

Historical Archaeological Research Design
University of Newcastle, Honeysuckle City
Campus Development,
Stage 1A Enabling Works,



Prepared for University of Newcastle
by Curio Projects
FINAL REPORT
November 2018

Table of Contents

Executive Summary	4
1.0 Introduction	5
1.1. Purpose of this Report	5
1.2. Site Identification	6
1.3. Statutory Context—State Legislation.....	8
1.3.1. NSW Heritage Act 1977	8
1.3.2. Heritage Listings	9
1.3.3. Site Specific Archaeological Provisions	11
1.4. Limitations and Constraints	11
1.5. Authorship.....	11
2.0 Historical Summary and Archaeological Potential	12
2.1. Phase 1—Pre-European Environment & Aboriginal Ethnohistory	13
2.2. Phase 2—Early Settlement (1810-1857).....	13
2.2.1. Archaeological Potential	14
2.3. Phase 3—Reshaping the Harbour and Railway Expansion (1857-1930)	17
2.3.1. Archaeological Potential	18
2.4. Phase 4—Civic Railway Workshops and Decline (1930s–1990s).....	22
2.4.1. Archaeological Potential	23
2.5. Phase 5—Honeysuckle Precinct (1990s–Present)	23
3.0 Previous Archaeological Investigations	26
3.1. Historical Archaeological Studies and Investigations in the Vicinity	26
3.2. Geotechnical Investigation	36
4.0 Archaeological Heritage Significance.....	38
4.1. Historical Archaeological Significance.....	38
4.2. Archaeological Significance Assessment.....	39
4.2.1. Historical Archaeological Research Potential (Current NSW Heritage Criterion E)	39
4.2.2. Associations with Individuals, Events or Groups of Historical Importance (NSW Heritage Criterion A, B & D)	39
4.2.3. Aesthetic or Technical Significance (NSW Heritage Criterion C).....	39
4.2.4. Ability to Demonstrate the Past through Archaeological Remains (NSW Heritage Criteria A, C, F & G)	40

4.3.	Statement of Significance	40
5.0	Archaeological Impact Assessment	41
5.1.	Description of Proposed Development.....	41
5.1.1.	Proposed Enabling Works (Stage 1A)	42
5.2.	Impacts of Proposed Works	45
5.2.1.	New Service Trenching	45
5.2.2.	Bulk Earthworks—Filling	45
5.2.3.	Boreholes (Geotechnical/Contamination/Grouting)	46
5.3.	Proposed Impacts Summary	47
6.0	Archaeological Research Design	50
6.1.	General Questions	50
6.2.	Specific Questions	50
7.0	Archaeological Methodology	52
7.1.	Archaeological Monitoring.....	52
7.1.1.	Recording and Salvage	53
7.2.	Unexpected Finds.....	54
7.2.1.	Unexpected Skeletal Remains	54
7.3.	Public Interpretation	55
8.0	Conclusions & Recommendations	56
8.1.	Conclusions	56
8.2.	Recommendations	56
9.0	Bibliography	59
	APPENDIX A—UON HCCD Archaeological Assessment (Curio Projects 2018)	61
	APPENDIX B— Northrop 2018, Water & Sewer DA Plans	62
	APPENDIX B—GHD 2018, Electrical and Comms DA Plans	63

Executive Summary

Curio Projects Pty Ltd has been commissioned by University of Newcastle (UON) to prepare a Historical Archaeological Research Design (ARD) for the Stage 1A Enabling Works of the University of Newcastle, Honeysuckle City Campus Development (HCCD) (the study area), located within the Honeysuckle Precinct, Newcastle CBD.

The Stage 1A Enabling Works will prepare the site for the first stage of development works, i.e. Building A1 in the northwest of Site 1, and will include installation of sewer, water, electrical and telecommunication services required to service Building A1 and to connect the new development into existing services, as well as bulk earthworks to fill Site 1. Geotechnical and contamination testing of the subsurface soil profiles will also be required within the site to further the detailed and structural design of the overall development.

The main impacts of the Stage 1A Enabling Works program are located within the proposed services route excavation areas. The proposed Stage 1A Enabling Works will not impact any significant heritage fabric or heritage items (including the Civic Railway Station Group, Civic Railway Workshops Group, and the Newcastle City Centre HCA). A section of the Stage 1A Enabling Works services route also extends slightly into the curtilage of the State Heritage Register (SHR) listed site; 'Civic Railway Workshops Group'.

This ARD has undertaken an assessment of the proposed Stage 1A Enabling Works, with reference to potential historical archaeological resources across the site, concluding that due to the relatively minor and limited ground impact location of the enabling works, it is unlikely that the Stage 1A Enabling Works activities will present a substantial impact to any potential archaeological resource. However, targeted archaeological monitoring is proposed for archaeologically sensitive locations, in order to manage and mitigate any potential archaeological impact. Archaeological relics of State significance are not considered likely to be encountered or impacted through the Stage 1A Enabling Works.

Prior to investigative works commencing at the site, a Section 140 (for works outside of the SHR curtilage) and a Section 60 excavation permit application (for works within the SHR curtilage) for the proposed Stage 1A Enabling Works should be submitted to, and approved by the NSW Heritage Division, to be accompanied and supported by this ARD.

Archaeological monitoring is proposed to be undertaken along the southeastern services trench, and in the vicinity of Worth Place. Should a historical archaeological deposit requiring further investigation and recording be encountered during monitoring works, the nominated Excavation Director would undertake the detailed recording and analysis of the material before removal, along with assistance from historical archaeological field assistants, as required. Should any suspected historical archaeological resources be located outside of identified archaeological monitoring areas during development works, the 'on-call' Excavation Director would be contacted to identify the nature of the find.

Should any unexpected historical archaeological resource/relics be uncovered during the course of the development works, then development works should temporarily cease in the immediate area of the find, until the nature of the find can be confirmed. Historical archaeological investigation/monitoring works should be undertaken in acknowledgement of, and collaboration with, Aboriginal archaeological investigative works, as detailed in the *UON HCCD Stage 1A Enabling Works—Aboriginal Cultural Heritage Assessment Report* (ACHAR), and the conditions of an approved Aboriginal Heritage Impact Permit (AHIP).

1.0 Introduction

1.1. Purpose of this Report

Curio Projects Pty Ltd has been commissioned by University of Newcastle (UON) to prepare a Historical Archaeological Research Design (ARD) for the Stage 1A Enabling Works of the University of Newcastle, Honeysuckle City Campus Development (HCCD) (the study area), located within the Honeysuckle Precinct, Newcastle CBD.

An Archaeological Assessment report was prepared by Curio Projects in April 2018,¹ that assessed the historical archaeological potential and significance of the study area. This report determined that there was potential for archaeological relics to be present within the study area, and recommended that a Historical ARD be prepared, specific to different development works phases, in order to mitigate any impacts to any potential historical archaeology within the study area.

A State Significant Development Application (SSDA) was submitted to the NSW Department of Planning and Environment (DPE) for the Concept Plan for the UON HCCD, with the Environmental Impact Statement (EIS) lodged in July 2018, with public exhibition period from 2 to 29 August 2018. The proponent is currently reviewing submissions received from the Concept Plan SSDA, with SSDA approval anticipated for late 2018.

However, the Stage 1A Enabling Works are required to prepare the site ahead of SSD Concept Plan and Stage 1A approval, and therefore approval for these enabling works have been submitted via a Development Application (DA) to Newcastle City Council (Council) (DA2018/00933). A Heritage Impact Statement (HIS) was prepared to support this DA, specific to the Stage 1A Enabling Works, and recommended that:

A Section 140 excavation permit application, in accordance with the NSW Heritage Act 1977 should be submitted to the NSW Heritage Division, in order to mitigate against any potential impacts to potential historical archaeological resources that may be present within the impact zones of the proposed enabling works. This s140 permit should be accompanied by a historical Archaeological Research Design (ARD) (in preparation).²

Once the SSD has been approved, the provisions of the *NSW Heritage Act 1977*, in particular, the requirement to seek Section 60 and Section 140 excavation permits, will no longer apply. However, until the SSD has been approved, the standard archaeological approvals and permits under the *Heritage Act* will still apply, therefore, this ARD will be submitted along with a Section 60 and Section 140 Excavation Permit to the NSW Heritage Division to allow archaeological works and mitigation specific to the Stage 1A Enabling Works to proceed for the UON Honeysuckle Development.

This ARD builds upon the conclusions and recommendations of both the *Archaeological Assessment* and *Stage 1A Enabling Works HIS*, and develops and presents a Historical Archaeological Research Design and Excavation Methodology (ARD + EM) for the study area, specific to the proposed Stage 1A Enabling Works development impacts.

¹ Curio Projects, 2018a, *Archaeological Assessment University of Newcastle, Honeysuckle City Campus*, prepared for University of Newcastle.

² Curio Projects, 2018b, *Heritage Impact Statement for University of Newcastle, Honeysuckle City Campus Development—Enabling Works*, prepared for University of Newcastle

An Aboriginal Cultural Heritage Assessment Report (ACHAR)³, has also been prepared for the Stage 1A Enabling Works (to accompany an Aboriginal Heritage Impact Permit (AHIP) to the NSW Office of Environment and Heritage (OEH) under Section 90 of the NSW National Parks and Wildlife Act 1974, to allow proposed enabling works prior to SSD approval), and develops and presents the Aboriginal Archaeological Investigation methodology, to be undertaken in parallel and cooperation with the proposed historical archaeological investigations.

1.2. Site Identification

The study area is located approximately between Honeysuckle Drive and Civic Lane, within the Honeysuckle Precinct of the Newcastle CBD, within the Newcastle City Council LGA (Figure 1). The future UON Honeysuckle City Campus (the study area) will be located across a number of lots across three sites (Sites 1, 2 and 3), which currently exist generally as vacant lots, car parking and part of the former rail corridor (Figure 2). Site 1 and part of Site 2 are also currently used as site compound and materials handling for the construction of the Newcastle Light Rail nearby. Figure 3 presents the three sites of the proposed development and defines the relevant lots and DPs.

The study area to which this report refers includes a slightly wider area than solely the lots of Site 1, 2 and 3, to capture the extent of the enabling works, including services, boreholes etc that will be required to prepare the site for the first stage of development, providing new service routes, and connecting the new development into surrounding services (electrical, telecommunication, sewer, water).

The main development area (i.e. Sites 1, 2 and 3) is generally bounded to the north by Honeysuckle Drive, which is lined on its northern side by recent residential apartment blocks, to the east by Settlement Lane (also lined by recent apartment blocks) and the former Civic Railway Station, to the south by Civic Lane, and to the west by Worth Place (Figure 3). The area and lot details for each site are also identified in Table 1 below.

TABLE 1: SUMMARY OF STUDY AREA BY SITE, LOTS AND DPS

Site	Area	Lots
Site 1	8,546m ²	Lots 1, 2 and 3 DP 1163346
Site 2	6,174m ²	Part Lot 21 DP 1165985 Part Lot 2 DP 1226145
Site 3	5,692m ²	Part Lot 21 DP 1165985 Part Lot 2 DP 1226145
<u>Road Easements (Trenching only)</u>		
Wright Lane	N/A—Partial	Part Lot 4 DP 1111305
Honeysuckle Drive	N/A—Partial	-
Auckland Street	N/A—Partial	-
Worth Place	N/A—Partial	-

³ Curio Projects 2018c. *Aboriginal Cultural Heritage Assessment Report, University of Newcastle, Honeysuckle City Campus Development—Stage 1A Enabling Works*, prepared for University of Newcastle.



FIGURE 1: GENERAL STUDY AREA CONTEXT, INCLUDING SITES 1, 2 AND 3 BOUNDARIES (SOURCE: GOOGLE MAPS WITH CURIO ADDITIONS 2018)

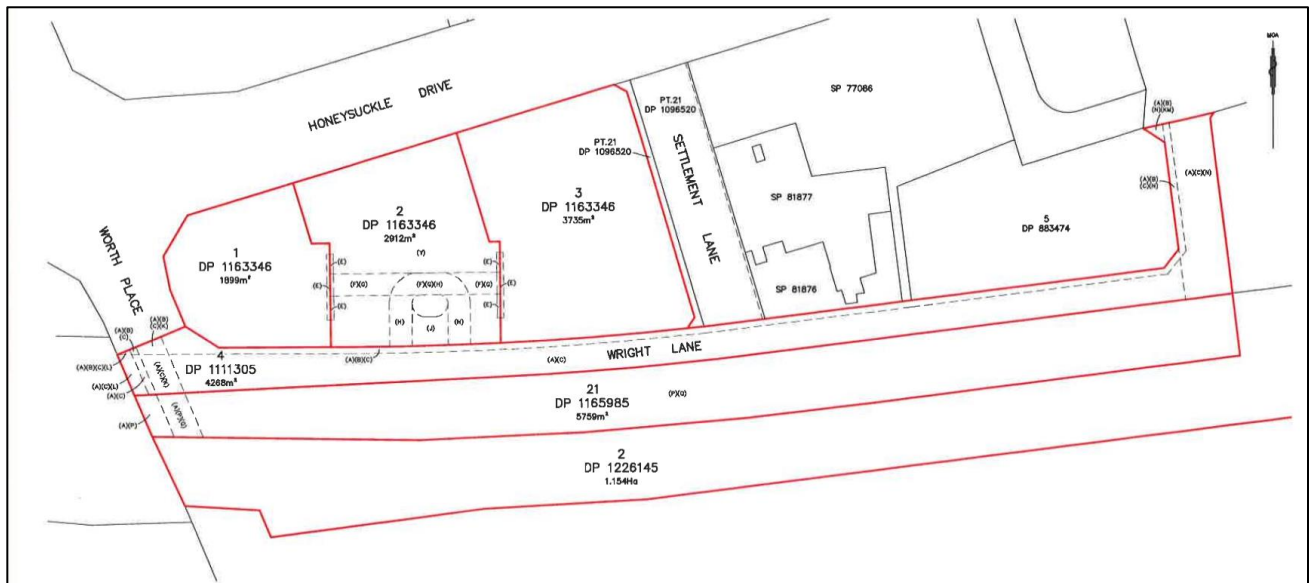


FIGURE 2: EXISTING LOTS AND DPS ACROSS THE STUDY AREA AND SURROUNDS. (SOURCE: MONTEATH & POWYS, 2017)

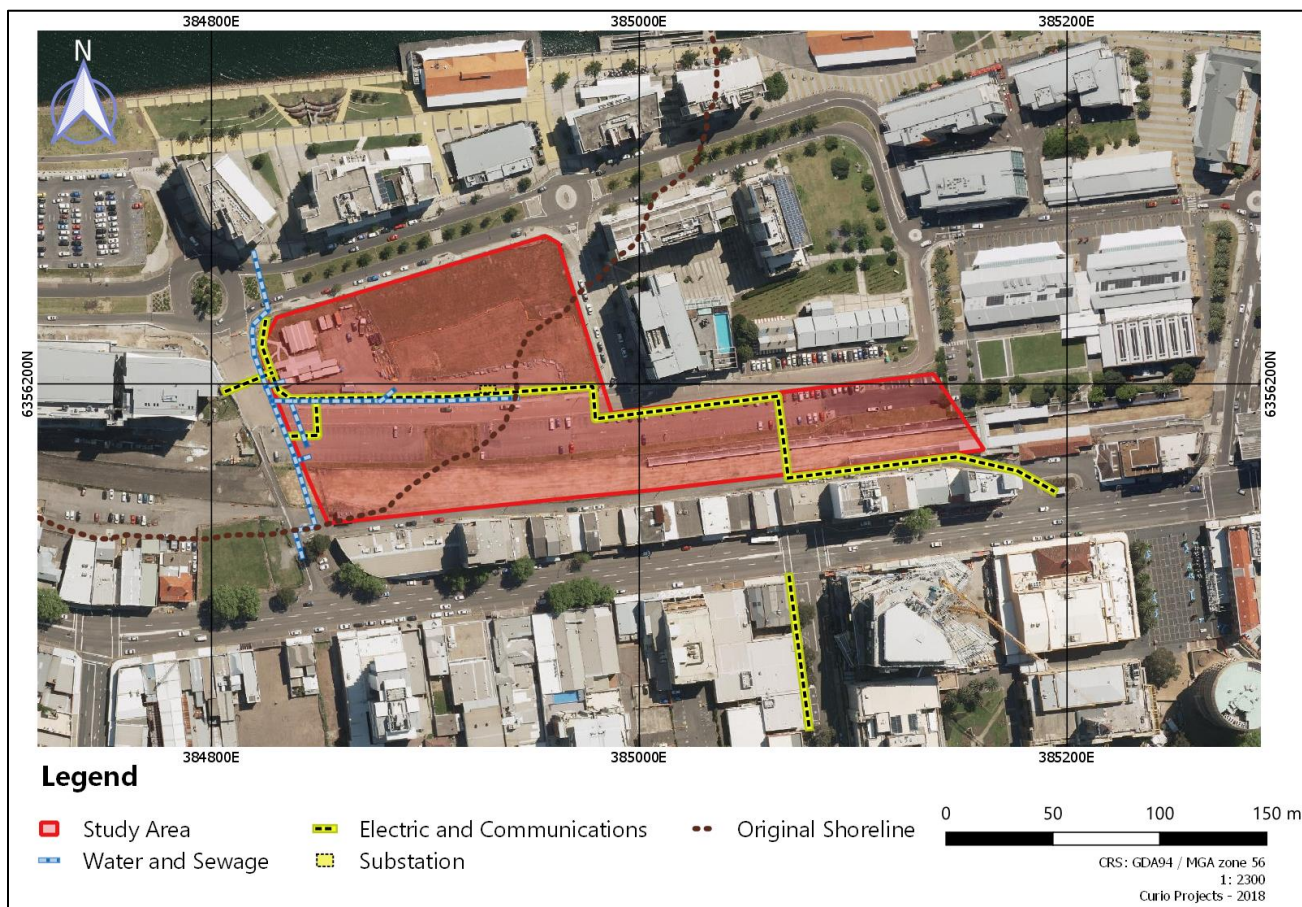


FIGURE 3: STUDY AREA SITES AND PROPOSED RETICULATION ROUTES (SOURCE: NSW LPI SIX MAPS WITH CURIO ADDITIONS 2018)

1.3. Statutory Context—State Legislation

A brief summary of the statutory context and legislation that governs development within the study area, specifically with reference to historical archaeology, is presented below. For more detailed statutory heritage context, reference should be made to the Stage 1A Enabling Works HIS and Archaeological Assessment reports.

1.3.1. NSW Heritage Act 1977

The purpose of the NSW *Heritage Act 1977* (as amended) is to conserve the environmental heritage of the State. *Environmental heritage* is broadly defined under Section 4 of the *Heritage Act* as consisting of the following items:

‘those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance.’

The entire *Heritage Act* protects heritage, but historical archaeological remains are additionally protected from being moved or excavated through the operation of the ‘relics’ provisions. These protect unidentified ‘relics’ which may form part of the State’s environmental heritage, but which have not been

listed on the State Heritage Register or protected by an Interim Heritage Order. An archaeological site is an area of land which is the location of one or more archaeological 'relics'.

Division 9 of the Heritage Act is titled '*Protection of certain relics*', with Section 139 containing provisions for '*Excavation permit [being] required in certain cases*' to '*disturb or excavate land*'. Such permits are issued under Sections 140 and 141 of the Act, or under Sections 60 and 63 of the Act, in cases where 'relics' are situated within sites or places listed on the State Heritage Register. Section 139 prohibits the excavating or disturbing of land leading to a relic being discovered, exposed, moved, damaged or destroyed. To 'excavate and disturb land' in the context of the NSW Heritage Act is an act associated with the activity of digging or unearthing.

Since amendments were made to the Heritage Act made in 2009, a 'relic' has been defined as an archaeological deposit, resource or feature that has heritage significance at a local or State level. (NSW Heritage Branch Department of Planning. 2009. *Assessing Significance for Sites and 'Relics'*).

The Act also provides protection for items of State heritage significance that are listed on the State Heritage Register (SHR), as well as for unlisted archaeological relics. The Heritage Council of NSW, or its delegates as appropriate, approve works under the Heritage Act. Any associated historical archaeology on the site is protected under the provisions of the Heritage Act 1977.

Additionally, under the *Heritage Act 1977*, Government agencies are required to compile a register of heritage assets within lands that they own and/or manage (known as a Section 170 Heritage and Conservation Register) and to look after their assets on behalf of the community.

'Works' Vs 'Relics'

Generally, an archaeological 'relic' requires discovery or investigation via excavation having obtained an excavation permit approved under Section 60 or 140 of the *Heritage Act 1977*. Some historic heritage items are not defined as 'relics', but rather as 'works, buildings, structures or movable objects'. Examples of these can include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. These historic items can be distinguished from 'relics' due to their above-ground location as a railway shed or historic road surface) or for being designed to operate and exist below the ground's surface such as a cistern or culvert.

While approval under the *Heritage Act 1977* may not always be required to disturb these items, their discovery must usually be managed in accordance with this procedure. Although a distinction is made between 'relics' and 'works' it is also important to consider that these are often associated and/or found together, for example archaeological deposits that were created during the construction of convict drains or the accumulation of deposits below the floors of standing buildings.

1.3.2. Heritage Listings

While there are no individual built heritage items located directly within the study area, the north west corner of Site 3 is included within the curtilage of the State Heritage Register listed Civic Railway Workshops Group (Local Heritage Item #1479 and SHR #00956), part of the study area (Sites 2 and 3) is included within the Newcastle City Centre Heritage Conservation Area (HCA C4)), and southern parts of Sites 2 and 3 are located within the curtilage of the Civic Railway Station Group (Section 170 NSW State Agency Heritage Register,

maintained by the Hunter Development Corporation). The overall study area is also located in close proximity to a number of other heritage items (of local and State significance). Relevant heritage listings and curtilages are presented in Figure 4.

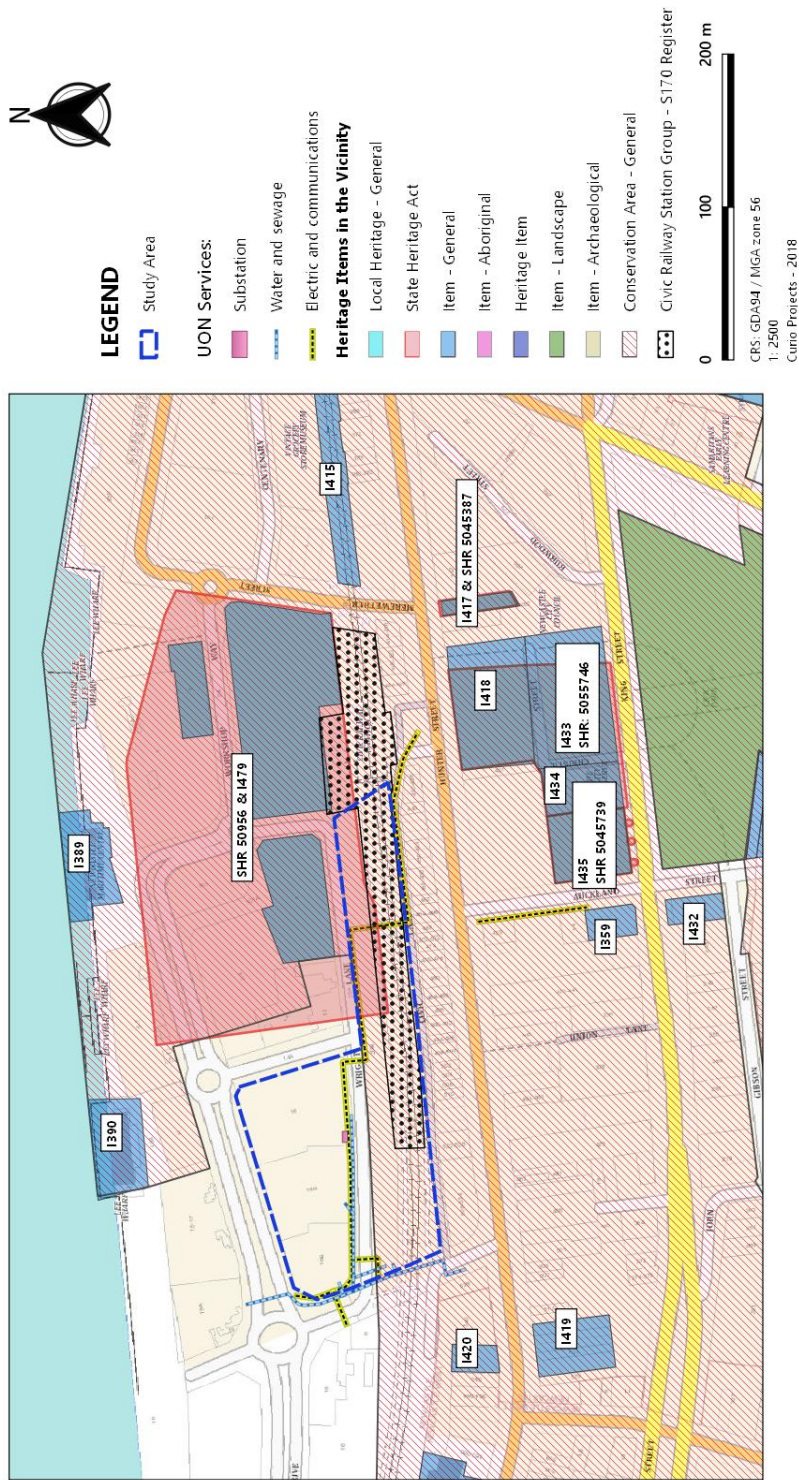


FIGURE 4: HERITAGE MAP (SOURCE: CURIO 2018 AFTER LEP HERITAGE MAP HER_004G_010)

1.3.3. Site Specific Archaeological Provisions

The Civic Railway Workshops group is listed as a heritage item on the State Heritage Register (SHR) under the Heritage Act 1977 (SHR No 00956). Part of the curtilage of the Civic Railways Workshops Group SHR listing is located within the northeast of the UON HCCD study area. Therefore, any proposed works within this curtilage will require a Section 60 approval from the NSW Heritage Division.

Proposed Stage 1A Enabling Works within the remainder of the study area (i.e. outside the SHR curtilage) will require a Section 140 Excavation Permit from the NSW Heritage Division, in order to mitigate against any potential impacts to potential historical archaeological resources that may be present within the impact zones of the proposed enabling works.

Both the s60 and s140 applications should be accompanied by a copy of this historical ARD + EM.

1.4. Limitations and Constraints

This report does not assess the impact of any proposed development works on built heritage aspects, including listed heritage items or significant views and vistas. Aboriginal heritage advice is also provided separately. An Aboriginal Cultural Heritage Assessment report has been prepared for the project (Curio 2018b).

This report has been prepared using readily available historical information for the site and local area. It presents a Historical Archaeological Research Design and Excavation Methodology for the Stage 1A Enabling Works of the UON HCCD study area only. A separate future report will be required to assess and mitigate potential archaeological impacts (including ARD) for all future proposed development works within the UON HCCD.

The archaeological impact assessment as presented within this report has been prepared based on impacts as described in Northrop 2018, *HCCD Enabling Works—Early Works Application—Civil, Water & Sewer*, prepared for University of Newcastle; and GHD 2018, *HCCD Enabling Works—Electrical/Communications Schematic Design Report and DA Input Report*, prepared for University of Newcastle. Relevant details from those documents are provided in the Appendices to this report.

1.5. Authorship

This report has been prepared by Dr Nadia Iacono, Senior Archaeologist with input from Sam Cooling, Senior Archaeologist, and reviewed by Natalie Vinton, Heritage Specialist and Director, all of Curio Projects Pty Ltd. Maps have been prepared by Andre Fleury, Historian and Archaeologist of Curio Projects Pty Ltd.

2.0 Historical Summary and Archaeological Potential

The following section provides the historical overview of each phase of historical use of the study area, followed by the assessment of archaeological potential, as assessed in the *Archaeological Assessment* report for the UON HCCD (Curio Projects 2018a). Aboriginal archaeological potential (i.e. associated with Phase 1) has not been presented here but is addressed separately within the Aboriginal Cultural Heritage Assessment Report (ACHAR) for the UON HCCD project.

While a brief historic overview of the proposed UON HCCD study area in the Newcastle CBD is provided here for contextual purposes, the *Archaeological Assessment* (Curio Projects 2018)⁴ should be referred to for more detail where required. Section 6.0 of Curio Projects 2018a *Archaeological Assessment* report provides an assessment of the types of historical archaeological evidence that may be found at the site and the potential for such evidence to survive. This information also considers the findings of research and reports undertaken for sites in the vicinity, where relevant.

The following historic phases relate to evidence associated with European occupation and use of the site only. Evidence associated with the Pre-European Environment and Aboriginal use of the site is considered in a separate report (Curio Project 2018b).

The subject site is known to have been occupied through five main phases of use:

- Phase 1—Pre-European Environment and Aboriginal Ethnohistory
- Phase 2—Early Settlement (1810–1857)
- Phase 3—Reshaping the Harbour and Railway Expansion (1857-1930)
- Phase 4—Civic Railway Workshops and Decline (1930s to 1990s)
- Phase 5—Honeysuckle Precinct (1990s–Present)

The potential for historical archaeological resources and/or ‘relics’ to survive is not the same as potential archaeological ‘significance’. Often the two terms are confused which can lead to inaccurate historical archaeological assessments. Potential ‘archaeological significance’ relates to the importance of any archaeological resource found, rather than to just its ability to survive within a cultural heritage landscape.

Archaeological potential is usually classified as low, moderate, or high:

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

⁴ *Archaeological Assessment for University of Newcastle, Honeysuckle Campus Revision B*, report prepared for University of Newcastle by Curio Projects, April 2018.

- High archaeological potential—it is likely that physical evidence of a particular historical phase or activity survives.

While each successive phase of occupation may have impacted evidence of earlier land use activity across the study area, previous archaeological work in the surrounding area has demonstrated that levels of more recent ground disturbance are not sufficient to have removed/completely disturbed remains associated with earlier phases of site use.

2.1. Phase 1—Pre-European Environment & Aboriginal Ethnohistory

The Awabakal people are the traditional custodians of the Honeysuckle Point and wider Newcastle CBD region. Many historical observations refer to the abundant and diverse food and other subsistence resources accessed by Aboriginal people near the Hunter River, its estuary and the South Pacific Ocean along the Newcastle coast.

Several natural and prominent landscape features around the Newcastle area are known significance/sacred sites to local Aboriginal people including shell midden sites across *Meekarlba* (Honeysuckle),⁵ adjacent to/consistent with the current study area.

The UON HCCD study area has been identified to possess high social, cultural and spiritual significance to the Awabakal and Guringai people, as a place of both historical, as well as continuing contemporary connection to Country. Aboriginal sites in the region can serve to ‘link contemporary Awabakal and Guringai people with generations of their ancestors and are extremely important teaching places and places of spiritual renewal’. The location of the study area, close to the Hunter River and in the Greater Newcastle area, is an area that is, and has been in the past, provided resources for Awabakal people that have been hunted and collected for thousands of years. The study area not just an isolated site, but connected to many Cultural Heritage sites across this region and within Awabakal Traditional Country, which should be viewed on a whole as a Cultural Landscape.

The Aboriginal prehistory, cultural heritage assessment and significance, and cultural and archaeological mitigation strategies have been developed and presented in the ACHAR for the Stage 1A Enabling Works. Reference should be made to the ACHAR for further information regarding the Aboriginal cultural heritage of the study area.

2.2. Phase 2—Early Settlement (1810-1857)

Phase 2 use of the study area relates to the early settlement of the site, including on the fringes of the ‘Government Farm’ (c.1810), as well as part of the ‘Bishop’s Settlement’ (c.1840s) prior to resumption of the land for rail purposes (1857). A brief timeline of this period of occupation is summarised as follows:

1804–1823: Newcastle served as a principal (second established) Australian penal colony. Main convict occupations were coal mining and timber cutting. Convict labour also used for harbour improvements, including early jettys and Nobby’s Island breakwater (1818).

By 1816: Government Farm established in the Newcastle settlement (Figure 5 and Figure 6).

⁵ City of Newcastle, 2018, ‘Aboriginal Culture’, retrieved from <http://www.newcastle.nsw.gov.au/Explore/History-Heritage/Aboriginal-culture>, 22 February 2018.

1822: Convict transportation to Newcastle halted with establishment of Port Macquarie penal settlement. Coal production industry continued with arrival of free settlers.

1828: Australian Agricultural Company (A.A. Company) arrives and privately explores coal within a 2000 acre grant west of main town of Newcastle.

1840: 38 acres at Honeysuckle Point purchased Dr Broughton, Anglican Bishop of Australia, to erect a church school. Due to depression remain undeveloped until 1848 when first Bishop of Newcastle arrives. Surveyed and subdivided into forty-two allotments, known as 'Bishop's Settlement' (identified as 'Church Estate in Figure 7).

1847: End of AAC monopoly on coalmining and rapid expansion of mining activities into broader Newcastle and lower Hunter Valley regions.

By 1851: At least 40 of the allotments rented and occupied by houses, commercial premises, shipbuilding yards, wharves and other industrial buildings (Figure 8).

1853: Hunter Valley Railway Company formed to build a railway between Maitland and Newcastle.

1854: Tenants of 'Bishop's Settlement' given notice of eviction and Honeysuckle Point resumed for rail purposes.

2.2.1. Archaeological Potential

Archaeological excavation undertaken by AMAC in 2006⁶ immediately adjacent to the current study area, as well as further excavation just to the northeast, encountered archaeological resource relating to the Bishop's Settlement, thereby indicating that the general area does retain archaeological evidence and potential relating to this phase of occupation of Honeysuckle Point.

Therefore, it is considered that overall the majority of the study area (excluding the northwestern part of Site 1, which is located in an area of land reclamation) has **moderate potential** to retain evidence of an archaeological resource/relics associated with Phase 2 use of the study area. Potential archaeological evidence could include remains of structural footings, evidence of early land reclamation, evidence of early lime burning/kilns along the original foreshore, wharfs, timber fences, deeper subsurface features such as wells and cisterns etc. A low potential also exists for the study area to retain palaeobotanical evidence associated with early farming activities associated with Government farm, although it is possible that farming activities did not extend fully into the study area itself.

Archaeological evidence relating to Phase 2 historical use of the study area (if present) would only be located along, or to the south of, the path of the original foreshore of Honeysuckle Point (i.e. mainly in the southeast of Site 1, and across Sites 2 and 3).

⁶ AMAC 2012, *Lee Wharf Development: Square-about and Lot 24 Honeysuckle Drive, Newcastle—Final Archaeological Report*, prepared for Caverstock Group Pty Ltd on behalf of Lee Wharf Developments Pty Ltd.



FIGURE 5: PART OF HUNTER RIVER WITH GOVERNMENT FARM HIGHLIGHTED. CHARLES JEFFREUS – 1816. (SOURCE: STATE LIBRARY OF NEW SOUTH WALES (M M2 811.252/1816/1) WITH CURIO ADDITIONS)

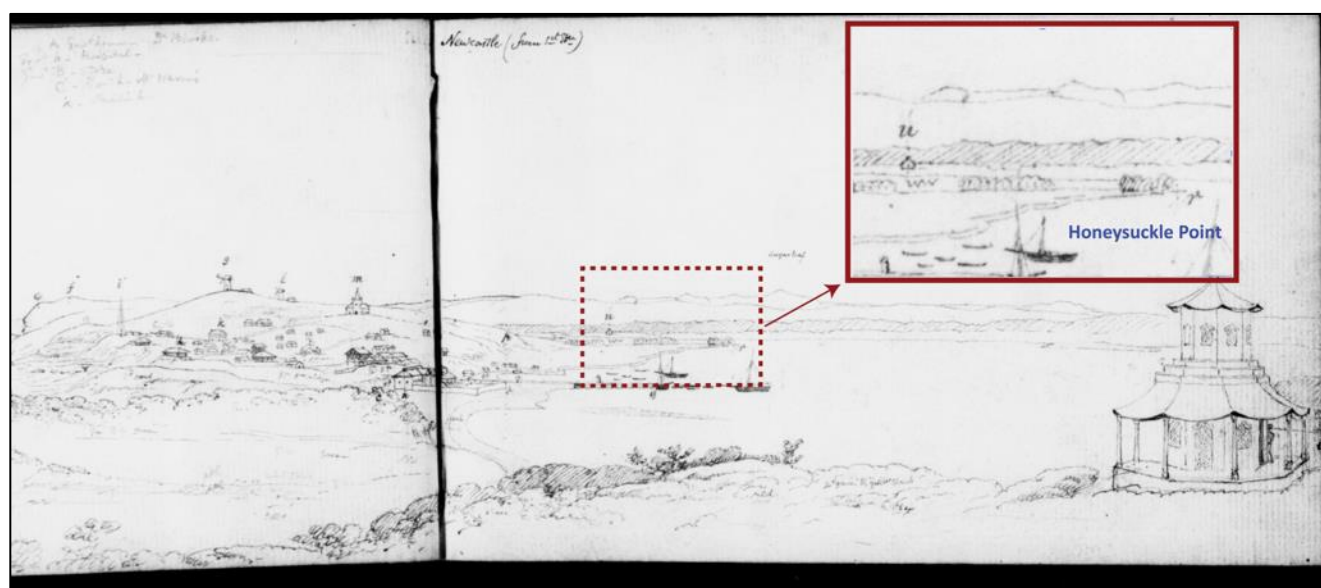


FIGURE 6: MITCHELL 1828 SKETCH OF THE TOWN FROM FLAGSTAFF HILL. HONEYSUCKLE POINT SHOWN IN INSET. 'U' IS PRESUMED TO REPRESENT GOVERNMENT COTTAGE. (SOURCE: T. L. MITCHELL FIELDBOOK, PORT JACKSON AND NEWCASTLE, 1828, STATE LIBRARY OF NSW)

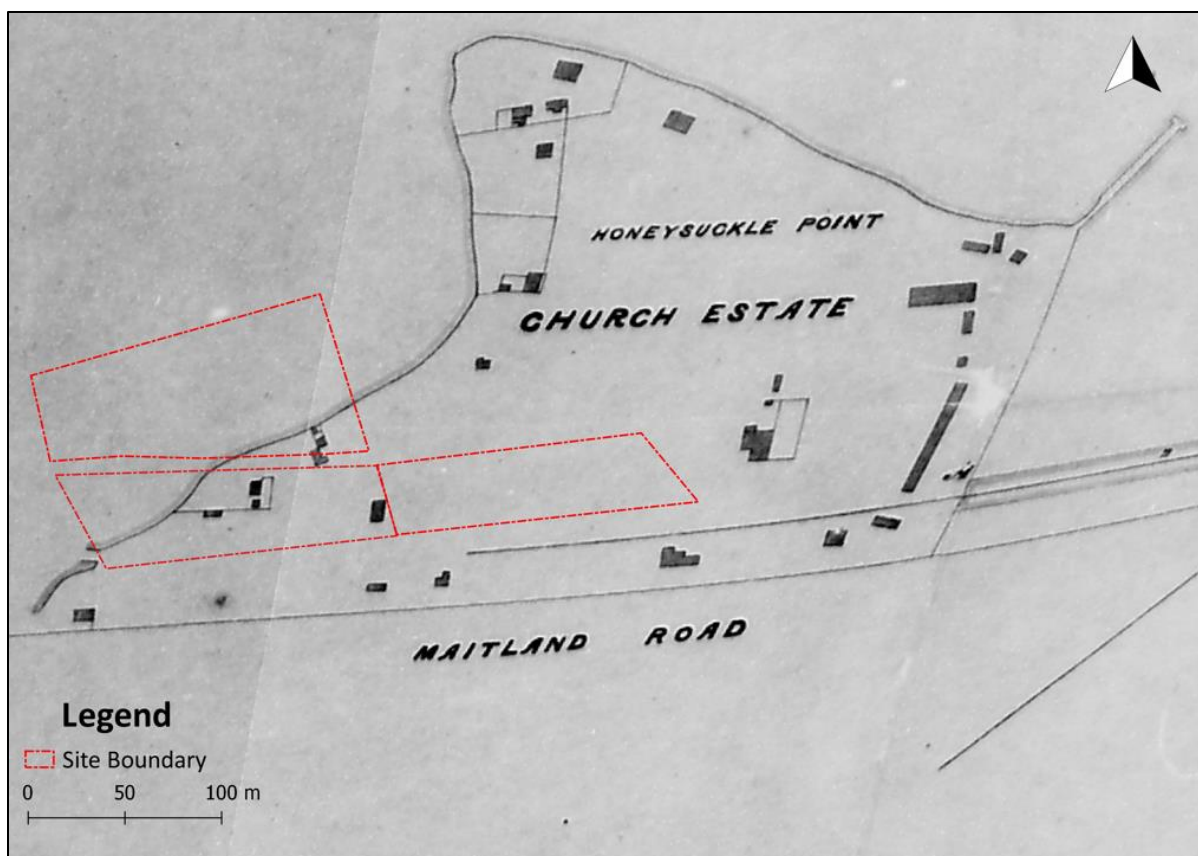


FIGURE 7: 1857 HUNTER RIVER RAILWAY: PLAN OF EXTENSION INTO NEWCASTLE (APPROXIMATE LOCATION OF STUDY AREA IN RED), DEPICTED STRUCTURES WOULD LIKELY HAVE INCLUDED PART OF BISHOPS SETTLEMENT, AND POSSIBLE SOME EARLY RAIL BUILDINGS (SOURCE: STATE ARCHIVE & RECORDS, SR MAP NO. 6236)

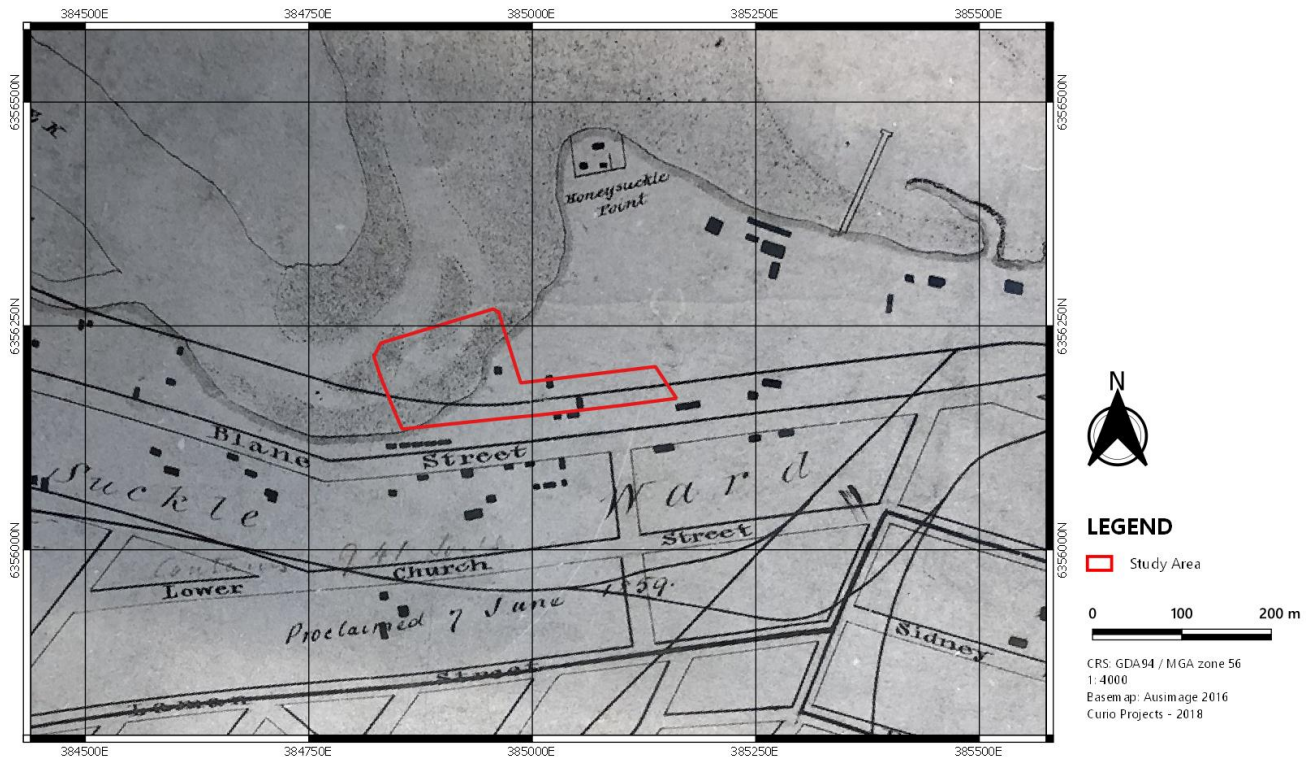


FIGURE 8: 1857 KIRBY PLAN OF THE CITY OF NEWCASTLE, COUNTY OF CUMBERLAND, NSW (APPROXIMATE LOCATION OF STUDY AREA OVERLAID IN RED). RECORDED STRUCTURES LIKELY TO HAVE INCLUDED PART OF BISHOPS SETTLEMENT AND POSSIBLY SOME EARLY RAIL BUILDINGS (SOURCE: STATE ARCHIVE & RECORDS, SR MAP NO. 4405)

2.3. Phase 3—Reshaping the Harbour and Railway Expansion (1857-1930)

Phase 2 use of the study area relates to the establishment of the Honeysuckle Railway Workshops (1857), and the main modification and land reclamation works to Honeysuckle Point (c. early 1900s). A brief timeline of this period of occupation is summarised as follows:

Mid-1850s: northern rail line from Honeysuckle to Hexham (present Tarro Station) complete.

1856: Honeysuckle Station (near closed, present day Civic Station in east/vicinity of study site) completed.

1858: Rail line was extended further east to Newcastle (Newcastle Station).

1856 to 1870: Honeysuckle Point Workshops constructed and significantly enlarged from 1870 to 1920.

1872: Honeysuckle Station relocated and opened (slightly west of current study area) (Figure 9).

c1875: Bullock Island Bridge built when coal loading and other maritime activities were transferred north to Bullock Island (Carrington).

1883: Mortuary Station opened (Figure 10).

Early 1900s: First major reclamation works, including removal of much of the 'point' of Honeysuckle Point

1908: First stage of construction of Lee Wharf (completed by 1910). Material removed from Honeysuckle Point and dredged from harbour used to infill and reclaim land behind Lee Wharf.

c1915: Bullock Island Bridge demolished during land reclamation/modification works.

2.3.1. Archaeological Potential

Archaeological evidence relating to Phase 3 use of the site that has the potential to remain within the study area includes the following:

- Evidence of land reclamation activities;
- Mortuary Station structural remains/footings (1883–1933);
- Original early rail workshops buildings and structures including:
 - The Engine Turntable;
 - Building 7—Per Way Bridge Shop;
 - Building 25—Former Shed;
 - Building 28—Per Way Pattern Shop; and
 - Building 30—Per Way Foundry;

The Mortuary Station railway platform and station building was constructed in 1883 to transport people attending funerals at Sandgate Cemetery (Figure 11). It was demolished in 1933, before Civic Station was built, although it had ceased being used for funerals many years prior.⁷ The presence of archaeological and structural remains of Honeysuckle Station to the west of the study area, intact beneath the former rail lines, suggests that other potential archaeological structural remains in similar locations (i.e. in conjunction with the path of the former rail corridor) are also likely to be present. In the case of the 2017 discovery of Honeysuckle Station, some of the archaeological structural remains appear to have been located immediately below the top layer of fill/soil, very close to the ground surface.⁸ This suggests that there is **moderate to high potential** for structural remains relating to Mortuary Station to remain within the current study area, potentially in a similar context to that of Honeysuckle Station.

The former Engine Turntable is an industrial archaeological site associated with the Honeysuckle Railway Workshops that is known to be **present in situ** within the northeast of Site 2 (and visible in aerial imagery of the site, Figure 12). The function of the railway turntable was ‘to reverse the direction of the Locomotives in the yards, or to move them onto a different set of radiating tracks’.⁹

There is also a **moderate to high potential** for the footings and structural remains of other Workshop buildings to be present within the study area (i.e. within Sites 1–3, as well as along the path of the potential northern route of the proposed new telecommunication reticulation services).

Due to site activities associated with the establishment and construction of the site as the Honeysuckle Workshops, it is assessed that there is a **low to moderate potential** for evidence of land reclamation activities associated with Phase 3 use. The 1908 monier sea wall itself is not located within the current study area,

⁷ Doring 1991: 282

⁸ ‘Discovery of centuries-old Honeysuckle station in former rail corridor’, *Newcastle Herald*, 18.6.16, Accessed 21.3.18 from <http://www.theherald.com.au/story/4037759/rail-relics-come-to-surface-photos-poll/> and ‘More suspected Honeysuckle Station relic (sic) uncovered in Newcastle light rail path’, *Newcastle Herald*, 21.7.18, Accessed 21.3.18 from <http://www.theherald.com.au/story/4804676/relic-dug-up-in-rail-work/>

⁹ Doring 1991: 283

however stratified deposits associated with the land reclamation behind the sea wall have the potential to be present.

The southern causeway belonging to the c1875-1916 Bullock Island Bridge was originally located along or to the east of the Worth Place road alignment, possibly located beneath/in association with Worth Place, and/or the eastern boundary of Site 1. Minor investigations were undertaken in 2004-5 of the northern causeway of the Bullock Island Bridge, which did not encounter any evidence of the bridge.¹⁰

This feature may have been left in place at the time of reclamation and has been assessed to have **low to moderate potential** for the pier bases to remain within the former riverbed in the area (and low to moderate archaeological significance AMAC 2006: 83). As the precise location of the causeway is uncertain there is some potential that part of it may be extend into the western section of the study area or below Worth Place (Figure 14).

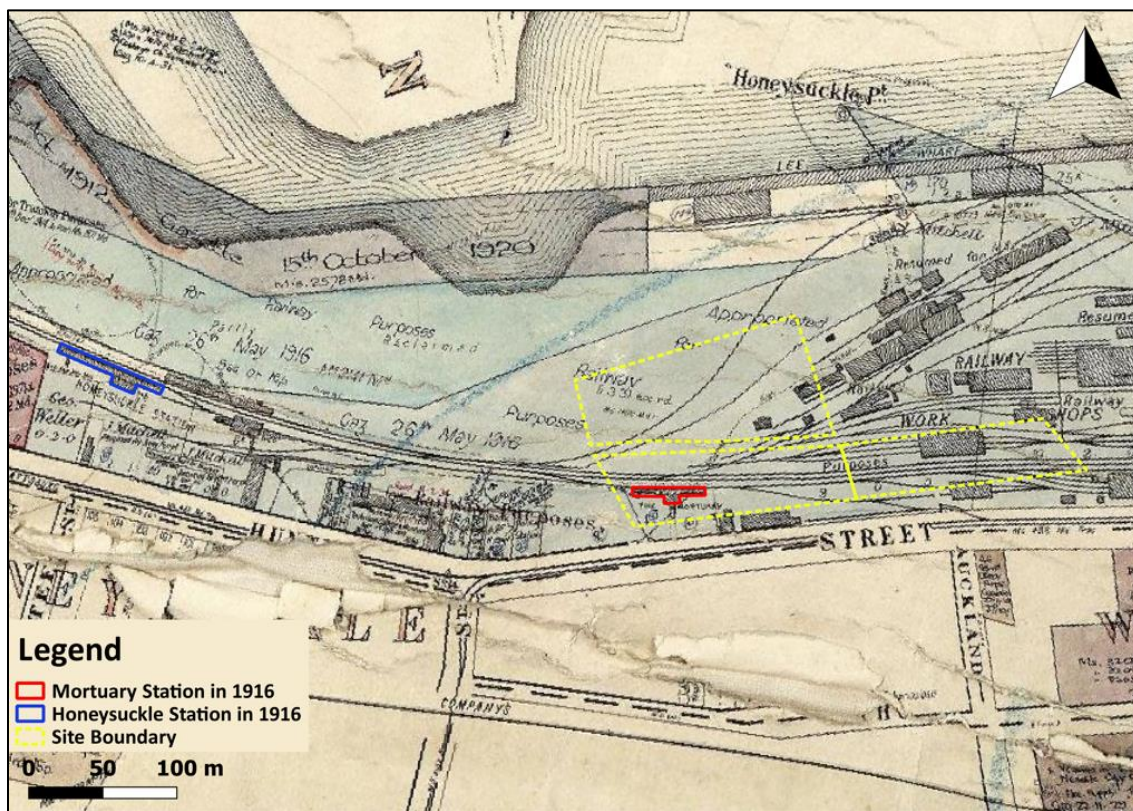


FIGURE 9: TOWN PLAN OF NEWCASTLE 1916, APPROXIMATE AREA OF SITES 1-3 IN YELLOW, MORTUARY AND HONEYSUCKLE STATIONS ALSO SHOWN IN RED & BLUE (SOURCE: HISTORICAL LANDS RECORD VIEWER)

¹⁰ AMAC 2006, s140 Permit Application, Lee Wharf Project Stage 3 (Buildings A3–6), Honeysuckle Precinct, Newcastle, prepared for Lee Wharf Developments Pty Ltd.

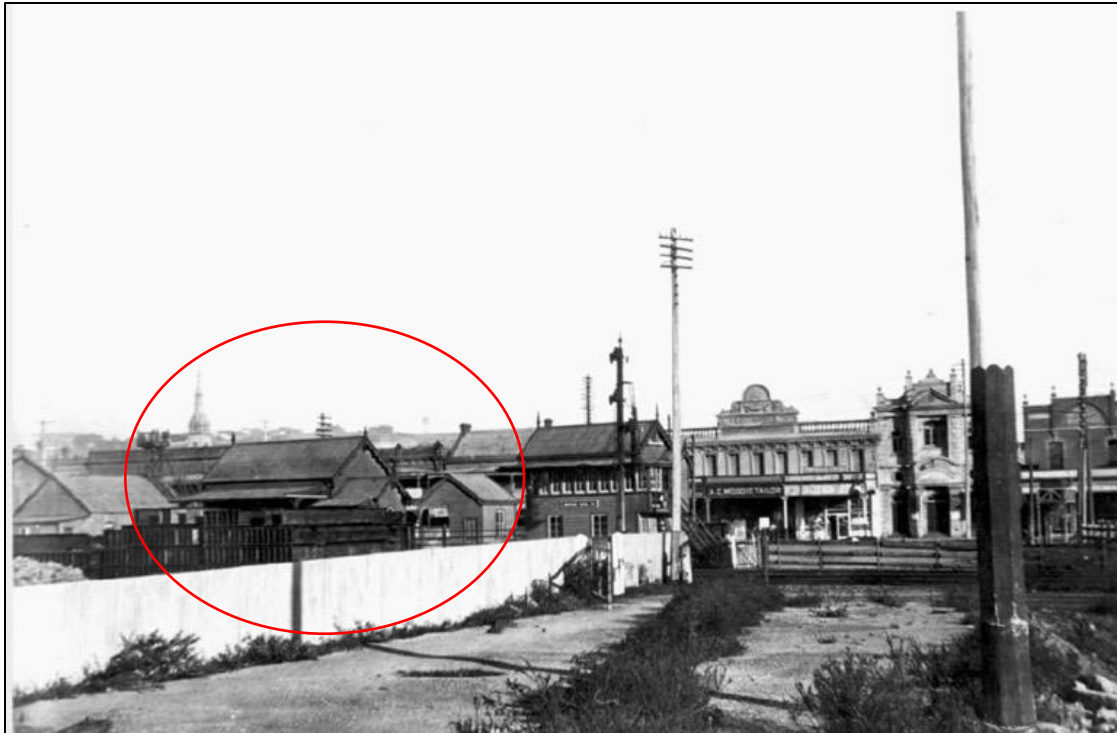


FIGURE 10: LATE 1800S (EXACT DATE UNKNOWN), WORTH PLACE VIEW TO HUNTER STREET, SHOWING OLD FIRE STATION AND MORTUARY RAILWAY STATION SIGNAL BOX, WITH MORTUARY STATION LEFT OF THE SIGNAL BOX (SOURCE: NEWCASTLE HERALD ARCHIVES)

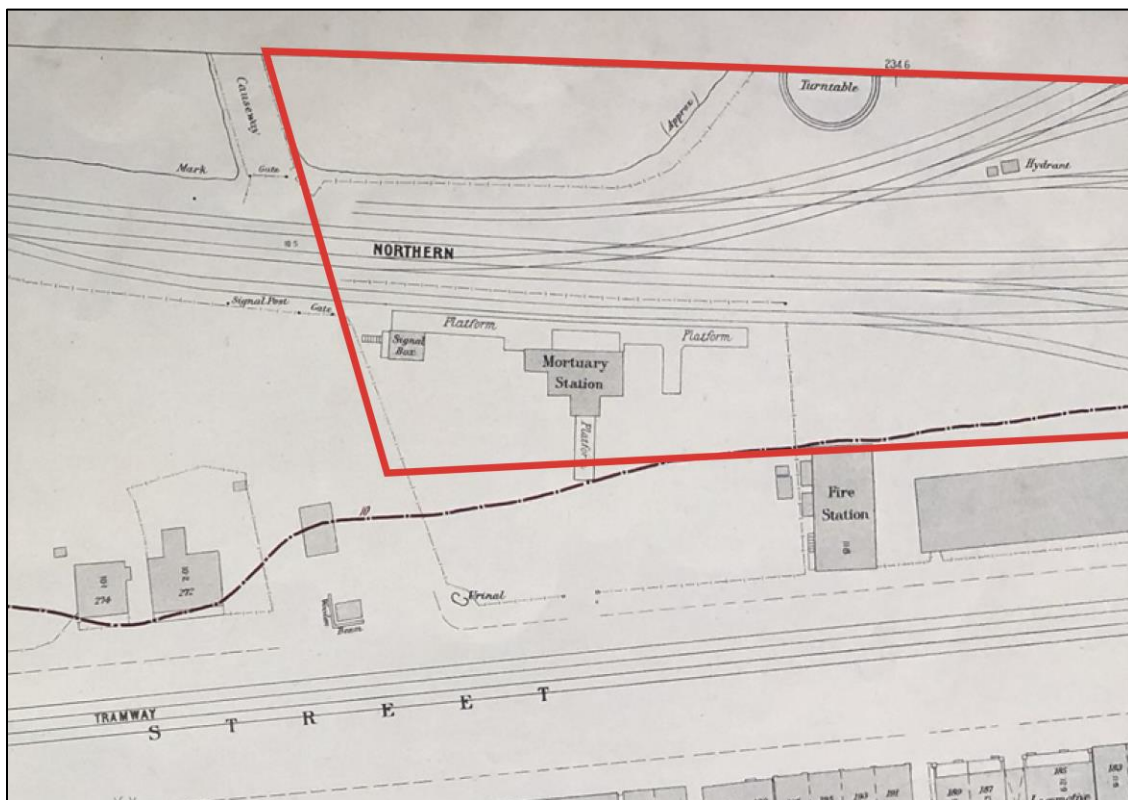


FIGURE 11: 1896 PLAN OF HONEYSUCKLE RAILWAY WORKSHOPS, VIEW OF MORTUARY STATION. APPROXIMATE EXTENT OF SITE 2 SHOWN IN RED FOR LOCATIONAL CONTEXT (TRUNCATED SLIGHTLY BY PARAMETERS OF BASE MAP). (SOURCE: NEWCASTLE LOCAL LIBRARY, SHEET 34-38)



FIGURE 12: AERIAL OF STUDY AREA, ZOOMED TO SITES 2 AND 3 (CENTRE). LOCATION OF TURNTABLE CLEARLY VISIBLE WITHIN SITE 2, NORTH (AS INDICATED IN RED) (SOURCE: NSW SIX MAPS)



FIGURE 13: SOUTHERN CAUSEWAY OF BULLOCK BRIDGE C. 1900.

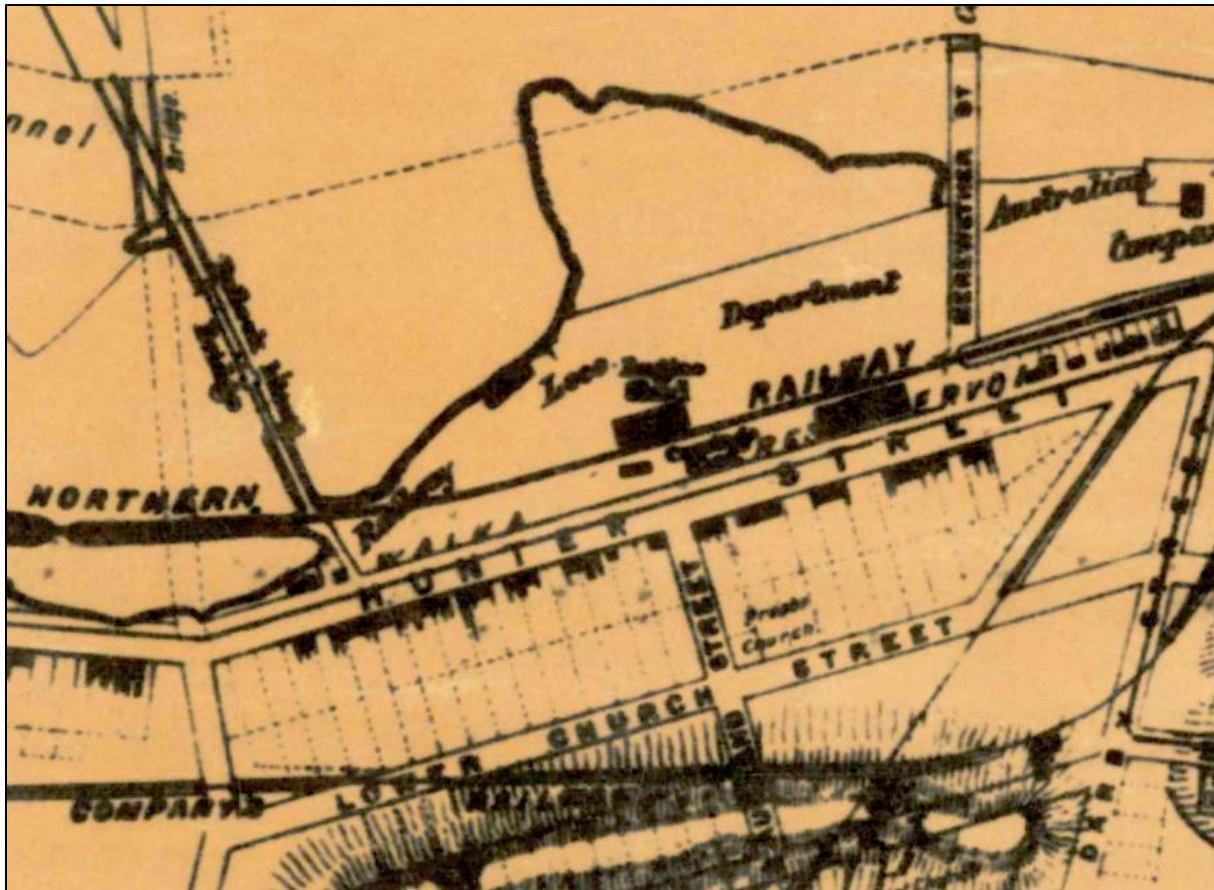


FIGURE 14: MAP OF NEWCASTLE HARBOUR 1884, SPROULE & CO. BULLOCK ISLAND BRIDGE TO WEST OF SUBJECT SITE VISIBLE (SOURCE: UON CULTURAL COLLECTION)

2.4. Phase 4—Civic Railway Workshops and Decline (1930s–1990s)

Phase 4 historical use of the study area relates to the ongoing use of the study area as the Civic Railway Workshops from 1933, until its closure in the early 1990s. A brief timeline of this period of occupation is summarised as follows:

1929: After locomotive work transferred to Cardiff Workshops activity at Honeysuckle Workshops slowed, though many of the workshops remained in use, and known as the “Civic Workshops” (Figure 15).

1933: Mortuary Station demolished prior to construction of Civic Station.

1935: Honeysuckle Station closed. Civic Railway Station opened, slightly closer to Newcastle.

1958: Civic Railway Workshops foundry closed, with pressure to relocate other functions to Cardiff Workshops to enable released of the land for redevelopment.

1970s: Other rail operations relocated from Civic to Cardiff and Per Way Workshop buildings demolished.

2.4.1. Archaeological Potential

Potential archaeological resources and relics related to this Phase 4 may include ephemeral/minor structures associated with the later use of the Civic Railway Workshops including in situ rail stock and sleepers etc (Figure 15).

There is **moderate to high potential** for an archaeological resource from Phase 4 use of the site to survive within the study area.

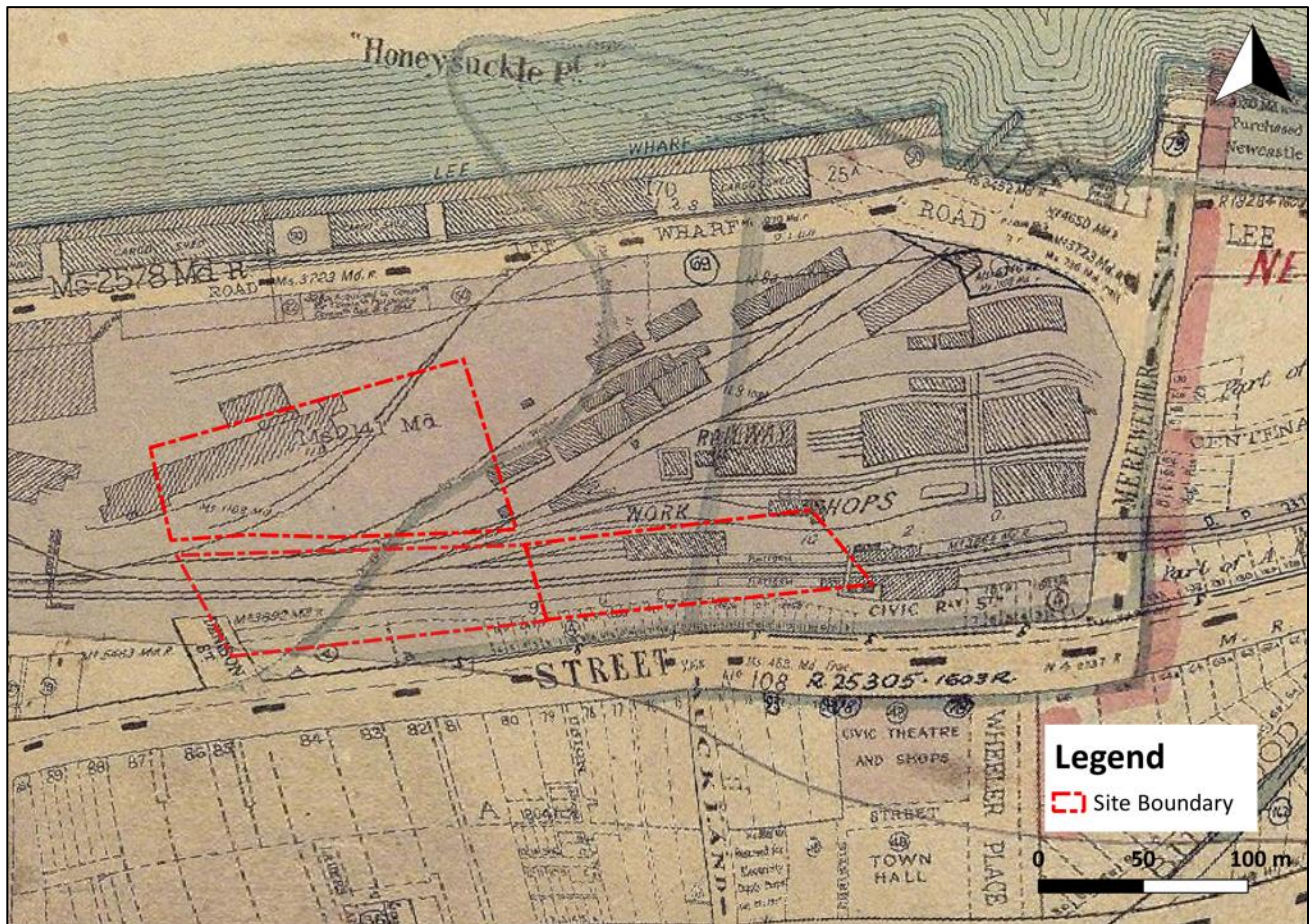


FIGURE 15: C.MID 1900S, HONEYSUCKLE RAILWAY WORKSHOPS, INDICATIVE STUDY AREA IN RED (SOURCE: HLRV)

2.5. Phase 5—Honeysuckle Precinct (1990s–Present)

Following demolition of railway buildings, the study area has not been subject to any substantial development, and currently exists as a vacant lot, and carparks. The former railway lines running through Site 2 of the study area were removed in c.2016. The Civic Railway Workshops were closed in 1990, and ownership of the former railways workshops site was transferred to Honeysuckle Development Corporation as part of Newcastle's waterfront development plan. The decommissioning of the Railway Workshops in the early 1990s included the demolition, clearance, and decontamination of the former rail yards. No buildings associated with the Civic Railway Workshops were retained within the study area (Figure 16).

There is no archaeological potential associated with Phase 5 use of the study area.



FIGURE 16: AERIAL VIEW LOOKING NORTH SHOWING THE SITE DURING PHASE 5 CLEARANCE ACTIVITY, PRIOR TO 1994 (ARROWED). SOURCE: UMWELT 2004)

A summary of the historical archaeological potential of the study area, by historical phase, is presented below in Table 2

TABLE 2: SUMMARY OF HISTORICAL ARCHAEOLOGICAL POTENTIAL WITHIN SUBJECT SITE

Historical Phase	Activity or Development	Potential Archaeological Evidence	Archaeological Potential/Likelihood of Survival	Study Area Location
Phase 2 (1810 - 1857)	Lime Burning	Remains of lime-burning kilns	Low	Site 1: SE area; Site 2 & 3
	Farming Activities	Palaeobotanical evidence of farming activities.	Low	All of site except Site 1 NW ie south of original waterline
	Early Site Use (Bishop's Settlement)	Remains of Bishop's Settlement, including early building foundations, wharves, jetties, other structural features, deeper subsurface features such as wells and cisterns	Moderate	All of site except Site 1 NW area south of original waterline
	Early Land Reclamation	Evidence of early sea walls, evidence of intentional manipulation of the shoreline	Low to Moderate	All of site except Site 1 NW area south of original waterline
Phase 3 (c.1857-1933)	Honeysuckle Rail Workshops	Remnant footings/structural remains of Mortuary Station & Signal Box	Moderate to High	Site 2, SW area
	Honeysuckle Rail Workshops	Remnant footings/structural remains of Per Way Bridge Shop, Former Shed, Per Way Pattern	Moderate to High	Within Sites 2 & 3 and proposed route along Civic Lane

		Shop, Per Way Foundry and other Workshop buildings		
	Honeysuckle Rail Workshops	Engine Turntable	Known to be In Situ	Within Site 2 mid north
	Honeysuckle Rail Workshops	In situ rail tracks and rail stock etc	Moderate to High	Across Sites 1, 2 & 3
	Honeysuckle Rail Workshops	Various industrial related artefacts	Moderate to High	Across Sites 1, 2 & 3
	Honeysuckle Rail Structures	Lavatory	Moderate	Within/Below Worth Street
	Bullock Island Bridge Causeway (c1875-1916)	Pre-reclamation pier bases within former riverbed; Causeway wall remains	Moderate	On/East of alignment of Worth Place
	Land Reclamation	Evidence associated with dredging/land reclamation/ techniques used in 1908 seawall construction and filling	Low to Moderate	All of Area 1 except SE; Area 2 NW to SW
Phase 4 (1933-1990s)	Civic Railway Workshops	Structural remains of ephemeral/ minor/unrecorded structures associated with later use of Civic Railway Workshops	Moderate to High	Across Sites 1, 2 & 3
	Civic Railway Workshops	In situ rail tracks & rail stock etc	Moderate to High	Across Sites 1, 2 & 3
Phase 5 (1990s - present)	Honeysuckle Precinct	Vacant lot/carpark	None	None

3.0 Previous Archaeological Investigations

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

3.1. Historical Archaeological Studies and Investigations in the Vicinity

*Newcastle Archaeological Management Strategy*¹¹

The Newcastle Archaeological Management Strategy (NAMS) was adopted by Council on 20 August 2015 and provides a framework for the management and conservation of historical archaeological resources in the Newcastle City Centre (including the existing study area), which was predicated on the 1997 Newcastle Archaeological Management Plan, and 2013 review of the management plan. The NAMS states the archaeological significance of the Newcastle City Centre study area to be:

‘The archaeological resource of the Newcastle city centre (the study area) dates from the earliest period of European settlement in Australia. Newcastle is the third oldest urban settlement after Sydney and Parramatta. The city’s archaeological resources yield information not only about Newcastle itself, but have the potential to contain information about the early colony and the experience of convict life that can contribute to understandings about life in colonial Australia and of how it was governed and administered, including encounters with the local indigenous population.’

The Newcastle Archaeological Management Plan 1997 found that while Sydney, Hobart and Brisbane, as well some small centres such as Port Macquarie, were established as a penal colonies, the level of archaeological survival was found to be lower than the survival rate attributed to Newcastle. The NAMP 1997 determined that on the basis of the low rates of site amalgamation and redevelopment and few buildings with basements, the potential for remains to survive was much higher than those cities of similar age and origin. As such, the archaeological resource of the Newcastle city centre was determined to be potentially of outstanding significance.

Archaeological sites and relics within the Newcastle city centre embody the primary physical evidence of the early occupation period, along with the evolution of the city through various historic phases of development, such as industrial processes and urbanisation. Archaeological remains have the potential to record and reflect these patterns of change.’¹²

The 1997 Archaeological Management Plan (AMP), which the 2015 report revises and updates, identified nine archaeological precincts across Newcastle which ‘may be expected to contain an archaeological resource

¹¹ Newcastle City Council, 2015, *Newcastle Archaeological Management Strategy*, Newcastle City Council: Newcastle.

¹² Ibid: 8-9

of some cohesive characteristic'.¹³ One of these precincts is 'Honeysuckle Point 1840', which includes the 'area within the existing harbour foreshore and north of Hunter Street where the piece of land known as Honeysuckle Point stood, prior to the extensive reclamation works that were undertaken.'¹⁴

Newcastle Archaeological Management Plan Review (Higginbotham 2013)

The 2013 review of the Newcastle Archaeological Management Plan (AMP) places the subject site within Inventory Number 2176282, which is described as 'Blocks bounded by the Hunter River, Merewether, Worth and Hunter Streets, including parts of adjacent streets (Honeysuckle Drive, Merewether and Hunter Streets)' (Figure 17). This inventory listing identified the area to have significance for its Railway and Port Infrastructure (State), and Urban Development, 1853 onwards (Local).

The inventory containing the subject site encompassed four of the archaeological inventory items from the 1997 Newcastle Archaeological Management Plan, namely:

- Item 1032—Honeysuckle Point Settlement.
- Item 1033—Honeysuckle Point Railway Workshop
- Item 1034—Honeysuckle Point Railway Turntable; and
- Item 1220—Monier Seawall, Lee Wharf.

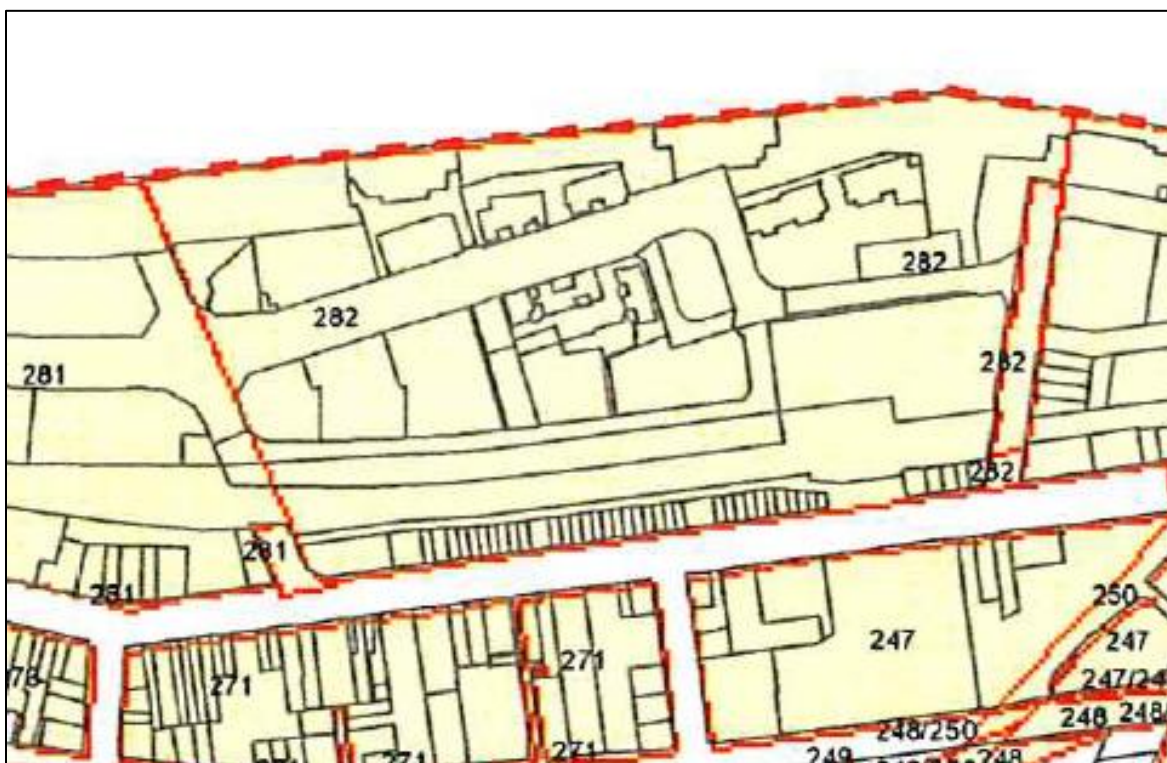


FIGURE 17: EXCERPT FROM NEWCASTLE AMP REVIEW 2013, STUDY AREA WITHIN INVENTORY NUMBER 2176282 (282 ON MAP) (SOURCE: HIGGINBOTHAM 2013: MAP 1)

¹³ Suters Architects, 1997, *Newcastle Archaeological Management Plan, Vol 1: Study Report*, prepared for Newcastle City Council.

¹⁴ Suters 1997: 40

Honeysuckle Archaeological Survey (Doring 1991)

In 1991, C. & M.J. Doring undertook a historical archaeological survey of the Honeysuckle Point, to assist with future planning for the site, upon the closure of the Railway Workshops. The report identified the nature and approximate locations of potential remnant/significant archaeological features (including across the current study area), particularly relating to the use of the site as the Honeysuckle Point Railway Workshops, and provided recommendations for further archaeological investigations. The report prepared and presented an inventory and maps of potential archaeological sites across the area (Figure 18). The survey identified three main archaeological structures/resources that retained potential to be present within the current study area, that of the Railway Turntable (F74), Mortuary Station (F56) and the Mortuary Signal Box (F55). The report also notes that lime burning was undertaken at the site/in the vicinity of the turntable from 1800-1820.

In addition, the 1991 report states that there is potential for the remains of demolished buildings on site, 'prior to railways' (e.g. Church Estate) (not shown on this site plan), buildings are shown on early site plan. They have not been researched for this study. Remains or relics such as underground cisterns etc. may still exist'.¹⁵

The former Engine Turntable (F74) is described in the report as a 10m diameter turntable, located to the 'west end of the Workshops site near the former Mortuary Station', present at the site from c.1856 to c.1895. The manufacturer of the turntable is not known, however it was ordered in 1855, together with rolling stock, from England. The Engine Turntable was one of the first items of equipment to be installed at the rail workshops at Honeysuckle Point. The report assessed the turntable to be of very high significance, if still present, at the site,¹⁶ for two reasons:

- *It is probably the most substantial, if not the only, artefact surviving from the original 1857 Great Northern Railway; and*
- *It is one of the oldest (133 years) railway artefacts in Australia.*¹⁷

The former Mortuary Station is inventoried as an archaeological site (F56), constructed in 1883 and described as 'the building was a charming, gable roofed, timber framed, weatherboard building, with finials and fretworked barge boards, resembling a small chapel', located 'on the south side of the main railway line, just to the east of Worth Place'.¹⁸ It was demolished in 1933, before Civic Station was built. The report assesses Mortuary Station as being of moderate historical significance.

The former Mortuary Signal Box was a timber framed signal box, constructed at the same time as, and used for, Mortuary Station (c.1883) and demolished c.1936 (when it became defunct after Civic Station was built) The report also notes that 'there is still an unmanned brick shed in the same location, presumably serving

¹⁵ Doring 1991: 439 (Item #86)

¹⁶ Subsequent archaeological investigations determined that the Turntable is present within the site (Fenwick 1994).

¹⁷ Doring 1991: 286

¹⁸ *ibid*: 282

some modern automatic signalling function'.¹⁹ The report assessed the Mortuary Signal Box to be of low significance, and gave no recommendations for its investigation.

One of the key recommendations from the Honeysuckle Archaeological Survey report, was the archaeological investigation and test excavation of the former Engine Turntable, which was undertaken in 1994 (see below).

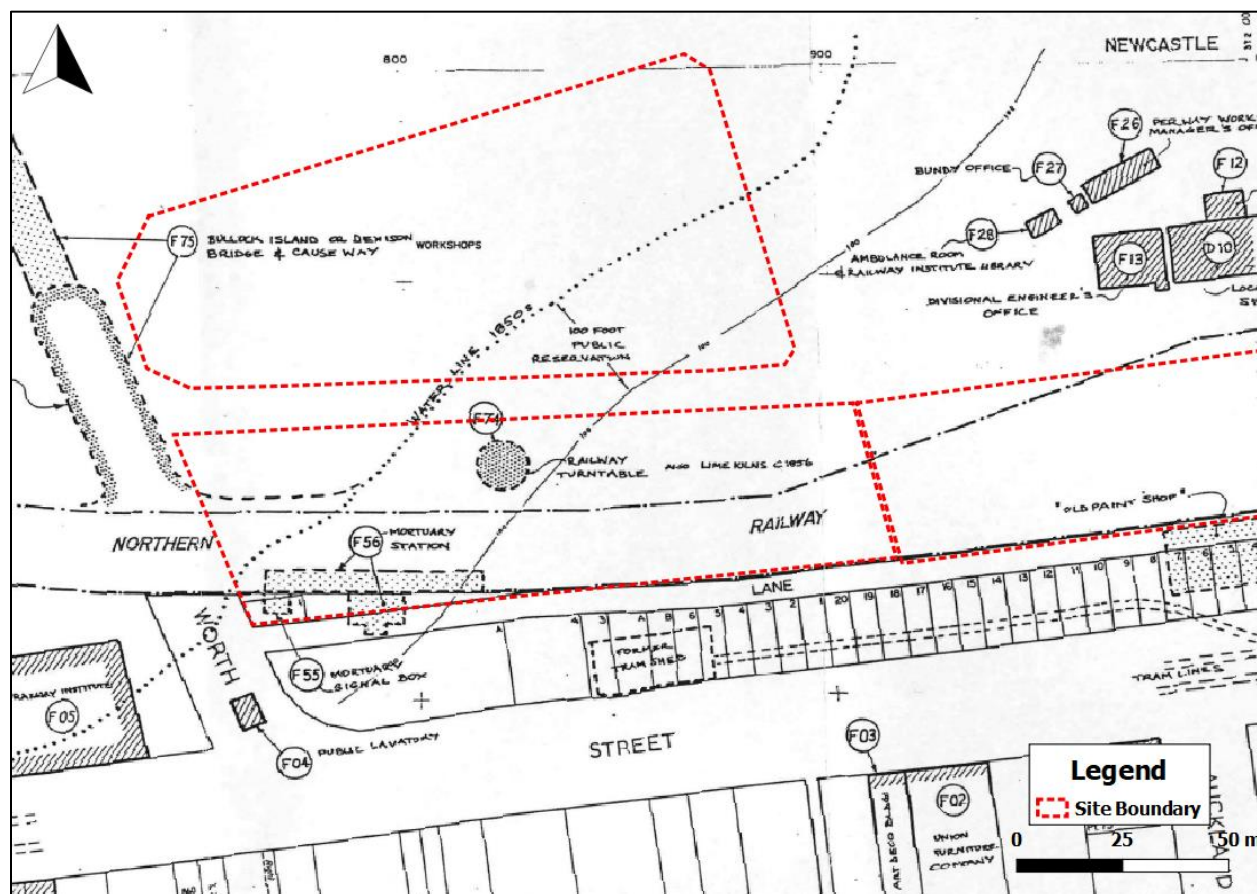


FIGURE 18: ARCHAEOLOGICAL SURVEY PLAN, 1991, CENTRED OVER CURRENT STUDY AREA. MORTUARY STATION AND RAILWAY TURNTABLE LOCATIONS VISIBLE. SHADING CORRESPONDS TO THE FOLLOWING DENSE DOTWORK: 'ARCHAEOLOGICAL SITE, WHERE EVIDENCE IS LIKELY TO REMAIN' (I.E. OVER TURNTABLE), AND SPARSE DOTWORK: ARCHAEOLOGICAL SITE, WHERE EVIDENCE IS UNLIKELY TO REMAIN (I.E. OVER MORTUARY STATION) (SOURCE: DORING 1991: SHEET F, 3286)

Honeysuckle Point Locomotive Turntable Excavation (Fenwick 1994)²⁰

Following the proposal that the turntable be present in situ at the former Civic Railway Workshops (Doring 1991, as above), it was proposed by the Hunter Development Corporation that the location and condition of the turntable be confirmed by archaeological excavation. This excavation was undertaken in accordance with a Section 139 Excavation Permit from the NSW Heritage Council.

¹⁹ Doring 1991: 281

²⁰ Fenwick, P., 1994, *Honeysuckle Point Locomotive Turntable Excavation Report, Newcastle, NSW*, prepared for Honeysuckle Development Corporation.

The excavation used available plans and site references to make a best estimate of the location of the turntable, and two exploratory archaeological trenches were opened in the supposed location to investigate. The excavation successfully located the turntable (12m in diameter), and also excavated the southern side wall of the turntable pit. The full extent of the turntable was not uncovered during the excavation, as identification of the location, diameters and general condition was considered sufficient to fulfil the reason for investigation. The turntable pit had for the most part been filled with soft, clean soil. Following the excavation of the turntable, detailed measurements and photographs were taken, and the excavation back-filled with dry, clean sand.

The report recommended that future management of the turntable should ideally include either full exposure, in situ retention and heritage interpretation of the turntable be undertaken, or that the turntable be left unexposed, with an area including the outline of the circular turntable retained as a paved pedestrian way, with heritage interpretation initiatives implemented. The report also recommended that the top of the Turntable Brick Pit brick wall be exposed for the full circle of the turntable prior to any final decision regarding the future of the turntable, in order to 'confirm the continuity of the wall and give an indication of its condition'.²¹

*Lots 12 and 4/24 Lee Wharf, Archaeological Monitoring (GML 2006)*²²

In 2004, GML archaeologically monitored and investigated Lots 12 and 4/24 of Lee Wharf (located to the northeast and east respectively of the current study area) as part of ground remediation (decontamination works) and bulk excavation works for the construction of basement car parks across these lots. The archaeological investigation did not identify any relics or archaeological deposits associated with the 19th Honeysuckle Point settlement (i.e. Bishop's Settlement), from which, the GML report concluded that the Civic Railway Workshops would have significantly disturbed and/or destroyed any evidence of the earlier period of occupation of the site.

Within Lot 4/24 (immediately east of current Site 1), the archaeological monitoring program exposed and recorded extensive remains of several buildings relating to Civic Railway Workshops, these included remains of: Building 4—shed/'Helio Room' (c.1937); Building 8—'Per Way Machine and Fitting Shop (1883–1979); Building 9—'Per Way Bridge Shop East' (c1895–1979); Building 10—'Per Way Blacksmiths Shop No. 1' (1895–1979); and Building 12—'Per Way Chair Stud Store' (1937–1979). These structural and archaeological remains included sandstone wall footings, machine pads of brick timber and sandstone, timber piers and post holes and associated artefacts relating to the operation of railway workshops machinery (ex situ). The monitoring also encountered in-situ rail tracks and sleepers within Lot 12.

Building 4= unremarkable function and limited significance

Building 8= substantial wall footings

Building 10= no description of Per Way Blacksmiths Shop No. 1 in sources.

²¹ Fenwick 1994: 4

²² GML 2006, *Lots 12 and 4/24 Lee Wharf, Newcastle—Archaeological Monitoring Program*, prepared for Lee Wharf Developments

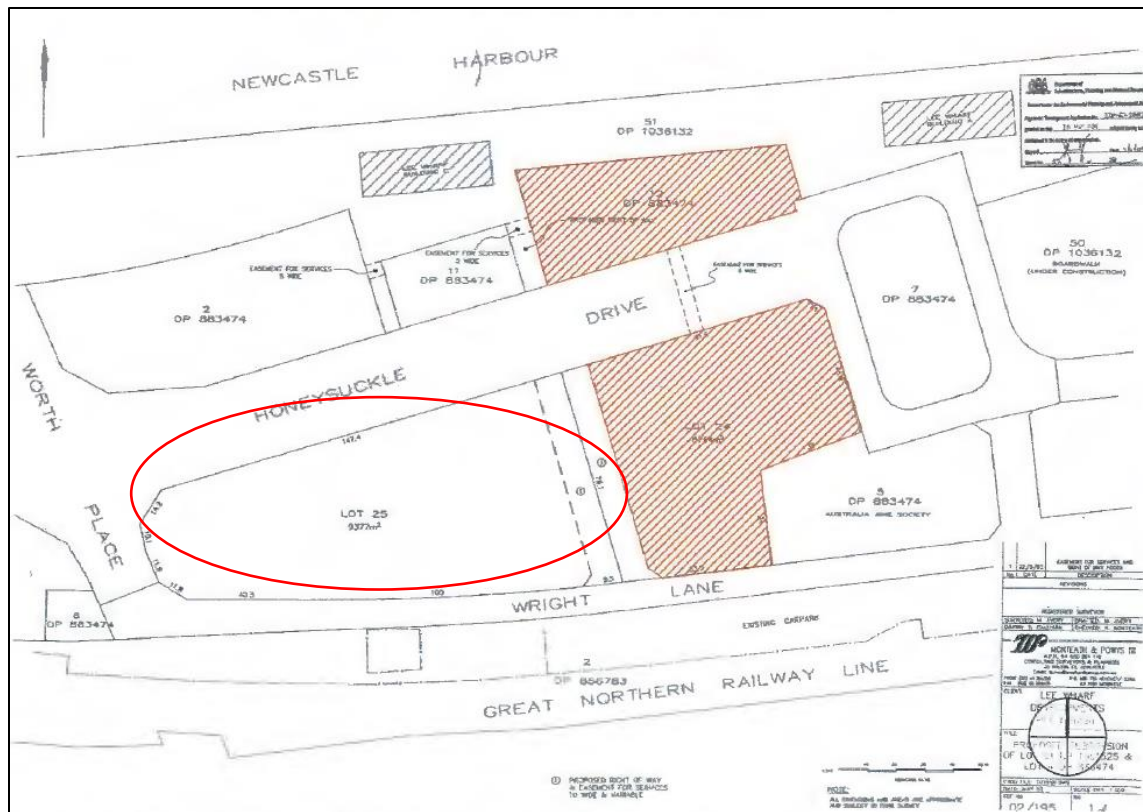


FIGURE 19: GML 2006 MONITORING LOCATION IN REFERENCE TO CURRENT STUDY AREA (SITE 1 INDICATED IN RED) (SOURCE: GML 2006: FIGURE 1.2)

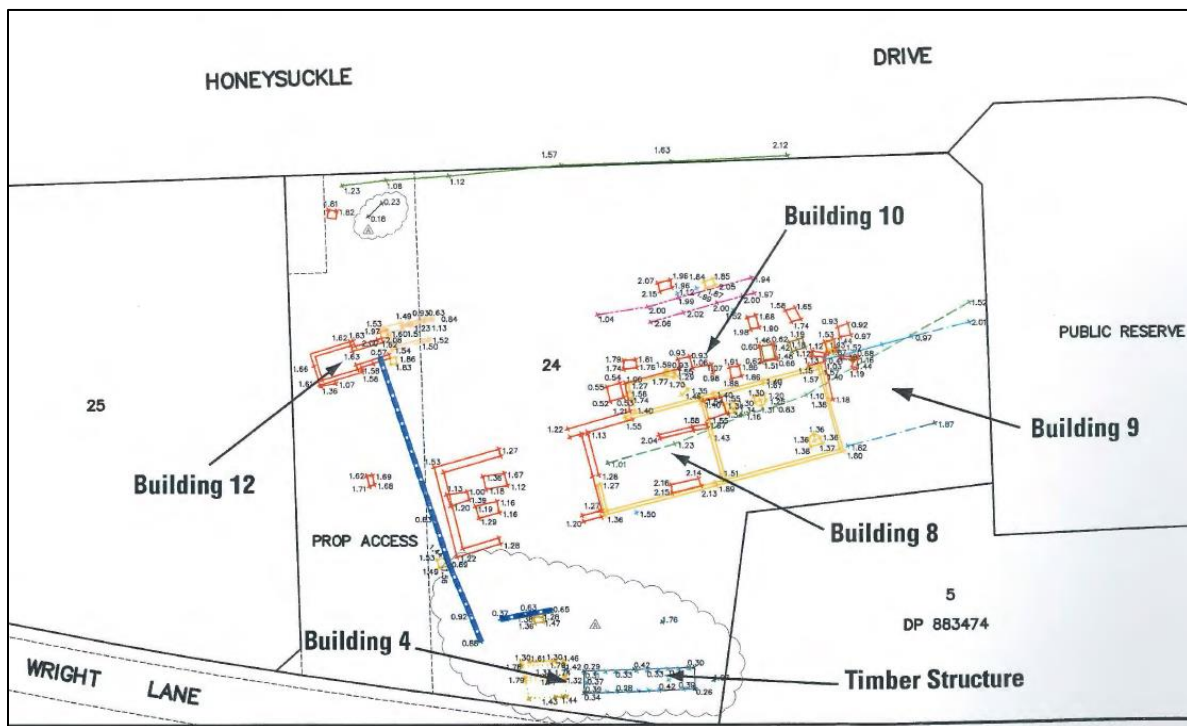


FIGURE 20: GML 2006 MONITORING TO EAST OF CURRENT STUDY AREA, STRUCTURAL REMAINS OF RAILWAY WORKSHOPS ENCOUNTERS (SOURCE: GML 2006: FIGURE 3.1)

*Lee Wharf Development: Square-about and Lot 24 Honeysuckle Drive, Newcastle—Archaeological Test Excavation (AMAC 2012)*²³

Following on from the above GML site archaeological monitoring works undertaken in 2004, in 2005 AMAC undertook historical archaeological test excavation within Lot 24 Honeysuckle Drive (Settlement Lane), and what was then known as the 'Square-about' area (Figure 21), which was then followed by full excavation in 2006.

The excavation encountered a range of archaeological resources relating to all phases of occupation and historical use of the site, including evidence of the railway occupation phase (including railway sleepers, a concrete tank and footings, sandstock brick paving and other stone features), evidence believed to date to the use of the site as Bishop's settlement (including a refuse pit with intact and fragmented glass bottles and other artefacts, sandstone rubble blocks and sandstock brick features), and intact natural soil profiles with evidence for Aboriginal use and occupation of the area. All features and deposits were cleaned and recorded, then sealed with geo-fabric and backfilled, leaving all features and deposits in situ.

The report summarised the significance of the excavation site and general area to have high research potential to yield important historical archaeological data regarding the pre and post European settlement of Honeysuckle Point in Newcastle. Notably, archaeological evidence relating to the Bishop's Settlement period would be rare, due to the relative paucity of historical documentation and records relating to this phase of site occupation. The retention of the archaeological features in situ following from this excavation means that the excavation site itself retains the archaeological research potential. The report also noted that archaeological evidence at the site relating to the State significant Civic Railway Workshops site, could have the potential to be of State significance itself, however no deposits or features relating to the Railways Workshops as excavated in 2006 were identified as meeting the criterion for local or State significance.

The post-excavation report recommended that any future work carried out in the location of this excavation be subject to full archaeological excavation, subject to the relevant permits from the NSW Heritage Division, as well as appropriate permits and investigation of Aboriginal archaeology under the NSW Parks and Wildlife Act 1974.

Overall, this 2005/2006 archaeological excavation has major relevance to the assessment of archaeological potential for the current study area, indicating that the study area has potential for historical archaeological resources relating to all phases of occupation of Honeysuckle Point.

²³ AMAC 2012, *Lee Wharf Development: Square-about and Lot 24 Honeysuckle Drive, Newcastle—Final Archaeological Report*, prepared for Caverstock Group Pty Ltd on behalf of Lee Wharf Developments Pty Ltd.



FIGURE 21: AMAC REPORT 'LOT 24 AND SQUARE-ABOUT' STUDY AREA, LOCATION OF ARCHAEOLOGICAL EXCAVATION, PART OF WHICH IS IMMEDIATELY ADJACENT TO THE EAST OF THE CURRENT STUDY AREA (SOURCE: AMAC 2012: FIGURE 1.2)

*Honeysuckle Central (Lee Wharf Lot 25), Heritage Impact Statement (GML 2008)*²⁴

In 2008, GML prepared a Heritage Impact Statement consistent with the land of 'Site 1' within the current study area. The report included an assessment of the historical archaeological potential and significance within Lot 25 (i.e. consistent with Site 1 of the current study area).

GML concluded that there would be low potential for relics relating to the 'Bishop's Settlement' phase of site occupation to survive (based on the results of their 2004 archaeological monitoring of a nearby site), however if they were to survive, they would be of considerable archaeological significance. However, this conclusion was disproved by the AMAC 2006 excavation results (as detailed above), (which was not incorporated into the GML 2008 report, likely as the post-excavation report was not prepared for these works until 2012), demonstrating the presence of an archaeological resource relating to Bishop's Settlement (and all other occupation phases across Honeysuckle Point) to be present in close vicinity of the current study area.

The 2008 report identified archaeological remains associated with a number of railway buildings to have the potential to be present within Lot 25 (i.e. Site 1), including:

- *Building 7—Per Way Bridge Shop West (also known as the Assembling Shop) (c.1895-1979)*
- *Building 25—Former Shed (c.1856-1917)*

²⁴ GML 2008, *Honeysuckle Central (Lee Wharf Lot 25), Heritage Impact Statement*, prepared for Buildev Group and Eureka Funds Management.

- *Building 26—Per Way Friction Saw (c.1937–1979)*
- *Building 27—Coke Bins*
- *Building 28—Per Way Pattern Shop (c.1926–1960s) (footprint potentially located just outside of Lot 25's north boundary... however, the precise location of this building is uncertain)*
- *Building 30—Per Way Foundry (Built 1926, closed 1958, converted to goods shed/wagon shed in 1962)*
- *Former Railway Turntable*²⁵

Generally, GML identified the high potential for relics associated with the Civic Railway Workshop function of the site to be present within Lot 25 (i.e. Site 1). Overall, GML summarised the potential historical archaeological resource of Lot 25 to have 'some potential to contribute to research into the development of the area and the technologies employed at the complex...The heritage significance of any surviving relics would principally derive from their research value, although they may also reflect significant phases in the region's historical development and in some cases may be uncommon examples of their type.' The report also assessed the significance of the turntable to be very high, recommending its retention in situ.

In order to mitigate the impact of the proposed development on the potential archaeological resource at the site, and its associated significance, GML recommended an archaeological investigation to be undertaken in conjunction with site works, as well as introduction of heritage interpretation measures.

*666 Hunter Street, Newcastle (AMAC 2008)*²⁶

In 2008, the Hunter Development Company uncovered bone material and historical artefacts at 666 Hunter Street, Newcastle, during floodzone remediation works. AMAC was contacted to investigate the nature of this find, and identified that prior to the 1850s, the site had been the location of a prehistoric creekline, which had been completely subject to land reclamation and partial urban development by the 1900s. Although subject to various levels of historical disturbance, the archaeological excavation of the site encountered historical archaeological remains from the 1870s through to the 1990s.

*Newcastle Rezoning of Surplus Corridor Lands—RPS 2016a*²⁷

In 2016, RPS prepared an Aboriginal and historical heritage assessment report relating to proposed rezoning of surplus rail corridor in central Newcastle (between Worth Place and Watt Street) for urban purposes (proposed to be rezoned under an amendment to the LEP 2012). This report included assessment of part of the current study area, i.e. along the former rail line in the south of Sites 2 and 3).

The report identified several potential historical archaeological relics/deposits in proximity to/within the rezoning corridor that would require mitigation. The report identified the potential for an archaeological resource/relics associated with Mortuary Station and Civic Railway Workshops to be present within the

²⁵ GML 2008: 11-12

²⁶ AMAC, 2008, *Notification of discovery of relics: 666 Hunter St, Newcastle NSW, including former Honeysuckle Railway Station precinct*, prepared for Hunter Development Corporation

²⁷ RPS, 2016a, *Newcastle Urban Transformation and Transport Program—Rezoning of Surplus Corridor Lands, Heritage Assessment Report*, prepared for Elton Consulting

rezoning land (i.e. within Site 2 of the current study area), and recommended relevant approvals in accordance with the *NSW Heritage Act 1977*.

Honeysuckle Station Archaeological Remains (2016 and 2017)

In 2016, excavation works along the former Newcastle rail corridor encountered the archaeological remains of Honeysuckle Station²⁸ (Figure 22 and Figure 23) (located to the west of the current study area), while approximately a year later, more archaeological structural remains assumed to be associated with Honeysuckle Station, were encountered along the path of the Newcastle Light Rail, also along the former rail corridor (slightly further to the east of the 2016 discovery), between Steel Street and Hunter Street.²⁹

The presence of archaeological and structural remains of Honeysuckle Station, intact beneath the former rail lines, suggests that other potential archaeological structural remains in similar locations (i.e. in conjunction with the path of the former rail corridor) are also likely to be present. In the case of the 2017 discovery, some of the archaeological structural remains appear to have been located immediately below the top layer of fill/soil, very close to the ground surface (Figure 24).



FIGURE 22: HONEYSUCKLE STATION ARCHAEOLOGY UNCOVERED IN RAIL CORRIDOR (SOURCE: NEWCASTLE HERALD, [HTTP://WWW.THEHERALD.COM.AU/STORY/4037759/RAIL-RELICSCOME-TO-SURFACE-PHOTOS-POLL/](http://www.theherald.com.au/story/4037759/rail-relics-come-to-surface-photos-poll/))



FIGURE 23: HONEYSUCKLE STATION ARCHAEOLOGY UNCOVERED IN RAIL CORRIDOR (SOURCE: NEWCASTLE HERALD, [HTTP://WWW.THEHERALD.COM.AU/STORY/4037759/RAIL-RELICSCOME-TO-SURFACE-PHOTOS-POLL/](http://www.theherald.com.au/story/4037759/rail-relics-come-to-surface-photos-poll/))

²⁸ 'Discovery of centuries-old Honeysuckle station in former rail corridor', *Newcastle Herald*, 18.6.16, Accessed 21.3.18 from <http://www.theherald.com.au/story/4037759/rail-relics-come-to-surface-photos-poll/>

²⁹ 'More suspected Honeysuckle Station relic (sic) uncovered in Newcastle light rail path', *Newcastle Herald*, 21.7.18, Accessed 21.3.18 from <http://www.theherald.com.au/story/4804676/relic-dug-up-in-rail-work/>



FIGURE 24: MORE BRICKWORK ASSOCIATED WITH HONEYSUCKLE STATION UNCOVERED IN 2017, CLOSE TO THE GROUND SURFACE (SOURCE: NEWCASTLE HERALD, [HTTP://WWW.THEHERALD.COM.AU/STORY/4828389/LIGHT-RAIL-COULD-INCLUDE-RELIC-SPOTOS](http://www.theherald.com.au/story/4828389/light-rail-could-include-relics-photos))

*Newcastle Light Rail Project, Historical Archaeological Assessment (RPS 2016)*³⁰

In 2016, RPS prepared a Historical Archaeological Assessment and Statement of Heritage Impact report for the Newcastle Light Rail project, which passes immediately to the southwest of the current study area, along Worth Place between Steel Street and Hunter Street, before proceeding east along Hunter Street, c.40m to the south of the study area. The report identified five historical archaeological locations that would require investigation and/or permitting from the NSW Heritage Division in order for works in the vicinity of these locations to proceed.

3.2. Geotechnical Investigation

Geotechnical investigation was undertaken at the site for a previous development and client (i.e. not in relation to the current development). That information has enabled a general understanding of the geotechnical profile within Site 1 of the study area. 'Unit 2a' in these previous geotechnical investigations was interpreted as being associated with the original 1850's shoreline, which constituted original estuarine muds which had later been covered by land reclamation. This soil profile, described as soft clay/silt estuarine soils, was noted as extending from the southeast corner between c.40cm-2m below ground level and varying across the site.

As estimated in Curio overlays of the site, the geotechnical investigations also generally confirmed the extent of the original shoreline as cutting approximately across the southeast corner of Site 1, and northeast corner of Site 2. Site 3 appears to be located wholly across original land, i.e. not within an area of land reclamation (Figure 3). Additionally, any subsurface works should consider the water table level, particularly when

³⁰ RPS 2016c, *Newcastle Light Rail, Technical Paper 3—Historical Archaeological Assessment and Statement of heritage impact*, prepared for Transport of NSW

considering that the 2011 geotechnical works in the northern boundary area of Site 1 encountered water at c.2.0m below ground level.

Other geotechnical work undertaken for the Newcastle Light Rail project within the general project area confirmed the nature of the soil profiles in the area. A geotechnical test pit near the Civic Theatre in Hunter Street, Newcastle—<100m from study area identified natural sands from c.70cm below ground level (RPS 2016).

4.0 Archaeological Heritage Significance

The following section provides a summary of the archaeological significance assessment findings provided in the *Archaeological Assessment for University of Newcastle, Honeysuckle Campus*, prepared by Curio Projects for the University of Newcastle, April 2018.

4.1. Historical Archaeological Significance

Archaeological sites, which contain ‘relics’ as defined by the NSW *Heritage Act*, are managed like any other significant item of environmental heritage. The main aim of an archaeological significance assessment is to identify whether an archaeological resource, deposit, site or features is of cultural value—a ‘relic’. The assessment will result in a succinct statement of heritage significance that summarises the values of the place, site, resource, deposit or feature.³¹

There are three key questions posed by Bickford and Sullivan³² in their influential paper on archaeological potential that help to shape whether an archaeological resource meets the threshold for having archaeological potential. They suggest that all archaeologists ask the following key questions of an archaeological resource:

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

With respect to the current study area, these questions are answered as follows.

Can the site contribute knowledge that no other resource/site can?

Should evidence of early settlement on Honeysuckle Point (i.e. ‘Bishop’s Settlement’) remain intact within the study area (i.e. presence of structural remains/deeper subsurface remains such as wells and cisterns etc), this could provide significant rare information regarding the initial settlement, use and early domestic life of the inhabitants of the early settlement of Newcastle, evidence of which in the historical record is relatively lacking.

The Honeysuckle Railway Workshops were demolished in the 1990s, with extensive mapping, research, archival recording and documentation undertaken prior to demolition.³³ Buildings assessed to be of the highest significance were retained within the current SHR listing. Therefore, the majority of the knowledge regarding form, function, and history of the Honeysuckle Railway Workshops are well documented, and the ability of archaeological remains at the site to contribute to the historical record will be limited to only select features (i.e. mortuary station), as identified through Doring 1990 and subsequent relevant reports.

³¹ Heritage Branch-Department of Planning.,2009 *Assessing Significance for Historical Archaeological Sites and ‘Relics’* State of New South Wales

³² Bickford, A. and Sullivan, S., 1984, ‘Assessing the Research Significance of Historic Sites’, in Sullivan and Bowdler (eds), *Site Surveys and Significance Assessment in Australian Archaeology* (Processings of the 1981 Springwood Conference on Australian Prehistory); Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra, pp. 23-24

³³ Doring, M. J. & C., 1990., *Honeysuckle Point Heritage Study: 1856 to 1990*, Chatswood NSW.

Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

The study area is located adjacent to the SHR curtilage for the Civic Railway Workshops, and was once a part of these workshops. The industrial buildings of the Honeysuckle Point/Civic Railway Workshops manufactured industrial materials, infrastructure and equipment for the introduction, function, and maintenance of rail operations in the Newcastle and Hunter Valley region for almost 150 years. Archaeological evidence that can contribute to the archaeological record relating to the function, location, form of the rail workshops would have archaeological research potential.

4.2. Archaeological Significance Assessment

The archaeological significance assessment presented here is in relation to each of the three phases of use of the study area, and has been assessed in accordance with the 'NSW Heritage Criteria for Assessing Significance related to Archaeological Sites and Relics'³⁴

4.2.1. Historical Archaeological Research Potential (Current NSW Heritage Criterion E)

Should any archaeological resource associated with the early settlement of Honeysuckle Point be present within the study area (c.1840s), it would be of **local** significance for its ability to contribute to the archaeological record regarding the subsistence and domestic lives of early Newcastle/Honeysuckle Point residents. Any evidence relating to this period of site occupation would be considered to be rare due to the relative paucity of the historical record relating to the Bishop's Settlement.

The Engine Turntable, known to be located within Site 2 is of **State** significance as a rare example of one of the earliest industrial rail artefacts in NSW.

4.2.2. Associations with Individuals, Events or Groups of Historical Importance (NSW Heritage Criterion A, B & D)

Any archaeological evidence associated with the use of the site as the Honeysuckle/Civic Railway Workshops would be of local significance for its importance in Newcastle's history, instrumental in the industrial, economic and residential growth of Newcastle from its inception, for its key contribution as a primary support to coal mining.

4.2.3. Aesthetic or Technical Significance (NSW Heritage Criterion C)

Should any intact archaeological resource relating to Mortuary Station remain within the study area, this would be of aesthetic significance at a **local** level, as few photographs or plans remain of the form of Mortuary Station specifically.

The Engine Turntable, known to be located within Site 2 would be of **State** significance for its aesthetic values.

The study area also retains the potential for other archaeological evidence of aesthetic significance (either local or State) to be present, possibly in the form of technically significant aspects of railway infrastructure which may be considered to be significant, dependent on the nature, condition and extent of the potential deposit.

³⁴ NSW Heritage Branch 2009, *Assessing Significance for Historical Archaeological Sites and 'Relics'*: p.11

4.2.4. Ability to Demonstrate the Past through Archaeological Remains (NSW Heritage Criteria A, C, F & G)

Archaeological resources and/or relics associated with the early function of the site as the Honeysuckle Point Workshops, particularly in relation to early structures such as Mortuary Station, would be of local significance (or potentially State, depending on how intact the resource is) for its ability to contribute to our overall understanding of the functional layout, form and character.

The study area has the high potential to retain intact natural soil profiles (as demonstrated through nearby/adjacent archaeological excavations), and therefore has the potential well preserved archaeological deposits relating to both pre-1788 Aboriginal occupation as well as the early European occupation of Honeysuckle Point (i.e. pre-railways early occupation of Bishop's Settlement). Should archaeological deposits relating to these phases be present within the study area, they would likely be of **local** significance for their ability to demonstrate the past through archaeological remains.

4.3. Statement of Significance

Overall, it is considered that the study area has the potential to retain an archaeological resource of **local** significance relating either to evidence for the early settlement of Honeysuckle Point (Bishop's Settlement), or to evidence it can contribute to the archaeological record relating to the function of the site as the Honeysuckle Point/Civic Railway Workshops, for a continuous period of almost 150 years. Significance of archaeological evidence relating to the Railway Workshops period of site use would depend on the nature, extent and condition of the deposit, and could meet the criterion for either local or State significance.

However, it should also be noted that the Civic Railway Workshops buildings and structures that were formally located within the study area were mostly only demolished in the 1990s, with extensive mapping, archival recording and documentation undertaken prior to demolition, with those buildings assessed to be of the highest significance, retained within the current SHR listing. Therefore, subsurface remains of former railway structures are likely to have limited archaeological significance, due to this information already being available from other sources.

The Engine Turntable, known to be located within Site 2, is of **State** significance for its research potential, and aesthetic values, as likely one of the oldest surviving railway relics in NSW (c.1857). The significance of the Turntable may warrant in situ retention, and should be assessed further, once the full extent of the proposed development works/development design is known.

5.0 Archaeological Impact Assessment

5.1. Description of Proposed Development

The University of Newcastle (UoN) is seeking to expand its presence in the CBD of Newcastle and is in the process of acquiring three parcels of land within the Honeysuckle Precinct. The three sites are proposed to house the Honeysuckle City Campus Development (HCCD), intended to be a large-scale academic precinct.

At present, the HCCD development is proposed to be completed over multiple stages (see Figure 25 for proposed building locations reference):

- Stage 1a—Construction of Building A1 (Site 1);
- Stage 1b—Construction of Building B (Site 2);
- Stage 2—Construction of Building A2 (Site 1);
- Stage 3—Construction of Building C (Site 1); and
- Stage 4—Construction of Buildings D, E & F (Site 2 & 3)

It is understood that Site 2 and 3 have not yet been secured and remain an option for the University to purchase from Hunter Development Corporation (HDC), subject to rezoning. As nominated in the Concept Master Plan Report (COX Architecture, October 2017), if all sites are developed, the campus will have a total yield of 62,574 m² gross floor area (GFA), comprised of the following:

- Academic space - 50,746 m² GFA (approximately 800 staff & 4,380 students)
- Student accommodation - 11,828 m² GFA (394 beds)

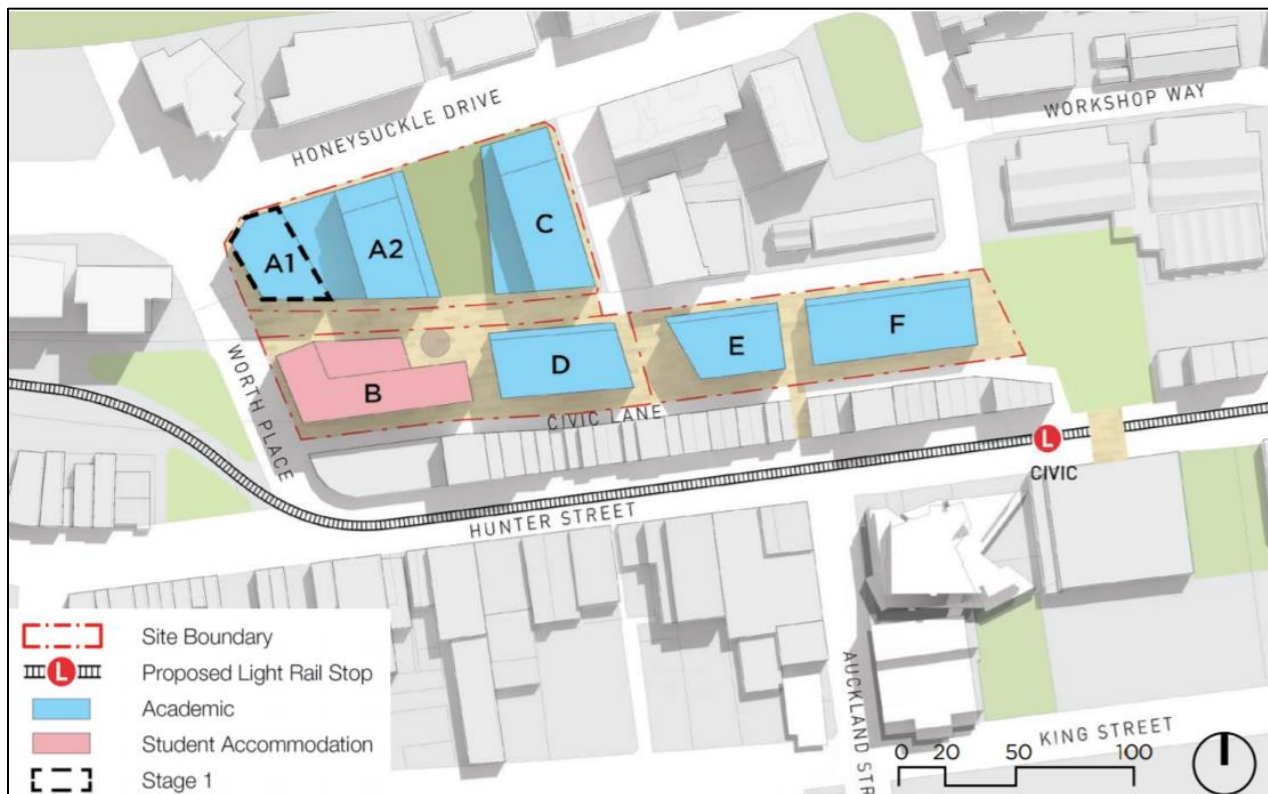


FIGURE 25: UoN HCCD—CONCEPT PLAN PROPOSED BUILDINGS (SOURCE: COX ARCHITECTURE 2017)

5.1.1. Proposed Enabling Works (Stage 1A)

This ARD applies to the early enabling works for Stage 1A of the UON HCCD project (i.e. construction of Building A1 in the northwest of Site 1). The Stage 1A enabling works include installation of sewer, water, electrical and telecommunication services required to service Building A1 and to connect the new development into existing services, as well as bulk earthworks to fill Site 1. Geotechnical and contamination testing of the subsurface soil profiles will also be required within the site to further the detailed and structural design of the overall development.

Mine remediation works will also be required for Site 1, in the form of mine grouting and verification works due to the presence of former mine-working sites present at substantial depths beneath the development site (Figure 28). The grouting works will be required in order to increase stability at mine level and reduce the potential for subsidence within the development site.

The proposed ground works required for the Stage 1A Enabling Works of the UON HCCD development for water, sewer, electrical, telecommunications, geotechnical and grouting works include:

- Bulk earthworks within Site 1 (construction of a 500mm capping/fill layer over the entirety of Site 1) in order to achieve minimum floor levels required to mitigate site flooding and contamination risks;
- Installation of two PVC watermains, one 57m x 150mm diameter, and one 173m x 250mm diameter (c.3-4.5m depth);
- *Optional installation of two additional watermains: 2 x 60m x 150mm diameter to service future Building C;*
- Installation of the sewer main extension, including: the installation of a 70m x 150mm diameter pipe at 3-4.5m depth along Wright Lane; and installation of a 20m x 150mm diameter pipe at 1.5-3m depth to connect to manhole on Worth Place;
- Installation of three water/sewer maintenance chambers;
- Installation of one electrical kiosk substation in vacant space between future proposed Building A2 and Building C, to supply Building A1;
- Installation of conduits and pits for electrical, NBN and communications (minimum 400-500mm width and 600-700mm depth); and
- Installation of UON private communication network cable, conduits and pits, extending from Honeysuckle City Campus to Auckland Street adjacent to Hunter Street after the NeW Space Building (located on the corner of Hunter and Auckland Streets).

The general locations of the Stage 1A Enabling Works impacts (i.e. new services trenching and electrical substation) are presented in relation to the study area in Figure 26. Figure 27 presents a general plan of the proposed bulk earthworks in the form of filling across all of Site 1. The exact location of the proposed geotechnical and contamination boreholes are yet to be determined, however these are considered to be low impact activities. Proposed mine subsidence grouting boreholes are presented in Figure 28.

Appendices B and C provide the Northrop and GHD DA input documentation for the sewer, water, electrical and telecommunications reticulation strategies for Stage 1A of the UON HCCD project.

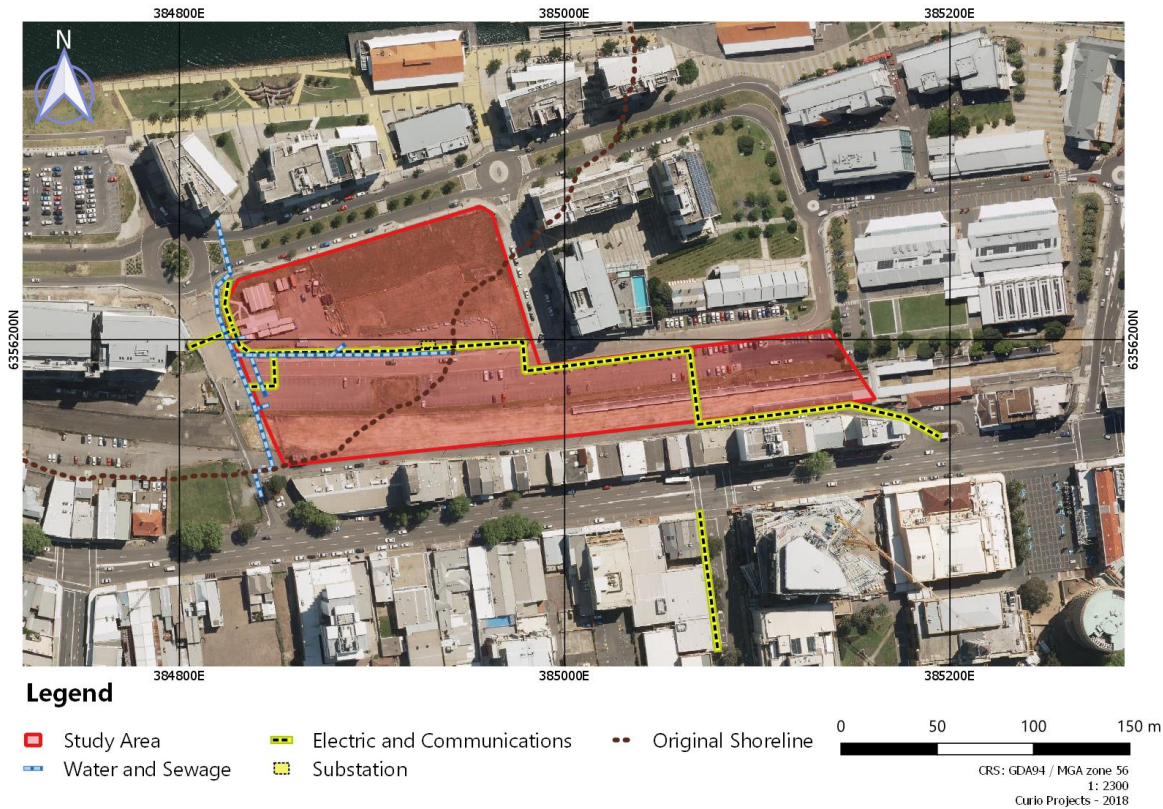


FIGURE 26: ENABLING WORKS—PROPOSED TRENCHING ROUTE (SOURCE: CURIO 2018)

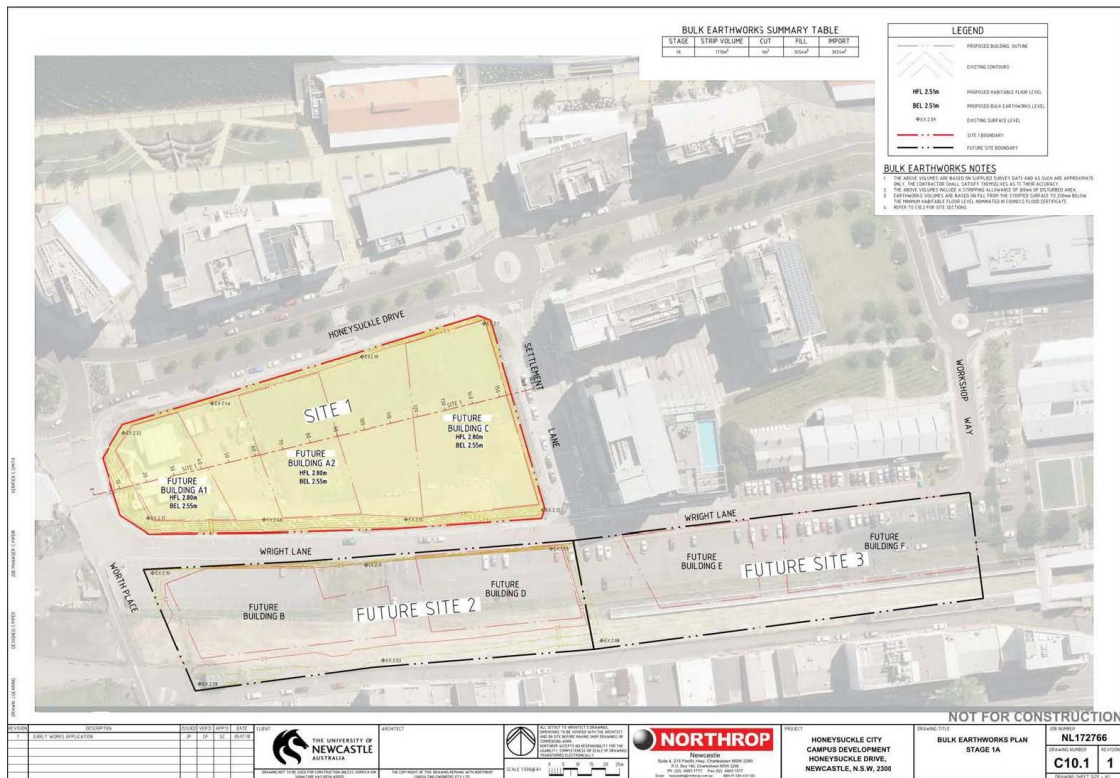


FIGURE 27: ENABLING WORKS PROPOSED ACTIVITY—SITE FILL PLAN (SOURCE: NORTHROP 2018)

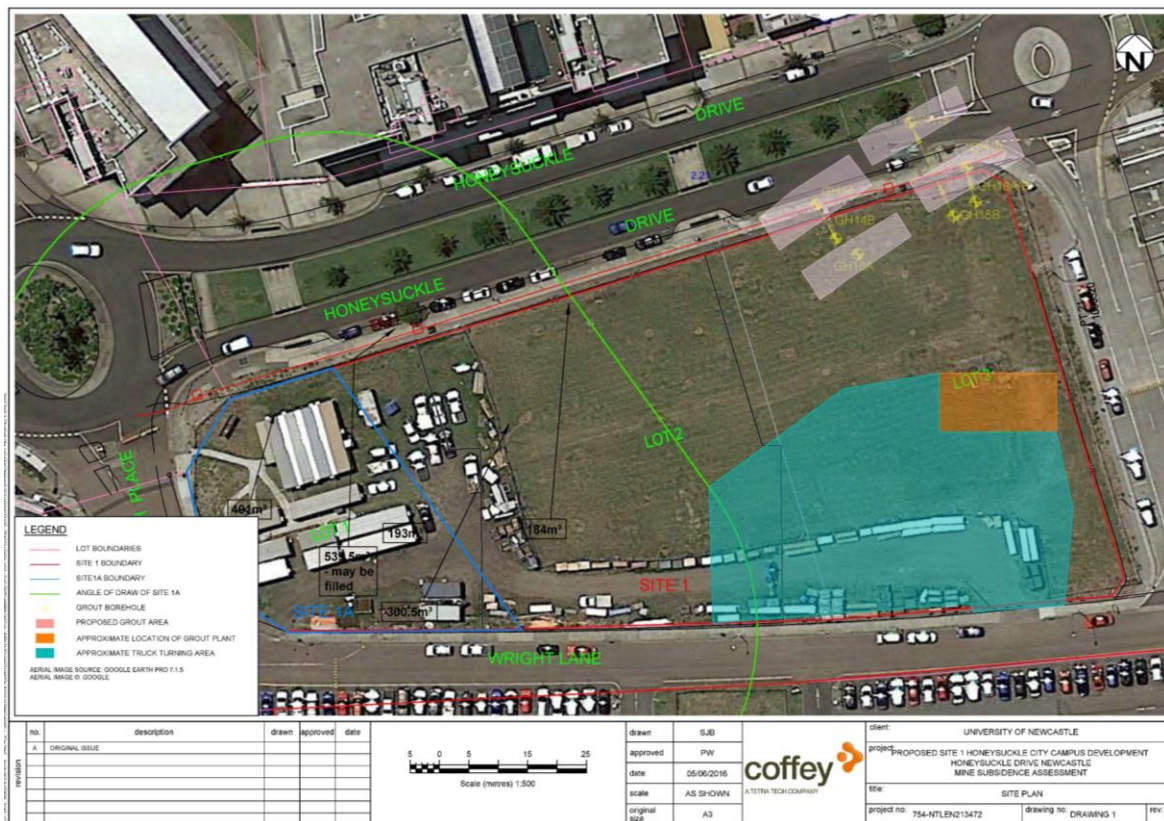


FIGURE 28: ENABLING WORKS PROPOSED GROUTING WORKS WITHIN AREA 1 (SOURCE: COFFEY 2018)

5.2. Impacts of Proposed Works

The Stage 1A Enabling Works have the potential to impact upon historical archaeological remains surviving in the study area. The main ground disturbance impacts of the Stage 1A enabling works are categorised according to three main impact types—new trenching works, boreholes, and bulk earthworks for filling. The nature, location and extent of these three impact types are discussed below with reference to their possible impact on potential historical archaeological remains within the study area.

Mitigation in the form of archaeological monitoring of trenching, along with the implementation of an unexpected finds policy for other locations, will be required to address the Stage 1A development impacts on any identified historical archaeological remains that may be exposed during the works.

5.2.1. New Service Trenching

The width and depth of the proposed trenching works will generally depend on the nature of the services being installed. For example, the water and sewer trenches are proposed to be c. 1.5-4.5m deep (depending on location) and are therefore expected to impact on potential European fill deposits present in the area. The electrical and telecommunications trenching is proposed to be c.700-900mm deep (with potential variation) and therefore are also likely to encounter historical archaeological remains at these depths.

The location of the trenching works across the study area will also determine the level of impact to potential historical archaeological deposits. Trenching works located north of the original shoreline are considered unlikely to impact upon in situ historical archaeological deposits, as that area is reclaimed land, and originally would have been located within the Hunter River itself. However, trenching within the reclamation area has potential to impact on remains of the Bullock Island Bridge Causeway potentially present beneath Worth Place and/or the west area of Sites 1 & 2 (**Error! Reference source not found.**). The trenching works also have the potential to expose evidence of the materials used in the land reclamation of the site area and their origins, such as harbour dredging and/or land modification and reclamation activities associated with the original form of Honeysuckle Point. Archaeological evidence of such land reclamation and modification activities have moderate to high potential to survive in the area.

Service trenching to the southeast of the original shoreline has the potential to encounter an archaeological resource associated with the early Bishop's settlement area (1810-1857) as well as lime burning kilns, farming activity and evidence of early sea walls within Site Areas 1 to 3 (Figure 29). Although the alignment of trenching route intersects with structures indicated on the 1857 historic plan, inherent inaccuracy in early plans means that the precise location of structures and features is uncertain. There is a range of low to moderate potential for remains from this phase to survive at the site.

The proposed service trenching route also has the potential to encounter post-reclamation remains of railway structures and associated industry related remains and ephemera from both the Phase 3 Honeysuckle Rail Workshops (c.1857-1933) and Phase 4 Civic Railway Workshops (1933-1990s). This potential archaeological resource, if present, may be impacted in trenching works in the southwest (i.e. within Worth Place (Site 2)), and within Site 3 where the services route traverses from north to south across the site and easterly along Civic Lane, as the trenching in this area crosses the location of several earlier railway structures (Figure 30 and **Error! Reference source not found.**).

5.2.2. Bulk Earthworks—Filling

Due to the proximity of the subject site to the water table, filling will be required across all of Site 1 of the UON HCCD project, to achieve minimum habitable floor levels (the current site levels range from 2.0

to 2.5m AHD, while Council's minimum habitable floor level for flood management is 2.8m AHD). Therefore, it is proposed that Stage 1A Enabling Works of the project includes:

- Strip existing topsoil layer (nominal depth of c.200mm) and stockpile topsoil on site;³⁵
- Import fill material to fill all of Site 1; and
- Once filling is complete, respread stockpiled topsoil to remainder of the site (if able, in consideration of any contamination requirements, if applicable), other than that within the direct footprint of Building A1.

During development of the Aboriginal Cultural Heritage Assessment Report (ACHAR) and Aboriginal archaeological methodology for the Stage 1A Enabling Works, the requirement for Aboriginal archaeological test excavation was identified within the southeast of Site 1, i.e. the part of Site 1 that is located to the south of the original Honeysuckle shoreline. However, due time and economical considerations for these early works, in acknowledgement of the requirement for future Aboriginal archaeological investigations within other areas of the development site for future works (i.e. within Site 2 and 3), the decision was made to avoid stripping and filling the southeastern corner of Site 1 at this time, thereby delaying Aboriginal test excavation in this location until a future time where a more holistic test excavation program could be implemented. Therefore, the bulk earthworks, including the topsoil stripping, filling, and replacement of topsoil, will not be undertaken at this time in the southeast corner of Site 1.

Therefore, the proposed bulk earthworks will only have the potential to impact on any historical archaeological resource located within the top 200mm of soil in the northwest of the original Honeysuckle shoreline, i.e. associated with Phase 3 and 4 of the historical use of the site only. While previous archaeological investigations have identified the potential for historical remains to be exposed very close to the existing ground surface (i.e. Honeysuckle Station, as described in Section 3.1.), it is still considered that there is a low potential for historical archaeological remains to be located within the top 200mm of soil across the northwest of Site 1, particularly considering the more recent demolition, clearance, and decontamination works undertaken following the closure of the former Honeysuckle Railway Yards in the 1990s (Figure 16). In addition, there is low to nil potential for archaeological evidence of land reclamation activities to be present within the top 200mm of soil across the northeast of Site 1.

5.2.3. Boreholes (Geotechnical/Contamination/Grouting)

Boreholes are proposed within Site 1 for geotechnical and contamination investigations, as well as for grouting to stabilise the underlying mine network. Mine grouting works involves the injection of a cement stabilising flyash material into the mine working via boreholes drilled from the surface into the mine workings. The grout thus stabilises the mine workings by filling voids at mine level, and filling fracture in the overlying rock (Coffey 2018). Drilling for mine stabilisation works first commenced at the site in 2011, and while some grouting was undertaken at this time, grouting was not completed. Therefore, grouting works for the Stage 1A development of the UON HCCD development will include the redrilling of several former boreholes (due to collapse of borehole walls or from encountering a coal pillar at mine depth), c. 75mm in diameter, as well as pumping grout into the relevant boreholes to facilitate stabilisation.

³⁵ N.B. While stockpiling of stripped topsoil is proposed, this would be subject to any WHS considerations that may be encountered at the site depending on contamination works and studies etc. Should the topsoil be found to be contaminated, it may not be possible to reuse the soil as proposed, however this would need to be identified as assessed during the course of site works.

Following completion of the grouting works, up to two additional boreholes will be required to confirm grout flow and grout penetration.

The exact number and location of the required redrilled boreholes, and new boreholes for geotechnical and contamination works are yet to be confirmed, however the boreholes are relatively minimal in size and therefore considered to be a minor impact to the potential historical archaeological resource at the site. No direct archaeological mitigation of the boreholes would be proposed, other than acquiring a copy of soil logs from any geotechnical work in order to feed into future archaeological modelling for the site.

5.3. Proposed Impacts Summary

The above described works have potential to impact upon surviving historical archaeological remains. However, the level of physical impact across the site will depend on the varying nature of the development activities (i.e. more shallow trenching for electrical and telecommunications, vs deeper trenching for water and sewer, filling, and small diameter boreholes). Conversely, as the Stage 1A development of the study area does not include any requirement for bulk excavation and will in fact be filled by an additional c.500mm, the proposed bulk earthworks within Site 1 will essentially conserve any potential historical archaeological deposit in those areas. The proposed geotechnical borehole program is not considered to have a substantial impact on any potential archaeological remains within Site 1.

The main impacts of the Stage 1A enabling works program are located within the proposed services route excavation areas. Figure 29 and Figure 30 indicate where these works have potential to impact historical archaeological remains from Phases 2 and 3 along the services route. As previously noted there is a degree of inaccuracy within the historic plans for the area so the precise location of potential archaeological features cannot be identified with any certainty prior to works commencing.

Overall, due to the relatively minor and limited ground impact location of the works, it is considered unlikely that the Stage 1A Enabling Works activities will present a substantial impact to any potential archaeological resource. However, targeted archaeological monitoring is proposed for sensitive locations (i.e. locations of former historical structures in conjunction with service trenches), in order to manage and mitigate any potential archaeological impact in these locations.

In addition, the Stage 1A Enabling Works are not predicted to impact on any known potential archaeological resource with the potential to be of State significance.

An Archaeological Research Design (ARD) for the proposed archaeological monitoring works (including methodology for the management and removal of any intact archaeological deposits or relics) is presented in the following sections. Prior to excavation works commencing at the site, a Section 140 (for works outside of the SHR curtilage) and a Section 60 excavation permit application (for works within the SHR curtilage) should be submitted to the NSW Heritage Division for the proposed Stage 1A Enabling Works, to be accompanied and supported by this report.

Table 3 presents a summary of the potential impact that the proposed enabling works activities may have on historical archaeology, along with the proposed archaeological mitigation strategy for each potential impact (to be discussed further in the archaeological methodology presented in the section below).

TABLE 3: SUMMARY OF POTENTIAL HISTORICAL ARCHAEOLOGICAL IMPACTS (STAGE 1A ENABLING WORKS)

Historical Phase	Potential Archaeological Evidence	Potential Archaeological Impact of Stage 1A Enabling Works	Proposed Archaeological Mitigation
Phase 2—Early Settlement (1810–1857)	Early structural remains, wharfs, lime burning/kilns, wharfs, fences, wells associated with Bishops Settlement Palaeobotanical evidence	Low potential. Service trenching in this location is comms only, c. 60cm wide x 70cm deep. Unlikely to encounter potential Phase 2 remains. Low to no potential. Small impact zones southeast of original shoreline.	Monitor trenching to southeast of original shoreline. N/A
Phase 3—Reshaping Harbour (1857–1930)	Land Reclamation Activities	Low potential due to limited impact areas for Stage 1A Enabling Works.	Unexpected Finds.
	Mortuary Station Rail Workshops Buildings and Structures Engine Turntable Bullock Island Bridge, Southern Causeway	No impact. Not located within impact areas. Low to moderate potential to impact any structural remains of former rail buildings in east/within Site 3. No impact. Not located within impact areas. Low to moderate potential.	N/A Monitoring southeast trenching (i.e. within Site 3). Unexpected Finds other areas. N/A Monitor trenching within Worth Place.
Phase 4—Civic Railway Workshops (1930s–1990s)	Ephemeral/minor structures associated with later use of Railway Workshops	Low Potential	Unexpected Finds

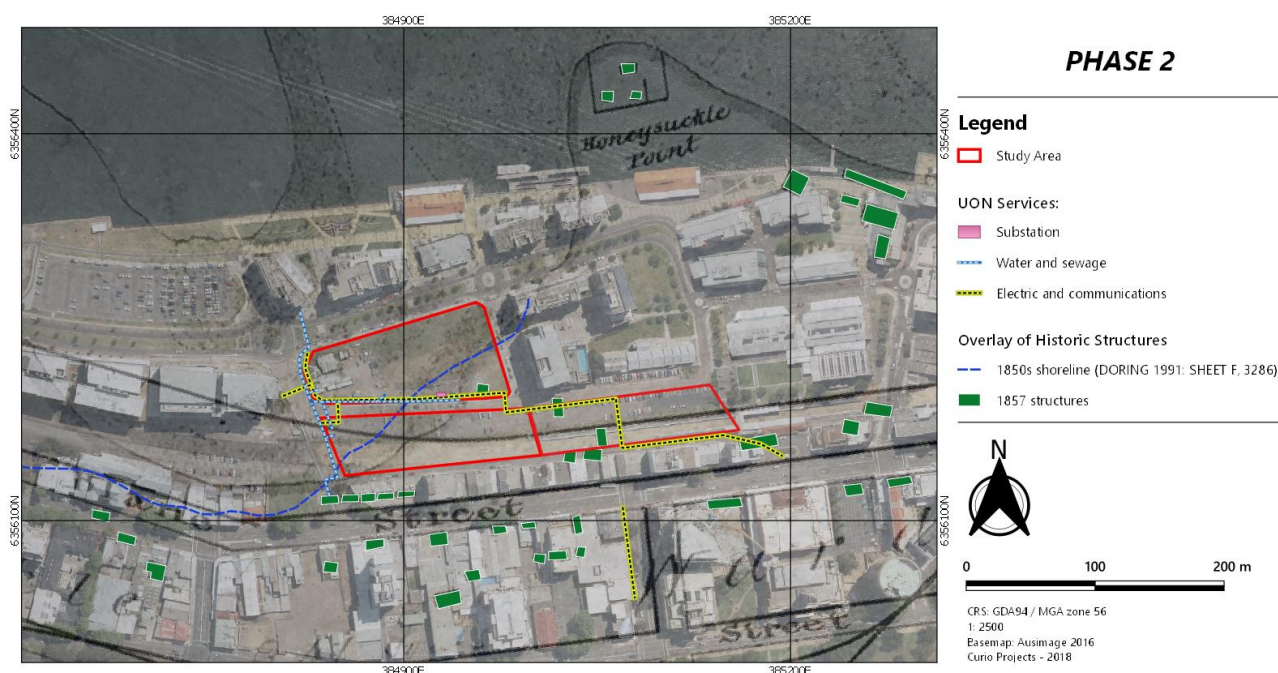


FIGURE 29: PHASE 2—OVERLAY OF PROPOSED SERVICES TRENCH ROUTE IN RELATION TO STRUCTURES PRESENT ON 1857 PLAN (SOURCE: CURIO 2018)

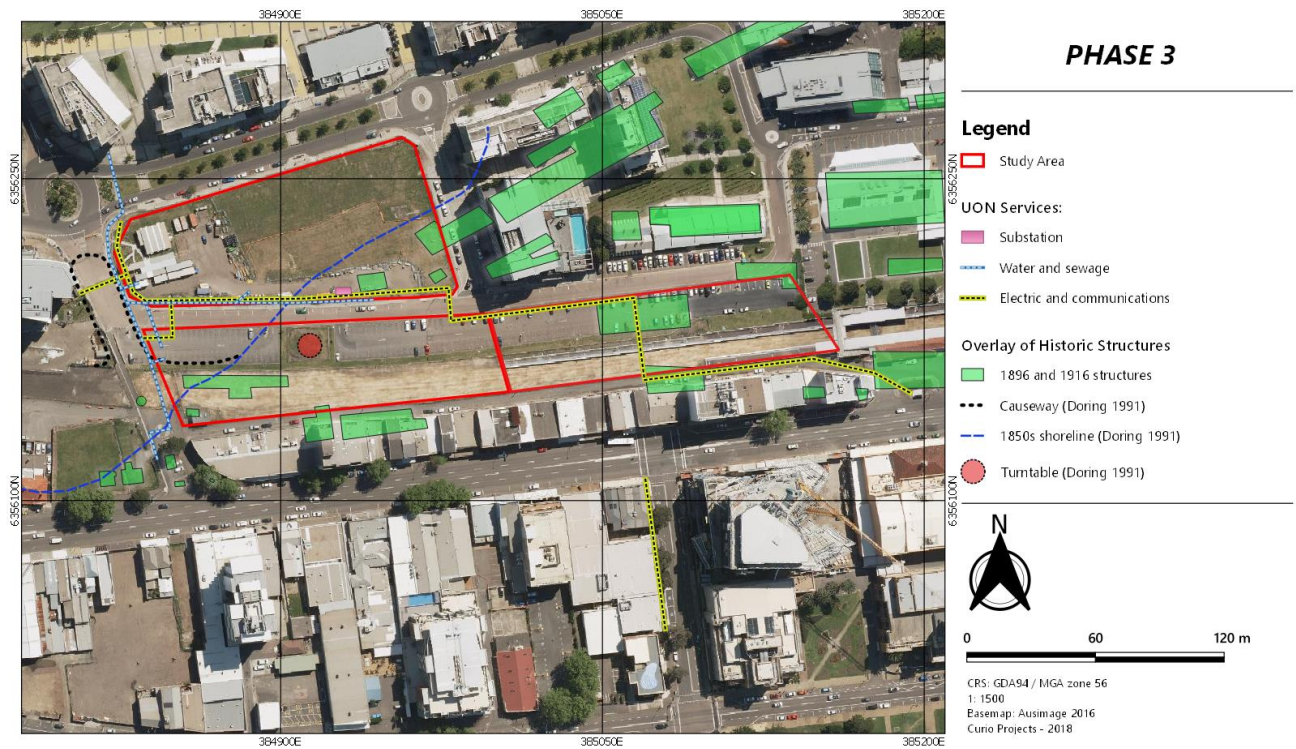


FIGURE 30: PHASE 3—OVERLAY OF PROPOSED SERVICES TRENCH ROUTE IN RELATION TO STRUCTURES PRESENT ON 1896 AND 1916 PLANS (SOURCE: HISTORICAL LANDS RECORD VIEWER WITH CURIO ADDITIONS 2018)

6.0 Archaeological Research Design

The following questions provide a contemporary research framework for the historical archaeological investigation. These questions have been formulated in consideration of relevant research themes for the Newcastle area as identified in the Newcastle Archaeological Management Plan 2015 and Newcastle Archaeological Management Plan Review 2013, most notably: Railway and Port Infrastructure; and Urban Development, 1853 onwards.

Further research questions in addition to those posed below, may be developed based on the nature of any archaeological resource or evidence encountered during archaeological investigation.

6.1. General Questions

- What was the nature of the original landform within the various locations subject to investigation?
- Does evidence for shells, such as cockles and oysters and plant species remain in this area?
- What is the nature, intactness and significance of any historical archaeological relics (features, deposits or other items)?
- How has this part of Honeysuckle Point evolved over time?
- Are the various phases of landform remodelling, including land reclamation activities, modification, retaining wall construction etc, evident within the study area?
- If evident within the study area, what different materials and means were used in land reclamation/modification works, and what was the depth of the reclamation? How different were these practices compared to similar foreshore reclamation activities such as those in Sydney at Darling Walk, Barangaroo and KENS sites?
- Can the origin of the reclamation fill be determined?

6.2. Specific Questions

- Is there any evidence of the area's character prior to settlement of Newcastle town?
- What, if any, evidence is discernible for c.1808-1821 lime burning activities at Honeysuckle Point that made use of Aboriginal middens and oyster shells?
- Does evidence survive of early attempts to modify the original topography?
- Do remains of the Bullock Bridge Southern Causeway survive in the area? If so, what do they reveal about its means of construction and fabric?
- Can evidence for the pre-1857 Bishop's Settlement be identified at the site, such as remains of farming, houses, wells, shipbuilding activities or pre-reclamation wharfage?
- Does evidence survive of the brick kilns on Honeysuckle Point used for shells burning activities?
- Can the location of the former 1883 Mortuary Station site be identified within the study area?
- Several phases of railway buildings and sheds were located within the study area. Do remains of any of these structures survive within the study area? If so, is their function identifiable? Did this

change over time? Is there any evidence for earlier railway structures that are not clearly identified on historical plans?

- What, if any remains of in situ railway tracks, rail stock, unrecorded structures and other railway features associated with later use of the Civic Railway Workshops survived the 1990s demolition and clearance?

7.0 Archaeological Methodology

In order to mitigate impacts to the potential historical archaeological resource within the Stage 1A Enabling Works phase at the UON HCCD study area, archaeological monitoring of proposed service trenches along the western side of the study area, as well as targeted monitoring of trenching to the southeast of the original Honeysuckle shoreline (with the option to undertake archaeological recording and removal of any intact archaeological deposits or relics, if uncovered) is considered warranted. Other locations considered to have low potential for archaeological impacts, should be subject to an unexpected finds policy. The following section presents the proposed research design and excavation methodology for this archaeological mitigation approach at the UON HCCD site.

7.1. Archaeological Monitoring

The proposed enabling works program predominately involves excavation of several trenches for the installation of new electrical, telecommunications, sewer and water services. Targeted historical archaeological monitoring is proposed during the excavation of some of these trenches, to enable identification and recovery of any historical remains/relics that may be disturbed or removed by the works. Identification and recording of any surviving archaeological resource would facilitate future investigation of historical archaeological resources within the study area, and further understanding of the historical features and use of the area.

Archaeological monitoring is the archaeological supervision of a works program that allows for the incidental recording of relics, should they be exposed. Historical archaeological monitoring within the subject site will be conducted according to accepted Australian historical archaeological best practice guidelines (as endorsed by the NSW Heritage Division) and will consist of archaeological supervision of machine trenching excavation along the proposed UON service routes.

Archaeological monitoring is proposed for the electrical and communications trenching extending from the southeast corner of Site 1, to the eastern extent of the trench, as well as targeted monitoring of trenching works within Worth Place, in proximity of the original location of the southern causeway of the Bullock Bridge (Figure 31).

The Stage 1A Enabling Works are considered unlikely to impact on any potential remains of Mortuary Station (should they remain within the site). However, due to slight inconsistencies between historical mapping locations of the station, archaeological monitoring of trenching works in the vicinity of the station location is also proposed.

Should historical relics and remains survive within the proposed service trench route, these are likely to be recovered within the first metre of fill below existing ground level, allowing for modern disturbance, site clearance and demolition activities associated with the 1990s closure of the Civic Workshops. The development does not propose extensive bulk excavation, with Site 1 mainly requiring filling prior to development rather than subsurface disturbance.

Archaeological monitoring will consist of an archaeologist attending site during the excavation works, and/or undertaking regular site inspections as required during the course of trenching works. The archaeologist will also be 'on-call' if archaeological remains or unexpected finds are encountered during the works program (detailed further in Section 7.2).

If any archaeological remains or significant artefact deposits are encountered, the client will be advised that short, localised work stoppages may be necessary while appropriate archaeological recording and

removal (if required) is carried out. This generally means that work in the immediate area affecting the archaeological remains is paused to allow for the archaeologist to inspect, clean, record and photograph any remains. Archaeological recording may include the use of context numbers, filling out context sheets, producing scaled drawings, collecting artefacts and photography.

The archaeological monitoring program will be undertaken by suitably qualified and experienced Excavation Director with assistance from historical archaeological field assistant/s, as required. Should any archaeological deposits requiring further investigation and recording be encountered during excavation works, the nominated Excavation Director would undertake the detailed recording of the material before removal, with assistance from suitably qualified historical archaeological field assistants, as needed using the recording process outlined below.

The aim of the archaeological monitoring program is to determine if the assessment of archaeological potential and significance, based on historical information and archaeological modelling is accurate, as well as providing as a precautionary measure in the case that significant archaeological relics and/or deposits are located within the development area that would require detailed archaeological recording and removal. Any significant artefact deposits would also be sampled, although based on our experience of reclamation fills the likelihood of such deposits is limited.



FIGURE 31: PROPOSED ARCHAEOLOGICAL MONITORING LOCATIONS (SOURCE: CURIO 2018)

7.1.1. Recording and Salvage

If and when relics are exposed during the archaeological monitoring works, they will be assessed on the spot and recorded. If assessed to meet the criteria for local significance, they will be subject to salvage. The recording process will include the following:

- Manual (hand) clean-up and excavation of exposed relics using hand tools (shovels and trowels);

- Exposure (via hand excavation) of the identified archaeological deposit/relic to the extent of the deposit;
- Preparation of annotated site plans to plot the location of features, deposits and items;
- Note taking in a dedicated field notebook that will be used to create a running record of the monitoring and salvage program;
- Photography of the excavation using a high-end digital camera (& scale bar/mini-rod) with photo date and contextual details recorded in a photo catalogue; and
- Recording of any archaeological features and deposits identified to be of local significance, which will be given sequential identifiers (context numbers). Contexts and summary details will be entered into a running context catalogue with significant/notable items recorded on individual data sheets.

Should any locally significant artefacts from intact contexts be revealed during the excavation process, they will be retained, bagged and tagged according to location, context and fabric. These will later be cleaned, re-bagged and subject to preliminary cataloguing before being secured in archive boxes in an appropriate location (once analysis and recording has been completed). The ultimate artefact repository chosen (and/or options for dissemination or display) will be the responsibility of the client and will be detailed in the excavation report.

Once identified archaeological deposits and relics have been sufficiently exposed and recorded (in accordance with the above), they will be removed, and service trench excavation works shall continue in the area. The archaeological monitoring process would also identify areas of the site where little or no survival is noted, to be included in the results of the archaeological report. These results would inform the future main works program proposed at the site and any associated archaeological requirements.

7.2. Unexpected Finds

Should any suspected historical archaeological resources be located outside of identified archaeological monitoring areas during development works, the 'on-call' Excavation Director should be contacted to identify the nature of the find, prior to works continuing in the immediate area. Following sign off from the Excavation Director, development works could proceed.

Should any unexpected historical archaeological resource/relics be uncovered during the course of the development works, (that is, either features encountered outside of targeted monitoring areas, or other than the potential deposits and relics described through this report associated with the known historical activities and occupation of the study area from c.1810 early settlement until decline of the Civic Railway Workshops (1933-1990s), any archaeological deposit of potential State significance etc), then development works should cease in the immediate area of the find, and the Excavation Director contacted to confirm the nature of the find and appropriate mitigation strategy determined if necessary.

7.2.1. Unexpected Skeletal Remains

The discovery of any potential skeletal remains would be in accordance with the approved OEH protocol for the discovery of human remains which is stated as:

If any suspected human remains are discovered and/or harmed the proponent must:

- a) *Not further harm these remains;*

- b) *Immediately cease all work at the particular location;*
- c) *Secure the area so as to avoid further harm to the remains;*
- d) *Notify the local police and OEH's Environment Line on 131 555 as soon as practicable and provide any available details of the remains and their location; and*
- e) *Not recommence any work at the particular location unless authorised in writing by OEH.*

7.3. Public Interpretation

The archaeological program for the Stage 1 Early Enabling Works phase of the University of Newcastle Honeysuckle City Campus Development project is unlikely to result in substantial archaeological information and physical material remains, artefacts or *in situ* relics associated with historical phases of the site's occupation. However, should these be recovered during the archaeological monitoring program they may be able to inform and be included in the site's future heritage interpretation strategy. The development of a heritage interpretation strategy would determine strategies for the presentation of both Aboriginal and historical cultural heritage values of the site and surrounding Honeysuckle area, into the public domain and future development of the new university campus.

8.0 Conclusions & Recommendations

8.1. Conclusions

The following conclusions are made for the University of Newcastle, Honeysuckle City Campus Development (UON HCCD), located within the Honeysuckle Precinct, Newcastle CBD. These conclusions are made based on background research and archaeological analysis of the study area.

- The study area is associated with four historical phases of site use and occupation: Phase 2—Early Settlement (1810–1857); Phase 3—Reshaping the Harbour and Railway Expansion (c.1857–1933); Phase 4—Civic Railway Workshops and Decline (1933–1990s); and Phase 5—Honeysuckle Precinct (1990s–Current).
- As demonstrated by adjacent archaeological excavations to the study area (i.e. AMAC 2012) there is a moderate archaeological potential for relics associated with Phase 1 use (Bishop’s Settlement) of the study area along and to the south of the path of the original shoreline of Honeysuckle Point.
- There is moderate to high archaeological potential for structural remains associated with Mortuary station in the southwest area of Site 2, in proximity of proposed Stage 1A early enabling work. The precise location of the station is currently unknown, its position shifting within the south west area between recorded historic plans. If present, the structural remains of Mortuary Station are likely to have archaeological significance at a local level.
- There is moderate to high archaeological potential for structural remains/relics associated with other early railway workshop buildings, tracks and railway ephemera within the study area. Should structural remains/relics associated with other early railway workshop buildings and use of the site as the Honeysuckle/Civic Railway Workshops site be present, these would be of local significance.

This ARD has built upon these conclusions, in the context of the proposed works required for the Stage 1A Enabling Works phase of the development, to facilitate services and initial preparation for the construction of Building A1 of the UON HCCD, in order to develop a historical archaeological management and mitigation strategy, as summarised in the below recommendations.

8.2. Recommendations

This Archaeological Research Design and Excavation Methodology recommends that:

1. The proposed Stage 1A Enabling Works indicates that archaeological remains of potential local heritage significance relating to Phases 2, 3 and 4 of historical site use have the potential to be impacted during construction works. Therefore, relevant permits should be applied for under the *Heritage Act 1977*:
 - A Section 140 excavation permit application should be submitted to the NSW Heritage Division for the UON Enabling Works project, to be accompanied by this ARD, to allow the proposed works to occur, including the recording and removal of any potential archaeological relics (as identified through this report), should they be encountered during works.
 - Although only minor impacts are proposed by the Stage 1A Enabling Works, as a section of the services route extends slightly within the curtilage the State Heritage Register listed site (‘Civic Railway Workshops Group’), a Section 60 excavation permit application should also be submitted to the NSW Heritage Division for approval to allow proposed UON HCCD Stage 1A Enabling works to be undertaken within the gazetted SHR curtilage.

2. A copy of this ARD report should be sent to the Heritage Division, Office of Environment and Heritage to support the S60 and S140 applications.
3. Archaeological relics of State significance are not considered likely to be encountered or impacted through the Stage 1A Enabling Works.
4. The Stage 1A Enabling Works are considered unlikely to impact on any potential remains of Mortuary Station (should they remain within the site). However, due to slight inconsistencies between historical mapping locations of the station, archaeological monitoring of trenching works in the vicinity of the station location is proposed.
5. The historical archaeological assessment for the study area has not indicated that there is any potential for historical archaeological relics or deposits at the site that would warrant in-situ retention.
6. The archaeological monitoring methodology outlined in the Research Design included in this report (Section **Error! Reference source not found.**) will need to be implemented as part of the proposed works.
7. No excavation or ground disturbance of the site should be undertaken prior to the approval and issue of S60 and S140 permits for the works.
8. Archaeological monitoring should be undertaken along the southeastern services trench, and in the vicinity of Worth Place (as identified in Section 7.1), in accordance with NSW Heritage Council approval and this report.
9. Should a historical archaeological deposit requiring further investigation and recording be encountered during monitoring works, the nominated Excavation Director would undertake the detailed recording analysis of the material before removal, along with assistance from 1-2 historical archaeological field assistants, as needed.
10. Should any suspected historical archaeological resources be located outside of identified archaeological monitoring areas during development works, the 'on-call' Excavation Director should be contacted to identify the nature of the find.
11. Although care has been taken to provide a thorough identification of potential historical archaeological features within the study area, and particularly within the areas of impact, it is possible that some unrecorded and unidentified archaeological features may be present within the study area.
12. Should any unexpected historical archaeological resource/relics be uncovered during the course of the development works, (other than the potential deposits and relics described through this report), then development works should cease in the immediate area of the find, and the Excavation Director contacted to confirm the nature of the find.
13. Historical archaeological investigation/monitoring works should be undertaken in acknowledgement of, and collaboration with, Aboriginal archaeological investigative works, as detailed in the *UON HCCD Stage 1A Enabling Works—Aboriginal Cultural Heritage Assessment Report* (ACHAR), and an approved Aboriginal Heritage Impact Permit (AHIP).
14. Should any possible Aboriginal objects be encountered in historical archaeology, the Aboriginal Archaeological Excavation Director should be contacted to identify the nature of the find, and apply the Aboriginal archaeological strategy to the location where necessary.

15. Following conclusion of the archaeological program, a report presenting the results of the historical archaeological investigation should be prepared and submitted to the NSW Heritage Division.
16. If significant artefacts are recovered during the project, these will need to be cleaned, labelled, bagged and catalogued according to the conditions of consent. The University of Newcastle will need to provide storage for these artefacts in perpetuity.

9.0 Bibliography

AHMS 2011. *Palais Royale Final Excavation Draft report* prepared for SBA Architects, August.

Archaeological Management & Consulting Group Pty Ltd (AMAC), 2012. *Final Archaeological Report Lee Wharf Development: Square-about and Lot24 Honeysuckle Drive Newcastle, NSW* prepared for Lee Wharf Developments, Caverstock Group, Aegis Heritage & AMAC Group, May.

AMAC 2012, *Lee Wharf Development: Square-about and Lot 24 Honeysuckle Drive, Newcastle—Final Archaeological Report*, prepared for Caverstock Group Pty Ltd on behalf of Lee Wharf Developments Pty Ltd.

AMAC 2011. *Final Archaeological Report Archaeological Monitoring Honeysuckle Temporary Carpark Worth Place, Honeysuckle Newcastle* prepared for Hunter Development Corporation, December.

AMAC 2006. *Archaeological Assessment, Research Design, Excavation Methodology & Heritage Impact Statement Lee Wharf Project Stage 3 (Buildings A3-6) Honeysuckle Precinct Newcastle NSW* prepared for Lee Wharf Developments Pty Ltd, March.

Coffey 2018. *Proposed University Honeysuckle City Campus Development, Wright Land, Newcastle—Specification for Mine Grouting and Verification Works*, letter report prepared for the University of Newcastle, 21 June 2018.

Curio Projects 2018a. *Archaeological Assessment for University of Newcastle, Honeysuckle Campus*, report prepared for University of Newcastle.

Curio Projects, 2018b, *Heritage Impact Statement for University of Newcastle, Honeysuckle City Campus Development—Enabling Works*, prepared for University of Newcastle

Curio Projects 2018c. *Aboriginal Cultural Heritage Assessment Report, University of Newcastle, Honeysuckle City Campus Development—Stage 1A Enabling Works*, prepared for University of Newcastle.

Doring, C. & M.J. 1991, *Honeysuckle Precinct, Historical and Archaeological Survey*, prepared for NSW Property Services Group

Doring, C. & M. J. 1990., *Honeysuckle Point Heritage Study: 1856 to 1990*, Chatswood NSW.

Douglas, P., Tuck, D., and Steele, D., 2001, *Interim Report—Archaeological Excavations at the Former Roman Catholic Cemetery (1841–1881)—700 Hunter Street, Newcastle*, report to ACCOR (Asia Pacific)

Fenwick, P., 1994. *Honeysuckle Point Locomotive Turntable Excavation Report Newcastle, New South Wales* prepared for Honeysuckle Development Corporation, October.

GHD, 2018. *HCCD Enabling Works—Electrical/Communications Schematic Design Report and DA Input Report*, prepared for University of Newcastle.

Godden Mackay Logan Heritage Consultants (GML), 2008. *Honeysuckle Central (Lee Wharf Lot 25), Heritage Impact Statement*, prepared for Builddev Group and Eureka Funds Management.

GML, 2006. *Lots 12 and 4/24 Lee Wharf, Newcastle—Archaeological Monitoring Program*, prepared for Lee Wharf Developments

GML, 2003. *Lee Wharf Park, Newcastle Heritage Impact Statement* prepared for Lee Wharf Developments Pty Ltd, June.

GML, 2001. *'The Boardwalk', Newcastle—Archaeological Assessment*, prepared for Wharf Property Developments Pty Ltd

Higginbotham & Associates, 2013., *Newcastle Archaeological Management Plan Review*, Newcastle NSW., Prepared for Newcastle City Council.

Newcastle City Council Planning and Regulatory Group, 2015. *Newcastle Archaeological Management Strategy*, August.

Northrop (2018). *HCCD Enabling Works—Early Works Application—Civil, Water & Sewer*, prepared for University of Newcastle.

RPS 2016, *Newcastle Light Rail, Technical Paper 3—Historical Archaeological Assessment and Statement of heritage impact*, prepared for Transport of NSW

Suters Architects, 1997. *Newcastle Archaeological Management Plan*, 2 Volumes, for Newcastle City Council, February.

Transport for NSW, 2016. *Newcastle Light Rail Technical Paper 3 - Statement of Heritage Impact*, April.

Umwelt Environmental Consultants (2017, *Aboriginal Cultural Heritage Assessment Report, The Former Empire Hotel*, report to The Trustees of the Catholic Church.

Umwelt Environmental Consultants, 2004. *Archaeological Monitoring of Remediation Work at Lot 22 Honeysuckle Drive, Newcastle* report prepared for Honeysuckle Development Corporation.

Urbis, 2014. *Civic Railway Station Heritage Impact Station* (Appendix B), prepared for Transport for NSW, December.

APPENDIX A—UON HCCD Archaeological Assessment (Curio Projects 2018)

APPENDIX B— Northrop 2018, Water & Sewer DA Plans

