



*Excavation Directors Report
Sydney Metro, City & Southwest
Chatswood Dive
3/06/2021*

Document History

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1	11/03/2021	V1	Draft version 1 for Sydney Metro review
2	03/06/2021	V2	Final version for Sydney Metro

Executive Summary

AMBS Ecology and Heritage (AMBS) has been commissioned by John Holland CPB Ghella Joint Venture to oversee, manage and advise on all heritage and archaeological matters for the Sydney Metro and City and Southwest project. The project was approved as State Significant Infrastructure (SSI) by the Minister for Planning on 9 January 2017 subject to a number of Conditions set out in Critical State Significant Infrastructure Sydney Metro & Southwest Chatswood to Sydenham Infrastructure Approval (Application no. SSI 15_7400) (Project Planning Approval). Minister's Conditions of Approval E18 refers to the requirement for the preparation of a final excavation report detailing the results of the archaeological investigations within the project footprint. This report fulfils the condition and details the results of the archaeological investigations at the new Chatswood Station.

Documentation for the project includes *Sydney Metro Historical Archaeological Assessment and Research Design Report (AARD)*, prepared by Artefact Heritage in 2016. AMBS prepared a *Sydney Metro, City & Southwest Archaeological Method Statement (AMS)* in 2017 in accordance with Condition E17. The AARD identified that there would be low to moderate archaeological potential across the station site with moderate to high potential for archaeology to be present from the later use of the site; the archaeology would have local significance if present. The AMS built and expended on the AARD and assessed that should the archaeological resource be present with good integrity it would have local significance and have moderate research potential.

Archaeological investigations were carried out at the Chatswood site between 4 December 2017 and 12 January 2018 in two stages, fieldwork was led by Kevin Hickson, Secondary Excavation Director, with Jennie Lindbergh, Primary Excavation Director, providing oversight to the works. The two stages consisted of monitoring slab and overburden removal to assess the underlying archaeology and open area salvage. Investigations focused where the remains associated with the former School of the Arts and Penzance would be located.

A mixed deposit was present across the entirety of the excavation area beneath the existing ground surface, this capped either natural soil profiles or archaeological features. There was significant disturbance at the southern extent of the Dive due to later development which removed the majority of the remains associated with the School of Arts and Penzance. The partial remains of the footings for a bay window associated with Penzance were identified in this area. The central and northern portions were less disturbed with relatively intact archaeological remains in the form of footings, drainage features (including a cistern) and numerous cut and fill features.

The majority of the identified archaeological features were present within the lot occupied by Penzance, including the remnant features of a bay window. Within the School of Arts area, the archaeological features were limited to post holes and one unidentified feature. The brick footings for an outbuilding related to Penzance align with the location and shape of the brick outbuilding identified in the 1899 Sydney Water Plan, it is likely the outbuilding was constructed between c.1887 and 1899. The footings consisted of three clearly defined rooms and comprised sandstock brick with a sandy lime mortar. The bricks were laid in an inconsistent arrangement between each of the walls of the structure and no distinct fill or underfloor deposits were identified within its footprint. Its irregular shape may have been intention to maximise the available space within the property boundary. An intact rubbish pit was identified to the east of the outbuilding. The cistern was located in the south-eastern portion of the investigation area and was a beehive construction, serviced by a drainage network including a brick silt trap. The beehive cistern comprised sandstock bricks set in a lime mortar and measured approximately 3.2m in diameter, it was machine excavated and was filled with artefact rich mix of

brown sandy loam. The silt trap appears to have been constructed later as it was constructed of dry-pressed bricks with a concrete mortar.

The northernmost well shown on the 1899 Sydney Water Plan was not located during excavations; however, the base was exposed during deep excavation for the Dive. There was not structural remains or associated artefacts.

The archaeological remains identified in the Chatswood Dive site are representative of late-nineteenth and early-twentieth century use of the study area. The artefact assemblage consists of a mix of artefacts dating loosely from the 1880s to the 1930s. No archaeological remains were identified on site as predating the construction of Penzance in the 1880s. The archaeological remains identified at the Chatswood Dive site have historical, research, and representative significance at a local level.

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1. Introduction

1.1. Background

The Sydney Metro & City Southwest project is a 30km-long section of new rail system from Chatswood to Bankstown and includes a new crossing beneath Sydney Harbour and new railway stations. The scope includes Tunnels and Station Excavation Works (TSE) and construction works associated with the following stations, dives and shafts (Figure 1.1):

- Chatswood
- Artarmon
- Crows Nest
- Victoria Cross (North Sydney)
- Blues Point
- Martin Place
- Barangaroo
- Pitt Street
- Waterloo
- Marrickville.

The Project was approved by the Minister for Planning on 9 January 2017 subject to a number of Conditions set out in Critical State Significant Infrastructure Sydney Metro & Southwest Chatswood to Sydneyham Infrastructure Approval (Application no. SSI 15_7400) (Project Planning Approval), of which Condition E18 states:

Before excavation of archaeological management sites, the Proponent must nominate a suitably qualified Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology and advise the Department and OEH [Office of Environment and Heritage].

Where archaeological excavation is required, the Excavation Director must be present to oversee excavation and advise on archaeological issues. The Excavation Director must be given the authority to advise on the duration and extent of oversight required as informed by the provisions of the approved AARD [Archaeological Assessment Research Design] and Excavation Methodology.

A final archaeological report must be submitted to the Heritage Council of NSW within two (2) years of the completion of archaeological excavation on the project. The report must include information on the entire historical archaeological program relating to the CSSI [Critical State Significant Infrastructure].

John Holland CPB Ghella Joint Venture commissioned AMBS to oversee, manage and advise on all heritage and archaeological matters for the project with Jennie Lindbergh, AMBS Director Historic Heritage, the Primary Excavation Director, in accordance with Condition E18. This final archaeological report on the excavations at the Chatswood Dive site has also been prepared in accordance with Condition E18.

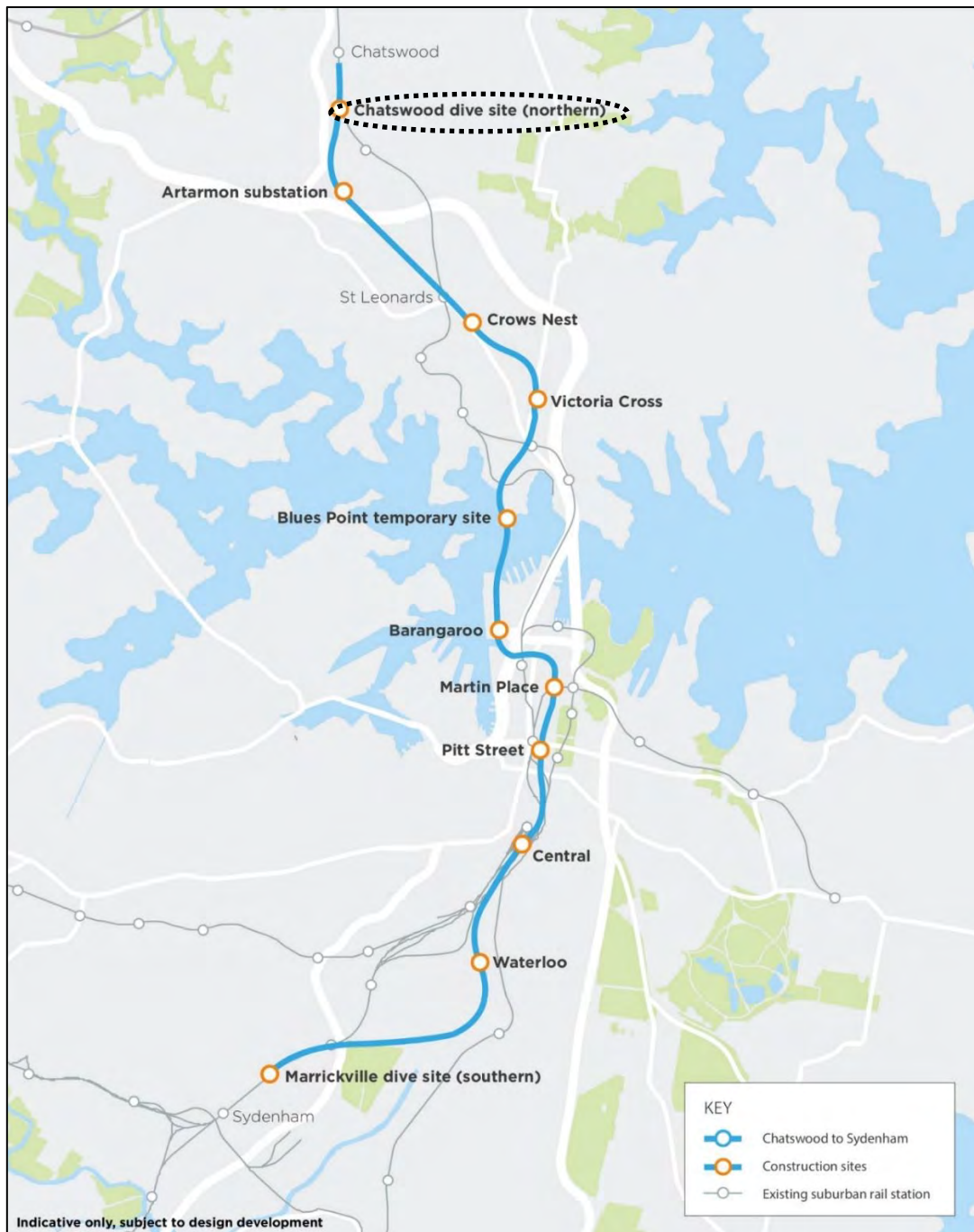


Figure 1.1 Project overview with Chatswood, circled (Sydney Metro Transport for NSW).

1.2. Site location

The Chatswood Dive site is within the Willoughby Local Government Area (LGA) and a former Ausgrid property. The eastern boundary is defined by the Main North Shore Line, with the Pacific Highway to the west, Nelson Street to the north and Mowbray Road to the south (Figure 1.2).

There are no identified archaeological sites recorded on the Willoughby Local Environmental Plan 2012 (LEP) within the project footprint, nor within its vicinity. However, Mowbray House is local heritage item 96 on the Willoughby LEP 2012 and is within the near vicinity of the Dive.

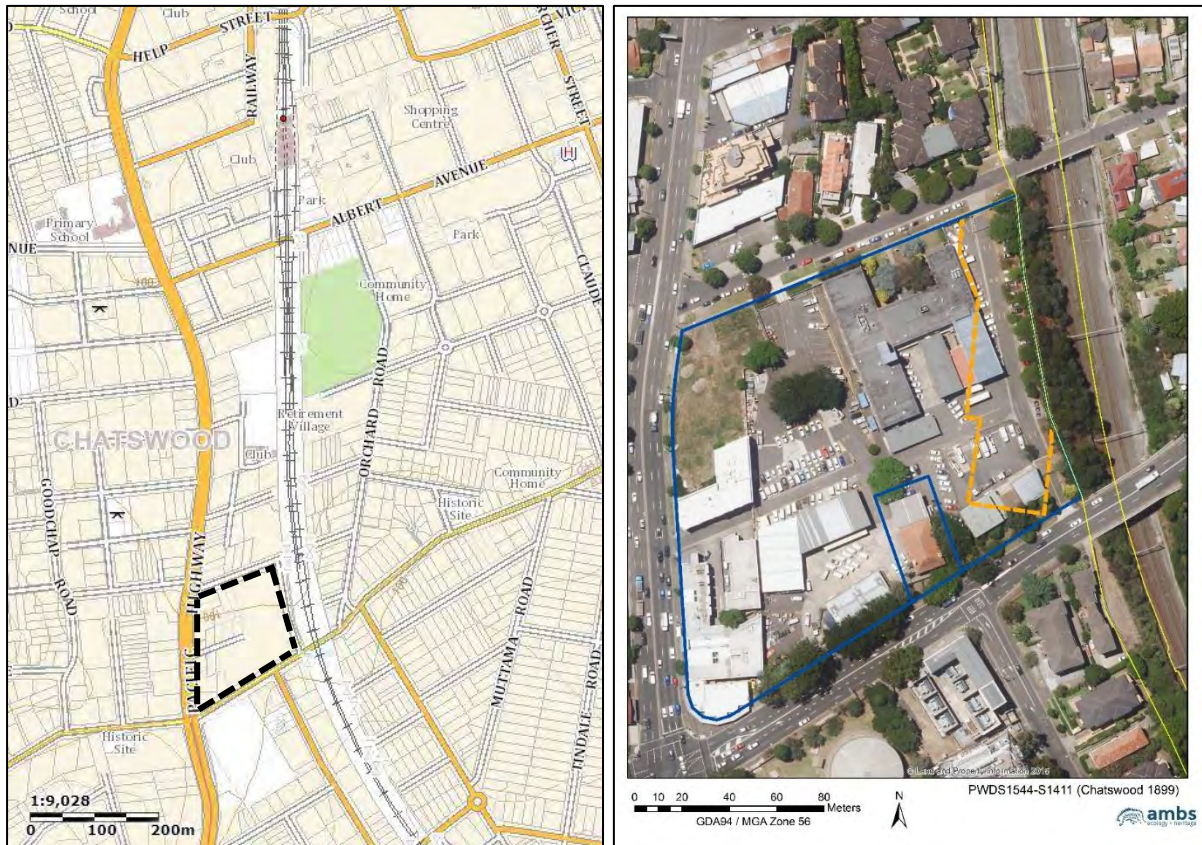


Figure 1.2 The local environment of the Chatswood Dive site (enclosed in dashed box left), and the site prior to works with the dive outlined in yellow and Mowbray House in blue.

1.3. Report methodology

This report is consistent with the principles and guidelines of the *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013*. It has been prepared in accordance with current best-practice guidelines as identified in the *NSW Heritage Manual (1996)*, published by the Heritage Office and Department of Urban Affairs and Planning (now Heritage NSW, Department of Premier and Cabinet), and associated supplementary publications, in particular *Assessing Significance for Historical Archaeological Sites and 'Relics' (2009)* and the *Historical Archaeological Code of Practice (2006)*.

1.3.1. Report structure

This report comprises one volume and includes:

- **Section 1: Introduction.** This section outlines the background to the project including statutory approvals.
- **Section 2: Previous desktop investigations.** A summary of previous investigations completed for the Chatswood Dive site.
- **Section 3: Historical background.** This section outlines the history of the site and is replicated from the Historic Context contained in the AMBS 2017 AMS.
- **Section 4: Archaeological investigation methodology.** The methodology employed during archaeological works on site.
- **Section 5: Results of the archaeological investigation.** A summary of the results of the fieldwork completed on site.

- **Section 7: Response to the research questions.** Responses to the research questions based on the results of the archaeological investigations and artefact analysis.
- **Section 8: Archaeological significance reassessment.** A reassessment of the archaeological significance of the Chatswood Dive site based on the results of the archaeological investigations.
- **Section 9: Conclusion and recommendations.** A summary of the results of the assessment and recommendations for long-term management of the artefacts recovered.

The report contains three appendices, including:

- **Appendix A: Context register.** A table listing all contexts identified on site.
- **Appendix B: Photo register.** A listing of all photographs along with a contact sheet of all photographs.
- **Appendix C: Artefact analysis.** The methodology and results of the artefact analysis.
- **Appendix D: Artefact catalogue.** The complete catalogue of recorded artefacts.

1.3.2. Response to conditions

Prior to excavation at the Chatswood Dive site, AMBS prepared the *Sydney Metro, City & Southwest Archaeological Method Statement for Chatswood Dive (AMS)*, in November 2017 in accordance with Minister's Condition E17.

The Archaeological Assessment Research Design Report (AARD) in the PIR must be implemented. Final Archaeological Method Statements must be prepared in consultation with the Heritage Council of NSW (or its delegate) before commencement of archaeological excavation works. The final methodology must:

- (a) provide for the detailed analysis of any heritage items discovered during the investigations;*
- (b) include detailed site specific archaeological management and artefact management strategies;*
- (c) include cored soil samples for soil and pollen for the Pitt Street site within the Tank Stream Valley; and*
- (d) provide for a sieving strategy.*

The AMS was informed by the *Sydney Metro Historical Archaeological Assessment and Research Design Report* prepared in 2016 by Artefact Heritage (Section 2.1). As noted above, Section 1.1, the AMS has been prepared in accordance with Condition E18.

1.4. Authorship and acknowledgements

This report has been prepared by James Cole, AMBS Historic Heritage Consultant, based on the on-site context sheets and field notes written by Kevin Hickson, Secondary Excavation Director. Specialist artefact inputs have been authored by Madeleine Rodwell (glass and ceramic), Lian Ramage (fauna), Jennie Lindbergh (miscellaneous), Sarah Rollason (shell), and Matthew Byron (metal), and edited for inclusion in this assessment by James Cole. Appendices B, C, and D were compiled by Victoria Cottle, AMBS Historic Heritage Consultant, based on the on-site context sheets and field notes written by Kevin Hickson, Secondary Excavation Director.

The report has been reviewed for consistency and quality by Mike Hincks, AMBS Senior Historic Heritage Consultant. Jennie Lindbergh, AMBS Director Historic Heritage and the Primary Excavation Director for the project, provided additional input and advice and reviewed the final report for accuracy and quality.

In addition, on 20 December 2017, Jennie Lindbergh was interviewed on-site by Transport for NSW, and on 11 January 2018, she escorted the Willoughby District Historical Society on a tour of Mowbray House and the archaeological site.

1.4.1. Excavation Team

The excavation team on site consisted of the following staff members:

- Jennie Lindbergh – Primary Excavation Director.
- Kevin Hickson – Secondary Excavation Director.
- Guy Hazell – Surveyor.
- Therese McCormick – Senior Archaeologist & Planner.
- Rosie Campbell - Senior Archaeologist.
- Amelia O'Donnell – Archaeologist.
- Jake Arnott – Archaeologist.
- Crystal Phillips – Archaeologist.

1.5. Abbreviations

The definitions of any abbreviations used in the body of this report are provided below in Table 1.1.

Table 1.1 List of abbreviations.

Abbreviation	Meaning
AARD	Archaeological Assessment Research Design
AMBS	AMBS Ecology & Heritage
AMS	Archaeological Method Statement
CSSI	Critical State Significant Infrastructure
ED	Excavation Director
Heritage Council	Heritage Council of NSW
Heritage NSW	Heritage NSW, Community Engagement, Department of Premier and Cabinet
LEP	Local Environmental Plan
LGA	Local Government Area
Minimum Item Count	MIC
Minimum Number of Individuals	MNI
NSOOS	Northern Suburbs Ocean Outfall Sewer
NSW	New South Wales
Number of Identified Specimens Per Taxon	NISP
Sands	Sands Sydney Directories 1858/59–1932/3, excluding 1872, 1874, 1874 and 1881
SSI	State Significant Infrastructure
TSE	Tunnels and Station Excavation Works

2. Previous desktop investigations

2.1. Sydney Metro Historical Archaeological Assessment and Research Design Report

In accordance with Condition E17, AMBS prepared the 2017 AMS with reference to the *Sydney Metro Historical Archaeological Assessment and Research Design Report* (AARD) prepared in 2016 by Artefact Heritage (Artefact).

The analysis of the archaeological potential within the footprint of the Chatswood Dive site in the AARD included historical research, focusing on the early use of the site for farming by William Nichol and C Webb and the later occupation of the site by Bryson, the cottages along Mowbray, Lane Cove Road and Bryson Street, and the construction of the railway.

The AARD noted that no archaeological excavations had been undertaken on sites within the local area, but that CRM / Wendy Thorp had prepared a heritage study for the Sydney Electricity Headquarters in 1996, that included a brief archaeological assessment of the site. The study stated that although it was likely that archaeological remains would be located at the site, their significance may not meet the threshold of local significance. Thorp proposed that, *due to the continuity of use of the adjacent Mowbray House as a school, archaeological remains from the School of Arts are not likely to add significant information* (Artefact 2016:44).

The archaeological potential of the Chatswood Dive site as identified in the AARD is summarised in Table 2.1 and Figure 2.1.

Table 2.1 Summary of archaeological potential (Artefact 2016b:50-51, Table 2-2).

Site code	Phase	Likely archaeological remains	Potential
NC 1	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl's and Webb's early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil – Low
	2 (1860 – 1905)	Construction of North Shore Railway Line throughout the majority of the land parcel. Excavation of rail corridor for grade changes through study area. Potential archaeological remains of former rail infrastructure.	Low
	3 (1905 – 1960)	Duplication and electrification of railway line. Potential archaeological remains of former rail infrastructure.	Low
NC 2	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl's and Webb's early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil – Low
	2 (1860 – 1905)	Construction of North Shore Railway Line throughout the majority of the land parcel. Excavation of rail corridor for grade changes through study area. Potential archaeological remains of former rail infrastructure.	Low
	3 (1905 – 1960)	Duplication and electrification of railway line. Potential archaeological remains of former rail infrastructure.	Low
NC 3	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl's and Webb's early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil – Low

Site code	Phase	Likely archaeological remains	Potential
	2 (1860 – 1905)	Archaeological remains associated with the brick cottage and shed, and wooden cottage and shed on the corner of Gordon Road and Nelson Street. Brick and stone footings, chimney base, timber base plates, postholes, yard and path surfaces, cesspits and wells, artefact bearing deposits and outbuildings. Archaeological remains associated with the complex of buildings at the corner of Bryson Street and Gordon Roads, and the brick cottage facing Bryson Street. Brick and stone footings, chimney base, timber base plates, postholes, yard and path surfaces, cesspits and wells, artefact bearing deposits and outbuildings.	Moderate
	3 (1905 – 1960)	Potential archaeological remains relating to former 20th century bakery on site: brick and concrete footings, ash and fire waste fills, isolated artefact deposits. Potential archaeological remains relating to Hammond cottages and Federation and Inter-War residential houses, with timber postholes, brick and concrete footings, terra cotta and copper pipes and drains, outbuildings and isolated artefact deposits.	Low Moderate
	4 (1960 – Present)	Remains of post-war commercial buildings: brick and concrete footings, terra cotta services and drains, isolated artefact deposits.	Moderate – High
	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl’s and Webb’s early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil – Low
NC 4	2 (1860 – 1905)	Archaeological potential for structures related to former timber yard: postholes, isolated artefact deposits.	Low
	3 (1905 – 1960)	Potential for archaeological deposits associated with use of land as cricket pitch and sports ground for Chatswood Preparatory School: isolated artefact scatters, field drains, postholes.	Nil – Low
	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl’s and Webb’s early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil – Low
NC 5	2 (1860 – 1905)	Archaeological remains relating to c1860s Bryson’s cottage, Bryson’s store and commercial livery stables. By late 19th century another house and outbuildings to the north. Brick and stone footings, chimney base, timber base plates, postholes, yard and path surfaces, cesspits and wells, artefact bearing deposits.	Moderate
	3 (1905 – 1960)	Potential archaeological remains relating to Federation and Inter-War residential / commercial buildings, with brick and concrete footings, terra cotta and copper pipes and drains, outbuildings and isolated artefact scatters.	Moderate
	1 (1788 – 1860)	Archaeological deposits associated with William Nicholl’s and Webb’s early farming land grants could include fence postholes, tree boles, field drains and isolated artefact deposits.	Nil - Low
NC 6	2 (1860 – 1905)	School of Arts (also Council Chambers) building present on this site 1874-1957. Archaeological remains could include: brick and stone footings, yard surfaces, cesspits and well, artefact bearing deposits. Archaeological remains associated with two cottage sites (including Penzance to the east of the School of Arts building) including brick and stone footings, chimney base, timber base plates, postholes, yard and path surfaces, cesspits and wells, artefact bearing deposits.	Low – Moderate
	3 (1905 – 1960)	Potential archaeological remains relating to school buildings associated with the Chatswood Preparatory School (former School of Arts building and Penzance cottage complex). Potential for brick and concrete footings, services and drains, outbuildings and artefact scatters.	Moderate

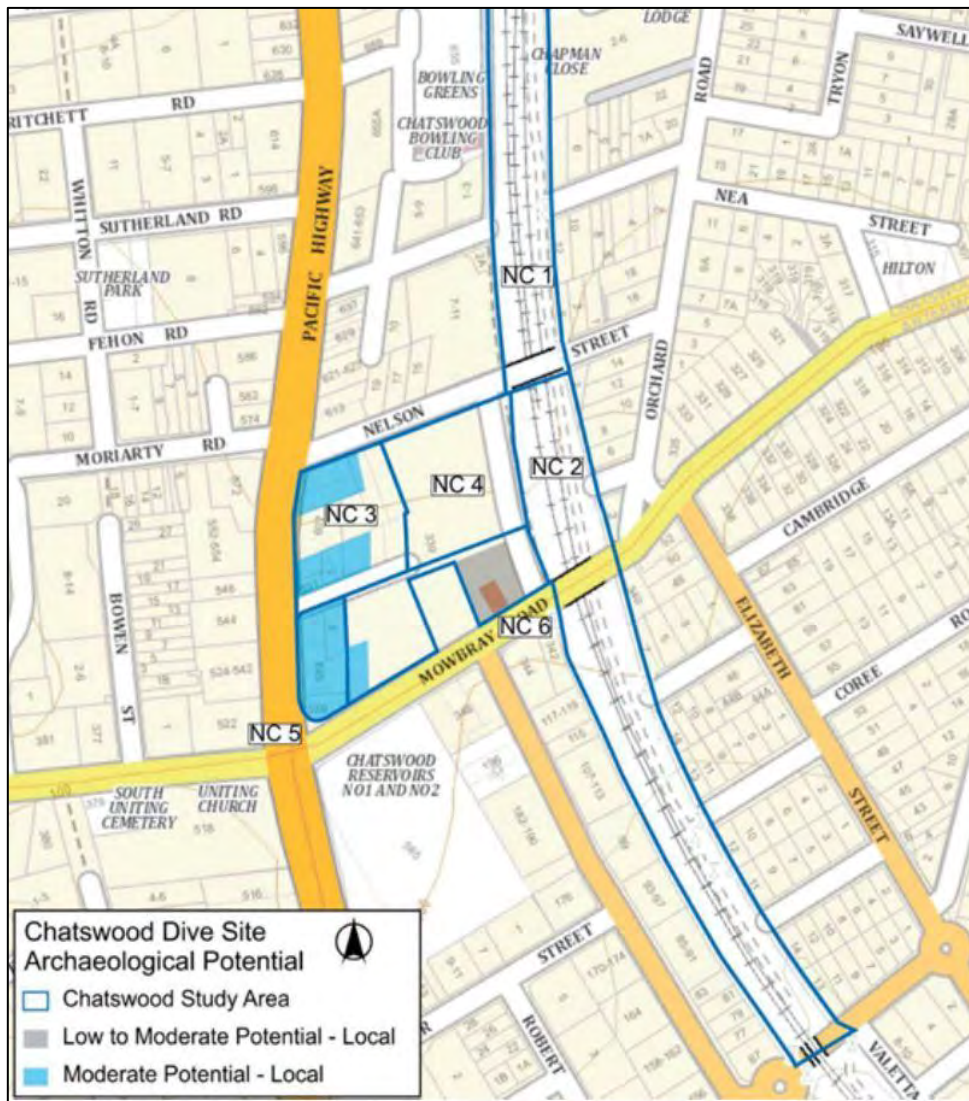


Figure 2.1 Areas of archaeological potential and significance within the Chatswood Dive site (Artefact 2016b:60, Figure 2.18).

The AARD assessed the heritage significance of the potential archaeological remains within the six identified archaeological areas (NC1 – NC6) of the Chatswood Dive site (2016b:52-57). The Statement of Archaeological Significance contained in the AARD is:

Statement of Archaeological Significance

The majority of the Chatswood Dive Site is unlikely to contain significant archaeological remains. However, Sites NC 3, NC 5 and NC 6 have potential for locally significant archaeology (Table 2-3, see Table 2.2 below). A complex of outbuildings, including a shop and cottage, were constructed on the corner of Bryson Street and Gordon Road in the late nineteenth-century (NC 3). Archaeological remains would be associated with the development and increasing commercialisation of Chatswood, at a time when the area was dominated by small-scale agricultural development. The archaeological remains have the potential to inform knowledge of the daily domestic and working life of residents and employees, and provide insight into commercial trade in a semi-rural outpost. The archaeological remains would be representative of a pattern of rural to suburban development.

Bryson's Cottage (NC 5) was built in the mid nineteenth-century at a time when the surrounding area was relatively undeveloped. The archaeological remains are associated with the development of Chatswood from a rural to suburban area of Sydney. The remains could provide evidence concerning John Bryson, a local pioneer and influential early Chatswood resident. Investigation of the site would inform knowledge regarding daily life and trade in a semi-rural outpost and how this changed with the arrival of the railway. The potential remains could also contribute to knowledge about construction techniques and availability of resources. The archaeological remains would be representative of a pattern of suburban development in the area.

Archaeological resources related to the School of Arts site (NC 6) are associated with the development and provision of education in Chatswood. The remains are also associated with the first local government council in the area as the former School of Arts building served as a chambers in the late nineteenth to early twentieth century. They have the potential to provide information about the original construction of the building and the use and adaptation of the structure for Willoughby Council's first council chamber, and then the preparatory school.

Table 2.2 Summary of archaeological significance (Artefact 2012b:57, Table 2-3).

Site code	Phase	Potential	Archaeological resource	Significance
NC 3	2 (1860 – 1905)	Moderate	Archaeological remains relating to the store, outbuildings and cottages. Including brick and stone footings, timber base plates and postholes, cess pits and wells, path and yard surfaces, artefact bearing deposits.	Local
NC 5	2 (1860 – 1905)	Moderate	Archaeological remains relating to Bryson's cottage, Bryson's store and commercial livery stables, and another late nineteenth-century residential/commercial development. Brick and stone footings, timber base plates and postholes, cess pits and wells, path and yard surfaces, artefact bearing deposits.	Local
NC 6	2 (1860 – 1905) 3 (1905 – 1960)	Low - Moderate	Archaeological remains associated with the former School of Arts site, sub-surface features such as brick or stone footings, wells, cesspits containing artefacts. Likely truncated.	Local

The AARD identifies that there is generally low-moderate archaeological potential within the station footprint, as tabulated in Table 2.3.

Table 2.3 Summary of archaeological impact mitigation for the Chatswood dive site (Artefact 2016:61, Table 2-4).

Site code	Potential archaeology	Mitigation
NC 3	Moderate potential for locally significant remains of mid-late nineteenth-century residences, stores and outbuildings including wells and WCs.	Monitoring or Test/Salvage
NC 5	Moderate potential for locally significant remains of Bryson's cottage and store (1860s) and residential/commercial buildings (late 19th).	Monitoring or Test/Salvage
NC 6	Low-Moderate potential for locally significant remains of the former School of Arts (1870s), residential and school-related remains (late 19th and early 20th).	Test/Salvage
NC 1 NC 2 NC 4	Nil-Low potential for archaeological remains, unlikely to meet the significance threshold.	Unexpected Finds Procedure

2.2. Sydney Metro, City & Southwest Archaeological Method Statement for Chatswood Dive

The AMS prepared in 2017 by AMBS was formulated in accordance with Condition E 17:

The Archaeological Assessment Research Design Report (AARD) in the PIR must be implemented. Final Archaeological Method Statements must be prepared in consultation with the Heritage Council of NSW (or its delegate) before commencement of archaeological excavation works. The final methodology must:

- (a) provide for the detailed analysis of any heritage items discovered during the investigations;*
- (b) include detailed site specific archaeological management and artefact management strategies;*
- (c) include cored soil samples for soil and pollen for the Pitt Street site within the Tank Stream Valley; and*
- (d) provide for a sieving strategy.*

The AMS expanded and built on the AARD prepared by Artefact to include a review and amended response to the detail design for the dive. The AMS included methodologies to manage the historical archaeology and ensure compliance with relevant Heritage Council guidelines and their submission on the EIS.

The archaeological strategy identified for the Chatswood Dive site was that removal of concrete slabs and overburden would be monitored by the Secondary Excavation Director (ED), followed by open area salvage excavation of extant archaeological features and deposits.

The integrity of the archaeological evidence of the Dive location (NC6), which encompasses a part of the Mowbray House School; Penzance and the School of Arts / Council Chambers, were identified in the AMS as having moderate research potential. Similarly, the areas along Pacific Highway and Bryson Street (NC5 and NC3), were also identified as having moderate research potential (2017:32).

Where the archaeological resource is found to be present with good integrity within the Chatswood Dive site, it would have moderate research potential (Figure 2.2). The Statement of Archaeological Significance for the Chatswood Dive site is:

The archaeological resource associated with the Chatswood Dive site, if present with good integrity, has the potential to provide information regarding the later nineteenth-century development of housing and industry within a semi-rural community.

Physical evidence of houses, outbuildings, wells, cesspits and underfloor deposits, if present with good integrity, have historic, archaeological and representative values. It has the potential provide information regarding the later nineteenth-century development of housing, services and industry within the local area. Physical evidence of houses, outbuildings, wells, cesspits, underfloor deposits and pollen has the potential to make a contribution to an understanding of the area's initial rural settlement and the subsequent changing nature of its land-use as it became more urbanised. Information gained from the archaeological resource of the Chatswood Dive site, such as personal and domestic artefacts, and refuse associated with semi-rural life, has the potential to be compared with artefact assemblages from similar sites within and beyond the primary urban environments and assist with addressing research questions relating to suburban and urbanisation, material culture, consumerism, and the lives of women and children.

The archaeological resource associated with the Chatswood Dive site, if present with good integrity, would have local significance (AMBS 2017:38).

2.2.1. Research questions

To ensure that the research potential and significance was realised, archaeological investigations aimed to address substantive research themes. The following research questions formed the foundation of the archaeological investigations within the footprint of the Chatswood Dive site. They were developed into an Archaeological Research Framework to inform all historical archaeological projects being undertaken within the Sydney Metro tunnelling projects by AMBS and Casey & Lowe, which would be updated as the project progressed. The questions assisted with ensuring that the Sydney Metro archaeological program had substantive research outcomes. Relevant research questions to this site were:

- Landscape & Environmental Archaeology
 - Is there surviving evidence of the early local environment, such as early soils, and fossil pollen? Is there surviving evidence of early land-use practices and what can this evidence tell us about the modification of the original landscape after European settlement?
- Residential Housing, Commercial Premises and Material Culture
 - What can the construction techniques, size, layout and form of the houses and outbuildings tell us regarding areas of activity and use? What insights are provided in the locations and associations of kitchens, outbuildings, wells, cesspits and other features?
 - Are there intact domestic deposits and what can these tell us about settlement patterns, the survival mechanisms of a mid-nineteenth-century semi-rural community and the availability of goods beyond the urban centres? What are the patterns of subsistence and self-reliance and how do they inform us about this environment and adaptation to it?
 - What can the contents of underfloors, wells, rubbish and/or cesspits tell us about the daily lives and domestic practices of this relatively isolated rural community, which could be evaluated and compared with artefact assemblages from similar sites within primary urban environments, that may not be available from other sources?
 - What can the artefacts tell us about the minutiae of everyday life of the people working and living within this relatively isolated early urban environment?

The above questions should allow for responding to larger research themes relating to consumerism, material culture, urbanisation, and personal and social identity. The research questions would inform the procedure for recording the archaeological resource uncovered during excavation, the recovery and storage of artefacts and provide a framework for the excavation. In addition, new questions would likely arise during excavation and / or during the post-excavation analysis, which could provide additional insights into different aspects of the site that may not have been previously considered.

The archaeological evidence from this site was focussed on the late-nineteenth and early-twentieth centuries, with all artefact bearing deposits dating to the twentieth century, likely around the 1930s. More broadly, the archaeological investigations across the Sydney Metro project encompass a range of early-nineteenth to mid-twentieth residential and commercial sites. Further investigations should include comparative analyses of the results between these sites which will contribute to the research framework for the project.

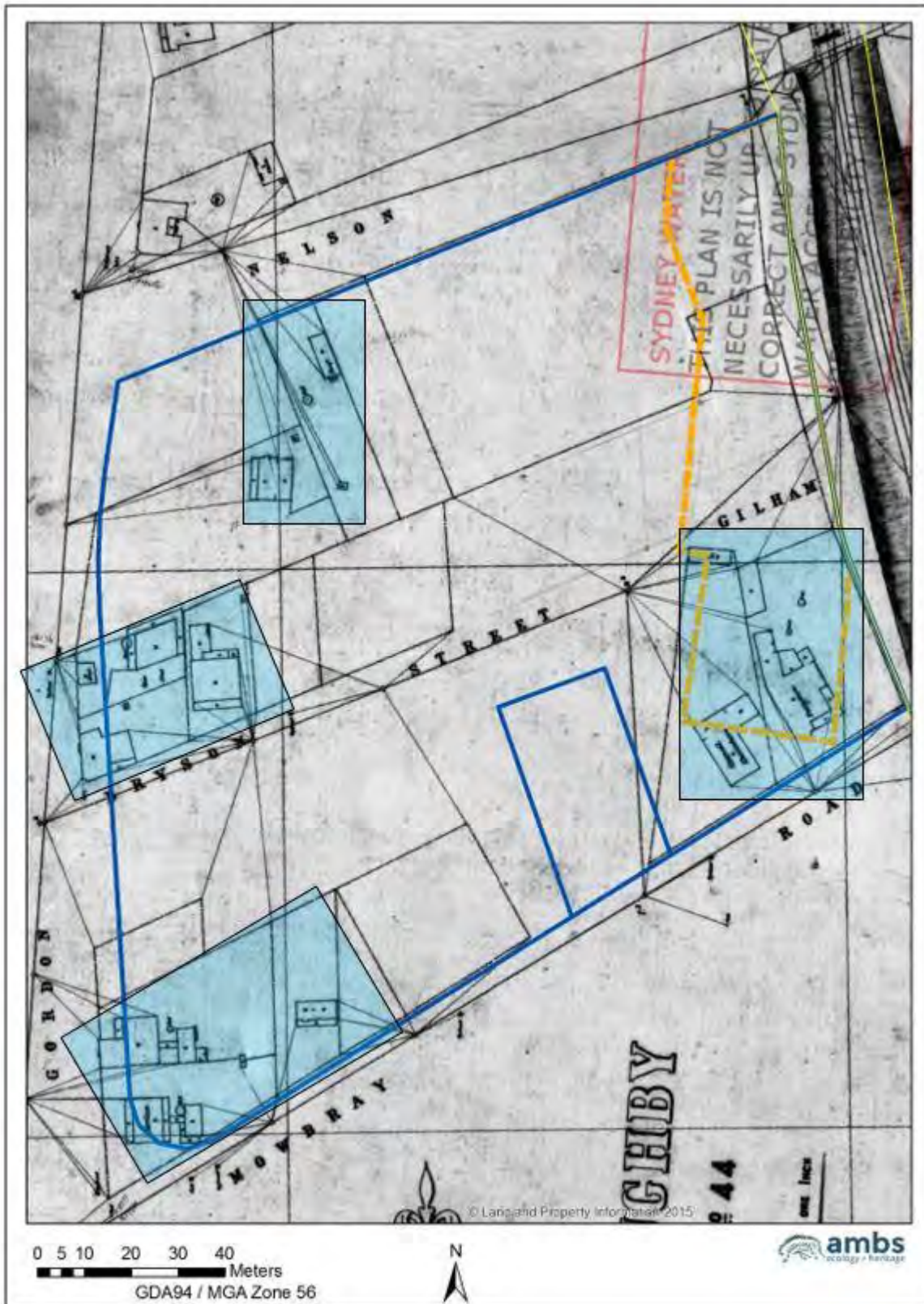


Figure 2.2 Detail of the 1899 Sydney Water Plan with the areas of moderate archaeological potential shaded blue (AMBS 2017:36, Figure 3.8).

3. Historical background

3.1. Background

As noted above, the Chatswood dive site encompasses an area bordered by Mowbray Road, Pacific Highway and Nelson Street, and the Main North Shore Line. Bryson and Gillam Streets run through the centre of the area. Mowbray House stands on the north side of Mowbray Road, directly opposite the Chatswood Reservoirs and Substation. The following history includes additional information to that contained in the AARD, largely derived from the Rate and Valuation Assessment books (1872-1918) and Sands Directories (1879-1932/3).

3.2. Settlement in Chatswood

The land to the north of the harbour remained isolated to all but water transport with few roads providing access beyond the coastal areas until around the mid-century. In 1847, George Peat, who owned land on both sides of the Hawkesbury River, marked out a road, Peat's Ferry Road, which extended from the river through to Hornsby at Pearce's corner. In 1845, Lane Cove Road had been proclaimed *in connexion with the road from Billy Blue's point to St Leonards* (Deputy Surveyor-General Samuel Augustus Perry cited in Russell 1970:84). By 1852, the road, which was 66 feet wide, had been identified as a parish road and was seen as the logical extension of the Great Northern Road with the Government taking responsibility for its upkeep (Russell 1970:84-87). In 1890, the Lane Cove Road was renamed Gordon Road and in 1931 it became the Pacific Highway.

In 1809, Isaac Nichols, a convict who would later become the first colonial postmaster, was granted a 380-acre lot of land to the south of his original 200-acre grant called King's Plain (Figure 3.1), (Russell 1970:22). The grant is bounded in the southwest by a 25-acre lot granted to John Flemming. By 1836, the grant had apparently been purchased by C Webb, later passing to John Bryson (Artefact 2016a:35). Before the 1860s, the land was used mainly for farming and timber-getting (Willoughby City Council n.d.). The beginnings of a township appear at the intersection of Lane Cove Road and Mowbray Road, where a small commercial centre began to thrive (Futurepast Heritage Consulting (Futurepast) 2012:9). By 1864, a small chapel was opened by the Bush Mission Society on the south-eastern corner of the intersection on Bryson's land. By the early 1870s, the Great Northern Hotel had been built by Henry Russell, and the Methodist Church along with a number of general stores and John Bryson's timber yard had been established (Artefact 2016b:24; Warne 1987:6).

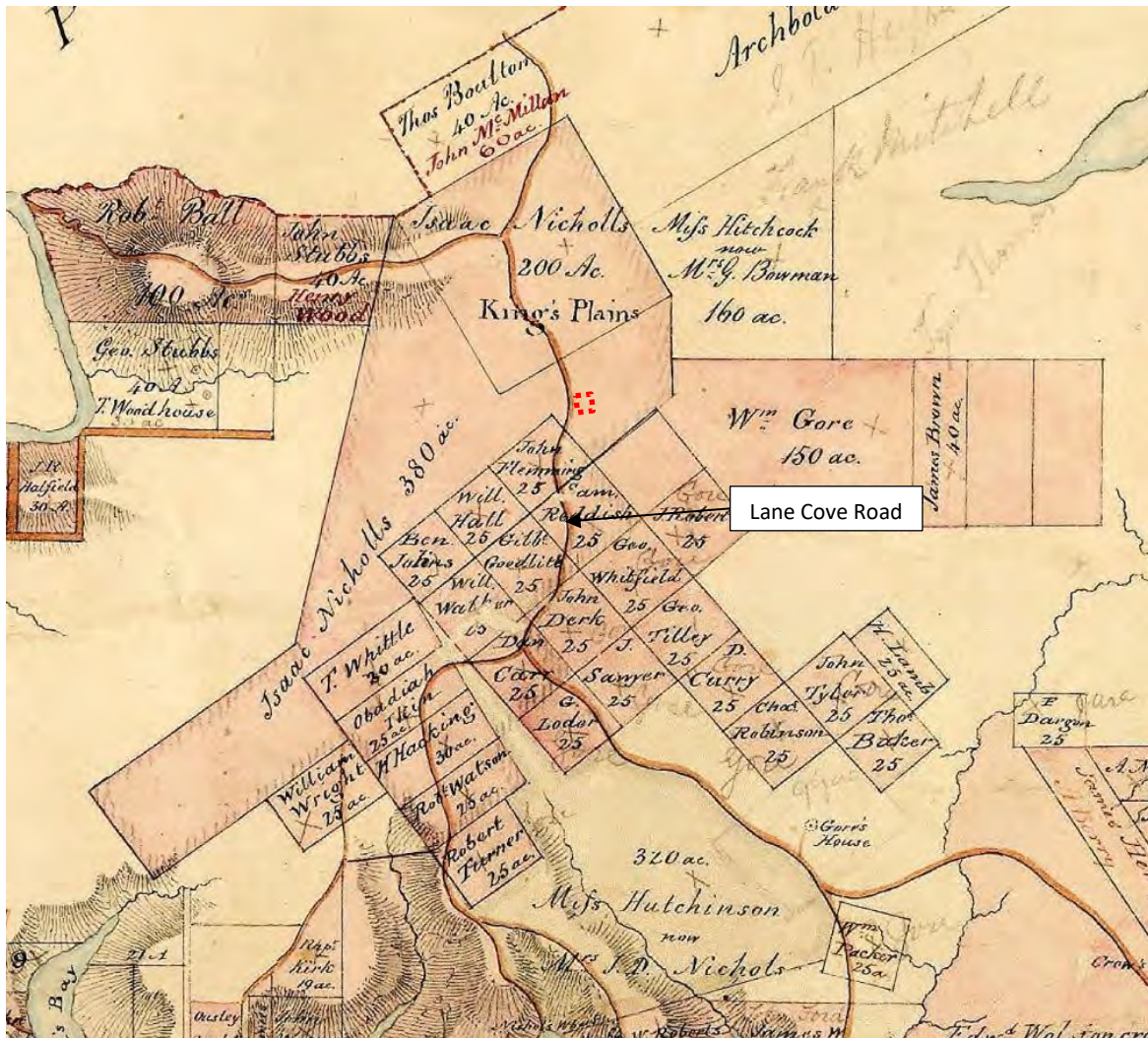


Figure 3.1 Pre-1860s Willoughby parish map, showing Isaac Nichols’ 380-acre grant and the approximate location of the study area (Source: <http://images.maps.nsw.gov.au/pixel.htm#14061301.jp2>).

3.3. Development of the New Township

The Main North Shore Line from Hornsby to St Leonards opened in 1890, with the extension to Milson’s Point opening in 1893. The new railway station opened on 1 January 1890 on land owned by Richard Hayes Harnett, who had purchased the land from Isaac Nichols (Artefact 2016b:24). Opening the station to the north of the small township centred on the Lane Cove and Mowbray Roads had an immediate effect on the development of the township. A new township of Chatswood focused around the new station at Victoria Avenue. The suburb of Chatswood has a long association with Harnett, who was one of the largest landowners in Willoughby and surrounding areas. He subdivided his 1,200 acres, known as the Railway Station Estate, naming one of these lots after his second wife Charlotte, affectionately called ‘Chat’ or ‘Chattie’ (Thorne 1983:129).

Improvements in transportation became a focus for development and put increased pressure on the provision of essential services. In 1888, the Upper Nepean Scheme was completed and by 1895 a trunk main connected Potts Hill with a balance reservoir near Ryde Railway Station and on to the water tanks on the south side of Mowbray Road, at Chatswood. Water from the Chatswood tanks supplied the areas south of Mowbray Road: Willoughby, North Sydney and Mosman (Aird 1961:67-68). It was not until the opening of the railway and the increase in population that there was pressure to supply

areas to the north of Mowbray Road from Chatswood to Hornsby with water. A pumping station was erected in 1895 at the Chatswood reservoir to facilitate reticulation to the north of Mowbray Road, and in 1897 another pump was added (Aird 1961:68). Waste disposal, however, was not provided until later. In 1899 the Willoughby–Chatswood System had been built servicing the areas north of Mowbray Road and east of Lane Cove Road, now Gordon Road, draining into the mains sewerage system. Following completion of the Northern Suburbs Ocean Outfall Sewer (NSOOS; 1916-1933) in 1927, the system was abandoned and the area was served by the NSOOS (Aird 1961:159). Gas lighting was introduced to the area in 1896, and in 1908 the tramway was extended from Penshurst Street to the railway station (Willoughby District Historical Society Inc).

By the 1920s, the Chatswood district had become a flourishing residential and business hub, easily accessible by public transport (Warne 1987:70). The area around the Mowbray Road intersection with the Pacific Highway had developed more slowly but was now busy with shops along Lane Cove Road and the Mowbray House School on the north side of Mowbray Road (Figure 3.2). With the opening of the Sydney Harbour Bridge in 1932, the North Shore of Sydney underwent a rapid, albeit short-lived, period of expansion, curtailed by the 1930s Depression followed by World War II (Willoughby City Library Services 2013:2).

By 1939 the Chatswood town centre had a thriving population with the construction of cottages, shops, three cinemas, libraries, blacksmiths, and even a cafe (Warne 1987:37, 70). In 1959 the focus was on the eastern side of the railway, away from the original retail centre at the western end of Victoria Avenue. The opening of Waltons and Grace Bros (now Myer) was crucial to changing the direction of the urban centre. Throughout the late 1980s-early 1990s new shopping centres defined the mercantile development of the area, particularly when part of Victoria Avenue was closed for the Chatswood Mall in 1989. With the increase in the population across the overall municipality, Chatswood became a town centre in 1983, with Willoughby declared a city in 1989 (Willoughby City Council n.d.).



Figure 3.2 Sharland Estate 1925, showing shops along the Pacific Highway and Mowbray School within the study area (Source: http://digital.sl.nsw.gov.au/delivery/DeliveryManagerServlet?embedded=true&toolbar=false&dps_pid=IE3525468).

3.4. Bryson Estate

The earliest uses of the land bounded by the railway, Pacific Highway, Nelson Street and Mowbray Road (the study area) had been agricultural, dominated by orchards and farming (Figure 3.3). The land remained undeveloped until the mid-nineteenth century when John Bryson purchased the land and constructed a number of buildings. Part of the study area was therefore known as Bryson's Estate, while the area along Nelson Street was part of the Great Northern Estate.

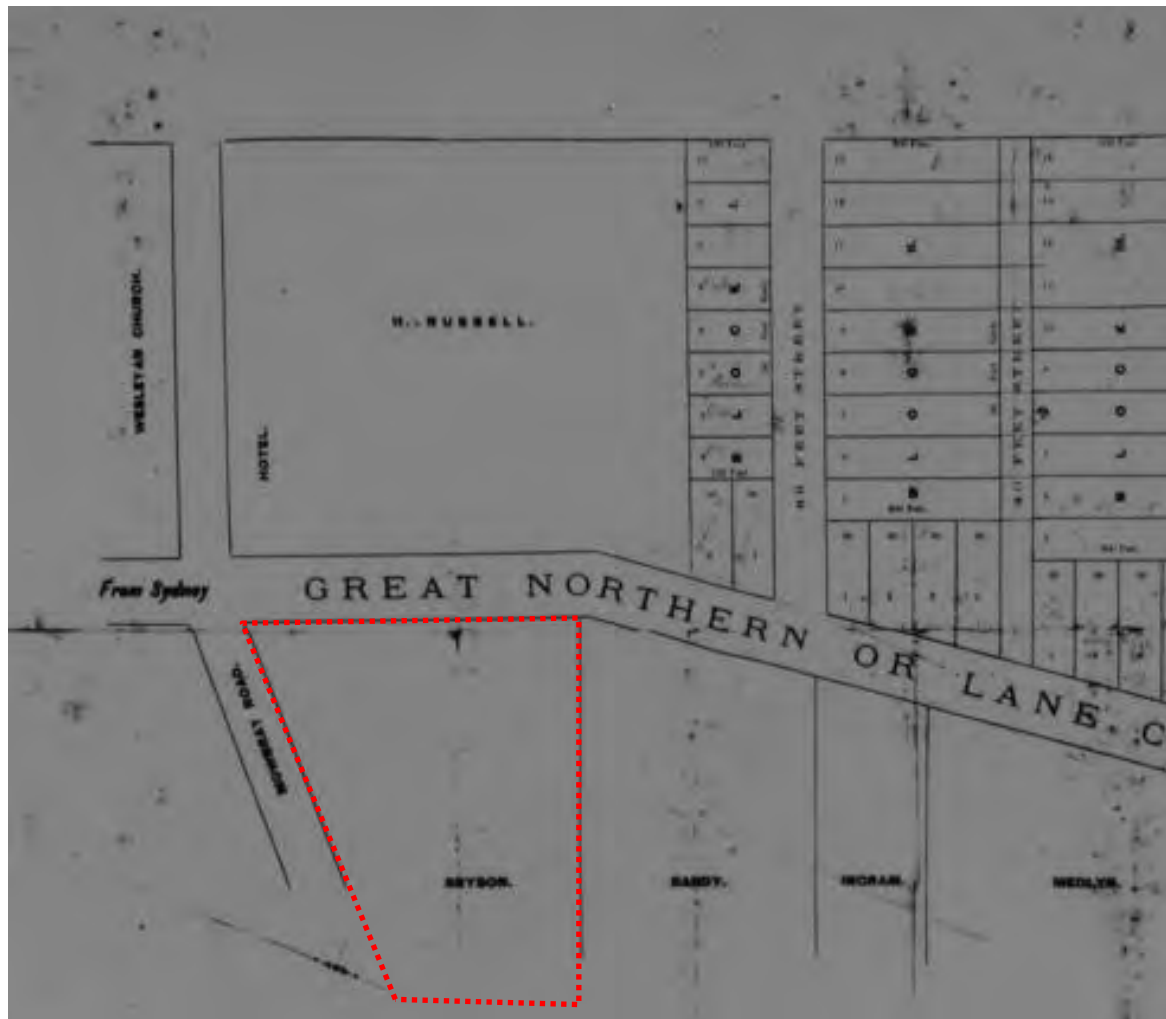


Figure 3.3 Undated plan of *Orangeries and Strawberry Gardens, Chatswood* (Source: Picture Willoughby, File No: 0010/0010884).

3.4.1. Lane Cove Road from Mowbray Road to Bryson Street

In the 1860s John Bryson bought land encompassing the north-eastern corner block of the Lane Cove Road/ Mowbray Road intersection, on which he built his home, and managed a timber yard and store (Figure 3.4). In 1865, council meetings were first held in a room in John Bryson's home, 'Belrose' or 'Bryson' (Fogarty 2016:1). A small school was also set up in a cottage on Mrs Bryson's land and operated by Mrs McGilvray, before the establishment in 1869 of the North Sydney Public School (Fogarty 2016:1). A room of Bryson's cottage was also used by the first School of Arts in the early 1870s, until the later construction of a permanent home for the School.

The land seems to have remained largely undeveloped until 1882, when the Bryson Estate was subdivided into relatively small Lots for auction after his death. The auction poster shows John Bryson's cottage, as well as a number of land plots to its east, which had been sold (Figure 3.6). Bryson's home appears to be the only structure indicated and all the lots along Mowbray Road had been sold, while the School of Arts and the eastern part of the site are not shown to the east of Lot 13. Bryson's widow, Mrs Mary A Bryson continued to own and live in the house until her death in 1897, when the land was recorded as being sold in the Rate and Valuation books for Willoughby. Mrs Bryson was also recorded as the owner of more land and a shop next to the cottage, which was also sold after her death in 1897, while the land remained part of an orchard until 1889. The shop was larger than the house and was of weatherboard with a small front verandah and a covered way to the brick kitchen with a small attached structure and a convenient nearby well. The double cesspit was shared with Bryson's cottage. Following Mrs Bryson's death in 1897, the Bryson property was subdivided and sold.

The 1899 Sydney Water plan identifies Bryson's house as 'Sarina', with another house immediately to its east (Figure 3.5). Sarina was a brick building with front and rear verandahs, and a covered way to a smaller brick building that had verandahs along its southern and western sides. It is likely that the smaller building is the kitchen, built separately to protect the main house from fire. The location of the well, which is conveniently close to the smaller building, supports this. A double cesspit, perhaps housed in a brick structure, is shared with the house immediately adjacent. The appearance of the name Sarina is consistent with the sale of the land and house following Mrs Bryson's death in 1897 (Fogarty 2012:3). The shop next to Sarina was acquired from Mrs Bryson by a Jos. A Hammond in 1897 and Abner Hammond owned the shop from the following year onwards.

The Rate and Valuation books record a number of owners and occupants of the Bryson's cottage/land: James Forsyth (1897-1898), Thomas Pugh (1899-1903), Miss Elizabeth Springett (1903 to 1918), and Elizabeth Mary Dew (from 1918). The Assessments and the Sands Directory records Whitehead & Co.'s smithy between 1905 and 1908. William Dew, a carter, is in occupancy from 1911 and in 1914, the name for the house becomes 'Dursley' until 1922 (Sands Directory 1922), though William Dew continues to occupy the property after this date. It is evident in the Sydney Water Blackwattle plan that Bryson's original cottage, but not the shop, was redeveloped with a terrace row of three standing on the site; however, the date of the construction of the terrace row is uncertain (Figure 3.7).

In 1911, Abner Hammond acquired the adjacent property to his shop and a timber cottage known as 'Kia Ora' was constructed, which he continued to own until at least 1933 when the Sands Directory ends. HM Reid occupied the shop for his grocery business in 1904, with Reid also owning two vacant properties further to the north from 1912, and it is possible that he relocated his business to one of these buildings, where it continued to operate until at least 1949 (Figure 3.8 and Figure 3.9). The photograph indicates that the shop had been renovated in the Federation Arts and Crafts style in the early twentieth century (Apperly et al 1994:144-147).

The land along Gordon Road to Bryson Street remained undeveloped, other than the properties noted above, until the early 1910s. These undeveloped properties largely become shop fronts lining Lane Cove Road (Figure 3.2), with the occasional house or dwelling combined with the shops.



Figure 3.4 'Belrose' cottage, home of the Bryson family, ca. 1870s (Source: Picture Willoughby, File No: 003/003989).

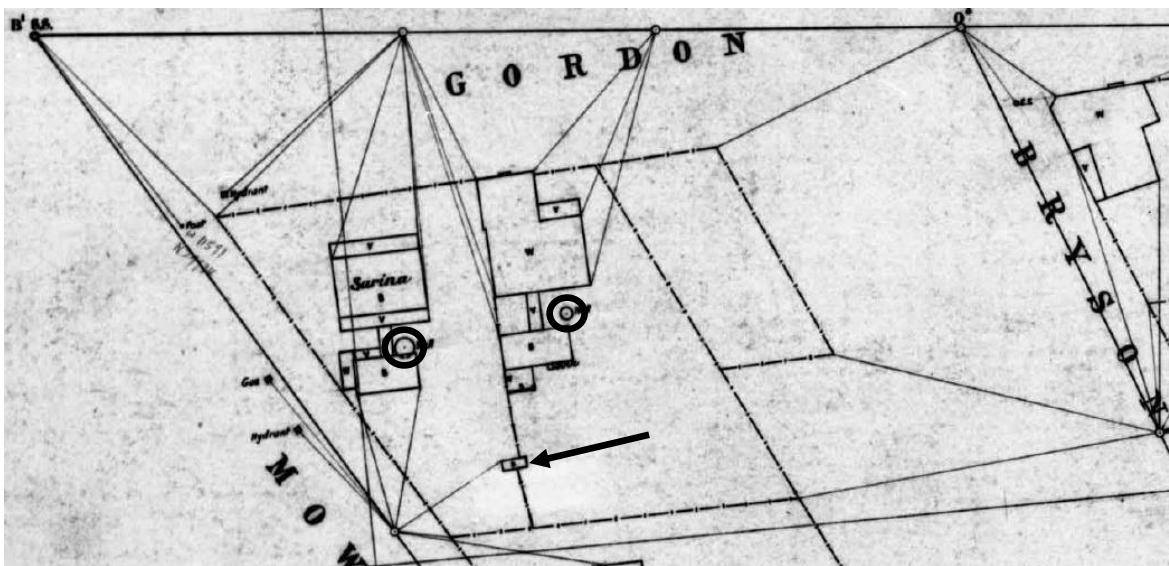


Figure 3.5 Detail from the 1899 Sydney Water plan showing Bryson's cottage, Sarina on the corner of Gordon Road and Mowbray Road, with the shop immediately adjacent. Two wells are circled and cesspit is arrowed (see Figure 3.21 below).



Figure 3.6 Auction notice for Bryson's Estate Saturday, 14th October 1882, with Bryson's cottage on the south-west corner of the estate (arrowed) (Source: Picture Willoughby, File No: 0010\0010187).



Figure 3.7 Detail from the 1917-1930 Sydney Water plan showing the terrace row on the site of Bryson's cottage (see Figure 3.21 below).



Figure 3.8 Reids Stores, Chatswood in 1949 (<http://digital.sl.nsw.gov.au/FL2044904>).



Figure 3.9 Shops along Pacific Highway, between Bryson Street and Mowbray Road, showing Reid's store in foreground, 1949 (http://digital.sl.nsw.gov.au/delivery/DeliveryManagerServlet?dps_pid=FL2048208&embedded=true&toolbar=false).

3.4.2. South Side of Bryson Street

Bryson Street is more heavily occupied into the early twentieth century than other areas within the study area. The Rate and Valuation books record that a fence defined the property boundaries.

The property on the southeast corner of Gordon Road and Bryson Street had a similar history as the amalgamated land owned by the Dawsons and later D. Neely on Gordon Road (mentioned previously in Section 3.4.1). However, this land is not subdivided like the corner block and the ownership passed to Joseph Hammond Senior in 1912, with a brick cottage, named 'Dulcie', appearing in the records from 1915.

The four lots to the east of Dulcie remain undeveloped until 1901. According to the Rate and Valuation books, the first property to the east of the Dawson property on the corner was first owned by F.J. Barker (1888-1896). From 1897 the property was owned by the City Bank of Sydney, until 1914 when Lancelot Bavin acquired it for his school. In 1901 the property was subdivided and bought by R. Vince with a house or wood cottage and laundry built on the new land. Neely also owned the property for a short time, before becoming part of the Estate of H. Hensby until 1918, when it was also purchased by Bavin for the school.

In 1888, J Hawksford was recorded as the owner of the next lot to the east until 1900 when it was purchased by Robert Symes (or Lymes). This property too passed to Bavin in 1914. Mrs Bryson was in possession of some land along Bryson Street as well until her death in 1897, when Abner Hammond acquired the estate. Hammond sold the property to T Gorman in 1903, who later sold the property to Bavin in 1908.

The easternmost property was owned by H Kirby and sold to Loxton & Bullock in 1889 or 1890. The ownership of the land becomes uncertain until 1899 when it was acquired by the Bank of New Zealand, followed by the Willoughby Council in 1900. The land disappeared from the records after 1901, suggesting that the land was amalgamated with the Council Chambers property owned by Willoughby Council on Mowbray Road, though it could also have become part of the school, as much of the surrounding area already had.

3.5. The Great Northern Estate (Part of)

3.5.1. Lane Cove Road from Bryson Street to Nelson Street

The north-western corner of the study area was within the Great Northern Estate, while the remainder of the property was within Bryson's Estate until the land was acquired by Lancelot Bavin for the Mowbray House School (Figure 3.10 and see Section 3.6 below). The records indicate that the Great Northern Estate extends to the north and south on the northern side of Nelson Street.

John Thompson is recorded as owning land on the north-eastern corner of Bryson Street and Gordon Road in 1886, and by 1888 the property comprises a house, shop and land. Thompson acquired more land which he amalgamated with this other property and retained until 1892 when he sold the property to Mrs Hammond. Mrs Hammond was also identified as owning land with a dwelling from 1893. In 1900, the two properties comprising a house and shop were merged, but in 1904, the properties were separated but remained in Mrs Hammond's possession until 1905-6 when Joseph T Hammond owned the property. The property was subdivided again in 1910, when there were two timber shops, one housing a refreshment shop run by Mrs Clune and the other a hairdresser operated by C Currie. The ownership eventually fell to Mrs Hammond Senior.

The Dolan family owned a timber cottage and blacksmith's shop at what is now 593 Pacific Highway from the 1880s. Peter Dolan, a blacksmith, is recorded in the Sands Directory as living on Lane Cove Road from 1883, but it isn't until 1888 that the shop is recorded in the Rate and Valuation books. The Sands Directory also records Patrick Dolan & Sons Veterinary Surgeons in 1881 as a hospital for pets, including dogs and cats, as well as boarding facilities for dogs and horses. The surgery continues into the 1930s at No. 593, perhaps until the death of Patrick Dolan in 1938 (The Sydney Morning Herald 1938:9). In 1898, when the land was subdivided, Patrick Dolan owned a house on part of the land, subsequently acquiring the adjacent house and shop. The house on the newly subdivided property was occupied by J Gillam, perhaps the eponym of Gillam Street, from 1900 to 1903 but remained in the hands of Patrick Dolan throughout the records.

Two allotments to the north of the Dolan family property were owned by Loxton & Bullock, one of which was vacant while the other was occupied by a house and shop leased by DE Eldridge ca.1888–1893 and an adjacent vacant allotment. The land is recorded as being on Nelson Street from 1894. The house and shop remain the property of Loxton and Bullock until 1902, when it is purchased by Joseph Hammond Senior. In 1904, George Hammond is the owner of the property, which remained vacant throughout this time.

3.5.2. North Side of Bryson Street

From 1888 the records indicate a number of Lots along the north side of Bryson Street were privately owned, with one lot also owned by Mrs Bryson; however, the land remained undeveloped other than an unfinished house owned by John Thompson. Although the house is not recorded in 1889, it is recorded in 1891, remaining in his ownership until the following year when it passes to Mrs Hammond in 1892 and to Joseph Hammond Senior in 1897.

In 1907 the property is subdivided into two blocks with a further subdivision in 1908 when there are three separate properties. The Thompson's brick cottage is known as 'Manila' when Mrs Hammond acquires it. Two semi-detached brick cottages, 'Lakefield' and 'Loubet', are built to the east of Manila, both passing from Joseph Hammond to Mrs J Hammond Senior in 1911. By 1918, when the Rate and Valuation records end, Mrs Hammond owns all the property on the north side of Bryson Street. The Sands records that two more houses appear, 'Dorisville' and 'Weeroona', after 1918.

3.5.3. Nelson Street South

The south side of Nelson Street, known as Carlotta Street until 1891, is occupied from 1888. The properties from west to east:

- DE Eldridge and his wife owned land on the corner of Nelson Street and Lane Cove Road from 1888, with a new house by 1894. The Sands Directory records that they remain at the property until 1920. It is possible that the Eldridges were in the area as early as 1880, as the Rate and Valuation books locate them on Lane Cove Road from this date, perhaps already at the corner property.
- In 1892/3, G Gerard becomes the executor of land owned by Sutherland, which in 1902, is owned by LH Gerard, until Joseph Dangerfield Taylor purchases the property in approximately 1908. R Moore acquires the property in 1913, and by 1915 a single brick cottage has been built on the land and occupied by Cummins and Dudfield. In 1917 the property is again subdivided with separate houses on each lot with Cummins and Dudfield each occupying a house.
- JJ Forsyth appears as an executor for the Seldons Estate, with an NF Giblin acquiring part of the property in 1897. It is possible the land is further subdivided in 1902, with James Green and NF Giblin owning land that had formerly been a single large block. This land appears to be part of Lancelot Bavin's extensive property purchases for his school in 1907.
- A large portion of land along this road was acquired by Lancelot Bavin to become part of the Mowbray House School grounds from 1917 (see Section 3.6 below).
- A portion of the same property appears to be on the east side of the Main North Shore Line before Orchard Street and occupied by a Joseph Woodvine from 1896/7 until 1920. Woodvine built a cottage, later referred to as Moorlands. The land seems to be a part of the Seldons Estate.



Figure 3.10 The 1917-1930 Blackwattle Plan with the area of the Great Northern Estate outlined (Sydney Water Blackwattle Plan BLKWTL3312).

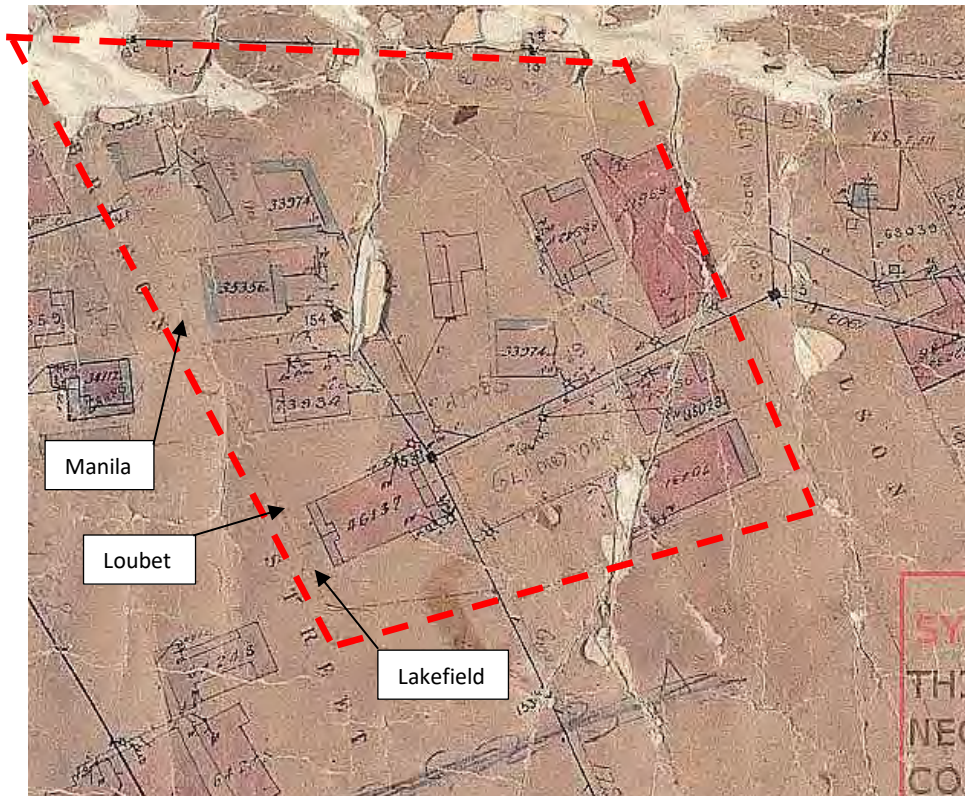


Figure 3.11 Detail from Figure 3.10 of the Great Northern Estate.

3.6. Mowbray Road and the Mowbray House School

3.6.1. School of Arts and Council Chambers

During the 1870s, Bryson leased a room in his cottage to be used by the School of Arts; however, the Mechanics Institute constructed a new School of Arts building to the east of the cottage, which opened in 1874 or 1875 (Futurepast 2012:10). The School of Arts building was of stone and was later rented to the Willoughby Council as its Council Chambers from 1879 until 1903 (Futurepast 2012:10).

By 1906, Lancelot Bavin, a New Zealand-born educator, founded the Chatswood Preparatory School in the former School of Arts building, which he leased and within a year had purchased the land (Futurepast 2012:10). Following construction of Mowbray House, the former School of Arts building served as the school chapel until 1957 (Figure 3.12 and Figure 3.13). The Victorian Gothic school chapel was dismantled, moved and re-erected on the corner of Beaconsfield Road and Dalrymple Avenue, becoming the Mowbray House Memorial Chapel, and now known as the Holy Trinity Anglican Church, Chatswood West (Figure 3.14), (Futurepast 2012:10).



Figure 3.12 Chatswood Preparatory School, ca.1910. Later it would become the school chapel (Source: Picture Willoughby, File No: 003/003316).



Figure 3.13 Mowbray House School Chapel, 1950s, before it was moved to Beaconsfield Road (Source: Picture Willoughby, File No: 003/003320).



Figure 3.14 Holy Trinity Anglican Church, Chatswood West, 2003 (Source: Picture Willoughby, File No: 001/001101).

3.6.2. Mowbray House

Mowbray House is a two-storey Federation Arts and Crafts school building constructed in 1906 to house the Chatswood Preparatory School, with an initial enrolment of 32 students (Futurepast 2012:10). As the school grew and expanded, the name of the building was changed to The School in

1914 (Figure 3.15). Changes in the standard of schooling offered followed the school’s promotion to Intermediate Certificate, becoming in 1916 the Mowbray House School (Futurepast 2012:10). By 1917 the number of boarders at the school had increased exponentially and this required the school to expand its facilities by purchasing several surrounding Lots (Figure 3.16), (Futurepast 2012:10). Modifications were made to the Mowbray House building with the addition of a dining/recreation hall to the rear, and improvements were made to the eastern façade and kitchen (Futurepast 2012:10). A tennis court was located to the west, and a large field to the rear of the property, which encompassed the greater part of the area to the rear of Nelson Street, bounded to the west by Bryson Street and east by the railway line (Figure 3.17). One of the most prominent alumni of the school was former Prime Minister Gough Whitlam (Futurepast 2012:10). The school remained open until 1954 when Lancelot Bavin, the school’s founder, fell ill and the property was acquired by the Sydney County Council (Figure 3.18), (Futurepast 2012:10).



Figure 3.15 Main entry to the Mowbray House School building, n.d. (Source: Picture Willoughby, File No: 6536/6536552).



Figure 3.16 Playing fields behind Mowbray House School, c.1900-10 (Source: Picture Willoughby, File No: 6537/6537997).



Figure 3.17 Undated photograph of the tennis courts on west side of Mowbray House School (Source: Picture Willoughby, File No: 6537/6537992).



Figure 3.18 1950s view of Mowbray House School after purchase by Sydney County Council (Source: Picture Willoughby, File No: 003/003321).

3.6.3. ‘Penzance’

Although the building later called ‘Penzance’ is first mentioned in the Sands Directory in 1903 and in the Rate and Valuation books in 1907, a building was present prior to this date. John Alford is identified as owning a house and land which was later known as Penzance, which had been built by 1887. There was a change of ownership in 1890 and by 1891 the National Mutual Life Association of Australia

owned the property, retaining ownership until 1900. The 1899 Sydney Water plan shows the property 'Penzance' between the Council Chambers and the Main North Shore Line, although little is known about it at this time. The house is identified as brick with bay window and verandah along the front and east side (Figure 3.19 and Figure 3.20). There is a large irregular verandah at the back, separating a north-eastern wing from a small room to the south, which may be the kitchen. There is a rectangular brick building in the north-eastern corner and two clearly identified wells.

In 1900, the property was owned by George Devonshire and in the following year it was acquired by RH Johnson and occupied by Charles Stanley Allen until it was amalgamated as part of Lancelot Bavin's school in 1911, when it served as Bavin's mother's residence (Fogarty 2016:4). When the school became the Mowbray House School, the house was modified to a residence for the expanding number of boarders (Artefact 2016a). The fate of the building once it was merged with the school grounds is unknown, but it was probably demolished to make way for the electricity depot.

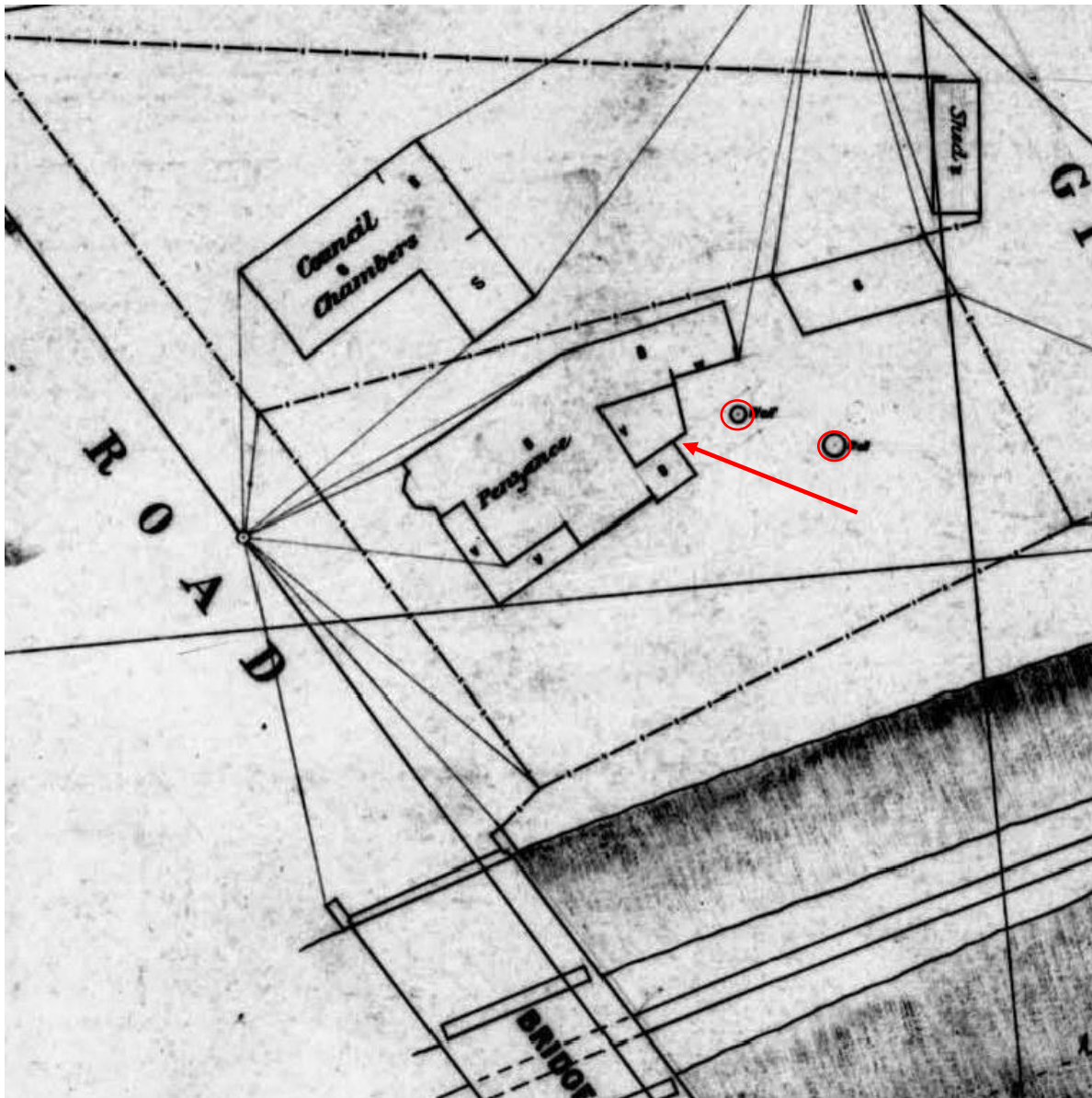


Figure 3.19 Detail from the 1899 Sydney Water plan showing Penzance to the south of the Council Chambers. The irregular verandah is arrowed, and the wells are circled (see Figure 3.21).



Figure 3.20 Undated photograph of 'Penzance' (Source: Picture Willoughby, File No: 6536/6536528).

3.6.4. 'The Lodge'

A building that was occupied by Lancelot Bavin from 1925 and known as the 'The Lodge' was clearly a part of the extensive school grounds; however, its location is uncertain. It may have been the cottage named 'Penzance'. An undated Sydney Water plan shows that there was an increase in the building density on the site after 1899 (Figure 3.21 and Figure 3.22). The Lodge may be any of the more recently constructed buildings indicated on a pre-1916 plan of the Mowbray House School. This shows Penzance and the Chamber of Commerce and a smaller building behind the tennis courts identified as 'Cottage' and two buildings to its west. One may be identified as Master's Cottage and the other as a residence, though this is by no means certain as the image resolution is poor (Source: Futurepast 2012:13, Figure 4). The form and location of 'The Lodge' is uncertain and the name does not appear in the Rate and Valuation books; however, a photograph of a weatherboard cottage, identified as the Master's Residence, may be the Lodge (Figure 3.23). Although only a view of the verandah, it displays hallmarks of the Federation-era bungalow of the late nineteenth / early twentieth century with timber decorative detailing of the verandah posts (Apperly et al 1994:144-147).

3.6.5. 'Tasma'

To the east of Bryson's cottage stood a wood and brick cottage named 'Tasma', owned by Richard Russell, whose occupancy is first noted in the Rate and Valuation books in 1898. It is possible that the cottage pre-dates this time, as its assessment number notes a previous number for the year before. Russell owned and occupied the house until 1906, after which the occupant's name frequently changed. Most notable was H Neilson, a coal lamper, who occupied the cottage between 1908 and 1913. In 1914 ownership transferred to John Russell, and a Miss Parker became the main tenant of Tasma. The Sands Directory identifies Robert Parker as the occupant from 1915 until 1920, after which it is occupied by Peter White. The name Tasma disappears from the Sands Directory after 1922, though Peter White remains at 355 Mowbray Road until 1927. From 1927, Harry Fullagar is noted as the occupant until the end of the Sands Directory in 1932/33.

The record is ambiguous and the cottage is likely to have been subsumed into the school in 1917 when Lancelot Bavin expanded the school grounds by purchasing the land east of Bryson's property.

There were two lots located close to the house identified as ‘Tasma’. They were located between the Council Chambers and Bryson’s Cottage, to the east of Bryson’s cottage on the corner of Mowbray Road and Pacific Highway. The lots were owned by a Mrs Mary Johnson and a Mrs Emma McMahon (nee Kelsey), until their amalgamation by Lancelot Bavin into the school. This was potentially the land where ‘The Lodge’ was located, as it seems to fit with the history of the site.

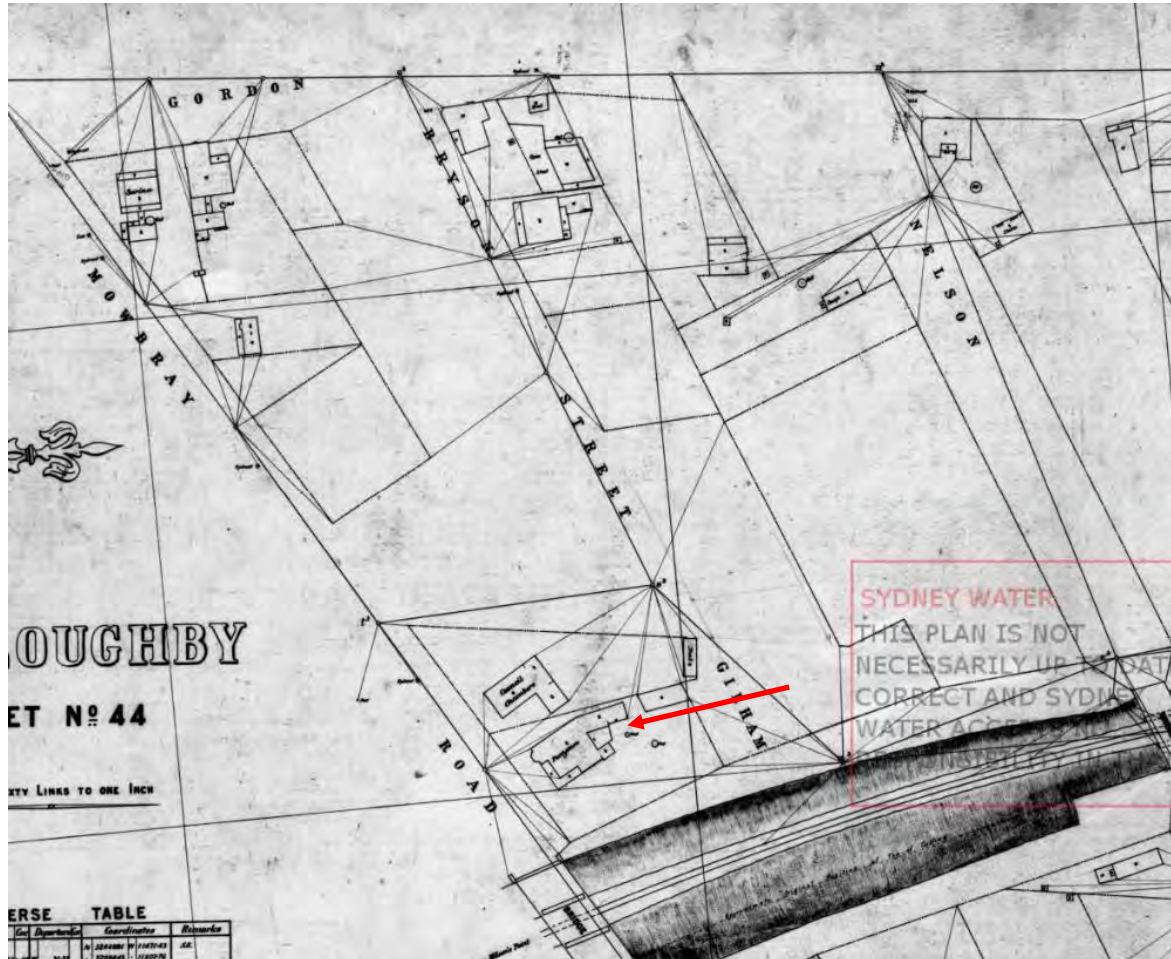


Figure 3.21 The 1899 Sydney Water Plan with Penzance arrowed (see above Sydney Water archive plan PWDS1544-S1411 – Sheet 44).

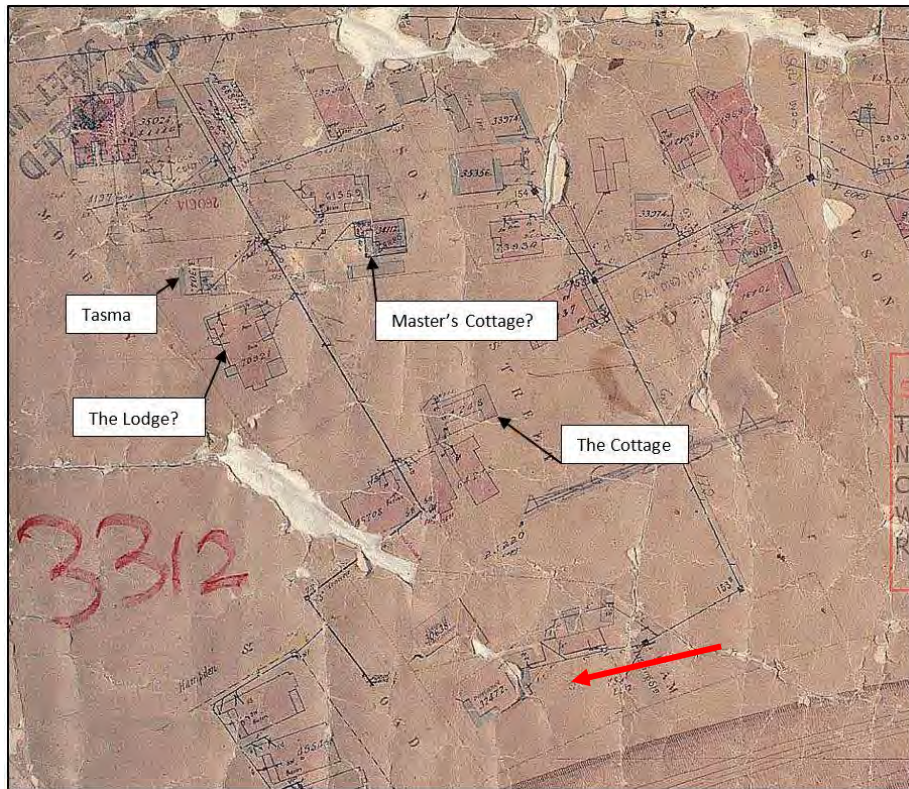


Figure 3.22 Detail from Sydney Water Blackwattle Series plan dated 1917-1935 of the study area with a greater density of housing than indicated in the 1899 plan. Penzance is arrowed at bottom.

3.7. Sydney County Council

Following closure of the Mowbray House School, the property was purchased in 1957 by the Sydney County Council. The site became an administration centre and electricity depot for the Sydney County Council, which gradually extended its property by acquiring surrounding properties (Futurepast 2012:10). The acquisition of properties included the Bryson's cottage site and shops and businesses, including Nick Scali along the Pacific Highway. Mowbray House was also modified with the addition of a first floor to the dining hall and a carport. In 1965 and 1977, the property and house were altered again in major renovation projects by the Sydney County Council (Futurepast 2012:10) (Figure 3.24).



Figure 3.23 Early building re-used for dormitories identified as the 'Masters cottage' by Picture Willoughby, date unknown (Source: Picture Willoughby, File No: 6536/6536532).



Figure 3.24 1986 view of Mowbray House now owned by Sydney County Council (Source: Picture Willoughby, File No: 6539\6539215).

4. Archaeological investigation methodology

4.1. Background

The following section outlines AMBS' methodology for the archaeological excavation. Works on site were carried out in accordance with the AMS formulated by AMBS (2017) for the project, and as such this section has been largely reproduced using relevant information from Section 5 of the AMS.

4.2. Archaeological management

The day-to-day management of the archaeological excavations of the Chatswood Dive site was undertaken by Secondary Excavation Director (ED), Kevin Hickson. Primary ED, Jennie Lindbergh, attended the site on a regular basis to consult with the Secondary ED and to provide advice regarding the strategy for the archaeological resource. The archaeological investigations program was split into the following stages:

- Testing and monitoring slab and overburden removal to determine the extent, integrity and potential significance of the underlying archaeology (Section 4.3).
- Where archaeological remains were present with good integrity open area salvage excavation would proceed (Section 4.4).

The significance and research potential of the archaeological resource associated with Penzance and the School of Arts / Council Chambers, and their location within the footprint of the excavated Dive, meant that these building complexes were excavated using a mixture of mechanical and manual techniques.

It was assessed that archaeological features and relics associated with other properties had the potential to be present elsewhere in the Chatswood Dive site, however these areas of potential were not impacted by the proposed works.

4.3. Archaeological testing and monitoring

Mechanical removal of the extant concrete slabs across the site, associated with ground-breaking for the Dive and associated structures and infrastructure, was monitored by the Secondary ED. The archaeological monitoring was undertaken in those areas predicted to contain archaeology to verify the presence of archaeological resource with good integrity and significance.

Where there were no underlying archaeological relics, features or deposits in any of the areas under investigation, the Primary ED attended the site to verify, and following the completion of works on site a Clearance Certificate was prepared by the Primary ED to inform the project team and Proponent in writing.

Where significant archaeological remains with good integrity were exposed, open area excavation proceeded following removal of the overburden and once the area had been made safe.

4.4. Open area salvage excavation

Excavations were directed by the Secondary ED, Kevin Hickson, in consultation with the Primary ED, Jennie Lindbergh. Kevin was responsible for the day to day management of the excavations and the team of archaeologists. Excavation was undertaken in accordance with the following methodology to

ensure that all significant archaeological relics, features and deposits were appropriately managed and recorded:

- Establishment of a site datum and lay out a grid, relevant to the size of the site; 10m, 20m or 50m, across the site in order to record the levels of extant deposits, features and relics.
- Significant features were recorded in detail and excavated manually under the supervision of the excavation director:
 - All underfloor areas were excavated within a 500mm grid, using 50mm spits, and wet sieved.
 - Cesspits and rubbish pits were excavated along tip lines (if identifiable).
- All significant archaeological deposits, features, and relics that were exposed during the excavations were recorded in accordance with heritage best practice standards. Recording included:
 - Cleaning features to facilitate photographic recording.
 - Scale plans.
 - Elevations of features, if relevant.
 - Digital photographs (in JPG and RAW format).
 - Photogrammetry.
 - Site survey.
 - Detailed description of the feature, deposit or relic to ensure that a clear and comprehensive record of the archaeological resource of the site is preserved for the future.
- Sequential numbering of features and deposits to facilitate preparation of a Harris Matrix and artefact labelling.
- Preparation and development of a Harris matrix, to show stratigraphic relationships between all recorded archaeological features and deposits.
- All information regarding the location, dimensions and characteristics of all recorded archaeological features and deposits were recorded on pro-forma context sheets.
- Collection of all significant artefacts for analysis, except from non-significant unstratified fill. Samples of bricks and mortar were collected from each structure, as relevant.

Artefacts were cleaned, bagged, labelled in accordance with the archaeological context, and appropriately stored for analysis so that any information that could contribute to the understanding of the site and its historical development was not lost. Artefact processing and analysis was in accordance with standard heritage best practice, and all artefacts were entered into a database developed by Madeleine Rodwell.

A Clearance Certificate was issued by the Primary ED on 18 January 2018 for the Chatswood Dive site.

5. Results of the archaeological investigation

5.1. Introduction

Archaeological excavations within the Chatswood Dive site were undertaken by AMBS between 4 December 2017 and 12 January 2018. As outlined in the investigation methodology, fieldwork was led on site by Secondary ED Kevin Hickson, with Primary ED Jennie Lindbergh attending site on a regular basis to provide oversight to the works.

5.2. Archaeological testing and monitoring

The archaeological investigations were focussed within the footprint of the Chatswood Dive site where remains associated with the former School of the Arts and Penzance were expected to occur. As per the methodology, the area was archaeologically monitored to identify whether any intact archaeological features or deposits were present.

Across the majority of the investigation area, this consisted of the Secondary Excavation Director monitoring the removal of the existing ground surface. As the investigation area had been subject to significant development over the later part of the twentieth century, this typically consisted of either a concrete slab overlying asphalt bedding, or asphalt surfacing overlying road base (Figure 5.1). In turn these modern surfaces overlay a mixed post demolition deposit consisting of a sand-clay mix and containing sandstock brick fragments most likely deposited as a part of earthworks following the demolition of the previous structures on site (Figure 5.2).



Figure 5.1 General view of typical ground surface and upper strata across the investigation area.



Figure 5.2 Mixed fill present across the investigation area underlying the modern surface.

This mixed deposit was present across the entirety of the excavation area and capped either natural soil profiles or archaeological features. Archaeological monitoring identified significant disturbance around the southern extent of the Dive, at the location of the School of Arts and Penzance, with later development leading to the removal of the majority of the remains associated with these structures. Identified remains in this area consisted primarily of demolition fill and concrete footings of later structures, however the partial remains of the footings for a bay window associated with Penzance were also identified.

Within the central and northern portions of the investigation area, there was less significant disturbance and relatively intact archaeological remains were identified in the form of footings associated with an outbuilding of Penzance and related drainage features including a cistern, and

numerous cut and fill features, primarily post holes. Open area excavation was completed on these features, discussed in further detail below. The identified cistern matches the location of one of the 'wells' located on the 1899 Sydney Water Plan, however archaeological investigations identified that its design was consistent with a cistern (Figure 3.19, Figure 5.17). It was designed to capture rainwater from the roof which was fed via a series of pipes and it was constructed of brick, the interior was rendered with a sandy lime mortar, and the top was enclosed, a beehive cistern.

Prior to on-site works by AMBS, a minor excavation was undertaken for an unknown purpose, but which resulted in an anomaly; a large patch of dark soil [040] (Figure 5.3, Figure 5.26). It is unknown whether there was any associated archaeology.



Figure 5.3 The archaeological anomaly [040] partially excavated, view north-west.

5.3. Results of the open area excavation

Archaeological investigations for the Chatswood Dive took place within the areas occupied by the School of the Arts and Penzance house, with the vast majority of the identified archaeological features present within the lot occupied by Penzance, including the footings associated with one of its outbuildings, the remains of the foundation cut for the bay window of Penzance, and a series of drainage cuts throughout the area, which lead to a cistern in the southwestern portion of the investigation area. Within the School of the Arts area, archaeological features were largely limited to post holes and one unidentified feature.

5.3.1. Brick footings – Outbuilding

The most substantially intact archaeological remains identified during the investigations came in the form of brick footings [016] for an outbuilding constructed immediately to the north of Penzance

(Figure 5.4). The footings align well with the location and shape of the brick outbuilding identified in the 1899 Sydney Water plan of the site (Figure 3.19). This would suggest that the outbuilding was constructed between c1887 and 1899, given the construction date of Penzance (built by 1887) and the date of the Sydney Water plan which is its first record.



Figure 5.4 General view of outbuilding footings.

The identified remains consisted of sandstock brick footings (Figure 5.6), constructed in a relatively irregular pattern and form. The arrangement of bricks for the footings was inconsistent between each of the walls of the structure, however most walls had a similar thickness (between 325 and 335mm), with only one interior wall being thinner than this, at approximately 220mm, which may be indicative of the difference between the internal dividing walls and the external load-bearing walls. In addition, none of the corners was a right angle, giving it the rough shape of a parallelogram (Figure 5.7, Figure 5.8). The shape of the structure may be to make best use of the irregularly shaped property boundary, and, as its western wall aligns with the property division between Penzance and the School of Arts, and its northern wall with the northern boundary of Penzance. Constructing the outbuilding in an irregular shape maximised the available space between the outbuilding and the property boundary.



Figure 5.5 Overlay of survey data with 1899 Sydney Water Plan, showing the location of archaeological features including the outbuilding footings (outlined in orange) and the bay window of Penzance (outlined in red) (Guy Hazell 2018 survey overlain on 1899 map [AMBS 2021]).

The outbuilding measured approximately 11m by 4.6m and consisted of three clearly defined rooms. The northern room measured approximately 3.75m by 3.7m, the central room 3.8m by 3.05m, and the south-eastern room 1.6m by 3.05m. The footings were comprised sandstock brick with a sandy lime mortar. It is possible that further footings were present around the south-western extent of the structure, which would make its shape consistent with the 1899 Sydney Water plan, however no footings or associated features that could confirm this (such as cuts) were identified.



Figure 5.6 Detail of bricks used in the footings.



Figure 5.7 Detail of northern room of the Penzance outbuilding.

No distinct fill or underfloor deposits were identified within the footprint of the Penzance outbuilding. A mixed demolition fill [012] lay directly over the natural soil profile [015].

The south-western corner of the structure had been disturbed such that only part of the foundation remained. However, the construction cut was visible, and suggested that there was a small room or passageway leading to the south-eastern and central rooms. This is supported by the historical plans, which show the outbuilding as a four-sided structure.

Within the northern and central rooms, a cut and fill feature [017, 018] was present. It cut diagonally (south-east/north-west) through the footings of the outbuilding. The fill of the cut consisted of a mix of natural soil profiles and introduced clays containing sandstone and brick fragments. Some isolated glass and ceramic artefacts, as well as a single bone fragment was identified in the fill [018].

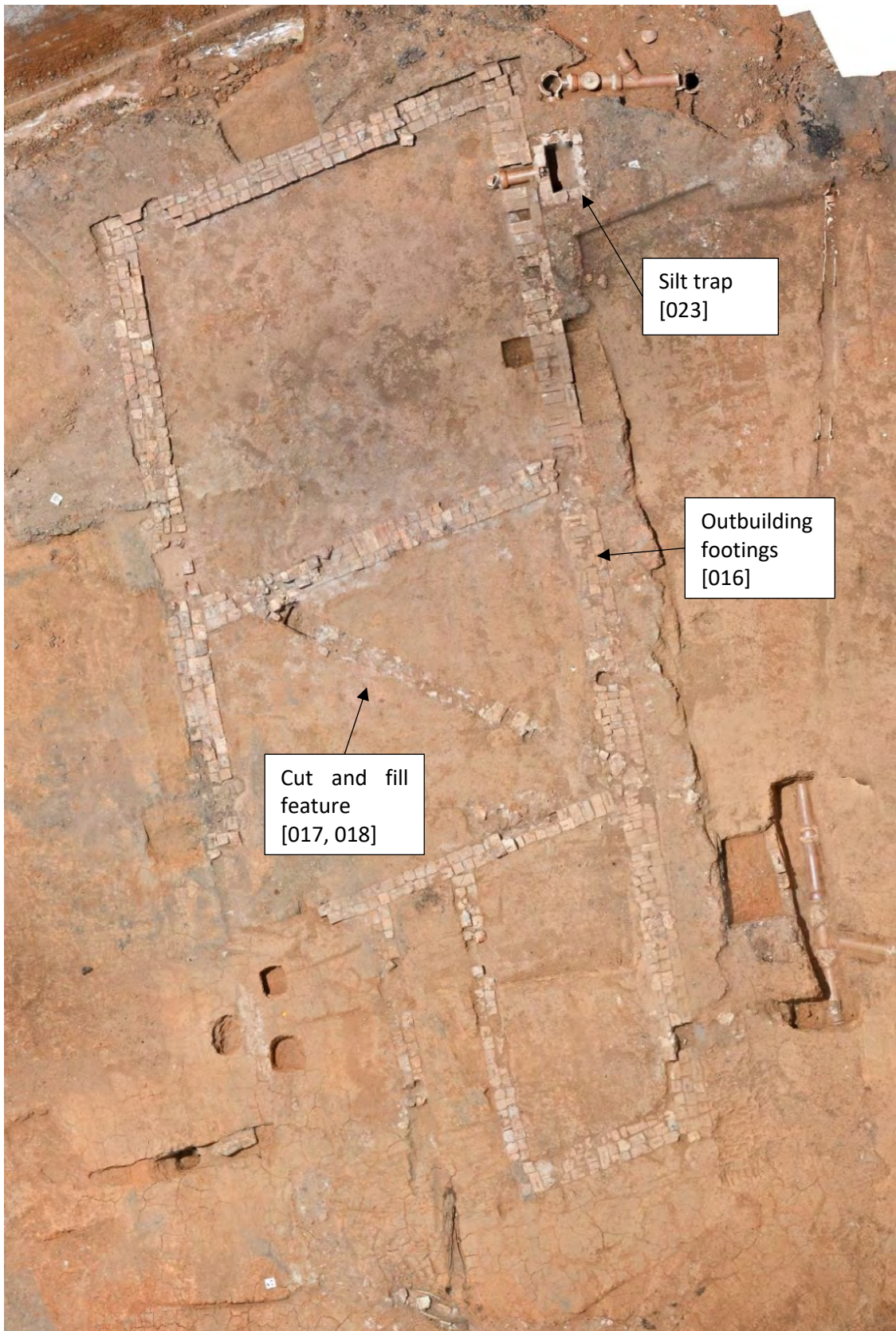


Figure 5.8 Orthographic photograph of the brick outbuilding footings, locations of cut and fill feature and silt trap indicated by arrows.

A series of service trenches containing earthenware pipes were also identified in the vicinity of the house, most of which converge and lead to the beehive cistern in the south-eastern portion of the investigation area (Section 5.3.3). This drainage network includes one pipe [033] extending through the footings [016] of the northern room, leading to a brick silt trap [023] adjacent to the eastern wall (recorded on site as a gully trap). The silt trap appears to have been constructed at a later date than the remainder of the outbuilding judging by the bricks and mortar used in its construction (dry pressed bricks and concrete mortar, as opposed to the sandstock bricks and lime mortar utilised in the outbuilding).

The silt trap itself measures approximately 720mm by 530mm and was used to provide access to the drainage system to clean out sediment build up before it can enter the pipework or cistern. The interior of the trap is rendered so that the structure can retain water.



Figure 5.9 Silt trap post excavation, showing relationship with outbuilding footings.



Figure 5.10 Detail of silt trap, post excavation.

5.3.2. Foundation trench – ‘Penzance’

The southern portion of the investigation area had been subject to extensive disturbance as a part of development activities in the latter half of the twentieth century. The construction of substantial concrete footings had resulted in the removal of the majority of the archaeological remains at the location of Penzance (Figure 5.11). However, the remains of the foundation trenching [036] and footings [037] for the bay window of Penzance (Figure 5.12, Figure 5.13) had survived outside the area of disturbance.



Figure 5.11 Concrete footings in the southern portion of the investigation area.



Figure 5.12 Remains of the foundation trench of the bay window for Penzance.

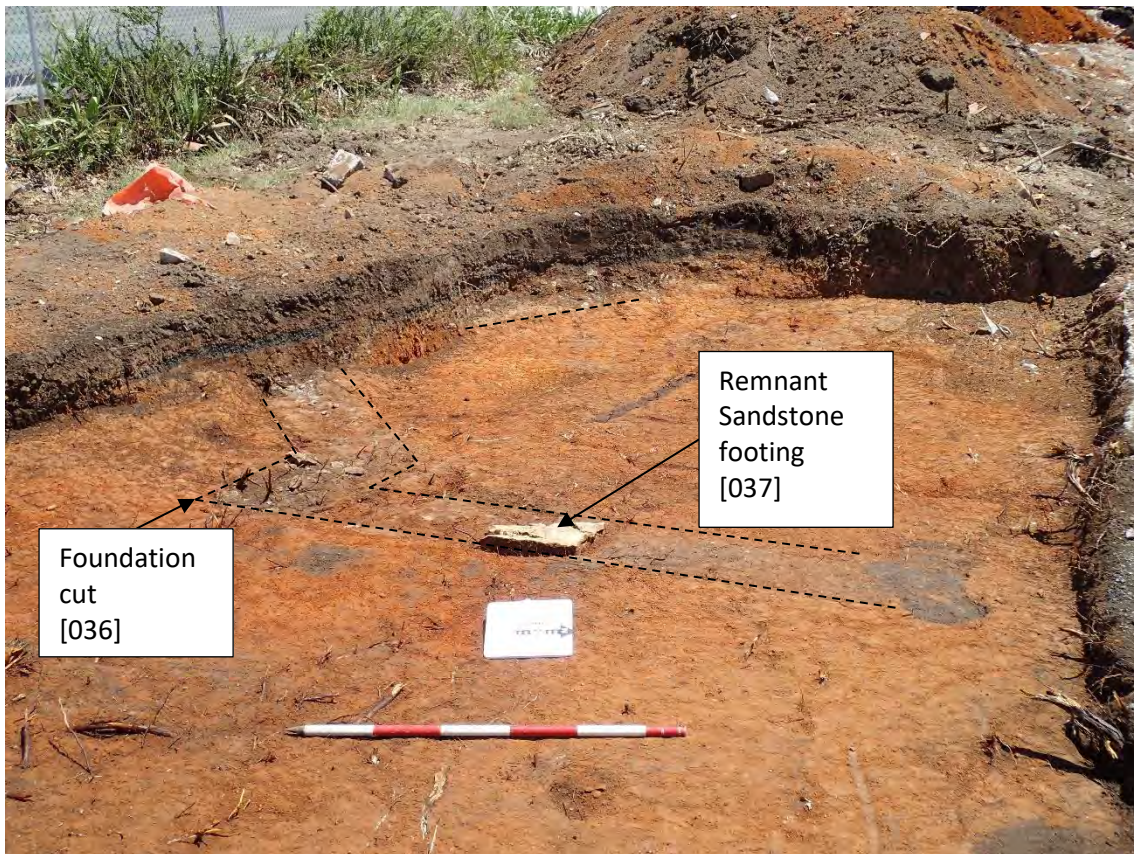


Figure 5.13 Remains of foundation trench for Penzance, approximate extent outlined in black and location of sandstone footing indicated by black arrow.

Although later development had substantially removed the footings from this area, the shape and location of [036] and [037] enabled the feature to be identified as the foundation cut for the bay window of Penzance. The only structural remnant at this location consisted of a single, roughly square, broken sandstone block, a component of the footing which was probably damaged when the remainder of the structure was removed. The foundation trench was filled with brown silt [038].

5.3.3. Drainage features and cistern

There were a large number of features associated with drainage and water management at the site. Only a sample of these features were excavated; however, all comprised trenching cuts into the natural soil profiles containing salt glazed earthenware pipes and introduced fill (Figure 5.14). The majority of the network appears to have been designed to collect roof runoff from Penzance and its outbuildings. The drainage features converged into a single pipe which led to a cistern [149] located in the south-eastern portion of the investigation area (Figure 5.15, Figure 5.16, Figure 5.17).



Figure 5.14 Drainage features in the eastern portion of the investigation area.



Figure 5.15 Beehive cistern, prior to excavation.



Figure 5.16 Beehive cistern, during excavation.



Figure 5.17 Beehive cistern, post excavation.

The beehive cistern in the south-eastern portion of the site measured approximately 3.2m in diameter and had a depth of approximately 3m. It was constructed of sandstock bricks set in a lime mortar, which are typical of a pre-1870s date and may reflect survival of an earlier technology in a rural environment. Given the depth and shape of the structure, it was not considered safe or practical to excavate by hand, and as such it was mechanically sectioned. The cistern was filled with an artefact-rich mix of brown sandy loam [151, 170, 171] (Figure 5.17). The fill also included the highest density of artefacts identified on site, as discussed in Appendix C. The location of the cistern approximately matches the location of the southernmost well identified on the 1899 Sydney Water plan. No evidence of any earlier well was identified at this location during excavations.

During monitoring of the overburden and within the Dive, the northernmost well shown on the 1899 Sydney Water plan was not located and was assumed to have been destroyed during the 1950s.

However, during deep excavation for the Dive, following completion of the archaeological excavations, the base of the well was exposed. There were no structural remains or associated artefacts, only a black circular stain marking the location (Figure 5.18, Figure 5.19).



Figure 5.18 The base of the second well as exposed during excavation of the Dive.



Figure 5.19 Detail of the base of the second well.

5.3.4. Other archaeological features

A series of post holes cutting the natural soil profiles across the site were excavated (Figure 5.20). The majority of these were square or rectangular and were in small groupings of two or three. Following the completion of excavations, the locations of these post holes were mapped to identify whether they corresponded to known property boundaries or building footprints, or if their spatial relationships were indicative of the presence of any previously unidentified features on site (Figure 5.26, Figure 5.27). However, there were no identifiable relationships between the postholes and the known historical structures and property boundaries.

In the eastern portion of the investigation area was a large rubbish pit [053]. It measured 1.36m by 1.16m (Figure 5.21). The pit was excavated by hand, and a number of artefacts were recovered (discussed in Appendix C).



Figure 5.20 Contexts [073] (left) and [062] (right) were typical of the postholes found on site.



Figure 5.21 Rubbish pit [053], post excavation.

Removal of overlying fill also identified a rectangular stone-lined feature [029] in the south-western portion of the investigation area. It measured 1.3m by 0.9m and was 0.4m deep (Figure 5.22, Figure 5.23). The walls of the cut [029] were lined with irregularly shaped sandstone blocks [030] on its eastern, southern, and western sides and base. The base was covered with a dark reddish-brown layer of clay [026], which was in turn overlain by sandstone rubble fill [022]. The purpose of this structure was not identifiable; however, it is possible that it may have been the base of a cesspit located outside of the footprint of the former School of the Arts building and there were no known structures at its location. It is in alignment with the two brick piers, located to its south-west, suggesting an association with the School of Arts building.



Figure 5.22 Possible cesspit [029], pre excavation.



Figure 5.23 Possible cesspit [029], post excavation.

Two brick piers [055, 059] were identified in the south-western corner of the investigation area (Figure 5.24, Figure 5.25). The piers were located 1.25m apart from each other on a north-east to south-west orientation that corresponded to the alignment of other structures in the area. The orientation and location suggested that they were associated with the School of Arts. The use of dry pressed bricks and concrete mortar to construct the piers demonstrates that they do not form a part of the original structure (built using sandstone in 1874-1875), and that they are much more likely to form a part of the foundations for a later addition to the northern side of the building, which appears on the 1943 aerial image of the area.



Figure 5.24 Brick piers in south-western portion of the investigation area, post excavation.



Figure 5.25 Detail of brick pier.

5.4. Summary of archaeological results

Archaeological excavations at the Chatswood Dive site revealed archaeological evidence relating primarily to Penzance (built c1887), its outbuilding (built c1887-1899), and related drainage features including ceramic pipes and a brick cistern, as well as the remnants of a well. An intact rubbish pit was also identified to the east of the outbuilding. Remnant features of the bay window at the front of 'Penzance' were also identified; however, any other archaeological deposits which may have been associated with the house were removed by later twentieth century development.

In relation to the School of the Arts, archaeological remains were insubstantial in nature, consisting primarily of two brick piers which probably relate to an extension that was built c1917-1943 during its time as a school chapel. A small sandstone feature, recorded on site as a possible cesspit was also identified in the vicinity of the School of Arts building, however there was not enough evidence available to confirm this.

Across the remainder of the site, the only other substantial archaeological evidence consisted of a number of post holes in yard areas. These post holes do not align well with known structures or property boundaries and are not located consistently enough to allow their function to be determined.



Figure 5.26 Orthographic plan of the investigation area with post holes marked by blue circles, drainage features by black dotted lines, brick piers by green circles, the rubbish pit by a grey rectangle, the possible cesspit by a red rectangle, and the anomaly by an orange outline [040]. Key features are annotated with their context numbers.



Figure 5.27 Orthographic plan of the south-eastern portion of the investigation area with post holes marked by blue circles, drainage features by black dotted lines, and the rubbish pit by a grey rectangle. Key features are annotated with their context numbers.

6. Response to research questions

6.1. Introduction

As a part of the AMS for this project, a series of research questions were formulated with the aim of addressing research themes through the archaeological investigations. Each of the research questions are addressed under their relevant themes below.

6.2. Landscape and environmental archaeology

6.2.1. Is there surviving evidence of the early local environment, such as early soils, and fossil pollen?

No evidence was identified on site which would relate to the early local environment. The historical archaeological deposits identified were related to the 1880s through to approximately the 1930s, and directly overlay B-horizon clays. As such, no clear evidence was identified which would assist in answering this research question.

6.2.2. Is there surviving evidence of early land-use practices and what can this evidence tell us about the modification of the original landscape after European settlement?

No evidence of land use predating the latter part of the nineteenth century was identified on site, nor is there clear evidence which would inform us about landscape modification after European settlement. Twentieth century development has removed much of the archaeological remains associated with Penzance on site. As a result of this, most fill deposits on site directly overly natural B-horizon clays, indicating that modern development has resulted in significant landscape modification, and may also have removed evidence of nineteenth century land use practices. Any archaeological remains identified on site tended to be cut into the underlying clay profiles, and no natural A-horizon soil profiles were recorded during works.

6.3. Residential housing, commercial premises, and material culture

6.3.1. What can the construction techniques, size, layout and form of the houses and outbuildings tell us regarding areas of activity and use? What insights are provided in the locations and associations of kitchens, outbuildings, wells, cesspits and other features?

Structural remains within the study area were heavily truncated by post-WWII development, with the vast majority of remains associated with Penzance having been removed with the exception of the foundation trench for the bay window at the front of the structure. The remains of the outbuilding were substantially intact, likely due to the fact that the building was demolished prior to Penzance, as it is not shown in the 1943 aerial of the study area, with a car park occupying the site of the outbuilding from the 1960s onwards based on available aerial imagery. As such the location of the outbuilding was not subject to significant excavation. Other structural remains on site consisted of service pipes and a brick cistern associated with Penzance and its outbuilding, and two brick piers associated with the School of Arts building.

Insufficient remains survive from Penzance to compare construction techniques with its outbuilding to better assess whether the two structures were constructed at the same time. The outbuilding was constructed on inconsistently coursed brick foundations, while the only remains of Penzance are a single remnant sandstone footing in foundation trench for the bay window at the front of the building.

The location of the cistern approximately matches the location of the southernmost well identified on the 1899 Sydney Water plan (Figure 3.21). No evidence of any earlier well was identified at this location during excavations. During monitoring of the overburden and within the Dive, the northernmost well shown on the 1899 Sydney Water plan was not located; however, during deep excavation for the Dive, the base only of the well was discovered and it is assumed to have been destroyed during the 1950s.

The use of sandstock brick and similar mortar in both the outbuilding and the cistern may also suggest that both items have a similar construction date in the late 1800s. The silt trap on the eastern side of the outbuilding however is constructed using machine-made brick and Portland cement, suggesting either an earlier date for the construction of the outbuilding, or that it represents a more old-fashioned, vernacular style of construction that would be consistent with its location on the outskirts of Sydney at the time.

Within the outbuilding, the only substantial remains on site, no distinguishing features were identified which would clearly identify the functions of individual rooms, such as hearths, or underfloor deposits. The storage of water was clearly a concern on site, with a series of pipes present draining water to the cistern in the south-eastern portion of the site. The presence of the cistern in such close proximity to this combined with its form and rendered interior indicates its importance as a water source on site. The form and rendered interior are consistent with its likely construction date of the cistern in the late nineteenth century, predating the pumping station constructed to supply areas north of Mowbray Road in 1895.

6.3.2. Are there intact domestic deposits and what can these tell us about settlement patterns, the survival mechanisms of a mid-nineteenth-century semi-rural community and the availability of goods beyond the urban centres? What are the patterns of subsistence and self-reliance and how do they inform us about this environment and adaptation to it?

All archaeological remains present on site which could be interpreted, date to the later nineteenth century (1880s), with the two primary occupation deposits dating to the twentieth century (the cistern fill [150/151/170] and rubbish pit [054]). A large number of postholes were identified across the site; however, these were largely sterile of dateable archaeological material and were not aligned into any form which could be meaningfully interpreted. While the artefact assemblage does not allow for an interpretation of the mid-nineteenth century occupation of the study area, it is possible use the assemblage to further understand the early -twentieth century occupation of the study area.

The artefact assemblage is broadly consistent with the known uses of Penzance, firstly as a private residence and later as a part of the school, initially as accommodation for Bavin's mother and subsequently for boarding students from 1916. The function of the outbuilding to its rear is not clear; however, it would be reasonable to assume that it served perhaps as the kitchen, servants' quarters or additional accommodation.

A large proportion of the identified artefacts relate to the consumption of food and beverages, forming a combined 47.45% of the glass assemblage (30.50% beverage, 16.95% food), 80% of the ceramic assemblage, and 24.42 % of the metal assemblage (Figure 6.1, Figure 6.3 and Figure 6.4). Additionally, it is likely that the majority of the bone and shell assemblages are associated with the consumption of food. The presence of such a high proportion of food related items is typical of a site that has been occupied for domestic purposes (firstly as a private residence, and later as school accommodation). Notably, a high proportion of the glassware associated with the consumption of

beverages (MIC 24 of 36) was associated with the consumption of alcohol, suggesting that the site was occupied by adults as well as schoolchildren throughout the early twentieth century (Figure 6.1). Artefacts were also identified as having architectural, clerical, household, hygiene, and pharmaceutical functions. However, they were a small proportion of the assemblage overall. It is notable that many glass artefacts relating to pharmaceutical functions and metal artefacts relating to architectural functions were identified, however this not inconsistent with the known uses of the property. The high instance of pharmaceutical products may be related to the use of the site as a school, as the presence of boarding students would necessitate the treatment of minor injuries and illnesses of children on site, indicating the presence of a school infirmary or nurse, but this cannot be confirmed based on the available evidence.



Figure 6.1 Image of glass beverage bottles identified in the cistern. Top (L-R): [170]/#141; [170]/#135; [170]/#132; [170]/#133, bottom (L-R): [170]/#114; [171]/#153; [171]/#151; [171]/#152.

The presence of the cistern on site and the network of drains leading to it, along with the remnants of the well, are the clearest example of adaptation to environment. In the absence of a municipal water supply until the early 1890s, this system was used to capture and store water for use on site. The presence of the silt trap adjacent to the eastern wall of the outbuilding also suggests that this system was used into the twentieth century, after water was supplied to the area, as does the presence of artefacts dating to the 1930s in the lower part of the fill surrounding it.

Both deposits which contained a significant sample size of artefacts, the cistern and rubbish pit, were closed at a similar time in the 1930s. As the outbuilding associated with Penzance does not appear on the 1943 aerial image, which shows only a grassed paddock, it is possible that these deposits are associated with the demolition of the outbuilding. This cannot be confirmed however, as no evidence survives which would confirm when the outbuilding was demolished other than plans, which show that it must have been between 1917 and 1943. If this is correct, it would demonstrate the use of the

outbuilding for residential purposes, given that much of the assemblage is typical of domestic occupation. If the rubbish pit were filled in when the outbuilding was being demolished, it would also provide an explanation for the high proportion of architectural items in the metal assemblage.

It is notable that within the glass assemblage with the greatest mix of Australian and imported goods, most objects identified as being manufactured in Australia date to the twentieth century, with a small number manufactured in the 1890s. The majority of goods manufactured in the nineteenth century were imported from overseas, primarily from the UK.

6.3.3. What can the contents of underfloors, wells, rubbish and/or cesspits tell us about the daily lives and domestic practices of this relatively isolated rural community, which could be evaluated and compared with artefact assemblages from similar sites within primary urban environments, that may not be available from other sources?

As outlined above, the domestic deposits contain artefacts dating from c1880s through to the 1930s. As such, that artefact assemblages date to a period when Chatswood had emerged from being a relatively isolated community to a much more important part of Sydney as a whole, with the introduction of the train line (1890), municipal water (1895/1897), gas lighting (1896), and the NSOOS (1927), and culminating with the opening of the Sydney Harbour Bridge (1932).

Consequently, the domestic deposits identified on site are not reflective of the lives of individuals living in a relatively isolated rural community in the nineteenth century, but rather a growing, connected suburb in the early twentieth century. The artefact deposits are dominated by relatively utilitarian and everyday objects, centred on the consumption of food and beverages, pharmaceutical, and in the case of metal, architectural functions. The artefact assemblage indicates the presence of both adults and children on site. This suggests that while Penzance was used to accommodate boarders at the School of Arts, as represented through toy marbles and a 'revolver' shaped glass candy bottle, adults were also in residence at the site, shown through the number of alcohol bottles present in the assemblage.

Within the glass assemblage, most vessels were manufactured in Australia (MIC 41), with a proportionally lower amount manufactured in the United Kingdom (MIC 15), the United States (MIC 4), Germany (MIC 2) and France (MIC 1). This demonstrates a strong preference toward locally produced glassware over international imports. A review of the specific functions of these items shows that the vast majority of beverage and food products were produced in Australia, with imports displaying a wider range of functions, including personal, service, and pharmaceutical. This suggests that every day or low-cost items were sourced locally, while luxury items may have been imported. This is particularly clear in the glass assemblage, where 70% of identified vessels had a beverage or food function and were more typically mass-produced in the early twentieth century. By comparison, only 24% of items manufactured outside of Australia were identified as having a food or beverage function, with most of these items (57%) falling into the personal or pharmaceutical category (Figure 6.2).



Figure 6.2 Sample of pharmaceutical bottles identified in the cistern. Top (L-R): [170]/#111; [170]/#112; [170]/#137; [170]/#97; [170]/#143, middle (L-R): [171]/#161; [170]/#130; [170]/#149; [170]/#100; [170]/#98; [170]/#127, bottom (L-R): [151]/#109; [171]/#159; [170]/#124; [170]/#125; [171]/#160; [171]/#162.

Within the glass assemblage, artefact functions were dominated by beverage (MIC 36), pharmaceutical (MIC 35) and food (MIC 20), while the ceramics assemblage was overwhelmingly dominated by food related items (MIC 36). Given the relatively small size of the assemblage it is difficult to provide a firm assessment of the standard of living on site. The glass assemblage was dominated by relatively everyday items spanning the late nineteenth to early twentieth centuries and does not provide a clear indication of the standard of living on site. Technologically, the high instance of two piece moulds (1850s onwards) alongside technologies developed later in time including Codd type bottles (1875-1930), turn-paste moulds (1880-1900) and semi- and fully-automatic machine-made bottles (1893 onwards) suggests that the assemblage dates to the late-nineteenth to early-twentieth century, and suggests that while new technologies were continually adopted over the latter part of the nineteenth and early part of the twentieth centuries, the use of older technologies persisted well into the twentieth century.

Regarding the ceramic assemblage, the overwhelming majority of identified items were produced in England (MIC 25), with isolated examples from France (MIC 1) and Germany (MIC 1). Given that England has traditionally been a centre of ceramics manufacture, this bias is not unusual in ceramic assemblages in Australia.

The ceramic assemblage is typical of a site used for residential occupation, with a range of tableware dating from the late-nineteenth to the early- and mid-twentieth century. The presence of items spanning such a broad date range does suggest continued use of these items over a period of decades, as the two largest artefact-bearing deposits, the fill of the rubbish pit [054] and the fill of the cistern [151, 170, 171] both appear to have been deposited over a short period in the 1930s (Figure 6.3, Figure 6.4).



Figure 6.3 Representative photograph of ceramic artefacts identified in [054]. Top (L-R): (054)/#36; (054)/#3, middle: (054)/#4, bottom (L-R): (054)/#7; (054)/#5; (054)/#37.



Figure 6.4 Representative photograph of ceramic artefacts identified in the cistern. Top (L-R): (170)/#49; (170)/#54, middle (L-R): (170)/#53; (170)/#46/ (170)/#48, bottom (L-R): (151)/#11; (170)/#43; (151)/#10.

Within the faunal assemblage, the identifiable specimens were dominated by three animal species: Sheep (NISP 19), Cattle (NISP 15), and Rabbit (NISP 4). All identified species on site are consistent with human consumption of meat. Within the site, significantly sized faunal assemblages were identified across relatively few contexts, including the rubbish pit [054] (NISP 32), the fill of service trench [093] (NISP 7), the lower fills of the cistern [170/171] (combined NISP 6) and the fill of a cut [083] (NISP 5), with all other contexts containing five or fewer specimens. Context [093] is the fill of a cut for a service to the east of the outbuilding, and contained only unidentifiable bone fragments, [083] is the fill of a cut to the west of the outbuilding, and similarly contained only unidentifiable fragments, making it difficult to interpret the remains identified. The rubbish pit [054] contained the remains of cattle, sheep and rabbit, and the cistern [170/171] the remains of sheep. Given the range of other artefacts identified in association with these contexts, it is reasonable to assess that these are the remains of animals which were consumed on site.

The shell assemblage at the Chatswood Dive site was small, making it difficult to use the assemblage to interpret the site. Five of the six shells identified on site were marine shells, and indicated some consumption of shellfish on site, however not as a major component of the occupants' diet. The remaining shells consisted of Sydney Rock Oyster (NISP 3), Bittersweet clam (NISP 1) and unidentified (NISP 1).

Within the metal assemblage artefacts with identified functions were dominated by architectural (MIC 26) and food (MIC 21) related items. The food category was represented by sardine cans and other food storage containers. These items indicate the presence of structures on site with timber components (demonstrated by the use of nails, screws, and other fasteners), and are also indicative of its use as a residence, showing that food was stored and consumed on site. The metal artefacts themselves do not provide any clear evidence for standards of living at Penzance or the Mowbray House School.

The miscellaneous assemblage was, similarly to the shell assemblage, very limited in size, with only 11 items identified in this category, making it difficult to draw firm conclusions regarding uses of the study area based on this. A large portion of the assemblage was related to dress and grooming, including three buttons, a press stud, a purse clasp, and a brush. In addition to this, two toy marbles were identified on site, indicating the presence of children on site, associated with its use as a school.

6.3.4. What can the artefacts tell us about the minutiae of everyday life of the people working and living within this relatively isolated early urban environment?

The artefact assemblage from the Chatswood Dive site dates to the late-nineteenth and early-twentieth century, so while it does not provide insight into lives of the very early occupants of the site, there are some objects within the assemblage which do provide detail on the lives of the site's early-twentieth century residents, when Penzance was occupied first as a residence and second accommodation for the Mowbray House School.

Two items of note were identified in the metal assemblage which may provide more insight into the lives of people on site. The first was a Hollifield Target Practice Rod identified in the fill of the cistern [151] (Figure 6.5). Produced some time between 1906 and 1927 in the United States, the presence of the rod on site indicates that in the early twentieth century, likely in the 1920s or 1930s, an occupant of the site practiced shooting recreationally, or alternatively that students at the school were engaging in target practice. Also, within the fill of the rubbish pit [054] a Princess Mary bullet pencil was identified (Figure 6.6). Originally a gift to all sailors in the Commonwealth armed forces at Christmas

in 1914, the pencil suggests that a resident of Penzance was a relative of a sailor in World War I, or alternatively, the item could have been gifted to the school at some point in time.



Figure 6.5 Target practice rod (#0001) identified in [151].



Figure 6.6 Bullet pencil (#0040) identified in [054].

Within the faunal assemblage, the presence of rabbit bones in the fill of the rubbish pit [054] is particularly interesting as it postdates the use of Penzance and its outbuilding for the Mowbray house school, suggesting that rabbit may have been consumed on site by either the boarders or staff as a part of their diet.



Figure 6.7 Rabbit bones identified at the Chatswood Dive site. Order (L-R) (054)/#199; (054)/#198; (054)/#197; (054)/#192.

Given the length of time that the study area was utilised as a school, which overlaps with the production dates of many artefacts on site, it is unusual that more objects associated with children or education were not identified. Only one graphite pencil fragment and MIC 3 glass ink bottles were identified during excavations. The only other objects present which were linked specifically with children were two marbles and a glass candy bottle in the shape of a revolver (Figure 6.8). These items

highlight the presence of children at the school, although the assemblage does show a higher number of artefacts associated with adults, such as the MIC 24 alcohol bottles identified on site, which suggests that either Penzance or its outbuilding was occupied by adults as well as school boarders.



Figure 6.8 Candy revolver (#94) identified in [054].

6.4. Additional research questions

The research questions in the 2016 AARD were based on the predicted level of archaeological potential and the likely significance of the archaeological deposits. Specific research questions were designed for the Chatswood artefact assemblages to build on the initial research aims. Research themes for the excavations centred on residential housing, commercial premises, and material culture with some specific questions focused on the artefact assemblage:

- *What can the contents of underfloors, wells, rubbish and/or cesspits tell us about the daily lives and domestic practices of this relatively isolated rural community, which could be evaluated and compared with artefact assemblages from similar sites within primary urban environments, that may not be available from other sources?*
- *What can the artefacts tell us about the minutiae of everyday life of the people working and living within this relatively isolated early urban environment?*

These questions formed the basis of the discussion of the artefact analysis and have been specifically addressed in Table 6.1.

Table 6.1 Response to additional research questions relating to artefact assemblages.

Assemblage	Research questions	Responses
Fauna	<i>What does the patterning in type and size of the faunal assemblage tell us about the layout of the site?</i>	As all faunal remains on site were associated with Penzance and its outbuilding, it is not considered that a meaningful analysis can be made regarding the distribution of faunal remains on site.
	<i>Does the faunal assemblage associated with different buildings present evidence of socioeconomic conditions and how do they differ?</i>	Given that both Penzance and its outbuilding were located within the same property, it is difficult to firmly tie any contexts containing faunal remains to a specific structure.
	<i>What types of animals are represented within the faunal assemblage?</i>	Within the faunal assemblage, the identifiable specimens were dominated by three animal species: Sheep (NISP 19), Cattle (NISP 15), and Rabbit (NISP 4). The presence of rabbit bones in the fill of the rubbish pit [054] is particularly interesting as it postdates the use of Penzance and its outbuilding for the Mowbray house school, suggesting that rabbit was consumed on site by either the boarders or staff as a part of their diet.
	<i>What are the relative frequencies of represented taxa?</i>	
Glass and ceramic	<i>What does the presence of maker's marks at the site tell us about the prevalence of importation compared to local manufacture?</i>	<p>Within the glass assemblage, the majority identified were manufactured in Australia (MIC 41), with a proportionally lower amount manufactured in the United Kingdom (MIC 15), the United States (MIC 4), Germany (MIC 2) and France (MIC 1). This demonstrates a strong preference toward locally produced glassware over international imports. A review of the specific functions of these items shows that the vast majority of beverage and food products were produced in Australia, with imports displaying a wider range of functions, including personal, service, and pharmaceutical. This suggests that every day or low-cost items were sourced locally, while luxury items may have been imported.</p> <p>Regarding the ceramic assemblage, most identified items were produced in England (MIC 25), with isolated examples from France (MIC 1) and Germany (MIC 1). Given that England has traditionally been a centre of ceramics manufacture, this bias is not unusual in ceramic assemblages identified in Australia.</p>
	<i>What functions of glass and ceramic are represented within the assemblage?</i>	Within the glass assemblage, artefact functions were dominated by beverage (MIC 36), pharmaceutical (MIC 35) and food (MIC 20), while the ceramic assemblage was overwhelmingly dominated by food related items (MIC 36). This is consistent with both the residential uses of the site and the use of Penzance by boarding students at the school.
	<i>What evidence is there for the standard of living at the site? Does the artefact assemblage assist in analysing different standards of living?</i>	Given the relatively small size of the assemblage it is difficult to provide a firm assessment of the standard of living on site. The glass assemblage was dominated by relatively everyday items spanning the late nineteenth to early twentieth centuries and does not provide a clear indication of the standard of living on site.

Assemblage	Research questions	Responses
	<p><i>What does the manufacturing techniques and processes identified at the site tell us about the changing manufacturing processes in the nineteenth and twentieth centuries?</i></p>	<p>Technologically, the high instance of two piece moulds (1850s onwards) alongside technologies developed later in time including Codd type bottles (1875-1930), turn-paste moulds (1880-1900) and semi- and fully-automatic machine-made bottles (1893 onwards) suggests that the assemblage dates to the late-nineteenth to early-twentieth century, and suggests that while new technologies were continually adopted over the latter part of the nineteenth and early part of the twentieth centuries, the use of older technologies persisted well into the twentieth century. The presence of these technologically older bottles could also represent reuse. Bottles were an expensive commodity and manufacturers encouraged the return of the bottles, whereby a profit could be made by reusing these several times over.</p>
Shell	<p><i>What types of shells are represented within the assemblage?</i></p>	<p>Five of the six shells identified on site were marine shells, indicating consumption of shellfish on site: however, not as a major component of the occupants' diet. The sixth shell identified on site belonged to a land snail, which is unlikely to have formed a part of diet. The remaining shells consisted of Sydney Rock Oyster (NISP 3), Bittersweet clam (NISP 1) and unidentified (NISP 1).</p>
	<p><i>What are the relative frequencies of represented species?</i></p>	
Metal	<p><i>What functions of metals are represented within the assemblage?</i></p>	<p>Within the metal assemblage artefacts with identified functions were dominated by architectural (MIC 26) and food (MIC 21) related items. The architectural category primarily comprised nails, screws, washers, and other fasteners, while the food category was dominated by sardine cans and other food storage containers.</p>
	<p><i>Can these functions help us determine nature of individual buildings? I.e., public, domestic, or industrial.</i></p>	<p>The identified metal artefacts indicate the presence of structures on site with timber components (demonstrated by the use of nails, screws, and other fasteners), and are also indicative of its use as a residence, showing that food was stored and consumed on site. The metal artefacts themselves do not provide any clear evidence for standards of living at Penzance or the Mowbray House School.</p>
	<p><i>What evidence is there for the standard of living at the site? Does the artefact assemblage assist in analysing different standards of living?</i></p>	
Miscellaneous	<p><i>What does the miscellaneous assemblage suggest about how the study area was used?</i></p>	<p>The miscellaneous assemblage was very limited in size, with only 11 items identified in this category, making it difficult to draw firm conclusions regarding uses of the study area based on this. A large portion of the assemblage was related to dress and grooming, including three buttons, a press stud, a purse clasp, and a brush. In addition to this, two toy marbles were identified on site, which may indicate the presence of children on site, associated with its use as a school.</p>

7. Archaeological significance reassessment

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. 'Cultural heritage significance' and 'heritage value' are terms used to express the tangible and intangible values of an item, place or archaeological site, and the response that it evokes in the community. An item will be of local (or State) significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the seven SHR criteria.

The AARD undertaken by Artefact Heritage (2016) identified the NC6 area within the Chatswood Dive site as having the potential to contain locally significant archaeology for Phase 2 (1860-1905) archaeology. However, archaeological remains for Phase 3 (1905-1960) may not meet the threshold for local significance.

AMBS reassessed the site for the Archaeological Method Statement and undertook additional extensive research into the historical development of the Chatswood Dive site, which led to a re-evaluation of the archaeological potential and the research value of archaeological remains within the study area. This assessment identified NC6 as having local significance based on the potential for archaeological remains associated with the early housing and industry along Mowbray Road, specifically relating to Penzance and the School of Arts building

7.1. Previous statement of archaeological significance

The archaeological resource associated with the Chatswood Dive site, if present with good integrity, has the potential to provide information regarding the later nineteenth-century development of housing and industry within a semi-rural community.

Physical evidence of houses, outbuildings, wells, cesspits and underfloor deposits, if present with good integrity, have historic, archaeological and representative values. It has the potential to provide information regarding the later nineteenth-century development of housing, services and industry within the local area. Physical evidence of houses, outbuildings, wells, cesspits, underfloor deposits and pollen has the potential to make a contribution to an understanding of the area's initial rural settlement and the subsequent changing nature of its land-use as it became more urbanised. Information gained from the archaeological resource of the Chatswood Dive site, such as personal and domestic artefacts, and refuse associated with semi-rural life, has the potential to be compared with artefact assemblages from similar sites within and beyond the primary urban environments and assist with addressing research questions relating to suburban and urbanisation, material culture, consumerism, and the lives of women and children.

The archaeological resource associated with the Chatswood Dive site, if present with good integrity, would have local significance.

7.2. Reassessment of significance

Following the archaeological excavations of the Chatswood Dive site a reassessment of the significance is pertinent to understand the archaeological resources revealed during the archaeological investigations and to inform interpretation of the site.

The following is the updated assessment of the significance of these potential remains against the SHR criteria.

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

Archaeological remains associated with Penzance and the School of Arts were heavily truncated by later development within the study area, although the archaeology present did provide some information on how the study area developed over time, particularly in relation to the provision of water, with a large cistern and well, as well as an extensive drainage system discovered on site, demonstrating that the most effective method of supplying water on site prior to the introduction of municipal water from 1895 onwards was the capture and storage of rainwater. Only one rubbish pit was identified on site containing a significant number of artefacts and appears to have been filled at a similar time to the surviving cistern, in the 1930s. No archaeological remains were identified on site as predating the construction of Penzance in the 1880s.

The archaeological remains identified at the Chatswood Dive site meet this criterion at a local level.

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

No archaeological remains were identified which could be directly linked with the life or works of an historically important person or group of people.

The threshold for significance against this criterion has not been met.

Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);

The archaeological remains identified associated with Penzance were heavily truncated, with only the outbuilding to its north remaining substantially intact and remains associated with the School of Arts were completely removed by later development.

The threshold for significance against this criterion has not been met.

Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area);

While no consultation has been undertaken with the local community in relation to the values of the archaeology, it is acknowledged that local communities are interested in the archaeology of their community and its development. Although it may be unlikely that the archaeological remains identified would have importance to the local community, the Willoughby District Historical Society were interested in the limited archaeological remains associated with Penzance.

The threshold for significance against this criterion has not been met.

Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area);

The archaeological remains identified in the Chatswood Dive site are representative of early-twentieth century use of the study area, with any previous remains (including deposits associated with the School of Arts and Penzance) having been removed by later development. The artefact deposits

identified consist of a mix of artefacts dating loosely from the 1880s to the 1930s. While this site is not considered to be particularly rare, it may provide a useful comparison to other sites locally to better understand the development of Chatswood over time from a relatively isolated, semi-rural community to one better serviced and connected with Sydney. The Chatswood Dive artefact assemblage would be more representative of the latter part of this process, with artefact deposits showing continued use of items manufactured in the nineteenth century well into the twentieth century.

The archaeological remains identified at the Chatswood Dive site meet this criterion at a local level.

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

The remains present within the Chatswood Dive date to the late-nineteenth and early-twentieth centuries and are not considered to be uncommon or rare example of domestic assemblages in the context of the Sydney region or NSW.

The threshold for significance against this criterion has not been met.

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

The remains present within the Chatswood Dive site are representative of domestic usage of the study area in the late-nineteenth and early-twentieth centuries, with structural remains dating to from the 1880s associated archaeological deposits from the 1930s. While not rare in the context of the Sydney region, limited archaeological works has previously been undertaken in the Chatswood area, and the assemblage identified would have the potential to be compared with other similar sites to form a more complete area of how Chatswood developed over time.

The archaeological remains identified at the Chatswood Dive site meet this criterion at a local level.

7.2.1. Statement of significance

The archaeological remains identified in the Chatswood Dive site are representative of late-nineteenth and early-twentieth century use of the study area, with any previous remains (including deposits associated with the School of Arts and Penzance) having been removed by later development. The artefact assemblage consists of a mix of artefacts dating loosely from the 1880s to the 1930s. While this site is not considered to be particularly rare, it may provide a useful comparison to other sites locally to better understand the development of Chatswood over time from a relatively isolated, semi-rural community to one better serviced and connected with Sydney. The Chatswood Dive artefact assemblage would be more representative of the latter part of this process, with artefact deposits showing continued use of items manufactured in the nineteenth century well into the twentieth century.

The remains at the Chatswood Dive site do provide an insight into the provision of water in a semi-rural context in the nineteenth century. A large cistern and extensive drainage system was identified on site, demonstrating that the most effective method of supplying water on site prior to the introduction of municipal water from 1895 onwards was the capture and storage of rainwater. Only one rubbish pit was identified on site containing a significant number of artefacts and appears to have

been filled at a similar time to the cistern, in the 1930s. No archaeological remains were identified on site as predating the construction of Penzance in the 1880s.

The remains present within the Chatswood Dive site are representative of domestic and school usage of the study area in the late-nineteenth and early-twentieth centuries, with structural remains dating from the 1880s associated archaeological deposits dating up to the 1930s. While not rare in the context of the Sydney region, limited archaeological works has previously been undertaken in the Chatswood area, and the assemblage identified would have the potential to be compared with other similar sites to form a more complete area of how Chatswood developed over time.

The archaeological remains identified at the Chatswood Dive site have historical, research, and representative significance at a local level.

8. Conclusion and recommendations

8.1. Conclusions

Archaeological excavations at the Chatswood Dive site revealed archaeological evidence relating primarily to Penzance house (built c1887), specifically its outbuilding (built c1887-1899), and related drainage features including ceramic pipes and a brick cistern. The remnant feature of the bay window at the front of 'Penzance' was also identified; however, additional archaeological deposits which may have been present relating to the house were removed by later twentieth century development. An intact rubbish pit deposit was also identified to the east of the outbuilding.

In relation to the School of the Arts, archaeological remains were insubstantial in nature, consisting primarily of two brick piers which may relate to an extension (built c1917-1943) to the School of Arts building during its time as a school chapel. A small sandstone feature, recorded on site as a possible cesspit was also identified in the vicinity of the School of Arts building; however, there is not enough evidence available to confirm this.

Based on the results of the excavations and subsequent artefact analysis, it has been assessed that the archaeological remains within the study area are representative of late-nineteenth and early-twentieth century occupation, with known structures on site dating approximately between 1887 and 1899, and associated deposits containing artefacts dating between the 1880s and 1930s. These deposits are indicative of continued use of the site over and approximately 50 year period, as Chatswood grew and became more connected with Sydney. It is possible that the artefact deposits in the fill of the cistern and rubbish pit are related to the demolition of the outbuilding, which was removed prior to 1943, however this cannot be determined with surety.

The remains at the Chatswood Dive site do provide an insight into the provision of water in a semi-rural context in the nineteenth century. A large cistern and extensive drainage system demonstrated that the most effective method of supplying water on site prior to the introduction of municipal water from 1895 onwards was the capture and storage of rainwater. The fact that the cistern was backfilled in the 1930s, combined with the silt trap constructed at the eastern wall of the outbuilding after the building was constructed, indicates that the cistern continued to be used for water storage well into the twentieth century.

The archaeological remains identified at the Chatswood Dive site are considered to hold historical, research, and representative significance at a local level.

8.2. Recommendations

The completion of this report fulfils Condition E18 of the SSI approval (SSI 15_7400) for the Chatswood Dive site. It is recommended that, once finalised, a copy of this archaeological report is provided to the Heritage Council of NSW in accordance with section 146 of the *Heritage Act 1977*.

Long term management of the artefact collection is to be advised by Sydney Metro, however the temporary storage of the artefacts is the responsibility of Sydney Metro. Artefacts are to be stored at Sydney Metros dedicated storage facility at Unit 6, 6 Foray Street, Yennora NSW.

Other areas within the Chatswood Dive site which were not impacted by the construction of the dive retain identified archaeological sensitivity (Figure 8.1). Any future works within the site which would

impact on these areas would require a modification to the project approval in consultation with the Heritage Council of NSW.

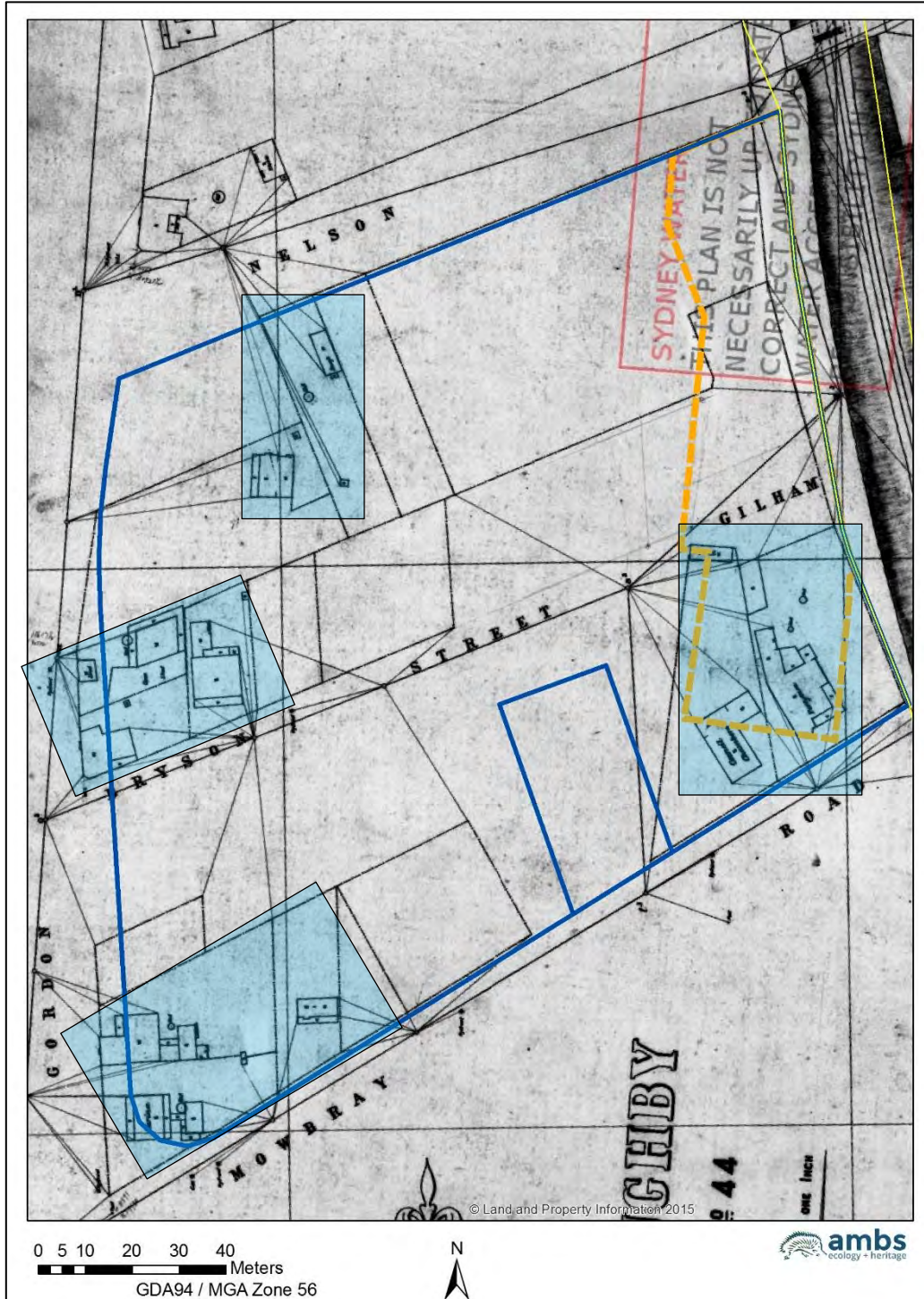


Figure 8.1 Detail of the 1899 Sydney Water Plan with the areas of moderate archaeological sensitivity within the Chatswood Dive site shaded blue.

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Appendices

Appendix A: Context register

Note: Room numbers and Yard refer to Penzance outbuilding and property






Date	Context	Area	Description	Above	Below
8.12.17	001		Concrete slab across north area	002	-
8.12.17	002		Road base	048	001
8.12.17	003		Asphalt surfacing (central west area)	004	-
8.12.17	004		Road base	011	003
8.12.17	005		Concrete slabs (northwest area)	006	-
8.12.17	006		Bedding/fills	012	005
8.12.17	007		Asphalt surfacing (central north area)	008	-
8.12.17	008		Bedding/fills	012	008
8.12.17	009		Asphalt surfacing (northeast area)	010	-
8.12.17	010		Bedding (rock & tar)	012	009
8.12.17	011		Fill/Surfacing (cinder)	012	004
11.12.17	012		Fill (post-demolition, post-machining)	015	011, 007, 010
12.12.17	013		Clean of yard area	015	012
12.12.17	014	Rm 1	Interface between fill 012 and natural soil 015	015	012
12.12.17	015		Natural A horizon soil	048	Various
12.12.17	016		Brick footings (Penzance outbuilding)		017, 035
12.12.17	017		Trench cut	016	018
12.12.17	018		Fill of 017	017	012
12.12.17	019	Rm 2	Clean after removal of fill 012	015	012
13.12.17	020	Yard	Pit cut	015	021
13.12.17	021	Yard	Fill of 020	020	012
13.12.17	022		Upper fill in 030 (sandstone rubble)	026	012
13.12.17	023	Yard	Gully trap (fed by piping 033)	067	025
13.12.17	024		Upper closure fill in 023 (probably = 012)	025	012
13.12.17	025	Yard	Lower closure fill in 023	023	024
13.12.17	026	Yard	Lower fill in 030	030	022
13.12.17	027	Yard	Pit cut	015	028
13.12.17	028	Yard	Fill of 027	027	012
13.12.17	029		Cut for 030	015	030
13.12.17	030		Sandstone structure (cesspit?)	029	026
14.12.17	031	Yard	Pit cut	015	032
14.12.17	032	Yard	Fill of 031	031	012
14.12.17	033	Rm 1	Ceramic piping	035	034
14.12.17	034	Rm 1	Fill around 033	033	012
14.12.17	035	Rm 1	Cut for pipe 033	016	033
14.12.17	036		Foundation trench (Penzance)	015	044
14.12.17	037		Sandstone footing (remnant)	044	038
14.12.17	038		Robbing fill of 036	037	047
14.12.17	039	Yard	Ceramic piping (assoc'd sump 023)	067	043
14.12.17	040		Pit cut (modern)	015	041
14.12.17	041		Fill of 040 (same as 012)	040	010
14.12.17	042		Closure fill of piping 039	043	012
14.12.17	043	Yard	Fill of service trench 067	039	012, 042
14.12.17	044		Bedding for footing 037	036	037
14.12.17	045		Fill (Section SE corner)	046	-
14.12.17	046		Fill (Section SE corner)	047	045
14.12.17	047		Asphalt surfacing (Section SE corner)	038	046
14.12.17	048		Natural clay (B horizon)	-	015
14.12.17	049	Yard	Service trench	015 138	050
14.12.17	050	Yard	Ceramic pipes	049	051

Date	Context	Area	Description	Above	Below
15.12.17	051	Yard	Fill of 049	050	012
15.12.17	052		Tree burning area (central north), burning within 015/048		012
15.12.17	053	Yard	Pit cut	015	054
15.12.17	054	Yard	Fill of 053	053	012
15.12.17	055		Cut for 056	012	056
15.12.17	056		Bearer pier (brick)	055	057
15.12.17	057		Fill of 055	056	004/011
15.12.17	058		Cut for 059	012	059
15.12.17	059		Bearer pier (brick)	058	060
15.12.17	060		Fill of 058	059	004/011
15.12.17	061		Posthole	048	062
15.12.17	062		Post packing	061	063
15.12.17	063		Post pipe	062	012
15.12.17	064	Rm 4	Posthole	015	065
15.12.17	065	Rm 4	Post packing	064	066
15.12.17	066	Rm 4	Post pipe	065	012
18.12.17	067	Yard	Service trench (part of service 049)	015	039
18.12.17	068		Trench for 069	012	069
18.12.17	069		Brick retaining wall (for SCC carpark)	068	070
18.12.17	070		Fill of 068	069	010
18.12.17	071		Pit/Posthole	015	072
18.12.17	072		Fill of 071	071	012
18.12.17	073		Pit/Posthole	015	074
18.12.17	074		Fill of 073	073	012
18.12.17	075		Trench cut	015	086
18.12.17	076		Fill of 075	086	012
18.12.17	077		Pit/Posthole	015	078
18.12.17	078		Fill of 077	077	012
18.12.17	079		Pit/Posthole	015	080
18.12.17	080		Fill of 079	079	012
18.12.17	081		Ceramic piping (trench 084)	084	085
18.12.17	082		Exploratory trench (associated with service 081)	012	010
18.12.17	083		Fill of 082	082	010
18.12.17	084		Service trench	012	081
18.12.17	085		Fill of 084	081	010
19.12.17	086		Bricks within trench 075	075	076
19.12.17	087		Pit cut	048	088
19.12.17	088		Fill of 087	087	012
19.12.17	089		Posthole	015	090
19.12.17	090		Post packing	089	091
19.12.17	091		Post pipe	090	012
19.12.17	092		Pit cut (?) – probable association with nearby disturbances	015? 012?	093
19.12.17	093		Fill of 092	092	010? 012?
19.12.17	094		Service trench	012	095
19.12.17	095		Ceramic piping	094	096
19.12.17	096		Fill of 094	095	010
19.12.17	097		Posthole	048	098
19.12.17	098		Post packing	097	099
19.12.17	099		Post pipe	098	012
19.12.17	100		Posthole	048	101
19.12.17	101		Post packing	100	102
19.12.17	102		Post pipe	101	012
19.12.17	103		Fill (=012)	015	010
19.12.17	104		Posthole	048	105





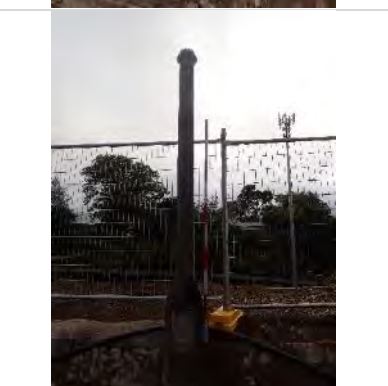
Date	Context	Area	Description	Above	Below
19.12.17	105		Post packing	104	106
19.12.17	106		Post pipe	105	012
19.12.17	107		Pit cut	015	108
19.12.17	108		Fill of 107	107	012
19.12.17	109		Posthole	015	110
19.12.17	110		Post packing	109	111
19.12.17	111		Post pipe	110	012
19.12.17	112		Pit cut	015	113
19.12.17	113		Brick structure	112	114
19.12.17	114		Fill of 112	113	012
19.12.17	115		Pit/Posthole	015	116
19.12.17	116		Fill of 115	115	012
19.12.17	117		Partial removal of fill 114 (cutting associated with service 081 unclear)	-	-
			Stage 2 – January 2018		
10.1.18	118		Posthole	015	119
	119		Post Packing	118	120
	120		Post pipe	119	012
	121		Posthole	015	122
	122		Post packing	121	123
	123		Post pipe	122	012
	124		Posthole	015	125
	125		Post packing	124	126
	126		Post pipe	125	012
	127		Posthole	015	128
	128		Post packing	127	129
	129		Post pipe	128	012
	130		Posthole	015	131
	131		Post packing	130	132
	132		Post pipe	131	012
	133		Posthole	015	134
	134		Post packing	133	135
	135		Post pipe	134	012
	136		Repair of service 050	051	012
	137		Posthole	015	138
	138		Post packing	137	139
	139		Post pipe	138	049
	140		Pit/Posthole	015	141
	141		Fill of 140	140	012
	142		Posthole	015	143
	143		Post packing	142	144
	144		Post pipe	143	012
	145		Posthole	015	146
	146		Post packing	145	147
	147		Post pipe	146	012
	148		Cut for cistern	015	149
	149		Brick cistern	148	150
	150		Fill around dome of cistern	149	152
	151		Closure fill of cistern 149 (top 80cm)	085	010
	152		Pit/Posthole	150	153
	153		Fill of 152	152	012
	154		Pit/Posthole (Not excavated)	015	012
	155		Pit/Posthole (Not excavated)	015	012
	156		Pit/Posthole (Not excavated)	015	012
	157		Pit/Posthole (Not excavated)	015	012
	158		Pit/Posthole (Not excavated)	015	012
	159		Pit/Posthole (Not excavated)	015	012







Date	Context	Area	Description	Above	Below
	160		Pit/Posthole (Not excavated)	015	012
	161		Pit/Posthole (Not excavated)	015	012
	162		Pit/Posthole (Not excavated)	015	012
	163		Pit/Posthole (Not excavated)	015	164
	164		Pit/Posthole (Not excavated)	163	012
	165		Pit/Posthole (Not excavated)	015	084
	166		Pit/Posthole (Not excavated)	015	012
	167		Pit/Posthole (Not excavated)	015	012
	168		Pit/Posthole (Not excavated)	015	012
	169		Pit/Posthole (Not excavated)	015	012
	170		Closure fill of cistern 149 (80cm-160cm)	171	151
	171		Closure fill of cistern 149 (160cm-300cm)	050	170
	172		Roadway asphalt	173	-
	173		Gravel bedding for 172	174	172
	174		Fill	048	173
	175		Service trench	151	176
	176		Ferrous pipe in 175	175	177
	177		Fill of 175	176	010/012



Appendix B: Photo register






Date	Frame#	Direction	Description	Image
STAGE 1 - December 2017				
4.12.17	1	E	Concrete slab [001] across north of site, also showing part of west section	
4.12.17	2	E	Detail of west section, concrete slab [001] over road base [002] over natural horizon	
4.12.17	3	E	Ditto	
4.12.17	4	NW	General view of site prior to machine removal of overburden surfaces and fills	
4.12.17	5	N	Ditto, concrete slab [001] behind garden area	

Date	Frame#	Direction	Description	Image
4.12.17	6	NE	Ditto	
4.12.17	7	S	East part of site with concrete slab [001], garden to south, asphalt [009] to the north and roadway to the east	
4.12.17	8	W	NE area, east section showing asphalt [009] over bedding [010] of rock and tar over fill [012]	
4.12.17	9	W	Ditto, grey soil probably pit fill [053]	
4.12.17	10	W	Ditto	
4.12.17	11	W	View of NE area with asphalt surfacing [009]	

Date	Frame#	Direction	Description	Image
4.12.17	12	S	NE area, north section showing asphalt [009] over bedding [010] of rock and tar over fill [012]. Visible cut probably service trench [049]	
4.12.17	13	S	Ditto	
4.12.17	14	SW	View of NE area with asphalt surfacing [009]	
4.12.17	15	NE	1950s light post on east side of roadway	
4.12.17	16	E	Ditto	







Date	Frame#	Direction	Description	Image
6.12.17	17	SE	Commencement of machining in NW area, removal of concrete slabs [005]	
6.12.17	18	NE	Removal of slabs [005] in progress, revealing underlying bedding [006] mostly of road base	
6.12.17	19	NE	Central west area, after removal of asphalt [003] revealing road base bedding [004]	
6.12.17	20	SE	Ditto	
6.12.17	21	S	NE area, initial reveal of brick footings [016]	
6.12.17	22	S	Ditto	





Date	Frame#	Direction	Description	Image
7.12.17	23	N	Ditto, east wall	
7.12.17	24	N	Ditto, SE corner of structure	
7.12.17	25	W	Ditto, north wall	
7.12.17	26	S	Ditto, west wall	
7.12.17	27	S	Initial reveal of Penzance outbuilding	



Date	Frame#	Direction	Description	Image
7.12.17	28	S	Ditto	
8.12.17	PC080950			
8.12.17	PC080951			
8.12.17	PC080952			
8.12.17	PC080956			



Date	Frame#	Direction	Description	Image
8.12.17	PC080957			
8.12.17	29	NE	North area, removal of concrete slab [001] over road base bedding [002]	
8.12.17	30	NE	Ditto	
8.12.17	31	S	NE area after removal of most of post-demolition fill [012], retained in northern area of structure for sampling interface with underlying natural soil [015]	
8.12.17	32	S	Ditto, yard area east of structure	
8.12.17	33	S	Ditto, area of structure	







Date	Frame#	Direction	Description	Image
8.12.17	34	S	Ditto, area of structure	
8.12.17	35	SE	Ditto, structure and yard areas	
12.12.17	36	W	Machining of central east area: removal of asphalt [009] on bedding [010] on fill [012] on natural clay [048]	
12.12.17	37	NW	Ditto	
12.12.17	38	E	Penzance outbuilding, view of structure and yard area to east	
12.12.17	39	E	Ditto, footings [016] set in natural brown soil [015], post-demolition fill [012] still in situ along west side	






Date	Frame#	Direction	Description	Image
12.12.17	40	E	Ditto, Room 1	
12.12.17	41	E	Ditto, Room 1	
12.12.17	42	SE	Ditto, overall view of structure and yard area to east	
12.12.17	43	SE	Overall view of structure	
12.12.17	44	S	Ditto	
12.12.17	45	S	Ditto	






Date	Frame#	Direction	Description	Image
12.12.17	46	SW	Ditto	
12.12.17	47	SW	Ditto	
12.12.17	48	W	Room 1	
12.12.17	49	W	Room 1	
12.12.17	50	W	Room 2	
12.12.17	51	W	Room 2, pit [020] in yard area adjacent to photo board	

Date	Frame#	Direction	Description	Image
12.12.17	52	NW	Room 2, trench cut [017] running NE-SW across room	
12.12.17	53	NW	Ditto	
12.12.17	54	W	Room 3	
12.12.17	55	W	Ditto	
12.12.17	56	NW	Overall view of structure	
12.12.17	57	NW	Ditto	

Date	Frame#	Direction	Description	Image
12.12.17	58	NW	Ditto	
12.12.17	59	NW	Ditto	
12.12.17	60	N	Room 3 and passageway	
12.12.17	61	N	Ditto	
12.12.17	62	NE	Ditto	
12.12.17	63	NE	Ditto	







Date	Frame#	Direction	Description	Image
12.12.17	64	E	Ditto, Room 4 in foreground not yet clarified	
12.12.17	65	E	Ditto	
12.12.17	66	SE	Rooms 2 & 3 and passageway	
12.12.17	67	SE	Ditto	
12.12.17	68	S	Yard area east of structure	
12.12.17	69	S	Ditto	


Date	Frame#	Direction	Description	Image
12.12.17	70	N	Ditto	
12.12.17	71	N	Ditto	
12.12.17	72	NE	Ditto	
12.12.17	73	NE	Ditto	
12.12.17	74	S	Ditto (wet)	

Date	Frame#	Direction	Description	Image
12.12.17	75	S	Ditto	
12.12.17	76	W	Ditto (central part)	
12.12.17	77	N	Ditto	
12.12.17	78	N	Ditto	
12.12.17	79	NW	Room 2, test into fill [018] of trench [017] cutting footings [016]	






Date	Frame#	Direction	Description	Image
12.12.17	80	S	Ditto	
12.12.17	81	S	Ditto	
12.12.17	82	S	Yard area, section at south	
12.12.17	83	S	Ditto	
12.12.17	84	S	Ditto, showing asphalt [009] over bedding [010] over fill [012] on natural brown soil [015]	
12.12.17	85	S	Ditto	

Date	Frame#	Direction	Description	Image
12.12.17	86	S	Ditto	
12.12.17	87	S	Ditto	
12.12.17	88	W	Detail of footings 016: Rooms 1-2 wall and junction with east wall	
12.12.17	89	W	Ditto, Rooms 2-3 wall, east wall cut by trench [017]	
12.12.17	90	N	Ditto, Room 3, SE corner	
12.12.17	91	W	Room 1, pipe [033] set into east footing	

Date	Frame#	Direction	Description	Image
12.12.17	92	W	Room 1, west wall	
13.12.17	93	N	Pit [020] & fill [021] before excavation	
13.12.17	94	N	Gully trap [023] before excavation	
13.12.17	95	N	Feature with rubble fill [022] before excavation	
13.12.17	96	N	Sandstone structure [030]	
13.12.17	97	N	Ditto	







Date	Frame#	Direction	Description	Image
13.12.17	98	N	Ditto	
13.12.17	99	E	Ditto	
13.12.17	100	E	Ditto	
13.12.17	101	N	Ditto	
13.12.17	102	N	Ditto	
13.12.17	103	E	Ditto	







Date	Frame#	Direction	Description	Image
13.12.17	104	E	Ditto	
13.12.17	105	E	Ditto	
13.12.17	106	S	Ditto	
13.12.17	107	S	Ditto	
13.12.17	108	W	Ditto	
13.12.17	109	W	Ditto	




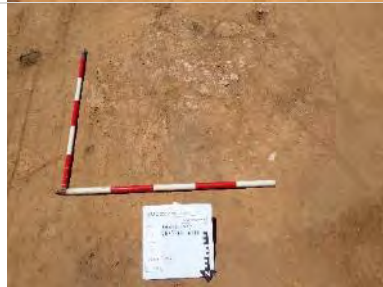


Date	Frame#	Direction	Description	Image
13.12.17	110	W	Ditto	
13.12.17	111	N	Ditto	
13.12.17	112	E	Ditto	
13.12.17	113	S	Ditto	
13.12.17	114	W	Pit [020] excavated	

Date	Frame#	Direction	Description	Image
13.12.17	115	N	Pit [027] excavated	
13.12.17	116	N	Pit [031] excavated (030 on board incorrect)	
14.12.17	117	E	Start shot, investigation of service [039] associated with gully trap [023]	
14.12.17	118	E	Ditto	
14.12.17	119	E	Ditto	







Date	Frame#	Direction	Description	Image
14.12.17	120	E	Ditto	
14.12.17	121	E	Ditto	
14.12.17	122	E	Ditto	
14.12.17	123	NW	Modern pit cut [040] with fill [040]	
14.12.17	124	W	Ditto	
14.12.17	125	SW	Machine test into pit [040]	


Date	Frame#	Direction	Description	Image
14.12.17	126	S	Ditto, south section	
14.12.17	127	NW	Ditto, north section	
14.12.17	128	N	Ditto	
14.12.17	129	S	Central west area with remnant natural soil [015]	
14.12.17	130	S	Ditto	
14.12.17	131	S	Ditto	

Date	Frame#	Direction	Description	Image
14.12.17	132	S	Ditto	
14.12.17	133	W	Ditto	
14.12.17	134	W	Ditto	
14.12.17	135	W	Ditto	
14.12.17	136	N	Ditto	
14.12.17	137	N	Ditto	


Date	Frame#	Direction	Description	Image
14.12.17	138	E	Ditto	
14.12.17	139	E	Ditto	
14.12.17	140	E	Ditto	
14.12.17	141	S	Circular clay feature	
14.12.17	142	S	Ditto	
14.12.17	143	S	Ditto	







Date	Frame#	Direction	Description	Image
14.12.17	144	S	Ditto (wet)	
14.12.17	145	E	Central west area with remnant natural soil [015] (wet)	
14.12.17	146	E	Ditto	
14.12.17	147	E	Ditto	
14.12.17	148	E	Ditto	
14.12.17	149	N	Ditto	







Date	Frame#	Direction	Description	Image
14.12.17	150	N	Ditto	
14.12.17	151	W	Ditto	
14.12.17	152	W	Ditto	
14.12.17	153	S	Ditto	
14.12.17	154	S	Ditto	
14.12.17	155	W	Ditto, west section	







Date	Frame#	Direction	Description	Image
14.12.17	156	W	Ditto, showing road base [004] over cinder [011] over fill [012] over natural soil [015]	
14.12.17	157	W	Ditto	
14.12.17	158	E	Gully trap [023], pipe [033], footing [016] (Rm 1)	
14.12.17	159	E	Ditto	
14.12.17	160	E	Gully trap [023]	
14.12.17	161	E	Ditto	

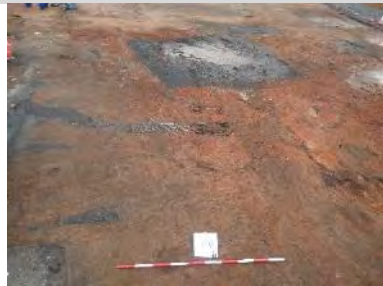
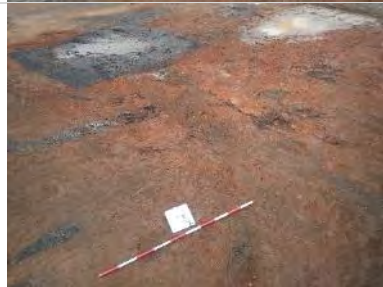




Date	Frame#	Direction	Description	Image
14.12.17	162	E	Photo board for [023]	
14.12.17	163	N	Gully trap [023], pipe [033], footing [016] (Rm 1)	
14.12.17	164	S	SE corner, remains of Penzance	
14.12.17	165	SW	Ditto, foundation trench [036], remnant sandstone footing [037] on bedding soil [044]	
14.12.17	166	W	Ditto; note turn of trench southward representing bay window at front of house, and presence of remains in section westward	
14.12.17	167	N	Ditto	


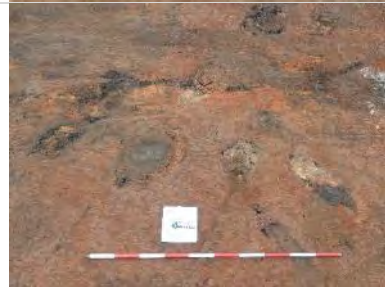




Date	Frame#	Direction	Description	Image
14.12.17	168	E	Overall view of SE corner	
14.12.17	169	SE	Ditto	
14.12.17	170	SW	Ditto	
14.12.17	171	W	Ditto	
14.12.17	172	SW	Ditto (wet)	
14.12.17	173	NW	Ditto	

Date	Frame#	Direction	Description	Image
14.12.17	174	NW	Ditto	
14.12.17	175	E	Ditto	
14.12.17	176	E	Ditto	
14.12.17	177	S	Ditto	
14.12.17	178	S	SE corner, south section: introduced topsoil [045] over fill [046] over asphalt [047] over robbing fill [038] over remnant sandstone footing [037]	
14.12.17	179	S	Ditto	







Date	Frame#	Direction	Description	Image
14.12.17	180	S	Ditto	
14.12.17	181	SW	Ditto, south section westward	
14.12.17	182	SW	Ditto	
14.12.17	183	SW	Ditto, overall view	
14.12.17	184	SW	Ditto	
14.12.17	185	W	General view of rubbish pit [043] with artefacts	

Date	Frame#	Direction	Description	Image
15.12.17	186	E	Central north area after removal of post-demolition fill [012] and cleaning, large modern pit [040]	
15.12.17	187	E	Ditto	
15.12.17	188	E	Ditto	
15.12.17	189	S	Ditto	
15.12.17	190	S	Ditto	
15.12.17	191	SW	Ditto	

Date	Frame#	Direction	Description	Image
15.12.17	192	SW	Ditto	
15.12.17	193	SW	Ditto	
15.12.17	194	W	Ditto	
15.12.17	195	W	Ditto	
15.12.17	196	N	Ditto	
15.12.17	197	N	Ditto	







Date	Frame#	Direction	Description	Image
15.12.17	198	N	Ditto	
15.12.17	199	E	Ditto, area of stump burning remains [052]	
15.12.17	200	E	Ditto	
15.12.17	201	S	Ditto	
15.12.17	202	S	Ditto	
15.12.17	203	E	Ditto, detail	

Date	Frame#	Direction	Description	Image
15.12.17	204	E	Ditto, detail	
15.12.17	205	E	Ditto, detail	
15.12.17	206	E	Ditto, detail	
15.12.17	207	E	Posthole [061], packing [062], post pipe [063]	
15.12.17	208	E	Ditto	
15.12.17	209	E	Ditto	

Date	Frame#	Direction	Description	Image
15.12.17	210	E	Ditto	
15.12.17	211	N	Penzance outbuilding, Rm 4 after removal of residual post-demolition fill [012], branch of service [XXX] running into SW corner of room	
15.12.17	212	N	Ditto	
15.12.17	213	N	Ditto	
15.12.17	214	S	Ditto, note remnant mortar at right evidencing location of west wall	
15.12.17	215	S	Ditto	






Date	Frame#	Direction	Description	Image
15.12.17	216	N	Pit [053] after excavation (052 on board incorrect)	
15.12.17	217	W	Ditto	
15.12.17	218	N	Brick bearer piers [056] & [059]	
15.12.17	219	N	Ditto	
15.12.17	220	W	Ditto	
15.12.17	221	W	Brick bearer pier [059]	
15.12.17	222	E	Brick bearer pier [056]	







Date	Frame#	Direction	Description	Image
15.12.17	223	E	Posthole [061] after excavation	
15.12.17	224	S	Ditto	
15.12.17	225	E	Ditto	
15.12.17	226	E	Ditto	
15.12.17	227	N	Posthole [064], packing [065], post pipe [066], NW corner of Rm 4	
15.12.17	228	N	Ditto	







Date	Frame#	Direction	Description	Image
18.12.17	PC180988			
18.12.17	PC180989			
18.12.17	229	E	Piping [039] outlet for gully trap [023]	
18.12.17	230	E	Ditto	
18.12.17	231	SW	Ditto	
18.12.17	232	SW	Ditto	







Date	Frame#	Direction	Description	Image
18.12.17	233	S	Ditto	
18.12.17	234	N	Ditto	
18.12.17	235	N	Ditto	
18.12.17	236	N	Ditto	
18.12.17	237	N	Ditto, downpipe	
18.12.17	238	E	Posthole [071] after excavation	







Date	Frame#	Direction	Description	Image
18.12.17	239	N	Ditto	
18.12.17	240	W	North area, east end, found to machined natural clay [048] – location of Sydney County Council building	
18.12.17	241	W	Ditto	
18.12.17	242	W	Ditto, central area	
18.12.17	243	W	Ditto	
18.12.17	244	W	Ditto, west area	

Date	Frame#	Direction	Description	Image
18.12.17	245	W	Ditto	
18.12.17	246	W	Ditto, north strip	
18.12.17	247	W	Ditto	
18.12.17	248	W	Ditto	
18.12.17	249	SW	Ditto, east end	







Date	Frame#	Direction	Description	Image
18.12.17	250	S	Ditto	
18.12.17	251	S	Ditto, central area	
18.12.17	252	S	Ditto	
18.12.17	253	S	Ditto, west area	
18.12.17	254	S	Ditto	
18.12.17	255	W	Ditto, north strip, west end	

Date	Frame#	Direction	Description	Image
18.12.17	256	W	Ditto	
18.12.17	257	N	Ditto, west area	
18.12.17	258	N	Ditto	
18.12.17	259	N	Ditto, central area, west side	
18.12.17	260	N	Ditto	
18.12.17	261	N	Central area, east side	

Date	Frame#	Direction	Description	Image
18.12.17	262	N	Ditto	
18.12.17	263	W	Ditto, southwest area	
18.12.17	264	W	Ditto	
18.12.17	265	N	Ditto, east end	
18.12.17	266	N	Ditto	
18.12.17	267	NW	Ditto, east area	






Date	Frame#	Direction	Description	Image
18.12.17	268	NW	Ditto	
18.12.17	269	NW	Ditto	
18.12.17	270	-	Ditto, east end, asphalt embedded in natural clay [048]	
18.12.17	271	-	Ditto	
18.12.17	272	W	Pit/Posthole [073] after excavation	
18.12.17	273	W	Ditto	

Date	Frame#	Direction	Description	Image
18.12.17	274	S	Ditto	
18.12.17	275	W	Posthole [064] and Pit/Posthole [073]	
18.12.17	276	W	Ditto	
18.12.17	277	W	Posthole [064] after excavation	
18.12.17	278	W	Ditto	
18.12.17	279	W	Ditto	

Date	Frame#	Direction	Description	Image
18.12.17	280	W	Posthole [064] and Pit/Posthole [073] after excavation, adjacent to mortar traces of Room 4 west wall	
18.12.17	281	W	Ditto	
18.12.17	282	E	Ditto	
18.12.17	283	N	Services [050] and [081]	
18.12.17	284	N	Ditto	
18.12.17	285	S	Ditto	


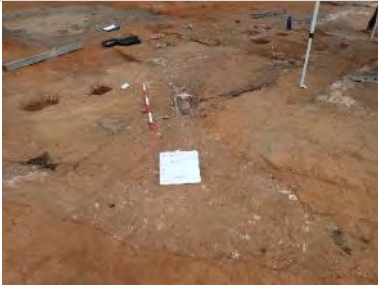



Date	Frame#	Direction	Description	Image
18.12.17	286	S	Ditto	
18.12.17	287	E	Ditto, service [081] tapped into service [050]	
18.12.17	288	W	Ditto, damage to service pipe [050]	
18.12.17	289	W	Ditto, repair of damage to service pipe [050]	
18.12.17	290	W	Ditto, west section of junction	
18.12.17	291	NW	Ditto, general view of services	






Date	Frame#	Direction	Description	Image
18.12.17	292	E	Pit/Posthole [079] after excavation	
18.12.17	293	E	Ditto	
18.12.17	294	N	Ditto	
18.12.17	295	N	Ditto	
18.12.17	296	W	Service [081]	
18.12.17	297	S	Service [081], section showing trench [084] cutting post-demolition fill [012]	







Date	Frame#	Direction	Description	Image
19.12.17	298	S	Investigation of circular clay feature at central west (see 14/12/17 #141-144)	
19.12.17	299	S	Ditto	
19.12.17	300	E	Posthole[089], post pipe [091]	
19.12.17	301	E	Ditto	
19.12.17	302	W	Northeast corner, brick retaining wall [069] and service [095]	







Date	Frame#	Direction	Description	Image
19.12.17	303	N	Ditto	
19.12.17	304	S	Ditto	
19.12.17	305	S	Ditto	
19.12.17	306	SW	Service [049-051], west branch south of outbuilding running northeast	







Date	Frame#	Direction	Description	Image
19.12.17	307	SW	Ditto, south part of main (east) branch running north	
19.12.17	308	S	Ditto	
19.12.17	309	S	Ditto	
19.12.17	310	S	Ditto, south part of west branch running north	







Date	Frame#	Direction	Description	Image
19.12.17	311	S	Ditto	
19.12.17	312	NW	Branch off west branch out of Room 4	
19.12.17	313	NW	Ditto	
19.12.17	314	NW	Ditto	
19.12.17	315	NW	Ditto	

Date	Frame#	Direction	Description	Image
19.12.17	316	SE	Ditto	
19.12.17	317	SE	Ditto	
19.12.17	318	E	Pit [088] after excavation (over-excavated into underlying burning remains)	
19.12.17	319	N	Ditto	
19.12.17	320	S	Posthole [097], post pipe [099]	







Date	Frame#	Direction	Description	Image
19.12.17	321	E	Ditto	
19.12.17	322	E	Posthole [104], post pipe [106]	
19.12.17	323	N	Posthole [100]. Post pipe [102]	
19.12.17	324	S	Test adjacent to Room 1 north footing [016]	
19.12.17	325	S	Ditto	
19.12.17	326	S	Ditto	







Date	Frame#	Direction	Description	Image
19.12.17	327	E	Ditto, east section	
19.12.17	328	E	Posthole [097] after excavation	
19.12.17	329	N	Ditto	
19.12.17	330	N	Tests adjacent to Room 1 east footing [016]	
19.12.17	331	N	Ditto	
19.12.17	332	S	Ditto	

Date	Frame#	Direction	Description	Image
19.12.17	333	S	Ditto	
19.12.17	334	N	Pit [107] after excavation	
19.12.17	335	N	Ditto	
19.12.17	336	N	Posthole [100] after excavation	
19.12.17	337	W	Ditto	
19.12.17	338	N	Posthole [104] after excavation	







Date	Frame#	Direction	Description	Image
19.12.17	339	E	Ditto	
19.12.17	340	W	Brick line [113 within pit cut [112]	
19.12.17	341	W	Ditto	
19.12.17	342	S	Ditto	
19.12.17	343	S	Ditto	
20.12.17	344	E	Posthole [109], post pipe [111]	




Date	Frame#	Direction	Description	Image
20.12.17	345	N	Bricks [086] in trench 075, Pit/Posthole [077]	
20.12.17	346	N	Ditto	
20.12.17	347	N	Posthole [077]	
20.12.17	348	E	Pit/Posthole [115]	
20.12.17	349	N	General of cut features in and adjacent to Room 4	





Date	Frame#	Direction	Description	Image
20.12.17	350	W	Posthole [109] after excavation	
20.12.17	351	N	Ditto	
20.12.17	352	-	Artefacts processing	
20.12.17	353	-	Ditto	
20.12.17	354	-	Ditto	
STAGE 2 - January 2018				
8.1.18	355	S	Road part of site prior to excavation	






Date	Frame#	Direction	Description	Image
8.1.18	356	SE	Area of residual asphalt prior to removal	
8.1.18	357	N	Road part of site prior to excavation	
8.1.18	358	NW	Ditto	
8.1.18	359	NE	Ditto	
8.1.18	360	N	General view of east part of site prior to commencement of machining, also showing protection of remains with geofabric during interim period	
8.1.18	361	N	Protection of outbuilding remains with geofabric	

Date	Frame#	Direction	Description	Image
8.1.18	362	NE	Commencement of machining, east end of Sydney County Council (SCC) building	
8.1.18	363	NE	Initial reveal of brick cistern	
8.1.18	364	NW	Ditto	
8.1.18	365	N	Removal of roadway asphalt [172] in progress	
8.1.18	366	N	Ditto	
8.1.18	367	SE	Removal of concrete kerb and gutter in progress	







Date	Frame#	Direction	Description	Image
8.1.18	368	S	Ditto	
8.1.18	369	E	Area of cistern after initial clean	
8.1.18	370	E	Ditto	
9/1/18	371	NW	Removal of roadway bedding and underlying fill in progress	
9/1/18	372	NW	Ditto, showing dark mixed fill [174] below gravel bedding [173]	
9/1/18	373	N	Ditto, showing natural clay [048] underlying mixed fill [174]	







Date	Frame#	Direction	Description	Image
9/1/18	374	N	Ditto	
9/1/18	375	N	South end of roadway after removal of gravel [173] and fill [174]	
9/1/18	376	N	Ditto	
9/1/18	377	N	Central area of roadway after removal of gravel [173] and fill [174]	
9/1/18	378	NW	Ditto	




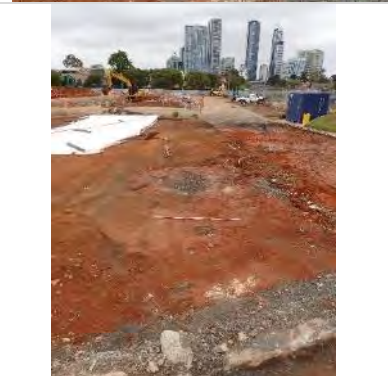

Date	Frame#	Direction	Description	Image
9/1/18	379	N	North area of roadway after removal of gravel [173] and fill [174]	
9/1/18	380	W	Ditto	
9/1/18	381	W	Ditto	
9/1/18	382	SW	Ditto, looking to location of cistern	
9/1/18	383	SW	Roadway after removal of gravel [173] and fill [174]	
9/1/18	384	S	Ditto	

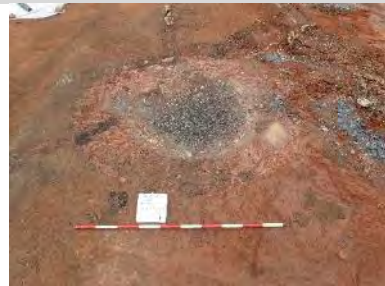
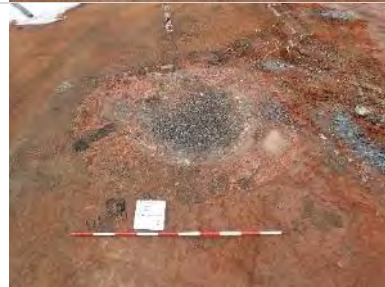

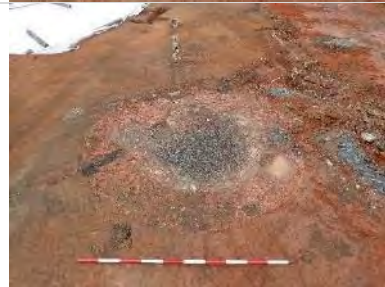

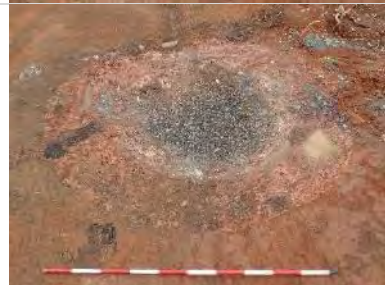
Date	Frame#	Direction	Description	Image
9/1/18	385	S	Ditto	
9/1/18	386	N	Ditto	
9/1/18	387	N	Ditto	
10/1/18	388	S	Stage 2 area of excavation	
10/1/18	389	S	Ditto	

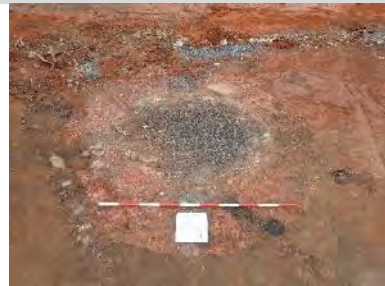


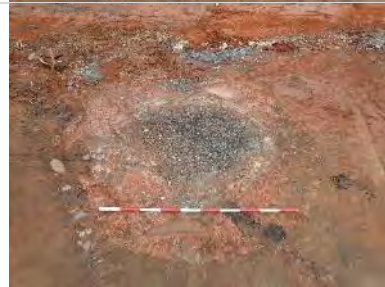
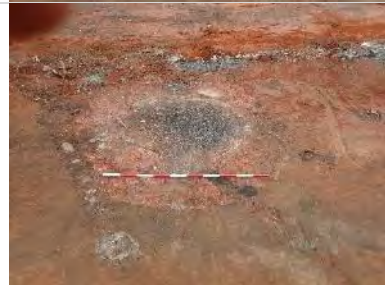

Date	Frame#	Direction	Description	Image
10/1/18	390	S	Ditto, north end of area with cut features	
10/1/18	391	S	Ditto	
10/1/18	392	S	Stage 2 area of excavation (without photo board)	
10/1/18	393	S	Ditto	
10/1/18	394	S	Ditto	







Date	Frame#	Direction	Description	Image
10/1/18	395	S	Ditto, north end of area with cut features	
10/1/18	396	E	Stage 2 area of excavation	
10/1/18	397	E	Ditto	
10/1/18	398	E	Ditto, area of cistern [149]	
10/1/18	399	E	Ditto	
10/1/18	400	E	Stage 2 area of excavation (without photo board)	

Date	Frame#	Direction	Description	Image
10/1/18	401	E	Ditto	
10/1/18	402	E	Ditto, area of cistern [149]	
10/1/18	403	E	Ditto	
10/1/18	404	N	Stage 2 area of excavation	
10/1/18	405	N	Ditto	
10/1/18	406	N	Ditto, area of cistern [149]	

Date	Frame#	Direction	Description	Image
10/1/18	407	N	Ditto	
10/1/18	408	N	Stage 2 area of excavation (without photo board)	
10/1/18	409	N	Ditto	
10/1/18	410	N	Ditto	
10/1/18	411	N	Ditto	

Date	Frame#	Direction	Description	Image
10/1/18	412	N	Brick cistern [149] with surround fill [150]	
10/1/18	413	N	Ditto	
10/1/18	414	N	Ditto (without photo board)	
10/1/18	415	N	Ditto	
10/1/18	416	N	Ditto	
10/1/18	417	N	Ditto	


Date	Frame#	Direction	Description	Image
10/1/18	418	E	Brick cistern [149] with surround fill [150]	
10/1/18	419	E	Ditto	
10/1/18	420	E	Ditto (without photo board)	
10/1/18	421	E	Ditto	
10/1/18	422	E	Ditto	
10/1/18	423	E	Ditto	

Date	Frame#	Direction	Description	Image
10/1/18	424	E	Brick cistern [149] with surround fill [150]	
10/1/18	425	E	Ditto	
10/1/18	426	N	Stage 2 excavation area, east end of SCC building after removal of gravel bedding for concrete slab, revealing natural clay [048]	
10/1/18	427	N	Ditto	
10/1/18	428	N	Ditto (with photo board)	
10/1/18	429	N	Ditto	

Date	Frame#	Direction	Description	Image
10/1/18	430	N	Ditto	
10/1/18	431	N	Ditto	
11/1/18	432	S	Posthole 118-120, pipe 120 excavated	
11/1/18	433	W	Ditto	
11/1/18	434	N	Posthole 121-123, pipe 123 excavated (arrow on board incorrect)	
11/1/18	435	N	Ditto (arrow corrected)	

Date	Frame#	Direction	Description	Image
11/1/18	436	S	Ditto (arrow incorrect)	
11/1/18	437	S	Ditto (arrow corrected)	
11/1/18	438	S	Posthole 124-126, pipe 126 excavated	
11/1/18	439	N	Ditto	
11/1/18	440	N	Posthole 127-129, pipe 129 excavated	
11/1/18	441	W	Ditto	

Date	Frame#	Direction	Description	Image
11/1/18	442	N	Posthole 130-132, pipe 132 excavated (adjacent feature Pit/Posthole 154)	
11/1/18	443	S	Ditto	
11/1/18	444	N	Posthole 133-135, pipe 135 excavated	
11/1/18	445	S	Ditto	
11/1/18	446	S	Posthole 133 excavated	
11/1/18	447	N	Ditto	

Date	Frame#	Direction	Description	Image
11/1/18	448	E	Service trench [084], south end cutting cistern [149] and surround fill [150]	
11/1/18	449	E	Ditto	
11/1/18	450	N	Fragments of service pipe [081] between cistern and closure fill	
11/1/18	451	N	Ditto	
11/1/18	452	N	Ditto	

Date	Frame#	Direction	Description	Image
11/1/18	453	N	Deeper fragments of service pipe [018] in cistern closure fill	
11/1/18	454	N	Ditto	
11/1/18	455	N	Ditto	
11/1/18	456	S	Posthole 118 excavated (arrow incorrect)	
11/1/18	457	S	Ditto (arrow corrected)	

Date	Frame#	Direction	Description	Image
11/1/18	458	N	Ditto	
11/1/18	459	NE	Service [094], commencement at downpipe	
11/1/18	460	NE	Ditto	
11/1/18	461	N	Posthole 137-139, pipe 139 excavated	

Date	Frame#	Direction	Description	Image
11/1/18	462	N	Ditto	
11/1/18	463	S	Posthole 121 excavated	
11/1/18	464	N	Ditto	
11/1/18	465	N	Pit/Posthole 140-141 prior to excavation	
11/1/18	466	N	Ditto	







Date	Frame#	Direction	Description	Image
11/1/18	467	N	Posthole 124 excavated	
11/1/18	468	S	Ditto	
11/1/18	469	S	Ditto	
11/1/18	470	N	Pit/Posthole 140 excavated	
11/1/18	471	N	Ditto	
11/1/18	472	N	Ditto	





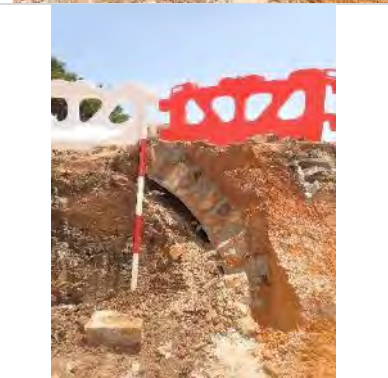
Date	Frame#	Direction	Description	Image
11/1/18	473	N	Ditto	
11/1/18	474	N	Posthole 127 excavated	
11/1/18	475	S	Ditto	
11/1/18	476	N	Posthole 137 excavated	
11/1/18	477	N	Ditto	


Date	Frame#	Direction	Description	Image
11/1/18	478	N	Posthole 130 excavated	
11/1/18	479	S	Ditto	
11/1/18	480	N	Posthole 142-144, pipe 144 excavated	
11/1/18	481	N	Ditto	
12/1/18	482	S	Posthole 145-147 prior to excavation	
12/1/18	483	E	Ditto	







Date	Frame#	Direction	Description	Image
12/1/18	484	S	Post pip 147 and remnant post	
12/1/18	485	E	Ditto	
12/1/18	486	N	Pit/Posthole 152 excavated	
12/1/18	487	N	Ditto	
12/1/18	488	N	Ditto	







Date	Frame#	Direction	Description	Image
12/1/18	489	S	Posthole 145 excavated	
12/1/18	490	E	Ditto	
12/1/18	491	S	Cistern [049], commencement of exposure of dome and half-sectioning	
12/1/18	492	S	Ditto	
12/1/18	493	S	Ditto	







Date	Frame#	Direction	Description	Image
12/1/18	494	W	East side of dome exposed	
12/1/18	495	W	Ditto	
12/1/18	496	W	Ditto	
12/1/18	497	NW	Ditto	
12/1/18	498	W	Ditto	
12/1/18	499	W	Ditto	



Date	Frame#	Direction	Description	Image
12/1/18	500	W	Ditto	
12/1/18	501	SW	First stage of half-sectioning	
12/1/18	502	S	Ditto	
12/1/18	503	W	Ditto, profile of dome, north side	
12/1/18	504	W	Ditto	

Date	Frame#	Direction	Description	Image
12/1/18	505	W	Ditto	
12/1/18	506	SW	Second stage of half-sectioning, exposure of upper wall below dome	
12/1/18	507	SW	Ditto	
12/1/18	508	SW	Ditto	
12/1/18	509	SW	Second stage of half-sectioning completed	
12/1/18	510	SW	Ditto	

Date	Frame#	Direction	Description	Image
12/1/18	511	SW	Third stage of half-sectioning in progress	
12/1/18	512	SW	Ditto	
12/1/18	513	SW	Ditto	
12/1/18	514	SW	Third and final stage of half-sectioning completed	
12/1/18	515	W	Ditto	
12/1/18	516	W	Ditto	

Date	Frame#	Direction	Description	Image
12/1/18	517	W	Ditto	
12/1/18	518	W	Ditto	
12/1/18	519	SW	Ditto	
12/1/18	520	W	Ditto	
12/1/18	521	W	Ditto	
12/1/18	522	W	Ditto	

Date	Frame#	Direction	Description	Image
15/1/18	523	N	Outbuilding area prior to machining to check for lower features	
15/1/18	524	N	Ditto	
15/1/18	525	NW	Machining of outbuilding area in progress	
15/1/18	526	NW	Ditto	
15/1/18	527	W	Ditto	
15/1/18	528	N	Machining of outbuilding area completed	

Date	Frame#	Direction	Description	Image
15/1/18	529	NW	Ditto	
15/1/18	530	N	Ditto	

Appendix C: Artefact analysis

Chatswood Dive Artefact Analysis

Archaeological remains contribute to an understanding of the history of occupation and settlement of a specific place that often the historical record has not recorded. In addition to the structural remains, the artefact assemblage recovered during excavations aids in the understanding and interpretation of a place and provides valuable information pertaining to the lives of individual people occupying the site. The assemblage can provide information that has not been recorded in the written historical record, of how people lived and interacted with each other.

The artefact analysis presented in this report has been undertaken by a specialist in-house team under the direction of the Director of Historic Heritage and Primary Excavation Director, Jennie Lindbergh and supervised by Lian Ramage, Senior Historic Heritage Consultant. All artefact processing and analysis has been undertaken in accordance with AMBS' cataloguing system, which has been developed by Madeleine Rodwell to be consistent with standard artefact databases for the Sydney and wider regions.

1.1. Methodology

The methodology used to catalogue artefacts was developed with reference to *'Exploring the design and structure of artefact cataloguing'* (Casey, 2004), *'The role of artefact catalogues in Australian historical archaeology'* (Crook *et al*, 2002) and reference to the NSW Heritage Council guidelines *Assessing the Significance for Historical Sites and Relics*. Cataloguing the artefact assemblage essentially creates the data from which analysis and interpretation are based. The first stage of this process involves the analysis of the material to record all available observable data, including the material, form, dimensions, and context of the artefacts as a part of the catalogue. The second stage of the process involves the interpretation of the recorded data in the context of the research framework for the project to further understand the site and the lives of individuals using it over time.

Statistical and functional analysis have been undertaken to enable full interpretation of the artefact assemblage for the site. A statistical analysis allows for the quantitative elements of the assemblage to be recorded. Statistical analysis of the discrete categories within the artefact assemblage included minimum item counts (MIC) and fragment counts for glass, ceramic and building materials, number of identified specimens per taxon (NISP) and minimum number of individual (MNI) counts for bone and shell material.

Functional analysis of the assemblage allows the relationships of the material to be discussed in terms of usage and allows inferences to be made regarding the types of activities occurring on site and the interaction between the specific artefacts and human agency.

1.1.1. Glass and ceramic

A catalogue database was developed with individual catalogue numbers assigned for each artefact entry. All artefact entries include the context number and location information where the item was found, the material (stoneware, porcelain etc.), the function (food, alcohol, household etc.) and specific function (serving, teaware, etc.) where it could be identified, the artefact type/shape (cup, plate, etc.), the portion and percentage of each item, the country of origin, measurements (in mm), MIC and fragment counts, and the box number (the location of item for storage).

To answer research questions, the following ceramic and glass assemblage attributes were identified and recorded.

- **Artefact Type/Shape.** The shape of each glass and ceramic artefact, where known, was recorded under artefact type to assist in identifying different artefact types used within a function.
- **Manufacturing Method.** Where possible, the manufacturing method for glass artefacts were identified from diagnostic features.
- **Manufacturing Features.** The diagnostic features of glass artefacts were noted to assist in identifying manufacturing method and other datable data – this included bases, finishes, profiles, etc.
- **Decoration.** Where relevant, the decoration of glass and ceramic artefacts were recorded to identify different decoration and pattern types.
- **Maker's Marks.** Where possible, maker's marks were identified to assist in dating the object.

MIC were identified where conjoins were evident, either within the same context or across contexts, with this information recorded within the database. Where fragments were too small and the only identifiable feature able to be ascertained was, for example, pattern, the fragments were recorded as one entry and listed as fragments.

An internal 'Pattern Database' was developed for patterns which could not be identified by name. Patterns were assigned a number where significant features of the pattern could be noted (pagoda, shells, etc.). This number was used every time it was found at Chatswood Dive Site and other sites until the pattern name was identified and then it was replaced on the database. Patterns where no significant features could be identified (floral border, etc.), the pattern was assigned 'unidentified'.

1.1.2. Organics

Fauna

Animal bone identification was undertaken with reference to modern comparative reference collections and faunal anatomy texts (Adams and Crabtree, 2008; Fillios and Blake, 2015; Schmid, 1972). To answer research questions, the following faunal assemblage attributes were identified and recorded:

- **Taxonomic Identification.** Individual specimens were identified to the most specific taxonomic level possible as determined by the morphological features observable.
- **Skeletal Element.** Each bone was identified to specific element where possible. Where fragments were unable to be identified to specific element then broad categories were used to classify them, Long bone, Irregular bone, and Flat bone.
- **Modification.** Surface modification of bone material was noted including butchery marks, burning, scavenger tooth marks, pathology, and any other distinguishing marks.
- **Age.** Epiphyseal fusion and suture marks were noted where possible to differentiate between adult and juvenile specimens in domesticated species.
- **Specimen Count.** The NISP count was used to identify the number of a specimens (a bone or tooth, or fragment thereof) within the assemblage. The MNI count is a derived unit and is used to identify the actual' number of individual animals on site calculated by using the NISP number.

Shell

Shell identification was undertaken with reference to modern comparative reference collections and common shells of New South Wales texts (Beechey, 2020; Colley, 2005; Iredale & McMichael, 1967; Robinson and Gibbs, 1982).

To answer research questions, the following shell assemblage attributes were identified and recorded.

- **Shell Species.** Individual specimens were identified to the most specific species possible, based on the shell fragments remaining.
- **Condition.** Surface appearance and condition of shell material, including any damage, degradation or breakage that may have occurred, deliberate or incidental.
- **General Function.** Shell species is usually the single greatest indicator of use, and so this was used to distinguish general function, and condition usually reflects this.
- **Specimen Count.** The NISP count was used to identify the number of a specimens (each individual fragment of shell) within the assemblage. The MNI count is a derived unit and is used to identify the actual number of individual animals on site calculated by using the NISP number.

1.1.3. Metal

A catalogue database was developed with individual catalogue numbers assigned for each artefact entry. All artefact entries included the context number and location information where the item was found, the material (iron, lead, copper alloy etc.) the function (architectural, food, household, etc.) and specific function (fastening, container, etc.) where it could be identified, the artefact type/shape (rod, sheet, nail, etc.), the portion and percentage of each item, measurements (in mm), MIC and fragment counts, and the box number (the location of item for storage).

To answer research questions, the following ceramic and glass assemblage attributes were identified and recorded.

- **Artefact Type/Shape.** The shape of each metal artefact, where known, was recorded under artefact type to assist in identifying different artefact types used within a function.
- **Manufacturing Method.** Where possible, the manufacturing method for metal artefacts were identified from the features observable.
- **Manufacturing Features.** The observable features of metal artefacts were noted to assist in identifying manufacturing method and other datable data – these included heads, shanks, seams, etc.
- **Decoration.** Where relevant, the decoration of metal artefacts were recorded to identify different decoration and pattern types.

MIC were identified where conjoins were evident, either within the same context or across contexts, with this information recorded within the database. Where fragments were too small and the only identifiable feature able to be ascertained was, for example, pattern, the fragments were recorded as one entry and listed as fragments.

1.1.4. Miscellaneous

To answer research questions, the following miscellaneous assemblage attributes were identified and recorded.

- **Artefact Fabric.** The fabric of each artefact, where known was recorded.
- **Artefact Type/Shape.** The shape of each artefact, where known, was recorded under artefact type to assist in identifying different artefact types used within a function.
- **Manufacturing Method.** Where possible, the manufacturing method for artefacts were identified from the features observable.
- **Decoration.** Where relevant, the decoration of artefacts were recorded to identify different decoration types.

1.1.5. Pre-analysis discard

After the completion of excavations, artefacts were cleaned and sorted by material type. As a part of this process, artefacts which did not have any diagnostic features or dateable characteristics were recorded and discarded, and do not form a part of the catalogue of material analysed in the sections below (Table 1).

Table 1 Artefact discard quantities.

Material	Fragment count	Fragment count (%)
Building Material	180	10.88%
Ceramic	322	19.46%
Glass	1129	68.22%
Organics	24	1.45%
Grand Total	1655	100.00%

1.2. Glass

A total of 144 glass fragments were retained for post-excavation analysis, representing a MIC of 118 items. The term 'bottle' is used to represent not just bottles but also other glass storage containers, including flasks, jars, and phials.

While many glass artefacts are unmarked and could be attributed to several functions, advancements in manufacturing technologies during the mid- to late-nineteenth century provide chronological data for many of the diagnostic features of glass vessels (Table 2). The standardisation of bottle shapes in the early nineteenth century aid in attributing a function to many bottles; however, there are still some forms which cannot be clearly defined into a single function. Date ranges can be further established by manufacturer's marks, usually located on or near the base, and product embossments, labels or trademarks (Jones et al., Jones 1986, Boow 1991, Baugher-Perlin 1982).

Table 2 Chronological data for glass artefacts.

Technomorphology	Date range
Finishing tool	1820-1920s
Non-machine made	Pre 1893
Post bottom mould (2-part mould)	1820s+
Cup bottom mould (2-part mould)	1850+
3-part mould	1820s-1920s
Turn-paste mould	1880-1900

Technomorphology	Date range
Semi-automatic machine-made	1893-1926
Machine-made – fully automatic	1920+
Crown cap finish	1895+
External threaded finish	1885+
Internal ledge finish (stopper finish)	1850-1910
Codd bottle	1875-1930

There were six identified manufacturing methods in the Chatswood Dive assemblage, the majority were 2-part moulds representing almost 50% of the assemblage followed by machine-made representing 36.63% of the assemblage; however, there was no differentiation made between semi-automatic and fully automatic-made (Table 3). Of the 2-part moulds, 33 MIC were cup-bottom moulds, and 11 MIC were post-bottom moulds, dating the bottles recovered from at least the mid-nineteenth century.

Table 3 Glass artefacts by manufacturing method.

Manufacturing method	MIC	MIC (%)
2-part mould	49	48.51%
3-part mould	5	4.95%
Codd Type	4	3.96%
Machine-made	37	36.63%
Moulded	2	1.98%
Turn-paste mould	4	3.96%

There were nine identified functions in the glass assemblage from the Chatswood Dive site. Beverage was the most identified function representing 31% of the assemblage, with pharmaceuticals representing 30% of the assemblage. Food related glass containers represented around 16% of the assemblage while the other six functions each represented less than 10% of the assemblage. There were 66 whole containers recovered from site, the majority of which were pharmaceutical (28 MIC), and beverage (21 MIC) related. There were two clerical items, ten food related items, one household item, one hygiene item and three personal items also recovered. There were two different styles of window glass found on site, one was identified as 'Artic' pattern [025] and the other was an etched geometric floral motif [114].

Table 4 Glass artefacts by function.

General function	Specific function	MIC	MIC (%)	Fragment count	Fragment (%)
Architectural		2	1.69%	11	7.64%
Beverage	Aerated Water	12	10.17%	14	9.72%
	Alcohol	3	2.54%	3	2.08%
	Beer	12	10.17%	14	9.72%
	Liquor/Spirits	6	5.08%	9	6.25%
	Wine	1	0.85%	1	0.69%
	Unidentified	2	1.69%	2	1.39%
	<i>Subtotal</i>		<i>36</i>	<i>30.50%</i>	<i>43</i>
Clerical	Writing	3	2.54%	3	2.08%
Food	Condiments/Sauce	12	10.17%	15	10.42%
	Container	1	0.85%	1	0.69%
	Pickle/Chutney	4	3.39%	5	3.47%
	Flavour Extract	2	1.69%	2	1.39%
	Novelty Container	1	0.85%	1	0.69%
	<i>Subtotal</i>		<i>20</i>	<i>16.95%</i>	<i>24</i>
Household	-	8	6.78%	13	9.03%
Hygiene	-	2	1.69%	3	2.08%
Personal	-	4	3.39%	4	2.78%
Pharmaceutical	Patent Medicine	10	8.47%	10	6.94%

General function	Specific function	MIC	MIC (%)	Fragment count	Fragment (%)
	Poison	4	3.39%	4	2.78%
	Other	2	1.69%	2	1.39%
	Unidentified	19	16.15%	19	13.11%
	<i>Subtotal</i>	35	29.70	35	24.22%
Unidentified	-	8	6.72%	8	5.56%
Total	-	118	100.00%	144	100.00%

There were 16 identified manufacturers found across 42 bottles of which 17 MIC were produced by the Australian Glass Manufacturers and another five MIC were produced by the Melbourne Glass Bottle Company. The other 14 manufacturers were represented by less than five MIC each. There were 22 bottles which had an identified product maker, eight of these bottles had an identified manufacturer and one also had an identified distributor.

Australian Glass Manufacturers produced bottles for three of the eight product makers identified: one of the two Ainslie's Whiskey bottles, three of the four Rosella sauce bottles and one of the Tooth & Co. bottles (Figure 1, Figure 2). The Ainslie's Whiskey bottle manufactured by Australian Glass Manufacturers was distributed by Halloran Manton Pty who began operations in 1905. J. Madden produced the two Marchant & Co. bottles, J. Madden began operations in 1900 and Marchant and Co. closed by 1910, providing a date range between 1900-1910 for the two bottles. Ross Bros Makers – a local glass manufacturer operating out of Erskineville in Sydney between 1897-1919 – produced one of the Tooth & Co. bottles.



Figure 1 Ainslie's Whiskey bottle (#80) identified in [054].



Figure 2 Tooth's beer bottle (#133) identified in [170].

While some of the manufacturers and product makers identified at the Chatswood Dive site were established in the early-mid nineteenth century, with some still operating into the late twentieth century and present day, the majority of identified makers were operating in the late nineteenth to early-mid twentieth century.

Table 5 Glass artefacts by manufacturer, maker, and distributor.

Manufacturer	Origin	Date range	MIC
Angier's Chemical Co. Ltd.	England	1881+	3
Australian Glass Manufacturers	Australia	1922-1929 1934-1948	16 1
Bagely & Co. Ltd.	England	1898-1962	1
Davey & Moore	England	1805-1970	1
E. Griffith Hughes Pty. Ltd.	England	1887-1961	2
J. Madden	Australia	1900-1915	2
John Lumb Co. Ltd.	England	1905-1937	1
Matthews, Thompson & Co. Ltd.	Australia	1921-1960	1
Melbourne Glass Bottle Company	Australia	1888-1900	5
Parke, David & Co.	United States	1875+	1

Manufacturer	Origin	Date range	MIC
Ross Bros Makers	Australia	1897-1919	1
Sanitas Co.	England	1878+	1
Schulke & Mayr	Germany	1889+	2
Squires & Company	England	1832-1950	1
United Glass Bottle Manufacturers	England	1913-1959	1
Whitall, Tatum & Co.	United States	1857-1938 1892-1938	1 1
Product maker	Origin	Date range	MIC
Ainslie's Whiskey	United Kingdom	1868+	2
Bovil Limited	England	1908-c.1920	1
Dinneford's Fluid Magnesia	England	1880-1930s	1
Federal Distilleries Pty. Ltd.	Australia	1924-1963	1
Marchant & Co. (Sydney)	Australia	1888-1910	2
Harry Peck & Co. (Peck's Anchovy Paste)	England/Australia	1906-1960s	1
Powell	England	1837+	1
Resch's Ltd.	Australia	1906-1929	6
Rosella Pres & Manf Co. Ltd.	Australia	1899-1950	4
Toohey's Ltd.	Australia	1869+	1
Tooth & Co. Ltd.	Australia	1835+	5
Distributor	Origin	Date range	MIC
Halloran Manton Pty.	Australia	1905+	1

Glass artefacts were recovered from fifteen contexts across the site, but only three of these contexts contained significant numbers. The twelve other contexts contained a single digit MIC. The highest density of artefacts identified were located within the fill for a rubbish pit [054] and the fill for the cistern on site [151, 170, 171] (Table 6).

Table 6 Glass MIC by context.

Context number	MIC	MIC (%)	Fragment count	Fragment (%)
5	3	2.54%	3	2.08%
12	2	1.69%	3	2.08%
13	2	1.69%	3	2.08%
18	2	1.69%	2	1.39%
25	2	1.69%	2	1.39%
28	1	0.85%	1	0.69%
31	1	0.85%	1	0.69%
54	32	27.12%	42	29.17%
75	3	2.54%	3	2.08%
103	1	0.85%	3	2.08%
114	1	0.85%	10	6.94%
151	5	4.24%	6	4.17%
170	49	41.53%	51	35.42%
171	13	11.02%	13	9.03%
175	1	0.85%	1	0.69%

Cistern

Context 171 was assigned to the lower fill of the cistern (1600-3000mm) and contained 13 MIC. Of the items found in this context, four were beverage and five were related to pharmaceuticals, there was also one inkwell, a food container and an unidentified household item – the fragment is likely to have been from a lamp shade or vase. Three of the bottles were identified as being produced in Australia and another three were produced in England.

Two of the Australian manufactured bottles were one-way Codd type bottle produced by Tooth & Co. Ltd. at the Kent Brewery in Sydney. While the Sydney based Kent Brewery opened in 1835, the one-way Codd variant was produced from 1872 until 1920. The third Australian produced bottle was an

aerated water bottle produced by Toohey's Ltd. from 1869. Two of the English produced vessels were pharmaceutical phials, one was produced by Davey & Moore (1805-1970) and the other was produced by Powell (1837+). The third English produced bottle was a beverage bottle manufactured by John Lumb Co. Ltd. (1905-1937).

Context 170 was the number assigned to the middle fill of the cistern (1600 – 800mm) and contained 49 MIC, it was the context with the highest density of glass artefacts. Within this context, there were 17 beverage bottles, six food related bottles, 20 pharmaceutical bottles, one hygiene bottle and two household items. One of the household items was a Burnet's Link-Shine Polish bottle manufactured in Australia by Matthews, Thompson & Co. Ltd. (1921-1960) and the other was an English oil lamp chimney marked 'FIREPROOF / MADE IN SAXONY'. The hygiene bottle was a cup-bottom 2-part moulded Lysol bottle produced by Schulke & Mayr, the manufacturing method of this bottle dates it from 1850.

Four of the beverage bottles recovered were beer bottles locally produced in Sydney – three by Resch's (1906-1929) and one by Tooth & Co. (1835+) at the Kent Brewery (Figure 3). One of the beverage bottles manufactured by J. Madden (1900-1915) for Marchant & Co. (1888-1910) was located within this context. Three of the unmarked beverage bottles were machine-made aerated water bottles with crown finishes dating these bottles from at least 1895. Two unmarked liquor bottles and another alcohol bottle were manufactured in a 2-part mould with two cup-bottom moulds (1850+) and one post-bottom mould (1820s+), another three bottles were turn-paste moulds (1880-1900) and one bottle was a 3-part mould (1820s-1920s).



Figure 3 Image of glass beverage bottles identified in the cistern. Top (L-R): [170]/#141; [170]/#135; [170]/#132; [170]/#133, bottom (L-R): [170]/#114; [171]/#153; [171]/#151; [171]/#152.

Of the six food related bottles, three were for pickles/chutney, two for condiments/sauce and one for flavour extract. One 20-ounce pickle bottle was manufactured in England by Bagley & Co. Ltd. (1898-1960), a condiments/sauce bottle was manufactured in the United States by Whitall, Tatum & Co. (1857-1938), the flavour extract bottle and another pickle/chutney bottle were manufactured in

Australia by Australian Glass Manufacturers (1922-1929). The two unmarked bottles were both machine-made with one having an external thread finish (1885+).

Pharmaceutical bottles were the most prevalent in Context 170 with 21 MIC, 11 of the items were marked with a manufacturer providing firm date ranges while nine were unmarked (Figure 4). There was one marked 'SCRUBB'S FLUID' containing ammonia, four were generic medicine bottles – one manufactured by Parke, Davis & Co. in the United States (1875+) and three in England by Angiers Chemical Co. Ltd. (1881+) which contained Petroleum Emulsion. Five of the pharmaceutical bottles were manufactured by Melbourne Glass Bottle Company (1888-1900) for a Sydney pharmacy – Park's Pharmacy which was marked on each of the bottles. One bottle was manufactured in the United States by Whittall, Tatum & Co., the bottle was marked with 'PAT. JUNE 21ST 1892', identifying the earliest date of manufacture. Another bottle was manufactured in England by Squires & Company (Squires & Sons) (1832-1950). All unmarked bottles were manufactured in a 2-part cup-bottom mould (1850+), four of which were green poison bottles.



Figure 4 Sample of pharmaceutical bottles identified in the cistern. Top (L-R): [170]/#111; [170]/#112; [170]/#137; [170]/#97; [170]/#143, middle (L-R): [171]/#161; [170]/#130; [170]/#149; [170]/#100; [170]/#98; [170]/#127, bottom (L-R): [151]/#109; [171]/#159; [170]/#124; [170]/#125; [171]/#160; [171]/#162.

Context 151 was the number assigned to the upper fill of the cistern (800mm – surface) and only contained five items. There were two food related items, one of which was a marmite jar manufactured by the Australian Glass Manufacturers (1934-1948). There were two pharmaceutical bottles, one was manufactured by the Australia Glass Manufacturers (1922-1929) with an unknown specific function and the other was a Kruschen Salts bottle manufactured by E. Griffith Hughes in England (c.1930-1961). The fifth item was a figurative handle fragment from a lid with an unknown function.

All three contexts excavated from the cistern consisted the same fill – a dark grey sandy/loamy fill – as well as containing artefacts dating from the late nineteenth to mid twentieth century.

Rubbish Pit

Context 54 was the number assigned to the rubbish pit fill found at the Chatswood Dive Site and contained 31 items. Most of the bottles recovered from this context were beverage (10 MIC) and food related (8 MIC), with another five pharmaceutical bottles also found. One inkwell was recovered which was manufactured in England by the United Glass Bottle Manufacturers (1913-1959). There were two household related items found in this context, one was a bottle marked 'NIGHTINGALE CEDAR POLISH' and was manufactured by the Australian Glass Manufacturers (1922-1929), the other was a tableware glass. Two personal items were recovered, one was an eyeglass lens, the other was a Cutex Cuticle Remover bottle manufactured in the United States (1911-1930). In addition, a small candy container in the shape of a handgun was identified in the dump, showing evidence of use of the site by children (Figure 5).



Figure 5 Candy revolver (#94) identified in [054].

Of the beverage related items found, seven were associated with beer and alcohol. There were five bottles manufactured in Australia, four of which were marked by the Australian Glass Manufacturers (1922-1929) and one was produced by Resch's (1906-1929). There were two Ainslie's Whiskey bottles recovered, one was unmarked with an earliest production date of 1868, the other was manufactured by Australian Glass Manufacturers (1922-1929) and was distributed by Halloran Manton Pty who began operations in 1905. The two unmarked bottles were both machine-made with crown finishes (1895+). There were also two unmarked stoppers recovered, these are likely to be associated with the alcohol bottles found within this context.

The food related items included four condiments/sauce bottles with one associated stopper, one pickle/chutney bottle, one flavour extract bottle and one novelty 'revolver' shaped candy bottle. There were three Rosella sauce bottles, two of which were manufactured by the Australian Glass Manufacturers (1922-1929), the pickle/chutney and flavour extract bottles were also marked 'A.G.M.' (1922-1929).

Of the five pharmaceutical bottles, three were marked 'A.G.M.' (1922-1929) with one also being produced for Washington H. Soul Pattinson & Co. Ltd. There was one bottle marked 'Pepto-Kola' with 16 measurements marked on the side which was produced in France (1883+). The last pharmaceutical item was an unmarked phial.

The majority of the bottles found, in particular the bottles manufactured by the Australian Glass Manufacturers, indicates the rubbish pit was used in the early-mid twentieth century (Figure 6).



Figure 6 Photograph of glass artefacts identified in [054]. Top (L-R): [054]/#66; [054]/#79; [054]/#64 upper middle (L-R): [054]/#76; [054]/#77; [054]/#74; [054]/#80, lower middle (L-R): [054]/#73; [054]/#75; [054]/#68; [054]/#93; [054]/#78, upper bottom (L-R): [054]/#92; [054]/#94; [054]/#72, lower bottom: [054]/#96.

Glass Reuse

There is a history of bottle reuse in the archaeological record despite glass containers becoming mass produced towards the end of the nineteenth century that should be considered (Busch 1985; Carney 1998). Australia's first successful glass works was established in 1866 when the Sydney Glass Company was opened, this was followed by the Melbourne Glass Bottle Works (1868) and Australian Glass works (1878), prior to this, empty bottles were valued items when they were imported (Boow 1991). In some industries, bottles were an expensive commodity and in order to make a profit, bottles would be re-used several times (Carney 1998, 84). It was common practice for companies to emboss phrases which included variations of 'This bottle is the property of...' to encourage the return of bottle for reuse. The Chatswood Dive Site collection contained fifteen bottles which include variations of the phrase 'This bottle is the property of...' which indicates that bottle reuse was still in common practice in the area until the mid-twentieth century. The practice extended to merchants, especially local chemists, who would have the names embossed on bottles. There were two identified Sydney chemists with embossed bottles: Park's Pharmacy (5 MIC) and Washington H. Soul Pattinson & Co. Ltd. (1 MIC).

Bottles were also reused in the domestic setting. Commercial jars and bottles would often be reused for homemade foods and beverages or used for storage (Carney 1998). While no bottles from the

Chatswood Dive Site contained residue from contents other than the original use, it cannot be ruled out that some jars would have been used to store miscellaneous items such as buttons.

1.3. Ceramics

A total of 248 ceramic sherds were discarded during the post-excavation process, representing 14.98% of the material discarded. Ceramic sherds discarded on site contained no diagnostic features. A total of 200 sherds were recorded for post-excavation analysis representing a MIC of 45 items (Table 7). The majority of ceramic MIC were Fine Earthenware (57.78%).

Table 7 Ceramic MIC by material.

Material	MIC	MIC (%)	Fragment count	Fragment (%)
Bone China	2	4.44%	5	2.50%
Fine Earthenware	26	57.78	114	57.00%
Pearlware	2	4.44%	2	1.00%
Porcelain	12	26.67%	48	24.00%
Refined Earthenware	2	4.44%	30	15.00%
Stoneware	1	2.22%	1	0.50%
Total	45	100.00%	200	100.00%

Most items collected from site are associated with food preparation and serving. Of the 45 items, 20 were assigned tableware functions, 14 were assigned tea ware function and two were associated with food preparation – this represents just under 80% of the collection (Table 8). There were four whole items collected from site, three of these were found in cistern fills while the fourth item was found in the yard. The items consisted of an insulator (#26), a stoneware jar/pot which contained remnant paint (#29), a saucer (#43) and a small jar which would have contained pomade or ointment (#52).

Table 8 Ceramic artefacts by function.

Function	MIC	MIC (%)	Fragment count	Fragment (%)
Food – Tableware	20	44.44%	96	48.00%
Food – Preparation	2	4.44%	32	16.00%
Food – Tea Ware	14	31.11%	62	31.00%
Household	2	4.44%	3	1.50%
Personal	2	4.44%	2	1.00%
Service	1	2.22%	1	0.50%
Work/Trade	1	2.22%	1	0.50%
Unidentified	1	2.22%	1	0.50%
Total	45	100.00%	200	100.00%

Of the 23 ceramics with basemarks, only one item was imported from France, all other basemarks indicated English manufacturing. The basemarks within the collection demonstrate late nineteenth to mid twentieth century wares (Table 9). AJ Wilkinson produced the highest proportion of the base marked ceramics (6 MIC) followed by Old Hall Earthenware Co. Ltd. (3 MIC). All other manufacturers only produced one or two marked items.

There was a wide range of decorative types found at the Chatswood Dive Site with most items being transfer-print. There were seven items with painted decoration, four items were moulded, two items had gilded decoration and one item had sponged decoration (Table 10).

There were two identified Flow Blue patterns – ‘Mikado’ (3 MIC) and Worcester (3 MIC) both produced by AJ Wilkinson from c1930 and each appeared to be a part of a set (Figure 7). The majority of the Blue Flow patterns were located within the cistern fill with one plate with the ‘Mikado’ pattern found within Context 12. There were six identified transfer-prints which were all imported from England.

There were three items with the identified brown transfer-print 'Basket' pattern, found in Contexts 012, 085, 114 and 117. This pattern was only known to be produced by Old Hall Earthenware Co. Ltd which operated between 1861-1886. The 'Countess' pattern included a plate (c1930) and a tureen (c1902) and was manufactured by Doulton & Co. (Ltd.) with two different basemarks (Figure 8). The two black transfer-print items were identified as 'Trellis' pattern, produced by T.G. Green & Co. (Ltd.) from c1895. There were two items of 'Mosaic' pattern which was manufactured by A.B. Jones & Sons (Ltd.) from 1900-1913. The 'Delft' pattern was produced by Burslem Pottery Co. Ltd. from 1894-1933 and the 'Willow' pattern was produced by Minton, an impressed mark indicating it was manufactured in 1883 (Figure 9). The basemarks found on patterned items indicated the features found on the site date from the late 1800s to the early-mid 1900s.



Figure 7 Photograph of ceramic artefacts manufactured by A. J. Wilkinson. Top (L-R): [171]/#19; [171]/#17, bottom (L-R): [171]/#20; [171]/#18; [171]/#16.



Figure 8 Ceramic artefacts with the 'Countess' pattern. Order [L-R] [170]/#49; [054]/#36.



Figure 9 Conjoining ceramic artefacts with the 'Delft' pattern from [114]/#38; [117]/#39.

Table 9 Ceramic artefacts dated by manufacturer.

Manufacturer	Origin	Date from	Date to	MIC
A. B. Jones & Sons (Ltd.)	England	1900	1913	2
A. J. Wilkinson (Ltd.)	England	c.1930	-	6
Burslem Pottery Co. Ltd.	England	1894	1933	1
Clementson Bros. (Ltd.)	England	1879	1916	1
Doulton & Co. (Ltd.)	England	c.1902 c.1930	-	1 1
E. Brain & Co. Ltd.	England	1913	1963	1
Haviland & Co.	France	1894	1931	1
J. & G. Meakin	England	c.1912		1
Johnson Bros (Ltd.)	England	1883	1913	1
Lovatt & Lovatt	England	1924	1924	1
Minton	England	1883	1883	1
Old Hall Earthenware Co. Ltd.	England	1861	1886	3
T. G. Green & Co. (Ltd.)	England	c.1895	-	2

Table 10 Ceramics by decoration type.

Decoration	Pattern	MIC	MIC (%)	Fragment count	Frag (%)
Undecorated	-	8	17.78%	11	5.50%
Flow Blue	Mikado	3	6.67%	9	4.50%
	Worcester	3	6.67%	3	1.50%
Transfer Print	Basket	3	6.67%	28	14.00%
	Countess	2	4.44%	16	8.00%
	Delft	1	2.22%	4	2.00%
	Mosaic	2	4.44%	15	7.50%
	Trellis	2	4.44%	16	8.00%
	Willow	1	2.22%	21	10.50%
	Unidentified	6	13.33%	8	4.00%
Gilt	-	2	4.44%	10	5.00%
Moulded	-	4	8.89%	36	18.00%
Painted	-	7	15.56%	21	10.50%
Sponged	-	1	2.22%	1	1.00%
Total	-	45	100.00%	200	100.00%

The majority of conjoins found at the Chatswood Dive Site were contained within individual contexts. There was only one conjoin found across contexts. One porcelain saucer (Cat #25 and #30) with the 'Mosaic' pattern was found with conjoins in Contexts 013 and 021. Context 013 was a surface/bedding fill containing coarse cinder and fly ash found beneath road base which could indicate an earlier surfacing. Context 021 was a mixed fill contained within Context 017 which included both sandstock and dry pressed brick fragments.

Ceramics were found in fourteen contexts. Most contexts only contained low individual figures, with only one context [171] containing a double-digit MIC – 14 MIC. The highest density of artefacts identified were located within the fill for a rubbish pit [054] and the fill for the cistern [151, 170, and 171] (Table 11).

Table 11 Ceramic MIC by context.

Context number	MIC	MIC (%)	Fragment count	Fragment (%)
12	1	2.22%	6	3.00%
13	2	4.44%	6	3.00%
18	1	2.22%	7	3.50%
19	1	2.22%	1	0.50%
21	2	4.44%	12	6.00%
28	1	2.22%	1	0.50%
31	2	4.44%	30	15.00%

54	7	15.56%	63	31.50%
85	1	2.22%	1	0.50%
114	2	4.44%	18	9.00%
117	1	2.22%	12	6.00%
151	2	4.44%	5	2.50%
170	8	17.78%	18	9.00%
171	14	31.11%	20	10.00%

Cistern

Context 171 was the number assigned to the lower fill of the cistern (1600-3000mm) and contained 14 MIC (Figure 10). Of the items found in this context, six were associated with tableware and another three items were associated with tea ware. There were four items with basemarks within this context, all indicating English manufacture. A plate (Cat#18), saucer (Cat #17) and cup (Cat #16) were likely produced as part of a matching set with small, moulded florals on the interior rim and Blue Flow decoration in the 'Worcester' pattern – this set was produced by A. J. Wilkinson (Ltd.) from c1930. Another two plates (#19 and #20) were also produced by A. J. Wilkinson (Ltd.) in c1930, these plates also had moulded florals on the rim and the Blue Flow pattern 'Mikado'. Two other items also had basemarks, one was a bowl (#2) produced by Johnson Bros. (Ltd.) between 1883 to 1913 and the other was an undecorated sherd with a Diamond Registration Mark (Cat #13) and was produced by Clementson Bros. (Ltd.) between 1879 to 1916. A partial chamber pot (Cat #12) was also recovered from this context which had been painted; however, the paint had faded and the motif could not be determined. A stoneware pot (Cat #29) found in this context contained remnant paint in the base.



Figure 10 Photograph of ceramic artefacts identified in the cistern. Top (L-R): [171]/#1; [171]/#2/ [171]/#29, top middle (L-R): [171]/#19; [171]/#17; [171]/#16; [171]/#12, lower middle (L-R): [171]/#20; [171]/#18; [171]/#22; [171]/#21, bottom (L-R): [171]/#14; [171]/#13; [171]/#15.

Context 170 was the number assigned to the middle fill of the cistern (1600 – 800mm) and contained eight MIC (Figure 11). Within this context, there were two whole items recovered – a porcelain saucer (Cat #43) with a thick blue transfer band around the interior rim and a small pomade/ointment jar

(Cat #52). Of the items within this context, three items were associated with tableware and other three items were associated with tea ware. There were three basemarks identified within this context – two indicate English production and the other was produced in France. A tureen (Cat #49) was produced by Doulton & Co. (Ltd.) with a Royal Doulton basemark dating from c1902, the tureen with identified green transfer-print with painted detail 'Countess' pattern. E. Brain & Co. Ltd. produced a moulded and gilded Bone China teacup (Cat #53) between 1913 to 1963 and was marked as 'Foley China'.

Context 151 was the number assigned to the upper fill of the cistern (800mm – surface) and only contained two items, both with identified basemarks. A teacup (#10) was produced by A. B. Jones & Sons (Ltd.) between 1900 to 1913, the cup was produced with a polychrome transfer-print 'Mosaic'. A basemark was identified on an undecorated sherd (Cat #11) produced by J. & G. Meakin from c1912.

All contained artefacts dating from the late nineteenth to the mid twentieth century. The presence of the green transfer-print tureen and basemarks belong to A. J. Wilkinson indicates that the fill occurred in one event, post-1930s.



Figure 11 Photograph of ceramic artefacts identified in the cistern. Top (L-R): (170)/#49; (170)/#54, middle (L-R): (170)/#53; (170)/#46/ (170)/#48, bottom (L-R): (151)/#11; (170)/#43; (151)/#10.

Rubbish Pit

The rubbish pit fill [054] contained seven ceramic items. Four of the items recovered were associated with tea ware, another two items were associated with tableware and one item was associated with food preparation – a strainer (Cat #7). There were three identified basemarks found within this context, all indicating imported items from England. A plate (Cat #3) was produced with the identified black transfer -print 'Trellis' pattern by T. G. Green & Co. (Ltd.) from c1895. A plate with the identified green transfer-print 'Countess' pattern, produced by Doulton & Co. (Ltd.) had a Royal Doulton basemark indicating manufacture from c1930. The third basemark was found on a blue 'Willow' saucer produced by Burslem Pottery Co. Ltd. between 1894 to 1933.

The marked items found within the rubbish pit indicated it was in use not long before the fill of the cistern occurred with the production of the material occurring from the 1890s to early 1930s.



Figure 12 Photograph of ceramic artefacts identified in [054]. Top (L-R): (054)/#36; (054)/#3, middle: (054)/#4, bottom (L-R): (054)/#7; (054)/#5; (054)/#37.

1.4. Organics

1.4.1. Bone

A total NISP of 69 animal bone specimens (a bone or tooth, or fragment thereof) were recovered and analysed from a total of 14 contexts from the excavations at the Chatswood Dive site. The very small assemblage size retrieved during the excavations presents difficulties when trying to draw conclusions and interpretation of the site, much of the site was highly disturbed and did not contain any archaeological features. The faunal assemblage is dominated by domesticated species with sheep representing 28% and cattle 22% (no attempt of differentiation was made between sheep and goat), although unidentified specimens represented 45% of the overall assemblage. The only other identified species was rabbit at 6% of the assemblage (Table 12).

Table 12 Frequency of species across the site.

Common name	Scientific name	NISP total	NISP %
Cattle	<i>Bos taurus</i>	15	22%
Domestic Rabbit	<i>Oryctolagus sp.</i>	4	6%
Domestic Sheep	<i>Ovis aries</i>	19	28%
Unidentifiable Mammal	-	31	45%
Total	-	69	100%

The sheep and cattle skeletal elements represented typical meat cuts with limbs bones presenting the highest percentage (Forelimb 12% and hindlimb 17%). A large amount of the assemblage was

fragmented to a degree where only preliminary element identification was permitted, these were identified as comprising domesticated mammal (most likely sheep) long bone fragments at 28% (Table 13).

Table 13 Frequency of anatomical elements across site.

Bone gross	Bone anatomical	NISP total	NISP%	Bone gross %
Extremities	Hand/Foot	2	3%	3%
Forelimb	Metatarsus	1	1%	12%
	Humerus	1	1%	
	Metacarpus	1	1%	
	Radius	1	1%	
	Radius and Ulna	1	1%	
	Scapula	2	3%	
	Ulna	1	1%	
Hindlimb	Astragalus	3	4%	17%
	Calcaneum	1	1%	
	Femur	2	3%	
	Metatarsus	1	1%	
	Tibia	5	7%	
Long Bone	Long Bone Fragment	19	28%	28%
Spine	Vertebrae	6	9%	14%
	Rib	4	6%	
Unidentifiable	-	18	26%	26%
Total	-	69	100%	100%

Rubbish Pit

Context 054, the fill of a large rubbish pit measuring 1.36m by 1.16m located in the eastern portion of the site near outbuildings associated with Penzance contained 46% of the recovered faunal assemblage (Table 14 and Table 15). This context contained all the species present on site including the remains of at least one rabbit. The assemblage is representative of domestic dietary refuse typical of the latter half of the nineteenth century with frequencies of sheep and cattle corresponding to other colonial assemblages in Sydney (Fillios, 2014). Rabbit is also present in other assemblages across colonial Sydney, the rabbit skeletal elements identified within this assemblage are likely from one animal (Figure 13).



Figure 13 Rabbit bones identified at the Chatswood Dive site. Order (L-R) (054)/#199; (054)/#198; (054)/197; (054)/#192.

Table 14 Contexts containing bone material.

Context number	NISP total	NISP %
Unstratified	2	3%
12	2	3%
18	3	4%
28	2	3%
32	1	1%
42	1	1%
43	3	4%
54	32	46%
83	5	7%
93	7	10%
103	2	3%
114	3	4%
170	4	6%
171	2	3%
Total	69	100%

Table 15 Identified species in each context containing bone material.

Context number	Common name	Scientific name	NISP total	NISP %
Unstratified	Domestic Sheep	<i>Ovis aries</i>	1	1%
	Unidentifiable Mammal		1	1%
12	Unidentifiable Mammal		2	3%
18	Unidentifiable Mammal		3	4%
28	Unidentifiable Mammal		2	3%
32	Domestic Sheep	<i>Ovis aries</i>	1	1%
42	Domestic Sheep	<i>Ovis aries</i>	1	1%
43	Domestic Sheep	<i>Ovis aries</i>	3	4%
54	Cattle	<i>Bos taurus</i>	15	22%
	Domestic Rabbit	<i>Oryctolagus sp.</i>	4	6%

Context number	Common name	Scientific name	NISP total	NISP %
	Domestic Sheep	<i>Ovis aries</i>	7	10%
	Unidentifiable Mammal		6	9%
83	Unidentifiable Mammal		5	7%
93	Unidentifiable Mammal		7	10%
103	Unidentifiable Mammal		2	3%
114	Unidentifiable Mammal		3	4%
170	Domestic Sheep	<i>Ovis aries</i>	4	6%
171	Domestic Sheep	<i>Ovis aries</i>	2	3%
Total			69	100%

1.4.2. Shell

Only six shells, whole and fragmentary, were identified across the site. Five of these were from Context 054, the fill of the rubbish pit, and a single, unidentified marine shell was from Context 171, the lower fill of the cistern. Five of the total shells were marine species, and only one was terrestrial. Within this assemblage, only one shell was unidentifiable.

Of the marine shells, the majority were fragments of Sydney Rock Oysters, with a single dog cockle shell and an unidentified shell with features that align with those found in molluscs (Table 16). The species of shells found are all consistent with those consumed as food (Colley 2005, p. 75), though the extremely limited number of total shells found would indicate that shellfish were not a major dietary component. Given that the other marine shells found were edible, it is a reasonable assumption that this unidentified shell was also from food waste. The majority of the marine shells were located in the fill of the rubbish pit, making it likely that they were intentionally disposed of.

The single terrestrial land snail shell found is likely an indicator that the snail lived on the site. Alternatively, it is possible that it was intentionally disposed of as fill, along with the oysters and cockle shell.

Table 16 Shell species by context.

Context	Common names	Scientific name	NISP	NISP (% of total)
54	Sydney Rock Oyster	<i>Saccostrea glomerata</i>	3	50%
	Land Snail	<i>Cornu Aspersum</i>	1	16.5%
	Bittersweet clam/ Dog Cockle	<i>Glycymeris</i> sp	1	16.5%
171	Unidentified	Unidentified	1	16.5%

1.5. Metals

A total of 255 fragments of various metals were kept for post-excavation analysis, representing a MIC of 86 items salvaged from the Chatswood Dive site. Most of these metals were ferrous, with iron making up 68.28% (MIC 57) of the assemblage. This subclass of material was followed by copper and its alloys, making up a total of 11.62% (MIC 10), and lead, constituting 9.30% (MIC 8)(Table 17). All recovered metals were found over 28 contexts. Of these 28 contexts, Context 054 had the highest concentration with a MIC of 17, followed by Context 012 (MIC 11) and, Contexts 018 and 114, both with a MIC of 7.

Table 17 Metals by material subclass.

Material subclass	MIC	MIC (%)	Fragment count	Fragments (%)
Iron (Fe)	57	66.28%	220	86.27%
Copper (Cu)	8	9.30%	11	4.31%
Lead (Pb)	8	9.30%	9	3.53%
Waste	5	5.81%	6	2.35%
Silver (Ag)	2	2.33%	2	0.78%
Aluminium (Al)	2	2.33%	3	1.18%

Material subclass	MIC	MIC (%)	Fragment count	Fragments (%)
Copper, Zinc (Cu, Zn)	1	1.16%	2	0.78%
Copper, Zinc, Iron (Cu, Zn, Fe)	1	1.16%	1	0.39%
Tin (Sn)	1	1.16%	1	0.39%
Zinc, Magnesium (Zn, Mg)	1	1.16%		0.00%
Total	86	100.00%	255	100.00%

During the post-excavation analysis the metal artefacts were sorted according to their primary functions, with the results suggesting that occupation of the site was domestic in nature (Table 18). The majority of metal MIC were architectural, with 35 fragments forming a MIC of 26 or 30.23% of the total metal found. These were primarily structural, that is, items used in the construction of the various structures on site. Of the 26 architectural MIC, 22 were further sub divided into the fastening category (Table 19). This comprised bolts, screws, nails, and fasteners (MIC 22), with most of this category being nails (MIC 13). Of the 13 nails identified, 11 were wire nails, uncovered across Contexts 012, 025, 054, 076, 114, 120, and 123. Wire nails first appeared in Australia around 1853, when their importation began. It was not until after the 1870s that the wire nail gained popularity, becoming more readily available and more affordable (Burke & Smith, 2004:377). Of the remaining two nails, one was unidentifiable, in Context 108, and the other was a cut nail, Context 054. The remainder of the fastening sub class consisted of bolts (MIC 3), brackets (MIC 2), washers (MIC 3) and screws (MIC 1).

After unidentifiable elements, at 29.07% (MIC 25) of the MIC, the next most common function within the metal assemblage was food related items (Table 18). The entirety of the food subcategory, 116 fragments and 26 Items (30.23% of the total MIC) related to containers and storage of food. Sardine cans were prominent in this assemblage and were highly identifiable with their unique key opener lids.

Table 18 Metals by function.

Function	MIC	MIC (%)	Fragment count	Fragments (%)
Architectural	26	30.23%	35	13.73%
Clerical	2	2.33%	4	1.57%
Food	21	24.42%	116	45.49%
Household	3	3.49%	2	0.78%
Hygiene	1	1.16%	2	0.78%
Industrial	5	5.81%	6	2.35%
Ornamental	1	1.16%	1	0.39%
Recreational	1	1.16%	1	0.39%
Transport	1	1.16%	2	0.78%
Unidentified	25	29.07%	86	33.73%
Total	86	100.00%	255	100.00%

Table 19 Architectural metals by function class and shape.

Function	MIC	MIC (%)	Fragment count	Fragments (%)
Architectural	26	30.23%	35	13.73%
Door Hardware	1	1.16%	1	0.39%
Lock	1	1.16%	1	0.39%
Fastening	22	25.58%	24	9.41%
Bolt	2	2.33%	3	1.18%
Bolt/Nut	1	1.16%	1	0.39%
Bracket	2	2.33%	2	0.78%
Nail	13	15.12%	15	5.88%
Screw	1	1.16%	1	0.39%
Washer	3	3.49%	2	0.78%
Roofing	1	1.16%	2	0.78%
Sheet	1	1.16%	2	0.78%
Service	1	1.16%	1	0.39%

Function	MIC	MIC (%)	Fragment count	Fragments (%)
Grate	1	1.16%	1	0.39%
Unidentified	1	1.16%	7	2.75%
Sheet	1	1.16%	7	2.75%

All the metals found at Chatswood Dive site were identified over 28 contexts. The breakdown of this can be seen in Table 20. The fill of the rubbish pit [054], proved to be the most abundant with a MIC of 17 (19.77% of total metals), in 28 fragments. These items Included copper spring, wire, and gaskets, a wire nail, a cut nail, remnants of sardine cans, an intact tin cannister, and a 5\8" flat wick burner from a kerosene lamp or lantern. Also present were two artefacts that proved to be related: a lead gridded plate and a cell connector, both from a discarded car battery.

Table 20 Metal artefacts by context.

Context	MIC	MIC (%)	Fragment count	Fragments (%)
0012	11	12.79%	23	9.02%
0013	5	5.81%	6	2.35%
0018	7	8.14%	11	4.31%
0021	6	6.98%	94	36.86%
0022	1	1.16%	3	1.18%
0023	1	1.16%	7	2.75%
0025	4	4.65%	27	10.59%
0032	4	4.65%	6	2.35%
0038	1	1.16%	1	0.39%
0042	2	2.33%	7	2.75%
0043	1	1.16%	2	0.78%
0051	1	1.16%	1	0.39%
0054	17	19.77%	28	10.98%
0076	3	3.49%	3	1.18%
0078	1	1.16%	1	0.39%
0083	1	1.16%	1	0.00%
0085	1	1.16%	1	0.39%
0101	1	1.16%	1	0.39%
0103	1	1.16%	1	0.39%
0108	2	2.33%	3	1.18%
0114	7	8.14%	20	7.84%
0120	1	1.16%	1	0.39%
0123	2	2.33%	2	0.78%
0146	1	1.16%	1	0.39%
0151	1	1.16%	1	0.39%
0153	1	1.16%	1	0.39%
0170	1	1.16%	2	0.78%
0171	1	1.16%	1	0.39%
Total	86	100.00%	255	100.00%

Cistern

The fill of the cistern [151, 170, and 171] contained little metal in comparison with other artefact types. Context 170 had two sheets of roofing metal and Context 171 a concretion of discarded metal waste. Only one metal artefact was identified in Context 151. Seemingly a regular .30-06 bullet casing, further inspection revealed a ferrous rod through the centre of the bullet, indicating that the cartridge was in fact a dummy bullet, specifically a Hollifield Target Practice Rod (Figure 14). The Hollifield Target Practice Rod was devised to allow standard weapon training in the absence of live ammunition, whilst still providing basic loading practice. The device was patented in the late 1870s and was manufactured until 1927. Given that the Springfield 303, which the practice rod was attached to, and the cartridge used were developed in 1903 and 1906 respectively, the dummy bullet found in Context 151 can be given a date range of 1906-1927.



Figure 14 Target practice rod (#0001) identified in [151].

Rubbish Pit

The most interesting find in the rubbish pit fill [054] was an English military piece. A sterling silver pencil end, the discarded remains of what has become known as the Princess Mary bullet pencil. Originally part of the Princess Mary Christmas gift box, sent to all members of the British, Colonial and Indian armed forces, to celebrate the Christmas of 1914 (Figure 15, Figure 16). It was decided all serving on the frontline would receive the gift which contained an embossed brass box, one ounce of pipe tobacco, twenty cigarettes, a pipe, a tinder lighter, Christmas card and photograph. As the recipients of the gift increased to include all personnel 'wearing the King's uniform on Christmas Day 1914', over an estimated 2,000,000 people, it was realised that suppliers would not meet the demand. Instead, it was agreed the sailors who were to receive the tinder lighter, would now be gifted a bullet pencil in a silver cartridge case. This suggests that a resident of Penzance was a sailor in World War I. Alternatively, the item could have been gifted to the school at some point in time.



Figure 15 Bullet pencil (#0040) identified in [054].



Figure 16 Princess Mary Gift Box (source: <https://www.iwm.org.uk/history/look-inside-the-princess-mary-gift-fund-1914-box>).

Other contexts

Context 012 held 23 fragments that formed a MIC of 11 at 12.79% of the total items found. This context was identified as a post-demolition layer and the metal artefacts found attest to this. Metal artefacts in this layer included: a bolt, wire, sheet, washers, ferrules, slag, screw, nails.

Contexts 018 and 114 both contained seven items each. Context 018 is the fill of a trench which cut the foundations of the outbuilding. In this fill, along with evidence for six cans, a two piece white enamel soap dish was excavated. The nature of this find, hygiene and sanitary, aids to confirm the use

of the outbuilding, as it is likely that the trench was backfilled with demo from the outbuilding. Context 114, the fill of cut 112, retained a variety of building refuse. This included nine fragments of a rod/bar, a bolt and nut, two brackets, two nails, and six fragments of a sheet, implying a demolition layer.

Additionally, a large number of metal fragments were identified in Context 021. Although the MIC is 6 (6.98%), the fourth highest of total MIC, it contained 95 fragments (36.86%), the highest percentage of all fragments. This is due to the high volume of sardine can fragments in the deposit (94 of the 95 fragments). The remaining artefact was a zinc-carbon battery. Context 021 was the fill of cut 020 and was located 720mm east of the eastern wall of room two of the outbuilding. For such a large yield of artefacts, the pit was relatively small, 305mm by 320mm by 100mm, suggesting that the inclusion of artefacts was not incidental, and that it was a rubbish pit.

1.6. Miscellaneous

Only 11 miscellaneous artefacts were identified as a part of the assemblage, five of which came from Context 054, and six from other contexts. Four of the artefacts identified were made of brass (aes), two of ceramic (kaolin and earthenware), two of faunal remains (bone and horn), and one each of glass, lead, and graphite (Table 21).

Miscellaneous artefacts were from a range of contexts but were predominantly in the fill of the rubbish pit [054]. Although many of these artefacts were relatively dateable, most of them have broad date ranges commencing in the nineteenth century and continuing into the twentieth century. Taken as a whole, the assemblage is consistent with known uses of the site, with personal items including buttons, the brush and purse clasp fragments are demonstrative of residential occupation of the site, while the presence of toys indicates the presence of children consistent with its use as a school in the early twentieth century.



Figure 17 Photograph of miscellaneous artefacts identified in the Chatswood Dive assemblage. Top: [013]/#001, middle (L-R): [171]/#011; [054]/#007; [085]/#009/ [076]/#008; [054]/#004, bottom (L-R): [103]/#10; [054]/#003; [025]/#002.

Table 21 Miscellaneous artefacts identified in the assemblage.

Context	Item	Fabric	Dimension	Date	Description
018	Purse clasp	Aes	W:125mm, H:95mm	Late nineteenth to early twentieth century	Hinged clasp; closure formed of two attached wire loops with blob terminals- two similar loops to each side to hold chain link handle.
025	Button	Horn(?)	D:12mm	c. late-1830s onwards	Four-hole sew-through with central guide. Dimple and incised line inside rim, possibly pressed horn.
054	Press-stud	Aes	D:12mm	1885 onwards	Female.
054	Vessel	Pb foil	D:c.55mm	1885 onwards	Lid embossed in florid lettering ' <i>Gills Dentifrice</i> ', a tooth tincture.
054	Pencil	Graphite	D:3mm	-	Fragment of Pencil lead.
054	Smoking	Kaolin	L:36mm	-	Fragment of stem near mouthpiece with evidence of burning.
054	Toy	Fine earthenware	D:10mm	-	Marble.
076	Button	Aes	D:9mm	-	Two-piece two-hole sew-through.
085	Button	Aes	D:12mm	1850 onwards	Four-hole sew-through trouser button inscribed 'BEST OWN MAKE'.
103	Toy	Glass	D:10mm	1901-26	Marble, red with white surface swirl.
171	Brush	Bone	L:60mm, W:15mm	-	Fragment of tooth or clothes brush with six rows of bristles (absent).

Appendix C: Artefact catalogue

Building material

Catalogue Number	Context Number	Area	Artefact Material	Material Subclass	General Function	Specific Function	Artefact Type	Artefact Completeness	Artefact Condition	Artefact Condition Degree	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)	Artefact Portion	Artefact Origin	Start Date	End Date	Brick Type	Brick Frog Type	Concrete Type	Mortar Type	Render Type	Tile Type	Notes	MIC	Fragment Count	Photo Number		
165	171	N/A	Building Materials		Architectural	Roofing	Tile	21-30%	Broken	Moderate	162	138	0	46	Fragment	France	1890	1914						Machine pressed	'Gu' and 'Seon' etched into terracotta roof tile. Imported from Marseilles, France by Wunderlich limited. W.H. Roche imported.	1	1			
166	42	N/A	Building Materials		Architectural	Structural	Brick & render	41-50%	Broken	Moderate	110	125	80	0	Fragment				Dry-pressed	Oval	Portland Cement						1	1		
167	171	N/A	Building Materials	Linoleum	Architectural	Other		Fragment	Distorted	Moderate	42	34	0	10												Lino from flooring, visible layering.	1	1		
169	16	N/A	Building Materials	Mortar	Architectural		Mortar	Unknown			0	0	0	0	Sample	Australia						Other				Mortar sample from Penzance outbuilding footing. Mortar comprised of unidentifiable material - may be a mud-based mortar (due to brown colouring?)				
170	16	N/A	Building Materials		Architectural	Wall	Brick & render	Whole			236	111	69	0					Sandstock	Rectangle						Brick Sample from Penzance House Footing	1	1		
171	50	N/A	Building Materials		Service		Cement	Fragment	Broken	Severe	0	0	0	0		Australia					Portland Cement					Partial sample of cementing of joins of service	1	2		
172	52	N/A	Building Materials	Charcoal				Unknown			0	0	0	0	Sample	Sydney										3 bags of Charcoal samples from single context.	3			
173	113	N/A	Building Materials		Architectural	Wall	Brick	41-50%	Broken	Moderate	118	112	70	0	Sample	Sydney										Potentially early machine-pressed.	1	1		
174	136	N/A	Building Materials		Architectural		Cement	Fragment	Broken	Slight	0	0	0	0	Fragment											Cementing of repair of service 50. White clay inclusions and some fragments of terracotta brick and iron stone.	1	1		
175	149	N/A	Building Materials		Architectural	Wall	Brick & render	91-100%	Broken	Slight	242	135	94	0	Fragment	Australia					Portland Cement	Other	Other				Render is covering evidence of frog, so is unidentifiable. Cement mortar.	1	1	

Bone

Ceramic

Catalogue Number	Context Number	Area	Artefact Material	Material Subclass	General Function	Specific Function	Artefact Type	Artefact Completeness	Diameter (mm)	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)	Artefact Portion	Artefact Origin	Start Date	End Date	Decoration	Decoration Colour	Decoration Patter	Manufacturer	Notes	Maker's Mark	MIC	Fragment Count	Photo Number
1	171	N/A	Ceramic	Fine earthenware	Food	Serving	Platter	11-20%	190	0	0	0	0	0 Base				Transfer Print	Black	Unidentified		Pomegranates on branches on interior body		1	1	DSCF1035-DSCF1042
2	171	N/A	Ceramic	Refined Earthenware	Household	Ornamental	Bowl	Unknown	0	0	0	0	0	0 Base	England	1883	1913	Moulded			Johnson Bros (Ltd.)	larged moulded ribbed panels on exterior	'Royal Ironstone China' 'Johnson Bros England' Crest of lion and unicorn holding shield with crown and latin writing - http://www.thepotteries.org/mark/johnson_bros.html	1	1	DSCF1035-DSCF1042
3	54	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	91-100%	250	0	0	0	0	0 Body	England	c.1895		Transfer Print	Black	Trellis	T. G. Green & Co. (Ltd.)	15x cojoin black and white vertical panels with floral overlay, interior on marley	on marley exterior: 'TRELIS' within ribbon 'T.G.G. & Co Ltd' within shield with building background 'Made in England' - Possibly T G Green?	1	15	DSCF1028-DSCF1031
4	54	N/A	Ceramic	Porcelain	Food	Tea	Saucer	11-20%	130	0	0	0	0	0 Rim				Painted				handpainted polychrome florals with green painted rim		1	1	DSCF1028-DSCF1031
5	54	N/A	Ceramic	Porcelain	Food	Tea	Cup	91-100%	90	0	0	0	0	0 Rim				Painted				6x cojoin gilt rim above panelled alternate, 2 pink lines and gold flower with black background, gilt band around body exterior and exterior of handle		1	6	DSCF1028-DSCF1031
6	54	N/A	Ceramic	Porcelain	Food	Tea	Cup	91-100%	90	0	0	0	0	0 Rim				Gilt				gilt band around exterior, gilt flower on interior base, handle '9'-shaped 6x cojoin		1	6	
7	54	N/A	Ceramic	Fine earthenware	Food	Preparation	Strainer	51-60%	140	0	0	0	0	0 Rim				Moulded				3x cojoin slight moulded groove around rim Drainer		1	3	DSCF1028-DSCF1031
8	31	N/A	Ceramic	Porcelain	Food	Serving	Egg Cup	41-50%	50	0	0	57	0	0 Base								white egg cu, undecorated		1	1	
9	31	N/A	Ceramic	Refined Earthenware	Food	Preparation	Casserole Dish	Unknown	180	0	0	0	0	0 Rim	England	1924	1924	Moulded			Lovatt & Lovatt	yellow-bodies with white interior glaze, brown exterior glaze, moulded handle with swirl on either side, under grip.	'LOVATT/LANGLEY MILL/ENGLAND/LEADLESS/GLAZE/1924//1PT'	1	29	
10	151	N/A	Ceramic	Porcelain	Food	Tea	Cup	81-90%	0	0	0	0	0	0 Rim	England	1900	1913	Transfer Print	Polychrome	Mosaic	A. B. Jones & Sons (Ltd.)	May be 5 or 151 - unclear on tag 4x cojoin frags Mosaic Pattern decoration around rim exterior alternating diagonal panels, polychrome floral and chequered glag within scrolled border	'GRAFTON CHINA' 'A B J' in Staffordshire Knot '...SONS/England' in shield with sun at top '154' also on base Godden 'Encyclopaedia of British Pottery and Porcelain Marks'	1	4	DSCF1025-DSCF1027; DSCF1044-DSCF1047
11	151	N/A	Ceramic	Fine earthenware	Unidentified		Unidentified	Fragment	0	0	0	0	0	0 Base	England	c.1912					J & G Meakin	Context 151 or 5 - unclear on tag base frag only	'Ironstone china' sun with face with scroll across its centre containing '...& G.MEAKIN', underneath star 'LIMITED 43758/...EY ENGLAND' - likely J & G MEAKIN - http://www.thepotteries.org/mark/m/meakin_jg.html	1	1	DSCF1044-DSCF1047
12	171	N/A	Ceramic	Fine earthenware	Hygiene	Other	Chamber Pot	11-20%	260	0	0	0	0	0 Rim				Painted	Polychrome	Unidentified		painted exterior, polychrome flowers, very faded Chamberpot		1	1	DSCF1035-DSCF1042
13	171	N/A	Ceramic	Pearlware	Unidentified		Unidentified	Fragment	0	0	0	0	0	0 Base	England	1879	1916				Clementson Bros. (Ltd.)	unidentified base fragment; maker: Clementson Bros	British Registration Mark, within diamond 28 - Y - W - 6 = March 28 1879, Manufacturer 6, also 'No 9' stamped below the diamond; partial makers mark	1	1	DSCF1035-DSCF1042
14	171	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	0-10%	0	0	0	0	0	0 Rim				Transfer Print	Green	Unidentified		Scalloped rim, floral border scene within ferns, and florals within marley, possibly "Thora"		1	1	DSCF1035-DSCF1042
15	171	N/A	Ceramic	Fine earthenware	Food	Tea	Cup	21-30%	90	0	0	0	0	0 Rim				Transfer Print	Blue	Unidentified		2x cojoin florals on upper portion of exterior, with gilt rim and moulded fluting on lower exterior. Branches on interior, handle squared off with floral branches under gilt line		1	3	DSCF1035-DSCF1042
16	171	N/A	Ceramic	Fine earthenware	Food	Tea	Cup	41-50%	100	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Worcester	A. J. Wilkinson (Ltd.)	Set with CATs# 17 and 18 Pattern - Worcester slightly moulded above base with ribbing, 'F' marked on base, pattern on interior and exterior	No maker's mark - same pattern at CAT#17 and 18 - A.J. Wilkinson - Staffordshire Potteries, Burslem	1	1	DSCF1032-DSCF1034; DSCF1035-DSCF1042
17	171	N/A	Ceramic	Fine earthenware	Food	Tea	Saucer	21-30%	160	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Worcester	A. J. Wilkinson (Ltd.)	Set with CATs# 16 and 18 Pattern - Worcester slightly scalloped rim with gilt line	on exterior of marley 'WORCESTER' 'ROYAL SEMI PORCELAIN' written above an curved around a crown, below crown 'A.J.WILKINSON LD/ENGLAND' - A.J. Wilkinson - Staffordshire Potteries, Burslem	1	1	DSCF1032-DSCF1034; DSCF1035-DSCF1042
18	171	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	21-30%	190	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Worcester	A. J. Wilkinson (Ltd.)	Set with CATs# 16 and 17 Pattern - Worcester decoration on interior only	A.J. Wilkinson - Staffordshire Potteries, Burslem	1	1	DSCF1032-DSCF1034; DSCF1035-DSCF1042
19	171	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	11-20%	220	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Mikado	A. J. Wilkinson (Ltd.)	Set with CAT#20 Pattern: Mikado along rim raised moulded flowers and gilt band	No maker's mark - same pattern at CAT#20 A.J. Wilkinson - Staffordshire Potteries, Burslem	1	1	DSCF1032-DSCF1034; DSCF1035-DSCF1042
20	171	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	51-60%	240	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Mikado	A. J. Wilkinson (Ltd.)	Set with CAT#19 Pattern: Mikado Base has embossed 'RE' 3X cojoin	on Marley - 'MIKADO' Crown trademark 'ROYAL SEMI PORCELAIN/ A J WILKINSON/ ENGLAND' A.J. Wilkinson - Staffordshire Potteries, Burslem	1	3	DSCF1032-DSCF1034; DSCF1035-DSCF1042
21	171	N/A	Ceramic	Fine earthenware	Household	Ornamental	Lid	71-80%	110	0	0	0	0	0 Lid				Painted	Red			2x cojoin thick red ainted band between thin gilt bands on exterior. Handle is segmented with gilt bands		1	2	DSCF1035-DSCF1042
22	171	N/A	Ceramic	Fine earthenware	Food	Serving	Bowl	11-20%	160	0	0	0	0	0 Rim				Sponged				2x cojoin red sponged florals between two thin blue painted lines, above chain of yellow floral on exterior, blue painted band on interior		1	2	DSCF1035-DSCF1042
23	12	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	0-10%	0	0	0	0	0	0 Rim	England	c.1930		Flow Blue	Blue	Mikado	A. J. Wilkinson (Ltd.)	Pattern: Mikado A.J. Wilkinson - Staffordshire Potteries, Burslem		1	5	
24	12	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	0-10%	240	0	0	0	0	0 Rim	England	1861	1886	Transfer Print	Brown	Basket	Old Hall Earthenware Co. Ltd.	chain of florals with double band above nad single band below, beginning of basket weave print on interior - Same as CATs #40 and #42			1	
25	13	N/A	Ceramic	Porcelain	Food	Tea	Saucer	11-20%	160	0	0	0	0	0 Rim	England	1900	1913	Transfer Print	Polychrome	Mosaic	A. B. Jones & Sons (Ltd.)	5x cojoin, conjoin CAT#30 Same pattern as CAT#10 - Mosaic - A.B. Jones & Sons, Longton, England		1	5	DSCF1025-DSCF1027
26	13	N/A	Ceramic	Refined Earthenware	Service	Light	Other	Whole	0	0	0	38	30									white ceramic insulator		1	1	

27	28	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	0-10%		0	0	0	0	0	Rim	England	c.1895		Transfer Print	Black	Trellis	T. G. Green & Co. (Ltd.)	Same as CAT#3 Trellis pattern T G Green	1	1	
28	85	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	0-10%		0	0	0	0	11	Rim	England	1861	1886	Transfer Print	Brown	Basket	Old Hall Earthenware Co. Ltd.	Same pattern as CAT#24, #40, #42 Possible ovoid serving plate	1	1	
29	171	N/A	Ceramic	Stoneware	Work/Trade	Other	Other	Whole		104	0	0	125	6	Rim							beige glaze on interior and exterior undecorated pot, blue paint remains within Likely paint pot	1	1	DSCF1035- DSCF1042	
30	21	N/A	Ceramic	Porcelain	Food	Tea	Saucer	51-60%		160	0	0	0	0	Rim	England	1900	1913	Transfer Print	Polychrome	Mosaic	A. B. Jones & Sons (Ltd.)	Pattern: Mosaic, conjoin CAT#25 6x cojoin	6	6	DSCF1025- DSCF1027
31	21	N/A	Ceramic	Porcelain	Food	Serving	Unidentified	Fragment		0	0	0	0	0	Rim							5 fragments, unidentified painted patterns, faded and burnt, likely different vessels but cannot confirm	1	5		
32	21	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	0-10%		0	0	0	0	0	Rim							scalloped rim with black painted band, on marley there is whole coloured flowers in black and red, and green leaves, all outlined in black, all on interior	1	1		
33	18	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	0-10%		0	0	0	0	0	Rim							Same as CAT# 32, likely same vessel 3x cojoin		3		
34	18	N/A	Ceramic	Porcelain	Food	Tea	Saucer	31-40%		0	0	0	0	0	Base	Japan							4x cojoin White base, undecorated	'MADE IN JAPAN' between two circular bands, star in centre	1	4
35	19	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	Fragment		180	0	0	0	0	Rim				Transfer Print	Blue	Unidentified		See photo for pattern - geometric	1	1	
36	54	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	91-100%		240	0	0	0	0	Rim	England	c.1930		Transfer Print	Polychrome	Countess	Doulton & Co. (Ltd.) (Burslem)	Pattern: Countess Scalloped rim 11x cojoin	11	11	DSCF1019- DSCF1021; DSCF1028- DSCF1031
37	54	N/A	Ceramic	Fine earthenware	Food	Tea	Saucer	91-100%		160	0	0	0	0	Rim	England	1894	1933	Transfer Print	Blue	Willow	Burslem Pottery Co. Ltd.	Gilt band around marley and faded gilt band around rim 21x cojoin	21	21	DSCF1028- DSCF1031
38	114	N/A	Ceramic	Porcelain	Food	Tea	Saucer	41-50%		140	0	0	0	0	Rim	England	1883	1883	Transfer Print	Blue	Delft	Minton	Pattern: Delft Maker: Minton 2x cojoin, cojoins with CAT#39	2	2	DSCF1022- DSCF1024
39	117	N/A	Ceramic	Porcelain	Food	Tea	Saucer	41-50%		140	0	0	0	0	Rim	England	1883	1883	Transfer Print	Blue	Delft	Minton	Pattern: Delft Maker: Minton 2x cojoin, cojoins with CAT#38	2	2	DSCF1022- DSCF1024
40	114	N/A	Ceramic	Fine earthenware	Food	Serving	Plate	Unknown		0	0	0	0	0	Body	England	1861	1886	Transfer Print	Brown	Basket	Old Hall Earthenware Co. Ltd.	basket of flowers, with basket weave background with some butterflies and chain of flowers around rim and around central scene same pattern as CAT#42	16	16	
42	117	N/A	Ceramic	Fine earthenware	Food	Serving	Unidentified	Unknown		0	0	0	0	0	Body	England	1861	1886	Transfer Print	Brown	Basket	Old Hall Earthenware Co. Ltd.	basket of flowers, with basket weave background with some butterflies and chain of flowers around rim and around central scene same pattern as CAT#40	10	10	
43	170	N/A	Ceramic	Porcelain	Food	Tea	Saucer	Whole		140	0	0	0	0					Transfer Print	Blue			Transfer printed band around rim interior	1	1	DSCF1044- DSCF1047
46	170	N/A	Ceramic	Porcelain	Food	Serving	Container	41-50%		80	0	0	0	0	Rim				Transfer Print	Polychrome			unidentified floral polychrome on body, gilt bands on exterior handle, rim, and footring, various types of moulding on rim, body, and base	1	1	DSCF1044- DSCF1047
48	170	N/A	Ceramic	Bone China	Food	Tea	Cup	41-50%		90	0	0	0	0	Rim	France	1894	1931	Painted			Haviland & Co.	floral painted interior floral painted exterior with moulded decorative ladders 2x cojoin	2	2	DSCF1044- DSCF1047
49	170	N/A	Ceramic	Fine earthenware	Food	Serving	Tureen	91-100%		0	0	0	0	0	Rim	England	c.1902		Transfer Print	Green	Countess	Doulton & Co. (Ltd.) (Burslem)	Tureen, scalloped base Pattern: Countess, same as CAT#36	5	5	DSCF1019- DSCF1021; DSCF1044- DSCF1047
51	170	N/A	Ceramic	Pearlware	Personal	Other	Container	91-100%		80	0	0	40	0	Base								likely ointment of makeup jar, white	1	1	
52	170	N/A	Ceramic	Fine earthenware	Personal	Other	Container	Whole		70	0	0	31	0	Base								white jar, likely ointment or makeup two grooves in footring	1	1	
53	170	N/A	Ceramic	Bone China	Food	Tea	Cup	31-40%		90	0	0	73	0	Base	England	1913	1963	Moulded			E. Brain & Co. Ltd.	tea cup, moulded swirls around rim exterior, scalloped rim with gilt band, gilt band around handle 3x cojoin	3	3	DSCF1044- DSCF1047
54	170	N/A	Ceramic	Porcelain	Food	Serving	Bowl	61-70%		160	0	0	0	0	Rim								gilt band around rim and interior marley, gilt flower on interior base 4x frags cojoin	1	4	DSCF1044- DSCF1047

Glass

Catalogue Number	Content Number	Area	Artefact Material	General Function	Specific Function	Artefact Type	Artefact Completeness	Artefact Condition	Artefact Condition Degree	Diameter (mm)	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)	Artefact Portion	Artefact Origin	Start Date	End Date	Artefact Closure	Glass Colour	Glass Base	Neck	Resting Point	Glass Finish	Glass Neck	Glass Shoulder	Manufacturing Method	Glass Horizontal Profile	Glass Vertical Profile	Glass Mark Application	Decoration	Distributor Options	Manufacturer	Product Maker	Notes	Maker's Mark	MIC	Fragment Count	Photo Number			
41	5	N/A	Glass	Pharmaceutical	Medicine	Jar	Whole	In-Tact		52	0	0	97	0	Body	Sydney	1930	1959		Amber	Cup-bottom base-plate	Rounded	Flat	External threads	Non-existent	Rounded	Machine-Made	Circular	Cylindrical	Embossed			E. Griffith Hughes Pty Ltd	Kruschen Sals jar, made by E Griffith Hughes Pty Ltd	'Kruschen Sals'; 'J' on base		1	1				
45	5	N/A	Glass	Food	Condiments/Sauce	Bottle	Whole	Stained	Slight	0	53	40	169	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat	External threads	Tapered	Sloped down	Machine-Made	Ovoid	Straight	Embossed	Fluted		Australian Glass Manufacturers	Rosella Pres & Marf Co Ltd	Rosella tomato sauce bottle "Property of Rosella Pres & Marf Co Ltd Regd No 2970" written vertically across bottle in panel. Body is fluted with a panel for label.	AGM 57204		1	1			
47	5	N/A	Glass	Beverage	Liquor/Spirits	Bottle	Whole	Stained	Moderate	78	0	0	300	0	Body	Australia	1924	1963		Amber	Cup-bottom base-plate	Rounded	Flat	Double OJ/Mineral	Bulged	Rounded	Machine-Made	Circular	Cylindrical	Embossed	Ribbed		Federal Distilleries Pty Ltd	Federal Distilleries Whiskey Bottle "The Property of Federal Distilleries Pty Ltd Melbourne" embossed around base on body, 'J' embossed just above neck ring on upper portion of bulged neck.	'J' on bottom; "The Property of Federal Distilleries Pty Ltd Melbourne" around base of body		1	1				
50	12	N/A	Glass	Hygiene	Other	Bottle	91-100%	Broken	Slight	58	0	0	99	0	Body	Germany	1889			Amber	Cup-bottom base-plate	Rounded	Flat	Double collar	Cylindrical	Horizontal	2 piece mould	Circular	Tapered	Embossed			Schulke & Mayr	'Lyon' embossed on body in curve, Schulke & Mayr Hamburg Lyon bottle.	'Schulke & Mayr Hamburg' embossed on base		1	2				
55	12	N/A	Glass	Pharmaceutical	Unidentified	Bottle	91-100%	Broken	Slight	21	0	0	82	0	Body					Green	Cup-bottom base-plate	Rounded	Flat		Tapered out	Rounded	Moulded	Circular	Cylindrical	Embossed				Green vial, embossed 'B24' on base	'B24'		1	1				
56	13	N/A	Glass	Pharmaceutical	Medicine	Bottle	51-60%	Broken	Moderate	0	70	38	120	0	Base	United Kingdom	1880	1930s		Aqua	Cup-bottom base-plate	Abrupt	Completely Flat				2 piece mould	Circular	Straight	Embossed				From Dinnefords & Co London, Magnesia Bottle.	'Dinnefords Magnesia'		1	1				
57	13	N/A	Glass	Food	Condiments/Sauce	Jar	71-80%	Broken	Slight	38	0	0	73	0	Body	Australia	1930	1950		Colourless	Flat	Rounded	Flat	Other	Non-existent	Sloped down	Machine-Made	Circular	Barrel	Embossed				Peck's Anchovy Paste Capset finish Pineapple bomb jar, rounded footing	'W' in bucket form under base, with '50F' embossed above		1	2				
58	18	N/A	Glass	Household	Tableware	Glass/Cup	11-20%	Broken	Severe	50	0	0	56	0	Base					Colourless	Flat	Rounded	Completely Flat				Circular	Tapered		Fluted			Cup base with vertical fluting on body from base			1	1					
59	18	N/A	Glass	Household	Tableware	Glass/Cup	11-20%	Broken	Severe	52	0	0	0	0	Stem/Foot					Colourless	Rounded	Flat				Unidentified	Circular			Embossed			Suburb design on footing from glass/cup stem			1	1					
60	25	N/A	Glass	Architectural	Window	Other	Fragment	Broken	Moderate	0	90	74	0	4	Fragment					Colourless						Unidentified			Embossed			Arctic pattern windowglass One side is likely from the window edge, some brown paint remaining.			1	1						
61	25	N/A	Glass	Household	Tableware	Glass/Cup	11-20%	Broken	Severe	55	0	0	33	0	Base					Colourless	Dome push so	Rounded	Completely Flat				Machine-Made	Circular	Cylindrical					Drinking cup base			1	1				
62	28	N/A	Glass	Clerical	Writing	Bottle	Whole	Broken		43	0	0	66	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat	Flat Finish	Tapered	Rounded	2 piece mould	Circular	Cylindrical	Embossed			Australian Glass Manufacturers	Inkwell	Some staining on interior base from ink	AGM 5 925		1	1			
63	31	N/A	Glass	Food	Condiments/Sauce	Bottle	Whole	In-Tact		0	0	0	0	0	Body	England	1908	c.1920		Amber	Post-bottom base-plate	Rounded	Flat	Flat Finish	Cylindrical	Rounded	Machine-Made	Ovoid, 2 flat sides	Ovoid	Embossed				2oz Borvil bottle, recessed circular panels for label on front and back.	'2oz Borvil Limited' on both sides, 'W' on base		1	1				
64	54	N/A	Glass	Beverage	Beer	Bottle	91-100%	Broken	Moderate	86	0	0	290	0	Body	Australia	1923	1930		Amber	Cup-bottom base-plate	Rounded	Flat		Tapered	Sloped down	Machine-Made	Circular	Cylindrical	Embossed			Australian Glass Manufacturers	Embossed horizontally on body. This bottle is the property of The NSW Bottle Company Limited 1920 Made in Australia Embossed 'AGM' Makers Mark on base	AGM on base		1	1	DSCF 3265- DSCF 3270			
65	54	N/A	Glass	Beverage	Liquor/Spirits	Bottle	0-10%	Broken	Severe	0	0	0	0	0	Body	United Kingdom	1868			Amber					Sloped down	Unidentified		Straight	Embossed			Ainslie's Whiskey	'Ainslie's Whisky' embossed on front straight panel. Possibly dated after 1917.		1	2						
66	54	N/A	Glass	Pharmaceutical	Medicine	Bottle	Whole	Stained	Moderate	0	69	43	188	0	Body	France	1883			Colourless	Flat, indented	Abrupt	Flat	Flat Finish	Cylindrical	Rounded	Moulded	Ovoid, 2 flat sides	Straight	Embossed	Embossed				'Septo Kols' embossed vertically on sides 'Cullens & Brouse' and 3-16 measurements embossed on front face (translates to 'spoonful') Side panels are recessed. Neck ring at join of neck and shoulder. Finish and neck post-applied. From Robin Laboratories (1883)	'SP'; '1372'; 'J' embossed on base (Societe Parvaire de Verrieres)		1	1	DSCF 3265- DSCF 3270		
67	54	N/A	Glass	Unidentified	Unidentified	Bottle	Fragment	Broken	Severe	0	0	0	0	0	Body					Colourless						Unidentified		Straight	Embossed				'Ed. 1216 3273' embossed on front straight panel seems to have chamfered sides - potentially a hexagonal bottle? Or ovoid with flat/recessed panel.			1	1					
68	54	N/A	Glass	Pharmaceutical	Vial	Whole	Stained	Slight		20	0	0	77	0						Colourless	Cup-bottom base-plate	Abrupt	Flat	Flat Finish	Cylindrical	Rounded	2 piece mould	Circular	Cylindrical					Clear vial, unmarked.			1	1	DSCF 3265- DSCF 3270			
69	54	N/A	Glass	Pharmaceutical	Generic	Bottle	81-90%	Broken	Moderate	0	52	27	147	0		Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat	Flat Finish	Cylindrical	Sloped down	Machine-Made	Rectangular, flat chamfers	Straight	Embossed			Australian Glass Manufacturers	Single recessed panel on front face for label.	'AGM'; 'J'; '5 747' embossed on base		1	1				
70	54	N/A	Glass	Unidentified	Unidentified	Bottle	0-10%	Broken	Severe	0	0	0	0	0	Finish					Colourless				External threads		Unidentified											1	1				
71	54	N/A	Glass	Unidentified	Unidentified	Bottle	0-10%	Broken	Severe	0	0	0	0	0	Finish					Colourless				Stove Pipe	Cylindrical	Sloped down	2 piece mould	Rectangular, rounded corners	Straight											1	1	
72	54	N/A	Glass	Beverage	Unidentified	Stopper	Whole	In-Tact		25	0	0	31	0	Shank																							1	1	DSCF 3265- DSCF 3270		
73	54	N/A	Glass	Food	Pickle/Chutney	Bottle	Whole	Stained	Slight	34	54	54	112	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Chamfered	Flat	Flat Finish	Cylindrical	Sloped down	Machine-Made	Square, flat chamfered corners	Straight	Embossed			Australian Glass Manufacturers	storage/commemorative	'AGM'; '5 6F' embossed under base		1	1	DSCF 3265- DSCF 3270			
74	54	N/A	Glass	Household	Maintenance	Bottle	11-20%	Broken	Severe	0	63	37	102	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat				2 piece mould	Philadelphia Oval	Straight	Embossed	Embossed			Australian Glass Manufacturers	'Nightingale Cedar Polish' embossed on front panel of body. "This Bottle is the Property of the Nightingale Supply Co Ltd embossed on body circling base Dated approx. 1930"	'AGM'; 'J'; '5 542' embossed on base		2	1	DSCF 3265- DSCF 3270		
75	54	N/A	Glass	Beverage	Liquor/Spirits	Bottle	61-70%	Broken	Moderate	0	63	27	90	0	Body	Sydney	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat			Rounded	Machine-Made	Flask	Straight	Embossed	Embossed			Australian Glass Manufacturers	Bottle embossed on body. This bottle is the property of Tooth's & Co Ltd Sydney. Contents undetermined - company know to have sold soft drinks and spirits as a vendor, but mainly having brewed beer.	'AGM' on base		1	1	DSCF 3265- DSCF 3270		
76	54	N/A	Glass	Pharmaceutical	Unidentified	Bottle	Whole	Indesence	Severe	0	0	0	0	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat		Cylindrical	Sloped down	Machine-Made	Ovoid	Straight	Embossed	Embossed			Australian Glass Manufacturers	'Washington H Saul Paterson & Co Ltd Sydney' embossed vertically on front panel. 'JIF' embossed horizontally above label panel. 3 flat side, "knickerbocker oval" SNK website Some indescence and stones remaining within bottle	'AGM 5 951' embossed on base		1	1	DSCF 3265- DSCF 3270		
77	54	N/A	Glass	Food	Other	Bottle	Whole	Stained	Moderate	0	53	29	151	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat	Flat Finish	Cylindrical	Sloped down	Machine-Made	Rectangular, flat chamfers	Straight	Embossed	Embossed			Australian Glass Manufacturers	'J' on embossed on face of one of the large recessed panels single neck ring 4 recessed panels Flavour extract bottle	'AGM' embossed on base		1	1	DSCF 3265- DSCF 3270		
78	54	N/A	Glass	Clerical	Writing	Bottle	Whole	Stained	Slight	50	0	0	0	0	Body	England	1913	1959		Colourless	Cup-bottom base-plate	Rounded	Flat		Roughly Cylindrical		Machine-Made	Circular	Cylindrical	Embossed			United Glass Bottle Manufacturers s	Inkwell made by United Glass Bottle Manufacturers, 1913-1959, England. Vertical side mold seen anomaly - finish is the same, neck is disparate. Shoulders are stepped base has horizontal ring and body is recessed cylinder between base and shoulder.	'A135'; 'C'; '14'; 'UGB' embossed on base		1	1	DSCF 3265- DSCF 3270			
79	54	N/A	Glass	Pharmaceutical	Medicine	Bottle	Whole	Stained	Moderate	0	85	50	20	0	Body	Australia	1923	1930		Colourless	Cup-bottom base-plate	Rounded	Flat	Stove Pipe	Cylindrical	Horizontal	Machine-Made	Rectangular, rounded corners	Straight	Embossed			Australian Glass Manufacturers	likely bitters bottle	'AGM'; 'J'; '5 625' embossed on base		1	1	DSCF 3265- DSCF 3270			
80	54	N/A	Glass	Beverage	Liquor/Spirits	Bottle	51-60%	Broken	Severe	0	90	53	120	0	Body	Australia	1923	1930		Amber	Cup-bottom base-plate	Rounded	Flat			Sloped down	2 piece mould	Rectangular, rounded corners	Straight	Embossed	Embossed	Halloran Manton Pty	Ainslie's Whiskey	'Ainslie's Whisky' embossed on front face "This bottle is the property of Halloran Manton Pty Sydney" embossed above base on front panel.	'AGM 4W MS10' embossed on base		1	1	DSCF 0996- DSCF 0999- DSCF 3265- DSCF 3270			
81	54	N/A	Glass	Beverage	Beer	Bottle	11-20%	Broken	Severe	26	0	0	140	0	Finish					Amber				Crown type	Tapered	Sloped down	Machine-Made												1	1		
82	54	N/A	Glass	Beverage	Beer	Bottle	11-20%	Broken	Severe	0	0	0	120	0	Finish					Amber				Crown type	Bulged	Rounded	Machine-Made													1	1	
83	54	N/A	Glass	Beverage	Beer	Bottle	11-20%	Broken	Severe	78	0	0	62	0	Body	Australia	1923	1930		Amber	Flat, indented	Rounded	Flat				2 piece mould	Circular	Cylindrical	Embossed	Embossed			Australian Glass Manufacturers	'Egister' embossed on rounded body face. Fred (of above dimensions) shows partial lion and barrel, with ER on barrel lid, trademark known to appear on Resch Limited, Sydney bottles. Body decorated with fluted panels.	'E' and embossed lion		1	1			
84	54	N/A	Glass	Beverage	Beer	Bottle	0-10%	Broken	Severe	0	36	0	48	5	Body	Australia	1906	1929								Unidentified	Circular	Straight	Embossed	Embossed			Resch's Ltd							1	1	
85	54	N/A	Glass	Food	Condiments/Sauce	Bottle	11-20%	Broken	Severe	0	65	55	62	0	Base	Australia	1922	1929		Aqua	Post-bottom base-plate	Rounded	Flat				2 piece mould	Ovoid	Straight	Embossed	Fluted			Australian Glass Manufacturers	Rosella Pres & Marf Co Ltd	'ROSELLA' No 2970 embossed vertically on body. According to Arnold 2002, "Old Bottles" style of AGM on base dated to 1922-1929 Body decorated with fluted panels.	'A.G.M' embossed on base. 'J' embossed above		1	2		
86	54	N/A	Glass	Food	Condiments/Sauce	Bottle	11-20%	Broken	Severe	0	68	57	68	0	Base	Australia	1922	1929		Aqua	Post-bottom base-plate	Rounded	Flat				2 piece mould	Ovoid	Straight	Embossed	Fluted											

Metal

Cat No.	Box No.	Area	Context	House	Room	Square	Shape	Functional class	Function	Portion	Material	Material subclass	Level complete %	Manufacture	Measurements	Start date	End date	Items	Fragments	Notes	
0001	1		0005				Bullet shell	Recreational	Ammunition	Frag	metal	Ae s, Fe	45	The Hollifield Target Practice Rod Company of Middletown, New York	L: 33mm; D: 9mm	1903	1927	1	1	Bullet casing with oxidized concretion (28mm x 14mm). Copper alloy for shell casing .03-06 Springfield, with blue/green oxidization. Internal evidence suggests a dummy bullet. An iron 'rod' at the centre is a modification designed for the Hollifield Target Practice Rod device, which fitted in the barrel of the M1903 rifle. Source: http://cartridgecollectors.org/?page=introduction-to-30-06-cartridges . The M1903 was in production from 1903-1945, and the Hollifield Target Practice Rod device ceased production in 1927.	
0002	1		0012				Bolt	archit/industry	Fastening	Head and shank	metal	Fe			L: 135mm			1	2	Heavily encrusted. Long bolt with round shank of approximately 17mm diameter. Head large square shape 33mm and 12mm high.	
0003	1		0012				Wire	Unidentified	Unidentified		metal	Cu			L: 94mm; D: 07mm			1	3	Copper alloy wire, greenish tarnish, slightly encrusted. 3 separate pieces; 1: single, 1: two pieces loosely intertwined, 1: two larger pieces tightly intertwined. Measurement of larger piece.	
0004	1		0012				Sheet	Unidentified	Unidentified	Frag	metal	Fe			L:132 - 24mm; W: 64 - 19mm; T: 1mm			1	9	Encrusted. Fragments of ferrous sheeting. Due to curve possibly corrugated iron or pipe. Three frags show evidence of a join (grooved seam joint?). One fragment with curved edge and shows evidence of a downturned internal rim. Measurement of larger and smallest fragments.	
0005	1		0012				Washer	archit/industry	Structural	Whole	metal				Outer Diameter: 21mm; Inner Diameter: 12mm			2	2	Flat washer, 1: distorted/buckled, slight oxidization. 1: Flat washer, cut and straightened, L: 36mm.	
0006	1		0012				Ferrule	Clerical	Writing		metal	Al			D: 7mm; L: 14mm			1	2	Ferrule of pencil, fragment of wood of pencil still present. Slightly tarnished. One fragment of graphite (20mm)	
0007	1		0012				Slag				metal				L: 22; W 18:					Lump of slag	
0008	1		0012				Ferrule	Unidentified	Unidentified		metal	Ag			OD: 34mm; ID: 17mm			1	1	Hand chased silver ferrule. Hand push engraved with floral motif. In the aesthetic movement style.	
0009	1		0012				Screw	archit/industry	Fastening	Head and shank	metal	Fe			L: 40mm; D: 11mm			1	1	Round head, wood screw. Small amount of thread remains at top of threaded section of shank. Heavily encrusted at head, probably slotted. Diameter of head.	
0010	1		0012				Nail	archit/industry	Fastening	Head and shank, Frag	metal	Fe			L: 33mm	1853		2	2	Very encrusted. Small wire drawn 3.5mm diameter shank. 1: Remnants of burnt wood present. Circular head, 1: degraded shank.	
0011	1		0013				Can	Food	Container	lid and key	metal	Fe			L: 86mm; W: 27mm	1866		4	4	Heavily encrusted. Four sardine can lids wrapped around key. Width measure of key head. 1: Missing handle of key, L: 57 mm. The twist-key can-opener was patented in the US by J. Osterhoudt in 1866.	
0012	1		0013				Lock	archit/industry	Door	Partial	metal	Fe			L: 48mm; H 38mm; T: 11mm			1	1	Heavily encrusted. Housing with degraded tumblers. Possible mortice dead lock/upright mortice latch due to appearances of single bolt or cabinet/chest lock due to size.	
0013	1		0013				Sheet	Unidentified	Unidentified	Frag	metal	Fe			L: 40mm; W: 38 mm				1	1	Heavily encrusted. Evidence of a crimped seam. Possibly sardine can.
0014	1		0018				Dish	Hygiene	Bathroom		metal	Fe			L: 130mm; W: 102mm			1	2	Heavily corroded. Two piece white enamel soap dish. Top dish with holes, D: 10mm, 12 holes, 4 x 3. Bottom dish no holes, L: 137mm; W: 109mm. Top sits in bottom dish. Both have a lip and rim, bottom dish has vertical extension for wall fitting, remnants of two holes for drilling present.	
0015	1		0018				Can	Food	Container	lid and key	metal	Fe			L: 58mm; W: 34mm	1866		2	3	Heavily encrusted. Two sardine can lids wrapped around key. Width measurement of bent key head. 1: Missing handle of key, L: 51 mm. The twist-key can-opener was patented by J. Osterhoudt in 1866. Fragment of side of sardine tin, L: 74mm; H: 22mm, rectangular, folded rim present.	
0016	1		0018				Disc	Unidentified	Container	Frag	metal	Fe			D: 50mm; T < 1mm			3	3	Heavily encrusted. Three thin discs, probable can lid. Evidence suggest a "T" cut (usually by a knife), used to open can, due to the consistent shape of the remains of the discs (semi-circular, W: 30mm). Where as crimping around the circumference may suggest the use of a can opener. Possibly sanitary cans due to beading on lid (General use US after 1904, England after 1930).	
0017	1		0018				Can	Food	Container	Frag	metal	Fe			D: 50mm; H: 10mm; T < 1mm	1840s	c1930		3	3	Three frags of different facets of a can. 1: Base with seamed heel, partial base intact and body barely present. Recorded in measurements column. 1: Frag of lid with evidence of hole and cap, with soldered over a potential circular cap. L: 34mm, W: 20mm, T: 8mm. 1: Frag of top of can, with body and outside rim present, possible multiple friction ring, or turned up due to removal of lid. L: 60mm, H: 18mm. Start and end dates based on the usage of the hole and cap.
0018	1		0021				Can	Food	Container	Frag	metal	Fe			L: 82-11mm; W: 37- 8mm;				85	85	Heavily encrusted. Frags of sardine can. 69 frags contain evidence of a seam (mostly canner's end seam possibly some marker's end seam). 13 body frags. 2 body frags with corners. 1 very corroded, encrusted, possibly rolled lid around base of key.

0019	1	0021			Can	Food	Container	Frag	metal	Fe									L: 150mm; W: 87mm; H: 48mm			4	5	Heavily encrusted. Four sardine can lids wrapped around key. Measurement of most intact. 1: Key and lid still attached to rim, body still present. 1: Key and lid still attached to rim. 1: Key and lid only (L: 74 mm) . 1: Shaft of key and lid missing handle of key, (L: 66 mm). 1: Key head (L: 28mm; W: 28mm). The twist-key can-opener was patented in the US by J. Osterhoudt in 1866.	
0020	1	0021			Sheet	Unidentified	Unidentified	Frag	metal	Fe									L: 25 mm; W: 25mm				4	4	Heavily encrusted. Associated with the frags of sardines can and lids. 3: Small nail/tack heads present. 1: Possible evidence of hole and cap.
0021	1	0021			Battery	Household		Partial	metal	Zn, Mg									D: 17mm ; H: 34mm				1	1	Zinc-Carbon battery. White ammonium chloride paste, Paper ion-conducting membrane, magnesium oxide, carbon rod, washer, remnants of metal cap at positive end. Measurements suggest 'A' battery most likely 2/3 A
0022	1	0022			Sheet	Unidentified	Unidentified	Frag	metal	Fe									L:35mm; W: 25mm				3	3	Three frags of heavily encrusted, ferrous sheets. Possibly from a can
0023	1	0025			Nails	archit/industry	Fastening	Head and Shank	metal	Fe							1880		L: 58mm; D: 8mm				2	4	Heavily encrusted.1: Wire Nail in 3 conjoining frags, with possible flat top 1: Steel roseheaded wire nail, point missing. L: 60mm W: 9mm,
0024	1	0025			Slag				metal										L: 42mm; W: 35mm				2	2	Two lumps of slag
0025	1	0025			Sheet	Unidentified	Container	Lid and cannister	metal	Fe									L: 85mm; W: 47mm				21	21	Heavily encrusted. 13: small body frags, all curved, approx (L: 40mm; W: 25mm), 1 with charcoal attached; 4: Rim frags, 1 with body present; 3: large body frags, all curved; 1: lid frag, end seam present, W: 75mm; D: 100mm
0026	1	0032			Can	Food	Container	Lid frag	metal	Fe									L: 27mm; W: 17mm				1	1	Heavily encrusted. Part of key from key opener sardine tin.
0027	1	0032			Wire	Unidentified	Unidentified	Frag	metal	Fe									L: 140mm; D: 4mm				1	2	Very heavily encrusted, possible heat affected, shiny pooling at base howing resting surface. Amber glass sherds present. Two frags conjoining.
0028	1	0032			Wire	Unidentified	Unidentified		metal	Cu									L: 160mm; D: 2mm				1	1	Copper alloy wire, greenish tarnish, slightly encrusted. Folded over.
0029	1	0032			Sheet	Food	Container	Lid	metal	Sn									D: 180mm				1	1	Circular mainly whole, tin lid, pry out/full friction lid type. Holes and calcification present.
0030	1	0032			Sheet	Unidentified	Unidentified	Frag	metal	Fe									L: 35mm; W: 14mm				1	1	Heavily encrusted, ferrous sheet frag with rounded over edge forming a rim.
0031	1	0038			Sheet	Unidentified	Unidentified	Frag	metal	Fe									L: 92mm; W: 56mm				1	1	Heavily encrusted, ferrous sheet frag with two straight edges one curved egde and one broken edge suggesting off cut/metal scrap.
0032	1	0042			Grate	archit/industry	Service	Grate	metal	Fe									D: 130mm; H: 20mm				1	1	Heavily encrusted, circular drain grate.
0033	1	0042			Sheet	Unidentified	Unidentified		metal	Fe									L: 35mm; W: 46mm				6	6	Heavily encrusted, five with curved corner present. Possibly shallow tin box
0034	1	0043			Slag				metal										L: 62mm; W: 54mm; H: 32mm				1	1	Large lump of slag
0035	1	0043			Sheet	Unidentified	Unidentified		metal	Fe									L: 32mm; W: 18mm						Heavily encrusted, seam/rim at end, possibly related to Cat # 0033
0036	1	0051			Rod	Unidentified	Unidentified		metal	Pb									L: 29mm; D: 7mm				1	1	Moderately encrusted. Green tanishing suggest copper alloy coating a heavy lead. Degraded, one end appears to be struck, W: 12mm,
0037	1	0054			Can	Food	Container	Frag	metal	Fe									L: 70mm;W: 27mm; H: 24mm				5	12	Heavily encrusted, 8 frags of rolled sardine can lid with shaft of key, 2: conjoining, body of tin with rim and portion of rolled open lid present, remainder of rolled open lid and key shaft seperate (measurement recorded); 2: Conjoining, lid wrapped around shaft with base of key, and head of key separate (L: 54mm; W: 29mm); 2: Conjoining, head of key with part of lid wrapped around small portion of shaft of key, body and rim attached, remainder of the wrapped lid and shaft a seperate piece (L: 66mm; W: 52mm; H: 34mm); 2: Conjoined/related, key shaft with lid wrapped around (L: 60mm; W: 18mm); 3 Frags of sardine can, rim/body frags, two conjoin (L: 50-73mm); 1 Circular can frag, body with prominent inner seam, possibly crimped seam. Similar to cat# 0038 (D: 90mm; H: 45mm)
0038	1	0054			Can	Food	Container	Whole	metal	Fe									D: 80mm; H: 56mm				1	1	Heavily encrusted, small tin canister, pry out lid, corrosion around the rim.
0039	1	0054			Nail	archit/industry	Fastening	Head and Shank	metal	Fe							1788	1860	L: 39-35mm; W: 7mm				2	2	Heavily encrusted, 1: Head and shank of wire nail; 1: Shank of cut nail.
0040	1	0054			Lid	Food	Container	Lid	metal										L: 23mm;W: 23mm				1	1	Heavily encrusted, slightly corroded, salt and pepper shaker lid. Octagonal at the top, circular at base. Possibly screw top, but bottom corroded.
0041	1	0054			Wire	Unidentified	Unidentified	Spring	metal	Cu									D: 12mm; H: 10mm				1	1	Tarnished green, copper wire spring
0042	1	0054			Wire	Unidentified	Unidentified		metal	Cu									L: 73mm;				1	1	Tarnished green, copper wire unraveling at one end, opposite bound by wire.

0043	1	0054				Plate	Transport	Machinery	Partial	metal	Pb								L: 99mm; W: 53				1	Sulfated negative plate, Lead frame with grid, from Lead-acid battery, car battery.	
0044	1	0054				Connector	Transport	Machinery	Partial	metal	Pb									L: 34mm; W: 27mm; H: 50mm				1	Cell connector, lead, with strap, post and post gasket present, from lead-acid battery, possibly once joined to cat # 0043, car battery. Thread and washer present with greenish tanish possible copper alloy and remnants of the terminal.
0045	1	0054				Casting	Unidentified	Unidentified	Frag	metal	Fe									L: 110mm; W: 40mm; H: 65mm				3	Heavily encrusted, possible hinge, One large and two small pieces, 1: large strap like piece, two screws present, possible remnants of third screw, raised portion seems handle like, 1: cylindrical portion, possible pin of hinge, attached to flat bracket like section for possible reinforcement, L: 60mm; 50mm, 1: Knuckle like hinge section flattening out to a plate like portion, one screw present, L: 54mm; W: 30mm.
0046	1	0054				Burner	Household	Furniture	Partial	metal	Fe									L: 60mm; W: 35mm; H: 37mm				1	Heavily encrusted, 5\8" flat wick burner from a kerosene lamp or lantern.
0047	1	0054				Ring	Unidentified	Unidentified	Whole	metal	Cu									OD: 33mm; ID: 29mm; T: 2mm			1	1	Tarnished green, copper ring, circle broken with small cut present. Possible gasket seal.
0048	1	0054				Casing	Unidentified	Unidentified	Frag	metal	Cu									D: 8mm-6mm; H: 33mm-32mm				2	Tarnished green, two cylindrical copper casings, possibly conjoining, vertical thin grooves forming a pattern on upper section with largest diameter, end enclosed on bottom section with the smallest diameter.
0049	1	0054				Bullet	Ornamental	Writing	Partial	metal	Ag						1914	1920		D: 8mm; L: 27mm			1	1	A sterling silver bullet tip marked "STERLING SILVER", remnants of pencil inside, WWI Princess Mary Silver Bullet Pencil from The Princess Mary 1914 Christmas Gift.
0050	1	0076				Nail	archit/industry	Fastening	Head and Shank	metal	Fe									L: 53mm;				2	Heavily encrusted, two wire nails, 1: very encrusted and fractured, head present but very corroded, shank degraded; 1: just shank L: 45mm
0051	1	0076				Round bar	Unidentified	Unidentified	Partial	metal	Pb									L: 156mm				1	Degraded lead handle like frag, cracking indicates a potential coating layer
0052	1	0078				Sheet	Unidentified	Unidentified	Frag	metal	Fe									L: 128mm; W: 45mm				1	Heavily encrusted, curved, seam present, possible remains of can
0053	1	0083				Washer	archit/industry	Fastening	whole	metal										OD: 22mm; ID: 6mm			1	1	Flat washer, corroded, white tarnish
0054	1	0085				Round bar	Unidentified	Unidentified	Frag	metal	Fe									D:25mm; H: 210mm				1	Heavily encrusted, round bar
0055	1	0101				Slag				metal										L: 29mm; W: 21mm; H: 10mm				1	Small frag of slag
0056	1	0103				Strip	Unidentified	Unidentified		metal	Fe									L: 170mm; W: 90mm					Extremely encrusted, ferrous strip curved at end to form a hook, strip was possibly rectangular shaped but too corroded to determine, possibly support bracket, pipe hook
0057	1	0108				Nail	archit/industry	Fastening	Head an shank	metal	Fe									L: 38mm					Extremely encrusted, no discernible features
0058	1	0108				Divider	Clerical	Drawing	Plain Divider	metal	Cu Zn									L: 68mm; W: 15mm			1	2	Dull grey tarnish with some green, Plain drawing divider, possilby made by Keuffel & Esser Co., New York, as identical to pair in the Smithsonian https://americanhistory.si.edu/collections/search/object/nmah_892942 , grooved brass legs held together with a screw, with steel points are missing from base of brass legs. Similar to Brass Dividers, 3 1/2" long, screw joint, in James W. Queen & Co catalogue, 1877
0059	1	0114				Rod/ bar	Unidentified	Unidentified		metal	Fe									L: 55- 26mm; W: 20- 10mm				9	Heavily encrusted, 9 frags of varying sizes, some seem square in shape and curved.
0060	1	0114				Bolt/Nut	archit/industry	Fastening	Nut and shank	metal	Fe									L: 86mm; W: 36mm; D: 16mm			1	1	Heavily encrusted, bolt shank with no discernible head or thread, nut present, seemingly a M16 judging by dimensions
0061	1	0114				Bracket	archit/industry	Fastening		metal	Fe									L: 75- 66mm; W: 30- 20mm; H: 36mm			2	2	Heavily encrusted, two eye plates, loop/eye OD: 29mm
0062	1	0114				Sheet	Unidentified	Unidentified	Frag	metal	Fe									L: 40- 20mm W: 37- 23mm				6	Heavily encrusted, frags of sheet, curved, seam present on one
0063	1	0114				Nail	archit/industry	Fastening	Whole	metal	Cu									L: 28mm; D: 11mm			2	2	Green tarnish, Copper clout nails, counter sunk heads, round shank into square point.
0064	1	0120				Nail	archit/industry	Fastening	Shank	metal	Fe									L: 30mm; W: 14mm			1	1	Heavily encrusted, shank of nail, head possilby present too corroded.
0065	1	0123				Bolt	archit/industry	Fastening	Head, shank and nut	metal	Fe									L: 130mm; W:43mm			1	1	Heavily encrusted, Long bolt, with large portion unthreaded, square nut very encrusted, head also very encrusted.
0066	1	0123				Nail	archit/industry	Fastening	Head and shank	metal	Fe									L: 58mm; W: 28mm			1	1	Heavily encrusted, large head clout wire roofing nail, shank very degraded
0067	1	0146				Slag				metal										L: 24mm; 16mm					Small piece of slag

0068	1	0153				Unidentified	Unidentified	Unidentified		metal	Pb							L: 33mm; W: 9mm			Unidentified lump of lead, no discernible shape, with a white coating, and perhaps an imprint of pattern left from a woven material.
0069	1	0170				Sheet	archit/industry	Roofing		metal	Pb							L: 195-47mm; W: 120- 45mm			Two pieces of folded, cut, lead sheeting, 1: Large 'L' Shaped strip folded into lump, folded seemed present on part of one edge, curved cut on inner corner of the 'L', strip W: 8.5-10mm, evidence of cuts or scoring presents; 1: Small strip folded into lump, strip W: 32mm. Folding indicates possible off cuts, or evidence of demolition. Most likely roofing.
0070	1	0171				Sheet/Can	Household	Container		metal	Fe							L: 100mm; W: 90mm; H: 45mm			Concretion of ferrous metal with glass present, base of can present, possible remnants of a dry cell battery present. Can base seemingly Sanitary can, as grooves in end indicate.
0071	2	0023				Sheet	archit/industry			metal	Fe							L: 355-44mm; W: 320-28mm;			7 Perforated ferrous sheet, holes D:12mm

Miscellaneous

Catalogue Number	Context Number	Area	Artefact Material	Material Subclass	General Function	Specific Function	Artefact Type	Artefact Completeness	Diameter (mm)	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)	Artefact Portion	Start Date	End Date	Notes	MIC	Fragment Count	Photo Number
216	18	N/A	Miscellaneous	Brass	Personal	Other	Clasp	91-100%	0	0	125	95	0	Closure			FD hinged clasp; closure formed of two attached wire loops with blob terminals- two similar loops to each side to hold chain link handle. Late 19th - early 20th century	1	1	DSCF1052-DSCF1055
217	25	N/A	Miscellaneous	Horn	Personal	Clothing	Button	Whole	12	0	0	0	0		c.1830s		Four-hole sew-through with central guide 'dimple and incised line inside rim possibly pressed horn	1	1	DSCF1052-DSCF1055
218	54	N/A	Miscellaneous	Brass	Personal	Clothing	Other		12	0	0	0	0		1885		press stud, FD female	1	1	DSCF1052-DSCF1055
219	54	N/A	Miscellaneous	Lead	Pharmaceutical	Other	Other		55	0	0	0	0		1885		FD Lid embossed in florid lettering Gills Denufrice – a tooth tincture – Gill & Co recorded in New York Guide to Pharmacology Co in 1885	1	1	DSCF1052-DSCF1055
220	54	N/A	Miscellaneous	Graphite	Clerical	Writing	Pencil		3	0	0	0	0				Frag Pencil lead	1	1	
221	54	N/A	Miscellaneous	Kaolin	Recreational	Smoking	Pipe	Fragment	36	0	0	0	0	Stem/Foot			Frag stem near mouthpiece with evidence of burning	1	1	
222	54	N/A	Miscellaneous	Earthenware	Recreational	Toys	Marble	Whole	10	0	0	0	0					1	1	DSCF1052-DSCF1055
223	76	N/A	Miscellaneous	Brass	Personal	Clothing	Button	Whole	9	0	0	0	0				FD Two-piece two-hole sew-through	1	1	DSCF1052-DSCF1055
224	85	N/A	Miscellaneous	Brass	Personal	Clothing	Button	Whole	12	0	0	0	0		1850		FD four-hole sew-through trouser button inscribed BEST OWN MAKE	1	1	DSCF1052-DSCF1055
225	103	N/A	Miscellaneous	Glass	Recreational	Toys	Marble	Whole	10	0	0	0	0		1901	1926	FD red with whit surface swirl	1	1	DSCF1052-DSCF1055
226	171	N/A	Miscellaneous	Bone	Personal	Grooming	Brush		0	60	15	0	0				Frag tooth or clothes brush 6 rows or bristles (absent)	1	1	DSCF1052-DSCF1055

Shell

Catalogue Number	Context Number	Area	Artefact Material	General Function	Artefact Type	Artefact Completeness	Artefact Condition	Artefact Condition Degree	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)	Artefact Portion	Artefact Origin	Shell Species	Notes	MIC	Fragment Count	NISP	Photo Number
168	171	N/A	Shell	Other	Other	Fragment	Broken	Moderate	33	32	0	5	Body		Unidentified	Likely partial cockle shell, ridges raised in horizontal lines. Unidentified, chalky underside and damaged top surface.	1	1	1	
194	54	N/A	Shell	Food		21-30%	Broken	Severe	34	47	0	1	Fragment	Sydney	Sydney Rock Oyster	Sydney Rock Oyster, 3 Frags. Very degraded and chalky, bleached Measurement above of largest frag. Measurement of smallest Length; 29 Width; 19 Thickness; 1	1	3	3	
195	54	N/A	Shell	Yard/Outdoor		61-70%	Broken	Severe	24	15	0	1			Land snail	Common garden snail, Cornu aspersum. Whorls and apex missing.	1	1	1	
196	54	N/A	Shell	Food		Whole	Chalky	Slight	27	25	0	4			Bittersweet clam/dog cockle	Dog cockle, small, bleached, slightly chalky.	1	1	1	