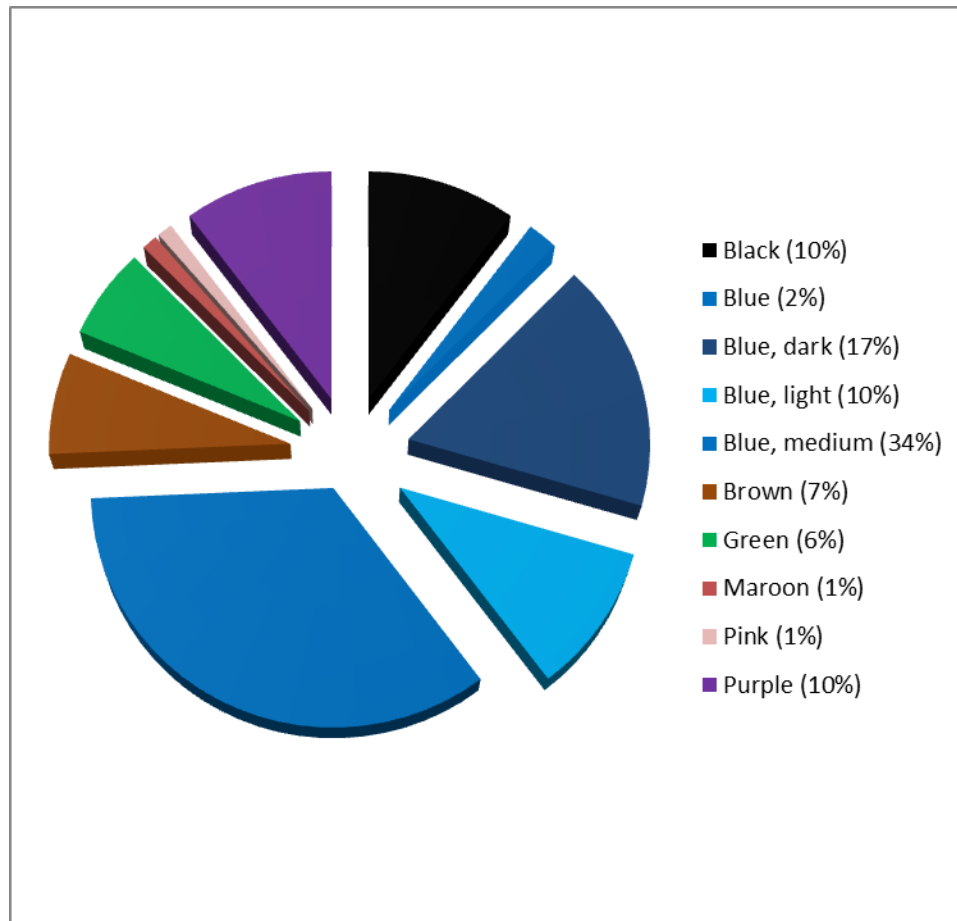
**Figure 100:** Jackfield-type vessel rim fragment from test pit SA 3, context 007, catalogue number WBRPH1113.



**Figure 101:** Tin-glazed 'English delftware' vessel fragment from test pit SA 3, context 012/014, catalogue number WBRPH1209.



One of the most useful diagnostic attributes for dating ceramic artefacts is transfer colour. This is because transfer-printed artefacts typically comprise a large proportion of ceramic assemblages found in Australia, and the date of the introduction and subsequent discontinuance of the various transfer colours used has been well-documented. Dating ceramic artefacts by print colour has the added benefit of being usable even when the artefacts are highly fragmented. As **Figure 102** shows, the majority of the transfer-printed and flow-transfer vessels were decorated in blue, forming 63% of the total. The predominance of blue for decoration is to be expected, as this was the first and most commonly used colour.<sup>111</sup> Vessels printed in black, purple, green and brown were also well-represented, forming between 6 to 10% of the sample, however very few vessels printed in pink and maroon were present. The scarcity of vessels printed in red-derived colours such as pink and maroon is likely due to the fact that red was one of the more difficult colours to produce successfully.<sup>112</sup>



**Figure 102: Proportions of decoration colours on transfer printed and flow vessels.**

Pattern identification was in many cases impossible owing to the high state of fragmentation within the ceramic assemblage. Nevertheless, ten different patterns or styles of decoration were able to be identified across 66 vessels (**Figure 103**). It must be remembered however, that owing to the high state of fragmentation, in most cases these identifications only refer to the portion of decoration present on the fragment, and do not necessarily represent the whole vessel.

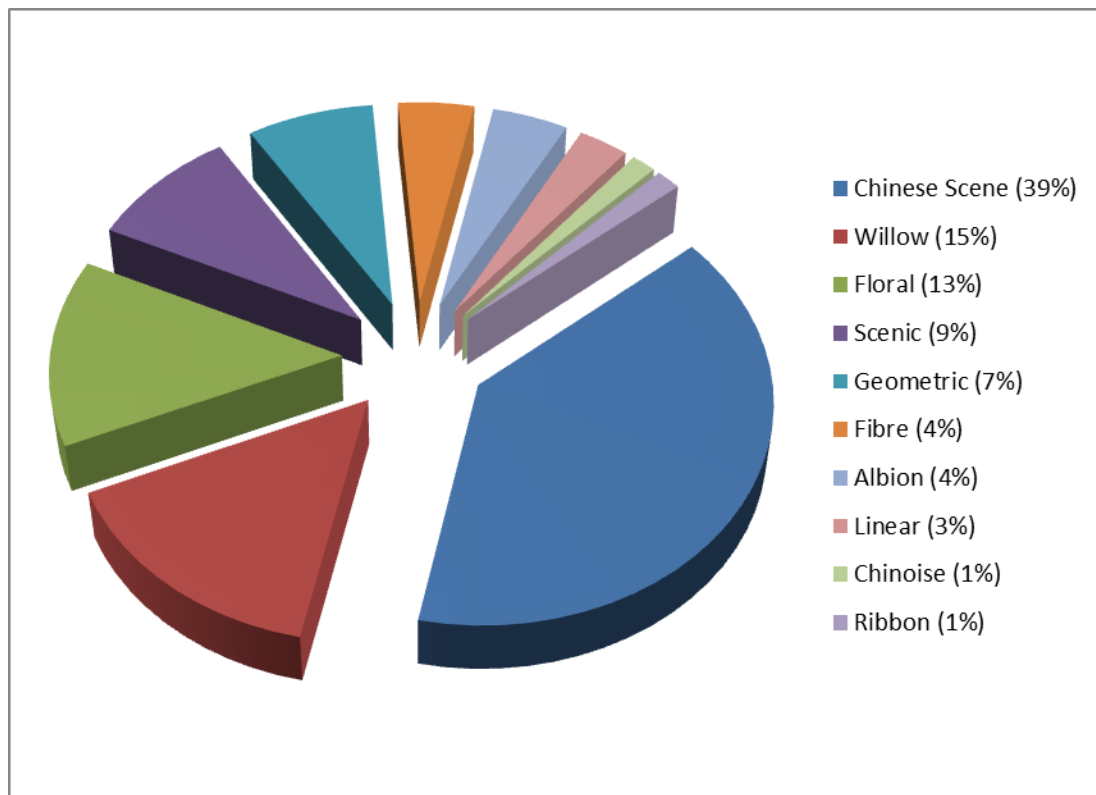
Just over half of the vessels with identifiable pattern motifs (54%) were decorated with Chinese scenes, including the ubiquitous 'Willow' pattern. The preponderance of Chinese scenes within the

<sup>111</sup> Neale, G. 2005 *Encyclopedia of British Transfer-Printed Pottery Patterns 1790-1930*. London, UK: Octopus Publishing Group.

<sup>112</sup> Williams, P. 1975 *Flow Blue China and Mulberry Ware*. Jeffersontown, K.Y., USA: Fountain House East:133.

sample is due to the fact that earliest printed earthenware designs were copied directly from Chinese porcelain motifs. Although by no means the only Chinese style pattern used, it is likely that many of the vessels displaying partial Chinese motifs are also Willow pattern, as this was the most enduring Chinese-style pattern, first introduced around 1790 by Josiah Spode and made by numerous potters into the present day.<sup>113</sup>

European 'floral' designs were also well-represented, forming 13% of the sample. This category includes designs that comprised a central floral motif, usually surrounded by a floral border, as well as floral sheet patterns. Floral motifs were popular transfer-print subjects throughout the 19<sup>th</sup> century<sup>114</sup> hence its presence here in notable numbers.

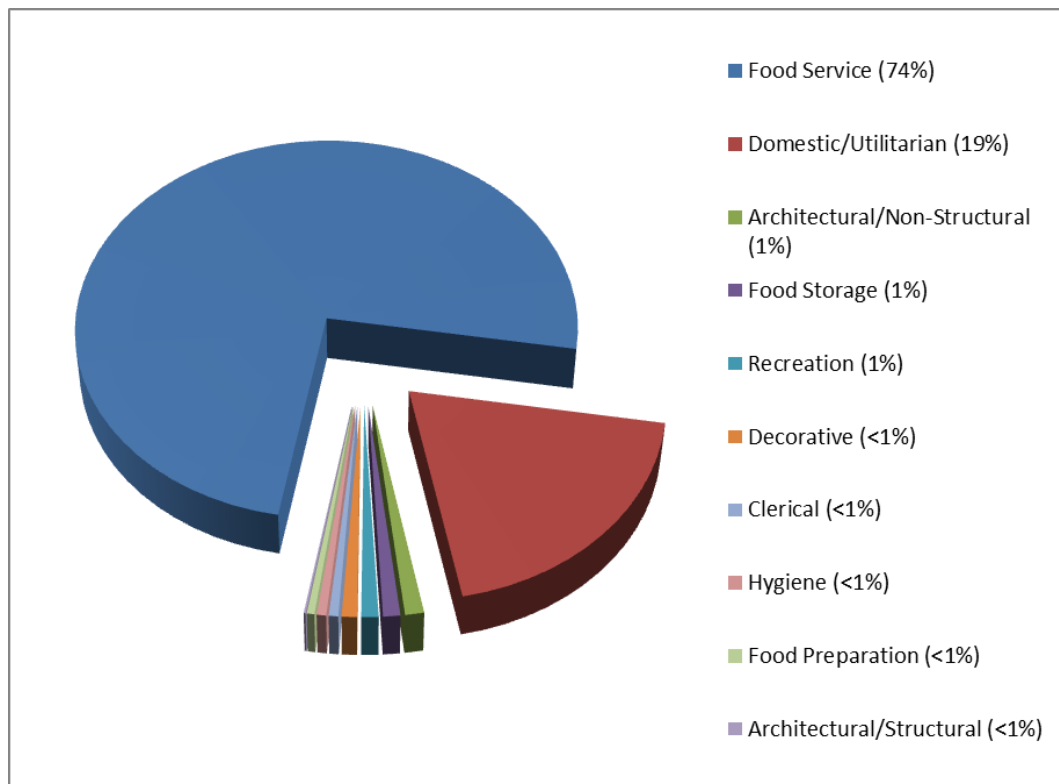


**Figure 103: Identified ceramic patterns.**

<sup>113</sup> Samford, P.M. 2016 Printed Underglaze Earthenware. Retrieved 8 February 2016 from [www.jefpat.org/diagnostic/Post-Colonial%20Ceramics/Printed%20Earthenwares/index-PrintedEarthenwares.html](http://www.jefpat.org/diagnostic/Post-Colonial%20Ceramics/Printed%20Earthenwares/index-PrintedEarthenwares.html)

<sup>114</sup> Samford, P. M. 1997 Response to Market: Dating English Underglaze Transfer-Printed Wares. *Historical Archaeology* 31(2) Society for Historical Archaeology:19.

An analysis of the identifiable activities represented within the ceramic assemblage clearly shows that nearly three-quarters of the sample was associated with food service (**Figure 104**). This category comprises all those items that were used as tableware such as plates, bowls, platters, cups, jugs etc, as well as the various items associated with tea drinking. Unfortunately, the generally moderate to high amount of fragmentation of the ceramic artefacts hampered the identification of vessel forms in most cases, precluding a more detailed analysis beyond activity and function. Ceramic artefacts whose use was clearly associated with domestic/utilitarian activities, but not necessarily tableware or food preparation, comprised approximately 20% of the sample. This category predominantly includes utilitarian bottles, jars and other utilitarian vessels. Other activities were represented in relatively insignificant amounts.



**Figure 104.** Activities represented by ceramic artefacts.



Ceramic assemblages have the potential to provide information about wealth and social status because they are so closely tied in to cost and fashion, however no 'one size fits all' analytical method has been found as yet to quantify status in the Australian context. One method, Miller's 'CC Index',<sup>115</sup> was specifically designed for the eastern United States and is not considered relevant to the Australian context.<sup>116</sup> Various attempts to tease status out of Australian ceramic assemblages have proven to require a highly specialist and time consuming level of analysis impractical for most consultancy reports<sup>117</sup> or require several related and tightly dated discrete assemblages whose differences can be compared and contrasted between each other to (hopefully) determine relative 'status' levels.<sup>118</sup> Since none of these methods are appropriate for this assemblage, it must instead be seen as a cross-section of the items procured and used by the population of Windsor as a whole from c. 1794 to the end of the 19<sup>th</sup> century. During this period Windsor was home to the full range of colonial Australian social classes, from convicts and their overseeing soldiers to military officers and high ranking government officials; from poor civilians through to wealthy landowners and businessmen. Notwithstanding the lack of a reliable method by which to measure status, the diverse social groups that this sample represents makes it unsuitable for an analysis of this type.

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### 5.3.3 GLASS

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There were 1,248 glass artefacts recovered during the excavations, representing approximately 231 individual items (predominantly bottles). Like the ceramic artefacts, the glass artefacts were generally moderately to highly fragmented, often making detailed identification of forms and likely contents impossible. However, in most cases temporal data was able to be extracted based on manufacture technique as a minimum.

As can be seen in **Figure 105**, the majority of identifiable glass artefacts were bottles used for food storage. **Figure 106** provides a breakdown of the bottle contents within this broader category, where just over 50% of the bottles were beer/wine bottles. One particularly early beer or wine bottle fragment was found in test pit SA 3, in a secure context dated between TPQ 1800 and MTAQ 1849 (context [SA3-011]). This was a bottle neck with a crude laid-on ring finish (**Figure 107**) and was the only one of its type found. Bottles for spirits and aerated water were also present in notable numbers, forming 14% and 18% of the sample respectively. Other food storage bottles such as those for condiments/sauces, vinegar, bitters, and milk were also present although in minimal numbers.

Glass bottles whose use was clearly associated with domestic/utilitarian activities, but not necessarily food storage comprised approximately 10% of the sample. Approximately 9% of the sample comprised items associated with food service. The majority of these items were tumblers, as well as a small number of stemmed wine glasses, and a shot or spirit glass. There were also five items of glass tableware (i.e. plates, bowls etc). The architectural/non-structural category represents fragments of window pane and will be discussed below in the Construction Materials section.

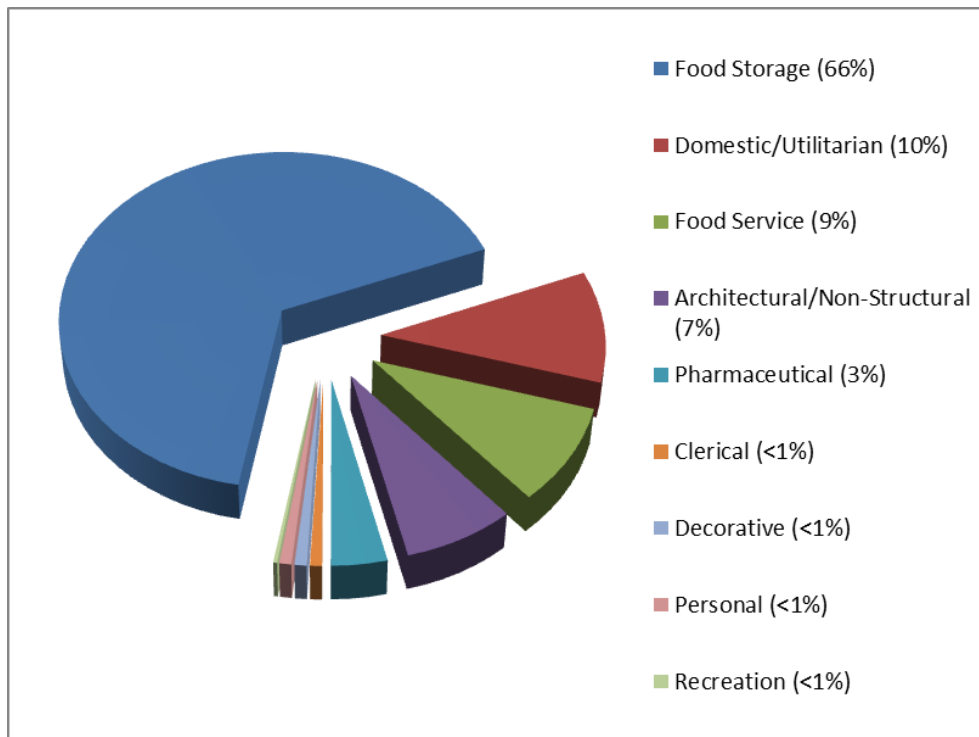
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<sup>115</sup> Miller, G.L 1991a Classification and Economic Scaling of 19th Century Ceramics. In G.L. Miller, O. Jones, L. Ross, and T. Majewski (compilers) *Approaches to Material Culture Research for Historical Archaeologists*, Society for Historical Archaeology, Tucson, pp. 37-58; Miller, G.L.1991b A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880, *Historical Archaeology*, 25(1): 1-25.

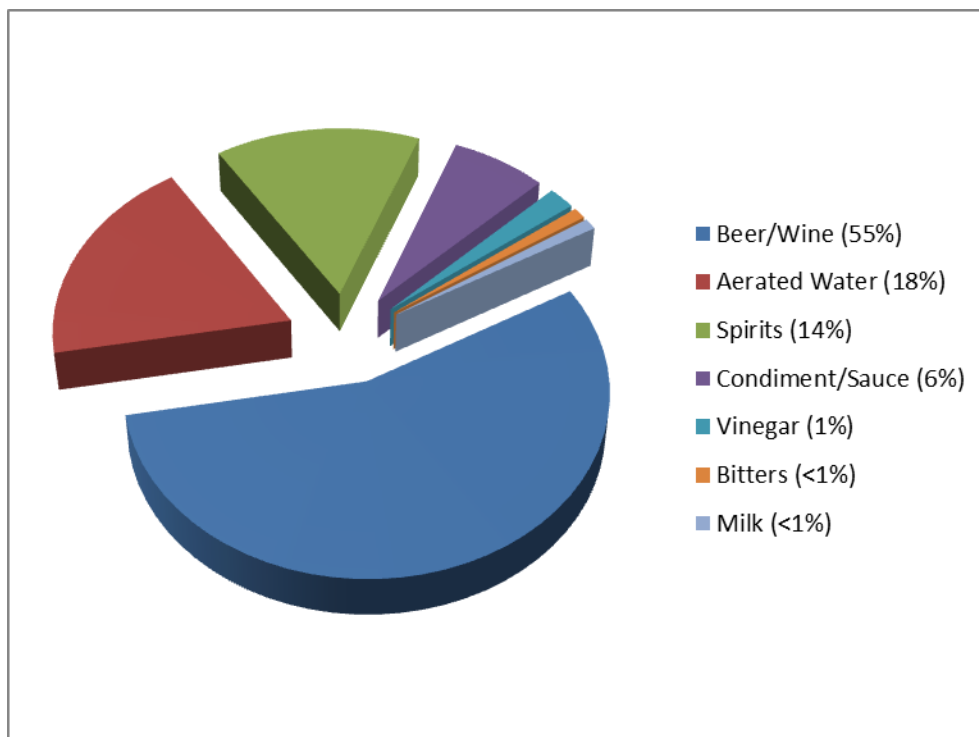
<sup>116</sup> Brooks, A. 2005 *An Archaeological Guide*:62.

<sup>117</sup> Crook, P. 2005 Quality, Cost and Value: Key Concepts for an Interpretative Assemblage Analysis. *Australasian Historical Archaeology* 23, 2005:21.

<sup>118</sup> Lawrence, S., Brooks, A. & J. Lennon 2009 Ceramics and Status in Regional Australia. *Australasian Historical Archaeology* 27, 2009: 67-78.



**Figure 105: Activities represented by glass artefacts.**



**Figure 106: Breakdown of bottle contents within the broader 'food storage' category.**



**Figure 107:** Bottle neck with early 'laid-on ring' finish (c. 1794 – 1820) from test pit SA 3, context 011, catalogue number WBRPH1196.

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#### 5.3.4 CLAY PIPES

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Only 114 fragments of clay smoking pipe were found during the excavations, representing an MNI of 60 pipes. Unfortunately, due to the highly fractured state that the majority of the clay pipe fragments were in, this class of artefacts proved of limited use for dating purposes. Of these 114 fragments, only seven were sufficiently diagnostic to provide dating information. Summary details of these seven datable pipes are presented in



**Table 10** below. Two pipes of interest identified were one with a cross-hatched heart and diamond motif on each side of the bowl (**Figure 108**), and another with a thistle motif wrapping around both sides of the bowl (**Figure 109**), both of which stylistically date to c.1850 – 1900.

**Table 10: Summary details of datable clay pipes.**

Test Pit	Context/Spit	Integrity of Context/Spit	Pipe Portion	Maker	TPQ	MTAQ	Notes
NH 3	[C:001]	Moderate	bowl, spur & stem		1820	1840	'T.D.' in scroll at rear of bowl
SA 3	[C: 009/010]	High	stem & spur		1810	1840	
	[C: 011]	High	stem & spur		1794	1880	
SA 29	[C: 007]	Low	bowl & stem		1850	1900	cross-hatched heart and diamond motif on each side of bowl
SH 8	[C: 007]	Low	stem	McDougall, Duncan	1846	1967	
SA 38	[C: 005)	Low	bowl		1850	1900	thistle motif wrapping around both sides of the bowl
SH 6	[C: 002]	Low	stem	McDougall, Duncan	1846	1967	



**Figure 108: Pipe bowl from test pit SA 29, context 007, catalogue number WBRPH386.**



**Figure 109:** Pipe bowl with thistle motif from test pit SA 38, context 005, catalogue number WBRPH784.

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#### 5.3.5 PERSONAL, SEWING AND CLOTHING-RELATED ARTEFACTS

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The amount of personal sewing and clothing-related artefacts recovered was negligible, amounting to less than 40 artefacts (MNI) across the entire site. The distribution of these types of artefacts is shown in



**Table 11** where it will be seen that no early deposits contained more than two such artefacts, and that in the majority of cases, these artefacts were found in contexts displaying low stratigraphic integrity. Furthermore, the occurrence of these types of artefacts is significantly greater in late 19<sup>th</sup> to 20<sup>th</sup> century contexts than in the early to mid-19<sup>th</sup> century contexts, which were the target of these excavations. Thus the presence of these types of artefacts in this assemblage cannot be considered to be reliable temporal indicators. The conspicuous dearth of these kinds of personal items, which typically occur in deposits directly associated with dwellings (e.g. underfloor deposits), strongly indicates that no deposits of this type were encountered during the excavations.

**Table 11: Distribution of personal items across the test excavations.**

Test Pit/ Trench	Context/ Spit	Integrity of Context/Spit	Item	Quantity	TPQ of Context/ Spit	MTAQ of Context/Spit
NA 1	S4	Low	Boot heel protector	1	1850	1950
SA 3	[C: 007]	Moderate	Buttons	2	1840	1876
SA 6	S5	Low	Marble	1	1840	1861
SA 8	[C: 001]	Low	Doll part	1	1940	Present
			Button	1		
	[C: 002]	Low	Watch part	1	1970	Present
			Toy car part	1		
			Doll's tea set part	1		
			Button	1		
			Shoe part	1		
	[C: 003]	Low	Marble	1	1921	Present
			Button	1		
SA 9	[C: 001]	Low	Buttons	2	1953	Present
			Marble	1		
	[C: 003]	Moderate	Button	1	1810	Present
SA 10	[C: 004]	Low	Button	1	1825	1859
	[C: 006]	Moderate	Button	1	1835	1869
SA 13A	S7	Low	Button	1	1960	Present
	S11	Low	Button	1	1953	Present
SA 28	[C: 005]	Low	Hair comb	1	1905	1922
			Button	1		
SA 29	[C: 004]	Low	Button	1	1953	Present
SA 33	[C: 005]	Low	Button	1	1828	1851
SA 34	S5	Low	Marble	1	1848	1878
SA 35	S22-24	Low	Button	1	1900	Present
SA 36	S5	Low	Marble	1	1890	1892
SA 37	[C: 003]	Low	Marble	1	1794	1930
SA 38	[C: 006]	Low	Buttons	5	1873	1879
			Hook closure	1		
			Thimble	1		
SH 10A	[C: 006]	Low	Marble	1	1900	1930
	[C: 007]	Low	Doll part	1	1888	1910

### 5.3.6 ORIGIN OF GOODS

Throughout the 19<sup>th</sup> century and well into the 20<sup>th</sup> century, the importation of goods into Australia was dominated by Great Britain. This was due in a large part to a lack of domestic industry in many areas of production. Australia's role as a major exporter of agricultural produce to Great Britain, the networks established by individuals travelling between Great Britain and Australia, and Australia's colonial ties to 'Home' all conspired to ensure this dominance. This situation is reflected in the goods present in this assemblage, where over 50% originated in Great Britain. **Table 12** shows the summary details of the artefacts whose place of origin is known based on manufacturer's marks or other inscriptions. Unfortunately, the number of such items in this assemblage is minimal, amounting to an MNI of only 32 items. In actual fact the proportion of unmarked British-made goods in the assemblage is undoubtedly far higher than is reflected in marked examples owing to its trade dominance as described above.

The New South Wales bottle manufacturing industry is well-represented in the sample, with an MNI of 11. New South Wales-made bottles present, some dating back to the late 19<sup>th</sup> century. Of local

interest are the remains of a Codd-type aerated water bottle manufactured by the Richmond Glass Works, and bearing a Windsor retailer's name (**Figure 110** and **Figure 111**).

**Table 12: Artefacts with identified place of origin.**

Object Function	Object Sub function	MNI	Maker	TPQ	TAQ	Origin
Bowl	Mixing	1	Sharpe, Thomas	1821	1838	England
Bottle	Unidentified	6	Australian Glass Manufacturing Company	1922	1948	N.S.W. Australia
Bottle	Unidentified	1	Lewis & Towers	1900	1920	England
Bottle	Whiskey	1	Dewar	1885	1919	Scotland
Bottle	Bitters	1	J.D. Doyle and Asa T. Soule	1872	1890	U.S.A
Bottle	Schnapps	3	Udolpho Wolfe	1848	1885	U.S.A.
Bottle	Vinegar	1	Bagley & Co	1850	1910	England
Bottle	Aerated Water	1	Lamont, John	1876	1919	Scotland
Bottle	Sauce	2	Wybrow, George	1850	1875	England
Bottle	Beer	1	Unidentified	1920	Present	N.S.W. Australia
Bottle	Aerated Water	1	Richmond Glass Works	1877	1900	N.S.W. Australia
Bottle	Pickle	2	Unidentified	1885	1905	N.S.W. Australia
Bottle	Pharmaceutical	1	Unidentified	Unknown	1930	U.S.A.
Bottle	Pharmaceutical	1	Taylor Chemical Co., Sydney	1880	1910	N.S.W. Australia
Bottle	Pharmaceutical	1	Dinneford	1840	1880	England
Smoking	Pipe	2	McDougall, Duncan	1846	1967	Scotland
Unidentified	Unidentified	1	Unidentified	1907	1950	Australia
Closure	Button	2	Rowley, Charles	1831	1855	England
Closure	Button	1	Nutting, Joseph	1815	1865	England
Gun	Cartridge	1	Eley	1870	1950	England
Transport	Component	1	Holden	1920	Present	Australia





Figure 110: Codd-type aerated water bottle made by the Richmond Glass Works and also marked 'G.H. Barnett, Windsor', from test pit SH10A, context 006, catalogue number WBRPH694.

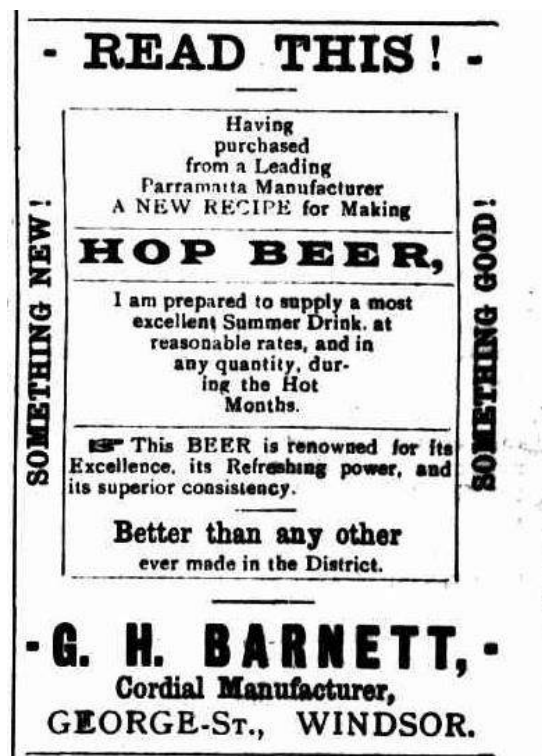


Figure 111: 1896 newspaper advertisement by G.H. Barnett of Windsor, one of whose bottles was recovered during the excavations (cat no. WBRPH694) (Windsor and Richmond Gazette, 10/10/1896: 11D).

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### 5.3.7 CONSTRUCTION MATERIALS

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Finds of construction materials were frequent during the excavations, with 31 out of 40 artefact-bearing test pits and test trenches containing this material, however the amount of construction material present was highly variable. The majority of excavations contained relatively small amounts, distributed throughout several stratigraphic contexts. The sparse presence of construction material in these test pits is likely reflective of fill deposits and possibly 'background scatter' from the construction, demolition or maintenance of buildings and other structures in the vicinity. There were, however, some exceptions where the presence of relatively high numbers of construction materials indicates that those test pits were in close proximity to specific activity locations.

Test pit SA 3 is of particular note in that it contained 62 nails, which is far higher than any other test pit

**Table 13).** Furthermore, the majority of these 62 nails were recovered from three adjoining contexts (i.e. [SA3-010, 011 & 012]). The great majority of these nails were of forged manufacture, making them of early to mid-19<sup>th</sup> century age. The conspicuously high density of forged nails in these contexts suggests that a structure built during that period was demolished in the immediate vicinity.

The other test pit of note from a construction materials point of view is SA 29. This test pit contained several fragments of iron or steel strapping or banding approximately 2cm (1 inch) wide, as well as 19 iron or steel disks of 2cm to 4.8cm diameter. These artefacts primarily occurred in two contexts [SA29-004] & [SA29-007]. While the metal banding or strapping may be from barrel hoops, the function of the metal disks is unknown. Interestingly, test pit SA 29 was the only one to contain these disks. Whatever their function, it is likely that the activity that used or created these iron or steel disks occurred in the immediate vicinity of test pit SA 29 and, considering that context 007 dates from 1872 (TPQ) to 1884 (MTAQ), it is possible that they were associated with the construction or raising of the Windsor Bridge.

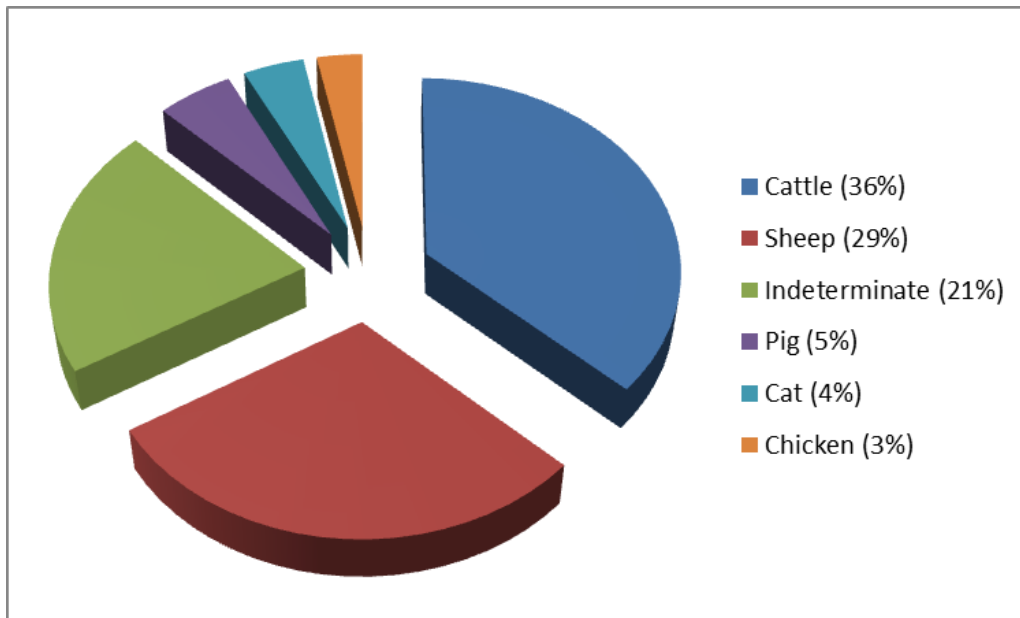


**Table 13: Distribution of construction materials.**

Test Pit	Window Glass (grams)	Nail (#)	Screw (#)	Bolt/Rivet (#)	Tack (#)	Roofing Clout (#)	Roof Tile (#)	Paver (#)	Wall Plaster (Y/N)	Brick (#)	Furniture/Joinery Fittings (#)	Drainage/Sewer Pipe (#)	Unidentified/Other (#)
SH 2		3								1			1
SH 6	9.35	18					5			2			5
SH 7													1
SH 8		1									1		
SH 9		1								1			2
NA 1													1
NA 2										1			1
NA 4													1
NA 8													1
SA 1										2			
SA 2	1.25	1											
SA 3	3.3	62					2			2			4
SA 4	2.25	1											
SA 5										1			
SA 6		2											7
SA 8	19.9	12			1					1	2		3
SA 9	8.85	11		1								3	2
SA 10							1			2			3
SH 10A	?	6										1	
SA 24	0.5	3								1			
SA 25		5											1
SA 28		1						1		1		1	2
SA 29	26.95	2		1									35
SA 30				1									2
SA 31		3								1			
SA 32A										1			
SA 33		1											
SA 34		9					3			2	1	3	4
SA 35	>23.15	13		1			1	1	1	1			5
SA 36	8.9									1		2	2
SA 38	11.95												

### 5.3.8 FAUNAL MATERIAL

A total of 253 bones and bone fragments were recovered from across 20 test pits. These 253 bones represent at least 93 individual animals (MNI). With the exception of the remains of four cat bones in test pit SA 10 (which was presumably not the remains of a meal), all of the bones were from cattle, sheep, pigs or chickens. **Figure 112** shows the proportions of animals represented in the assemblage. Cattle form the majority of the animals represented in the assemblage, with an MNI of 35. This is followed by sheep, which are also represented with an MNI of 28. Pig and Chicken bones were only found in relatively small amounts, with an MNI of 5 and 6 respectively. Evidence of butchery was present on 143 of the 253 bones recovered, and predominantly with a saw, with a lesser proportion having been butchered with a cleaver (**Figure 113**).

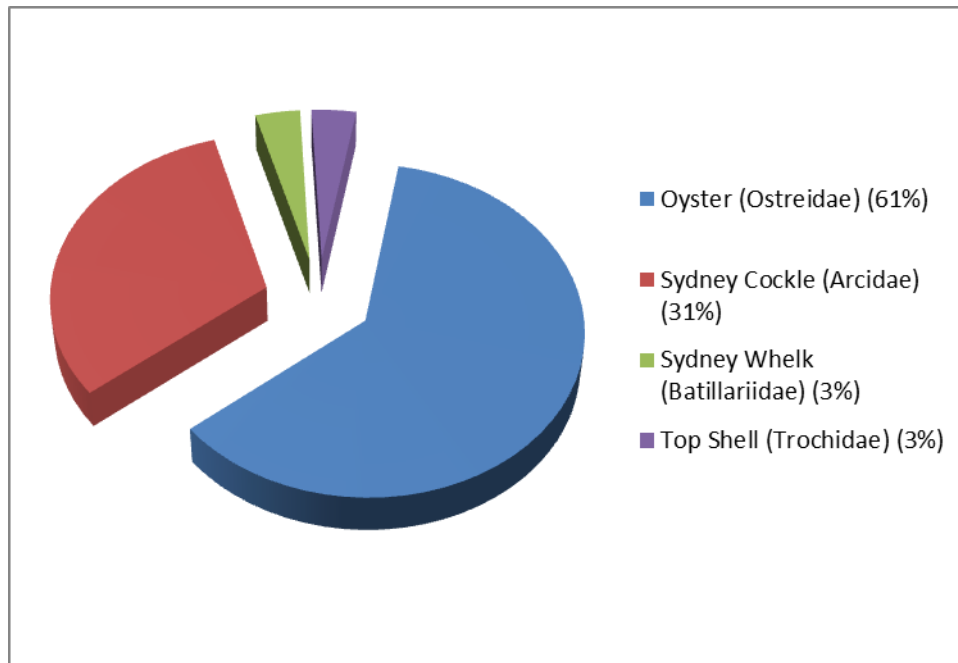


**Figure 112:** Proportions of animals represented in bone assemblage throughout site.



**Figure 113:** Cattle bones showing saw butchery marks from test pit SA 9, context 001, catalogue number WBRPH310.

A total of 233 shells and shell fragments were also recovered from across 11 test pits, representing at least 140 individual shells. **Figure 114** shows the proportions of shellfish present in the assemblage. *Ostreidae* (Oysters) formed the majority of the shells present in the assemblage (61%), followed by *Arcidae* (Cockles) (31%), five *Batillariidae* (Sydney Whelk) and five *Trochidae* (Top-Shell) shells were also present. All of these shells are coastal/marine, providing evidence of the transport and sale of shell fish as a source of construction lime and/or food in 19<sup>th</sup> century Windsor.



**Figure 114:** Proportion of shellfish from throughout site.



5.4 Discussion and Research Potential

It is clear that large parts of the site have been impacted by the removal of erodible original topsoils and the subsequent introduction of fills. From an artefact analysis perspective, this was frequently observed in the admixture of early 19<sup>th</sup> century artefact types such as creamware and pearlware with late 19<sup>th</sup> and in several cases 20<sup>th</sup> century artefacts from within the same deposits. This phenomenon was observed across the majority of test excavations where no historical archaeology was identified (Table 4 and

**Table 5)** and where the dates of assemblages recovered lacked stratigraphic succession; a pattern indicative of secondary deposition fills. The interpretive potential of the artefacts recovered from these fill deposits is limited, other than to provide information on the ongoing development of Thomson Square and surrounds.

The interpretive potential of the *in situ* and disturbed archaeological contexts is also limited due to the relative scarcity of early artefact rich deposits; a finding considered to result from a combination of the limited area of the test excavations and the brief duration of site occupation during the early Green Hills and Macquarie periods. Despite the limited overall quantity of datable materials, potential evidence of occupation and activity that could date from the pre-1810 Green Hills period was relatively well-represented, as 10 of the 32 *in situ* and disturbed archaeological contexts of the 19<sup>th</sup> century (31%) were found to have a TPQ of 1810 or earlier (

**Table 14).** However, the artefact density of these 10 contexts was in most cases very low, with only three of the 10 containing more than five datable artefacts, and three only containing a single datable artefact (MNI). This has ramifications for the reliability of the dates ascribed to these contexts, as the smaller the sample size, the less reliable the date ranges should be considered. Nevertheless, these 10 contexts are the best glimpse we have of the earliest phase of Windsor's European settlement and further investigation would likely result in a more quantitative and definitive artefact assemblage.

An exception to the generally low artefact count from early contexts was seen in test pit SA 3, where stratified historical deposits [SA3-008/14], provided substantial evidence of *in situ*, early to mid-19<sup>th</sup> century historical occupation. This sequence would appear to date from the Macquarie era of Windsor onwards, which is consistent with the period of occupation of the adjacent Punt Master's House as indicated by the historical record. In particular, [SA3-011] contained an MNI of 54 datable artefacts in a sealed deposit, none of which had a TPQ of later than 1800. An assemblage of 3 artefacts retrieved from [SA3-014] also dated to 1800, however the intervening context [SA3-012] formed after 1818, indicating that a c. 1820 date for initial activity is most likely. The assemblage of SA 3 is discussed in detail below.



**Table 14:** *In-situ* (\*\*) or disturbed (\*) contexts potentially dating from 1810 or earlier.

Context	Description	Depth of Context (m AHD)	TPQ	TAQ	MTAQ	MNI
[SH3-003]*	Disturbed natural silty sand	17.46 – 17.31	1794	1920	1876	6
[SH3-004]*	Disturbed natural silty sand	17.31 – 17.25	1794	1810	N/A	1
[SH6-013] TP4**	Historic lense of crushed brick	18.54 – 18.51	1802	1859	1839	10
[SH6-015] TP4**	Surface of packed stone and brick debris	18.47 – 18.40	1794	1859	1844	5
[SA3-014]**	Shallow shovel cut	10.12 – 9.80	1800	1859	1849	3
[SA9-003]*	Disturbed yellow-grey sandy subsoil	12.27 – 11.75	1810	1940	1866	5
[SA24-003]**	Hard-packed grey-brown sandy clay	19.94 – 19.86	1794	1885	1865	5
[SA25-007]**	Construction trench fill of wall footing [C:004]	19.96 – 19.50	1802	1859	1844	3
[SA28-007]*	Yellow-brown disturbed sandy subsoil	12.45 – 12.15	1794	1859	N/A	1
[SA29-024]*	Brown mottled loam below [C:023] in sondage	10.69 -	1794	1830	N/A	1

The assemblage recovered from test pit SA 3 is the most notable of the testing program for its type, date range, stratigraphic integrity and known association with a specific structure; the Punt Master's House. This cottage stood atop the riverbank just west of Thomson Square from at least the 1820s until c. 1904 and was occupied by successive Punt Masters. Seven *in situ* or disturbed contexts, containing a total of 174 artefacts (MNI) were identified in this test pit (**Table 15**). The security of the dates assigned to five of these seven contexts can be regarded as very reliable in relation to the project area as a whole. This is due to the relatively high density of artefacts that were present in these five contexts. The average number of artefacts (MNI) of *in situ* or disturbed contexts elsewhere across the project area is eight, whereas five of the seven key contexts in SA 3 contained between 19 and 54 artefacts, as can be seen in the shaded rows in

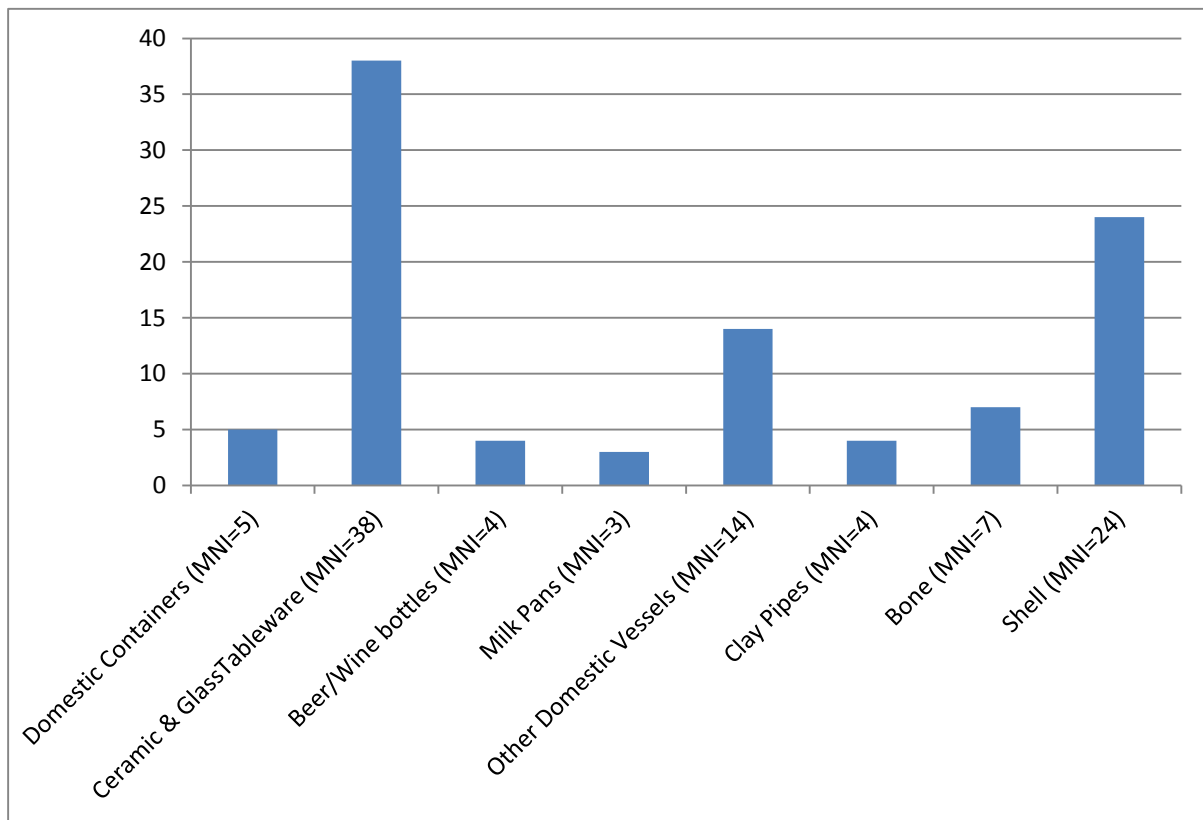
**Table 15.**

**Table 15: Details of artefact-bearing contexts identified in test pit SA 3. *In situ* contexts are marked with a double asterisk and disturbed contexts with a single asterisk. Blank rows indicate later fills.**

Context	Description	Depth of Context (m AHD)	TPQ	TAQ	MTAQ	MNI
[SA3-003]	Red-brown sandy clay fill	11.35 – 11.14	1870	1930	1876	29
[SA3-005]	Grey-brown coarse sandy Lense	11.06 – 11.02	1794	Present	N/A	1
[SA3-006]	Reddish brown coarse sandy Lense	11.02 – 10.94	1820	Present	N/A	1
[SA3-007]*	Grey-brown friable lense	10.94 – 10.84	1840	1929	1876	40
[SA3-008]*	Crushed sandstone road surface	10.84 – 10.73	1820	1859	1844	2
[SA3-009]**	Friable humic deposit	10.73 – 10.44	1825	1905	1850	19
[SA3-010]**	Friable humic deposit	10.44 – 10.32	1825	1905	1851	27
[SA3-011]**	Friable humic deposit	10.32 – 10.12	1800	1900	1849	54
[SA3-012]**	Friable humic fill of [C:014]	10.12 – 9.80	1818	1905	1848	29
[SA3-014]**	Shallow shovel cut	10.12 – 9.80	1800	1859	1849	3

The homogeneity of the assemblages, both in terms of date ranges and artefact types, that were recovered from contexts [SA3-009] to [SA3-014] suggests that they originate from the same source (i.e. most likely the adjacent Punt Master's House), and that these artefacts were part of a more or less continuous depositional process from at least the 1820s until the demolition of the cottage c. 1904. This is neatly reflected in the dates of artefacts from these contexts which range from 1800 to 1905. The location of this deposit, approximately 5m from where the cottage is thought to have once stood, and the nature of the assemblage (predominantly household items and food refuse as shown in **Figure 115**) suggests that it represents a yard deposit. The lack of structural evidence and personal items such as buttons, jewellery, toys and sewing paraphernalia, typical of underfloor deposits further suggests that the archaeology represents a yard area external to the house.





**Figure 115: Proportions of artefact types represented by assemblage from test trench SA 3, likely associated with yard deposit of the Punt Master's House (contexts 009 – 014), exclusive of architectural/structural artefacts.**

Fragments of at least three locally made coarse earthenware 'milk pans', dating between c. 1800 and c. 1830 were present in the assemblage and are likely to derive from the occupancy of the Punt Master's Cottage (**Figure 116**). This is interesting, and somewhat unexpected, as these vessel types are believed to have been directly associated with dairying.<sup>119</sup> Similar dairying vessels were found at the DMR site at Brickfields, Sydney.<sup>120</sup> The presence of these milk pans indicates that home-dairying was carried out early in the history of the Punt Master's Cottage, possibly in a detached dairy structure. The knowledge and skills required to make butter and cream were generally held by women.<sup>121</sup>

<sup>119</sup> Casey, M. 1999 Local Pottery and Dairying at the DMR Site, Brickfields, Sydney, New South Wales. *Australasian Historical Archaeology* 17, 1999: 20

<sup>120</sup> Ibid.

<sup>121</sup> Ibid.



**Figure 116:** Early colonial-made pottery from test pit SA 3, context 011. The large fragments at top left and top right are from milk pans.

**Table 16** provides a detailed breakdown of the types of tableware present in the yard deposit contexts of the Punt Master's Cottage (i.e. contexts [SA3-009/014]). Few meaningful conclusions can be drawn as to the 'status' of the occupants of the Punt Master's Cottage, however the tableware assemblage of the early occupants provides a substantial record of the wares available to the early settlers during the period from roughly 1820 to 1850. As

**Table 16** shows, the assemblage contained equal proportions of creamware, pearlware and whiteware. This fits in with the chronology of ceramic development at the time, as the 1820 – 1830 period was a time of transition between the obsolescence of creamware and pearlware and the predominance of whiteware, which was to endure for the remainder of the 19<sup>th</sup> century. Porcelain, both Chinese import (MNI=4) and European-made (MNI=2), was also present, albeit in minor numbers. Only one coarse earthenware vessel (a cup, probably locally-made) and a fragment of English Delftware were present, as well as three glass items (a tumbler (**Figure 117**), part of a stemmed glass and another unidentified piece of pressed glass tableware). The overall picture that emerges of the tableware of the Punt Master is one that is respectable and in keeping with fashion, perhaps with a display of higher than average affluence in the presence of porcelain items and fine glassware.



**Table 16: Details of tableware present in SA 3 contexts likely associated with yard of the Punt Master's House.**

Context	Ware Type	TPQ	TAQ	MNI
[C: 009]	Glass Tumbler	1794	1865	1
[SA3-009/010]	Creamware	1794	1830	1
	Shell-edged Pearlware	1809-1813	1831/1834	2
	Transfer-printed Whiteware	1794-1818	1859-1867	4
	Sprigged Whiteware	1800	1850	1
	European Porcelain	1794	Present	1
[SA3-010]	Chinese Porcelain	1794	1830	2
	Pearlware	1794	1830	2
	Transfer-printed Whiteware	1794/1818	1859/1867	3
	Creamware	1794	1830	3
	Pressed Glass	1825	Present	1
[SA3-011]	Creamware	1794	1830	4
	Pearlware (Shell-edge and Transfer-printed)	1794	1830	4
	Chinese Porcelain	1794	1830	1
	Glass Stemware	1794	1900	1
[SA3-012]	Coarse Earthenware (Locally-made)	1800	1830	1
	Chinese Porcelain	1794	1830	1
	European Porcelain	1794	Present	1
	Transfer-printed Pearlware	1794	1830	2
	English Delft-ware	1794	1800	1



**Figure 117: Portion of a stemmed glass from test pit SA 3, context 011, catalogue number WBRPH1198.**

Context [SA3-007] is noteworthy for the relatively high density of artefacts which it contained (MNI 40). Although separated from the main yard deposit contexts below by a crushed sandstone road surface, the date range of this context (TPQ 1840 to MTAQ 1876), and the similarity of the assemblage to that beneath the road surface suggests that it too is associated with the Punt Master's Cottage.

In the area of lower Thompson Square, nine archaeological deposits were identified in test pits SA 8, SA 9, SA 10, SA 28 and SA 29 that form disturbed, though reasonably intact evidence of the earliest historical ground surfaces remaining in lower Thompson Square (**Table 17**). The TPQ's for all these contexts range between 1794 and 1837, with an MTAQ range of 1838 to 1879.

Of the nine, three historical artefact-bearing deposits were identified that may date from the Mulgrave Place/Green Hills period (i.e. 1794 – 1810). The sandy subsoil that occurs in test pit SA 9, context [SA9-003], stands out as the most reliable evidence of a Mulgrave Place-era deposit as it contains five datable artefacts (MNI), all but one of which are of types in use prior to 1794; the exception being a button of a type introduced c. 1810. Context 007 of test pit SA 28 and context 024 of test pit SA 29 may also date from as early as 1794 – 1800, but since these two contexts only contain a single datable artefact each, their dates are less secure. However, it is evident that a degree of intermixing of stratigraphic contexts has taken place and the overall close stratigraphic, temporal and artefactual relationships that exist between these three potentially very early deposits and the other six key deposits in this area warrants closer examination as a disturbed record of long term activity may be represented.

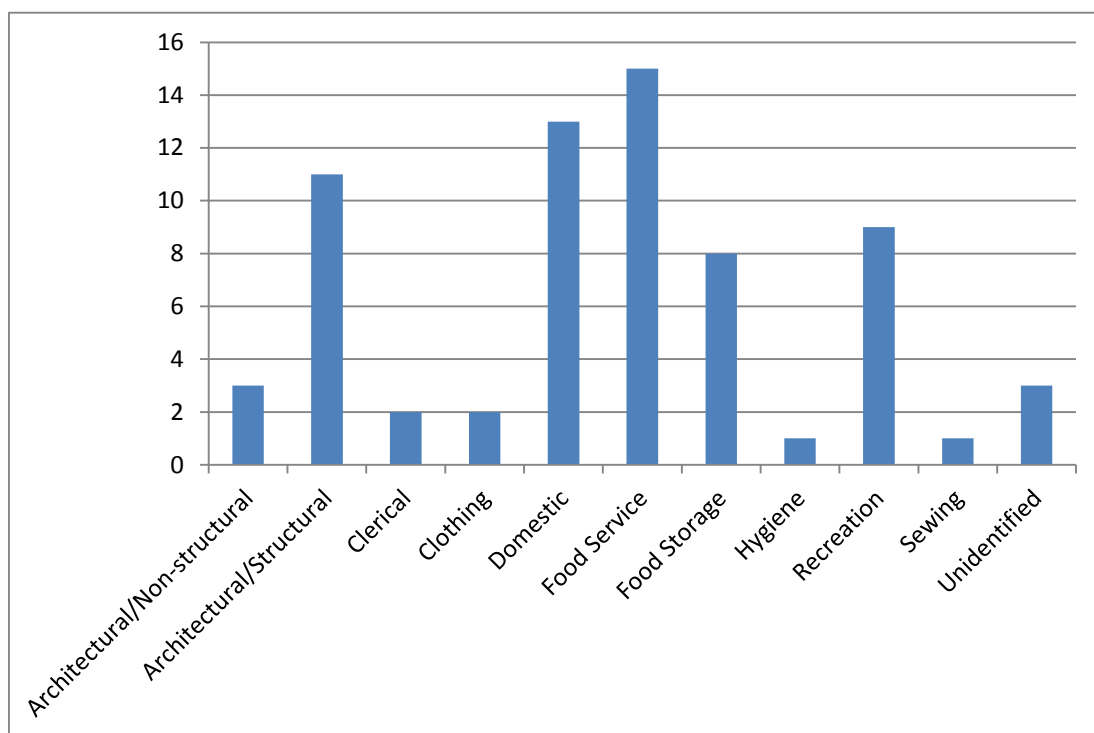
An analysis of the 94 artefacts (MNI) recovered from the nine key deposits from lower Thompson Square reveals that over 70% (n=68) of them potentially date from 1810 or earlier and thus could have been deposited during the Mulgrave Place-era. Of these 68 potentially early artefacts, approximately 20% (n=14) are of types that were falling out of fashion or becoming obsolete by c. 1830. These 14 items predominantly consist of pearlware and creamware tableware and other domestic vessels, as well as three coarse earthenware domestic vessels, likely of local manufacture. A sandstock brick fragment and a hand-made straight pin were also present.

**Figure 118** shows the relative proportion of activities represented by the 68 artefacts that potentially date from 1810 or earlier and thus could have been deposited during the Mulgrave Place/Green Hills period. The results show quite a high amount of activity diversity, with 11 activities represented. The fact that the deposits from which these artefacts originate appear to be relatively *in situ* topsoils (rather than fill), means that the activities represented may have taken place within the area of lower Thompson Square from as early as the Green Hills period c. 1794 to c. 1810. However, in the absence of associated structural evidence of occupation, it remains possible that the artefacts present are 'near source'; deriving from refuse discarded within the area of the square from nearby occupation areas.

**Table 17: Details of historical archaeological deposits present in lower Thomson Square.**

Spit	Context	Description	Depth of Context (m AHD)	TPQ	TAQ	MTAQ	MNI
SA 8 S14	[SA8-004]	Mid-brown sandy silt modified topsoil	9.41 – 8.91	1835	1850	1840	4
SA 8 S19	[SA8-005]	Yellow-brown alluvial sandy silt	8.91 – 8.61	1794	1830	N/A	1
SA 8 S23				1837	1880	1859	6
SA 8 S26				1794	1869	1859	6
SA 9 S8	[SA9-002]	Mid-brown sandy modified topsoil	12.58 – 12.27	1835	1850	1850	12
SA 9 S9				1820	1859	N/A	2
SA 9 S11				1820	1846	1838	2

SA 9 S12	[SA9-003]	Disturbed yellow-grey sandy subsoil	12.27 – 11.75	1794	1830	N/A	2
SA 9 S13				1794	1830	N/A	1
SA 9 S16				1810	Present	N/A	1
SA 9 S24				1794	1940	N/A	1
SA 10 S14	[SA10-005]	Dark brown sandy modified topsoil	14.00 – 13.81	1820	1864	1861	2
SA 10 S15				1820	1846	1838	2
SA 10 S16				1835	1865	1860	12
SA 10 S17				1835	1864	1847	3
SA 10 S18				1825	1910	1852	6
SA 10 S19				1835	1929	1879	2
SA 10 S20	[SA10-006]	Pale grey-brown disturbed sandy subsoil	13.81 – 12.80m	1835	1859	N/A	2
SA 10 S21				1820	Present	N/A	1
SA 10 S23				1835	1885	1869	4
SA 10 S24				1810	1830	N/A	2
SA 28 S11	[SA28-006]	Dark brown sandy modified topsoil	12.80 – 12.45	1820	1859	N/A	6
SA 28 S12				1820	1867	1858	7
SA 28 S16	[SA28-007]	Yellow-brown disturbed sandy subsoil	12.45 – 12.15	1794	1859	N/A	1
NA	[SA29-024]	Brown mottled loam below [C:023] in sondage	10.69 -	1800	1830	N/A	1



**Figure 118: Proportion of activities represented by the pre-1810 assemblage in lower Thompson Square, expressed in MNI.**

Historical Trench SH 6 contained four *in situ* contexts that, on the basis of their stratigraphic integrity and date ranges, are possibly related to the use and/or demolition of the Government Domain buildings that once stood near the corner of Bridge and George streets. Summary details of these four contexts are presented in **Table 18**. As can be seen these contexts have TPQ's of between 1794 and 1820. An analysis of the 34 artefacts (MNI) that comprise this assemblage reveals that nearly 75% of the artefacts (MNI=25) are associated with domestic, food service and food storage activities. Further evidence of domestic activity is provided by the presence of food refuse in the form of cattle, sheep and pig bone (combined MNI=8), as well as oyster and cockle shellfish (combined MNI=4). The other identified artefacts within these contexts were six nails (five forged, one cut), and two clay pipes.

**Table 18: Summary details of four *in situ* and disturbed contexts from test trench SH 6 possibly related to Government Domain buildings. *In situ* contexts are marked with a double asterisk and disturbed contexts with a single asterisk.**

Context	Description	Depth of Context (m AHD)	TPQ	TAQ	MTA Q	MNI
[SH6-012] TP4*	Historic loam lense	18.61 – 18.54	1820	1870	1853	15
[SH6-013] TP4**	Historic lense of crushed brick	18.54 – 18.51	1802	1859	1839	10
[SH6- 014] TP4**	Mottled sandy silt lense	18.51 – 18.47	1820	1910	1878	4
[SH6-015] TP4**	Surface of packed stone and brick debris	18.47 – 18.40	1794	1859	1844	5

The artefacts recovered from the 73 fill deposits likely represent redeposited municipal refuse which was carted into Thomson Square to serve as fill during the repeated reshaping and filling of the square and terrace areas. This may have occurred from as early as 1814 as repairs after floods, the



construction and realignment of roads, and during the constructing and subsequent raising of Windsor Bridge. Even so, the fill assemblage does have some interpretative value in terms of the potential research directions it offers. Regardless of their lack of stratigraphic integrity, the 1,702 individual items that form the assemblage were brought to Windsor, used there by its inhabitants, and eventually discarded there. They therefore have value as a representative sample of the material culture of 19<sup>th</sup> century Windsor and, arguably more importantly, they represent the possessions of a broad cross section of Windsor's population, rather than being limited to a particular social class.

The ceramic and glass artefacts in particular could be subjected to detailed and specialist analysis which could provide new information as to the types of tableware, patterns, materials, and products that were available in Windsor from its earliest European settlement to the turn of the 19<sup>th</sup> century. This assemblage could potentially be used to make inter-site comparative studies looking into trade networks and markets between the colonial hub of Sydney, and outlying settlements such as Windsor. Through such artefact types as the Chinese export porcelain present in this assemblage, it has the potential contribute to the study of international trade networks present in early New South Wales.<sup>122</sup>,

This assemblage of probable locally made vessels is ideal to make use of, and contribute to, efforts to use X-ray fluorescence spectroscopy and Raman microspectroscopy to chemically source and provenance early New South Wales pottery.<sup>123</sup> By analysing the chemical composition of the paste and glazes of these artefacts, it would be possible to determine whether any of them were made at known early potteries whose products have been chemically profiled, such as that of Thomas Ball in the Brickfields, Sydney, and the Irawang pottery in the Hunter Valley.<sup>124</sup> This would contribute to an understanding of the early New South Wales pottery trade. Furthermore, it is possible that some of the locally made artefacts found here will contain new chemical signatures, indicating other early pottery manufacturers which were hitherto unknown. The identification of new early potteries, possibly even a local Windsor maker, would represent a significant contribution to the history of pottery manufacture in New South Wales.

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<sup>122</sup> Corcoran, A.M. 1993 Chinese Export Porcelain in Australia. Unpublished long essay submitted for Masters Degree in Historical Archaeology, Department of Prehistory and Historical Archaeology, University of Sydney; Staniforth, M. 1996 Tracing artefact trajectories: following Chinese export porcelain. *Bulletin of the Australian Institute for Maritime Archaeology* 20.1: 13-18. .

<sup>123</sup> Kelloway, S & Birmingham, J. Profiling Nineteenth-century Australian Potteries: Approaches to Provenancing Ceramics and Identifying Potting Practices [online]. *Australasian Historical Archaeology*, Vol. 28, 2010: 35.

<sup>124</sup> Ibid.

## 6 HISTORICAL ARCHAEOLOGICAL SENSITIVITY PLAN

### 6.1 Key Findings

The following table summarises the key findings of the historical archaeological test excavation programme:

**Table 19: Summary of key findings from the archaeological testing programme.**

Test pit	Testing Aims
SH 1	No definite historical archaeological features, structure or artefacts identified. Presence of burnt tree roots may denote historical land clearance from the late 18 <sup>th</sup> century onwards.
SH 2	Bitumen road surface crossing Thompson Square, potentially mid to late 19 <sup>th</sup> century. Disturbed historical deposit with artefacts dating from early to mid-19 <sup>th</sup> century.
SH 3	Disturbed historical topsoil and subsoil deposits.
SH 4	No historical archaeological features, structure or artefacts identified.
SH 5	No historical archaeological features, structure or artefacts identified.
SH 6	No historical archaeological features, structure or artefacts identified in test pits 1, 5, 6 and 7. The heavily disturbed brick feature in test pit 2 may be demolition of an early 19 <sup>th</sup> century structure, or may relate to the brick drain seen in SA26. The brick feature in test pit 3 is likely to be remnant paving from the 1850s. The stratigraphy of test pit 4 is likely to contain an <i>in situ</i> but disturbed historical ground surface which may date back to the early 19 <sup>th</sup> century. In summary, the overall area of SH 6 has been heavily disturbed, however pockets of undisturbed areas can still provide information.
SH 7	No historical archaeological features, structure or artefacts identified.
SH 8	Historical archaeological features were limited to a thin fill or rubbish deposit dating to the latter half of the 19 <sup>th</sup> century.
SH 9	Historical archaeological features were limited to a fence line, likely to be a late 19 <sup>th</sup> or early 20 <sup>th</sup> century feature.
SH 10A	No historical archaeological features, structure or artefacts identified. However, excavation ceased at a depth of 12.39m AHD due to the unstable nature of the surrounding soil.
SA 3	Identification of inter-bedded mid to late 19 <sup>th</sup> century road surfaces and historical fill deposits overlying <i>in situ</i> demolition and yard deposits relating to the 1820s Punt House.
SA 4	Indication of 1m of road and fill deposits overlying a truncated and disturbed natural profile containing historical artefacts dating between 1820 and 1864.
SA 8	A modified historical topsoil with a date range of 1830 – 1869, providing strong evidence that archaeology relating to the early settlement period of Windsor is likely to be preserved within lower Thompson Square, below later fill deposits.
SA 9	Historical deposits consistent with SA 8, providing strong evidence that archaeology relating to the early settlement period of Windsor is preserved within lower Thompson Square.
SA 10	Evidence of further modified historical topsoil and subsoil dating to the first half of the 19 <sup>th</sup> century and consistent with the results of SA 8 and SA 9.
SA 16	A Telford sandstone road constructed in the mid-19 <sup>th</sup> century.
SA 17	A continuation of the Telford sandstone road constructed in the mid-19 <sup>th</sup> century and identified in SA 16.
SA 18	A continuation of the Telford sandstone road constructed in the mid-19 <sup>th</sup> century, identified in SA 16 and SA 17.
SA 24	A hard-packed deposit potentially denoting a road or ground surface from the first half of the 19 <sup>th</sup> century.
SA 25	Early 19 <sup>th</sup> century wall footing and associated deposit. Possible mid-19 <sup>th</sup> century road or ground surface.
SA 26	Early 19 <sup>th</sup> century brick box drain.

Test pit	Testing Aims
SA 28	Historical deposits consistent with those from Aboriginal test pits SA 8, SA 9 and SA 10 in lower Thompson Square.
SA 29	Historical deposits consistent with those from Aboriginal test pits SA 8, SA 9, SA 10 and SA 28 in lower Thompson Square.
SA 30	A thin stony layer corresponding with the pre-1897 level of the approach road to the bridge.
SA 32	Cobbled surface likely to date from the late 19 <sup>th</sup> century, and evidence of associated planting.
NH 1	No historical archaeological features, structure or artefacts identified.
NH 2	No historical archaeological features or structure identified. Single fragment from a Dewar's whiskey bottle may relate to the Squatters Arm Inn which operated from the 1830s to 1913.
NH 3	No historical archaeological features or structure identified. Two artefacts dating to between 1820 and 1840 was recovered from the upper 10cm of the test pit.
NH 4	No historical archaeological features or structure identified. A single artefact dating to between 1820 and 1830 was recovered from the upper 10cm of the test pit.
NH 5	Presence of burnt tree roots in a rectangular cut may demonstrate late 19 <sup>th</sup> or early 20 <sup>th</sup> century market garden or orchards. Two artefacts dating to between 1835 and 1829 identified from the upper 10cm of the test pit.

## 6.2 Archaeological Potential

The above summary of the key findings indicate that the site still has the potential to contain significant historical archaeological remains located in the south end of the project zone in some form or another. The likely potential archaeological remains may include further evidence of:

- Land use within Thompson Square dating to the early days of the settlement, including gardening, access paths connecting the village of Green Hills with the river bank, and possibly residential occupation (early huts and associated amenities such as cesspits, wells drains, outbuildings, etc), as well as boat construction industry. This information could potentially be obtained from further investigations of the areas surrounding SA8-10, SA29, SA32A.
- A drainage/sewer system constructed by Howe and McGrath around or after 1815, as indicated by the remnants of the brick drain identified in SA26.
- The Government Domain wall and gateway, marking the boundary between the Government Domain and House and the rest of the town, the carriageway leading to the Government House as well as other structural elements associated with the surrounding buildings. This information could be obtained from the areas surrounding SA25, SA24 and the south section of SH6.
- Occupational elements associated with the Victorian and later periods of the site development, evident in fences, thoroughfares paths, plantings, etc. across the entire site as indicated by the findings obtained from the majority of test pits excavated in the south end of the project zone.
- The early occupation horizons around the former Punt House near the riverbank.
- Various artefacts including domestic consumption objects, tools, architectural elements, personal objects, etc.

## 7 RESPONSE TO RESEARCH QUESTIONS

This section of the report provides a summary response to the broad and site specific research questions within the limits of the available data. The abridged information against each research question is presented in the table below. This report does not address any of the site specific thematic research questions.

	Research Question	Answered Yes/No/Partly	Test pits Where Evidence Found	Response
Broad	What features or deposits are present on the site?	Yes	SH 1-SH 3, SH 6, SH 8-SH 10A; SA 3, SA 8-SA 11, SA 16-SA 18, SA 24-SA 26, SA 28-SA30, and SA 32; NH 2, NH 5.	A variety of historical archaeological features both structural and depositional (including artefacts) were found in a number of test trenches/pits spanning between the Macquarie period or earlier and the first quarter of the twentieth century. They are all presented in Table 19 of this report.
	What is the nature and extent of these features and deposits?	Yes	N/A	Given the limited nature of test excavations, the full extent of identified features and deposits could not be determined. In general, the great majority extends beyond the boundaries of the excavated test trenches and pits. The nature of the excavated remains is by and large associated with: the development and occupation of the township of Windsor as demonstrated by evidence of burning as part of land clearing, structural remains of road surfaces and a brick wall footing and drain attributed to the Macquarie phase of historical development; the flooding as evident in accumulated alluvial soils and its management via backfilling, which is identified in the stratigraphy of a number of test trenches across the site, particularly those located closer to the river bank. Food consumption and refuse discard demonstrated by a number of artefacts retrieved from fills and several sealed deposits.
	How intact are they?	Yes	N/A	Most of the exposed features and deposits were found to be disturbed by various site formation processes, leaving



				<p>very few intact. The remains of the early twentieth century Telford road surface found on George and Bridge Streets are considered to be best preserved. The convict built brick drain and the brick footing likely to be the entry gate wall of the Government Cottage and Domain complex are fairly fragmentary, as the identified remains were located close to the current road surfaces. However, any extension of these features below more substantial fills may still be in a better state of preservation.</p>
	What is their significance?	Yes	N/A	<p>The 2016 test excavation programme identified historical archaeological features and deposits assessed to be of both State and local significance.</p> <p>Of particular significance is the group of related structural remains comprising the brick wall footing of the Government Cottage and Domain entry gate; the brick and stone surface associated with the stables of the Government compound and the brick drain, both located in Old Bridge Street. These archaeological features and the retrieved artefact assemblage provide an important resource for further research of a site that formed part of the early colonial establishment which exploited convicts to build a new nation, and as such would be considered to be significant at a state level. In particular, artefacts providing evidence of contact between the new settlers and local Aborigines (such as knapped/modified European objects) would be of State significance. Equally, pollen evidence of introduced species associated with early land cultivation would be also significant at a State level.</p> <p>Archaeological evidence of the original landscape and how it has been modified by clearing involving burning and stumping; flooding and remediation; and cutting and filling associated with the introduction of different infrastructure, such as the bridge and associated</p>

				<p>roadway would contribute to an understanding of the continuous settlement impact on the natural environment of Windsor, and as such would be significant at a local level.</p> <p>Archaeological evidence such as the Telford road base, various connecting paths, fence lines and other infrastructure elements from the later 19<sup>th</sup> and early 20<sup>th</sup> century development phases would be significant at a local level.</p>
	What are their depths below the current surface?	Yes	SH 1-SH 3, SH 6, SH 8-SH10A; SA 3, SA 8-SA 11, SA 16-SA 18, SA 24-SA 26, SA 28-SA 30 and SA 32; NH 2, NH 5.	The 2016 test excavation program confirmed that the historical archaeological remains are located at a depth varying between 0.14m (SA26) and 2.3m (SA 3).
	What date or occupation phase can be assigned to them?	Yes	N/A	The identified archaeological remains cover a broad date range: from the early days of the establishment to Green Hills (C1790) to the more recent developments evident in road surfaces within Thompson Square and in George and Bridge Streets (early 20 <sup>th</sup> century), and remanet of the mid twentieth century Boat Club.
	How does this information compare to available historical information relating to the site?	Yes	N/A	The archaeological evidence obtained from the test excavation by and large supports the historical information. Various construction techniques and material identified on some structural elements such as the type of brick and/or bonding mortar identified in the drain remain or the Domain wall footing, the use of Telford roadbase for the upgrade of Bridge Street road surface, as well as datable artefacts correspond with the historical written and photographic records.
Site Specific Questions – Landscape	Is there evidence for flooding or other erosional effects from the site's proximity to the river?	Yes	SH 8, SH 9, SA 8-SA 11; SA29, SA 30, SA 32; NH 1-NH 5.	Yes, there is abundant evidence of colluvial soils and remedial fills identified in both vertical and horizontal stratigraphy of the test trenches excavated in the vicinity of the south river bank and Thompson Square north.

	Can historically attested floods be discerned?	Partly	n/a	Further research is required to provide answer to this question.
	What palynological evidence is there for the changes to the local flora from pre- to post- colonisation?	No	SA 24 – samples yet to be tested.	This data is yet to be obtained from the soil sample analysis.
	Is the first clearance of the site evident and what effects did it have on the site?	Yes	SH 1	Some evidence of clearance by burning is indicated in the charcoal and scorched clay remains in SA1.
	Was the area of the square stabilised, cut, filled or otherwise altered to serve its purpose as a landing place and then public space?	Yes	SH 2-SA 4; SA 8-SA 11, SA 29.	The Thompson Square south provided evidence of backfilling required for the construction of a road, which was subsequently backfilled
Site Specific Questions – Contact Archaeology	Is there evidence for the initial period of contact between the local Aboriginal people and Europeans?	Yes	SA 6, SA 8, SA 10.	Evidence of flaked European glass object has been found in several test pits.
Site Specific Questions – European	What is the earliest evidence for the European presence	Yes	SA 3; SA 24 (potentially, pending paleobotanical testing results).	The earliest evidence for the European presence on the site could be contained in pollen samples, which once confirmed by paleobotanical analysis, may confirm the

	on the site?			first attempts of land cultivation in the area.
	Is it related to the river or other activities?	Settlement activities at present	SA 3; SA 24.	This evidence would be related to the land use rather than river transport.
	Is there any evidence of the first settlers of Green Hills/Mulgrave Place?	No	SA 3; SA 9-SA 10; SA 24 (potentially, pending paleobotanical testing results).	The artefact assemblages retrieved from several locations of the site include objects datable to the late and early nineteenth centuries, suggesting they may be associated with the first settlers of the area.
	What evidence is there for Baker's and Thompson's occupations on the south side of the river?	No		n/a
	What materials were they constructed from?	No		n/a
	Is there any evidence for early paths and tracks to access areas on both the north and south sides of the river?	No		n/a
	Is there evidence for an early alignment	No		n/a



(pre-1810) of George Street?			
Is there evidence for Howe's brick barrel drain(s) in the square?	No		Although no tangible evidence was retrieved during the teste excavation program, the section of the brick drain identified in SA26 may suggest its location as it was likely feeding into the main drain.
Is there evidence for the heavy military presence at Windsor on the south side of the river?	No		n/a
Are any other structures or occupation evidence remaining at the intersection of the Wilberforce and Freemans Reach Roads?	Partly	NH 2.	The discovery of a timber post and alluvial deposits containing sporadic artefacts in the vicinity of the former inn indicate they could be associated with this dwelling, which potentially survives in some form below the current homestead at the northwest corner of Wilberforce and Freemans Reach Roads.
What evidence is there for modifications and development to Thompson Square and adjacent areas?	Yes	SH 2; SA 9, SA 10.	This evidence is presented in substantial cuts and fills that resulted from the construction of the bridge and its access.
What is the evidence of the late 19 <sup>th</sup> /early	Yes	SH 2, SH 7, SA 9, SA 10, SA 28, SA 29.	Substantial fills for the construction of the bridge and associated access road, structural element associated

	20 <sup>th</sup> century modifications across the site? How have these later modifications affected the survivability of the historical archaeological resource?			with the Boat Club that was located in Thompson Square north, as well as Telford road base are tangible evidence of the late 19 <sup>th</sup> and early 20 <sup>th</sup> century modifications.
	What did vacant space mean in the context of Windsor over 200 years and how is this manifested at Thompson Square? Was it a place to dump refuse or was it treated as a civic space?	Partly	SH 2-SH 4; SA 6-SA 11; SA 28-SA 30.	The scarce information obtained from the testing program confirms that the vacant space at Thompson Square was used for accessing the riverfront and dumping refuse.

## 8 REVISED SIGNIFICANCE ASSESSMENT

### 8.1 Existing Statement of Significance

The following statement of significance has been reproduced from the 2012 Biosis report:

*The historical analysis, archaeological assessment and evidence from testing and past works demonstrate that there is likely to be a complex and chronologically deep archaeological profile within Thompson Square and to a lesser degree on the northern river bank. It is impossible to isolate the resource that could exist within the subject area and assess its significance. It must be assumed that the evidence contained within the subject area will have the same values and significance as the rest of Thompson Square even if specific elements within both may vary from each other. The significance of the archaeological resource within the subject area is the same as that for the resource across all of Thompson Square and this cultural significance must be assessed on several levels.*

*Windsor is the third settlement in Australia after Sydney and Parramatta. These are the places that made long-term European settlement possible and their histories inform us of the circumstances, the pressures and visions that would shape our history and the way we live. Apart from its importance as one of our first permanent settlements, Windsor also has added status as a Macquarie town, one of only five places in the Hawkesbury that were specifically selected and influenced by arguably our most important Governor, Lachlan Macquarie. A number of the improvements and designs for Thompson Square are a direct result of Macquarie's involvement. Thompson Square has direct associations with outstanding people in the development of the town and region particularly Andrew Thompson, who lived and worked here. The archaeological resource could provide tangible links or associations with significant historical figures by revealing works or improvements that have been created for, on behalf of, or by these figures.*

*Thompson Square is the single place that links the earliest settlement on the Hawkesbury with the Macquarie-era town. This site was used as a civic precinct to service the first farms established on the river from 1794. It evolved into a small village in its own right that also provided the services and administration for the region. It is the seminal place of the town's evolution. It was this village that was incorporated into the Macquarie planned town of Windsor; it was the only town to incorporate this earlier layer of settlement. It is unique. If Windsor and Thompson Square are important then archaeological evidence that can better document or reveal the history of use and development that is unique to this place and provide evidence of its associations is also significant. The below ground resources are likely to provide evidence of the earliest years of settlement, pre-dating the fabric that survives above ground. Archaeological evidence is also likely to provide evidence of events and processes that were specific to Thompson Square but are representative of the development of this town.*

*The principal value of the potential archaeological profile in Thompson Square is its cumulative value. It has the potential to document events, processes, improvements and places that span the full history of European development in this place from 1794 to the present day. It is likely to be the only place in Windsor or its environs that can do so. The archaeological profile of the subject area on the south bank is completely unique to it. Because of the potential chronological depth of the profile it may include sites that are rare beyond the specific history of this place.*

*Apart from the potential to document and demonstrate the changing town and the place of Thompson Square in it over a long period of time the archaeological profile of Thompson Square can be evaluated for different levels of significance that are largely relevant to their rarity either through age or singular uses. In particular, evidence that relates to the founding settlement of 1794 up to and inclusive of Macquarie-era works is assessed to be of exceptional significance for its importance within the town, its rarity and its contribution to documenting the growth of the colony in its formative years. For the earliest years of settlement this resource would be the only fabric that survives in the town; there is no evidence above ground that predates 1811. It is comparable to only a very small number of other places in New South Wales that have the same depth of development such as Sydney or Parramatta.*

*As well as works from the first decades of the town's growth the subject area is also likely to encompass important improvements from the middle and later years of the nineteenth century that reflect the changing status and role of the town and Thompson Square. These include the development of the bridge across the river to link the two communities. Many of these processes are not evident in above ground resources. These are resources that can make a substantial addition to the evidence that survives above ground; they have value for the town.*

*Evidence that derives from the early to middle years of the twentieth century is less significant. These processes are still evident in other forms and they have impacted on earlier and very rare resources. Evidence from the later years of the twentieth century onwards which is still largely intact above ground and has acted to remove or disturb older or very rare elements is considered to have little individual significance but is recognised as an integral component in the complex profile.*

*The northern area of the subject area across the river also has a history of settlement that dates back to 1794 with a farm established here by the ex-convict, Edward Whitton, in that year. Apart from his pioneer status Whitton's contribution is representative of the thousands of people who worked to develop the region.*

*Archaeology in the northern part of the subject area is unlikely to have the same complexity of resources as Thompson Square because of the nature of settlement here; largely pastoralism and agriculture. It has value as a comparison to the complex history of Thompson Square but its individual components are likely to be less significant; the exception would be the site of a long-standing landmark inn although its precise location cannot be determined. The resource in the northern part of the subject area, with few exceptions, is likely to be more representative of the agricultural/pastoral development that characterised this side of the river.*

*The archaeological resource is likely to provide a depth of historical layering and sense of place to the acknowledged visual qualities of Thompson Square. These are qualities and resources that can be valued by the community. It has the ability to provide unique, rare and representative components for this place and for New South Wales. The cumulative profile recording evidence of works and change over two centuries is unique. Within that adjusted profile evidence of the Green Hills period of development and Macquarie-era works would be of State significance; evidence contained within it, above and below ground that can be determined to have a direct association with the Green Hills Settlement or the period of expansion under the direction of Governor Lachlan Macquarie would potentially be of National significance. The remainder of the archaeological profile has local significance.*

## **8.2 Revised Statement of Significance**

### **8.2.1 ASSESSMENT OF HISTORICAL SIGNIFICANCE**



The following discussion focuses solely on the significance of the archaeological evidence revealed during the 2016 testing programme. Further revision will be provided in the final excavation report, which will be prepared in response to Condition C5 of the MCoA.

In general, the level of archaeological significance defines the degree of impact or tolerance for change that the archaeological resource can be subjected to, and determines the level of investigation and recording that is required. While archaeological resources form an integral component of the adjusted significance of a place, their significance is assessed independently from above-ground and other heritage elements. This is because the extent and nature of archaeological features and deposits is often unknown. The following significance reassessment of the subject site's archaeological resource considers criteria expressed in the publication 'Assessing Significance for Historical Archaeological Sites and 'Relics', prepared by the Heritage Branch, Department of Planning (NSW) (now the Heritage Division, OEH) in December 2009.

The four NSW Heritage Criteria for Assessing Significance related to Archaeological Sites and Relics are:

- Archaeological research potential (current NSW Criterion E).
- Associations with individuals, events or groups of historical importance (NSW Heritage Criteria A, B and D).
- Aesthetic or technical significance (NSW Heritage Criterion C).
- Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria A, C, F & G).

The above assessment criteria for historical archaeological sites are supplemented by the established assessment framework that has been developed by Anne Bickford and Sharon Sullivan in 1984. It comprises three key questions generally used as a guide for assessing the significance of an archaeological site.

The results of the 2016 testing program indicate that, despite a significant level of disturbance by various site formation processes, the study area has potential to yield information that could contribute to a better understanding of the development of early Windsor (i.e. Green Hill, Mulgrave Place). The new evidence can contribute the research into settlement and agricultural use in the early colonial period. This research value principally derives from the identified structural and artefactual remains (and any other associated remains that are yet to be identified), as well as remnant cultural landscape at the site.

The 2016 test excavation program identified archaeological features and deposits assessed to be of both State and local significance.

Of particular significance is the group of related structural remains comprising the brick wall footing of the Government Cottage and Domain entry gate; the brick and stone surface associated with the stables of the Government compound in George Street, and brick drain, both located in Old Bridge Street. These archaeological features and the retrieved artefact assemblage provide an important resource for further research of a site that formed part of the early colonial establishment which exploited convicts to build a new nation. Together with the preserved foundations of the previously excavated guardhouse, located at the south end of Bridge Street, they provide a direct link to Australian early colonial history.

This uncommon collection of archaeological remains has significance in terms of its historical, associative, social, technical/research and rarity aspect, representative of the evolution of the place from a colonial agricultural settlement consisting of modest huts and government stores and offices to the newly laid out town with an established boat construction manufactory and river trade. This group of remains is considered to be of state significance.

Any further artefacts recovered, including rare examples of imported or locally made objects, as well as those providing evidence of contact between the new settlers and local Aborigines, would also have a high research value. Any artefact bearing deposits and individual artefacts (such as knapped/modified European objects) representing direct contact between the settlers and local Aborigines would be of state significance.

Further research potential is contained in the evidence of the original landscape and how it has been changed by natural and/or human impacts following initial settlement. This includes evidence of burning, stumping and fire clearance; flooding and remediation; pollen evidence of natural and/or introduced vegetation; and cutting and filling associated with the introduction of different infrastructure, such as the bridge and associated roadway. During the area's 220 years of European settlement, the landscape has been dramatically altered through the initial clearance of native vegetation, agricultural activities, frequent flooding and redevelopment. The change in the landscape is evident and as such contributes to an understanding of the continuous settlement impact on the natural environment of Windsor.

Archaeological evidence such as the Telford road base, various connecting paths, fence lines and other infrastructure elements from the later 19<sup>th</sup> and early 20<sup>th</sup> century development phases would be significant at a local level.

In summary, the historical archaeological remains identified within the substantially modified cultural landscape have the ability to address a range of research questions associated with the early phases of colonial settlement; evidence about the early marine activities and river traffic; the life of convicts, emancipists and military personnel and their ability to manage their existence and social progression; the nature of successful life of early emancipated convicts; and those who had the patronage of Governor Macquarie. The artefacts and remains may also have the ability to address questions relating to the evolution of the landscape, townscapes, diet, lifeways and Aboriginal contact.

Cumulatively, both the recorded archaeological remains and the areas identified as having archaeological potential can make a significant contribution to an understanding of the history and development of Windsor and New South Wales at State and local levels.

### **8.3 Summary Statement of Heritage Significance for Thompson Square**

The following statement of heritage significance for the core of the project area comprising Thompson Square is adopted from the draft SCMP. It is prepared in light of the information obtained from the 2016 test excavation programme and as such differs from the gazetted statement of significance for the Thompson Square Conservation Area as listed on the State Heritage Register. It is an all-inclusive statement combining all heritage values of the site.

The study area for the Windsor Strategic Conservation Management Plan is of State heritage significance for built, Aboriginal, historic, archaeological and landscape values. The area was used by the local Aboriginal people at least as early as 23,000BP; some of the earliest known dates for Aboriginal habitation in the Sydney Basin. The sand sheet that extends through much of the study area is likely to contain additional significant remains of early Aboriginal habitation which will broaden the understanding of early lifeways in the Sydney Basin through future archaeological investigation. Later period (Holocene) Aboriginal cultural material will provide further detail of a better understood period of Aboriginal habitation, and provides the opportunity for comparative analysis with equivalent deposits in areas such as the Windsor Museum Site and Pitt Town. The general area is also a known site of interaction between local Aboriginal people and colonial settlers, with archaeological evidence of Aboriginal reuse of colonial glassware and documented accounts of both friendly interaction and violent conflict in the historical record.

Historically, the area is associated with the early settlement of Green Hills and the later formalisation of the town of Windsor by Governor Macquarie in the early 19<sup>th</sup> century. As one of the Macquarie

Towns, Windsor was part of Macquarie's vision for the evolution of the colony of NSW in general, as well as the formalisation of the civic space in Windsor through the declaration of Thompson Square as the earliest town square in Australia. While modified, the general configuration of Thompson Square reflects its early boundaries and provides an insight into the early colonial development of Windsor and colonial Australian towns.

Thompson Square also has a strong association with colonial figure Andrew Thompson, a freed convict turned entrepreneur, who demonstrated the social mobility between the convict and freedman classes early in the history of Australia. His friendship with Governor Macquarie and his memorialisation through the naming of Thompson Square are important symbols of the changing social position and attitudes of freed convicts in the early settlement. The present Thompson Square is largely based on the land leased and later granted to Andrew Thompson. Following the establishment and formalisation of Thompson Square, it became an important civic space to the growing community of Windsor.

The landscape of Thompson Square and the study area reflects the changing needs and ambitions of the local community over time. The early Square was used as a place of public gatherings, markets and even executions, while the purpose changed in the late 19<sup>th</sup> century to a more parklike function. The construction of the Windsor Bridge in the late 19<sup>th</sup> century led to the first of many impacts on Thompson Square as roads were established, altered, expanded and realigned through the transition from pedestrian and horse-drawn vehicles, through to private motor vehicles and heavy vehicles, reflecting the growth in trade and the development of the consumer economy in the 20<sup>th</sup> century. The vegetation and landscape elements of the park reflect this change in use from a utilitarian public space used for a variety of functions to a space for passive recreation. The landscape also reflects the cumulative and ongoing impact of flooding of the area, through the periodic inundation of Thompson Square and the surrounding study area.

Windsor Bridge replaced the earlier punt crossing of the river and reflects the importance of the transport routes through Windsor and the increasing importance of road traffic over river traffic for the shipping of goods. The bridge was modified on multiple occasions to address the issues of flooding and the increased impact of modern traffic, particularly with the reinforced precast concrete modifications in the 1930s, which reflect technological innovation at the time. The new Windsor Bridge will continue the tradition of progressive alterations of the river crossing in response to changing needs and technology, and reflects the continued importance of Windsor as a transport route. The historical archaeological remains within the study area have identified partial remains of some early colonial structures, particularly along the eastern side of the study area. These provide an important opportunity to investigate the undocumented aspects of the area's history and development, through future excavation, conservation and interpretation. It is likely that even more substantial archaeological remains of the colonial period exist in the private lands on the periphery of the study area, which have been subject to lesser impacts over the last 200 years. The identified archaeological remains of the c1814 wharf are an important example of an early colonial maritime structure and provide opportunity to study and interpret the maritime history of the area.

The collection of buildings adjoining the study area reflect the continual development of the area since the 1810s through to the 1970s. Buildings such as the Macquarie Arms Hotel reflect the earliest phases of development and further buildings from the 19<sup>th</sup> century reflect the early character of the area. The later 20<sup>th</sup> century buildings reflect the change of Windsor and the need for modern buildings to serve the growing town.

The parts of the study area north of the Hawkesbury River are significant for the vantage they provide back towards Thompson Square and the surrounding area, and give opportunity to reflect on the changes in the area from the colonial period to the present. The surrounding landscape is however utilitarian farmland which, while reflective of the European modification of the area for agriculture, is

not itself significant. Little in the way of significant Aboriginal or historical archaeology was identified north of the river.

Collectively, these elements of the study area contribute to the significance of Thompson Square at a State and local level.



## 9 CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE MANAGEMENT

### 9.1 Conclusions

- The program of archaeological test excavation within the Windsor Bridge Replacement Project (WBRP) area was carried out between 22 August and 25 November 2016. The aim of the testing programme was to identify the extent, nature and integrity of the potential archaeological resource that may be impacted by the WBRP, so that information retrieved could be used to further inform the project design, the Strategic Conservation Management Plan (SCMP) for the project and for the preparation of appropriate mitigation strategy to minimise the development impacts.
- Given that the WBRP has been approved as State Significant Infrastructure (SSI\_4951) under Part 5.1 of the *Environmental Planning and Assessment Act 1979*, the program of test excavation works was carried out in accordance with the Minister's Conditions of Approval (MCoA) and three separate archaeological research designs. The historical archaeological works were carried out in accordance with methodology and research framework outlined in the *Windsor Bridge Replacement Project Historical and Maritime Archaeological Research Design* prepared by AAJV in July 2016 and updated in October 2016.
- Despite the high level of disturbance of the subject area by various site formation processes, the historical archaeological test excavation identified significant relics dating from the early days of the site's occupation. These relics represent remnants of the early 19<sup>th</sup> century structures and include: a brick footing likely to be associated with the entry gate of the Government compound or possibly the Government stables; a brick and stone surface associated with the former Government Stables; and a brick drain that probably connected the former Government Stables building complex with the main vaulted drain running through Thompson Square.
- This group of the early 19<sup>th</sup> century relics, i.e. the brick footing likely to be associated with the entry gate or stables of the Government compound; the brick and stone surface associated with the former Government stables and the brick drain probably connecting the former Government Stables building complex with the main vaulted drain running through Thompson Square are considered to be significant at a state level.
- Various other archaeological evidence was also exposed including: yard deposits and features retrieved in the vicinity of the former Punt House; 19<sup>th</sup> century artefacts and modified topsoils within the north portion of Thompson Square; a late 19<sup>th</sup> century cobblestone path; an early 20<sup>th</sup> century Telford road base located along the west side of the current road reserve of Bridge Street (between George Street and Macquarie Street); a portion of the late 19<sup>th</sup>, early 20<sup>th</sup> century asphalted road surface within the southern portion of Thompson Square; soil deposits and postholes dated to the late 19<sup>th</sup> and early 20<sup>th</sup> centuries; various alluvial fills documenting flood events; and scattered artefacts and isolated features across the entire test excavation area. This type of archaeological evidence is considered to be significant at a local level.
- The historical archaeological artefact assemblage comprised 3,147 artefacts, predominantly fragments of ceramic domestic vessels. The assemblage also included tobacco pipes, personal objects (buttons, pins), metal fasteners and artefacts related to architectural/structural activities such as bricks, fragments of roofing slate, fencing wire, etc. All retrieved artefacts have been washed, sorted, catalogued and analysed.
- European artefacts bearing signs of modification for use by the local Aboriginal tribes-representing direct contact between the settlers and local Aborigines-are considered to be of state heritage significance.

- The test excavation and geophysical investigation did not result in the discovery of the main brick barrel drain that discharged into the river. It is possible that the drain is on a slightly different alignment to that originally assumed, or that some sections of the drain were removed to facilitate the construction of Windsor Bridge and associated road.
- North of the river, no historical archaeological remains of early structures were identified within the test excavation project area (the site of the Squatter's Arms Inn is outside of the existing impact corridor). However, the northern test excavation project area is sited on land that was among the earliest allotments granted in 1794, known to have included dwellings and agricultural buildings dating from this time.
- The identified historical archaeological relics were preserved at various depths ranging from 20cm to 2m below the current ground levels. The relics found under the road near the traffic roundabout at the George and Bridge Streets intersection were located closest to the current ground levels (within 20cm).
- All of the exposed structural remains were retained *in situ* and appropriately protected prior to backfilling, with the exception of small sections of the mid- to late 19<sup>th</sup> century cobblestone path and parts of the Telford road base on George Street, which were removed to allow the investigation of underlying deposits.
- This report also provides a detailed excavation strategy to guide the next phase of archaeological works associated with the WBRP. It has been prepared on the understanding that the southern portion of the proposed Windsor Bridge replacement construction phase would impact the historical core of Green Hills, later Windsor. A review of the development design indicates that the construction works will require disturbance and in some instances total removal of most of archaeological remains located in the designated construction path of the new bridge.
- The detailed excavation strategy also provides measures for mitigation of potential archaeological impacts and recommendations for the appropriate management and conservation of archaeological resources that may be retained *in situ*.
- The detailed excavation strategy recommends consideration of visual evidence of archaeological finds for inclusion in the final landscape design of the project to preserve and acknowledge the heritage value of the Thompson Square Conservation Area and its surrounds as per Condition B3 d) of the MCoA.
- This test excavation report has been prepared in satisfaction of Condition B3 a) – e) of Part B – Pre-Construction Conditions of the MCoA, including the consultation with the NSW Heritage Division with respect to the archaeological strategy and management of the known and potential archaeological resource contained within the boundaries of the WBRP.

## 9.2 Recommendations

Based on the findings of this report, the following recommendations are made:

- The planning and execution of the approved WBR development (SSI\_4951) and subsequent phases of development should address the historical heritage issues identified in this document, and should avoid and/or minimise development impact where possible.
- The entire archaeological management process pre and during construction would be carried out in accordance with the Detailed Excavation Strategy as outlined in Section 10 of this report.

- The Detailed Excavation Strategy should draw on the research framework outlined in the existing test excavation ARD. Based on the established procedures having regard to the heritage aspects of the project, this Detailed Excavation Strategy should be approved by the Department of Planning and Environment and/or Heritage Division prior to its implementation.
- No ground disturbance works should be carried out within the boundaries of the project prior to the endorsement of the Detailed Excavation Strategy presented in this report.
- RMS and construction contractor should advise all relevant personnel and contractors involved in the design, construction and operation of the proposed development, of the relevant heritage issues, and recommendations identified in this report. This should be undertaken a part of the broader site inductions usually required prior to any personal or contractors working on the project.
- Prior to construction, recommended mitigation measures in accordance with the strategy and methodology outlined in Section 10 of this report should be implemented. No construction or ground disturbance activities on-site should proceed until the on-site archaeological components have been completed or without a suitably qualified archaeologist present to undertake works in accordance with the methodology outlined in the Detailed Excavation Strategy provided in Section 10 of this report.
- The recommended mitigation measures include, but are not limited to the works within the curtilage of the new road/bridge path plus a buffer zone, the lowering of the Terrace Road, regrading of Thompson Square, utilities realignment, etc. In the event that development or construction activities are required beyond currently proposed depths or beyond this identified impact areas, the mitigation measures of this report would need to be re-assessed, and any additional requirements implemented prior to construction/development beginning/resuming.
- The construction contractor is to implement measures so that archaeological areas are identifiable to site personnel at all times to ensure there is no inadvertent direct or indirect impact (**Figure 120**). These measures should be designed/implemented in a manner that does not impede public access around the site.
- The final approved version of this report should be submitted to the Department of Planning and Environment, the Heritage Division, and the heritage section of Hawkesbury City Council's library.

## 10 DETAILED EXCAVATION STRATEGY

### 10.1 Introduction

The following excavation strategy has been prepared in response to Condition B3d) of the MCoA. It has been formulated to guide and optimise further investigation and management of the historical archaeological resources and cultural heritage values of Thompson Square, as part of the WBRP. It is based on the level of significance and research potential of the archaeology discovered to date, and the assessed redevelopment impacts.

The main objective of the Detailed Excavation Strategy is to provide clear archaeological management measures for mitigation of archaeological impacts associated with the WBRP. This includes the staging of the onsite works, methodologies for investigation and protection of archaeological relics (known and potential) to ensure that the archaeological research potential can be fully realised.

This Detailed Excavation Strategy draws on the research framework outlined in the existing test excavation ARD. It is prepared in accordance with archaeological best practice and the specific demands of the WBRP. The principle measure for the strategic management of historical archaeological resources within the study area has been framed around the level of significance.

The recommended archaeological management strategy is provided below and summarised in **Figure 120**.

### 10.2 Archaeological Impacts

The volume and location of the WBRP redevelopment works that have the potential to impact on the site's archaeological resources are shown in site plans provided in Figure 119.

In general, the construction works that may result in various levels of archaeological impacts include:

- The construction of a new 2 lane bridge east of the original Windsor Bridge;
- New approaches and abutments, including a major new abutment structure along the east side of Thompson Square;
- Relocation of services, establishment of new services including road signalling and lighting;
- Resurfacing of Bridge Road south of George Street and partially into George Street on either side of the intersection with Bridge Street;
- Construction of a new roundabout and approach roads north of the Hawkesbury River;
- Construction of a new stormwater detention basin north of the Hawkesbury River;
- Construction of scour protection and erosion control works along the north and south river embankments, extending partially into the river;
- Modifications to roadways along the southern river edge to incorporate improved vehicle access to the existing wharf;
- Modifications to Thompson Square, including the infill of the existing road cutting the re-join the bisected Square, minor alterations to ground surface levels within the park area, the provision of stairs along either side of the park and replanting;
- Soft and hard landscaping and heritage interpretation installations north and south of the river.



According to the current construction programme, the bridge will be progressively constructed from the north side of the Hawkesbury River, to the south, with the main construction side compound to be located north of the river in the area of the former turf farm. The following impact assessment is prepared with respect to each river bank separately.

#### 10.2.1 POTENTIAL ARCHAEOLOGICAL IMPACTS NORTH OF HAWKESBURY RIVER

Given that no historical archaeological remains of significance located in this area were discovered during the 2016 testing program, the potential development impacts onto historical archaeological resources is considered to be low-nil. Based on this, salvage excavation for the northern side of the Hawkesbury river is not considered warranted. However, in the event that unexpected relics were to be discovered, stop-work protocols should be implemented.

#### 10.2.2 POTENTIAL ARCHAEOLOGICAL IMPACTS SOUTH OF HAWKESBURY RIVER

The south side of the Hawkesbury river yielded a range of historical archaeological relics of significance that will be impacted by the construction works including:

- Excavation works for piers and pile caps beneath the southern bridge approach;
- Excavation works for the sides of the abutments;
- Relocation of services involving removal of the existing and introduction of new services including water, sewer, stormwater, electrical, telecommunications and road signalling;
- Excavation to resurface existing roadways south of the intersection of George Street and Bridge Street;
- Excavation to reshape landforms within Thompson Square;
- Excavation for staircases to be located along the east and west side of Thompson Square;
- Excavation to lower the roadway along the river edge to provide bus access to the wharf;
- Excavation to establish a bus turning bay including a retaining wall, to the east of the new abutment;
- Excavations within Thompson Square for landscaping, interpretation and park infrastructure.

These areas within the bridge and road corridor, plus the buffer zones, encompass the areas of archaeological significance likely to be impacted by the WBRP. Some areas of land underneath the new abutment may remain unexcavated between the rows of piers and pile caps. Areas beyond the buffer zone are recommended for archaeological monitoring for historical archaeological materials in some areas, while other areas which have either been identified during testing as not containing materials of archaeological significance, or which are anticipated to receive only minor impacts, are recommended for stop-work protocols during construction only.

These works The area of lower Thompson Square is also proposed to be fully investigated for historical archaeological remains, based on the results of the testing, the level of construction impact and the necessity to remove the upper layers prior to the Aboriginal salvage investigations. The full proposal for this area, referred to as Area 1, is set out below.

The remaining areas of historical archaeological potential recommended for salvage are located within roadways, footpaths and other areas where it is logistically difficult to restrict access prior to construction formally commencing on site. The Minister's Conditions of Approval for this project restrict road closures and hours of work prior to the formal start of construction, making open area excavation in roadways impractical prior to construction.

It is therefore proposed that the remaining areas recommended for historical archaeological salvage, identified as Areas 2 to 7 below, will be excavated during the construction program, but prior to any construction impacts in those areas. The full proposal for these areas is detailed later in this document

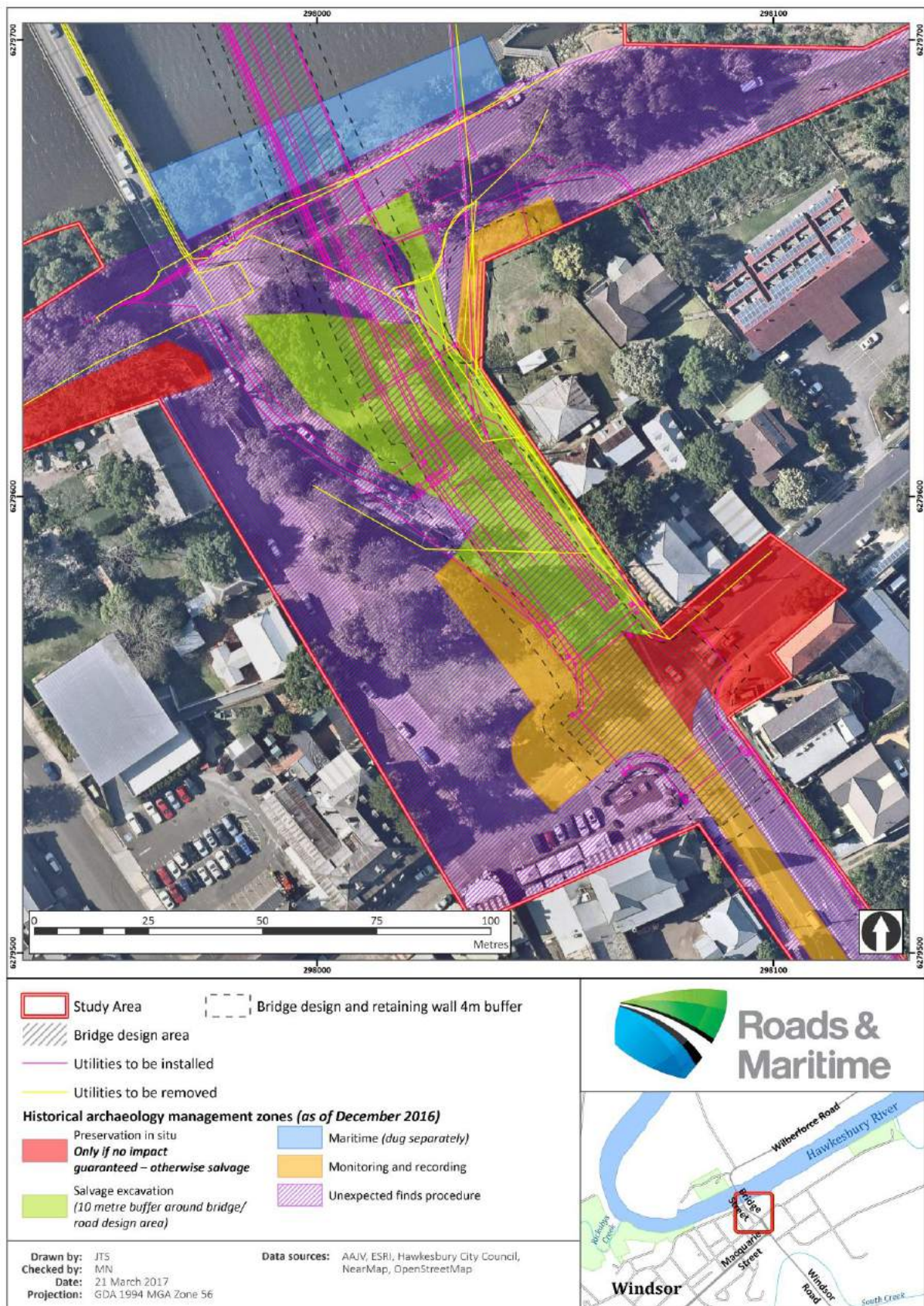


Figure 119 Plan of the south project area showing the project impact zone and proposed archaeological management. The proposed buffer zone is indicative only, and it can be subject to change (Source: Jacobs 217).



### 10.3 General Strategy

The results of the 2016 test excavations confirm that the project area contains significant archaeological evidence of both Aboriginal and historical (terrestrial and maritime) occupation. In consideration of this complexity, a holistic approach to the management of archaeological resources during all phases of development works has been adopted. Therefore, as part of the general strategic method archaeological onsite investigations will be at all times coordinated. This will ensure a seamless and logical sequence of works, with a maximum retrieval of data. In principal, historical archaeological works (e.g. monitoring or open area excavation) will precede Aboriginal archaeological excavation work. Maritime investigations however will be carried out independently, given the specifics of underwater archaeology.

Given that the site is located in the area of heavy traffic and limited access to the surrounding residences, the flow of which cannot be significantly disrupted, the required archaeological works will be undertaken according to specific logistical zones (Areas 1-5) (See Figure 121). Their sequence and the dot points below could vary to respond to a changed construction program.

The following three stages will be carried out in the pre-construction and construction phases of the project:

- Historical and Aboriginal archaeological salvage of the area that contains deposits of undisturbed sand body in the pre-construction phase of the works (part of Area1);
- Historical archaeological salvage of the remainder of Area 1 and Areas 2-5 in the pre-construction phase of the works.
- Historical archaeological investigations, inspections and protection during the construction phase of the works.

Maritime salvage works could be part of any of the above three stages, as decided appropriate.

All historical archaeological investigation works will be carried out under the direction of an Excavation Director approved for the WBPR by the NSW Heritage Division in accordance with the criteria and compliance defined in Condition B3 of the MCoA.

Archaeological resources or relics assessed to be of State significance will be managed in accordance with high level requirements, commencing with retention *in situ* and progressing to controlled archaeological investigation.

Locally significant archaeological resources will be managed in a more flexible manner, depending on the extent, nature and level of preservation.

In general, the most desirable outcome with respect to the historical archaeological resource is to leave any relics undisturbed and *in situ*. Alternatives to disturbance or removal should therefore always be considered. Subsurface disturbance should be restricted, where possible, to reduce the impact on archaeological remains.

#### 10.3.1 PRIOR TO CONSTRUCTION

- Works which are likely to impact areas with known archaeological remains and/or high potential to contain significant archaeology (eg the vault drain) will be subject to additional consideration of options to ensure that adverse impacts are avoided or minimised. For example, excavation works for services and bridge abutments should avoid disturbance of the vaulted drain. This can be achieved by bridging over, or careful removal of only those sections that are directly impacted.



- The site compound should be located away from significant heritage elements and constructed in a way that requires minimal ground disturbance. The location should consider the requirements associated with traffic and usage of the area by the locals (Figure 121).
- The heritage induction prepared for the site should reflect the conditions associated with this stage of project works and newly defined archaeological sensitivity zones, information on the heritage values of the site, extant built heritage and landscape items. Update of protocols that apply to their protection is also required.
- The heritage induction should be included into the overall site induction prepared by the construction contractor.
- Current physical protection measures will be reassessed for the areas where significant archaeological items are located (as identified by the 2016 test excavation) and in consultation with the design/construction team so as to retain integrity of such items.
- Adequate time and resources should be made available for the completion of historical archaeological works within the Aboriginal excavation zone. This may include involvement of an archaeologist or a member of a Registered Aboriginal Party (RAP), should significant Aboriginal objects be identified in historical archaeological cultural deposits, and in view of identification of possible contact period evidence.

### 10.3.2 DURING CONSTRUCTION

- In order to implement relevant heritage/archaeological controls the Project Archaeologist/Excavation Director should be regularly included in the project team communication about the progress of construction works on site. This will ensure timely decision making and timely delivery of advice in the event of any changes to the project, unexpected archaeological discoveries, etc. This is also in compliance with Condition C4 of the MCoA.
- All archaeological works will be supervised by the appointed Excavation Director, who will have an overarching role in implementing the appropriate methodology and procedures as identified in this document.
- Archaeological works will include a combination of monitoring and recording, open area (salvage) excavation, site inspections, stop work protocols and protection/conservation of significant archaeological relics.
- The Project Archaeologist/Excavation Director will notify the NSW Heritage Division, OEH, if unexpected or intact historical archaeological relics of State heritage significance are discovered.
- Subsurface disturbance should be limited to those areas identified in the project documents so as to avoid disturbance of other potential archaeological remains at the site.
- State significant archaeological remains should be retained in situ, wherever possible. In situations where removal is required, they will be thoroughly recorded, carefully removed and their fabric (should integrity allow) retained for future interpretation.
- Opportunities to inform and engage the public in the archaeological works should be explored including posting of general information about the archaeology program on the official website, public open days, etc.

### 10.3.3 UPON COMPLETION OF ARCHAEOLOGICAL WORKS

Following completion of archaeological works an archaeological excavation report will be prepared to present the results of the entire program of onsite archaeological works. The report will also provide recommendations for future management of the site's archaeological resources. The report will be prepared in accordance with the requirements outlined in Condition C5 of the MCoA.

### 10.3.4 POST CONSTRUCTION

- Site compound and other temporary works areas should be rehabilitated to at least their preconstruction condition, unless otherwise agreed by the Secretary, as per Condition C11 of the MCoA.
- Dissemination of the results of the archaeological program to wider public by way of reporting, presentations at professional events, etc

## 10.4 Archaeological Management

In order to appropriately implement the recommended strategy, four categories of archaeological management have been formulated. The categories of archaeological management correspond to the levels of known and/or predictable archaeological potential and significance as follows:

- **Preservation *In Situ*:** for areas that include: items and/or areas identified as being of State significance; and well preserved or intact relics of local significance (either listed or not).
- **Archaeological Salvage Excavation:** for management of locally significant archaeological remains with high research potential or those of state significance that cannot be retained due to the major constraints of the development design.
- **Archaeological Monitoring and Recording:** for management of archaeological resources during the construction phase in the areas where ground disturbance will be localised, or where the archaeological resource has limited research value and is of local significance.
- **Unexpected Finds Procedure:** for management of unexpected finds in areas where archaeological remains are not expected, or have not been identified during the test excavation programme.

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### 10.4.1 PRESERVATION IN SITU AND PROTECTION

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The areas of the subject site that yielded structural remains associated with the Government Compound and as such assessed to be of state significance should be secured from any development impacts, if possible. These areas include:

- the road reserve immediately east of the roundabout at the intersection of George Street and Bridge Street that contains the length of the brick wall footing (SA26) and evidence of a possible early road surface and land cultivation (SA25);
- the road reserve and part of the associated refuge island located in the Old Bridge Street (SA26); and
- the unidentified area where remains of the vaulted convict drain may be present (Thompson Square North).

The above listed relics should remain *in situ* and be protected from any potential impacts including ground disturbance work, vibration and pressure from heavy machinery and tools. Protection protocols should include but not be limited to the following:

1. Consideration of adjusting the levels of surfaces to accommodate the relics.
2. Exposure, clean up and full investigation of the item, prior to conservation.
3. Protection with geofabric and sandbagging for stabilisation. Introduction of a layer of approximately 15cm-20cm clean light-weight fine grained fill material with minimal compaction (eg sand).
4. It is recommended that advice from a structural engineer or conservation specialist be sought in relation to any pressure and vibration that may be caused by the construction works.
5. Should any archaeological work zones be established during the construction phase of works the zone should be adequately protected to avoid any impacts by heavy machinery and/or other construction equipment.
6. Installation of metal sheet piling walls along the edges of the items and surrounding deposits in advance of the piling to avoid slumping/vertical loss.

If impacts must occur to these items, all works that will require disturbance, partial removal, relocation or full removal of their fabric will be preceded by thorough archaeological investigation and recording prior to their careful removal. Appropriate investigation method for the investigation of underfloor deposits, as outlined in this Archaeological Management Plan, should be implemented.

The removal of significant items should include careful dismantling of fabric, which may be then used for interpretation.

In the instance of the sandstone footing identified below the road surface in SA26, on George Street east of the roundabout, the construction of the new road surface and associated traffic light infrastructure may impact the relic and as a result full preservation would be unattainable. Hence, the most appropriate mitigation measure would include partial removal such as elimination of the top course of the footing, or controlled removal of only those sections that will be directly impacted by the works.





Figure 120. Aerial of the south project area showing the archaeological work areas Area 1-5. The two areas outlined in red shows the proposed locations for sieving stations. (Source: RMS 2017)



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#### 10.4.2 ARCHAEOLOGICAL SALVAGE EXCAVATION

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The area included in the path of the main redevelopment works that is encroaching upon Thompson Square should be subject to an open area salvage excavation (shaded green in **Figure 121**). The salvage excavation would involve a controlled programme of archaeological investigations across the direct impact zone and the identified buffer zone on each side. In general, it would extend the areas of investigation from the initially excavated test trenches. The open area salvage excavation would be coordinated with, and occur prior to, the Aboriginal salvage programme.

Salvage would involve excavation of a larger area to identify spatial relationships between features or deposits that may be present, and to maximise the information and material that may be recovered from a site. Archaeological excavation (salvage) may also be required during the monitoring program of smaller areas where significant archaeological remains may be identified, but not preserved.

This category may include the narrow strip of land located in The Terrace Road, close to the riverfront (shaded red in **Figure 120**). This area yielded a significant artefact assemblage retrieved from yard deposits associated with the early days of the European settlement. However, given that this area is designated for localised excavation involving installation of services and construction of a parapet wall, the impacts of which are unavoidable, careful salvage excavation would be considered as an appropriate mitigation measure. The salvage would include only the areas within the direct development impact zone; any remains extending beyond the development impacts zone would be retained.

The recording would be carried out in accordance with archaeological best practice involving detailed note taking, archival photographic recording and measured drawing, and GPS and cadastral surveying for future referencing, as outlined in the excavation methodology below. The information retrieved would be used to inform the future landscaping design and the interpretation of the heritage values of the site.

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#### 10.4.3 ARCHAEOLOGICAL MONITORING AND RECORDING

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Archaeological monitoring and recording would be carried out in association with localised disturbance of the areas of archaeological potential and/or in areas of identified archaeology with limited research potential and local significance. The localised disturbance during the construction phase would include works such as service trenching, excavation of designated manholes, distribution boxes, etc., and any other controlled excavation. The areas where archaeological monitoring would be required include the west portion of Bridge Street (between Macquarie Street and George Street) and the south-west corner of Thompson Square (shaded orange in **Figure 120**).

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#### 10.4.4 UNEXPECTED FINDS PROCEDURE

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Given the unpredictable nature of archaeology where the presence or absence or the extent and nature of archaeological remains are not known until fully exposed, it is recommended to have procedures in place in the event of the discovery of unexpected finds. In general, upon the discovery of unexpected finds, works would stop immediately and the exposed remains be protected and reported to the project archaeologist for further inspection, assessment and management procedures. In the unlikely event that human remains were discovered, the New South Wales Police and Coroner's Office would be contacted and, if skeletal remains were suspected to be of Aboriginal descent, the OEH and Aboriginal stakeholders would also be informed.

The unexpected finds procedure would apply to the areas of the site that have been assessed to be of low to nil archaeological potential or where the redevelopment works would not require deep excavation with potential of causing disturbance to archaeological relics. These areas include: the northern side of the Hawkesbury River, where the potential for archaeological remains is low to nil; the eastern portion of Bridge Street (between Macquarie Street and George Street), where the archaeological evidence has been removed by the construction of the current road and town services, the lower section cutting through Bridge Street; the area of the current car park located at lower Thompson Square; and the waterfront areas along The Terrace, where potential for archaeological remains is assessed to be low or of low research potential.

## 10.5 Archaeological Research Framework

### 10.5.1 RESEARCH THEMES

The research themes and research questions formulated in the 2016 ARD are considered relevant for the recommended salvage excavation works. The identified National and State Research Themes are as follows:

- Tracing the natural evolution of Australia.
- Peopling Australia. Aboriginal cultures and interactions with other cultures; Convict; Promoting settlement; and, Fighting for land.
- Developing local, regional and national economies. Developing primary production; Commerce; Establishing communication; Environment - cultural landscape; Making economic use of inland waterways; Building and maintaining roads; Altering the environment - Regulating waterways; and Developing an Australian engineering and construction industry - Building to suit Australian conditions.
- Building settlements, towns and cities. Planning urban settlements - Selecting township sites; Land Tenure; Supplying urban services; and Making settlements to serve rural Australia.
- Governing. Governing Australia as a province of the British Empire; and Administering Australia - Policing Australia.
- Developing Australia's Cultural Life. Organising recreation - Developing public parks and gardens; Organising recreation - Enjoying the natural environment; Living in and around Australian homes; and Living in the country and rural settlements.

### 10.5.2 ADDITIONAL RESEARCH QUESTIONS

While the 2016 test excavation provided answers to some research questions, the retrieved data could not be considered exhaustive. Therefore, the site's research potential has not been realised in full and the majority of established research questions are still considered relevant for providing general contexts for further historical and archaeological investigation. In light of the results of the 2016 test excavations the existing research question outlined in the 2016 ARD and tabled in Section 6.0 of this report can be supplemented by the following more specific question raised:

- Can the retrieved archaeological evidence provide additional information to that already contained in the written and pictorial resources?
- Do deeper subsurface features (eg wells and cess-pits) dating from the late 18th and early 19th centuries exist within the boundaries of the site? If not, how their absence can be explained?

- Can the full extent and nature of the brick footing associated with the entry gate of the Government Cottage compound be determined? How accurately do the historical resources compare with the actual location and fabric of the former gate?
- Can the artefact assemblage provide any insight into the lives of the first settlers of Green Hills/Mulgrave Place?
- Can the artefact assemblage provide any more specific information about the military presence and activities at the site?
- Can the archaeological resource provide any additional information about the site not available from other resources?

## 10.6 Excavation Methodology

The following excavation methodology would apply to the investigation of archaeological remains identified on site:

Excavation will commence with a removal of identified fills by using mechanical excavator (7.5t or similar) in regular strokes so that the exposed layer in the trench is progressively reduced in a controlled manner. This process will continue until the extent of archaeological remains (should there be any) in the trench have been identified.

A mechanical excavator would be fitted with a flat bucket unless compacted modern fills or hard surfaces are encountered. A toothed bucket would be used to break up hard surfaces or loosen compacted modern fills. Mechanical excavation would be undertaken under the Excavation Director's supervision. All of the exposed archaeological remains would be cleaned by hand.

Concurrent with this, manual excavation will occur where required by qualified archaeologists. Small hand tools such as pointing trowels, picks, shovels, brushes and pans will be used in manual excavation, either for cleaning up excavated areas or revealing exposed features or deposits.

Where an *in situ* historic feature that is the target of the excavation is located, mechanical excavation will cease. The feature will then be cleaned up by hand and recorded. The archaeologist will endeavour to expose and identify all significant historic features and deposits. In the event that structural fabric is not located, excavation will stop when culturally sterile or natural deposits have been reached.

In the area of the Aboriginal sand body salvage, once culturally sterile or natural deposits have been reached, the historical archaeological sign off will be provided so that Aboriginal excavation can follow.

Spoil will be stockpiled adjacent to the trench/excavation area during the archaeological works.

The Excavation Director would have the authority to direct site works throughout all phases of ground disturbance works, as required, in order to undertake all necessary investigation, detailed recording and/or preservation of the exposed relics.

The need for detailed investigation and recording of specific deposits or features would be determined by the Excavation Director throughout the course of the investigation to ensure that important parts of the site are adequately investigated and recorded, and that resources are not employed in areas that do not warrant further investigation.

In the event that intact soil deposits are identified associated with the state significant archaeology (e.g. underfloor or yard deposits and deposits accumulated over hard surfaces, etc.), they will be

gridded and sieved. The nature and extent of a deposit will dictate the size of the grid squares, for example: 1m x1m grid squares would be used for the yard areas, and 0.5m x 0.5m grid squares will be used for underfloor deposits and deposits accumulated over hard surfaces.

#### 10.6.1 SITE RECORDING

Once exposed, archaeological remains would be recorded in accordance with archaeological best practice as follows:

- All archaeological features and deposits will be allocated their unique context number and recorded in detail on pro-forma context sheets. The site documentation should include a context register, context sheets, photo and site plan logs.
- Significant soil deposits will be recorded with reference to the Munsell soil chart.
- Where any archaeological remains are exposed, measured drawings—including relative levels in accordance with Australian Height Datum (AHD), and GPS location—would be provided. These would be keyed into the master site plan.
- Photographic recording of all archaeological features and phases of on-site works would be undertaken, using a scale bar and north arrow.
- Archival type of photography would be used for the recording of the legible archaeological remains, so that the high quality visual records could be used for interpretation purposes. Digital capture of exposed significant structures will be investigated to supplement the best practice recording.

#### 10.6.2 ARTEFACT MANAGEMENT

Any artefacts retrieved during the on-site works will be collected, cleaned and catalogued in accordance with the investigation methodology recommended in this report and best archaeological practice.

- Any artefacts retrieved would be provenanced according to their contexts.
- Artefacts will be bagged in suitable polyethylene bags, tagged with labels and put in an agreed temporary secure storage location.
- All artefacts will be subjected to a detailed analysis during the post excavation phase of archaeological works in order to fully answer the research questions which guide the archaeological investigation. This may involve cutting of samples of timber and other materials for species identification and dating.
- At the conclusion of the project they will be handed over to the client for retention and/or lodgement in an appropriate storage facility, including the neighbouring Windsor Museum.

#### 10.6.3 ARCHAEOLOGICAL TEAM

Archaeological investigation works would be directed by an Excavation Director, who has been approved by the NSW Heritage Division to direct excavations associated with the WBRP. The archaeology team would include archaeologists with knowledge of both historical and Aboriginal archaeology.



#### 10.6.4 UNEXPECTED DISCOVERY OF ARCHAEOLOGICAL REMAINS

This procedure details the actions to be taken when a previously unidentified and/or potential historical heritage item/object/site is found during construction activities.

In the event that a potential heritage artefact/item/object/site is encountered during construction the following steps shall be taken.

- **STOP ALL WORK** in the vicinity of the find and immediately notify the relevant Site Supervisor. The Supervisor will then notify the Environment Manager and/or the Project Manager, and demark the area to protect the artefact/item/object/site.
- The Environment Manager is to record the details, take photos of the find and ensure that the area is adequately protected from additional disturbance.
- The Environment Manager contacts the Archaeological Excavation Director to notify them of the location of the find.
- If the Archaeological Excavation Director advises that the find **is not** a significant historical relic, work will recommence in consultation with the Project Manager and/or Environmental Manager.
- If the Archaeological Excavation Director advises that the find **is** a relic, implementation of the appropriate heritage mitigations dependent on the significance of the site as outlined in this Detailed Excavation Strategy.

#### 10.6.5 DISCOVERY OF HUMAN REMAINS

In the unlikely event that human remains are discovered in the course of the proposed work the following protocols should be implemented. The procedure for handling human remains in accordance with the *Skeletal Remains – Guidelines for the Management of Human Skeletal Remains* under the *Heritage Act 1977* (NSW Heritage Office 1998) and the *Aboriginal Cultural Heritage Standards and Guidelines Kit* (NPWS 1997).

In the event that human skeletal material (remains) is encountered during construction the following steps shall be taken.

- **STOP ALL WORK** in the vicinity of the find and immediately notify the relevant Site Supervisor. The Supervisor will then notify the Environment Manager and/or the Project Manager, and demark the area to protect the possible human skeletal material (remains).
- The Environment Manager/Project Manager is to record the details, take photos of the find and ensure that the area is adequately protected from additional disturbance.

(Please note: each step of the procedure will advise if the following step is required to be implemented)

- The Environment Manager/Project Manager on site must notify the Project Archaeologist/Excavation Director, who will consult a forensic specialist for the assessment/identification of the remains.
- The Environment Manager/Project Manager on site must notify the NSW Police by calling '000' and the Office of the NSW State Coroner by calling '(02) 8584 7777'.

- Should the NSW Police determine the remains to not be of a criminal nature, the Environment Manager/Project Manager should notify OEH through the Environment hotline on 131 555.
- Should OEH determine the remains to be of Aboriginal ancestry, OEH and/or the Archaeological Excavation Director in liaison with the Registered Aboriginal Parties would determine the most appropriate course of action, which may include deviation of the construction works, or the careful removal of the remains and reburial elsewhere.
- Should OEH determine the remains to be of historic ancestry, the Environment Manager in liaison with the Archaeological Excavation Director should contact the NSW Heritage Branch and determine the most appropriate course of action, which may include deviation of the construction works, or the careful removal of the remains and reburial elsewhere.

#### 10.6.6 POST EXCAVATION REPORTING

On completion of on-site works and artefact analysis, a report would be prepared by the Excavation Director that presents a detailed description of the works performed and their results, illustrated by photographs, survey plans and an artefact catalogue, as appropriate. The report would include a response to the relevant research questions raised in the 2016 ARD. Any new significant information retrieved would require that a reassessment of archaeological significance be undertaken as part of the final reporting.

The report would also include advice on the future management of the remaining archaeological resources within the site.

The preparation of the post excavation report is in compliance with Condition C5 of the MCoA

The final excavation should be prepared within 12 months of the completion of onsite archaeological works.

Copies of both the test excavation and final report would be lodged with the Department of Planning and Environment, the Heritage Council of NSW and the heritage library of the Hawksbury Council.

#### **Public Information and Interpretation**

Public information on the archaeological program will be managed in accordance with the RMS Community and Stakeholder Engagement Plan for the WBRP. An Open Day should be considered to provide the opportunity to the public to experience evidence of the early history of this iconic Windsor site.

It is recommended that a general information about the archaeological works be available on the project website or via community notifications, etc. The website would feature the history of the site, information about the archaeological works with a periodical information about what interesting and/or significant finds have been discovered.

The post-excavation report would make recommendations for interpretation appropriate to the nature and significance of the historical archaeological remains investigated.

Opportunities to interpret significant archaeological evidence discovered during site works should be considered as part of a holistic approach to interpreting the site. The historical archaeological values revealed by the historical archaeological investigation should be incorporated into an integrated approach to heritage interpretation within the site. This integrated approach should address Aboriginal cultural heritage, historical archaeology, built heritage and intangible heritage values. The

interpretation should consider all tangible evidence that contributes to the storey of the site, as part of the overarching Interpretation Strategy and Plan for the project.

It is also recommended that a specific sub-plan of the overarching Interpretation Plan be prepared to ensure the maximum public benefit from the process of revealing the site's history is achieved.

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